

RAPPORTS DE MISSIONS  
SCIENCES DE LA MER  
OCEANOGRAPHIE PHYSIQUE

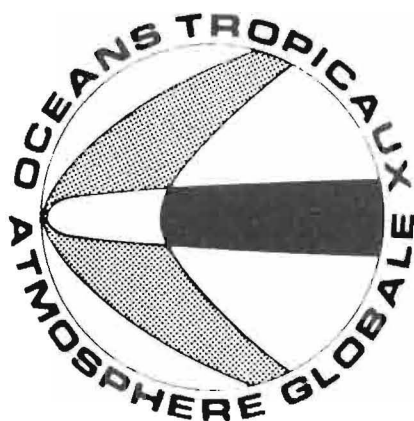
N° 1

1989

Rapport de la campagne SURTROPAC 11  
du N.O. "CORIOLIS"  
du 04 janvier au 05 février 1989

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INSTITUT FRANÇAIS DE RECHERCHE SCIENTIFIQUE  
POUR LE DÉVELOPPEMENT EN COOPÉRATION

IFREMER

Centre de Nouméa

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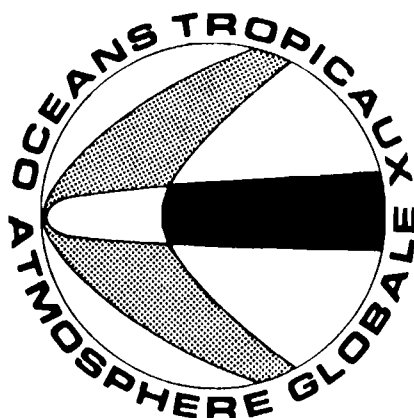
**Rapport de la campagne SURTROPAC 11  
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**ORSTOM**

**INSTITUT FRANCAIS DE RECHERCHE SCIENTIFIQUE  
POUR LE DEVELOPPEMENT EN COOPERATION**

**CENTRE DE NOUMEA**



## RESUME

Dans le cadre du programme international TOGA (Tropical Ocean and Global Atmosphere), le Groupe SURTROPAC du Centre ORSTOM de Nouméa a réalisé la campagne SURTROPAC 11 du 04 janvier au 05 février 1989 qui a permis de décrire la situation hydrologique et le système des courants dans l'Océan Pacifique Tropical Ouest en été austral.

55 stations à la sonde CTD 02 avec prélèvements à la rosette pour la mesure des sels nutritifs et de la chlorophylle et 57 profils de courantométrie ont été faits au cours de cette campagne du N.O. Coriolis.

### MOTS CLES :

CAMPAGNE OCEANOGRAPHIQUE ; OCEANOGRAPHIE PHYSIQUE ; SALINITE ; TEMPERATURE ; OXYGENE DISSOUS ; COURANT ; COURANT SUPERFICIEL ; THERMOCLINE ; EL NINO.

## ABSTRACT

### **TITLE :**

SURTROPAC 11 Cruise report of R.V. CORIOLIS (January 4th - February 5th 1989)

by

Christian HENIN, Bruno CAMUSAT, Francis GALLOIS and Pierre WAIGNA

In the framework of the international program TOGA the SURTROPAC group (ORSTOM Center Noumea) has carried out the SURTROPAC 11 cruise to describe hydrological features and current system during austral summer in the Tropical Western Pacific Ocean.

55 CTD O2 casts with rosette samples to analyze nutrients and chlorophyll and 57 currents profiles were made during this last R.V. Coriolis expedition.

### KEYS WORDS :

OCEANOGRAPHIC CRUISE ; PHYSICAL OCEANOGRAPHY ; SALINITY ; TEMPERATURE ; DISSOLVED OXYGEN ; CURRENT ; SURFACE CURRENT ; THERMOCLINE ; EL NINO.

# RAPPORT DE LA CAMPAGNE SURTROPAC 11 DU N.O."CORIOLIS"

04 janvier- 05 février 1989

Christian HENIN, Bruno CAMUSAT, Francis GALLOIS, Pierre WAIGNA

*(Groupe SURTROPAC), Centre ORSTOM NOUMEA,  
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\*\*\*\*\*

La campagne Surtropac 11 du N.O.CORIOLIS est la onzième campagne du programme SURTROPAC.

Ces campagnes du Groupe SURTROPAC qui ont commencé en janvier 1984 au rythme de deux campagnes par an sont des opérations à la mer du programme international TOGA (Tropical Ocean and Global Atmosphere) sous l'égide du Programme Mondial de Recherches sur le Climat de l'Organisation Météorologique Mondiale.

Leur objectif est de mesurer les transports de masse et d'énergie par le système des courants équatoriaux, d'étudier leur variabilité et leurs mécanismes.

Le Groupe PROPPAC dont le thème général de recherche est l'étude des relations liant l'hydrologie et la biomasse / production planctonique dans le Pacifique occidental participe également à ces radiales. Les coupes de distribution des sels nutritifs, de la chlorophylle et de la biomasse planctonique seront publiées par le groupe PROPPAC ultérieurement.

Les résultats des dix premières campagnes SURTROPAC de 1984 à 1988 le long de 165°E ont été rassemblés dans un atlas consacré à la radiale 165°E (Eldin, 1989).

Le déroulement de cette campagne a suivi le schéma désormais classique des campagnes SURTROPAC (Delcroix, Eldin, Hénin, 1987):

- Une radiale aller au départ de Nouméa (Nouvelle Calédonie) vers Kwajelein (Marshalls), du 5 au 20 janvier 1989, le long du méridien 165°E comportant des stations hydrologiques, des profils de courants, des traits de filets verticaux pour l'étude de la biomasse planctonique de 20°S à 10°N.
- Une radiale retour entre Kwajelein (Marshalls) et Nouméa avec des tirs XBT et des observations de surface (Température et salinité).

Pendant toute la campagne Surtropac 11 des observations météorologiques ont été faites toutes les 3 heures par les officiers.

Cependant en janvier 1989 des opérations particulières ont été réalisées :

- Stations tous les 30 milles entre 5°S et 5°N (St 16 à St 36) au lieu de 2°S et 2°N au début du programme SURTROPAC.
- Lâcher de 8 bouées dérivantes du programme de Peter Niiler (Scripps Institution of Oceanography) à 10°S, 7°S, 4°S, 1°S, 1°N, 4°N, 7°N et 10°N (Fig 38).
- Intervention sur les unités de surface des bouées ATLAS (PMEL) à 5°N et 2°N. Mise à l'eau d'une bouée ATLAS (PMEL) à 2°S, récupération et mise à l'eau d'une bouée ATLAS/SURTROPAC à 5°S.
- 10 stations complètes ( St 42 à 51), sonde et profileur de courant, au point fixe sur l'équateur du 25 au 27 janvier (Fig 23 à 28).
- 4 stations sonde entre 5°S et 8°S (St 52 à 55) et 6 stations profileur entre 5°S et 10°S (St 52 à 57) pendant le rail retour du 29 au 31 janvier pour confirmer la présence du Contre Courant Equatorial Sud (Fig 29 à 34).

## METHODES

### Hydrologie :

Les profils de température, salinité, oxygène dissous ont été obtenus grâce à une sonde CTDO2 SeaBird modèle SBE 9.

Les capteurs de pression, température, conductivité et oxygène dissous ont été calibrés chez le fabricant à Seattle (U.S.) avant la campagne.

Le programme PROPPAC étant demandeur de prélèvements d'eau dans les 250 premiers mètres, la salinité et l'oxygène dissous ont été mesurés systématiquement au laboratoire du N.O. Coriolis dans cette couche pour contrôle de la sonde.

D'autre part un recalage de l'oxygène dissous et de la salinité profonds obtenus par la sonde a été rendu possible par des prélèvements réalisés lors de 4 stations profondes 0-2000 m à 4°30 S, 3°30 S, 3°30 N et 4°30 N.

### Courantométrie :

Les profils de courant (0-600m) sont réalisés grâce à un profileur de courant (type Kiel-U.B.O.) comportant un courantomètre Aanderaa RCM-7 (Enregistrement sur RAM) descendant librement le long d'un câble fixé sous une bouée dérivante.

A 600 m, la vitesse est supposée nulle et un second courantomètre Aanderaa fixé en bout de câble enregistre le mouvement supposé de la bouée, ce qui permet d'apprécier le vecteur vitesse absolue entre la surface et 600 m.

### Oxygène dissous :

Pour recalibrer les profils de la sonde l'oxygène dissous a été déterminé par la méthode de titration de Winkler (Strickland et Parsons, 1972) en utilisant un titroprocesseur 686 connecté à une burette automatique de type Dosimat 665 (METROHM).

## PERSONNEL EMBARQUE :

### Groupe SURTROPAC (Nouméa) :

|                 |                             |
|-----------------|-----------------------------|
| Christian HENIN | Chercheur (Chef de mission) |
| Bruno CAMUSAT   | Volontaire Service National |
| Francis GALLOIS | Electronicien               |
| Pierre WAIGNA   | Technicien Physique         |

### Groupe PROPPAC (Nouméa) :

|                   |                     |
|-------------------|---------------------|
| Philippe GERARD   | Chimiste            |
| William DeBROUWER | Technicien Plancton |

### Pacific Marine Environmental Laboratory (Seattle) :

|           |               |
|-----------|---------------|
| Ben MOORE | Electronicien |
|-----------|---------------|

## RESULTATS PRELIMINAIRES :

### Conditions météorologiques :

Les vents (Fig 2) sont restés faibles au sud de l'équateur, inférieurs à 10 noeuds, alors que dans l'hémisphère nord ils étaient bien établis de N-E supérieurs à 20 noeuds.

La rotation des vents du NE au NW en allant du nord au sud est conforme au schéma habituel de janvier. Toutefois la persistance de vents de secteur ouest de 10°S à 22°S est assez inhabituelle.

Il est à noter la modification du vent au niveau de l'équateur entre le 15 janvier lors de la station équatoriale (St 26) de la radiale aller et la station au point fixe sur l'équateur ( Sts 42 à 51) entre le 26 et le 27 janvier. Le vent était de secteur ouest très faible quasiment nul le 15 janvier alors qu'un vent d'Est de l'ordre de 15 noeuds était établi du 26 au 27 janvier. Il est à noter que la structure du courant de la couche superficielle est très différente entre ces deux périodes (Figs 9 et 27).

### Structure Thermo-haline :

#### *Surface :*

La température de surface (Fig 5 et 35) est nettement plus basse que lors des premières campagnes SURTROPAC. L'influence de l'upwelling équatorial particulièrement développée dans l'océan Pacifique Est et central pendant la phase de développement de "La Nina" depuis avril 1988 se fait sentir jusque dans cette partie occidentale du Pacifique.

La salinité associée à cet upwelling et à une période de très faibles précipitations est très élevée sur l'équateur ( $S > 35.3, 35.4 \text{ } ^\circ/\text{ } ^\circ$ ) (Fig 6 et 36). C'est la première fois depuis 1984 qu'au mois de janvier la salinité de surface atteint de telles valeurs qui sont généralement observées au mois de juillet.

#### *Sub-Surface :*

Le diagramme T-S de la couche 0-300m dans la bande strictement équatoriale est bien différent de la relation moyenne décrite par Levitus (1982), la salinité étant plus élevée.

La couche homogène en température entre  $5^\circ\text{N}$  et  $5^\circ\text{S}$  est particulièrement importante. L'isotherme  $25^\circ\text{C}$  atteint la profondeur 200 mètres à  $6^\circ\text{S}$ , ce qui ne s'était pas vu depuis 1984.

Il en résulte une remontée spectaculaire de la thermocline et des isothermes entre  $6^\circ\text{S}$  et  $10^\circ\text{S}$ , correspondant à un très fort Contre Courant Equatorial Sud.

#### Courants :

Les courants ont été d'une part mesurés directement par le profileur libre pour la couche 0-600 m en prenant pour référence la profondeur de 600 m (fig 9 et 10) et, d'autre part estimés par la méthode géostrophique (Fig 11) en prenant pour référence la profondeur de 1000 m.

La distribution des courants correspond bien au schéma classique du système des courants équatoriaux (Delcroix, Eldin, Hénin, 1987) avec un Courant Equatorial Sud entre  $5^\circ\text{N}$  et  $6^\circ\text{S}$  dont la branche Sud est bien développée séparée de la branche nord par un jet équatorial d'Est occupant la couche superficielle 0-150m. Sur l'équateur entre le 14 et le 16 janvier 1989 le courant Est avait un noyau de 30 cm/s lors de la radiale aller alors que lors du point fixe équatorial du 26 au 27 janvier (Fig 27) ce jet était remplacé par un courant dirigé vers l'ouest de l'ordre de 50 cm/s.

De part et d'autre du Courant Equatorial Sud, le Contre-Courant Equatorial Nord (CCEN) et le Contre-Courant Equatorial Sud (CCES) dirigés vers l'est sont très bien marqués. Le CCES observé lors de la radiale aller étant inhabituellement fort, des stations profileurs et sonde entre  $5^\circ\text{S}$  et  $10^\circ\text{S}$  ont à nouveau été faites entre le 29 et le 31 janvier au cours du retour vers Nouméa. Elles confirment la présence d'un CCES étroit centré sur  $8^\circ\text{S}$ .

Au sud de  $12^\circ\text{S}$  on note la présence vers  $14^\circ\text{S}$  et  $17^\circ\text{S}$  d'un flux Est que la géostrophie confirme (Fig 11 et 18).

En subsurface le Sous-Courant Equatorial (SCE) associé à la thermocline est situé vers 200m, relié à ses prolongements profond (Contre Courants de Subsurface Nord et Sud ( $2\text{-}3^\circ\text{N}$  et  $\text{S}$ ), dont la branche nord est particulièrement développée, encadrant le Courant Equatorial Intermédiaire plutôt faible (Delcroix et Henin, 1988).



Les flux en Sverdrup ( $10^6 \text{ m}^3/\text{s}$ ) des courants mesurés identifiés selon les critères de Delcroix et al (JPO-1987) sont les suivants :

|   | Janv 89 | (*)     | (**)    |
|---|---------|---------|---------|
| Contre Courant Equatorial Nord =                  | 25.4    | (17.4)  | (31.1)  |
| Courant Equatorial Sud =                          | -72.6   | (-71.2) | (-52.4) |
| Contre Courant Equatorial Sud =                   | 25.4    | (16.6)  | (16.7)  |
| Contre Courant Equatorial de<br>Subsurface Nord = | 11.6    | (17.1)  | (20.6)  |
| Sous Courant Equatorial =                         | 17.0    | (13.0)  | (25.6)  |
| Contre Courant Equatorial de<br>Subsurface Sud =  | 5.1     | ( 9.7)  | (11.0)  |

(\*) moyenne des cinq campagnes SURTROPAC de janvier, de 1984 à 1988.

(\*\*) moyenne des cinq campagnes SURTROPAC de juin-juillet, de 1984 à 1988.

Les trajectoires pendant le mois de janvier depuis leur mise à l'eau le long du méridien  $165^\circ\text{E}$  entre le 10-20 janvier et jusqu'au 31 janvier 1989 des bouées dérivantes confirment les courants observés par nos profileurs de courant. (Fig 37).

D'autre part la dérive du N.O. Coriolis déduite de la navigation satellite Magnavox donne une bonne estimation des courants de surface (Fig. 39).

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## REMERCIEMENTS :

Cette expédition fut la dernière campagne océanographique du N.O. CORIOLIS. Les équipages qui se sont succédés depuis vingt cinq années méritent les remerciements des océanographes de l'ORSTOM pour le travail remarquable accompli.

Ce rapport a bénéficié des logiciels de tracés mis au point par Gérard ELDIN et Marie-Josée LANGLADE.

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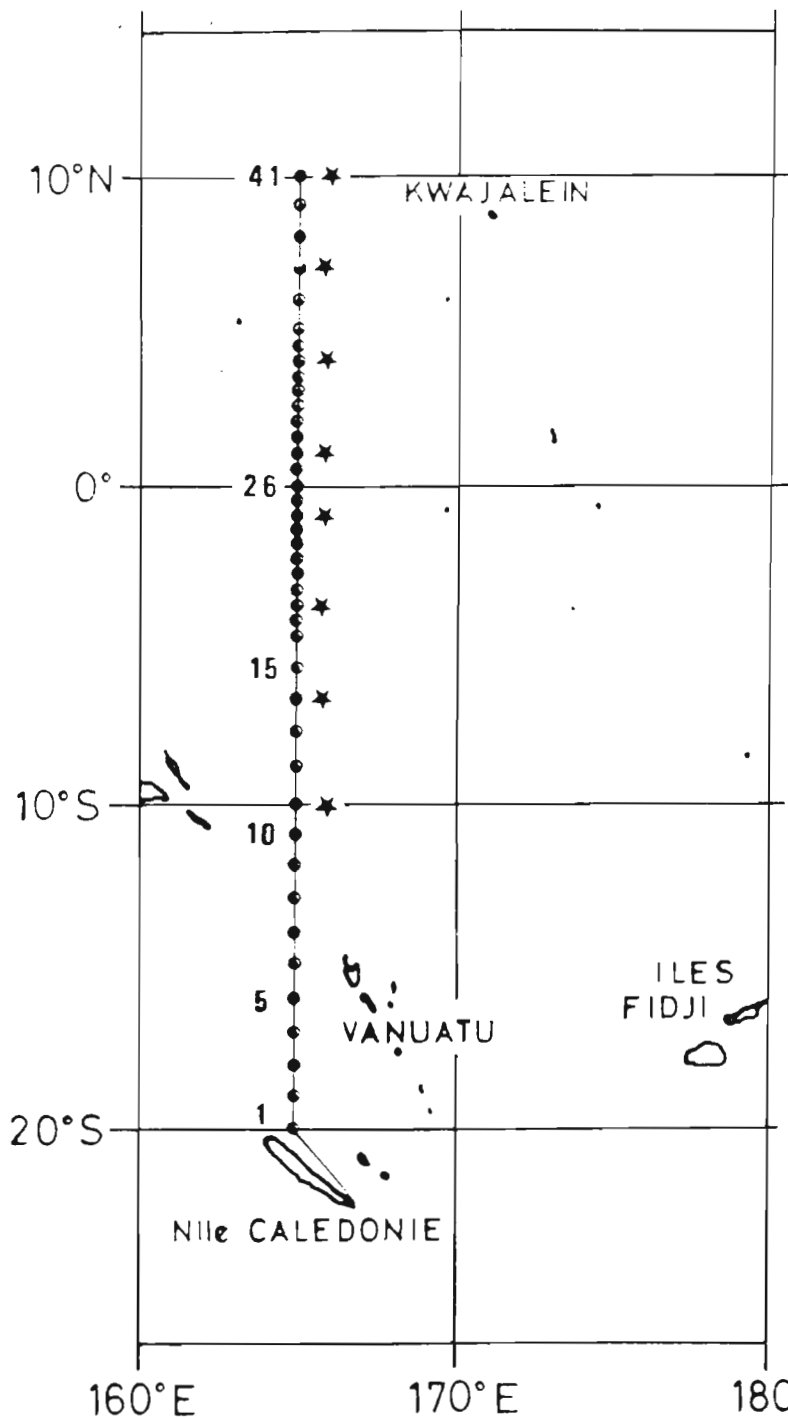
Divers :

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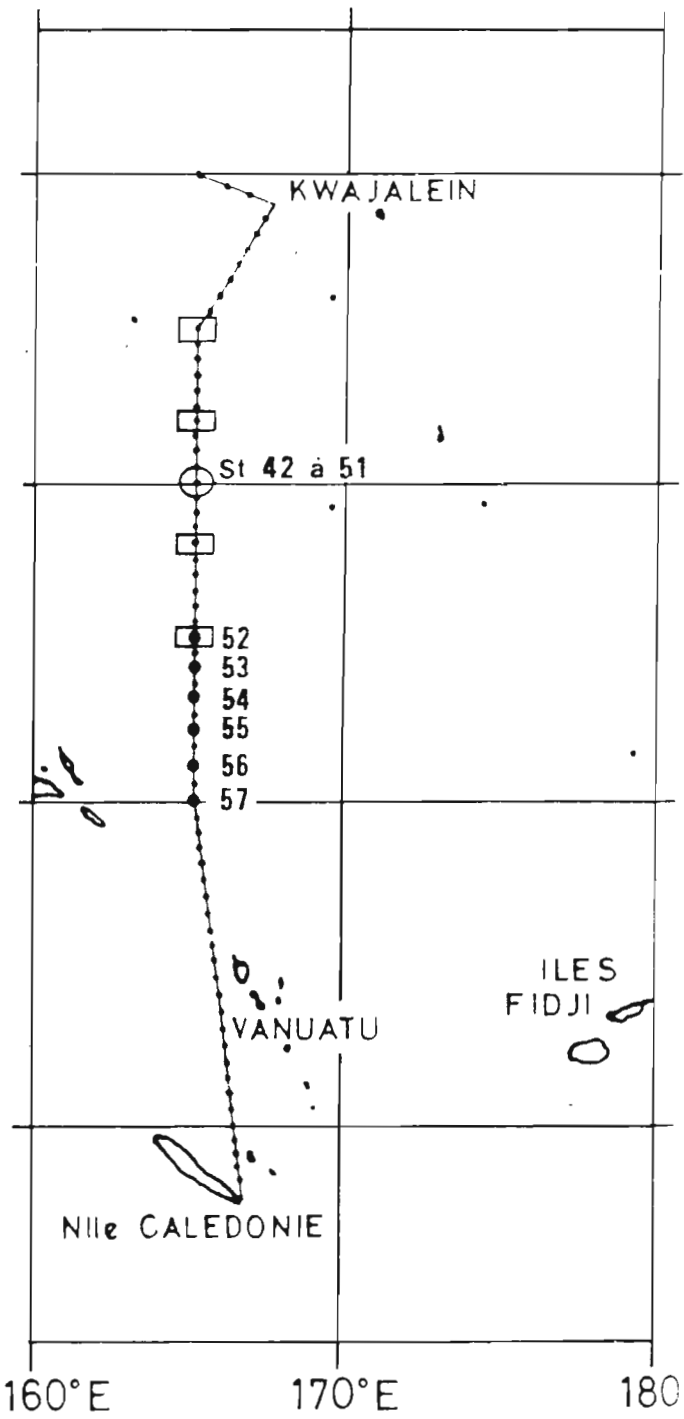
Les données observées et calculées à chaque station ont été mises en annexe. Sur la page de gauche les profils 0-500 m à chaque station.

**NOTA** La colonne Sigt représente  $(\rho(s,t,p) - 1) 10^3$  et la colonne Sigthêta représente  $(\rho(s,\text{thêta}, 0) - 1) 10^3$ .

La valeur de sigmathêta est calculée à partir de la densité absolue. Selon Gill (1982, pages 600-601), il conviendrait de rajouter 0,025 kg par m<sup>3</sup> pour obtenir la valeur de Sigmathêta correspondant à l'ancienne définition.



05/01/89 - 19/01/89



19/01/89 - 04/02/89

- ★ Bouées dérivantes
- Stations { CTD O<sup>2</sup>: 0-2000 m  
Trait plancton vertical  
Profileur 0-600 m

- Stations { CTD O<sup>2</sup>: 0-500 m  
Profileur: 0-600 m
- XBT
- Stations { CTD O<sup>2</sup>: 0-1000 m  
Profileur: 0-600 m

□ Chaines à thermistances ATLAS

Fig 1 - Plan de la campagne SURTROPAC 11 (4 janvier - 5 février 1989)

VENTS Aller SURTROPAC 11

VENTS retour SURTROPAC 11

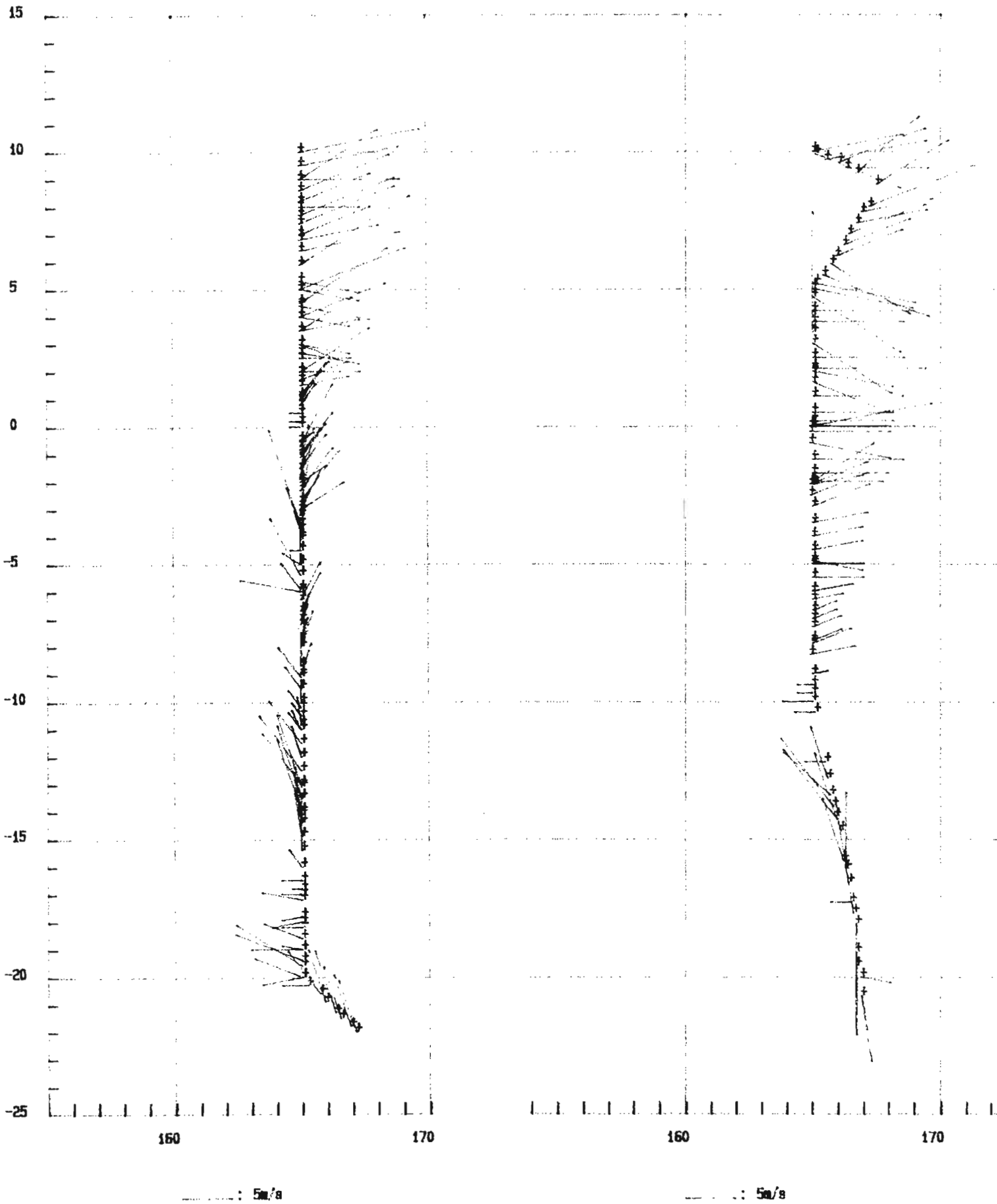


Fig 2 - Vents lors de la radiale aller (05/01/89 - 20/01/89) et la radiale retour (20/01/89 - 04/02/89)

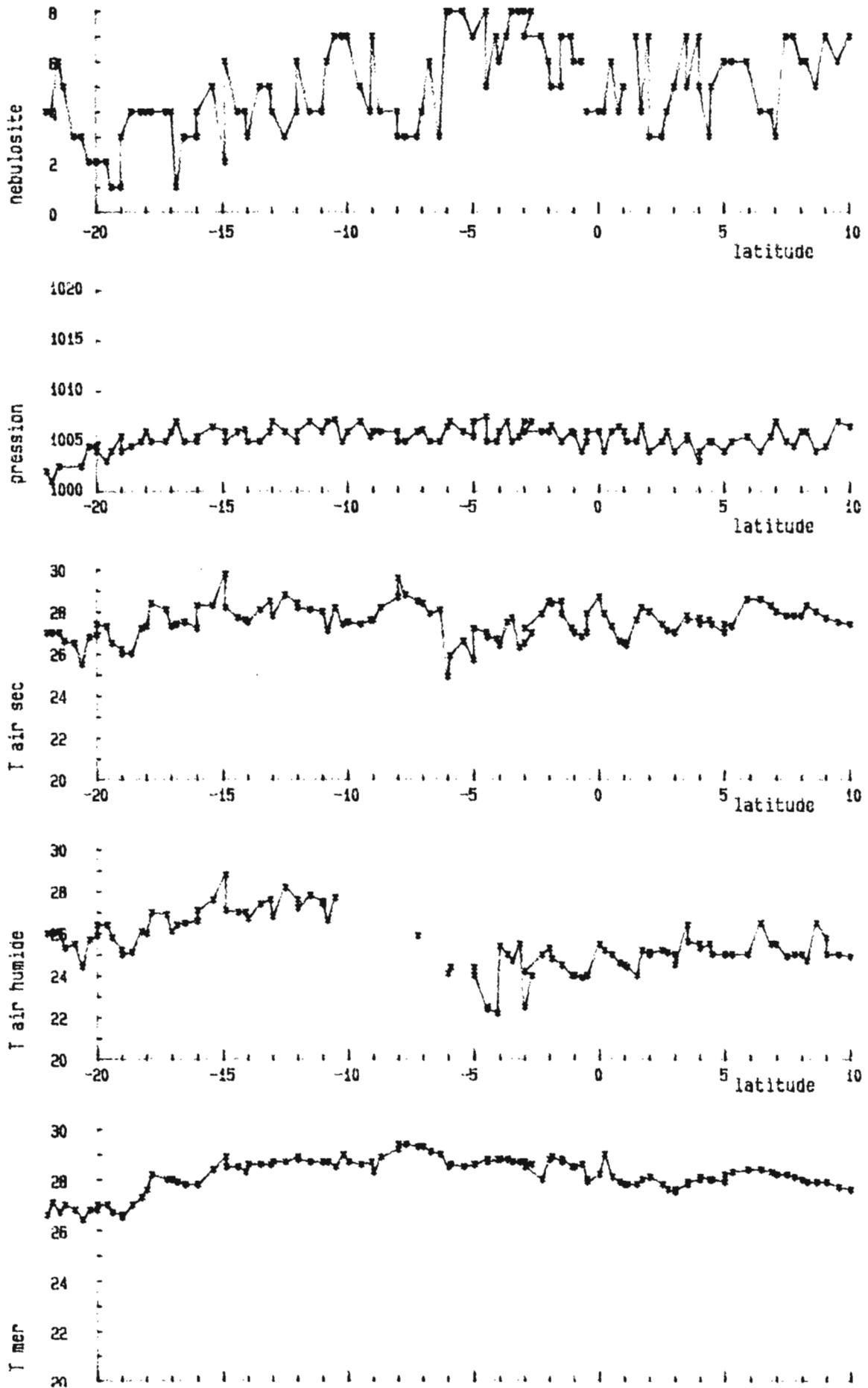


Fig 3 - Observations météorologiques (05/01/89 - 20/01/89)

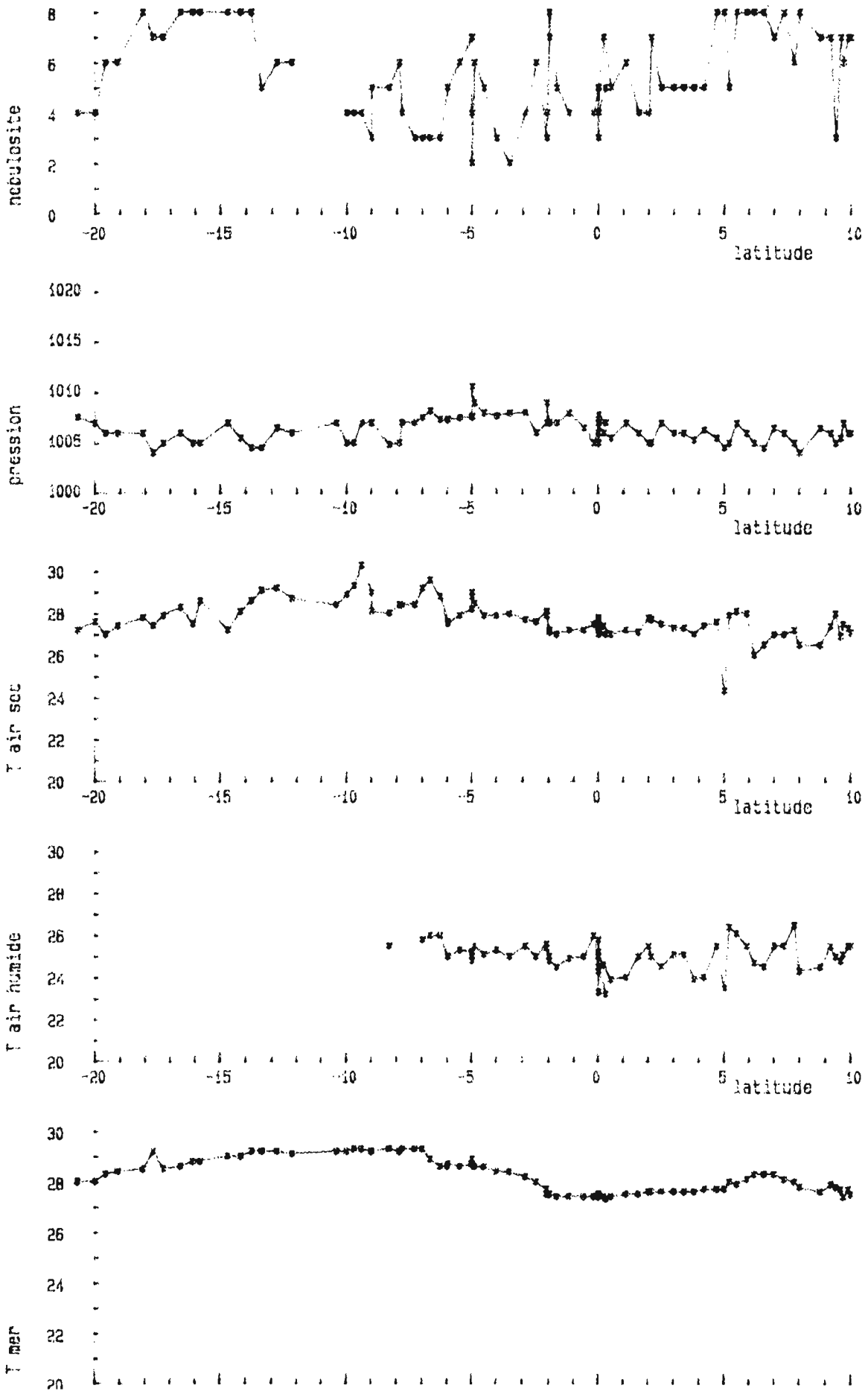


Fig 4 - Observations météorologiques (20/01/89 - 04/02/89)

# Surtropac 11 6-31 Janvier 1989. Temperature (C)

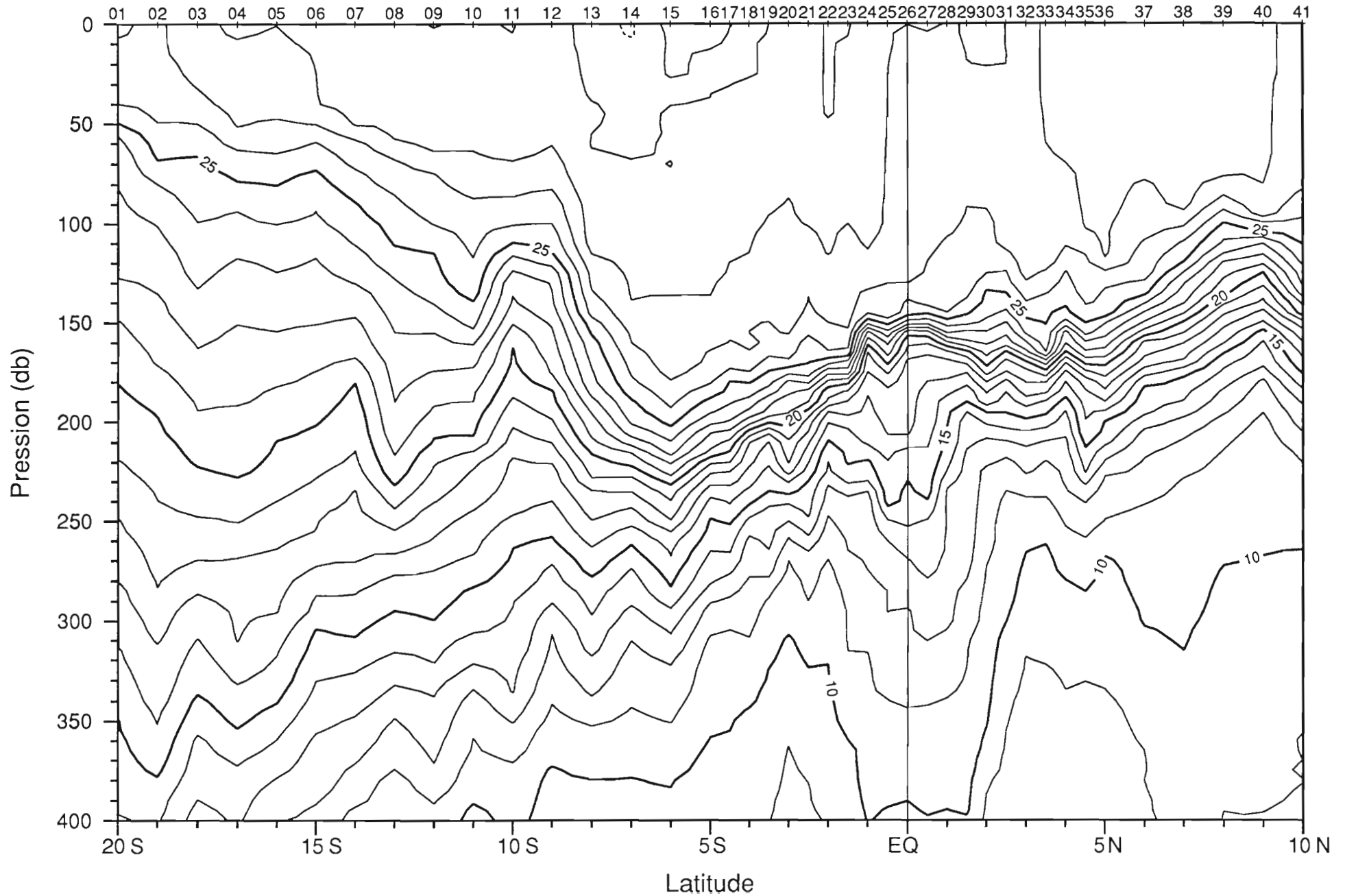


Fig 5 - Temperature (C)



# Surtropac 11 6-31 Janvier 1989. Salinite (usp)

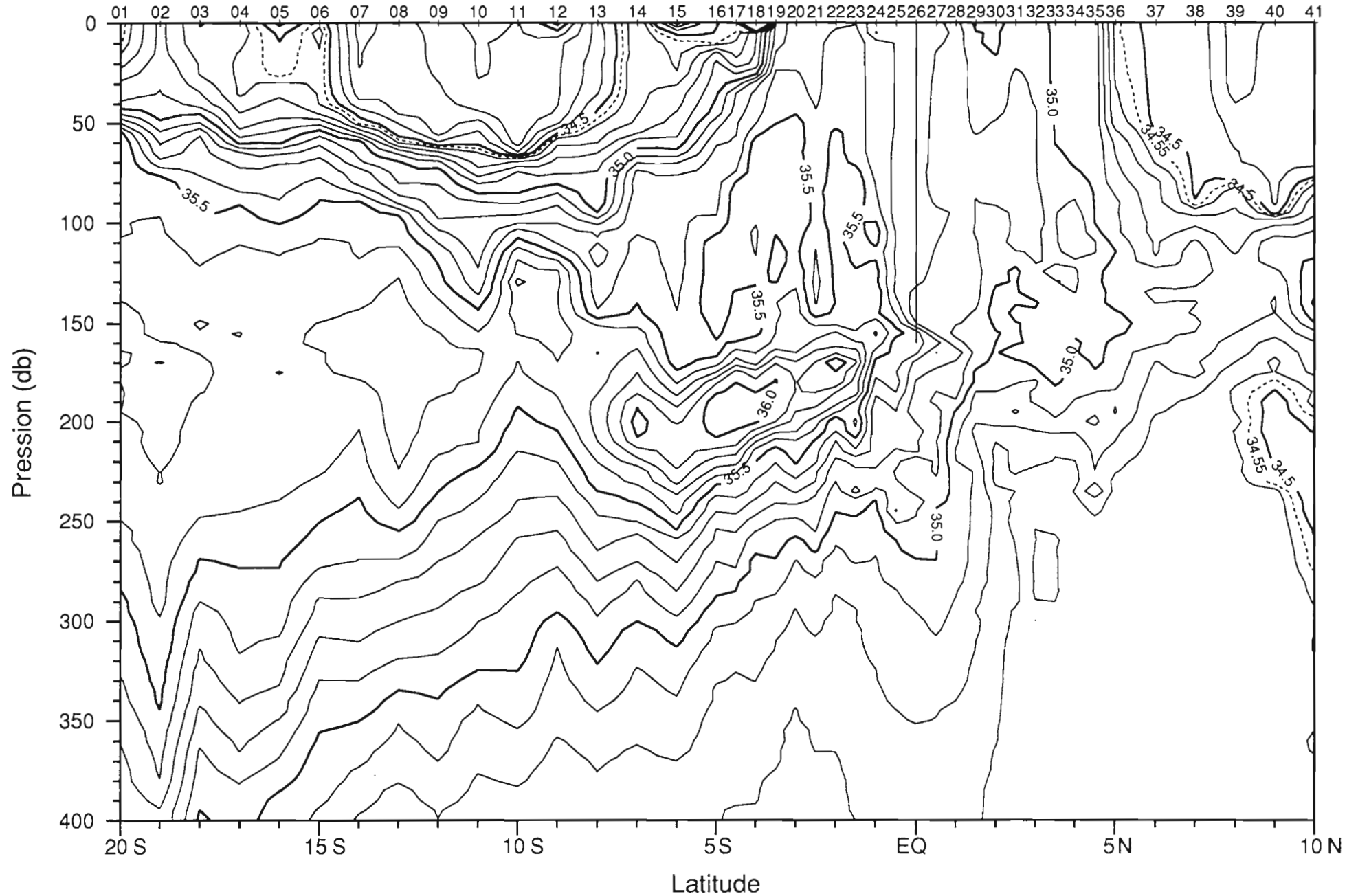


Fig 6 - Salinité (Unité de salinité pratique, usp)

# Surtropac 11 6-31 Janvier 1989. Oxygene (ml/l)

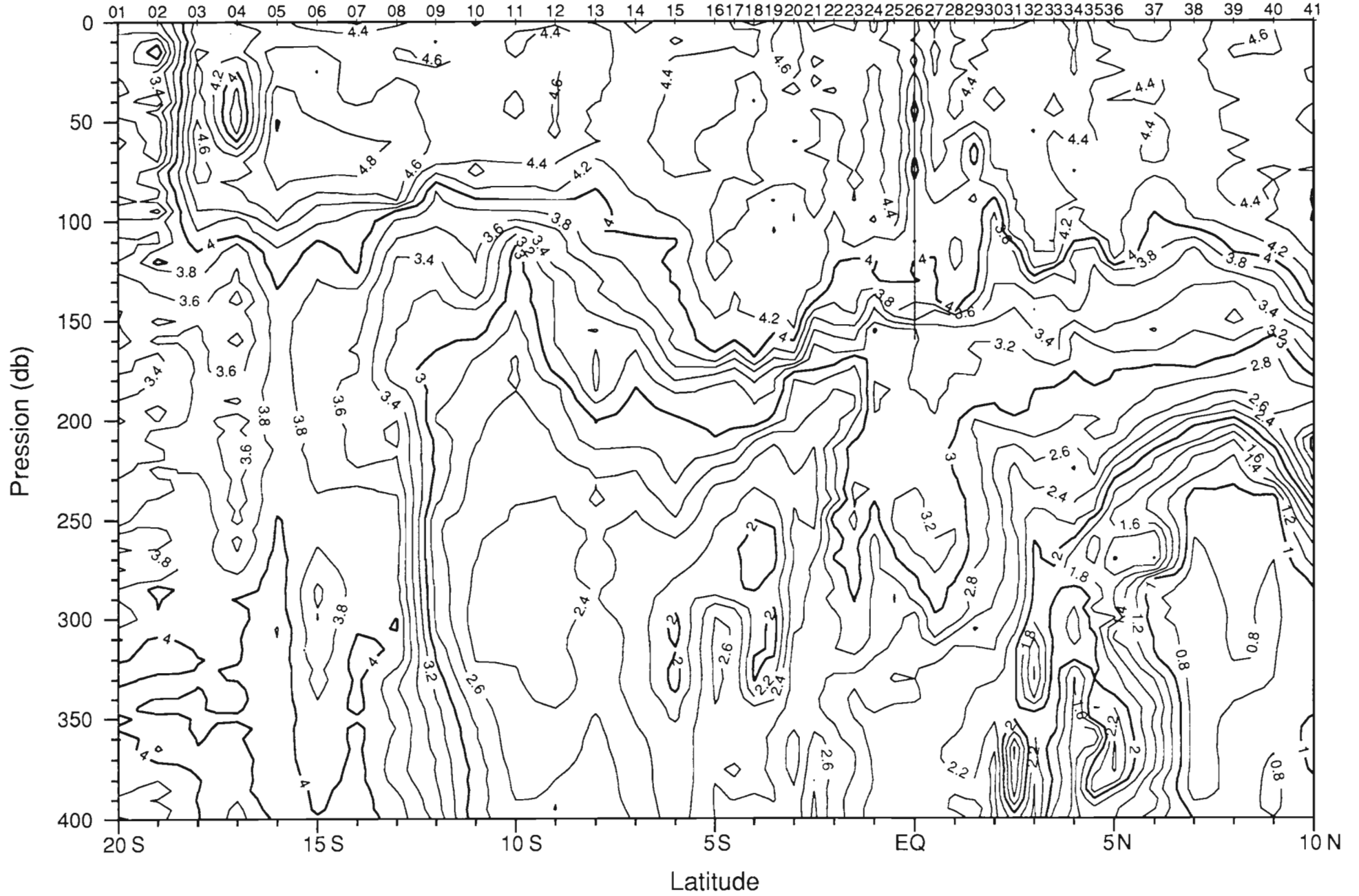


Fig 7 - Oxygène dissous (ml/l)

Surtropac 11 6-31 Janvier 1989. Sigma-Theta (kg/m3)

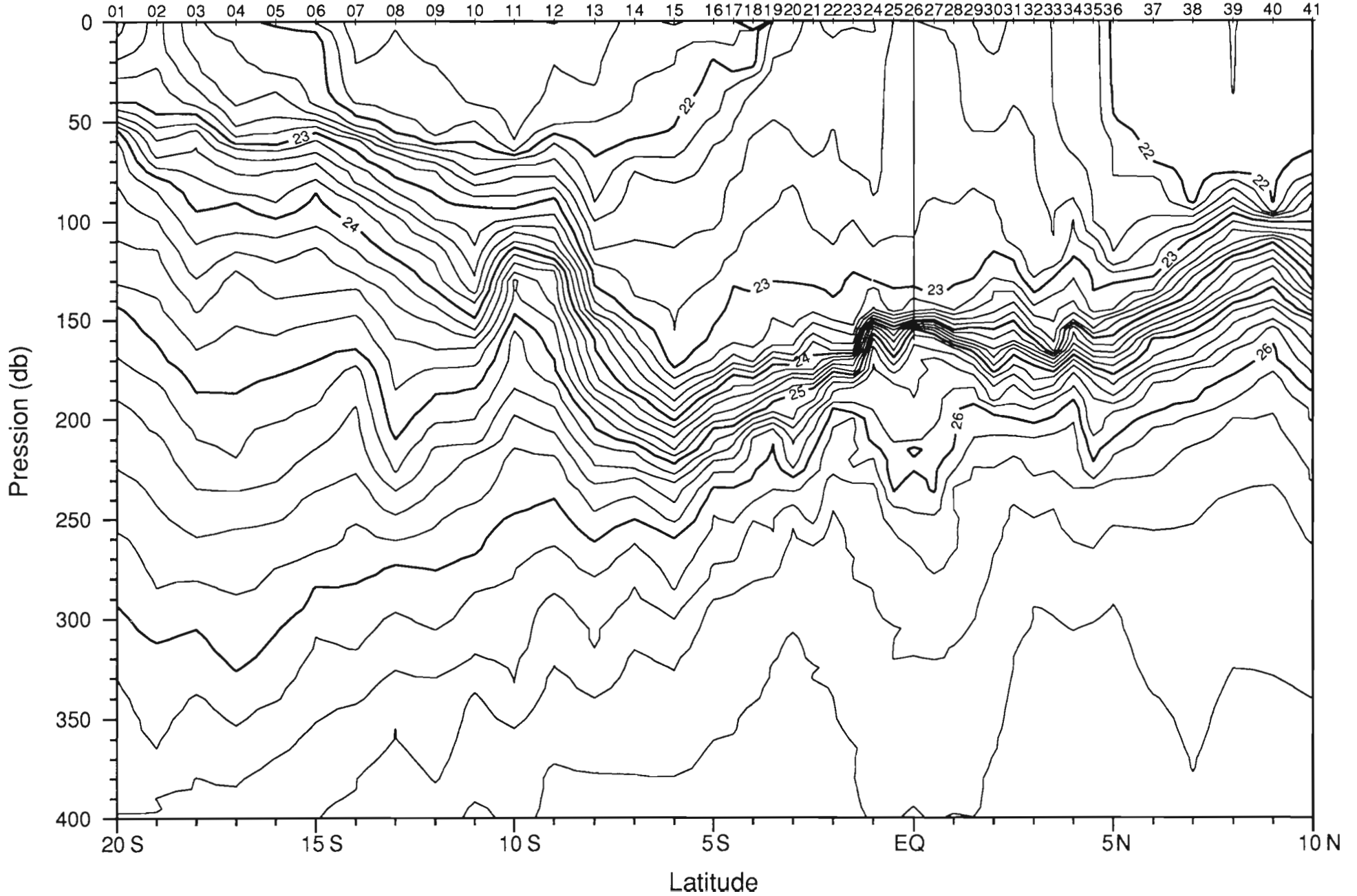


Fig 8 - Sigma-theta (kg/m<sup>3</sup>)

Surtropac 11 6-31 Janvier 1989. Courant zonal (m/s)

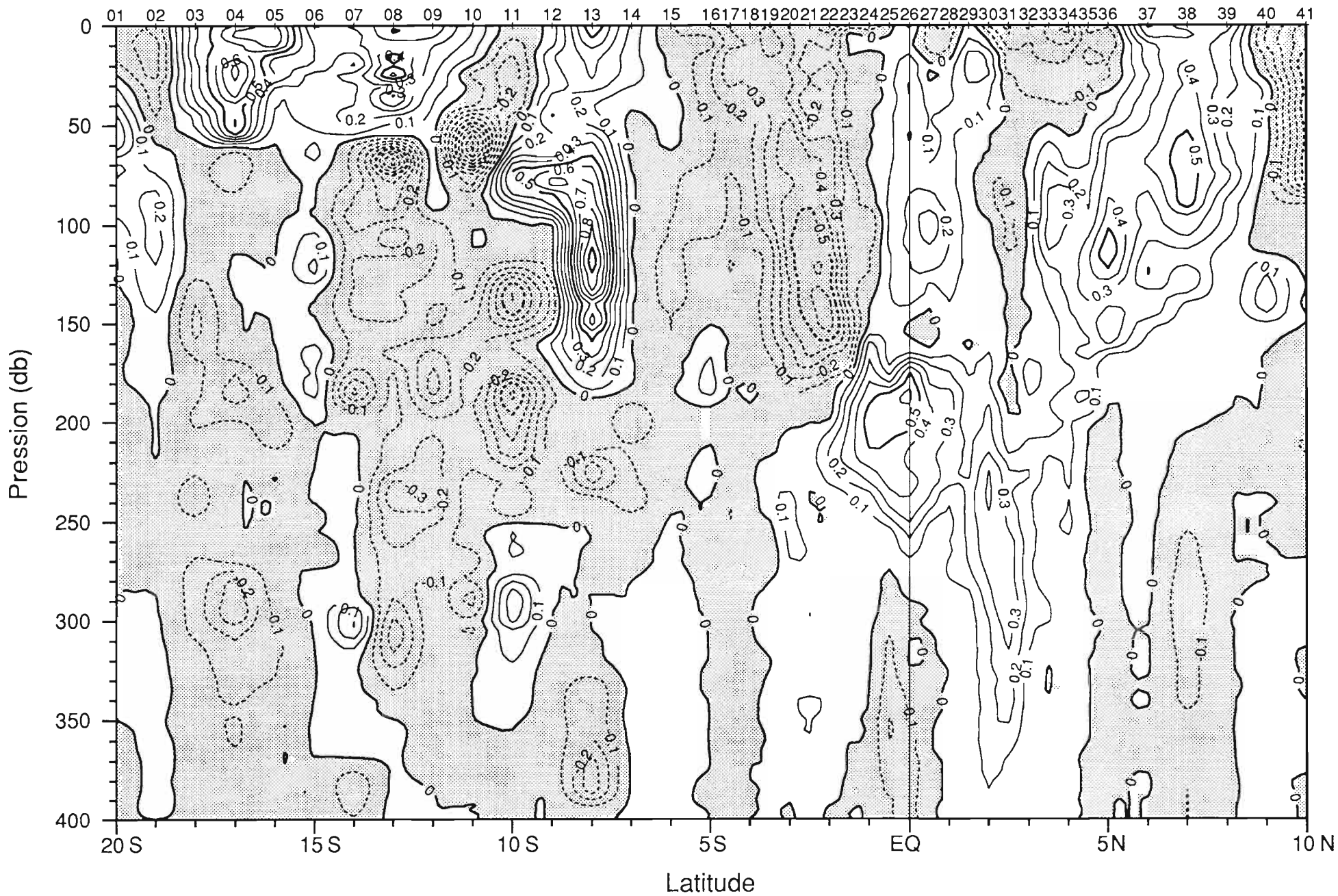


Fig 9 - Composante zonale du courant (mesures directes)

# Surtropac 11 6-31 Janvier 1989. Courant meridien (m/s)

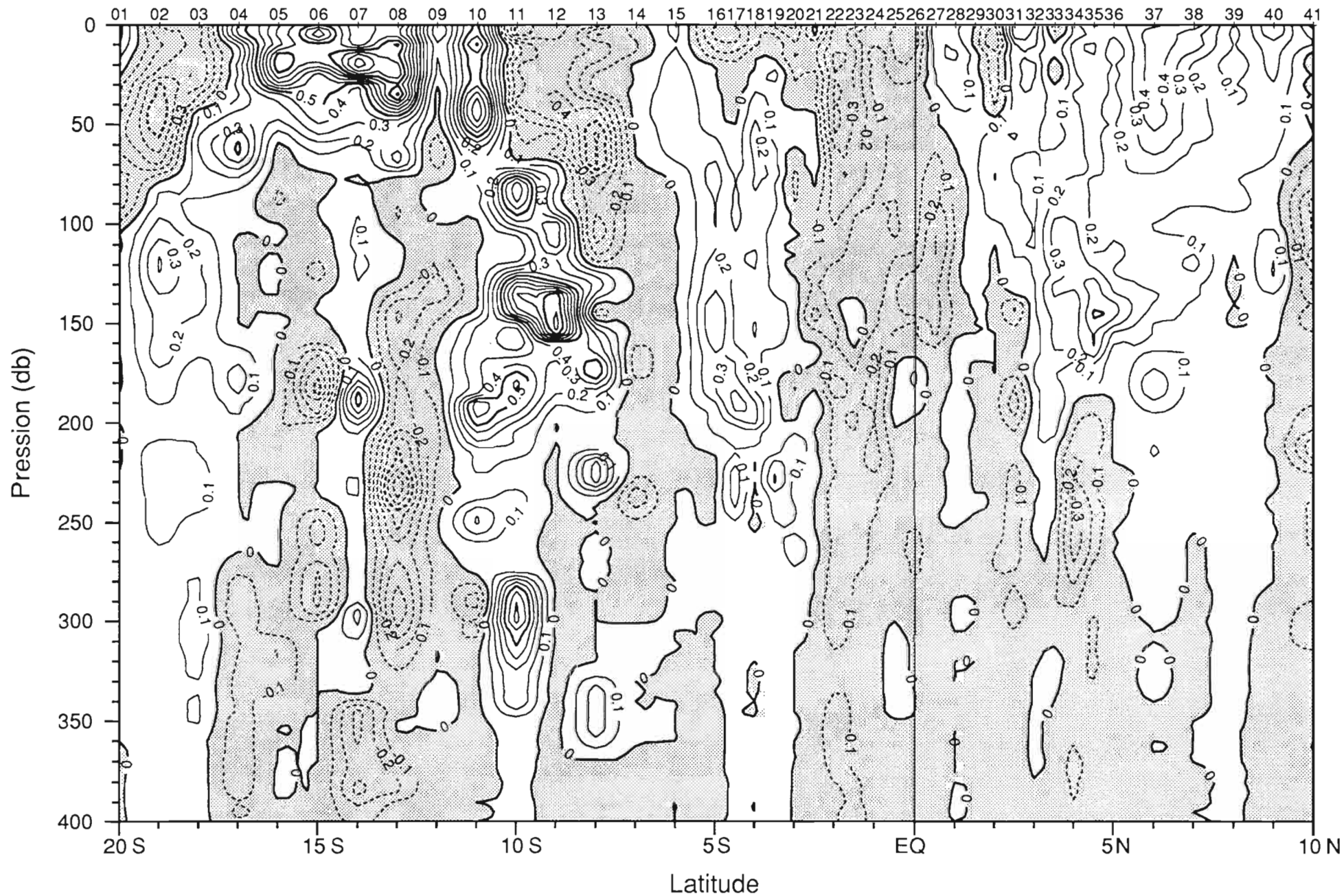


Fig 10 - Composante méridienne du courant (mesures directes)

Surtropac 11 6-31 Janvier 1989. Courant géostrophique zonal (m/s)/1000db.

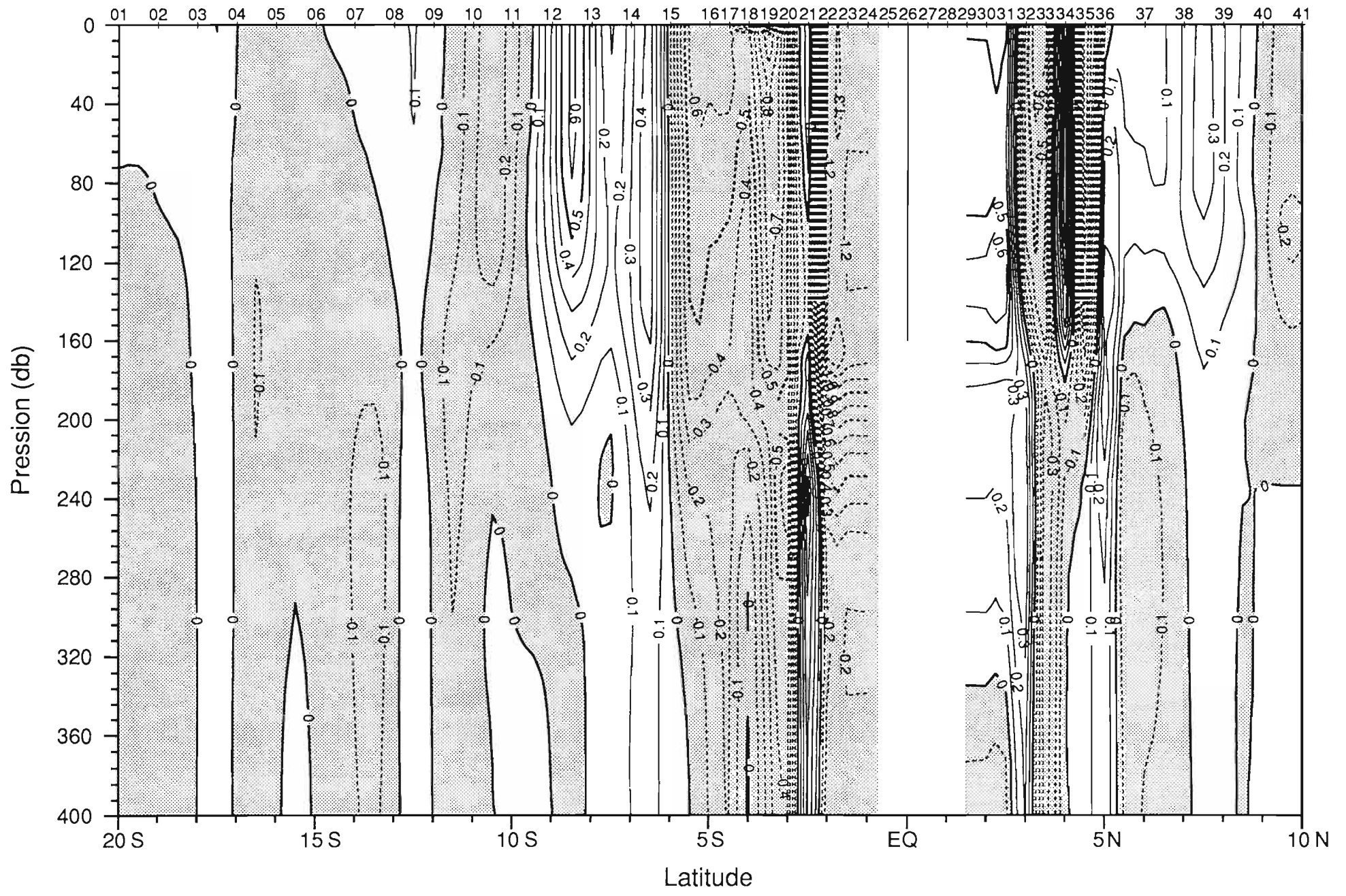


Fig 11 - Courants géostrophiques par rapport à 1000 db.

# Surtropac 11 6-31 Janvier 1989. Temperature (C)

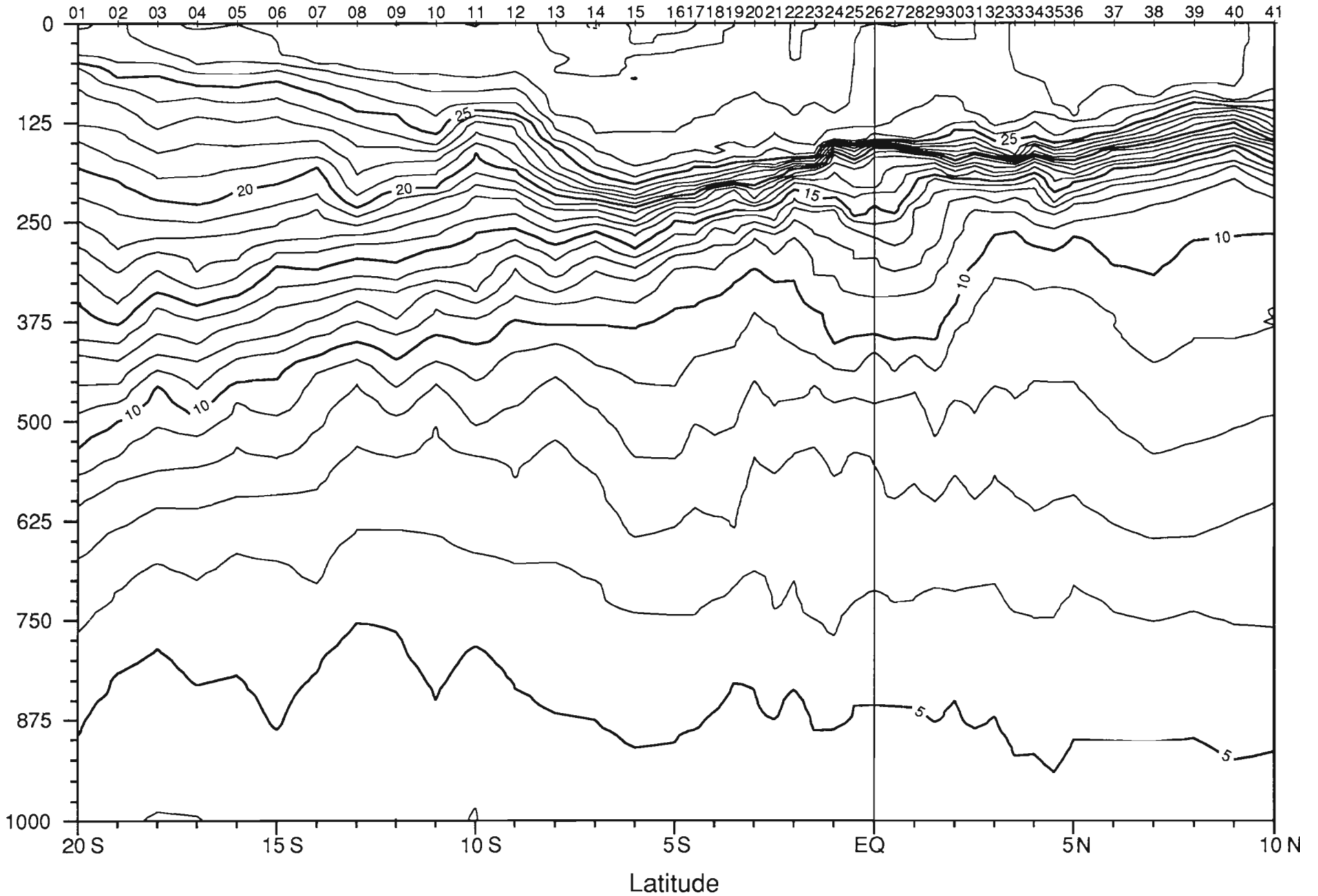


Fig 12 - Temperature (°C)

Surtropac 11 6-31 Janvier 1989. Salinite (usp)

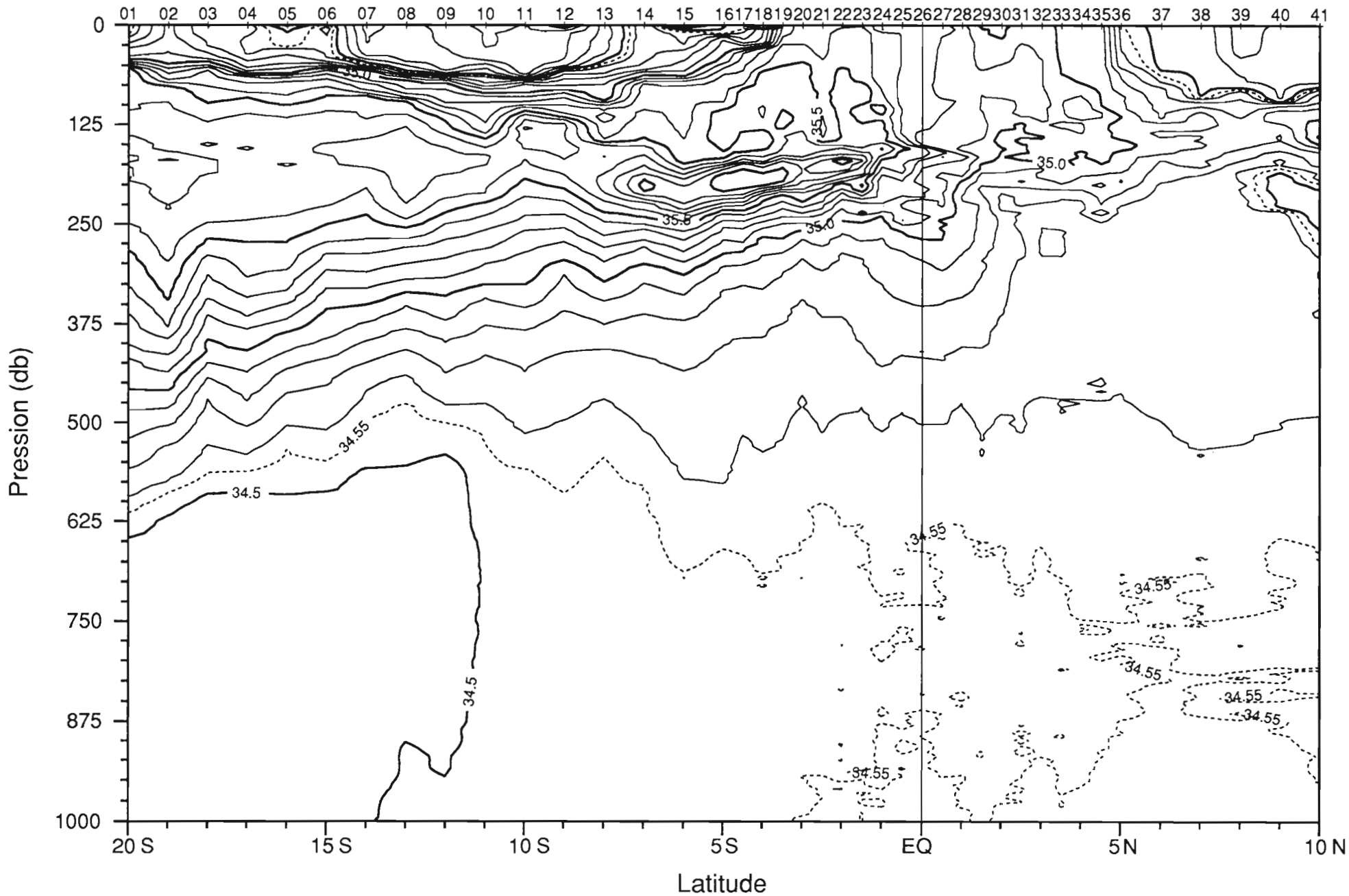


Fig 13 - Salinite (usp)  
21



Surtropac 11 6-31 Janvier 1989. Oxygène (ml/l)

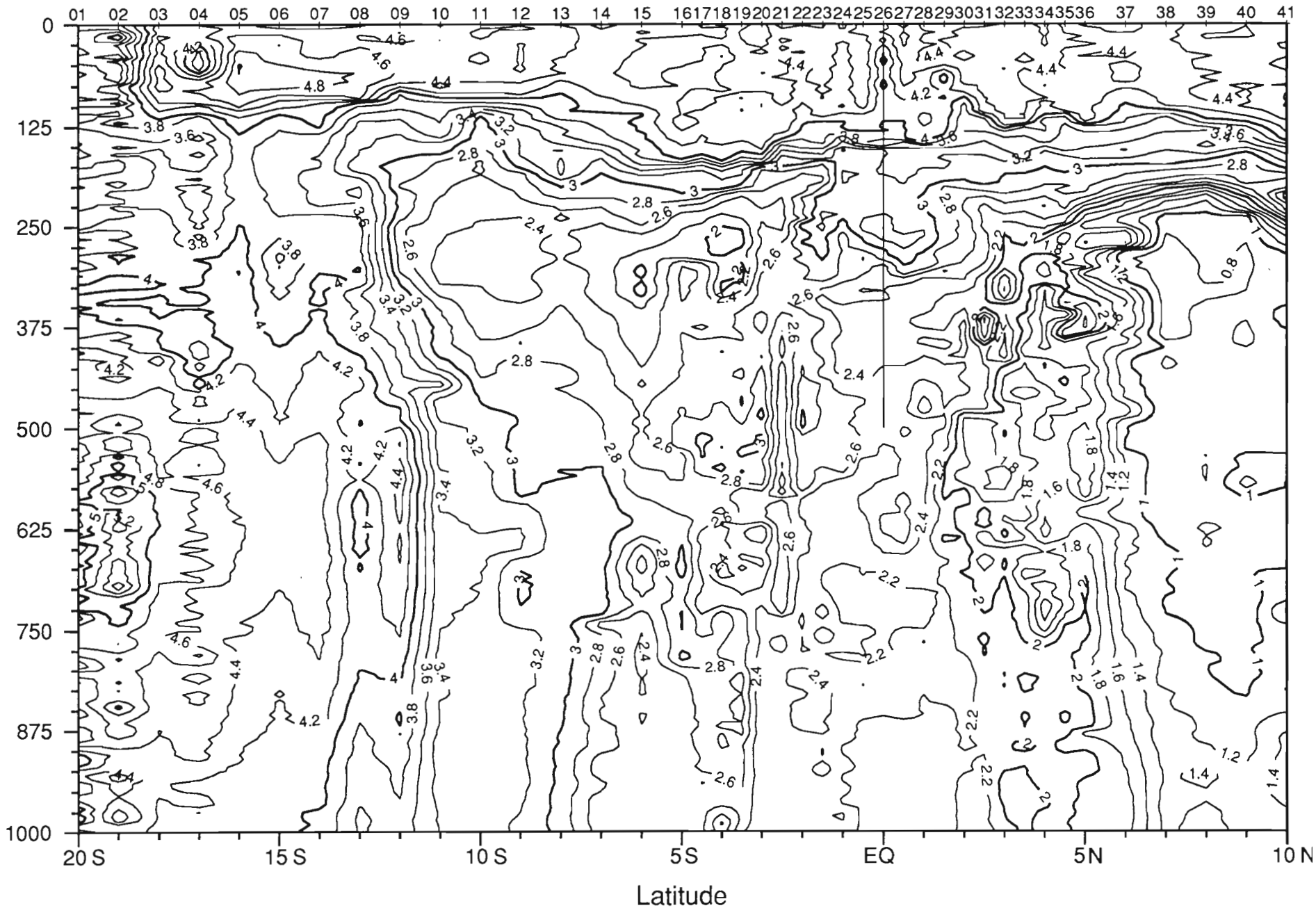


Fig 14 - Oxygène dissous (ml/l)

# Surtropac 11 6-31 Janvier 1989. Sigma-Theta (kg/m3)

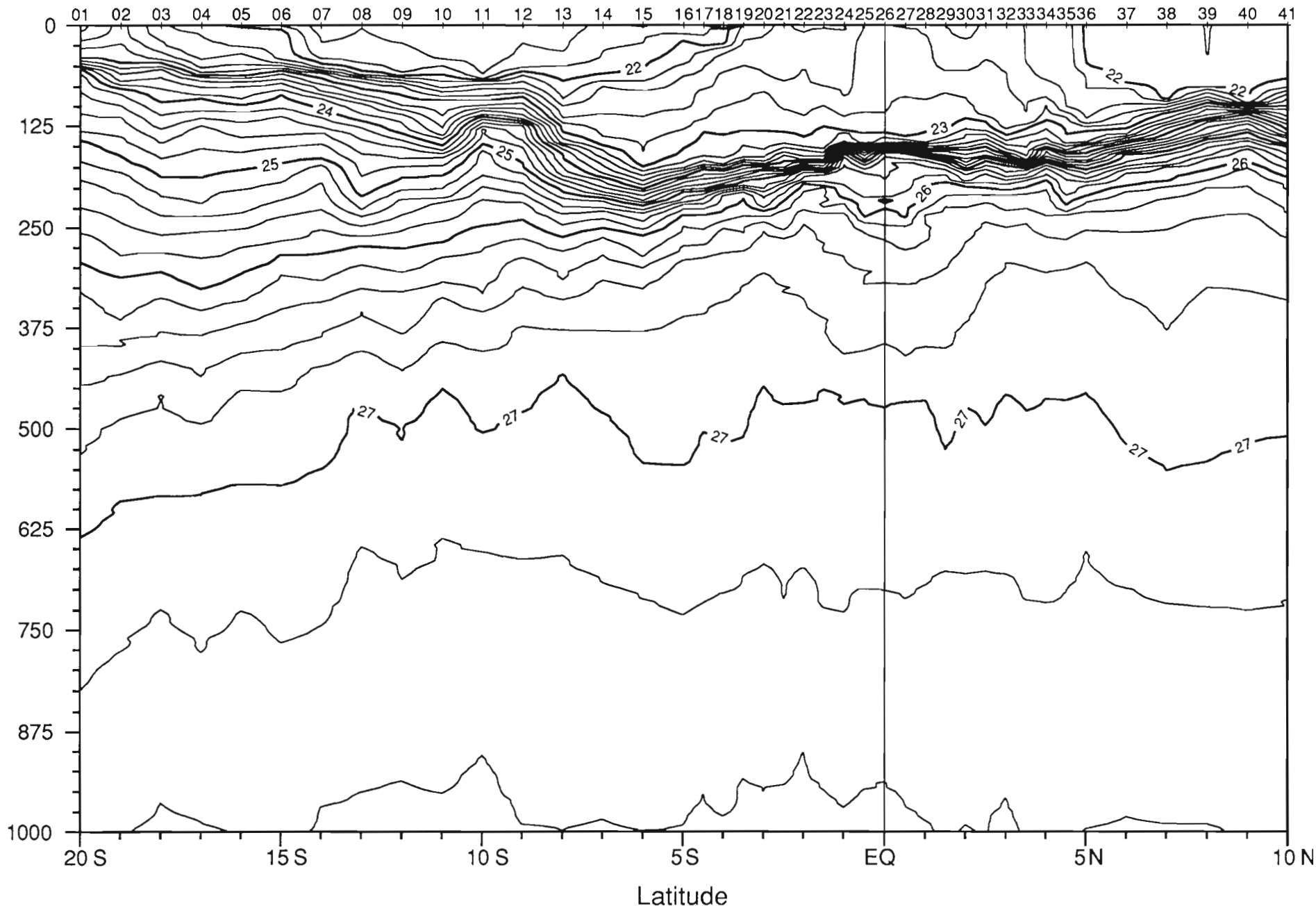


Fig 15 - Sigma-theta (kg/m<sup>3</sup>)

# Surtropac 11 6-31 Janvier 1989. Courant zonal (m/s)

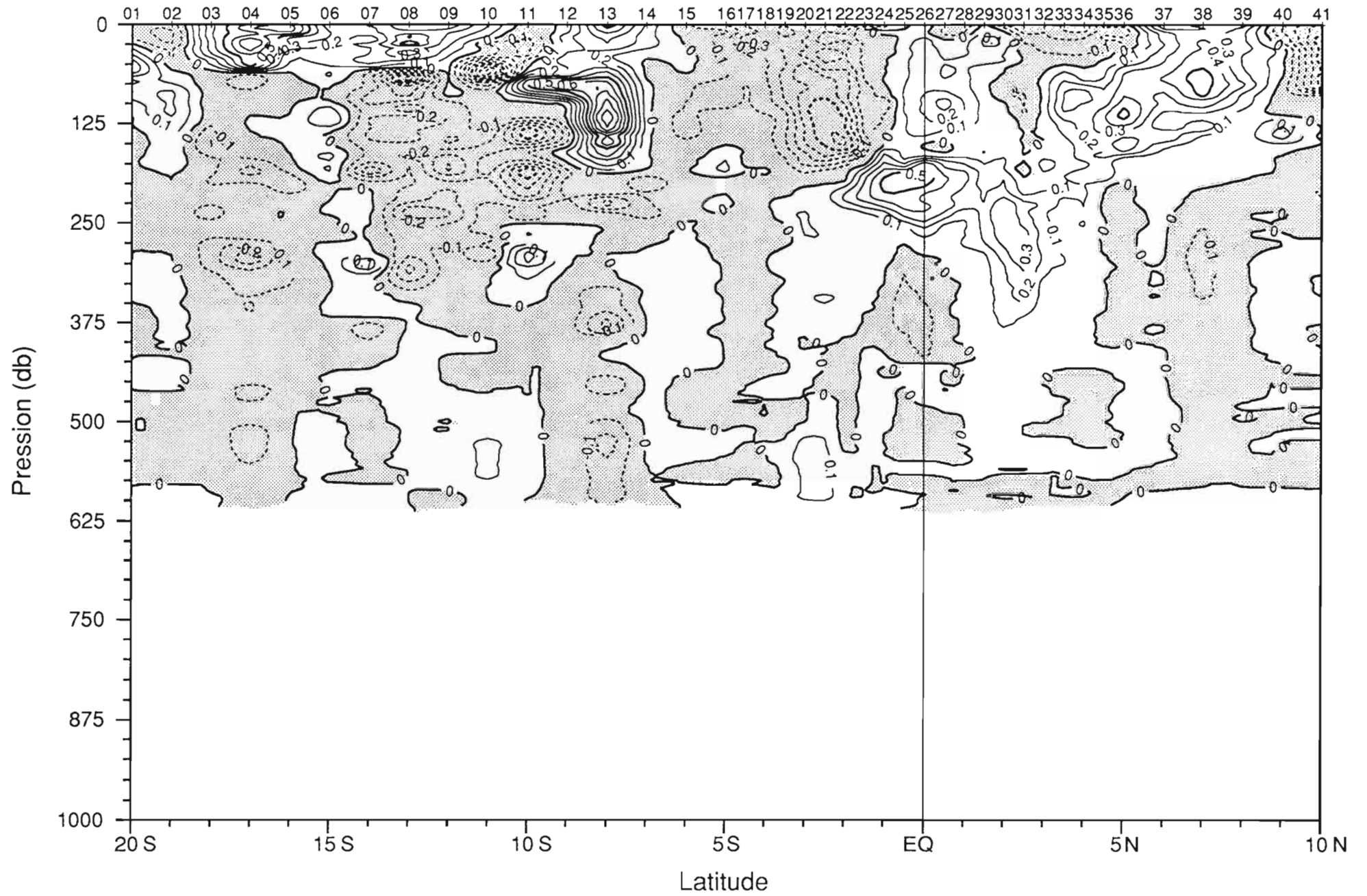


Fig 16 - Composante zonale du courant (mesures directes), (m/s)

# Surtropac 11 6-31 Janvier 1989. Courant meridien (m/s)

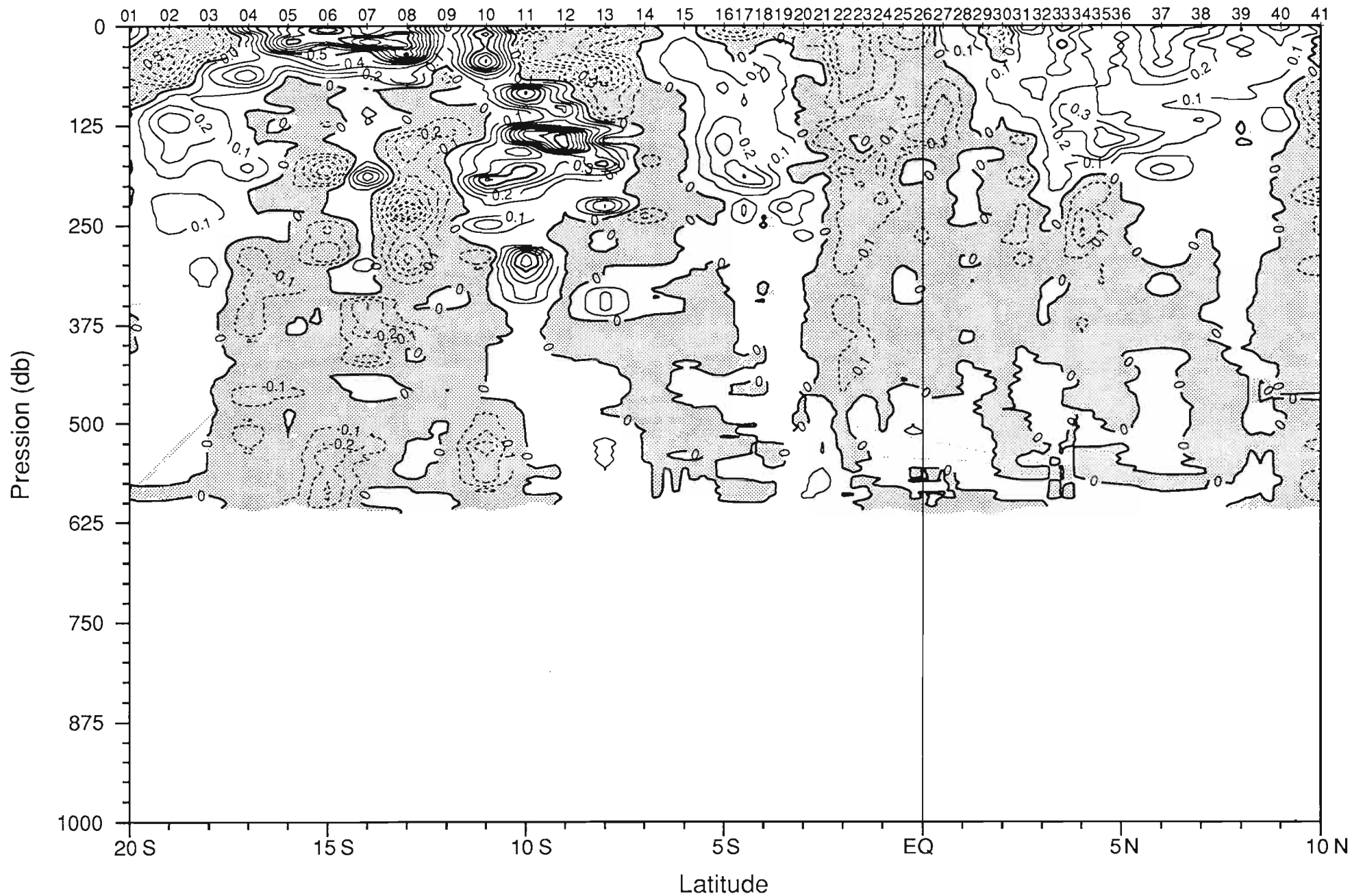


Fig 17 - Composante méridienne du courant (mesures directes), (m/s)

Surtropac 11 6-31 Janvier 1989. Courant géostrophique zonal (m/s)/1000db.

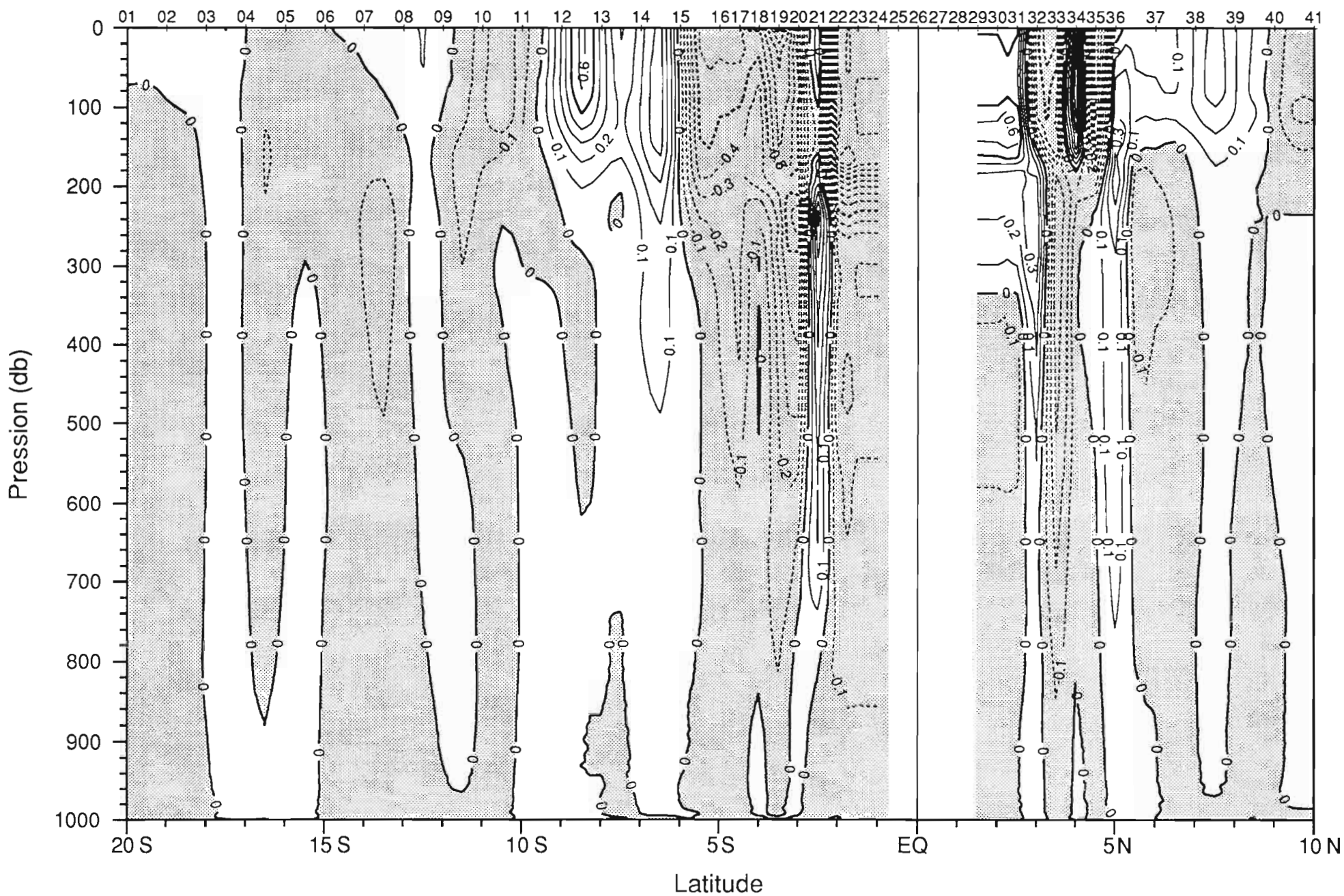


Fig 18 - Courants géostrophiques relatifs à 1000 db.

# Surtropac 11 6-31 Janvier 1989. Temperature (C)

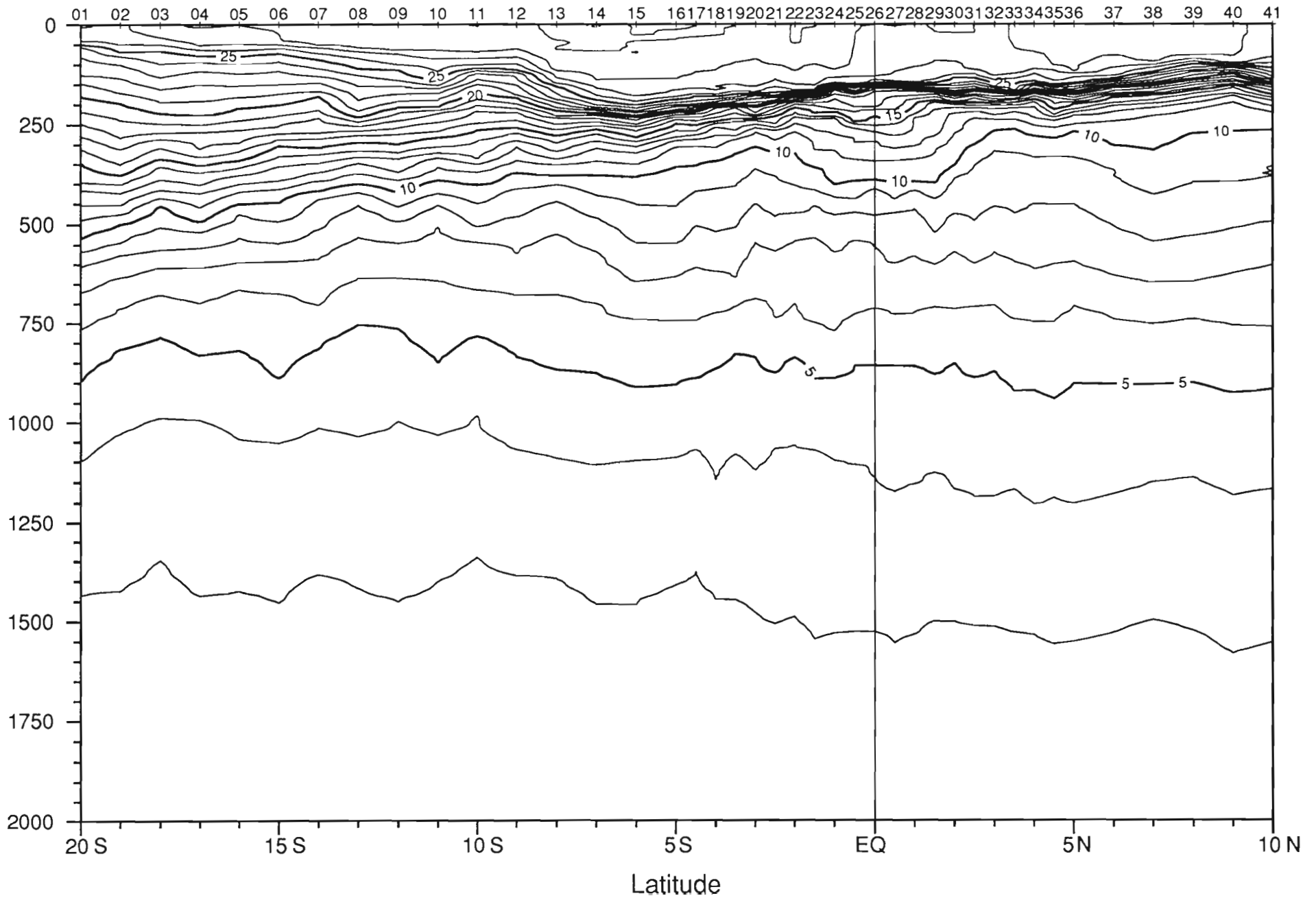


Fig 19 - Temperature (°C)

# Surtropac 11 6-31 Janvier 1989. Salinite (usp)

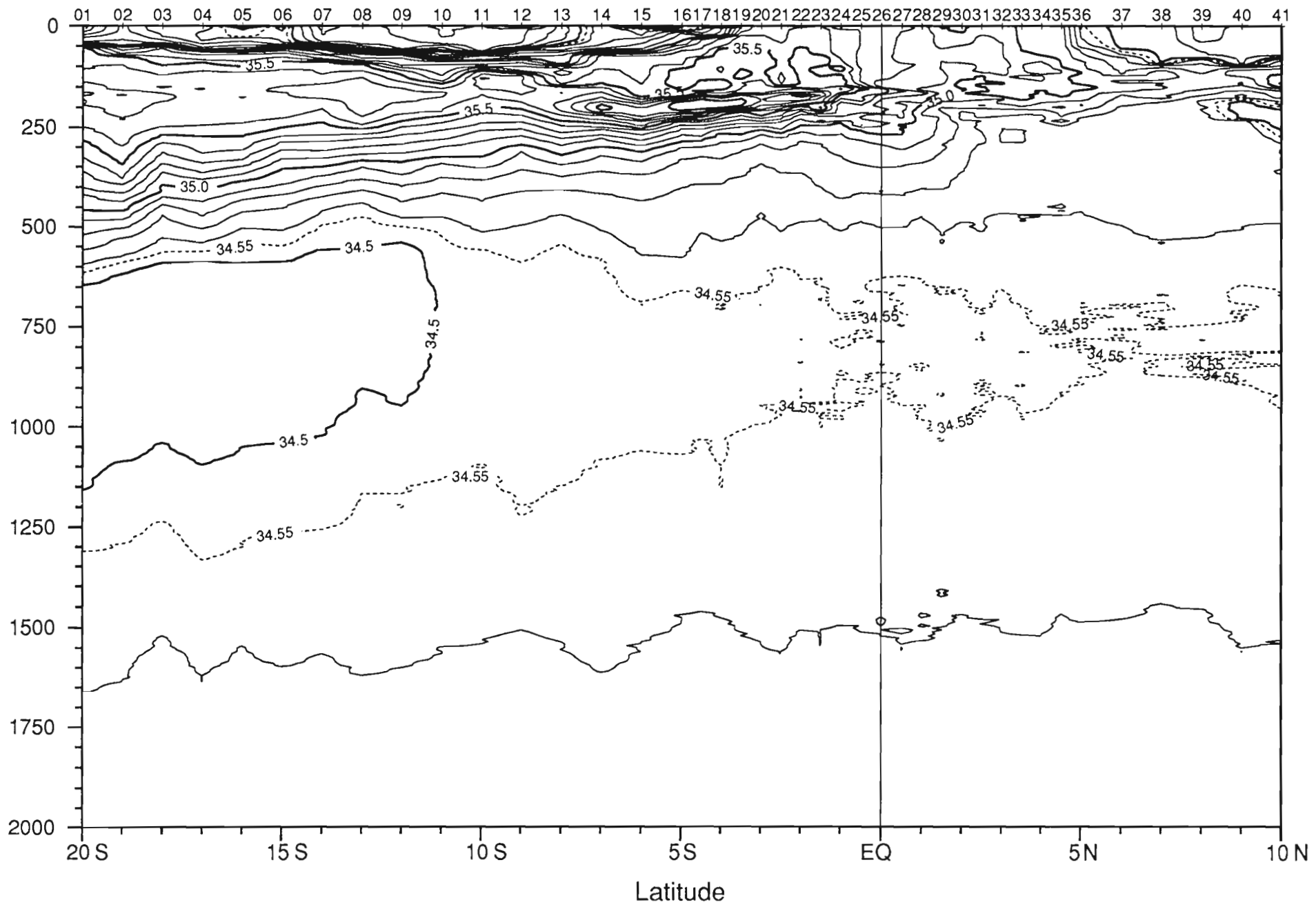


Fig 20 - Salinité (usp)

# Surtropac 11 6-31 Janvier 1989. Oxygene (ml/l)

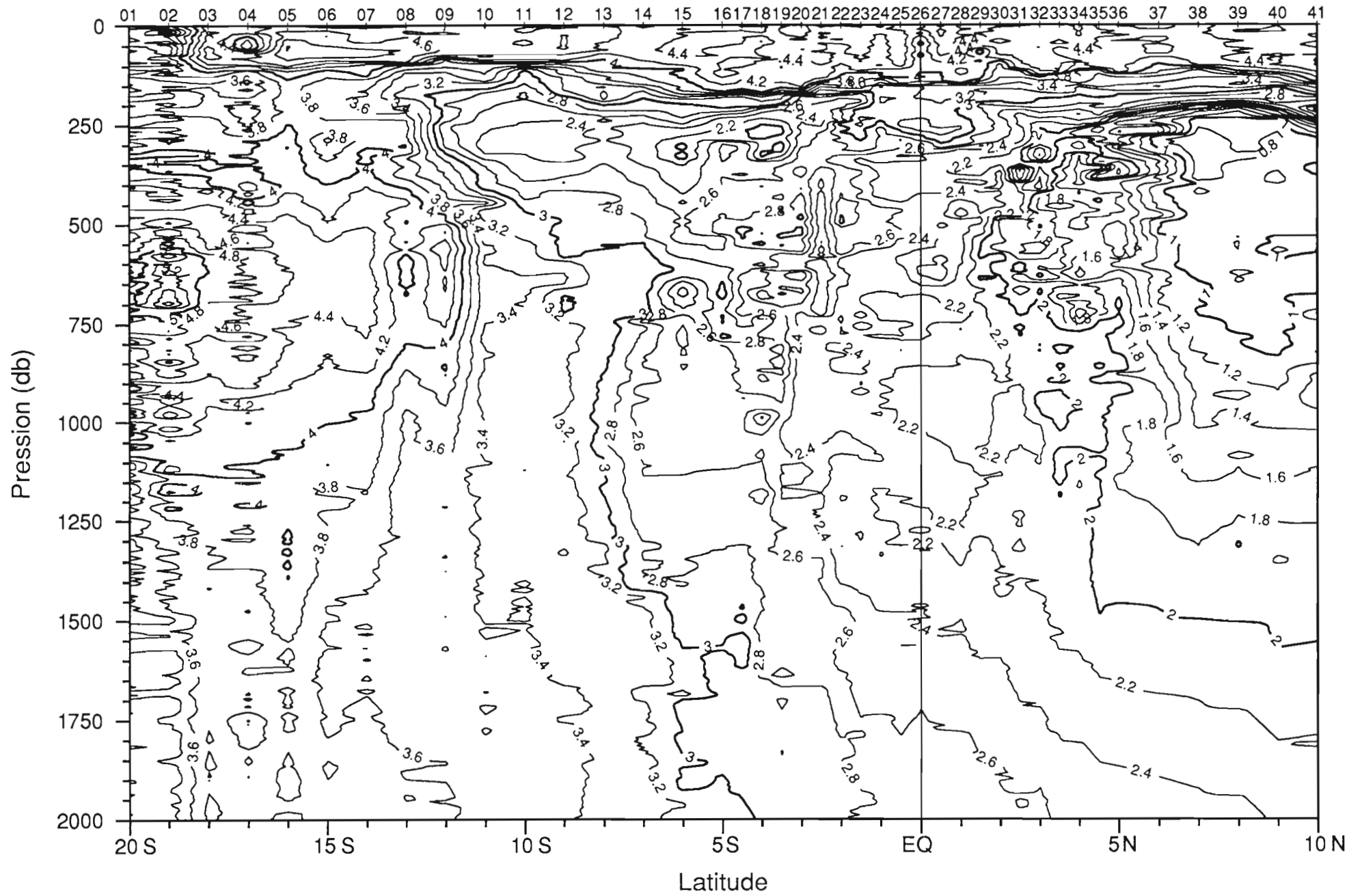


Fig 21 - Oxygène dissous (ml/l)



# Surtropac 11 6-31 Janvier 1989. Sigma-Theta (kg/m3)

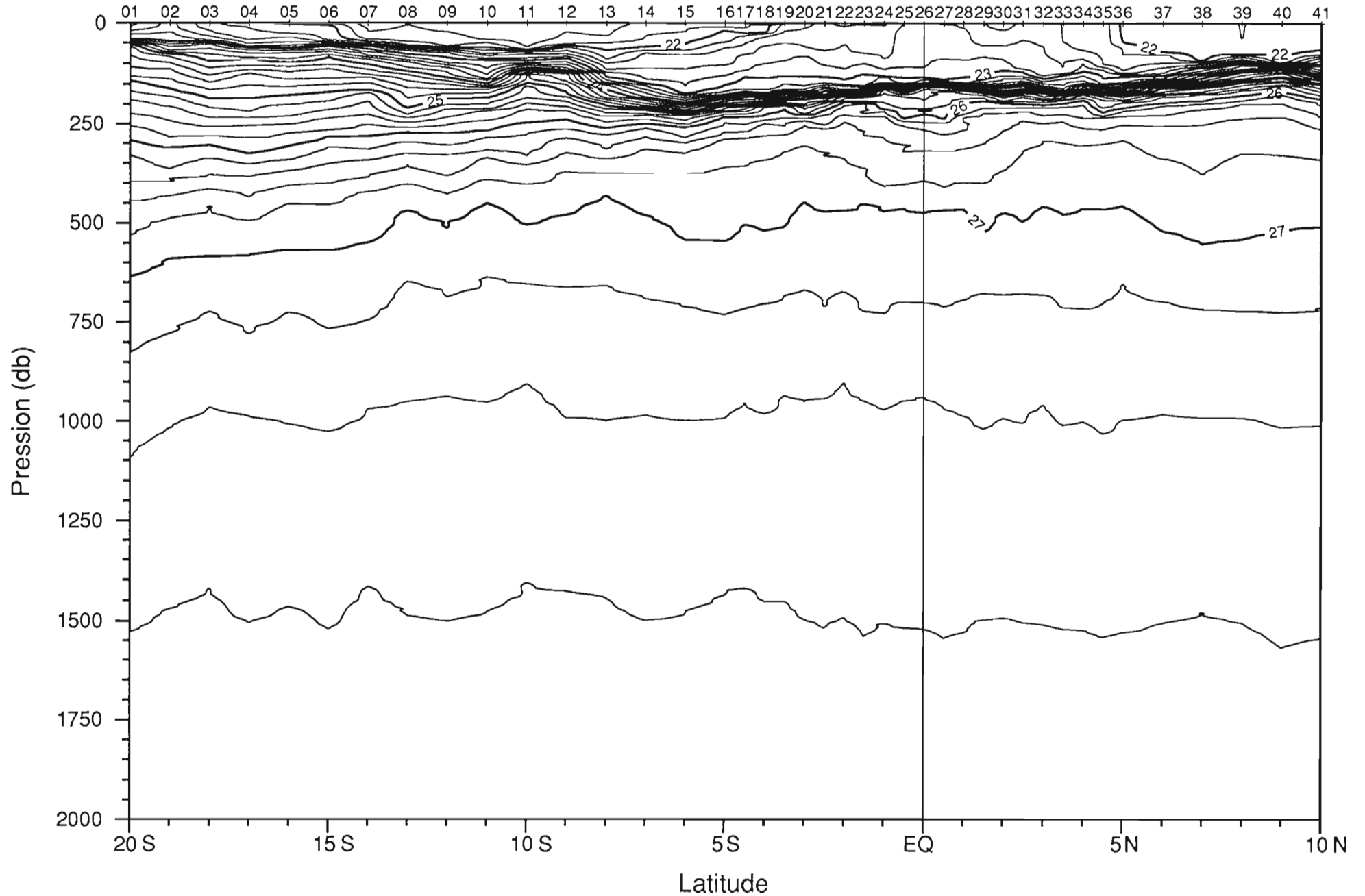


Fig 22 - Sigma-theta (kg/m<sup>3</sup>)

# Surtropac 11 25-27 JAN 89 Temperature (C)

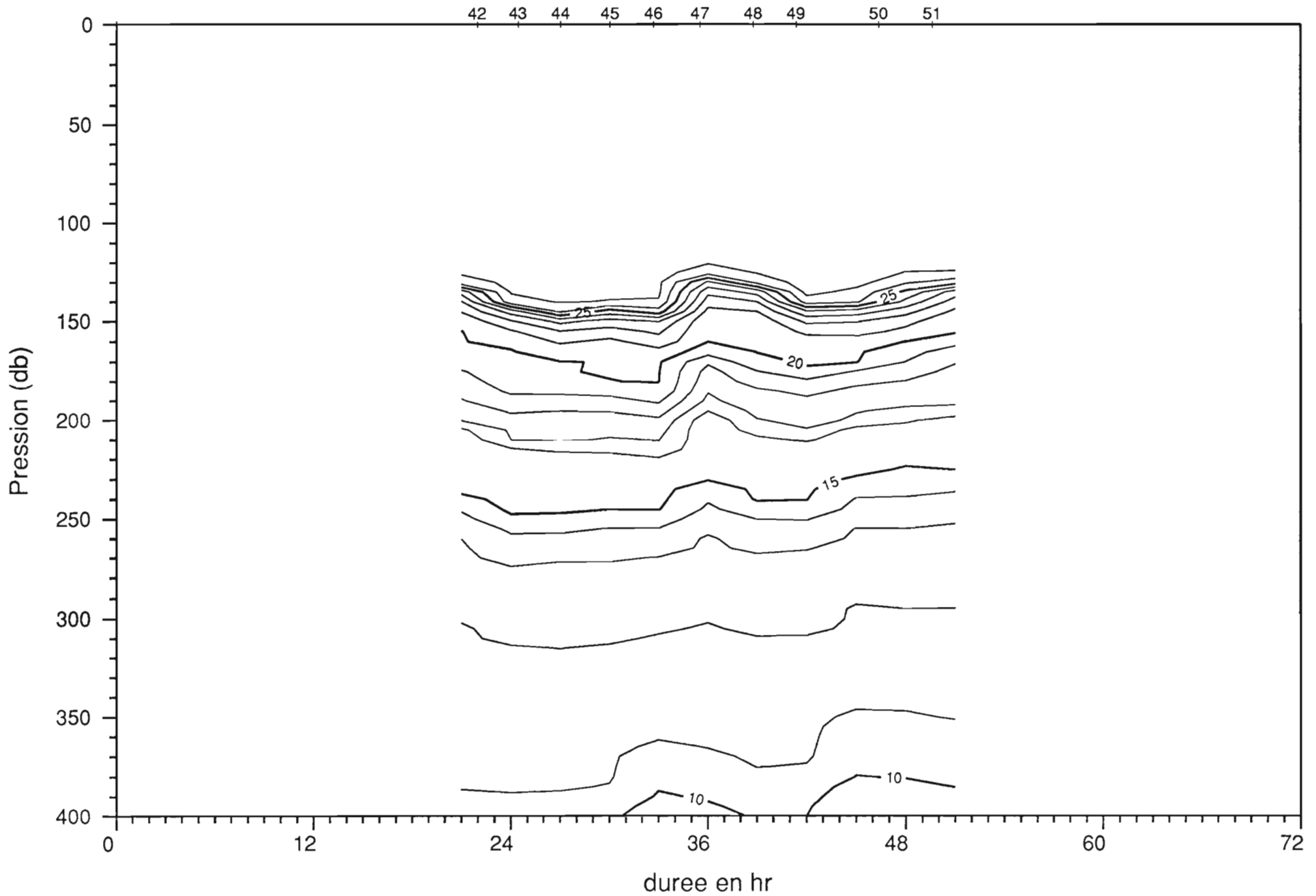


Fig 23 - Temperature (°C)

# Surtropac 11 25-27 JAN 89 Salinite (usp)

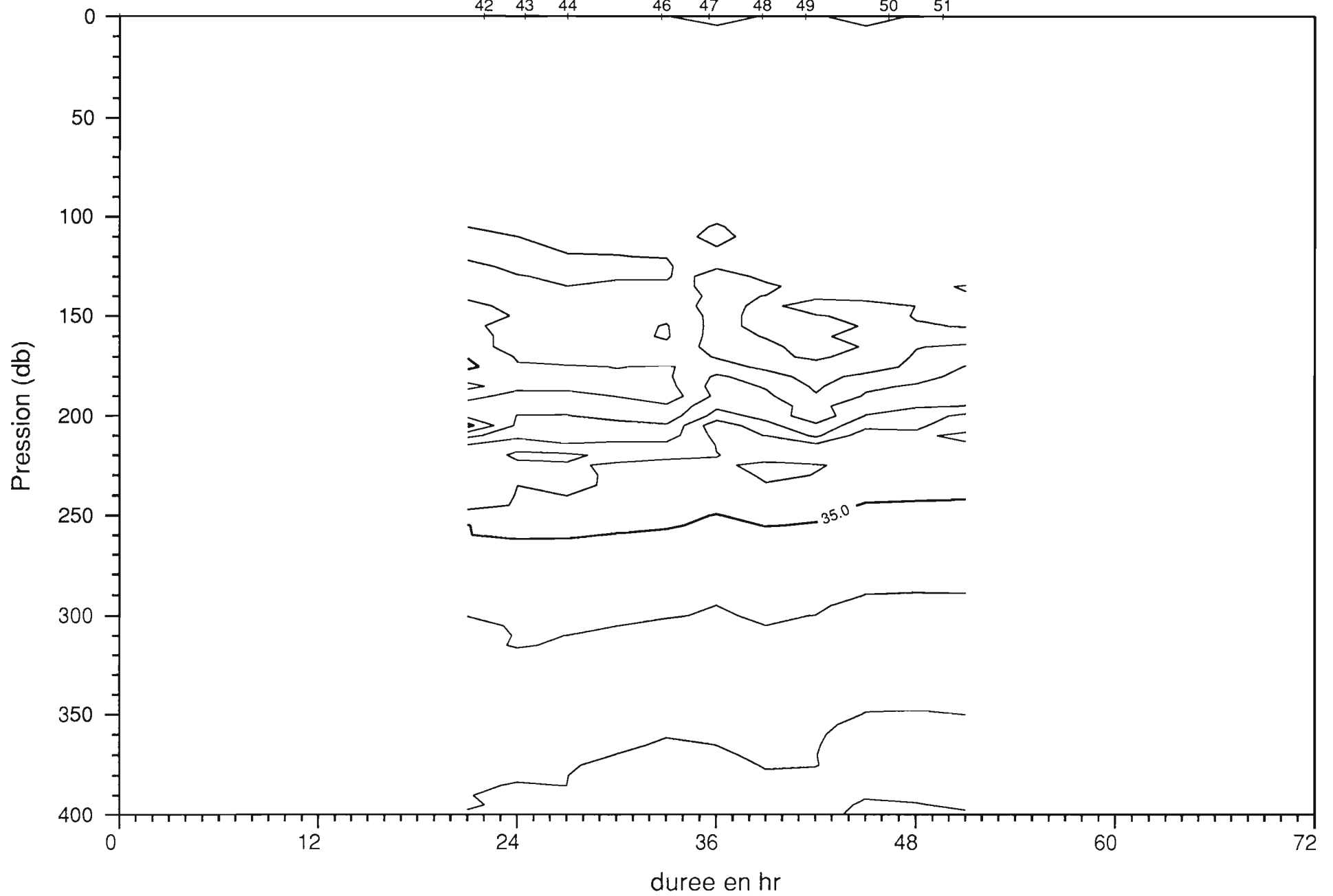


Fig 24 - Salinité (usp)

# Surtropac 11 25-27 JAN 89 Oxygene (ml/l)

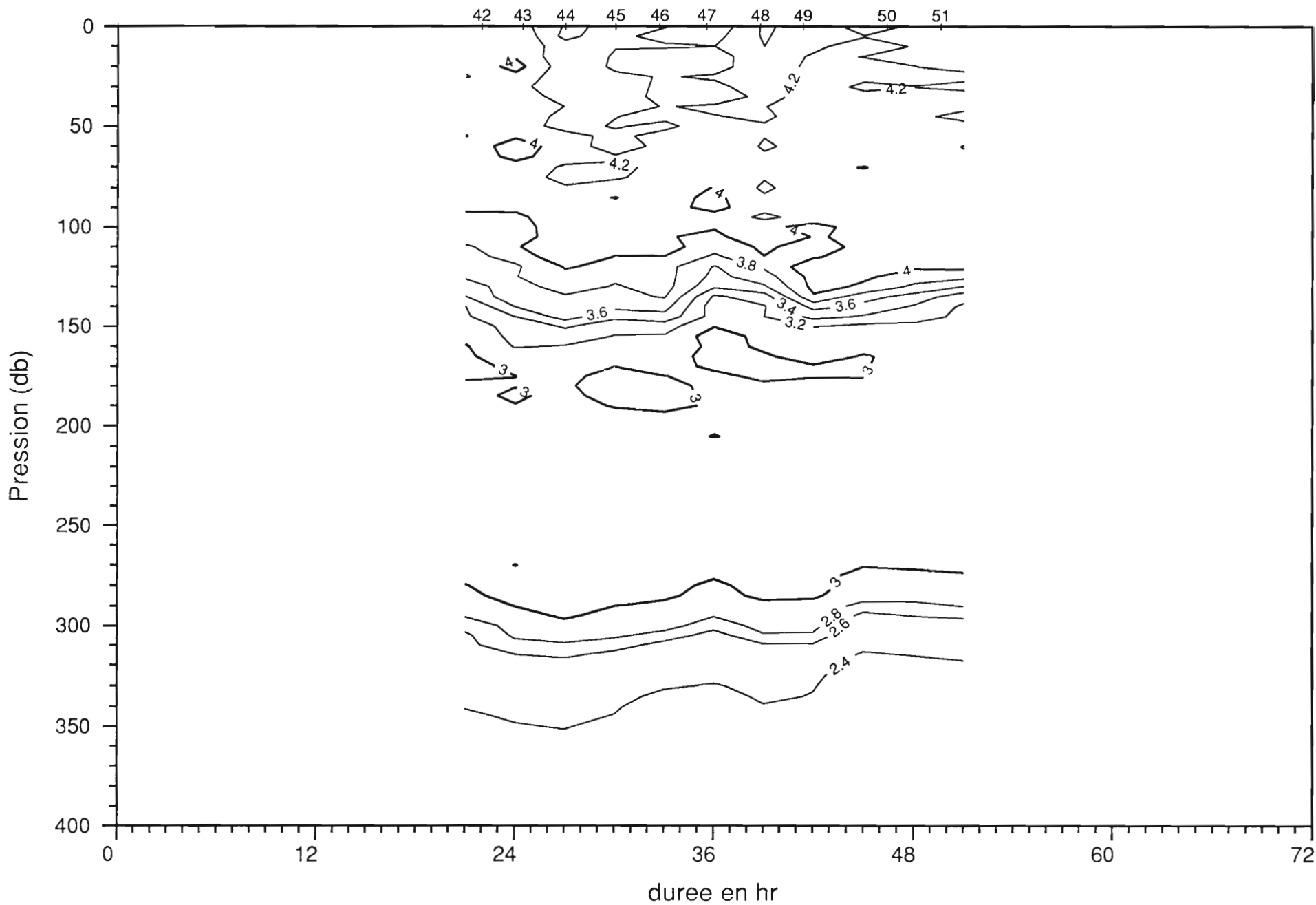


Fig 25 - Oxygène (ml/l)

Surtropac 11 25-27 JAN 89 Sigma-Theta (kg/m3)

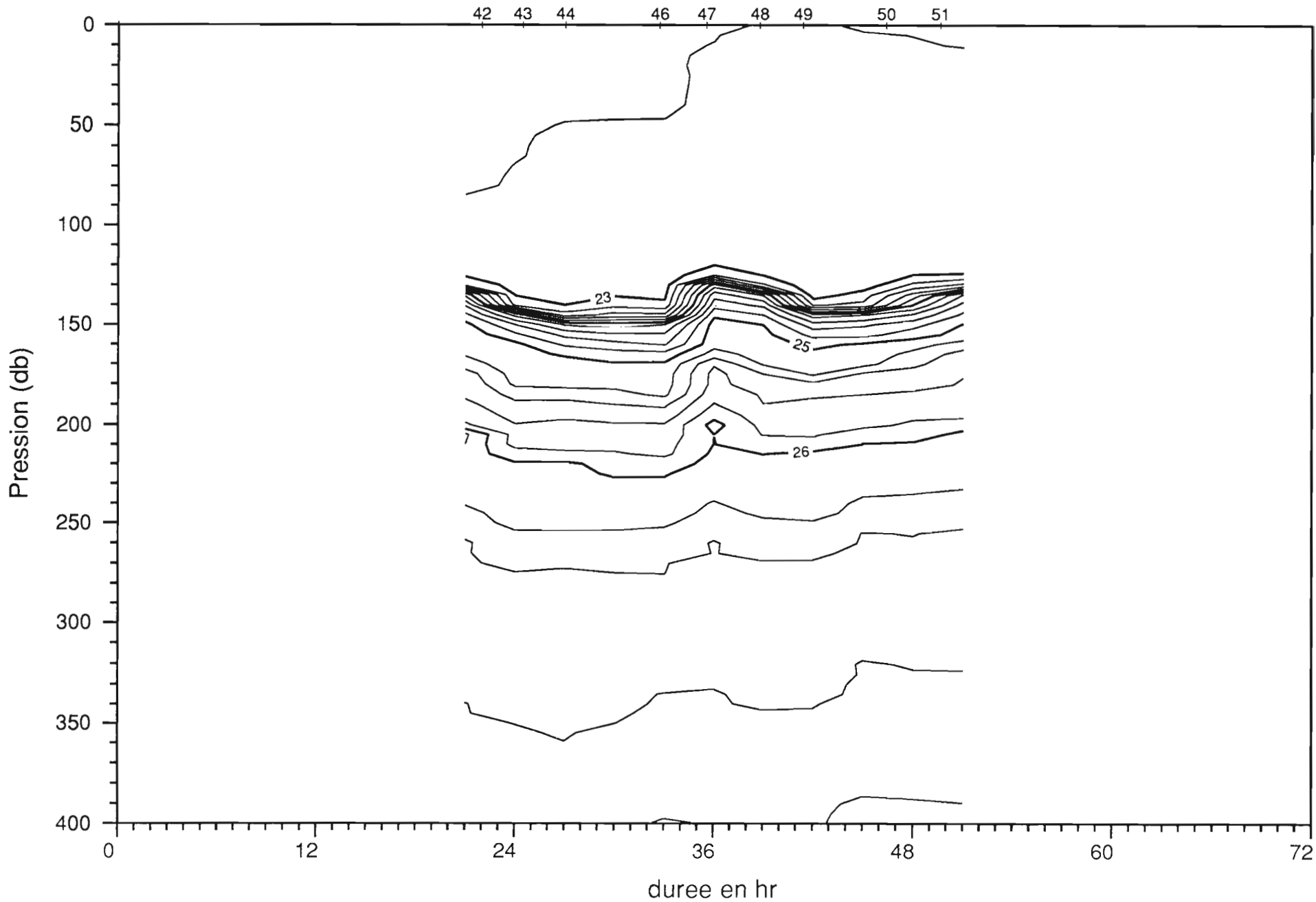


Fig 26 - Sigma-theta (kg/m3)

# Surtropac 11 25-27 JAN 89 Courant zonal (m/s)

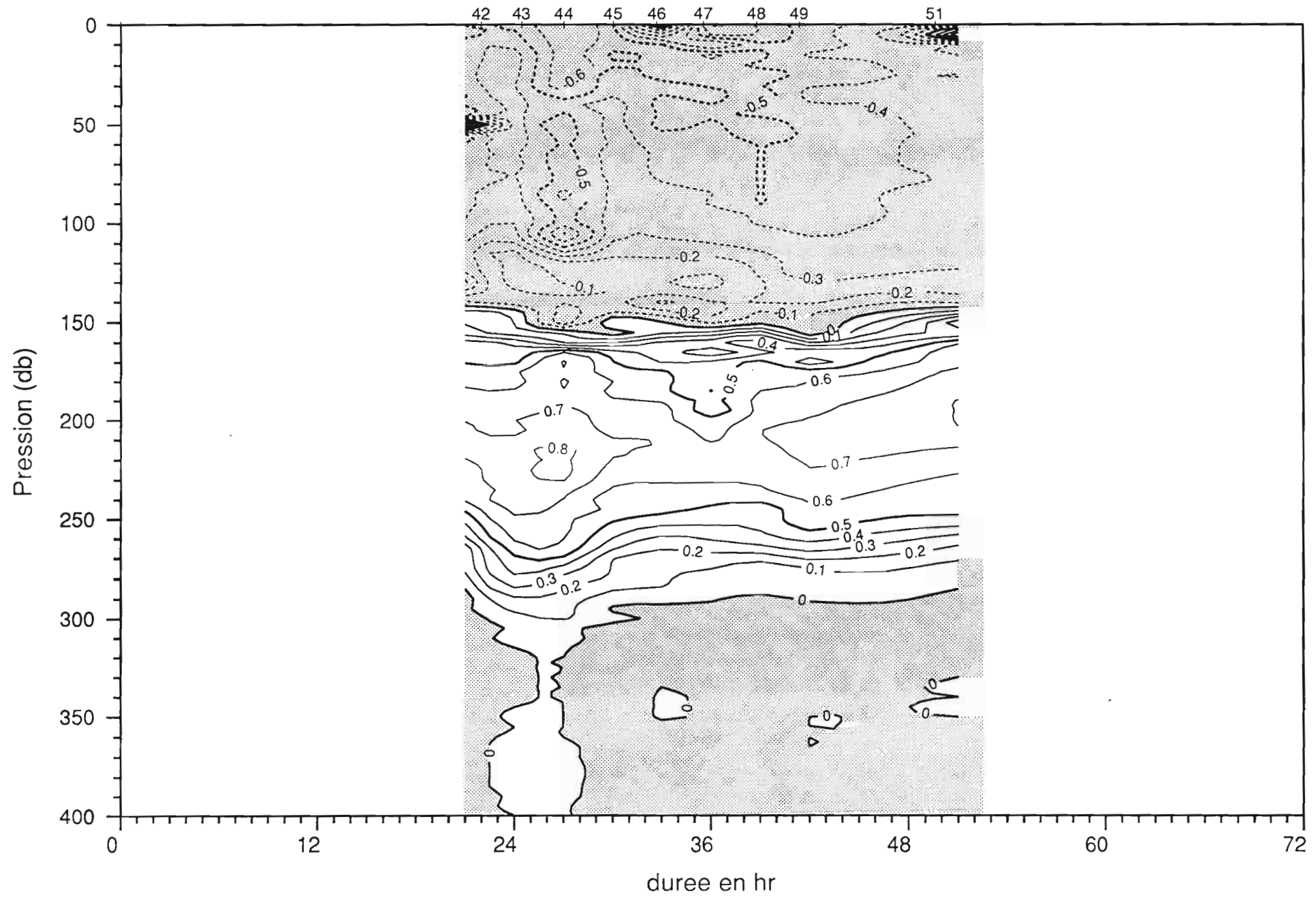


Fig 27 - Composante zonale du courant (mesures directes) (m/s)

# Surtropac 11 25-27 JAN 89 Courant meridien (m/s)

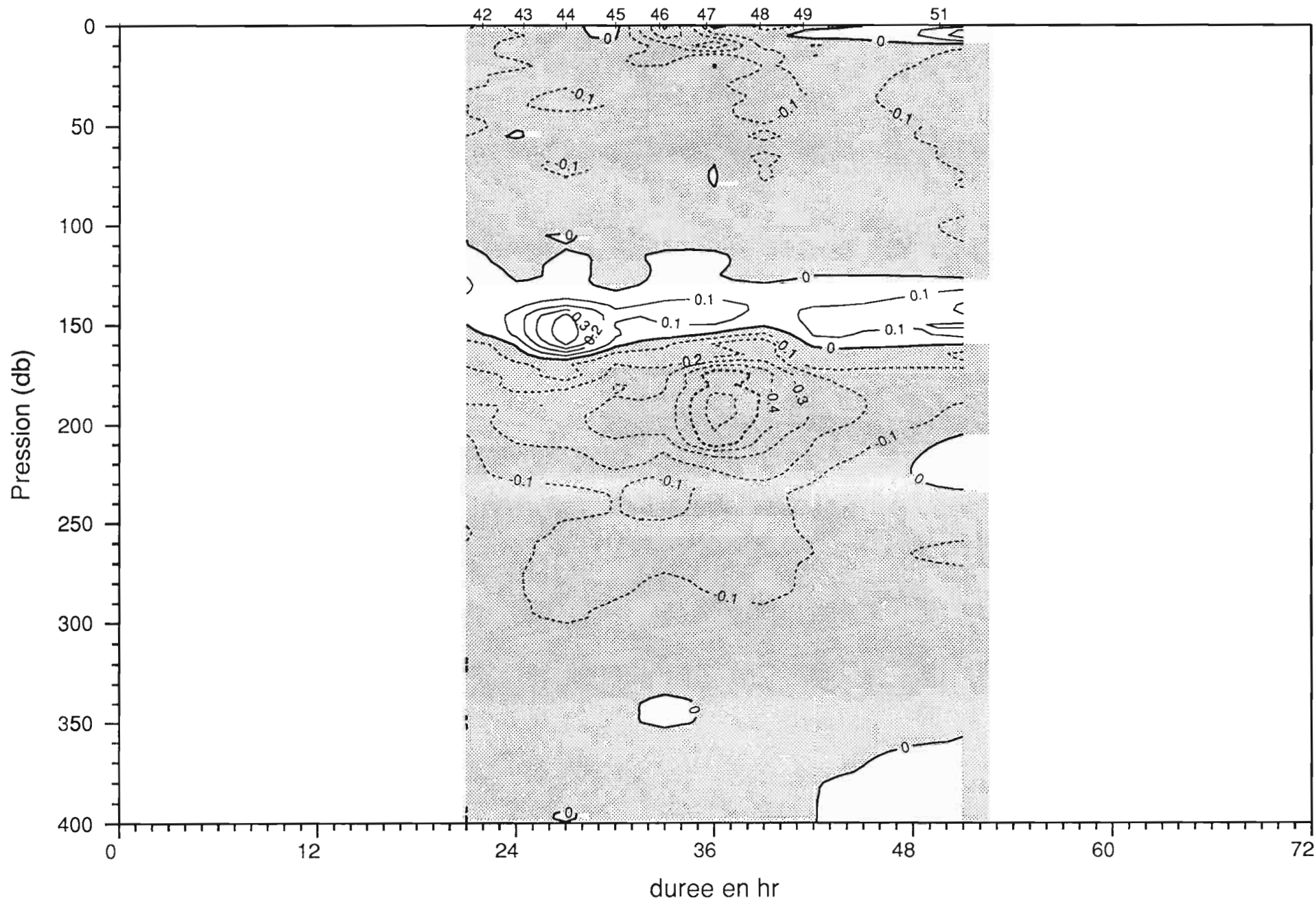


Fig 28 - Composante méridienne du courant (mesures directes) (m/s)

Surtropac 11 29-31 janvier 89 Temperature (C)

55 54 53 52

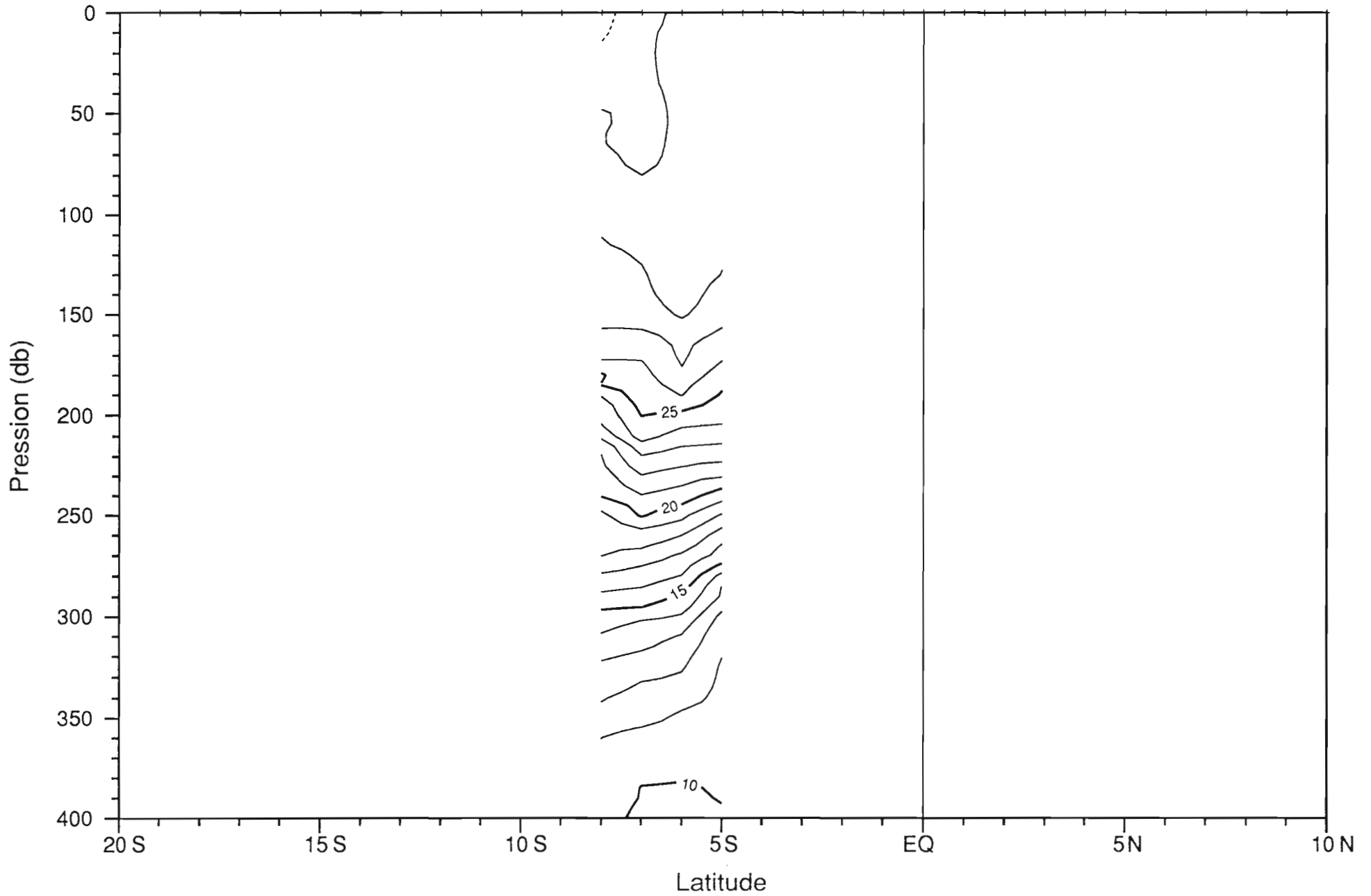


Fig 29 - Temperature (°C)



Surtropac 11 29-31 janvier 1989 Salinite (usp)

55 54 53 52

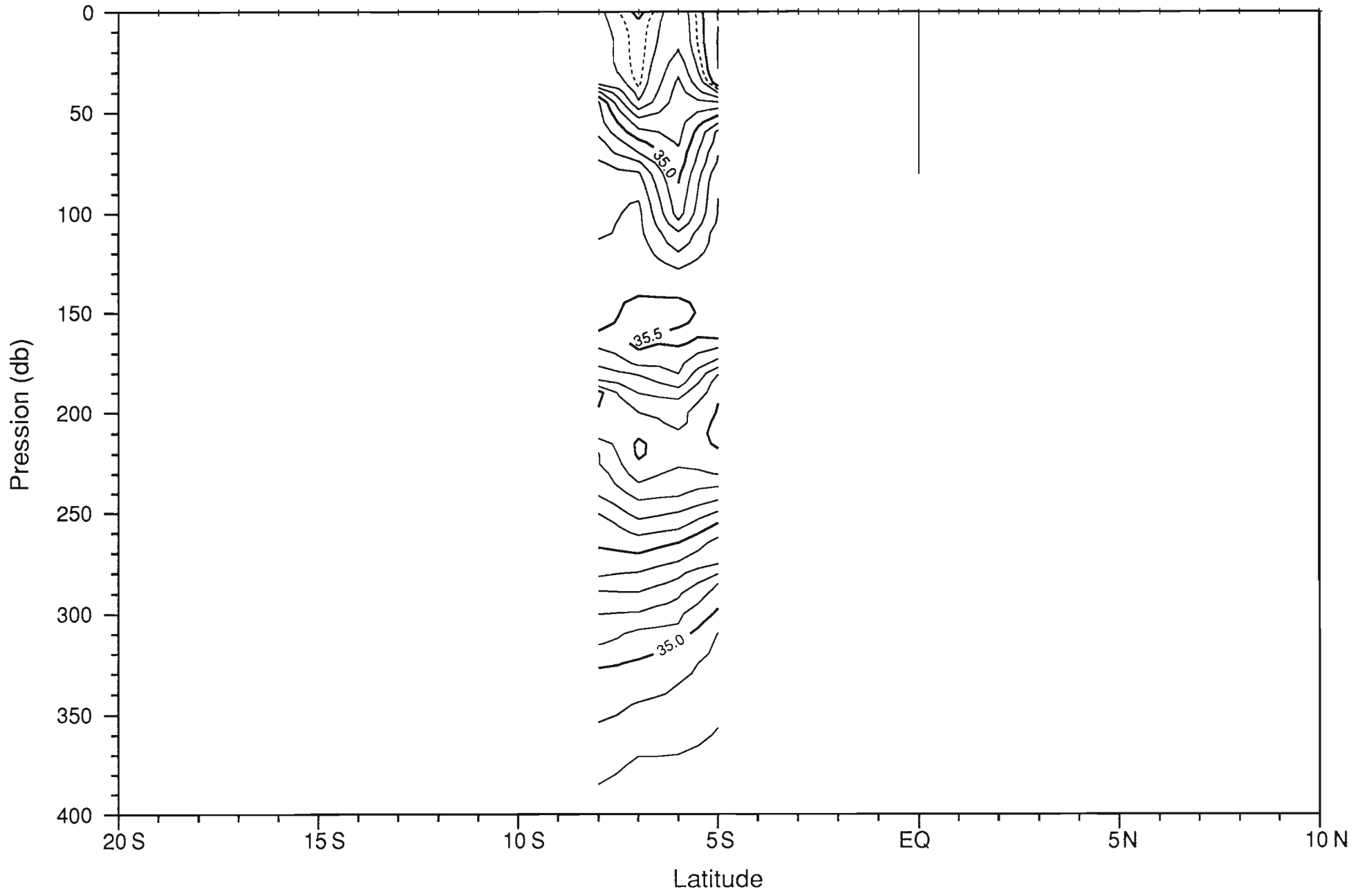


Fig 30 - Salinité (usp)

Surtropac 11 29-31 janvier 1989 Oxygène (ml/l)

55 54 53 52

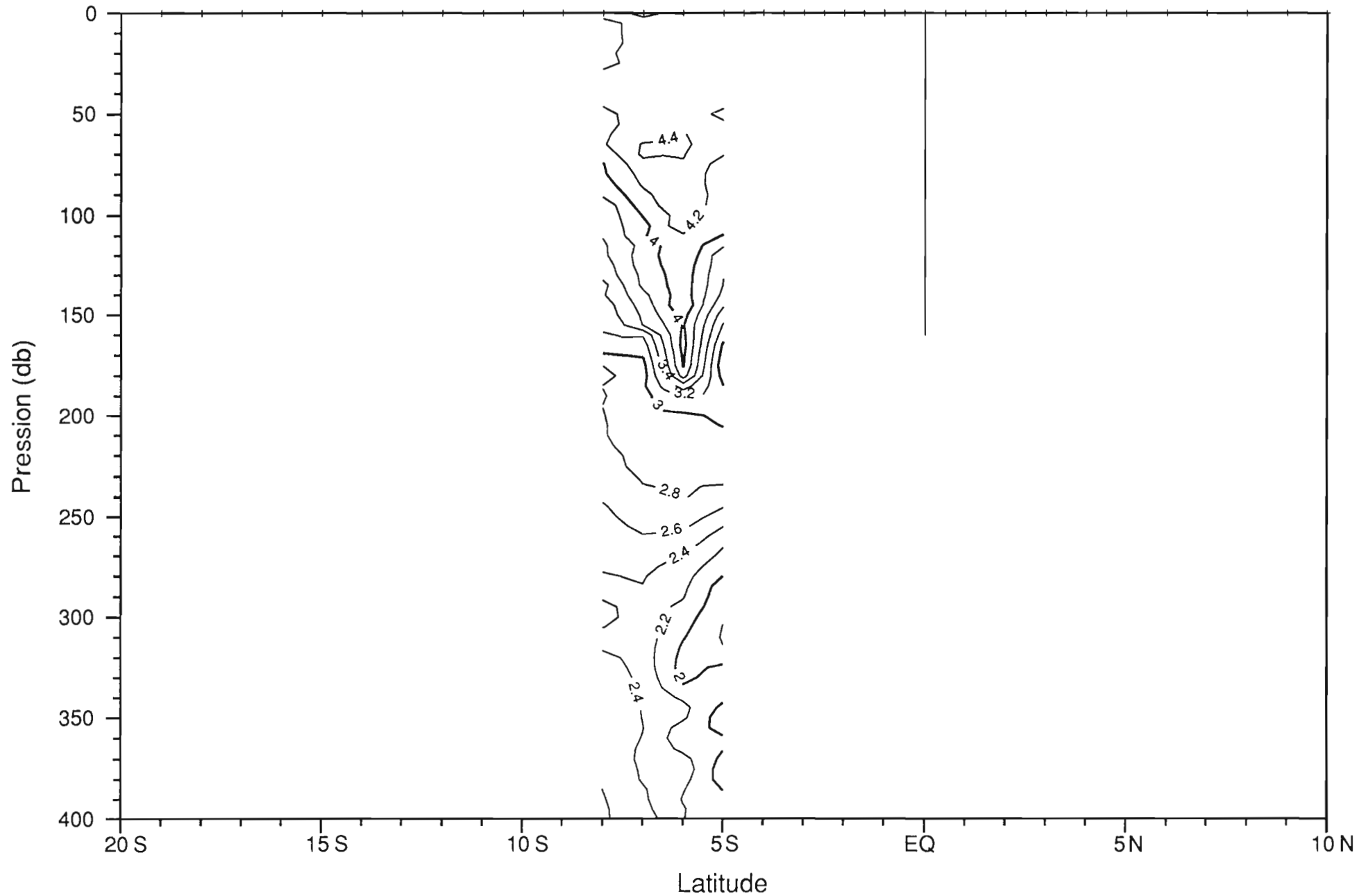


Fig 31 - Oxygène (ml/l)  
39

Surtropac 11 29-31 janvier 89 Sigma-Theta (kg/m3)

55 54 53 52

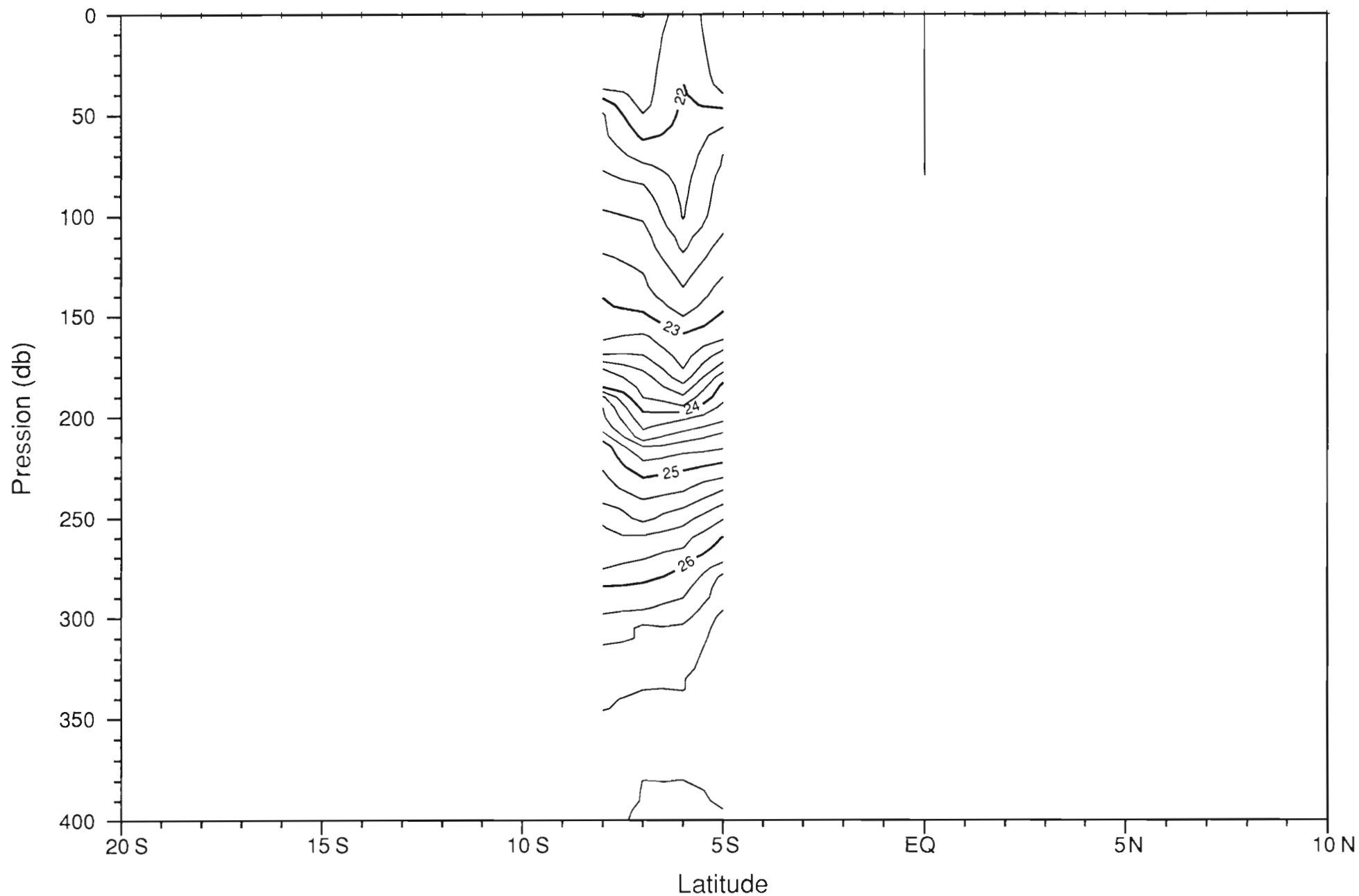


Fig 32 - Sigma-theta (kg/m3)

# Surtropac 11 29-31 janvier 1989 Courant zonal (m/s)

57 56 55 54 53 52

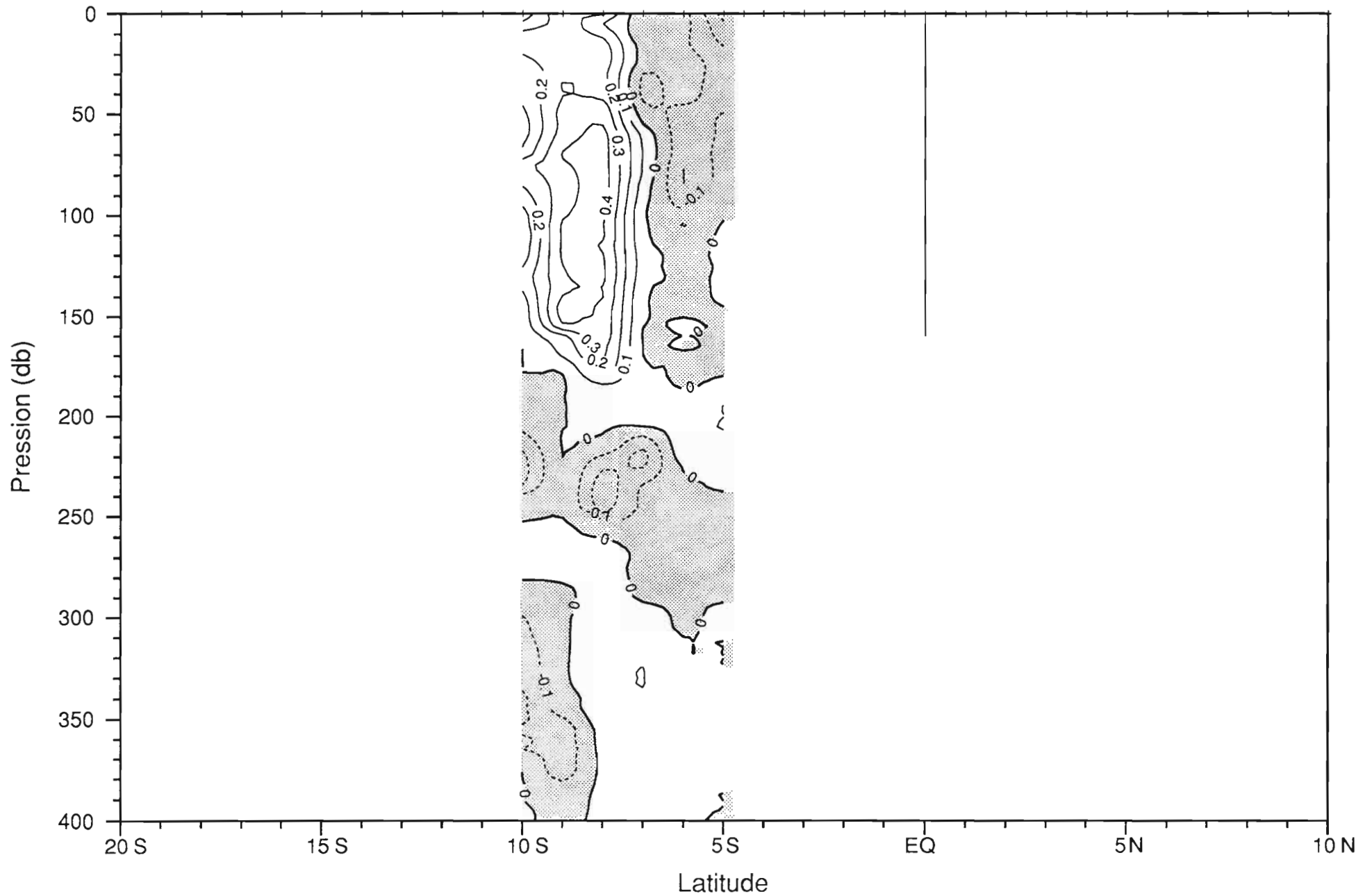


Fig 33 - Composante zonale du courant (mesures directes) (m/s)

Surtropac 11 29-31 janvier 89 Courant meridien (m/s)

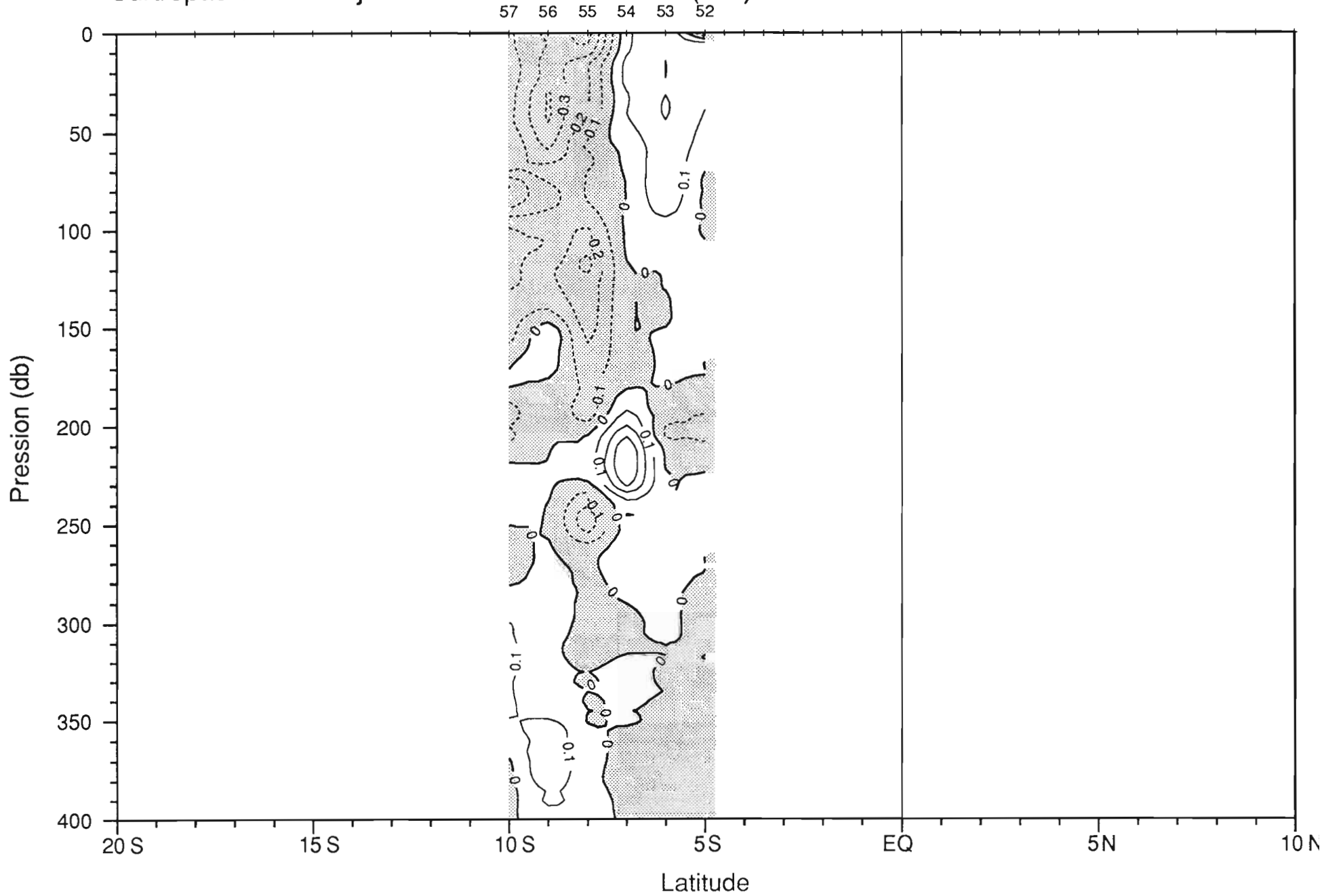


Fig 34 - Composante méridienne du courant (mesures directes) (m/s)

TEMPERATURE FICHIER DE SURFACE SURTROPAC11

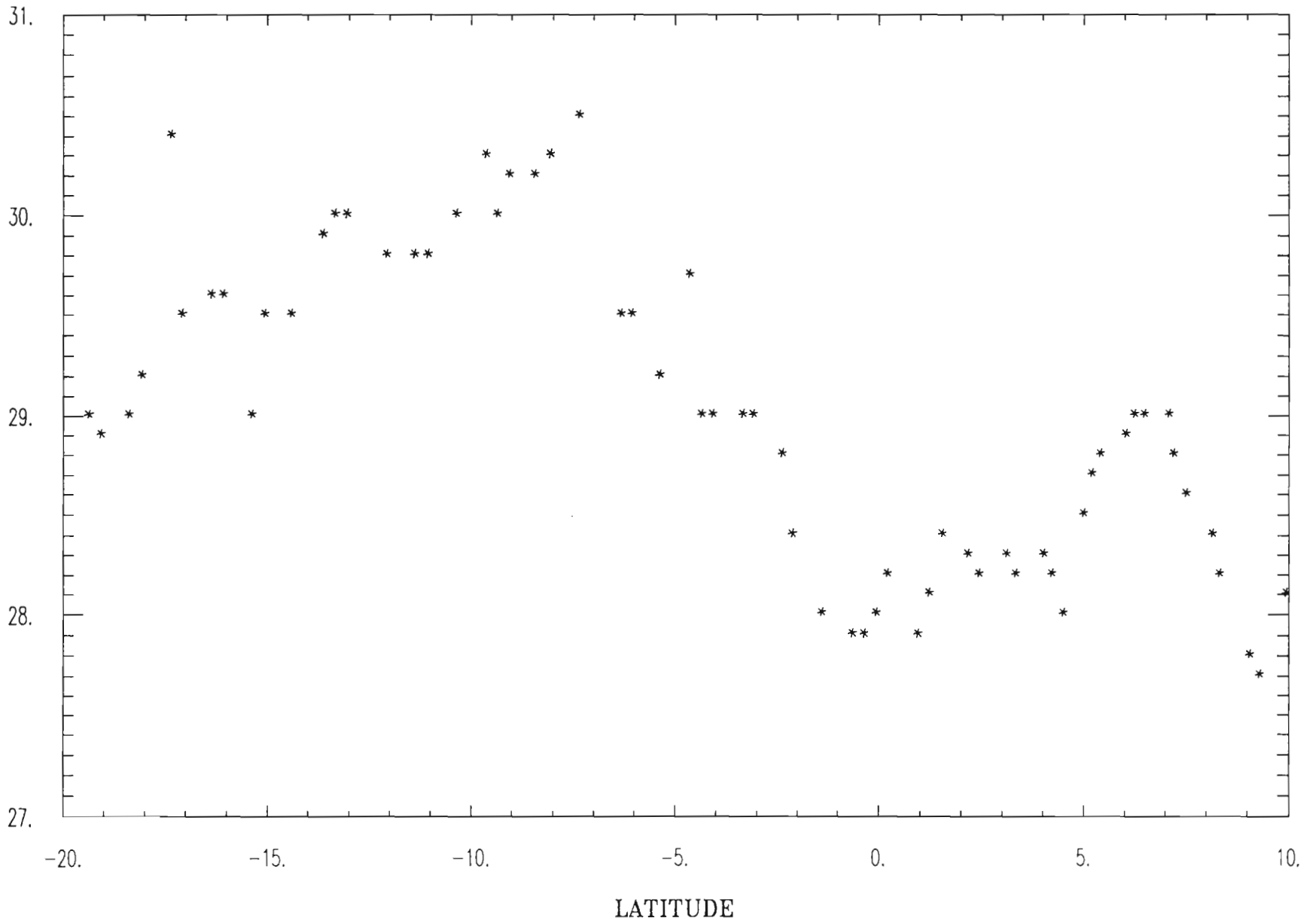


Fig 35 - Température de surface (°C)

SALINITE FICHER DE SURFACE SURTROPAC11

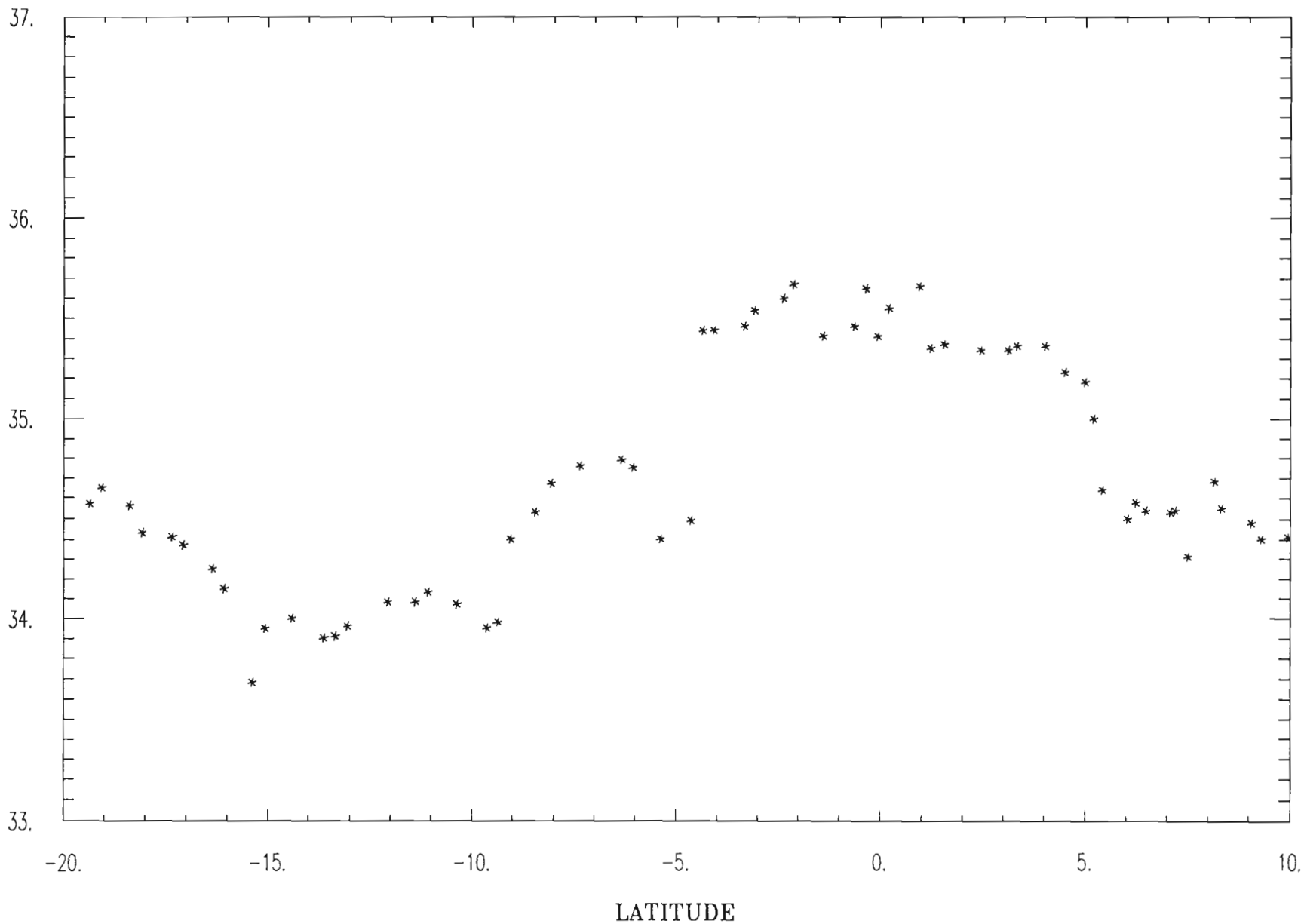


Fig 36 - Salinité de surface (usp)

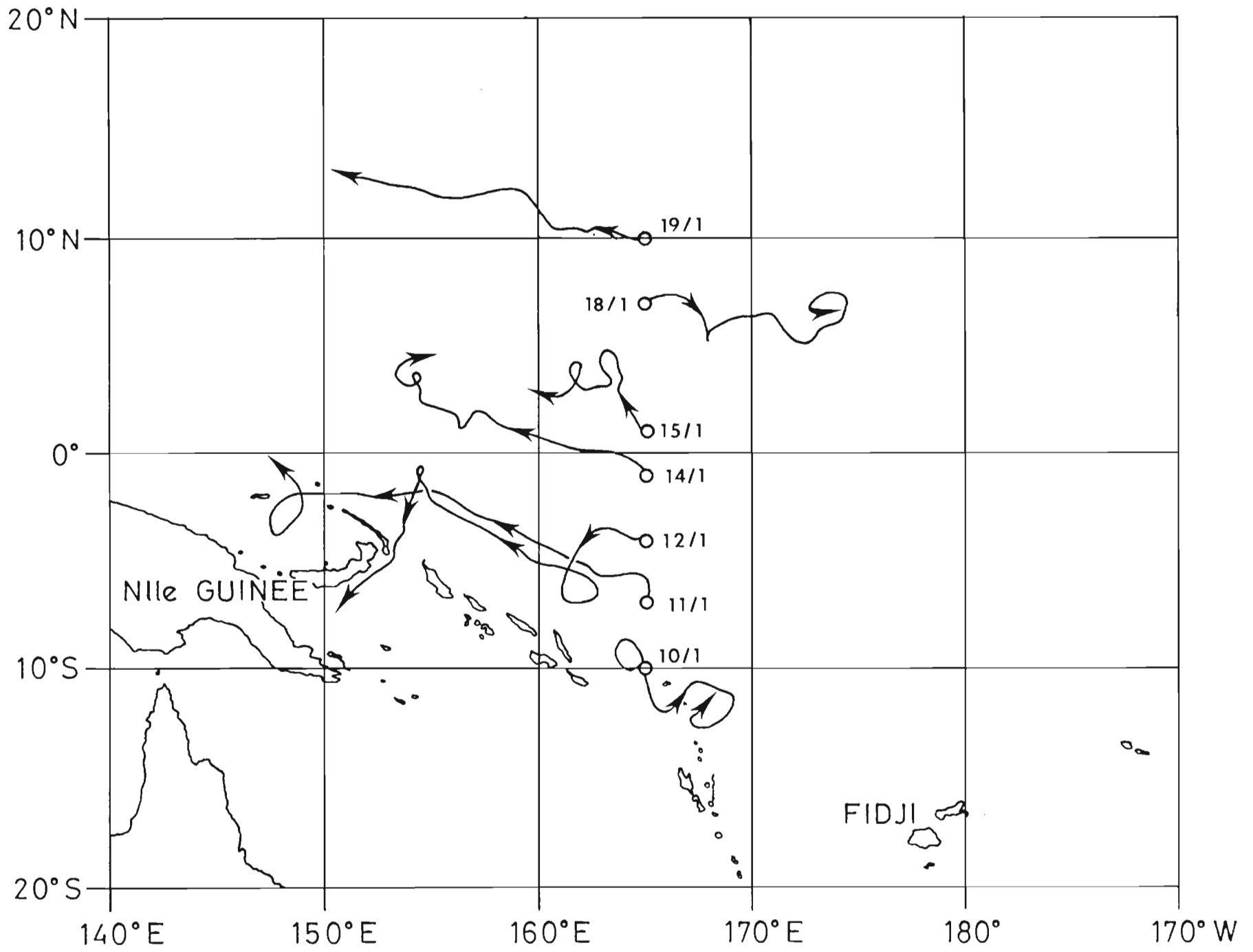


Fig 37 - Trajectoires des bouées dérivantes jusqu'au 31 janvier 1989.



# SURTROPAC11 20 JAN- 03 FEB 89 Temperature (C)

868584828180797877787271 706968676663 626059545352 51 494846454443424039363332 3028262524222018 1716 1514 1312111009080706 0504

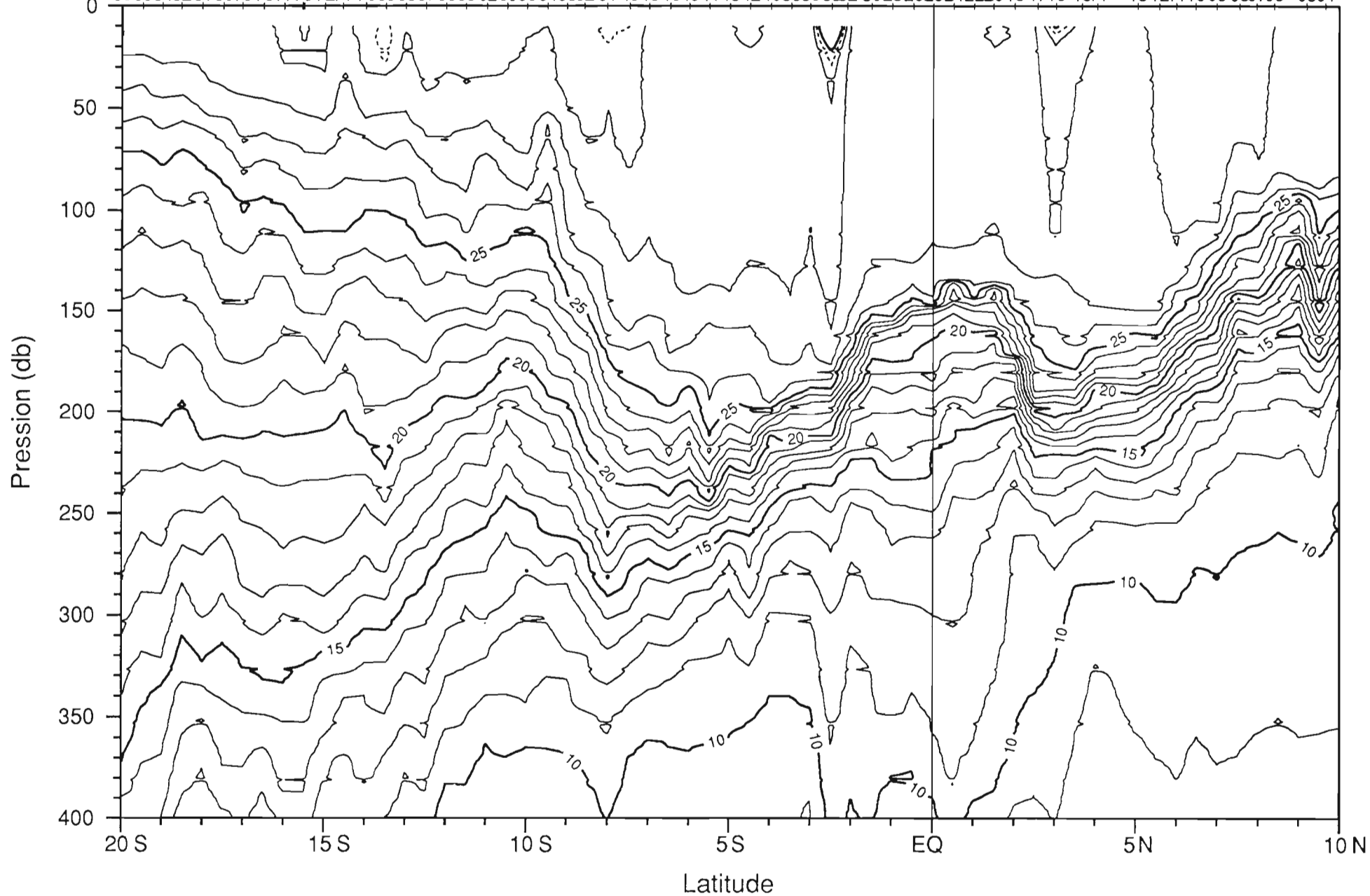


Fig 38 - Coupe XBT 0-400m du 20 janvier au 4 février 1989.

DERIVE Aller SURTROPAC 11

DERIVE Retour SURTROPAC 11

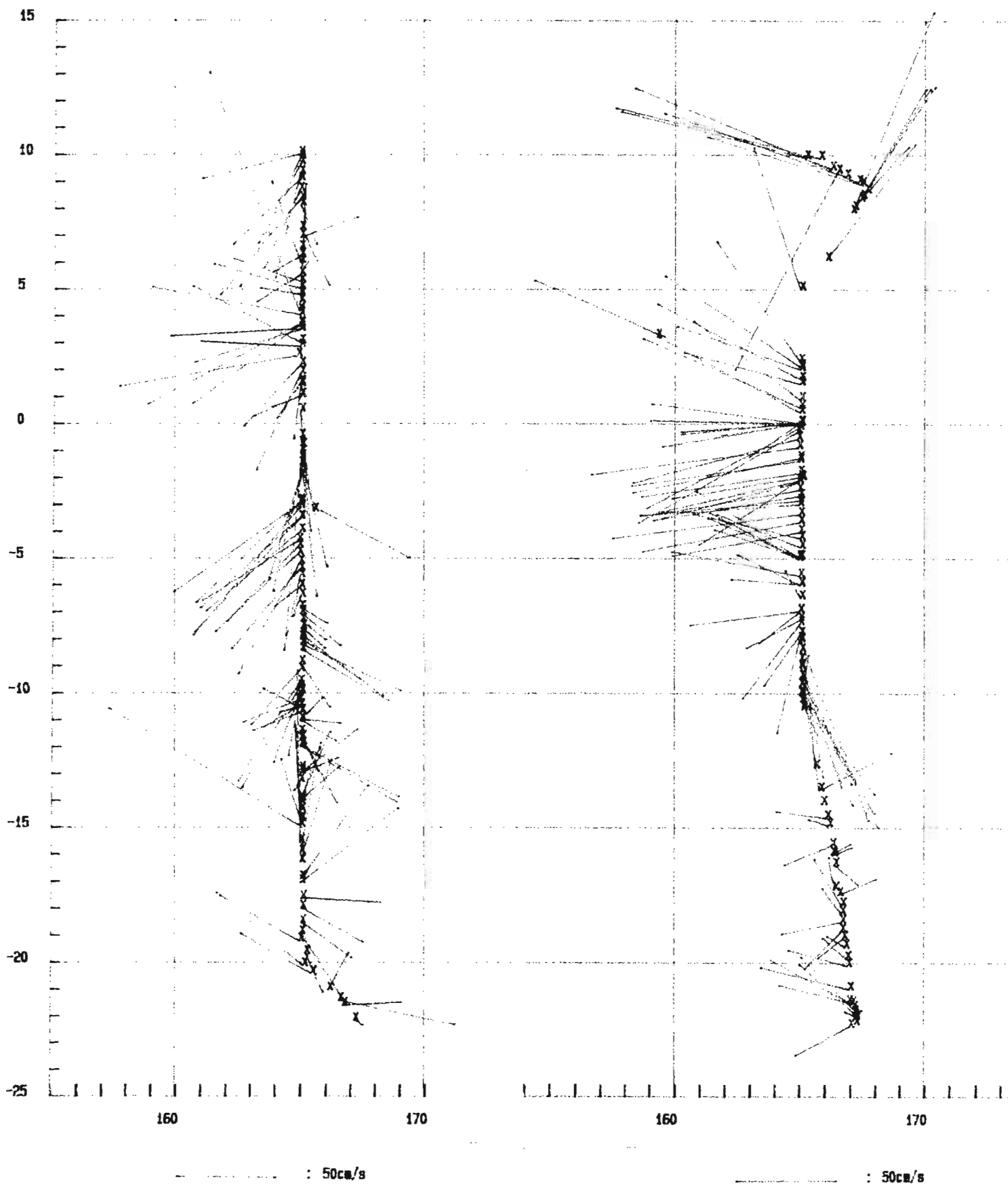


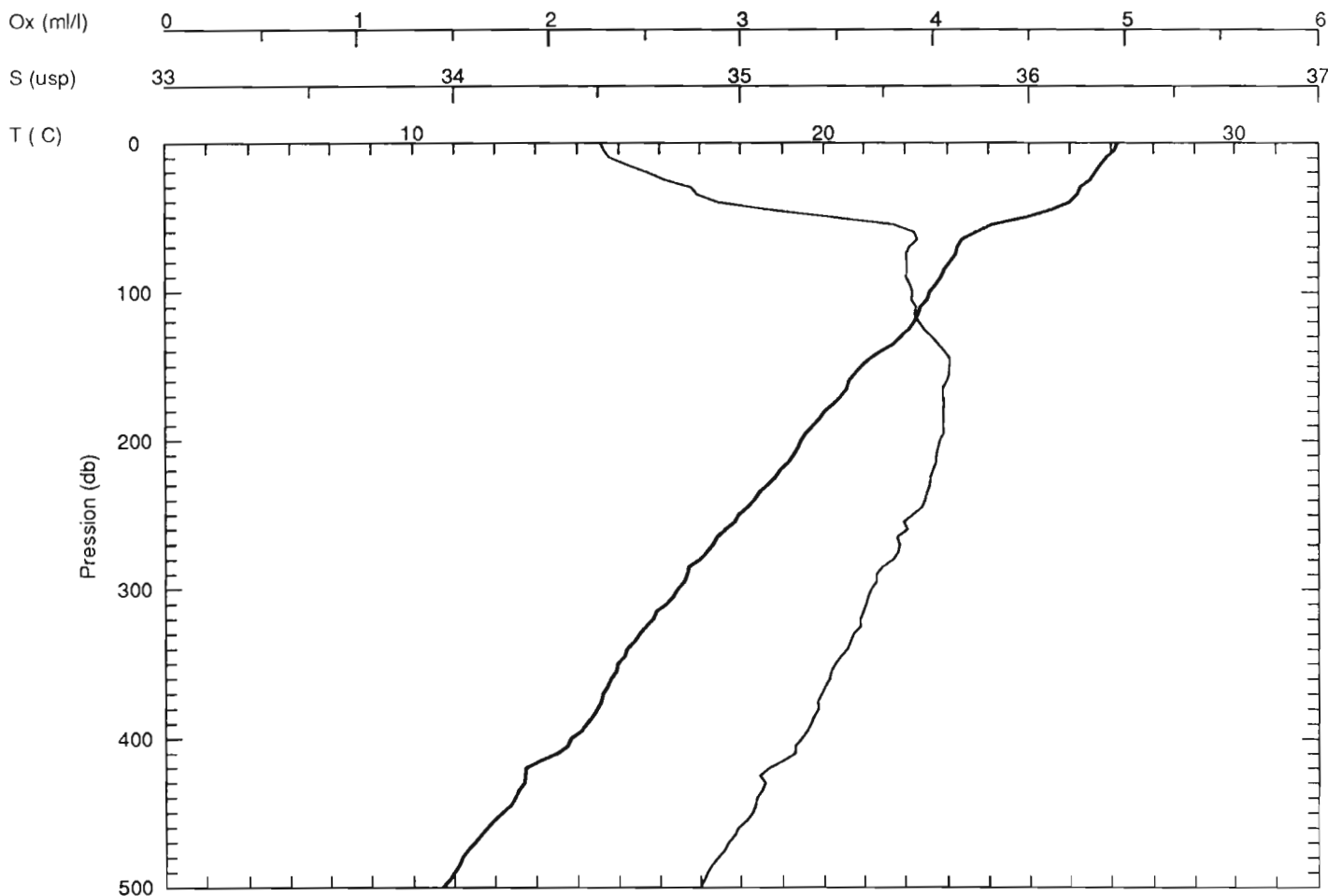
Fig 39 - Dérive du N.O. Coriolis

Annexe

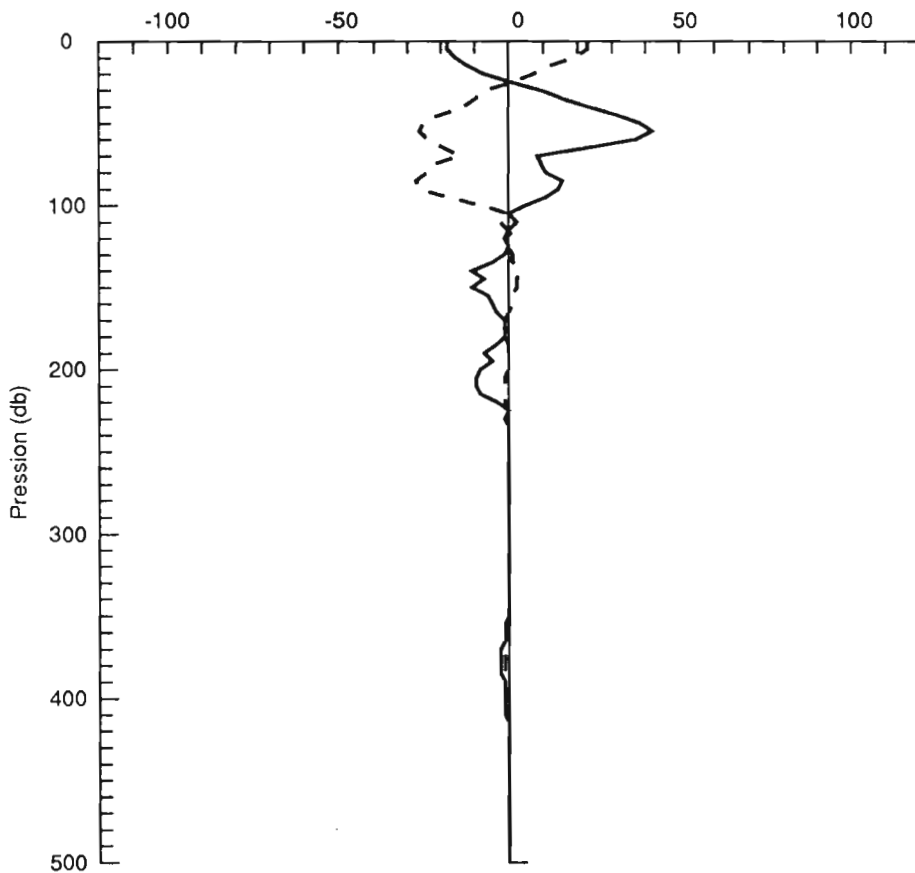
STATION : 1      CAMPAGNE : aurtropac11  
 DATE : 6/ 1/89    HEURE : 0h00      LONGITUDE : 165.00      LATITUDE : -20.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m-dyn) | (ml/l) | (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m-dyn) | (ml/l) |
| 0    | 27.15 | 34.51 | -18.0  | 22.8   | 22.30   | 22.30    | 0.000   |        | 510  | 10.51 | 34.82 | 0.0    | 0.0    | 29.01   | 26.73    | 1.334   |        |
| 5    | 27.07 | 34.52 | -18.0  | 22.8   | 22.36   | 22.34    | 0.028   |        | 520  | 10.28 | 34.80 | 0.0    | 0.0    | 29.09   | 26.76    | 1.348   |        |
| 10   | 26.89 | 34.54 | -15.6  | 19.2   | 22.45   | 22.41    | 0.055   |        | 530  | 10.10 | 34.78 | 0.0    | 0.0    | 29.15   | 26.77    | 1.362   |        |
| 15   | 26.74 | 34.60 | -12.0  | 12.0   | 22.57   | 22.50    | 0.082   |        | 540  | 9.86  | 34.75 | 0.0    | 0.0    | 29.22   | 26.79    | 1.376   |        |
| 20   | 26.62 | 34.67 | -7.2   | 7.2    | 22.68   | 22.59    | 0.108   |        | 550  | 9.63  | 34.72 | 0.0    | 0.0    | 29.28   | 26.81    | 1.390   |        |
| 25   | 26.49 | 34.73 | 1.2    | 1.2    | 22.79   | 22.68    | 0.134   |        | 560  | 9.38  | 34.69 | 0.0    | 0.0    | 29.34   | 26.83    | 1.403   |        |
| 30   | 26.25 | 34.83 | 9.6    | -7.2   | 22.95   | 22.83    | 0.160   |        | 570  | 8.87  | 34.67 | 0.0    | 0.0    | 29.46   | 26.89    | 1.416   |        |
| 35   | 26.17 | 34.85 | 15.6   | -9.6   | 23.02   | 22.87    | 0.185   |        | 580  | 8.70  | 34.63 | 0.0    | 0.0    | 29.50   | 26.89    | 1.429   |        |
| 40   | 26.00 | 34.92 | 22.8   | -13.2  | 23.15   | 22.98    | 0.210   |        | 590  | 8.37  | 34.62 | 0.0    | 0.0    | 29.59   | 26.92    | 1.441   |        |
| 45   | 25.57 | 35.09 | 31.2   | -20.4  | 23.43   | 23.24    | 0.234   |        | 600  | 8.10  | 34.59 |        |        | 29.66   | 26.94    | 1.454   |        |
| 50   | 24.95 | 35.31 | 38.4   | -25.2  | 23.81   | 23.59    | 0.256   |        | 610  | 7.94  | 34.56 |        |        | 29.71   | 26.95    | 1.466   |        |
| 55   | 24.08 | 35.53 | 42.0   | -26.4  | 24.26   | 24.02    | 0.276   |        | 620  | 7.82  | 34.54 |        |        | 29.76   | 26.95    | 1.478   |        |
| 60   | 23.69 | 35.60 | 37.2   | -24.0  | 24.45   | 24.19    | 0.296   |        | 630  | 7.65  | 34.53 |        |        | 29.82   | 26.97    | 1.490   |        |
| 65   | 23.34 | 35.61 | 22.8   | -19.2  | 24.58   | 24.31    | 0.314   |        | 640  | 7.43  | 34.52 |        |        | 29.89   | 26.99    | 1.502   |        |
| 70   | 23.23 | 35.59 | 8.4    | -14.4  | 24.62   | 24.32    | 0.332   |        | 650  | 7.34  | 34.49 |        |        | 29.93   | 26.98    | 1.513   |        |
| 75   | 23.19 | 35.58 | 9.6    | -12.0  | 24.64   | 24.32    | 0.350   |        | 660  | 7.26  | 34.49 |        |        | 29.98   | 26.99    | 1.525   |        |
| 80   | 23.05 | 35.58 | 10.8   | -24.0  | 24.71   | 24.36    | 0.368   |        | 670  | 7.05  | 34.48 |        |        | 30.06   | 27.02    | 1.537   |        |
| 85   | 22.92 | 35.58 | 15.6   | -27.6  | 24.77   | 24.40    | 0.386   |        | 680  | 6.91  | 34.46 |        |        | 30.11   | 27.02    | 1.548   |        |
| 90   | 22.85 | 35.58 | 14.4   | -26.4  | 24.80   | 24.42    | 0.404   |        | 690  | 6.79  | 34.46 |        |        | 30.17   | 27.03    | 1.559   |        |
| 95   | 22.72 | 35.59 | 10.8   | -18.0  | 24.87   | 24.47    | 0.421   |        | 700  | 6.68  | 34.45 |        |        | 30.22   | 27.04    | 1.571   |        |
| 100  | 22.58 | 35.60 | 4.8    | -7.2   | 24.94   | 24.51    | 0.439   |        | 710  | 6.51  | 34.45 |        |        | 30.29   | 27.06    | 1.582   |        |
| 105  | 22.53 | 35.59 | 0.0    | 0.0    | 24.98   | 24.53    | 0.456   |        | 720  | 6.42  | 34.44 |        |        | 30.34   | 27.06    | 1.593   |        |
| 110  | 22.37 | 35.61 | 2.4    | -2.4   | 25.05   | 24.58    | 0.473   |        | 730  | 6.34  | 34.43 |        |        | 30.39   | 27.07    | 1.604   |        |
| 115  | 22.32 | 35.60 | 0.0    | 0.0    | 25.09   | 24.60    | 0.490   |        | 740  | 6.20  | 34.43 |        |        | 30.46   | 27.09    | 1.615   |        |
| 120  | 22.22 | 35.62 | -1.2   | 1.2    | 25.15   | 24.64    | 0.507   |        | 750  | 6.14  | 34.42 |        |        | 30.51   | 27.09    | 1.625   |        |
| 125  | 22.10 | 35.63 | 0.0    | 0.0    | 25.22   | 24.68    | 0.523   |        | 760  | 6.05  | 34.42 |        |        | 30.57   | 27.10    | 1.636   |        |
| 130  | 21.90 | 35.66 | -1.2   | 1.2    | 25.31   | 24.76    | 0.540   |        | 770  | 5.98  | 34.42 |        |        | 30.62   | 27.10    | 1.647   |        |
| 135  | 21.73 | 35.68 | -4.8   | 1.2    | 25.40   | 24.82    | 0.556   |        | 780  | 5.82  | 34.43 |        |        | 30.69   | 27.13    | 1.657   |        |
| 140  | 21.41 | 35.70 | -10.8  | 3.6    | 25.53   | 24.93    | 0.572   |        | 790  | 5.74  | 34.42 |        |        | 30.74   | 27.13    | 1.668   |        |
| 145  | 21.14 | 35.72 | -7.2   | 2.4    | 25.64   | 25.01    | 0.587   |        | 800  | 5.68  | 34.42 |        |        | 30.80   | 27.14    | 1.678   |        |
| 150  | 20.93 | 35.72 | -10.8  | 2.4    | 25.71   | 25.07    | 0.601   |        | 810  | 5.59  | 34.42 |        |        | 30.86   | 27.15    | 1.688   |        |
| 155  | 20.76 | 35.72 | -6.0   | 1.2    | 25.78   | 25.12    | 0.616   |        | 820  | 5.49  | 34.42 |        |        | 30.92   | 27.17    | 1.698   |        |
| 160  | 20.61 | 35.71 | -4.8   | 1.2    | 25.84   | 25.15    | 0.631   |        | 830  | 5.40  | 34.42 |        |        | 30.97   | 27.18    | 1.708   |        |
| 165  | 20.57 | 35.70 | -3.6   | 0.0    | 25.86   | 25.15    | 0.645   |        | 840  | 5.33  | 34.42 |        |        | 31.03   | 27.18    | 1.718   |        |
| 170  | 20.41 | 35.70 | -1.2   | -1.2   | 25.93   | 25.19    | 0.659   |        | 850  | 5.25  | 34.42 |        |        | 31.09   | 27.20    | 1.727   |        |
| 175  | 20.24 | 35.70 | -1.2   | -1.2   | 26.00   | 25.24    | 0.673   |        | 860  | 5.20  | 34.42 |        |        | 31.14   | 27.20    | 1.737   |        |
| 180  | 20.02 | 35.70 | -1.2   | -1.2   | 26.08   | 25.30    | 0.687   |        | 870  | 5.13  | 34.42 |        |        | 31.20   | 27.21    | 1.747   |        |
| 185  | 19.89 | 35.70 | -3.6   | 0.0    | 26.13   | 25.33    | 0.701   |        | 880  | 5.07  | 34.42 |        |        | 31.25   | 27.22    | 1.756   |        |
| 190  | 19.73 | 35.70 | -7.2   | 0.0    | 26.19   | 25.37    | 0.714   |        | 890  | 5.04  | 34.42 |        |        | 31.30   | 27.22    | 1.766   |        |
| 195  | 19.56 | 35.70 | -4.8   | 0.0    | 26.26   | 25.42    | 0.727   |        | 900  | 4.98  | 34.43 |        |        | 31.36   | 27.23    | 1.775   |        |
| 200  | 19.44 | 35.69 | -8.4   | 0.0    | 26.31   | 25.44    | 0.740   |        | 910  | 4.90  | 34.44 |        |        | 31.42   | 27.25    | 1.784   |        |
| 205  | 19.36 | 35.68 | -9.6   | -1.2   | 26.35   | 25.46    | 0.753   |        | 920  | 4.81  | 34.43 |        |        | 31.47   | 27.26    | 1.793   |        |
| 210  | 19.26 | 35.68 | -9.6   | -1.2   | 26.39   | 25.48    | 0.766   |        | 930  | 4.79  | 34.43 |        |        | 31.52   | 27.25    | 1.803   |        |
| 215  | 19.13 | 35.67 | -8.4   | -1.2   | 26.44   | 25.51    | 0.779   |        | 940  | 4.76  | 34.43 |        |        | 31.57   | 27.26    | 1.812   |        |
| 220  | 18.94 | 35.67 | -3.6   | -1.2   | 26.51   | 25.56    | 0.792   |        | 950  | 4.65  | 34.45 |        |        | 31.65   | 27.29    | 1.821   |        |
| 225  | 18.82 | 35.66 | 0.0    | 0.0    | 26.55   | 25.58    | 0.804   |        | 960  | 4.60  | 34.44 |        |        | 31.69   | 27.29    | 1.829   |        |
| 230  | 18.63 | 35.65 | -1.2   | 0.0    | 26.62   | 25.63    | 0.816   |        | 970  | 4.58  | 34.44 |        |        | 31.74   | 27.29    | 1.838   |        |
| 235  | 18.44 | 35.65 | 0.0    | 0.0    | 26.69   | 25.67    | 0.828   |        | 980  | 4.46  | 34.45 |        |        | 31.81   | 27.31    | 1.847   |        |
| 240  | 18.32 | 35.64 | 0.0    | 0.0    | 26.73   | 25.69    | 0.840   |        | 990  | 4.44  | 34.44 |        |        | 31.85   | 27.31    | 1.855   |        |
| 245  | 18.14 | 35.63 | 0.0    | 0.0    | 26.79   | 25.73    | 0.852   |        | 1000 | 4.41  | 34.45 |        |        | 31.90   | 27.31    | 1.864   |        |
| 250  | 17.94 | 35.60 | 0.0    | 0.0    | 26.84   | 25.76    | 0.864   |        | 1020 | 4.31  | 34.46 |        |        | 32.02   | 27.33    | 1.881   |        |
| 255  | 17.84 | 35.57 | 0.0    | 0.0    | 26.86   | 25.76    | 0.876   |        | 1040 | 4.23  | 34.47 |        |        | 32.12   | 27.34    | 1.898   |        |
| 260  | 17.62 | 35.58 | 0.0    | 0.0    | 26.95   | 25.82    | 0.887   |        | 1060 | 4.14  | 34.47 |        |        | 32.23   | 27.36    | 1.914   |        |
| 265  | 17.42 | 35.54 | 0.0    | 0.0    | 27.00   | 25.84    | 0.898   |        | 1080 | 4.06  | 34.48 |        |        | 32.34   | 27.37    | 1.930   |        |
| 270  | 17.31 | 35.55 | 0.0    | 0.0    | 27.05   | 25.88    | 0.909   |        | 1100 | 3.99  | 34.48 |        |        | 32.44   | 27.38    | 1.946   |        |
| 275  | 17.16 | 35.55 | 0.0    | 0.0    | 27.10   | 25.91    | 0.920   |        | 1120 | 3.94  | 34.48 |        |        | 32.54   | 27.39    | 1.962   |        |
| 280  | 17.00 | 35.53 | 0.0    | 0.0    | 27.15   | 25.93    | 0.931   |        | 1140 | 3.86  | 34.49 |        |        | 32.65   | 27.40    | 1.977   |        |
| 285  | 16.72 | 35.49 | 0.0    | 0.0    | 27.21   | 25.97    | 0.942   |        | 1160 | 3.79  | 34.50 |        |        | 32.76   | 27.42    | 1.992   |        |
| 290  | 16.68 | 35.47 | 0.0    | 0.0    | 27.23   | 25.96    | 0.953   |        | 1180 | 3.72  | 34.51 |        |        | 32.86   | 27.43    | 2.007   |        |
| 295  | 16.60 | 35.47 | 0.0    | 0.0    | 27.27   | 25.98    | 0.963   |        | 1200 | 3.69  | 34.50 |        |        | 32.95   | 27.43    | 2.022   |        |
| 300  | 16.44 | 35.45 | 0.0    | 0.0    | 27.32   | 26.01    | 0.974   |        | 1220 | 3.57  | 34.52 |        |        | 33.07   | 27.46    | 2.037   |        |
| 305  | 16.33 | 35.44 | 0.0    | 0.0    | 27.35   | 26.02    | 0.984   |        | 1240 | 3.46  | 34.53 |        |        | 33.19   | 27.48    | 2.051   |        |
| 310  | 16.16 | 35.44 | 0.0    | 0.0    | 27.41   | 26.06    | 0.994   |        | 1260 | 3.35  | 34.54 |        |        | 33.30   | 27.50    | 2.065   |        |
| 315  | 15.91 | 35.42 | 0.0    | 0.0    | 27.49   | 26.11    | 1.005   |        | 1280 | 3.31  | 34.54 |        |        | 33.40   | 27.50    | 2.079   |        |
| 320  | 15.83 | 35.41 | 0.0    | 0.0    | 27.52   | 26.12    | 1.015   |        | 1300 | 3.28  | 34.54 |        |        | 33.49   | 27.50    | 2.092   |        |
| 325  | 15.65 | 35.42 | 0.0    | 0.0    | 27.58   | 26.16    | 1.025   |        | 1320 | 3.19  | 34.56 |        |        | 33.60   | 27.52    | 2.105   |        |
| 330  | 15.49 | 35.39 | 0.0    | 0.0    | 27.62   | 26.18    | 1.034   |        | 1340 | 3.13  | 34.56 |        |        | 33.70   | 27.53    | 2.118   |        |
| 335  | 15.37 | 35.38 | 0.0    | 0.0    | 27.66   | 26.20    | 1.044   |        | 1360 | 3.11  | 34.56 |        |        | 33.80   | 27.53    | 2.131   |        |
| 340  | 15.18 | 35.37 | 0.0    | 0.0    | 27.72   | 26.23    | 1.053   |        | 1380 | 3.08  | 34.56 |        |        | 33.90   | 27.54    | 2.144   |        |
| 345  | 15.13 | 35.35 | 0.0    | 0.0    | 27.73   | 26.22    | 1.063   |        | 1400 | 3.05  | 34.56 |        |        | 33.99   | 27.54    | 2.157   |        |
| 350  | 14.95 | 35.33 | 0.0    | 0.0    | 27.78   | 26.25    | 1.072   |        | 1420 | 3.03  | 34.57 |        |        | 34.09   | 27.55    | 2.170   |        |
| 355  | 14.92 | 35.31 | -1.2   | 0.0    | 27.80   | 26.24    | 1.082   |        | 1440 | 2.99  | 34.57 |        |        | 34.19   | 27.55    | 2.182   |        |
| 360  | 14.79 | 35.30 | -1.2   | 0.0    | 27.85   | 26.27    | 1.091   |        | 1460 | 2.97  | 34.57 |        |        | 34.28   | 27.56    | 2.195   |        |
| 365  | 14.71 | 35.29 | -1.2   | -1.2   | 27.87   | 26.27    | 1.100   |        | 1480 | 2.95  | 34.57 |        |        | 34.38   | 27.56    | 2.207   |        |
| 370  | 14.60 | 35.28 | -2.4   | -1.2   | 27.91   | 26.29    | 1.110   |        | 1500 | 2.91  | 34.58 |        |        | 34.48   | 27.57    | 2.220   |        |
| 375  | 14.55 | 35.26 | -2.4   | -1.2   | 27.93   | 26.28    | 1.119   |        | 1520 | 2.87  | 34.58 |        |        | 34.57   | 27.57    | 2.232   |        |
| 380  | 14.47 | 35.27 | -2.4   | -1.2   | 27.98   | 26.31    | 1.128   |        | 1540 | 2.85  | 34.58 |        |        | 34.67   | 27.58    | 2.244   |        |
| 385  | 14.35 | 35.25 | -2.4   | -1.2   | 28.01   | 26.32    | 1.137   |        | 1560 | 2.83  | 34.59 |        |        | 34.76   | 27.58    | 2.256   |        |
| 390  | 14.22 |       |        |        |         |          |         |        |      |       |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 1  
DATE : 6/1/89 HEURE : 0h00 LONGITUDE : 165.00 LATITUDE : -20.00



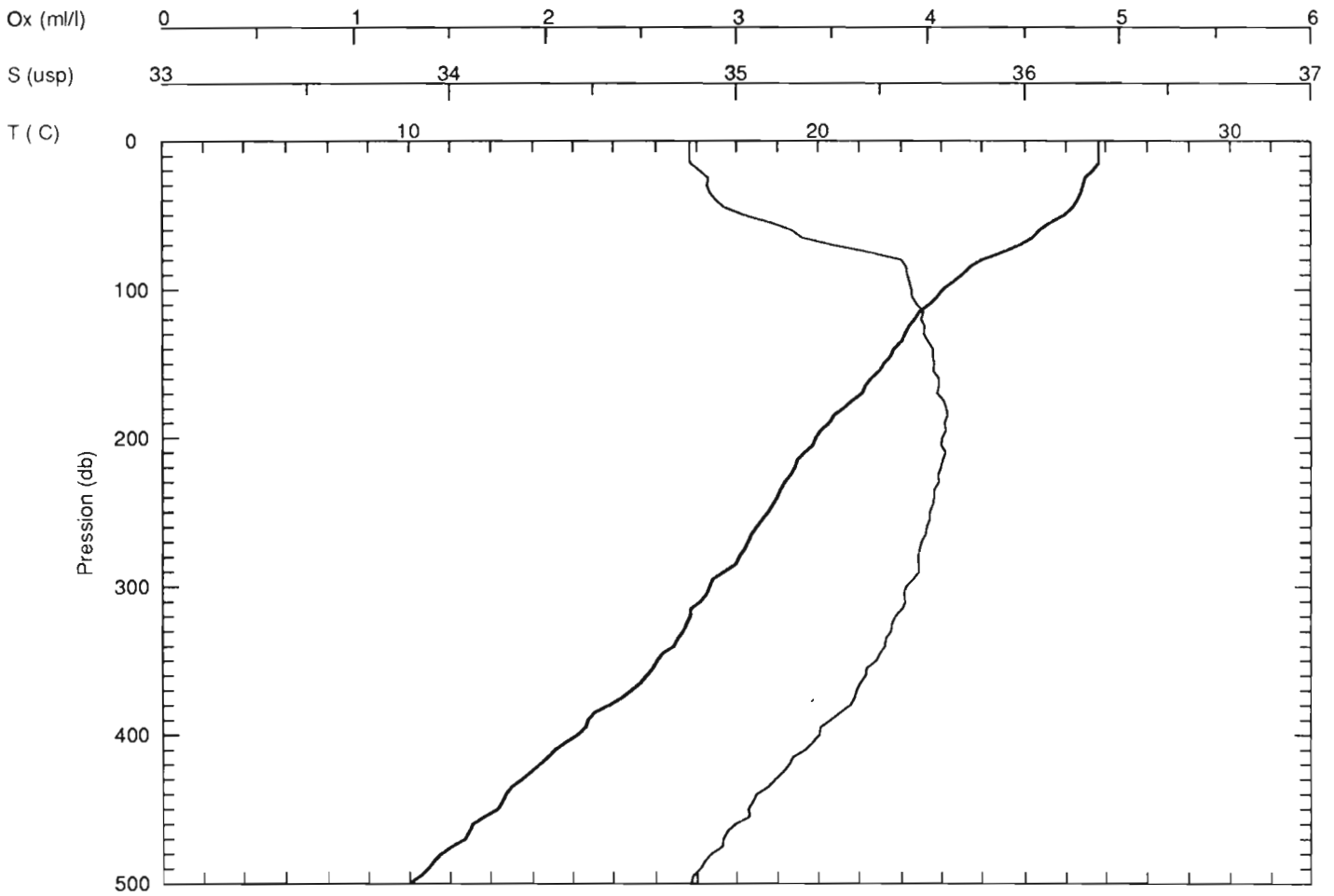
Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -



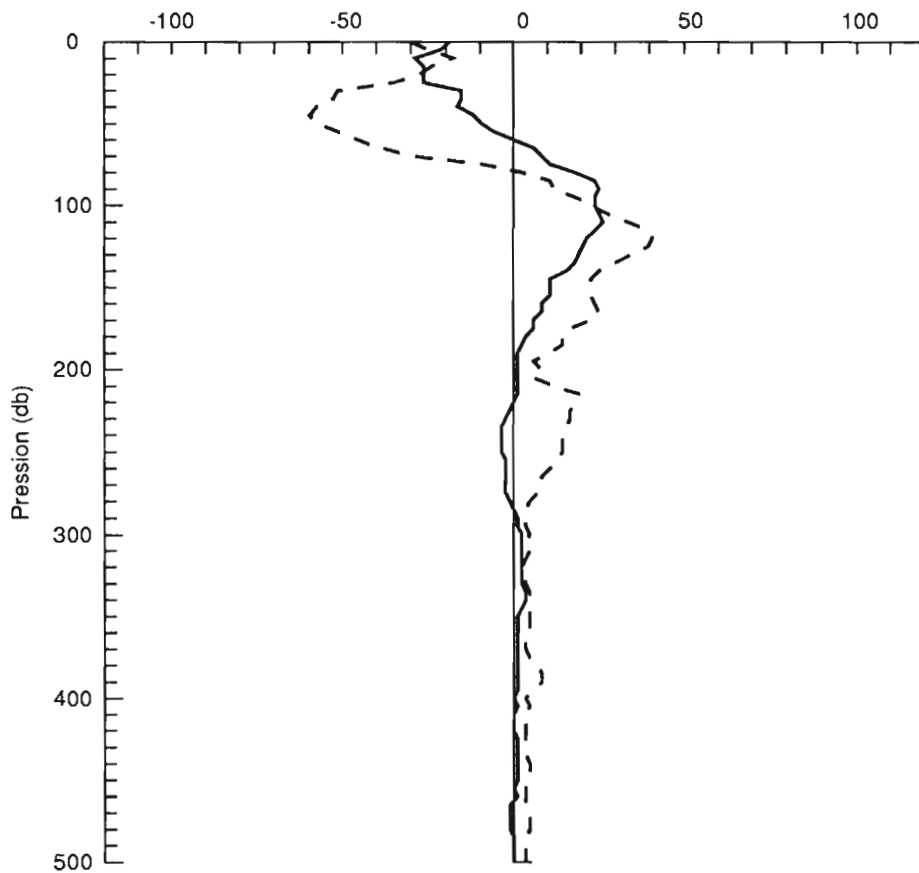
STATION : 2      CAMPAGNE : aurtropacl1  
 DATE : 6/ 1/89    HEURE : 12h00    LONGITUDE : 165.00    LATITUDE : -19.00

| P    | T     | S      | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S      | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|--------|--------|--------|---------|----------|---------|--------|------|------|--------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (uexp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (uexp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 26.82 | 34.83  | -19.2  | -30.0  | 22.65   | 22.65    | 0.000   |        | 510  | 9.84 | 34.78  | 0.0    | 3.6    | 29.10   | 26.81    | 1.382   |        |
| 5    | 26.82 | 34.83  | -21.6  | -25.2  | 22.67   | 22.65    | 0.026   |        | 520  | 9.37 | 34.74  | 0.0    | 3.6    | 29.21   | 26.87    | 1.395   |        |
| 10   | 26.82 | 34.83  | -28.8  | -18.0  | 22.69   | 22.65    | 0.052   |        | 530  | 9.16 | 34.69  | -1.2   | 3.6    | 29.25   | 26.86    | 1.407   |        |
| 15   | 26.83 | 34.83  | -26.4  | -24.0  | 22.71   | 22.65    | 0.078   |        | 540  | 9.08 | 34.67  | -1.2   | 3.6    | 29.29   | 26.86    | 1.420   |        |
| 20   | 26.68 | 34.87  | -26.4  | -27.6  | 22.81   | 22.72    | 0.104   |        | 550  | 8.72 | 34.66  | -1.2   | 2.4    | 29.39   | 26.91    | 1.433   |        |
| 25   | 26.48 | 34.90  | -26.4  | -34.8  | 22.92   | 22.81    | 0.129   |        | 560  | 8.44 | 34.63  | -1.2   | 2.4    | 29.46   | 26.93    | 1.446   |        |
| 30   | 26.42 | 34.89  | -15.6  | -51.6  | 22.95   | 22.83    | 0.154   |        | 570  | 8.13 | 34.60  | -1.2   | 1.2    | 29.53   | 26.95    | 1.458   |        |
| 35   | 26.37 | 34.90  | -15.6  | -52.8  | 23.00   | 22.85    | 0.179   |        | 580  | 7.92 | 34.57  | 0.0    | 0.0    | 29.58   | 26.96    | 1.470   |        |
| 40   | 26.28 | 34.93  | -16.8  | -57.6  | 23.06   | 22.89    | 0.204   |        | 590  | 7.68 | 34.55  | 1.2    | -1.2   | 29.65   | 26.98    | 1.482   |        |
| 45   | 26.17 | 34.96  | -12.0  | -60.0  | 23.14   | 22.95    | 0.229   |        | 600  | 7.48 | 34.53  |        |        | 29.71   | 26.98    | 1.493   |        |
| 50   | 25.96 | 35.02  | -9.6   | -57.6  | 23.28   | 23.07    | 0.254   |        | 610  | 7.39 | 34.51  |        |        | 29.75   | 26.99    | 1.505   |        |
| 55   | 25.61 | 35.12  | -6.0   | -51.6  | 23.48   | 23.25    | 0.277   |        | 620  | 7.22 | 34.50  |        |        | 29.82   | 27.00    | 1.516   |        |
| 60   | 25.35 | 35.19  | 0.0    | -45.6  | 23.64   | 23.39    | 0.300   |        | 630  | 7.08 | 34.48  |        |        | 29.87   | 27.01    | 1.528   |        |
| 65   | 25.19 | 35.23  | 6.0    | -38.4  | 23.74   | 23.46    | 0.322   |        | 640  | 6.84 | 34.48  |        |        | 29.95   | 27.04    | 1.539   |        |
| 70   | 24.88 | 35.34  | 8.4    | -30.0  | 23.93   | 23.64    | 0.344   |        | 650  | 6.73 | 34.46  |        |        | 30.00   | 27.04    | 1.551   |        |
| 75   | 24.47 | 35.46  | 10.8   | -9.6   | 24.18   | 23.86    | 0.365   |        | 660  | 6.51 | 34.46  |        |        | 30.07   | 27.07    | 1.561   |        |
| 80   | 23.99 | 35.57  | 18.0   | 2.4    | 24.42   | 24.08    | 0.385   |        | 670  | 6.37 | 34.44  |        |        | 30.13   | 27.07    | 1.572   |        |
| 85   | 23.71 | 35.59  | 24.0   | 10.8   | 24.54   | 24.18    | 0.404   |        | 680  | 6.23 | 34.44  |        |        | 30.19   | 27.09    | 1.583   |        |
| 90   | 23.52 | 35.59  | 25.2   | 12.0   | 24.62   | 24.24    | 0.423   |        | 690  | 6.14 | 34.43  |        |        | 30.24   | 27.09    | 1.594   |        |
| 95   | 23.29 | 35.60  | 24.0   | 18.0   | 24.72   | 24.31    | 0.441   |        | 700  | 6.11 | 34.42  |        |        | 30.29   | 27.09    | 1.604   |        |
| 100  | 23.04 | 35.61  | 24.0   | 22.8   | 24.82   | 24.39    | 0.459   |        | 710  | 6.04 | 34.43  |        |        | 30.34   | 27.10    | 1.615   |        |
| 105  | 22.89 | 35.61  | 25.2   | 27.6   | 24.89   | 24.44    | 0.477   |        | 720  | 5.96 | 34.43  |        |        | 30.40   | 27.11    | 1.625   |        |
| 110  | 22.71 | 35.63  | 26.4   | 33.6   | 24.97   | 24.50    | 0.494   |        | 730  | 5.88 | 34.44  |        |        | 30.47   | 27.13    | 1.636   |        |
| 115  | 22.45 | 35.65  | 24.0   | 39.6   | 25.08   | 24.59    | 0.511   |        | 740  | 5.71 | 34.43  |        |        | 30.53   | 27.15    | 1.646   |        |
| 120  | 22.33 | 35.64  | 21.6   | 40.8   | 25.13   | 24.62    | 0.528   |        | 750  | 5.64 | 34.42  |        |        | 30.58   | 27.15    | 1.656   |        |
| 125  | 22.19 | 35.65  | 20.4   | 39.6   | 25.20   | 24.67    | 0.545   |        | 760  | 5.53 | 34.43  |        |        | 30.65   | 27.17    | 1.666   |        |
| 130  | 22.09 | 35.65  | 19.2   | 34.8   | 25.25   | 24.70    | 0.562   |        | 770  | 5.49 | 34.42  |        |        | 30.69   | 27.16    | 1.676   |        |
| 135  | 22.01 | 35.67  | 18.0   | 30.0   | 25.31   | 24.73    | 0.578   |        | 780  | 5.40 | 34.42  |        |        | 30.75   | 27.18    | 1.686   |        |
| 140  | 21.81 | 35.68  | 15.6   | 25.2   | 25.40   | 24.80    | 0.594   |        | 790  | 5.32 | 34.43  |        |        | 30.81   | 27.19    | 1.695   |        |
| 145  | 21.75 | 35.68  | 10.8   | 22.8   | 25.44   | 24.82    | 0.610   |        | 800  | 5.19 | 34.44  |        |        | 30.88   | 27.22    | 1.705   |        |
| 150  | 21.58 | 35.69  | 10.8   | 22.8   | 25.51   | 24.87    | 0.626   |        | 810  | 5.04 | 34.44  |        |        | 30.95   | 27.23    | 1.714   |        |
| 155  | 21.48 | 35.69  | 10.8   | 22.8   | 25.56   | 24.89    | 0.641   |        | 820  | 4.96 | 34.44  |        |        | 31.01   | 27.24    | 1.723   |        |
| 160  | 21.28 | 35.70  | 8.4    | 24.0   | 25.65   | 24.96    | 0.657   |        | 830  | 4.91 | 34.43  |        |        | 31.05   | 27.24    | 1.732   |        |
| 165  | 21.14 | 35.71  | 8.4    | 25.2   | 25.71   | 25.00    | 0.672   |        | 840  | 4.89 | 34.43  |        |        | 31.10   | 27.25    | 1.742   |        |
| 170  | 21.07 | 35.70  | 6.0    | 22.8   | 25.75   | 25.02    | 0.687   |        | 850  | 4.75 | 34.45  |        |        | 31.18   | 27.27    | 1.750   |        |
| 175  | 20.83 | 35.72  | 6.0    | 16.8   | 25.85   | 25.10    | 0.702   |        | 860  | 4.67 | 34.45  |        |        | 31.23   | 27.29    | 1.759   |        |
| 180  | 20.63 | 35.73  | 3.6    | 14.4   | 25.94   | 25.16    | 0.716   |        | 870  | 4.63 | 34.45  |        |        | 31.28   | 27.29    | 1.768   |        |
| 185  | 20.38 | 35.74  | 2.4    | 14.4   | 26.03   | 25.23    | 0.730   |        | 880  | 4.61 | 34.44  |        |        | 31.33   | 27.29    | 1.777   |        |
| 190  | 20.27 | 35.72  | 1.2    | 10.8   | 26.07   | 25.25    | 0.744   |        | 890  | 4.53 | 34.45  |        |        | 31.39   | 27.30    | 1.785   |        |
| 195  | 20.06 | 35.73  | 1.2    | 6.0    | 26.15   | 25.31    | 0.758   |        | 900  | 4.48 | 34.45  |        |        | 31.44   | 27.30    | 1.794   |        |
| 200  | 19.94 | 35.72  | 1.2    | 8.4    | 26.20   | 25.33    | 0.772   |        | 910  | 4.44 | 34.45  |        |        | 31.49   | 27.31    | 1.803   |        |
| 205  | 19.86 | 35.71  | 1.2    | 6.0    | 26.23   | 25.35    | 0.785   |        | 920  | 4.41 | 34.45  |        |        | 31.54   | 27.31    | 1.811   |        |
| 210  | 19.66 | 35.73  | 1.2    | 12.0   | 26.32   | 25.42    | 0.799   |        | 930  | 4.35 | 34.46  |        |        | 31.60   | 27.33    | 1.819   |        |
| 215  | 19.49 | 35.72  | 1.2    | 19.2   | 26.38   | 25.46    | 0.812   |        | 940  | 4.31 | 34.46  |        |        | 31.65   | 27.33    | 1.828   |        |
| 220  | 19.42 | 35.71  | 0.0    | 19.2   | 26.42   | 25.47    | 0.825   |        | 950  | 4.28 | 34.46  |        |        | 31.70   | 27.33    | 1.836   |        |
| 225  | 19.33 | 35.70  | -1.2   | 16.8   | 26.46   | 25.49    | 0.838   |        | 960  | 4.26 | 34.46  |        |        | 31.75   | 27.34    | 1.844   |        |
| 230  | 19.18 | 35.70  | -2.4   | 16.8   | 26.52   | 25.53    | 0.850   |        | 970  | 4.25 | 34.46  |        |        | 31.80   | 27.33    | 1.853   |        |
| 235  | 19.07 | 35.69  | -3.6   | 15.6   | 26.56   | 25.54    | 0.863   |        | 980  | 4.21 | 34.47  |        |        | 31.85   | 27.35    | 1.861   |        |
| 240  | 18.99 | 35.69  | -3.6   | 14.4   | 26.60   | 25.56    | 0.876   |        | 990  | 4.15 | 34.47  |        |        | 31.91   | 27.36    | 1.869   |        |
| 245  | 18.88 | 35.68  | -3.6   | 14.4   | 26.64   | 25.58    | 0.888   |        | 1000 | 4.09 | 34.48  |        |        | 31.97   | 27.37    | 1.877   |        |
| 250  | 18.77 | 35.67  | -3.6   | 14.4   | 26.68   | 25.60    | 0.900   |        | 1020 | 4.03 | 34.48  |        |        | 32.07   | 27.38    | 1.893   |        |
| 255  | 18.63 | 35.67  | -2.4   | 13.2   | 26.74   | 25.64    | 0.913   |        | 1040 | 3.94 | 34.49  |        |        | 32.18   | 27.39    | 1.909   |        |
| 260  | 18.49 | 35.66  | -2.4   | 10.8   | 26.79   | 25.67    | 0.925   |        | 1060 | 3.88 | 34.49  |        |        | 32.28   | 27.40    | 1.924   |        |
| 265  | 18.36 | 35.66  | -2.4   | 8.4    | 26.84   | 25.70    | 0.937   |        | 1080 | 3.83 | 34.49  |        |        | 32.38   | 27.41    | 1.939   |        |
| 270  | 18.27 | 35.64  | -2.4   | 7.2    | 26.88   | 25.71    | 0.949   |        | 1100 | 3.71 | 34.51  |        |        | 32.50   | 27.43    | 1.954   |        |
| 275  | 18.19 | 35.63  | -2.4   | 7.2    | 26.91   | 25.72    | 0.961   |        | 1120 | 3.60 | 34.52  |        |        | 32.62   | 27.46    | 1.969   |        |
| 280  | 18.06 | 35.63  | -1.2   | 4.8    | 26.97   | 25.75    | 0.972   |        | 1140 | 3.52 | 34.53  |        |        | 32.72   | 27.47    | 1.983   |        |
| 285  | 17.97 | 35.63  | 0.0    | 3.6    | 27.01   | 25.78    | 0.984   |        | 1160 | 3.46 | 34.53  |        |        | 32.82   | 27.47    | 1.997   |        |
| 290  | 17.69 | 35.63  | 1.2    | 3.6    | 27.11   | 25.85    | 0.995   |        | 1180 | 3.41 | 34.53  |        |        | 32.92   | 27.48    | 2.011   |        |
| 295  | 17.39 | 35.61  | 1.2    | 3.6    | 27.18   | 25.90    | 1.007   |        | 1200 | 3.34 | 34.54  |        |        | 33.03   | 27.50    | 2.024   |        |
| 300  | 17.31 | 35.59  | 2.4    | 4.8    | 27.21   | 25.90    | 1.018   |        | 1220 | 3.30 | 34.54  |        |        | 33.12   | 27.50    | 2.038   |        |
| 305  | 17.24 | 35.58  | 2.4    | 3.6    | 27.24   | 25.92    | 1.028   |        | 1240 | 3.28 | 34.54  |        |        | 33.22   | 27.50    | 2.051   |        |
| 310  | 17.08 | 35.58  | 2.4    | 4.8    | 27.31   | 25.96    | 1.039   |        | 1260 | 3.25 | 34.54  |        |        | 33.31   | 27.51    | 2.065   |        |
| 315  | 16.85 | 35.58  | 2.4    | 3.6    | 27.38   | 26.01    | 1.050   |        | 1280 | 3.23 | 34.55  |        |        | 33.41   | 27.51    | 2.078   |        |
| 320  | 16.83 | 35.55  | 2.4    | 2.4    | 27.38   | 25.99    | 1.060   |        | 1300 | 3.19 | 34.55  |        |        | 33.51   | 27.52    | 2.091   |        |
| 325  | 16.75 | 35.54  | 2.4    | 3.6    | 27.42   | 26.00    | 1.071   |        | 1320 | 3.17 | 34.55  |        |        | 33.60   | 27.52    | 2.104   |        |
| 330  | 16.66 | 35.54  | 2.4    | 3.6    | 27.46   | 26.02    | 1.082   |        | 1340 | 3.17 | 34.55  |        |        | 33.69   | 27.52    | 2.117   |        |
| 335  | 16.53 | 35.52  | 3.6    | 4.8    | 27.50   | 26.04    | 1.092   |        | 1360 | 3.12 | 34.56  |        |        | 33.80   | 27.53    | 2.130   |        |
| 340  | 16.43 | 35.52  | 3.6    | 4.8    | 27.54   | 26.06    | 1.102   |        | 1380 | 3.08 | 34.56  |        |        | 33.90   | 27.54    | 2.143   |        |
| 345  | 16.16 | 35.50  | 2.4    | 4.8    | 27.61   | 26.11    | 1.112   |        | 1400 | 3.05 | 34.57  |        |        | 34.00   | 27.55    | 2.156   |        |
| 350  | 16.03 | 35.49  | 1.2    | 4.8    | 27.66   | 26.13    | 1.122   |        | 1420 | 3.01 | 34.57  |        |        | 34.10   | 27.55    | 2.169   |        |
| 355  | 15.93 | 35.45  | 1.2    | 4.8    | 27.68   | 26.13    | 1.132   |        | 1440 | 2.95 | 34.58  |        |        | 34.20   | 27.57    | 2.181   |        |
| 360  | 15.79 | 35.45  | 1.2    | 4.8    | 27.73   | 26.16    | 1.142   |        | 1460 | 2.90 | 34.58  |        |        | 34.30   | 27.57    | 2.193   |        |
| 365  | 15.63 | 35.43  | 1.2    | 3.6    | 27.77   | 26.18    | 1.152   |        | 1480 | 2.85 | 34.59  |        |        | 34.40   | 27.58    | 2.205   |        |
| 370  | 15.42 | 35.42  | 1.2    | 3.6    | 27.83   | 26.21    | 1.162   |        | 1500 | 2.83 | 34.59  |        |        | 34.49   | 27.58    | 2.217   |        |
| 375  | 15.19 | 35.41  | 1.2    | 4.8    | 27.90   | 26.26    | 1.171   |        | 1520 | 2.83 | 34.59  |        |        | 34.58   | 27.58    | 2.229   |        |
| 380  | 14.89 | 35.40  | 1.2    | 7.2    | 27.98   | 26.31    | 1.181   |        | 1540 | 2.80 | 34.59  |        |        | 34.68   | 27.59    | 2.241   |        |
| 385  | 14.52 | 35.36  | 1.2    | 8.4    | 28.06   | 26.37    | 1.189   |        | 1560 | 2.78 | 34.59  |        |        | 34.77   | 27.59    |         |        |

SURTROPAC11 STATION No : 2  
DATE : 6/ 1/89 HEURE : 12h00 LONGITUDE : 165.00 LATITUDE : -19.00



Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -

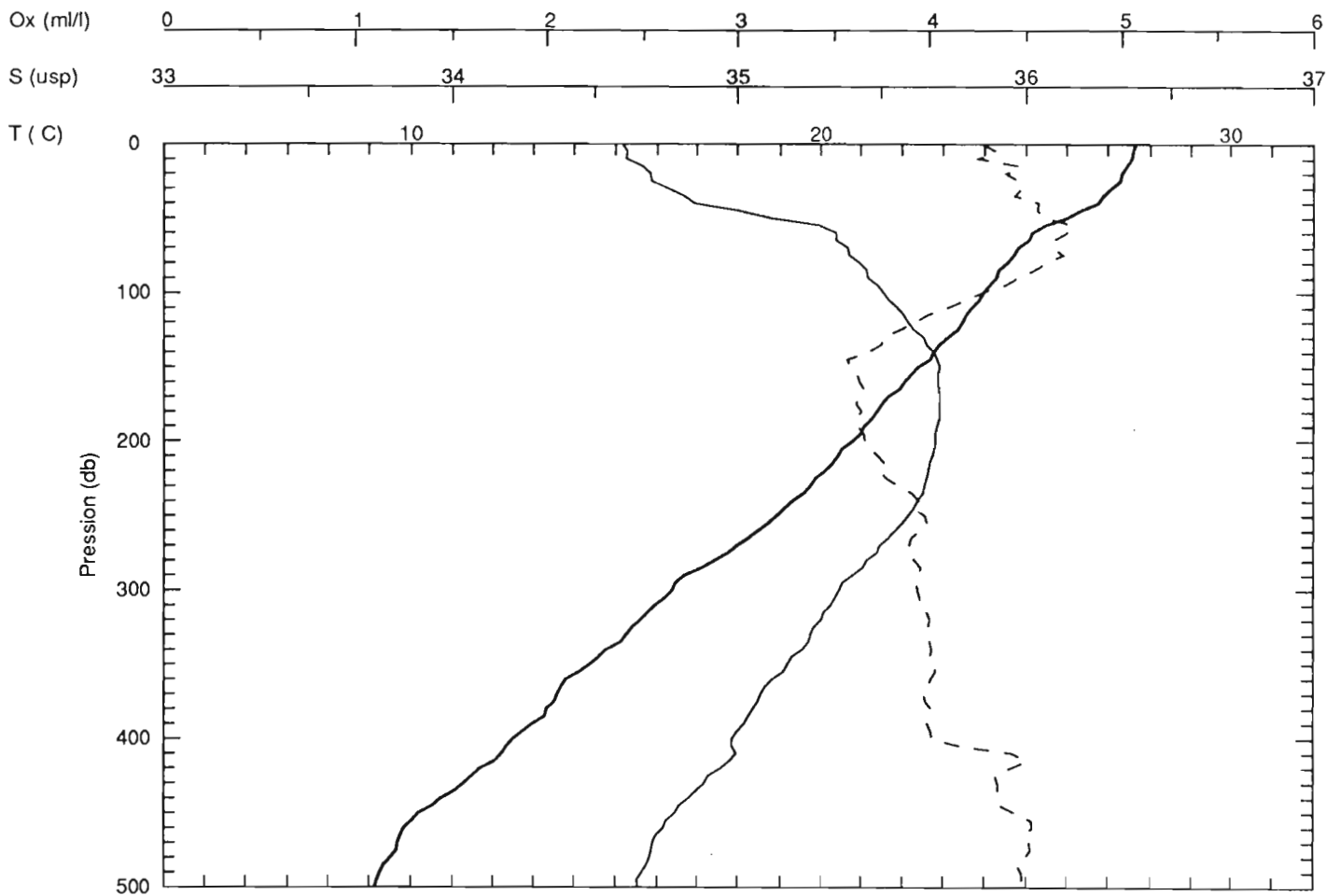


STATION : 3 CAMPAGNE : aurtropac11  
 DATE : 6/ 1/89 HEURE : 22h30 LONGITUDE : 165.00 LATITUDE : -18.00

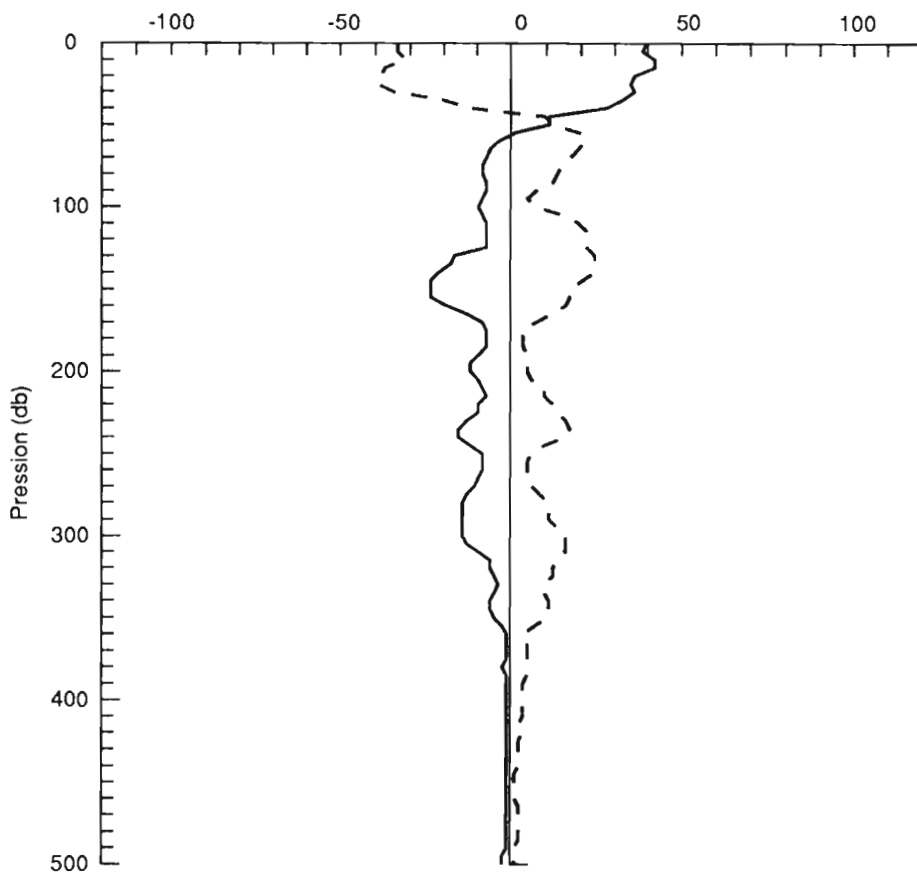
| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Bdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Bdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 27.65 | 34.59 | 39.6   | -33.6  | 22.21   | 22.21    | 0.000   | 4.27   | 510  | 8.89 | 34.63 | -1.2   | 1.2    | 29.16   | 26.86    | 1.417   | 4.51   |
| 5    | 27.60 | 34.61 | 38.4   | -33.6  | 22.26   | 22.23    | 0.028   | 4.34   | 520  | 8.76 | 34.61 | -1.2   | 1.2    | 29.21   | 26.86    | 1.429   | 4.51   |
| 10   | 27.56 | 34.61 | 42.0   | -31.2  | 22.29   | 22.25    | 0.056   | 4.25   | 530  | 8.55 | 34.60 | -1.2   | 0.0    | 29.27   | 26.88    | 1.442   | 4.50   |
| 15   | 27.45 | 34.66 | 42.0   | -37.2  | 22.39   | 22.32    | 0.084   | 4.47   | 540  | 8.36 | 34.59 | -1.2   | 0.0    | 29.34   | 26.90    | 1.455   | 4.55   |
| 20   | 27.33 | 34.69 | 36.0   | -38.4  | 22.47   | 22.38    | 0.111   | 4.40   | 550  | 8.15 | 34.56 | -1.2   | 0.0    | 29.41   | 26.92    | 1.467   | 4.57   |
| 25   | 27.29 | 34.69 | 34.8   | -39.6  | 22.50   | 22.40    | 0.138   | 4.46   | 560  | 8.07 | 34.55 | -1.2   | 0.0    | 29.45   | 26.92    | 1.480   | 4.58   |
| 30   | 27.08 | 34.75 | 36.0   | -34.8  | 22.64   | 22.51    | 0.165   | 4.48   | 570  | 7.86 | 34.54 | -1.2   | -1.2   | 29.52   | 26.94    | 1.492   | 4.68   |
| 35   | 26.89 | 34.81 | 32.4   | -20.4  | 22.76   | 22.61    | 0.192   | 4.44   | 580  | 7.57 | 34.52 | 0.0    | -1.2   | 29.60   | 26.97    | 1.504   | 4.90   |
| 40   | 26.77 | 34.85 | 27.6   | -12.0  | 22.85   | 22.68    | 0.218   | 4.57   | 590  | 7.34 | 34.50 | 0.0    | 0.0    | 29.66   | 26.99    | 1.515   | 4.97   |
| 45   | 26.34 | 35.00 | 10.8   | 9.6    | 23.12   | 22.93    | 0.243   | 4.56   | 600  | 7.18 | 34.49 | 1.2    | 2.4    | 29.72   | 27.00    | 1.527   | 4.98   |
| 50   | 26.00 | 35.11 | 10.8   | 12.0   | 23.33   | 23.12    | 0.267   | 4.61   | 610  | 6.96 | 34.48 |        |        | 29.80   | 27.02    | 1.538   | 4.97   |
| 55   | 25.47 | 35.28 | 1.2    | 19.2   | 23.65   | 23.41    | 0.290   | 4.75   | 620  | 6.79 | 34.46 |        |        | 29.86   | 27.03    | 1.549   | 5.01   |
| 60   | 25.15 | 35.34 | -3.6   | 21.6   | 23.81   | 23.56    | -0.313  | 4.72   | 630  | 6.71 | 34.45 |        |        | 29.90   | 27.04    | 1.561   | 4.96   |
| 65   | 25.07 | 35.34 | -6.0   | 19.2   | 23.86   | 23.58    | 0.334   | 4.65   | 640  | 6.59 | 34.45 |        |        | 29.97   | 27.05    | 1.572   | 4.88   |
| 70   | 24.80 | 35.38 | -7.2   | 16.8   | 23.99   | 23.70    | 0.356   | 4.64   | 650  | 6.45 | 34.45 |        |        | 30.03   | 27.07    | 1.583   | 4.85   |
| 75   | 24.70 | 35.39 | -8.4   | 14.4   | 24.05   | 23.73    | 0.377   | 4.70   | 660  | 6.22 | 34.44 |        |        | 30.10   | 27.09    | 1.593   | 4.83   |
| 80   | 24.54 | 35.42 | -8.4   | 13.2   | 24.15   | 23.81    | 0.398   | 4.61   | 670  | 6.09 | 34.43 |        |        | 30.16   | 27.10    | 1.604   | 4.86   |
| 85   | 24.34 | 35.45 | -7.2   | 12.0   | 24.25   | 23.89    | 0.418   | 4.54   | 680  | 5.97 | 34.43 |        |        | 30.22   | 27.11    | 1.614   | 4.84   |
| 90   | 24.28 | 35.45 | -7.2   | 7.2    | 24.29   | 23.91    | 0.438   | 4.45   | 690  | 5.88 | 34.42 |        |        | 30.27   | 27.12    | 1.625   | 4.81   |
| 95   | 24.12 | 35.49 | -8.4   | 4.8    | 24.39   | 23.98    | 0.458   | 4.40   | 700  | 5.77 | 34.43 |        |        | 30.34   | 27.14    | 1.635   | 4.79   |
| 100  | 23.97 | 35.51 | -9.6   | 7.2    | 24.47   | 24.04    | 0.478   | 4.27   | 710  | 5.65 | 34.42 |        |        | 30.40   | 27.15    | 1.645   | 4.76   |
| 105  | 23.87 | 35.53 | -8.4   | 14.4   | 24.54   | 24.09    | 0.497   | 4.19   | 720  | 5.54 | 34.43 |        |        | 30.46   | 27.16    | 1.655   | 4.71   |
| 110  | 23.70 | 35.56 | -7.2   | 19.2   | 24.63   | 24.16    | 0.516   | 4.10   | 730  | 5.39 | 34.43 |        |        | 30.53   | 27.18    | 1.665   | 4.69   |
| 115  | 23.55 | 35.58 | -7.2   | 21.6   | 24.71   | 24.22    | 0.535   | 3.99   | 740  | 5.34 | 34.42 |        |        | 30.58   | 27.19    | 1.674   | 4.67   |
| 120  | 23.47 | 35.59 | -7.2   | 21.6   | 24.77   | 24.26    | 0.554   | 3.92   | 750  | 5.21 | 34.43 |        |        | 30.64   | 27.21    | 1.684   | 4.63   |
| 125  | 23.35 | 35.61 | -7.2   | 21.6   | 24.84   | 24.31    | 0.572   | 3.85   | 760  | 5.16 | 34.43 |        |        | 30.69   | 27.21    | 1.693   | 4.65   |
| 130  | 23.11 | 35.65 | -16.8  | 24.0   | 24.96   | 24.40    | 0.590   | 3.76   | 770  | 5.12 | 34.42 |        |        | 30.74   | 27.21    | 1.703   | 4.61   |
| 135  | 22.91 | 35.66 | -18.0  | 24.0   | 25.04   | 24.47    | 0.608   | 3.75   | 780  | 5.03 | 34.43 |        |        | 30.81   | 27.23    | 1.712   | 4.57   |
| 140  | 22.77 | 35.69 | -21.6  | 24.0   | 25.13   | 24.53    | 0.625   | 3.68   | 790  | 4.97 | 34.43 |        |        | 30.86   | 27.24    | 1.721   | 4.55   |
| 145  | 22.69 | 35.69 | -24.0  | 20.4   | 25.18   | 24.56    | 0.643   | 3.57   | 800  | 4.87 | 34.44 |        |        | 30.92   | 27.25    | 1.730   | 4.51   |
| 150  | 22.40 | 35.70 | -24.0  | 16.8   | 25.29   | 24.65    | 0.660   | 3.58   | 810  | 4.85 | 34.43 |        |        | 30.97   | 27.25    | 1.739   | 4.50   |
| 155  | 22.23 | 35.70 | -24.0  | 16.8   | 25.35   | 24.69    | 0.676   | 3.62   | 820  | 4.82 | 34.43 |        |        | 31.02   | 27.25    | 1.748   | 4.50   |
| 160  | 22.07 | 35.70 | -19.2  | 15.6   | 25.42   | 24.74    | 0.693   | 3.64   | 830  | 4.77 | 34.44 |        |        | 31.07   | 27.26    | 1.757   | 4.50   |
| 165  | 21.94 | 35.70 | -13.2  | 12.0   | 25.48   | 24.78    | 0.709   | 3.66   | 840  | 4.73 | 34.44 |        |        | 31.12   | 27.27    | 1.766   | 4.47   |
| 170  | 21.67 | 35.70 | -8.4   | 7.2    | 25.58   | 24.86    | 0.725   | 3.63   | 850  | 4.69 | 34.44 |        |        | 31.18   | 27.27    | 1.775   | 4.48   |
| 175  | 21.51 | 35.70 | -7.2   | 3.6    | 25.65   | 24.90    | 0.740   | 3.62   | 860  | 4.65 | 34.44 |        |        | 31.23   | 27.28    | 1.784   | 4.44   |
| 180  | 21.40 | 35.70 | -7.2   | 3.6    | 25.70   | 24.93    | 0.756   | 3.65   | 870  | 4.58 | 34.45 |        |        | 31.29   | 27.29    | 1.793   | 4.44   |
| 185  | 21.27 | 35.70 | -7.2   | 3.6    | 25.76   | 24.96    | 0.771   | 3.62   | 880  | 4.52 | 34.45 |        |        | 31.34   | 27.30    | 1.801   | 4.40   |
| 190  | 21.08 | 35.69 | -9.6   | 4.8    | 25.83   | 25.01    | 0.787   | 3.63   | 890  | 4.48 | 34.45 |        |        | 31.40   | 27.31    | 1.810   | 4.36   |
| 195  | 20.99 | 35.69 | -12.0  | 4.8    | 25.87   | 25.03    | 0.802   | 3.66   | 900  | 4.42 | 34.46 |        |        | 31.45   | 27.32    | 1.819   | 4.38   |
| 200  | 20.80 | 35.69 | -12.0  | 4.8    | 25.94   | 25.08    | 0.817   | 3.66   | 910  | 4.37 | 34.46 |        |        | 31.51   | 27.33    | 1.827   | 4.33   |
| 205  | 20.53 | 35.68 | -9.6   | 6.0    | 26.03   | 25.15    | 0.831   | 3.69   | 920  | 4.30 | 34.47 |        |        | 31.57   | 27.34    | 1.835   | 4.29   |
| 210  | 20.43 | 35.68 | -8.4   | 9.6    | 26.08   | 25.18    | 0.845   | 3.73   | 930  | 4.24 | 34.47 |        |        | 31.63   | 27.35    | 1.843   | 4.27   |
| 215  | 20.29 | 35.67 | -7.2   | 9.6    | 26.13   | 25.21    | 0.860   | 3.77   | 940  | 4.18 | 34.48 |        |        | 31.68   | 27.36    | 1.851   | 4.21   |
| 220  | 20.10 | 35.66 | -9.6   | 12.0   | 26.20   | 25.25    | 0.874   | 3.74   | 950  | 4.13 | 34.48 |        |        | 31.74   | 27.37    | 1.859   | 4.23   |
| 225  | 19.86 | 35.66 | -9.6   | 13.2   | 26.28   | 25.31    | 0.888   | 3.78   | 960  | 4.09 | 34.48 |        |        | 31.79   | 27.37    | 1.867   | 4.19   |
| 230  | 19.73 | 35.65 | -13.2  | 15.6   | 26.33   | 25.34    | 0.901   | 3.84   | 970  | 4.06 | 34.48 |        |        | 31.84   | 27.38    | 1.875   | 4.17   |
| 235  | 19.56 | 35.65 | -15.6  | 16.8   | 26.39   | 25.38    | 0.915   | 3.91   | 980  | 4.04 | 34.49 |        |        | 31.89   | 27.38    | 1.883   | 4.18   |
| 240  | 19.30 | 35.63 | -15.6  | 15.6   | 26.47   | 25.43    | 0.928   | 3.95   | 990  | 3.99 | 34.49 |        |        | 31.95   | 27.39    | 1.891   | 4.16   |
| 245  | 19.10 | 35.61 | -12.0  | 9.6    | 26.54   | 25.48    | 0.941   | 3.92   | 1000 | 3.94 | 34.49 |        |        | 32.00   | 27.40    | 1.898   | 4.14   |
| 250  | 18.92 | 35.59 | -8.4   | 6.0    | 26.59   | 25.51    | 0.954   | 3.98   | 1020 | 3.88 | 34.50 |        |        | 32.10   | 27.41    | 1.914   | 4.14   |
| 255  | 18.72 | 35.57 | -8.4   | 4.8    | 26.64   | 25.54    | 0.967   | 3.99   | 1040 | 3.83 | 34.50 |        |        | 32.20   | 27.41    | 1.929   | 4.12   |
| 260  | 18.49 | 35.55 | -8.4   | 4.8    | 26.71   | 25.58    | 0.979   | 3.95   | 1060 | 3.78 | 34.51 |        |        | 32.31   | 27.42    | 1.944   | 4.08   |
| 265  | 18.26 | 35.52 | -9.6   | 4.8    | 26.77   | 25.62    | 0.992   | 3.91   | 1080 | 3.70 | 34.51 |        |        | 32.41   | 27.44    | 1.959   | 4.10   |
| 270  | 17.98 | 35.49 | -10.8  | 6.0    | 26.84   | 25.67    | 1.004   | 3.90   | 1100 | 3.64 | 34.52 |        |        | 32.52   | 27.45    | 1.973   | 4.04   |
| 275  | 17.77 | 35.49 | -13.2  | 8.4    | 26.91   | 25.71    | 1.016   | 3.89   | 1120 | 3.56 | 34.53 |        |        | 32.62   | 27.46    | 1.987   | 4.00   |
| 280  | 17.45 | 35.45 | -14.4  | 10.8   | 26.98   | 25.76    | 1.028   | 3.92   | 1140 | 3.50 | 34.53 |        |        | 32.72   | 27.47    | 2.001   | 3.98   |
| 285  | 17.12 | 35.44 | -14.4  | 10.8   | 27.07   | 25.83    | 1.039   | 3.96   | 1160 | 3.45 | 34.54 |        |        | 32.83   | 27.48    | 2.015   | 3.98   |
| 290  | 16.69 | 35.40 | -14.4  | 10.8   | 27.17   | 25.91    | 1.050   | 3.94   | 1180 | 3.38 | 34.54 |        |        | 32.93   | 27.49    | 2.029   | 3.96   |
| 295  | 16.45 | 35.36 | -14.4  | 13.2   | 27.22   | 25.93    | 1.061   | 3.93   | 1200 | 3.34 | 34.54 |        |        | 33.03   | 27.50    | 2.042   | 3.95   |
| 300  | 16.38 | 35.35 | -14.4  | 15.6   | 27.25   | 25.94    | 1.072   | 3.94   | 1220 | 3.29 | 34.55 |        |        | 33.13   | 27.51    | 2.056   | 3.90   |
| 305  | 16.19 | 35.34 | -13.2  | 15.6   | 27.31   | 25.97    | 1.082   | 3.95   | 1240 | 3.25 | 34.55 |        |        | 33.23   | 27.51    | 2.069   | 3.86   |
| 310  | 15.95 | 35.32 | -9.6   | 15.6   | 27.37   | 26.02    | 1.093   | 3.95   | 1260 | 3.22 | 34.55 |        |        | 33.33   | 27.52    | 2.082   | 3.86   |
| 315  | 15.77 | 35.29 | -6.0   | 13.2   | 27.42   | 26.04    | 1.103   | 3.99   | 1280 | 3.17 | 34.56 |        |        | 33.43   | 27.53    | 2.095   | 3.83   |
| 320  | 15.60 | 35.29 | -6.0   | 12.0   | 27.47   | 26.07    | 1.114   | 4.00   | 1300 | 3.12 | 34.57 |        |        | 33.53   | 27.54    | 2.108   | 3.81   |
| 325  | 15.40 | 35.26 | -4.8   | 12.0   | 27.52   | 26.10    | 1.124   | 3.99   | 1320 | 3.07 | 34.57 |        |        | 33.63   | 27.54    | 2.121   | 3.79   |
| 330  | 15.26 | 35.25 | -3.6   | 9.6    | 27.57   | 26.12    | 1.134   | 3.99   | 1340 | 3.01 | 34.57 |        |        | 33.73   | 27.55    | 2.133   | 3.77   |
| 335  | 15.13 | 35.24 | -4.8   | 9.6    | 27.61   | 26.14    | 1.144   | 4.00   | 1360 | 2.97 | 34.58 |        |        | 33.83   | 27.56    | 2.146   | 3.80   |
| 340  | 14.78 | 35.22 | -6.0   | 10.8   | 27.69   | 26.20    | 1.153   | 4.01   | 1380 | 2.95 | 34.58 |        |        | 33.92   | 27.56    | 2.158   | 3.78   |
| 345  | 14.61 | 35.18 | -6.0   | 10.8   | 27.73   | 26.21    | 1.163   | 4.00   | 1400 | 2.92 | 34.58 |        |        | 34.02   | 27.57    | 2.170   | 3.76   |
| 350  | 14.39 | 35.17 | -4.8   | 10.8   | 27.79   | 26.25    | 1.172   | 4.03   | 1420 | 2.88 | 34.59 |        |        | 34.12   | 27.57    | 2.182   | 3.80   |
| 355  | 14.13 | 35.15 | -2.4   | 7.2    | 27.85   | 26.29    | 1.182   | 4.03   | 1440 | 2.85 | 34.59 |        |        | 34.22   | 27.58    | 2.194   | 3.75   |
| 360  | 13.80 | 35.12 | -1.2   | 3.6    | 27.92   | 26.33    | 1.191   | 4.01   | 1460 | 2.81 | 34.59 |        |        | 34.32   | 27.59    | 2.206   | 3.73   |
| 365  | 13    |       |        |        |         |          |         |        |      |      |       |        |        |         |          |         |        |



SURTROPAC11 STATION No : 3  
DATE : 6/1/89 HEURE : 22h30 LONGITUDE : 165.00 LATITUDE : -18.00



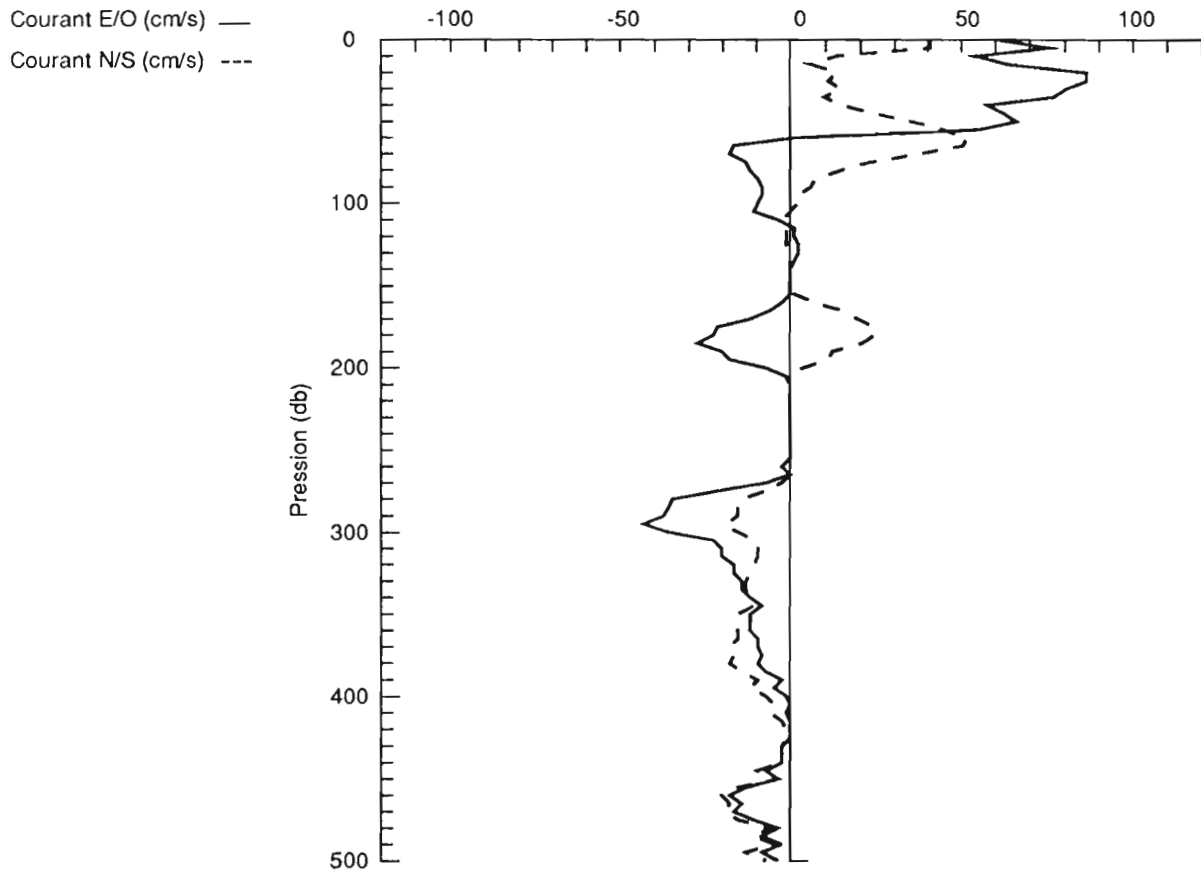
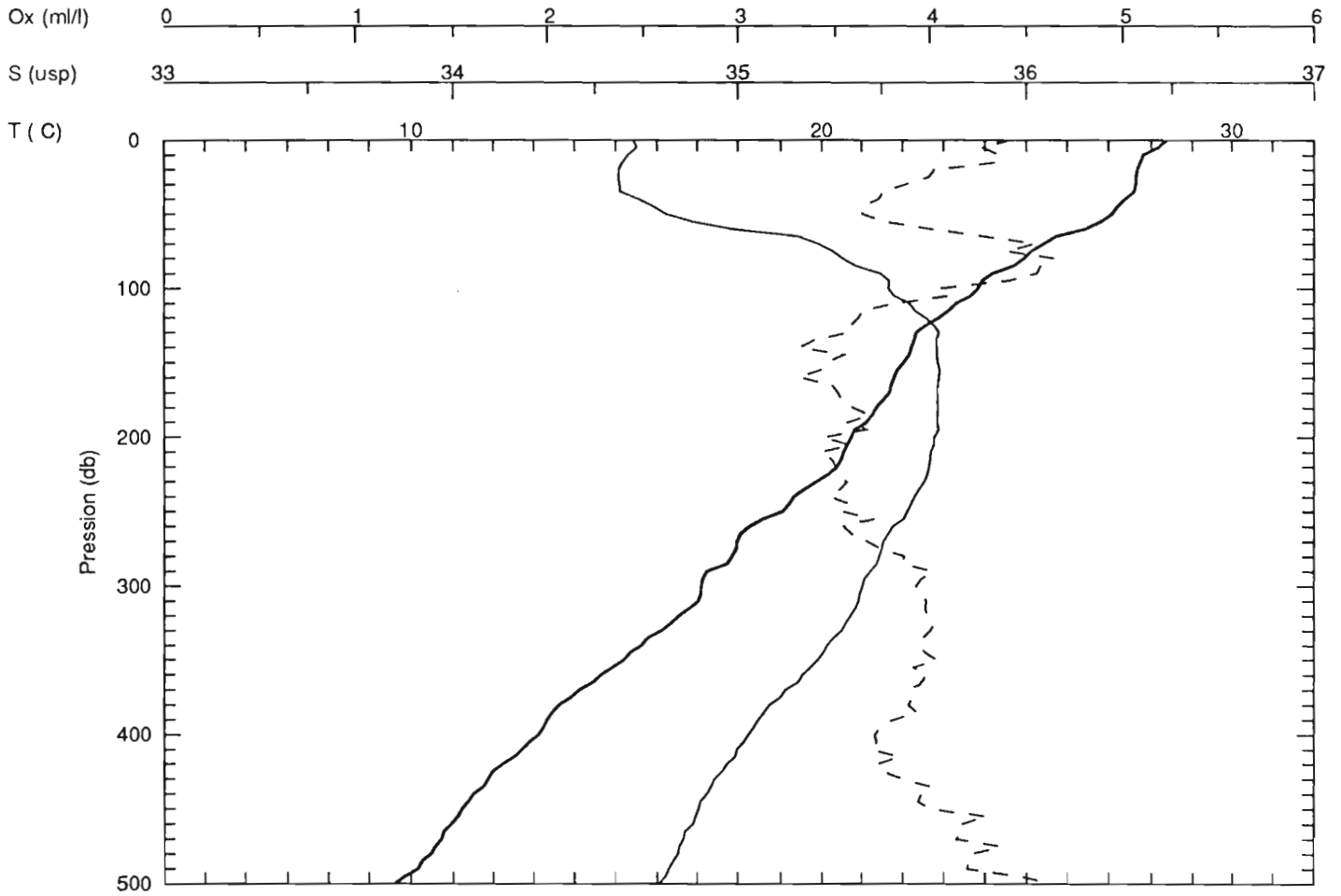
Courant E/O (cm/s) —  
Courant N/S (cm/s) ---



STATION : 4      CAMPAGNE : aurtropac11  
 DATE : 7/ 1/89    HEURE : 9h00      LONGITUDE : 165.00      LATITUDE : -17.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Bdyn    | Oxy    | P    | T     | S     | U      | V      | Sigt    | Sigtheta | Bdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.36 | 34.63 | 61.2   | 40.8   | 22.00   | 22.00    | 0.000   | 4.42   | 510  | 9.29  | 34.68 | -18.0  | -16.8  | 29.12   | 26.83    | 1.454   | 4.66   |
| 5    | 28.17 | 34.65 | 75.6   | 40.8   | 22.09   | 22.07    | 0.029   | 4.27   | 520  | 8.94  | 34.65 | -19.2  | -15.6  | 29.20   | 26.86    | 1.467   | 4.59   |
| 10   | 27.81 | 34.61 | 54.0   | 13.2   | 22.21   | 22.17    | 0.057   | 4.36   | 530  | 8.78  | 34.62 | -18.0  | -10.8  | 29.26   | 26.87    | 1.480   | 4.70   |
| 15   | 27.74 | 34.60 | 63.6   | 6.0    | 22.24   | 22.18    | 0.086   | 4.35   | 540  | 8.56  | 34.60 | -15.6  | -9.6   | 29.32   | 26.88    | 1.492   | 4.74   |
| 20   | 27.67 | 34.58 | 86.4   | 13.2   | 22.27   | 22.19    | 0.114   | 4.02   | 550  | 8.22  | 34.58 | -13.2  | -8.4   | 29.40   | 26.92    | 1.505   | 4.79   |
| 25   | 27.64 | 34.58 | 86.4   | 10.8   | 22.31   | 22.20    | 0.142   | 3.99   | 560  | 7.95  | 34.56 | -9.6   | -8.4   | 29.48   | 26.94    | 1.517   | 4.57   |
| 30   | 27.64 | 34.58 | 80.4   | 14.4   | 22.33   | 22.21    | 0.170   | 3.87   | 570  | 7.74  | 34.54 | -6.0   | -4.8   | 29.54   | 26.96    | 1.529   | 4.70   |
| 35   | 27.60 | 34.59 | 76.8   | 9.6    | 22.37   | 22.22    | 0.198   | 3.76   | 580  | 7.51  | 34.52 | -4.8   | -3.6   | 29.61   | 26.97    | 1.541   | 4.80   |
| 40   | 27.38 | 34.65 | 57.6   | 14.4   | 22.51   | 22.34    | 0.226   | 3.73   | 590  | 7.34  | 34.50 | -3.6   | -3.6   | 29.66   | 26.99    | 1.553   | 4.76   |
| 45   | 27.20 | 34.70 | 62.4   | 24.0   | 22.62   | 22.44    | 0.254   | 3.65   | 600  | 7.19  | 34.48 | -2.4   | -2.4   | 29.72   | 26.99    | 1.564   | 4.79   |
| 50   | 27.07 | 34.75 | 66.0   | 34.8   | 22.72   | 22.51    | 0.280   | 3.65   | 610  | 6.97  | 34.47 |        |        | 29.79   | 27.02    | 1.576   | 4.74   |
| 55   | 26.82 | 34.84 | 55.2   | 44.4   | 22.89   | 22.66    | 0.307   | 3.76   | 620  | 6.81  | 34.46 |        |        | 29.85   | 27.03    | 1.587   | 4.78   |
| 60   | 26.44 | 34.98 | 1.2    | 51.6   | 23.14   | 22.88    | 0.332   | 4.00   | 630  | 6.72  | 34.46 |        |        | 29.91   | 27.04    | 1.598   | 4.85   |
| 65   | 25.73 | 35.20 | -16.8  | 50.4   | 23.55   | 23.27    | 0.356   | 4.28   | 640  | 6.57  | 34.44 |        |        | 29.96   | 27.05    | 1.609   | 4.76   |
| 70   | 25.43 | 35.27 | -18.0  | 37.2   | 23.72   | 23.42    | 0.379   | 4.55   | 650  | 6.47  | 34.43 |        |        | 30.01   | 27.05    | 1.620   | 4.80   |
| 75   | 25.12 | 35.32 | -13.2  | 22.8   | 23.88   | 23.56    | 0.401   | 4.40   | 660  | 6.34  | 34.43 |        |        | 30.08   | 27.07    | 1.631   | 4.88   |
| 80   | 24.94 | 35.36 | -12.0  | 14.4   | 23.98   | 23.64    | 0.423   | 4.64   | 670  | 6.26  | 34.43 |        |        | 30.13   | 27.08    | 1.642   | 4.97   |
| 85   | 24.70 | 35.40 | -9.6   | 7.2    | 24.11   | 23.75    | 0.444   | 4.57   | 680  | 6.20  | 34.43 |        |        | 30.19   | 27.08    | 1.653   | 4.72   |
| 90   | 24.18 | 35.49 | -8.4   | 6.0    | 24.35   | 23.97    | 0.464   | 4.56   | 690  | 6.06  | 34.43 |        |        | 30.25   | 27.10    | 1.663   | 4.84   |
| 95   | 23.93 | 35.53 | -8.4   | 2.4    | 24.47   | 24.07    | 0.484   | 4.41   | 700  | 5.99  | 34.42 |        |        | 30.30   | 27.11    | 1.674   | 4.52   |
| 100  | 23.83 | 35.52 | -9.6   | 2.4    | 24.52   | 24.09    | 0.503   | 4.06   | 710  | 5.94  | 34.42 |        |        | 30.35   | 27.11    | 1.684   | 4.56   |
| 105  | 23.66 | 35.54 | -10.8  | 0.0    | 24.61   | 24.16    | 0.522   | 4.11   | 720  | 5.84  | 34.42 |        |        | 30.42   | 27.12    | 1.694   | 4.51   |
| 110  | 23.32 | 35.60 | -3.6   | -2.4   | 24.77   | 24.30    | 0.541   | 3.83   | 730  | 5.72  | 34.42 |        |        | 30.48   | 27.14    | 1.705   | 4.62   |
| 115  | 23.12 | 35.62 | 1.2    | -1.2   | 24.86   | 24.37    | 0.559   | 3.65   | 740  | 5.71  | 34.42 |        |        | 30.52   | 27.14    | 1.715   | 4.43   |
| 120  | 22.88 | 35.65 | 1.2    | -1.2   | 24.98   | 24.47    | 0.577   | 3.63   | 750  | 5.64  | 34.42 |        |        | 30.57   | 27.14    | 1.725   | 4.61   |
| 125  | 22.58 | 35.68 | 2.4    | -1.2   | 25.12   | 24.58    | 0.594   | 3.58   | 760  | 5.45  | 34.42 |        |        | 30.65   | 27.17    | 1.735   | 4.48   |
| 130  | 22.33 | 35.70 | 2.4    | 0.0    | 25.22   | 24.66    | 0.611   | 3.57   | 770  | 5.41  | 34.41 |        |        | 30.69   | 27.17    | 1.745   | 4.62   |
| 135  | 22.29 | 35.69 | 1.2    | 0.0    | 25.25   | 24.67    | 0.627   | 3.39   | 780  | 5.35  | 34.41 |        |        | 30.75   | 27.18    | 1.755   | 4.85   |
| 140  | 22.22 | 35.69 | 0.0    | 0.0    | 25.29   | 24.69    | 0.644   | 3.31   | 790  | 5.28  | 34.42 |        |        | 30.81   | 27.19    | 1.765   | 4.72   |
| 145  | 22.16 | 35.69 | 0.0    | 0.0    | 25.33   | 24.71    | 0.660   | 3.55   | 800  | 5.22  | 34.42 |        |        | 30.86   | 27.20    | 1.774   | 4.52   |
| 150  | 22.03 | 35.69 | 0.0    | 0.0    | 25.39   | 24.75    | 0.677   | 3.45   | 810  | 5.13  | 34.42 |        |        | 30.92   | 27.21    | 1.784   | 4.73   |
| 155  | 21.87 | 35.70 | 0.0    | 1.2    | 25.46   | 24.80    | 0.693   | 3.42   | 820  | 5.06  | 34.42 |        |        | 30.97   | 27.21    | 1.793   | 4.59   |
| 160  | 21.79 | 35.70 | -2.4   | 7.2    | 25.50   | 24.82    | 0.709   | 3.31   | 830  | 5.00  | 34.42 |        |        | 31.03   | 27.22    | 1.803   | 4.70   |
| 165  | 21.73 | 35.69 | -6.0   | 14.4   | 25.54   | 24.83    | 0.725   | 3.48   | 840  | 4.94  | 34.42 |        |        | 31.08   | 27.23    | 1.812   | 4.65   |
| 170  | 21.68 | 35.69 | -12.0  | 19.2   | 25.57   | 24.84    | 0.741   | 3.51   | 850  | 4.87  | 34.43 |        |        | 31.14   | 27.24    | 1.821   | 4.58   |
| 175  | 21.53 | 35.69 | -21.6  | 24.0   | 25.64   | 24.89    | 0.757   | 3.54   | 860  | 4.79  | 34.43 |        |        | 31.20   | 27.26    | 1.830   | 4.52   |
| 180  | 21.36 | 35.69 | -22.8  | 24.0   | 25.71   | 24.93    | 0.772   | 3.59   | 870  | 4.75  | 34.43 |        |        | 31.25   | 27.26    | 1.839   | 4.59   |
| 185  | 21.26 | 35.69 | -27.6  | 24.0   | 25.75   | 24.96    | 0.788   | 3.68   | 880  | 4.69  | 34.44 |        |        | 31.31   | 27.27    | 1.848   | 4.42   |
| 190  | 21.11 | 35.69 | -20.4  | 12.0   | 25.82   | 25.00    | 0.803   | 3.57   | 890  | 4.63  | 34.44 |        |        | 31.37   | 27.28    | 1.857   | 4.49   |
| 195  | 20.81 | 35.70 | -18.0  | 10.8   | 25.93   | 25.09    | 0.818   | 3.67   | 900  | 4.55  | 34.44 |        |        | 31.43   | 27.29    | 1.866   | 4.43   |
| 200  | 20.73 | 35.68 | -7.2   | 3.6    | 25.96   | 25.10    | 0.832   | 3.43   | 910  | 4.51  | 34.44 |        |        | 31.48   | 27.30    | 1.874   | 4.46   |
| 205  | 20.63 | 35.68 | -1.2   | 0.0    | 26.01   | 25.13    | 0.847   | 3.58   | 920  | 4.41  | 34.45 |        |        | 31.54   | 27.31    | 1.883   | 4.28   |
| 210  | 20.54 | 35.67 | 0.0    | 0.0    | 26.04   | 25.14    | 0.862   | 3.42   | 930  | 4.33  | 34.46 |        |        | 31.60   | 27.33    | 1.891   | 4.26   |
| 215  | 20.48 | 35.67 | 0.0    | 0.0    | 26.08   | 25.16    | 0.876   | 3.48   | 940  | 4.30  | 34.46 |        |        | 31.65   | 27.33    | 1.900   | 4.14   |
| 220  | 20.37 | 35.66 | 0.0    | 0.0    | 26.13   | 25.18    | 0.890   | 3.50   | 950  | 4.27  | 34.46 |        |        | 31.70   | 27.33    | 1.908   | 4.19   |
| 225  | 20.16 | 35.66 | 0.0    | 0.0    | 26.20   | 25.23    | 0.905   | 3.50   | 960  | 4.20  | 34.46 |        |        | 31.76   | 27.35    | 1.916   | 4.26   |
| 230  | 19.86 | 35.65 | 0.0    | 0.0    | 26.30   | 25.31    | 0.918   | 3.56   | 970  | 4.13  | 34.47 |        |        | 31.82   | 27.36    | 1.924   | 4.17   |
| 235  | 19.56 | 35.63 | 0.0    | 0.0    | 26.38   | 25.37    | 0.932   | 3.52   | 980  | 4.06  | 34.48 |        |        | 31.88   | 27.37    | 1.932   | 4.11   |
| 240  | 19.31 | 35.61 | 0.0    | 0.0    | 26.46   | 25.42    | 0.945   | 3.47   | 990  | 4.02  | 34.48 |        |        | 31.93   | 27.38    | 1.940   | 4.19   |
| 245  | 19.19 | 35.60 | 0.0    | 0.0    | 26.50   | 25.44    | 0.958   | 3.58   | 1000 | 3.96  | 34.48 |        |        | 31.99   | 27.39    | 1.948   | 3.99   |
| 250  | 19.05 | 35.59 | 0.0    | 0.0    | 26.55   | 25.47    | 0.971   | 3.54   | 1020 | 3.89  | 34.49 |        |        | 32.09   | 27.40    | 1.963   | 4.05   |
| 255  | 18.58 | 35.58 | 0.0    | 0.0    | 26.68   | 25.58    | 0.984   | 3.70   | 1040 | 3.87  | 34.49 |        |        | 32.19   | 27.41    | 1.979   | 4.12   |
| 260  | 18.28 | 35.54 | -2.4   | 0.0    | 26.75   | 25.63    | 0.997   | 3.54   | 1060 | 3.84  | 34.49 |        |        | 32.29   | 27.42    | 1.994   | 4.09   |
| 265  | 18.06 | 35.52 | 0.0    | 0.0    | 26.82   | 25.67    | 1.009   | 3.59   | 1080 | 3.79  | 34.49 |        |        | 32.39   | 27.43    | 2.009   | 4.15   |
| 270  | 17.98 | 35.50 | -7.2   | -2.4   | 26.85   | 25.68    | 1.021   | 3.67   | 1100 | 3.73  | 34.50 |        |        | 32.49   | 27.43    | 2.024   | 4.07   |
| 275  | 17.96 | 35.50 | -21.6  | -7.2   | 26.87   | 25.68    | 1.033   | 3.74   | 1120 | 3.66  | 34.51 |        |        | 32.60   | 27.44    | 2.039   | 3.99   |
| 280  | 17.85 | 35.49 | -34.8  | -14.4  | 26.91   | 25.70    | 1.045   | 3.87   | 1140 | 3.63  | 34.51 |        |        | 32.69   | 27.44    | 2.053   | 4.02   |
| 285  | 17.74 | 35.48 | -36.0  | -15.6  | 26.95   | 25.72    | 1.057   | 3.86   | 1160 | 3.57  | 34.51 |        |        | 32.80   | 27.45    | 2.068   | 3.93   |
| 290  | 17.23 | 35.46 | -37.2  | -15.6  | 27.08   | 25.82    | 1.068   | 4.02   | 1180 | 3.52  | 34.52 |        |        | 32.90   | 27.46    | 2.082   | 3.93   |
| 295  | 17.13 | 35.44 | -43.2  | -19.2  | 27.11   | 25.83    | 1.080   | 3.95   | 1200 | 3.48  | 34.52 |        |        | 33.00   | 27.47    | 2.096   | 3.97   |
| 300  | 17.10 | 35.43 | -36.0  | -15.6  | 27.14   | 25.83    | 1.091   | 3.95   | 1220 | 3.42  | 34.53 |        |        | 33.10   | 27.48    | 2.110   | 3.94   |
| 305  | 17.08 | 35.42 | -22.8  | -10.8  | 27.16   | 25.83    | 1.102   | 3.96   | 1240 | 3.38  | 34.54 |        |        | 33.20   | 27.49    | 2.124   | 3.84   |
| 310  | 17.02 | 35.42 | -20.4  | -9.6   | 27.19   | 25.84    | 1.114   | 3.98   | 1260 | 3.33  | 34.54 |        |        | 33.30   | 27.49    | 2.138   | 3.79   |
| 315  | 16.80 | 35.40 | -20.4  | -9.6   | 27.26   | 25.88    | 1.125   | 3.98   | 1280 | 3.31  | 34.54 |        |        | 33.39   | 27.50    | 2.151   | 3.78   |
| 320  | 16.55 | 35.39 | -16.8  | -10.8  | 27.33   | 25.93    | 1.136   | 3.99   | 1300 | 3.28  | 34.54 |        |        | 33.49   | 27.50    | 2.165   | 3.79   |
| 325  | 16.35 | 35.37 | -16.8  | -12.0  | 27.38   | 25.96    | 1.146   | 4.02   | 1320 | 3.25  | 34.55 |        |        | 33.59   | 27.51    | 2.178   | 3.96   |
| 330  | 16.12 | 35.36 | -14.4  | -13.2  | 27.45   | 26.01    | 1.157   | 4.01   | 1340 | 3.21  | 34.55 |        |        | 33.69   | 27.52    | 2.192   | 3.83   |
| 335  | 15.77 | 35.33 | -14.4  | -13.2  | 27.53   | 26.06    | 1.168   | 3.96   | 1360 | 3.17  | 34.56 |        |        | 33.79   | 27.52    | 2.205   | 3.88   |
| 340  | 15.63 | 35.30 | -12.0  | -12.0  | 27.57   | 26.08    | 1.178   | 3.95   | 1380 | 3.14  | 34.56 |        |        | 33.89   | 27.53    | 2.218   | 3.62   |
| 345  | 15.35 | 35.29 | -8.4   | -10.8  | 27.64   | 26.13    | 1.188   | 3.98   | 1400 | 3.08  | 34.56 |        |        | 33.99   | 27.54    | 2.231   | 3.72   |
| 350  | 15.20 | 35.27 | -12.0  | -15.6  | 27.68   | 26.15    | 1.198   | 4.04   | 1420 | 3.05  | 34.57 |        |        | 34.09   | 27.54    | 2.244   | 3.67   |
| 355  | 14.93 | 35.24 | -12.0  | -15.6  | 27.75   | 26.19    | 1.207   | 3.91   | 1440 | 2.99  | 34.57 |        |        | 34.19   | 27.55    | 2.256   | 3.72   |
| 360  | 14.64 | 35.22 | -12.0  | -15.6  | 27.81   | 26.23    | 1.217   | 3.98   | 1460 | 2.96  | 34.58 |        |        | 34.29   | 27.56    | 2.269   | 3.64   |

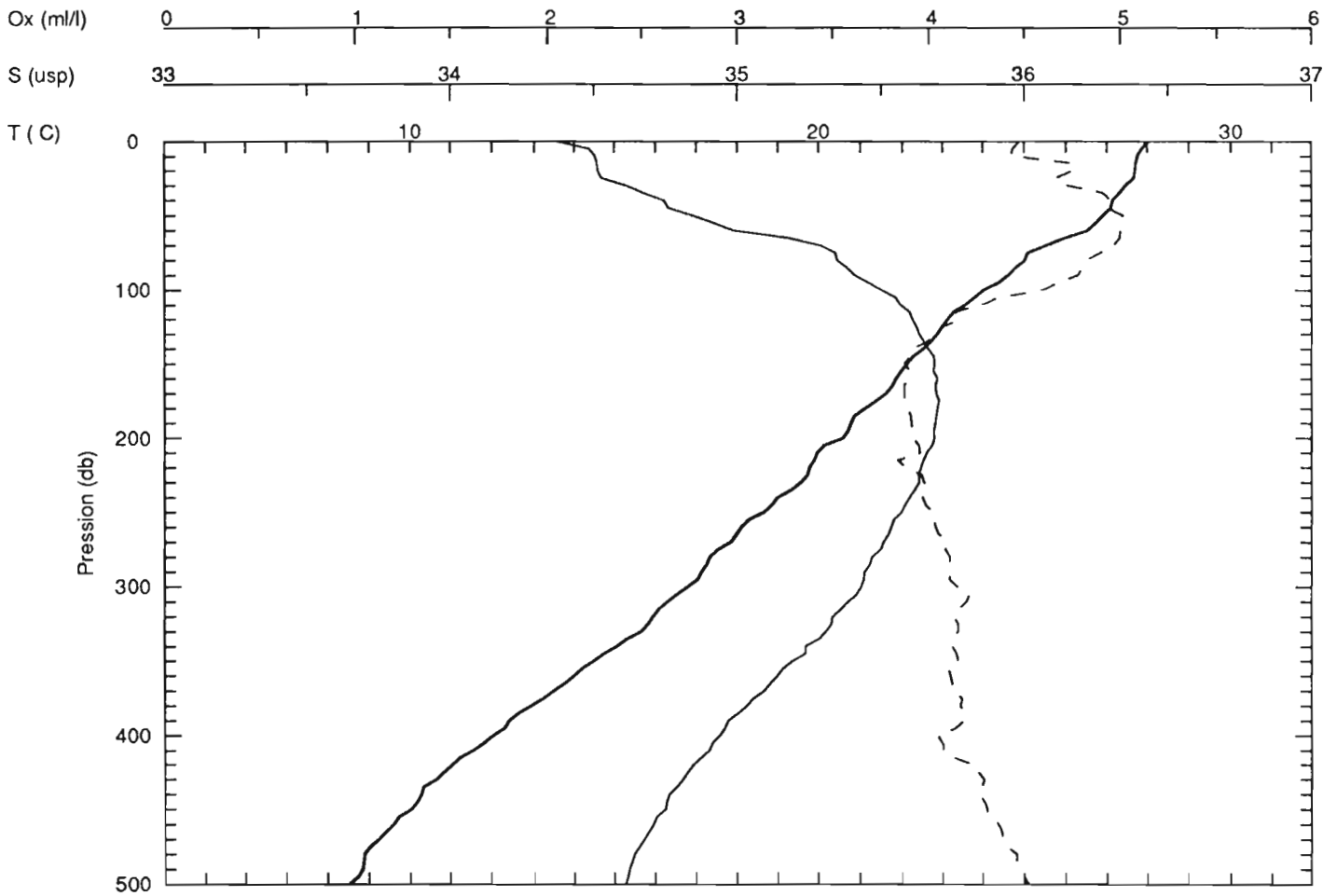
SURTROPAC11 STATION No : 4  
DATE : 7/1/89 HEURE : 9h00 LONGITUDE : 165.00 LATITUDE : -17.00



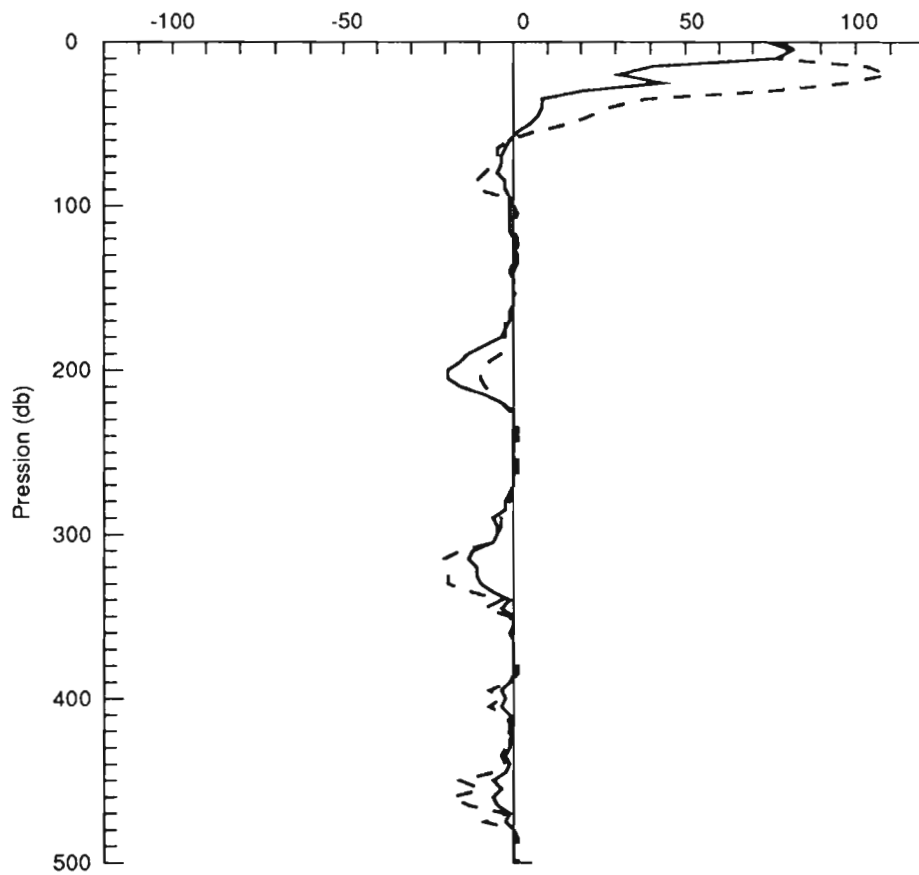
STATION : 5      CAMPAGNE : aurtropacl1  
 DATE : 7/ 1/89    HEURE : 17h20    LONGITUDE : 165.00    LATITUDE : -16.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.03 | 34.36 | 74.4   | 78.0   | 21.91   | 21.91    | 0.000   | 4.48   | 510  | 8.29 | 34.59 | 0.0    | 1.2    | 29.22   | 26.91    | 1.426   | 4.51   |
| 5    | 27.86 | 34.48 | 81.6   | 82.8   | 22.08   | 22.05    | 0.029   | 4.44   | 520  | 8.17 | 34.57 | 0.0    | 1.2    | 29.27   | 26.92    | 1.439   | 4.47   |
| 10   | 27.76 | 34.50 | 76.8   | 76.8   | 22.14   | 22.10    | 0.058   | 4.43   | 530  | 8.02 | 34.56 | 0.0    | 1.2    | 29.34   | 26.94    | 1.451   | 4.49   |
| 15   | 27.72 | 34.51 | 40.8   | 103.2  | 22.18   | 22.12    | 0.086   | 4.76   | 540  | 7.95 | 34.55 | -1.2   | -1.2   | 29.38   | 26.94    | 1.463   | 4.50   |
| 20   | 27.70 | 34.51 | 31.2   | 109.2  | 22.22   | 22.13    | 0.115   | 4.75   | 550  | 7.80 | 34.54 | -1.2   | 0.0    | 29.44   | 26.95    | 1.475   | 4.48   |
| 25   | 27.67 | 34.53 | 43.2   | 97.2   | 22.26   | 22.15    | 0.143   | 4.66   | 560  | 7.74 | 34.53 | 0.0    | 0.0    | 29.49   | 26.95    | 1.487   | 4.50   |
| 30   | 27.46 | 34.61 | 20.4   | 75.6   | 22.41   | 22.28    | 0.171   | 4.72   | 570  | 7.51 | 34.53 | 0.0    | 1.2    | 29.57   | 26.98    | 1.499   | 4.53   |
| 35   | 27.31 | 34.67 | 8.4    | 38.4   | 22.52   | 22.38    | 0.199   | 4.91   | 580  | 7.31 | 34.51 | 0.0    | -1.2   | 29.63   | 27.00    | 1.510   | 4.55   |
| 40   | 27.14 | 34.74 | 8.4    | 28.8   | 22.66   | 22.49    | 0.226   | 4.95   | 590  | 7.12 | 34.51 | 0.0    | -1.2   | 29.70   | 27.02    | 1.522   | 4.55   |
| 45   | 27.09 | 34.76 | 7.2    | 22.8   | 22.70   | 22.51    | 0.253   | 4.93   | 600  | 6.91 | 34.49 | 0.0    | 0.0    | 29.77   | 27.04    | 1.533   | 4.53   |
| 50   | 26.90 | 34.84 | 4.8    | 16.8   | 22.85   | 22.64    | 0.279   | 5.01   | 610  | 6.72 | 34.48 | 0.0    | 0.0    | 29.83   | 27.05    | 1.544   | 4.61   |
| 55   | 26.71 | 34.92 | 1.2    | 6.0    | 22.99   | 22.75    | 0.305   | 5.00   | 620  | 6.60 | 34.47 | 0.0    | 0.0    | 29.89   | 27.07    | 1.555   | 4.61   |
| 60   | 26.52 | 34.99 | -1.2   | -1.2   | 23.12   | 22.86    | 0.330   | 5.00   | 630  | 6.43 | 34.47 | 0.0    | 0.0    | 29.96   | 27.08    | 1.566   | 4.62   |
| 65   | 25.97 | 35.18 | -2.4   | -4.8   | 23.46   | 23.18    | 0.355   | 5.00   | 640  | 6.32 | 34.46 | 0.0    | 0.0    | 30.01   | 27.09    | 1.576   | 4.61   |
| 70   | 25.53 | 35.29 | -3.6   | -4.8   | 23.70   | 23.41    | 0.377   | 4.97   | 650  | 6.20 | 34.46 | 0.0    | 0.0    | 30.07   | 27.10    | 1.587   | 4.61   |
| 75   | 25.09 | 35.34 | -3.6   | -4.8   | 23.90   | 23.58    | 0.400   | 4.89   | 660  | 6.04 | 34.45 | 0.0    | 0.0    | 30.14   | 27.12    | 1.597   | 4.58   |
| 80   | 25.02 | 35.35 | -4.8   | -8.4   | 23.95   | 23.61    | 0.421   | 4.82   | 670  | 5.95 | 34.45 | 0.0    | 0.0    | 30.19   | 27.13    | 1.607   | 4.57   |
| 85   | 24.80 | 35.38 | -2.4   | -10.8  | 24.06   | 23.70    | 0.442   | 4.80   | 680  | 5.86 | 34.44 | 0.0    | 0.0    | 30.25   | 27.14    | 1.617   | 4.55   |
| 90   | 24.62 | 35.41 | -2.4   | -10.8  | 24.16   | 23.77    | 0.463   | 4.78   | 690  | 5.79 | 34.45 | 0.0    | 0.0    | 30.31   | 27.15    | 1.627   | 4.54   |
| 95   | 24.39 | 35.46 | -1.2   | -2.4   | 24.28   | 23.88    | 0.484   | 4.68   | 700  | 5.71 | 34.45 | 0.0    | 0.0    | 30.36   | 27.16    | 1.637   | 4.51   |
| 100  | 24.01 | 35.50 | -1.2   | 0.0    | 24.45   | 24.02    | 0.504   | 4.60   | 710  | 5.65 | 34.44 | 0.0    | 0.0    | 30.41   | 27.16    | 1.647   | 4.52   |
| 105  | 23.80 | 35.55 | -1.2   | 1.2    | 24.57   | 24.13    | 0.523   | 4.37   | 720  | 5.62 | 34.44 | 0.0    | 0.0    | 30.46   | 27.16    | 1.657   | 4.49   |
| 110  | 23.57 | 35.56 | -1.2   | 0.0    | 24.67   | 24.20    | 0.542   | 4.28   | 730  | 5.52 | 34.44 | 0.0    | 0.0    | 30.52   | 27.18    | 1.667   | 4.45   |
| 115  | 23.28 | 35.60 | -1.2   | 0.0    | 24.80   | 24.31    | 0.561   | 4.14   | 740  | 5.45 | 34.44 | 0.0    | 0.0    | 30.58   | 27.19    | 1.677   | 4.40   |
| 120  | 23.12 | 35.61 | 0.0    | 1.2    | 24.88   | 24.37    | 0.579   | 4.16   | 750  | 5.38 | 34.44 | 0.0    | 0.0    | 30.63   | 27.20    | 1.686   | 4.45   |
| 125  | 22.99 | 35.62 | 0.0    | 1.2    | 24.95   | 24.42    | 0.597   | 4.08   | 760  | 5.31 | 34.44 | 0.0    | 0.0    | 30.69   | 27.20    | 1.696   | 4.32   |
| 130  | 22.87 | 35.63 | 1.2    | 0.0    | 25.01   | 24.46    | 0.614   | 4.04   | 770  | 5.26 | 34.44 | 0.0    | 0.0    | 30.74   | 27.21    | 1.705   | 4.35   |
| 135  | 22.71 | 35.65 | 1.2    | 0.0    | 25.09   | 24.52    | 0.632   | 3.99   | 780  | 5.19 | 34.44 | 0.0    | 0.0    | 30.80   | 27.22    | 1.715   | 4.39   |
| 140  | 22.51 | 35.66 | 0.0    | -1.2   | 25.18   | 24.59    | 0.649   | 3.91   | 790  | 5.13 | 34.44 | 0.0    | 0.0    | 30.85   | 27.23    | 1.724   | 4.41   |
| 145  | 22.27 | 35.68 | 0.0    | 0.0    | 25.29   | 24.67    | 0.666   | 3.90   | 800  | 5.07 | 34.45 | 0.0    | 0.0    | 30.90   | 27.24    | 1.733   | 4.41   |
| 150  | 22.12 | 35.69 | 0.0    | 1.2    | 25.36   | 24.72    | 0.682   | 3.87   | 810  | 5.04 | 34.45 | 0.0    | 0.0    | 30.95   | 27.24    | 1.742   | 4.36   |
| 155  | 21.98 | 35.68 | 0.0    | 0.0    | 25.41   | 24.75    | 0.699   | 3.90   | 820  | 4.99 | 34.45 | 0.0    | 0.0    | 31.01   | 27.25    | 1.752   | 4.37   |
| 160  | 21.85 | 35.70 | 0.0    | 0.0    | 25.48   | 24.80    | 0.715   | 3.88   | 830  | 4.93 | 34.45 | 0.0    | 0.0    | 31.06   | 27.25    | 1.761   | 4.35   |
| 165  | 21.76 | 35.69 | -1.2   | -1.2   | 25.53   | 24.82    | 0.731   | 3.87   | 840  | 4.88 | 34.45 | 0.0    | 0.0    | 31.12   | 27.26    | 1.770   | 4.34   |
| 170  | 21.60 | 35.69 | -1.2   | -2.4   | 25.59   | 24.86    | 0.747   | 3.87   | 850  | 4.84 | 34.45 | 0.0    | 0.0    | 31.17   | 27.27    | 1.779   | 4.33   |
| 175  | 21.37 | 35.70 | -2.4   | -2.4   | 25.69   | 24.94    | 0.762   | 3.87   | 860  | 4.79 | 34.45 | 0.0    | 0.0    | 31.22   | 27.27    | 1.788   | 4.33   |
| 180  | 21.11 | 35.70 | -3.6   | -2.4   | 25.78   | 25.00    | 0.778   | 3.89   | 870  | 4.72 | 34.46 | 0.0    | 0.0    | 31.28   | 27.28    | 1.796   | 4.32   |
| 185  | 20.85 | 35.69 | -8.4   | -2.4   | 25.87   | 25.07    | 0.793   | 3.90   | 880  | 4.69 | 34.46 | 0.0    | 0.0    | 31.33   | 27.29    | 1.805   | 4.28   |
| 190  | 20.77 | 35.69 | -13.2  | -3.6   | 25.91   | 25.09    | 0.807   | 3.90   | 890  | 4.64 | 34.47 | 0.0    | 0.0    | 31.39   | 27.30    | 1.814   | 4.23   |
| 195  | 20.70 | 35.68 | -15.6  | -7.2   | 25.94   | 25.11    | 0.822   | 3.91   | 900  | 4.57 | 34.47 | 0.0    | 0.0    | 31.44   | 27.31    | 1.822   | 4.21   |
| 200  | 20.58 | 35.69 | -19.2  | -9.6   | 26.00   | 25.14    | 0.836   | 3.92   | 910  | 4.53 | 34.47 | 0.0    | 0.0    | 31.49   | 27.31    | 1.831   | 4.21   |
| 205  | 20.14 | 35.68 | -19.2  | -9.6   | 26.14   | 25.25    | 0.851   | 3.94   | 920  | 4.49 | 34.47 | 0.0    | 0.0    | 31.55   | 27.32    | 1.839   | 4.16   |
| 210  | 19.97 | 35.66 | -15.6  | -8.4   | 26.19   | 25.28    | 0.865   | 3.95   | 930  | 4.45 | 34.47 | 0.0    | 0.0    | 31.60   | 27.32    | 1.848   | 4.10   |
| 215  | 19.90 | 35.65 | -8.4   | -6.0   | 26.22   | 25.29    | 0.878   | 3.83   | 940  | 4.43 | 34.47 | 0.0    | 0.0    | 31.65   | 27.33    | 1.856   | 4.14   |
| 220  | 19.78 | 35.64 | -3.6   | -3.6   | 26.27   | 25.32    | 0.892   | 3.88   | 950  | 4.38 | 34.47 | 0.0    | 0.0    | 31.70   | 27.34    | 1.865   | 4.08   |
| 225  | 19.73 | 35.63 | 0.0    | -1.2   | 26.29   | 25.32    | 0.906   | 3.96   | 960  | 4.32 | 34.48 | 0.0    | 0.0    | 31.76   | 27.35    | 1.873   | 4.07   |
| 230  | 19.57 | 35.63 | 0.0    | 0.0    | 26.36   | 25.37    | 0.919   | 3.97   | 970  | 4.26 | 34.48 | 0.0    | 0.0    | 31.82   | 27.36    | 1.881   | 4.15   |
| 235  | 19.33 | 35.62 | 0.0    | 1.2    | 26.43   | 25.42    | 0.933   | 3.99   | 980  | 4.23 | 34.48 | 0.0    | 0.0    | 31.87   | 27.36    | 1.889   | 4.11   |
| 240  | 18.99 | 35.60 | 0.0    | 1.2    | 26.53   | 25.49    | 0.946   | 3.96   | 990  | 4.20 | 34.48 | 0.0    | 0.0    | 31.91   | 27.36    | 1.897   | 4.12   |
| 245  | 18.85 | 35.58 | 0.0    | 1.2    | 26.57   | 25.51    | 0.959   | 3.98   | 1000 | 4.16 | 34.49 | 0.0    | 0.0    | 31.97   | 27.37    | 1.905   | 4.09   |
| 250  | 18.66 | 35.57 | 0.0    | 1.2    | 26.64   | 25.56    | 0.971   | 4.02   | 1020 | 4.06 | 34.49 | 0.0    | 0.0    | 32.08   | 27.39    | 1.921   | 4.11   |
| 255  | 18.28 | 35.54 | 0.0    | 1.2    | 26.73   | 25.63    | 0.984   | 4.02   | 1040 | 4.01 | 34.50 | 0.0    | 0.0    | 32.18   | 27.39    | 1.936   | 4.08   |
| 260  | 18.10 | 35.53 | 0.0    | 1.2    | 26.80   | 25.67    | 0.996   | 4.03   | 1060 | 3.93 | 34.50 | 0.0    | 0.0    | 32.28   | 27.40    | 1.952   | 4.10   |
| 265  | 17.97 | 35.52 | 0.0    | 1.2    | 26.84   | 25.69    | 1.008   | 4.05   | 1080 | 3.87 | 34.51 | 0.0    | 0.0    | 32.38   | 27.41    | 1.967   | 3.99   |
| 270  | 17.84 | 35.51 | 0.0    | 1.2    | 26.88   | 25.71    | 1.020   | 4.09   | 1100 | 3.78 | 34.52 | 0.0    | 0.0    | 32.50   | 27.43    | 1.982   | 3.81   |
| 275  | 17.53 | 35.50 | -1.2   | -1.2   | 26.97   | 25.78    | 1.031   | 4.09   | 1120 | 3.70 | 34.52 | 0.0    | 0.0    | 32.60   | 27.44    | 1.997   | 3.92   |
| 280  | 17.33 | 35.47 | -2.4   | -1.2   | 27.02   | 25.81    | 1.043   | 4.11   | 1140 | 3.63 | 34.53 | 0.0    | 0.0    | 32.70   | 27.45    | 2.011   | 3.97   |
| 285  | 17.25 | 35.46 | -2.4   | -2.4   | 27.06   | 25.82    | 1.054   | 4.11   | 1160 | 3.58 | 34.53 | 0.0    | 0.0    | 32.80   | 27.46    | 2.025   | 3.90   |
| 290  | 17.12 | 35.44 | -6.0   | -3.6   | 27.10   | 25.84    | 1.065   | 4.11   | 1180 | 3.52 | 34.53 | 0.0    | 0.0    | 32.91   | 27.47    | 2.039   | 3.88   |
| 295  | 17.03 | 35.44 | -4.8   | -3.6   | 27.14   | 25.86    | 1.077   | 4.11   | 1200 | 3.47 | 34.53 | 0.0    | 0.0    | 33.01   | 27.48    | 2.053   | 3.95   |
| 300  | 16.79 | 35.43 | -4.8   | -4.8   | 27.21   | 25.91    | 1.088   | 4.15   | 1220 | 3.41 | 34.54 | 0.0    | 0.0    | 33.11   | 27.49    | 2.067   | 3.94   |
| 305  | 16.52 | 35.42 | -6.0   | -6.0   | 27.29   | 25.96    | 1.099   | 4.21   | 1240 | 3.38 | 34.54 | 0.0    | 0.0    | 33.21   | 27.49    | 2.081   | 3.95   |
| 310  | 16.29 | 35.39 | -12.0  | -15.6  | 27.34   | 25.99    | 1.109   | 4.20   | 1260 | 3.32 | 34.55 | 0.0    | 0.0    | 33.31   | 27.50    | 2.095   | 3.98   |
| 315  | 16.08 | 35.36 | -13.2  | -20.4  | 27.40   | 26.02    | 1.120   | 4.16   | 1280 | 3.26 | 34.55 | 0.0    | 0.0    | 33.41   | 27.51    | 2.108   | 4.02   |
| 320  | 15.94 | 35.33 | -10.8  | -19.2  | 27.43   | 26.03    | 1.130   | 4.13   | 1300 | 3.24 | 34.55 | 0.0    | 0.0    | 33.50   | 27.51    | 2.121   | 4.03   |
| 325  | 15.83 | 35.33 | -10.8  | -19.2  | 27.47   | 26.05    | 1.140   | 4.16   | 1320 | 3.21 | 34.55 | 0.0    | 0.0    | 33.60   | 27.52    | 2.134   | 4.01   |
| 330  | 15.65 | 35.31 | -9.6   | -19.2  | 27.52   | 26.08    | 1.151   | 4.15   | 1340 | 3.16 | 34.56 | 0.0    | 0.0    | 33.70   | 27.53    | 2.148   | 3.99   |
| 335  | 15.31 | 35.29 | -6.0   | -12.0  | 27.61   | 26.14    | 1.161   | 4.14   | 1360 | 3.14 | 34.56 | 0.0    | 0.0    | 33.80   | 27.53    | 2.161   | 4.02   |
| 340  | 15.06 | 35.24 | -1.2   | -3.6   | 27.65   | 26.16    | 1.171   | 4.12   | 1380 | 3.09 | 34.56 | 0.0    | 0.0    | 33.90   | 27.54    | 2.173   | 3.99   |
| 345  | 14.75 | 35.24 | -3.6   | -8.4   | 27.74   | 26.22    | 1.180   | 4.14   | 1400 | 3.05 | 34.57 | 0.0    | 0.0    | 34.00   | 27.55    | 2.186   | 3.97   |
| 350  | 14.48 | 35.19 | 0.0    | -1.2   | 27.79   |          |         |        |      |      |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 5  
DATE : 7/ 1/89 HEURE : 17h20 LONGITUDE : 165.00 LATITUDE : -16.00



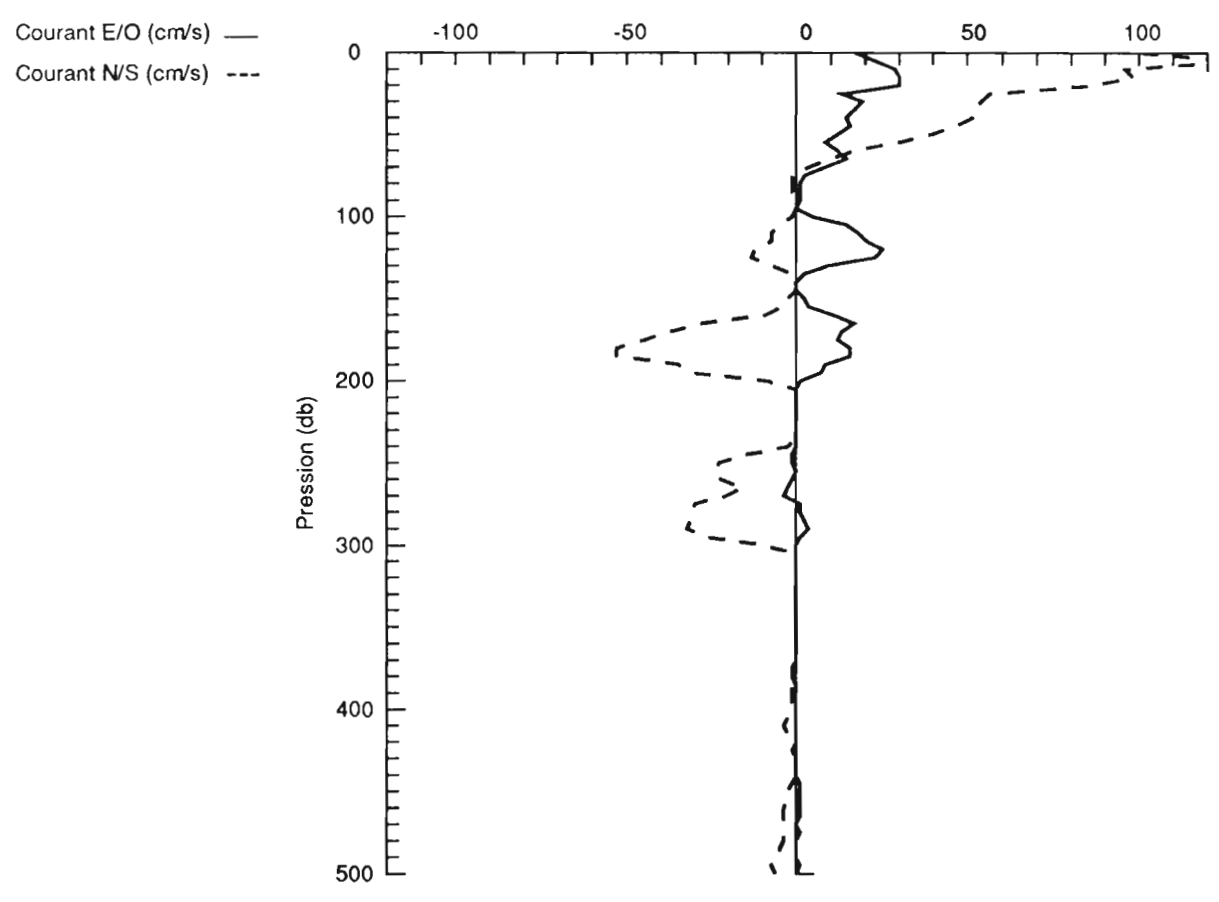
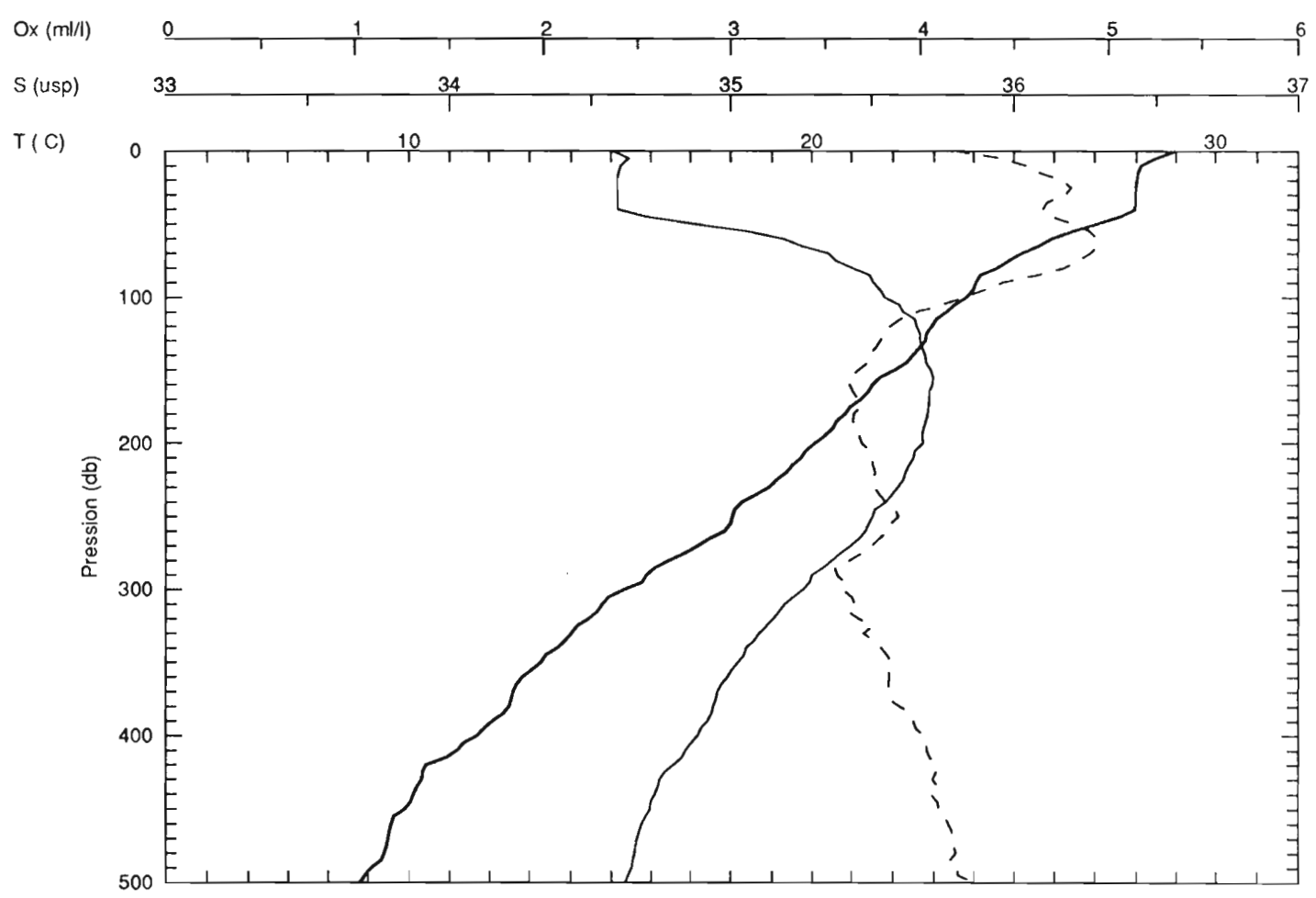
Courant E/O (cm/s) —  
Courant N/S (cm/s) ---



STATION : 6      CAMPAGNE : autropac11  
 DATE : 8/ 1/89    HEURE : 4h10    LONGITUDE : 165.00    LATITUDE : -15.00

| P    | T     | S      | U      | V      | Sigt    | Sigtheta | Bdyn    | Oxy    | P    | T    | S      | U      | V      | Sigt    | Sigtheta | Bdyn    | Oxy    |
|------|-------|--------|--------|--------|---------|----------|---------|--------|------|------|--------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (uspp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (uspp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.99 | 34.58  | 16.8   | 100.8  | 21.75   | 21.75    | 0.000   | 4.18   | 510  | 8.65 | 34.60  | 3.6    | -16.8  | 29.17   | 26.87    | 1.396   | 4.32   |
| 5    | 28.47 | 34.63  | 22.8   | 127.2  | 21.99   | 21.97    | 0.030   | 4.44   | 520  | 8.48 | 34.58  | 4.8    | -19.2  | 29.23   | 26.88    | 1.409   | 4.36   |
| 10   | 28.12 | 34.61  | 28.8   | 96.0   | 22.11   | 22.06    | 0.059   | 4.57   | 530  | 8.38 | 34.58  | 6.0    | -20.4  | 29.29   | 26.89    | 1.421   | 4.37   |
| 15   | 28.04 | 34.60  | 30.0   | 98.4   | 22.15   | 22.08    | 0.088   | 4.64   | 540  | 8.22 | 34.56  | 6.0    | -28.8  | 29.35   | 26.91    | 1.434   | 4.39   |
| 20   | 28.02 | 34.59  | 30.0   | 86.4   | 22.17   | 22.09    | 0.116   | 4.76   | 550  | 7.98 | 34.55  | 4.8    | -26.4  | 29.42   | 26.93    | 1.446   | 4.41   |
| 25   | 27.99 | 34.59  | 13.2   | 56.4   | 22.20   | 22.09    | 0.145   | 4.80   | 560  | 7.69 | 34.53  | 2.4    | -24.0  | 29.50   | 26.96    | 1.458   | 4.45   |
| 30   | 27.98 | 34.59  | 19.2   | 54.0   | 22.23   | 22.10    | 0.174   | 4.78   | 570  | 7.50 | 34.52  | 0.0    | -31.2  | 29.56   | 26.98    | 1.470   | 4.47   |
| 35   | 27.97 | 34.59  | 16.8   | 51.6   | 22.25   | 22.10    | 0.202   | 4.68   | 580  | 7.34 | 34.51  | 0.0    | -32.4  | 29.63   | 26.99    | 1.482   | 4.45   |
| 40   | 27.96 | 34.60  | 14.4   | 51.6   | 22.28   | 22.11    | 0.231   | 4.65   | 590  | 7.04 | 34.49  | 3.6    | -31.2  | 29.71   | 27.02    | 1.493   | 4.45   |
| 45   | 27.60 | 34.69  | 15.6   | 46.8   | 22.49   | 22.30    | 0.259   | 4.70   | 600  | 6.94 | 34.48  | 3.6    | -27.6  | 29.76   | 27.03    | 1.504   | 4.49   |
| 50   | 27.04 | 34.87  | 12.0   | 39.6   | 22.82   | 22.61    | 0.286   | 4.82   | 610  | 6.91 | 34.47  | 29.80  | 27.02  | 1.515   | 4.49     |         |        |
| 55   | 26.45 | 35.05  | 8.4    | 30.0   | 23.17   | 22.94    | 0.312   | 4.90   | 620  | 6.74 | 34.47  | 29.87  | 27.05  | 1.526   | 4.51     |         |        |
| 60   | 25.93 | 35.18  | 12.0   | 16.8   | 23.45   | 23.20    | 0.336   | 4.94   | 630  | 6.56 | 34.47  | 29.94  | 27.07  | 1.537   | 4.49     |         |        |
| 65   | 25.61 | 35.25  | 14.4   | 9.6    | 23.63   | 23.35    | 0.359   | 4.94   | 640  | 6.43 | 34.46  | 30.00  | 27.08  | 1.548   | 4.50     |         |        |
| 70   | 25.18 | 35.35  | 8.4    | 3.6    | 23.85   | 23.55    | 0.381   | 4.90   | 650  | 6.39 | 34.45  | 30.04  | 27.08  | 1.559   | 4.50     |         |        |
| 75   | 24.87 | 35.37  | 2.4    | -1.2   | 23.99   | 23.67    | 0.403   | 4.84   | 660  | 6.25 | 34.46  | 30.11  | 27.10  | 1.569   | 4.49     |         |        |
| 80   | 24.57 | 35.43  | 1.2    | -1.2   | 24.14   | 23.80    | 0.424   | 4.76   | 670  | 6.13 | 34.45  | 30.17  | 27.11  | 1.580   | 4.45     |         |        |
| 85   | 24.16 | 35.49  | 1.2    | -1.2   | 24.33   | 23.97    | 0.444   | 4.62   | 680  | 5.92 | 34.45  | 30.24  | 27.14  | 1.590   | 4.45     |         |        |
| 90   | 24.05 | 35.50  | 1.2    | 0.0    | 24.40   | 24.02    | 0.464   | 4.44   | 690  | 5.88 | 34.44  | 30.29  | 27.14  | 1.600   | 4.41     |         |        |
| 95   | 23.97 | 35.53  | 0.0    | 0.0    | 24.46   | 24.06    | 0.483   | 4.34   | 700  | 5.82 | 34.45  | 30.35  | 27.15  | 1.610   | 4.41     |         |        |
| 100  | 23.81 | 35.54  | 4.8    | -1.2   | 24.54   | 24.12    | 0.503   | 4.23   | 710  | 5.72 | 34.44  | 30.40  | 27.16  | 1.620   | 4.38     |         |        |
| 105  | 23.51 | 35.59  | 14.4   | -4.8   | 24.69   | 24.24    | 0.521   | 4.11   | 720  | 5.70 | 34.44  | 30.45  | 27.16  | 1.630   | 4.36     |         |        |
| 110  | 23.31 | 35.61  | 18.0   | -7.2   | 24.78   | 24.31    | 0.540   | 3.98   | 730  | 5.66 | 34.44  | 30.50  | 27.16  | 1.640   | 4.33     |         |        |
| 115  | 23.06 | 35.65  | 20.4   | -7.2   | 24.91   | 24.42    | 0.558   | 3.90   | 740  | 5.64 | 34.44  | 30.55  | 27.16  | 1.650   | 4.33     |         |        |
| 120  | 22.94 | 35.65  | 25.2   | -12.0  | 24.97   | 24.46    | 0.576   | 3.84   | 750  | 5.62 | 34.44  | 30.59  | 27.16  | 1.660   | 4.32     |         |        |
| 125  | 22.81 | 35.66  | 22.8   | -13.2  | 25.03   | 24.50    | 0.593   | 3.82   | 760  | 5.59 | 34.44  | 30.65  | 27.17  | 1.670   | 4.30     |         |        |
| 130  | 22.78 | 35.67  | 9.6    | -7.2   | 25.06   | 24.51    | 0.610   | 3.79   | 770  | 5.51 | 34.45  | 30.71  | 27.18  | 1.680   | 4.30     |         |        |
| 135  | 22.63 | 35.67  | 2.4    | -1.2   | 25.14   | 24.56    | 0.628   | 3.77   | 780  | 5.42 | 34.45  | 30.77  | 27.20  | 1.690   | 4.27     |         |        |
| 140  | 22.47 | 35.68  | 0.0    | 0.0    | 25.21   | 24.61    | 0.645   | 3.73   | 790  | 5.36 | 34.45  | 30.82  | 27.20  | 1.699   | 4.27     |         |        |
| 145  | 22.33 | 35.69  | 0.0    | 0.0    | 25.27   | 24.66    | 0.661   | 3.73   | 800  | 5.28 | 34.45  | 30.88  | 27.21  | 1.709   | 4.25     |         |        |
| 150  | 22.05 | 35.70  | 2.4    | -2.4   | 25.39   | 24.75    | 0.678   | 3.68   | 810  | 5.24 | 34.45  | 30.93  | 27.22  | 1.718   | 4.24     |         |        |
| 155  | 21.70 | 35.71  | 3.6    | -3.6   | 25.51   | 24.85    | 0.694   | 3.63   | 820  | 5.23 | 34.45  | 30.98  | 27.22  | 1.727   | 4.23     |         |        |
| 160  | 21.52 | 35.71  | 10.8   | -9.6   | 25.59   | 24.90    | 0.710   | 3.63   | 830  | 5.21 | 34.45  | 31.02  | 27.22  | 1.737   | 4.18     |         |        |
| 165  | 21.41 | 35.70  | 16.8   | -27.6  | 25.63   | 24.92    | 0.725   | 3.65   | 840  | 5.18 | 34.45  | 31.07  | 27.23  | 1.746   | 4.18     |         |        |
| 170  | 21.23 | 35.70  | 13.2   | -37.2  | 25.70   | 24.97    | 0.740   | 3.68   | 850  | 5.14 | 34.45  | 31.13  | 27.23  | 1.756   | 4.18     |         |        |
| 175  | 20.96 | 35.69  | 12.0   | -44.4  | 25.79   | 25.04    | 0.755   | 3.69   | 860  | 5.13 | 34.45  | 31.18  | 27.23  | 1.765   | 4.18     |         |        |
| 180  | 20.84 | 35.69  | 15.6   | -52.8  | 25.85   | 25.08    | 0.770   | 3.65   | 870  | 5.10 | 34.45  | 31.22  | 27.24  | 1.774   | 4.14     |         |        |
| 185  | 20.62 | 35.69  | 15.6   | -52.8  | 25.93   | 25.13    | 0.785   | 3.65   | 880  | 5.06 | 34.46  | 31.28  | 27.25  | 1.783   | 4.12     |         |        |
| 190  | 20.52 | 35.68  | 8.4    | -34.8  | 25.97   | 25.15    | 0.799   | 3.67   | 890  | 4.97 | 34.47  | 31.34  | 27.26  | 1.793   | 4.11     |         |        |
| 195  | 20.32 | 35.67  | 7.2    | -31.2  | 26.04   | 25.20    | 0.814   | 3.68   | 900  | 4.83 | 34.47  | 31.41  | 27.28  | 1.801   | 4.11     |         |        |
| 200  | 20.07 | 35.67  | 1.2    | -8.4   | 26.13   | 25.27    | 0.828   | 3.70   | 910  | 4.74 | 34.47  | 31.47  | 27.29  | 1.810   | 4.10     |         |        |
| 205  | 19.84 | 35.65  | 0.0    | 0.0    | 26.19   | 25.31    | 0.841   | 3.73   | 920  | 4.60 | 34.47  | 31.54  | 27.31  | 1.819   | 4.07     |         |        |
| 210  | 19.72 | 35.64  | 0.0    | 0.0    | 26.24   | 25.34    | 0.855   | 3.75   | 930  | 4.58 | 34.47  | 31.58  | 27.31  | 1.827   | 4.07     |         |        |
| 215  | 19.51 | 35.63  | 0.0    | 0.0    | 26.31   | 25.38    | 0.868   | 3.76   | 940  | 4.57 | 34.47  | 31.63  | 27.31  | 1.836   | 4.05     |         |        |
| 220  | 19.36 | 35.62  | 0.0    | 0.0    | 26.36   | 25.41    | 0.882   | 3.77   | 950  | 4.55 | 34.47  | 31.67  | 27.31  | 1.844   | 4.07     |         |        |
| 225  | 19.11 | 35.61  | 0.0    | 0.0    | 26.44   | 25.47    | 0.895   | 3.76   | 960  | 4.53 | 34.47  | 31.72  | 27.32  | 1.853   | 4.04     |         |        |
| 230  | 18.92 | 35.59  | 0.0    | 0.0    | 26.50   | 25.50    | 0.908   | 3.76   | 970  | 4.50 | 34.47  | 31.77  | 27.32  | 1.862   | 4.03     |         |        |
| 235  | 18.60 | 35.57  | 0.0    | 0.0    | 26.58   | 25.57    | 0.920   | 3.79   | 980  | 4.46 | 34.47  | 31.83  | 27.33  | 1.870   | 4.03     |         |        |
| 240  | 18.26 | 35.55  | 0.0    | -2.4   | 26.68   | 25.64    | 0.933   | 3.82   | 990  | 4.41 | 34.48  | 31.88  | 27.33  | 1.878   | 4.04     |         |        |
| 245  | 18.08 | 35.51  | -1.2   | -14.4  | 26.72   | 25.65    | 0.945   | 3.87   | 1000 | 4.32 | 34.49  | 31.94  | 27.35  | 1.887   | 4.02     |         |        |
| 250  | 18.03 | 35.50  | -1.2   | -22.8  | 26.74   | 25.66    | 0.957   | 3.89   | 1020 | 4.21 | 34.49  | 32.06  | 27.37  | 1.903   | 3.94     |         |        |
| 255  | 17.99 | 35.49  | 0.0    | -24.0  | 26.77   | 25.66    | 0.969   | 3.85   | 1040 | 4.09 | 34.50  | 32.17  | 27.39  | 1.919   | 3.92     |         |        |
| 260  | 17.84 | 35.48  | -1.2   | -22.8  | 26.82   | 25.69    | 0.981   | 3.83   | 1060 | 3.99 | 34.51  | 32.28  | 27.40  | 1.934   | 3.85     |         |        |
| 265  | 17.44 | 35.46  | -2.4   | -15.6  | 26.91   | 25.76    | 0.993   | 3.79   | 1080 | 3.93 | 34.51  | 32.38  | 27.41  | 1.949   | 3.85     |         |        |
| 270  | 17.18 | 35.42  | -3.6   | -20.4  | 26.98   | 25.81    | 1.004   | 3.75   | 1100 | 3.88 | 34.51  | 32.48  | 27.42  | 1.965   | 3.82     |         |        |
| 275  | 16.85 | 35.39  | 1.2    | -30.0  | 27.06   | 25.86    | 1.015   | 3.70   | 1120 | 3.83 | 34.52  | 32.58  | 27.43  | 1.980   | 3.82     |         |        |
| 280  | 16.46 | 35.36  | 1.2    | -31.2  | 27.15   | 25.93    | 1.026   | 3.63   | 1140 | 3.77 | 34.52  | 32.68  | 27.44  | 1.995   | 3.81     |         |        |
| 285  | 16.10 | 35.33  | 2.4    | -31.2  | 27.23   | 25.99    | 1.037   | 3.55   | 1160 | 3.70 | 34.52  | 32.79  | 27.45  | 2.009   | 3.77     |         |        |
| 290  | 15.88 | 35.28  | 3.6    | -32.4  | 27.27   | 26.00    | 1.048   | 3.56   | 1180 | 3.59 | 34.53  | 32.90  | 27.47  | 2.024   | 3.75     |         |        |
| 295  | 15.78 | 35.28  | 1.2    | -26.4  | 27.31   | 26.02    | 1.058   | 3.61   | 1200 | 3.53 | 34.53  | 33.00  | 27.47  | 2.038   | 3.84     |         |        |
| 300  | 15.32 | 35.25  | 0.0    | -9.6   | 27.42   | 26.11    | 1.068   | 3.59   | 1220 | 3.49 | 34.54  | 33.10  | 27.48  | 2.052   | 3.82     |         |        |
| 305  | 14.94 | 35.22  | 0.0    | 0.0    | 27.50   | 26.16    | 1.078   | 3.64   | 1240 | 3.43 | 34.54  | 33.20  | 27.49  | 2.066   | 3.76     |         |        |
| 310  | 14.77 | 35.19  | 0.0    | 0.0    | 27.54   | 26.18    | 1.088   | 3.66   | 1260 | 3.37 | 34.55  | 33.30  | 27.50  | 2.079   | 3.80     |         |        |
| 315  | 14.65 | 35.17  | 0.0    | 0.0    | 27.57   | 26.19    | 1.097   | 3.62   | 1280 | 3.30 | 34.55  | 33.41  | 27.51  | 2.093   | 3.78     |         |        |
| 320  | 14.44 | 35.15  | 0.0    | 0.0    | 27.63   | 26.22    | 1.107   | 3.68   | 1300 | 3.25 | 34.56  | 33.51  | 27.52  | 2.106   | 3.71     |         |        |
| 325  | 14.15 | 35.12  | 0.0    | 0.0    | 27.69   | 26.26    | 1.116   | 3.75   | 1320 | 3.21 | 34.56  | 33.60  | 27.52  | 2.119   | 3.69     |         |        |
| 330  | 14.01 | 35.10  | 0.0    | 0.0    | 27.72   | 26.27    | 1.125   | 3.71   | 1340 | 3.17 | 34.56  | 33.70  | 27.53  | 2.132   | 3.71     |         |        |
| 335  | 13.86 | 35.08  | 0.0    | 0.0    | 27.77   | 26.29    | 1.135   | 3.76   | 1360 | 3.14 | 34.56  | 33.80  | 27.53  | 2.145   | 3.71     |         |        |
| 340  | 13.67 | 35.05  | 0.0    | 0.0    | 27.81   | 26.31    | 1.144   | 3.80   | 1380 | 3.12 | 34.57  | 33.90  | 27.54  | 2.158   | 3.74     |         |        |
| 345  | 13.40 | 35.05  | 0.0    | 0.0    | 27.88   | 26.36    | 1.153   | 3.83   | 1400 | 3.09 | 34.57  | 33.99  | 27.54  | 2.171   | 3.71     |         |        |
| 350  | 13.27 | 35.02  | 0.0    | 0.0    | 27.91   | 26.37    | 1.161   | 3.85   | 1420 | 3.06 | 34.57  | 34.09  | 27.55  | 2.184   | 3.63     |         |        |
| 355  | 13.06 | 35.00  | 0.0    | 0.0    | 27.96   | 26.39    | 1.170   | 3.84   | 1440 | 3.03 | 34.58  | 34.19  | 27.55  | 2.196   | 3.61     |         |        |
| 360  | 12.83 | 34.99  | 0.0    | 0.0    | 28.02   | 26.43    | 1.179   | 3.84   | 1460 | 2.99 | 34.58  | 34.28  | 27.56  | 2.209   | 3.61     |         |        |
| 365  | 12.6  |        |        |        |         |          |         |        |      |      |        |        |        |         |          |         |        |

SURTROPAC11 STATION No : 6  
DATE : 8/1/89 HEURE : 4h10 LONGITUDE : 165.00 LATITUDE : -15.00



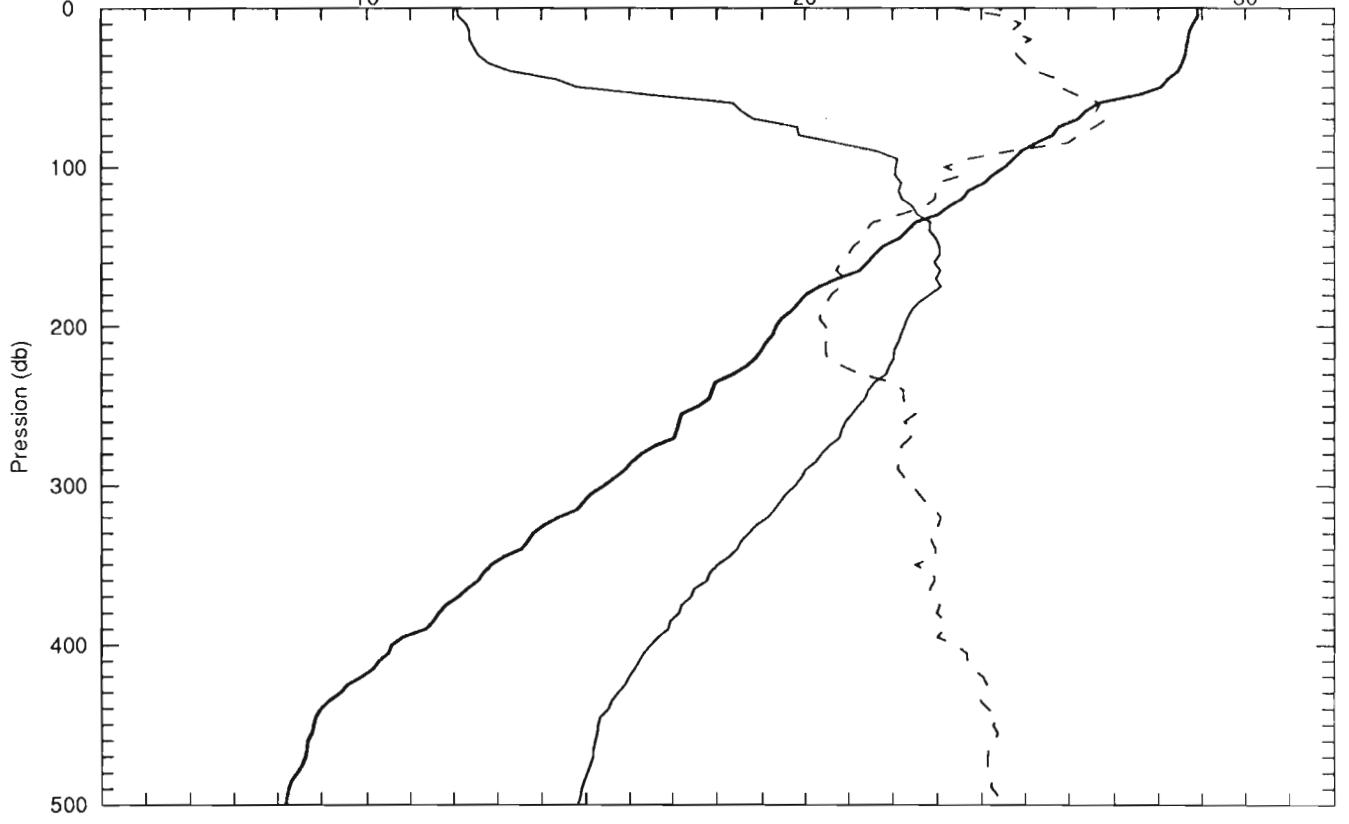
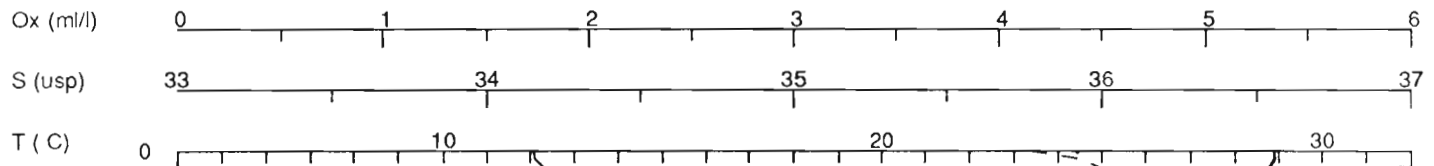
STATION : 7      CAMPAGNE : surtropacl1  
DATE : 8/ 1/89    HEURE : 13h45    LONGITUDE : 165.00    LATITUDE : -14.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.89 | 34.15 | 33.6   | 72.0   | 21.47   | 21.47    | 0.000   | 4.15   |
| 5    | 28.91 | 34.16 | 24.0   | 73.2   | 21.49   | 21.47    | 0.032   | 4.39   |
| 10   | 28.80 | 34.18 | 30.0   | 75.6   | 21.56   | 21.52    | 0.063   | 4.48   |
| 15   | 28.71 | 34.19 | 13.2   | 121.2  | 21.62   | 21.56    | 0.094   | 4.43   |
| 20   | 28.68 | 34.19 | 4.8    | 135.6  | 21.65   | 21.57    | 0.126   | 4.53   |
| 25   | 28.64 | 34.21 | 26.4   | 106.8  | 21.70   | 21.59    | 0.157   | 4.46   |
| 30   | 28.61 | 34.22 | 16.8   | 44.4   | 21.74   | 21.62    | 0.188   | 4.46   |
| 35   | 28.54 | 34.26 | 18.0   | 37.2   | 21.81   | 21.66    | 0.219   | 4.50   |
| 40   | 28.44 | 34.33 | 19.2   | 34.8   | 21.92   | 21.75    | 0.249   | 4.55   |
| 45   | 28.21 | 34.47 | 27.6   | 33.6   | 22.12   | 21.93    | 0.279   | 4.66   |
| 50   | 28.07 | 34.54 | 22.8   | 28.8   | 22.24   | 22.03    | 0.308   | 4.67   |
| 55   | 27.54 | 34.78 | 9.6    | 24.0   | 22.62   | 22.39    | 0.337   | 4.75   |
| 60   | 26.65 | 35.05 | -10.8  | 9.6    | 23.13   | 22.87    | 0.363   | 4.86   |
| 65   | 26.37 | 35.08 | -13.2  | 2.4    | 23.25   | 22.98    | 0.387   | 4.84   |
| 70   | 26.21 | 35.11 | -13.2  | 1.2    | 23.36   | 23.06    | 0.412   | 4.89   |
| 75   | 25.76 | 35.26 | -10.8  | 0.0    | 23.63   | 23.31    | 0.435   | 4.83   |
| 80   | 25.64 | 35.26 | -10.8  | 0.0    | 23.69   | 23.35    | 0.458   | 4.76   |
| 85   | 25.26 | 35.39 | -20.4  | 3.6    | 23.92   | 23.56    | 0.481   | 4.71   |
| 90   | 24.92 | 35.52 | -21.6  | 4.8    | 24.15   | 23.77    | 0.502   | 4.43   |
| 95   | 24.74 | 35.59 | -28.8  | 9.6    | 24.27   | 23.87    | 0.522   | 4.21   |
| 100  | 24.53 | 35.58 | -24.0  | 10.8   | 24.36   | 23.93    | 0.543   | 4.11   |
| 105  | 24.24 | 35.58 | -20.4  | 12.0   | 24.46   | 24.02    | 0.563   | 4.19   |
| 110  | 24.06 | 35.60 | -16.8  | 13.2   | 24.55   | 24.09    | 0.582   | 4.07   |
| 115  | 23.69 | 35.59 | -19.2  | 10.8   | 24.68   | 24.19    | 0.601   | 4.06   |
| 120  | 23.55 | 35.60 | -24.0  | 12.0   | 24.75   | 24.24    | 0.620   | 4.06   |
| 125  | 23.25 | 35.64 | -22.8  | 10.8   | 24.89   | 24.35    | 0.638   | 4.01   |
| 130  | 23.02 | 35.65 | -20.4  | 9.6    | 24.98   | 24.43    | 0.656   | 3.90   |
| 135  | 22.51 | 35.69 | -22.8  | 8.4    | 25.18   | 24.61    | 0.674   | 3.76   |
| 140  | 22.33 | 35.69 | -24.0  | 9.6    | 25.25   | 24.66    | 0.690   | 3.73   |
| 145  | 22.16 | 35.71 | -21.6  | 8.4    | 25.34   | 24.72    | 0.707   | 3.72   |
| 150  | 21.79 | 35.72 | -18.0  | 7.2    | 25.48   | 24.83    | 0.723   | 3.67   |
| 155  | 21.59 | 35.72 | -14.4  | 6.0    | 25.55   | 24.89    | 0.739   | 3.64   |
| 160  | 21.43 | 35.70 | -13.2  | 7.2    | 25.61   | 24.92    | 0.754   | 3.61   |
| 165  | 21.26 | 35.72 | -14.4  | 8.4    | 25.69   | 24.98    | 0.770   | 3.58   |
| 170  | 20.75 | 35.71 | -16.8  | 13.2   | 25.84   | 25.11    | 0.784   | 3.63   |
| 175  | 20.33 | 35.72 | -25.2  | 21.6   | 25.99   | 25.24    | 0.799   | 3.61   |
| 180  | 20.01 | 35.69 | -38.4  | 33.6   | 26.07   | 25.30    | 0.812   | 3.55   |
| 185  | 19.85 | 35.65 | -48.0  | 51.6   | 26.11   | 25.31    | 0.826   | 3.54   |
| 190  | 19.69 | 35.63 | -27.6  | 54.0   | 26.15   | 25.34    | 0.840   | 3.51   |
| 195  | 19.44 | 35.62 | -15.6  | 40.8   | 26.23   | 25.39    | 0.853   | 3.50   |
| 200  | 19.31 | 35.61 | -6.0   | 22.8   | 26.28   | 25.42    | 0.866   | 3.53   |
| 205  | 19.24 | 35.60 | 0.0    | 10.8   | 26.31   | 25.43    | 0.879   | 3.56   |
| 210  | 19.08 | 35.59 | 2.4    | 7.2    | 26.37   | 25.46    | 0.892   | 3.53   |
| 215  | 18.98 | 35.58 | 2.4    | 7.2    | 26.41   | 25.48    | 0.905   | 3.53   |
| 220  | 18.85 | 35.58 | 2.4    | 7.2    | 26.46   | 25.51    | 0.918   | 3.54   |
| 225  | 18.63 | 35.56 | 3.6    | 8.4    | 26.53   | 25.55    | 0.931   | 3.61   |
| 230  | 18.34 | 35.55 | 6.0    | 10.8   | 26.62   | 25.62    | 0.943   | 3.71   |
| 235  | 17.96 | 35.51 | 6.0    | 10.8   | 26.71   | 25.69    | 0.955   | 3.85   |
| 240  | 17.89 | 35.49 | 3.6    | 8.4    | 26.73   | 25.69    | 0.967   | 3.91   |
| 245  | 17.83 | 35.48 | 2.4    | 7.2    | 26.76   | 25.70    | 0.979   | 3.91   |
| 250  | 17.58 | 35.46 | 3.6    | 7.2    | 26.82   | 25.74    | 0.991   | 3.92   |
| 255  | 17.21 | 35.44 | 1.2    | 6.0    | 26.92   | 25.81    | 1.002   | 3.96   |
| 260  | 17.16 | 35.42 | 1.2    | 6.0    | 26.94   | 25.81    | 1.014   | 3.91   |
| 265  | 17.10 | 35.41 | 1.2    | 6.0    | 26.97   | 25.81    | 1.025   | 3.96   |
| 270  | 17.04 | 35.40 | 1.2    | 6.0    | 27.00   | 25.82    | 1.036   | 3.94   |
| 275  | 16.60 | 35.37 | 1.2    | 6.0    | 27.10   | 25.90    | 1.048   | 3.90   |
| 280  | 16.28 | 35.34 | 2.4    | 7.2    | 27.18   | 25.96    | 1.058   | 3.89   |
| 285  | 16.05 | 35.32 | 2.4    | 7.2    | 27.24   | 26.00    | 1.069   | 3.89   |
| 290  | 15.89 | 35.29 | 6.0    | 8.4    | 27.27   | 26.00    | 1.079   | 3.88   |
| 295  | 15.65 | 35.27 | 32.4   | 22.8   | 27.34   | 26.05    | 1.090   | 3.92   |
| 300  | 15.40 | 35.25 | 33.6   | 21.6   | 27.40   | 26.09    | 1.100   | 3.96   |
| 305  | 15.11 | 35.22 | 33.6   | 16.8   | 27.47   | 26.13    | 1.110   | 3.98   |
| 310  | 14.94 | 35.20 | 19.2   | 8.4    | 27.51   | 26.15    | 1.120   | 4.02   |
| 315  | 14.81 | 35.18 | 9.6    | 3.6    | 27.55   | 26.17    | 1.129   | 4.06   |
| 320  | 14.38 | 35.16 | 4.8    | 3.6    | 27.65   | 26.24    | 1.139   | 4.09   |
| 325  | 14.05 | 35.12 | 2.4    | 6.0    | 27.71   | 26.28    | 1.148   | 4.08   |
| 330  | 13.81 | 35.10 | 3.6    | 4.8    | 27.77   | 26.32    | 1.157   | 4.03   |
| 335  | 13.69 | 35.08 | 2.4    | 3.6    | 27.80   | 26.32    | 1.166   | 4.04   |
| 340  | 13.54 | 35.06 | 6.0    | -13.2  | 27.84   | 26.34    | 1.175   | 4.06   |
| 345  | 13.14 | 35.04 | 10.8   | -32.4  | 27.93   | 26.40    | 1.184   | 4.06   |
| 350  | 12.86 | 35.00 | 9.6    | -32.4  | 27.98   | 26.43    | 1.192   | 3.96   |
| 355  | 12.68 | 34.98 | 9.6    | -32.4  | 28.02   | 26.45    | 1.201   | 4.05   |
| 360  | 12.54 | 34.97 | 9.6    | -31.2  | 28.06   | 26.47    | 1.209   | 4.06   |
| 365  | 12.30 | 34.93 | 4.8    | -27.6  | 28.11   | 26.49    | 1.217   | 4.03   |
| 370  | 12.10 | 34.92 | -2.4   | -25.2  | 28.16   | 26.52    | 1.225   | 4.05   |
| 375  | 11.82 | 34.89 | -10.8  | -25.2  | 28.22   | 26.55    | 1.233   | 4.08   |
| 380  | 11.65 | 34.88 | -18.0  | -31.2  | 28.26   | 26.57    | 1.241   | 4.07   |
| 385  | 11.53 | 34.85 | -19.2  | -32.4  | 28.29   | 26.57    | 1.249   | 4.11   |
| 390  | 11.34 | 34.84 | -15.6  | -21.6  | 28.34   | 26.60    | 1.257   | 4.10   |
| 395  | 10.82 | 34.81 | -13.2  | -18.0  | 28.43   | 26.67    | 1.264   | 4.07   |
| 400  | 10.56 | 34.78 | -9.6   | -12.0  | 28.49   | 26.70    | 1.271   | 4.16   |
| 405  | 10.48 | 34.76 | -9.6   | -22.8  | 28.50   | 26.69    | 1.278   | 4.21   |
| 410  | 10.27 | 34.75 | -9.6   | -14.4  | 28.56   | 26.72    | 1.286   | 4.22   |
| 415  | 10.14 | 34.73 | -9.6   | -27.6  | 28.59   | 26.73    | 1.293   | 4.24   |
| 420  | 9.89  | 34.71 | -6.0   | -31.2  | 28.64   | 26.76    | 1.299   | 4.29   |
| 425  | 9.57  | 34.70 | -1.2   | -14.4  | 28.71   | 26.80    | 1.306   | 4.31   |
| 430  | 9.41  | 34.67 | -1.2   | -8.4   | 28.74   | 26.80    | 1.313   | 4.28   |
| 435  | 9.16  | 34.65 | 0.0    | -6.0   | 28.79   | 26.83    | 1.319   | 4.28   |
| 440  | 8.97  | 34.64 | 1.2    | 6.0    | 28.84   | 26.85    | 1.326   | 4.32   |
| 445  | 8.87  | 34.62 | 1.2    | 6.0    | 28.85   | 26.85    | 1.332   | 4.36   |
| 450  | 8.82  | 34.61 | 1.2    | 6.0    | 28.88   | 26.85    | 1.339   | 4.34   |
| 455  | 8.79  | 34.61 | 1.2    | 4.8    | 28.91   | 26.85    | 1.345   | 4.36   |
| 460  | 8.69  | 34.60 | -1.2   | 1.2    | 28.94   | 26.86    | 1.352   | 4.35   |
| 465  | 8.68  | 34.60 | 0.0    | 3.6    | 28.96   | 26.86    | 1.358   | 4.32   |
| 470  | 8.64  | 34.59 | -1.2   | 1.2    | 28.99   | 26.86    | 1.364   | 4.31   |
| 475  | 8.57  | 34.58 | -2.4   | -1.2   | 29.01   | 26.87    | 1.371   | 4.31   |
| 480  | 8.46  | 34.58 | -1.2   | 0.0    | 29.05   | 26.88    | 1.377   | 4.32   |
| 485  | 8.32  | 34.56 | -3.6   | -2.4   | 29.09   | 26.89    | 1.383   | 4.33   |
| 490  | 8.27  | 34.56 | -2.4   | -2.4   | 29.11   | 26.89    | 1.389   | 4.34   |
| 495  | 8.22  | 34.55 | -2.4   | -2.4   | 29.14   | 26.90    | 1.396   | 4.37   |
| 500  | 8.19  | 34.54 | -1.2   | -3.6   | 29.16   | 26.90    | 1.402   | 4.39   |

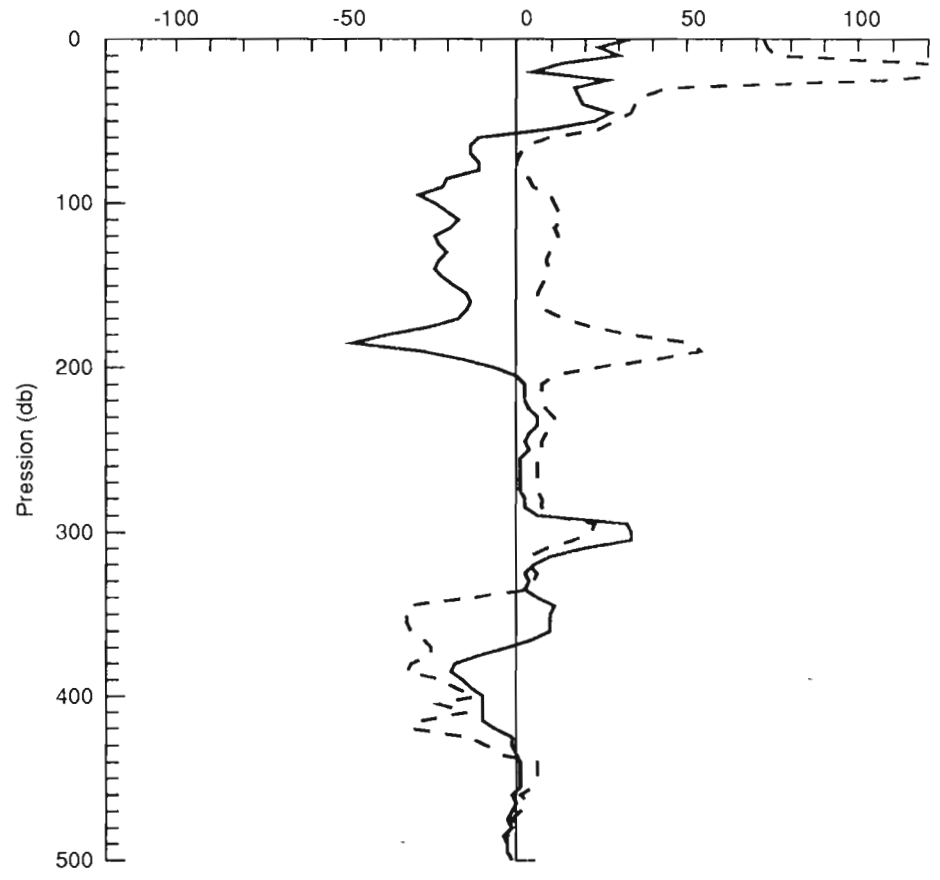
| P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 510  | 8.04 | 34.54 | -4.8   | -13.2  | 29.23   | 26.92    | 1.414   | 4.43   |
| 520  | 7.88 | 34.53 | -7.2   | -16.8  | 29.28   | 26.93    | 1.426   | 4.49   |
| 530  | 7.79 | 34.52 | -9.6   | -20.4  | 29.34   | 26.94    | 1.439   | 4.47   |
| 540  | 7.66 | 34.51 | -2.4   | -4.8   | 29.40   | 26.95    | 1.451   | 4.50   |
| 550  | 7.46 | 34.51 | -1.2   | -1.2   | 29.47   | 26.98    | 1.462   | 4.48   |
| 560  | 7.28 | 34.49 | 0.0    | -1.2   | 29.53   | 26.99    | 1.474   | 4.47   |
| 570  | 7.18 | 34.49 | -1.2   | -4.8   | 29.59   | 27.00    | 1.485   | 4.48   |
| 580  | 7.04 | 34.48 | 0.0    | 0.0    | 29.65   | 27.01    | 1.497   | 4.49   |
| 590  | 6.97 | 34.48 | 1.2    | 3.6    | 29.70   | 27.02    | 1.508   | 4.46   |
| 600  | 6.88 | 34.48 | 1.2    | 6.0    | 29.76   | 27.03    | 1.519   | 4.44   |
| 610  | 6.83 | 34.47 |        |        | 29.81   | 27.03    | 1.530   | 4.45   |
| 620  | 6.76 | 34.47 |        |        | 29.86   | 27.04    | 1.541   | 4.48   |
| 630  | 6.68 | 34.46 |        |        | 29.91   | 27.04    | 1.553   | 4.51   |
| 640  | 6.56 | 34.46 |        |        | 29.98   | 27.06    | 1.564   | 4.52   |
| 650  | 6.42 | 34.46 |        |        | 30.04   | 27.08    | 1.574   | 4.56   |
| 660  | 6.31 | 34.45 |        |        | 30.09   | 27.08    | 1.585   | 4.59   |
| 670  | 6.22 | 34.45 |        |        | 30.15   | 27.10    | 1.596   | 4.54   |
| 680  | 6.17 | 34.44 |        |        | 30.21   | 27.10    | 1.606   | 4.49   |
| 690  | 6.12 | 34.44 |        |        | 30.25   | 27.10    | 1.617   | 4.48   |
| 700  | 6.04 | 34.44 |        |        | 30.31   | 27.12    | 1.627   | 4.51   |
| 710  | 5.95 | 34.44 |        |        | 30.37   | 27.13    | 1.638   | 4.52   |
| 720  | 5.75 | 34.44 |        |        | 30.45   | 27.15    | 1.648   | 4.48   |
| 730  | 5.68 | 34.43 |        |        | 30.49   | 27.15    | 1.658   | 4.50   |
| 740  | 5.59 | 34.43 |        |        | 30.55   | 27.16    | 1.668   | 4.52   |
| 750  | 5.48 | 34.43 |        |        | 30.61   | 27.18    | 1.677   | 4.51   |
| 760  | 5.44 | 34.43 |        |        | 30.74   | 27.22    | 1.697   | 4.42   |
| 770  | 5.26 | 34.44 |        |        | 30.79   | 27.22    | 1.706   | 4.41   |
| 780  | 5.17 | 34.44 |        |        | 30.85   | 27.23    | 1.716   | 4.35   |
| 790  | 5.07 | 34.44 |        |        | 30.90   | 27.23    | 1.725   | 4.38   |
| 800  | 5.03 | 34.43 |        |        | 30.94   | 27.23    | 1.734   | 4.39   |
| 810  | 5.02 | 34.43 |        |        | 31.00   | 27.24    | 1.743   | 4.37   |
| 820  | 4.97 | 34.43 |        |        | 31.06   | 27.25    | 1.753   | 4.35   |
| 830  | 4.90 | 34.44 |        |        | 31.11   | 27.26    | 1.762   | 4.31   |
| 840  | 4.83 | 34.44 |        |        | 31.17   | 27.26    | 1.770   | 4.30   |
| 850  | 4.78 | 34.44 |        |        | 31.23   | 27.28    | 1.779   | 4.31   |
| 860  | 4.68 | 34.45 |        |        | 31.29   | 27.29    | 1.788   | 4.22   |
| 870  | 4.59 | 34.45 |        |        | 31.34   | 27.30    | 1.797   | 4.18   |
| 880  | 4.57 | 34.45 |        |        | 31.39   | 27.30    | 1.805   | 4.16   |
| 890  | 4.52 | 34.45 |        |        | 31.45   | 27.31    | 1.814   | 4.1    |



SURTROPAC11 STATION No : 7  
DATE : 8/ 1/89 HEURE : 13h45 LONGITUDE : 165.00 LATITUDE : -14.00



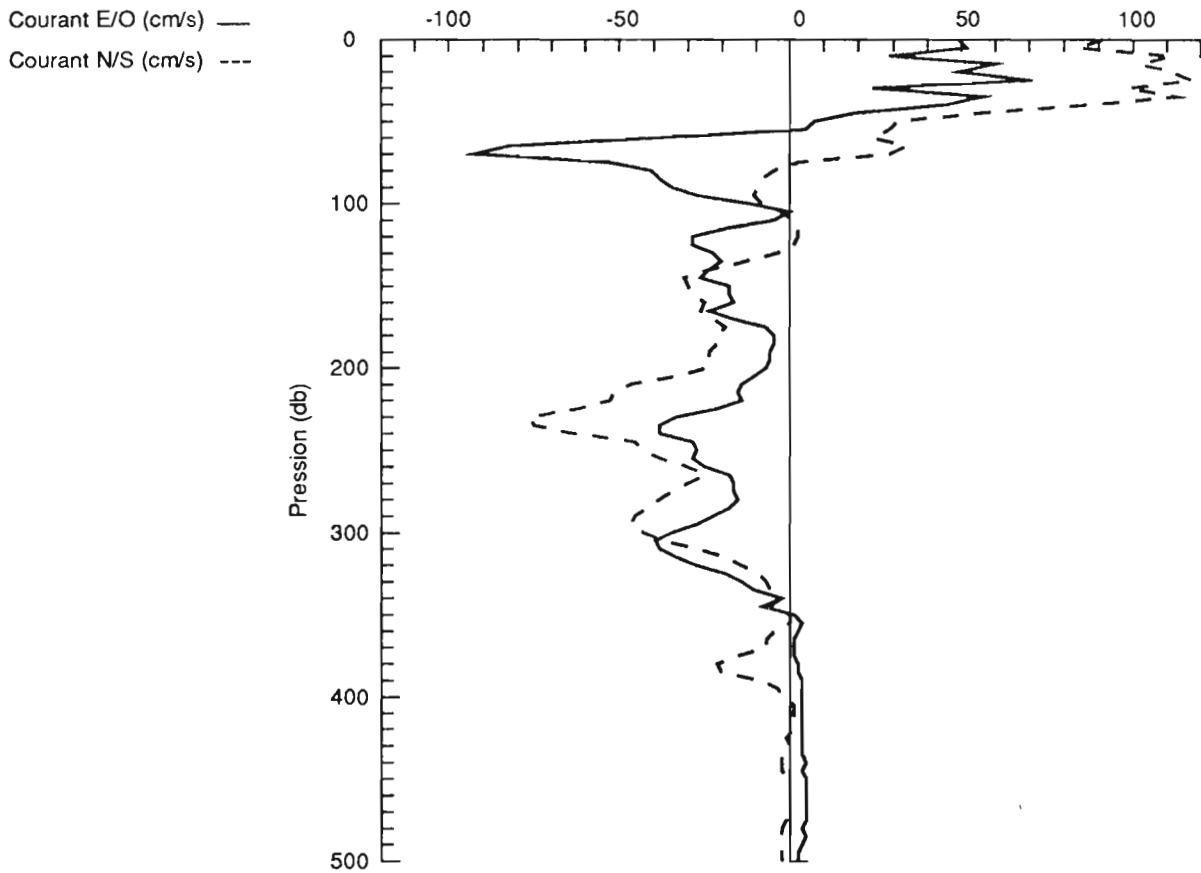
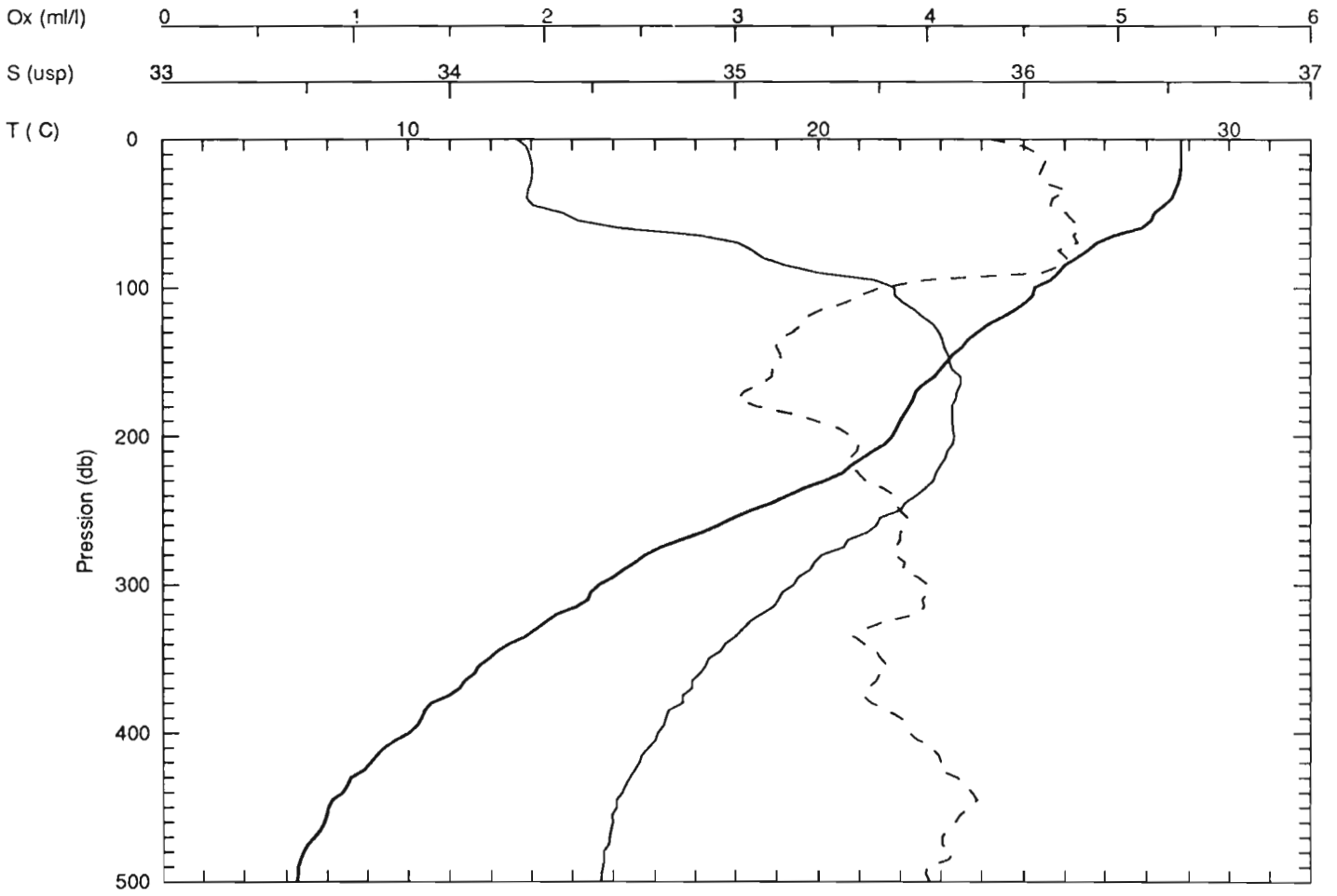
Courant E/O (cm/s) —  
Courant N/S (cm/s) ---



STATION : 8      CAMPAGNE : surtropacll  
 DATE : 8/ 1/89    HEURE : 22h25    LONGITUDE : 165.00    LATITUDE : -13.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.82 | 34.24 | 49.2   | 91.2   | 21.55   | 21.55    | 0.000   | 4.33   | 510  | 7.19 | 34.52 | 1.2    | -1.2   | 29.34   | 27.02    | 1.463   | 4.11   |
| 5    | 28.82 | 34.27 | 51.6   | 84.0   | 21.60   | 21.58    | 0.031   | 4.50   | 520  | 7.04 | 34.51 | 2.4    | 0.0    | 29.40   | 27.04    | 1.474   | 4.10   |
| 10   | 28.81 | 34.28 | 28.8   | 111.6  | 21.63   | 21.59    | 0.062   | 4.58   | 530  | 7.02 | 34.51 | 3.6    | 1.2    | 29.45   | 27.04    | 1.485   | 4.03   |
| 15   | 28.81 | 34.29 | 60.0   | 102.0  | 21.66   | 21.60    | 0.093   | 4.61   | 540  | 6.88 | 34.52 | 3.6    | 1.2    | 29.52   | 27.06    | 1.496   | 4.02   |
| 20   | 28.81 | 34.29 | 49.2   | 111.6  | 21.68   | 21.60    | 0.124   | 4.60   | 550  | 6.69 | 34.51 | 3.6    | 1.2    | 29.59   | 27.08    | 1.506   | 4.05   |
| 25   | 28.79 | 34.29 | 70.8   | 117.6  | 21.71   | 21.60    | 0.155   | 4.58   | 560  | 6.59 | 34.49 | 0.0    | 0.0    | 29.63   | 27.08    | 1.517   | 4.12   |
| 30   | 28.74 | 34.28 | 24.0   | 98.4   | 21.74   | 21.62    | 0.186   | 4.61   | 570  | 6.53 | 34.49 | 0.0    | 0.0    | 29.69   | 27.09    | 1.528   | 4.11   |
| 35   | 28.67 | 34.28 | 56.4   | 112.8  | 21.78   | 21.64    | 0.217   | 4.73   | 580  | 6.49 | 34.50 | 0.0    | 0.0    | 29.74   | 27.10    | 1.538   | 3.96   |
| 40   | 28.59 | 34.27 | 45.6   | 87.6   | 21.83   | 21.66    | 0.248   | 4.65   | 590  | 6.41 | 34.50 | 0.0    | 0.0    | 29.80   | 27.11    | 1.548   | 3.91   |
| 45   | 28.40 | 34.29 | 19.2   | 55.2   | 21.93   | 21.74    | 0.279   | 4.64   | 600  | 6.37 | 34.50 | 0.0    | 0.0    | 29.85   | 27.11    | 1.559   | 3.89   |
| 50   | 28.18 | 34.40 | 7.2    | 31.2   | 22.10   | 21.89    | 0.309   | 4.72   | 610  | 6.29 | 34.49 | 0.0    | 0.0    | 29.91   | 27.12    | 1.569   | 3.90   |
| 55   | 28.11 | 34.45 | 4.8    | 28.8   | 22.18   | 21.95    | 0.338   | 4.76   | 620  | 6.18 | 34.49 | 0.0    | 0.0    | 29.97   | 27.14    | 1.579   | 3.93   |
| 60   | 27.89 | 34.59 | -39.6  | 24.0   | 22.38   | 22.13    | 0.367   | 4.80   | 630  | 6.08 | 34.49 | 0.0    | 0.0    | 30.03   | 27.15    | 1.589   | 3.91   |
| 65   | 27.24 | 34.87 | -82.8  | 33.6   | 22.82   | 22.55    | 0.395   | 4.76   | 640  | 5.97 | 34.49 | 0.0    | 0.0    | 30.08   | 27.16    | 1.599   | 3.93   |
| 70   | 26.81 | 35.01 | -92.4  | 28.8   | 23.09   | 22.79    | 0.421   | 4.78   | 650  | 5.82 | 34.49 | 0.0    | 0.0    | 30.15   | 27.18    | 1.609   | 3.87   |
| 75   | 26.57 | 35.06 | -52.8  | 2.4    | 23.22   | 22.91    | 0.446   | 4.68   | 660  | 5.68 | 34.48 | 0.0    | 0.0    | 30.21   | 27.19    | 1.618   | 3.90   |
| 80   | 26.30 | 35.10 | -40.8  | -4.8   | 23.36   | 23.02    | 0.471   | 4.72   | 670  | 5.60 | 34.48 | 0.0    | 0.0    | 30.27   | 27.20    | 1.628   | 3.90   |
| 85   | 26.00 | 35.17 | -38.4  | -8.4   | 23.53   | 23.17    | 0.495   | 4.70   | 680  | 5.49 | 34.48 | 0.0    | 0.0    | 30.33   | 27.21    | 1.637   | 4.01   |
| 90   | 25.84 | 35.28 | -34.8  | -9.6   | 23.68   | 23.30    | 0.518   | 4.59   | 690  | 5.44 | 34.47 | 0.0    | 0.0    | 30.37   | 27.21    | 1.647   | 4.02   |
| 95   | 25.65 | 35.48 | -27.6  | -10.8  | 23.92   | 23.51    | 0.540   | 3.99   | 700  | 5.33 | 34.47 | 0.0    | 0.0    | 30.43   | 27.22    | 1.656   | 4.05   |
| 100  | 25.27 | 35.55 | -12.0  | -8.4   | 24.11   | 23.68    | 0.562   | 3.77   | 710  | 5.31 | 34.47 | 0.0    | 0.0    | 30.48   | 27.22    | 1.665   | 4.05   |
| 105  | 25.23 | 35.55 | 0.0    | -2.4   | 24.14   | 23.70    | 0.583   | 3.65   | 720  | 5.27 | 34.47 | 0.0    | 0.0    | 30.53   | 27.23    | 1.675   | 4.07   |
| 110  | 25.05 | 35.58 | -4.8   | 1.2    | 24.24   | 23.78    | 0.604   | 3.58   | 730  | 5.16 | 34.47 | 0.0    | 0.0    | 30.59   | 27.24    | 1.684   | 4.08   |
| 115  | 24.79 | 35.62 | -19.2  | 2.4    | 24.37   | 23.88    | 0.625   | 3.44   | 740  | 5.10 | 34.47 | 0.0    | 0.0    | 30.64   | 27.25    | 1.693   | 4.09   |
| 120  | 24.48 | 35.65 | -28.8  | 2.4    | 24.51   | 24.00    | 0.645   | 3.36   | 750  | 5.05 | 34.47 | 0.0    | 0.0    | 30.70   | 27.26    | 1.702   | 4.04   |
| 125  | 24.14 | 35.69 | -28.8  | 1.2    | 24.66   | 24.13    | 0.665   | 3.34   | 760  | 4.95 | 34.47 | 0.0    | 0.0    | 30.76   | 27.27    | 1.711   | 4.01   |
| 130  | 23.89 | 35.71 | -22.8  | -3.6   | 24.77   | 24.22    | 0.683   | 3.30   | 770  | 4.89 | 34.47 | 0.0    | 0.0    | 30.81   | 27.28    | 1.719   | 4.02   |
| 135  | 23.65 | 35.72 | -20.4  | -13.2  | 24.88   | 24.30    | 0.702   | 3.22   | 780  | 4.85 | 34.47 | 0.0    | 0.0    | 30.86   | 27.28    | 1.728   | 4.04   |
| 140  | 23.52 | 35.73 | -24.0  | -24.0  | 24.94   | 24.34    | 0.720   | 3.22   | 790  | 4.82 | 34.47 | 0.0    | 0.0    | 30.91   | 27.28    | 1.737   | 4.01   |
| 145  | 23.30 | 35.74 | -26.4  | -31.2  | 25.04   | 24.42    | 0.738   | 3.23   | 800  | 4.78 | 34.47 | 0.0    | 0.0    | 30.96   | 27.29    | 1.745   | 4.00   |
| 150  | 23.14 | 35.74 | -18.0  | -30.0  | 25.11   | 24.47    | 0.756   | 3.24   | 810  | 4.71 | 34.48 | 0.0    | 0.0    | 31.02   | 27.30    | 1.754   | 3.98   |
| 155  | 22.99 | 35.75 | -18.0  | -28.8  | 25.18   | 24.52    | 0.773   | 3.19   | 820  | 4.66 | 34.48 | 0.0    | 0.0    | 31.08   | 27.31    | 1.763   | 3.94   |
| 160  | 22.84 | 35.78 | -16.8  | -25.2  | 25.27   | 24.59    | 0.791   | 3.19   | 830  | 4.61 | 34.49 | 0.0    | 0.0    | 31.13   | 27.32    | 1.771   | 3.90   |
| 165  | 22.57 | 35.78 | -24.0  | -26.4  | 25.37   | 24.66    | 0.808   | 3.13   | 840  | 4.58 | 34.49 | 0.0    | 0.0    | 31.19   | 27.32    | 1.779   | 3.88   |
| 170  | 22.38 | 35.77 | -16.8  | -22.8  | 25.43   | 24.71    | 0.824   | 3.05   | 850  | 4.54 | 34.49 | 0.0    | 0.0    | 31.24   | 27.33    | 1.788   | 3.84   |
| 175  | 22.32 | 35.77 | -7.2   | -19.2  | 25.47   | 24.72    | 0.841   | 3.01   | 860  | 4.51 | 34.49 | 0.0    | 0.0    | 31.29   | 27.34    | 1.796   | 3.82   |
| 180  | 22.23 | 35.75 | -4.8   | -21.6  | 25.51   | 24.74    | 0.857   | 3.11   | 870  | 4.49 | 34.49 | 0.0    | 0.0    | 31.34   | 27.34    | 1.804   | 3.78   |
| 185  | 22.11 | 35.75 | -4.8   | -21.6  | 25.56   | 24.77    | 0.873   | 3.29   | 880  | 4.47 | 34.50 | 0.0    | 0.0    | 31.39   | 27.34    | 1.812   | 3.75   |
| 190  | 22.00 | 35.75 | -6.0   | -24.0  | 25.61   | 24.80    | 0.889   | 3.42   | 890  | 4.46 | 34.50 | 0.0    | 0.0    | 31.44   | 27.34    | 1.820   | 3.72   |
| 195  | 21.91 | 35.76 | -6.0   | -24.0  | 25.66   | 24.83    | 0.905   | 3.54   | 900  | 4.44 | 34.50 | 0.0    | 0.0    | 31.49   | 27.35    | 1.829   | 3.73   |
| 200  | 21.80 | 35.76 | -7.2   | -24.0  | 25.72   | 24.86    | 0.921   | 3.60   | 910  | 4.38 | 34.51 | 0.0    | 0.0    | 31.54   | 27.36    | 1.837   | 3.67   |
| 205  | 21.64 | 35.76 | -10.8  | -33.6  | 25.78   | 24.91    | 0.937   | 3.64   | 920  | 4.34 | 34.51 | 0.0    | 0.0    | 31.59   | 27.36    | 1.845   | 3.65   |
| 210  | 21.33 | 35.74 | -14.4  | -46.8  | 25.88   | 24.98    | 0.952   | 3.63   | 930  | 4.33 | 34.51 | 0.0    | 0.0    | 31.64   | 27.37    | 1.853   | 3.66   |
| 215  | 21.07 | 35.73 | -15.6  | -51.6  | 25.97   | 25.04    | 0.968   | 3.59   | 940  | 4.32 | 34.51 | 0.0    | 0.0    | 31.69   | 27.37    | 1.861   | 3.68   |
| 220  | 20.78 | 35.71 | -14.4  | -52.8  | 26.05   | 25.11    | 0.982   | 3.60   | 950  | 4.28 | 34.51 | 0.0    | 0.0    | 31.74   | 27.37    | 1.869   | 3.66   |
| 225  | 20.57 | 35.70 | -21.6  | -62.4  | 26.12   | 25.16    | 0.997   | 3.63   | 960  | 4.24 | 34.51 | 0.0    | 0.0    | 31.80   | 27.38    | 1.877   | 3.64   |
| 230  | 20.16 | 35.69 | -33.6  | -76.8  | 26.25   | 25.26    | 1.011   | 3.68   | 970  | 4.22 | 34.51 | 0.0    | 0.0    | 31.84   | 27.38    | 1.884   | 3.59   |
| 235  | 19.65 | 35.66 | -38.4  | -75.6  | 26.38   | 25.37    | 1.025   | 3.77   | 980  | 4.20 | 34.52 | 0.0    | 0.0    | 31.90   | 27.39    | 1.892   | 3.56   |
| 240  | 19.26 | 35.63 | -38.4  | -63.6  | 26.48   | 25.44    | 1.038   | 3.83   | 990  | 4.16 | 34.52 | 0.0    | 0.0    | 31.95   | 27.39    | 1.900   | 3.56   |
| 245  | 18.89 | 35.59 | -28.8  | -45.6  | 26.57   | 25.51    | 1.051   | 3.84   | 1000 | 4.13 | 34.52 | 0.0    | 0.0    | 32.00   | 27.40    | 1.908   | 3.57   |
| 250  | 18.39 | 35.57 | -27.6  | -43.2  | 26.71   | 25.63    | 1.064   | 3.85   | 1020 | 4.06 | 34.52 | 0.0    | 0.0    | 32.10   | 27.41    | 1.923   | 3.53   |
| 255  | 17.95 | 35.50 | -28.8  | -38.4  | 26.79   | 25.68    | 1.076   | 3.89   | 1040 | 3.99 | 34.53 | 0.0    | 0.0    | 32.20   | 27.42    | 1.938   | 3.58   |
| 260  | 17.58 | 35.49 | -25.2  | -30.0  | 26.89   | 25.76    | 1.087   | 3.89   | 1060 | 3.89 | 34.53 | 0.0    | 0.0    | 32.31   | 27.43    | 1.953   | 3.54   |
| 265  | 17.15 | 35.46 | -18.0  | -25.2  | 26.99   | 25.84    | 1.099   | 3.86   | 1080 | 3.82 | 34.53 | 0.0    | 0.0    | 32.41   | 27.44    | 1.967   | 3.54   |
| 270  | 16.62 | 35.39 | -16.8  | -30.0  | 27.09   | 25.91    | 1.110   | 3.86   | 1100 | 3.77 | 34.54 | 0.0    | 0.0    | 32.51   | 27.45    | 1.982   | 3.55   |
| 275  | 16.15 | 35.37 | -16.8  | -34.8  | 27.21   | 26.01    | 1.120   | 3.84   | 1120 | 3.68 | 34.54 | 0.0    | 0.0    | 32.62   | 27.46    | 1.996   | 3.53   |
| 280  | 15.77 | 35.30 | -15.6  | -38.4  | 27.26   | 26.04    | 1.131   | 3.83   | 1140 | 3.64 | 34.54 | 0.0    | 0.0    | 32.72   | 27.47    | 2.010   | 3.48   |
| 285  | 15.52 | 35.27 | -18.0  | -42.0  | 27.33   | 26.08    | 1.141   | 3.88   | 1160 | 3.58 | 34.55 | 0.0    | 0.0    | 32.82   | 27.48    | 2.024   | 3.44   |
| 290  | 15.24 | 35.26 | -22.8  | -45.6  | 27.40   | 26.13    | 1.151   | 3.87   | 1180 | 3.52 | 34.55 | 0.0    | 0.0    | 32.92   | 27.49    | 2.038   | 3.45   |
| 295  | 14.98 | 35.22 | -27.6  | -46.8  | 27.45   | 26.15    | 1.161   | 3.95   | 1200 | 3.47 | 34.56 | 0.0    | 0.0    | 33.02   | 27.49    | 2.052   | 3.48   |
| 300  | 14.64 | 35.20 | -34.8  | -43.2  | 27.54   | 26.22    | 1.170   | 4.00   | 1220 | 3.42 | 34.55 | 0.0    | 0.0    | 33.12   | 27.50    | 2.066   | 3.50   |
| 305  | 14.45 | 35.16 | -39.6  | -37.2  | 27.57   | 26.23    | 1.180   | 4.01   | 1240 | 3.38 | 34.55 | 0.0    | 0.0    | 33.22   | 27.50    | 2.079   | 3.53   |
| 310  | 14.38 | 35.15 | -38.4  | -27.6  | 27.60   | 26.23    | 1.189   | 3.97   | 1260 | 3.32 | 34.56 | 0.0    | 0.0    | 33.32   | 27.51    | 2.092   | 3.54   |
| 315  | 14.11 | 35.13 | -33.6  | -19.2  | 27.67   | 26.28    | 1.198   | 3.98   | 1280 | 3.27 | 34.56 | 0.0    | 0.0    | 33.41   | 27.52    | 2.106   | 3.55   |
| 320  | 13.64 | 35.09 | -27.6  | -14.4  | 27.76   | 26.34    | 1.207   | 3.95   | 1300 | 3.23 | 34.56 | 0.0    | 0.0    | 33.51   | 27.52    | 2.119   | 3.55   |
| 325  | 13.37 | 35.05 | -19.2  | -9.6   | 27.80   | 26.37    | 1.216   | 3.78   | 1320 | 3.17 | 34.57 | 0.0    | 0.0    | 33.62   | 27.53    | 2.132   | 3.53   |
| 330  | 13.11 | 35.03 | -14.4  | -7.2   | 27.86   | 26.40    | 1.225   | 3.65   | 1340 | 3.15 | 34.57 | 0.0    | 0.0    | 33.71   | 27.54    | 2.145   | 3.53   |
| 335  | 12.85 | 35.00 | -10.8  | -6.0   | 27.92   | 26.43    | 1.233   | 3.61   | 1360 | 3.12 | 34.57 | 0.0    | 0.0    | 33.81   | 27.54    | 2.158   | 3.48   |
| 340  | 12.44 | 34.96 | -2.4   | -2.4   | 27.99   | 26.49    | 1.242   | 3.67   | 1380 | 3.07 | 34.58 | 0.0    | 0.0    | 33.91   | 27.55    | 2.170   | 3.45   |
| 345  | 12.14 | 34.95 | -8.4   | -6.0   | 28.06   | 26.53    | 1.250   | 3.73   | 1400 | 3.03 | 34.58 | 0.0    | 0.0    | 34.01   | 27.56</  |         |        |

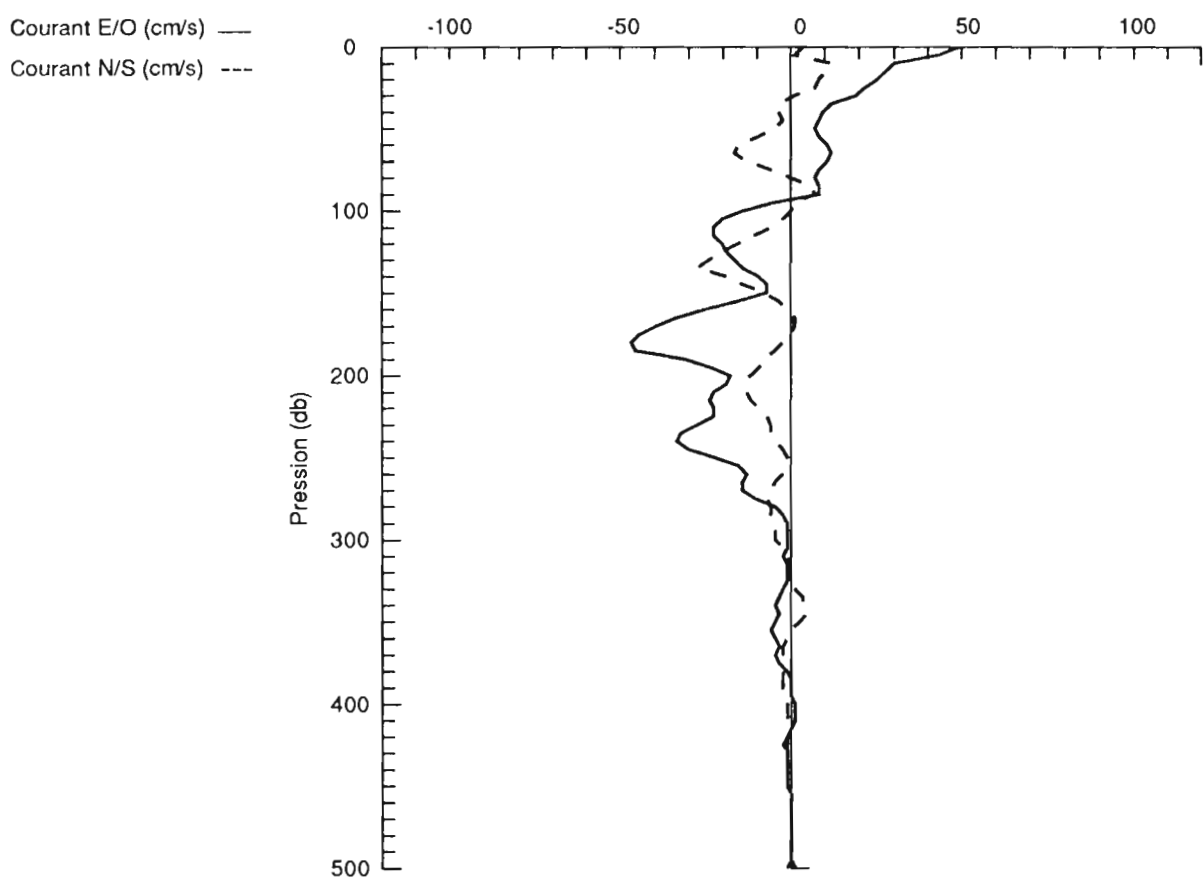
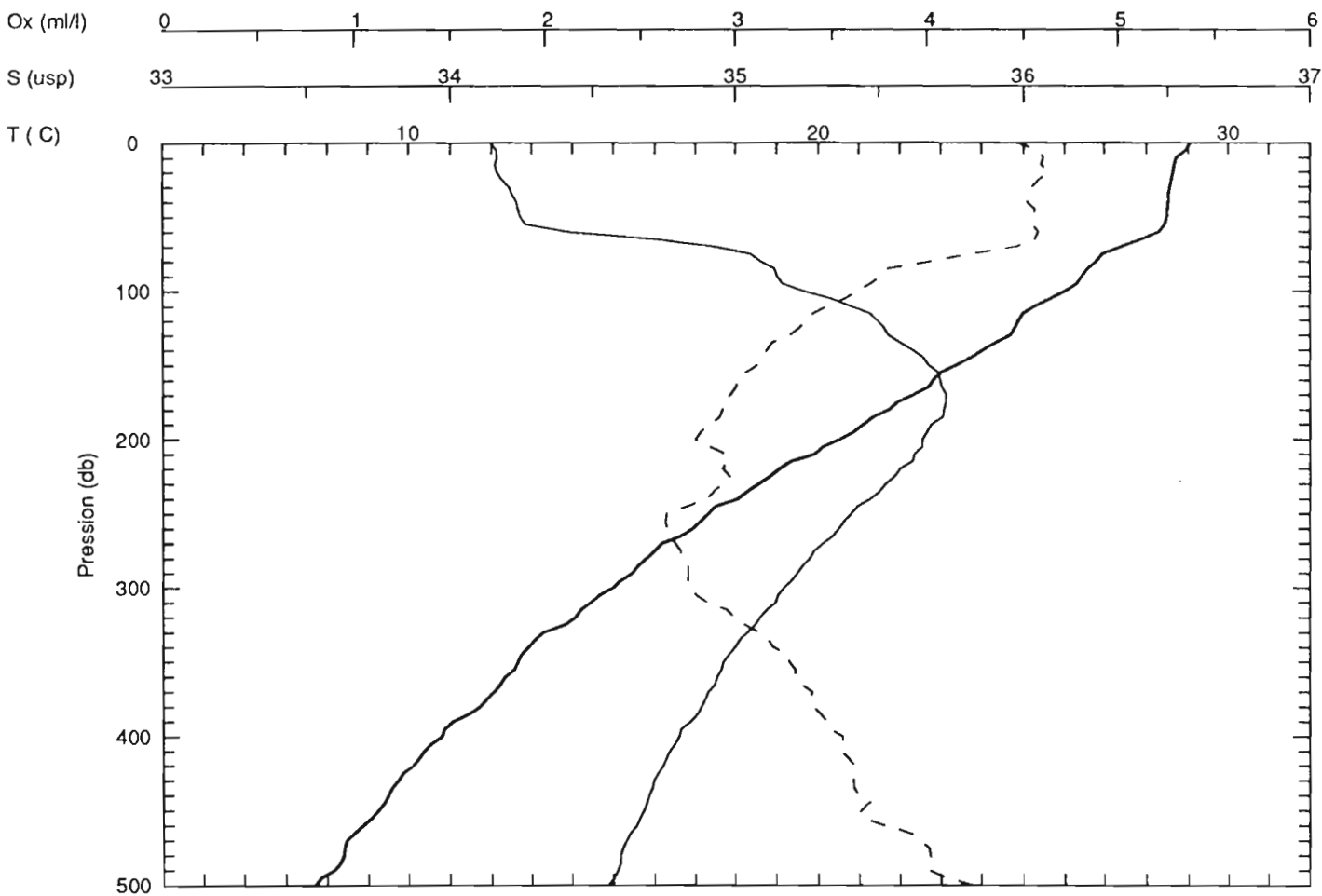
SURTROPAC11 STATION No : 8  
DATE : 8/ 1/89 HEURE : 22h25 LONGITUDE : 165.00 LATITUDE : -13.00



STATION : 9      CAMPAGNE : #urtropac11  
 DATE : 9/ 1/89    HEURE : 5h55    LONGITUDE : 165.00    LATITUDE : -12.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 29.04 | 34.14 | 49.2   | 3.6    | 21.41   | 21.41    | 0.000   | 4.46   | 510  | 7.58 | 34.53 | -1.2   | 1.2    | 29.29   | 26.97    | 1.492   | 4.36   |
| 5    | 28.93 | 34.16 | 43.2   | 1.2    | 21.48   | 21.46    | 0.032   | 4.58   | 520  | 7.44 | 34.51 | -1.2   | 0.0    | 29.34   | 26.98    | 1.504   | 4.41   |
| 10   | 28.70 | 34.16 | 30.0   | 12.0   | 21.58   | 21.54    | 0.063   | 4.60   | 530  | 7.30 | 34.51 | 0.0    | 0.0    | 29.40   | 27.00    | 1.515   | 4.40   |
| 15   | 28.65 | 34.15 | 27.6   | 10.8   | 21.61   | 21.55    | 0.095   | 4.59   | 540  | 7.20 | 34.50 | -1.2   | 0.0    | 29.46   | 27.01    | 1.527   | 4.41   |
| 20   | 28.62 | 34.16 | 25.2   | 8.4    | 21.65   | 21.56    | 0.126   | 4.63   | 550  | 6.94 | 34.48 | 0.0    | -1.2   | 29.53   | 27.03    | 1.538   | 4.50   |
| 25   | 28.59 | 34.10 | 21.6   | 7.2    | 21.70   | 21.59    | 0.157   | 4.58   | 560  | 6.80 | 34.47 | 0.0    | -1.2   | 29.59   | 27.04    | 1.549   | 4.56   |
| 30   | 28.55 | 34.20 | 19.2   | 1.2    | 21.75   | 21.62    | 0.188   | 4.55   | 570  | 6.69 | 34.46 | 1.2    | -1.2   | 29.64   | 27.05    | 1.560   | 4.53   |
| 35   | 28.52 | 34.22 | 12.0   | -3.6   | 21.79   | 21.64    | 0.219   | 4.53   | 580  | 6.59 | 34.46 | 0.0    | 0.0    | 29.71   | 27.06    | 1.571   | 4.47   |
| 40   | 28.51 | 34.23 | 9.6    | -3.6   | 21.82   | 21.65    | 0.250   | 4.52   | 590  | 6.54 | 34.46 | -1.2   | 1.2    | 29.76   | 27.07    | 1.582   | 4.47   |
| 45   | 28.50 | 34.24 | 8.4    | -2.4   | 21.85   | 21.66    | 0.280   | 4.56   | 600  | 6.41 | 34.46 | -1.2   | 2.4    | 29.82   | 27.08    | 1.592   | 4.47   |
| 50   | 28.48 | 34.24 | 7.2    | -4.8   | 21.89   | 21.68    | 0.311   | 4.55   | 610  | 6.26 | 34.46 |        |        | 29.88   | 27.10    | 1.603   | 4.44   |
| 55   | 28.43 | 34.26 | 0.4    | -9.6   | 21.94   | 21.71    | 0.342   | 4.54   | 620  | 6.19 | 34.46 |        |        | 29.94   | 27.11    | 1.613   | 4.39   |
| 60   | 28.29 | 34.41 | 10.8   | -15.6  | 22.11   | 21.86    | 0.372   | 4.57   | 630  | 6.07 | 34.46 |        |        | 30.00   | 27.12    | 1.624   | 4.40   |
| 65   | 27.89 | 34.71 | 12.0   | -16.8  | 22.50   | 22.22    | 0.401   | 4.56   | 640  | 5.92 | 34.45 |        |        | 30.06   | 27.14    | 1.634   | 4.43   |
| 70   | 27.41 | 34.92 | 10.8   | -13.2  | 22.83   | 22.54    | 0.428   | 4.47   | 650  | 5.82 | 34.45 |        |        | 30.12   | 27.15    | 1.644   | 4.43   |
| 75   | 26.95 | 35.05 | 8.4    | -6.0   | 23.10   | 22.78    | 0.454   | 4.24   | 660  | 5.75 | 34.45 |        |        | 30.17   | 27.15    | 1.654   | 4.42   |
| 80   | 26.79 | 35.09 | 7.2    | 0.0    | 23.20   | 22.86    | 0.480   | 4.02   | 670  | 5.61 | 34.45 |        |        | 30.24   | 27.17    | 1.664   | 4.39   |
| 85   | 26.58 | 35.14 | 8.4    | 6.0    | 23.32   | 22.96    | 0.505   | 3.80   | 680  | 5.59 | 34.44 |        |        | 30.28   | 27.17    | 1.673   | 4.38   |
| 90   | 26.43 | 35.15 | 8.4    | 7.2    | 23.40   | 23.02    | 0.529   | 3.76   | 690  | 5.55 | 34.44 |        |        | 30.34   | 27.18    | 1.683   | 4.38   |
| 95   | 26.30 | 35.16 | -4.8   | 1.2    | 23.47   | 23.07    | 0.553   | 3.70   | 700  | 5.46 | 34.45 |        |        | 30.40   | 27.19    | 1.693   | 4.36   |
| 100  | 26.03 | 35.23 | -14.4  | 0.0    | 23.63   | 23.21    | 0.577   | 3.64   | 710  | 5.38 | 34.45 |        |        | 30.45   | 27.20    | 1.702   | 4.32   |
| 105  | 25.66 | 35.33 | -20.4  | -2.4   | 23.84   | 23.40    | 0.600   | 3.57   | 720  | 5.34 | 34.45 |        |        | 30.50   | 27.20    | 1.712   | 4.30   |
| 110  | 25.29 | 35.39 | -22.8  | -6.0   | 24.03   | 23.56    | 0.623   | 3.48   | 730  | 5.21 | 34.45 |        |        | 30.57   | 27.22    | 1.721   | 4.30   |
| 115  | 24.99 | 35.47 | -22.8  | -10.8  | 24.19   | 23.71    | 0.644   | 3.40   | 740  | 5.13 | 34.46 |        |        | 30.63   | 27.24    | 1.730   | 4.24   |
| 120  | 24.87 | 35.49 | -20.4  | -15.6  | 24.27   | 23.76    | 0.665   | 3.36   | 750  | 5.04 | 34.46 |        |        | 30.69   | 27.25    | 1.739   | 4.22   |
| 125  | 24.79 | 35.52 | -19.2  | -20.4  | 24.34   | 23.81    | 0.686   | 3.33   | 760  | 5.02 | 34.46 |        |        | 30.74   | 27.25    | 1.748   | 4.19   |
| 130  | 24.67 | 35.53 | -16.8  | -24.0  | 24.40   | 23.85    | 0.707   | 3.28   | 770  | 4.97 | 34.46 |        |        | 30.79   | 27.26    | 1.758   | 4.18   |
| 135  | 24.33 | 35.57 | -14.4  | -27.6  | 24.56   | 23.99    | 0.727   | 3.19   | 780  | 4.92 | 34.47 |        |        | 30.85   | 27.27    | 1.766   | 4.14   |
| 140  | 24.02 | 35.62 | -9.6   | -19.2  | 24.71   | 24.11    | 0.746   | 3.16   | 790  | 4.89 | 34.47 |        |        | 30.90   | 27.27    | 1.775   | 4.09   |
| 145  | 23.74 | 35.65 | -7.2   | -14.4  | 24.84   | 24.22    | 0.765   | 3.14   | 800  | 4.83 | 34.47 |        |        | 30.96   | 27.28    | 1.784   | 4.05   |
| 150  | 23.39 | 35.67 | -7.2   | -8.4   | 24.98   | 24.34    | 0.784   | 3.11   | 810  | 4.76 | 34.48 |        |        | 31.02   | 27.30    | 1.793   | 4.03   |
| 155  | 23.00 | 35.71 | -15.6  | -3.6   | 25.14   | 24.48    | 0.802   | 3.05   | 820  | 4.69 | 34.48 |        |        | 31.07   | 27.31    | 1.801   | 3.97   |
| 160  | 22.81 | 35.71 | -25.2  | -1.2   | 25.22   | 24.54    | 0.819   | 3.02   | 830  | 4.64 | 34.48 |        |        | 31.12   | 27.31    | 1.810   | 3.96   |
| 165  | 22.69 | 35.72 | -33.6  | 1.2    | 25.28   | 24.58    | 0.836   | 3.00   | 840  | 4.58 | 34.48 |        |        | 31.18   | 27.32    | 1.818   | 3.97   |
| 170  | 22.33 | 35.73 | -39.6  | 1.2    | 25.42   | 24.69    | 0.853   | 2.97   | 850  | 4.52 | 34.48 |        |        | 31.23   | 27.32    | 1.827   | 3.99   |
| 175  | 21.94 | 35.73 | -44.4  | 0.0    | 25.55   | 24.80    | 0.869   | 2.93   | 860  | 4.43 | 34.48 |        |        | 31.29   | 27.33    | 1.835   | 4.02   |
| 180  | 21.74 | 35.72 | -46.8  | -2.4   | 25.62   | 24.85    | 0.885   | 2.93   | 870  | 4.40 | 34.48 |        |        | 31.34   | 27.34    | 1.843   | 4.00   |
| 185  | 21.34 | 35.72 | -45.6  | -4.8   | 25.75   | 24.96    | 0.901   | 2.91   | 880  | 4.39 | 34.48 |        |        | 31.39   | 27.34    | 1.851   | 4.00   |
| 190  | 21.10 | 35.68 | -31.2  | -8.4   | 25.81   | 25.00    | 0.916   | 2.86   | 890  | 4.31 | 34.49 |        |        | 31.45   | 27.35    | 1.859   | 3.92   |
| 195  | 20.86 | 35.67 | -24.0  | -9.6   | 25.89   | 25.05    | 0.931   | 2.81   | 900  | 4.26 | 34.49 |        |        | 31.50   | 27.36    | 1.867   | 3.98   |
| 200  | 20.51 | 35.65 | -18.0  | -12.0  | 25.99   | 25.13    | 0.946   | 2.78   | 910  | 4.22 | 34.49 |        |        | 31.55   | 27.36    | 1.875   | 3.96   |
| 205  | 20.11 | 35.65 | -19.2  | -13.2  | 26.12   | 25.24    | 0.960   | 2.86   | 920  | 4.21 | 34.50 |        |        | 31.60   | 27.37    | 1.883   | 3.87   |
| 210  | 19.91 | 35.62 | -22.8  | -13.2  | 26.18   | 25.27    | 0.974   | 2.95   | 930  | 4.20 | 34.50 |        |        | 31.65   | 27.37    | 1.891   | 3.84   |
| 215  | 19.34 | 35.62 | -24.0  | -12.0  | 26.34   | 25.42    | 0.988   | 2.95   | 940  | 4.17 | 34.50 |        |        | 31.70   | 27.38    | 1.899   | 3.84   |
| 220  | 19.08 | 35.57 | -22.8  | -9.6   | 26.40   | 25.45    | 1.001   | 2.93   | 950  | 4.13 | 34.50 |        |        | 31.75   | 27.38    | 1.907   | 3.83   |
| 225  | 18.85 | 35.55 | -22.8  | -7.2   | 26.47   | 25.49    | 1.014   | 2.97   | 960  | 4.10 | 34.51 |        |        | 31.81   | 27.39    | 1.915   | 3.80   |
| 230  | 18.57 | 35.52 | -27.6  | -6.0   | 26.54   | 25.54    | 1.026   | 2.93   | 970  | 4.07 | 34.51 |        |        | 31.86   | 27.39    | 1.922   | 3.76   |
| 235  | 18.29 | 35.50 | -32.4  | -6.0   | 26.61   | 25.60    | 1.039   | 2.88   | 980  | 4.05 | 34.51 |        |        | 31.91   | 27.40    | 1.930   | 3.72   |
| 240  | 18.05 | 35.47 | -33.6  | -4.8   | 26.67   | 25.63    | 1.051   | 2.85   | 990  | 4.03 | 34.51 |        |        | 31.96   | 27.40    | 1.938   | 3.71   |
| 245  | 17.49 | 35.42 | -30.0  | -2.4   | 26.80   | 25.73    | 1.063   | 2.74   | 1000 | 3.99 | 34.51 |        |        | 32.01   | 27.41    | 1.945   | 3.72   |
| 250  | 17.32 | 35.40 | -22.8  | -1.2   | 26.84   | 25.76    | 1.075   | 2.63   | 1020 | 3.97 | 34.51 |        |        | 32.10   | 27.41    | 1.960   | 3.72   |
| 255  | 17.13 | 35.38 | -15.6  | -1.2   | 26.89   | 25.78    | 1.086   | 2.63   | 1040 | 3.91 | 34.52 |        |        | 32.21   | 27.42    | 1.975   | 3.67   |
| 260  | 16.92 | 35.36 | -13.2  | -2.4   | 26.95   | 25.82    | 1.098   | 2.63   | 1060 | 3.83 | 34.52 |        |        | 32.31   | 27.43    | 1.990   | 3.67   |
| 265  | 16.64 | 35.33 | -14.4  | -4.8   | 27.02   | 25.87    | 1.109   | 2.65   | 1080 | 3.74 | 34.53 |        |        | 32.42   | 27.45    | 2.005   | 3.63   |
| 270  | 16.16 | 35.30 | -14.4  | -6.0   | 27.13   | 25.95    | 1.120   | 2.68   | 1100 | 3.68 | 34.54 |        |        | 32.53   | 27.46    | 2.019   | 3.59   |
| 275  | 15.99 | 35.27 | -10.8  | -7.2   | 27.17   | 25.97    | 1.130   | 2.71   | 1120 | 3.67 | 34.54 |        |        | 32.62   | 27.47    | 2.033   | 3.44   |
| 280  | 15.80 | 35.26 | -4.8   | -6.0   | 27.23   | 26.00    | 1.141   | 2.71   | 1140 | 3.62 | 34.54 |        |        | 32.72   | 27.47    | 2.047   | 3.43   |
| 285  | 15.60 | 35.23 | -2.4   | -6.0   | 27.28   | 26.03    | 1.151   | 2.75   | 1160 | 3.56 | 34.55 |        |        | 32.82   | 27.48    | 2.061   | 3.46   |
| 290  | 15.44 | 35.21 | -1.2   | -6.0   | 27.32   | 26.05    | 1.162   | 2.74   | 1180 | 3.51 | 34.55 |        |        | 32.92   | 27.49    | 2.075   | 3.44   |
| 295  | 15.18 | 35.19 | -1.2   | -4.8   | 27.39   | 26.09    | 1.172   | 2.74   | 1200 | 3.43 | 34.55 |        |        | 33.02   | 27.49    | 2.089   | 3.55   |
| 300  | 14.98 | 35.17 | -1.2   | -4.8   | 27.43   | 26.12    | 1.182   | 2.76   | 1220 | 3.36 | 34.56 |        |        | 33.13   | 27.50    | 2.102   | 3.59   |
| 305  | 14.66 | 35.15 | -1.2   | -2.4   | 27.51   | 26.17    | 1.192   | 2.79   | 1240 | 3.35 | 34.56 |        |        | 33.22   | 27.51    | 2.115   | 3.55   |
| 310  | 14.44 | 35.14 | -2.4   | -1.2   | 27.58   | 26.21    | 1.201   | 2.85   | 1260 | 3.29 | 34.56 |        |        | 33.32   | 27.52    | 2.129   | 3.52   |
| 315  | 14.21 | 35.11 | -1.2   | 0.0    | 27.62   | 26.24    | 1.211   | 2.95   | 1280 | 3.26 | 34.56 |        |        | 33.42   | 27.52    | 2.142   | 3.51   |
| 320  | 14.07 | 35.09 | -1.2   | 0.0    | 27.66   | 26.25    | 1.220   | 2.99   | 1300 | 3.23 | 34.56 |        |        | 33.51   | 27.52    | 2.155   | 3.60   |
| 325  | 13.81 | 35.07 | -1.2   | 0.0    | 27.72   | 26.29    | 1.229   | 3.05   | 1320 | 3.21 | 34.56 |        |        | 33.61   | 27.53    | 2.168   | 3.58   |
| 330  | 13.30 | 35.04 | -2.4   | 1.2    | 27.84   | 26.38    | 1.238   | 3.13   | 1340 | 3.17 | 34.56 |        |        | 33.70   | 27.53    | 2.181   | 3.61   |
| 335  | 13.08 | 35.01 | -3.6   | 3.6    | 27.88   | 26.40    | 1.247   | 3.17   | 1360 | 3.13 | 34.57 |        |        | 33.81   | 27.54    | 2.194   | 3.58   |
| 340  | 12.93 | 35.00 | -4.8   | 3.6    | 27.92   | 26.42    | 1.255   | 3.20   | 1380 | 3.11 | 34.57 |        |        | 33.90   | 27.54    | 2.207   | 3.57   |
| 345  | 12.73 | 34.98 | -3.6   | 4.8    | 27.97   | 26.44    | 1.263   | 3.27   | 1400 | 3.09 | 34.57 |        |        | 33.99   | 27.54    | 2.220   | 3.53   |
| 350  | 12.65 | 34.96 | -4.8   | 2.4    | 27.99   | 26.44    | 1.272   | 3.28   | 1420 | 3.06 | 34.57 |        |        | 34.09   | 27.55    | 2.232   | 3.56   |
| 355  | 12.56 | 34.95 | -6.0   | 0.0    | 28.03   | 26.45    | 1.280   | 3.31   | 1440 | 3.01 | 34.58 |        |        | 34.19   | 27.56    | 2.245   | 3.53   |
| 360  | 12.32 | 34.93 | -4.8   | -1.2   | 28.08   | 26.49    | 1.289   | 3.31   | 1460 | 2.97 | 34.58 |        |        | 34.29   | 27.56    | 2.257   | 3.     |

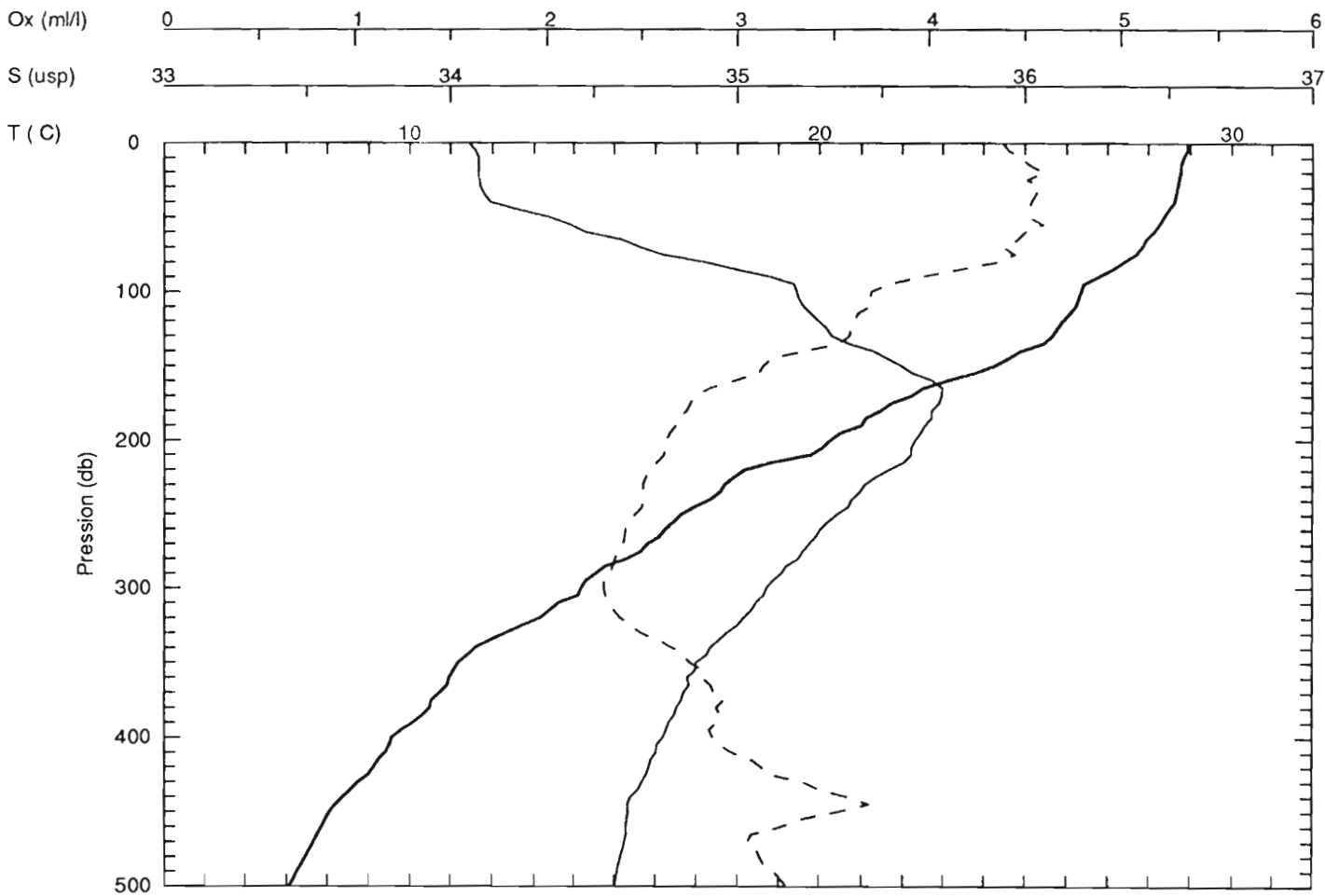
SURTROPAC11 STATION No : 9  
DATE : 9/ 1/89 HEURE : 5h55 LONGITUDE : 165.00 LATITUDE : -12.00



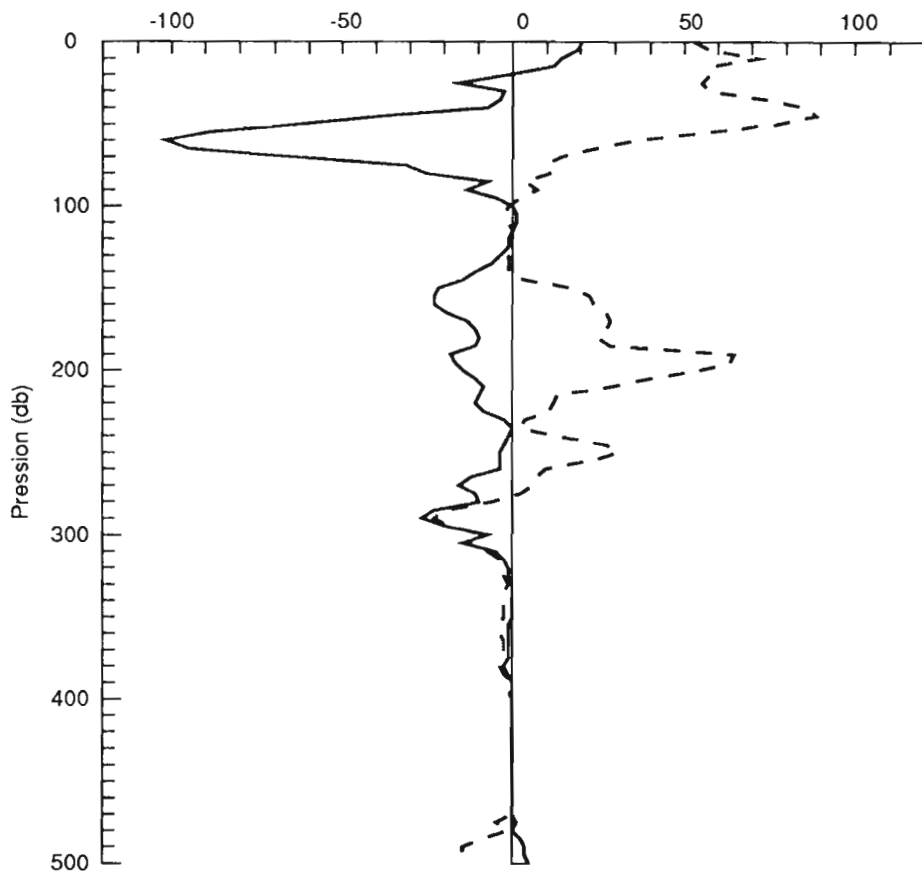
STATION : 10      CAMPAGNE : murtropac11  
 DATE : 9/ 1/89    HEURE : 15h30    LONGITUDE : 165.00    LATITUDE : -11.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.94 | 34.06 | 20.4   | 52.8   | 21.38   | 21.38    | 0.000   | 4.39   | 510  | 6.97 | 34.56 | 8.4    | -22.8  | 29.40   | 27.08    | 1.485   | 3.28   |
| 5    | 28.92 | 34.09 | 19.2   | 57.6   | 21.43   | 21.41    | 0.032   | 4.42   | 520  | 6.96 | 34.55 | 9.6    | -26.4  | 29.45   | 27.08    | 1.495   | 3.28   |
| 10   | 28.84 | 34.10 | 14.4   | 72.0   | 21.48   | 21.44    | 0.064   | 4.48   | 530  | 6.84 | 34.55 | 16.8   | -43.2  | 29.51   | 27.09    | 1.506   | 3.32   |
| 15   | 28.79 | 34.09 | 12.0   | 57.6   | 21.52   | 21.46    | 0.096   | 4.52   | 540  | 6.80 | 34.54 | 14.4   | -32.4  | 29.55   | 27.09    | 1.516   | 3.33   |
| 20   | 28.78 | 34.09 | -1.2   | 57.6   | 21.55   | 21.46    | 0.127   | 4.60   | 550  | 6.77 | 34.54 | 14.4   | -27.6  | 29.60   | 27.09    | 1.527   | 3.37   |
| 25   | 28.73 | 34.10 | -15.6  | 55.2   | 21.58   | 21.48    | 0.159   | 4.51   | 560  | 6.68 | 34.54 | 14.4   | -28.8  | 29.66   | 27.11    | 1.537   | 3.43   |
| 30   | 28.70 | 34.10 | -2.4   | 57.6   | 21.62   | 21.49    | 0.190   | 4.58   | 570  | 6.63 | 34.53 | 14.4   | -27.6  | 29.71   | 27.11    | 1.548   | 3.44   |
| 35   | 28.66 | 34.12 | -3.6   | 74.4   | 21.66   | 21.52    | 0.222   | 4.55   | 580  | 6.53 | 34.53 | 3.6    | -7.2   | 29.77   | 27.12    | 1.558   | 3.39   |
| 40   | 28.63 | 34.13 | -7.2   | 86.4   | 21.71   | 21.54    | 0.253   | 4.53   | 590  | 6.51 | 34.53 | 1.2    | -3.6   | 29.81   | 27.12    | 1.568   | 3.38   |
| 45   | 28.50 | 34.23 | -37.2  | 88.8   | 21.84   | 21.66    | 0.284   | 4.52   | 600  | 6.47 | 34.53 | 1.2    | -3.6   | 29.86   | 27.13    | 1.578   | 3.37   |
| 50   | 28.38 | 34.34 | -62.4  | 76.8   | 21.99   | 21.78    | 0.315   | 4.52   | 610  | 6.41 | 34.53 |        |        | 29.91   | 27.13    | 1.588   | 3.42   |
| 55   | 28.27 | 34.42 | -88.8  | 56.4   | 22.10   | 21.87    | 0.345   | 4.59   | 620  | 6.32 | 34.53 |        |        | 29.97   | 27.14    | 1.599   | 3.41   |
| 60   | 28.14 | 34.47 | ****   | 36.0   | 22.21   | 21.96    | 0.375   | 4.50   | 630  | 6.15 | 34.53 |        |        | 30.04   | 27.17    | 1.609   | 3.46   |
| 65   | 27.95 | 34.60 | -94.8  | 24.0   | 22.39   | 22.12    | 0.404   | 4.46   | 640  | 6.02 | 34.52 |        |        | 30.10   | 27.18    | 1.618   | 3.46   |
| 70   | 27.85 | 34.66 | -66.0  | 14.4   | 22.49   | 22.20    | 0.432   | 4.39   | 650  | 5.97 | 34.51 |        |        | 30.15   | 27.18    | 1.628   | 3.43   |
| 75   | 27.70 | 34.74 | -31.2  | 9.6    | 22.62   | 22.30    | 0.460   | 4.45   | 660  | 5.96 | 34.51 |        |        | 30.19   | 27.18    | 1.638   | 3.45   |
| 80   | 27.39 | 34.89 | -25.2  | 10.8   | 22.85   | 22.52    | 0.488   | 4.35   | 670  | 5.96 | 34.51 |        |        | 30.24   | 27.18    | 1.647   | 3.46   |
| 85   | 27.12 | 34.99 | -7.2   | 3.6    | 23.04   | 22.68    | 0.514   | 4.16   | 680  | 5.90 | 34.51 |        |        | 30.30   | 27.19    | 1.657   | 3.48   |
| 90   | 26.76 | 35.11 | -13.2  | 7.2    | 23.27   | 22.89    | 0.539   | 3.96   | 690  | 5.84 | 34.51 |        |        | 30.35   | 27.19    | 1.667   | 3.47   |
| 95   | 26.40 | 35.20 | -4.8   | 2.4    | 23.47   | 23.07    | 0.564   | 3.79   | 700  | 5.78 | 34.51 |        |        | 30.40   | 27.20    | 1.676   | 3.47   |
| 100  | 26.35 | 35.21 | 0.0    | -1.2   | 23.51   | 23.09    | 0.588   | 3.69   | 710  | 5.71 | 34.51 |        |        | 30.46   | 27.21    | 1.686   | 3.47   |
| 105  | 26.28 | 35.22 | 1.2    | -2.4   | 23.56   | 23.12    | 0.612   | 3.69   | 720  | 5.66 | 34.51 |        |        | 30.51   | 27.22    | 1.695   | 3.46   |
| 110  | 26.22 | 35.23 | 1.2    | -1.2   | 23.61   | 23.15    | 0.636   | 3.69   | 730  | 5.64 | 34.51 |        |        | 30.56   | 27.22    | 1.705   | 3.42   |
| 115  | 26.08 | 35.26 | 0.0    | 0.0    | 23.70   | 23.21    | 0.660   | 3.63   | 740  | 5.55 | 34.51 |        |        | 30.62   | 27.23    | 1.714   | 3.42   |
| 120  | 25.90 | 35.28 | -1.2   | 0.0    | 23.80   | 23.29    | 0.683   | 3.60   | 750  | 5.47 | 34.51 |        |        | 30.67   | 27.24    | 1.723   | 3.39   |
| 125  | 25.77 | 35.31 | -1.2   | 0.0    | 23.88   | 23.35    | 0.706   | 3.59   | 760  | 5.47 | 34.51 |        |        | 30.72   | 27.24    | 1.732   | 3.38   |
| 130  | 25.66 | 35.33 | -3.6   | -1.2   | 23.95   | 23.40    | 0.729   | 3.58   | 770  | 5.42 | 34.51 |        |        | 30.77   | 27.24    | 1.742   | 3.36   |
| 135  | 25.45 | 35.38 | -6.0   | -1.2   | 24.07   | 23.50    | 0.752   | 3.53   | 780  | 5.37 | 34.51 |        |        | 30.82   | 27.25    | 1.751   | 3.31   |
| 140  | 24.89 | 35.47 | -10.8  | -1.2   | 24.33   | 23.74    | 0.773   | 3.36   | 790  | 5.32 | 34.51 |        |        | 30.88   | 27.26    | 1.760   | 3.33   |
| 145  | 24.61 | 35.52 | -14.4  | 3.6    | 24.48   | 23.86    | 0.794   | 3.18   | 800  | 5.27 | 34.51 |        |        | 30.93   | 27.27    | 1.769   | 3.36   |
| 150  | 24.26 | 35.57 | -21.6  | 18.0   | 24.64   | 24.00    | 0.814   | 3.13   | 810  | 5.19 | 34.51 |        |        | 30.98   | 27.27    | 1.778   | 3.40   |
| 155  | 23.76 | 35.61 | -22.8  | 22.8   | 24.84   | 24.18    | 0.833   | 3.11   | 820  | 5.14 | 34.51 |        |        | 31.03   | 27.28    | 1.787   | 3.41   |
| 160  | 23.09 | 35.68 | -22.8  | 24.0   | 25.12   | 24.44    | 0.852   | 2.98   | 830  | 5.08 | 34.51 |        |        | 31.09   | 27.29    | 1.795   | 3.45   |
| 165  | 22.51 | 35.71 | -19.2  | 27.6   | 25.33   | 24.63    | 0.869   | 2.86   | 840  | 5.03 | 34.51 |        |        | 31.14   | 27.29    | 1.804   | 3.38   |
| 170  | 22.23 | 35.71 | -13.2  | 28.8   | 25.43   | 24.70    | 0.886   | 2.78   | 850  | 5.00 | 34.51 |        |        | 31.19   | 27.30    | 1.813   | 3.39   |
| 175  | 21.72 | 35.70 | -10.8  | 27.6   | 25.59   | 24.84    | 0.902   | 2.75   | 860  | 4.88 | 34.52 |        |        | 31.26   | 27.31    | 1.821   | 3.39   |
| 180  | 21.47 | 35.68 | -9.6   | 25.2   | 25.66   | 24.89    | 0.918   | 2.74   | 870  | 4.83 | 34.52 |        |        | 31.31   | 27.32    | 1.830   | 3.38   |
| 185  | 21.10 | 35.67 | -10.8  | 28.8   | 25.78   | 24.99    | 0.933   | 2.69   | 880  | 4.81 | 34.52 |        |        | 31.36   | 27.32    | 1.838   | 3.34   |
| 190  | 20.99 | 35.65 | -18.0  | 64.8   | 25.82   | 25.00    | 0.948   | 2.68   | 890  | 4.75 | 34.52 |        |        | 31.42   | 27.33    | 1.847   | 3.29   |
| 195  | 20.49 | 35.64 | -16.8  | 63.6   | 25.97   | 25.13    | 0.963   | 2.65   | 900  | 4.74 | 34.52 |        |        | 31.46   | 27.33    | 1.855   | 3.29   |
| 200  | 20.25 | 35.62 | -14.4  | 54.0   | 26.04   | 25.18    | 0.978   | 2.63   | 910  | 4.70 | 34.52 |        |        | 31.51   | 27.34    | 1.863   | 3.28   |
| 205  | 20.07 | 35.60 | -10.8  | 39.6   | 26.10   | 25.21    | 0.992   | 2.63   | 920  | 4.61 | 34.52 |        |        | 31.57   | 27.35    | 1.872   | 3.32   |
| 210  | 19.80 | 35.60 | -8.4   | 28.8   | 26.19   | 25.29    | 1.006   | 2.62   | 930  | 4.57 | 34.52 |        |        | 31.63   | 27.36    | 1.880   | 3.34   |
| 215  | 18.85 | 35.58 | -9.6   | 13.2   | 26.44   | 25.51    | 1.019   | 2.58   | 940  | 4.55 | 34.53 |        |        | 31.67   | 27.36    | 1.888   | 3.31   |
| 220  | 18.18 | 35.52 | -10.8  | 12.0   | 26.59   | 25.64    | 1.031   | 2.54   | 950  | 4.46 | 34.53 |        |        | 31.74   | 27.37    | 1.896   | 3.30   |
| 225  | 17.90 | 35.48 | -8.4   | 10.8   | 26.65   | 25.67    | 1.043   | 2.52   | 960  | 4.34 | 34.53 |        |        | 31.80   | 27.39    | 1.904   | 3.34   |
| 230  | 17.68 | 35.44 | -2.4   | 3.6    | 26.70   | 25.70    | 1.055   | 2.51   | 970  | 4.28 | 34.53 |        |        | 31.85   | 27.39    | 1.912   | 3.36   |
| 235  | 17.57 | 35.42 | 0.0    | 2.4    | 26.73   | 25.71    | 1.067   | 2.51   | 980  | 4.20 | 34.53 |        |        | 31.91   | 27.40    | 1.919   | 3.38   |
| 240  | 17.33 | 35.39 | -1.2   | 13.2   | 26.79   | 25.75    | 1.079   | 2.50   | 990  | 4.17 | 34.53 |        |        | 31.96   | 27.40    | 1.927   | 3.38   |
| 245  | 16.95 | 35.38 | -2.4   | 27.6   | 26.90   | 25.83    | 1.090   | 2.50   | 1000 | 4.08 | 34.53 |        |        | 32.02   | 27.42    | 1.935   | 3.39   |
| 250  | 16.64 | 35.35 | -3.6   | 31.2   | 26.97   | 25.88    | 1.101   | 2.47   | 1020 | 4.03 | 34.53 |        |        | 32.11   | 27.42    | 1.950   | 3.35   |
| 255  | 16.45 | 35.31 | -3.6   | 22.8   | 27.01   | 25.90    | 1.112   | 2.44   | 1040 | 3.99 | 34.53 |        |        | 32.21   | 27.43    | 1.965   | 3.31   |
| 260  | 16.25 | 35.29 | -3.6   | 9.6    | 27.06   | 25.92    | 1.123   | 2.42   | 1060 | 3.91 | 34.53 |        |        | 32.32   | 27.44    | 1.979   | 3.36   |
| 265  | 16.10 | 35.27 | -12.0  | 7.2    | 27.10   | 25.95    | 1.134   | 2.41   | 1080 | 3.86 | 34.54 |        |        | 32.42   | 27.45    | 1.994   | 3.37   |
| 270  | 15.81 | 35.25 | -15.6  | 6.0    | 27.18   | 26.00    | 1.145   | 2.40   | 1100 | 3.79 | 34.55 |        |        | 32.52   | 27.46    | 2.008   | 3.41   |
| 275  | 15.65 | 35.23 | -10.8  | 2.4    | 27.22   | 26.01    | 1.155   | 2.38   | 1120 | 3.70 | 34.55 |        |        | 32.62   | 27.47    | 2.023   | 3.36   |
| 280  | 15.31 | 35.21 | -9.6   | -6.0   | 27.31   | 26.08    | 1.165   | 2.36   | 1140 | 3.62 | 34.55 |        |        | 32.73   | 27.48    | 2.037   | 3.35   |
| 285  | 14.79 | 35.17 | -22.8  | -19.2  | 27.41   | 26.16    | 1.175   | 2.35   | 1160 | 3.54 | 34.55 |        |        | 32.83   | 27.49    | 2.050   | 3.35   |
| 290  | 14.54 | 35.15 | -26.4  | -22.8  | 27.47   | 26.20    | 1.185   | 2.33   | 1180 | 3.51 | 34.56 |        |        | 32.93   | 27.49    | 2.064   | 3.37   |
| 295  | 14.30 | 35.12 | -19.2  | -18.0  | 27.53   | 26.23    | 1.194   | 2.30   | 1200 | 3.45 | 34.56 |        |        | 33.03   | 27.50    | 2.078   | 3.36   |
| 300  | 14.18 | 35.10 | -7.2   | -8.4   | 27.56   | 26.24    | 1.203   | 2.30   | 1220 | 3.40 | 34.56 |        |        | 33.13   | 27.51    | 2.091   | 3.34   |
| 305  | 14.10 | 35.09 | -14.4  | -13.2  | 27.59   | 26.25    | 1.213   | 2.31   | 1240 | 3.36 | 34.56 |        |        | 33.22   | 27.51    | 2.105   | 3.37   |
| 310  | 13.62 | 35.06 | -4.8   | -7.2   | 27.69   | 26.32    | 1.222   | 2.33   | 1260 | 3.33 | 34.56 |        |        | 33.32   | 27.51    | 2.118   | 3.35   |
| 315  | 13.38 | 35.05 | -2.4   | -3.6   | 27.75   | 26.36    | 1.230   | 2.35   | 1280 | 3.27 | 34.57 |        |        | 33.42   | 27.52    | 2.131   | 3.33   |
| 320  | 13.16 | 35.02 | -1.2   | -2.4   | 27.80   | 26.39    | 1.239   | 2.33   | 1300 | 3.25 | 34.57 |        |        | 33.51   | 27.53    | 2.144   | 3.37   |
| 325  | 12.72 | 35.00 | -1.2   | -2.4   | 27.90   | 26.46    | 1.248   | 2.44   | 1320 | 3.21 | 34.57 |        |        | 33.61   | 27.53    | 2.157   | 3.37   |
| 330  | 12.32 | 34.96 | 0.0    | -1.2   | 27.97   | 26.51    | 1.256   | 2.49   | 1340 | 3.15 | 34.58 |        |        | 33.72   | 27.54    | 2.170   | 3.34   |
| 335  | 11.95 | 34.94 | 0.0    | -2.4   | 28.05   | 26.56    | 1.264   | 2.57   | 1360 | 3.08 | 34.58 |        |        | 33.82   | 27.55    | 2.182   | 3.34   |
| 340  | 11.60 | 34.90 | 0.0    | -2.4   | 28.12   | 26.60    | 1.271   | 2.66   | 1380 | 3.04 | 34.58 |        |        | 33.92   | 27.56    | 2.195   | 3.39   |
| 345  | 11.41 | 34.89 | 0.0    | -2.4   | 28.16   | 26.62    | 1.279   | 2.71   | 1400 | 3.00 | 34.58 |        |        | 34.01   | 27.56    | 2.207   | 3.36   |
| 350  | 11.20 | 34.86 | 0.0    | -2.4   | 28.20   | 26.64    | 1.286   | 2.75   | 1420 | 2.98 | 34.58 |        |        | 34.11   | 27.56    | 2.220   | 3.33   |
| 355  | 11.08 | 34.85 | -1.2   | -3.6   | 28.24   | 26.66    | 1.294   | 2.82   | 1440 | 2.94 | 34.59 |        |        | 34.20   | 27.57    | 2.232   | 3.36   |
| 360  | 10.97 | 34.83 | -1.2   | -3.6   | 28.26   | 26.65    | 1.301   | 2.82   | 1460 | 2.93 | 34.59 |        |        | 34.30   | 27.57    | 2.244   | 3.33   |

SURTROPAC11 STATION No : 10  
DATE : 9/1/89 HEURE : 15h30 LONGITUDE : 165.00 LATITUDE : -11.00



Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -

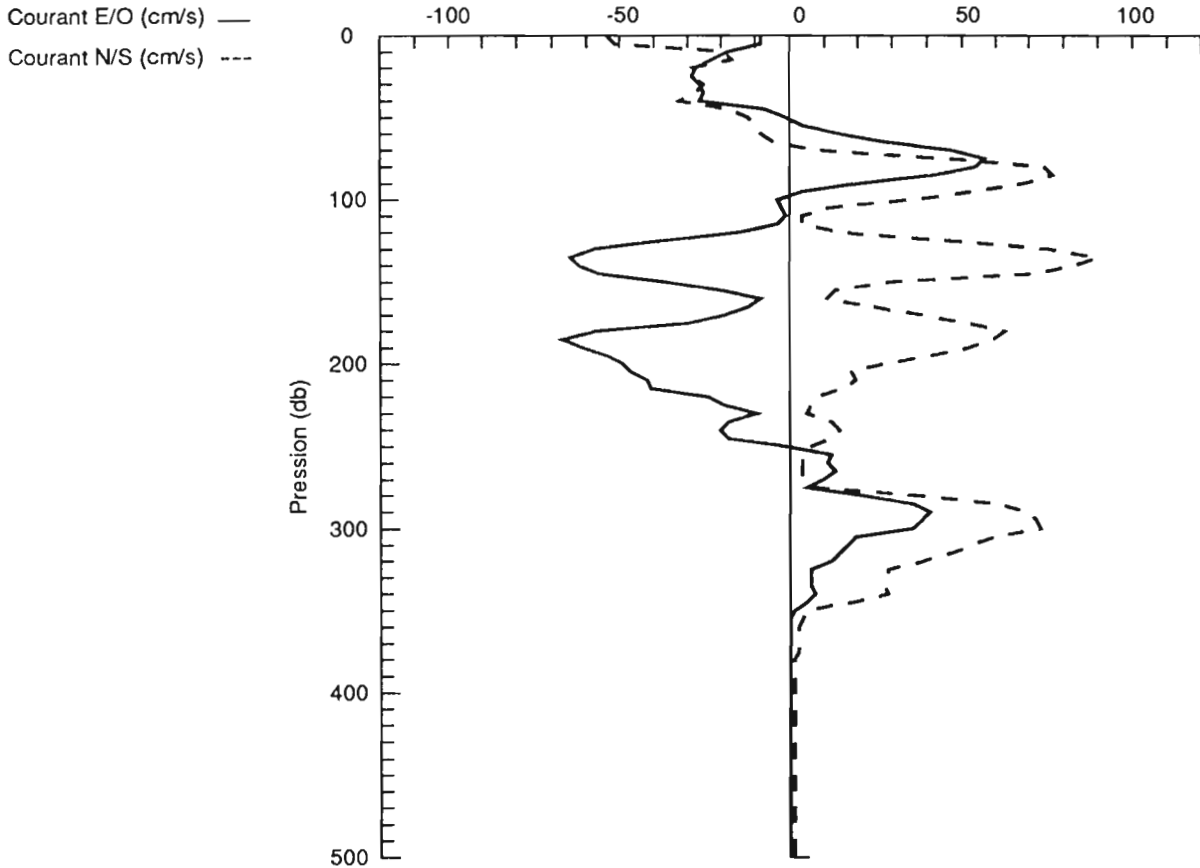
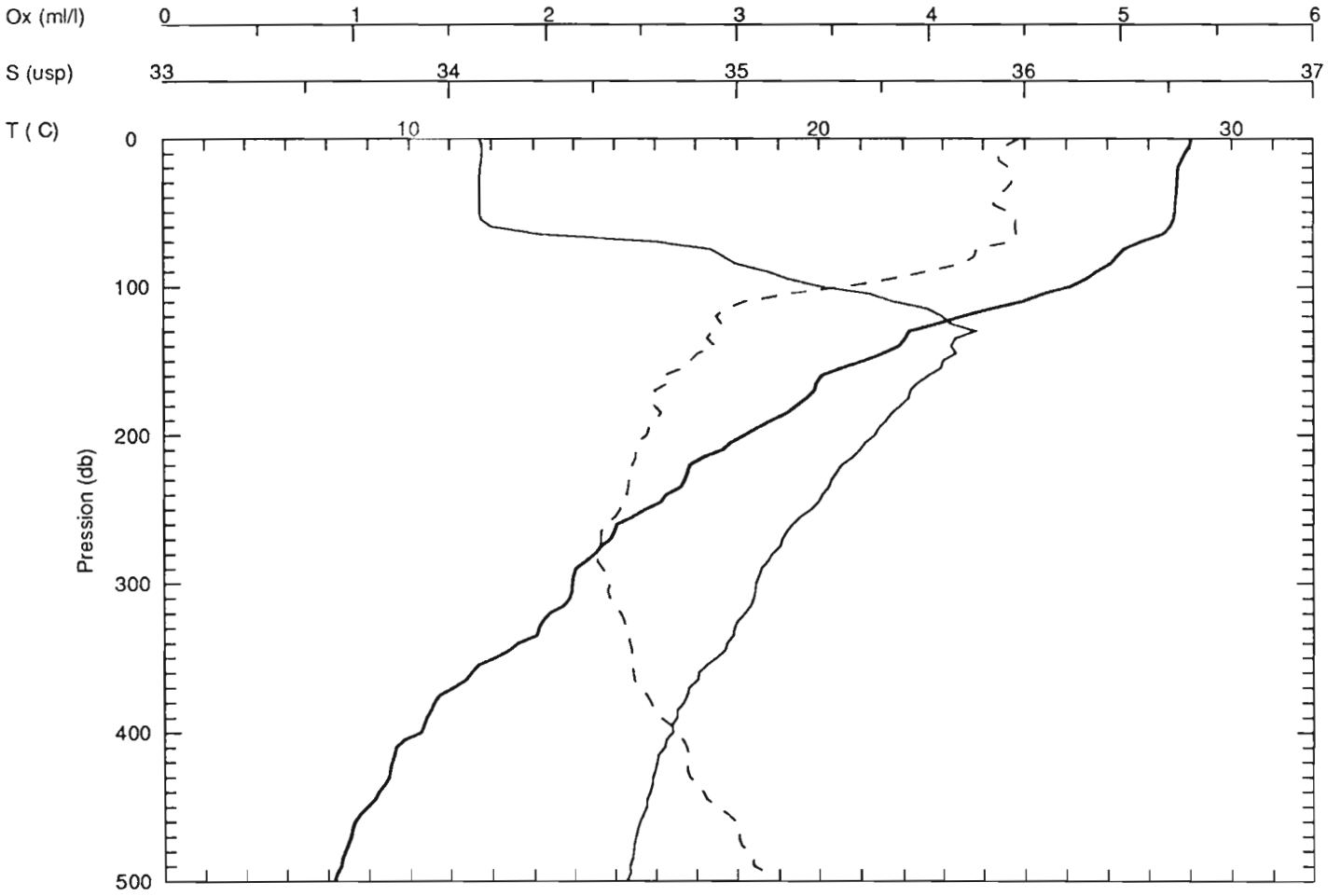


STATION : 11 CAMPAGNE : murtropac11  
 DATE : 10/ 1/89 HEURE : 6h15 LONGITUDE : 165.00 LATITUDE : -10.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 29.05 | 34.10 | -8.4   | -54.0  | 21.38   | 21.38    | 0.000   | 4.48   | 510  | 7.83 | 34.60 | 0.0    | 1.2    | 29.31   | 27.00    | 1.415   | 3.14   |
| 5    | 28.99 | 34.11 | -8.4   | -51.6  | 21.42   | 21.40    | 0.032   | 4.40   | 520  | 7.65 | 34.60 | 0.0    | 1.2    | 29.38   | 27.02    | 1.426   | 3.15   |
| 10   | 28.89 | 34.11 | -18.0  | -19.2  | 21.48   | 21.44    | 0.064   | 4.37   | 530  | 7.36 | 34.59 | 0.0    | 1.2    | 29.46   | 27.05    | 1.437   | 3.16   |
| 15   | 28.80 | 34.11 | -22.8  | -16.8  | 21.53   | 21.46    | 0.096   | 4.36   | 540  | 7.12 | 34.58 | 0.0    | 1.2    | 29.54   | 27.08    | 1.448   | 3.19   |
| 20   | 28.72 | 34.10 | -27.6  | -28.8  | 21.57   | 21.49    | 0.127   | 4.42   | 550  | 6.83 | 34.57 | 0.0    | 1.2    | 29.61   | 27.11    | 1.459   | 3.27   |
| 25   | 28.71 | 34.10 | -28.8  | -28.8  | 21.60   | 21.49    | 0.159   | 4.43   | 560  | 6.77 | 34.55 | 0.0    | -1.2   | 29.65   | 27.10    | 1.469   | 3.30   |
| 30   | 28.70 | 34.10 | -26.4  | -25.2  | 21.62   | 21.50    | 0.190   | 4.43   | 570  | 6.70 | 34.55 | 0.0    | 1.2    | 29.71   | 27.11    | 1.479   | 3.30   |
| 35   | 28.68 | 34.10 | -25.2  | -27.6  | 21.65   | 21.50    | 0.222   | 4.40   | 580  | 6.63 | 34.54 | 0.0    | 1.2    | 29.76   | 27.12    | 1.490   | 3.32   |
| 40   | 28.67 | 34.10 | -26.4  | -32.4  | 21.67   | 21.51    | 0.253   | 4.35   | 590  | 6.45 | 34.54 | 0.0    | 0.0    | 29.83   | 27.14    | 1.500   | 3.35   |
| 45   | 28.65 | 34.10 | -7.2   | -18.0  | 21.70   | 21.51    | 0.285   | 4.34   | 600  | 6.38 | 34.53 |        |        | 29.88   | 27.14    | 1.510   | 3.38   |
| 50   | 28.64 | 34.10 | -1.2   | -12.0  | 21.73   | 21.52    | 0.316   | 4.42   | 610  | 6.36 | 34.52 |        |        | 29.92   | 27.14    | 1.520   | 3.37   |
| 55   | 28.61 | 34.11 | 3.6    | -9.6   | 21.76   | 21.53    | 0.348   | 4.45   | 620  | 6.35 | 34.52 |        |        | 29.97   | 27.14    | 1.530   | 3.39   |
| 60   | 28.53 | 34.14 | 14.4   | -8.4   | 21.83   | 21.58    | 0.379   | 4.45   | 630  | 6.29 | 34.52 |        |        | 30.02   | 27.14    | 1.540   | 3.40   |
| 65   | 28.35 | 34.31 | 27.6   | -7.2   | 22.04   | 21.76    | 0.410   | 4.46   | 640  | 6.13 | 34.52 |        |        | 30.09   | 27.16    | 1.550   | 3.53   |
| 70   | 27.82 | 34.72 | 46.8   | 4.8    | 22.55   | 22.25    | 0.439   | 4.43   | 650  | 6.07 | 34.52 |        |        | 30.14   | 27.17    | 1.560   | 3.48   |
| 75   | 27.40 | 34.91 | 56.4   | 44.4   | 22.84   | 22.53    | 0.467   | 4.25   | 660  | 6.02 | 34.52 |        |        | 30.19   | 27.18    | 1.570   | 3.44   |
| 80   | 27.23 | 34.95 | 54.0   | 74.4   | 22.95   | 22.62    | 0.493   | 4.24   | 670  | 5.95 | 34.52 |        |        | 30.25   | 27.19    | 1.579   | 3.46   |
| 85   | 27.06 | 34.99 | 42.0   | 76.8   | 23.06   | 22.70    | 0.519   | 4.17   | 680  | 5.77 | 34.52 |        |        | 30.32   | 27.21    | 1.589   | 3.40   |
| 90   | 26.74 | 35.10 | 20.4   | 68.4   | 23.26   | 22.88    | 0.545   | 3.99   | 690  | 5.68 | 34.52 |        |        | 30.38   | 27.22    | 1.598   | 3.41   |
| 95   | 26.48 | 35.17 | 3.6    | 52.8   | 23.42   | 23.02    | 0.569   | 3.80   | 700  | 5.53 | 34.52 |        |        | 30.44   | 27.24    | 1.607   | 3.37   |
| 100  | 26.09 | 35.29 | -3.6   | 36.0   | 23.66   | 23.23    | 0.593   | 3.57   | 710  | 5.43 | 34.52 |        |        | 30.50   | 27.25    | 1.617   | 3.39   |
| 105  | 25.45 | 35.46 | -2.4   | 12.0   | 24.00   | 23.56    | 0.616   | 3.27   | 720  | 5.37 | 34.51 |        |        | 30.55   | 27.25    | 1.625   | 3.36   |
| 110  | 24.96 | 35.53 | -1.2   | 3.6    | 24.23   | 23.77    | 0.637   | 3.04   | 730  | 5.34 | 34.51 |        |        | 30.60   | 27.26    | 1.635   | 3.33   |
| 115  | 24.17 | 35.66 | -3.6   | 3.6    | 24.59   | 24.10    | 0.657   | 2.94   | 740  | 5.32 | 34.51 |        |        | 30.65   | 27.26    | 1.643   | 3.36   |
| 120  | 23.49 | 35.71 | -14.4  | 14.4   | 24.85   | 24.34    | 0.676   | 2.89   | 750  | 5.30 | 34.51 |        |        | 30.69   | 27.26    | 1.653   | 3.36   |
| 125  | 22.85 | 35.74 | -37.2  | 45.6   | 25.08   | 24.55    | 0.693   | 2.92   | 760  | 5.18 | 34.51 |        |        | 30.76   | 27.28    | 1.661   | 3.34   |
| 130  | 22.15 | 35.83 | -57.6  | 75.6   | 25.37   | 24.82    | 0.710   | 2.87   | 770  | 5.13 | 34.51 |        |        | 30.81   | 27.28    | 1.670   | 3.33   |
| 135  | 22.05 | 35.76 | -64.8  | 90.0   | 25.36   | 24.79    | 0.726   | 2.84   | 780  | 5.05 | 34.52 |        |        | 30.87   | 27.29    | 1.679   | 3.34   |
| 140  | 21.89 | 35.74 | -62.4  | 82.8   | 25.42   | 24.82    | 0.742   | 2.89   | 790  | 4.90 | 34.52 |        |        | 30.94   | 27.32    | 1.687   | 3.36   |
| 145  | 21.51 | 35.76 | -56.4  | 70.8   | 25.56   | 24.94    | 0.757   | 2.80   | 800  | 4.82 | 34.52 |        |        | 31.00   | 27.32    | 1.696   | 3.33   |
| 150  | 21.06 | 35.71 | -37.2  | 30.0   | 25.68   | 25.03    | 0.773   | 2.76   | 810  | 4.78 | 34.52 |        |        | 31.05   | 27.33    | 1.704   | 3.28   |
| 155  | 20.53 | 35.71 | -20.4  | 13.2   | 25.84   | 25.17    | 0.787   | 2.73   | 820  | 4.72 | 34.52 |        |        | 31.10   | 27.33    | 1.712   | 3.26   |
| 160  | 20.06 | 35.66 | -8.4   | 10.8   | 25.95   | 25.26    | 0.801   | 2.61   | 830  | 4.69 | 34.52 |        |        | 31.15   | 27.34    | 1.721   | 3.26   |
| 165  | 19.93 | 35.62 | -12.0  | 24.0   | 25.97   | 25.26    | 0.815   | 2.64   | 840  | 4.64 | 34.52 |        |        | 31.20   | 27.34    | 1.729   | 3.27   |
| 170  | 19.88 | 35.60 | -19.2  | 38.4   | 25.99   | 25.26    | 0.829   | 2.57   | 850  | 4.61 | 34.52 |        |        | 31.25   | 27.34    | 1.737   | 3.33   |
| 175  | 19.69 | 35.59 | -30.0  | 51.6   | 26.06   | 25.30    | 0.843   | 2.58   | 860  | 4.60 | 34.51 |        |        | 31.29   | 27.34    | 1.745   | 3.31   |
| 180  | 19.45 | 35.56 | -57.6  | 62.4   | 26.12   | 25.35    | 0.856   | 2.56   | 870  | 4.59 | 34.51 |        |        | 31.34   | 27.34    | 1.753   | 3.33   |
| 185  | 19.21 | 35.53 | -67.2  | 58.8   | 26.18   | 25.38    | 0.869   | 2.60   | 880  | 4.52 | 34.52 |        |        | 31.40   | 27.35    | 1.762   | 3.32   |
| 190  | 18.82 | 35.51 | -61.2  | 51.6   | 26.29   | 25.47    | 0.883   | 2.57   | 890  | 4.50 | 34.52 |        |        | 31.45   | 27.36    | 1.770   | 3.38   |
| 195  | 18.48 | 35.49 | -54.0  | 40.8   | 26.38   | 25.54    | 0.895   | 2.54   | 900  | 4.46 | 34.52 |        |        | 31.50   | 27.37    | 1.778   | 3.35   |
| 200  | 18.17 | 35.47 | -49.2  | 27.6   | 26.47   | 25.60    | 0.908   | 2.53   | 910  | 4.37 | 34.53 |        |        | 31.56   | 27.38    | 1.786   | 3.38   |
| 205  | 17.84 | 35.44 | -46.8  | 18.0   | 26.55   | 25.66    | 0.920   | 2.47   | 920  | 4.31 | 34.53 |        |        | 31.62   | 27.39    | 1.793   | 3.38   |
| 210  | 17.63 | 35.42 | -42.0  | 19.2   | 26.61   | 25.70    | 0.932   | 2.47   | 930  | 4.23 | 34.53 |        |        | 31.68   | 27.40    | 1.801   | 3.37   |
| 215  | 17.17 | 35.40 | -40.8  | 15.6   | 26.73   | 25.79    | 0.943   | 2.47   | 940  | 4.20 | 34.53 |        |        | 31.73   | 27.40    | 1.809   | 3.35   |
| 220  | 16.85 | 35.36 | -24.0  | 7.2    | 26.80   | 25.84    | 0.955   | 2.45   | 950  | 4.16 | 34.53 |        |        | 31.77   | 27.40    | 1.816   | 3.35   |
| 225  | 16.79 | 35.35 | -19.2  | 6.0    | 26.82   | 25.84    | 0.966   | 2.44   | 960  | 4.13 | 34.53 |        |        | 31.83   | 27.41    | 1.824   | 3.34   |
| 230  | 16.73 | 35.33 | -9.6   | 4.8    | 26.84   | 25.84    | 0.977   | 2.43   | 970  | 4.06 | 34.53 |        |        | 31.88   | 27.42    | 1.832   | 3.34   |
| 235  | 16.63 | 35.32 | -18.0  | 12.0   | 26.88   | 25.86    | 0.988   | 2.43   | 980  | 4.02 | 34.53 |        |        | 31.93   | 27.42    | 1.839   | 3.34   |
| 240  | 16.27 | 35.30 | -20.4  | 14.4   | 26.97   | 25.92    | 0.999   | 2.42   | 990  | 3.98 | 34.53 |        |        | 31.98   | 27.42    | 1.846   | 3.36   |
| 245  | 16.14 | 35.28 | -18.0  | 12.0   | 27.01   | 25.94    | 1.010   | 2.38   | 1000 | 3.98 | 34.53 |        |        | 32.03   | 27.42    | 1.854   | 3.33   |
| 250  | 15.74 | 35.26 | -1.2   | 6.0    | 27.11   | 26.02    | 1.020   | 2.38   | 1020 | 3.96 | 34.53 |        |        | 32.12   | 27.43    | 1.869   | 3.32   |
| 255  | 15.43 | 35.22 | 12.0   | 3.6    | 27.17   | 26.06    | 1.030   | 2.36   | 1040 | 3.89 | 34.54 |        |        | 32.23   | 27.44    | 1.883   | 3.36   |
| 260  | 15.05 | 35.19 | 10.8   | 3.6    | 27.26   | 26.12    | 1.040   | 2.31   | 1060 | 3.84 | 34.54 |        |        | 32.32   | 27.44    | 1.898   | 3.38   |
| 265  | 14.98 | 35.17 | 13.2   | 3.6    | 27.28   | 26.12    | 1.050   | 2.29   | 1080 | 3.79 | 34.54 |        |        | 32.42   | 27.45    | 1.912   | 3.35   |
| 270  | 14.89 | 35.15 | 9.6    | 3.6    | 27.31   | 26.13    | 1.060   | 2.28   | 1100 | 3.64 | 34.55 |        |        | 32.54   | 27.47    | 1.927   | 3.34   |
| 275  | 14.66 | 35.15 | 4.8    | 7.2    | 27.38   | 26.17    | 1.070   | 2.28   | 1120 | 3.60 | 34.55 |        |        | 32.64   | 27.48    | 1.941   | 3.40   |
| 280  | 14.52 | 35.12 | 21.6   | 38.4   | 27.41   | 26.18    | 1.079   | 2.27   | 1140 | 3.49 | 34.56 |        |        | 32.75   | 27.49    | 1.954   | 3.36   |
| 285  | 14.28 | 35.10 | 36.0   | 60.0   | 27.47   | 26.22    | 1.089   | 2.27   | 1160 | 3.46 | 34.56 |        |        | 32.84   | 27.50    | 1.968   | 3.37   |
| 290  | 14.03 | 35.08 | 40.8   | 69.6   | 27.53   | 26.25    | 1.098   | 2.29   | 1180 | 3.34 | 34.56 |        |        | 32.95   | 27.51    | 1.981   | 3.39   |
| 295  | 13.97 | 35.07 | 38.4   | 72.0   | 27.56   | 26.26    | 1.107   | 2.32   | 1200 | 3.29 | 34.56 |        |        | 33.05   | 27.52    | 1.994   | 3.32   |
| 300  | 13.95 | 35.06 | 36.0   | 73.2   | 27.58   | 26.26    | 1.116   | 2.33   | 1220 | 3.28 | 34.56 |        |        | 33.14   | 27.52    | 2.007   | 3.35   |
| 305  | 13.94 | 35.06 | 19.2   | 58.8   | 27.60   | 26.26    | 1.126   | 2.32   | 1240 | 3.26 | 34.56 |        |        | 33.24   | 27.52    | 2.020   | 3.32   |
| 310  | 13.88 | 35.06 | 16.8   | 52.8   | 27.63   | 26.27    | 1.135   | 2.33   | 1260 | 3.25 | 34.56 |        |        | 33.33   | 27.52    | 2.033   | 3.31   |
| 315  | 13.74 | 35.04 | 14.4   | 46.8   | 27.68   | 26.29    | 1.144   | 2.35   | 1280 | 3.23 | 34.56 |        |        | 33.42   | 27.53    | 2.046   | 3.33   |
| 320  | 13.38 | 35.03 | 12.0   | 38.4   | 27.76   | 26.35    | 1.153   | 2.39   | 1300 | 3.22 | 34.57 |        |        | 33.52   | 27.53    | 2.059   | 3.34   |
| 325  | 13.21 | 35.00 | 6.0    | 28.8   | 27.80   | 26.36    | 1.162   | 2.40   | 1320 | 3.17 | 34.57 |        |        | 33.62   | 27.54    | 2.072   | 3.33   |
| 330  | 13.11 | 34.99 | 6.0    | 28.8   | 27.83   | 26.37    | 1.171   | 2.41   | 1340 | 3.00 | 34.59 |        |        | 33.75   | 27.57    | 2.085   | 3.30   |
| 335  | 13.06 | 34.99 | 6.0    | 27.6   | 27.86   | 26.38    | 1.179   | 2.43   | 1360 | 2.97 | 34.58 |        |        | 33.84   | 27.56    | 2.097   | 3.35   |
| 340  | 12.62 | 34.96 | 7.2    | 28.8   | 27.96   | 26.45    | 1.188   | 2.43   | 1380 | 2.95 | 34.58 |        |        | 33.93   | 27.56    | 2.109   | 3.37   |
| 345  | 12.39 | 34.96 | 4.8    | 18.0   | 28.02   | 26.49    | 1.196   | 2.44   | 1400 | 2.91 | 34.59 |        |        | 34.03   | 27.57    | 2.122   | 3.40   |
| 350  | 12.07 | 34.93 | 1.2    | 4.8    | 28.08   | 26.53    | 1.204   | 2.44   | 1420 | 2.87 | 34.59 |        |        | 34.12   | 27.58    | 2.134   | 3.43   |
| 355  | 11.66 | 34.89 | 0.0    | 3.6    | 28.16   | 26.58    | 1.212   | 2.44   | 1440 | 2.87 | 34.59 |        |        | 34.21   | 27.58    | 2.145   | 3.40   |
| 360  | 11.52 | 34.87 | 0.0    | 2.4    | 28.19   | 26.59    | 1.219   | 2.45   | 1460 | 2.85 | 34.59 |        |        | 34.31   | 27.58    | 2.158   | 3.4    |



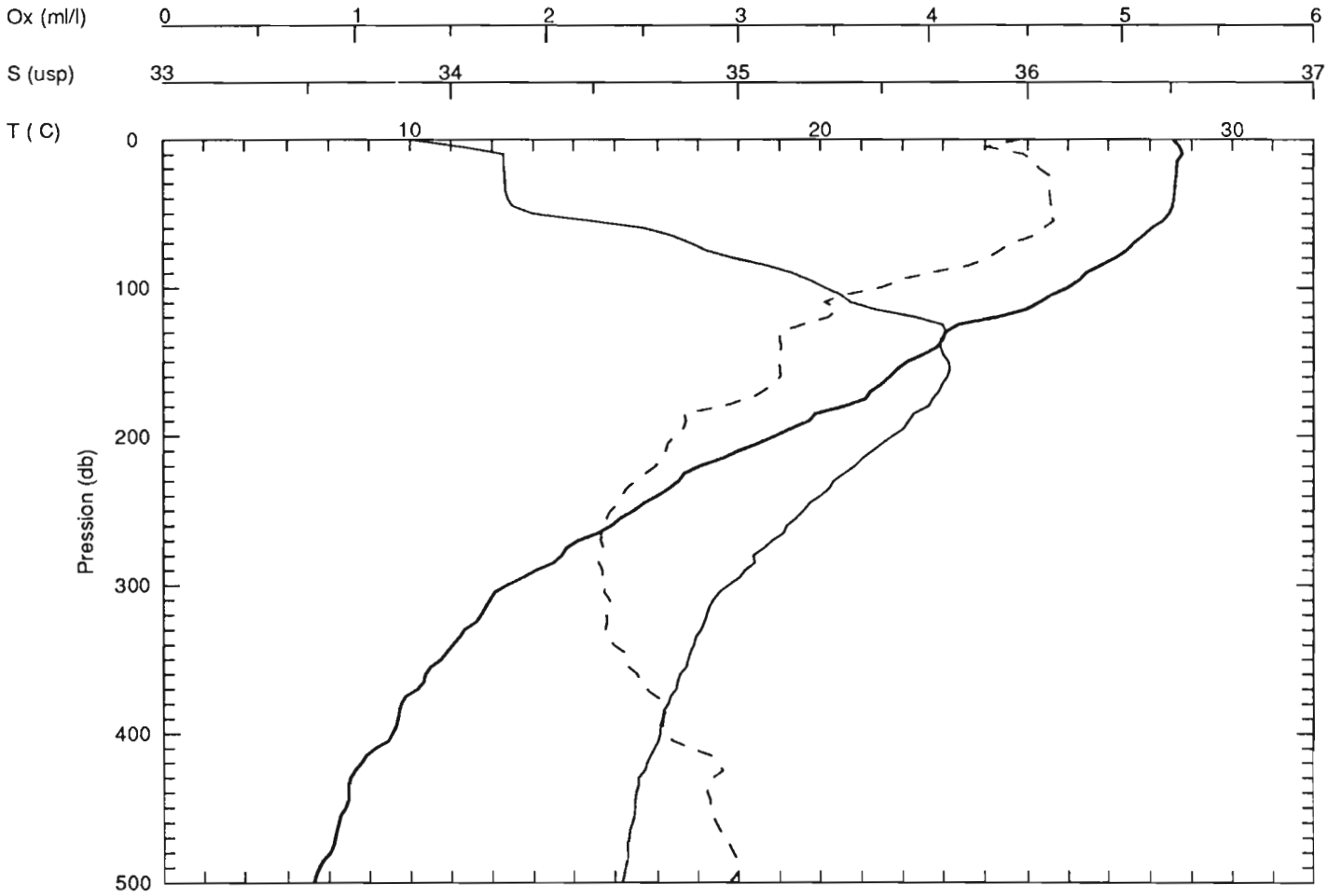
SURTROPAC11 STATION No : 11  
DATE : 10/ 1/89 HEURE : 6h15 LONGITUDE : 165.00 LATITUDE : -10.00



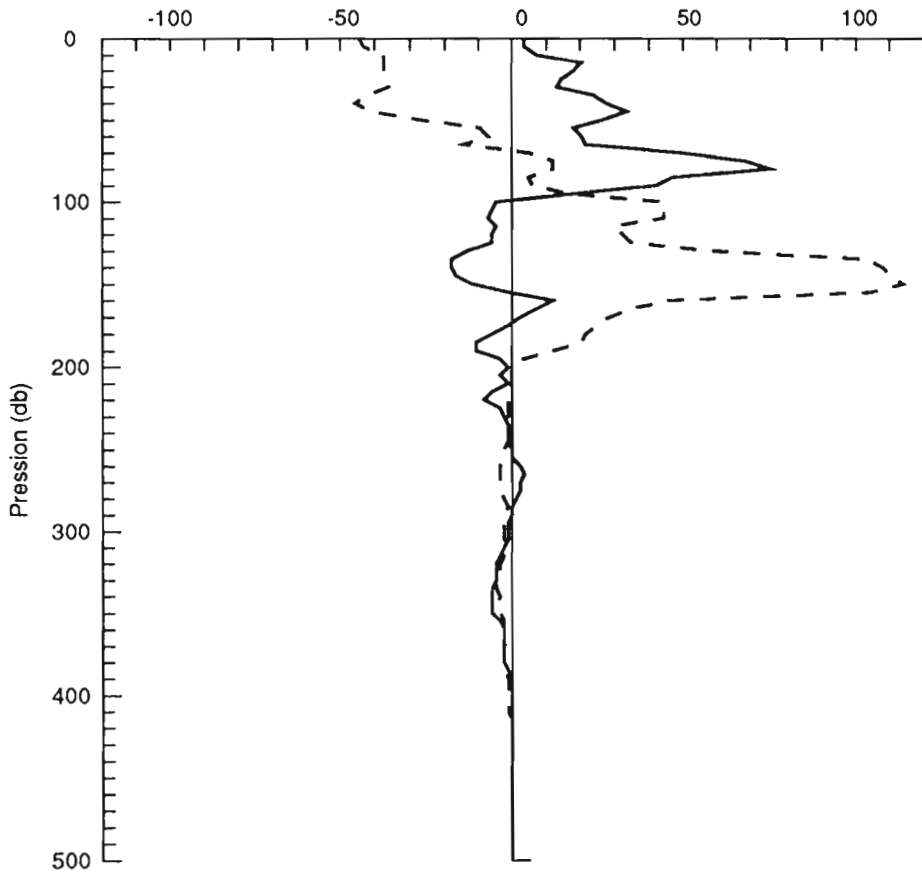
STATION : 12      CAMPAGNE : surtropacl1  
 DATE : 10/ 1/89    HEURE : 17h15    LONGITUDE :    165.00    LATITUDE :    -9.00

| P    | T     | S      | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T     | S      | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|--------|--------|--------|---------|----------|---------|--------|------|-------|--------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | ( usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | ( usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.55 | 33.85  | 3.6    | -44.4  | 21.35   | 21.35    | 0.000   | 4.47   | 510  | 7.53  | 34.59  | 0.0    | 0.0    | 29.34   | 27.03    | 1.395   | 2.93   |
| 5    | 28.71 | 34.04  | 3.6    | -43.2  | 21.47   | 21.44    | 0.032   | 4.29   | 520  | 7.46  | 34.58  | 0.0    | 0.0    | 29.39   | 27.03    | 1.406   | 2.91   |
| 10   | 28.78 | 34.18  | 7.2    | -37.2  | 21.57   | 21.53    | 0.063   | 4.48   | 530  | 7.34  | 34.58  | 0.0    | 0.0    | 29.45   | 27.04    | 1.417   | 2.95   |
| 15   | 28.66 | 34.18  | 20.4   | -37.2  | 21.63   | 21.57    | 0.095   | 4.53   | 540  | 7.20  | 34.57  | 0.0    | 0.0    | 29.51   | 27.06    | 1.428   | 2.96   |
| 20   | 28.64 | 34.18  | 18.0   | -37.2  | 21.66   | 21.57    | 0.126   | 4.56   | 550  | 7.12  | 34.56  | 0.0    | 0.0    | 29.57   | 27.07    | 1.439   | 2.93   |
| 25   | 28.63 | 34.19  | 14.4   | -37.2  | 21.69   | 21.58    | 0.157   | 4.62   | 560  | 7.03  | 34.56  | 0.0    | 0.0    | 29.62   | 27.08    | 1.449   | 2.94   |
| 30   | 28.60 | 34.19  | 13.2   | -36.0  | 21.72   | 21.59    | 0.188   | 4.61   | 570  | 7.02  | 34.55  | 0.0    | 0.0    | 29.67   | 27.07    | 1.460   | 2.95   |
| 35   | 28.59 | 34.19  | 24.0   | -42.0  | 21.74   | 21.60    | 0.219   | 4.61   | 580  | 6.94  | 34.55  | 0.0    | 0.0    | 29.72   | 27.08    | 1.471   | 2.95   |
| 40   | 28.57 | 34.20  | 27.6   | -45.6  | 21.78   | 21.61    | 0.250   | 4.62   | 590  | 6.87  | 34.55  | 0.0    | 0.0    | 29.78   | 27.09    | 1.481   | 3.03   |
| 45   | 28.55 | 34.21  | 33.6   | -40.8  | 21.82   | 21.63    | 0.281   | 4.62   | 600  | 6.80  | 34.55  | 0.0    | 0.0    | 29.83   | 27.10    | 1.492   | 3.25   |
| 50   | 28.47 | 34.28  | 26.4   | -26.4  | 21.92   | 21.71    | 0.312   | 4.61   | 610  | 6.70  | 34.54  | 0.0    | 0.0    | 29.89   | 27.11    | 1.502   | 3.31   |
| 55   | 28.31 | 34.49  | 18.0   | -9.6   | 22.15   | 21.92    | 0.342   | 4.64   | 620  | 6.55  | 34.54  | 0.0    | 0.0    | 29.95   | 27.13    | 1.513   | 3.36   |
| 60   | 28.04 | 34.67  | 20.4   | -7.2   | 22.39   | 22.14    | 0.371   | 4.58   | 630  | 6.45  | 34.54  | 0.0    | 0.0    | 30.01   | 27.14    | 1.523   | 3.41   |
| 65   | 27.83 | 34.76  | 21.6   | -14.4  | 22.55   | 22.28    | 0.399   | 4.53   | 640  | 6.36  | 34.53  | 0.0    | 0.0    | 30.06   | 27.15    | 1.533   | 3.42   |
| 70   | 27.61 | 34.83  | 49.2   | 4.8    | 22.70   | 22.40    | 0.427   | 4.42   | 650  | 6.23  | 34.53  | 0.0    | 0.0    | 30.13   | 27.16    | 1.543   | 3.40   |
| 75   | 27.44 | 34.89  | 68.4   | 12.0   | 22.81   | 22.50    | 0.454   | 4.36   | 660  | 6.13  | 34.53  | 0.0    | 0.0    | 30.19   | 27.17    | 1.553   | 3.24   |
| 80   | 27.17 | 34.98  | 75.6   | 12.0   | 23.00   | 22.66    | 0.480   | 4.30   | 670  | 6.06  | 34.53  | 0.0    | 0.0    | 30.24   | 27.18    | 1.562   | 3.07   |
| 85   | 26.82 | 35.10  | 46.8   | 4.8    | 23.22   | 22.86    | 0.506   | 4.21   | 680  | 5.99  | 34.53  | 0.0    | 0.0    | 30.29   | 27.19    | 1.572   | 2.99   |
| 90   | 26.45 | 35.19  | 42.0   | 6.0    | 23.42   | 23.04    | 0.531   | 4.01   | 690  | 5.95  | 34.52  | 0.0    | 0.0    | 30.34   | 27.19    | 1.582   | 2.99   |
| 95   | 26.28 | 35.25  | 18.0   | 16.8   | 23.54   | 23.14    | 0.555   | 3.84   | 700  | 5.92  | 34.52  | 0.0    | 0.0    | 30.39   | 27.19    | 1.592   | 2.98   |
| 100  | 25.99 | 35.30  | -4.8   | 44.4   | 23.69   | 23.27    | 0.578   | 3.75   | 710  | 5.89  | 34.52  | 0.0    | 0.0    | 30.44   | 27.19    | 1.601   | 2.97   |
| 105  | 25.58 | 35.36  | -6.0   | 44.4   | 23.89   | 23.44    | 0.601   | 3.56   | 720  | 5.86  | 34.52  | 0.0    | 0.0    | 30.49   | 27.20    | 1.611   | 3.00   |
| 110  | 25.31 | 35.39  | -7.2   | 44.4   | 24.01   | 23.55    | 0.623   | 3.45   | 730  | 5.83  | 34.51  | 0.0    | 0.0    | 30.54   | 27.20    | 1.620   | 3.05   |
| 115  | 24.94 | 35.48  | -4.8   | 30.0   | 24.22   | 23.73    | 0.645   | 3.52   | 740  | 5.77  | 34.52  | 0.0    | 0.0    | 30.59   | 27.21    | 1.630   | 3.07   |
| 120  | 24.27 | 35.62  | -6.0   | 32.4   | 24.55   | 24.04    | 0.665   | 3.47   | 750  | 5.70  | 34.52  | 0.0    | 0.0    | 30.65   | 27.22    | 1.639   | 3.24   |
| 125  | 23.36 | 35.71  | -6.0   | 34.8   | 24.91   | 24.38    | 0.684   | 3.33   | 760  | 5.57  | 34.52  | 0.0    | 0.0    | 30.71   | 27.23    | 1.649   | 3.28   |
| 130  | 23.05 | 35.73  | -13.2  | 57.6   | 25.03   | 24.48    | 0.702   | 3.21   | 770  | 5.51  | 34.52  | 0.0    | 0.0    | 30.76   | 27.24    | 1.658   | 3.26   |
| 135  | 22.99 | 35.71  | -18.0  | 103.2  | 25.06   | 24.48    | 0.719   | 3.21   | 780  | 5.42  | 34.52  | 0.0    | 0.0    | 30.82   | 27.25    | 1.667   | 3.26   |
| 140  | 22.85 | 35.71  | -18.0  | 108.0  | 25.12   | 24.52    | 0.737   | 3.22   | 790  | 5.30  | 34.52  | 0.0    | 0.0    | 30.88   | 27.27    | 1.676   | 3.25   |
| 145  | 22.53 | 35.71  | -16.8  | 110.4  | 25.24   | 24.62    | 0.754   | 3.21   | 800  | 5.22  | 34.51  | 0.0    | 0.0    | 30.94   | 27.27    | 1.685   | 3.25   |
| 150  | 22.12 | 35.73  | -12.0  | 114.0  | 25.39   | 24.75    | 0.770   | 3.21   | 810  | 5.11  | 34.52  | 0.0    | 0.0    | 31.00   | 27.29    | 1.694   | 3.26   |
| 155  | 21.87 | 35.74  | -1.2   | 104.4  | 25.49   | 24.82    | 0.786   | 3.22   | 820  | 5.08  | 34.51  | 0.0    | 0.0    | 31.05   | 27.29    | 1.703   | 3.27   |
| 160  | 21.68 | 35.73  | 12.0   | 45.6   | 25.56   | 24.87    | 0.802   | 3.22   | 830  | 5.01  | 34.51  | 0.0    | 0.0    | 31.10   | 27.30    | 1.711   | 3.22   |
| 165  | 21.48 | 35.71  | 7.2    | 34.8   | 25.62   | 24.91    | 0.818   | 3.18   | 840  | 4.98  | 34.51  | 0.0    | 0.0    | 31.15   | 27.30    | 1.720   | 3.21   |
| 170  | 21.21 | 35.70  | 2.4    | 28.8   | 25.71   | 24.98    | 0.833   | 3.13   | 850  | 4.93  | 34.51  | 0.0    | 0.0    | 31.20   | 27.31    | 1.729   | 3.22   |
| 175  | 21.08 | 35.68  | -1.2   | 25.2   | 25.75   | 25.00    | 0.848   | 3.06   | 860  | 4.88  | 34.52  | 0.0    | 0.0    | 31.26   | 27.31    | 1.737   | 3.21   |
| 180  | 20.59 | 35.66  | -6.0   | 21.6   | 25.89   | 25.12    | 0.863   | 2.91   | 870  | 4.84  | 34.51  | 0.0    | 0.0    | 31.31   | 27.32    | 1.746   | 3.22   |
| 185  | 19.89 | 35.61  | -10.8  | 20.4   | 26.06   | 25.27    | 0.877   | 2.71   | 880  | 4.81  | 34.52  | 0.0    | 0.0    | 31.36   | 27.32    | 1.754   | 3.22   |
| 190  | 19.71 | 35.59  | -10.8  | 12.0   | 26.12   | 25.30    | 0.891   | 2.72   | 890  | 4.81  | 34.51  | 0.0    | 0.0    | 31.40   | 27.32    | 1.763   | 3.24   |
| 195  | 19.27 | 35.57  | -3.6   | 3.6    | 26.24   | 25.40    | 0.904   | 2.71   | 900  | 4.79  | 34.51  | 0.0    | 0.0    | 31.45   | 27.32    | 1.771   | 3.25   |
| 200  | 18.88 | 35.54  | -1.2   | 0.0    | 26.34   | 25.47    | 0.918   | 2.66   | 910  | 4.73  | 34.52  | 0.0    | 0.0    | 31.51   | 27.33    | 1.780   | 3.24   |
| 205  | 18.47 | 35.50  | -3.6   | 0.0    | 26.43   | 25.55    | 0.930   | 2.62   | 920  | 4.70  | 34.52  | 0.0    | 0.0    | 31.56   | 27.33    | 1.788   | 3.25   |
| 210  | 18.00 | 35.47  | -1.2   | 0.0    | 26.55   | 25.64    | 0.942   | 2.61   | 930  | 4.69  | 34.51  | 0.0    | 0.0    | 31.60   | 27.34    | 1.796   | 3.27   |
| 215  | 17.60 | 35.43  | -6.0   | -1.2   | 26.64   | 25.71    | 0.954   | 2.60   | 940  | 4.67  | 34.51  | 0.0    | 0.0    | 31.65   | 27.34    | 1.804   | 3.28   |
| 220  | 17.04 | 35.40  | -8.4   | -1.2   | 26.78   | 25.82    | 0.966   | 2.56   | 950  | 4.64  | 34.52  | 0.0    | 0.0    | 31.70   | 27.34    | 1.813   | 3.24   |
| 225  | 16.65 | 35.37  | -3.6   | -1.2   | 26.87   | 25.89    | 0.977   | 2.51   | 960  | 4.52  | 34.53  | 0.0    | 0.0    | 31.77   | 27.36    | 1.821   | 3.23   |
| 230  | 16.51 | 35.33  | -2.4   | -1.2   | 26.90   | 25.89    | 0.988   | 2.46   | 970  | 4.49  | 34.52  | 0.0    | 0.0    | 31.82   | 27.36    | 1.829   | 3.21   |
| 235  | 16.27 | 35.31  | -1.2   | -1.2   | 26.96   | 25.94    | 0.999   | 2.41   | 980  | 4.46  | 34.52  | 0.0    | 0.0    | 31.87   | 27.37    | 1.837   | 3.19   |
| 240  | 15.99 | 35.29  | -1.2   | -1.2   | 27.03   | 25.98    | 1.009   | 2.39   | 990  | 4.41  | 34.53  | 0.0    | 0.0    | 31.92   | 27.37    | 1.845   | 3.14   |
| 245  | 15.67 | 35.25  | -1.2   | -1.2   | 27.09   | 26.02    | 1.020   | 2.38   | 1000 | 4.34  | 34.53  | 0.0    | 0.0    | 31.98   | 27.38    | 1.853   | 3.15   |
| 250  | 15.44 | 35.23  | 0.0    | -2.4   | 27.16   | 26.06    | 1.030   | 2.34   | 1020 | 4.23  | 34.53  | 0.0    | 0.0    | 32.09   | 27.40    | 1.869   | 3.26   |
| 255  | 15.14 | 35.20  | 0.0    | -2.4   | 27.23   | 26.11    | 1.040   | 2.32   | 1040 | 4.14  | 34.53  | 0.0    | 0.0    | 32.19   | 27.41    | 1.884   | 3.34   |
| 260  | 14.91 | 35.17  | 2.4    | -3.6   | 27.27   | 26.13    | 1.050   | 2.30   | 1060 | 4.05  | 34.54  | 0.0    | 0.0    | 32.29   | 27.42    | 1.899   | 3.34   |
| 265  | 14.59 | 35.16  | 3.6    | -3.6   | 27.36   | 26.19    | 1.059   | 2.29   | 1080 | 3.93  | 34.54  | 0.0    | 0.0    | 32.41   | 27.44    | 1.914   | 3.34   |
| 270  | 14.11 | 35.12  | 2.4    | -3.6   | 27.45   | 26.26    | 1.069   | 2.29   | 1100 | 3.84  | 34.54  | 0.0    | 0.0    | 32.51   | 27.45    | 1.929   | 3.32   |
| 275  | 13.81 | 35.09  | 2.4    | -3.6   | 27.52   | 26.30    | 1.078   | 2.30   | 1120 | 3.76  | 34.55  | 0.0    | 0.0    | 32.61   | 27.46    | 1.943   | 3.26   |
| 280  | 13.70 | 35.05  | 1.2    | -2.4   | 27.53   | 26.30    | 1.087   | 2.29   | 1140 | 3.71  | 34.54  | 0.0    | 0.0    | 32.71   | 27.46    | 1.958   | 3.24   |
| 285  | 13.49 | 35.06  | 0.0    | -1.2   | 27.60   | 26.34    | 1.095   | 2.29   | 1160 | 3.66  | 34.54  | 0.0    | 0.0    | 32.81   | 27.47    | 1.972   | 3.28   |
| 290  | 13.06 | 35.02  | 0.0    | -2.4   | 27.69   | 26.41    | 1.104   | 2.28   | 1180 | 3.60  | 34.55  | 0.0    | 0.0    | 32.91   | 27.48    | 1.986   | 3.32   |
| 295  | 12.72 | 35.00  | -1.2   | -2.4   | 27.77   | 26.46    | 1.112   | 2.30   | 1200 | 3.57  | 34.55  | 0.0    | 0.0    | 33.00   | 27.48    | 2.000   | 3.36   |
| 300  | 12.36 | 34.97  | -1.2   | -2.4   | 27.83   | 26.50    | 1.121   | 2.32   | 1220 | 3.53  | 34.55  | 0.0    | 0.0    | 33.10   | 27.48    | 2.014   | 3.38   |
| 305  | 12.05 | 34.93  | -1.2   | -2.4   | 27.89   | 26.54    | 1.129   | 2.30   | 1240 | 3.48  | 34.55  | 0.0    | 0.0    | 33.20   | 27.49    | 2.028   | 3.32   |
| 310  | 11.93 | 34.91  | -2.4   | -1.2   | 27.92   | 26.54    | 1.136   | 2.33   | 1260 | 3.41  | 34.56  | 0.0    | 0.0    | 33.31   | 27.50    | 2.041   | 3.26   |
| 315  | 11.83 | 34.90  | -3.6   | -2.4   | 27.95   | 26.55    | 1.144   | 2.34   | 1280 | 3.36  | 34.56  | 0.0    | 0.0    | 33.40   | 27.51    | 2.055   | 3.33   |
| 320  | 11.72 | 34.89  | -4.8   | -3.6   | 27.99   | 26.56    | 1.152   | 2.31   | 1300 | 3.30  | 34.56  | 0.0    | 0.0    | 33.50   | 27.52    | 2.068   | 3.37   |
| 325  | 11.60 | 34.88  | -4.8   | -3.6   | 28.03   | 26.58    | 1.160   | 2.32   | 1320 | 3.24  | 34.56  | 0.0    | 0.0    | 33.60   | 27.52    | 2.081   | 3.40   |
| 330  | 11.32 | 34.87  | -4.8   | -4.8   | 28.09   | 26.62    | 1.167   | 2.31   | 1340 | 3.17  | 34.57  | 0.0    | 0.0    | 33.71   | 27.54    | 2.094   | 3.34   |
| 335  | 11.20 | 34.85  | -6.0   | -4.8   | 28.13   | 26.63    | 1.175   | 2.31   | 1360 | 3.11  | 34.57  | 0.0    | 0.0    | 33.81   | 27.54    | 2.107   | 3.33   |
| 340  | 11.04 | 34.84  | -6.0   | -3.6   | 28.17   | 26.65    | 1.182   | 2.35   | 1380 | 3.02  | 34.58  | 0.0    | 0.0    | 33.92   | 27.56    | 2.119   | 3.29   |
| 345  | 10.89 | 34.83  | -6.0   | -4.8   | 28.21   | 26.67    | 1.189   | 2.40   | 1400 | 2.97  | 34.58  | 0.0    | 0.0    | 34.02   | 27.56    | 2.132   | 3.31   |
| 350  | 10.75 |        |        |        |         |          |         |        |      |       |        |        |        |         |          |         |        |

SURTROPAC11 STATION No : 12  
DATE : 10/ 1/89 HEURE : 17h15 LONGITUDE : 165.00 LATITUDE : -9.00



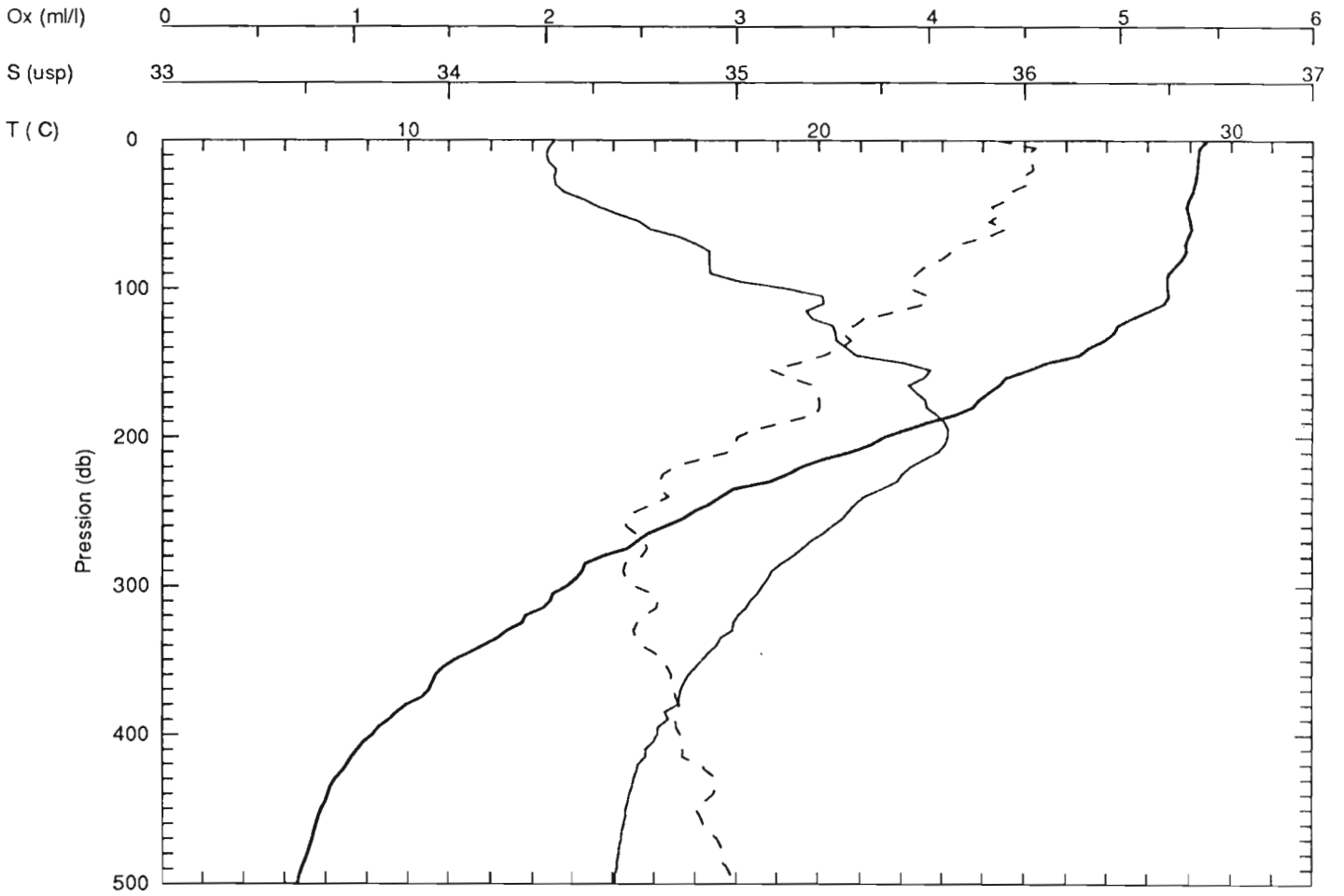
Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -



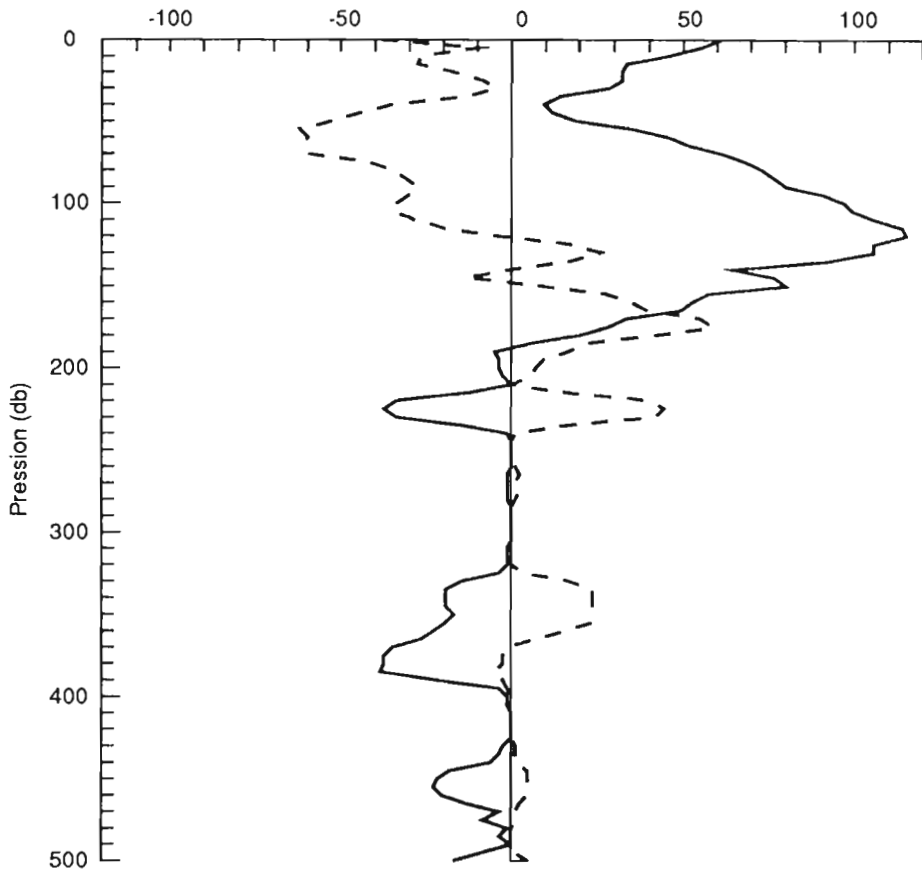
STATION : 13      CAMPAGNE : #utropacl1  
 DATE : 11/ 1/89      HEURE : 1h17      LONGITUDE : 165.00      LATITUDE : -8.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 29.41 | 34.37 | 61.2   | -38.4  | 21.45   | 21.45    | 0.000   | 4.36   | 510  | 7.22 | 34.57 | -19.2  | 6.0    | 29.37   | 27.06    | 1.550   | 2.94   |
| 5    | 29.22 | 34.34 | 55.2   | -9.6   | 21.52   | 21.50    | 0.032   | 4.56   | 520  | 7.10 | 34.56 | -28.8  | 12.0   | 29.44   | 27.07    | 1.561   | 2.90   |
| 10   | 29.19 | 34.34 | 45.6   | -26.4  | 21.55   | 21.50    | 0.063   | 4.52   | 530  | 6.91 | 34.56 | -25.2  | 12.0   | 29.51   | 27.09    | 1.571   | 2.98   |
| 15   | 29.18 | 34.34 | 33.6   | -27.6  | 21.58   | 21.52    | 0.095   | 4.54   | 540  | 6.83 | 34.55 | -24.0  | 12.0   | 29.56   | 27.10    | 1.582   | 2.93   |
| 20   | 29.16 | 34.37 | 32.4   | -16.8  | 21.63   | 21.54    | 0.126   | 4.55   | 550  | 6.80 | 34.55 | -20.4  | 12.0   | 29.60   | 27.10    | 1.592   | 2.99   |
| 25   | 29.14 | 34.36 | 32.4   | -8.4   | 21.65   | 21.54    | 0.157   | 4.48   | 560  | 6.76 | 34.54 | -20.4  | 10.8   | 29.65   | 27.10    | 1.602   | 2.97   |
| 30   | 29.10 | 34.37 | 28.8   | -4.8   | 21.69   | 21.56    | 0.188   | 4.51   | 570  | 6.66 | 34.54 | -16.8  | 7.2    | 29.71   | 27.11    | 1.613   | 3.05   |
| 35   | 29.06 | 34.40 | 14.4   | -13.2  | 21.74   | 21.60    | 0.220   | 4.43   | 580  | 6.55 | 34.54 | -16.8  | 6.0    | 29.77   | 27.12    | 1.623   | 3.05   |
| 40   | 28.97 | 34.47 | 9.6    | -34.8  | 21.85   | 21.68    | 0.250   | 4.42   | 590  | 6.50 | 34.54 | -19.2  | 6.0    | 29.82   | 27.13    | 1.633   | 3.07   |
| 45   | 28.92 | 34.52 | 12.0   | -44.4  | 21.92   | 21.74    | 0.281   | 4.33   | 600  | 6.45 | 34.53 |        |        | 29.87   | 27.13    | 1.643   | 3.09   |
| 50   | 28.95 | 34.58 | 19.2   | -52.8  | 21.98   | 21.77    | 0.311   | 4.38   | 610  | 6.38 | 34.53 |        |        | 29.92   | 27.14    | 1.653   | 3.09   |
| 55   | 29.00 | 34.66 | 34.8   | -62.4  | 22.05   | 21.82    | 0.342   | 4.32   | 620  | 6.33 | 34.53 |        |        | 29.98   | 27.15    | 1.663   | 3.08   |
| 60   | 29.03 | 34.70 | 45.6   | -60.0  | 22.08   | 21.83    | 0.372   | 4.41   | 630  | 6.22 | 34.53 |        |        | 30.04   | 27.16    | 1.673   | 3.08   |
| 65   | 28.96 | 34.79 | 51.6   | -61.2  | 22.20   | 21.93    | 0.401   | 4.30   | 640  | 6.17 | 34.53 |        |        | 30.09   | 27.16    | 1.683   | 3.06   |
| 70   | 28.89 | 34.86 | 61.2   | -60.0  | 22.30   | 22.00    | 0.431   | 4.16   | 650  | 6.14 | 34.53 |        |        | 30.14   | 27.17    | 1.693   | 3.08   |
| 75   | 28.91 | 34.91 | 68.4   | -42.0  | 22.35   | 22.03    | 0.460   | 4.12   | 660  | 6.07 | 34.53 |        |        | 30.19   | 27.18    | 1.703   | 3.06   |
| 80   | 28.81 | 34.90 | 73.2   | -34.8  | 22.40   | 22.06    | 0.489   | 4.07   | 670  | 6.03 | 34.52 |        |        | 30.24   | 27.18    | 1.713   | 3.06   |
| 85   | 28.65 | 34.90 | 76.8   | -31.2  | 22.48   | 22.12    | 0.518   | 3.98   | 680  | 5.98 | 34.53 |        |        | 30.30   | 27.19    | 1.722   | 3.08   |
| 90   | 28.50 | 34.91 | 80.4   | -27.6  | 22.55   | 22.17    | 0.546   | 3.93   | 690  | 5.89 | 34.52 |        |        | 30.35   | 27.20    | 1.732   | 3.09   |
| 95   | 28.47 | 35.00 | 91.2   | -30.0  | 22.65   | 22.25    | 0.575   | 3.90   | 700  | 5.85 | 34.52 |        |        | 30.40   | 27.20    | 1.742   | 3.08   |
| 100  | 28.48 | 35.18 | 97.2   | -33.6  | 22.80   | 22.38    | 0.602   | 3.90   | 710  | 5.76 | 34.52 |        |        | 30.46   | 27.21    | 1.751   | 3.09   |
| 105  | 28.50 | 35.30 | 99.6   | -34.8  | 22.91   | 22.47    | 0.629   | 4.00   | 720  | 5.72 | 34.52 |        |        | 30.51   | 27.22    | 1.761   | 3.13   |
| 110  | 28.40 | 35.30 | 105.6  | -28.8  | 22.96   | 22.50    | 0.656   | 3.99   | 730  | 5.66 | 34.52 |        |        | 30.56   | 27.22    | 1.770   | 3.17   |
| 115  | 28.02 | 35.24 | 114.0  | -20.4  | 23.06   | 22.58    | 0.683   | 3.84   | 740  | 5.63 | 34.52 |        |        | 30.61   | 27.22    | 1.779   | 3.16   |
| 120  | 27.61 | 35.26 | 115.2  | -4.8   | 23.23   | 22.73    | 0.710   | 3.66   | 750  | 5.61 | 34.51 |        |        | 30.66   | 27.23    | 1.789   | 3.15   |
| 125  | 27.27 | 35.33 | 105.6  | 16.8   | 23.42   | 22.89    | 0.735   | 3.51   | 760  | 5.53 | 34.52 |        |        | 30.71   | 27.24    | 1.798   | 3.14   |
| 130  | 27.17 | 35.34 | 105.6  | 26.4   | 23.48   | 22.93    | 0.760   | 3.65   | 770  | 5.49 | 34.51 |        |        | 30.77   | 27.24    | 1.807   | 3.13   |
| 135  | 26.92 | 35.35 | 92.4   | 18.0   | 23.58   | 23.02    | 0.785   | 3.59   | 780  | 5.46 | 34.51 |        |        | 30.81   | 27.24    | 1.816   | 3.12   |
| 140  | 26.54 | 35.38 | 64.8   | 0.0    | 23.75   | 23.16    | 0.809   | 3.54   | 790  | 5.43 | 34.51 |        |        | 30.86   | 27.25    | 1.826   | 3.11   |
| 145  | 26.31 | 35.41 | 76.8   | -13.2  | 23.87   | 23.26    | 0.833   | 3.45   | 800  | 5.32 | 34.52 |        |        | 30.93   | 27.27    | 1.835   | 3.10   |
| 150  | 25.53 | 35.58 | 80.4   | 8.4    | 24.26   | 23.63    | 0.855   | 3.33   | 810  | 5.26 | 34.52 |        |        | 30.98   | 27.27    | 1.844   | 3.10   |
| 155  | 25.10 | 35.67 | 57.6   | 27.6   | 24.49   | 23.83    | 0.876   | 3.18   | 820  | 5.22 | 34.52 |        |        | 31.03   | 27.28    | 1.853   | 3.10   |
| 160  | 24.57 | 35.65 | 52.8   | 34.8   | 24.66   | 23.98    | 0.896   | 3.28   | 830  | 5.15 | 34.52 |        |        | 31.09   | 27.28    | 1.861   | 3.09   |
| 165  | 24.40 | 35.60 | 49.2   | 39.6   | 24.69   | 23.99    | 0.916   | 3.40   | 840  | 5.09 | 34.52 |        |        | 31.14   | 27.29    | 1.870   | 3.04   |
| 170  | 24.14 | 35.62 | 33.6   | 55.2   | 24.81   | 24.08    | 0.936   | 3.42   | 850  | 5.08 | 34.51 |        |        | 31.19   | 27.29    | 1.879   | 3.04   |
| 175  | 23.90 | 35.65 | 28.8   | 58.8   | 24.92   | 24.18    | 0.955   | 3.43   | 860  | 5.04 | 34.52 |        |        | 31.24   | 27.30    | 1.888   | 3.04   |
| 180  | 23.75 | 35.66 | 20.4   | 42.0   | 24.99   | 24.23    | 0.974   | 3.43   | 870  | 4.98 | 34.52 |        |        | 31.29   | 27.30    | 1.896   | 3.01   |
| 185  | 23.32 | 35.69 | 6.0    | 22.8   | 25.17   | 24.38    | 0.993   | 3.43   | 880  | 4.92 | 34.52 |        |        | 31.35   | 27.31    | 1.905   | 2.98   |
| 190  | 22.67 | 35.72 | -4.8   | 16.8   | 25.40   | 24.59    | 1.010   | 3.25   | 890  | 4.88 | 34.52 |        |        | 31.40   | 27.32    | 1.913   | 2.99   |
| 195  | 22.10 | 35.73 | -3.6   | 9.6    | 25.59   | 24.76    | 1.027   | 3.09   | 900  | 4.84 | 34.52 |        |        | 31.45   | 27.32    | 1.922   | 2.95   |
| 200  | 21.56 | 35.73 | -3.6   | 7.2    | 25.77   | 24.91    | 1.043   | 3.00   | 910  | 4.78 | 34.52 |        |        | 31.50   | 27.33    | 1.930   | 2.95   |
| 205  | 21.25 | 35.72 | -2.4   | 6.0    | 25.87   | 24.99    | 1.058   | 2.99   | 920  | 4.75 | 34.52 |        |        | 31.55   | 27.33    | 1.939   | 2.96   |
| 210  | 20.76 | 35.70 | 0.0    | 0.0    | 26.01   | 25.10    | 1.073   | 2.96   | 930  | 4.72 | 34.52 |        |        | 31.60   | 27.34    | 1.947   | 2.94   |
| 215  | 20.08 | 35.65 | -12.0  | 14.4   | 26.17   | 25.25    | 1.088   | 2.88   | 940  | 4.67 | 34.52 |        |        | 31.66   | 27.34    | 1.956   | 2.95   |
| 220  | 19.60 | 35.60 | -33.6  | 40.8   | 26.29   | 25.34    | 1.102   | 2.80   | 950  | 4.61 | 34.53 |        |        | 31.71   | 27.35    | 1.964   | 2.92   |
| 225  | 19.26 | 35.57 | -37.2  | 44.4   | 26.38   | 25.40    | 1.115   | 2.62   | 960  | 4.55 | 34.53 |        |        | 31.77   | 27.36    | 1.972   | 2.92   |
| 230  | 18.81 | 35.55 | -33.6  | 42.0   | 26.50   | 25.51    | 1.128   | 2.60   | 970  | 4.52 | 34.53 |        |        | 31.82   | 27.36    | 1.980   | 2.93   |
| 235  | 17.92 | 35.50 | -14.4  | 16.8   | 26.71   | 25.69    | 1.140   | 2.60   | 980  | 4.51 | 34.52 |        |        | 31.86   | 27.36    | 1.988   | 2.91   |
| 240  | 17.62 | 35.44 | -1.2   | 1.2    | 26.76   | 25.71    | 1.152   | 2.64   | 990  | 4.45 | 34.53 |        |        | 31.92   | 27.37    | 1.996   | 2.92   |
| 245  | 17.34 | 35.41 | 0.0    | 0.0    | 26.82   | 25.76    | 1.164   | 2.58   | 1000 | 4.42 | 34.53 |        |        | 31.97   | 27.38    | 2.004   | 2.95   |
| 250  | 16.97 | 35.39 | 0.0    | 0.0    | 26.92   | 25.83    | 1.175   | 2.47   | 1020 | 4.33 | 34.53 |        |        | 32.07   | 27.39    | 2.020   | 2.94   |
| 255  | 16.69 | 35.37 | 0.0    | 0.0    | 26.99   | 25.88    | 1.186   | 2.42   | 1040 | 4.26 | 34.54 |        |        | 32.18   | 27.40    | 2.036   | 2.88   |
| 260  | 16.27 | 35.33 | 0.0    | 1.2    | 27.09   | 25.95    | 1.197   | 2.42   | 1060 | 4.18 | 34.54 |        |        | 32.28   | 27.41    | 2.051   | 2.83   |
| 265  | 15.84 | 35.30 | -1.2   | 2.4    | 27.19   | 26.03    | 1.207   | 2.47   | 1080 | 4.10 | 34.54 |        |        | 32.39   | 27.42    | 2.066   | 2.91   |
| 270  | 15.57 | 35.26 | -1.2   | 2.4    | 27.24   | 26.05    | 1.218   | 2.52   | 1100 | 3.97 | 34.54 |        |        | 32.49   | 27.44    | 2.081   | 3.00   |
| 275  | 15.34 | 35.23 | -1.2   | 2.4    | 27.29   | 26.09    | 1.228   | 2.53   | 1120 | 3.90 | 34.55 |        |        | 32.59   | 27.44    | 2.096   | 2.99   |
| 280  | 14.74 | 35.20 | -1.2   | 1.2    | 27.42   | 26.19    | 1.238   | 2.51   | 1140 | 3.85 | 34.55 |        |        | 32.70   | 27.45    | 2.111   | 3.02   |
| 285  | 14.31 | 35.16 | 0.0    | 0.0    | 27.51   | 26.25    | 1.247   | 2.42   | 1160 | 3.77 | 34.55 |        |        | 32.80   | 27.46    | 2.125   | 2.98   |
| 290  | 14.24 | 35.13 | 0.0    | 0.0    | 27.52   | 26.24    | 1.256   | 2.41   | 1180 | 3.73 | 34.55 |        |        | 32.90   | 27.47    | 2.139   | 2.98   |
| 295  | 14.09 | 35.11 | 0.0    | 0.0    | 27.56   | 26.26    | 1.265   | 2.41   | 1200 | 3.64 | 34.56 |        |        | 33.00   | 27.48    | 2.153   | 3.02   |
| 300  | 13.86 | 35.09 | 0.0    | 0.0    | 27.62   | 26.30    | 1.275   | 2.47   | 1220 | 3.59 | 34.56 |        |        | 33.10   | 27.49    | 2.167   | 3.05   |
| 305  | 13.52 | 35.07 | 0.0    | 0.0    | 27.70   | 26.35    | 1.283   | 2.52   | 1240 | 3.51 | 34.57 |        |        | 33.21   | 27.50    | 2.181   | 3.04   |
| 310  | 13.45 | 35.05 | -1.2   | 0.0    | 27.72   | 26.35    | 1.292   | 2.59   | 1260 | 3.44 | 34.56 |        |        | 33.31   | 27.51    | 2.195   | 3.07   |
| 315  | 13.26 | 35.03 | -1.2   | 0.0    | 27.77   | 26.38    | 1.301   | 2.58   | 1280 | 3.37 | 34.57 |        |        | 33.41   | 27.51    | 2.208   | 3.11   |
| 320  | 12.83 | 35.01 | -1.2   | 0.0    | 27.86   | 26.44    | 1.309   | 2.52   | 1300 | 3.23 | 34.58 |        |        | 33.52   | 27.53    | 2.221   | 3.06   |
| 325  | 12.75 | 34.99 | -3.6   | 1.6    | 27.88   | 26.44    | 1.318   | 2.48   | 1320 | 3.14 | 34.58 |        |        | 33.63   | 27.54    | 2.234   | 3.24   |
| 330  | 12.39 | 34.99 | -14.4  | 16.8   | 27.98   | 26.51    | 1.326   | 2.46   | 1340 | 3.09 | 34.58 |        |        | 33.73   | 27.55    | 2.246   | 3.21   |
| 335  | 12.17 | 34.94 | -19.2  | 24.0   | 28.01   | 26.52    | 1.334   | 2.47   | 1360 | 3.05 | 34.57 |        |        | 33.83   | 27.56    | 2.259   | 3.16   |
| 340  | 11.83 | 34.93 | -19.2  | 24.0   | 28.09   | 26.58    | 1.342   | 2.50   | 1380 | 3.02 | 34.58 |        |        | 33.92   | 27.56    | 2.271   | 3.17   |
| 345  | 11.49 | 34.90 | -19.2  | 24.0   | 28.16   | 26.62    | 1.349   | 2.52   | 1400 | 2.97 | 34.58 |        |        | 34.02   | 27.57    | 2.284   | 3.22   |
| 350  | 11.14 | 34.88 | -16.8  | 24.0   | 28.23   | 26.67    | 1.357   | 2.62   | 1420 | 2.93 | 34.59 |        |        | 34.12   | 27.57    | 2.296   | 3.23   |
| 355  | 10.86 | 34.86 | -19.2  | 24.0   | 28.29   | 26.70    | 1.364   | 2.64   | 1440 | 2.90 | 34.59 |        |        | 34.21   | 27.57    | 2.308   | 3.25   |
| 360  | 10.69 | 34.83 | -22.8  | 16.8   | 28.32   | 26.71    | 1.371   | 2.66   | 1460 | 2.87 | 34.5  |        |        |         |          |         |        |

SURTROPAC11 STATION No : 13  
DATE : 11/ 1/89 HEURE : 1h17 LONGITUDE : 165.00 LATITUDE : -8.00



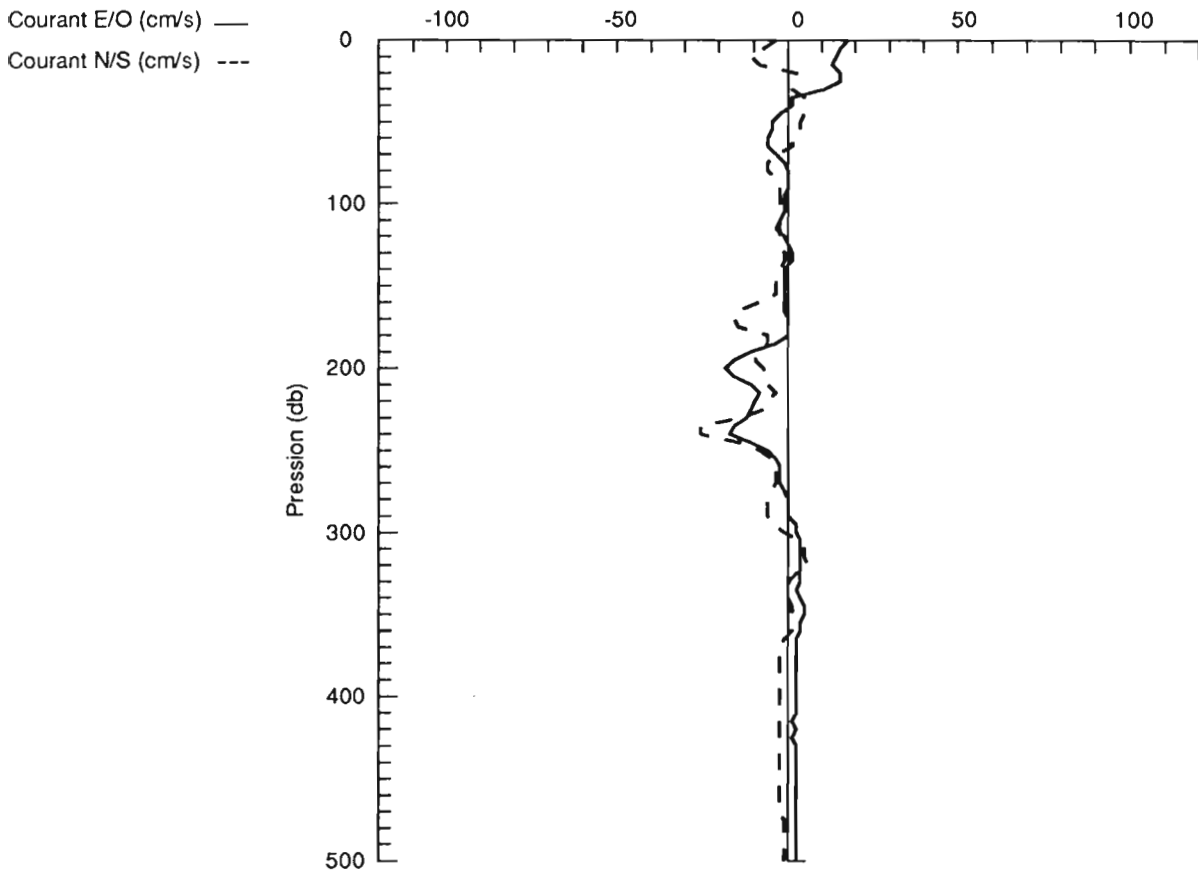
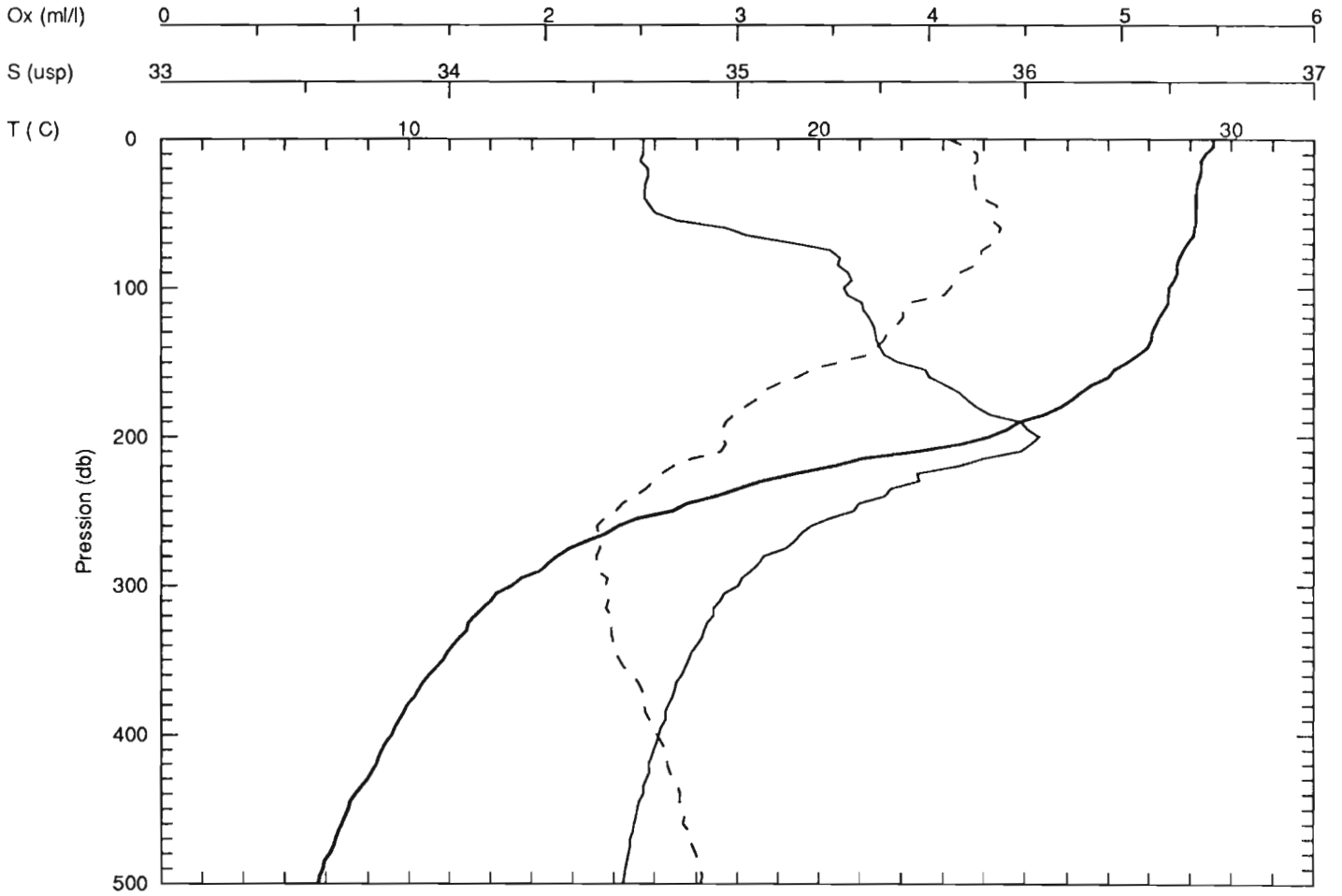
Courant E/O (cm/s) —  
Courant N/S (cm/s) ---



STATION : 14      CAMPAGNE : surtropacl1  
 DATE : 11/ 1/89    HEURE : 12h00    LONGITUDE : 165.00    LATITUDE : -7.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 29.56 | 34.67 | 18.0   | -3.6   | 21.63   | 21.63    | 0.000   | 4.09   | 510  | 7.66  | 34.60 | 2.4    | 0.0    | 29.33   | 27.02    | 1.560   | 2.83   |
| 5    | 29.56 | 34.68 | 15.6   | -7.2   | 21.65   | 21.63    | 0.031   | 4.19   | 520  | 7.58  | 34.59 | 2.4    | -1.2   | 29.38   | 27.02    | 1.571   | 2.83   |
| 10   | 29.37 | 34.68 | 14.4   | -10.8  | 21.74   | 21.70    | 0.062   | 4.25   | 530  | 7.46  | 34.59 | 2.4    | -1.2   | 29.44   | 27.04    | 1.582   | 2.81   |
| 15   | 29.26 | 34.67 | 13.2   | -8.4   | 21.79   | 21.73    | 0.092   | 4.25   | 540  | 7.32  | 34.58 | 2.4    | -1.2   | 29.50   | 27.05    | 1.594   | 2.90   |
| 20   | 29.27 | 34.69 | 15.6   | 2.4    | 21.83   | 21.75    | 0.122   | 4.21   | 550  | 7.18  | 34.57 | 2.4    | 0.0    | 29.56   | 27.06    | 1.604   | 3.02   |
| 25   | 29.24 | 34.69 | 15.6   | 1.2    | 21.86   | 21.76    | 0.153   | 4.24   | 560  | 7.07  | 34.57 | 1.2    | 0.0    | 29.62   | 27.08    | 1.615   | 3.02   |
| 30   | 29.17 | 34.68 | 10.8   | 1.2    | 21.90   | 21.77    | 0.183   | 4.24   | 570  | 6.97  | 34.56 | 0.0    | 0.0    | 29.68   | 27.08    | 1.626   | 3.07   |
| 35   | 29.15 | 34.68 | 1.2    | 4.8    | 21.93   | 21.78    | 0.213   | 4.25   | 580  | 6.90  | 34.55 | -1.2   | 0.0    | 29.72   | 27.09    | 1.637   | 3.09   |
| 40   | 29.14 | 34.68 | 1.2    | 4.8    | 21.95   | 21.78    | 0.243   | 4.28   | 590  | 6.85  | 34.54 | -1.2   | 0.0    | 29.78   | 27.09    | 1.647   | 3.10   |
| 45   | 29.13 | 34.70 | -2.4   | 4.8    | 21.99   | 21.80    | 0.273   | 4.36   | 600  | 6.84  | 34.54 | 0.0    | 0.0    | 29.82   | 27.09    | 1.658   | 3.10   |
| 50   | 29.14 | 34.72 | -4.8   | 3.6    | 22.02   | 21.81    | 0.303   | 4.35   | 610  | 6.75  | 34.55 | 0.0    | 0.0    | 29.88   | 27.10    | 1.668   | 3.05   |
| 55   | 29.14 | 34.79 | -4.8   | 3.6    | 22.10   | 21.87    | 0.333   | 4.33   | 620  | 6.68  | 34.54 | 0.0    | 0.0    | 29.94   | 27.11    | 1.679   | 3.06   |
| 60   | 29.11 | 34.96 | -6.0   | 1.2    | 22.25   | 22.00    | 0.363   | 4.38   | 630  | 6.57  | 34.54 | 0.0    | 0.0    | 29.99   | 27.12    | 1.689   | 3.09   |
| 65   | 29.07 | 35.03 | -6.0   | 1.2    | 22.34   | 22.07    | 0.392   | 4.36   | 640  | 6.50  | 34.54 | 0.0    | 0.0    | 30.05   | 27.13    | 1.699   | 3.11   |
| 70   | 28.93 | 35.19 | -3.6   | -3.6   | 22.53   | 22.24    | 0.421   | 4.34   | 650  | 6.41  | 34.53 | 0.0    | 0.0    | 30.10   | 27.14    | 1.709   | 3.14   |
| 75   | 28.83 | 35.32 | -1.2   | -6.0   | 22.69   | 22.37    | 0.448   | 4.27   | 660  | 6.34  | 34.53 | 0.0    | 0.0    | 30.16   | 27.15    | 1.719   | 3.17   |
| 80   | 28.74 | 35.36 | 0.0    | -6.0   | 22.76   | 22.43    | 0.475   | 4.27   | 670  | 6.27  | 34.53 | 0.0    | 0.0    | 30.21   | 27.16    | 1.730   | 3.09   |
| 85   | 28.68 | 35.35 | 0.0    | -3.6   | 22.80   | 22.44    | 0.503   | 4.24   | 680  | 6.16  | 34.53 | 0.0    | 0.0    | 30.27   | 27.17    | 1.740   | 3.07   |
| 90   | 28.69 | 35.39 | 0.0    | -2.4   | 22.84   | 22.47    | 0.530   | 4.16   | 690  | 6.10  | 34.53 | 0.0    | 0.0    | 30.32   | 27.17    | 1.749   | 3.07   |
| 95   | 28.61 | 35.40 | -1.2   | -2.4   | 22.90   | 22.51    | 0.557   | 4.14   | 700  | 6.00  | 34.53 | 0.0    | 0.0    | 30.38   | 27.19    | 1.759   | 3.06   |
| 100  | 28.49 | 35.37 | -1.2   | -2.4   | 22.94   | 22.52    | 0.584   | 4.11   | 710  | 5.96  | 34.52 | 0.0    | 0.0    | 30.43   | 27.19    | 1.769   | 3.06   |
| 105  | 28.48 | 35.39 | -1.2   | -2.4   | 22.98   | 22.54    | 0.610   | 4.07   | 720  | 5.96  | 34.52 | 0.0    | 0.0    | 30.48   | 27.19    | 1.778   | 3.07   |
| 110  | 28.47 | 35.44 | -2.4   | -2.4   | 23.04   | 22.58    | 0.637   | 3.89   | 730  | 5.94  | 34.52 | 0.0    | 0.0    | 30.52   | 27.19    | 1.788   | 3.02   |
| 115  | 28.38 | 35.44 | -3.6   | -2.4   | 23.10   | 22.61    | 0.664   | 3.87   | 740  | 5.91  | 34.53 | 0.0    | 0.0    | 30.58   | 27.20    | 1.798   | 2.58   |
| 120  | 28.26 | 35.46 | -1.2   | -2.4   | 23.17   | 22.67    | 0.690   | 3.87   | 750  | 5.74  | 34.53 | 0.0    | 0.0    | 30.65   | 27.22    | 1.808   | 2.68   |
| 125  | 28.16 | 35.47 | 0.0    | -2.4   | 23.23   | 22.71    | 0.716   | 3.84   | 760  | 5.65  | 34.53 | 0.0    | 0.0    | 30.71   | 27.23    | 1.817   | 2.84   |
| 130  | 28.08 | 35.48 | 1.2    | -1.2   | 23.29   | 22.74    | 0.742   | 3.79   | 770  | 5.55  | 34.53 | 0.0    | 0.0    | 30.77   | 27.24    | 1.826   | 2.81   |
| 135  | 28.06 | 35.49 | 1.2    | -1.2   | 23.32   | 22.75    | 0.767   | 3.77   | 780  | 5.50  | 34.52 | 0.0    | 0.0    | 30.82   | 27.25    | 1.835   | 2.76   |
| 140  | 27.98 | 35.50 | -1.2   | -2.4   | 23.38   | 22.79    | 0.793   | 3.73   | 790  | 5.46  | 34.53 | 0.0    | 0.0    | 30.87   | 27.25    | 1.844   | 2.74   |
| 145  | 27.75 | 35.51 | -1.2   | -3.6   | 23.49   | 22.88    | 0.819   | 3.68   | 800  | 5.37  | 34.53 | 0.0    | 0.0    | 30.93   | 27.26    | 1.853   | 2.72   |
| 150  | 27.47 | 35.56 | -1.2   | -3.6   | 23.63   | 23.00    | 0.844   | 3.53   | 810  | 5.32  | 34.53 | 0.0    | 0.0    | 30.98   | 27.27    | 1.862   | 2.70   |
| 155  | 27.14 | 35.65 | -1.2   | -3.6   | 23.83   | 23.18    | 0.868   | 3.39   | 820  | 5.28  | 34.53 | 0.0    | 0.0    | 31.03   | 27.28    | 1.871   | 2.67   |
| 160  | 26.99 | 35.67 | -1.2   | -8.4   | 23.91   | 23.24    | 0.891   | 3.32   | 830  | 5.22  | 34.53 | 0.0    | 0.0    | 31.08   | 27.28    | 1.880   | 2.62   |
| 165  | 26.59 | 35.72 | -1.2   | -14.4  | 24.10   | 23.41    | 0.915   | 3.20   | 840  | 5.18  | 34.53 | 0.0    | 0.0    | 31.13   | 27.29    | 1.889   | 2.61   |
| 170  | 26.32 | 35.77 | 0.0    | -15.6  | 24.25   | 23.53    | 0.937   | 3.13   | 850  | 5.15  | 34.53 | 0.0    | 0.0    | 31.19   | 27.29    | 1.898   | 2.59   |
| 175  | 26.10 | 35.80 | 0.0    | -14.4  | 24.36   | 23.62    | 0.959   | 3.10   | 860  | 5.10  | 34.53 | 0.0    | 0.0    | 31.24   | 27.30    | 1.906   | 2.60   |
| 180  | 25.84 | 35.83 | 0.0    | -6.0   | 24.49   | 23.73    | 0.980   | 3.04   | 870  | 5.03  | 34.53 | 0.0    | 0.0    | 31.29   | 27.30    | 1.915   | 2.72   |
| 185  | 25.45 | 35.88 | -3.6   | -6.0   | 24.66   | 23.88    | 1.001   | 2.98   | 880  | 4.99  | 34.53 | 0.0    | 0.0    | 31.34   | 27.31    | 1.924   | 2.70   |
| 190  | 24.87 | 35.99 | -10.8  | -8.4   | 24.95   | 24.14    | 1.021   | 2.94   | 890  | 4.93  | 34.53 | 0.0    | 0.0    | 31.40   | 27.32    | 1.932   | 2.71   |
| 195  | 24.58 | 36.01 | -15.6  | -9.6   | 25.07   | 24.25    | 1.040   | 2.92   | 900  | 4.86  | 34.53 | 0.0    | 0.0    | 31.45   | 27.33    | 1.941   | 2.67   |
| 200  | 24.12 | 36.05 | -18.0  | -7.2   | 25.26   | 24.42    | 1.059   | 2.91   | 910  | 4.81  | 34.54 | 0.0    | 0.0    | 31.51   | 27.34    | 1.949   | 2.52   |
| 205  | 23.43 | 36.02 | -15.6  | -6.0   | 25.47   | 24.60    | 1.076   | 2.94   | 920  | 4.78  | 34.53 | 0.0    | 0.0    | 31.56   | 27.34    | 1.958   | 2.48   |
| 210  | 22.41 | 35.99 | -10.8  | -6.0   | 25.76   | 24.87    | 1.093   | 2.91   | 930  | 4.74  | 34.53 | 0.0    | 0.0    | 31.61   | 27.34    | 1.966   | 2.50   |
| 215  | 21.04 | 35.85 | -8.4   | -3.6   | 26.07   | 25.15    | 1.108   | 2.76   | 940  | 4.68  | 34.53 | 0.0    | 0.0    | 31.66   | 27.35    | 1.974   | 2.63   |
| 220  | 20.36 | 35.77 | -9.6   | -6.0   | 26.21   | 25.26    | 1.122   | 2.67   | 950  | 4.67  | 34.53 | 0.0    | 0.0    | 31.71   | 27.35    | 1.982   | 2.60   |
| 225  | 19.44 | 35.63 | -10.8  | -7.2   | 26.37   | 25.40    | 1.136   | 2.61   | 960  | 4.64  | 34.54 | 0.0    | 0.0    | 31.76   | 27.36    | 1.990   | 2.46   |
| 230  | 18.59 | 35.63 | -12.0  | -13.2  | 26.62   | 25.62    | 1.148   | 2.56   | 970  | 4.61  | 34.54 | 0.0    | 0.0    | 31.81   | 27.36    | 1.999   | 2.46   |
| 235  | 18.02 | 35.54 | -15.6  | -25.2  | 26.71   | 25.69    | 1.161   | 2.53   | 980  | 4.55  | 34.54 | 0.0    | 0.0    | 31.87   | 27.37    | 2.007   | 2.44   |
| 240  | 17.45 | 35.51 | -16.8  | -25.2  | 26.85   | 25.81    | 1.172   | 2.47   | 990  | 4.47  | 34.54 | 0.0    | 0.0    | 31.92   | 27.38    | 2.015   | 2.45   |
| 245  | 16.77 | 35.42 | -10.8  | -14.4  | 26.97   | 25.90    | 1.183   | 2.40   | 1000 | 4.43  | 34.54 | 0.0    | 0.0    | 31.98   | 27.38    | 2.023   | 2.50   |
| 250  | 16.44 | 35.41 | -6.0   | -8.4   | 27.06   | 25.97    | 1.194   | 2.37   | 1020 | 4.36  | 34.54 | 0.0    | 0.0    | 32.08   | 27.39    | 2.038   | 2.51   |
| 255  | 15.58 | 35.32 | -3.6   | -4.8   | 27.22   | 26.10    | 1.204   | 2.31   | 1040 | 4.28  | 34.54 | 0.0    | 0.0    | 32.18   | 27.40    | 2.054   | 2.52   |
| 260  | 15.12 | 35.26 | -2.4   | -3.6   | 27.30   | 26.16    | 1.214   | 2.27   | 1060 | 4.20  | 34.55 | 0.0    | 0.0    | 32.28   | 27.41    | 2.069   | 2.54   |
| 265  | 14.81 | 35.22 | -2.4   | -3.6   | 27.36   | 26.19    | 1.224   | 2.28   | 1080 | 4.13  | 34.55 | 0.0    | 0.0    | 32.39   | 27.42    | 2.085   | 2.54   |
| 270  | 14.33 | 35.20 | -2.4   | -3.6   | 27.47   | 26.28    | 1.233   | 2.29   | 1100 | 4.03  | 34.55 | 0.0    | 0.0    | 32.49   | 27.43    | 2.099   | 2.59   |
| 275  | 13.91 | 35.17 | -1.2   | -4.8   | 27.56   | 26.35    | 1.242   | 2.28   | 1120 | 3.95  | 34.55 | 0.0    | 0.0    | 32.59   | 27.44    | 2.114   | 2.58   |
| 280  | 13.63 | 35.09 | 0.0    | -6.0   | 27.58   | 26.35    | 1.251   | 2.27   | 1140 | 3.88  | 34.56 | 0.0    | 0.0    | 32.70   | 27.45    | 2.129   | 2.61   |
| 285  | 13.41 | 35.08 | 0.0    | -6.0   | 27.64   | 26.38    | 1.259   | 2.27   | 1160 | 3.81  | 34.56 | 0.0    | 0.0    | 32.80   | 27.46    | 2.143   | 2.61   |
| 290  | 13.21 | 35.05 | 0.0    | -6.0   | 27.68   | 26.40    | 1.268   | 2.27   | 1180 | 3.80  | 34.56 | 0.0    | 0.0    | 32.89   | 27.46    | 2.158   | 2.61   |
| 295  | 12.74 | 35.01 | 2.4    | -4.8   | 27.77   | 26.46    | 1.276   | 2.32   | 1200 | 3.71  | 34.56 | 0.0    | 0.0    | 33.00   | 27.48    | 2.172   | 2.64   |
| 300  | 12.52 | 35.00 | 2.4    | -1.2   | 27.83   | 26.50    | 1.284   | 2.32   | 1220 | 3.65  | 34.56 | 0.0    | 0.0    | 33.10   | 27.48    | 2.186   | 2.66   |
| 305  | 12.14 | 34.95 | 3.6    | 3.6    | 27.89   | 26.53    | 1.292   | 2.32   | 1240 | 3.60  | 34.57 | 0.0    | 0.0    | 33.20   | 27.49    | 2.200   | 2.68   |
| 310  | 12.02 | 34.94 | 3.6    | 4.8    | 27.93   | 26.55    | 1.300   | 2.33   | 1260 | 3.53  | 34.57 | 0.0    | 0.0    | 33.30   | 27.50    | 2.213   | 2.70   |
| 315  | 11.81 | 34.92 | 3.6    | 4.8    | 27.97   | 26.57    | 1.308   | 2.32   | 1280 | 3.47  | 34.57 | 0.0    | 0.0    | 33.40   | 27.51    | 2.227   | 2.74   |
| 320  | 11.62 | 34.92 | 3.6    | 6.0    | 28.03   | 26.60    | 1.316   | 2.34   | 1300 | 3.42  | 34.57 | 0.0    | 0.0    | 33.50   | 27.51    | 2.240   | 2.79   |
| 325  | 11.47 | 34.89 | 3.6    | 2.4    | 28.06   | 26.62    | 1.323   | 2.35   | 1320 | 3.37  | 34.57 | 0.0    | 0.0    | 33.59   | 27.52    | 2.254   | 2.84   |
| 330  | 11.42 | 34.88 | 3.6    | 0.0    | 28.09   | 26.62    | 1.331   | 2.35   | 1340 | 3.30  | 34.58 | 0.0    | 0.0    | 33.70   | 27.53    | 2.267   | 2.79   |
| 335  | 11.24 | 34.88 | 2.4    | 1.2    | 28.14   | 26.64    | 1.338   | 2.35   | 1360 | 3.26  | 34.58 | 0.0    | 0.0    | 33.79   | 27.53    | 2.280   | 2.81   |
| 340  | 11.08 | 34.86 | 3.6    | 0.0    | 28.18   | 26.66    | 1.345   | 2.36   | 1380 | 3.21  | 34.58 | 0.0    | 0.0    | 33.90   | 27.54    | 2.293   | 2.80   |
| 345  | 10.95 | 34.84 | 4.8    | 1.2    | 28.21   | 26.67    | 1.352   | 2.36   | 1400 | 3.18  | 34.58 | 0.0    | 0.0    | 33.99   | 27.54    | 2.306   | 2.77   |
| 350  | 10.85 | 34.83 | 4.8    | 1.2    | 28.24   | 26.68    |         |        |      |       |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 14  
DATE : 11/ 1/89 HEURE : 12h00 LONGITUDE : 165.00 LATITUDE : -7.00



STATION : 15

CAMARGNE : wvrcpoc11

DATE : 11/ 1/09 HEURE : 2030

LONGITUDE : 165.00

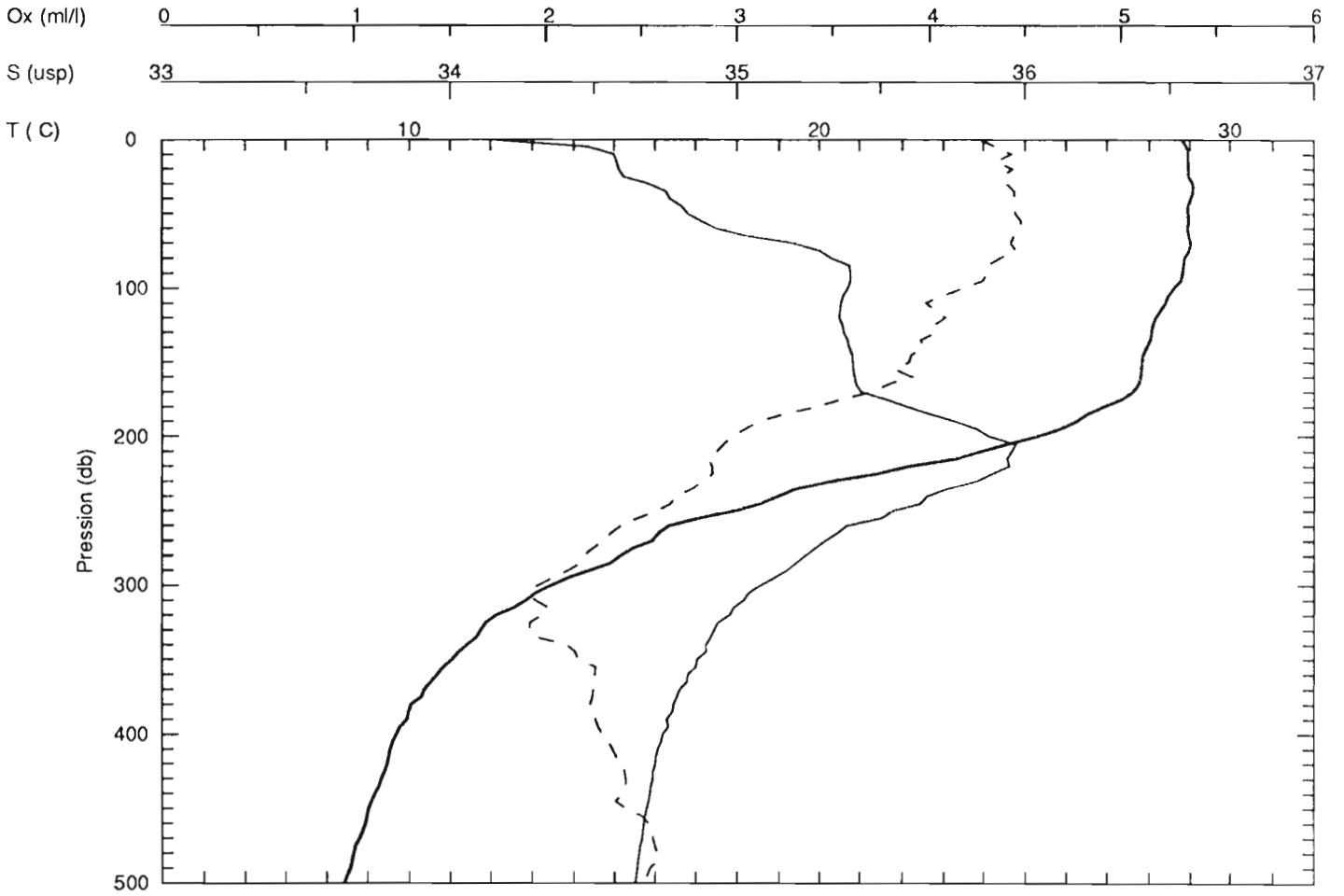
LATITUDE : -6.00

|     | P     | T     | S     | U      | V      | Sigt    | SigtHera | Rdyn    | Oxy   |
|-----|-------|-------|-------|--------|--------|---------|----------|---------|-------|
|     | (db)  | (C)   | (wvp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m-dyn) | (m/l) |
| 500 | 8.43  | 34.65 | -2.4  | 0.0    | 0.0    | 1.609   | 26.94    | 1.609   | 2.58  |
| 495 | 8.49  | 34.65 | -2.4  | 0.0    | 0.0    | 1.603   | 26.93    | 1.603   | 2.53  |
| 490 | 8.58  | 34.65 | -2.4  | 0.0    | 0.0    | 1.597   | 26.92    | 1.597   | 2.55  |
| 485 | 8.62  | 34.65 | -2.4  | 0.0    | 0.0    | 1.591   | 26.92    | 1.591   | 2.59  |
| 480 | 8.66  | 34.66 | -2.4  | 0.0    | 0.0    | 1.585   | 26.91    | 1.585   | 2.59  |
| 475 | 8.69  | 34.66 | -2.4  | 0.0    | 0.0    | 1.579   | 26.91    | 1.579   | 2.57  |
| 470 | 8.80  | 34.67 | -2.4  | 1.2    | 29.02  | 1.573   | 26.90    | 1.573   | 2.56  |
| 465 | 8.88  | 34.67 | -2.4  | 1.2    | 28.99  | 1.566   | 26.90    | 1.566   | 2.56  |
| 460 | 8.94  | 34.67 | -2.4  | 1.2    | 28.96  | 1.560   | 26.88    | 1.560   | 2.54  |
| 455 | 8.98  | 34.68 | -2.4  | 1.2    | 28.88  | 1.554   | 26.88    | 1.554   | 2.50  |
| 450 | 9.01  | 34.69 | -2.4  | 1.2    | 28.91  | 1.548   | 26.88    | 1.548   | 2.42  |
| 445 | 9.09  | 34.69 | -2.4  | 1.2    | 28.88  | 1.541   | 26.87    | 1.541   | 2.36  |
| 440 | 9.16  | 34.70 | 0.0   | 1.2    | 28.84  | 1.535   | 26.86    | 1.535   | 2.39  |
| 435 | 9.26  | 34.70 | 0.0   | 1.2    | 28.81  | 1.529   | 26.82    | 1.529   | 2.42  |
| 430 | 9.32  | 34.71 | 1.2   | 1.2    | 28.78  | 1.522   | 26.84    | 1.522   | 2.41  |
| 425 | 9.40  | 34.71 | 1.2   | 1.2    | 28.74  | 1.516   | 26.83    | 1.516   | 2.41  |
| 420 | 9.45  | 34.72 | 1.2   | 1.2    | 28.72  | 1.510   | 26.83    | 1.510   | 2.38  |
| 415 | 9.50  | 34.72 | 2.4   | 1.2    | 28.69  | 1.503   | 26.82    | 1.503   | 2.37  |
| 410 | 9.54  | 34.72 | 2.4   | 2.4    | 28.67  | 1.496   | 26.82    | 1.496   | 2.34  |
| 405 | 9.59  | 34.74 | 2.4   | 2.4    | 28.64  | 1.490   | 26.82    | 1.490   | 2.33  |
| 400 | 9.68  | 34.74 | 1.2   | 2.4    | 28.61  | 1.483   | 26.81    | 1.483   | 2.29  |
| 395 | 9.78  | 34.76 | 1.2   | 2.4    | 28.59  | 1.477   | 26.81    | 1.477   | 2.27  |
| 390 | 9.94  | 34.76 | 1.2   | 2.4    | 28.53  | 1.470   | 26.79    | 1.470   | 2.25  |
| 385 | 9.98  | 34.78 | 1.2   | 2.4    | 28.51  | 1.463   | 26.79    | 1.463   | 2.24  |
| 380 | 10.04 | 34.78 | 2.4   | 2.4    | 28.49  | 1.456   | 26.78    | 1.456   | 2.23  |
| 375 | 10.29 | 34.79 | 2.4   | 2.4    | 28.43  | 1.450   | 26.74    | 1.450   | 2.24  |
| 370 | 10.36 | 34.80 | 2.4   | 2.4    | 28.40  | 1.443   | 26.74    | 1.443   | 2.24  |
| 365 | 10.51 | 34.80 | 2.4   | 2.4    | 28.37  | 1.436   | 26.74    | 1.436   | 2.24  |
| 360 | 10.67 | 34.83 | 1.2   | 2.4    | 28.32  | 1.429   | 26.71    | 1.429   | 2.25  |
| 355 | 10.83 | 34.86 | 1.2   | 2.4    | 28.29  | 1.422   | 26.76    | 1.422   | 2.26  |
| 350 | 11.04 | 34.86 | 2.4   | 2.4    | 28.23  | 1.415   | 26.67    | 1.415   | 2.16  |
| 345 | 11.20 | 34.89 | 2.4   | 2.4    | 28.20  | 1.407   | 26.67    | 1.407   | 2.15  |
| 340 | 11.41 | 34.89 | 2.4   | 2.4    | 28.14  | 1.400   | 26.63    | 1.400   | 2.10  |
| 335 | 11.65 | 34.91 | 2.4   | 2.4    | 28.09  | 1.392   | 26.59    | 1.392   | 2.10  |
| 330 | 11.75 | 34.92 | 2.4   | 2.4    | 28.05  | 1.385   | 26.58    | 1.385   | 1.92  |
| 325 | 11.88 | 34.94 | 2.4   | 2.4    | 28.02  | 1.377   | 26.57    | 1.377   | 1.92  |
| 320 | 12.14 | 34.99 | 2.4   | 2.4    | 27.97  | 1.369   | 26.55    | 1.369   | 1.98  |
| 315 | 12.57 | 34.99 | 2.4   | 2.4    | 27.88  | 1.362   | 26.48    | 1.362   | 2.01  |
| 310 | 13.05 | 35.02 | 2.4   | 2.4    | 27.82  | 1.355   | 26.45    | 1.355   | 1.95  |
| 305 | 13.58 | 35.04 | 2.4   | 2.4    | 27.77  | 1.348   | 26.42    | 1.348   | 1.92  |
| 300 | 13.65 | 35.08 | 2.4   | 2.4    | 27.70  | 1.341   | 26.37    | 1.341   | 1.96  |
| 295 | 13.98 | 35.17 | 2.4   | 2.4    | 27.63  | 1.334   | 26.32    | 1.334   | 2.04  |
| 290 | 14.38 | 35.17 | 2.4   | 2.4    | 27.52  | 1.327   | 26.25    | 1.327   | 2.11  |
| 285 | 14.89 | 35.20 | 2.4   | 2.4    | 27.41  | 1.320   | 26.16    | 1.320   | 2.18  |
| 280 | 15.15 | 35.24 | 2.4   | 2.4    | 27.36  | 1.313   | 26.13    | 1.313   | 2.20  |
| 275 | 15.46 | 35.27 | 2.4   | 2.4    | 27.29  | 1.306   | 26.09    | 1.306   | 2.24  |
| 270 | 15.93 | 35.31 | 2.4   | 2.4    | 27.17  | 1.299   | 26.01    | 1.299   | 2.30  |
| 265 | 16.08 | 35.35 | 2.4   | 2.4    | 27.17  | 1.292   | 26.01    | 1.292   | 2.34  |
| 260 | 16.34 | 35.38 | 1.2   | 2.4    | 27.11  | 1.285   | 25.97    | 1.285   | 2.39  |
| 255 | 17.06 | 35.50 | 1.2   | 2.4    | 27.01  | 1.277   | 25.90    | 1.277   | 2.48  |
| 250 | 17.93 | 35.54 | 1.2   | 2.4    | 26.80  | 1.270   | 25.71    | 1.270   | 2.58  |
| 245 | 18.59 | 35.59 | 1.2   | 2.4    | 26.70  | 1.263   | 25.64    | 1.263   | 2.68  |
| 240 | 18.97 | 35.65 | 1.2   | 2.4    | 26.58  | 1.256   | 25.54    | 1.256   | 2.77  |
| 235 | 19.40 | 35.72 | 1.2   | 2.4    | 26.50  | 1.249   | 25.49    | 1.249   | 2.77  |
| 230 | 20.30 | 35.83 | 1.2   | 2.4    | 26.32  | 1.242   | 25.33    | 1.242   | 2.83  |
| 225 | 21.40 | 35.94 | 1.2   | 2.4    | 26.03  | 1.235   | 25.27    | 1.235   | 2.87  |
| 220 | 22.15 | 35.94 | 1.2   | 2.4    | 25.85  | 1.228   | 25.21    | 1.228   | 2.95  |
| 215 | 23.92 | 35.94 | 1.2   | 2.4    | 25.48  | 1.221   | 25.09    | 1.221   | 2.95  |
| 210 | 25.92 | 35.94 | 1.2   | 2.4    | 25.40  | 1.214   | 25.00    | 1.214   | 2.95  |
| 205 | 24.56 | 35.97 | 1.2   | 2.4    | 25.09  | 1.207   | 24.92    | 1.207   | 2.93  |
| 200 | 25.28 | 35.88 | 1.2   | 2.4    | 24.78  | 1.200   | 24.84    | 1.200   | 2.98  |
| 195 | 25.83 | 35.83 | 1.2   | 2.4    | 24.55  | 1.193   | 24.73    | 1.193   | 3.04  |
| 190 | 26.04 | 35.86 | 1.2   | 2.4    | 24.35  | 1.186   | 24.63    | 1.186   | 3.12  |
| 185 | 26.51 | 35.66 | 1.2   | 2.4    | 24.17  | 1.179   | 24.39    | 1.179   | 3.24  |
| 180 | 26.51 | 35.91 | 1.2   | 2.4    | 24.04  | 1.172   | 24.20    | 1.172   | 3.25  |
| 175 | 27.37 | 35.92 | 1.2   | 2.4    | 23.75  | 1.165   | 24.01    | 1.165   | 3.35  |
| 170 | 27.64 | 35.83 | 1.2   | 2.4    | 23.58  | 1.158   | 23.96    | 1.158   | 3.41  |
| 165 | 27.74 | 35.82 | 1.2   | 2.4    | 23.50  | 1.151   | 23.81    | 1.151   | 3.49  |
| 160 | 27.79 | 35.81 | 1.2   | 2.4    | 23.46  | 1.144   | 23.79    | 1.144   | 3.50  |
| 155 | 27.82 | 35.81 | 1.2   | 2.4    | 23.42  | 1.137   | 23.77    | 1.137   | 3.82  |
| 150 | 27.82 | 35.80 | 1.2   | 2.4    | 23.39  | 1.130   | 23.77    | 1.130   | 3.89  |
| 145 | 27.86 | 35.80 | 1.2   | 2.4    | 23.37  | 1.123   | 23.76    | 1.123   | 3.90  |
| 140 | 27.94 | 35.80 | 1.2   | 2.4    | 23.31  | 1.116   | 23.72    | 1.116   | 3.97  |
| 135 | 28.03 | 35.79 | 1.2   | 2.4    | 23.26  | 1.109   | 23.69    | 1.109   | 3.95  |
| 130 | 28.05 | 35.77 | 1.2   | 2.4    | 23.22  | 1.102   | 23.67    | 1.102   | 4.03  |
| 125 | 28.09 | 35.77 | 1.2   | 2.4    | 23.18  | 1.095   | 23.65    | 1.095   | 4.02  |
| 120 | 28.16 | 35.77 | 1.2   | 2.4    | 23.13  | 1.088   | 23.62    | 1.088   | 4.08  |
| 115 | 28.27 | 35.76 | 1.2   | 2.4    | 23.07  | 1.081   | 23.59    | 1.081   | 4.03  |
| 110 | 28.40 | 35.76 | 1.2   | 2.4    | 23.01  | 1.074   | 23.55    | 1.074   | 3.98  |
| 105 | 28.58 | 35.77 | 1.2   | 2.4    | 22.92  | 1.067   | 23.53    | 1.067   | 4.07  |
| 100 | 28.99 | 35.79 | 1.2   | 2.4    | 22.80  | 1.060   | 23.50    | 1.060   | 4.18  |
| 95  | 28.77 | 35.80 | 1.2   | 2.4    | 22.85  | 1.053   | 23.47    | 1.053   | 4.28  |
| 90  | 28.81 | 35.80 | 1.2   | 2.4    | 22.81  | 1.046   | 23.44    | 1.046   | 4.30  |
| 85  | 28.84 | 35.79 | 1.2   | 2.4    | 22.78  | 1.039   | 23.42    | 1.039   | 4.30  |
| 80  | 28.88 | 35.78 | 1.2   | 2.4    | 22.70  | 1.032   | 23.37    | 1.032   | 4.37  |
| 75  | 28.97 | 35.79 | 1.2   | 2.4    | 22.61  | 1.025   | 23.30    | 1.025   | 4.45  |
| 70  | 29.01 | 35.79 | 1.2   | 2.4    | 22.50  | 1.018   | 23.21    | 1.018   | 4.43  |
| 65  | 29.04 | 35.93 | 1.2   | 2.4    | 22.37  | 1.011   | 23.10    | 1.011   | 4.45  |
| 60  | 28.98 | 34.88 | 1.2   | 2.4    | 22.29  | 1.004   | 23.04    | 1.004   | 4.47  |
| 55  | 28.97 | 34.88 | 2.4   | 2.4    | 22.22  | 0.997   | 22.99    | 0.997   | 4.48  |
| 50  | 28.95 | 34.81 | 2.4   | 2.4    | 22.17  | 0.990   | 22.96    | 0.990   | 4.45  |
| 45  | 29.01 | 34.77 | 6.0   | 18.0   | 22.06  | 0.983   | 22.91    | 0.983   | 4.45  |
| 40  | 29.05 | 34.75 | 4.8   | 18.0   | 22.12  | 0.976   | 22.94    | 0.976   | 4.45  |
| 35  | 29.07 | 34.60 | 3.6   | 18.0   | 22.01  | 0.969   | 22.86    | 0.969   | 4.45  |
| 30  | 29.07 | 34.60 | 3.6   | 18.0   | 21.94  | 0.962   | 22.82    | 0.962   | 4.48  |
| 25  | 28.95 | 34.58 | 1.2   | 15.6   | 21.89  | 0.955   | 22.78    | 0.955   | 4.38  |
| 20  | 28.98 | 34.59 | 1.2   | 15.6   | 21.86  | 0.948   | 22.77    | 0.948   | 4.44  |
| 15  | 28.95 | 34.58 | 1.2   | 12.0   | 21.83  | 0.941   | 22.76    | 0.941   | 4.35  |
| 10  | 28.95 | 34.57 | 1.2   | 12.0   | 21.80  | 0.934   | 22.76    | 0.934   | 4.43  |
| 5   | 28.81 | 34.48 | 1.2   | 12.0   | 21.73  | 0.927   | 22.70    | 0.927   | 4.35  |
| 0   | 28.81 | 34.47 | 1.2   | 12.0   | 21.69  | 0.920   | 22.69    | 0.920   | 4.27  |

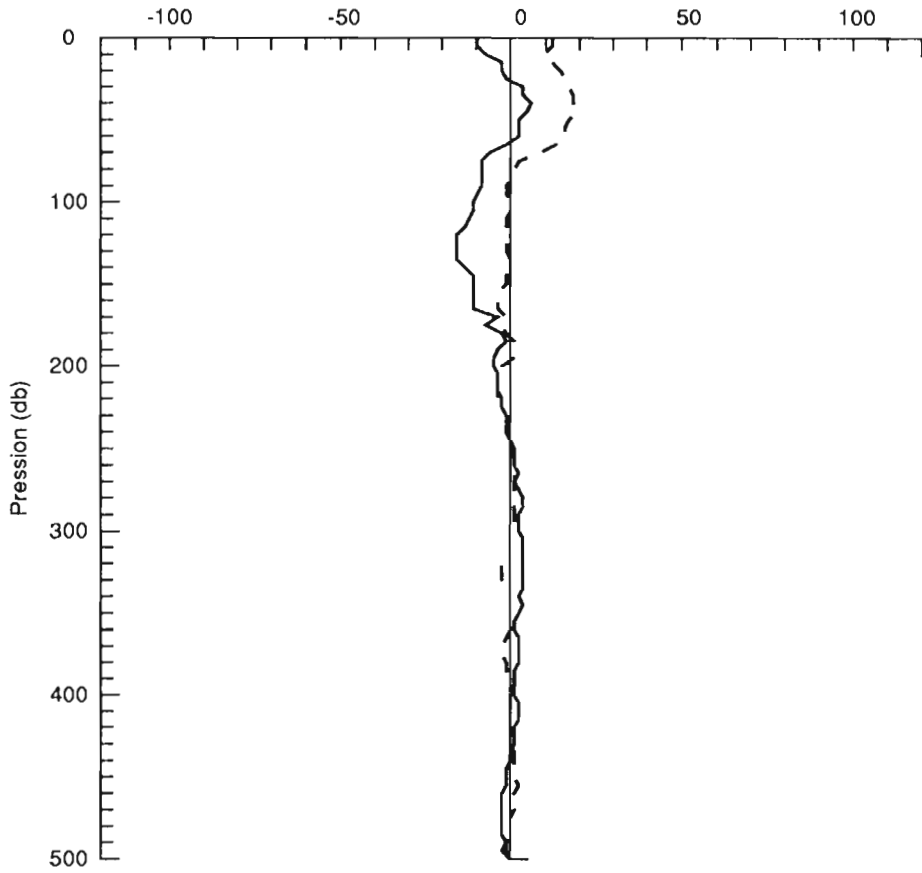
Station parameters: P (db), T (C), S (wvp), U (cm/s), V (cm/s), Sigt (kg/m3), SigtHera (kg/m3), Rdyn (m-dyn), Oxy (m/l)



SURTROPAC11 STATION No : 15  
DATE : 11/ 1/89 HEURE : 20h30 LONGITUDE : 165.00 LATITUDE : -6.00



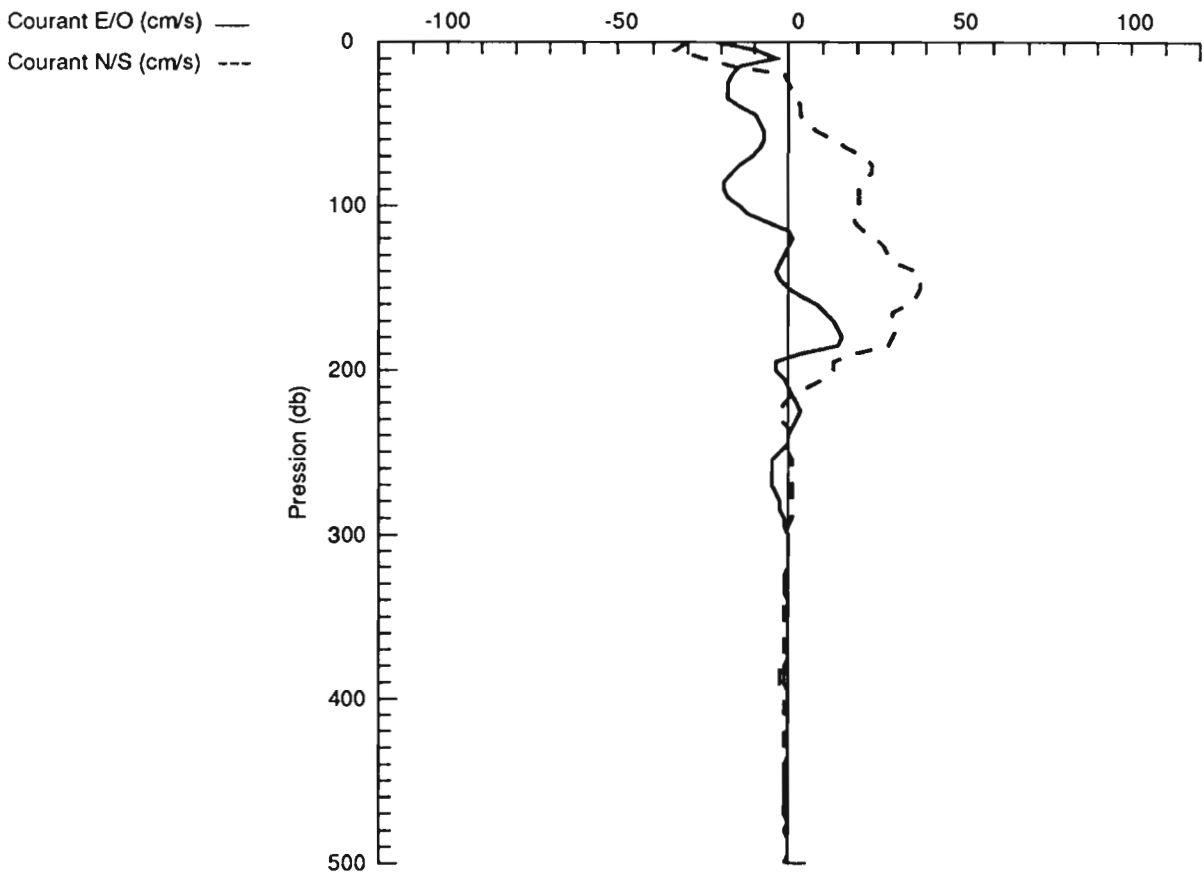
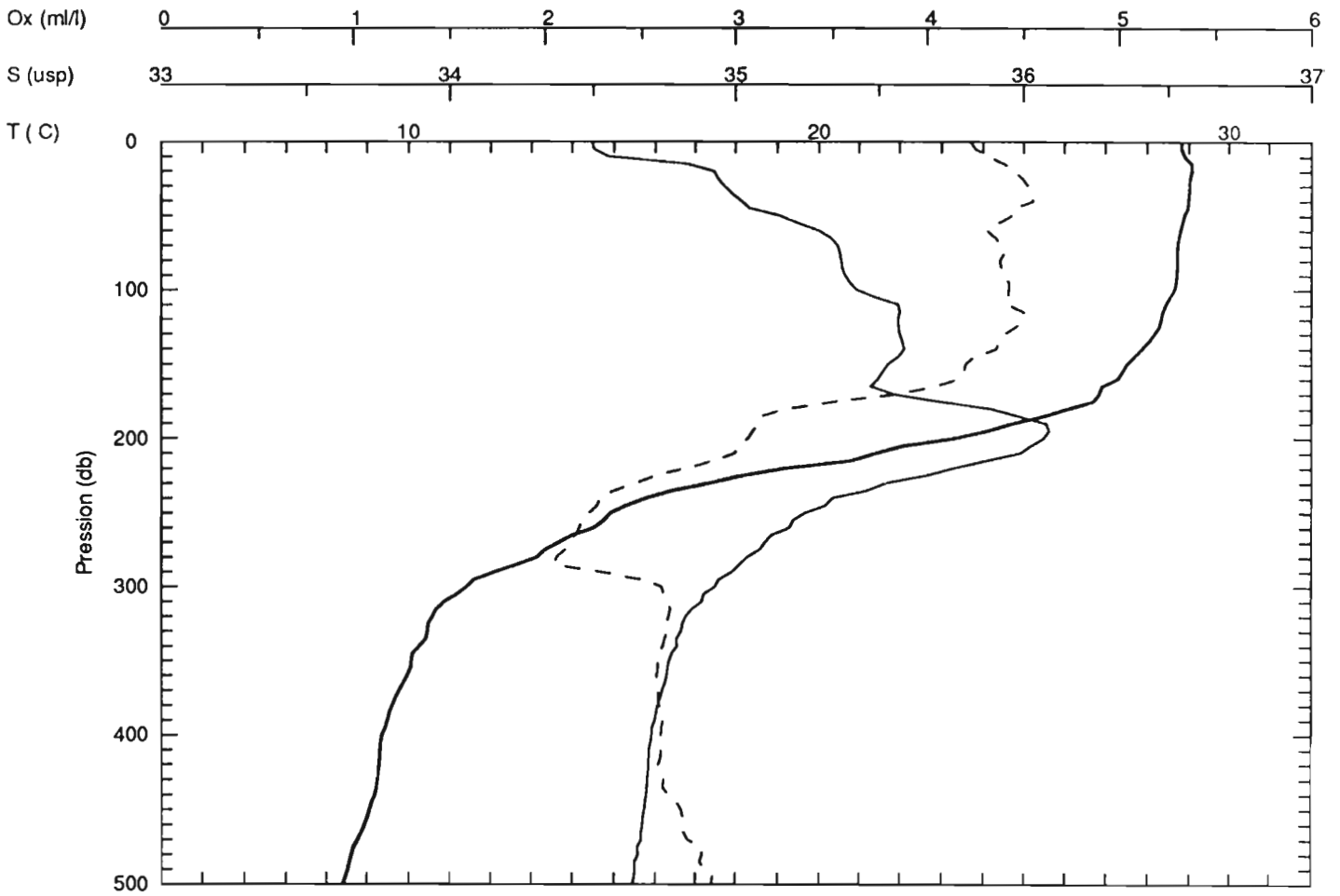
Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -



STATION : 16      CAMPAGNE : aurtropacl1  
 DATE : 12/ 1/89    REURE : 7h20      LONGITUDE : 165.00      LATITUDE : -5.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.82 | 34.50 | -21.6  | -30.0  | 21.75   | 21.75    | 0.000   | 4.22   | 510  | 8.32 | 34.63 | -1.2   | 0.0    | 29.25   | 26.94    | 1.524   | 2.88   |
| 5    | 28.82 | 34.50 | -9.6   | -33.6  | 21.77   | 21.75    | 0.030   | 4.25   | 520  | 8.31 | 34.62 | 2.4    | 0.0    | 29.29   | 26.94    | 1.536   | 2.90   |
| 10   | 28.90 | 34.55 | -3.6   | -25.2  | 21.80   | 21.76    | 0.061   | 4.32   | 530  | 8.19 | 34.62 | 2.4    | -1.2   | 29.36   | 26.96    | 1.548   | 2.65   |
| 15   | 29.08 | 34.83 | -14.4  | -16.8  | 21.98   | 21.91    | 0.090   | 4.40   | 540  | 8.12 | 34.62 | 1.2    | -1.2   | 29.41   | 26.96    | 1.559   | 2.50   |
| 20   | 29.07 | 34.92 | -16.8  | -1.2   | 22.07   | 21.99    | 0.120   | 4.46   | 550  | 7.98 | 34.61 | 0.0    | 0.0    | 29.47   | 26.98    | 1.571   | 2.55   |
| 25   | 29.02 | 34.94 | -18.0  | 0.0    | 22.12   | 22.01    | 0.149   | 4.50   | 560  | 7.90 | 34.61 | 0.0    | 0.0    | 29.53   | 26.99    | 1.583   | 2.57   |
| 30   | 29.01 | 34.96 | -18.0  | 1.2    | 22.16   | 22.04    | 0.178   | 4.53   | 570  | 7.78 | 34.60 | 0.0    | 0.0    | 29.59   | 27.00    | 1.594   | 2.63   |
| 35   | 29.01 | 34.99 | -18.0  | 2.4    | 22.20   | 22.06    | 0.207   | 4.53   | 580  | 7.72 | 34.60 | 0.0    | 0.0    | 29.64   | 27.01    | 1.606   | 2.64   |
| 40   | 28.99 | 35.02 | -14.4  | 3.6    | 22.26   | 22.09    | 0.235   | 4.55   | 590  | 7.63 | 34.59 | 0.0    | 0.0    | 29.69   | 27.02    | 1.617   | 2.65   |
| 45   | 28.97 | 35.05 | -9.6   | 3.6    | 22.30   | 22.12    | 0.264   | 4.45   | 600  | 7.38 | 34.59 | 0.0    | 0.0    | 29.78   | 27.05    | 1.628   | 2.74   |
| 50   | 28.89 | 35.15 | -8.4   | 4.8    | 22.43   | 22.22    | 0.292   | 4.44   | 610  | 7.28 | 34.58 | 0.0    | 0.0    | 29.82   | 27.06    | 1.640   | 2.81   |
| 55   | 28.84 | 35.21 | -7.2   | 8.4    | 22.52   | 22.29    | 0.320   | 4.36   | 620  | 7.13 | 34.57 |        |        | 29.89   | 27.07    | 1.650   | 2.88   |
| 60   | 28.79 | 35.28 | -7.2   | 13.2   | 22.61   | 22.35    | 0.348   | 4.30   | 630  | 7.02 | 34.56 |        |        | 29.95   | 27.08    | 1.661   | 2.91   |
| 65   | 28.76 | 35.33 | -8.4   | 16.8   | 22.67   | 22.40    | 0.375   | 4.35   | 640  | 6.93 | 34.56 |        |        | 30.00   | 27.09    | 1.672   | 2.95   |
| 70   | 28.74 | 35.35 | -10.8  | 21.6   | 22.72   | 22.42    | 0.403   | 4.38   | 650  | 6.78 | 34.55 |        |        | 30.06   | 27.11    | 1.683   | 3.02   |
| 75   | 28.73 | 35.36 | -14.4  | 24.0   | 22.75   | 22.43    | 0.430   | 4.38   | 660  | 6.61 | 34.55 |        |        | 30.13   | 27.13    | 1.693   | 3.05   |
| 80   | 28.72 | 35.36 | -16.8  | 24.0   | 22.77   | 22.44    | 0.457   | 4.37   | 670  | 6.50 | 34.54 |        |        | 30.19   | 27.13    | 1.703   | 3.11   |
| 85   | 28.72 | 35.37 | -19.2  | 21.6   | 22.80   | 22.44    | 0.484   | 4.38   | 680  | 6.37 | 34.54 |        |        | 30.25   | 27.15    | 1.713   | 3.08   |
| 90   | 28.71 | 35.38 | -19.2  | 20.4   | 22.83   | 22.45    | 0.511   | 4.40   | 690  | 6.32 | 34.54 |        |        | 30.30   | 27.15    | 1.724   | 2.95   |
| 95   | 28.69 | 35.39 | -18.0  | 20.4   | 22.87   | 22.47    | 0.538   | 4.42   | 700  | 6.28 | 34.53 |        |        | 30.35   | 27.16    | 1.734   | 2.89   |
| 100  | 28.65 | 35.42 | -14.4  | 20.4   | 22.93   | 22.51    | 0.565   | 4.42   | 710  | 6.19 | 34.53 |        |        | 30.41   | 27.17    | 1.743   | 2.86   |
| 105  | 28.55 | 35.49 | -12.0  | 19.2   | 23.03   | 22.59    | 0.592   | 4.42   | 720  | 6.14 | 34.53 |        |        | 30.45   | 27.17    | 1.753   | 2.89   |
| 110  | 28.44 | 35.57 | -6.0   | 19.2   | 23.15   | 22.69    | 0.618   | 4.41   | 730  | 6.10 | 34.53 |        |        | 30.51   | 27.17    | 1.763   | 3.02   |
| 115  | 28.37 | 35.57 | 0.0    | 21.6   | 23.20   | 22.71    | 0.644   | 4.50   | 740  | 6.03 | 34.53 |        |        | 30.56   | 27.18    | 1.773   | 3.00   |
| 120  | 28.34 | 35.57 | 1.2    | 25.2   | 23.23   | 22.72    | 0.670   | 4.50   | 750  | 5.97 | 34.53 |        |        | 30.61   | 27.19    | 1.783   | 3.00   |
| 125  | 28.29 | 35.57 | 0.0    | 27.6   | 23.26   | 22.74    | 0.696   | 4.46   | 760  | 5.92 | 34.53 |        |        | 30.67   | 27.20    | 1.793   | 2.97   |
| 130  | 28.17 | 35.57 | -1.2   | 28.8   | 23.33   | 22.78    | 0.722   | 4.40   | 770  | 5.87 | 34.52 |        |        | 30.72   | 27.20    | 1.802   | 2.97   |
| 135  | 28.05 | 35.58 | -2.4   | 31.2   | 23.40   | 22.83    | 0.747   | 4.37   | 780  | 5.80 | 34.52 |        |        | 30.77   | 27.21    | 1.812   | 3.04   |
| 140  | 27.88 | 35.59 | -3.6   | 37.2   | 23.48   | 22.89    | 0.773   | 4.36   | 790  | 5.70 | 34.53 |        |        | 30.83   | 27.22    | 1.821   | 2.96   |
| 145  | 27.70 | 35.57 | -2.4   | 38.4   | 23.54   | 22.93    | 0.798   | 4.24   | 800  | 5.64 | 34.53 |        |        | 30.89   | 27.23    | 1.831   | 2.69   |
| 150  | 27.52 | 35.53 | 0.0    | 38.4   | 23.59   | 22.96    | 0.823   | 4.19   | 810  | 5.59 | 34.53 |        |        | 30.94   | 27.24    | 1.840   | 2.57   |
| 155  | 27.41 | 35.51 | 3.6    | 37.2   | 23.64   | 22.99    | 0.847   | 4.18   | 820  | 5.57 | 34.53 |        |        | 30.99   | 27.24    | 1.849   | 2.54   |
| 160  | 27.29 | 35.49 | 8.4    | 34.8   | 23.68   | 23.01    | 0.872   | 4.16   | 830  | 5.51 | 34.53 |        |        | 31.04   | 27.25    | 1.859   | 2.52   |
| 165  | 26.91 | 35.47 | 10.8   | 30.0   | 23.81   | 23.11    | 0.897   | 4.04   | 840  | 5.47 | 34.53 |        |        | 31.10   | 27.25    | 1.868   | 2.49   |
| 170  | 26.84 | 35.55 | 13.2   | 30.0   | 23.91   | 23.20    | 0.920   | 3.85   | 850  | 5.38 | 34.53 |        |        | 31.16   | 27.27    | 1.877   | 2.45   |
| 175  | 26.69 | 35.70 | 14.4   | 31.2   | 24.10   | 23.36    | 0.944   | 3.52   | 860  | 5.27 | 34.53 |        |        | 31.22   | 27.28    | 1.886   | 2.52   |
| 180  | 26.09 | 35.88 | 15.6   | 30.0   | 24.45   | 23.69    | 0.966   | 3.27   | 870  | 5.19 | 34.53 |        |        | 31.28   | 27.29    | 1.895   | 2.50   |
| 185  | 25.50 | 35.98 | 14.4   | 28.8   | 24.73   | 23.94    | 0.987   | 3.14   | 880  | 5.11 | 34.53 |        |        | 31.33   | 27.30    | 1.904   | 2.46   |
| 190  | 24.71 | 36.08 | 3.6    | 19.2   | 25.06   | 24.26    | 1.006   | 3.13   | 890  | 5.05 | 34.53 |        |        | 31.38   | 27.31    | 1.912   | 2.44   |
| 195  | 24.10 | 36.09 | -3.6   | 13.2   | 25.28   | 24.45    | 1.025   | 3.09   | 900  | 5.02 | 34.53 |        |        | 31.44   | 27.31    | 1.921   | 2.45   |
| 200  | 23.28 | 36.07 | -3.6   | 13.2   | 25.53   | 24.68    | 1.042   | 3.07   | 910  | 4.97 | 34.53 |        |        | 31.49   | 27.32    | 1.929   | 2.45   |
| 205  | 22.07 | 36.02 | -1.2   | 10.8   | 25.87   | 24.99    | 1.058   | 3.02   | 920  | 4.88 | 34.54 |        |        | 31.55   | 27.33    | 1.938   | 2.46   |
| 210  | 21.41 | 35.99 | 0.0    | 6.0    | 26.04   | 25.15    | 1.073   | 2.99   | 930  | 4.84 | 34.53 |        |        | 31.60   | 27.33    | 1.946   | 2.44   |
| 215  | 20.78 | 35.87 | 1.2    | 1.2    | 26.15   | 25.23    | 1.087   | 2.89   | 940  | 4.79 | 34.53 |        |        | 31.65   | 27.34    | 1.955   | 2.43   |
| 220  | 19.19 | 35.75 | 2.4    | -1.2   | 26.51   | 25.56    | 1.101   | 2.73   | 950  | 4.73 | 34.54 |        |        | 31.70   | 27.35    | 1.963   | 2.45   |
| 225  | 18.16 | 35.66 | 3.6    | -2.4   | 26.73   | 25.75    | 1.113   | 2.58   | 960  | 4.68 | 34.54 |        |        | 31.76   | 27.35    | 1.971   | 2.46   |
| 230  | 17.34 | 35.52 | 2.4    | -2.4   | 26.84   | 25.84    | 1.124   | 2.47   | 970  | 4.60 | 34.54 |        |        | 31.82   | 27.36    | 1.980   | 2.47   |
| 235  | 16.42 | 35.45 | 1.2    | 0.0    | 27.03   | 26.01    | 1.135   | 2.35   | 980  | 4.55 | 34.54 |        |        | 31.87   | 27.37    | 1.988   | 2.49   |
| 240  | 15.77 | 35.33 | 0.0    | 0.0    | 27.11   | 26.06    | 1.145   | 2.28   | 990  | 4.52 | 34.54 |        |        | 31.92   | 27.37    | 1.996   | 2.50   |
| 245  | 15.28 | 35.31 | 0.0    | 0.0    | 27.23   | 26.16    | 1.155   | 2.27   | 1000 | 4.48 | 34.54 |        |        | 31.97   | 27.38    | 2.004   | 2.48   |
| 250  | 14.91 | 35.24 | -2.4   | 0.0    | 27.28   | 26.18    | 1.164   | 2.23   | 1020 | 4.32 | 34.55 |        |        | 32.09   | 27.40    | 2.019   | 2.48   |
| 255  | 14.74 | 35.20 | -4.8   | 1.2    | 27.31   | 26.19    | 1.174   | 2.19   | 1040 | 4.24 | 34.55 |        |        | 32.19   | 27.41    | 2.035   | 2.53   |
| 260  | 14.50 | 35.18 | -4.8   | 1.2    | 27.37   | 26.23    | 1.183   | 2.18   | 1060 | 4.19 | 34.55 |        |        | 32.28   | 27.41    | 2.050   | 2.53   |
| 265  | 14.02 | 35.12 | -4.8   | 1.2    | 27.46   | 26.29    | 1.192   | 2.16   | 1080 | 4.07 | 34.55 |        |        | 32.40   | 27.43    | 2.065   | 2.56   |
| 270  | 13.68 | 35.10 | -4.8   | 1.2    | 27.53   | 26.34    | 1.201   | 2.13   | 1100 | 3.99 | 34.55 |        |        | 32.50   | 27.44    | 2.080   | 2.58   |
| 275  | 13.34 | 35.08 | -3.6   | 1.2    | 27.61   | 26.40    | 1.210   | 2.11   | 1120 | 3.87 | 34.56 |        |        | 32.61   | 27.46    | 2.095   | 2.61   |
| 280  | 13.14 | 35.04 | -2.4   | 1.2    | 27.64   | 26.40    | 1.219   | 2.06   | 1140 | 3.76 | 34.56 |        |        | 32.71   | 27.47    | 2.109   | 2.61   |
| 285  | 12.64 | 35.01 | -2.4   | 1.2    | 27.75   | 26.48    | 1.227   | 2.05   | 1160 | 3.68 | 34.56 |        |        | 32.82   | 27.48    | 2.123   | 2.67   |
| 290  | 12.10 | 34.99 | -1.2   | 1.2    | 27.86   | 26.57    | 1.235   | 2.28   | 1180 | 3.65 | 34.56 |        |        | 32.92   | 27.48    | 2.137   | 2.69   |
| 295  | 11.59 | 34.94 | -1.2   | 0.0    | 27.94   | 26.63    | 1.242   | 2.51   | 1200 | 3.61 | 34.56 |        |        | 33.01   | 27.49    | 2.150   | 2.67   |
| 300  | 11.41 | 34.93 | 0.0    | -1.2   | 27.99   | 26.65    | 1.250   | 2.61   | 1220 | 3.59 | 34.56 |        |        | 33.10   | 27.49    | 2.164   | 2.69   |
| 305  | 11.18 | 34.89 | 0.0    | 0.0    | 28.03   | 26.66    | 1.257   | 2.62   | 1240 | 3.50 | 34.57 |        |        | 33.21   | 27.50    | 2.178   | 2.72   |
| 310  | 10.86 | 34.88 | 0.0    | 0.0    | 28.10   | 26.71    | 1.264   | 2.64   | 1260 | 3.43 | 34.57 |        |        | 33.31   | 27.51    | 2.191   | 2.74   |
| 315  | 10.68 | 34.85 | 0.0    | 0.0    | 28.13   | 26.72    | 1.271   | 2.65   | 1280 | 3.39 | 34.57 |        |        | 33.41   | 27.52    | 2.205   | 2.77   |
| 320  | 10.59 | 34.82 | 0.0    | 0.0    | 28.15   | 26.72    | 1.278   | 2.64   | 1300 | 3.30 | 34.58 |        |        | 33.52   | 27.53    | 2.218   | 2.78   |
| 325  | 10.48 | 34.81 | -1.2   | 0.0    | 28.19   | 26.73    | 1.285   | 2.63   | 1320 | 3.23 | 34.58 |        |        | 33.62   | 27.54    | 2.231   | 2.79   |
| 330  | 10.46 | 34.81 | -1.2   | -1.2   | 28.21   | 26.73    | 1.292   | 2.64   | 1340 | 3.18 | 34.58 |        |        | 33.72   | 27.54    | 2.243   | 2.85   |
| 335  | 10.42 | 34.79 | -1.2   | 0.0    | 28.22   | 26.72    | 1.299   | 2.62   | 1360 | 3.14 | 34.58 |        |        | 33.81   | 27.55    | 2.256   | 2.85   |
| 340  | 10.27 | 34.79 | 0.0    | -1.2   | 28.28   | 26.75    | 1.306   | 2.61   | 1380 | 3.12 | 34.58 |        |        | 33.91   | 27.55    | 2.269   | 2.85   |
| 345  | 10.10 | 34.77 | 0.0    | -1.2   | 28.31   | 26.76    | 1.312   | 2.59   | 1400 | 3.04 | 34.59 |        |        | 34.01   | 27.56    | 2.281   | 2.94   |
| 350  | 10.07 | 34.76 | 0.0    | -1.2   | 28.33   | 26.76    | 1.319   | 2.58   | 1420 | 2.96 | 34.59 |        |        | 34.12   | 27.57    | 2.293   | 2.91   |
| 355  | 10.06 | 34.76 | 0.0    | -1.2   | 28.36   | 26.76    | 1.326   | 2.59   | 1440 | 2.94 | 34.59 |        |        | 34.21   | 27.58    | 2.306   | 2.88   |
| 360  | 9.97  | 34.76 | 0.0    | -1.2   | 28.39   | 26.77    | 1.333   | 2.58   | 1460 | 2.91 | 34.60 |        |        | 34.31   | 27.58    | 2.318   | 2.91   |
| 365  | 9.87  | 34.7  |        |        |         |          |         |        |      |      |       |        |        |         |          |         |        |

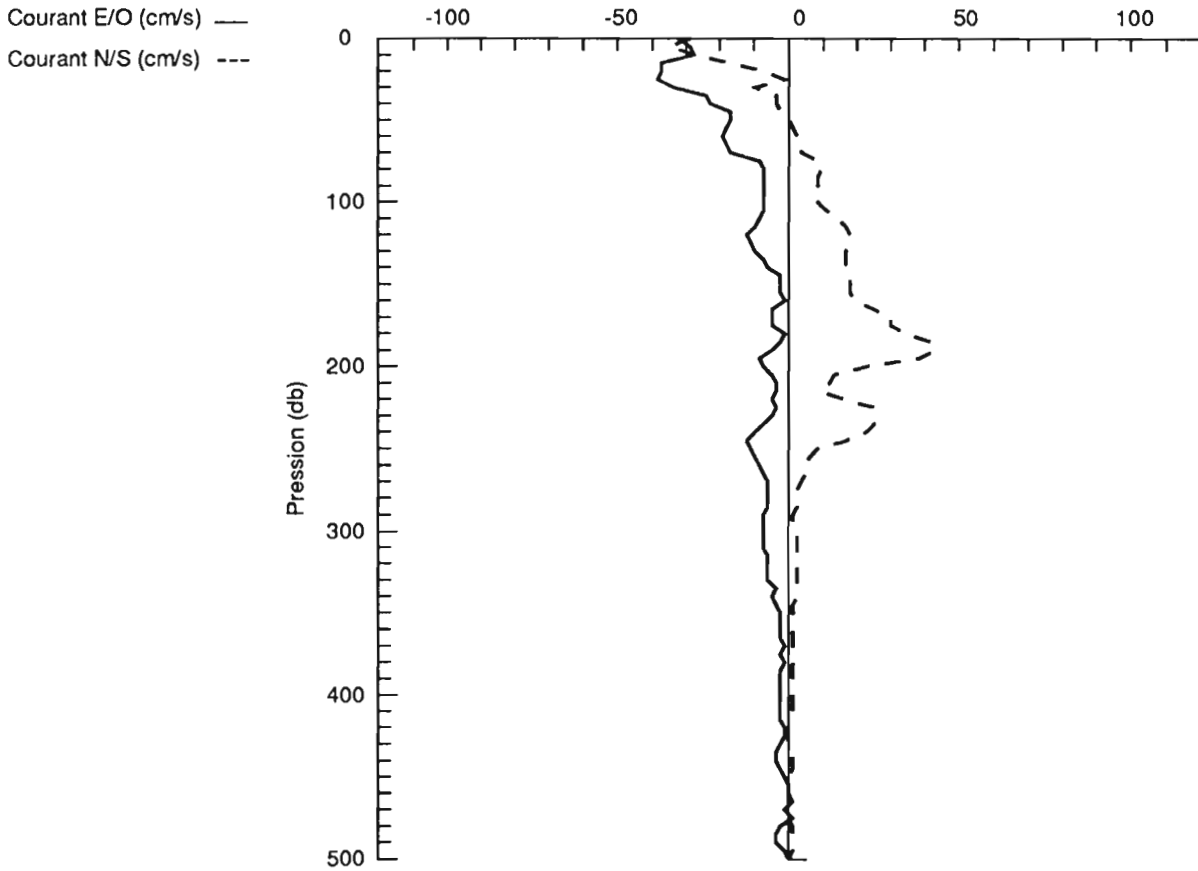
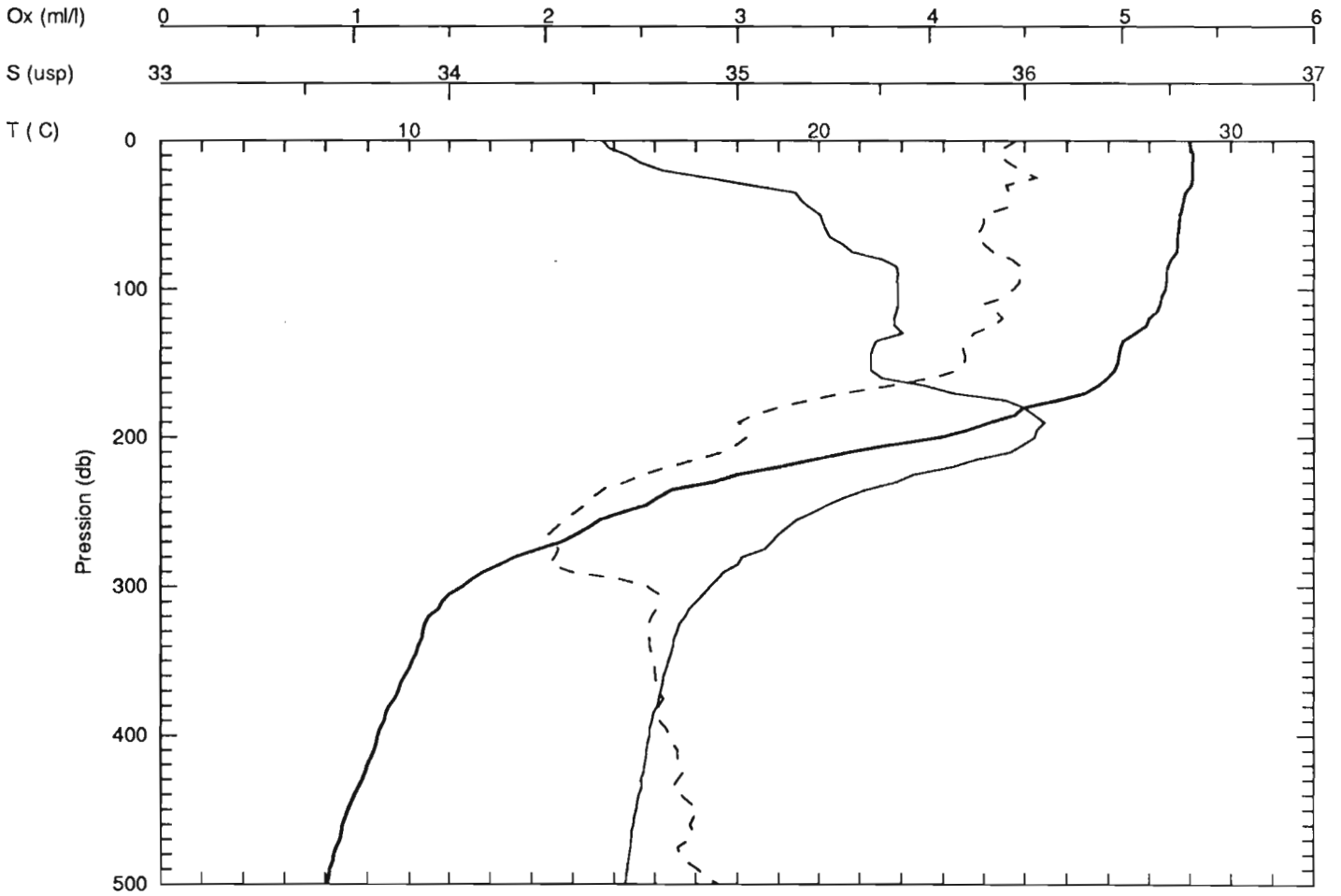
SURTROPAC11 STATION No : 16  
DATE : 12/ 1/89 HEURE : 7h20 LONGITUDE : 165.00 LATITUDE : -5.00



STATION : 17      CAMPAGNE : surtropa11  
 DATE : 12/ 1/89    REURE : 13h16    LONGITUDE : 165.00    LATITUDE : -4.50

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (uwp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (uwp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.99 | 34.53 | -32.4  | -28.8  | 21.72   | 21.72    | 0.000   | 4.46   | 510  | 7.93 | 34.60 | 3.6    | 0.0    | 29.29   | 26.98    | 1.492   | 3.04   |
| 5    | 29.02 | 34.55 | -28.8  | -34.8  | 21.75   | 21.72    | 0.030   | 4.39   | 520  | 7.86 | 34.60 | 1.2    | 0.0    | 29.34   | 26.99    | 1.503   | 3.05   |
| 10   | 29.07 | 34.62 | -27.6  | -27.6  | 21.80   | 21.76    | 0.061   | 4.37   | 530  | 7.80 | 34.59 | -1.2   | 0.0    | 29.39   | 26.99    | 1.515   | 3.02   |
| 15   | 29.06 | 34.67 | -37.2  | -16.8  | 21.86   | 21.80    | 0.091   | 4.42   | 540  | 7.74 | 34.59 | -1.2   | 0.0    | 29.45   | 27.00    | 1.526   | 2.98   |
| 20   | 29.05 | 34.74 | -37.2  | -7.2   | 21.94   | 21.86    | 0.121   | 4.49   | 550  | 7.70 | 34.59 | -1.2   | 1.2    | 29.50   | 27.00    | 1.538   | 2.96   |
| 25   | 29.06 | 34.90 | -38.4  | -1.2   | 22.08   | 21.97    | 0.150   | 4.56   | 560  | 7.66 | 34.59 | -3.6   | 1.2    | 29.55   | 27.01    | 1.549   | 2.80   |
| 30   | 29.03 | 35.04 | -33.6  | -9.6   | 22.22   | 22.09    | 0.179   | 4.40   | 570  | 7.55 | 34.59 | -2.4   | 0.0    | 29.61   | 27.03    | 1.560   | 2.71   |
| 35   | 28.89 | 35.20 | -24.0  | -3.6   | 22.41   | 22.26    | 0.208   | 4.42   | 580  | 7.41 | 34.58 | 0.0    | 0.0    | 29.68   | 27.04    | 1.571   | 2.66   |
| 40   | 28.84 | 35.22 | -22.8  | -3.6   | 22.46   | 22.29    | 0.235   | 4.41   | 590  | 7.32 | 34.58 | 4.8    | 0.0    | 29.73   | 27.05    | 1.583   | 2.67   |
| 45   | 28.81 | 35.25 | -16.8  | -2.4   | 22.51   | 22.33    | 0.263   | 4.41   | 600  | 7.11 | 34.58 |        |        | 29.78   | 27.08    | 1.593   | 2.73   |
| 50   | 28.75 | 35.29 | -16.8  | 0.0    | 22.58   | 22.37    | 0.291   | 4.28   | 610  | 6.98 | 34.57 |        |        | 29.86   | 27.09    | 1.604   | 2.76   |
| 55   | 28.74 | 35.30 | -18.0  | 1.2    | 22.61   | 22.38    | 0.318   | 4.28   | 620  | 6.85 | 34.56 |        |        | 29.92   | 27.10    | 1.615   | 2.72   |
| 60   | 28.73 | 35.31 | -19.2  | 2.4    | 22.65   | 22.40    | 0.345   | 4.27   | 630  | 6.80 | 34.56 |        |        | 29.97   | 27.11    | 1.625   | 2.56   |
| 65   | 28.70 | 35.32 | -18.0  | 3.6    | 22.69   | 22.41    | 0.373   | 4.24   | 640  | 6.75 | 34.56 |        |        | 30.03   | 27.11    | 1.636   | 2.50   |
| 70   | 28.70 | 35.37 | -16.8  | 3.6    | 22.74   | 22.45    | 0.400   | 4.29   | 650  | 6.59 | 34.55 |        |        | 30.09   | 27.13    | 1.646   | 2.57   |
| 75   | 28.68 | 35.40 | -8.4   | 8.4    | 22.80   | 22.48    | 0.427   | 4.33   | 660  | 6.54 | 34.55 |        |        | 30.14   | 27.14    | 1.656   | 2.53   |
| 80   | 28.54 | 35.51 | -7.2   | 9.6    | 22.94   | 22.61    | 0.454   | 4.43   | 670  | 6.44 | 34.55 |        |        | 30.20   | 27.15    | 1.666   | 2.49   |
| 85   | 28.46 | 35.56 | -7.2   | 8.4    | 23.03   | 22.67    | 0.480   | 4.48   | 680  | 6.40 | 34.54 |        |        | 30.25   | 27.15    | 1.676   | 2.56   |
| 90   | 28.43 | 35.56 | -7.2   | 8.4    | 23.06   | 22.68    | 0.506   | 4.47   | 690  | 6.34 | 34.54 |        |        | 30.30   | 27.16    | 1.687   | 2.62   |
| 95   | 28.43 | 35.56 | -7.2   | 7.2    | 23.08   | 22.68    | 0.532   | 4.48   | 700  | 6.27 | 34.54 |        |        | 30.35   | 27.16    | 1.697   | 2.60   |
| 100  | 28.39 | 35.56 | -7.2   | 8.4    | 23.12   | 22.70    | 0.558   | 4.44   | 710  | 6.20 | 34.54 |        |        | 30.41   | 27.17    | 1.707   | 2.51   |
| 105  | 28.30 | 35.56 | -7.2   | 10.8   | 23.17   | 22.73    | 0.584   | 4.39   | 720  | 6.16 | 34.54 |        |        | 30.46   | 27.18    | 1.716   | 2.46   |
| 110  | 28.27 | 35.56 | -8.4   | 14.4   | 23.20   | 22.74    | 0.609   | 4.29   | 730  | 6.08 | 34.53 |        |        | 30.51   | 27.18    | 1.726   | 2.58   |
| 115  | 28.19 | 35.56 | -9.6   | 16.8   | 23.24   | 22.76    | 0.635   | 4.35   | 740  | 6.02 | 34.53 |        |        | 30.57   | 27.19    | 1.736   | 2.72   |
| 120  | 27.99 | 35.55 | -12.0  | 18.0   | 23.33   | 22.82    | 0.661   | 4.38   | 750  | 5.93 | 34.53 |        |        | 30.62   | 27.20    | 1.746   | 2.71   |
| 125  | 27.92 | 35.55 | -10.8  | 18.0   | 23.37   | 22.84    | 0.686   | 4.33   | 760  | 5.80 | 34.53 |        |        | 30.69   | 27.21    | 1.755   | 2.83   |
| 130  | 27.63 | 35.58 | -9.6   | 16.8   | 23.50   | 22.96    | 0.711   | 4.23   | 770  | 5.70 | 34.53 |        |        | 30.74   | 27.22    | 1.765   | 2.94   |
| 135  | 27.34 | 35.49 | -7.2   | 16.8   | 23.55   | 22.99    | 0.736   | 4.20   | 780  | 5.67 | 34.52 |        |        | 30.79   | 27.23    | 1.774   | 2.94   |
| 140  | 27.27 | 35.47 | -6.0   | 16.8   | 23.59   | 23.00    | 0.761   | 4.17   | 790  | 5.61 | 34.52 |        |        | 30.85   | 27.23    | 1.783   | 2.92   |
| 145  | 27.24 | 35.47 | -2.4   | 18.0   | 23.62   | 23.01    | 0.785   | 4.18   | 800  | 5.57 | 34.53 |        |        | 30.90   | 27.24    | 1.793   | 2.78   |
| 150  | 27.21 | 35.47 | -2.4   | 18.0   | 23.65   | 23.02    | 0.810   | 4.18   | 810  | 5.54 | 34.52 |        |        | 30.95   | 27.24    | 1.802   | 2.72   |
| 155  | 27.13 | 35.47 | -2.4   | 18.0   | 23.69   | 23.04    | 0.834   | 4.14   | 820  | 5.51 | 34.53 |        |        | 31.00   | 27.25    | 1.811   | 2.70   |
| 160  | 26.96 | 35.51 | -1.2   | 19.2   | 23.80   | 23.13    | 0.859   | 4.00   | 830  | 5.46 | 34.53 |        |        | 31.05   | 27.25    | 1.821   | 2.68   |
| 165  | 26.74 | 35.65 | -4.8   | 25.2   | 24.00   | 23.30    | 0.882   | 3.81   | 840  | 5.41 | 34.53 |        |        | 31.10   | 27.26    | 1.830   | 2.68   |
| 170  | 26.43 | 35.74 | -4.8   | 30.0   | 24.19   | 23.47    | 0.905   | 3.57   | 850  | 5.38 | 34.53 |        |        | 31.15   | 27.26    | 1.839   | 2.67   |
| 175  | 25.75 | 35.94 | -4.8   | 30.0   | 24.57   | 23.83    | 0.927   | 3.37   | 860  | 5.30 | 34.53 |        |        | 31.21   | 27.27    | 1.848   | 2.65   |
| 180  | 24.97 | 36.00 | -1.2   | 34.8   | 24.88   | 24.12    | 0.947   | 3.21   | 870  | 5.19 | 34.53 |        |        | 31.27   | 27.29    | 1.857   | 2.62   |
| 185  | 24.76 | 36.03 | -2.4   | 42.0   | 24.99   | 24.21    | 0.966   | 3.08   | 880  | 5.08 | 34.53 |        |        | 31.34   | 27.30    | 1.865   | 2.76   |
| 190  | 24.12 | 36.07 | -4.8   | 43.2   | 25.23   | 24.43    | 0.984   | 3.00   | 890  | 4.97 | 34.53 |        |        | 31.40   | 27.32    | 1.874   | 2.72   |
| 195  | 23.59 | 36.04 | -8.4   | 38.4   | 25.40   | 24.57    | 1.002   | 3.04   | 900  | 4.86 | 34.54 |        |        | 31.46   | 27.33    | 1.882   | 2.66   |
| 200  | 22.88 | 36.03 | -7.2   | 22.8   | 25.62   | 24.77    | 1.019   | 3.04   | 910  | 4.77 | 34.54 |        |        | 31.52   | 27.34    | 1.891   | 2.61   |
| 205  | 21.74 | 35.99 | -4.8   | 13.2   | 25.94   | 25.06    | 1.034   | 2.99   | 920  | 4.71 | 34.54 |        |        | 31.57   | 27.35    | 1.899   | 2.67   |
| 210  | 20.72 | 35.95 | -3.6   | 12.0   | 26.21   | 25.31    | 1.048   | 2.92   | 930  | 4.63 | 34.54 |        |        | 31.63   | 27.36    | 1.907   | 2.57   |
| 215  | 19.87 | 35.83 | -3.6   | 9.6    | 26.37   | 25.44    | 1.062   | 2.79   | 940  | 4.56 | 34.54 |        |        | 31.69   | 27.37    | 1.915   | 2.61   |
| 220  | 19.02 | 35.74 | -4.8   | 15.6   | 26.55   | 25.60    | 1.075   | 2.65   | 950  | 4.54 | 34.54 |        |        | 31.73   | 27.37    | 1.923   | 2.56   |
| 225  | 17.99 | 35.61 | -3.6   | 25.2   | 26.73   | 25.75    | 1.087   | 2.51   | 960  | 4.49 | 34.54 |        |        | 31.79   | 27.38    | 1.931   | 2.54   |
| 230  | 17.41 | 35.55 | -4.8   | 25.2   | 26.85   | 25.85    | 1.098   | 2.42   | 970  | 4.44 | 34.54 |        |        | 31.84   | 27.38    | 1.939   | 2.53   |
| 235  | 16.42 | 35.45 | -7.2   | 25.2   | 27.03   | 26.01    | 1.109   | 2.34   | 980  | 4.39 | 34.54 |        |        | 31.89   | 27.39    | 1.947   | 2.53   |
| 240  | 16.08 | 35.37 | -9.6   | 22.8   | 27.08   | 26.03    | 1.119   | 2.20   | 990  | 4.37 | 34.54 |        |        | 31.94   | 27.39    | 1.955   | 2.54   |
| 245  | 15.01 | 35.31 | -12.0  | 16.8   | 27.11   | 26.04    | 1.129   | 2.21   | 1000 | 4.31 | 34.55 |        |        | 32.00   | 27.40    | 1.962   | 2.56   |
| 250  | 15.19 | 35.26 | -10.8  | 8.4    | 27.24   | 26.14    | 1.139   | 2.15   | 1020 | 4.24 | 34.54 |        |        | 32.09   | 27.41    | 1.978   | 2.59   |
| 255  | 14.66 | 35.21 | -9.6   | 6.0    | 27.34   | 26.22    | 1.149   | 2.10   | 1040 | 4.11 | 34.55 |        |        | 32.21   | 27.43    | 1.993   | 2.55   |
| 260  | 14.39 | 35.17 | -8.4   | 4.8    | 27.39   | 26.25    | 1.158   | 2.06   | 1060 | 4.04 | 34.55 |        |        | 32.31   | 27.44    | 2.008   | 2.54   |
| 265  | 14.07 | 35.14 | -7.2   | 4.8    | 27.46   | 26.29    | 1.167   | 2.02   | 1080 | 3.94 | 34.56 |        |        | 32.42   | 27.45    | 2.023   | 2.56   |
| 270  | 13.71 | 35.12 | -6.0   | 3.6    | 27.54   | 26.35    | 1.176   | 2.05   | 1100 | 3.86 | 34.56 |        |        | 32.52   | 27.46    | 2.037   | 2.59   |
| 275  | 13.17 | 35.09 | -6.0   | 2.4    | 27.66   | 26.44    | 1.184   | 2.07   | 1120 | 3.79 | 34.56 |        |        | 32.62   | 27.47    | 2.051   | 2.61   |
| 280  | 12.60 | 35.01 | -6.0   | 2.4    | 27.73   | 26.49    | 1.193   | 2.05   | 1140 | 3.71 | 34.56 |        |        | 32.73   | 27.48    | 2.065   | 2.63   |
| 285  | 12.24 | 35.00 | -6.0   | 2.4    | 27.82   | 26.55    | 1.201   | 2.02   | 1160 | 3.64 | 34.57 |        |        | 32.83   | 27.49    | 2.079   | 2.66   |
| 290  | 11.84 | 34.95 | -7.2   | 1.2    | 27.88   | 26.59    | 1.208   | 2.13   | 1180 | 3.55 | 34.57 |        |        | 32.93   | 27.50    | 2.093   | 2.68   |
| 295  | 11.55 | 34.93 | -7.2   | 1.2    | 27.94   | 26.63    | 1.216   | 2.39   | 1200 | 3.47 | 34.57 |        |        | 33.04   | 27.51    | 2.106   | 2.74   |
| 300  | 11.32 | 34.91 | -7.2   | 2.4    | 27.99   | 26.65    | 1.223   | 2.53   | 1220 | 3.38 | 34.58 |        |        | 33.14   | 27.52    | 2.119   | 2.69   |
| 305  | 10.99 | 34.88 | -7.2   | 2.4    | 28.06   | 26.69    | 1.230   | 2.59   | 1240 | 3.34 | 34.58 |        |        | 33.24   | 27.52    | 2.132   | 2.71   |
| 310  | 10.82 | 34.86 | -7.2   | 2.4    | 28.09   | 26.71    | 1.237   | 2.59   | 1260 | 3.28 | 34.58 |        |        | 33.34   | 27.53    | 2.145   | 2.72   |
| 315  | 10.73 | 34.83 | -6.0   | 2.4    | 28.11   | 26.70    | 1.244   | 2.58   | 1280 | 3.23 | 34.58 |        |        | 33.44   | 27.54    | 2.158   | 2.76   |
| 320  | 10.49 | 34.82 | -6.0   | 2.4    | 28.17   | 26.74    | 1.251   | 2.56   | 1300 | 3.19 | 34.58 |        |        | 33.53   | 27.54    | 2.171   | 2.78   |
| 325  | 10.39 | 34.80 | -6.0   | 2.4    | 28.19   | 26.74    | 1.258   | 2.54   | 1320 | 3.12 | 34.59 |        |        | 33.64   | 27.55    | 2.184   | 2.86   |
| 330  | 10.34 | 34.79 | -6.0   | 2.4    | 28.22   | 26.74    | 1.265   | 2.55   | 1340 | 3.06 | 34.59 |        |        | 33.74   | 27.56    | 2.196   | 2.89   |
| 335  | 10.32 | 34.78 | -3.6   | 2.4    | 28.24   | 26.73    | 1.272   | 2.54   | 1360 | 3.02 | 34.59 |        |        | 33.84   | 27.56    | 2.208   | 2.86   |
| 340  | 10.22 | 34.78 | -4.8   | 2.4    | 28.27   | 26.75    | 1.279   | 2.55   | 1380 | 3.00 | 34.59 |        |        | 33.93   | 27.57    | 2.221   | 2.94   |
| 345  | 10.17 | 34.77 | -3.6   | 1.2    | 28.30   | 26.75    | 1.286   | 2.56   | 1400 | 2.97 | 34.59 |        |        | 34.02   | 27.57    | 2.233   | 2.91   |
| 350  | 10.07 | 34.76 | -2.4   | 1.2    | 28.33   | 26.76    | 1.292   | 2.56   | 1420 | 2.93 | 34.59 |        |        | 34.12   | 27.58    | 2.245   | 2.94   |
| 355  | 10.00 | 34.76 | -2.4   | 1.2    | 28.36   | 26.77    | 1.299   | 2.57   | 1440 | 2.85 | 34.60 |        |        | 34.23   | 27.59    | 2.257   | 2.91   |
| 360  | 9.88  | 34.75 | -2.4   | 1.2    | 28.40   | 26.78    | 1.306   | 2.58   | 1460 | 2.82 | 34.60 |        |        | 34.32   | 27.59    | 2.269   | 3.00   |
| 365  | 9.79  | 34.74 | -2.4   | 1.     |         |          |         |        |      |      |       |        |        |         |          |         |        |

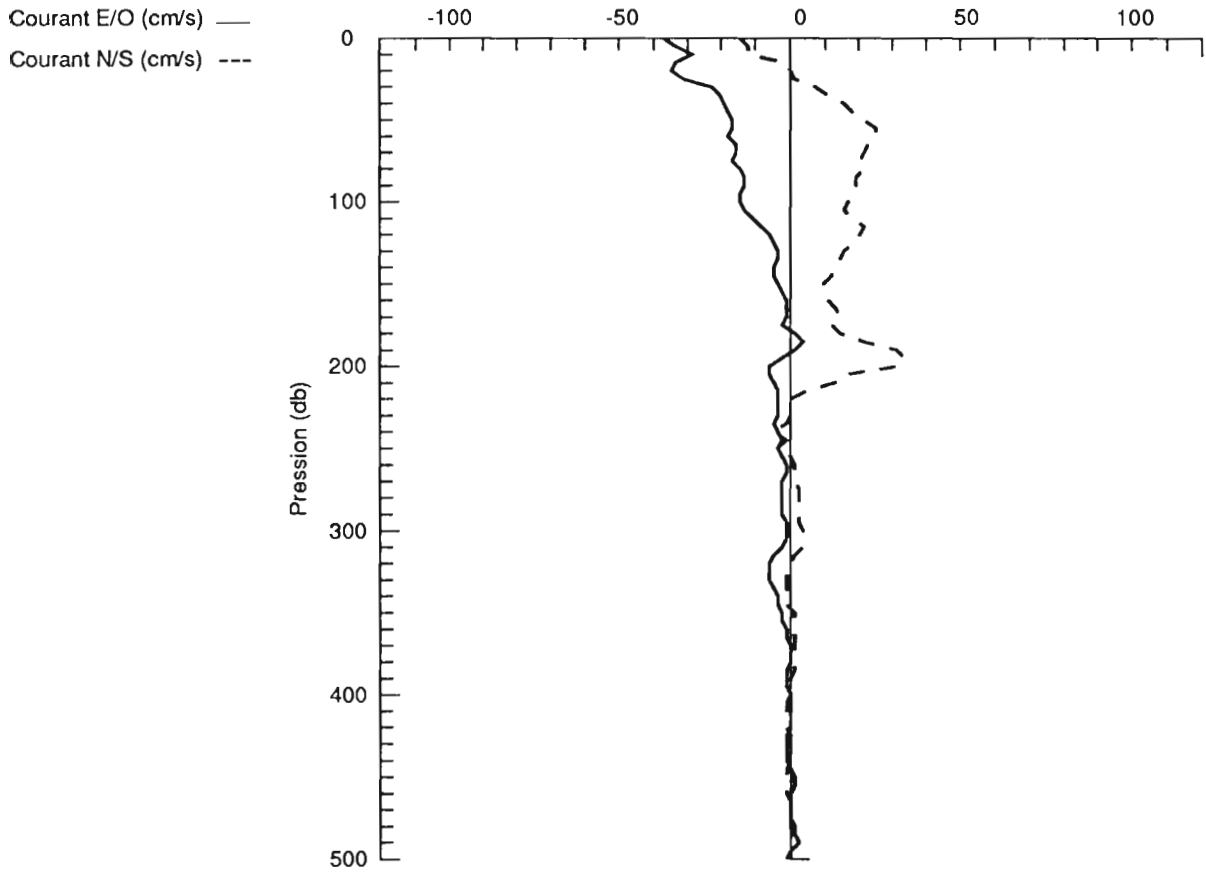
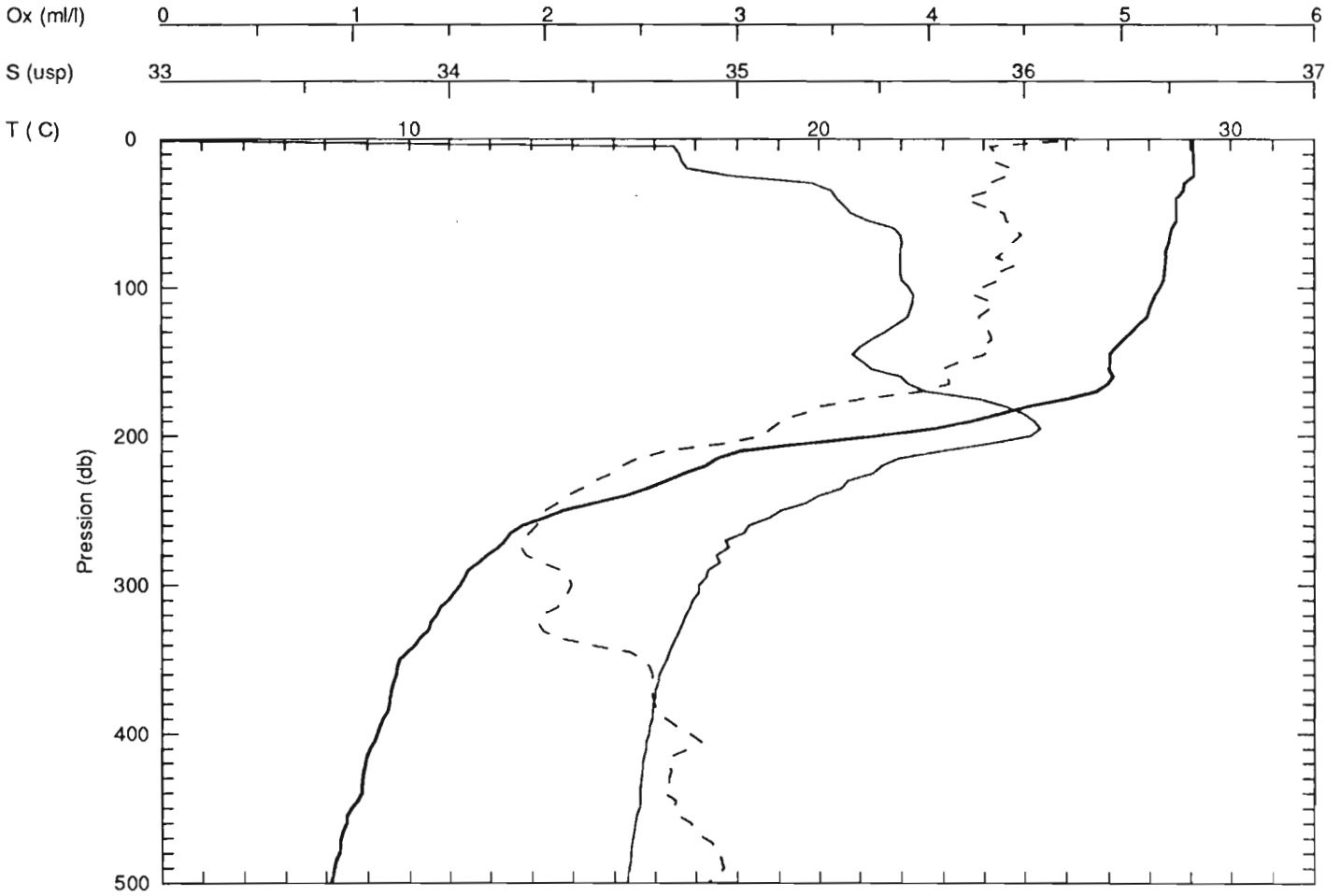
SURTROPAC11 STATION No : 17  
DATE : 12/ 1/89 HEURE : 13h16 LONGITUDE : 165.00 LATITUDE : -4.50



STATION : 18      CAMPAGNE : aurtropacl1  
 DATE : 12/ 1/89    HEURE : 20h15    LONGITUDE : 165.00    LATITUDE : -4.00

| P (db) | T (C) | S (uap) | U (cm/s) | V (cm/s) | Sigt (kg/m3) | Sigtheta (kg/m3) | Rdyn (m.dyn) | Oxy (ml/l) | P (db) | T (C) | S (uap) | U (cm/s) | V (cm/s) | Sigt (kg/m3) | Sigtheta (kg/m3) | Rdyn (m.dyn) | Oxy (ml/l) |
|--------|-------|---------|----------|----------|--------------|------------------|--------------|------------|--------|-------|---------|----------|----------|--------------|------------------|--------------|------------|
| 0      | 29.07 | 15.50   | -37.2    | -14.4    | 7.47         | 7.47             | 0.000        | 4.83       | 510    | 8.05  | 34.61   | -2.4     | 1.2      | 29.28        | 26.97            | 1.488        | 2.95       |
| 5      | 29.08 | 34.78   | -33.6    | -12.0    | 21.90        | 21.88            | 0.060        | 4.32       | 520    | 7.99  | 34.61   | -1.2     | 0.0      | 29.33        | 26.98            | 1.500        | 2.83       |
| 10     | 29.08 | 34.80   | -28.8    | -12.0    | 21.93        | 21.89            | 0.090        | 4.35       | 530    | 7.90  | 34.61   | 1.2      | 0.0      | 29.39        | 26.99            | 1.511        | 2.85       |
| 15     | 29.09 | 34.81   | -33.6    | -1.2     | 21.96        | 21.90            | 0.119        | 4.33       | 540    | 7.84  | 34.60   | 0.0      | 0.0      | 29.44        | 26.99            | 1.523        | 2.96       |
| 20     | 29.10 | 34.83   | -34.8    | 0.0      | 21.99        | 21.91            | 0.149        | 4.44       | 550    | 7.78  | 34.59   | -1.2     | 0.0      | 29.49        | 26.99            | 1.534        | 3.04       |
| 25     | 29.09 | 34.98   | -31.2    | 1.2      | 22.13        | 22.02            | 0.179        | 4.41       | 560    | 7.68  | 34.59   | -2.4     | 1.2      | 29.55        | 27.01            | 1.546        | 2.85       |
| 30     | 28.86 | 35.26   | -22.8    | 7.2      | 22.44        | 22.31            | 0.207        | 4.31       | 570    | 7.63  | 34.59   | -2.4     | 1.2      | 29.60        | 27.01            | 1.557        | 2.78       |
| 35     | 28.83 | 35.33   | -20.4    | 10.8     | 22.52        | 22.37            | 0.234        | 4.32       | 580    | 7.52  | 34.58   | -1.2     | 0.0      | 29.66        | 27.03            | 1.569        | 2.72       |
| 40     | 28.67 | 35.35   | -19.2    | 15.6     | 22.61        | 22.44            | 0.262        | 4.19       | 590    | 7.34  | 34.58   | 1.2      | 0.0      | 29.73        | 27.05            | 1.580        | 2.65       |
| 45     | 28.67 | 35.37   | -18.0    | 18.0     | 22.65        | 22.46            | 0.289        | 4.28       | 600    | 7.17  | 34.58   | 1.2      | 0.0      | 29.80        | 27.07            | 1.591        | 2.81       |
| 50     | 28.67 | 35.40   | -16.8    | 21.6     | 22.69        | 22.48            | 0.315        | 4.39       | 610    | 7.12  | 34.57   |          |          | 29.84        | 27.07            | 1.601        | 2.73       |
| 55     | 28.67 | 35.46   | -16.8    | 25.2     | 22.76        | 22.52            | 0.342        | 4.40       | 620    | 6.98  | 34.57   |          |          | 29.91        | 27.09            | 1.612        | 2.37       |
| 60     | 28.56 | 35.55   | -18.0    | 25.2     | 22.88        | 22.63            | 0.369        | 4.46       | 630    | 6.87  | 34.56   |          |          | 29.97        | 27.10            | 1.623        | 2.48       |
| 65     | 28.51 | 35.57   | -15.6    | 22.8     | 22.93        | 22.66            | 0.395        | 4.48       | 640    | 6.76  | 34.56   |          |          | 30.03        | 27.11            | 1.633        | 2.42       |
| 70     | 28.47 | 35.57   | -15.6    | 21.6     | 22.97        | 22.68            | 0.421        | 4.44       | 650    | 6.72  | 34.56   |          |          | 30.07        | 27.12            | 1.644        | 2.48       |
| 75     | 28.41 | 35.57   | -16.8    | 20.4     | 23.01        | 22.70            | 0.447        | 4.41       | 660    | 6.68  | 34.56   |          |          | 30.13        | 27.12            | 1.654        | 2.38       |
| 80     | 28.41 | 35.57   | -14.4    | 21.6     | 23.03        | 22.70            | 0.473        | 4.35       | 670    | 6.61  | 34.56   |          |          | 30.18        | 27.13            | 1.664        | 2.14       |
| 85     | 28.39 | 35.57   | -13.2    | 19.2     | 23.06        | 22.70            | 0.499        | 4.45       | 680    | 6.57  | 34.56   |          |          | 30.23        | 27.14            | 1.674        | 2.10       |
| 90     | 28.37 | 35.57   | -13.2    | 19.2     | 23.09        | 22.71            | 0.524        | 4.36       | 690    | 6.47  | 34.55   |          |          | 30.29        | 27.14            | 1.685        | 2.26       |
| 95     | 28.35 | 35.57   | -14.4    | 18.0     | 23.12        | 22.72            | 0.550        | 4.37       | 700    | 6.33  | 34.55   |          |          | 30.35        | 27.16            | 1.695        | 2.47       |
| 100    | 28.26 | 35.60   | -14.4    | 16.8     | 23.19        | 22.77            | 0.576        | 4.28       | 710    | 6.17  | 34.54   |          |          | 30.42        | 27.18            | 1.705        | 2.54       |
| 105    | 28.15 | 35.61   | -13.2    | 15.6     | 23.26        | 22.82            | 0.601        | 4.22       | 720    | 6.08  | 34.54   |          |          | 30.47        | 27.18            | 1.714        | 2.59       |
| 110    | 28.07 | 35.61   | -10.8    | 18.0     | 23.30        | 22.84            | 0.627        | 4.34       | 730    | 5.95  | 34.53   |          |          | 30.53        | 27.20            | 1.724        | 2.87       |
| 115    | 27.99 | 35.60   | -8.4     | 21.6     | 23.34        | 22.86            | 0.652        | 4.31       | 740    | 5.88  | 34.53   |          |          | 30.58        | 27.20            | 1.734        | 2.89       |
| 120    | 27.94 | 35.59   | -6.0     | 20.4     | 23.37        | 22.87            | 0.677        | 4.26       | 750    | 5.84  | 34.53   |          |          | 30.63        | 27.21            | 1.743        | 2.88       |
| 125    | 27.73 | 35.56   | -4.8     | 19.2     | 23.44        | 22.91            | 0.702        | 4.27       | 760    | 5.79  | 34.52   |          |          | 30.68        | 27.21            | 1.753        | 2.82       |
| 130    | 27.56 | 35.52   | -3.6     | 15.6     | 23.49        | 22.94            | 0.727        | 4.31       | 770    | 5.74  | 34.53   |          |          | 30.74        | 27.22            | 1.762        | 2.80       |
| 135    | 27.36 | 35.47   | -3.6     | 14.4     | 23.54        | 22.97            | 0.752        | 4.33       | 780    | 5.64  | 34.53   |          |          | 30.80        | 27.23            | 1.772        | 2.76       |
| 140    | 27.17 | 35.43   | -4.8     | 12.0     | 23.59        | 23.00            | 0.777        | 4.27       | 790    | 5.49  | 34.53   |          |          | 30.86        | 27.25            | 1.781        | 2.99       |
| 145    | 27.01 | 35.40   | -4.8     | 12.0     | 23.64        | 23.03            | 0.801        | 4.29       | 800    | 5.46  | 34.53   |          |          | 30.91        | 27.25            | 1.790        | 2.84       |
| 150    | 27.02 | 35.44   | -3.6     | 9.6      | 23.68        | 23.05            | 0.826        | 4.16       | 810    | 5.38  | 34.53   |          |          | 30.97        | 27.26            | 1.799        | 2.72       |
| 155    | 27.00 | 35.47   | -2.4     | 9.6      | 23.74        | 23.09            | 0.850        | 4.07       | 820    | 5.34  | 34.53   |          |          | 31.02        | 27.27            | 1.808        | 2.76       |
| 160    | 27.10 | 35.57   | -1.2     | 10.8     | 23.80        | 23.13            | 0.874        | 4.10       | 830    | 5.28  | 34.53   |          |          | 31.08        | 27.28            | 1.817        | 2.74       |
| 165    | 26.97 | 35.60   | -1.2     | 13.2     | 23.89        | 23.19            | 0.898        | 4.10       | 840    | 5.24  | 34.52   |          |          | 31.12        | 27.28            | 1.826        | 2.74       |
| 170    | 26.69 | 35.65   | -1.2     | 14.4     | 24.04        | 23.32            | 0.922        | 3.96       | 850    | 5.17  | 34.53   |          |          | 31.19        | 27.29            | 1.835        | 2.72       |
| 175    | 25.98 | 35.84   | -2.4     | 12.0     | 24.43        | 23.69            | 0.944        | 3.64       | 860    | 5.06  | 34.53   |          |          | 31.24        | 27.30            | 1.844        | 2.76       |
| 180    | 25.10 | 35.93   | -1.2     | 14.4     | 24.79        | 24.03            | 0.965        | 3.43       | 870    | 4.94  | 34.53   |          |          | 31.31        | 27.32            | 1.852        | 2.87       |
| 185    | 24.39 | 36.00   | 3.6      | 21.6     | 25.08        | 24.29            | 0.984        | 3.33       | 880    | 4.90  | 34.54   |          |          | 31.36        | 27.33            | 1.861        | 2.59       |
| 190    | 23.67 | 36.03   | 1.2      | 31.2     | 25.34        | 24.54            | 1.002        | 3.23       | 890    | 4.87  | 34.53   |          |          | 31.41        | 27.33            | 1.869        | 2.57       |
| 195    | 22.76 | 36.06   | -2.4     | 33.6     | 25.65        | 24.82            | 1.019        | 3.17       | 900    | 4.81  | 34.53   |          |          | 31.46        | 27.34            | 1.877        | 2.61       |
| 200    | 21.36 | 36.02   | -6.0     | 31.2     | 26.04        | 25.18            | 1.034        | 3.12       | 910    | 4.75  | 34.53   |          |          | 31.52        | 27.34            | 1.886        | 2.68       |
| 205    | 19.59 | 35.87   | -6.0     | 15.6     | 26.43        | 25.55            | 1.048        | 2.93       | 920    | 4.72  | 34.53   |          |          | 31.57        | 27.35            | 1.894        | 2.68       |
| 210    | 18.05 | 35.71   | -4.8     | 13.2     | 26.72        | 25.81            | 1.059        | 2.64       | 930    | 4.72  | 34.53   |          |          | 31.61        | 27.34            | 1.902        | 2.60       |
| 215    | 17.51 | 35.56   | -3.6     | 4.8      | 26.77        | 25.83            | 1.070        | 2.48       | 940    | 4.71  | 34.53   |          |          | 31.66        | 27.35            | 1.911        | 2.56       |
| 220    | 17.23 | 35.50   | -3.6     | 0.0      | 26.81        | 25.86            | 1.082        | 2.40       | 950    | 4.68  | 34.53   |          |          | 31.71        | 27.35            | 1.919        | 2.55       |
| 225    | 16.71 | 35.47   | -3.6     | 0.0      | 26.94        | 25.95            | 1.092        | 2.34       | 960    | 4.67  | 34.53   |          |          | 31.76        | 27.35            | 1.927        | 2.53       |
| 230    | 16.28 | 35.38   | -3.6     | 0.0      | 26.99        | 25.99            | 1.103        | 2.26       | 970    | 4.59  | 34.54   |          |          | 31.81        | 27.36            | 1.935        | 2.64       |
| 235    | 15.82 | 35.36   | -4.8     | -1.2     | 27.11        | 26.08            | 1.113        | 2.19       | 980    | 4.49  | 34.54   |          |          | 31.87        | 27.37            | 1.943        | 2.84       |
| 240    | 15.26 | 35.28   | -3.6     | -4.8     | 27.19        | 26.14            | 1.123        | 2.12       | 990    | 4.42  | 34.53   |          |          | 31.93        | 27.38            | 1.951        | 3.02       |
| 245    | 14.49 | 35.24   | -2.4     | -1.2     | 27.35        | 26.28            | 1.132        | 2.06       | 1000   | 4.38  | 34.54   |          |          | 31.98        | 27.38            | 1.959        | 2.91       |
| 250    | 13.76 | 35.15   | -3.6     | -3.6     | 27.46        | 26.36            | 1.141        | 2.00       | 1020   | 4.38  | 34.54   |          |          | 32.07        | 27.39            | 1.975        | 2.72       |
| 255    | 13.30 | 35.11   | -2.4     | 0.0      | 27.55        | 26.42            | 1.150        | 1.97       | 1040   | 4.29  | 34.55   |          |          | 32.18        | 27.40            | 1.990        | 2.55       |
| 260    | 12.77 | 35.04   | -1.2     | 1.2      | 27.63        | 26.48            | 1.158        | 1.95       | 1060   | 4.22  | 34.55   |          |          | 32.28        | 27.41            | 2.006        | 2.58       |
| 265    | 12.47 | 35.02   | -1.2     | 1.2      | 27.70        | 26.52            | 1.166        | 1.91       | 1080   | 4.16  | 34.55   |          |          | 32.38        | 27.42            | 2.021        | 2.62       |
| 270    | 12.34 | 34.96   | -2.4     | 1.2      | 27.70        | 26.50            | 1.174        | 1.89       | 1100   | 4.09  | 34.55   |          |          | 32.48        | 27.43            | 2.036        | 2.60       |
| 275    | 12.18 | 34.97   | -2.4     | 2.4      | 27.76        | 26.54            | 1.182        | 1.87       | 1120   | 4.03  | 34.55   |          |          | 32.58        | 27.43            | 2.051        | 2.62       |
| 280    | 11.90 | 34.93   | -2.4     | 2.4      | 27.80        | 26.56            | 1.189        | 1.90       | 1140   | 4.00  | 34.55   |          |          | 32.68        | 27.44            | 2.066        | 2.64       |
| 285    | 11.69 | 34.94   | -2.4     | 2.4      | 27.88        | 26.61            | 1.197        | 1.98       | 1160   | 3.93  | 34.55   |          |          | 32.78        | 27.45            | 2.081        | 2.71       |
| 290    | 11.44 | 34.90   | -2.4     | 2.4      | 27.92        | 26.62            | 1.204        | 2.09       | 1180   | 3.77  | 34.56   |          |          | 32.89        | 27.47            | 2.095        | 2.98       |
| 295    | 11.35 | 34.89   | -1.2     | 2.4      | 27.95        | 26.63            | 1.212        | 2.12       | 1200   | 3.74  | 34.56   |          |          | 32.99        | 27.47            | 2.109        | 2.85       |
| 300    | 11.25 | 34.87   | -1.2     | 3.6      | 27.97        | 26.63            | 1.219        | 2.13       | 1220   | 3.68  | 34.56   |          |          | 33.09        | 27.48            | 2.124        | 2.72       |
| 305    | 11.10 | 34.87   | -1.2     | 3.6      | 28.02        | 26.66            | 1.227        | 2.12       | 1240   | 3.61  | 34.57   |          |          | 33.20        | 27.49            | 2.138        | 2.66       |
| 310    | 10.96 | 34.85   | -2.4     | 3.6      | 28.06        | 26.67            | 1.234        | 2.10       | 1260   | 3.56  | 34.57   |          |          | 33.30        | 27.50            | 2.151        | 2.67       |
| 315    | 10.76 | 34.84   | -4.8     | 1.2      | 28.11        | 26.70            | 1.241        | 2.06       | 1280   | 3.51  | 34.58   |          |          | 33.40        | 27.51            | 2.165        | 2.65       |
| 320    | 10.66 | 34.82   | -6.0     | 0.0      | 28.14        | 26.71            | 1.248        | 1.98       | 1300   | 3.45  | 34.58   |          |          | 33.50        | 27.51            | 2.178        | 2.74       |
| 325    | 10.51 | 34.81   | -6.0     | -1.2     | 28.18        | 26.72            | 1.255        | 1.96       | 1320   | 3.39  | 34.58   |          |          | 33.60        | 27.52            | 2.192        | 2.63       |
| 330    | 10.46 | 34.80   | -6.0     | -1.2     | 28.20        | 26.72            | 1.262        | 1.98       | 1340   | 3.30  | 34.58   |          |          | 33.70        | 27.53            | 2.205        | 2.71       |
| 335    | 10.26 | 34.79   | -4.8     | -1.2     | 28.25        | 26.75            | 1.269        | 2.05       | 1360   | 3.25  | 34.58   |          |          | 33.80        | 27.54            | 2.218        | 2.73       |
| 340    | 10.13 | 34.78   | -3.6     | 0.0      | 28.29        | 26.76            | 1.276        | 2.23       | 1380   | 3.20  | 34.59   |          |          | 33.90        | 27.55            | 2.231        | 2.69       |
| 345    | 9.94  | 34.76   | -3.6     | -1.2     | 28.34        | 26.79            | 1.282        | 2.44       | 1400   | 3.15  | 34.59   |          |          | 34.00        | 27.55            | 2.243        | 2.72       |
| 350    | 9.74  | 34.76   | -2.4     | 1.2      | 28.39        | 26.81            | 1.289        | 2.51       | 1420   | 3.07  | 34.59   |          |          | 34.10        | 27.56            | 2.256        | 2.80       |
| 355    | 9.68  | 34.74   | -2.4     | 1.2      | 28.41        | 26.81            | 1.295        | 2.54       | 1440   | 3.01  | 34.59   |          |          | 34.20        | 27.57            | 2.268        | 2.82       |
| 360    | 9.66  | 34.73   | -1.2     | 1.2      | 28.42        | 26.81            | 1.302        | 2.56       | 1460   | 2.94  | 34.60   |          |          | 34.30        | 27.58            | 2.280        | 2.80       |
| 365    | 9.60  | 34.73   | -1.2     | 1.2      | 28.46        | 26.81            | 1.308        | 2.56       | 1480   |       |         |          |          |              |                  |              |            |

SURTROPAC11 STATION No : 18  
DATE : 12/ 1/89 HEURE : 20h15 LONGITUDE : 165.00 LATITUDE : -4.00

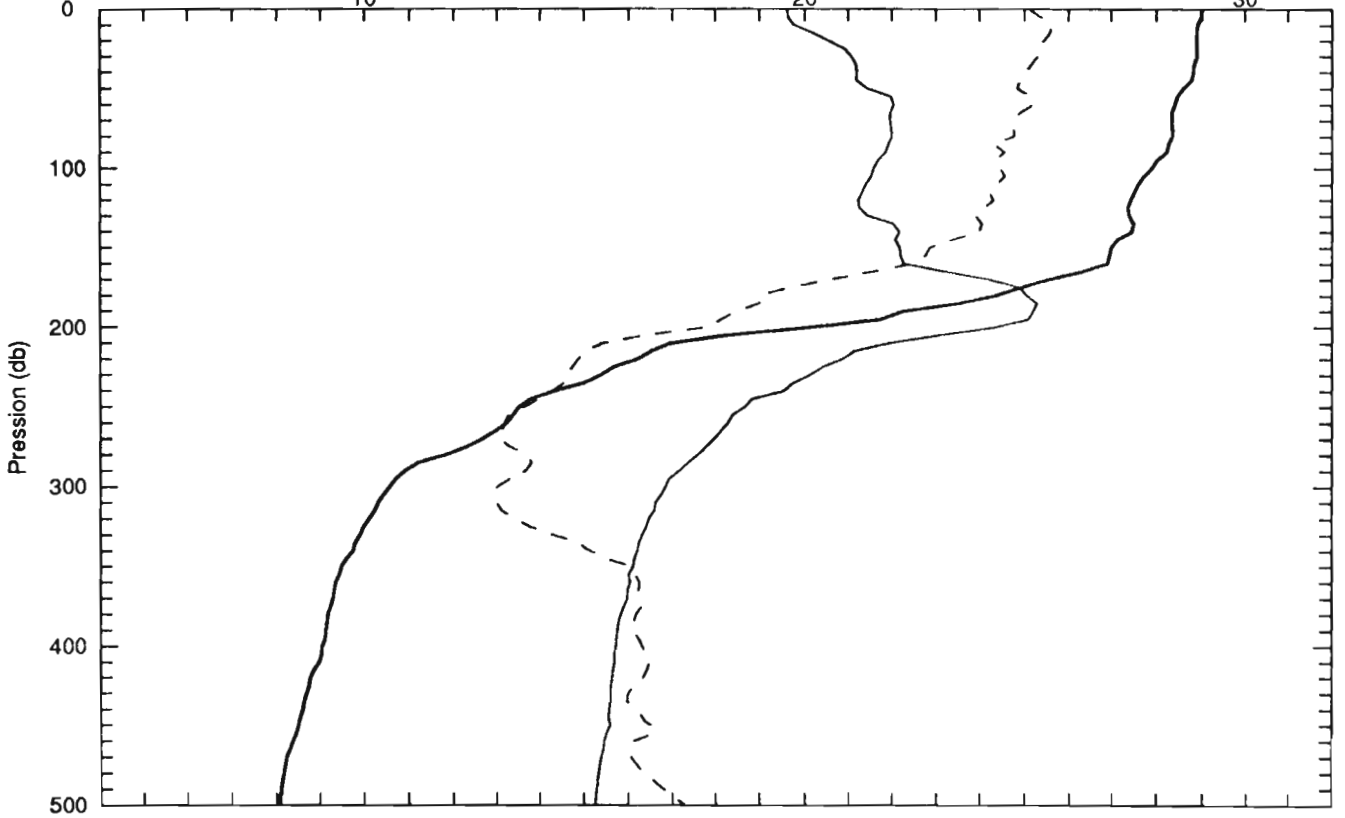
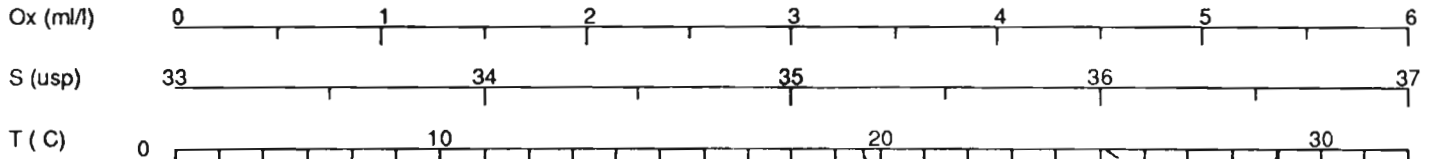


STATION : 19      CAMPAGNE : surtropacll  
 DATE : 13/ 1/89    HEURE : 1h33      LONGITUDE : 165.00      LATITUDE : -3.50

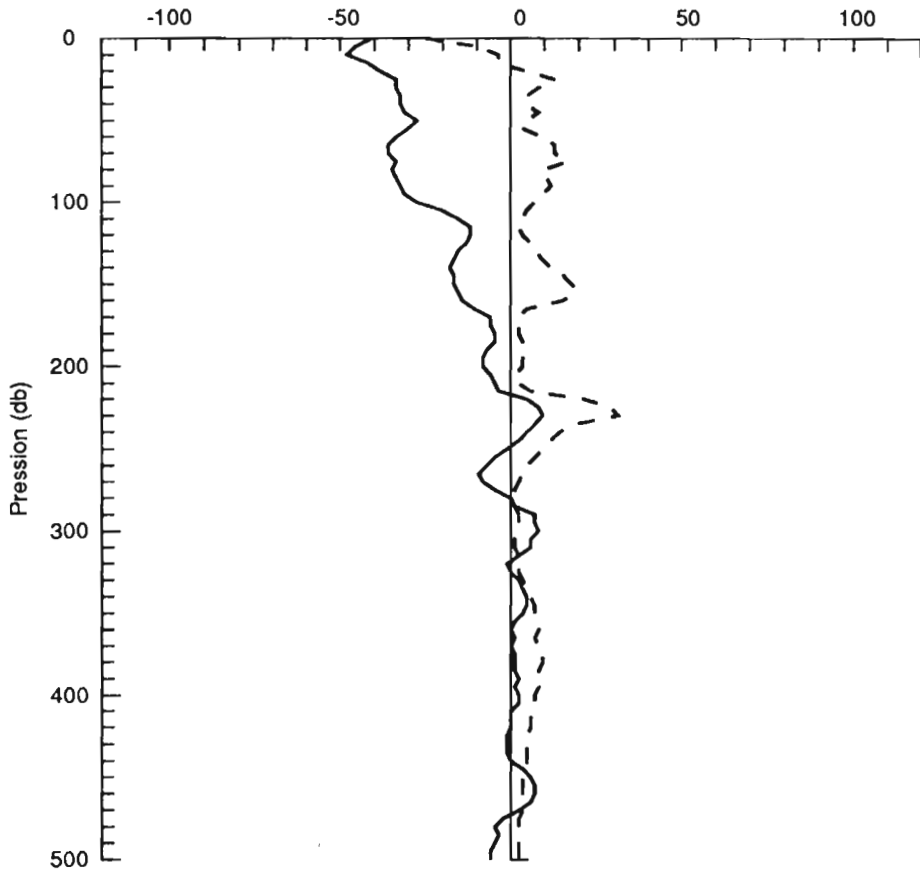
| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 29.00 | 35.23 | -40.8  | -25.2  | 22.24   | 22.24    | 0.000   | 4.52   | 510  | 7.97 | 34.60 | -2.4   | 1.2    | 29.28   | 26.98    | 1.412   | 2.93   |
| 5    | 28.99 | 35.23 | -45.6  | -9.6   | 22.27   | 22.24    | 0.028   | 4.58   | 520  | 7.89 | 34.60 | -2.4   | 1.2    | 29.34   | 26.98    | 1.424   | 2.93   |
| 10   | 28.90 | 35.25 | -48.0  | -3.6   | 22.33   | 22.29    | 0.056   | 4.63   | 530  | 7.82 | 34.60 | 1.2    | -1.2   | 29.39   | 26.99    | 1.436   | 3.05   |
| 15   | 28.88 | 35.31 | -42.0  | -3.6   | 22.40   | 22.34    | 0.083   | 4.62   | 540  | 7.66 | 34.60 | 2.4    | -1.2   | 29.46   | 27.01    | 1.447   | 2.97   |
| 20   | 28.86 | 35.36 | -38.4  | 4.8    | 22.47   | 22.39    | 0.111   | 4.59   | 550  | 7.50 | 34.59 | 3.6    | -1.2   | 29.53   | 27.03    | 1.458   | 2.83   |
| 25   | 28.88 | 35.42 | -33.6  | 13.2   | 22.53   | 22.42    | 0.138   | 4.57   | 560  | 7.44 | 34.58 | 0.0    | 0.0    | 29.58   | 27.04    | 1.469   | 2.82   |
| 30   | 28.89 | 35.44 | -33.6  | 8.4    | 22.56   | 22.44    | 0.165   | 4.56   | 570  | 7.37 | 34.58 | -1.2   | 0.0    | 29.63   | 27.04    | 1.480   | 2.77   |
| 35   | 28.83 | 35.45 | -32.4  | 4.8    | 22.61   | 22.47    | 0.192   | 4.53   | 580  | 7.30 | 34.58 | -1.2   | 0.0    | 29.69   | 27.05    | 1.492   | 2.52   |
| 40   | 28.80 | 35.46 | -32.4  | 4.8    | 22.65   | 22.48    | 0.219   | 4.51   | 590  | 7.18 | 34.57 | 1.2    | 0.0    | 29.74   | 27.06    | 1.502   | 2.52   |
| 45   | 28.77 | 35.46 | -31.2  | 8.4    | 22.68   | 22.49    | 0.246   | 4.48   | 600  | 7.14 | 34.57 |        |        | 29.79   | 27.07    | 1.513   | 2.56   |
| 50   | 28.58 | 35.49 | -27.6  | 4.8    | 22.79   | 22.58    | 0.272   | 4.47   | 610  | 7.08 | 34.56 |        |        | 29.84   | 27.07    | 1.524   | 2.56   |
| 55   | 28.46 | 35.57 | -30.0  | 3.6    | 22.91   | 22.68    | 0.299   | 4.53   | 620  | 7.04 | 34.57 |        |        | 29.90   | 27.08    | 1.535   | 2.40   |
| 60   | 28.40 | 35.58 | -33.6  | 9.6    | 22.96   | 22.70    | 0.324   | 4.55   | 630  | 7.03 | 34.57 |        |        | 29.94   | 27.08    | 1.546   | 2.22   |
| 65   | 28.34 | 35.57 | -36.0  | 13.2   | 22.99   | 22.72    | 0.350   | 4.48   | 640  | 6.92 | 34.56 |        |        | 30.00   | 27.09    | 1.556   | 2.27   |
| 70   | 28.34 | 35.57 | -36.0  | 13.2   | 23.01   | 22.72    | 0.376   | 4.45   | 650  | 6.87 | 34.56 |        |        | 30.06   | 27.10    | 1.567   | 2.29   |
| 75   | 28.35 | 35.57 | -33.6  | 16.8   | 23.03   | 22.72    | 0.402   | 4.45   | 660  | 6.69 | 34.56 |        |        | 30.13   | 27.12    | 1.577   | 2.16   |
| 80   | 28.35 | 35.57 | -34.8  | 9.6    | 23.05   | 22.72    | 0.428   | 4.45   | 670  | 6.47 | 34.55 |        |        | 30.20   | 27.14    | 1.588   | 2.38   |
| 85   | 28.27 | 35.56 | -33.6  | 10.8   | 23.09   | 22.74    | 0.453   | 4.35   | 680  | 6.27 | 34.55 |        |        | 30.27   | 27.17    | 1.598   | 2.37   |
| 90   | 28.23 | 35.55 | -32.4  | 12.0   | 23.12   | 22.74    | 0.479   | 4.41   | 690  | 6.20 | 34.55 |        |        | 30.33   | 27.18    | 1.607   | 2.22   |
| 95   | 28.02 | 35.53 | -31.2  | 9.6    | 23.20   | 22.80    | 0.505   | 4.36   | 700  | 6.09 | 34.54 |        |        | 30.38   | 27.19    | 1.617   | 2.33   |
| 100  | 27.91 | 35.51 | -27.6  | 7.2    | 23.24   | 22.82    | 0.530   | 4.39   | 710  | 5.98 | 34.54 |        |        | 30.44   | 27.20    | 1.627   | 2.41   |
| 105  | 27.73 | 35.51 | -20.4  | 4.8    | 23.31   | 22.87    | 0.555   | 4.41   | 720  | 5.91 | 34.53 |        |        | 30.49   | 27.20    | 1.637   | 2.48   |
| 110  | 27.61 | 35.49 | -15.6  | 3.6    | 23.36   | 22.90    | 0.580   | 4.36   | 730  | 5.83 | 34.53 |        |        | 30.54   | 27.21    | 1.646   | 2.67   |
| 115  | 27.52 | 35.48 | -12.0  | 2.4    | 23.40   | 22.92    | 0.605   | 4.33   | 740  | 5.76 | 34.53 |        |        | 30.60   | 27.22    | 1.656   | 2.72   |
| 120  | 27.43 | 35.46 | -12.0  | 3.6    | 23.44   | 22.94    | 0.630   | 4.35   | 750  | 5.63 | 34.53 |        |        | 30.67   | 27.23    | 1.665   | 2.73   |
| 125  | 27.38 | 35.47 | -13.2  | 6.0    | 23.49   | 22.96    | 0.655   | 4.31   | 760  | 5.52 | 34.53 |        |        | 30.73   | 27.25    | 1.674   | 2.73   |
| 130  | 27.40 | 35.49 | -15.6  | 7.2    | 23.52   | 22.97    | 0.680   | 4.26   | 770  | 5.46 | 34.53 |        |        | 30.78   | 27.25    | 1.683   | 2.69   |
| 135  | 27.50 | 35.58 | -16.8  | 9.6    | 23.57   | 23.00    | 0.705   | 4.30   | 780  | 5.39 | 34.53 |        |        | 30.83   | 27.26    | 1.692   | 2.67   |
| 140  | 27.46 | 35.60 | -18.0  | 12.0   | 23.62   | 23.03    | 0.729   | 4.28   | 790  | 5.35 | 34.53 |        |        | 30.89   | 27.27    | 1.701   | 2.67   |
| 145  | 27.14 | 35.58 | -16.8  | 15.6   | 23.74   | 23.13    | 0.753   | 4.15   | 800  | 5.21 | 34.53 |        |        | 30.95   | 27.28    | 1.710   | 2.75   |
| 150  | 26.99 | 35.60 | -16.8  | 18.0   | 23.82   | 23.19    | 0.777   | 4.04   | 810  | 5.13 | 34.53 |        |        | 31.01   | 27.29    | 1.719   | 2.85   |
| 155  | 26.95 | 35.60 | -15.6  | 19.2   | 23.85   | 23.20    | 0.801   | 4.02   | 820  | 5.10 | 34.53 |        |        | 31.06   | 27.30    | 1.728   | 2.84   |
| 160  | 26.90 | 35.61 | -14.4  | 15.6   | 23.90   | 23.22    | 0.825   | 3.96   | 830  | 4.98 | 34.53 |        |        | 31.12   | 27.31    | 1.736   | 2.80   |
| 165  | 26.31 | 35.74 | -10.8  | 4.8    | 24.21   | 23.51    | 0.848   | 3.77   | 840  | 4.94 | 34.53 |        |        | 31.17   | 27.31    | 1.745   | 2.86   |
| 170  | 25.53 | 35.89 | -6.0   | 2.4    | 24.58   | 23.86    | 0.869   | 3.56   | 850  | 4.84 | 34.53 |        |        | 31.23   | 27.33    | 1.753   | 2.90   |
| 175  | 24.93 | 35.99 | -6.0   | 2.4    | 24.86   | 24.12    | 0.889   | 3.37   | 860  | 4.80 | 34.53 |        |        | 31.28   | 27.33    | 1.761   | 2.83   |
| 180  | 24.37 | 36.01 | -4.8   | 2.4    | 25.07   | 24.31    | 0.908   | 3.21   | 870  | 4.74 | 34.53 |        |        | 31.33   | 27.34    | 1.770   | 2.82   |
| 185  | 23.52 | 36.04 | -4.8   | 3.6    | 25.37   | 24.58    | 0.926   | 3.22   | 880  | 4.68 | 34.53 |        |        | 31.39   | 27.35    | 1.778   | 2.82   |
| 190  | 22.26 | 36.03 | -7.2   | 4.8    | 25.75   | 24.94    | 0.942   | 3.11   | 890  | 4.66 | 34.54 |        |        | 31.44   | 27.35    | 1.786   | 2.67   |
| 195  | 21.74 | 36.01 | -8.4   | 3.6    | 25.91   | 25.07    | 0.957   | 3.03   | 900  | 4.64 | 34.53 |        |        | 31.49   | 27.36    | 1.794   | 2.64   |
| 200  | 20.14 | 35.90 | -8.4   | 3.6    | 26.29   | 25.43    | 0.972   | 2.95   | 910  | 4.59 | 34.54 |        |        | 31.54   | 27.36    | 1.802   | 2.66   |
| 205  | 18.23 | 35.72 | -6.0   | 1.2    | 26.67   | 25.78    | 0.984   | 2.66   | 920  | 4.56 | 34.54 |        |        | 31.59   | 27.37    | 1.810   | 2.65   |
| 210  | 16.95 | 35.56 | -4.8   | 2.4    | 26.88   | 25.97    | 0.995   | 2.45   | 930  | 4.51 | 34.54 |        |        | 31.64   | 27.37    | 1.818   | 2.64   |
| 215  | 16.51 | 35.45 | -3.6   | 6.0    | 26.92   | 25.98    | 1.005   | 2.36   | 940  | 4.45 | 34.54 |        |        | 31.70   | 27.38    | 1.826   | 2.62   |
| 220  | 16.21 | 35.41 | 4.8    | 21.6   | 26.99   | 26.02    | 1.015   | 2.33   | 950  | 4.41 | 34.54 |        |        | 31.75   | 27.38    | 1.834   | 2.61   |
| 225  | 15.67 | 35.34 | 8.4    | 28.8   | 27.08   | 26.10    | 1.026   | 2.30   | 960  | 4.41 | 34.54 |        |        | 31.79   | 27.38    | 1.842   | 2.58   |
| 230  | 15.38 | 35.30 | 9.6    | 31.2   | 27.14   | 26.13    | 1.036   | 2.27   | 970  | 4.40 | 34.54 |        |        | 31.84   | 27.38    | 1.850   | 2.56   |
| 235  | 14.99 | 35.25 | 7.2    | 19.2   | 27.21   | 26.17    | 1.045   | 2.26   | 980  | 4.38 | 34.54 |        |        | 31.89   | 27.39    | 1.858   | 2.56   |
| 240  | 14.31 | 35.22 | 4.8    | 14.4   | 27.36   | 26.30    | 1.054   | 2.20   | 990  | 4.38 | 34.54 |        |        | 31.94   | 27.39    | 1.865   | 2.51   |
| 245  | 13.76 | 35.12 | 2.4    | 12.0   | 27.42   | 26.34    | 1.063   | 2.14   | 1000 | 4.36 | 34.55 |        |        | 31.99   | 27.40    | 1.873   | 2.43   |
| 250  | 13.51 | 35.10 | -1.2   | 9.6    | 27.48   | 26.37    | 1.072   | 2.07   | 1020 | 4.21 | 34.56 |        |        | 32.11   | 27.42    | 1.888   | 2.38   |
| 255  | 13.38 | 35.06 | -4.8   | 7.2    | 27.50   | 26.37    | 1.081   | 1.99   | 1040 | 4.14 | 34.56 |        |        | 32.21   | 27.43    | 1.903   | 2.38   |
| 260  | 13.23 | 35.04 | -7.2   | 4.8    | 27.54   | 26.39    | 1.089   | 1.97   | 1060 | 4.09 | 34.56 |        |        | 32.31   | 27.43    | 1.918   | 2.41   |
| 265  | 12.98 | 35.02 | -9.6   | 3.6    | 27.60   | 26.42    | 1.098   | 1.96   | 1080 | 4.01 | 34.56 |        |        | 32.41   | 27.44    | 1.933   | 2.43   |
| 270  | 12.66 | 34.99 | -8.4   | 2.4    | 27.66   | 26.46    | 1.106   | 1.94   | 1100 | 3.91 | 34.56 |        |        | 32.52   | 27.46    | 1.948   | 2.42   |
| 275  | 12.31 | 34.97 | -4.8   | 1.2    | 27.73   | 26.51    | 1.114   | 1.99   | 1120 | 3.89 | 34.56 |        |        | 32.61   | 27.46    | 1.962   | 2.39   |
| 280  | 11.83 | 34.94 | 0.0    | 1.2    | 27.83   | 26.58    | 1.122   | 2.08   | 1140 | 3.86 | 34.56 |        |        | 32.70   | 27.46    | 1.976   | 2.38   |
| 285  | 11.19 | 34.91 | 1.2    | 1.2    | 27.95   | 26.68    | 1.129   | 2.10   | 1160 | 3.80 | 34.57 |        |        | 32.81   | 27.47    | 1.991   | 2.40   |
| 290  | 10.91 | 34.88 | 7.2    | 2.4    | 28.00   | 26.71    | 1.136   | 2.07   | 1180 | 3.77 | 34.57 |        |        | 32.90   | 27.48    | 2.005   | 2.40   |
| 295  | 10.71 | 34.85 | 7.2    | 2.4    | 28.04   | 26.72    | 1.143   | 1.99   | 1200 | 3.66 | 34.57 |        |        | 33.01   | 27.49    | 2.019   | 2.40   |
| 300  | 10.57 | 34.83 | 8.4    | 2.4    | 28.07   | 26.73    | 1.150   | 1.93   | 1220 | 3.60 | 34.57 |        |        | 33.11   | 27.50    | 2.032   | 2.44   |
| 305  | 10.44 | 34.82 | 6.0    | 1.2    | 28.11   | 26.74    | 1.157   | 1.92   | 1240 | 3.57 | 34.57 |        |        | 33.21   | 27.50    | 2.046   | 2.52   |
| 310  | 10.31 | 34.80 | 6.0    | 1.2    | 28.14   | 26.75    | 1.164   | 1.93   | 1260 | 3.53 | 34.57 |        |        | 33.30   | 27.50    | 2.060   | 2.58   |
| 315  | 10.24 | 34.80 | 2.4    | 2.4    | 28.17   | 26.76    | 1.170   | 1.95   | 1280 | 3.50 | 34.57 |        |        | 33.40   | 27.51    | 2.073   | 2.58   |
| 320  | 10.11 | 34.78 | -1.2   | 2.4    | 28.21   | 26.77    | 1.177   | 2.02   | 1300 | 3.48 | 34.58 |        |        | 33.49   | 27.51    | 2.087   | 2.54   |
| 325  | 9.99  | 34.77 | 0.0    | 2.4    | 28.24   | 26.78    | 1.184   | 2.09   | 1320 | 3.42 | 34.58 |        |        | 33.59   | 27.52    | 2.100   | 2.52   |
| 330  | 9.91  | 34.76 | 2.4    | 3.6    | 28.27   | 26.79    | 1.190   | 2.21   | 1340 | 3.35 | 34.58 |        |        | 33.69   | 27.53    | 2.113   | 2.58   |
| 335  | 9.79  | 34.75 | 3.6    | 4.8    | 28.30   | 26.80    | 1.197   | 2.33   | 1360 | 3.31 | 34.58 |        |        | 33.79   | 27.53    | 2.126   | 2.60   |
| 340  | 9.75  | 34.74 | 4.8    | 6.0    | 28.33   | 26.80    | 1.204   | 2.39   | 1380 | 3.20 | 34.59 |        |        | 33.90   | 27.55    | 2.139   | 2.74   |
| 345  | 9.60  | 34.73 | 4.8    | 7.2    | 28.37   | 26.82    | 1.210   | 2.47   | 1400 | 3.13 | 34.59 |        |        | 34.00   | 27.56    | 2.152   | 2.72   |
| 350  | 9.48  | 34.73 | 3.6    | 7.2    | 28.41   | 26.84    | 1.217   | 2.58   | 1420 | 3.08 | 34.59 |        |        | 34.10   | 27.56    | 2.164   | 2.73   |
| 355  | 9.43  | 34.72 | 1.2    | 8.4    | 28.43   | 26.83    | 1.223   | 2.60   | 1440 | 3.02 | 34.60 |        |        | 34.20   | 27.57    | 2.177   | 2.66   |
| 360  | 9.34  | 34.72 | 0.0    | 8.4    | 28.47   | 26.85    | 1.229   | 2.63   | 1460 | 2.96 | 34.60 |        |        | 34.30   | 27.58    | 2.189   | 2.70   |
| 365  | 9.31  | 34.71 | 1.2    | 7.2    | 28.     |          |         |        |      |      |       |        |        |         |          |         |        |



SURTROPAC11 STATION No : 19  
DATE : 13/ 1/89 HEURE : 1h33 LONGITUDE : 165.00 LATITUDE : -3.50



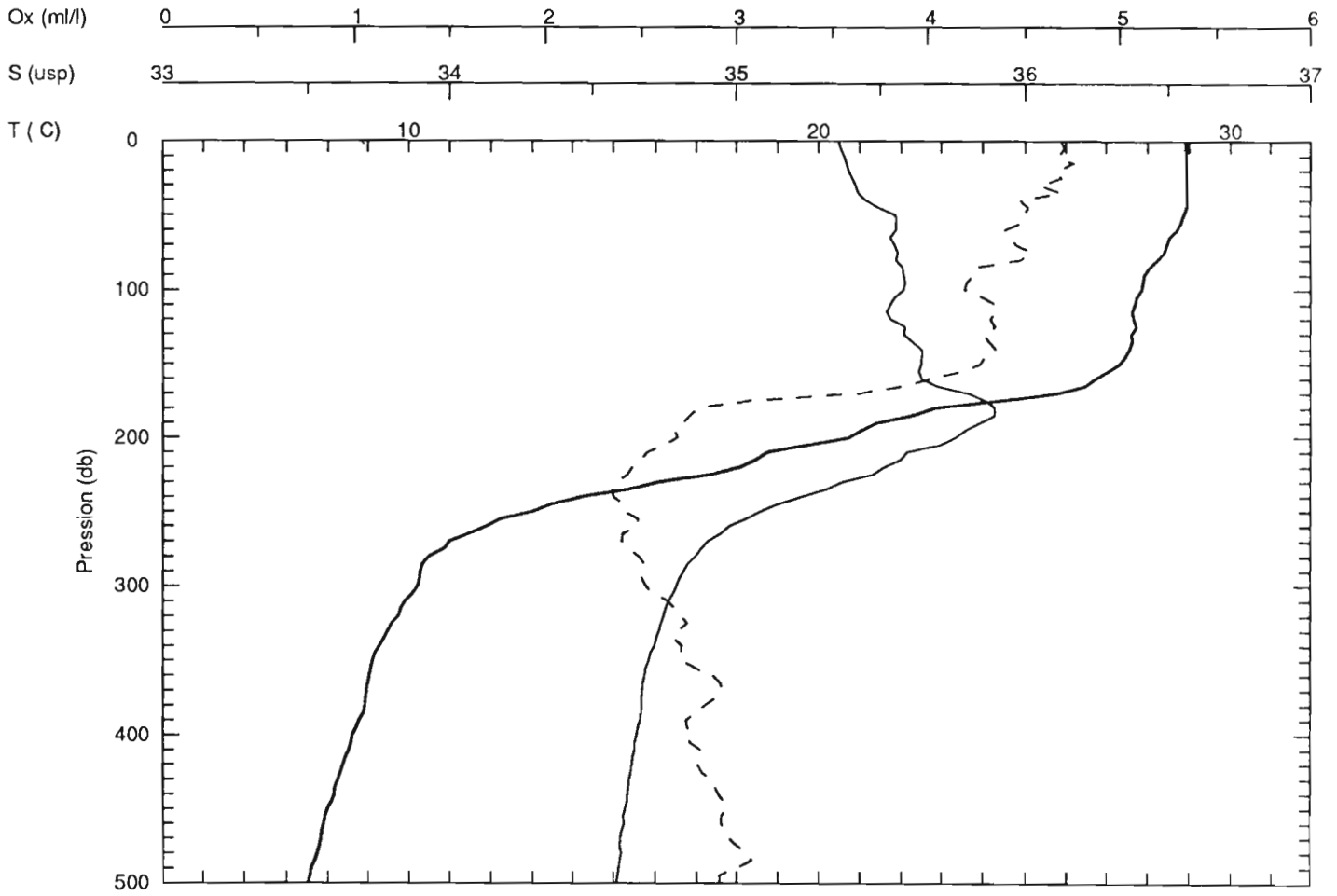
Courant E/O (cm/s) —  
Courant N/S (cm/s) ---



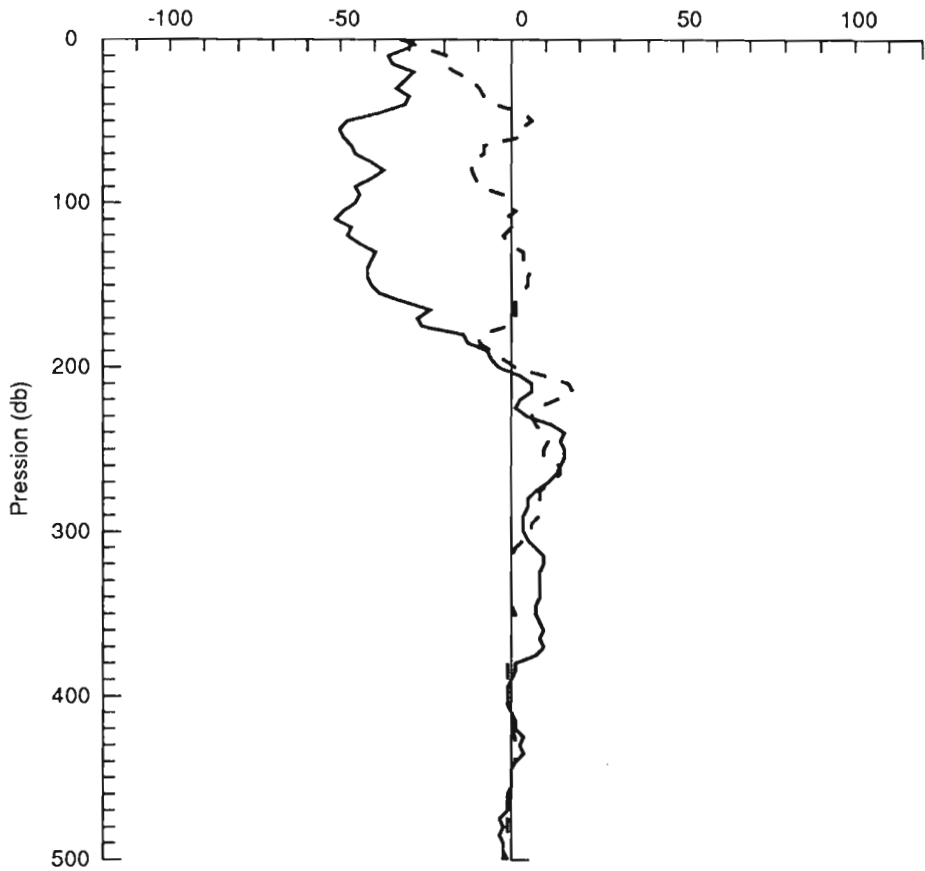
STATION : 20      CAMPAGNE : aurtropacil  
 DATE : 13/ 1/89    HEURE : 0h30    LONGITUDE : 165.00    LATITUDE : -3.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | F    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (uwp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | (uwp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.92 | 35.35 | -28.8  | -32.4  | 22.36   | 22.36    | 0.000   | 4.69   | 510  | 7.39  | 34.58 | 1.2    | -1.2   | 29.36   | 27.04    | 1.403   | 3.03   |
| 5    | 28.92 | 35.36 | -30.0  | -26.4  | 22.39   | 22.37    | 0.027   | 4.71   | 520  | 7.22  | 34.57 | 12.0   | 2.4    | 29.42   | 27.06    | 1.414   | 3.05   |
| 10   | 28.93 | 35.37 | -36.0  | -19.2  | 22.41   | 22.37    | 0.055   | 4.67   | 530  | 7.13  | 34.57 | 15.6   | 3.6    | 29.48   | 27.07    | 1.424   | 2.99   |
| 15   | 28.93 | 35.38 | -34.8  | -20.4  | 22.44   | 22.38    | 0.082   | 4.75   | 540  | 7.06  | 34.56 | 18.0   | 6.0    | 29.53   | 27.08    | 1.435   | 2.82   |
| 20   | 28.94 | 35.39 | -28.8  | -16.8  | 22.46   | 22.38    | 0.109   | 4.67   | 550  | 6.98  | 34.56 | 18.0   | 7.2    | 29.58   | 27.08    | 1.446   | 2.90   |
| 25   | 28.94 | 35.40 | -31.2  | -12.0  | 22.49   | 22.39    | 0.137   | 4.69   | 560  | 6.90  | 34.56 | 14.4   | 6.0    | 29.64   | 27.09    | 1.456   | 2.94   |
| 30   | 28.94 | 35.41 | -33.6  | -9.6   | 22.52   | 22.40    | 0.164   | 4.58   | 570  | 6.85  | 34.56 | 13.2   | 7.2    | 29.69   | 27.10    | 1.467   | 2.85   |
| 35   | 28.95 | 35.42 | -30.0  | -8.4   | 22.55   | 22.40    | 0.191   | 4.69   | 580  | 6.83  | 34.56 | 13.2   | 8.4    | 29.74   | 27.10    | 1.477   | 2.58   |
| 40   | 28.95 | 35.45 | -31.2  | -4.8   | 22.59   | 22.42    | 0.218   | 4.47   | 590  | 6.79  | 34.56 | 12.0   | 12.0   | 29.79   | 27.11    | 1.488   | 2.49   |
| 45   | 28.94 | 35.49 | -38.4  | 3.6    | 22.65   | 22.46    | 0.245   | 4.51   | 600  | 6.71  | 34.55 |        |        | 29.85   | 27.11    | 1.498   | 2.58   |
| 50   | 28.87 | 35.55 | -48.0  | 6.0    | 22.74   | 22.53    | 0.272   | 4.49   | 610  | 6.64  | 34.55 |        |        | 29.90   | 27.12    | 1.508   | 2.57   |
| 55   | 28.81 | 35.56 | -50.4  | 2.4    | 22.78   | 22.55    | 0.299   | 4.48   | 620  | 6.61  | 34.56 |        |        | 29.96   | 27.13    | 1.519   | 2.25   |
| 60   | 28.70 | 35.55 | -49.2  | 2.4    | 22.80   | 22.59    | 0.325   | 4.39   | 630  | 6.53  | 34.56 |        |        | 30.01   | 27.14    | 1.529   | 2.04   |
| 65   | 28.52 | 35.53 | -46.8  | -8.4   | 22.90   | 22.63    | 0.351   | 4.43   | 640  | 6.42  | 34.56 |        |        | 30.07   | 27.16    | 1.539   | 2.12   |
| 70   | 28.47 | 35.55 | -45.6  | -8.4   | 22.96   | 22.66    | 0.377   | 4.45   | 650  | 6.31  | 34.55 |        |        | 30.13   | 27.16    | 1.549   | 2.32   |
| 75   | 28.40 | 35.56 | -40.8  | -12.0  | 23.01   | 22.69    | 0.403   | 4.53   | 660  | 6.25  | 34.55 |        |        | 30.18   | 27.17    | 1.559   | 2.24   |
| 80   | 28.23 | 35.55 | -37.2  | -12.0  | 23.08   | 22.74    | 0.429   | 4.48   | 670  | 6.21  | 34.55 |        |        | 30.23   | 27.18    | 1.569   | 2.14   |
| 85   | 28.06 | 35.58 | -40.8  | -10.8  | 23.18   | 22.82    | 0.455   | 4.25   | 680  | 6.11  | 34.55 |        |        | 30.29   | 27.19    | 1.578   | 2.27   |
| 90   | 27.92 | 35.58 | -45.6  | -9.6   | 23.24   | 22.86    | 0.480   | 4.24   | 690  | 5.97  | 34.55 |        |        | 30.36   | 27.21    | 1.588   | 2.35   |
| 95   | 27.90 | 35.59 | -44.4  | -2.4   | 23.28   | 22.88    | 0.505   | 4.20   | 700  | 5.78  | 34.54 |        |        | 30.43   | 27.23    | 1.597   | 2.41   |
| 100  | 27.86 | 35.58 | -45.6  | -2.4   | 23.31   | 22.89    | 0.530   | 4.20   | 710  | 5.65  | 34.54 |        |        | 30.49   | 27.24    | 1.607   | 2.49   |
| 105  | 27.74 | 35.55 | -49.2  | 1.2    | 23.34   | 22.90    | 0.555   | 4.28   | 720  | 5.57  | 34.54 |        |        | 30.55   | 27.25    | 1.616   | 2.41   |
| 110  | 27.70 | 35.53 | -51.6  | -2.4   | 23.37   | 22.90    | 0.580   | 4.35   | 730  | 5.45  | 34.54 |        |        | 30.61   | 27.27    | 1.625   | 2.30   |
| 115  | 27.64 | 35.52 | -46.8  | 0.0    | 23.40   | 22.92    | 0.605   | 4.34   | 740  | 5.43  | 34.54 |        |        | 30.66   | 27.27    | 1.633   | 2.27   |
| 120  | 27.66 | 35.53 | -48.0  | -2.4   | 23.42   | 22.92    | 0.630   | 4.32   | 750  | 5.40  | 34.54 |        |        | 30.70   | 27.27    | 1.642   | 2.30   |
| 125  | 27.73 | 35.58 | -44.4  | -1.2   | 23.46   | 22.93    | 0.655   | 4.35   | 760  | 5.32  | 34.54 |        |        | 30.76   | 27.28    | 1.651   | 2.36   |
| 130  | 27.61 | 35.58 | -39.6  | 3.6    | 23.52   | 22.97    | 0.680   | 4.29   | 770  | 5.28  | 34.54 |        |        | 30.81   | 27.28    | 1.660   | 2.35   |
| 135  | 27.63 | 35.61 | -40.8  | 3.6    | 23.56   | 22.99    | 0.705   | 4.32   | 780  | 5.24  | 34.54 |        |        | 30.86   | 27.29    | 1.669   | 2.33   |
| 140  | 27.56 | 35.65 | -42.0  | 6.0    | 23.62   | 23.04    | 0.729   | 4.35   | 790  | 5.20  | 34.54 |        |        | 30.91   | 27.29    | 1.677   | 2.29   |
| 145  | 27.46 | 35.65 | -42.0  | 4.8    | 23.68   | 23.07    | 0.753   | 4.29   | 800  | 5.13  | 34.54 |        |        | 30.97   | 27.31    | 1.686   | 2.29   |
| 150  | 27.32 | 35.64 | -40.8  | 4.8    | 23.74   | 23.11    | 0.778   | 4.27   | 810  | 5.09  | 34.54 |        |        | 31.02   | 27.31    | 1.695   | 2.25   |
| 155  | 27.04 | 35.63 | -38.4  | 2.4    | 23.85   | 23.20    | 0.802   | 4.18   | 820  | 5.08  | 34.54 |        |        | 31.07   | 27.31    | 1.703   | 2.25   |
| 160  | 26.72 | 35.65 | -31.2  | 1.2    | 23.98   | 23.31    | 0.825   | 4.01   | 830  | 5.02  | 34.54 |        |        | 31.12   | 27.32    | 1.712   | 2.23   |
| 165  | 26.46 | 35.70 | -24.0  | 1.2    | 24.12   | 23.43    | 0.848   | 3.88   | 840  | 4.99  | 34.54 |        |        | 31.17   | 27.32    | 1.720   | 2.22   |
| 170  | 25.76 | 35.81 | -27.6  | 1.2    | 24.45   | 23.73    | 0.870   | 3.63   | 850  | 4.96  | 34.54 |        |        | 31.22   | 27.32    | 1.729   | 2.23   |
| 175  | 24.33 | 35.87 | -26.4  | -1.2   | 24.96   | 24.21    | 0.890   | 3.07   | 860  | 4.94  | 34.54 |        |        | 31.27   | 27.33    | 1.737   | 2.24   |
| 180  | 22.84 | 35.90 | -14.4  | -9.6   | 25.44   | 24.67    | 0.908   | 2.80   | 870  | 4.88  | 34.54 |        |        | 31.32   | 27.34    | 1.745   | 2.22   |
| 185  | 22.27 | 35.90 | -13.2  | -9.6   | 25.63   | 24.84    | 0.924   | 2.75   | 880  | 4.86  | 34.54 |        |        | 31.37   | 27.34    | 1.754   | 2.25   |
| 190  | 21.40 | 35.85 | -7.2   | -6.0   | 25.85   | 25.04    | 0.939   | 2.72   | 890  | 4.82  | 34.54 |        |        | 31.42   | 27.34    | 1.762   | 2.24   |
| 195  | 21.04 | 35.80 | -6.0   | -2.4   | 25.94   | 25.10    | 0.954   | 2.67   | 900  | 4.79  | 34.54 |        |        | 31.47   | 27.34    | 1.770   | 2.23   |
| 200  | 20.73 | 35.76 | -3.6   | 1.2    | 26.02   | 25.16    | 0.969   | 2.68   | 910  | 4.77  | 34.54 |        |        | 31.52   | 27.35    | 1.778   | 2.23   |
| 205  | 19.70 | 35.71 | 2.4    | 9.6    | 26.28   | 25.39    | 0.983   | 2.62   | 920  | 4.73  | 34.54 |        |        | 31.57   | 27.35    | 1.787   | 2.24   |
| 210  | 18.76 | 35.59 | 6.0    | 16.8   | 26.46   | 25.55    | 0.995   | 2.53   | 930  | 4.69  | 34.54 |        |        | 31.63   | 27.36    | 1.795   | 2.28   |
| 215  | 18.47 | 35.57 | 6.0    | 18.0   | 26.53   | 25.60    | 1.008   | 2.50   | 940  | 4.65  | 34.55 |        |        | 31.68   | 27.36    | 1.803   | 2.26   |
| 220  | 18.09 | 35.51 | 2.4    | 13.2   | 26.61   | 25.65    | 1.020   | 2.45   | 950  | 4.57  | 34.55 |        |        | 31.74   | 27.37    | 1.811   | 2.24   |
| 225  | 17.36 | 35.47 | 1.2    | 7.2    | 26.78   | 25.80    | 1.032   | 2.43   | 960  | 4.55  | 34.55 |        |        | 31.78   | 27.38    | 1.819   | 2.25   |
| 230  | 16.08 | 35.37 | 4.8    | 6.0    | 27.03   | 26.02    | 1.043   | 2.38   | 970  | 4.55  | 34.55 |        |        | 31.83   | 27.38    | 1.827   | 2.26   |
| 235  | 15.37 | 35.31 | 12.0   | 7.2    | 27.17   | 26.14    | 1.053   | 2.36   | 980  | 4.53  | 34.55 |        |        | 31.88   | 27.38    | 1.835   | 2.23   |
| 240  | 14.23 | 35.22 | 15.6   | 9.6    | 27.38   | 26.32    | 1.062   | 2.36   | 990  | 4.49  | 34.55 |        |        | 31.93   | 27.38    | 1.843   | 2.24   |
| 245  | 13.49 | 35.14 | 14.4   | 10.8   | 27.50   | 26.41    | 1.070   | 2.41   | 1000 | 4.41  | 34.55 |        |        | 31.99   | 27.40    | 1.851   | 2.26   |
| 250  | 13.03 | 35.08 | 15.6   | 9.6    | 27.57   | 26.46    | 1.079   | 2.41   | 1020 | 4.33  | 34.55 |        |        | 32.05   | 27.40    | 1.866   | 2.31   |
| 255  | 12.24 | 35.03 | 15.6   | 9.6    | 27.71   | 26.58    | 1.087   | 2.48   | 1040 | 4.27  | 34.55 |        |        | 32.19   | 27.41    | 1.882   | 2.33   |
| 260  | 11.90 | 34.97 | 14.4   | 14.4   | 27.75   | 26.60    | 1.094   | 2.49   | 1060 | 4.22  | 34.55 |        |        | 32.29   | 27.42    | 1.897   | 2.34   |
| 265  | 11.47 | 34.94 | 13.2   | 14.4   | 27.83   | 26.65    | 1.102   | 2.41   | 1080 | 4.14  | 34.56 |        |        | 32.39   | 27.43    | 1.912   | 2.36   |
| 270  | 11.00 | 34.90 | 10.8   | 12.0   | 27.91   | 26.70    | 1.109   | 2.40   | 1100 | 4.07  | 34.56 |        |        | 32.49   | 27.44    | 1.927   | 2.40   |
| 275  | 10.87 | 34.88 | 7.2    | 8.4    | 27.94   | 26.71    | 1.116   | 2.43   | 1120 | 4.00  | 34.56 |        |        | 32.59   | 27.44    | 1.942   | 2.37   |
| 280  | 10.50 | 34.85 | 4.8    | 8.4    | 28.01   | 26.76    | 1.122   | 2.49   | 1140 | 3.92  | 34.56 |        |        | 32.70   | 27.46    | 1.956   | 2.38   |
| 285  | 10.35 | 34.83 | 4.8    | 8.4    | 28.04   | 26.76    | 1.129   | 2.52   | 1160 | 3.86  | 34.56 |        |        | 32.80   | 27.46    | 1.971   | 2.40   |
| 290  | 10.29 | 34.81 | 3.6    | 8.4    | 28.06   | 26.76    | 1.136   | 2.50   | 1180 | 3.81  | 34.57 |        |        | 32.90   | 27.47    | 1.985   | 2.38   |
| 295  | 10.26 | 34.80 | 3.6    | 6.0    | 28.08   | 26.75    | 1.143   | 2.50   |      |       |       |        |        |         |          |         |        |
| 300  | 10.22 | 34.79 | 3.6    | 6.0    | 28.10   | 26.75    | 1.149   | 2.52   |      |       |       |        |        |         |          |         |        |
| 305  | 10.09 | 34.78 | 4.8    | 3.6    | 28.14   | 26.77    | 1.156   | 2.56   |      |       |       |        |        |         |          |         |        |
| 310  | 9.91  | 34.76 | 7.2    | 1.2    | 28.18   | 26.79    | 1.163   | 2.64   |      |       |       |        |        |         |          |         |        |
| 315  | 9.81  | 34.75 | 9.6    | 0.0    | 28.21   | 26.80    | 1.169   | 2.67   |      |       |       |        |        |         |          |         |        |
| 320  | 9.75  | 34.74 | 9.6    | 0.0    | 28.24   | 26.80    | 1.176   | 2.70   |      |       |       |        |        |         |          |         |        |
| 325  | 9.58  | 34.73 | 8.4    | 0.0    | 28.28   | 26.82    | 1.182   | 2.74   |      |       |       |        |        |         |          |         |        |
| 330  | 9.48  | 34.73 | 8.4    | 0.0    | 28.32   | 26.83    | 1.189   | 2.69   |      |       |       |        |        |         |          |         |        |
| 335  | 9.38  | 34.72 | 8.4    | 0.0    | 28.35   | 26.84    | 1.195   | 2.66   |      |       |       |        |        |         |          |         |        |
| 340  | 9.27  | 34.71 | 8.4    | 0.0    | 28.39   | 26.85    | 1.202   | 2.71   |      |       |       |        |        |         |          |         |        |
| 345  | 9.17  | 34.70 | 7.2    | 0.0    | 28.42   | 26.86    | 1.208   | 2.70   |      |       |       |        |        |         |          |         |        |
| 350  | 9.11  | 34.69 | 7.2    | 1.2    | 28.45   | 26.87    | 1.214   | 2.70   |      |       |       |        |        |         |          |         |        |
| 355  | 9.06  | 34.68 | 8.4    | 1.2    | 28.47   | 26.87    | 1.220   | 2.78   |      |       |       |        |        |         |          |         |        |
| 360  | 9.03  | 34.68 | 9.6    | 0.0    | 28.49   | 26.87    | 1.227   | 2.87   |      |       |       |        |        |         |          |         |        |
| 365  | 8.98  | 34.67 | 8.4    | 0.0    | 28.52   | 26.87    | 1.233   | 2.91   |      |       |       |        |        |         |          |         |        |
| 370  | 8.95  | 34.67 | 9.6    | 0.0    | 28.55   | 26.87    | 1.239   | 2.92   |      |       |       |        |        |         |          |         |        |
| 375  | 8.93  | 34.67 | 7.2    | -1.2   | 28.57   | 26.88    | 1.245   | 2.89   |      |       |       |        |        |         |          |         |        |
| 380  | 8.91  | 34.67 | 1.2    | -1.2   | 28.59   | 26.88    | 1.251   | 2.83   |      |       |       |        |        |         |          |         |        |
| 385  | 8.88  | 34.67 | 1.2    | -1.2   | 28.62   | 26.88    | 1.258   | 2.78   |      |       |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 20  
DATE : 13/ 1/89 HEURE : 8h30 LONGITUDE : 165.00 LATITUDE : -3.00



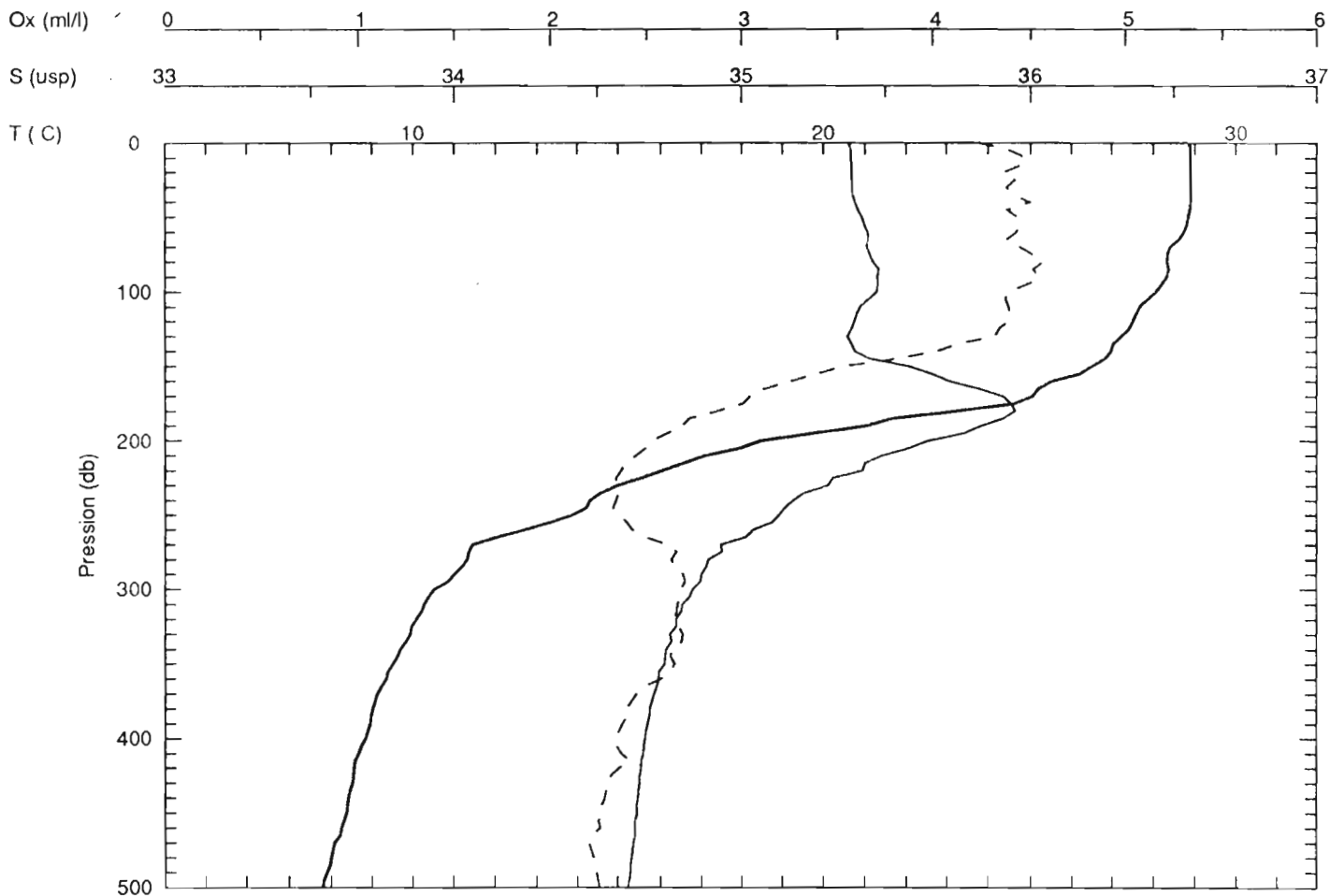
Courant E/O (cm/s) —  
Courant N/S (cm/s) ---



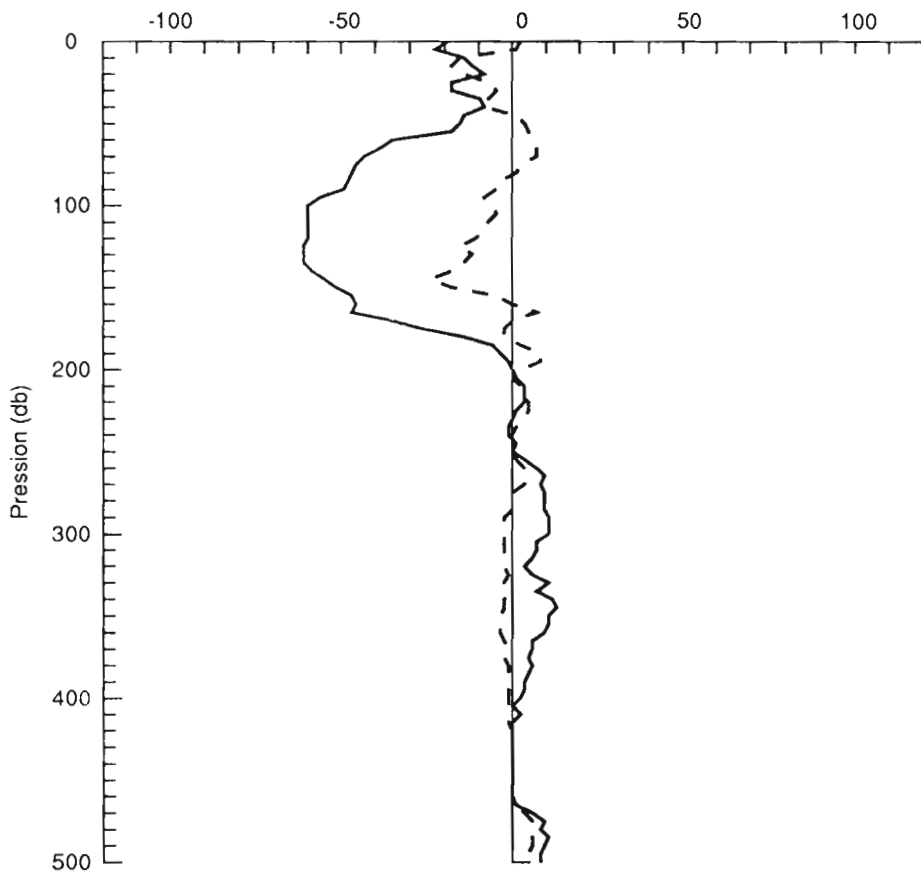
STATION : 21      CAMPAGNE : aurtropacl1  
 DATE : 13/ 1/89    REURE : 14h10      LONGITUDE : 165.00      LATITUDE : -2.50

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.87 | 35.37 | -19.2  | 2.4    | 22.39   | 22.39    | 0.000   | 4.24   | 510  | 7.67 | 34.60 | 8.4    | 6.0    | 29.33   | 27.02    | 1.400   | 2.31   |
| 5    | 28.89 | 35.38 | -22.8  | 1.2    | 22.41   | 22.39    | 0.027   | 4.39   | 520  | 7.56 | 34.60 | 12.0   | 10.8   | 29.39   | 27.03    | 1.411   | 2.29   |
| 10   | 28.88 | 35.38 | -14.4  | -15.6  | 22.43   | 22.39    | 0.054   | 4.48   | 530  | 7.47 | 34.59 | 13.2   | 12.0   | 29.45   | 27.04    | 1.422   | 2.26   |
| 15   | 28.88 | 35.38 | -12.0  | -18.0  | 22.46   | 22.39    | 0.082   | 4.45   | 540  | 7.32 | 34.60 | 14.4   | 10.8   | 29.52   | 27.07    | 1.433   | 2.22   |
| 20   | 28.89 | 35.38 | -8.4   | -14.4  | 22.48   | 22.39    | 0.109   | 4.36   | 550  | 7.14 | 34.58 | 14.4   | 10.8   | 29.58   | 27.08    | 1.444   | 2.20   |
| 25   | 28.89 | 35.38 | -18.0  | -7.2   | 22.50   | 22.39    | 0.136   | 4.42   | 560  | 7.07 | 34.58 | 16.8   | 12.0   | 29.63   | 27.09    | 1.455   | 2.16   |
| 30   | 28.89 | 35.38 | -18.0  | -4.8   | 22.52   | 22.39    | 0.163   | 4.38   | 570  | 6.97 | 34.57 | 19.2   | 15.6   | 29.69   | 27.09    | 1.465   | 2.11   |
| 35   | 28.90 | 35.39 | -9.6   | -7.2   | 22.54   | 22.39    | 0.191   | 4.41   | 580  | 6.89 | 34.57 | 19.2   | 15.6   | 29.74   | 27.10    | 1.476   | 2.11   |
| 40   | 28.89 | 35.39 | -8.4   | -8.4   | 22.57   | 22.40    | 0.218   | 4.50   | 590  | 6.69 | 34.56 | 20.4   | 8.4    | 29.81   | 27.12    | 1.486   | 2.60   |
| 45   | 28.88 | 35.40 | -14.4  | 1.2    | 22.60   | 22.41    | 0.245   | 4.38   | 600  | 6.62 | 34.55 |        |        | 29.86   | 27.12    | 1.496   | 2.71   |
| 50   | 28.83 | 35.42 | -15.6  | 3.6    | 22.65   | 22.44    | 0.272   | 4.43   | 610  | 6.57 | 34.55 |        |        | 29.91   | 27.13    | 1.507   | 2.73   |
| 55   | 28.80 | 35.42 | -18.0  | 4.8    | 22.69   | 22.46    | 0.299   | 4.45   | 620  | 6.56 | 34.54 |        |        | 29.95   | 27.13    | 1.517   | 2.74   |
| 60   | 28.74 | 35.44 | -34.8  | 6.0    | 22.74   | 22.49    | 0.326   | 4.43   | 630  | 6.53 | 34.54 |        |        | 30.00   | 27.13    | 1.527   | 2.76   |
| 65   | 28.61 | 35.44 | -38.4  | 7.2    | 22.80   | 22.53    | 0.353   | 4.38   | 640  | 6.43 | 34.54 |        |        | 30.06   | 27.14    | 1.537   | 2.73   |
| 70   | 28.41 | 35.43 | -43.2  | 7.2    | 22.89   | 22.60    | 0.380   | 4.44   | 650  | 6.38 | 34.54 |        |        | 30.11   | 27.15    | 1.547   | 2.64   |
| 75   | 28.34 | 35.44 | -45.6  | 2.4    | 22.94   | 22.62    | 0.406   | 4.51   | 660  | 6.32 | 34.54 |        |        | 30.16   | 27.15    | 1.557   | 2.69   |
| 80   | 28.34 | 35.46 | -46.8  | 1.2    | 22.97   | 22.63    | 0.432   | 4.56   | 670  | 6.24 | 34.54 |        |        | 30.22   | 27.16    | 1.567   | 2.73   |
| 85   | 28.38 | 35.48 | -48.0  | -3.6   | 22.99   | 22.64    | 0.458   | 4.51   | 680  | 6.20 | 34.53 |        |        | 30.27   | 27.17    | 1.577   | 2.75   |
| 90   | 28.33 | 35.47 | -49.2  | -4.8   | 23.03   | 22.65    | 0.484   | 4.55   | 690  | 6.17 | 34.53 |        |        | 30.32   | 27.17    | 1.587   | 2.75   |
| 95   | 28.20 | 35.47 | -56.4  | -8.4   | 23.09   | 22.69    | 0.511   | 4.49   | 700  | 6.15 | 34.53 |        |        | 30.36   | 27.17    | 1.597   | 2.76   |
| 100  | 28.06 | 35.47 | -60.0  | -6.0   | 23.16   | 22.74    | 0.536   | 4.38   | 710  | 6.13 | 34.53 |        |        | 30.41   | 27.17    | 1.607   | 2.73   |
| 105  | 27.86 | 35.44 | -60.0  | -4.8   | 23.22   | 22.78    | 0.562   | 4.37   | 720  | 6.05 | 34.53 |        |        | 30.47   | 27.18    | 1.617   | 2.72   |
| 110  | 27.68 | 35.41 | -60.0  | -7.2   | 23.28   | 22.82    | 0.588   | 4.39   | 730  | 6.05 | 34.54 |        |        | 30.52   | 27.19    | 1.626   | 2.61   |
| 115  | 27.59 | 35.40 | -60.0  | -8.4   | 23.32   | 22.84    | 0.613   | 4.40   | 740  | 5.92 | 34.54 |        |        | 30.59   | 27.21    | 1.636   | 2.27   |
| 120  | 27.51 | 35.39 | -60.0  | -10.8  | 23.36   | 22.86    | 0.638   | 4.38   | 750  | 5.85 | 34.54 |        |        | 30.64   | 27.22    | 1.646   | 2.37   |
| 125  | 27.42 | 35.38 | -61.2  | -15.6  | 23.41   | 22.88    | 0.663   | 4.34   | 760  | 5.71 | 34.54 |        |        | 30.71   | 27.24    | 1.655   | 2.44   |
| 130  | 27.23 | 35.37 | -61.2  | -12.0  | 23.48   | 22.93    | 0.688   | 4.32   | 770  | 5.64 | 34.54 |        |        | 30.76   | 27.24    | 1.664   | 2.46   |
| 135  | 27.02 | 35.38 | -61.2  | -14.4  | 23.58   | 23.01    | 0.713   | 4.14   | 780  | 5.55 | 34.54 |        |        | 30.82   | 27.25    | 1.673   | 2.38   |
| 140  | 26.97 | 35.39 | -58.8  | -18.0  | 23.63   | 23.04    | 0.738   | 4.02   | 790  | 5.47 | 34.54 |        |        | 30.88   | 27.26    | 1.683   | 2.36   |
| 145  | 26.82 | 35.44 | -55.2  | -24.0  | 23.74   | 23.12    | 0.762   | 3.80   | 800  | 5.43 | 34.54 |        |        | 30.93   | 27.26    | 1.691   | 2.37   |
| 150  | 26.49 | 35.58 | -51.6  | -18.0  | 23.96   | 23.33    | 0.785   | 3.53   | 810  | 5.36 | 34.54 |        |        | 30.98   | 27.27    | 1.701   | 2.36   |
| 155  | 26.20 | 35.66 | -46.8  | -4.8   | 24.14   | 23.48    | 0.808   | 3.40   | 820  | 5.31 | 34.54 |        |        | 31.03   | 27.28    | 1.709   | 2.34   |
| 160  | 25.51 | 35.72 | -45.6  | 0.0    | 24.42   | 23.75    | 0.830   | 3.26   | 830  | 5.26 | 34.53 |        |        | 31.09   | 27.28    | 1.718   | 2.36   |
| 165  | 25.18 | 35.83 | -46.8  | 7.2    | 24.62   | 23.92    | 0.851   | 3.12   | 840  | 5.21 | 34.54 |        |        | 31.14   | 27.29    | 1.727   | 2.31   |
| 170  | 25.05 | 35.90 | -34.8  | 0.0    | 24.74   | 24.02    | 0.871   | 3.04   | 850  | 5.19 | 34.54 |        |        | 31.19   | 27.30    | 1.736   | 2.25   |
| 175  | 24.59 | 35.93 | -26.4  | -2.4   | 24.93   | 24.18    | 0.890   | 3.01   | 860  | 5.14 | 34.54 |        |        | 31.24   | 27.30    | 1.744   | 2.25   |
| 180  | 23.26 | 35.95 | -14.4  | -2.4   | 25.35   | 24.59    | 0.909   | 2.88   | 870  | 5.07 | 34.54 |        |        | 31.30   | 27.31    | 1.753   | 2.22   |
| 185  | 21.67 | 35.91 | -6.0   | 2.4    | 25.80   | 25.01    | 0.924   | 2.72   | 880  | 4.96 | 34.54 |        |        | 31.36   | 27.33    | 1.762   | 2.29   |
| 190  | 21.01 | 35.87 | -3.6   | 8.4    | 25.95   | 25.14    | 0.939   | 2.68   | 890  | 4.84 | 34.55 |        |        | 31.43   | 27.34    | 1.770   | 2.28   |
| 195  | 19.72 | 35.77 | -1.2   | 8.4    | 26.28   | 25.44    | 0.953   | 2.61   | 900  | 4.75 | 34.55 |        |        | 31.48   | 27.35    | 1.778   | 2.36   |
| 200  | 18.46 | 35.65 | 0.0    | 2.4    | 26.53   | 25.66    | 0.965   | 2.53   | 910  | 4.72 | 34.54 |        |        | 31.53   | 27.35    | 1.786   | 2.37   |
| 205  | 17.94 | 35.58 | 1.2    | 0.0    | 26.63   | 25.74    | 0.977   | 2.49   | 920  | 4.67 | 34.54 |        |        | 31.58   | 27.36    | 1.794   | 2.38   |
| 210  | 17.11 | 35.49 | 3.6    | 2.4    | 26.79   | 25.87    | 0.988   | 2.45   | 930  | 4.64 | 34.54 |        |        | 31.63   | 27.36    | 1.802   | 2.39   |
| 215  | 16.56 | 35.43 | 3.6    | 2.4    | 26.90   | 25.96    | 0.999   | 2.39   | 940  | 4.58 | 34.55 |        |        | 31.69   | 27.37    | 1.811   | 2.35   |
| 220  | 16.05 | 35.42 | 3.6    | 4.8    | 27.03   | 26.07    | 1.010   | 2.37   | 950  | 4.48 | 34.55 |        |        | 31.75   | 27.37    | 1.818   | 2.33   |
| 225  | 15.56 | 35.32 | 1.2    | 4.8    | 27.09   | 26.10    | 1.020   | 2.35   | 960  | 4.41 | 34.55 |        |        | 31.80   | 27.39    | 1.826   | 2.38   |
| 230  | 14.98 | 35.30 | 0.0    | 3.6    | 27.23   | 26.22    | 1.029   | 2.35   | 970  | 4.38 | 34.55 |        |        | 31.85   | 27.40    | 1.834   | 2.39   |
| 235  | 14.57 | 35.22 | -1.2   | 1.2    | 27.27   | 26.24    | 1.038   | 2.36   | 980  | 4.36 | 34.55 |        |        | 31.90   | 27.40    | 1.842   | 2.40   |
| 240  | 14.30 | 35.18 | -1.2   | 0.0    | 27.33   | 26.27    | 1.047   | 2.35   | 990  | 4.31 | 34.55 |        |        | 31.96   | 27.41    | 1.849   | 2.35   |
| 245  | 14.22 | 35.15 | -1.2   | 0.0    | 27.34   | 26.27    | 1.056   | 2.33   | 1000 | 4.27 | 34.56 |        |        | 32.01   | 27.41    | 1.857   | 2.35   |
| 250  | 13.87 | 35.13 | 0.0    | 0.0    | 27.43   | 26.32    | 1.066   | 2.34   | 1020 | 4.15 | 34.56 |        |        | 32.12   | 27.43    | 1.872   | 2.34   |
| 255  | 13.32 | 35.11 | 3.6    | 1.2    | 27.55   | 26.42    | 1.074   | 2.40   | 1040 | 4.08 | 34.56 |        |        | 32.22   | 27.43    | 1.887   | 2.37   |
| 260  | 12.71 | 35.04 | 7.2    | 3.6    | 27.64   | 26.49    | 1.082   | 2.43   | 1060 | 4.03 | 34.56 |        |        | 32.31   | 27.44    | 1.902   | 2.42   |
| 265  | 12.05 | 35.01 | 9.6    | 4.8    | 27.78   | 26.60    | 1.090   | 2.49   | 1080 | 3.97 | 34.56 |        |        | 32.42   | 27.45    | 1.916   | 2.48   |
| 270  | 11.44 | 34.92 | 8.4    | 3.6    | 27.85   | 26.64    | 1.097   | 2.60   | 1100 | 3.93 | 34.56 |        |        | 32.51   | 27.45    | 1.931   | 2.47   |
| 275  | 11.35 | 34.93 | 9.6    | 0.0    | 27.89   | 26.66    | 1.105   | 2.65   | 1120 | 3.85 | 34.56 |        |        | 32.62   | 27.46    | 1.945   | 2.44   |
| 280  | 11.32 | 34.88 | 9.6    | 0.0    | 27.88   | 26.63    | 1.112   | 2.63   | 1140 | 3.81 | 34.56 |        |        | 32.71   | 27.47    | 1.959   | 2.46   |
| 285  | 11.20 | 34.87 | 9.6    | 0.0    | 27.92   | 26.65    | 1.119   | 2.64   | 1160 | 3.75 | 34.57 |        |        | 32.81   | 27.48    | 1.973   | 2.48   |
| 290  | 11.01 | 34.86 | 10.8   | -2.4   | 27.97   | 26.67    | 1.127   | 2.69   | 1180 | 3.72 | 34.57 |        |        | 32.91   | 27.48    | 1.987   | 2.40   |
| 295  | 10.85 | 34.85 | 10.8   | -2.4   | 28.02   | 26.69    | 1.134   | 2.70   | 1200 | 3.70 | 34.57 |        |        | 33.00   | 27.48    | 2.001   | 2.44   |
| 300  | 10.52 | 34.83 | 10.8   | -2.4   | 28.08   | 26.73    | 1.141   | 2.68   | 1220 | 3.69 | 34.57 |        |        | 33.10   | 27.49    | 2.015   | 2.41   |
| 305  | 10.38 | 34.81 | 7.2    | -2.4   | 28.12   | 26.75    | 1.147   | 2.68   | 1240 | 3.67 | 34.57 |        |        | 33.19   | 27.49    | 2.029   | 2.40   |
| 310  | 10.28 | 34.79 | 7.2    | -2.4   | 28.14   | 26.75    | 1.154   | 2.66   | 1260 | 3.64 | 34.57 |        |        | 33.29   | 27.49    | 2.043   | 2.46   |
| 315  | 10.21 | 34.78 | 6.0    | -2.4   | 28.17   | 26.75    | 1.161   | 2.65   | 1280 | 3.58 | 34.57 |        |        | 33.39   | 27.50    | 2.057   | 2.52   |
| 320  | 10.09 | 34.77 | 3.6    | -2.4   | 28.20   | 26.76    | 1.168   | 2.64   | 1300 | 3.53 | 34.58 |        |        | 33.48   | 27.50    | 2.071   | 2.53   |
| 325  | 9.97  | 34.77 | 6.0    | -1.2   | 28.24   | 26.78    | 1.174   | 2.66   | 1320 | 3.48 | 34.58 |        |        | 33.58   | 27.51    | 2.084   | 2.56   |
| 330  | 9.94  | 34.75 | 10.8   | -2.4   | 28.25   | 26.77    | 1.181   | 2.68   | 1340 | 3.41 | 34.58 |        |        | 33.68   | 27.52    | 2.098   | 2.58   |
| 335  | 9.83  | 34.75 | 7.2    | -1.2   | 28.30   | 26.79    | 1.188   | 2.68   | 1360 | 3.38 | 34.58 |        |        | 33.78   | 27.52    | 2.111   | 2.64   |
| 340  | 9.70  | 34.73 | 12.0   | -2.4   | 28.33   | 26.80    | 1.194   | 2.63   | 1380 | 3.35 | 34.58 |        |        | 33.87   | 27.53    | 2.124   | 2.61   |
| 345  | 9.63  | 34.73 | 13.2   | -2.4   | 28.36   | 26.81    | 1.201   | 2.62   | 1400 | 3.29 | 34.58 |        |        | 33.98   | 27.54    | 2.137   | 2.59   |
| 350  | 9.52  | 34.73 | 10.8   | -3.6   | 28.40   | 26.83    | 1.207   | 2.64   | 1420 | 3.25 | 34.59 |        |        | 34.08   | 27.54    | 2.150   | 2.61   |
| 355  | 9.39  | 34.71 | 10.8   | -3.6   | 28.43   | 26.83    | 1.214   | 2.62   | 1440 | 3.15 | 34.59 |        |        | 34.18   | 27.56    | 2.163   | 2.63   |
| 360  | 9.35  | 34.71 | 9.6    | -3.6   | 28.46   | 26.84    | 1.220   | 2.57   | 1460 | 3.09 | 34.59 |        |        | 34.28   | 27.56    | 2.175   | 2.65   |
| 365  | 9.23  | 34.70 | 6.0    |        |         |          |         |        |      |      |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 21  
DATE : 13/ 1/89 HEURE : 14h10 LONGITUDE : 165.00 LATITUDE : -2.50



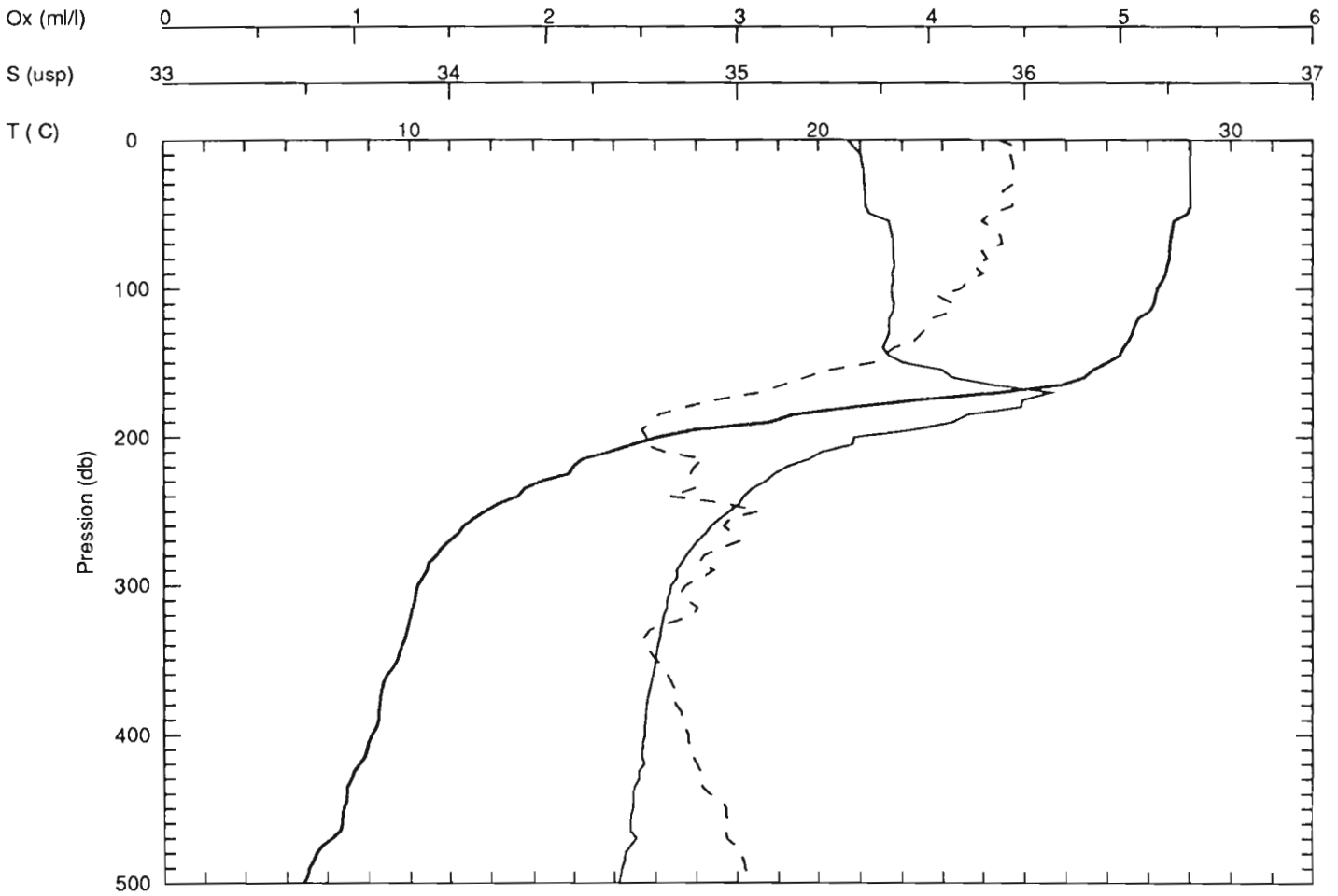
Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -



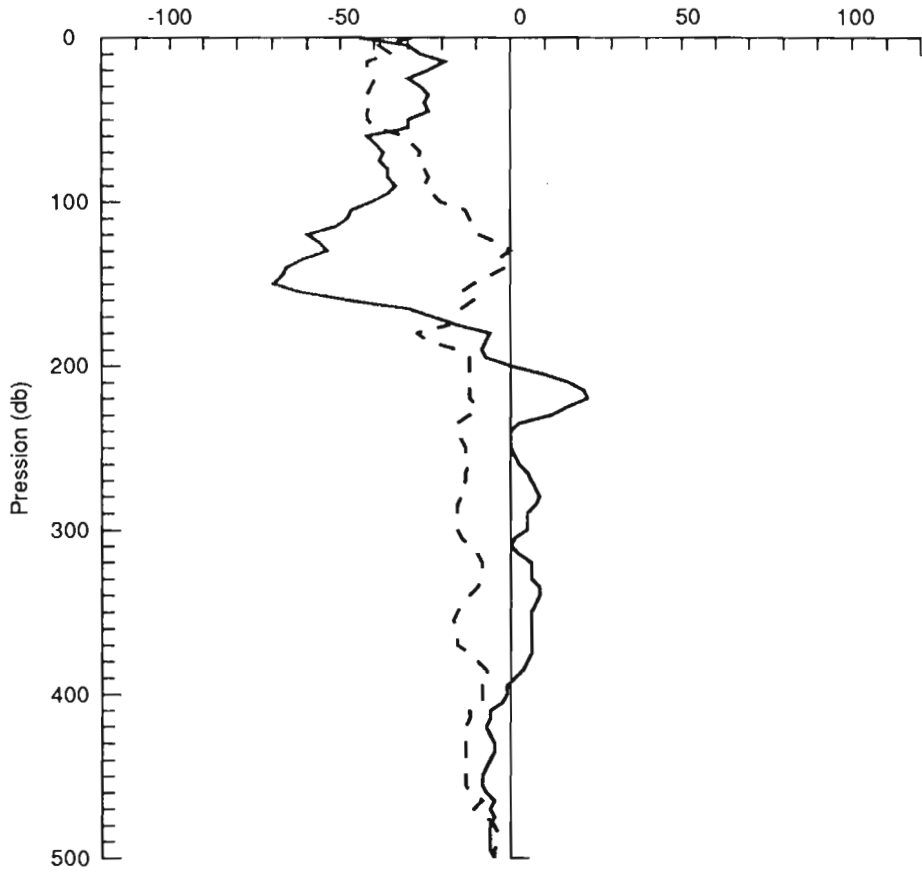
STATION : 22      CAMPAGNE : aurtropacl1  
 DATE : 13/ 1/89    HEURE : 22h00      LONGITUDE : 165.00      LATITUDE : -2.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 29.03 | 35.39 | -44.4  | -28.8  | 22.35   | 22.35    | 0.000   | 4.36   | 510  | 7.27 | 34.58 | -4.8   | -4.8   | 29.38   | 27.06    | 1.369   | 2.80   |
| 5    | 29.03 | 35.41 | -30.0  | -38.4  | 22.38   | 22.36    | 0.027   | 4.46   | 520  | 7.12 | 34.57 | -6.0   | -6.0   | 29.44   | 27.07    | 1.380   | 2.78   |
| 10   | 29.03 | 35.43 | -26.4  | -34.8  | 22.42   | 22.38    | 0.055   | 4.43   | 530  | 7.07 | 34.57 | -4.8   | -6.0   | 29.49   | 27.08    | 1.390   | 2.77   |
| 15   | 29.03 | 35.43 | -19.2  | -42.0  | 22.44   | 22.38    | 0.082   | 4.44   | 540  | 7.01 | 34.56 | -1.2   | -1.2   | 29.54   | 27.08    | 1.401   | 2.70   |
| 20   | 29.03 | 35.44 | -24.0  | -42.0  | 22.47   | 22.39    | 0.109   | 4.44   | 550  | 6.93 | 34.56 | 0.0    | -1.2   | 29.60   | 27.09    | 1.412   | 2.72   |
| 25   | 29.03 | 35.44 | -30.0  | -39.6  | 22.49   | 22.39    | 0.137   | 4.44   | 560  | 6.86 | 34.56 | 1.2    | 0.0    | 29.64   | 27.10    | 1.422   | 2.78   |
| 30   | 29.03 | 35.44 | -26.4  | -40.8  | 22.52   | 22.39    | 0.164   | 4.44   | 570  | 6.84 | 34.55 | 1.2    | 1.2    | 29.69   | 27.10    | 1.433   | 2.78   |
| 35   | 29.03 | 35.44 | -24.0  | -42.0  | 22.54   | 22.39    | 0.191   | 4.39   | 580  | 6.74 | 34.56 | 0.0    | 0.0    | 29.75   | 27.11    | 1.443   | 2.58   |
| 40   | 29.03 | 35.44 | -25.2  | -40.8  | 22.56   | 22.39    | 0.218   | 4.43   | 590  | 6.68 | 34.56 | -1.2   | -1.2   | 29.81   | 27.12    | 1.453   | 2.38   |
| 45   | 29.03 | 35.45 | -24.0  | -42.0  | 22.58   | 22.39    | 0.245   | 4.44   | 600  | 6.65 | 34.55 |        |        | 29.86   | 27.12    | 1.464   | 2.34   |
| 50   | 28.97 | 35.46 | -30.0  | -42.0  | 22.64   | 22.43    | 0.273   | 4.32   | 610  | 6.61 | 34.55 |        |        | 29.90   | 27.13    | 1.474   | 2.36   |
| 55   | 28.63 | 35.53 | -30.0  | -39.6  | 22.82   | 22.59    | 0.300   | 4.28   | 620  | 6.52 | 34.55 |        |        | 29.96   | 27.14    | 1.484   | 2.43   |
| 60   | 28.60 | 35.53 | -42.0  | -31.2  | 22.85   | 22.60    | 0.326   | 4.35   | 630  | 6.44 | 34.55 |        |        | 30.02   | 27.15    | 1.494   | 2.54   |
| 65   | 28.57 | 35.54 | -39.6  | -28.8  | 22.89   | 22.62    | 0.352   | 4.38   | 640  | 6.39 | 34.55 |        |        | 30.07   | 27.15    | 1.504   | 2.49   |
| 70   | 28.54 | 35.54 | -37.2  | -26.4  | 22.92   | 22.63    | 0.378   | 4.39   | 650  | 6.37 | 34.54 |        |        | 30.12   | 27.15    | 1.514   | 2.50   |
| 75   | 28.54 | 35.54 | -38.4  | -27.6  | 22.95   | 22.63    | 0.405   | 4.28   | 660  | 6.32 | 34.54 |        |        | 30.17   | 27.16    | 1.524   | 2.36   |
| 80   | 28.53 | 35.54 | -36.0  | -25.2  | 22.97   | 22.64    | 0.431   | 4.31   | 670  | 6.29 | 34.55 |        |        | 30.22   | 27.17    | 1.534   | 2.31   |
| 85   | 28.48 | 35.54 | -36.0  | -24.0  | 23.01   | 22.66    | 0.457   | 4.24   | 680  | 6.16 | 34.55 |        |        | 30.29   | 27.18    | 1.544   | 2.32   |
| 90   | 28.44 | 35.54 | -33.6  | -25.2  | 23.04   | 22.66    | 0.483   | 4.29   | 690  | 6.08 | 34.55 |        |        | 30.34   | 27.19    | 1.554   | 2.31   |
| 95   | 28.35 | 35.54 | -36.0  | -22.8  | 23.09   | 22.70    | 0.509   | 4.20   | 700  | 6.00 | 34.54 |        |        | 30.40   | 27.20    | 1.563   | 2.26   |
| 100  | 28.24 | 35.53 | -40.8  | -20.4  | 23.15   | 22.73    | 0.535   | 4.17   | 710  | 5.97 | 34.54 |        |        | 30.45   | 27.20    | 1.573   | 2.23   |
| 105  | 28.19 | 35.54 | -46.8  | -13.2  | 23.19   | 22.75    | 0.561   | 4.05   | 720  | 5.96 | 34.54 |        |        | 30.49   | 27.20    | 1.582   | 2.22   |
| 110  | 28.16 | 35.54 | -48.0  | -12.0  | 23.22   | 22.76    | 0.586   | 4.12   | 730  | 5.93 | 34.54 |        |        | 30.54   | 27.21    | 1.592   | 2.20   |
| 115  | 28.06 | 35.54 | -51.6  | -10.8  | 23.28   | 22.79    | 0.612   | 4.12   | 740  | 5.91 | 34.54 |        |        | 30.59   | 27.21    | 1.601   | 2.19   |
| 120  | 27.77 | 35.53 | -60.0  | -9.6   | 23.38   | 22.88    | 0.637   | 4.02   | 750  | 5.85 | 34.54 |        |        | 30.65   | 27.22    | 1.611   | 2.20   |
| 125  | 27.68 | 35.53 | -56.4  | -3.6   | 23.43   | 22.91    | 0.663   | 3.99   | 760  | 5.78 | 34.54 |        |        | 30.70   | 27.23    | 1.620   | 2.20   |
| 130  | 27.62 | 35.53 | -54.0  | 0.0    | 23.47   | 22.92    | 0.688   | 3.96   | 770  | 5.76 | 34.54 |        |        | 30.75   | 27.23    | 1.630   | 2.19   |
| 135  | 27.52 | 35.52 | -61.2  | -3.6   | 23.52   | 22.95    | 0.712   | 3.92   | 780  | 5.66 | 34.55 |        |        | 30.82   | 27.25    | 1.639   | 2.21   |
| 140  | 27.40 | 35.51 | -66.0  | -1.2   | 23.57   | 22.98    | 0.737   | 3.81   | 790  | 5.56 | 34.54 |        |        | 30.87   | 27.26    | 1.648   | 2.23   |
| 145  | 27.31 | 35.52 | -67.2  | -6.0   | 23.64   | 23.03    | 0.762   | 3.76   | 800  | 5.50 | 34.54 |        |        | 30.92   | 27.26    | 1.657   | 2.45   |
| 150  | 27.00 | 35.58 | -69.6  | -10.8  | 23.80   | 23.16    | 0.786   | 3.71   | 810  | 5.40 | 34.54 |        |        | 30.98   | 27.27    | 1.666   | 2.52   |
| 155  | 26.65 | 35.71 | -62.4  | -14.4  | 24.03   | 23.38    | 0.809   | 3.49   | 820  | 5.29 | 34.54 |        |        | 31.04   | 27.29    | 1.675   | 2.54   |
| 160  | 26.43 | 35.75 | -48.0  | -10.8  | 24.15   | 23.48    | 0.832   | 3.36   | 830  | 5.19 | 34.54 |        |        | 31.10   | 27.30    | 1.684   | 2.35   |
| 165  | 25.90 | 35.89 | -30.0  | -14.4  | 24.45   | 23.75    | 0.854   | 3.24   | 840  | 4.95 | 34.55 |        |        | 31.18   | 27.33    | 1.692   | 2.46   |
| 170  | 24.40 | 36.09 | -22.8  | -16.8  | 25.08   | 24.36    | 0.873   | 3.12   | 850  | 4.80 | 34.55 |        |        | 31.25   | 27.35    | 1.701   | 2.56   |
| 175  | 22.33 | 35.99 | -15.6  | -18.0  | 25.64   | 24.89    | 0.890   | 2.89   | 860  | 4.76 | 34.54 |        |        | 31.29   | 27.35    | 1.709   | 2.59   |
| 180  | 20.80 | 35.99 | -6.0   | -27.6  | 26.09   | 25.31    | 0.904   | 2.73   | 870  | 4.73 | 34.54 |        |        | 31.35   | 27.35    | 1.717   | 2.56   |
| 185  | 19.37 | 35.80 | -7.2   | -24.0  | 26.35   | 25.55    | 0.918   | 2.59   | 880  | 4.69 | 34.55 |        |        | 31.40   | 27.36    | 1.725   | 2.28   |
| 190  | 18.82 | 35.75 | -8.4   | -15.6  | 26.47   | 25.65    | 0.930   | 2.55   | 890  | 4.65 | 34.55 |        |        | 31.45   | 27.36    | 1.733   | 2.25   |
| 195  | 17.00 | 35.61 | -7.2   | -12.0  | 26.84   | 25.99    | 0.942   | 2.50   | 900  | 4.58 | 34.55 |        |        | 31.51   | 27.37    | 1.741   | 2.27   |
| 200  | 16.06 | 35.41 | 0.0    | -12.0  | 26.93   | 26.06    | 0.952   | 2.53   | 910  | 4.54 | 34.55 |        |        | 31.56   | 27.38    | 1.749   | 2.30   |
| 205  | 15.45 | 35.40 | 9.6    | -12.0  | 27.09   | 26.19    | 0.962   | 2.51   | 920  | 4.50 | 34.55 |        |        | 31.61   | 27.38    | 1.757   | 2.29   |
| 210  | 14.88 | 35.30 | 16.8   | -12.0  | 27.16   | 26.23    | 0.971   | 2.62   | 930  | 4.47 | 34.55 |        |        | 31.66   | 27.39    | 1.765   | 2.30   |
| 215  | 14.20 | 35.25 | 21.6   | -12.0  | 27.29   | 26.35    | 0.980   | 2.83   | 940  | 4.44 | 34.55 |        |        | 31.71   | 27.39    | 1.773   | 2.29   |
| 220  | 13.99 | 35.18 | 22.8   | -12.0  | 27.30   | 26.33    | 0.989   | 2.78   | 950  | 4.43 | 34.55 |        |        | 31.75   | 27.39    | 1.780   | 2.29   |
| 225  | 13.87 | 35.13 | 16.8   | -9.6   | 27.32   | 26.32    | 0.998   | 2.76   | 960  | 4.38 | 34.55 |        |        | 31.81   | 27.40    | 1.788   | 2.23   |
| 230  | 13.18 | 35.10 | 12.0   | -12.0  | 27.46   | 26.44    | 1.006   | 2.79   | 970  | 4.31 | 34.56 |        |        | 31.87   | 27.41    | 1.796   | 2.35   |
| 235  | 12.77 | 35.05 | 2.4    | -15.6  | 27.53   | 26.48    | 1.014   | 2.78   | 980  | 4.23 | 34.56 |        |        | 31.92   | 27.42    | 1.803   | 2.36   |
| 240  | 12.63 | 35.02 | 0.0    | -14.4  | 27.56   | 26.49    | 1.022   | 2.64   | 990  | 4.21 | 34.56 |        |        | 31.97   | 27.42    | 1.811   | 2.34   |
| 245  | 12.16 | 35.01 | 0.0    | -14.4  | 27.66   | 26.57    | 1.030   | 2.94   | 1000 | 4.16 | 34.56 |        |        | 32.02   | 27.43    | 1.818   | 2.35   |
| 250  | 11.85 | 34.97 | 0.0    | -13.2  | 27.72   | 26.60    | 1.038   | 3.11   | 1020 | 4.09 | 34.56 |        |        | 32.12   | 27.43    | 1.833   | 2.37   |
| 255  | 11.59 | 34.94 | 1.2    | -13.2  | 27.77   | 26.63    | 1.045   | 2.96   | 1040 | 4.06 | 34.56 |        |        | 32.22   | 27.43    | 1.848   | 2.43   |
| 260  | 11.34 | 34.91 | 2.4    | -12.0  | 27.81   | 26.65    | 1.052   | 2.93   | 1060 | 4.00 | 34.56 |        |        | 32.32   | 27.44    | 1.863   | 2.45   |
| 265  | 11.20 | 34.89 | 4.8    | -13.2  | 27.84   | 26.66    | 1.059   | 2.97   | 1080 | 3.92 | 34.57 |        |        | 32.43   | 27.46    | 1.877   | 2.41   |
| 270  | 10.98 | 34.86 | 6.0    | -13.2  | 27.88   | 26.68    | 1.066   | 3.01   | 1100 | 3.88 | 34.57 |        |        | 32.53   | 27.47    | 1.891   | 2.29   |
| 275  | 10.78 | 34.84 | 7.2    | -14.4  | 27.93   | 26.70    | 1.074   | 2.91   | 1120 | 3.78 | 34.57 |        |        | 32.63   | 27.48    | 1.906   | 2.36   |
| 280  | 10.66 | 34.82 | 8.4    | -14.4  | 27.96   | 26.70    | 1.081   | 2.83   | 1140 | 3.74 | 34.57 |        |        | 32.73   | 27.48    | 1.919   | 2.23   |
| 285  | 10.46 | 34.81 | 7.2    | -15.6  | 28.00   | 26.73    | 1.087   | 2.80   | 1160 | 3.72 | 34.57 |        |        | 32.82   | 27.48    | 1.933   | 2.33   |
| 290  | 10.42 | 34.79 | 4.8    | -15.6  | 28.02   | 26.72    | 1.094   | 2.88   | 1180 | 3.72 | 34.57 |        |        | 32.91   | 27.48    | 1.947   | 2.20   |
| 295  | 10.31 | 34.79 | 4.8    | -15.6  | 28.06   | 26.74    | 1.101   | 2.81   | 1200 | 3.70 | 34.57 |        |        | 33.01   | 27.49    | 1.961   | 2.19   |
| 300  | 10.19 | 34.77 | 4.8    | -15.6  | 28.09   | 26.75    | 1.108   | 2.73   | 1220 | 3.66 | 34.58 |        |        | 33.11   | 27.49    | 1.975   | 2.23   |
| 305  | 10.14 | 34.76 | 1.2    | -14.4  | 28.12   | 26.75    | 1.115   | 2.70   | 1240 | 3.65 | 34.58 |        |        | 33.20   | 27.49    | 1.989   | 2.26   |
| 310  | 10.12 | 34.76 | 0.0    | -12.0  | 28.14   | 26.75    | 1.122   | 2.74   | 1260 | 3.62 | 34.58 |        |        | 33.29   | 27.50    | 2.003   | 2.25   |
| 315  | 10.06 | 34.76 | 2.4    | -9.6   | 28.17   | 26.76    | 1.128   | 2.79   | 1280 | 3.54 | 34.58 |        |        | 33.40   | 27.51    | 2.016   | 2.21   |
| 320  | 10.02 | 34.74 | 6.0    | -8.4   | 28.19   | 26.76    | 1.135   | 2.77   | 1300 | 3.50 | 34.58 |        |        | 33.49   | 27.51    | 2.030   | 2.22   |
| 325  | 9.98  | 34.74 | 6.0    | -8.4   | 28.22   | 26.76    | 1.142   | 2.65   | 1320 | 3.46 | 34.58 |        |        | 33.59   | 27.52    | 2.043   | 2.22   |
| 330  | 9.93  | 34.73 | 6.0    | -8.4   | 28.25   | 26.76    | 1.149   | 2.54   | 1340 | 3.44 | 34.58 |        |        | 33.68   | 27.52    | 2.056   | 2.29   |
| 335  | 9.89  | 34.73 | 8.4    | -9.6   | 28.27   | 26.77    | 1.155   | 2.52   | 1360 | 3.42 | 34.58 |        |        | 33.78   | 27.52    | 2.070   | 2.30   |
| 340  | 9.81  | 34.72 | 8.4    | -12.0  | 28.30   | 26.78    | 1.162   | 2.51   | 1380 | 3.40 | 34.58 |        |        | 33.87   | 27.52    | 2.083   | 2.32   |
| 345  | 9.74  | 34.72 | 7.2    | -14.4  | 28.33   | 26.78    | 1.169   | 2.55   | 1400 | 3.38 | 34.58 |        |        | 33.97   | 27.53    | 2.096   | 2.37   |
| 350  | 9.69  | 34.72 | 6.0    | -15.6  | 28.36   | 26.79    | 1.175   | 2.58   | 1420 | 3.26 | 34.59 |        |        | 34.08   | 27.54    | 2.109   | 2.48   |
| 355  | 9.59  | 34.71 | 6.0    | -16.8  | 28.40   | 26.80    | 1.182   | 2.62   | 1440 | 3.18 | 34.59 |        |        | 34.18   | 27.55    | 2.122   | 2.54   |
| 360  | 9.44  | 34.71 | 6.0    | -15.6  | 28.44   | 26.82    | 1.189   | 2.63   | 1460 | 3.08 | 34.60 |        |        | 34.29   | 27.56    | 2.135   | 2.56   |

SURTROPAC11 STATION No : 22  
DATE : 13/ 1/89 HEURE : 22h00 LONGITUDE : 165.00 LATITUDE : -2.00



Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -

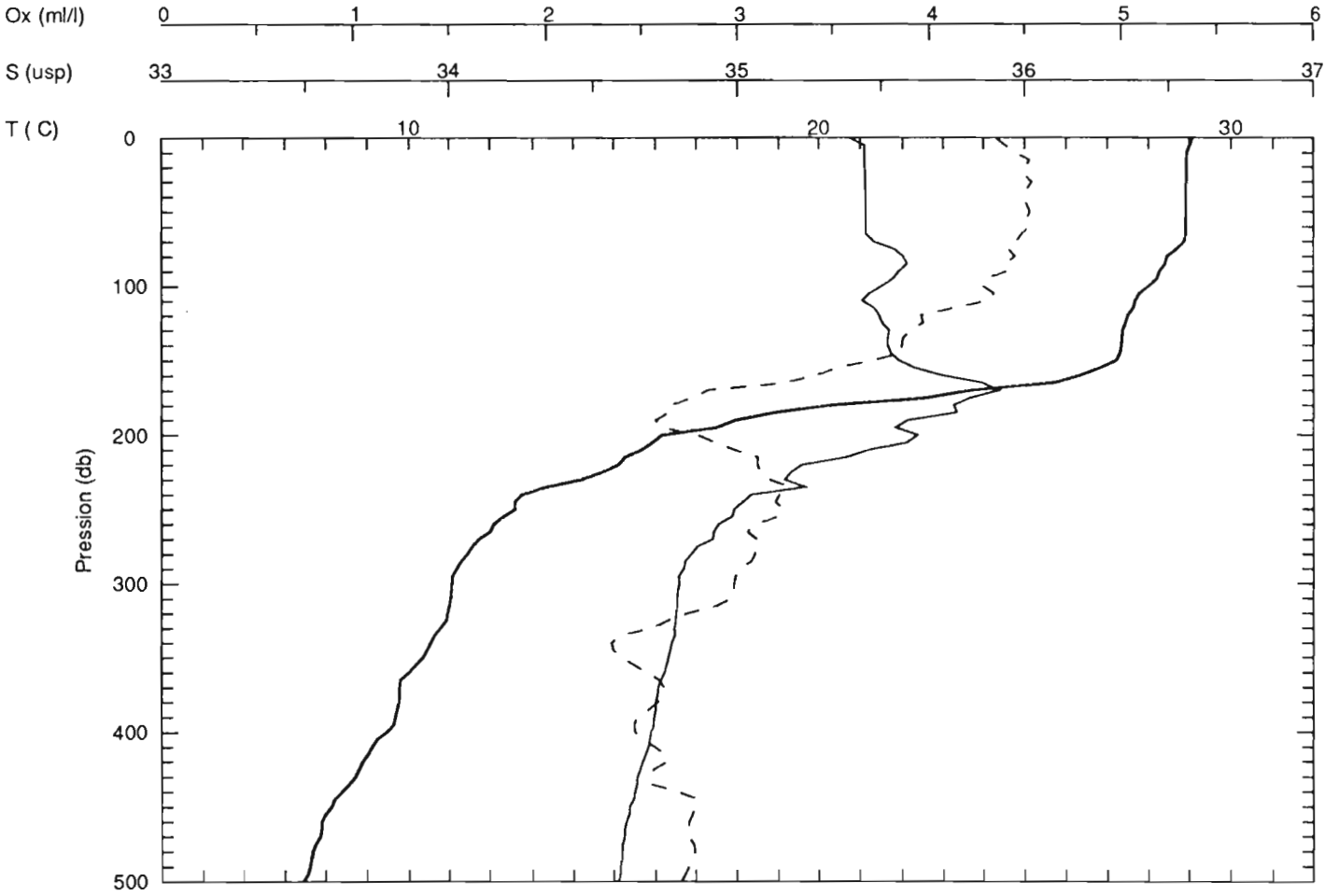


STATION : 23      CAMPAGNE : #tropicall  
 DATE : 14/ 1/89    HEURE : 2h35    LONGITUDE : 165.00    LATITUDE : -1.50

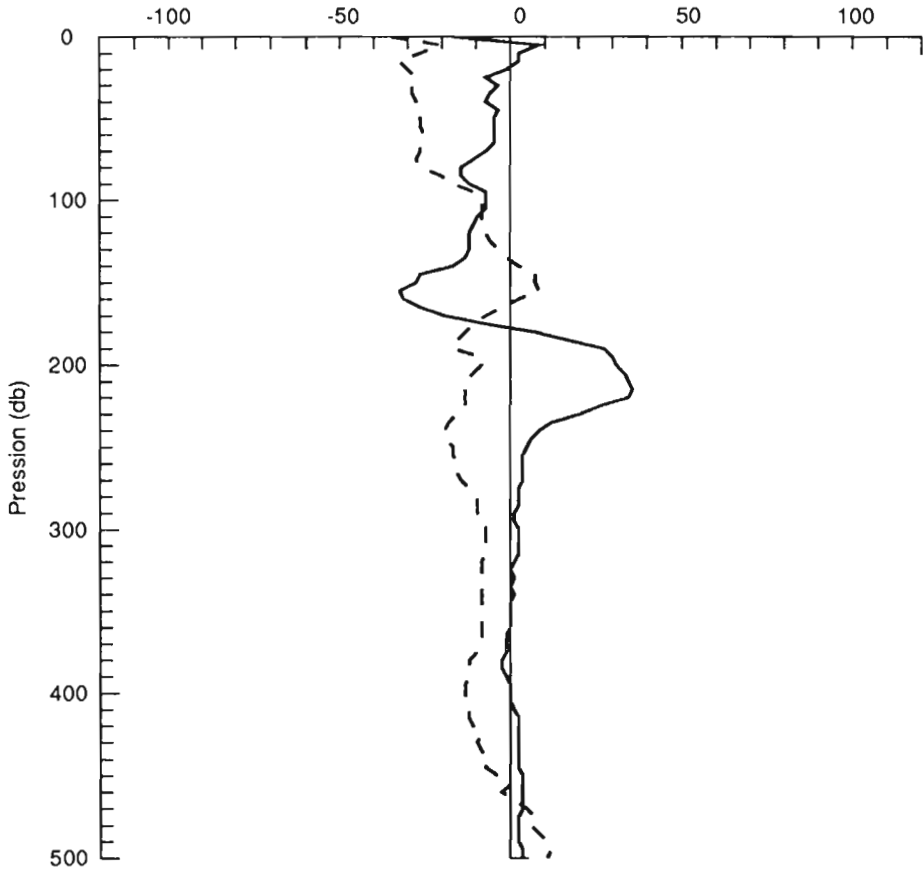
| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 29.08 | 35.39 | -16.8  | -34.8  | 22.33   | 22.33    | 0.000   | 4.35   | 510  | 7.36  | 34.58 | 3.6    | 8.4    | 29.36   | 27.04    | 1.386   | 2.71   |
| 5    | 29.02 | 35.44 | 8.4    | -20.4  | 22.41   | 22.39    | 0.027   | 4.40   | 520  | 7.18  | 34.57 | 3.6    | 3.6    | 29.43   | 27.06    | 1.397   | 2.73   |
| 10   | 28.95 | 35.44 | 2.4    | -26.4  | 22.46   | 22.42    | 0.055   | 4.45   | 530  | 7.02  | 34.57 | 3.6    | 2.4    | 29.49   | 27.08    | 1.408   | 2.80   |
| 15   | 28.94 | 35.44 | 2.4    | -32.4  | 22.48   | 22.42    | 0.082   | 4.53   | 540  | 6.94  | 34.56 | 1.2    | -2.4   | 29.55   | 27.09    | 1.418   | 2.75   |
| 20   | 28.93 | 35.44 | -1.2   | -30.0  | 22.51   | 22.42    | 0.109   | 4.51   | 550  | 6.88  | 34.56 | 1.2    | 1.2    | 29.60   | 27.10    | 1.429   | 2.59   |
| 25   | 28.93 | 35.44 | -7.2   | -27.6  | 22.53   | 22.43    | 0.136   | 4.50   | 560  | 6.86  | 34.56 | 0.0    | 0.0    | 29.65   | 27.10    | 1.439   | 2.51   |
| 30   | 28.93 | 35.44 | -3.6   | -28.8  | 22.55   | 22.43    | 0.163   | 4.54   | 570  | 6.81  | 34.56 | 0.0    | -1.2   | 29.70   | 27.10    | 1.450   | 2.41   |
| 35   | 28.93 | 35.45 | -6.0   | -28.8  | 22.58   | 22.43    | 0.190   | 4.51   | 580  | 6.77  | 34.56 | 0.0    | 0.0    | 29.75   | 27.11    | 1.460   | 2.27   |
| 40   | 28.93 | 35.45 | -7.2   | -27.6  | 22.60   | 22.43    | 0.217   | 4.50   | 590  | 6.69  | 34.56 | 0.0    | 1.2    | 29.81   | 27.12    | 1.470   | 2.22   |
| 45   | 28.92 | 35.45 | -3.6   | -26.4  | 22.62   | 22.43    | 0.244   | 4.51   | 600  | 6.65  | 34.55 | 0.0    | -1.2   | 29.86   | 27.12    | 1.481   | 2.24   |
| 50   | 28.92 | 35.45 | -4.8   | -26.4  | 22.64   | 22.43    | 0.271   | 4.53   | 610  | 6.63  | 34.55 | 0.0    | 0.0    | 29.90   | 27.12    | 1.491   | 2.26   |
| 55   | 28.92 | 35.45 | -4.8   | -26.4  | 22.66   | 22.43    | 0.298   | 4.51   | 620  | 6.61  | 34.55 | 0.0    | 0.0    | 29.95   | 27.13    | 1.501   | 2.24   |
| 60   | 28.92 | 35.45 | -4.8   | -25.2  | 22.69   | 22.43    | 0.325   | 4.52   | 630  | 6.60  | 34.55 | 0.0    | 0.0    | 30.00   | 27.13    | 1.511   | 2.23   |
| 65   | 28.92 | 35.45 | -4.8   | -26.4  | 22.71   | 22.44    | 0.353   | 4.48   | 640  | 6.53  | 34.55 | 0.0    | 0.0    | 30.05   | 27.14    | 1.522   | 2.23   |
| 70   | 28.88 | 35.47 | -7.2   | -26.4  | 22.76   | 22.47    | 0.380   | 4.46   | 650  | 6.50  | 34.55 | 0.0    | 0.0    | 30.10   | 27.14    | 1.532   | 2.21   |
| 75   | 28.70 | 35.54 | -10.8  | -27.6  | 22.89   | 22.58    | 0.406   | 4.41   | 660  | 6.49  | 34.55 | 0.0    | 0.0    | 30.15   | 27.14    | 1.542   | 2.20   |
| 80   | 28.45 | 35.57 | -14.4  | -26.4  | 23.02   | 22.69    | 0.433   | 4.45   | 670  | 6.49  | 34.55 | 0.0    | 0.0    | 30.19   | 27.14    | 1.552   | 2.22   |
| 85   | 28.42 | 35.59 | -14.4  | -20.4  | 23.06   | 22.71    | 0.458   | 4.40   | 680  | 6.41  | 34.55 | 0.0    | 0.0    | 30.25   | 27.15    | 1.562   | 2.20   |
| 90   | 28.27 | 35.56 | -12.0  | -16.8  | 23.11   | 22.73    | 0.484   | 4.41   | 690  | 6.33  | 34.55 | 0.0    | 0.0    | 30.31   | 27.16    | 1.572   | 2.19   |
| 95   | 28.21 | 35.54 | -7.2   | -10.8  | 23.14   | 22.74    | 0.510   | 4.30   | 700  | 6.31  | 34.55 | 0.0    | 0.0    | 30.36   | 27.16    | 1.582   | 2.20   |
| 100  | 28.01 | 35.50 | -7.2   | -8.4   | 23.20   | 22.78    | 0.536   | 4.28   | 710  | 6.28  | 34.54 | 0.0    | 0.0    | 30.40   | 27.16    | 1.592   | 2.28   |
| 105  | 27.78 | 35.46 | -7.2   | -8.4   | 23.26   | 22.82    | 0.561   | 4.34   | 720  | 6.20  | 34.54 | 0.0    | 0.0    | 30.46   | 27.17    | 1.602   | 2.41   |
| 110  | 27.67 | 35.44 | -9.6   | -8.4   | 23.30   | 22.84    | 0.587   | 4.31   | 730  | 6.12  | 34.54 | 0.0    | 0.0    | 30.51   | 27.18    | 1.612   | 2.51   |
| 115  | 27.63 | 35.47 | -10.8  | -8.4   | 23.37   | 22.88    | 0.612   | 4.13   | 740  | 6.11  | 34.54 | 0.0    | 0.0    | 30.56   | 27.18    | 1.622   | 2.34   |
| 120  | 27.49 | 35.49 | -12.0  | -7.2   | 23.45   | 22.94    | 0.637   | 3.95   | 750  | 5.99  | 34.54 | 0.0    | 0.0    | 30.62   | 27.20    | 1.632   | 2.47   |
| 125  | 27.43 | 35.50 | -12.0  | -6.0   | 23.49   | 22.97    | 0.662   | 3.96   | 760  | 5.90  | 34.54 | 0.0    | 0.0    | 30.68   | 27.21    | 1.641   | 2.52   |
| 130  | 27.37 | 35.53 | -12.0  | -3.6   | 23.55   | 23.01    | 0.686   | 3.90   | 770  | 5.85  | 34.54 | 0.0    | 0.0    | 30.74   | 27.22    | 1.651   | 2.30   |
| 135  | 27.34 | 35.52 | -13.2  | -2.4   | 23.58   | 23.01    | 0.711   | 3.86   | 780  | 5.81  | 34.54 | 0.0    | 0.0    | 30.79   | 27.22    | 1.660   | 2.20   |
| 140  | 27.34 | 35.52 | -16.8  | 2.4    | 23.60   | 23.01    | 0.735   | 3.85   | 790  | 5.71  | 34.54 | 0.0    | 0.0    | 30.85   | 27.24    | 1.670   | 2.25   |
| 145  | 27.30 | 35.53 | -26.4  | 7.2    | 23.65   | 23.04    | 0.760   | 3.85   | 800  | 5.63  | 34.54 | 0.0    | 0.0    | 30.90   | 27.24    | 1.679   | 2.37   |
| 150  | 27.21 | 35.56 | -27.6  | 7.2    | 23.72   | 23.08    | 0.784   | 3.71   | 810  | 5.53  | 34.54 | 0.0    | 0.0    | 30.96   | 27.26    | 1.688   | 2.46   |
| 155  | 26.82 | 35.61 | -32.4  | 8.4    | 23.90   | 23.25    | 0.808   | 3.52   | 820  | 5.42  | 34.54 | 0.0    | 0.0    | 31.02   | 27.27    | 1.697   | 2.52   |
| 160  | 26.33 | 35.71 | -31.2  | 2.4    | 24.16   | 23.48    | 0.831   | 3.41   | 830  | 5.31  | 34.54 | 0.0    | 0.0    | 31.08   | 27.28    | 1.706   | 2.54   |
| 165  | 25.73 | 35.85 | -26.4  | -2.4   | 24.47   | 23.77    | 0.853   | 3.25   | 840  | 5.30  | 34.53 | 0.0    | 0.0    | 31.12   | 27.28    | 1.715   | 2.52   |
| 170  | 23.70 | 35.91 | -19.2  | -7.2   | 25.16   | 24.43    | 0.872   | 2.84   | 850  | 5.24  | 34.53 | 0.0    | 0.0    | 31.18   | 27.29    | 1.724   | 2.52   |
| 175  | 22.57 | 35.81 | -7.2   | -10.8  | 25.43   | 24.68    | 0.890   | 2.77   | 860  | 5.18  | 34.54 | 0.0    | 0.0    | 31.24   | 27.30    | 1.733   | 2.44   |
| 180  | 20.31 | 35.75 | 7.2    | -13.2  | 26.04   | 25.26    | 0.905   | 2.64   | 870  | 5.07  | 34.54 | 0.0    | 0.0    | 31.30   | 27.31    | 1.741   | 2.43   |
| 185  | 18.90 | 35.76 | 16.8   | -15.6  | 26.44   | 25.64    | 0.917   | 2.64   | 880  | 5.04  | 34.54 | 0.0    | 0.0    | 31.34   | 27.31    | 1.750   | 2.40   |
| 190  | 17.94 | 35.59 | 27.6   | -16.8  | 26.57   | 25.75    | 0.929   | 2.57   | 890  | 4.99  | 34.54 | 0.0    | 0.0    | 31.40   | 27.32    | 1.758   | 2.37   |
| 195  | 17.48 | 35.55 | 30.0   | -8.4   | 26.67   | 25.83    | 0.941   | 2.61   | 900  | 4.95  | 34.54 | 0.0    | 0.0    | 31.45   | 27.32    | 1.767   | 2.41   |
| 200  | 16.16 | 35.62 | 31.2   | -8.4   | 27.07   | 26.20    | 0.951   | 2.79   | 910  | 4.93  | 34.54 | 0.0    | 0.0    | 31.50   | 27.33    | 1.776   | 2.39   |
| 205  | 15.92 | 35.58 | 33.6   | -10.8  | 27.12   | 26.22    | 0.960   | 2.88   | 920  | 4.80  | 34.54 | 0.0    | 0.0    | 31.56   | 27.34    | 1.784   | 2.48   |
| 210  | 15.67 | 35.46 | 34.8   | -13.2  | 27.11   | 26.19    | 0.970   | 2.98   | 930  | 4.77  | 34.54 | 0.0    | 0.0    | 31.61   | 27.35    | 1.792   | 2.44   |
| 215  | 15.27 | 35.38 | 36.0   | -13.2  | 27.16   | 26.22    | 0.979   | 3.11   | 940  | 4.63  | 34.55 | 0.0    | 0.0    | 31.68   | 27.37    | 1.800   | 2.30   |
| 220  | 15.11 | 35.22 | 34.8   | -13.2  | 27.10   | 26.13    | 0.988   | 3.10   | 950  | 4.57  | 34.55 | 0.0    | 0.0    | 31.74   | 27.38    | 1.808   | 2.33   |
| 225  | 14.69 | 35.19 | 26.4   | -13.2  | 27.18   | 26.19    | 0.998   | 3.12   | 960  | 4.47  | 34.56 | 0.0    | 0.0    | 31.80   | 27.39    | 1.816   | 2.31   |
| 230  | 14.18 | 35.16 | 20.4   | -15.6  | 27.30   | 26.28    | 1.007   | 3.17   | 970  | 4.43  | 34.55 | 0.0    | 0.0    | 31.85   | 27.39    | 1.824   | 2.37   |
| 235  | 13.30 | 35.24 | 12.0   | -18.0  | 27.56   | 26.52    | 1.016   | 3.26   | 980  | 4.40  | 34.55 | 0.0    | 0.0    | 31.90   | 27.39    | 1.832   | 2.38   |
| 240  | 12.74 | 35.04 | 8.4    | -19.2  | 27.55   | 26.49    | 1.024   | 3.22   | 990  | 4.38  | 34.55 | 0.0    | 0.0    | 31.94   | 27.40    | 1.840   | 2.36   |
| 245  | 12.58 | 35.02 | 6.0    | -19.2  | 27.59   | 26.50    | 1.032   | 3.20   | 1000 | 4.35  | 34.55 | 0.0    | 0.0    | 31.99   | 27.40    | 1.847   | 2.34   |
| 250  | 12.59 | 34.99 | 4.8    | -16.8  | 27.58   | 26.47    | 1.040   | 3.23   | 1020 | 4.28  | 34.55 | 0.0    | 0.0    | 32.09   | 27.41    | 1.863   | 2.36   |
| 255  | 12.31 | 34.98 | 3.6    | -16.8  | 27.65   | 26.52    | 1.048   | 3.21   | 1040 | 4.20  | 34.56 | 0.0    | 0.0    | 32.20   | 27.42    | 1.878   | 2.38   |
| 260  | 12.09 | 34.93 | 3.6    | -15.6  | 27.68   | 26.53    | 1.056   | 3.09   | 1060 | 4.11  | 34.56 | 0.0    | 0.0    | 32.30   | 27.43    | 1.893   | 2.43   |
| 265  | 12.01 | 34.92 | 3.6    | -15.6  | 27.71   | 26.53    | 1.064   | 3.05   | 1080 | 3.93  | 34.57 | 0.0    | 0.0    | 32.43   | 27.46    | 1.908   | 2.41   |
| 270  | 11.74 | 34.91 | 3.6    | -14.4  | 27.78   | 26.58    | 1.071   | 3.10   | 1100 | 3.84  | 34.57 | 0.0    | 0.0    | 32.53   | 27.47    | 1.922   | 2.35   |
| 275  | 11.58 | 34.86 | 2.4    | -12.0  | 27.79   | 26.57    | 1.079   | 3.08   | 1120 | 3.82  | 34.57 | 0.0    | 0.0    | 32.62   | 27.47    | 1.936   | 2.29   |
| 280  | 11.46 | 34.84 | 2.4    | -9.6   | 27.82   | 26.57    | 1.087   | 3.09   | 1140 | 3.80  | 34.57 | 0.0    | 0.0    | 32.72   | 27.47    | 1.950   | 2.27   |
| 285  | 11.30 | 34.82 | 2.4    | -9.6   | 27.86   | 26.59    | 1.094   | 3.07   | 1160 | 3.79  | 34.57 | 0.0    | 0.0    | 32.81   | 27.47    | 1.964   | 2.21   |
| 290  | 11.18 | 34.81 | 1.2    | -9.6   | 27.90   | 26.60    | 1.102   | 3.01   | 1180 | 3.79  | 34.57 | 0.0    | 0.0    | 32.90   | 27.47    | 1.978   | 2.23   |
| 295  | 11.08 | 34.79 | 1.2    | -7.2   | 27.93   | 26.61    | 1.109   | 2.99   | 1200 | 3.77  | 34.57 | 0.0    | 0.0    | 32.99   | 27.48    | 1.992   | 2.24   |
| 300  | 11.07 | 34.80 | 2.4    | -7.2   | 27.95   | 26.61    | 1.117   | 2.98   | 1220 | 3.70  | 34.57 | 0.0    | 0.0    | 33.10   | 27.49    | 2.006   | 2.34   |
| 305  | 11.05 | 34.79 | 2.4    | -7.2   | 27.97   | 26.61    | 1.124   | 2.98   | 1240 | 3.67  | 34.58 | 0.0    | 0.0    | 33.19   | 27.49    | 2.020   | 2.34   |
| 310  | 11.04 | 34.79 | 2.4    | -7.2   | 28.00   | 26.61    | 1.132   | 2.97   | 1260 | 3.65  | 34.58 | 0.0    | 0.0    | 33.29   | 27.49    | 2.034   | 2.27   |
| 315  | 11.01 | 34.79 | 2.4    | -7.2   | 28.03   | 26.62    | 1.139   | 2.89   | 1280 | 3.63  | 34.58 | 0.0    | 0.0    | 33.38   | 27.50    | 2.048   | 2.20   |
| 320  | 10.96 | 34.79 | 1.2    | -8.4   | 28.05   | 26.62    | 1.147   | 2.74   | 1300 | 3.61  | 34.58 | 0.0    | 0.0    | 33.48   | 27.50    | 2.062   | 2.20   |
| 325  | 10.93 | 34.78 | 0.0    | -8.4   | 28.08   | 26.63    | 1.154   | 2.64   | 1320 | 3.54  | 34.58 | 0.0    | 0.0    | 33.58   | 27.51    | 2.075   | 2.24   |
| 330  | 10.78 | 34.78 | 1.2    | -8.4   | 28.13   | 26.65    | 1.161   | 2.55   | 1340 | 3.50  | 34.58 | 0.0    | 0.0    | 33.67   | 27.51    | 2.089   | 2.36   |
| 335  | 10.63 | 34.78 | 0.0    | -8.4   | 28.18   | 26.68    | 1.169   | 2.40   | 1360 | 3.47  | 34.58 | 0.0    | 0.0    | 33.77   | 27.52    | 2.102   | 2.37   |
| 340  | 10.54 | 34.77 | 1.2    | -8.4   | 28.21   | 26.69    | 1.176   | 2.34   | 1380 | 3.45  | 34.58 | 0.0    | 0.0    | 33.86   | 27.52    | 2.116   | 2.30   |
| 345  | 10.44 | 34.77 | 0.0    | -8.4   | 28.25   | 26.70    | 1.183   | 2.35   | 1400 | 3.42  | 34.58 | 0.0    | 0.0    | 33.96   | 27.52    | 2.129   | 2.36   |
| 350  | 10.35 | 34.   |        |        |         |          |         |        |      |       |       |        |        |         |          |         |        |



SURTROPAC11 STATION No : 23  
DATE : 14/ 1/89 HEURE : 2h35 LONGITUDE : 165.00 LATITUDE : -1.50



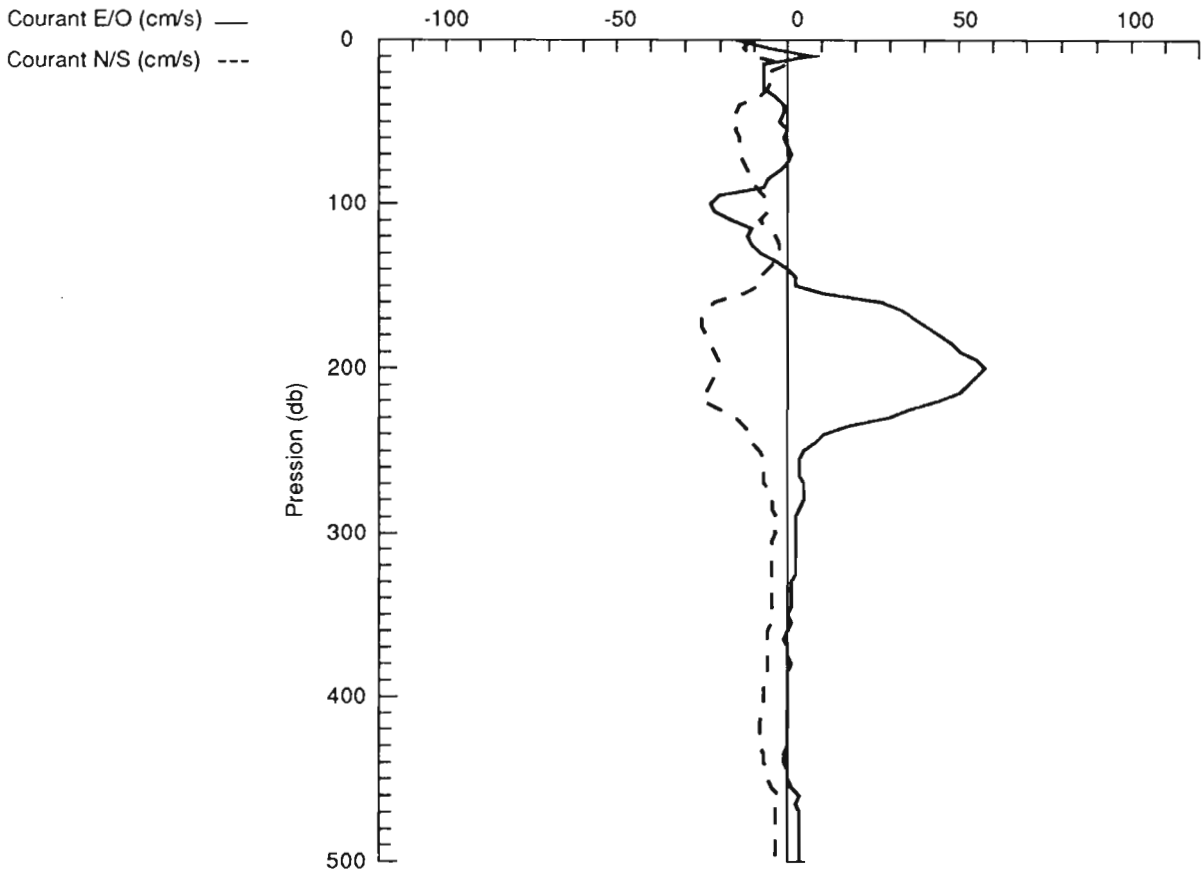
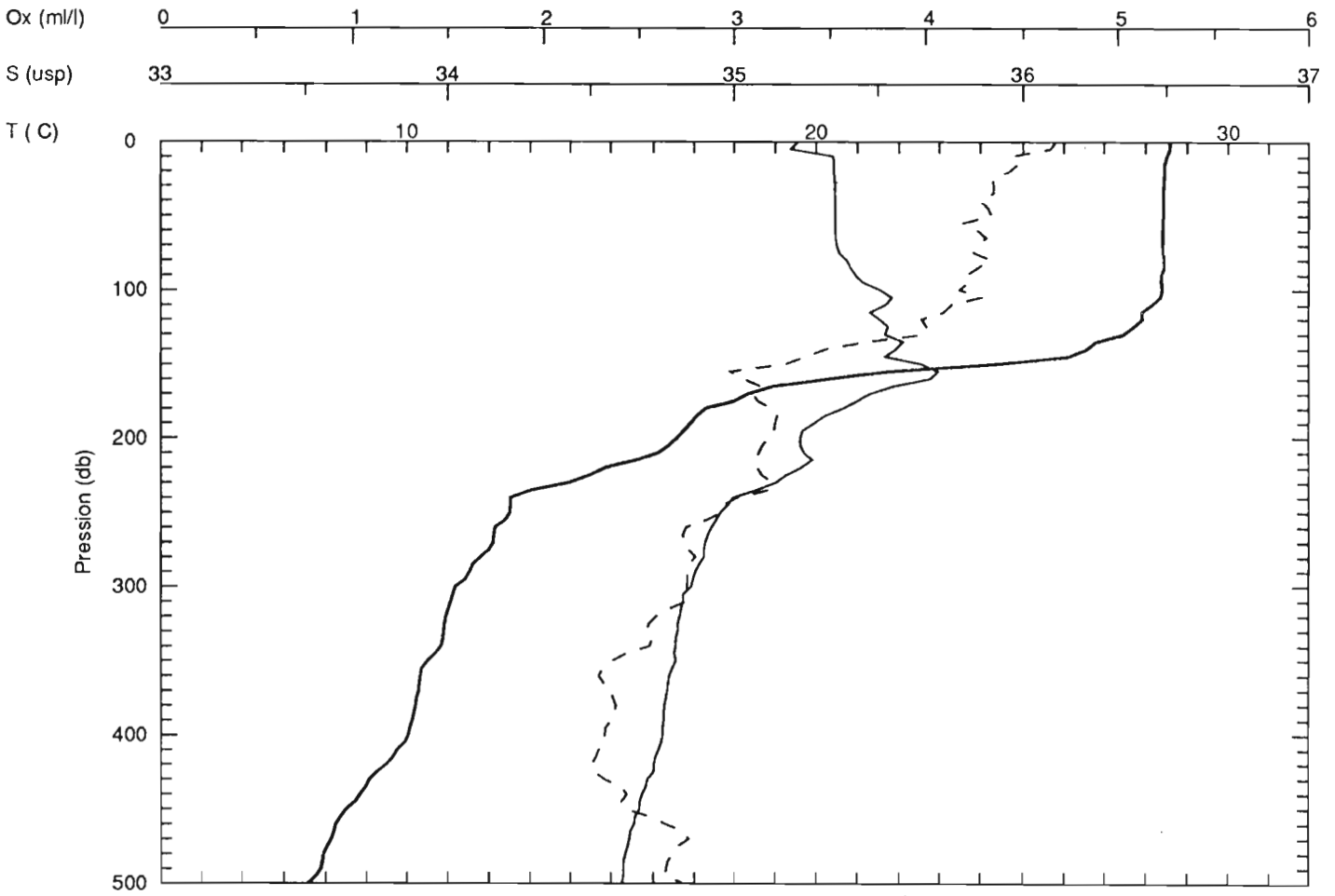
Courant E/O (cm/s) —  
Courant N/S (cm/s) ---



STATION : 24      CAMPAGNE : aurtropacl1  
 DATE : 14/ 1/89    HEURE : 10h38    LONGITUDE : 165.00    LATITUDE : -1.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.58 | 35.22 | -15.6  | -10.8  | 22.37   | 22.37    | 0.000   | 4.67   | 510  | 7.35 | 34.60 | 2.4    | -2.4   | 29.38   | 27.06    | 1.354   | 2.76   |
| 5    | 28.59 | 35.20 | -6.0   | -13.2  | 22.37   | 22.35    | 0.027   | 4.64   | 520  | 7.25 | 34.59 | 0.0    | 4.8    | 29.43   | 27.07    | 1.365   | 2.76   |
| 10   | 28.51 | 35.35 | 7.2    | -10.8  | 22.53   | 22.49    | 0.054   | 4.44   | 530  | 7.25 | 34.58 | 0.0    | 6.0    | 29.47   | 27.06    | 1.376   | 2.75   |
| 15   | 28.46 | 35.35 | -7.2   | 0.0    | 22.57   | 22.51    | 0.081   | 4.47   | 540  | 7.20 | 34.58 | 0.0    | 4.8    | 29.52   | 27.07    | 1.386   | 2.75   |
| 20   | 28.45 | 35.35 | -7.2   | -6.0   | 22.59   | 22.51    | 0.108   | 4.43   | 550  | 7.11 | 34.57 | 0.0    | 1.2    | 29.58   | 27.07    | 1.397   | 2.72   |
| 25   | 28.45 | 35.35 | -7.2   | -4.8   | 22.62   | 22.51    | 0.134   | 4.35   | 560  | 7.05 | 34.57 | 0.0    | 1.2    | 29.63   | 27.08    | 1.408   | 2.51   |
| 30   | 28.44 | 35.35 | -7.2   | -6.0   | 22.64   | 22.52    | 0.161   | 4.35   | 570  | 7.00 | 34.57 | 0.0    | 0.0    | 29.68   | 27.09    | 1.418   | 2.31   |
| 35   | 28.43 | 35.35 | -3.6   | -8.4   | 22.67   | 22.52    | 0.188   | 4.35   | 580  | 6.93 | 34.56 | 0.0    | 0.0    | 29.73   | 27.09    | 1.429   | 2.27   |
| 40   | 28.43 | 35.35 | -1.2   | -14.4  | 22.69   | 22.52    | 0.214   | 4.28   | 590  | 6.91 | 34.56 | 0.0    | -1.2   | 29.78   | 27.09    | 1.440   | 2.28   |
| 45   | 28.43 | 35.35 | -1.2   | -15.6  | 22.71   | 22.52    | 0.241   | 4.32   | 600  | 6.88 | 34.56 | 0.0    | 0.0    | 29.83   | 27.10    | 1.450   | 2.28   |
| 50   | 28.43 | 35.35 | -2.4   | -14.4  | 22.73   | 22.52    | 0.268   | 4.34   | 610  | 6.75 | 34.56 | 0.0    | 0.0    | 29.89   | 27.12    | 1.461   | 2.24   |
| 55   | 28.42 | 35.35 | 0.0    | -15.6  | 22.76   | 22.53    | 0.294   | 4.20   | 620  | 6.69 | 34.56 | 0.0    | 0.0    | 29.95   | 27.12    | 1.471   | 2.24   |
| 60   | 28.41 | 35.35 | -1.2   | -14.4  | 22.78   | 22.53    | 0.321   | 4.27   | 630  | 6.65 | 34.56 | 0.0    | 0.0    | 29.99   | 27.13    | 1.481   | 2.36   |
| 65   | 28.41 | 35.35 | 0.0    | -14.4  | 22.81   | 22.53    | 0.348   | 4.32   | 640  | 6.63 | 34.55 | 0.0    | 0.0    | 30.04   | 27.12    | 1.491   | 2.36   |
| 70   | 28.41 | 35.36 | 1.2    | -14.4  | 22.83   | 22.53    | 0.374   | 4.27   | 650  | 6.63 | 34.55 | 0.0    | 0.0    | 30.08   | 27.12    | 1.502   | 2.25   |
| 75   | 28.43 | 35.37 | 0.0    | -13.2  | 22.85   | 22.54    | 0.401   | 4.25   | 660  | 6.56 | 34.56 | 0.0    | 0.0    | 30.14   | 27.14    | 1.512   | 2.23   |
| 80   | 28.45 | 35.39 | -2.4   | -12.0  | 22.88   | 22.55    | 0.428   | 4.34   | 670  | 6.49 | 34.56 | 0.0    | 0.0    | 30.20   | 27.15    | 1.522   | 2.20   |
| 85   | 28.45 | 35.40 | -6.0   | -9.6   | 22.92   | 22.56    | 0.454   | 4.28   | 680  | 6.48 | 34.55 | 0.0    | 0.0    | 30.24   | 27.14    | 1.532   | 2.16   |
| 90   | 28.39 | 35.42 | -7.2   | -9.6   | 22.97   | 22.60    | 0.481   | 4.22   | 690  | 6.45 | 34.55 | 0.0    | 0.0    | 30.29   | 27.15    | 1.543   | 2.15   |
| 95   | 28.38 | 35.45 | -20.4  | -7.2   | 23.02   | 22.62    | 0.507   | 4.23   | 700  | 6.37 | 34.55 | 0.0    | 0.0    | 30.35   | 27.16    | 1.553   | 2.13   |
| 100  | 28.40 | 35.51 | -22.8  | -6.0   | 23.07   | 22.65    | 0.534   | 4.18   | 710  | 6.31 | 34.55 | 0.0    | 0.0    | 30.41   | 27.17    | 1.563   | 2.09   |
| 105  | 28.36 | 35.55 | -21.6  | -6.0   | 23.14   | 22.70    | 0.560   | 4.29   | 720  | 6.28 | 34.55 | 0.0    | 0.0    | 30.45   | 27.17    | 1.572   | 2.10   |
| 110  | 28.16 | 35.53 | -16.8  | -8.4   | 23.21   | 22.75    | 0.586   | 4.14   | 730  | 6.21 | 34.55 | 0.0    | 0.0    | 30.51   | 27.18    | 1.582   | 2.13   |
| 115  | 27.91 | 35.47 | -10.8  | -6.0   | 23.27   | 22.79    | 0.611   | 4.09   | 740  | 6.15 | 34.55 | 0.0    | 0.0    | 30.56   | 27.18    | 1.592   | 2.18   |
| 120  | 27.92 | 35.50 | -12.0  | -3.6   | 23.31   | 22.81    | 0.637   | 3.98   | 750  | 6.12 | 34.54 | 0.0    | 0.0    | 30.61   | 27.18    | 1.602   | 2.26   |
| 125  | 27.71 | 35.53 | -10.8  | -2.4   | 23.43   | 22.90    | 0.662   | 4.00   | 760  | 6.08 | 34.54 | 0.0    | 0.0    | 30.66   | 27.19    | 1.612   | 2.29   |
| 130  | 27.46 | 35.52 | -8.4   | -2.4   | 23.52   | 22.97    | 0.687   | 3.99   | 770  | 5.99 | 34.55 | 0.0    | 0.0    | 30.72   | 27.21    | 1.622   | 2.30   |
| 135  | 26.79 | 35.59 | -3.6   | -3.6   | 23.81   | 23.24    | 0.711   | 3.69   | 780  | 5.90 | 34.55 | 0.0    | 0.0    | 30.78   | 27.22    | 1.631   | 2.17   |
| 140  | 26.56 | 35.56 | 0.0    | -6.0   | 23.88   | 23.29    | 0.734   | 3.48   | 790  | 5.70 | 34.56 | 0.0    | 0.0    | 30.86   | 27.25    | 1.640   | 2.21   |
| 145  | 26.10 | 35.52 | 2.4    | -8.4   | 24.02   | 23.41    | 0.757   | 3.37   | 800  | 5.61 | 34.55 | 0.0    | 0.0    | 30.91   | 27.25    | 1.650   | 2.26   |
| 150  | 24.33 | 35.65 | 2.4    | -8.4   | 24.68   | 24.05    | 0.779   | 3.27   | 810  | 5.59 | 34.54 | 0.0    | 0.0    | 30.96   | 27.25    | 1.659   | 2.24   |
| 155  | 21.74 | 35.71 | 10.8   | -13.2  | 25.50   | 24.84    | 0.796   | 2.98   | 820  | 5.59 | 34.54 | 0.0    | 0.0    | 31.00   | 27.25    | 1.668   | 2.25   |
| 160  | 20.29 | 35.68 | 27.6   | -21.6  | 25.90   | 25.21    | 0.811   | 3.05   | 830  | 5.55 | 34.54 | 0.0    | 0.0    | 31.05   | 27.26    | 1.677   | 2.25   |
| 165  | 18.95 | 35.55 | 33.6   | -24.0  | 26.18   | 25.46    | 0.824   | 3.14   | 840  | 5.50 | 34.55 | 0.0    | 0.0    | 31.11   | 27.27    | 1.686   | 2.24   |
| 170  | 18.35 | 35.47 | 37.2   | -25.2  | 26.29   | 25.55    | 0.837   | 3.10   | 850  | 5.44 | 34.55 | 0.0    | 0.0    | 31.16   | 27.27    | 1.695   | 2.23   |
| 175  | 18.00 | 35.43 | 40.8   | -25.2  | 26.37   | 25.61    | 0.849   | 3.12   | 860  | 5.32 | 34.55 | 0.0    | 0.0    | 31.23   | 27.29    | 1.704   | 2.21   |
| 180  | 17.29 | 35.38 | 44.4   | -24.0  | 26.53   | 25.75    | 0.861   | 3.19   | 870  | 5.17 | 34.55 | 0.0    | 0.0    | 31.29   | 27.31    | 1.713   | 2.30   |
| 185  | 17.07 | 35.32 | 48.0   | -22.8  | 26.56   | 25.75    | 0.873   | 3.22   | 880  | 5.09 | 34.55 | 0.0    | 0.0    | 31.35   | 27.32    | 1.722   | 2.32   |
| 190  | 16.90 | 35.28 | 50.4   | -21.6  | 26.59   | 25.76    | 0.884   | 3.21   | 890  | 4.98 | 34.55 | 0.0    | 0.0    | 31.41   | 27.33    | 1.730   | 2.25   |
| 195  | 16.74 | 35.24 | 55.2   | -20.4  | 26.62   | 25.77    | 0.896   | 3.21   | 900  | 4.91 | 34.56 | 0.0    | 0.0    | 31.47   | 27.35    | 1.738   | 2.18   |
| 200  | 16.56 | 35.23 | 57.6   | -20.4  | 26.68   | 25.80    | 0.907   | 3.18   | 910  | 4.83 | 34.56 | 0.0    | 0.0    | 31.52   | 27.35    | 1.747   | 2.23   |
| 205  | 16.36 | 35.23 | 55.2   | -21.6  | 26.74   | 25.85    | 0.918   | 3.15   | 920  | 4.76 | 34.56 | 0.0    | 0.0    | 31.58   | 27.36    | 1.755   | 2.24   |
| 210  | 16.12 | 35.24 | 52.8   | -22.8  | 26.83   | 25.92    | 0.929   | 3.13   | 930  | 4.73 | 34.55 | 0.0    | 0.0    | 31.63   | 27.36    | 1.763   | 2.20   |
| 215  | 15.61 | 35.27 | 50.4   | -24.0  | 27.00   | 26.05    | 0.939   | 3.11   | 940  | 4.71 | 34.55 | 0.0    | 0.0    | 31.67   | 27.36    | 1.771   | 2.20   |
| 220  | 14.86 | 35.23 | 44.4   | -25.2  | 27.16   | 26.19    | 0.949   | 3.12   | 950  | 4.71 | 34.55 | 0.0    | 0.0    | 31.72   | 27.36    | 1.779   | 2.23   |
| 225  | 14.48 | 35.18 | 36.0   | -20.4  | 27.22   | 26.23    | 0.959   | 3.14   | 960  | 4.67 | 34.55 | 0.0    | 0.0    | 31.77   | 27.36    | 1.787   | 2.19   |
| 230  | 13.97 | 35.15 | 30.0   | -15.6  | 27.33   | 26.32    | 0.968   | 3.20   | 970  | 4.58 | 34.55 | 0.0    | 0.0    | 31.83   | 27.38    | 1.795   | 2.29   |
| 235  | 13.02 | 35.08 | 18.0   | -13.2  | 27.50   | 26.46    | 0.976   | 3.18   | 980  | 4.54 | 34.55 | 0.0    | 0.0    | 31.88   | 27.38    | 1.803   | 2.42   |
| 240  | 12.51 | 34.99 | 10.8   | -10.8  | 27.56   | 26.49    | 0.984   | 3.01   | 990  | 4.48 | 34.55 | 0.0    | 0.0    | 31.93   | 27.39    | 1.811   | 2.37   |
| 245  | 12.51 | 34.98 | 8.4    | -10.8  | 27.57   | 26.48    | 0.992   | 2.94   | 1000 | 4.47 | 34.55 | 0.0    | 0.0    | 31.98   | 27.39    | 1.819   | 2.28   |
| 250  | 12.50 | 34.95 | 4.8    | -8.4   | 27.57   | 26.46    | 1.000   | 2.93   | 1020 | 4.39 | 34.56 | 0.0    | 0.0    | 32.09   | 27.40    | 1.835   | 2.22   |
| 255  | 12.39 | 34.94 | 3.6    | -7.2   | 27.60   | 26.47    | 1.008   | 2.85   | 1040 | 4.30 | 34.56 | 0.0    | 0.0    | 32.19   | 27.41    | 1.850   | 2.28   |
| 260  | 12.14 | 34.92 | 3.6    | -7.2   | 27.66   | 26.51    | 1.016   | 2.74   | 1060 | 4.21 | 34.56 | 0.0    | 0.0    | 32.29   | 27.42    | 1.865   | 2.34   |
| 265  | 12.11 | 34.90 | 3.6    | -7.2   | 27.68   | 26.50    | 1.024   | 2.72   | 1080 | 4.10 | 34.56 | 0.0    | 0.0    | 32.40   | 27.44    | 1.880   | 2.40   |
| 270  | 12.10 | 34.90 | 4.8    | -7.2   | 27.70   | 26.50    | 1.032   | 2.72   | 1100 | 3.98 | 34.57 | 0.0    | 0.0    | 32.51   | 27.45    | 1.895   | 2.40   |
| 275  | 12.00 | 34.89 | 4.8    | -4.8   | 27.74   | 26.51    | 1.040   | 2.75   | 1120 | 3.94 | 34.57 | 0.0    | 0.0    | 32.61   | 27.46    | 1.909   | 2.30   |
| 280  | 11.79 | 34.89 | 4.8    | -4.8   | 27.80   | 26.55    | 1.048   | 2.79   | 1140 | 3.90 | 34.57 | 0.0    | 0.0    | 32.70   | 27.46    | 1.924   | 2.26   |
| 285  | 11.60 | 34.87 | 3.6    | -4.8   | 27.84   | 26.57    | 1.056   | 2.76   | 1160 | 3.86 | 34.57 | 0.0    | 0.0    | 32.80   | 27.47    | 1.938   | 2.27   |
| 290  | 11.53 | 34.86 | 2.4    | -3.6   | 27.87   | 26.58    | 1.063   | 2.75   | 1180 | 3.82 | 34.57 | 0.0    | 0.0    | 32.90   | 27.47    | 1.952   | 2.19   |
| 295  | 11.42 | 34.85 | 2.4    | -4.8   | 27.91   | 26.59    | 1.071   | 2.75   | 1200 | 3.81 | 34.57 | 0.0    | 0.0    | 32.99   | 27.47    | 1.967   | 2.17   |
| 300  | 11.19 | 34.85 | 2.4    | -3.6   | 27.97   | 26.63    | 1.079   | 2.74   | 1220 | 3.79 | 34.57 | 0.0    | 0.0    | 33.09   | 27.48    | 1.981   | 2.18   |
| 305  | 11.13 | 34.82 | 2.4    | -4.8   | 27.98   | 26.62    | 1.086   | 2.75   | 1240 | 3.74 | 34.58 | 0.0    | 0.0    | 33.19   | 27.48    | 1.995   | 2.12   |
| 310  | 11.08 | 34.82 | 2.4    | -4.8   | 28.01   | 26.63    | 1.093   | 2.74   | 1260 | 3.68 | 34.57 | 0.0    | 0.0    | 33.28   | 27.49    | 2.009   | 2.32   |
| 315  | 11.02 | 34.81 | 2.4    | -4.8   | 28.04   | 26.63    | 1.101   | 2.66   | 1280 | 3.61 | 34.58 | 0.0    | 0.0    | 33.39   | 27.50    | 2.023   | 2.32   |
| 320  | 10.96 | 34.81 | 2.4    | -4.8   | 28.07   | 26.64    | 1.108   | 2.59   | 1300 | 3.60 | 34.58 | 0.0    | 0.0    | 33.48   | 27.50    | 2.036   | 2.22   |
| 325  | 10.92 | 34.80 | 2.4    | -4.8   | 28.09   | 26.64    | 1.115   | 2.55   | 1320 | 3.55 | 34.58 | 0.0    | 0.0    | 33.58   | 27.51    | 2.050   | 2.22   |
| 330  | 10.90 | 34.80 | 1.2    | -4.8   | 28.12   | 26.64    | 1.123   | 2.54   | 1340 | 3.48 | 34.59 | 0.0    | 0.0    | 33.68   | 27.52    | 2.063   | 2.20   |
| 335  | 10.88 | 34.79 | 1.2    | -4.8   | 28.14   | 26.64    | 1.130   | 2.57   | 1360 | 3.41 | 34.59 | 0.0    | 0.0    | 33.78   | 27.53    | 2.077   | 2.30   |
| 340  | 10.84 | 34.79 | 1.2    | -4.8   | 28.17   | 26.65    | 1.137   | 2.55   | 1380 | 3.40 | 34.58 | 0.0    | 0.0    | 33.87   | 27.53    | 2.090   | 2.27   |
| 345  | 10.71 | 34.79 | 1.2    | -4.8   | 28.21   | 26.67    | 1.145   | 2.44   | 1400 | 3.39 | 34.58 | 0.0    | 0.0    | 33.96   | 27.53    | 2.103   | 2.28   |
| 350  | 10.52 | 34.79 | 0.0    |        |         |          |         |        |      |      |       |        |        |         |          |         |        |

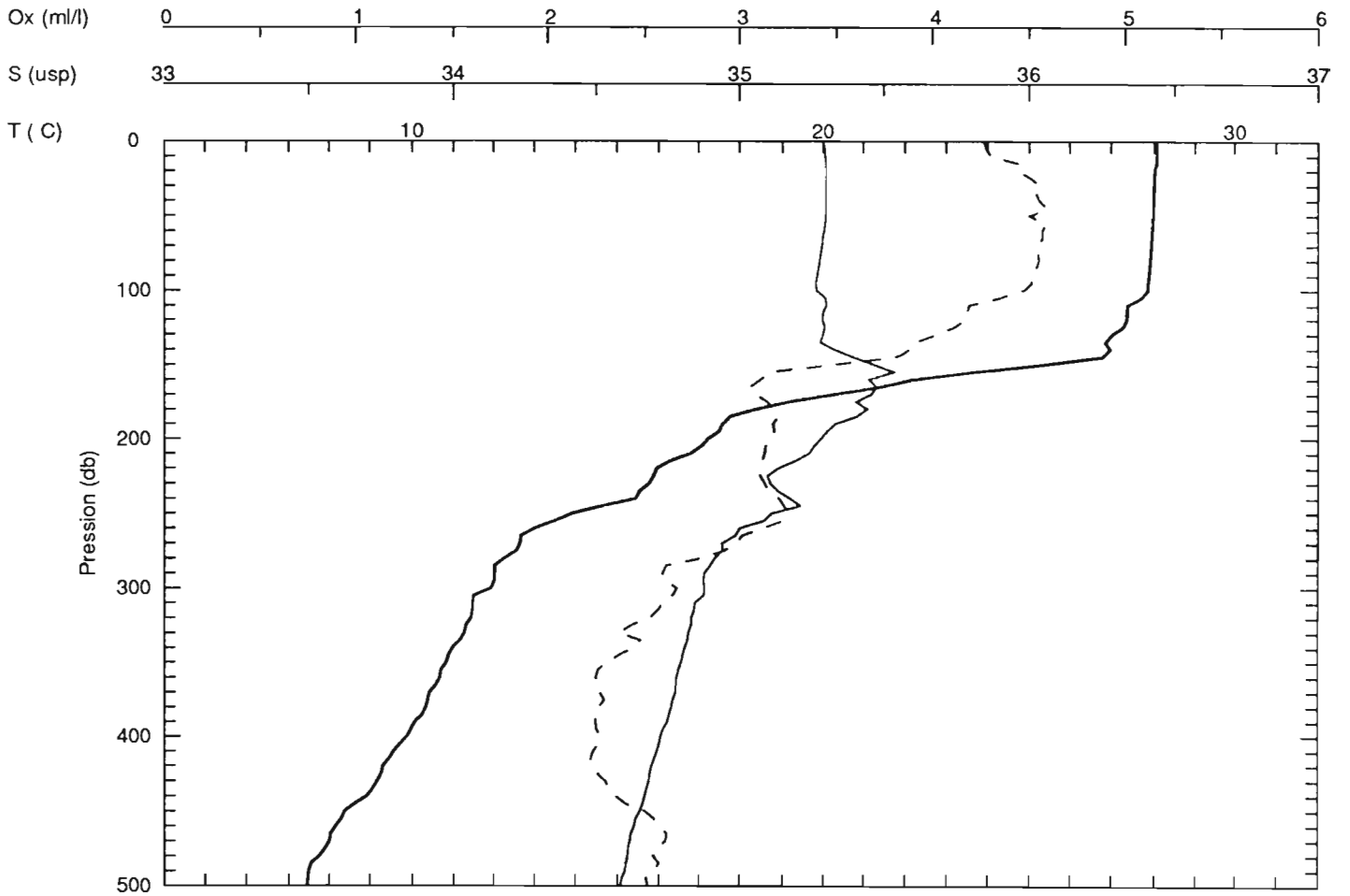
SURTROPAC11 STATION No : 24  
DATE : 14/ 1/89 HEURE : 10h38 LONGITUDE : 165.00 LATITUDE : -1.00



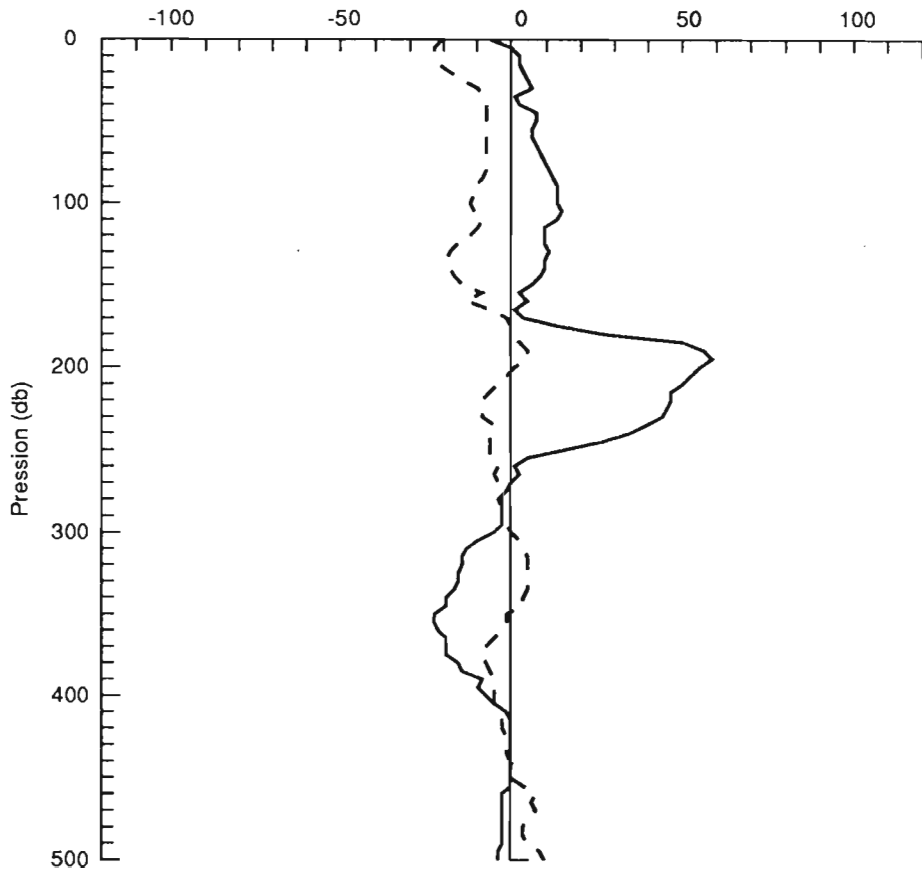
STATION : 25      CAMPAGNE : #urtropacl1  
 DATE : 14/ 1/89    HEURE : 17h42    LONGITUDE : 165.00    LATITUDE : -0.50

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.07 | 35.29 | -6.0   | -20.4  | 22.59   | 22.59    | 0.000   | 4.27   | 510  | 7.37 | 34.58 | -3.6   | 10.8   | 29.36   | 27.04    | 1.389   | 2.57   |
| 5    | 28.08 | 35.29 | 0.0    | -22.8  | 22.61   | 22.59    | 0.026   | 4.28   | 520  | 7.29 | 34.57 | -2.4   | 3.6    | 29.41   | 27.05    | 1.400   | 2.62   |
| 10   | 28.08 | 35.29 | 2.4    | -22.8  | 22.63   | 22.59    | 0.053   | 4.30   | 530  | 7.22 | 34.57 | -1.2   | 2.4    | 29.47   | 27.06    | 1.411   | 2.63   |
| 15   | 28.06 | 35.30 | 2.4    | -21.6  | 22.67   | 22.60    | 0.079   | 4.45   | 540  | 6.99 | 34.57 | -1.2   | 1.2    | 29.55   | 27.09    | 1.422   | 2.35   |
| 20   | 28.02 | 35.30 | 3.6    | -18.0  | 22.70   | 22.62    | 0.105   | 4.45   | 550  | 6.94 | 34.57 | 0.0    | 0.0    | 29.60   | 27.09    | 1.432   | 2.28   |
| 25   | 28.01 | 35.30 | 4.8    | -14.4  | 22.72   | 22.62    | 0.131   | 4.51   | 560  | 6.93 | 34.56 | 0.0    | 0.0    | 29.64   | 27.09    | 1.443   | 2.28   |
| 30   | 28.00 | 35.30 | 6.0    | -9.6   | 22.75   | 22.62    | 0.157   | 4.56   | 570  | 6.93 | 34.56 | 0.0    | 0.0    | 29.68   | 27.09    | 1.454   | 2.28   |
| 35   | 28.00 | 35.30 | 1.2    | -8.4   | 22.77   | 22.62    | 0.183   | 4.54   | 580  | 6.89 | 34.56 | 0.0    | 0.0    | 29.73   | 27.09    | 1.464   | 2.28   |
| 40   | 28.00 | 35.30 | 2.4    | -7.2   | 22.79   | 22.62    | 0.209   | 4.55   | 590  | 6.85 | 34.56 | 0.0    | 0.0    | 29.78   | 27.10    | 1.475   | 2.44   |
| 45   | 27.99 | 35.30 | 7.2    | -7.2   | 22.82   | 22.63    | 0.236   | 4.60   | 600  | 6.84 | 34.55 | 0.0    | 0.0    | 29.83   | 27.10    | 1.485   | 2.43   |
| 50   | 27.99 | 35.29 | 7.2    | -7.2   | 22.84   | 22.63    | 0.262   | 4.50   | 610  | 6.80 | 34.56 | 0.0    | 0.0    | 29.88   | 27.11    | 1.496   | 2.36   |
| 55   | 27.98 | 35.29 | 6.0    | -7.2   | 22.86   | 22.63    | 0.288   | 4.59   | 620  | 6.75 | 34.55 | 0.0    | 0.0    | 29.93   | 27.11    | 1.506   | 2.29   |
| 60   | 27.96 | 35.29 | 6.0    | -7.2   | 22.88   | 22.63    | 0.314   | 4.57   | 630  | 6.73 | 34.55 | 0.0    | 0.0    | 29.98   | 27.11    | 1.516   | 2.28   |
| 65   | 27.95 | 35.28 | 7.2    | -7.2   | 22.90   | 22.63    | 0.340   | 4.57   | 640  | 6.67 | 34.55 | 0.0    | 0.0    | 30.03   | 27.12    | 1.527   | 2.30   |
| 70   | 27.94 | 35.28 | 8.4    | -7.2   | 22.93   | 22.63    | 0.367   | 4.54   | 650  | 6.66 | 34.55 | 0.0    | 0.0    | 30.08   | 27.12    | 1.537   | 2.26   |
| 75   | 27.93 | 35.28 | 9.6    | -7.2   | 22.95   | 22.63    | 0.393   | 4.55   | 660  | 6.64 | 34.55 | 0.0    | 0.0    | 30.13   | 27.12    | 1.548   | 2.23   |
| 80   | 27.92 | 35.27 | 10.8   | -7.2   | 22.97   | 22.64    | 0.419   | 4.55   | 670  | 6.60 | 34.55 | 0.0    | 0.0    | 30.18   | 27.13    | 1.558   | 2.21   |
| 85   | 27.90 | 35.27 | 12.0   | -8.4   | 22.99   | 22.64    | 0.445   | 4.54   | 680  | 6.53 | 34.55 | 0.0    | 0.0    | 30.24   | 27.14    | 1.568   | 2.21   |
| 90   | 27.89 | 35.26 | 13.2   | -10.8  | 23.02   | 22.64    | 0.472   | 4.51   | 690  | 6.46 | 34.55 | 0.0    | 0.0    | 30.29   | 27.15    | 1.578   | 2.19   |
| 95   | 27.87 | 35.26 | 13.2   | -10.8  | 23.04   | 22.64    | 0.498   | 4.51   | 700  | 6.25 | 34.56 | 0.0    | 0.0    | 30.37   | 27.18    | 1.589   | 2.15   |
| 100  | 27.86 | 35.26 | 13.2   | -12.0  | 23.07   | 22.65    | 0.524   | 4.47   | 710  | 6.15 | 34.55 | 0.0    | 0.0    | 30.43   | 27.19    | 1.598   | 2.11   |
| 105  | 27.71 | 35.29 | 14.4   | -10.8  | 23.16   | 22.72    | 0.550   | 4.35   | 720  | 6.11 | 34.55 | 0.0    | 0.0    | 30.48   | 27.19    | 1.608   | 2.11   |
| 110  | 27.40 | 35.30 | 13.2   | -8.4   | 23.29   | 22.82    | 0.576   | 4.19   | 730  | 5.97 | 34.55 | 0.0    | 0.0    | 30.54   | 27.21    | 1.618   | 2.04   |
| 115  | 27.37 | 35.29 | 9.6    | -9.6   | 23.31   | 22.82    | 0.601   | 4.18   | 740  | 5.89 | 34.55 | 0.0    | 0.0    | 30.60   | 27.22    | 1.627   | 2.15   |
| 120  | 27.36 | 35.28 | 9.6    | -12.0  | 23.33   | 22.83    | 0.626   | 4.17   | 750  | 5.75 | 34.55 | 0.0    | 0.0    | 30.66   | 27.23    | 1.636   | 2.23   |
| 125  | 27.28 | 35.29 | 9.6    | -15.6  | 23.39   | 22.86    | 0.652   | 4.11   | 760  | 5.60 | 34.55 | 0.0    | 0.0    | 30.73   | 27.26    | 1.646   | 2.21   |
| 130  | 27.01 | 35.28 | 10.8   | -18.0  | 23.49   | 22.94    | 0.677   | 4.02   | 770  | 5.43 | 34.55 | 0.0    | 0.0    | 30.80   | 27.28    | 1.655   | 2.19   |
| 135  | 26.86 | 35.28 | 9.6    | -19.2  | 23.55   | 22.98    | 0.701   | 3.91   | 780  | 5.33 | 34.55 | 0.0    | 0.0    | 30.86   | 27.29    | 1.663   | 2.21   |
| 140  | 26.97 | 35.33 | 9.6    | -18.0  | 23.57   | 22.98    | 0.726   | 3.88   | 790  | 5.30 | 34.54 | 0.0    | 0.0    | 30.91   | 27.29    | 1.672   | 2.20   |
| 145  | 26.80 | 35.39 | 8.4    | -16.8  | 23.70   | 23.09    | 0.751   | 3.82   | 800  | 5.28 | 34.54 | 0.0    | 0.0    | 30.95   | 27.29    | 1.681   | 2.21   |
| 150  | 25.34 | 35.46 | 6.0    | -14.4  | 24.23   | 23.60    | 0.774   | 3.48   | 810  | 5.27 | 34.54 | 0.0    | 0.0    | 31.00   | 27.29    | 1.690   | 2.22   |
| 155  | 23.66 | 35.53 | 2.4    | -8.4   | 24.81   | 24.16    | 0.794   | 3.15   | 820  | 5.24 | 34.54 | 0.0    | 0.0    | 31.05   | 27.29    | 1.699   | 2.20   |
| 160  | 22.20 | 35.45 | 4.8    | -13.2  | 25.20   | 24.51    | 0.812   | 3.11   | 830  | 5.19 | 34.54 | 0.0    | 0.0    | 31.10   | 27.30    | 1.707   | 2.22   |
| 165  | 21.41 | 35.47 | 1.2    | -6.0   | 25.46   | 24.75    | 0.829   | 3.05   | 840  | 5.11 | 34.54 | 0.0    | 0.0    | 31.16   | 27.31    | 1.716   | 2.28   |
| 170  | 20.26 | 35.46 | 3.6    | -1.2   | 25.78   | 25.05    | 0.845   | 3.08   | 850  | 5.05 | 34.54 | 0.0    | 0.0    | 31.21   | 27.32    | 1.724   | 2.29   |
| 175  | 19.16 | 35.40 | 13.2   | 0.0    | 26.05   | 25.30    | 0.859   | 3.14   | 860  | 4.99 | 34.54 | 0.0    | 0.0    | 31.27   | 27.32    | 1.733   | 2.21   |
| 180  | 18.40 | 35.44 | 27.6   | 1.2    | 26.30   | 25.52    | 0.872   | 3.17   | 870  | 4.99 | 34.54 | 0.0    | 0.0    | 31.31   | 27.32    | 1.741   | 2.15   |
| 185  | 17.77 | 35.40 | 50.4   | 2.4    | 26.45   | 25.65    | 0.884   | 3.19   | 880  | 4.92 | 34.55 | 0.0    | 0.0    | 31.37   | 27.33    | 1.750   | 2.12   |
| 190  | 17.59 | 35.33 | 56.4   | 4.8    | 26.46   | 25.63    | 0.896   | 3.17   | 890  | 4.82 | 34.55 | 0.0    | 0.0    | 31.43   | 27.35    | 1.758   | 2.12   |
| 195  | 17.50 | 35.30 | 58.8   | 4.8    | 26.48   | 25.63    | 0.908   | 3.17   | 900  | 4.76 | 34.55 | 0.0    | 0.0    | 31.48   | 27.35    | 1.766   | 2.12   |
| 200  | 17.23 | 35.28 | 55.2   | 1.2    | 26.55   | 25.68    | 0.920   | 3.15   | 910  | 4.74 | 34.55 | 0.0    | 0.0    | 31.53   | 27.35    | 1.774   | 2.13   |
| 205  | 17.05 | 35.25 | 52.8   | -1.2   | 26.60   | 25.70    | 0.932   | 3.13   | 920  | 4.68 | 34.55 | 0.0    | 0.0    | 31.59   | 27.36    | 1.782   | 2.17   |
| 210  | 16.79 | 35.24 | 50.4   | -3.6   | 26.67   | 25.75    | 0.944   | 3.13   | 930  | 4.62 | 34.55 | 0.0    | 0.0    | 31.64   | 27.37    | 1.791   | 2.16   |
| 215  | 16.29 | 35.19 | 46.8   | -6.0   | 26.77   | 25.83    | 0.955   | 3.11   | 940  | 4.61 | 34.55 | 0.0    | 0.0    | 31.69   | 27.37    | 1.798   | 2.17   |
| 220  | 15.95 | 35.13 | 46.8   | -8.4   | 26.83   | 25.87    | 0.966   | 3.11   | 950  | 4.57 | 34.55 | 0.0    | 0.0    | 31.74   | 27.38    | 1.806   | 2.15   |
| 225  | 15.87 | 35.09 | 45.6   | -8.4   | 26.84   | 25.86    | 0.977   | 3.10   | 960  | 4.51 | 34.56 | 0.0    | 0.0    | 31.79   | 27.39    | 1.814   | 2.16   |
| 230  | 15.76 | 35.10 | 44.4   | -8.4   | 26.90   | 25.89    | 0.988   | 3.13   | 970  | 4.46 | 34.56 | 0.0    | 0.0    | 31.85   | 27.39    | 1.822   | 2.17   |
| 235  | 15.54 | 35.13 | 39.6   | -4.8   | 26.99   | 25.96    | 0.999   | 3.15   | 980  | 4.42 | 34.56 | 0.0    | 0.0    | 31.90   | 27.40    | 1.830   | 2.15   |
| 240  | 15.43 | 35.17 | 34.8   | -6.0   | 27.07   | 26.02    | 1.009   | 3.20   | 990  | 4.41 | 34.55 | 0.0    | 0.0    | 31.94   | 27.40    | 1.838   | 2.15   |
| 245  | 14.64 | 35.21 | 26.4   | -6.0   | 27.29   | 26.22    | 1.019   | 3.22   | 1000 | 4.40 | 34.55 | 0.0    | 0.0    | 31.99   | 27.40    | 1.845   | 2.16   |
| 250  | 13.95 | 35.11 | 15.6   | -6.0   | 27.39   | 26.29    | 1.028   | 3.25   | 1020 | 4.30 | 34.56 | 0.0    | 0.0    | 32.10   | 27.41    | 1.861   | 2.23   |
| 255  | 13.50 | 35.08 | 4.8    | -6.0   | 27.49   | 26.36    | 1.037   | 3.21   | 1040 | 4.24 | 34.56 | 0.0    | 0.0    | 32.20   | 27.42    | 1.876   | 2.24   |
| 260  | 13.02 | 35.00 | 1.2    | -3.6   | 27.55   | 26.40    | 1.046   | 3.12   | 1060 | 4.18 | 34.56 | 0.0    | 0.0    | 32.30   | 27.43    | 1.891   | 2.26   |
| 265  | 12.68 | 34.99 | 2.4    | -4.8   | 27.63   | 26.45    | 1.054   | 3.01   | 1080 | 4.07 | 34.57 | 0.0    | 0.0    | 32.41   | 27.44    | 1.906   | 2.29   |
| 270  | 12.65 | 34.94 | 0.0    | -3.6   | 27.62   | 26.42    | 1.062   | 2.98   | 1100 | 4.02 | 34.56 | 0.0    | 0.0    | 32.50   | 27.45    | 1.921   | 2.31   |
| 275  | 12.57 | 34.94 | -1.2   | -2.4   | 27.66   | 26.44    | 1.071   | 2.92   | 1120 | 3.93 | 34.57 | 0.0    | 0.0    | 32.61   | 27.46    | 1.935   | 2.29   |
| 280  | 12.27 | 34.91 | -3.6   | -2.4   | 27.72   | 26.48    | 1.079   | 2.80   | 1140 | 3.94 | 34.56 | 0.0    | 0.0    | 32.70   | 27.46    | 1.950   | 2.27   |
| 285  | 12.02 | 34.90 | -2.4   | -2.4   | 27.78   | 26.51    | 1.087   | 2.61   | 1160 | 3.93 | 34.56 | 0.0    | 0.0    | 32.79   | 27.46    | 1.964   | 2.25   |
| 290  | 12.02 | 34.88 | -2.4   | -2.4   | 27.79   | 26.50    | 1.095   | 2.59   | 1180 | 3.91 | 34.57 | 0.0    | 0.0    | 32.88   | 27.46    | 1.979   | 2.22   |
| 295  | 12.02 | 34.87 | -2.4   | -1.2   | 27.81   | 26.50    | 1.103   | 2.61   | 1200 | 3.91 | 34.57 | 0.0    | 0.0    | 32.97   | 27.46    | 1.993   | 2.20   |
| 300  | 11.93 | 34.88 | -4.8   | 0.0    | 27.85   | 26.52    | 1.111   | 2.67   | 1220 | 3.81 | 34.58 | 0.0    | 0.0    | 33.08   | 27.48    | 2.008   | 2.16   |
| 305  | 11.49 | 34.88 | -9.6   | 2.4    | 27.96   | 26.59    | 1.119   | 2.65   | 1240 | 3.78 | 34.57 | 0.0    | 0.0    | 33.18   | 27.48    | 2.022   | 2.12   |
| 310  | 11.47 | 34.84 | -13.2  | 3.6    | 27.96   | 26.58    | 1.126   | 2.59   | 1260 | 3.67 | 34.58 | 0.0    | 0.0    | 33.29   | 27.49    | 2.036   | 2.17   |
| 315  | 11.46 | 34.84 | -14.4  | 4.8    | 27.98   | 26.57    | 1.134   | 2.57   | 1280 | 3.62 | 34.58 | 0.0    | 0.0    | 33.39   | 27.50    | 2.050   | 2.19   |
| 320  | 11.44 | 34.83 | -14.4  | 4.8    | 28.00   | 26.57    | 1.142   | 2.53   | 1300 | 3.59 | 34.58 | 0.0    | 0.0    | 33.48   | 27.50    | 2.063   | 2.16   |
| 325  | 11.31 | 34.83 | -15.6  | 4.8    | 28.05   | 26.59    | 1.149   | 2.43   | 1320 | 3.45 | 34.59 | 0.0    | 0.0    | 33.59   | 27.52    | 2.077   | 2.32   |
| 330  | 11.27 | 34.82 | -15.6  | 4.8    | 28.07   | 26.60    | 1.157   | 2.37   | 1340 | 3.38 | 34.59 | 0.0    | 0.0    | 33.70   | 27.53    | 2.090   | 2.29   |
| 335  | 11.16 | 34.82 | -16.8  | 4.8    | 28.11   | 26.61    | 1.164   | 2.47   | 1360 | 3.37 | 34.58 | 0.0    | 0.0    | 33.79   | 27.53    | 2.103   | 2.26   |
| 340  | 10.97 | 34.81 | -19.2  | 3.6    | 28.16   | 26.64    | 1.172   | 2.45   | 1380 | 3.35 | 34.59 | 0.0    | 0.0    | 33.88   | 27.53    | 2.116   | 2.30   |
| 345  | 10.88 | 34.80 | -19.2  | 3.6    | 28.19   | 26.65    | 1.179   | 2.37   | 1400 | 3.32 | 34.59 | 0.0    | 0.0    | 33.98   | 27.53    | 2.129   | 2.30   |
| 350  | 10.82 | 34.79 | -22.8  | -      |         |          |         |        |      |      |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 25  
DATE : 14/ 1/89 HEURE : 17h42 LONGITUDE : 165.00 LATITUDE : -0.50



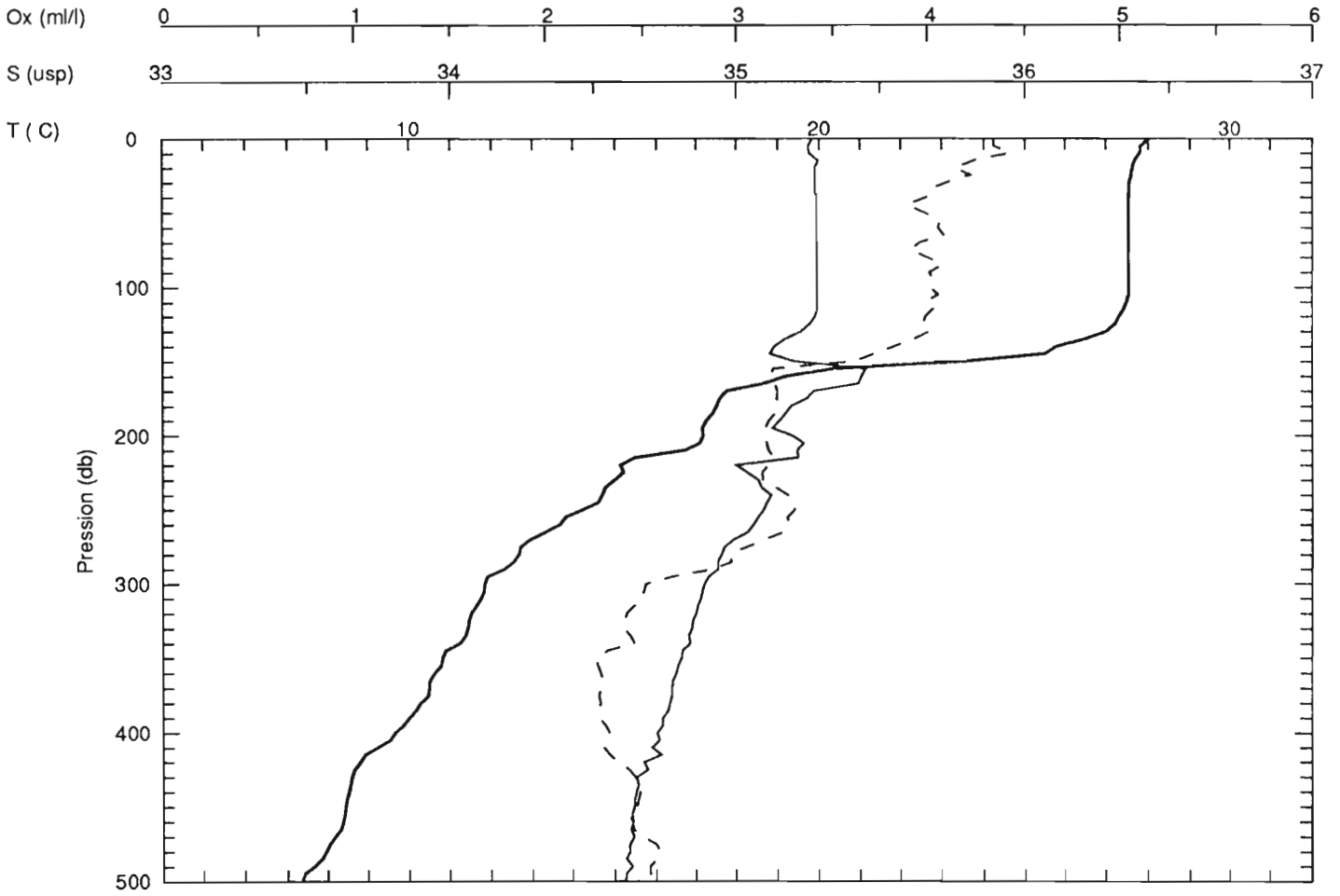
Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -



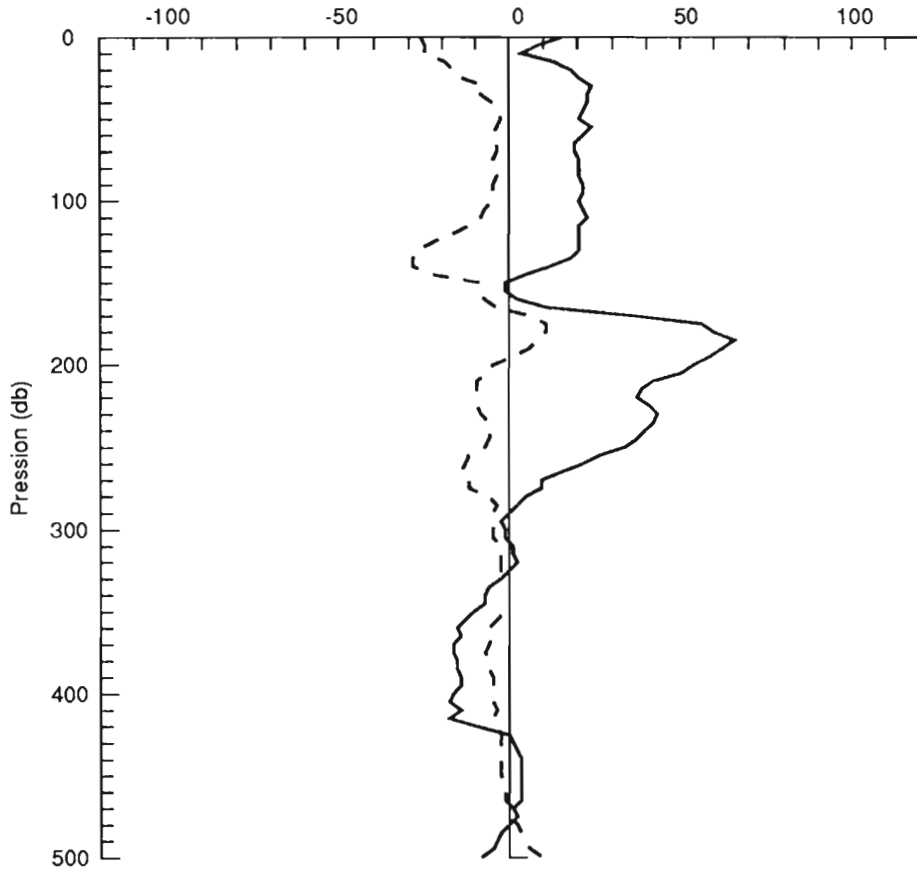
STATION : 26      CAMPAGNE : aurtropac11  
 DATE : 15/ 1/89    HEURE : 0h10    LONGITUDE : 165.00    LATITUDE : 0.00

| P<br>(db) | T<br>(C) | S<br>(usp) | U<br>(cm/s) | V<br>(cm/s) | Sigt<br>(kg/m <sup>3</sup> ) | Sigtheta<br>(kg/m <sup>3</sup> ) | Hdyn<br>(m.dyn) | Oxy<br>(ml/l) | P<br>(db) | T<br>(C) | S<br>(usp) | U<br>(cm/s) | V<br>(cm/s) | Sigt<br>(kg/m <sup>3</sup> ) | Sigtheta<br>(kg/m <sup>3</sup> ) | Hdyn<br>(m.dyn) | Oxy<br>(ml/l) |
|-----------|----------|------------|-------------|-------------|------------------------------|----------------------------------|-----------------|---------------|-----------|----------|------------|-------------|-------------|------------------------------|----------------------------------|-----------------|---------------|
| 0         | 28.03    | 35.26      | 15.6        | -26.4       | 22.59                        | 22.59                            | 0.000           | 4.34          | 510       | 7.31     | 34.59      | -8.4        | 10.8        | 29.38                        | 27.06                            | 1.357           | 2.54          |
| 5         | 27.82    | 35.25      | 8.4         | -25.2       | 22.66                        | 22.64                            | 0.026           | 4.34          | 520       | 7.18     | 34.59      | -6.0        | 9.6         | 29.44                        | 27.08                            | 1.368           | 2.41          |
| 10        | 27.80    | 35.25      | 3.6         | -25.2       | 22.69                        | 22.65                            | 0.052           | 4.42          | 530       | 7.04     | 34.58      | -4.8        | 7.2         | 29.50                        | 27.09                            | 1.379           | 2.32          |
| 15        | 27.68    | 35.28      | 13.2        | -19.2       | 22.78                        | 22.71                            | 0.078           | 4.24          | 540       | 7.03     | 34.57      | -1.2        | 3.6         | 29.54                        | 27.08                            | 1.389           | 2.33          |
| 20        | 27.63    | 35.27      | 18.0        | -16.8       | 22.81                        | 22.72                            | 0.104           | 4.14          | 550       | 7.01     | 34.56      | 0.0         | 1.2         | 29.58                        | 27.08                            | 1.400           | 2.35          |
| 25        | 27.60    | 35.27      | 20.4        | -14.4       | 22.84                        | 22.73                            | 0.129           | 4.22          | 560       | 6.98     | 34.56      | 1.2         | 0.0         | 29.63                        | 27.08                            | 1.411           | 2.35          |
| 30        | 27.55    | 35.27      | 24.0        | -7.2        | 22.87                        | 22.75                            | 0.155           | 4.09          | 570       | 6.92     | 34.56      | -1.2        | 0.0         | 29.68                        | 27.09                            | 1.421           | 2.48          |
| 35        | 27.55    | 35.27      | 22.8        | -8.4        | 22.90                        | 22.75                            | 0.180           | 4.00          | 580       | 6.91     | 34.56      | -1.2        | 1.2         | 29.73                        | 27.09                            | 1.432           | 2.53          |
| 40        | 27.54    | 35.28      | 22.8        | -4.8        | 22.92                        | 22.76                            | 0.206           | 3.99          | 590       | 6.91     | 34.55      | 0.0         | 0.0         | 29.77                        | 27.09                            | 1.442           | 2.48          |
| 45        | 27.53    | 35.28      | 21.6        | -4.8        | 22.95                        | 22.76                            | 0.231           | 3.89          | 600       | 6.89     | 34.56      | 0.0         | 0.0         | 29.82                        | 27.09                            | 1.453           | 2.47          |
| 50        | 27.53    | 35.28      | 20.4        | -2.4        | 22.97                        | 22.76                            | 0.257           | 3.98          | 610       | 6.74     | 34.56      | 29.89       | 27.11       | 1.464                        | 2.65                             |                 |               |
| 55        | 27.53    | 35.28      | 24.0        | -3.6        | 22.99                        | 22.76                            | 0.282           | 4.06          | 620       | 6.68     | 34.55      | 29.94       | 27.12       | 1.474                        | 2.66                             |                 |               |
| 60        | 27.53    | 35.28      | 21.6        | -4.8        | 23.02                        | 22.76                            | 0.308           | 4.05          | 630       | 6.62     | 34.55      | 29.99       | 27.12       | 1.484                        | 2.61                             |                 |               |
| 65        | 27.53    | 35.28      | 19.2        | -3.6        | 23.04                        | 22.76                            | 0.334           | 4.08          | 640       | 6.63     | 34.55      | 30.04       | 27.12       | 1.495                        | 2.52                             |                 |               |
| 70        | 27.53    | 35.28      | 19.2        | -3.6        | 23.06                        | 22.76                            | 0.359           | 3.96          | 650       | 6.63     | 34.55      | 30.08       | 27.12       | 1.505                        | 2.42                             |                 |               |
| 75        | 27.53    | 35.28      | 20.4        | -4.8        | 23.08                        | 22.77                            | 0.385           | 3.91          | 660       | 6.63     | 34.55      | 30.13       | 27.12       | 1.515                        | 2.34                             |                 |               |
| 80        | 27.53    | 35.28      | 20.4        | -4.8        | 23.10                        | 22.77                            | 0.410           | 4.00          | 670       | 6.56     | 34.55      | 30.18       | 27.13       | 1.525                        | 2.23                             |                 |               |
| 85        | 27.53    | 35.28      | 20.4        | -3.6        | 23.12                        | 22.77                            | 0.436           | 4.08          | 680       | 6.53     | 34.55      | 30.24       | 27.14       | 1.536                        | 2.16                             |                 |               |
| 90        | 27.54    | 35.28      | 21.6        | -4.8        | 23.14                        | 22.76                            | 0.461           | 4.01          | 690       | 6.41     | 34.56      | 30.30       | 27.16       | 1.546                        | 2.13                             |                 |               |
| 95        | 27.54    | 35.28      | 21.6        | -4.8        | 23.16                        | 22.76                            | 0.487           | 4.03          | 700       | 6.30     | 34.56      | 30.36       | 27.17       | 1.556                        | 2.12                             |                 |               |
| 100       | 27.54    | 35.28      | 20.4        | -4.8        | 23.18                        | 22.76                            | 0.513           | 4.01          | 710       | 6.07     | 34.56      | 30.45       | 27.21       | 1.566                        | 2.09                             |                 |               |
| 105       | 27.53    | 35.28      | 21.6        | -7.2        | 23.21                        | 22.77                            | 0.539           | 4.05          | 720       | 5.86     | 34.56      | 30.52       | 27.23       | 1.575                        | 2.13                             |                 |               |
| 110       | 27.49    | 35.28      | 22.8        | -8.4        | 23.24                        | 22.78                            | 0.564           | 4.00          | 730       | 5.80     | 34.55      | 30.57       | 27.23       | 1.584                        | 2.19                             |                 |               |
| 115       | 27.42    | 35.28      | 20.4        | -12.0       | 23.29                        | 22.80                            | 0.590           | 4.02          | 740       | 5.77     | 34.54      | 30.61       | 27.23       | 1.594                        | 2.18                             |                 |               |
| 120       | 27.30    | 35.27      | 20.4        | -16.8       | 23.34                        | 22.84                            | 0.615           | 3.99          | 750       | 5.69     | 34.55      | 30.67       | 27.24       | 1.603                        | 2.17                             |                 |               |
| 125       | 27.21    | 35.25      | 20.4        | -22.8       | 23.38                        | 22.85                            | 0.640           | 3.97          | 760       | 5.60     | 34.55      | 30.73       | 27.25       | 1.612                        | 2.17                             |                 |               |
| 130       | 27.00    | 35.22      | 20.4        | -27.6       | 23.44                        | 22.90                            | 0.666           | 4.01          | 770       | 5.58     | 34.54      | 30.78       | 27.25       | 1.621                        | 2.17                             |                 |               |
| 135       | 26.49    | 35.17      | 18.0        | -28.8       | 23.59                        | 23.02                            | 0.690           | 3.93          | 780       | 5.45     | 34.55      | 30.84       | 27.27       | 1.630                        | 2.14                             |                 |               |
| 140       | 25.78    | 35.13      | 12.0        | -28.8       | 23.80                        | 23.21                            | 0.715           | 3.82          | 790       | 5.38     | 34.55      | 30.89       | 27.28       | 1.639                        | 2.19                             |                 |               |
| 145       | 25.51    | 35.12      | 4.8         | -22.8       | 23.90                        | 23.29                            | 0.738           | 3.72          | 800       | 5.36     | 34.54      | 30.94       | 27.28       | 1.648                        | 2.23                             |                 |               |
| 150       | 23.54    | 35.20      | -1.2        | -8.4        | 24.58                        | 23.94                            | 0.760           | 3.61          | 810       | 5.34     | 34.54      | 30.99       | 27.28       | 1.657                        | 2.24                             |                 |               |
| 155       | 20.36    | 35.45      | -1.2        | -8.4        | 25.68                        | 25.02                            | 0.777           | 3.19          | 820       | 5.31     | 34.54      | 31.04       | 27.28       | 1.666                        | 2.25                             |                 |               |
| 160       | 19.20    | 35.43      | 2.4         | -7.2        | 26.00                        | 25.31                            | 0.791           | 3.18          | 830       | 5.24     | 34.55      | 31.10       | 27.30       | 1.674                        | 2.21                             |                 |               |
| 165       | 18.63    | 35.42      | 10.8        | -3.6        | 26.16                        | 25.44                            | 0.805           | 3.20          | 840       | 5.09     | 34.55      | 31.17       | 27.32       | 1.683                        | 2.23                             |                 |               |
| 170       | 17.76    | 35.27      | 36.0        | 6.0         | 26.28                        | 25.54                            | 0.817           | 3.21          | 850       | 5.02     | 34.55      | 31.22       | 27.32       | 1.691                        | 2.24                             |                 |               |
| 175       | 17.59    | 35.24      | 56.4        | 10.8        | 26.33                        | 25.57                            | 0.830           | 3.21          | 860       | 4.98     | 34.55      | 31.27       | 27.33       | 1.700                        | 2.19                             |                 |               |
| 180       | 17.51    | 35.19      | 60.0        | 10.8        | 26.33                        | 25.54                            | 0.842           | 3.21          | 870       | 4.80     | 34.56      | 31.35       | 27.35       | 1.708                        | 2.11                             |                 |               |
| 185       | 17.41    | 35.17      | 66.0        | 8.4         | 26.36                        | 25.55                            | 0.854           | 3.20          | 880       | 4.75     | 34.55      | 31.40       | 27.36       | 1.716                        | 2.12                             |                 |               |
| 190       | 17.25    | 35.15      | 62.4        | 6.0         | 26.41                        | 25.58                            | 0.867           | 3.17          | 890       | 4.74     | 34.55      | 31.44       | 27.36       | 1.724                        | 2.10                             |                 |               |
| 195       | 17.15    | 35.13      | 58.8        | 1.2         | 26.43                        | 25.58                            | 0.879           | 3.15          | 900       | 4.71     | 34.55      | 31.49       | 27.36       | 1.732                        | 2.11                             |                 |               |
| 200       | 17.17    | 35.19      | 54.0        | -4.8        | 26.50                        | 25.63                            | 0.891           | 3.15          | 910       | 4.68     | 34.55      | 31.54       | 27.36       | 1.740                        | 2.12                             |                 |               |
| 205       | 17.09    | 35.23      | 50.4        | -6.0        | 26.57                        | 25.68                            | 0.903           | 3.16          | 920       | 4.65     | 34.56      | 31.59       | 27.37       | 1.748                        | 2.13                             |                 |               |
| 210       | 16.72    | 35.21      | 42.0        | -9.6        | 26.67                        | 25.75                            | 0.915           | 3.17          | 930       | 4.62     | 34.55      | 31.64       | 27.37       | 1.756                        | 2.11                             |                 |               |
| 215       | 15.47    | 35.21      | 38.4        | -9.6        | 26.98                        | 26.04                            | 0.926           | 3.19          | 940       | 4.58     | 34.55      | 31.69       | 27.38       | 1.764                        | 2.12                             |                 |               |
| 220       | 15.13    | 35.00      | 37.2        | -9.6        | 26.92                        | 25.95                            | 0.936           | 3.17          | 950       | 4.55     | 34.56      | 31.74       | 27.38       | 1.772                        | 2.13                             |                 |               |
| 225       | 15.20    | 35.04      | 40.8        | -9.6        | 26.96                        | 25.97                            | 0.947           | 3.13          | 960       | 4.45     | 34.56      | 31.81       | 27.40       | 1.780                        | 2.14                             |                 |               |
| 230       | 14.98    | 35.08      | 43.2        | -8.4        | 27.06                        | 26.04                            | 0.957           | 3.14          | 970       | 4.36     | 34.57      | 31.87       | 27.41       | 1.788                        | 2.16                             |                 |               |
| 235       | 14.77    | 35.09      | 42.0        | -6.0        | 27.13                        | 26.10                            | 0.967           | 3.20          | 980       | 4.33     | 34.56      | 31.91       | 27.41       | 1.795                        | 2.17                             |                 |               |
| 240       | 14.69    | 35.12      | 39.6        | -4.8        | 27.20                        | 26.14                            | 0.977           | 3.27          | 990       | 4.33     | 34.56      | 31.96       | 27.41       | 1.803                        | 2.17                             |                 |               |
| 245       | 14.61    | 35.11      | 37.2        | -6.0        | 27.23                        | 26.15                            | 0.987           | 3.30          | 1000      | 4.32     | 34.56      | 32.00       | 27.41       | 1.811                        | 2.18                             |                 |               |
| 250       | 14.24    | 35.10      | 33.6        | -7.2        | 27.32                        | 26.22                            | 0.996           | 3.30          | 1020      | 4.30     | 34.56      | 32.10       | 27.41       | 1.826                        | 2.20                             |                 |               |
| 255       | 13.83    | 35.08      | 26.4        | -12.0       | 27.42                        | 26.29                            | 1.005           | 3.27          | 1040      | 4.16     | 34.56      | 32.21       | 27.43       | 1.841                        | 2.26                             |                 |               |
| 260       | 13.68    | 35.06      | 21.6        | -13.2       | 27.46                        | 26.31                            | 1.014           | 3.27          | 1060      | 4.10     | 34.56      | 32.31       | 27.43       | 1.856                        | 2.28                             |                 |               |
| 265       | 13.32    | 35.04      | 15.6        | -14.4       | 27.54                        | 26.37                            | 1.023           | 3.25          | 1080      | 4.04     | 34.56      | 32.41       | 27.44       | 1.871                        | 2.30                             |                 |               |
| 270       | 12.94    | 34.99      | 9.6         | -12.0       | 27.60                        | 26.40                            | 1.032           | 3.15          | 1100      | 4.04     | 34.56      | 32.50       | 27.44       | 1.885                        | 2.31                             |                 |               |
| 275       | 12.71    | 34.96      | 9.6         | -12.0       | 27.65                        | 26.43                            | 1.040           | 3.06          | 1120      | 4.03     | 34.56      | 32.59       | 27.44       | 1.900                        | 2.30                             |                 |               |
| 280       | 12.67    | 34.95      | 4.8         | -6.0        | 27.67                        | 26.43                            | 1.048           | 2.97          | 1140      | 3.99     | 34.56      | 32.69       | 27.45       | 1.915                        | 2.29                             |                 |               |
| 285       | 12.54    | 34.93      | 2.4         | -3.6        | 27.71                        | 26.44                            | 1.057           | 2.97          | 1160      | 3.94     | 34.57      | 32.79       | 27.46       | 1.929                        | 2.26                             |                 |               |
| 290       | 12.30    | 34.94      | 0.0         | -4.8        | 27.78                        | 26.49                            | 1.065           | 2.87          | 1180      | 3.93     | 34.57      | 32.88       | 27.46       | 1.944                        | 2.22                             |                 |               |
| 295       | 11.90    | 34.90      | -2.4        | -4.8        | 27.85                        | 26.54                            | 1.073           | 2.66          | 1200      | 3.93     | 34.56      | 32.97       | 27.46       | 1.959                        | 2.20                             |                 |               |
| 300       | 11.84    | 34.89      | -1.2        | -4.8        | 27.88                        | 26.54                            | 1.081           | 2.51          | 1220      | 3.88     | 34.57      | 33.07       | 27.47       | 1.973                        | 2.19                             |                 |               |
| 305       | 11.82    | 34.88      | -1.2        | -4.8        | 27.90                        | 26.54                            | 1.089           | 2.51          | 1240      | 3.82     | 34.57      | 33.17       | 27.48       | 1.987                        | 2.12                             |                 |               |
| 310       | 11.75    | 34.87      | 1.2         | -2.4        | 27.93                        | 26.55                            | 1.096           | 2.49          | 1260      | 3.74     | 34.58      | 33.28       | 27.48       | 2.001                        | 2.16                             |                 |               |
| 315       | 11.64    | 34.86      | 1.2         | -2.4        | 27.96                        | 26.56                            | 1.104           | 2.46          | 1280      | 3.70     | 34.58      | 33.37       | 27.49       | 2.016                        | 2.21                             |                 |               |
| 320       | 11.51    | 34.86      | 2.4         | -2.4        | 28.01                        | 26.58                            | 1.112           | 2.42          | 1300      | 3.59     | 34.59      | 33.49       | 27.51       | 2.029                        | 2.17                             |                 |               |
| 325       | 11.46    | 34.85      | 0.0         | -2.4        | 28.03                        | 26.58                            | 1.119           | 2.41          | 1320      | 3.51     | 34.59      | 33.59       | 27.52       | 2.043                        | 2.21                             |                 |               |
| 330       | 11.43    | 34.84      | -2.4        | -1.2        | 28.05                        | 26.58                            | 1.127           | 2.40          | 1340      | 3.45     | 34.58      | 33.68       | 27.52       | 2.056                        | 2.28                             |                 |               |
| 335       | 11.37    | 34.83      | -6.0        | 0.0         | 28.08                        | 26.58                            | 1.135           | 2.43          | 1360      | 3.43     | 34.58      | 33.78       | 27.52       | 2.069                        | 2.25                             |                 |               |
| 340       | 11.24    | 34.83      | -7.2        | 0.0         | 28.13                        | 26.61                            | 1.142           | 2.45          | 1380      | 3.39     | 34.59      | 33.88       | 27.53       | 2.083                        | 2.27                             |                 |               |
| 345       | 10.90    | 34.81      | -7.2        | 0.0         | 28.20                        | 26.65                            | 1.150           | 2.32          | 1400      | 3.34     | 34.59      | 33.97       | 27.53       | 2.096                        | 2.29                             |                 |               |
| 350       | 10.82    | 34.80      | -10.8       | -1.2        | 28.23                        | 26.66                            | 1.157           | 2.26          | 1420      | 3.33     | 34.59      | 34.06       | 27.53       | 2.109                        | 2.30                             |                 |               |
| 355       | 10.78    | 34.79      | -13.2       | -3.6        | 28.25                        | 26.66                            | 1.164           | 2.27          | 1440      | 3.30     | 34.59      | 34.16       | 27.54       | 2.122                        | 2.31                             |                 |               |
| 360       | 10.62    | 34.78      | -15.6       | -6.0        | 28.30                        | 26.68                            | 1.171           | 2.29          | 1460      | 3.20     | 34.60      | 34.27       | 27.55       | 2.135                        | 2.41                             |                 |               |
| 365       | 10.51    | 34.77      | -14.4       | -4.8        | 28.33                        | 26.69                            | 1.179           | 2.30          | 1480      | 3.08     | 34.60      | 34.38       | 27.57       | 2.148                        | 2.40                             |                 |               |
| 370       | 10.50    | 34.77      | -16.8       | -6.0        | 28.35                        | 26.69                            | 1.186           | 2.29          | 1500      | 3.05     | 34.60      | 34.47       | 27.57       | 2.160                        | 2.38                             |                 |               |
| 375       | 10.47    | 34.77      | -16.8       | -7.2        | 28.38                        | 26.70                            | 1.193           | 2.28          | 1520      | 3.01     | 34.60      | 34.57       | 27.57       | 2.172                        | 2.38                             |                 |               |
| 380       | 10.29    | 34.76      | -15.6       | -6.0        | 28.                          |                                  |                 |               |           |          |            |             |             |                              |                                  |                 |               |

SURTROPAC11 STATION No : 26  
DATE : 15/ 1/89 HEURE : 0h10 LONGITUDE : 165.00 LATITUDE : 0.00



Courant E/O (cm/s) —  
Courant N/S (cm/s) ---

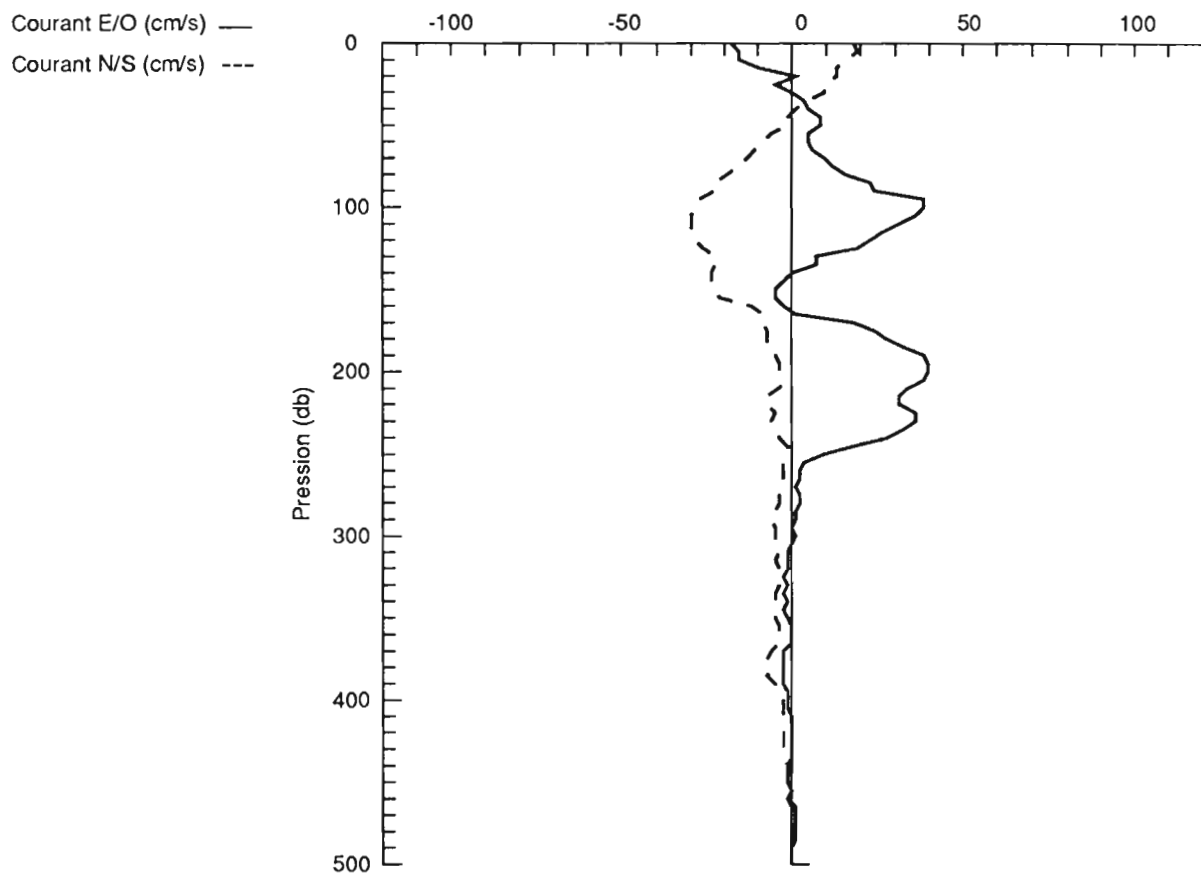
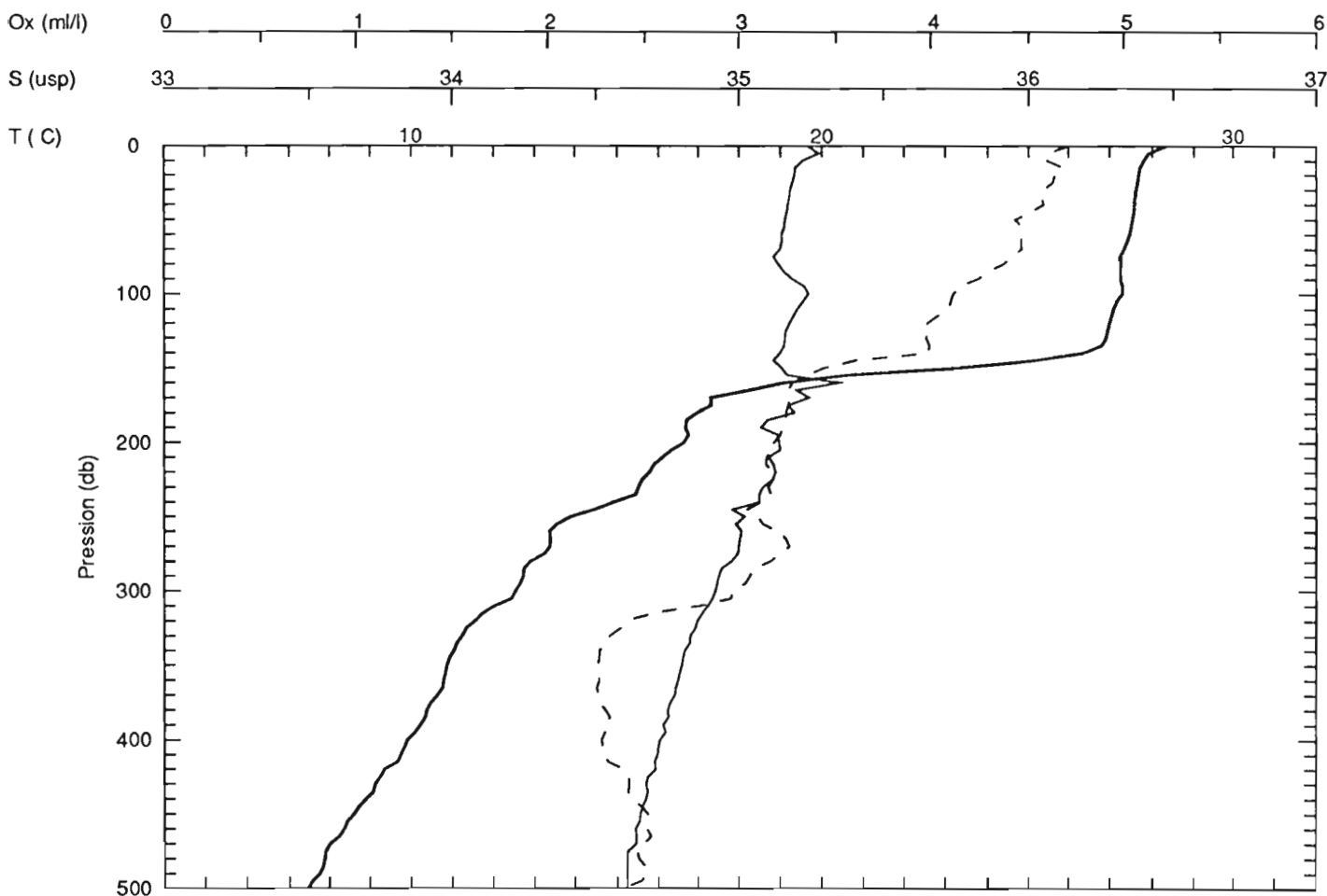


STATION : 27      CAMPAGNE : surtropacl1  
 DATE : 15/ 1/89    REURE : 7h50    LONGITUDE : 165.00    LATITUDE : 0.50

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.33 | 35.24 | -18.0  | 18.0   | 22.47   | 22.47    | 0.000   | 4.71   | 510  | 7.40  | 34.59 | 0.0    | 0.0    | 29.36   | 27.04    | 1.371   | 2.38   |
| 5    | 27.92 | 35.28 | -15.6  | 19.2   | 22.65   | 22.63    | 0.026   | 4.60   | 520  | 7.38  | 34.58 | 0.0    | 0.0    | 29.40   | 27.04    | 1.382   | 2.46   |
| 10   | 27.80 | 35.22 | -15.6  | 15.6   | 22.67   | 22.63    | 0.053   | 4.60   | 530  | 7.29  | 34.58 | 0.0    | 0.0    | 29.46   | 27.05    | 1.393   | 2.47   |
| 15   | 27.72 | 35.19 | -9.6   | 13.2   | 22.70   | 22.63    | 0.079   | 4.68   | 540  | 7.24  | 34.58 | 0.0    | 0.0    | 29.51   | 27.06    | 1.404   | 2.41   |
| 20   | 27.69 | 35.19 | 1.2    | 13.2   | 22.73   | 22.64    | 0.105   | 4.64   | 550  | 7.22  | 34.57 | 0.0    | 0.0    | 29.56   | 27.06    | 1.415   | 2.42   |
| 25   | 27.66 | 35.18 | -4.8   | 9.6    | 22.75   | 22.65    | 0.131   | 4.63   | 560  | 7.22  | 34.57 | 0.0    | 0.0    | 29.60   | 27.06    | 1.426   | 2.42   |
| 30   | 27.62 | 35.18 | 0.0    | 9.6    | 22.78   | 22.66    | 0.157   | 4.58   | 570  | 7.19  | 34.56 | 0.0    | 0.0    | 29.65   | 27.06    | 1.437   | 2.42   |
| 35   | 27.60 | 35.17 | 3.6    | 4.8    | 22.81   | 22.66    | 0.183   | 4.57   | 580  | 7.10  | 34.56 | 0.0    | 0.0    | 29.70   | 27.07    | 1.448   | 2.59   |
| 40   | 27.58 | 35.17 | 4.8    | 1.2    | 22.83   | 22.66    | 0.209   | 4.58   | 590  | 7.08  | 34.56 | 0.0    | 0.0    | 29.75   | 27.07    | 1.459   | 2.68   |
| 45   | 27.57 | 35.17 | 8.4    | -1.2   | 22.86   | 22.67    | 0.235   | 4.51   | 600  | 6.95  | 34.56 | -1.2   | 0.0    | 29.82   | 27.09    | 1.469   | 2.63   |
| 50   | 27.54 | 35.16 | 8.4    | -1.2   | 22.88   | 22.67    | 0.261   | 4.43   | 610  | 6.77  | 34.56 |        |        | 29.89   | 27.11    | 1.480   | 2.64   |
| 55   | 27.51 | 35.16 | 4.8    | -6.0   | 22.91   | 22.68    | 0.287   | 4.46   | 620  | 6.71  | 34.55 |        |        | 29.94   | 27.11    | 1.490   | 2.72   |
| 60   | 27.47 | 35.15 | 4.8    | -8.4   | 22.94   | 22.68    | 0.313   | 4.46   | 630  | 6.64  | 34.55 |        |        | 29.99   | 27.12    | 1.500   | 2.72   |
| 65   | 27.41 | 35.15 | 6.0    | -10.8  | 22.98   | 22.70    | 0.338   | 4.46   | 640  | 6.61  | 34.55 |        |        | 30.04   | 27.12    | 1.511   | 2.65   |
| 70   | 27.33 | 35.14 | 9.6    | -13.2  | 23.02   | 22.73    | 0.364   | 4.46   | 650  | 6.53  | 34.55 |        |        | 30.10   | 27.13    | 1.521   | 2.49   |
| 75   | 27.25 | 35.12 | 12.0   | -15.6  | 23.05   | 22.73    | 0.390   | 4.41   | 660  | 6.48  | 34.55 |        |        | 30.15   | 27.14    | 1.531   | 2.36   |
| 80   | 27.25 | 35.14 | 15.6   | -19.2  | 23.08   | 22.75    | 0.416   | 4.36   | 670  | 6.45  | 34.55 |        |        | 30.20   | 27.15    | 1.541   | 2.28   |
| 85   | 27.25 | 35.15 | 22.8   | -22.8  | 23.12   | 22.76    | 0.441   | 4.29   | 680  | 6.45  | 34.55 |        |        | 30.24   | 27.15    | 1.551   | 2.24   |
| 90   | 27.26 | 35.18 | 24.0   | -22.8  | 23.16   | 22.78    | 0.467   | 4.24   | 690  | 6.29  | 34.55 |        |        | 30.32   | 27.17    | 1.562   | 2.21   |
| 95   | 27.30 | 35.23 | 38.4   | -27.6  | 23.20   | 22.80    | 0.492   | 4.14   | 700  | 6.27  | 34.55 |        |        | 30.36   | 27.17    | 1.571   | 2.20   |
| 100  | 27.30 | 35.24 | 38.4   | -28.8  | 23.23   | 22.81    | 0.518   | 4.11   | 710  | 6.24  | 34.55 |        |        | 30.41   | 27.17    | 1.581   | 2.18   |
| 105  | 27.17 | 35.22 | 36.0   | -30.0  | 23.28   | 22.84    | 0.543   | 4.10   | 720  | 6.06  | 34.55 |        |        | 30.49   | 27.20    | 1.591   | 2.16   |
| 110  | 27.09 | 35.20 | 31.2   | -30.0  | 23.31   | 22.85    | 0.568   | 4.09   | 730  | 5.96  | 34.55 |        |        | 30.54   | 27.21    | 1.601   | 2.17   |
| 115  | 27.04 | 35.19 | 26.4   | -30.0  | 23.34   | 22.86    | 0.594   | 4.03   | 740  | 5.88  | 34.55 |        |        | 30.60   | 27.22    | 1.610   | 2.18   |
| 120  | 26.99 | 35.17 | 22.8   | -28.8  | 23.37   | 22.86    | 0.619   | 3.98   | 750  | 5.70  | 34.55 |        |        | 30.67   | 27.24    | 1.620   | 2.22   |
| 125  | 26.94 | 35.16 | 19.2   | -26.4  | 23.40   | 22.87    | 0.644   | 4.00   | 760  | 5.62  | 34.55 |        |        | 30.73   | 27.25    | 1.629   | 2.25   |
| 130  | 26.91 | 35.16 | 7.2    | -22.8  | 23.42   | 22.88    | 0.669   | 3.97   | 770  | 5.61  | 34.54 |        |        | 30.77   | 27.25    | 1.638   | 2.27   |
| 135  | 26.81 | 35.16 | 7.2    | -22.8  | 23.48   | 22.91    | 0.694   | 3.99   | 780  | 5.51  | 34.55 |        |        | 30.83   | 27.26    | 1.647   | 2.26   |
| 140  | 26.35 | 35.14 | 0.0    | -24.0  | 23.63   | 23.04    | 0.719   | 3.99   | 790  | 5.47  | 34.54 |        |        | 30.88   | 27.26    | 1.656   | 2.29   |
| 145  | 25.17 | 35.12 | -2.4   | -24.0  | 24.01   | 23.39    | 0.743   | 3.60   | 800  | 5.44  | 34.54 |        |        | 30.93   | 27.27    | 1.665   | 2.31   |
| 150  | 23.33 | 35.15 | -4.8   | -22.8  | 24.60   | 23.96    | 0.764   | 3.44   | 810  | 5.37  | 34.54 |        |        | 30.98   | 27.28    | 1.674   | 2.31   |
| 155  | 20.60 | 35.17 | -4.8   | -21.6  | 25.40   | 24.74    | 0.782   | 3.35   | 820  | 5.27  | 34.54 |        |        | 31.04   | 27.29    | 1.683   | 2.28   |
| 160  | 19.11 | 35.35 | -2.4   | -12.0  | 25.96   | 25.26    | 0.797   | 3.28   | 830  | 5.17  | 34.55 |        |        | 31.11   | 27.31    | 1.691   | 2.28   |
| 165  | 18.25 | 35.20 | 1.2    | -8.4   | 26.09   | 25.37    | 0.811   | 3.26   | 840  | 5.09  | 34.55 |        |        | 31.16   | 27.31    | 1.700   | 2.26   |
| 170  | 17.32 | 35.24 | 18.0   | -8.4   | 26.37   | 25.63    | 0.823   | 3.27   | 850  | 5.05  | 34.54 |        |        | 31.21   | 27.32    | 1.709   | 2.22   |
| 175  | 17.32 | 35.17 | 24.0   | -7.2   | 26.34   | 25.58    | 0.836   | 3.26   | 860  | 4.98  | 34.55 |        |        | 31.27   | 27.33    | 1.717   | 2.21   |
| 180  | 16.99 | 35.19 | 27.6   | -7.2   | 26.46   | 25.67    | 0.848   | 3.24   | 870  | 4.94  | 34.55 |        |        | 31.32   | 27.33    | 1.725   | 2.14   |
| 185  | 16.71 | 35.10 | 32.4   | -7.2   | 26.47   | 25.67    | 0.860   | 3.24   | 880  | 4.89  | 34.55 |        |        | 31.38   | 27.34    | 1.734   | 2.12   |
| 190  | 16.68 | 35.08 | 38.4   | -4.8   | 26.49   | 25.66    | 0.872   | 3.22   | 890  | 4.89  | 34.55 |        |        | 31.42   | 27.34    | 1.742   | 2.11   |
| 195  | 16.76 | 35.14 | 39.6   | -3.6   | 26.54   | 25.68    | 0.883   | 3.21   | 900  | 4.87  | 34.55 |        |        | 31.47   | 27.34    | 1.750   | 2.11   |
| 200  | 16.64 | 35.14 | 39.6   | -3.6   | 26.59   | 25.71    | 0.895   | 3.18   | 910  | 4.80  | 34.55 |        |        | 31.52   | 27.35    | 1.759   | 2.12   |
| 205  | 16.33 | 35.14 | 38.4   | -2.4   | 26.68   | 25.79    | 0.907   | 3.19   | 920  | 4.78  | 34.55 |        |        | 31.57   | 27.35    | 1.767   | 2.13   |
| 210  | 16.11 | 35.10 | 33.6   | -3.6   | 26.73   | 25.81    | 0.918   | 3.14   | 930  | 4.75  | 34.55 |        |        | 31.62   | 27.35    | 1.775   | 2.13   |
| 215  | 15.88 | 35.12 | 31.2   | -7.2   | 26.82   | 25.88    | 0.929   | 3.14   | 940  | 4.73  | 34.55 |        |        | 31.67   | 27.36    | 1.783   | 2.12   |
| 220  | 15.79 | 35.13 | 31.2   | -7.2   | 26.87   | 25.90    | 0.940   | 3.18   | 950  | 4.67  | 34.56 |        |        | 31.73   | 27.37    | 1.791   | 2.13   |
| 225  | 15.59 | 35.12 | 36.0   | -4.8   | 26.93   | 25.94    | 0.951   | 3.18   | 960  | 4.63  | 34.55 |        |        | 31.78   | 27.37    | 1.799   | 2.15   |
| 230  | 15.51 | 35.08 | 36.0   | -6.0   | 26.94   | 25.93    | 0.961   | 3.15   | 970  | 4.59  | 34.55 |        |        | 31.83   | 27.38    | 1.807   | 2.15   |
| 235  | 15.44 | 35.07 | 32.4   | -4.8   | 26.97   | 25.94    | 0.972   | 3.17   | 980  | 4.52  | 34.55 |        |        | 31.88   | 27.38    | 1.815   | 2.16   |
| 240  | 14.92 | 35.07 | 27.6   | -3.6   | 27.11   | 26.05    | 0.983   | 3.11   | 990  | 4.43  | 34.56 |        |        | 31.94   | 27.40    | 1.823   | 2.18   |
| 245  | 14.47 | 34.97 | 18.0   | -1.2   | 27.16   | 26.08    | 0.993   | 3.04   | 1000 | 4.41  | 34.56 |        |        | 31.99   | 27.40    | 1.831   | 2.19   |
| 250  | 13.92 | 35.02 | 9.6    | -1.2   | 27.33   | 26.23    | 1.002   | 3.10   | 1020 | 4.38  | 34.56 |        |        | 32.08   | 27.40    | 1.846   | 2.19   |
| 255  | 13.57 | 34.99 | 3.6    | -2.4   | 27.40   | 26.27    | 1.011   | 3.12   | 1040 | 4.34  | 34.56 |        |        | 32.18   | 27.41    | 1.862   | 2.15   |
| 260  | 13.38 | 35.01 | 2.4    | -2.4   | 27.48   | 26.33    | 1.020   | 3.20   | 1060 | 4.27  | 34.56 |        |        | 32.28   | 27.42    | 1.877   | 2.22   |
| 265  | 13.40 | 35.00 | 2.4    | -2.4   | 27.50   | 26.32    | 1.029   | 3.24   | 1080 | 4.20  | 34.56 |        |        | 32.38   | 27.42    | 1.893   | 2.27   |
| 270  | 13.39 | 35.00 | 1.2    | -2.4   | 27.52   | 26.32    | 1.038   | 3.26   | 1100 | 4.15  | 34.56 |        |        | 32.48   | 27.43    | 1.908   | 2.29   |
| 275  | 13.26 | 35.00 | 2.4    | -3.6   | 27.56   | 26.35    | 1.047   | 3.23   | 1120 | 4.12  | 34.56 |        |        | 32.58   | 27.43    | 1.923   | 2.30   |
| 280  | 12.92 | 34.97 | 2.4    | -3.6   | 27.64   | 26.40    | 1.055   | 3.16   | 1140 | 4.09  | 34.56 |        |        | 32.67   | 27.44    | 1.938   | 2.32   |
| 285  | 12.74 | 34.94 | 1.2    | -4.8   | 27.67   | 26.41    | 1.064   | 3.08   | 1160 | 4.07  | 34.56 |        |        | 32.77   | 27.44    | 1.952   | 2.31   |
| 290  | 12.73 | 34.93 | 1.2    | -6.0   | 27.69   | 26.40    | 1.072   | 3.06   | 1180 | 3.99  | 34.57 |        |        | 32.87   | 27.45    | 1.967   | 2.32   |
| 295  | 12.65 | 34.92 | 0.0    | -4.8   | 27.72   | 26.41    | 1.081   | 3.03   | 1200 | 3.91  | 34.57 |        |        | 32.97   | 27.46    | 1.982   | 2.26   |
| 300  | 12.54 | 34.92 | 1.2    | -4.8   | 27.76   | 26.43    | 1.089   | 2.97   | 1220 | 3.87  | 34.57 |        |        | 33.07   | 27.47    | 1.996   | 2.21   |
| 305  | 12.44 | 34.91 | 0.0    | -4.8   | 27.80   | 26.44    | 1.097   | 2.96   | 1240 | 3.78  | 34.57 |        |        | 33.18   | 27.48    | 2.010   | 2.27   |
| 310  | 12.02 | 34.89 | -1.2   | -3.6   | 27.89   | 26.51    | 1.106   | 2.79   | 1260 | 3.72  | 34.58 |        |        | 33.28   | 27.49    | 2.024   | 2.23   |
| 315  | 11.75 | 34.87 | -1.2   | -4.8   | 27.95   | 26.55    | 1.114   | 2.54   | 1280 | 3.68  | 34.58 |        |        | 33.38   | 27.49    | 2.039   | 2.18   |
| 320  | 11.56 | 34.85 | -1.2   | -3.6   | 27.99   | 26.57    | 1.121   | 2.42   | 1300 | 3.58  | 34.58 |        |        | 33.48   | 27.51    | 2.052   | 2.20   |
| 325  | 11.35 | 34.85 | -2.4   | -3.6   | 28.05   | 26.60    | 1.129   | 2.38   | 1320 | 3.55  | 34.58 |        |        | 33.58   | 27.51    | 2.066   | 2.21   |
| 330  | 11.25 | 34.83 | -1.2   | -3.6   | 28.08   | 26.61    | 1.137   | 2.32   | 1340 | 3.48  | 34.58 |        |        | 33.68   | 27.52    | 2.079   | 2.23   |
| 335  | 11.11 | 34.83 | -2.4   | -4.8   | 28.13   | 26.63    | 1.144   | 2.29   | 1360 | 3.43  | 34.58 |        |        | 33.78   | 27.52    | 2.093   | 2.24   |
| 340  | 11.05 | 34.81 | -1.2   | -4.8   | 28.15   | 26.63    | 1.151   | 2.27   | 1380 | 3.42  | 34.58 |        |        | 33.87   | 27.52    | 2.106   | 2.26   |
| 345  | 10.94 | 34.80 | -2.4   | -4.8   | 28.18   | 26.64    | 1.159   | 2.27   | 1400 | 3.40  | 34.58 |        |        | 33.96   | 27.53    | 2.119   | 2.27   |
| 350  | 10.88 | 34.80 | -1.2   | -4.8   | 28.21   | 26.65    | 1.166   | 2.26   | 1420 | 3.38  | 34.58 |        |        | 34.06   | 27.53    | 2.133   | 2.31   |
| 355  | 10.84 | 34.79 | 0.0    | -3.6   | 28.24   | 26.65    | 1.173   | 2.26   | 1440 | 3.36  | 34.58 |        |        | 34.15   | 27.53    | 2.146   | 2.30   |
| 360  | 10.80 | 34.78 | 0.0    | -3.6   | 28.26   | 26.65    | 1.181   | 2.27   | 1460 | 3.34  | 34.59 |        |        | 34.25   | 27.53    | 2.159   | 2.36   |
| 365  | 10.78 | 34.78 |        |        |         |          |         |        |      |       |       |        |        |         |          |         |        |



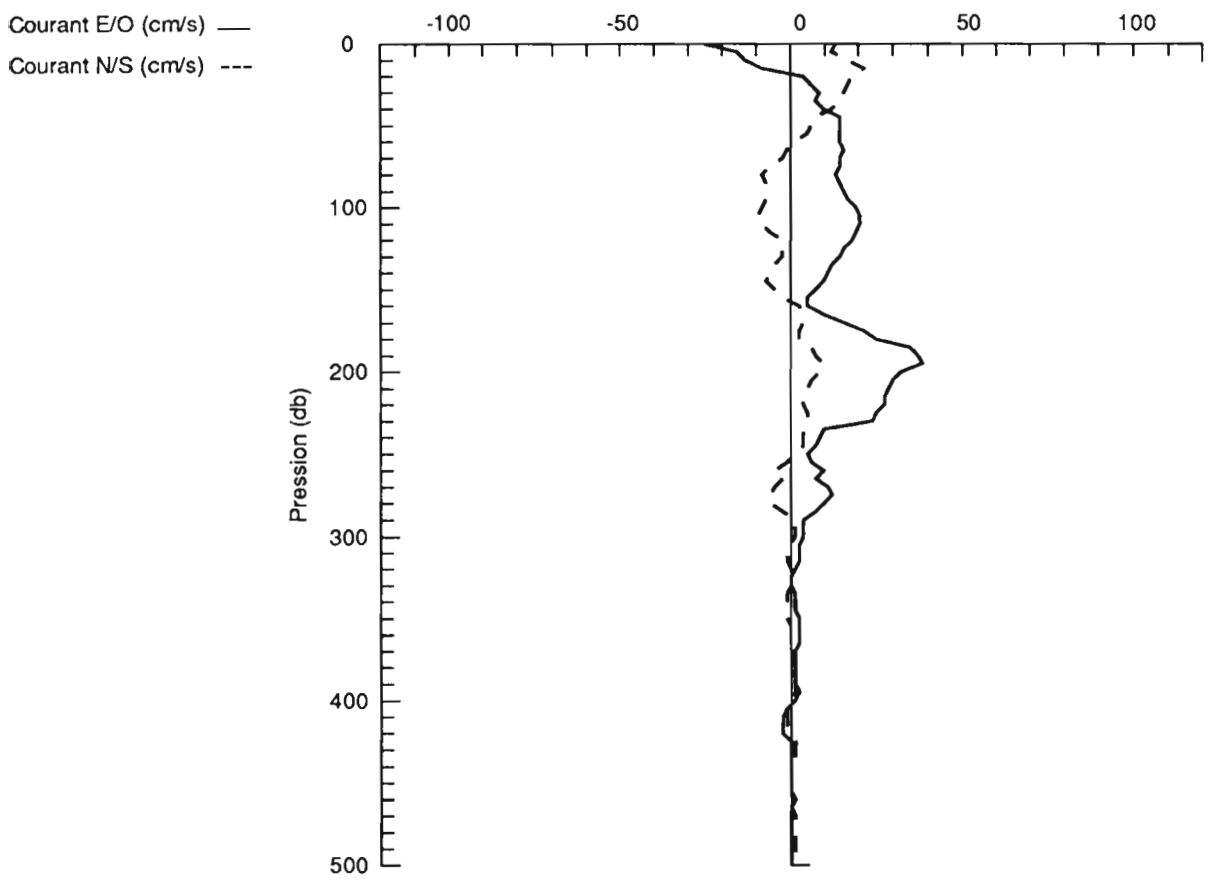
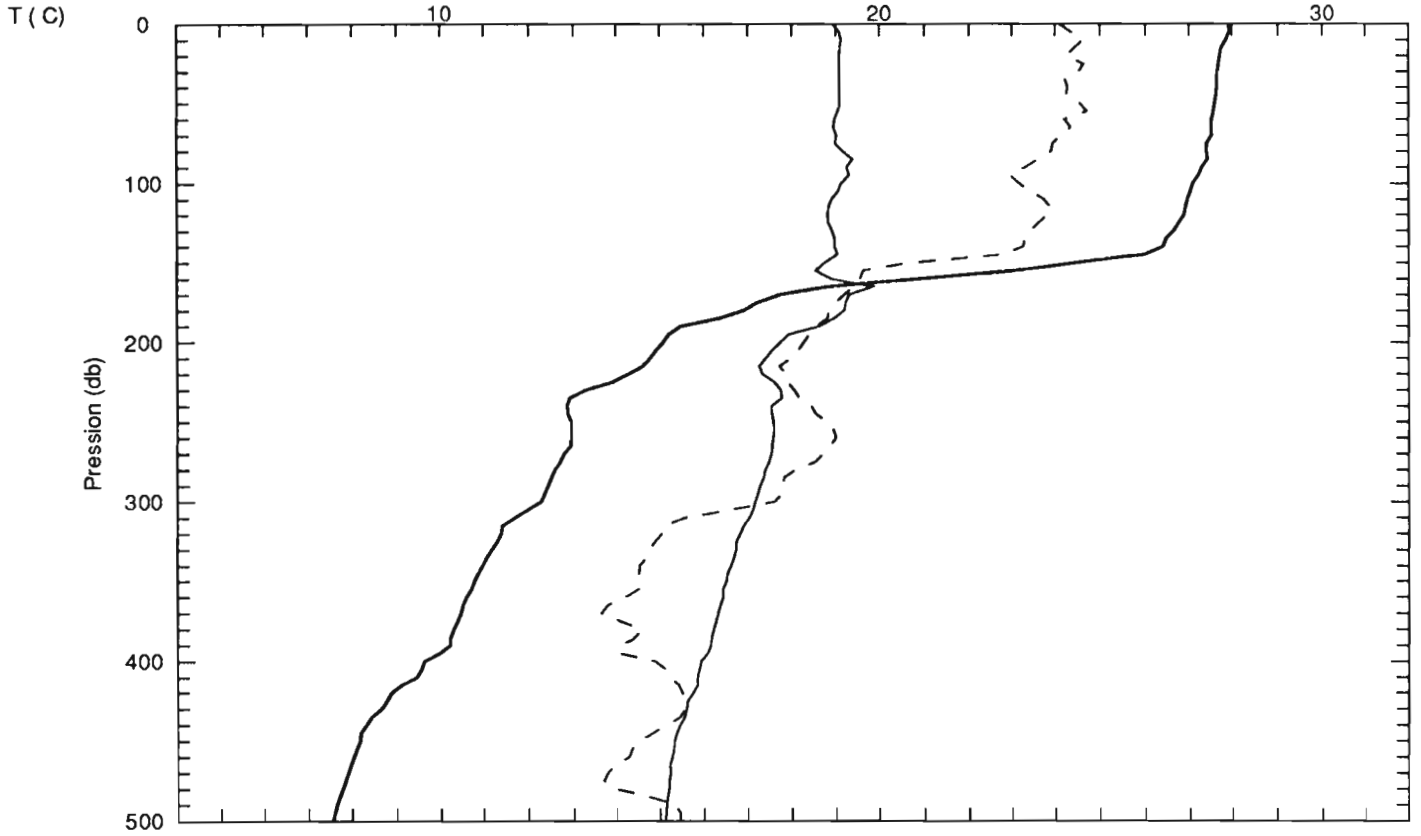
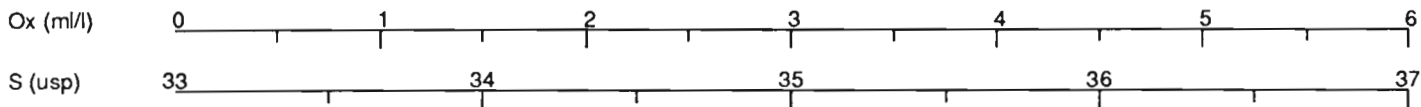
SURTROPAC11 STATION No : 27  
DATE : 15/ 1/89 HEURE : 7h50 LONGITUDE : 165.00 LATITUDE : 0.50



STATION : 28      CAMPAGNE : aurtropac11  
 DATE : 15/ 1/89    HEURE : 14h00    LONGITUDE : 165.00    LATITUDE : 1.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 27.94 | 35.13 | -25.2  | 13.2   | 22.52   | 22.52    | 0.000   | 4.30   | 510  | 7.44 | 34.58 | 0.0    | 1.2    | 29.35   | 27.03    | 1.362   | 2.48   |
| 5    | 27.94 | 35.16 | -15.6  | 12.0   | 22.55   | 22.53    | 0.027   | 4.36   | 520  | 7.39 | 34.57 | 0.0    | 1.2    | 29.40   | 27.03    | 1.372   | 2.47   |
| 10   | 27.87 | 35.16 | -13.2  | 16.8   | 22.60   | 22.56    | 0.053   | 4.42   | 530  | 7.34 | 34.57 | 0.0    | 1.2    | 29.45   | 27.04    | 1.383   | 2.43   |
| 15   | 27.76 | 35.16 | -8.4   | 21.6   | 22.66   | 22.60    | 0.079   | 4.38   | 540  | 7.24 | 34.57 | 0.0    | 1.2    | 29.51   | 27.05    | 1.395   | 2.45   |
| 20   | 27.73 | 35.16 | 3.6    | 18.0   | 22.69   | 22.60    | 0.106   | 4.34   | 550  | 7.22 | 34.56 | -1.2   | 1.2    | 29.55   | 27.05    | 1.405   | 2.47   |
| 25   | 27.69 | 35.16 | 6.0    | 16.8   | 22.72   | 22.62    | 0.132   | 4.42   | 560  | 7.21 | 34.56 | 0.0    | 0.0    | 29.60   | 27.05    | 1.416   | 2.49   |
| 30   | 27.67 | 35.16 | 8.4    | 15.6   | 22.75   | 22.62    | 0.158   | 4.40   | 570  | 7.11 | 34.56 | 0.0    | 0.0    | 29.66   | 27.07    | 1.427   | 2.48   |
| 35   | 27.65 | 35.16 | 7.2    | 14.4   | 22.78   | 22.63    | 0.184   | 4.33   | 580  | 6.99 | 34.56 | 0.0    | 0.0    | 29.72   | 27.08    | 1.438   | 2.45   |
| 40   | 27.65 | 35.16 | 9.6    | 12.0   | 22.80   | 22.63    | 0.210   | 4.35   | 590  | 6.91 | 34.56 | 0.0    | 0.0    | 29.78   | 27.09    | 1.449   | 2.42   |
| 45   | 27.63 | 35.16 | 14.4   | 7.2    | 22.83   | 22.64    | 0.236   | 4.34   | 600  | 6.73 | 34.56 | 0.0    | 0.0    | 29.85   | 27.12    | 1.459   | 2.43   |
| 50   | 27.60 | 35.16 | 14.4   | 6.0    | 22.86   | 22.65    | 0.262   | 4.41   | 610  | 6.55 | 34.56 | 0.0    | 0.0    | 29.92   | 27.14    | 1.469   | 2.36   |
| 55   | 27.58 | 35.15 | 14.4   | 4.8    | 22.88   | 22.65    | 0.289   | 4.44   | 620  | 6.48 | 34.56 | 0.0    | 0.0    | 29.97   | 27.15    | 1.479   | 2.34   |
| 60   | 27.53 | 35.14 | 14.4   | 1.2    | 22.91   | 22.66    | 0.315   | 4.33   | 630  | 6.42 | 34.55 | 0.0    | 0.0    | 30.02   | 27.15    | 1.489   | 2.31   |
| 65   | 27.52 | 35.14 | 15.6   | -1.2   | 22.93   | 22.66    | 0.341   | 4.36   | 640  | 6.37 | 34.55 | 0.0    | 0.0    | 30.07   | 27.16    | 1.499   | 2.31   |
| 70   | 27.52 | 35.15 | 14.4   | -2.4   | 22.96   | 22.66    | 0.367   | 4.32   | 650  | 6.35 | 34.54 | 0.0    | 0.0    | 30.12   | 27.16    | 1.509   | 2.29   |
| 75   | 27.42 | 35.14 | 14.4   | -6.0   | 23.01   | 22.70    | 0.393   | 4.27   | 660  | 6.33 | 34.54 | 0.0    | 0.0    | 30.17   | 27.16    | 1.519   | 2.20   |
| 80   | 27.41 | 35.17 | 13.2   | -8.4   | 23.06   | 22.72    | 0.419   | 4.26   | 670  | 6.29 | 34.54 | 0.0    | 0.0    | 30.22   | 27.16    | 1.529   | 2.29   |
| 85   | 27.43 | 35.20 | 14.4   | -7.2   | 23.10   | 22.74    | 0.444   | 4.20   | 680  | 6.25 | 34.54 | 0.0    | 0.0    | 30.27   | 27.17    | 1.539   | 2.28   |
| 90   | 27.30 | 35.18 | 15.6   | -7.2   | 23.14   | 22.77    | 0.470   | 4.14   | 690  | 6.22 | 34.54 | 0.0    | 0.0    | 30.32   | 27.17    | 1.549   | 2.23   |
| 95   | 27.22 | 35.19 | 16.8   | -7.2   | 23.20   | 22.80    | 0.495   | 4.06   | 700  | 6.17 | 34.55 | 0.0    | 0.0    | 30.37   | 27.18    | 1.559   | 2.21   |
| 100  | 27.08 | 35.16 | 19.2   | -8.4   | 23.24   | 22.82    | 0.521   | 4.11   | 710  | 6.07 | 34.55 | 0.0    | 0.0    | 30.44   | 27.20    | 1.569   | 2.17   |
| 105  | 27.02 | 35.15 | 20.4   | -9.6   | 23.28   | 22.83    | 0.546   | 4.15   | 720  | 6.00 | 34.54 | 0.0    | 0.0    | 30.49   | 27.20    | 1.578   | 2.14   |
| 110  | 26.96 | 35.13 | 20.4   | -8.4   | 23.30   | 22.84    | 0.572   | 4.22   | 730  | 5.99 | 34.54 | 0.0    | 0.0    | 30.53   | 27.20    | 1.588   | 2.15   |
| 115  | 26.91 | 35.12 | 19.2   | -6.0   | 23.33   | 22.85    | 0.597   | 4.26   | 740  | 5.97 | 34.54 | 0.0    | 0.0    | 30.58   | 27.20    | 1.597   | 2.17   |
| 120  | 26.87 | 35.12 | 18.0   | -2.4   | 23.36   | 22.86    | 0.622   | 4.26   | 750  | 5.91 | 34.54 | 0.0    | 0.0    | 30.63   | 27.21    | 1.607   | 2.21   |
| 125  | 26.75 | 35.12 | 15.6   | -2.4   | 23.42   | 22.90    | 0.647   | 4.20   | 760  | 5.81 | 34.54 | 0.0    | 0.0    | 30.70   | 27.22    | 1.617   | 2.20   |
| 130  | 26.63 | 35.13 | 14.4   | -2.4   | 23.49   | 22.94    | 0.672   | 4.17   | 770  | 5.73 | 34.54 | 0.0    | 0.0    | 30.75   | 27.23    | 1.626   | 2.21   |
| 135  | 26.46 | 35.14 | 12.0   | -4.8   | 23.58   | 23.01    | 0.697   | 4.14   | 780  | 5.67 | 34.54 | 0.0    | 0.0    | 30.80   | 27.24    | 1.635   | 2.24   |
| 140  | 26.39 | 35.14 | 10.8   | -6.0   | 23.62   | 23.03    | 0.721   | 4.13   | 790  | 5.59 | 34.54 | 0.0    | 0.0    | 30.86   | 27.25    | 1.644   | 2.29   |
| 145  | 25.98 | 35.15 | 9.6    | -7.2   | 23.77   | 23.16    | 0.746   | 4.03   | 800  | 5.54 | 34.54 | 0.0    | 0.0    | 30.91   | 27.26    | 1.653   | 2.33   |
| 150  | 24.51 | 35.11 | 7.2    | -4.8   | 24.22   | 23.58    | 0.769   | 3.58   | 810  | 5.47 | 34.54 | 0.0    | 0.0    | 30.97   | 27.26    | 1.663   | 2.32   |
| 155  | 23.08 | 35.08 | 4.8    | -2.4   | 24.64   | 24.98    | 0.789   | 3.35   | 820  | 5.42 | 34.54 | 0.0    | 0.0    | 31.02   | 27.27    | 1.672   | 2.23   |
| 160  | 20.85 | 35.13 | 4.8    | 2.4    | 25.33   | 24.64    | 0.808   | 3.34   | 830  | 5.32 | 34.55 | 0.0    | 0.0    | 31.09   | 27.29    | 1.681   | 2.20   |
| 165  | 18.79 | 35.26 | 9.6    | 3.6    | 26.00   | 25.28    | 0.823   | 3.31   | 840  | 5.15 | 34.55 | 0.0    | 0.0    | 31.16   | 27.31    | 1.689   | 2.18   |
| 170  | 17.72 | 35.19 | 15.6   | 3.6    | 26.23   | 25.49    | 0.836   | 3.26   | 850  | 5.06 | 34.55 | 0.0    | 0.0    | 31.21   | 27.32    | 1.698   | 2.19   |
| 175  | 17.21 | 35.17 | 21.6   | 2.4    | 26.37   | 25.61    | 0.849   | 3.21   | 860  | 4.99 | 34.55 | 0.0    | 0.0    | 31.27   | 27.33    | 1.706   | 2.19   |
| 180  | 16.92 | 35.17 | 25.2   | 2.4    | 26.46   | 25.67    | 0.861   | 3.18   | 870  | 4.95 | 34.55 | 0.0    | 0.0    | 31.32   | 27.33    | 1.714   | 2.18   |
| 185  | 16.35 | 35.14 | 34.8   | 6.0    | 26.59   | 25.78    | 0.872   | 3.17   | 880  | 4.90 | 34.55 | 0.0    | 0.0    | 31.37   | 27.34    | 1.723   | 2.19   |
| 190  | 15.47 | 35.09 | 37.2   | 7.2    | 26.78   | 25.94    | 0.883   | 3.11   | 890  | 4.85 | 34.55 | 0.0    | 0.0    | 31.42   | 27.34    | 1.731   | 2.18   |
| 195  | 15.20 | 34.99 | 38.4   | 9.6    | 26.79   | 25.93    | 0.894   | 3.09   | 900  | 4.79 | 34.55 | 0.0    | 0.0    | 31.48   | 27.35    | 1.739   | 2.18   |
| 200  | 15.07 | 34.96 | 32.4   | 8.4    | 26.81   | 25.93    | 0.905   | 3.06   | 910  | 4.78 | 34.55 | 0.0    | 0.0    | 31.52   | 27.35    | 1.748   | 2.13   |
| 205  | 14.91 | 34.94 | 30.0   | 6.0    | 26.85   | 25.95    | 0.915   | 3.03   | 920  | 4.76 | 34.55 | 0.0    | 0.0    | 31.57   | 27.35    | 1.756   | 2.11   |
| 210  | 14.77 | 34.92 | 28.8   | 4.8    | 26.89   | 25.96    | 0.926   | 2.99   | 930  | 4.74 | 34.55 | 0.0    | 0.0    | 31.62   | 27.35    | 1.764   | 2.11   |
| 215  | 14.61 | 34.89 | 27.6   | 3.6    | 26.93   | 25.98    | 0.936   | 2.94   | 940  | 4.70 | 34.55 | 0.0    | 0.0    | 31.67   | 27.36    | 1.772   | 2.13   |
| 220  | 14.28 | 34.90 | 27.6   | 3.6    | 27.03   | 26.06    | 0.946   | 2.97   | 950  | 4.66 | 34.55 | 0.0    | 0.0    | 31.73   | 27.37    | 1.780   | 2.14   |
| 225  | 13.92 | 34.94 | 25.2   | 4.8    | 27.16   | 26.17    | 0.956   | 2.97   | 960  | 4.64 | 34.55 | 0.0    | 0.0    | 31.77   | 27.37    | 1.788   | 2.13   |
| 230  | 13.29 | 34.96 | 24.0   | 4.8    | 27.33   | 26.31    | 0.965   | 3.01   | 970  | 4.64 | 34.55 | 0.0    | 0.0    | 31.82   | 27.37    | 1.796   | 2.12   |
| 235  | 12.90 | 34.97 | 9.6    | 3.6    | 27.43   | 26.39    | 0.974   | 3.03   | 980  | 4.62 | 34.55 | 0.0    | 0.0    | 31.87   | 27.37    | 1.804   | 2.12   |
| 240  | 12.85 | 34.93 | 8.4    | 3.6    | 27.44   | 26.38    | 0.982   | 3.09   | 990  | 4.57 | 34.55 | 0.0    | 0.0    | 31.92   | 27.38    | 1.813   | 2.11   |
| 245  | 12.87 | 34.93 | 7.2    | 3.6    | 27.46   | 26.38    | 0.991   | 3.12   | 1000 | 4.53 | 34.55 | 0.0    | 0.0    | 31.97   | 27.38    | 1.820   | 2.15   |
| 250  | 12.95 | 34.94 | 4.8    | 1.2    | 27.47   | 26.36    | 1.000   | 3.17   | 1020 | 4.49 | 34.55 | 0.0    | 0.0    | 32.07   | 27.39    | 1.836   | 2.17   |
| 255  | 12.94 | 34.94 | 6.0    | -1.2   | 27.50   | 26.37    | 1.009   | 3.20   | 1040 | 4.47 | 34.55 | 0.0    | 0.0    | 32.16   | 27.39    | 1.852   | 2.15   |
| 260  | 12.94 | 34.94 | 9.6    | -4.8   | 27.52   | 26.36    | 1.017   | 3.21   | 1060 | 4.45 | 34.55 | 0.0    | 0.0    | 32.25   | 27.39    | 1.868   | 2.14   |
| 265  | 12.93 | 34.94 | 7.2    | -2.4   | 27.54   | 26.36    | 1.025   | 3.19   | 1080 | 4.40 | 34.55 | 0.0    | 0.0    | 32.35   | 27.40    | 1.884   | 2.14   |
| 270  | 12.78 | 34.93 | 10.8   | -4.8   | 27.59   | 26.39    | 1.034   | 3.15   | 1100 | 4.33 | 34.56 | 0.0    | 0.0    | 32.46   | 27.41    | 1.899   | 2.18   |
| 275  | 12.69 | 34.92 | 12.0   | -6.0   | 27.62   | 26.40    | 1.043   | 3.11   | 1120 | 4.20 | 34.56 | 0.0    | 0.0    | 32.57   | 27.43    | 1.915   | 2.26   |
| 280  | 12.58 | 34.91 | 9.6    | -6.0   | 27.66   | 26.42    | 1.051   | 3.02   | 1140 | 4.09 | 34.57 | 0.0    | 0.0    | 32.68   | 27.44    | 1.930   | 2.25   |
| 285  | 12.50 | 34.91 | 7.2    | -2.4   | 27.69   | 26.43    | 1.059   | 2.96   | 1160 | 3.94 | 34.57 | 0.0    | 0.0    | 32.79   | 27.46    | 1.944   | 2.23   |
| 290  | 12.41 | 34.90 | 3.6    | 1.2    | 27.72   | 26.44    | 1.068   | 2.95   | 1180 | 3.86 | 34.57 | 0.0    | 0.0    | 32.89   | 27.47    | 1.959   | 2.25   |
| 295  | 12.34 | 34.89 | 3.6    | 1.2    | 27.76   | 26.45    | 1.076   | 2.95   | 1200 | 3.83 | 34.57 | 0.0    | 0.0    | 32.99   | 27.47    | 1.973   | 2.23   |
| 300  | 12.26 | 34.88 | 3.6    | 1.2    | 27.79   | 26.45    | 1.084   | 2.91   | 1220 | 3.79 | 34.57 | 0.0    | 0.0    | 33.08   | 27.48    | 1.987   | 2.20   |
| 305  | 11.97 | 34.87 | 2.4    | 0.0    | 27.86   | 26.51    | 1.092   | 2.70   | 1240 | 3.76 | 34.57 | 0.0    | 0.0    | 33.18   | 27.48    | 2.001   | 2.22   |
| 310  | 11.68 | 34.86 | 2.4    | -1.2   | 27.93   | 26.55    | 1.100   | 2.47   | 1260 | 3.71 | 34.57 | 0.0    | 0.0    | 33.28   | 27.49    | 2.015   | 2.20   |
| 315  | 11.42 | 34.84 | 2.4    | -1.2   | 27.99   | 26.58    | 1.108   | 2.38   | 1280 | 3.68 | 34.58 | 0.0    | 0.0    | 33.38   | 27.49    | 2.029   | 2.18   |
| 320  | 11.39 | 34.83 | 1.2    | 0.0    | 28.01   | 26.58    | 1.115   | 2.37   | 1300 | 3.66 | 34.58 | 0.0    | 0.0    | 33.47   | 27.49    | 2.043   | 2.15   |
| 325  | 11.31 | 34.82 | 0.0    | 0.0    | 28.04   | 26.59    | 1.123   | 2.33   | 1320 | 3.60 | 34.58 | 0.0    | 0.0    | 33.57   | 27.50    | 2.057   | 2.16   |
| 330  | 11.18 | 34.82 | 0.0    | 0.0    | 28.08   | 26.61    | 1.131   | 2.31   | 1340 | 3.57 | 34.58 | 0.0    | 0.0    | 33.66   | 27.50    | 2.071   | 2.18   |
| 335  | 11.07 | 34.81 | 1.2    | -1.2   | 28.12   | 26.62    | 1.138   | 2.29   | 1360 | 3.50 | 34.58 | 0.0    | 0.0    | 33.77   | 27.51    | 2.084   | 2.19   |
| 340  | 10.97 | 34.80 | 1.2    | -1.2   | 28.15   | 26.63    | 1.146   | 2.26   | 1380 | 3.48 | 34.58 | 0.0    | 0.0    | 33.86   | 27.52    | 2.098   | 2.25   |
| 345  | 10.87 | 34.79 | 1.2    | -1.2   | 28.19   | 26.64    | 1.153   | 2.25   | 1400 | 3.42 | 34.58 | 0.0    | 0.0    | 33.96   | 27.52    | 2.111   | 2.27   |
| 350  | 10.78 | 34.79 | 2.4    | -1.2   |         |          |         |        |      |      |       |        |        |         |          |         |        |

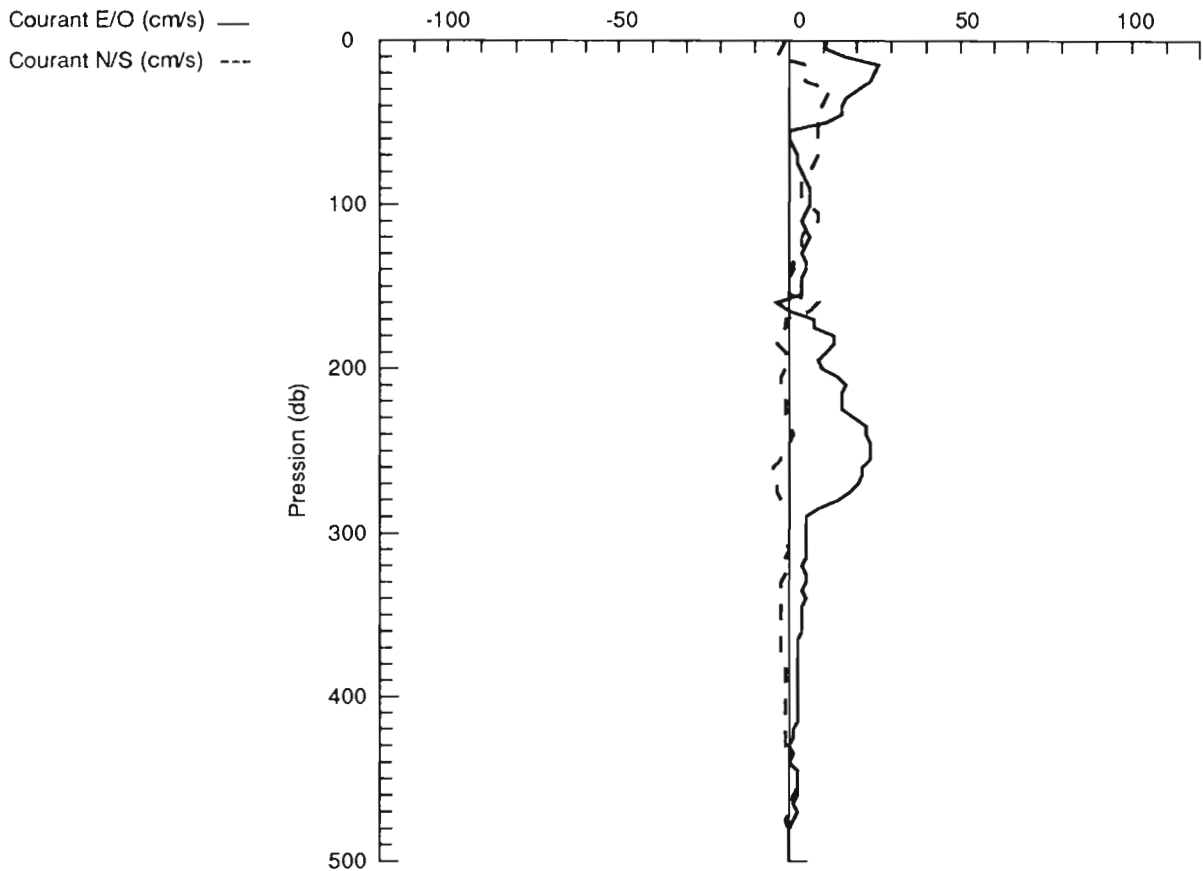
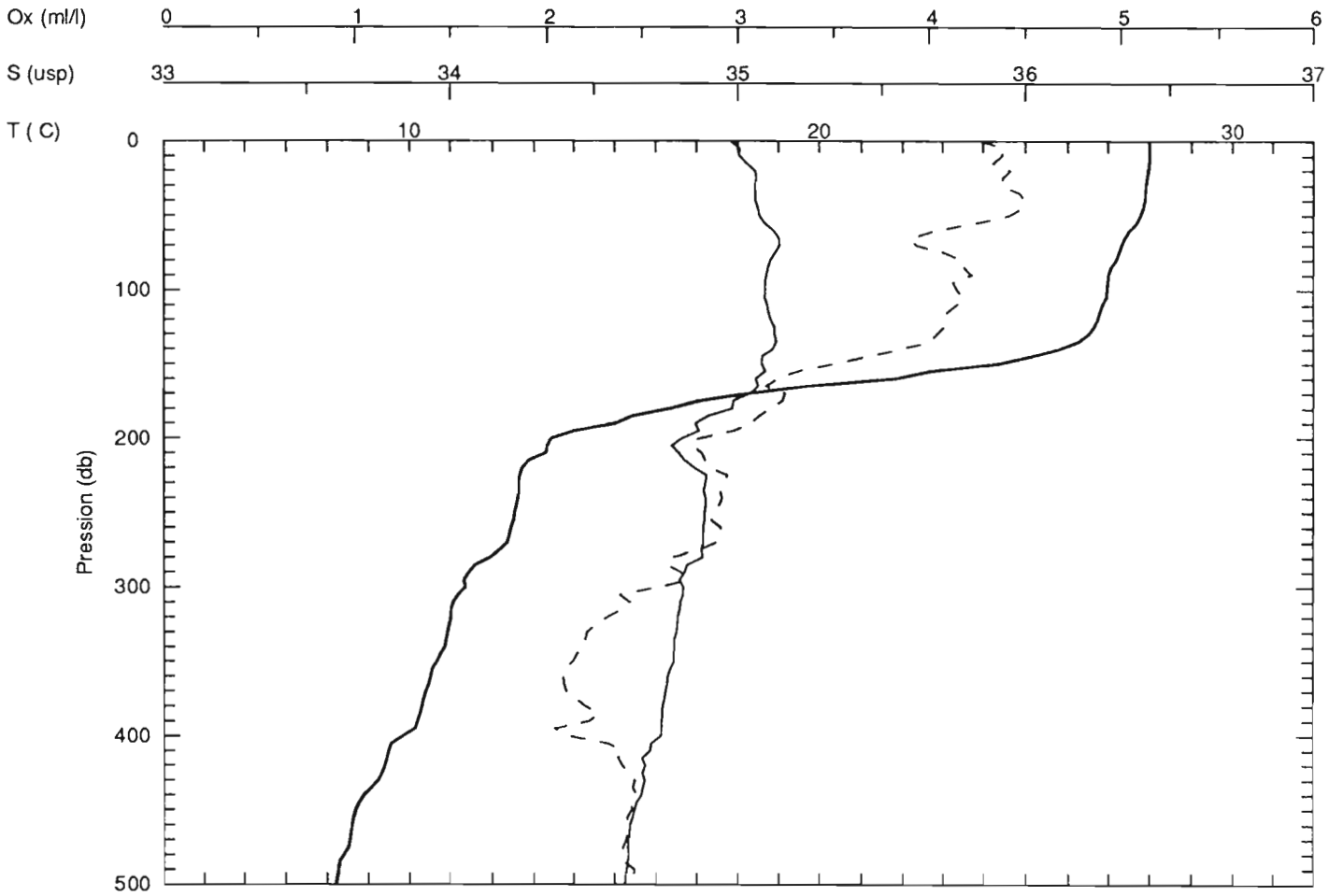
SURTROPAC11 STATION No : 28  
DATE : 15/ 1/89 HEURE : 14h00 LONGITUDE : 165.00 LATITUDE : 1.00



STATION : 29      CAMPAGNE : aurtropaecl  
 DATE : 15/ 1/89    HEURE : 20h15    LONGITUDE : 165.00    LATITUDE : 1.50

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Bdyn    | Oxy    | P    | T     | S     | U      | V      | Sigt    | Sigtheta | Bdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.03 | 34.97 | 10.8   | -1.2   | 22.37   | 22.37    | 0.000   | 4.27   | 510  | 8.10  | 34.60 | 0.0    | 1.2    | 29.26   | 26.96    | 1.364   | 2.29   |
| 5    | 28.03 | 35.01 | 10.8   | -2.4   | 22.41   | 22.39    | 0.027   | 4.39   | 520  | 7.99  | 34.60 | 0.0    | 1.2    | 29.33   | 26.97    | 1.376   | 2.31   |
| 10   | 28.03 | 35.00 | 16.8   | -3.6   | 22.43   | 22.39    | 0.055   | 4.38   | 530  | 7.89  | 34.60 | 1.2    | 2.4    | 29.38   | 26.98    | 1.388   | 2.19   |
| 15   | 28.01 | 35.03 | 26.4   | 4.8    | 22.48   | 22.42    | 0.082   | 4.34   | 540  | 7.67  | 34.60 | 1.2    | 2.4    | 29.47   | 27.02    | 1.399   | 2.04   |
| 20   | 27.99 | 35.06 | 25.2   | 3.6    | 22.53   | 22.45    | 0.109   | 4.42   | 550  | 7.54  | 34.59 | 1.2    | 2.4    | 29.52   | 27.03    | 1.410   | 2.01   |
| 25   | 27.96 | 35.06 | 24.0   | 4.8    | 22.57   | 22.46    | 0.136   | 4.39   | 560  | 7.42  | 34.59 | 1.2    | 2.4    | 29.59   | 27.04    | 1.421   | 2.00   |
| 30   | 27.93 | 35.06 | 20.4   | 12.0   | 22.59   | 22.47    | 0.162   | 4.38   | 570  | 7.33  | 34.58 | 1.2    | 1.2    | 29.64   | 27.05    | 1.432   | 1.98   |
| 35   | 27.92 | 35.06 | 16.8   | 10.8   | 22.62   | 22.47    | 0.189   | 4.47   | 580  | 7.26  | 34.57 | 0.0    | 1.2    | 29.69   | 27.06    | 1.443   | 1.95   |
| 40   | 27.91 | 35.06 | 15.6   | 9.6    | 22.64   | 22.48    | 0.216   | 4.50   | 590  | 7.18  | 34.57 | 0.0    | -2.4   | 29.74   | 27.06    | 1.454   | 2.00   |
| 45   | 27.86 | 35.07 | 15.6   | 8.4    | 22.69   | 22.50    | 0.243   | 4.49   | 600  | 7.01  | 34.57 | -2.4   | -2.4   | 29.82   | 27.09    | 1.465   | 2.13   |
| 50   | 27.80 | 35.08 | 10.8   | 8.4    | 22.73   | 22.52    | 0.270   | 4.42   | 610  | 6.90  | 34.57 |        |        | 29.88   | 27.10    | 1.476   | 2.14   |
| 55   | 27.70 | 35.09 | 0.0    | 8.4    | 22.80   | 22.57    | 0.296   | 4.25   | 620  | 6.77  | 34.56 |        |        | 29.94   | 27.11    | 1.486   | 2.09   |
| 60   | 27.53 | 35.13 | 0.0    | 8.4    | 22.90   | 22.65    | 0.323   | 4.04   | 630  | 6.67  | 34.56 |        |        | 29.99   | 27.12    | 1.496   | 2.04   |
| 65   | 27.42 | 35.15 | 1.2    | 8.4    | 22.97   | 22.70    | 0.349   | 3.90   | 640  | 6.55  | 34.56 |        |        | 30.06   | 27.14    | 1.507   | 1.97   |
| 70   | 27.33 | 35.15 | 2.4    | 8.4    | 23.02   | 22.73    | 0.375   | 3.93   | 650  | 6.45  | 34.55 |        |        | 30.11   | 27.15    | 1.517   | 2.09   |
| 75   | 27.27 | 35.13 | 2.4    | 7.2    | 23.05   | 22.74    | 0.400   | 4.08   | 660  | 6.36  | 34.55 |        |        | 30.17   | 27.16    | 1.527   | 2.17   |
| 80   | 27.19 | 35.11 | 3.6    | 6.0    | 23.09   | 22.75    | 0.426   | 4.18   | 670  | 6.25  | 34.55 |        |        | 30.23   | 27.17    | 1.537   | 2.21   |
| 85   | 27.06 | 35.11 | 4.8    | 3.6    | 23.14   | 22.79    | 0.451   | 4.18   | 680  | 6.20  | 34.55 |        |        | 30.28   | 27.18    | 1.546   | 2.17   |
| 90   | 27.01 | 35.10 | 6.0    | 3.6    | 23.18   | 22.80    | 0.477   | 4.22   | 690  | 6.14  | 34.55 |        |        | 30.33   | 27.18    | 1.556   | 2.18   |
| 95   | 26.98 | 35.10 | 6.0    | 3.6    | 23.21   | 22.80    | 0.502   | 4.13   | 700  | 6.09  | 34.55 |        |        | 30.39   | 27.19    | 1.566   | 2.20   |
| 100  | 26.96 | 35.10 | 6.0    | 6.0    | 23.23   | 22.81    | 0.528   | 4.15   | 710  | 5.99  | 34.54 |        |        | 30.44   | 27.20    | 1.576   | 2.23   |
| 105  | 26.94 | 35.09 | 4.8    | 8.4    | 23.26   | 22.82    | 0.553   | 4.18   | 720  | 5.97  | 34.54 |        |        | 30.49   | 27.20    | 1.585   | 2.23   |
| 110  | 26.85 | 35.10 | 3.6    | 8.4    | 23.32   | 22.85    | 0.579   | 4.15   | 730  | 5.93  | 34.54 |        |        | 30.54   | 27.21    | 1.595   | 2.25   |
| 115  | 26.78 | 35.11 | 4.8    | 4.8    | 23.37   | 22.88    | 0.604   | 4.09   | 740  | 5.88  | 34.54 |        |        | 30.59   | 27.21    | 1.604   | 2.28   |
| 120  | 26.73 | 35.12 | 6.0    | 3.6    | 23.41   | 22.90    | 0.629   | 4.10   | 750  | 5.85  | 34.54 |        |        | 30.64   | 27.22    | 1.614   | 2.30   |
| 125  | 26.64 | 35.13 | 4.8    | 3.6    | 23.47   | 22.94    | 0.654   | 4.08   | 760  | 5.77  | 34.54 |        |        | 30.70   | 27.22    | 1.623   | 2.31   |
| 130  | 26.50 | 35.13 | 3.6    | 2.4    | 23.53   | 22.98    | 0.678   | 4.04   | 770  | 5.70  | 34.54 |        |        | 30.76   | 27.24    | 1.633   | 2.31   |
| 135  | 26.26 | 35.13 | 4.8    | 1.2    | 23.64   | 23.07    | 0.703   | 4.00   | 780  | 5.59  | 34.54 |        |        | 30.82   | 27.25    | 1.642   | 2.33   |
| 140  | 25.77 | 35.12 | 4.8    | 1.2    | 23.80   | 23.21    | 0.727   | 3.84   | 790  | 5.47  | 34.55 |        |        | 30.88   | 27.27    | 1.651   | 2.33   |
| 145  | 25.14 | 35.08 | 3.6    | 0.0    | 23.99   | 23.37    | 0.750   | 3.68   | 800  | 5.39  | 34.54 |        |        | 30.94   | 27.28    | 1.660   | 2.33   |
| 150  | 24.35 | 35.08 | 3.6    | 0.0    | 24.25   | 23.61    | 0.772   | 3.50   | 810  | 5.30  | 34.55 |        |        | 31.00   | 27.29    | 1.669   | 2.33   |
| 155  | 22.69 | 35.10 | 3.6    | 0.0    | 24.77   | 24.11    | 0.793   | 3.32   | 820  | 5.22  | 34.54 |        |        | 31.05   | 27.30    | 1.677   | 2.33   |
| 160  | 21.82 | 35.06 | -3.6   | 8.4    | 25.01   | 24.32    | 0.812   | 3.22   | 830  | 5.16  | 34.54 |        |        | 31.11   | 27.30    | 1.686   | 2.31   |
| 165  | 19.71 | 35.07 | 0.0    | 6.0    | 25.61   | 24.90    | 0.829   | 3.15   | 840  | 5.13  | 34.54 |        |        | 31.16   | 27.31    | 1.695   | 2.25   |
| 170  | 18.26 | 35.04 | 7.2    | -1.2   | 25.99   | 25.25    | 0.844   | 3.25   | 850  | 5.10  | 34.54 |        |        | 31.21   | 27.31    | 1.703   | 2.17   |
| 175  | 17.07 | 34.98 | 7.2    | -1.2   | 26.26   | 25.49    | 0.857   | 3.24   | 860  | 5.06  | 34.55 |        |        | 31.26   | 27.32    | 1.712   | 2.17   |
| 180  | 16.37 | 34.98 | 13.2   | -3.6   | 26.44   | 25.65    | 0.869   | 3.18   | 870  | 5.04  | 34.54 |        |        | 31.30   | 27.32    | 1.720   | 2.16   |
| 185  | 15.45 | 34.90 | 13.2   | -3.6   | 26.61   | 25.80    | 0.881   | 3.11   | 880  | 4.99  | 34.55 |        |        | 31.36   | 27.33    | 1.729   | 2.18   |
| 190  | 15.02 | 34.85 | 10.8   | -1.2   | 26.70   | 25.86    | 0.892   | 3.07   | 890  | 4.92  | 34.55 |        |        | 31.41   | 27.33    | 1.737   | 2.16   |
| 195  | 14.02 | 34.87 | 8.4    | 0.0    | 26.95   | 26.09    | 0.903   | 2.97   | 900  | 4.88  | 34.55 |        |        | 31.47   | 27.34    | 1.746   | 2.17   |
| 200  | 13.44 | 34.81 | 9.6    | -1.2   | 27.05   | 26.16    | 0.912   | 2.80   | 910  | 4.84  | 34.55 |        |        | 31.52   | 27.34    | 1.754   | 2.15   |
| 205  | 13.34 | 34.77 | 14.4   | -2.4   | 27.06   | 26.15    | 0.922   | 2.76   | 920  | 4.76  | 34.55 |        |        | 31.57   | 27.35    | 1.762   | 2.14   |
| 210  | 13.31 | 34.80 | 16.8   | -2.4   | 27.11   | 26.18    | 0.931   | 2.81   | 930  | 4.76  | 34.55 |        |        | 31.62   | 27.35    | 1.770   | 2.13   |
| 215  | 12.88 | 34.82 | 15.6   | -1.2   | 27.24   | 26.28    | 0.941   | 2.83   | 940  | 4.74  | 34.55 |        |        | 31.67   | 27.35    | 1.778   | 2.14   |
| 220  | 12.70 | 34.85 | 15.6   | -1.2   | 27.32   | 26.34    | 0.949   | 2.86   | 950  | 4.72  | 34.55 |        |        | 31.71   | 27.36    | 1.787   | 2.12   |
| 225  | 12.65 | 34.89 | 15.6   | -1.2   | 27.38   | 26.39    | 0.958   | 2.94   | 960  | 4.70  | 34.55 |        |        | 31.76   | 27.36    | 1.795   | 2.13   |
| 230  | 12.63 | 34.89 | 19.2   | -1.2   | 27.41   | 26.39    | 0.966   | 2.93   | 970  | 4.68  | 34.55 |        |        | 31.81   | 27.36    | 1.803   | 2.10   |
| 235  | 12.63 | 34.88 | 22.8   | 0.0    | 27.43   | 26.38    | 0.975   | 2.91   | 980  | 4.66  | 34.55 |        |        | 31.86   | 27.36    | 1.811   | 2.09   |
| 240  | 12.61 | 34.89 | 22.8   | 1.2    | 27.46   | 26.39    | 0.983   | 2.92   | 990  | 4.66  | 34.55 |        |        | 31.91   | 27.36    | 1.819   | 2.11   |
| 245  | 12.57 | 34.89 | 24.0   | 0.0    | 27.49   | 26.40    | 0.992   | 2.90   | 1000 | 4.64  | 34.55 |        |        | 31.95   | 27.37    | 1.827   | 2.11   |
| 250  | 12.52 | 34.88 | 24.0   | -2.4   | 27.52   | 26.41    | 1.000   | 2.88   | 1020 | 4.59  | 34.55 |        |        | 32.05   | 27.38    | 1.844   | 2.11   |
| 255  | 12.50 | 34.88 | 24.0   | -2.4   | 27.54   | 26.41    | 1.009   | 2.86   | 1040 | 4.55  | 34.55 |        |        | 32.15   | 27.38    | 1.860   | 2.15   |
| 260  | 12.44 | 34.88 | 21.6   | -4.8   | 27.57   | 26.42    | 1.017   | 2.91   | 1060 | 4.41  | 34.56 |        |        | 32.27   | 27.40    | 1.875   | 2.18   |
| 265  | 12.40 | 34.88 | 21.6   | -4.8   | 27.60   | 26.43    | 1.025   | 2.91   | 1080 | 4.33  | 34.56 |        |        | 32.37   | 27.41    | 1.891   | 2.20   |
| 270  | 12.35 | 34.88 | 20.4   | -3.6   | 27.64   | 26.44    | 1.034   | 2.89   | 1100 | 4.25  | 34.56 |        |        | 32.47   | 27.42    | 1.906   | 2.17   |
| 275  | 12.17 | 34.87 | 18.0   | -3.6   | 27.69   | 26.47    | 1.042   | 2.80   | 1120 | 4.09  | 34.57 |        |        | 32.59   | 27.45    | 1.921   | 2.17   |
| 280  | 11.97 | 34.88 | 14.4   | -2.4   | 27.76   | 26.51    | 1.050   | 2.66   | 1140 | 3.88  | 34.58 |        |        | 32.71   | 27.47    | 1.936   | 2.21   |
| 285  | 11.60 | 34.83 | 8.4    | -1.2   | 27.81   | 26.54    | 1.058   | 2.63   | 1160 | 3.85  | 34.57 |        |        | 32.80   | 27.47    | 1.950   | 2.21   |
| 290  | 11.46 | 34.82 | 4.8    | 0.0    | 27.85   | 26.56    | 1.066   | 2.71   | 1180 | 3.84  | 34.57 |        |        | 32.89   | 27.47    | 1.964   | 2.19   |
| 295  | 11.34 | 34.80 | 4.8    | 0.0    | 27.88   | 26.56    | 1.073   | 2.74   | 1200 | 3.83  | 34.57 |        |        | 32.99   | 27.47    | 1.978   | 2.16   |
| 300  | 11.37 | 34.81 | 4.8    | 0.0    | 27.91   | 26.57    | 1.081   | 2.59   | 1220 | 3.78  | 34.57 |        |        | 33.09   | 27.48    | 1.992   | 2.19   |
| 305  | 11.20 | 34.81 | 4.8    | -1.2   | 27.96   | 26.60    | 1.088   | 2.38   | 1240 | 3.76  | 34.57 |        |        | 33.18   | 27.48    | 2.007   | 2.15   |
| 310  | 11.08 | 34.80 | 4.8    | 0.0    | 28.00   | 26.61    | 1.096   | 2.44   | 1260 | 3.74  | 34.57 |        |        | 33.27   | 27.48    | 2.021   | 2.14   |
| 315  | 11.03 | 34.80 | 4.8    | -1.2   | 28.03   | 26.62    | 1.103   | 2.39   | 1280 | 3.72  | 34.57 |        |        | 33.37   | 27.49    | 2.035   | 2.18   |
| 320  | 11.02 | 34.79 | 3.6    | 0.0    | 28.05   | 26.62    | 1.111   | 2.32   | 1300 | 3.66  | 34.58 |        |        | 33.47   | 27.49    | 2.049   | 2.24   |
| 325  | 10.99 | 34.79 | 4.8    | -1.2   | 28.08   | 26.62    | 1.118   | 2.26   | 1320 | 3.56  | 34.58 |        |        | 33.58   | 27.51    | 2.063   | 2.25   |
| 330  | 10.95 | 34.79 | 4.8    | -2.4   | 28.10   | 26.63    | 1.126   | 2.21   | 1340 | 3.51  | 34.58 |        |        | 33.67   | 27.51    | 2.076   | 2.28   |
| 335  | 10.92 | 34.78 | 3.6    | -2.4   | 28.13   | 26.63    | 1.133   | 2.20   | 1360 | 3.47  | 34.58 |        |        | 33.77   | 27.52    | 2.090   | 2.29   |
| 340  | 10.88 | 34.78 | 4.8    | -2.4   | 28.15   | 26.63    | 1.140   | 2.19   | 1380 | 3.41  | 34.59 |        |        | 33.87   | 27.53    | 2.103   | 2.27   |
| 345  | 10.77 | 34.78 | 3.6    | -2.4   | 28.20   | 26.65    | 1.148   | 2.16   | 1400 | 3.34  | 34.59 |        |        | 33.98   | 27.54    | 2.116   | 2.24   |
| 350  | 10.69 | 34.78 | 3.6    | -2.4   | 28.23   | 26.67    | 1.155   | 2.14   | 1420 | 3.15  | 34.60 |        |        | 34.10   | 27.57    | 2.129   | 2.27   |
| 355  | 10.57 | 34.77 | 3.6    | -2.4   | 28.27   | 26.68    | 1.162   | 2.10   | 1440 | 3.11  | 34.60 |        |        | 34.19   | 27.56    | 2.141   | 2.28   |
| 360  | 10.53 | 34.76 | 3.6    | -2.4   | 28.29   | 26.68    | 1.169   | 2.09   | 1460 | 3.07  | 34.60 |        |        | 34.29   | 27.57    | 2.154   | 2.38   |
| 365  | 10.48 | 34.76 | 2.4    | -2.4   | 28.     |          |         |        |      |       |       |        |        |         |          |         |        |

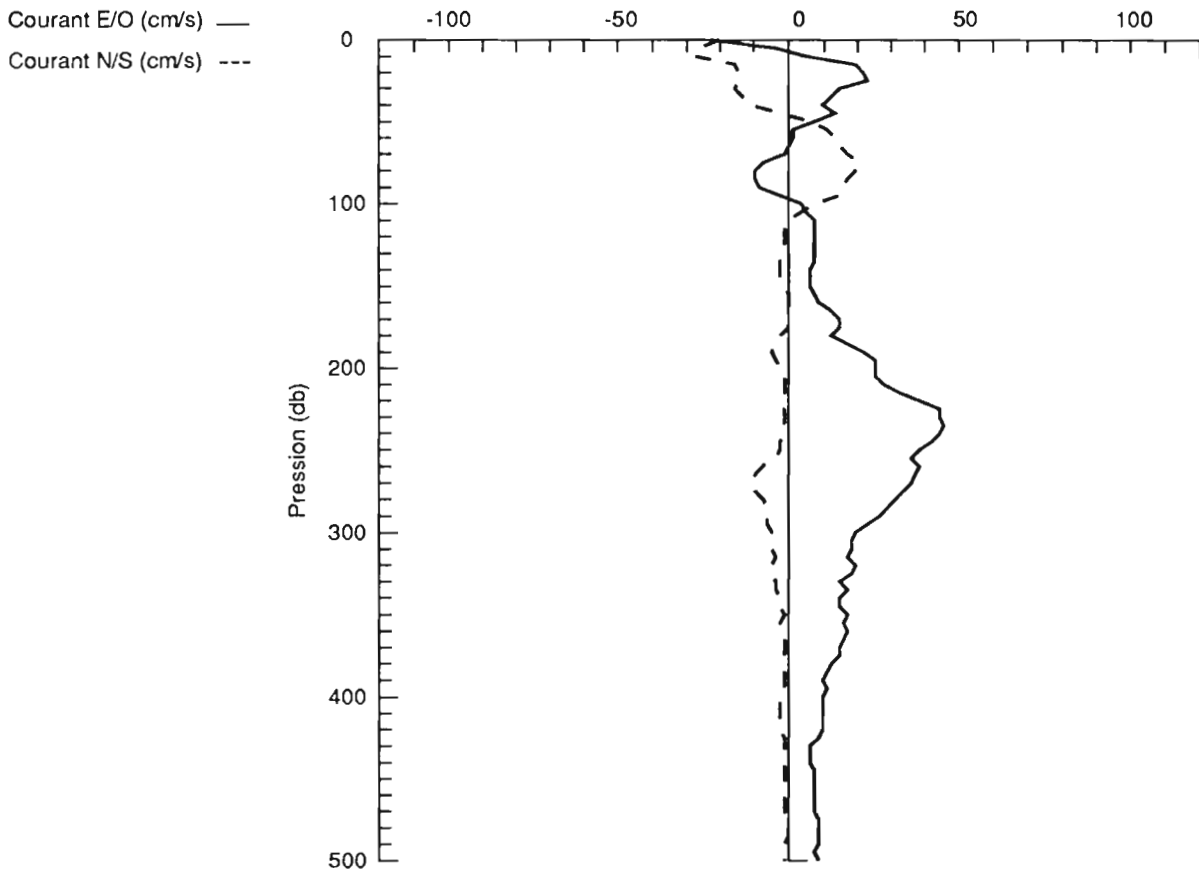
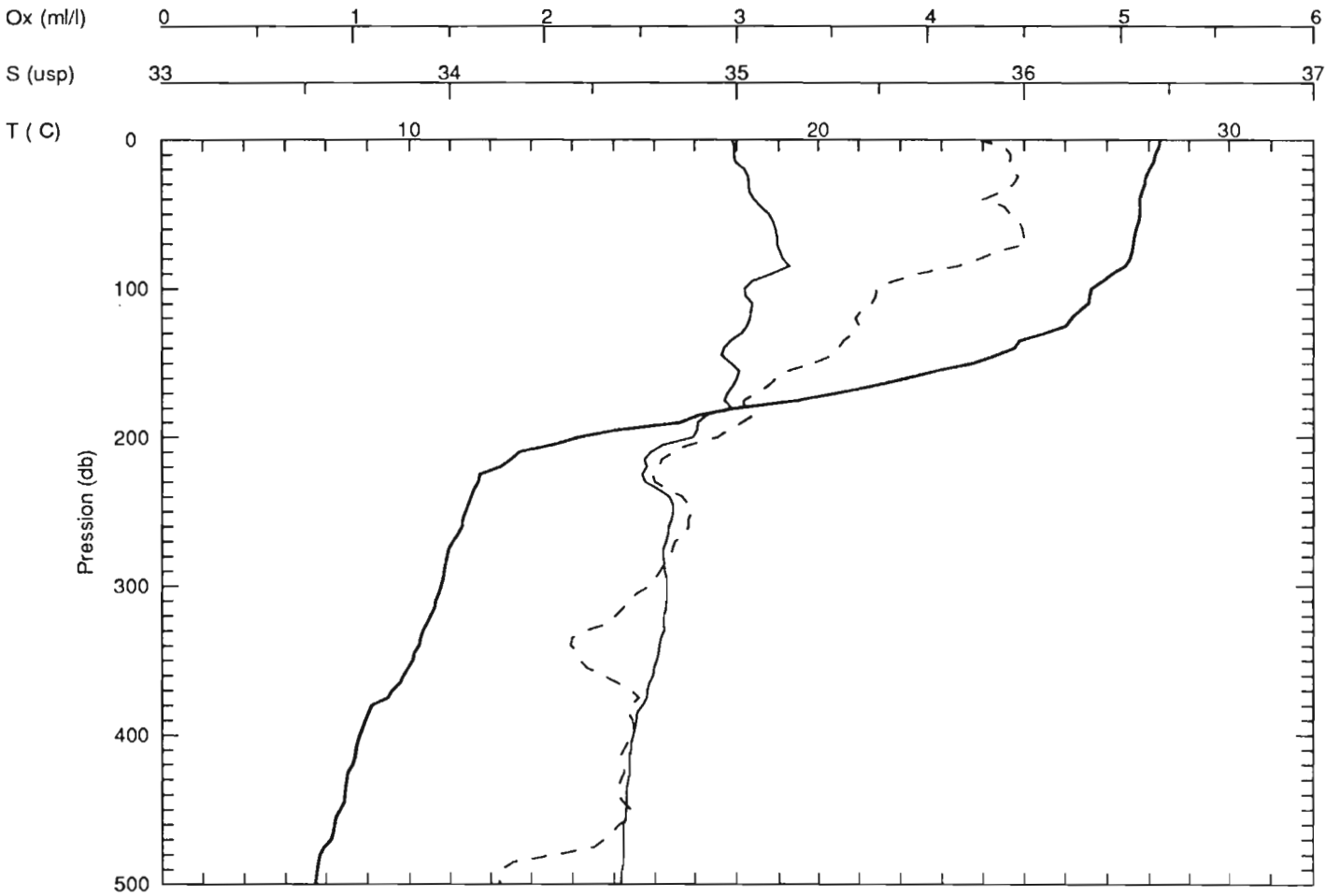
SURTROPAC11 STATION No : 29  
DATE : 15/ 1/89 HEURE : 20h15 LONGITUDE : 165.00 LATITUDE : 1.50



STATION : 30      CAMPAGNE : aurtropae11  
 DATE : 16/ 1/89    HEURE : 2h10    LONGITUDE : 165.00    LATITUDE : 2.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.29 | 34.98 | -22.8  | -20.4  | 22.29   | 22.29    | 0.000   | 4.26   | 510  | 7.68  | 34.59 | 7.2    | -1.2   | 29.32   | 27.01    | 1.354   | 1.77   |
| 5    | 28.24 | 34.99 | -3.6   | -26.4  | 22.33   | 22.31    | 0.028   | 4.40   | 520  | 7.59  | 34.59 | 7.2    | -1.2   | 29.38   | 27.02    | 1.365   | 1.79   |
| 10   | 28.16 | 34.99 | 4.8    | -27.6  | 22.38   | 22.34    | 0.055   | 4.43   | 530  | 7.52  | 34.58 | 6.0    | -1.2   | 29.43   | 27.02    | 1.376   | 1.81   |
| 15   | 28.12 | 34.99 | 19.2   | -15.6  | 22.42   | 22.35    | 0.083   | 4.43   | 540  | 7.48  | 34.58 | 6.0    | -1.2   | 29.48   | 27.03    | 1.387   | 1.84   |
| 20   | 28.02 | 35.03 | 21.6   | -14.4  | 22.50   | 22.41    | 0.110   | 4.43   | 550  | 7.33  | 34.59 | 4.8    | -2.4   | 29.55   | 27.05    | 1.398   | 1.83   |
| 25   | 27.93 | 35.04 | 22.8   | -14.4  | 22.55   | 22.45    | 0.137   | 4.47   | 560  | 7.20  | 34.58 | -1.2   | 0.0    | 29.61   | 27.07    | 1.409   | 1.61   |
| 30   | 27.90 | 35.04 | 14.4   | -15.6  | 22.59   | 22.46    | 0.164   | 4.44   | 570  | 6.98  | 34.57 | -2.4   | 1.2    | 29.68   | 27.09    | 1.420   | 1.79   |
| 35   | 27.83 | 35.04 | 12.0   | -13.2  | 22.63   | 22.49    | 0.191   | 4.38   | 580  | 6.87  | 34.57 | -2.4   | 1.2    | 29.74   | 27.10    | 1.430   | 2.08   |
| 40   | 27.78 | 35.06 | 9.6    | -10.8  | 22.68   | 22.51    | 0.218   | 4.29   | 590  | 6.77  | 34.56 | -1.2   | 1.2    | 29.80   | 27.11    | 1.441   | 2.10   |
| 45   | 27.79 | 35.08 | 13.2   | -2.4   | 22.72   | 22.53    | 0.244   | 4.40   | 600  | 6.72  | 34.56 |        |        | 29.85   | 27.12    | 1.451   | 1.91   |
| 50   | 27.79 | 35.11 | 7.2    | 6.0    | 22.76   | 22.55    | 0.271   | 4.43   | 610  | 6.64  | 34.56 |        |        | 29.90   | 27.13    | 1.461   | 1.87   |
| 55   | 27.75 | 35.12 | 1.2    | 10.8   | 22.81   | 22.57    | 0.297   | 4.47   | 620  | 6.60  | 34.56 |        |        | 29.96   | 27.13    | 1.472   | 1.93   |
| 60   | 27.69 | 35.13 | 1.2    | 13.2   | 22.85   | 22.60    | 0.324   | 4.49   | 630  | 6.59  | 34.55 |        |        | 30.00   | 27.13    | 1.482   | 1.99   |
| 65   | 27.66 | 35.14 | 0.0    | 14.4   | 22.89   | 22.62    | 0.350   | 4.50   | 640  | 6.49  | 34.56 |        |        | 30.06   | 27.15    | 1.492   | 2.03   |
| 70   | 27.62 | 35.14 | -1.2   | 16.8   | 22.92   | 22.63    | 0.376   | 4.51   | 650  | 6.42  | 34.55 |        |        | 30.12   | 27.15    | 1.502   | 2.07   |
| 75   | 27.59 | 35.15 | -7.2   | 20.4   | 22.96   | 22.65    | 0.402   | 4.36   | 660  | 6.37  | 34.55 |        |        | 30.17   | 27.16    | 1.512   | 2.10   |
| 80   | 27.54 | 35.16 | -9.6   | 19.2   | 23.01   | 22.67    | 0.428   | 4.27   | 670  | 6.29  | 34.55 |        |        | 30.22   | 27.17    | 1.522   | 2.14   |
| 85   | 27.43 | 35.18 | -9.6   | 16.8   | 23.08   | 22.73    | 0.454   | 4.16   | 680  | 6.24  | 34.55 |        |        | 30.28   | 27.17    | 1.532   | 1.96   |
| 90   | 27.12 | 35.12 | -0.4   | 15.6   | 23.16   | 22.78    | 0.480   | 3.95   | 690  | 6.18  | 34.55 |        |        | 30.33   | 27.18    | 1.542   | 2.10   |
| 95   | 26.89 | 35.05 | -2.4   | 14.4   | 23.20   | 22.80    | 0.506   | 3.82   | 700  | 6.11  | 34.55 |        |        | 30.38   | 27.19    | 1.551   | 2.12   |
| 100  | 26.63 | 35.03 | 3.6    | 7.2    | 23.29   | 22.87    | 0.531   | 3.73   | 710  | 6.01  | 34.55 |        |        | 30.44   | 27.20    | 1.561   | 2.12   |
| 105  | 26.58 | 35.03 | 4.8    | 3.6    | 23.32   | 22.88    | 0.556   | 3.73   | 720  | 5.96  | 34.55 |        |        | 30.50   | 27.21    | 1.571   | 2.11   |
| 110  | 26.56 | 35.05 | 7.2    | 0.0    | 23.37   | 22.91    | 0.581   | 3.71   | 730  | 5.89  | 34.55 |        |        | 30.55   | 27.22    | 1.580   | 2.09   |
| 115  | 26.35 | 35.05 | 7.2    | -1.2   | 23.46   | 22.97    | 0.606   | 3.65   | 740  | 5.78  | 34.55 |        |        | 30.61   | 27.23    | 1.590   | 2.08   |
| 120  | 26.15 | 35.04 | 7.2    | -1.2   | 23.54   | 23.03    | 0.630   | 3.63   | 750  | 5.65  | 34.55 |        |        | 30.68   | 27.25    | 1.599   | 2.10   |
| 125  | 26.03 | 35.03 | 7.2    | -1.2   | 23.59   | 23.06    | 0.655   | 3.64   | 760  | 5.57  | 34.54 |        |        | 30.73   | 27.25    | 1.608   | 2.09   |
| 130  | 25.50 | 35.02 | 7.2    | -1.2   | 23.76   | 23.21    | 0.679   | 3.62   | 770  | 5.53  | 34.55 |        |        | 30.78   | 27.26    | 1.617   | 2.12   |
| 135  | 24.88 | 34.98 | 7.2    | -2.4   | 23.94   | 23.37    | 0.702   | 3.56   | 780  | 5.39  | 34.55 |        |        | 30.85   | 27.28    | 1.626   | 2.20   |
| 140  | 24.76 | 34.96 | 6.0    | -2.4   | 23.99   | 23.39    | 0.725   | 3.54   | 790  | 5.30  | 34.54 |        |        | 30.91   | 27.29    | 1.635   | 2.27   |
| 145  | 24.30 | 34.95 | 6.0    | -2.4   | 24.14   | 23.53    | 0.747   | 3.50   | 800  | 5.27  | 34.54 |        |        | 30.95   | 27.29    | 1.643   | 2.31   |
| 150  | 23.77 | 34.98 | 6.0    | -1.2   | 24.34   | 23.71    | 0.769   | 3.39   | 810  | 5.21  | 34.55 |        |        | 31.01   | 27.30    | 1.652   | 2.34   |
| 155  | 22.88 | 35.01 | 7.2    | 0.0    | 24.65   | 23.98    | 0.789   | 3.27   | 820  | 5.11  | 34.54 |        |        | 31.07   | 27.31    | 1.661   | 2.33   |
| 160  | 22.16 | 35.00 | 8.4    | 0.0    | 24.87   | 24.18    | 0.809   | 3.20   | 830  | 5.05  | 34.54 |        |        | 31.12   | 27.32    | 1.669   | 2.31   |
| 165  | 21.36 | 34.99 | 12.0   | 0.0    | 25.10   | 24.40    | 0.827   | 3.16   | 840  | 5.03  | 34.54 |        |        | 31.17   | 27.32    | 1.678   | 2.29   |
| 170  | 20.47 | 34.97 | 14.4   | 0.0    | 25.36   | 24.62    | 0.845   | 3.10   | 850  | 5.00  | 34.54 |        |        | 31.22   | 27.32    | 1.686   | 2.24   |
| 175  | 19.44 | 34.96 | 14.4   | 0.0    | 25.64   | 24.89    | 0.861   | 3.03   | 860  | 4.97  | 34.54 |        |        | 31.27   | 27.33    | 1.695   | 2.22   |
| 180  | 18.05 | 34.98 | 12.0   | -2.4   | 26.04   | 25.25    | 0.876   | 3.04   | 870  | 4.95  | 34.54 |        |        | 31.31   | 27.33    | 1.703   | 2.22   |
| 185  | 17.11 | 34.90 | 16.8   | -3.6   | 26.23   | 25.42    | 0.889   | 3.09   | 880  | 4.94  | 34.54 |        |        | 31.36   | 27.33    | 1.711   | 2.21   |
| 190  | 16.63 | 34.87 | 21.6   | -4.8   | 26.34   | 25.51    | 0.902   | 3.02   | 890  | 4.89  | 34.55 |        |        | 31.42   | 27.34    | 1.720   | 2.21   |
| 195  | 15.07 | 34.87 | 25.2   | -3.6   | 26.72   | 25.86    | 0.914   | 2.96   | 900  | 4.85  | 34.55 |        |        | 31.47   | 27.34    | 1.728   | 2.20   |
| 200  | 14.15 | 34.85 | 25.2   | -2.4   | 26.93   | 26.05    | 0.924   | 2.90   | 910  | 4.82  | 34.55 |        |        | 31.52   | 27.34    | 1.736   | 2.19   |
| 205  | 13.52 | 34.74 | 25.2   | -1.2   | 27.00   | 26.10    | 0.934   | 2.75   | 920  | 4.82  | 34.54 |        |        | 31.56   | 27.34    | 1.745   | 2.18   |
| 210  | 12.71 | 34.70 | 27.6   | -1.2   | 27.16   | 26.23    | 0.944   | 2.68   | 930  | 4.80  | 34.55 |        |        | 31.61   | 27.35    | 1.753   | 2.21   |
| 215  | 12.50 | 34.68 | 32.4   | -1.2   | 27.20   | 26.25    | 0.953   | 2.61   | 940  | 4.76  | 34.55 |        |        | 31.66   | 27.35    | 1.761   | 2.23   |
| 220  | 12.23 | 34.69 | 38.4   | 0.0    | 27.29   | 26.31    | 0.962   | 2.60   | 950  | 4.72  | 34.55 |        |        | 31.72   | 27.36    | 1.769   | 2.26   |
| 225  | 11.72 | 34.67 | 44.4   | -1.2   | 27.40   | 26.39    | 0.970   | 2.56   | 960  | 4.70  | 34.55 |        |        | 31.76   | 27.36    | 1.778   | 2.26   |
| 230  | 11.69 | 34.68 | 44.4   | -1.2   | 27.43   | 26.40    | 0.979   | 2.57   | 970  | 4.68  | 34.55 |        |        | 31.81   | 27.36    | 1.786   | 2.26   |
| 235  | 11.59 | 34.73 | 45.6   | -1.2   | 27.51   | 26.46    | 0.987   | 2.64   | 980  | 4.64  | 34.55 |        |        | 31.86   | 27.37    | 1.794   | 2.27   |
| 240  | 11.51 | 34.77 | 44.4   | -1.2   | 27.58   | 26.51    | 0.995   | 2.72   | 990  | 4.60  | 34.55 |        |        | 31.92   | 27.37    | 1.802   | 2.25   |
| 245  | 11.45 | 34.78 | 42.0   | -2.4   | 27.62   | 26.53    | 1.003   | 2.76   | 1000 | 4.56  | 34.55 |        |        | 31.97   | 27.38    | 1.810   | 2.26   |
| 250  | 11.38 | 34.78 | 38.4   | -2.4   | 27.66   | 26.54    | 1.010   | 2.77   | 1020 | 4.53  | 34.55 |        |        | 32.06   | 27.38    | 1.826   | 2.28   |
| 255  | 11.31 | 34.78 | 36.0   | -3.6   | 27.69   | 26.55    | 1.018   | 2.75   | 1040 | 4.47  | 34.56 |        |        | 32.16   | 27.39    | 1.842   | 2.27   |
| 260  | 11.29 | 34.76 | 38.4   | -7.2   | 27.71   | 26.55    | 1.026   | 2.75   | 1060 | 4.42  | 34.56 |        |        | 32.26   | 27.40    | 1.857   | 2.24   |
| 265  | 11.19 | 34.76 | 37.2   | -9.6   | 27.75   | 26.56    | 1.033   | 2.74   | 1080 | 4.31  | 34.56 |        |        | 32.37   | 27.41    | 1.873   | 2.23   |
| 270  | 11.06 | 34.76 | 36.0   | -10.8  | 27.79   | 26.58    | 1.041   | 2.68   | 1100 | 4.23  | 34.56 |        |        | 32.47   | 27.42    | 1.888   | 2.21   |
| 275  | 10.96 | 34.75 | 33.6   | -9.6   | 27.82   | 26.59    | 1.049   | 2.67   | 1120 | 4.15  | 34.56 |        |        | 32.58   | 27.43    | 1.903   | 2.19   |
| 280  | 10.91 | 34.74 | 31.2   | -7.2   | 27.85   | 26.60    | 1.056   | 2.66   | 1140 | 4.08  | 34.57 |        |        | 32.68   | 27.44    | 1.918   | 2.19   |
| 285  | 10.88 | 34.75 | 28.8   | -6.0   | 27.88   | 26.61    | 1.064   | 2.63   | 1160 | 4.02  | 34.57 |        |        | 32.78   | 27.45    | 1.933   | 2.17   |
| 290  | 10.85 | 34.75 | 26.4   | -6.0   | 27.91   | 26.62    | 1.071   | 2.60   | 1180 | 3.93  | 34.57 |        |        | 32.88   | 27.46    | 1.948   | 2.17   |
| 295  | 10.81 | 34.76 | 22.8   | -6.0   | 27.95   | 26.63    | 1.078   | 2.67   | 1200 | 3.86  | 34.57 |        |        | 32.98   | 27.47    | 1.962   | 2.18   |
| 300  | 10.77 | 34.76 | 19.2   | -4.8   | 27.98   | 26.64    | 1.086   | 2.55   | 1220 | 3.82  | 34.57 |        |        | 33.08   | 27.47    | 1.976   | 2.17   |
| 305  | 10.72 | 34.76 | 18.0   | -4.8   | 28.01   | 26.65    | 1.093   | 2.48   | 1240 | 3.79  | 34.57 |        |        | 33.18   | 27.48    | 1.990   | 2.15   |
| 310  | 10.63 | 34.76 | 18.0   | -4.8   | 28.05   | 26.66    | 1.100   | 2.43   | 1260 | 3.73  | 34.58 |        |        | 33.28   | 27.49    | 2.005   | 2.16   |
| 315  | 10.61 | 34.76 | 16.8   | -3.6   | 28.07   | 26.66    | 1.108   | 2.41   | 1280 | 3.68  | 34.58 |        |        | 33.38   | 27.49    | 2.019   | 2.14   |
| 320  | 10.51 | 34.75 | 19.2   | -4.8   | 28.11   | 26.67    | 1.115   | 2.37   | 1300 | 3.61  | 34.58 |        |        | 33.48   | 27.50    | 2.032   | 2.15   |
| 325  | 10.43 | 34.75 | 18.0   | -4.8   | 28.14   | 26.69    | 1.122   | 2.34   | 1320 | 3.56  | 34.59 |        |        | 33.58   | 27.51    | 2.046   | 2.17   |
| 330  | 10.33 | 34.75 | 14.4   | -3.6   | 28.19   | 26.71    | 1.129   | 2.22   | 1340 | 3.54  | 34.58 |        |        | 33.67   | 27.51    | 2.060   | 2.18   |
| 335  | 10.26 | 34.74 | 16.8   | -3.6   | 28.21   | 26.71    | 1.136   | 2.14   | 1360 | 3.51  | 34.58 |        |        | 33.76   | 27.51    | 2.073   | 2.20   |
| 340  | 10.23 | 34.73 | 14.4   | -2.4   | 28.24   | 26.71    | 1.143   | 2.13   | 1380 | 3.48  | 34.58 |        |        | 33.86   | 27.52    | 2.087   | 2.20   |
| 345  | 10.12 | 34.73 | 14.4   | -2.4   | 28.28   | 26.73    | 1.150   | 2.17   | 1400 | 3.40  | 34.59 |        |        | 33.97   | 27.53    | 2.100   | 2.19   |
| 350  | 10.07 | 34.72 | 16.8   | -1.2   | 28.30   | 26.73    | 1.157   | 2.18   | 1420 | 3.31  | 34.59 |        |        | 34.07   | 27.54    | 2.113   | 2.17   |
| 355  | 9.96  | 34.71 | 15.6   | -2.4   | 28.33   | 26.74    | 1.164   | 2.22   | 1440 | 3.22  | 34.60 |        |        | 34.18   | 27.55    | 2.126   | 2.19   |
| 360  | 9.85  | 34.71 | 16.8   | -1.2   | 28.38   | 26.76    | 1.171   | 2.30   | 1460 | 3.15  | 34.60 |        |        | 34.28   | 27.56    | 2.139   | 2.24   |
| 365  | 9.77  | 34.69 |        |        |         |          |         |        |      |       |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 30  
DATE : 16/ 1/89 HEURE : 2h10 LONGITUDE : 165.00 LATITUDE : 2.00

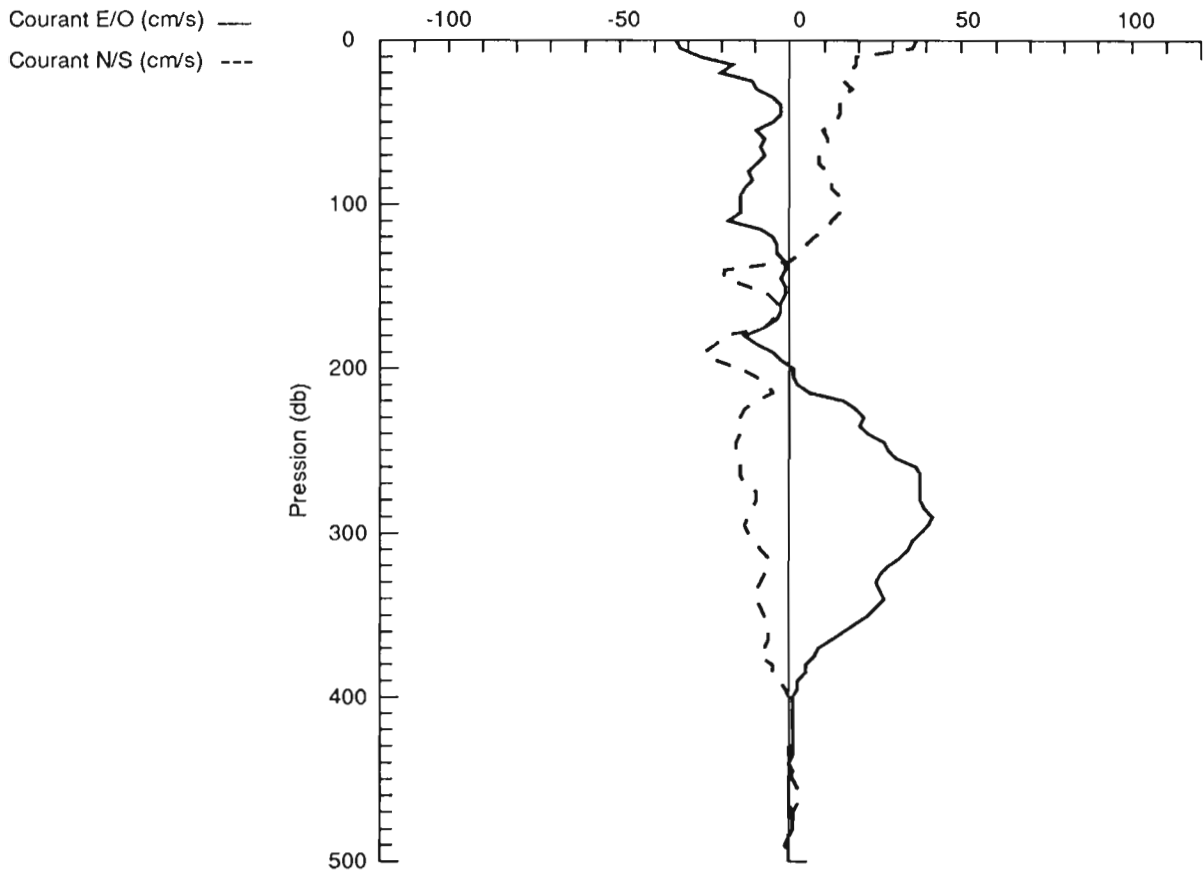
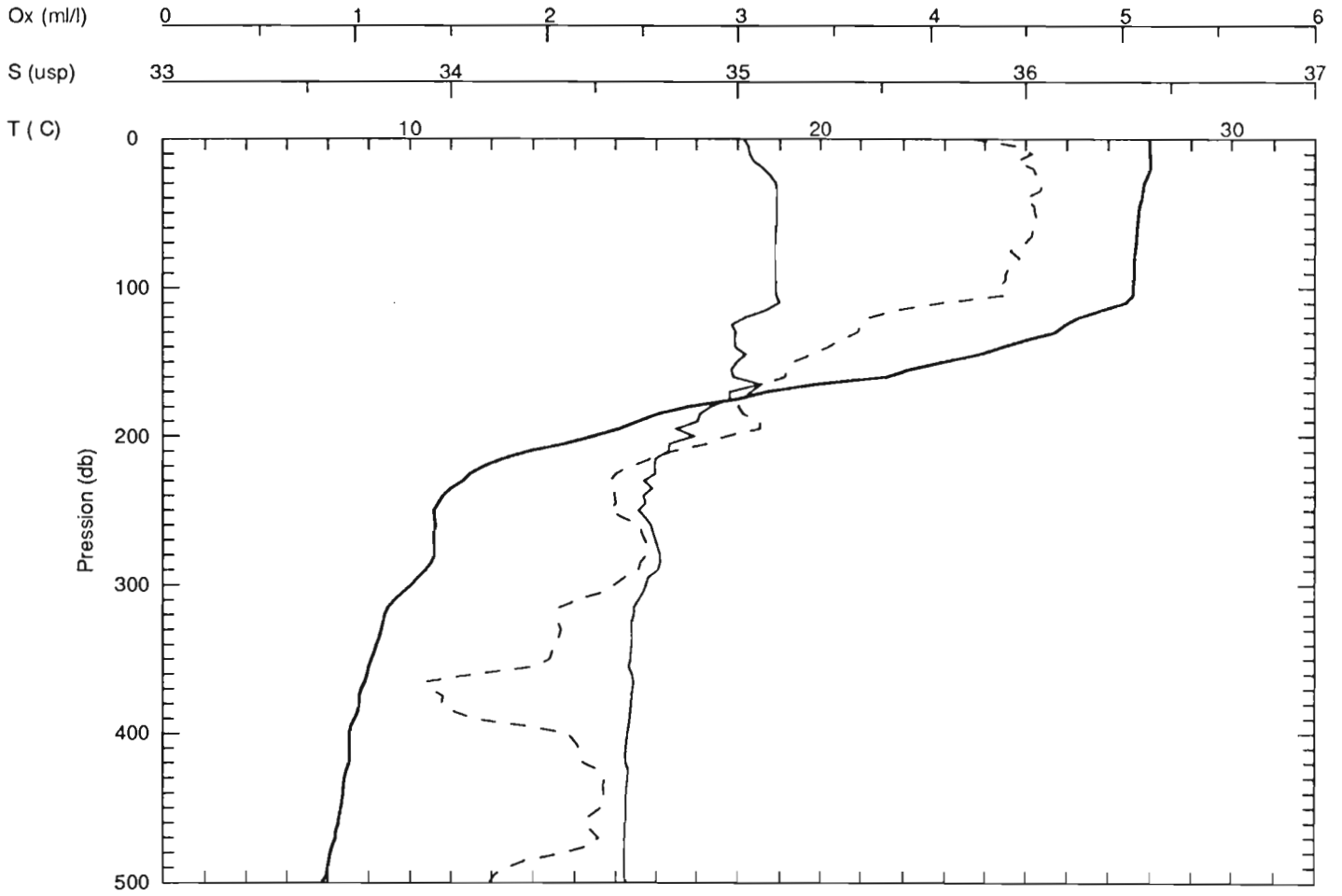


STATION : 31      CAMPAGNE : aurtropacll  
 DATE : 16/ 1/89    HEURE : 0840      LONGITUDE : 165.00      LATITUDE : 2.50

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 27.98 | 35.02 | -33.6  | 37.2   | 22.42   | 22.42    | 0.000   | 4.22   | 510  | 7.72 | 34.60 | -1.2   | -1.2   | 29.32   | 27.01    | 1.333   | 1.64   |
| 5    | 27.99 | 35.04 | -32.4  | 36.0   | 22.45   | 22.43    | 0.027   | 4.46   | 520  | 7.63 | 34.60 | 0.0    | -1.2   | 29.38   | 27.02    | 1.344   | 1.64   |
| 10   | 27.99 | 35.04 | -26.4  | 19.2   | 22.47   | 22.43    | 0.054   | 4.53   | 530  | 7.48 | 34.59 | 0.0    | -1.2   | 29.45   | 27.04    | 1.355   | 1.63   |
| 15   | 28.00 | 35.05 | -16.8  | 19.2   | 22.50   | 22.44    | 0.081   | 4.45   | 540  | 7.45 | 34.59 | 0.0    | 0.0    | 29.49   | 27.04    | 1.366   | 1.62   |
| 20   | 28.00 | 35.09 | -20.4  | 16.8   | 22.55   | 22.46    | 0.108   | 4.54   | 550  | 7.38 | 34.58 | 0.0    | 1.2    | 29.54   | 27.04    | 1.378   | 1.62   |
| 25   | 27.94 | 35.11 | -10.8  | 15.6   | 22.61   | 22.50    | 0.135   | 4.56   | 560  | 7.34 | 34.58 | 0.0    | -2.4   | 29.59   | 27.05    | 1.388   | 1.62   |
| 30   | 27.85 | 35.13 | -9.6   | 18.0   | 22.67   | 22.54    | 0.161   | 4.59   | 570  | 7.28 | 34.58 | 0.0    | -1.2   | 29.64   | 27.05    | 1.400   | 1.62   |
| 35   | 27.82 | 35.13 | -4.8   | 14.4   | 22.70   | 22.56    | 0.188   | 4.57   | 580  | 7.21 | 34.58 | 0.0    | 1.2    | 29.70   | 27.07    | 1.410   | 1.62   |
| 40   | 27.80 | 35.13 | -2.4   | 14.4   | 22.74   | 22.57    | 0.214   | 4.49   | 590  | 7.11 | 34.57 | 0.0    | 0.0    | 29.76   | 27.07    | 1.421   | 1.75   |
| 45   | 27.74 | 35.13 | -2.4   | 14.4   | 22.77   | 22.58    | 0.241   | 4.54   | 600  | 6.98 | 34.57 | 0.0    | 0.0    | 29.82   | 27.09    | 1.432   | 2.01   |
| 50   | 27.73 | 35.13 | -4.8   | 13.2   | 22.80   | 22.59    | 0.267   | 4.55   | 610  | 6.84 | 34.56 | 0.0    | 0.0    | 29.88   | 27.11    | 1.442   | 2.08   |
| 55   | 27.71 | 35.13 | -9.6   | 9.6    | 22.83   | 22.60    | 0.294   | 4.56   | 620  | 6.73 | 34.56 | 0.0    | 0.0    | 29.94   | 27.12    | 1.453   | 2.06   |
| 60   | 27.69 | 35.13 | -7.2   | 10.8   | 22.85   | 22.60    | 0.320   | 4.54   | 630  | 6.62 | 34.57 | 0.0    | 0.0    | 30.01   | 27.14    | 1.463   | 1.71   |
| 65   | 27.68 | 35.13 | -8.4   | 10.8   | 22.88   | 22.60    | 0.346   | 4.53   | 640  | 6.55 | 34.56 | 0.0    | 0.0    | 30.06   | 27.14    | 1.473   | 1.69   |
| 70   | 27.67 | 35.13 | -7.2   | 8.4    | 22.90   | 22.61    | 0.373   | 4.50   | 650  | 6.45 | 34.56 | 0.0    | 0.0    | 30.12   | 27.15    | 1.483   | 1.85   |
| 75   | 27.64 | 35.13 | -9.6   | 8.4    | 22.93   | 22.61    | 0.399   | 4.42   | 660  | 6.44 | 34.56 | 0.0    | 0.0    | 30.16   | 27.15    | 1.493   | 1.74   |
| 80   | 27.62 | 35.13 | -12.0  | 10.8   | 22.96   | 22.62    | 0.425   | 4.47   | 670  | 6.39 | 34.56 | 0.0    | 0.0    | 30.22   | 27.16    | 1.503   | 1.65   |
| 85   | 27.61 | 35.13 | -10.8  | 12.0   | 22.98   | 22.62    | 0.451   | 4.43   | 680  | 6.26 | 34.56 | 0.0    | 0.0    | 30.28   | 27.18    | 1.513   | 1.81   |
| 90   | 27.61 | 35.13 | -13.2  | 12.0   | 23.01   | 22.63    | 0.478   | 4.40   | 690  | 6.17 | 34.55 | 0.0    | 0.0    | 30.33   | 27.19    | 1.523   | 1.87   |
| 95   | 27.61 | 35.13 | -14.4  | 14.4   | 23.03   | 22.63    | 0.504   | 4.39   | 700  | 6.06 | 34.56 | 0.0    | 0.0    | 30.40   | 27.20    | 1.533   | 1.85   |
| 100  | 27.60 | 35.13 | -14.4  | 14.4   | 23.05   | 22.63    | 0.530   | 4.36   | 710  | 5.99 | 34.55 | 0.0    | 0.0    | 30.45   | 27.21    | 1.542   | 1.95   |
| 105  | 27.58 | 35.13 | -14.4  | 14.4   | 23.08   | 22.64    | 0.557   | 4.38   | 720  | 5.89 | 34.55 | 0.0    | 0.0    | 30.51   | 27.22    | 1.552   | 1.97   |
| 110  | 27.42 | 35.14 | -18.0  | 12.0   | 23.16   | 22.70    | 0.583   | 4.06   | 730  | 5.81 | 34.55 | 0.0    | 0.0    | 30.56   | 27.23    | 1.561   | 2.00   |
| 115  | 26.82 | 35.10 | -8.4   | 10.8   | 23.24   | 22.86    | 0.608   | 3.82   | 740  | 5.75 | 34.54 | 0.0    | 0.0    | 30.61   | 27.23    | 1.570   | 2.03   |
| 120  | 26.27 | 35.02 | -4.8   | 7.2    | 23.48   | 22.98    | 0.633   | 3.69   | 750  | 5.70 | 34.55 | 0.0    | 0.0    | 30.67   | 27.24    | 1.580   | 2.04   |
| 125  | 25.94 | 34.98 | -3.6   | 4.8    | 23.57   | 23.05    | 0.658   | 3.64   | 760  | 5.61 | 34.55 | 0.0    | 0.0    | 30.73   | 27.25    | 1.589   | 1.96   |
| 130  | 25.70 | 34.99 | -3.6   | 3.6    | 23.68   | 23.13    | 0.682   | 3.63   | 770  | 5.49 | 34.55 | 0.0    | 0.0    | 30.79   | 27.27    | 1.598   | 2.00   |
| 135  | 25.01 | 34.99 | -1.2   | 0.0    | 23.91   | 23.34    | 0.705   | 3.54   | 780  | 5.41 | 34.55 | 0.0    | 0.0    | 30.85   | 27.28    | 1.607   | 1.99   |
| 140  | 24.40 | 34.99 | -1.2   | -19.2  | 24.12   | 23.53    | 0.728   | 3.47   | 790  | 5.38 | 34.55 | 0.0    | 0.0    | 30.90   | 27.28    | 1.615   | 2.04   |
| 145  | 23.83 | 35.03 | -2.4   | -19.2  | 24.34   | 23.72    | 0.750   | 3.38   | 800  | 5.35 | 34.54 | 0.0    | 0.0    | 30.94   | 27.28    | 1.624   | 2.06   |
| 150  | 22.95 | 35.00 | -1.2   | -12.0  | 24.60   | 23.96    | 0.770   | 3.28   | 810  | 5.33 | 34.54 | 0.0    | 0.0    | 30.99   | 27.28    | 1.633   | 2.10   |
| 155  | 22.15 | 34.98 | -1.2   | -6.0   | 24.83   | 24.17    | 0.790   | 3.26   | 820  | 5.31 | 34.54 | 0.0    | 0.0    | 31.04   | 27.28    | 1.642   | 2.10   |
| 160  | 21.61 | 34.98 | -2.4   | -3.6   | 25.01   | 24.33    | 0.809   | 3.24   | 830  | 5.29 | 34.54 | 0.0    | 0.0    | 31.09   | 27.29    | 1.651   | 2.08   |
| 165  | 19.85 | 35.08 | -2.4   | -2.4   | 25.58   | 24.87    | 0.826   | 3.12   | 840  | 5.24 | 34.54 | 0.0    | 0.0    | 31.14   | 27.30    | 1.660   | 2.10   |
| 170  | 18.69 | 34.97 | -3.6   | -4.8   | 25.83   | 25.09    | 0.841   | 3.07   | 850  | 5.20 | 34.54 | 0.0    | 0.0    | 31.19   | 27.30    | 1.668   | 2.10   |
| 175  | 17.97 | 34.97 | -7.2   | -7.2   | 26.03   | 25.27    | 0.855   | 3.01   | 860  | 5.14 | 34.55 | 0.0    | 0.0    | 31.25   | 27.31    | 1.677   | 2.15   |
| 180  | 16.80 | 34.91 | -13.2  | -19.2  | 26.29   | 25.50    | 0.868   | 3.00   | 870  | 5.09 | 34.55 | 0.0    | 0.0    | 31.30   | 27.31    | 1.686   | 2.17   |
| 185  | 16.03 | 34.87 | -9.6   | -21.6  | 26.46   | 25.65    | 0.881   | 3.03   | 880  | 5.05 | 34.55 | 0.0    | 0.0    | 31.35   | 27.32    | 1.694   | 2.19   |
| 190  | 15.54 | 34.86 | -4.8   | -25.2  | 26.58   | 25.75    | 0.892   | 3.11   | 890  | 4.97 | 34.55 | 0.0    | 0.0    | 31.41   | 27.33    | 1.703   | 2.18   |
| 195  | 15.07 | 34.79 | -2.4   | -21.6  | 26.65   | 25.80    | 0.904   | 3.11   | 900  | 4.91 | 34.55 | 0.0    | 0.0    | 31.47   | 27.34    | 1.711   | 2.19   |
| 200  | 14.44 | 34.85 | 1.2    | -14.4  | 26.87   | 25.98    | 0.915   | 2.94   | 910  | 4.87 | 34.55 | 0.0    | 0.0    | 31.52   | 27.34    | 1.719   | 2.20   |
| 205  | 13.75 | 34.76 | 1.2    | -9.6   | 26.97   | 26.06    | 0.925   | 2.84   | 920  | 4.84 | 34.55 | 0.0    | 0.0    | 31.56   | 27.35    | 1.727   | 2.24   |
| 210  | 12.90 | 34.76 | 2.4    | -6.0   | 27.16   | 26.23    | 0.935   | 2.66   | 930  | 4.82 | 34.55 | 0.0    | 0.0    | 31.61   | 27.35    | 1.736   | 2.24   |
| 215  | 12.28 | 34.71 | 6.0    | -4.8   | 27.27   | 26.32    | 0.944   | 2.55   | 940  | 4.79 | 34.55 | 0.0    | 0.0    | 31.66   | 27.35    | 1.744   | 2.25   |
| 220  | 11.81 | 34.71 | 15.6   | -9.6   | 27.38   | 26.40    | 0.952   | 2.44   | 950  | 4.74 | 34.55 | 0.0    | 0.0    | 31.71   | 27.36    | 1.752   | 2.24   |
| 225  | 11.46 | 34.71 | 19.2   | -13.2  | 27.48   | 26.47    | 0.961   | 2.36   | 960  | 4.72 | 34.55 | 0.0    | 0.0    | 31.76   | 27.36    | 1.760   | 2.28   |
| 230  | 11.29 | 34.67 | 21.6   | -14.4  | 27.50   | 26.47    | 0.969   | 2.33   | 970  | 4.69 | 34.55 | 0.0    | 0.0    | 31.81   | 27.36    | 1.769   | 2.29   |
| 235  | 10.99 | 34.70 | 20.4   | -14.4  | 27.60   | 26.55    | 0.976   | 2.35   | 980  | 4.64 | 34.55 | 0.0    | 0.0    | 31.87   | 27.37    | 1.777   | 2.27   |
| 240  | 10.80 | 34.67 | 22.8   | -14.4  | 27.63   | 26.56    | 0.984   | 2.35   | 990  | 4.63 | 34.55 | 0.0    | 0.0    | 31.91   | 27.37    | 1.785   | 2.26   |
| 245  | 10.68 | 34.68 | 27.6   | -15.6  | 27.68   | 26.59    | 0.992   | 2.36   | 1000 | 4.63 | 34.55 | 0.0    | 0.0    | 31.96   | 27.37    | 1.793   | 2.25   |
| 250  | 10.58 | 34.65 | 28.8   | -15.6  | 27.71   | 26.58    | 0.999   | 2.32   | 1020 | 4.58 | 34.56 | 0.0    | 0.0    | 32.06   | 27.38    | 1.809   | 2.24   |
| 255  | 10.59 | 34.68 | 31.2   | -14.4  | 27.75   | 26.60    | 1.007   | 2.39   | 1040 | 4.53 | 34.56 | 0.0    | 0.0    | 32.16   | 27.39    | 1.825   | 2.24   |
| 260  | 10.62 | 34.70 | 37.2   | -14.4  | 27.78   | 26.61    | 1.014   | 2.49   | 1060 | 4.47 | 34.56 | 0.0    | 0.0    | 32.25   | 27.39    | 1.841   | 2.20   |
| 265  | 10.58 | 34.70 | 38.4   | -14.4  | 27.81   | 26.63    | 1.021   | 2.49   | 1080 | 4.42 | 34.56 | 0.0    | 0.0    | 32.35   | 27.40    | 1.857   | 2.16   |
| 270  | 10.58 | 34.71 | 38.4   | -13.2  | 27.84   | 26.63    | 1.029   | 2.51   | 1100 | 4.32 | 34.56 | 0.0    | 0.0    | 32.46   | 27.41    | 1.872   | 2.15   |
| 275  | 10.59 | 34.72 | 38.4   | -9.6   | 27.87   | 26.64    | 1.036   | 2.53   | 1120 | 4.27 | 34.56 | 0.0    | 0.0    | 32.56   | 27.42    | 1.887   | 2.14   |
| 280  | 10.59 | 34.73 | 38.4   | -9.6   | 27.90   | 26.64    | 1.043   | 2.52   | 1140 | 4.19 | 34.56 | 0.0    | 0.0    | 32.66   | 27.43    | 1.903   | 2.12   |
| 285  | 10.52 | 34.73 | 39.6   | -10.8  | 27.93   | 26.66    | 1.051   | 2.49   | 1160 | 4.10 | 34.57 | 0.0    | 0.0    | 32.77   | 27.44    | 1.918   | 2.13   |
| 290  | 10.38 | 34.72 | 42.0   | -12.0  | 27.98   | 26.68    | 1.058   | 2.48   | 1180 | 4.01 | 34.57 | 0.0    | 0.0    | 32.87   | 27.45    | 1.932   | 2.15   |
| 295  | 10.19 | 34.69 | 40.8   | -13.2  | 28.01   | 26.68    | 1.065   | 2.40   | 1200 | 3.95 | 34.57 | 0.0    | 0.0    | 32.97   | 27.46    | 1.947   | 2.16   |
| 300  | 10.03 | 34.68 | 38.4   | -12.0  | 28.05   | 26.70    | 1.072   | 2.35   | 1220 | 3.88 | 34.57 | 0.0    | 0.0    | 33.07   | 27.47    | 1.961   | 2.18   |
| 305  | 9.82  | 34.67 | 36.0   | -9.6   | 28.10   | 26.73    | 1.079   | 2.28   | 1240 | 3.84 | 34.57 | 0.0    | 0.0    | 33.17   | 27.47    | 1.976   | 2.23   |
| 310  | 9.62  | 34.65 | 34.8   | -8.4   | 28.15   | 26.75    | 1.086   | 2.16   | 1260 | 3.80 | 34.57 | 0.0    | 0.0    | 33.27   | 27.48    | 1.990   | 2.21   |
| 315  | 9.47  | 34.64 | 32.4   | -6.0   | 28.18   | 26.76    | 1.092   | 2.07   | 1280 | 3.76 | 34.58 | 0.0    | 0.0    | 33.37   | 27.48    | 2.004   | 2.18   |
| 320  | 9.39  | 34.63 | 28.8   | -6.0   | 28.22   | 26.78    | 1.099   | 2.06   | 1300 | 3.70 | 34.58 | 0.0    | 0.0    | 33.46   | 27.49    | 2.018   | 2.20   |
| 325  | 9.35  | 34.63 | 26.4   | -7.2   | 28.24   | 26.78    | 1.106   | 2.06   | 1320 | 3.62 | 34.58 | 0.0    | 0.0    | 33.57   | 27.50    | 2.032   | 2.22   |
| 330  | 9.30  | 34.63 | 25.2   | -8.4   | 28.27   | 26.78    | 1.112   | 2.07   | 1340 | 3.55 | 34.59 | 0.0    | 0.0    | 33.67   | 27.51    | 2.046   | 2.15   |
| 335  | 9.26  | 34.63 | 26.4   | -9.6   | 28.30   | 26.79    | 1.119   | 2.06   | 1360 | 3.48 | 34.58 | 0.0    | 0.0    | 33.77   | 27.52    | 2.059   | 2.18   |
| 340  | 9.18  | 34.63 | 27.6   | -9.6   | 28.34   | 26.80    | 1.126   | 2.03   | 1380 | 3.40 | 34.59 | 0.0    | 0.0    | 33.88   | 27.53    | 2.072   | 2.19   |
| 345  | 9.13  | 34.63 | 25.2   | -8.4   | 28.37   | 26.81    | 1.132   | 2.03   | 1400 | 3.34 | 34.59 | 0.0    | 0.0    | 33.98   | 27.54    | 2.086   | 2.20   |
| 350  | 9.06  |       |        |        |         |          |         |        |      |      |       |        |        |         |          |         |        |



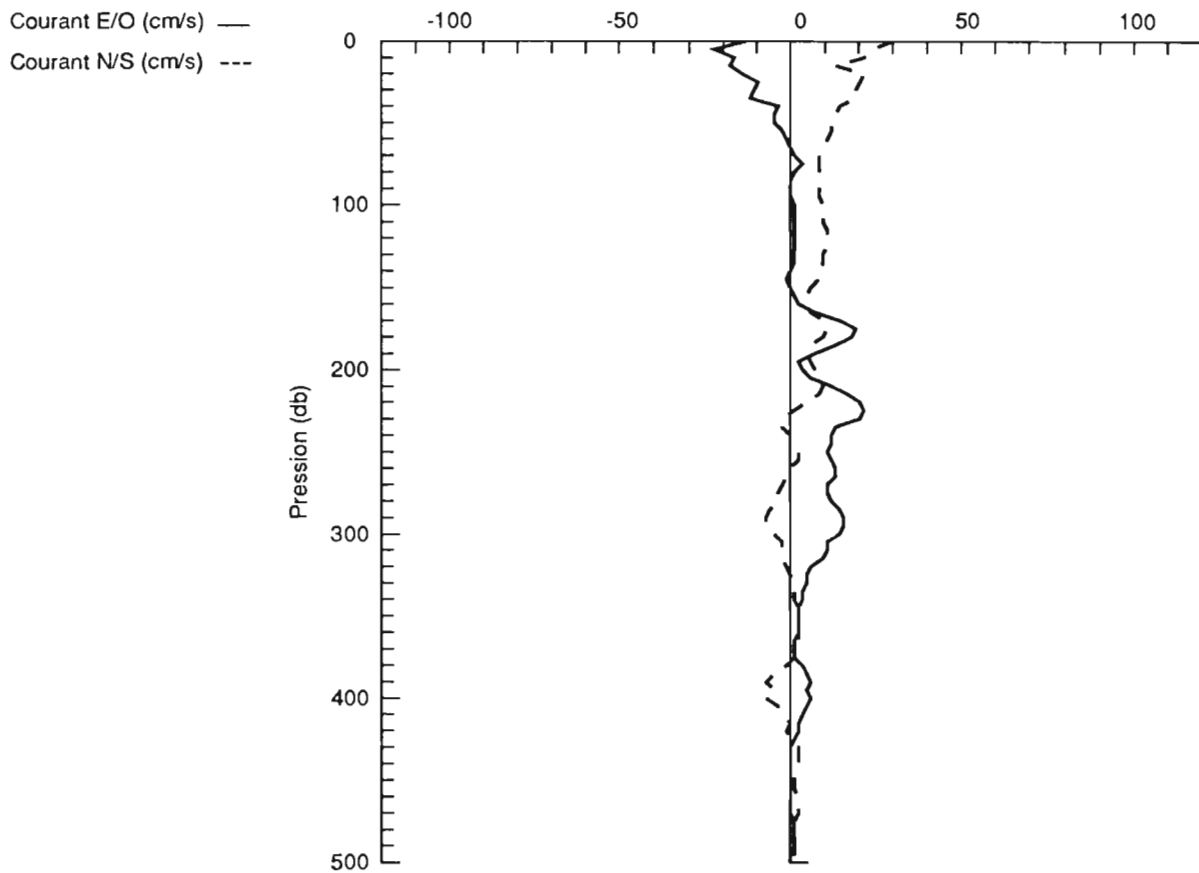
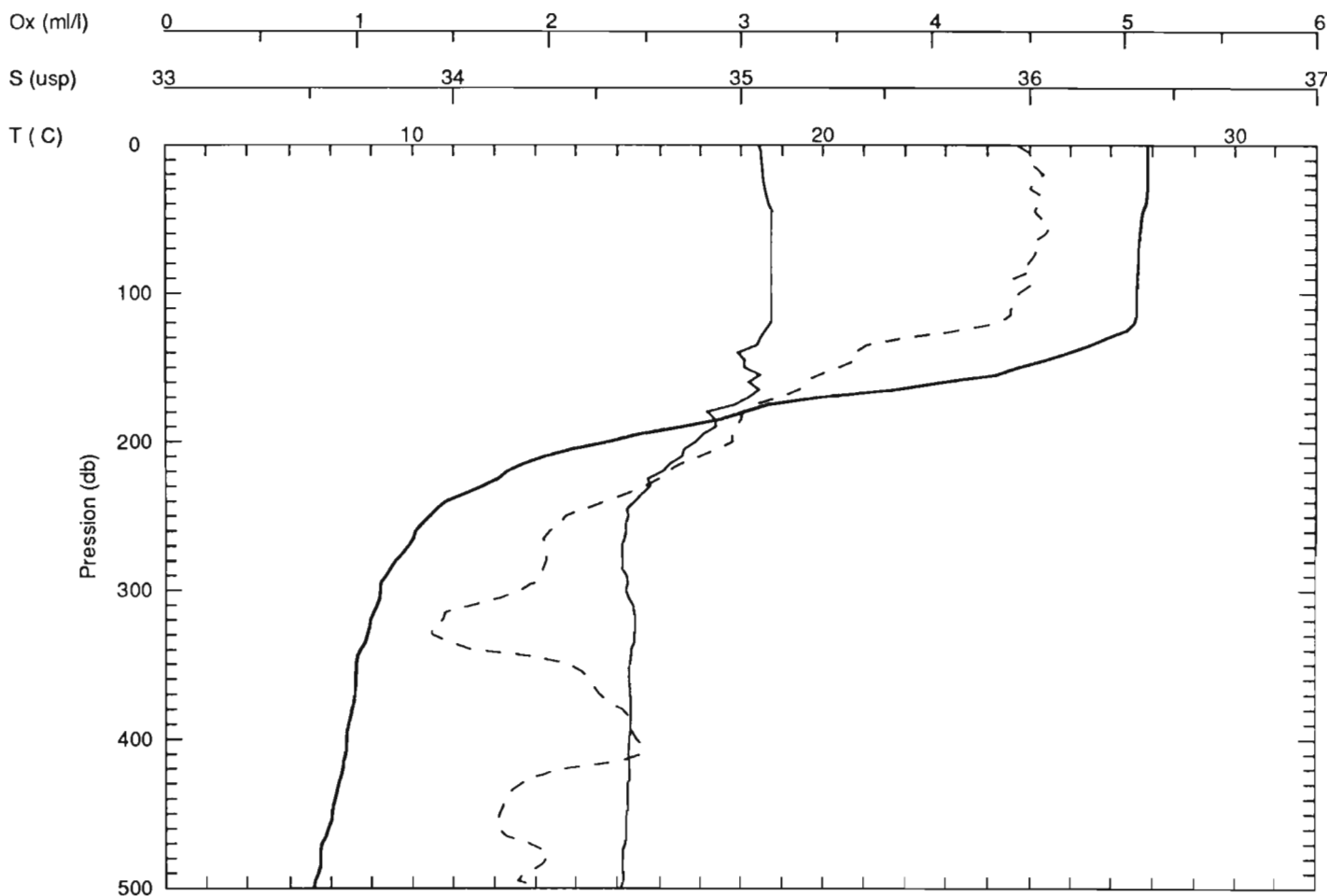
SURTROPAC11 STATION No : 31  
DATE : 16/ 1/89 HEURE : 8h40 LONGITUDE : 165.00 LATITUDE : 2.50



STATION : 32 CAMPAGNE : surtropacll  
 DATE : 16/ 1/89 HEURE : 14h45 LONGITUDE : 165.00 LATITUDE : 3.00

| P (db) | T (C) | S (usp) | U (cm/s) | V (cm/s) | Sigt (kg/m3) | Sigtheta (kg/m3) | Hdyn (m.dyn) | Oxy (ml/l) | P (db) | T (C) | S (usp) | U (cm/s) | V (cm/s) | Sigt (kg/m3) | Sigtheta (kg/m3) | Hdyn (m.dyn) | Oxy (ml/l) |
|--------|-------|---------|----------|----------|--------------|------------------|--------------|------------|--------|-------|---------|----------|----------|--------------|------------------|--------------|------------|
| 0      | 27.89 | 35.06   | -13.2    | 30.0     | 22.48        | 22.48            | 0.000        | 4.43       | 510    | 7.54  | 34.58   | 0.0      | 1.2      | 29.33        | 27.02            | 1.354        | 2.02       |
| 5      | 27.89 | 35.07   | -22.8    | 24.0     | 22.51        | 22.49            | 0.027        | 4.49       | 520    | 7.47  | 34.58   | 0.0      | 1.2      | 29.39        | 27.03            | 1.365        | 1.93       |
| 10     | 27.89 | 35.07   | -16.8    | 21.6     | 22.53        | 22.49            | 0.054        | 4.50       | 530    | 7.44  | 34.58   | 1.2      | 0.0      | 29.44        | 27.03            | 1.376        | 1.95       |
| 15     | 27.89 | 35.07   | -18.0    | 13.2     | 22.55        | 22.49            | 0.080        | 4.53       | 540    | 7.36  | 34.58   | 1.2      | 0.0      | 29.50        | 27.05            | 1.387        | 1.74       |
| 20     | 27.89 | 35.07   | -14.4    | 21.6     | 22.57        | 22.49            | 0.107        | 4.57       | 550    | 7.26  | 34.58   | 0.0      | 0.0      | 29.56        | 27.06            | 1.398        | 1.59       |
| 25     | 27.89 | 35.08   | -9.6     | 20.4     | 22.60        | 22.49            | 0.134        | 4.52       | 560    | 7.11  | 34.58   | 0.0      | 0.0      | 29.62        | 27.08            | 1.409        | 1.49       |
| 30     | 27.89 | 35.08   | -10.8    | 19.2     | 22.62        | 22.50            | 0.161        | 4.50       | 570    | 6.99  | 34.57   | 0.0      | 0.0      | 29.68        | 27.09            | 1.420        | 1.55       |
| 35     | 27.87 | 35.09   | -12.0    | 19.2     | 22.65        | 22.51            | 0.187        | 4.56       | 580    | 6.95  | 34.57   | 0.0      | 0.0      | 29.73        | 27.09            | 1.430        | 1.62       |
| 40     | 27.84 | 35.10   | -3.6     | 14.4     | 22.69        | 22.52            | 0.214        | 4.55       | 590    | 6.81  | 34.57   | 0.0      | 0.0      | 29.80        | 27.11            | 1.441        | 1.78       |
| 45     | 27.77 | 35.11   | -4.8     | 13.2     | 22.74        | 22.55            | 0.241        | 4.52       | 600    | 6.76  | 34.56   |          |          | 29.85        | 27.11            | 1.451        | 1.85       |
| 50     | 27.74 | 35.10   | -4.8     | 12.0     | 22.77        | 22.56            | 0.267        | 4.56       | 610    | 6.70  | 34.56   |          |          | 29.90        | 27.12            | 1.461        | 1.79       |
| 55     | 27.73 | 35.10   | -2.4     | 12.0     | 22.80        | 22.57            | 0.294        | 4.61       | 620    | 6.60  | 34.56   |          |          | 29.96        | 27.14            | 1.472        | 1.88       |
| 60     | 27.70 | 35.10   | -1.2     | 10.8     | 22.83        | 22.58            | 0.320        | 4.58       | 630    | 6.52  | 34.56   |          |          | 30.01        | 27.14            | 1.482        | 2.06       |
| 65     | 27.69 | 35.10   | 0.0      | 9.6      | 22.85        | 22.58            | 0.346        | 4.53       | 640    | 6.49  | 34.56   |          |          | 30.06        | 27.15            | 1.492        | 1.89       |
| 70     | 27.68 | 35.10   | 1.2      | 8.4      | 22.88        | 22.58            | 0.373        | 4.54       | 650    | 6.37  | 34.55   |          |          | 30.12        | 27.16            | 1.502        | 1.80       |
| 75     | 27.67 | 35.10   | 3.6      | 8.4      | 22.90        | 22.59            | 0.399        | 4.52       | 660    | 6.30  | 34.55   |          |          | 30.17        | 27.16            | 1.512        | 1.97       |
| 80     | 27.66 | 35.10   | 1.2      | 8.4      | 22.93        | 22.59            | 0.426        | 4.49       | 670    | 6.26  | 34.54   |          |          | 30.23        | 27.17            | 1.522        | 2.04       |
| 85     | 27.65 | 35.10   | 0.0      | 8.4      | 22.95        | 22.59            | 0.452        | 4.52       | 680    | 6.23  | 34.55   |          |          | 30.27        | 27.17            | 1.531        | 1.98       |
| 90     | 27.64 | 35.10   | 0.0      | 8.4      | 22.98        | 22.60            | 0.479        | 4.42       | 690    | 6.11  | 34.54   |          |          | 30.34        | 27.19            | 1.541        | 2.02       |
| 95     | 27.63 | 35.10   | 0.0      | 8.4      | 23.00        | 22.60            | 0.505        | 4.50       | 700    | 6.03  | 34.54   |          |          | 30.39        | 27.20            | 1.551        | 2.06       |
| 100    | 27.63 | 35.10   | 1.2      | 9.6      | 23.02        | 22.60            | 0.531        | 4.44       | 710    | 5.95  | 34.54   |          |          | 30.45        | 27.21            | 1.561        | 2.06       |
| 105    | 27.63 | 35.10   | 1.2      | 9.6      | 23.05        | 22.60            | 0.558        | 4.42       | 720    | 5.91  | 34.54   |          |          | 30.50        | 27.21            | 1.570        | 2.04       |
| 110    | 27.62 | 35.10   | 1.2      | 9.6      | 23.07        | 22.61            | 0.584        | 4.40       | 730    | 5.86  | 34.54   |          |          | 30.55        | 27.22            | 1.579        | 2.00       |
| 115    | 27.62 | 35.11   | 1.2      | 10.8     | 23.09        | 22.61            | 0.611        | 4.40       | 740    | 5.83  | 34.54   |          |          | 30.60        | 27.22            | 1.589        | 2.11       |
| 120    | 27.57 | 35.10   | 1.2      | 10.8     | 23.13        | 22.62            | 0.637        | 4.34       | 750    | 5.76  | 34.54   |          |          | 30.66        | 27.23            | 1.598        | 2.14       |
| 125    | 27.39 | 35.08   | 1.2      | 10.8     | 23.20        | 22.67            | 0.663        | 4.14       | 760    | 5.68  | 34.54   |          |          | 30.71        | 27.24            | 1.608        | 2.14       |
| 130    | 26.91 | 35.07   | 1.2      | 9.6      | 23.26        | 22.81            | 0.689        | 3.87       | 770    | 5.62  | 34.54   |          |          | 30.77        | 27.25            | 1.617        | 2.15       |
| 135    | 26.46 | 35.06   | 1.2      | 9.6      | 23.31        | 22.94            | 0.714        | 3.65       | 780    | 5.50  | 34.55   |          |          | 30.84        | 27.27            | 1.626        | 2.14       |
| 140    | 25.93 | 34.99   | 0.0      | 8.4      | 23.65        | 23.06            | 0.739        | 3.59       | 790    | 5.40  | 34.55   |          |          | 30.89        | 27.28            | 1.635        | 2.14       |
| 145    | 25.36 | 35.01   | -1.2     | 8.4      | 23.87        | 23.25            | 0.763        | 3.60       | 800    | 5.30  | 34.54   |          |          | 30.95        | 27.29            | 1.644        | 2.18       |
| 150    | 24.70 | 35.01   | 0.0      | 6.0      | 24.09        | 23.45            | 0.786        | 3.51       | 810    | 5.27  | 34.54   |          |          | 31.00        | 27.29            | 1.653        | 2.20       |
| 155    | 24.19 | 35.07   | 1.2      | 4.8      | 24.31        | 23.65            | 0.808        | 3.41       | 820    | 5.22  | 34.54   |          |          | 31.05        | 27.30            | 1.661        | 2.21       |
| 160    | 22.90 | 35.03   | 2.4      | 4.8      | 24.68        | 23.99            | 0.829        | 3.33       | 830    | 5.18  | 34.54   |          |          | 31.10        | 27.30            | 1.670        | 2.17       |
| 165    | 21.77 | 35.06   | 7.2      | 6.0      | 25.06        | 24.35            | 0.848        | 3.30       | 840    | 5.16  | 34.54   |          |          | 31.15        | 27.30            | 1.679        | 2.10       |
| 170    | 19.91 | 35.03   | 14.4     | 9.6      | 25.55        | 24.81            | 0.865        | 3.20       | 850    | 5.10  | 34.54   |          |          | 31.21        | 27.31            | 1.687        | 2.11       |
| 175    | 18.66 | 34.98   | 19.2     | 10.8     | 25.86        | 25.10            | 0.880        | 3.07       | 860    | 5.05  | 34.54   |          |          | 31.26        | 27.32            | 1.696        | 2.17       |
| 180    | 18.08 | 34.88   | 18.0     | 9.6      | 25.95        | 25.17            | 0.895        | 3.01       | 870    | 5.01  | 34.55   |          |          | 31.31        | 27.32            | 1.704        | 2.13       |
| 185    | 17.49 | 34.91   | 13.2     | 6.0      | 26.14        | 25.34            | 0.909        | 3.00       | 880    | 4.97  | 34.55   |          |          | 31.36        | 27.33            | 1.713        | 2.12       |
| 190    | 16.53 | 34.91   | 7.2      | 4.8      | 26.39        | 25.57            | 0.922        | 2.97       | 890    | 4.94  | 34.55   |          |          | 31.41        | 27.33            | 1.721        | 2.08       |
| 195    | 15.48 | 34.87   | 2.4      | 6.0      | 26.62        | 25.77            | 0.933        | 2.95       | 900    | 4.90  | 34.55   |          |          | 31.46        | 27.34            | 1.729        | 2.04       |
| 200    | 14.79 | 34.84   | 3.6      | 7.2      | 26.78        | 25.90            | 0.945        | 2.96       | 910    | 4.85  | 34.55   |          |          | 31.52        | 27.34            | 1.738        | 2.00       |
| 205    | 13.90 | 34.80   | 6.0      | 8.4      | 26.97        | 26.06            | 0.955        | 2.87       | 920    | 4.81  | 34.55   |          |          | 31.57        | 27.35            | 1.746        | 2.01       |
| 210    | 13.24 | 34.79   | 12.0     | 9.6      | 27.12        | 26.19            | 0.965        | 2.79       | 930    | 4.75  | 34.55   |          |          | 31.62        | 27.36            | 1.754        | 1.96       |
| 215    | 12.70 | 34.75   | 16.8     | 8.4      | 27.22        | 26.26            | 0.974        | 2.68       | 940    | 4.67  | 34.56   |          |          | 31.68        | 27.37            | 1.762        | 1.92       |
| 220    | 12.31 | 34.73   | 20.4     | 4.8      | 27.30        | 26.32            | 0.983        | 2.62       | 950    | 4.64  | 34.56   |          |          | 31.73        | 27.37            | 1.770        | 1.90       |
| 225    | 12.09 | 34.67   | 21.6     | 1.2      | 27.33        | 26.32            | 0.991        | 2.57       | 960    | 4.60  | 34.56   |          |          | 31.78        | 27.38            | 1.778        | 1.93       |
| 230    | 11.71 | 34.68   | 20.4     | -2.4     | 27.43        | 26.40            | 1.000        | 2.49       | 970    | 4.58  | 34.56   |          |          | 31.83        | 27.38            | 1.786        | 1.99       |
| 235    | 11.27 | 34.65   | 13.2     | -2.4     | 27.51        | 26.46            | 1.008        | 2.40       | 980    | 4.53  | 34.56   |          |          | 31.88        | 27.39            | 1.794        | 2.00       |
| 240    | 10.83 | 34.63   | 12.0     | 0.0      | 27.60        | 26.52            | 1.016        | 2.31       | 990    | 4.48  | 34.56   |          |          | 31.94        | 27.39            | 1.802        | 2.04       |
| 245    | 10.60 | 34.60   | 12.0     | 0.0      | 27.64        | 26.54            | 1.024        | 2.19       | 1000   | 4.44  | 34.56   |          |          | 31.99        | 27.40            | 1.810        | 2.16       |
| 250    | 10.43 | 34.61   | 10.8     | 2.4      | 27.70        | 26.58            | 1.031        | 2.09       | 1020   | 4.39  | 34.56   |          |          | 32.08        | 27.40            | 1.825        | 2.22       |
| 255    | 10.25 | 34.60   | 12.0     | 2.4      | 27.75        | 26.60            | 1.039        | 2.06       | 1040   | 4.34  | 34.56   |          |          | 32.18        | 27.41            | 1.841        | 2.24       |
| 260    | 10.07 | 34.60   | 13.2     | 0.0      | 27.80        | 26.63            | 1.046        | 2.01       | 1060   | 4.31  | 34.56   |          |          | 32.28        | 27.41            | 1.856        | 2.25       |
| 265    | 10.03 | 34.60   | 13.2     | -1.2     | 27.83        | 26.64            | 1.054        | 1.97       | 1080   | 4.26  | 34.56   |          |          | 32.38        | 27.42            | 1.872        | 2.22       |
| 270    | 9.91  | 34.59   | 10.8     | -2.4     | 27.87        | 26.65            | 1.061        | 1.98       | 1100   | 4.22  | 34.56   |          |          | 32.47        | 27.42            | 1.887        | 2.22       |
| 275    | 9.76  | 34.59   | 10.8     | -3.6     | 27.91        | 26.68            | 1.068        | 1.99       | 1120   | 4.17  | 34.56   |          |          | 32.57        | 27.43            | 1.902        | 2.20       |
| 280    | 9.59  | 34.59   | 12.0     | -3.6     | 27.97        | 26.71            | 1.075        | 1.99       | 1140   | 4.13  | 34.56   |          |          | 32.67        | 27.43            | 1.917        | 2.15       |
| 285    | 9.47  | 34.59   | 14.4     | -6.0     | 28.01        | 26.72            | 1.082        | 1.97       | 1160   | 4.06  | 34.57   |          |          | 32.77        | 27.44            | 1.932        | 2.19       |
| 290    | 9.36  | 34.60   | 15.6     | -7.2     | 28.06        | 26.75            | 1.089        | 1.96       | 1180   | 4.01  | 34.57   |          |          | 32.87        | 27.45            | 1.946        | 2.16       |
| 295    | 9.23  | 34.61   | 15.6     | -7.2     | 28.11        | 26.78            | 1.095        | 1.92       | 1200   | 3.95  | 34.57   |          |          | 32.97        | 27.46            | 1.961        | 2.11       |
| 300    | 9.21  | 34.60   | 14.4     | -4.8     | 28.13        | 26.78            | 1.102        | 1.85       | 1220   | 3.87  | 34.57   |          |          | 33.08        | 27.47            | 1.975        | 2.09       |
| 305    | 9.20  | 34.61   | 10.8     | -2.4     | 28.16        | 26.79            | 1.109        | 1.75       | 1240   | 3.79  | 34.58   |          |          | 33.18        | 27.48            | 1.990        | 2.07       |
| 310    | 9.14  | 34.62   | 10.8     | -2.4     | 28.21        | 26.81            | 1.115        | 1.60       | 1260   | 3.71  | 34.58   |          |          | 33.28        | 27.49            | 2.004        | 2.09       |
| 315    | 9.06  | 34.63   | 9.6      | -2.4     | 28.24        | 26.82            | 1.121        | 1.46       | 1280   | 3.64  | 34.58   |          |          | 33.38        | 27.50            | 2.018        | 2.07       |
| 320    | 8.98  | 34.63   | 6.0      | -1.2     | 28.28        | 26.84            | 1.128        | 1.45       | 1300   | 3.58  | 34.58   |          |          | 33.49        | 27.51            | 2.031        | 2.08       |
| 325    | 8.95  | 34.63   | 4.8      | 0.0      | 28.31        | 26.84            | 1.134        | 1.39       | 1320   | 3.48  | 34.59   |          |          | 33.59        | 27.52            | 2.045        | 2.13       |
| 330    | 8.90  | 34.63   | 4.8      | 1.2      | 28.34        | 26.85            | 1.140        | 1.39       | 1340   | 3.40  | 34.59   |          |          | 33.70        | 27.53            | 2.058        | 2.15       |
| 335    | 8.85  | 34.63   | 3.6      | 1.2      | 28.37        | 26.86            | 1.147        | 1.48       | 1360   | 3.35  | 34.59   |          |          | 33.79        | 27.54            | 2.071        | 2.13       |
| 340    | 8.73  | 34.62   | 3.6      | 1.2      | 28.40        | 26.87            | 1.153        | 1.59       | 1380   | 3.28  | 34.59   |          |          | 33.89        | 27.54            | 2.084        | 2.18       |
| 345    | 8.65  | 34.62   | 2.4      | 2.4      | 28.44        | 26.88            | 1.159        | 1.92       | 1400   | 3.25  | 34.59   |          |          | 33.99        | 27.55            | 2.097        | 2.20       |
| 350    | 8.62  | 34.61   | 2.4      | 2.4      | 28.46        | 26.88            | 1.165        | 2.11       | 1420   | 3.19  | 34.60   |          |          | 34.09        | 27.55            | 2.110        | 2.17       |
| 355    | 8.61  | 34.61   | 2.4      | 2.4      | 28.49        | 26.88            | 1.171        | 2.18       | 1440   | 3.13  | 34.60   |          |          | 34.19        | 27.56            | 2.122        | 2.22       |
| 360    | 8.61  | 34.61   | 2.4      | 2.4      | 28.51        | 26.88            | 1.178        | 2.22       | 1460   | 3.09  | 34.60   |          |          | 34.29        | 27.57            | 2.135        | 2.21       |
| 365    | 8.60  | 34.61   | 1.2      | 2.4      | 28.54        | 26.88            | 1.184        | 2.24       | 1480   | 3.05  | 34.60   |          |          | 34.38        | 27               |              |            |

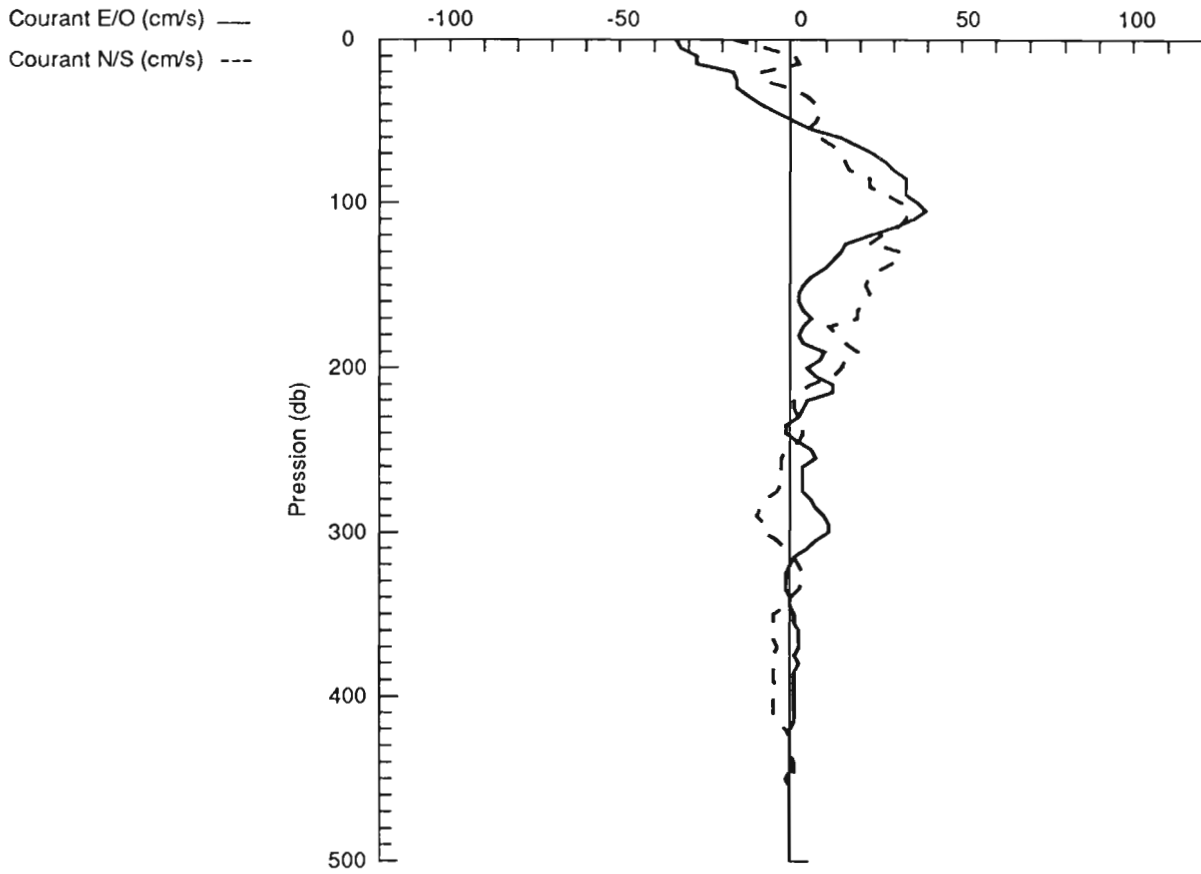
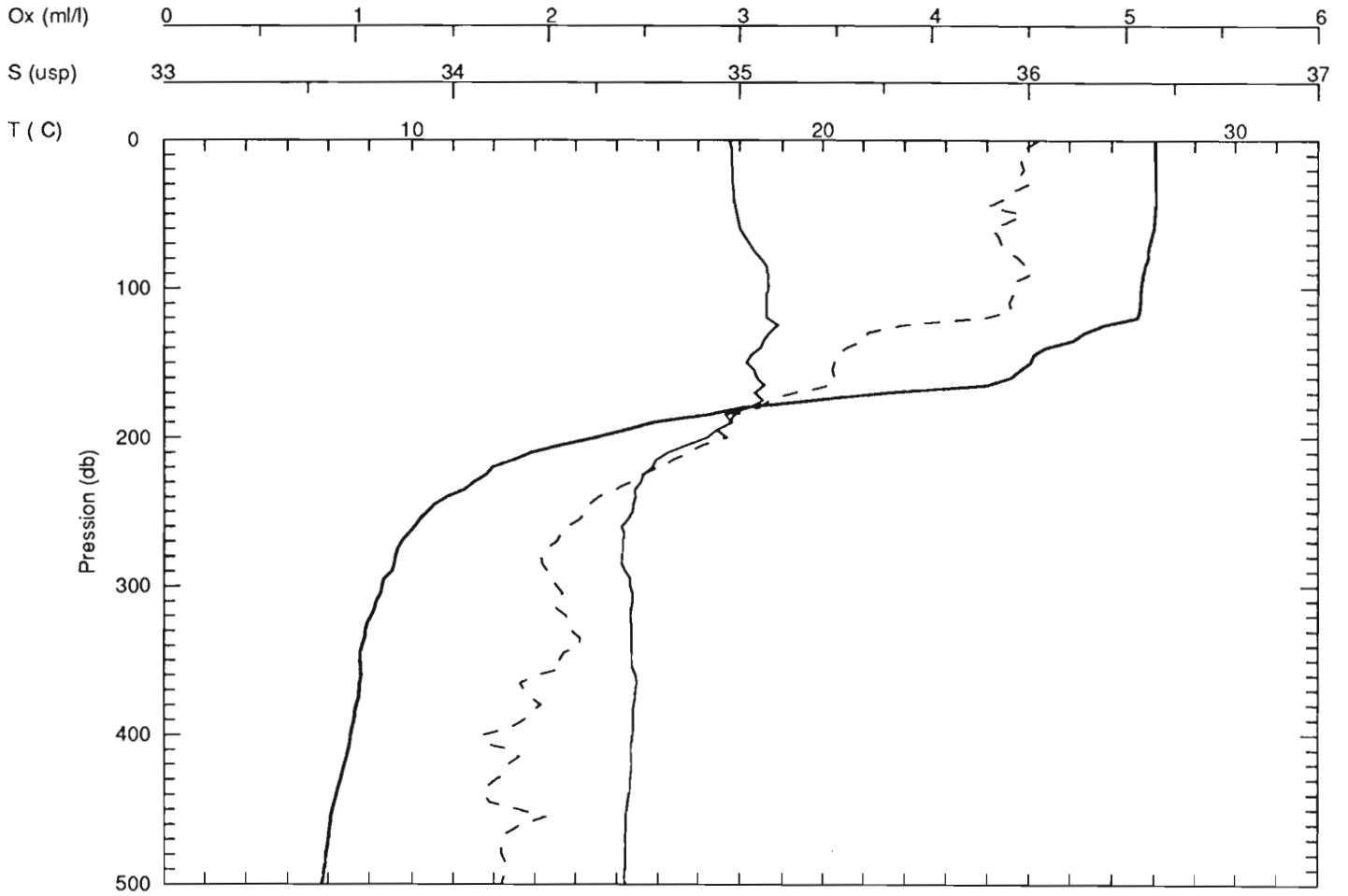
SURTROPAC11 STATION No : 32  
DATE : 16/ 1/89 HEURE : 14h45 LONGITUDE : 165.00 LATITUDE : 3.00



STATION : 33 (CAMPAGNE : autropacl1)  
 DATE : 16/ 1/89 HEURE : 21h20 LONGITUDE : 165.00 LATITUDE : 3.50

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.04 | 34.97 | -3.6   | -16.8  | 22.36   | 22.36    | 0.000   | 4.56   | 510  | 7.81 | 34.60 | 0.0    | 0.0    | 29.30   | 26.99    | 1.370   | 1.74   |
| 5    | 28.05 | 34.97 | -12.4  | -7.2   | 22.38   | 22.36    | 0.027   | 4.49   | 520  | 7.75 | 34.59 | 0.0    | 0.0    | 29.36   | 27.00    | 1.381   | 1.75   |
| 10   | 28.04 | 34.97 | -27.6  | 1.2    | 22.41   | 22.36    | 0.055   | 4.46   | 530  | 7.69 | 34.59 | 0.0    | 0.0    | 29.41   | 27.01    | 1.393   | 1.76   |
| 15   | 28.04 | 34.97 | -27.6  | 2.4    | 22.43   | 22.36    | 0.082   | 4.46   | 540  | 7.53 | 34.59 | 0.0    | 0.0    | 29.48   | 27.03    | 1.404   | 1.88   |
| 20   | 28.05 | 34.97 | -16.8  | -8.4   | 22.45   | 22.36    | 0.109   | 4.48   | 550  | 7.43 | 34.58 | 0.0    | 0.0    | 29.53   | 27.04    | 1.415   | 1.90   |
| 25   | 28.05 | 34.97 | -15.6  | -8.4   | 22.47   | 22.37    | 0.137   | 4.45   | 560  | 7.37 | 34.58 | 0.0    | 0.0    | 29.58   | 27.04    | 1.426   | 1.81   |
| 30   | 28.05 | 34.97 | -15.6  | 0.0    | 22.49   | 22.37    | 0.164   | 4.50   | 570  | 7.30 | 34.58 | 0.0    | 0.0    | 29.64   | 27.05    | 1.437   | 1.83   |
| 35   | 28.05 | 34.96 | -12.0  | 4.8    | 22.52   | 22.37    | 0.191   | 4.41   | 580  | 7.09 | 34.58 | 0.0    | 0.0    | 29.72   | 27.08    | 1.448   | 1.90   |
| 40   | 28.05 | 34.98 | -8.4   | 7.2    | 22.54   | 22.37    | 0.219   | 4.37   | 590  | 7.02 | 34.57 | 0.0    | 0.0    | 29.77   | 27.09    | 1.459   | 1.82   |
| 45   | 28.04 | 34.98 | -3.6   | 8.4    | 22.56   | 22.37    | 0.246   | 4.29   | 600  | 6.95 | 34.57 | 0.0    | 0.0    | 29.82   | 27.09    | 1.469   | 1.84   |
| 50   | 28.03 | 34.99 | 1.2    | 7.2    | 22.59   | 22.38    | 0.274   | 4.47   | 610  | 6.86 | 34.56 | 0.0    | 0.0    | 29.88   | 27.10    | 1.480   | 2.00   |
| 55   | 28.02 | 34.99 | 6.0    | 4.8    | 22.62   | 22.39    | 0.301   | 4.40   | 620  | 6.84 | 34.56 | 0.0    | 0.0    | 29.93   | 27.11    | 1.490   | 1.66   |
| 60   | 28.00 | 35.00 | 14.4   | 8.4    | 22.65   | 22.40    | 0.328   | 4.31   | 630  | 6.75 | 34.56 | 0.0    | 0.0    | 29.98   | 27.12    | 1.501   | 1.71   |
| 65   | 27.95 | 35.02 | 19.2   | 12.0   | 22.70   | 22.43    | 0.356   | 4.34   | 640  | 6.70 | 34.56 | 0.0    | 0.0    | 30.03   | 27.12    | 1.511   | 1.79   |
| 70   | 27.90 | 35.03 | 24.0   | 14.4   | 22.75   | 22.46    | 0.383   | 4.36   | 650  | 6.64 | 34.56 | 0.0    | 0.0    | 30.08   | 27.13    | 1.521   | 1.89   |
| 75   | 27.87 | 35.05 | 27.6   | 15.6   | 22.80   | 22.48    | 0.410   | 4.39   | 660  | 6.56 | 34.56 | 0.0    | 0.0    | 30.15   | 27.14    | 1.532   | 1.78   |
| 80   | 27.85 | 35.07 | 30.0   | 16.8   | 22.84   | 22.50    | 0.437   | 4.45   | 670  | 6.50 | 34.56 | 0.0    | 0.0    | 30.20   | 27.15    | 1.542   | 1.70   |
| 85   | 27.79 | 35.09 | 33.6   | 22.8   | 22.89   | 22.54    | 0.463   | 4.48   | 680  | 6.44 | 34.56 | 0.0    | 0.0    | 30.25   | 27.15    | 1.552   | 1.53   |
| 90   | 27.75 | 35.09 | 33.6   | 22.8   | 22.93   | 22.55    | 0.490   | 4.52   | 690  | 6.36 | 34.55 | 0.0    | 0.0    | 30.31   | 27.16    | 1.562   | 1.61   |
| 95   | 27.72 | 35.09 | 33.6   | 27.6   | 22.96   | 22.57    | 0.516   | 4.44   | 700  | 6.32 | 34.55 | 0.0    | 0.0    | 30.36   | 27.17    | 1.572   | 1.72   |
| 100  | 27.70 | 35.10 | 37.2   | 32.4   | 22.99   | 22.57    | 0.543   | 4.44   | 710  | 6.27 | 34.55 | 0.0    | 0.0    | 30.41   | 27.17    | 1.582   | 1.86   |
| 105  | 27.68 | 35.09 | 39.6   | 34.8   | 23.02   | 22.57    | 0.570   | 4.42   | 720  | 6.15 | 34.55 | 0.0    | 0.0    | 30.47   | 27.18    | 1.592   | 1.95   |
| 110  | 27.68 | 35.09 | 36.0   | 33.6   | 23.04   | 22.58    | 0.596   | 4.40   | 730  | 6.08 | 34.55 | 0.0    | 0.0    | 30.52   | 27.19    | 1.602   | 1.92   |
| 115  | 27.66 | 35.09 | 30.0   | 31.2   | 23.07   | 22.58    | 0.623   | 4.41   | 740  | 6.00 | 34.55 | 0.0    | 0.0    | 30.58   | 27.20    | 1.611   | 1.91   |
| 120  | 27.60 | 35.09 | 22.8   | 26.4   | 23.11   | 22.61    | 0.649   | 4.28   | 750  | 5.92 | 34.55 | 0.0    | 0.0    | 30.64   | 27.21    | 1.621   | 1.93   |
| 125  | 26.80 | 35.13 | 15.6   | 22.8   | 23.11   | 22.89    | 0.675   | 3.85   | 760  | 5.89 | 34.54 | 0.0    | 0.0    | 30.68   | 27.21    | 1.630   | 1.97   |
| 130  | 26.35 | 35.10 | 14.4   | 32.4   | 23.56   | 23.01    | 0.700   | 3.67   | 770  | 5.81 | 34.54 | 0.0    | 0.0    | 30.74   | 27.22    | 1.640   | 2.01   |
| 135  | 26.08 | 35.08 | 12.0   | 31.2   | 23.65   | 23.08    | 0.724   | 3.65   | 780  | 5.73 | 34.54 | 0.0    | 0.0    | 30.80   | 27.24    | 1.649   | 2.03   |
| 140  | 25.41 | 35.07 | 9.6    | 26.4   | 23.87   | 23.28    | 0.748   | 3.55   | 790  | 5.67 | 34.54 | 0.0    | 0.0    | 30.85   | 27.24    | 1.658   | 2.04   |
| 145  | 25.12 | 35.04 | 6.0    | 22.8   | 23.96   | 23.34    | 0.771   | 3.51   | 800  | 5.60 | 34.54 | 0.0    | 0.0    | 30.91   | 27.25    | 1.668   | 2.08   |
| 150  | 25.05 | 35.02 | 3.6    | 21.6   | 23.99   | 23.36    | 0.794   | 3.49   | 810  | 5.52 | 34.55 | 0.0    | 0.0    | 30.97   | 27.27    | 1.677   | 1.89   |
| 155  | 24.80 | 35.05 | 2.4    | 22.8   | 24.11   | 23.45    | 0.817   | 3.48   | 820  | 5.43 | 34.55 | 0.0    | 0.0    | 31.03   | 27.27    | 1.686   | 1.95   |
| 160  | 24.56 | 35.06 | 2.4    | 21.6   | 24.21   | 23.53    | 0.839   | 3.49   | 830  | 5.38 | 34.54 | 0.0    | 0.0    | 31.08   | 27.28    | 1.695   | 2.02   |
| 165  | 23.98 | 35.08 | 3.6    | 19.2   | 24.42   | 23.72    | 0.861   | 3.48   | 840  | 5.34 | 34.54 | 0.0    | 0.0    | 31.12   | 27.28    | 1.704   | 2.04   |
| 170  | 21.53 | 35.05 | 6.0    | 19.2   | 25.13   | 24.40    | 0.880   | 3.28   | 850  | 5.32 | 34.54 | 0.0    | 0.0    | 31.17   | 27.28    | 1.712   | 2.03   |
| 175  | 19.76 | 35.08 | 3.6    | 10.8   | 25.65   | 24.89    | 0.897   | 3.15   | 860  | 5.25 | 34.55 | 0.0    | 0.0    | 31.23   | 27.30    | 1.721   | 1.96   |
| 180  | 18.07 | 35.03 | 2.4    | 13.2   | 26.07   | 25.29    | 0.911   | 3.10   | 870  | 5.22 | 34.54 | 0.0    | 0.0    | 31.28   | 27.30    | 1.730   | 2.00   |
| 185  | 17.21 | 34.95 | 3.6    | 15.6   | 26.24   | 25.44    | 0.925   | 2.97   | 880  | 5.18 | 34.54 | 0.0    | 0.0    | 31.33   | 27.30    | 1.739   | 2.06   |
| 190  | 15.91 | 34.97 | 9.6    | 19.2   | 26.59   | 25.76    | 0.937   | 2.95   | 890  | 5.12 | 34.55 | 0.0    | 0.0    | 31.39   | 27.31    | 1.747   | 1.93   |
| 195  | 15.20 | 34.92 | 8.4    | 15.6   | 26.73   | 25.87    | 0.948   | 2.88   | 900  | 5.06 | 34.55 | 0.0    | 0.0    | 31.44   | 27.32    | 1.756   | 1.96   |
| 200  | 14.48 | 34.89 | 4.8    | 14.4   | 26.89   | 26.01    | 0.959   | 2.93   | 910  | 5.02 | 34.54 | 0.0    | 0.0    | 31.49   | 27.32    | 1.765   | 2.13   |
| 205  | 13.64 | 34.82 | 7.2    | 12.0   | 27.03   | 26.13    | 0.969   | 2.81   | 920  | 5.00 | 34.55 | 0.0    | 0.0    | 31.54   | 27.32    | 1.773   | 2.00   |
| 210  | 12.91 | 34.75 | 12.0   | 6.0    | 27.16   | 26.22    | 0.978   | 2.73   | 930  | 4.96 | 34.55 | 0.0    | 0.0    | 31.59   | 27.33    | 1.782   | 1.99   |
| 215  | 12.48 | 34.71 | 12.0   | 2.4    | 27.23   | 26.28    | 0.987   | 2.65   | 940  | 4.92 | 34.55 | 0.0    | 0.0    | 31.64   | 27.34    | 1.790   | 1.96   |
| 220  | 11.97 | 34.69 | 4.8    | 1.2    | 27.34   | 26.36    | 0.996   | 2.57   | 950  | 4.86 | 34.55 | 0.0    | 0.0    | 31.70   | 27.34    | 1.798   | 1.94   |
| 225  | 11.81 | 34.66 | 3.6    | 1.2    | 27.37   | 26.37    | 1.005   | 2.49   | 960  | 4.83 | 34.55 | 0.0    | 0.0    | 31.75   | 27.35    | 1.807   | 1.92   |
| 230  | 11.51 | 34.65 | 2.4    | 2.4    | 27.45   | 26.42    | 1.013   | 2.43   | 970  | 4.78 | 34.55 | 0.0    | 0.0    | 31.80   | 27.35    | 1.815   | 1.92   |
| 235  | 11.27 | 34.63 | -1.2   | 3.6    | 27.50   | 26.45    | 1.021   | 2.35   | 980  | 4.76 | 34.55 | 0.0    | 0.0    | 31.85   | 27.35    | 1.823   | 1.92   |
| 240  | 10.84 | 34.63 | -1.2   | 3.6    | 27.60   | 26.53    | 1.029   | 2.26   | 990  | 4.71 | 34.55 | 0.0    | 0.0    | 31.90   | 27.36    | 1.831   | 1.94   |
| 245  | 10.54 | 34.63 | 2.4    | 2.4    | 27.67   | 26.57    | 1.037   | 2.21   | 1000 | 4.67 | 34.55 | 0.0    | 0.0    | 31.95   | 27.37    | 1.840   | 1.91   |
| 250  | 10.38 | 34.63 | 6.0    | -1.2   | 27.72   | 26.60    | 1.044   | 2.19   | 1020 | 4.55 | 34.56 | 0.0    | 0.0    | 32.06   | 27.38    | 1.856   | 1.98   |
| 255  | 10.19 | 34.61 | 7.2    | -2.4   | 27.77   | 26.62    | 1.052   | 2.17   | 1040 | 4.47 | 34.56 | 0.0    | 0.0    | 32.16   | 27.39    | 1.872   | 2.01   |
| 260  | 10.06 | 34.59 | 3.6    | -2.4   | 27.79   | 26.62    | 1.059   | 2.10   | 1060 | 4.43 | 34.56 | 0.0    | 0.0    | 32.26   | 27.40    | 1.887   | 2.03   |
| 265  | 9.91  | 34.60 | 3.6    | -2.4   | 27.85   | 26.66    | 1.066   | 2.07   | 1080 | 4.34 | 34.56 | 0.0    | 0.0    | 32.37   | 27.41    | 1.903   | 1.91   |
| 270  | 9.75  | 34.59 | 3.6    | -2.4   | 27.89   | 26.68    | 1.073   | 2.05   | 1100 | 4.26 | 34.56 | 0.0    | 0.0    | 32.47   | 27.42    | 1.918   | 1.91   |
| 275  | 9.66  | 34.59 | 3.6    | -3.6   | 27.93   | 26.70    | 1.080   | 1.99   | 1120 | 4.20 | 34.56 | 0.0    | 0.0    | 32.57   | 27.43    | 1.933   | 1.93   |
| 280  | 9.61  | 34.59 | 6.0    | -7.2   | 27.96   | 26.70    | 1.087   | 1.96   | 1140 | 4.12 | 34.57 | 0.0    | 0.0    | 32.67   | 27.44    | 1.948   | 1.91   |
| 285  | 9.58  | 34.59 | 7.2    | -8.4   | 27.99   | 26.71    | 1.094   | 1.97   | 1160 | 4.02 | 34.57 | 0.0    | 0.0    | 32.78   | 27.45    | 1.963   | 1.99   |
| 290  | 9.53  | 34.60 | 9.6    | -9.6   | 28.03   | 26.72    | 1.101   | 2.00   | 1180 | 3.96 | 34.57 | 0.0    | 0.0    | 32.88   | 27.46    | 1.978   | 1.99   |
| 295  | 9.34  | 34.62 | 10.8   | -7.2   | 28.10   | 26.77    | 1.108   | 2.02   | 1200 | 3.90 | 34.57 | 0.0    | 0.0    | 32.98   | 27.47    | 1.992   | 2.04   |
| 300  | 9.30  | 34.62 | 10.8   | -7.2   | 28.13   | 26.78    | 1.115   | 2.05   | 1220 | 3.83 | 34.58 | 0.0    | 0.0    | 33.08   | 27.47    | 2.007   | 2.05   |
| 305  | 9.26  | 34.63 | 7.2    | -3.6   | 28.16   | 26.79    | 1.121   | 2.08   | 1240 | 3.78 | 34.57 | 0.0    | 0.0    | 33.18   | 27.48    | 2.021   | 2.07   |
| 310  | 9.16  | 34.63 | 4.8    | -1.2   | 28.20   | 26.81    | 1.128   | 2.04   | 1260 | 3.74 | 34.58 | 0.0    | 0.0    | 33.28   | 27.48    | 2.035   | 2.06   |
| 315  | 9.12  | 34.62 | 1.2    | 1.2    | 28.23   | 26.81    | 1.134   | 2.04   | 1280 | 3.69 | 34.58 | 0.0    | 0.0    | 33.37   | 27.49    | 2.049   | 2.08   |
| 320  | 9.05  | 34.62 | 0.0    | 2.4    | 28.26   | 26.82    | 1.141   | 2.09   | 1300 | 3.65 | 34.58 | 0.0    | 0.0    | 33.47   | 27.50    | 2.063   | 2.07   |
| 325  | 8.94  | 34.62 | -1.2   | 3.6    | 28.30   | 26.84    | 1.147   | 2.11   | 1320 | 3.59 | 34.58 | 0.0    | 0.0    | 33.57   | 27.50    | 2.076   | 2.09   |
| 330  | 8.90  | 34.62 | -1.2   | 3.6    | 28.33   | 26.84    | 1.153   | 2.12   | 1340 | 3.53 | 34.58 | 0.0    | 0.0    | 33.67   | 27.51    | 2.090   | 2.10   |
| 335  | 8.89  | 34.62 | -1.2   | 2.4    | 28.36   | 26.85    | 1.160   | 2.16   | 1360 | 3.48 | 34.58 | 0.0    | 0.0    | 33.77   | 27.52    | 2.104   | 2.08   |
| 340  | 8.82  | 34.63 | 0.0    | 0.0    | 28.39   | 26.86    | 1.166   | 2.17   | 1380 | 3.42 | 34.59 | 0.0    | 0.0    | 33.87   | 27.53    | 2.117   | 2.09   |
| 345  | 8.78  | 34.62 | 0.0    | -1.2   | 28.42   | 26.86    | 1.172   | 2.08   | 1400 | 3.36 | 34.59 | 0.0    | 0.0    | 33.97   | 27.53    | 2.130   | 2.11   |
| 350  | 8.78  | 34.62 | 1.2    | -4.8   | 28.44   | 26.      |         |        |      |      |       |        |        |         |          |         |        |

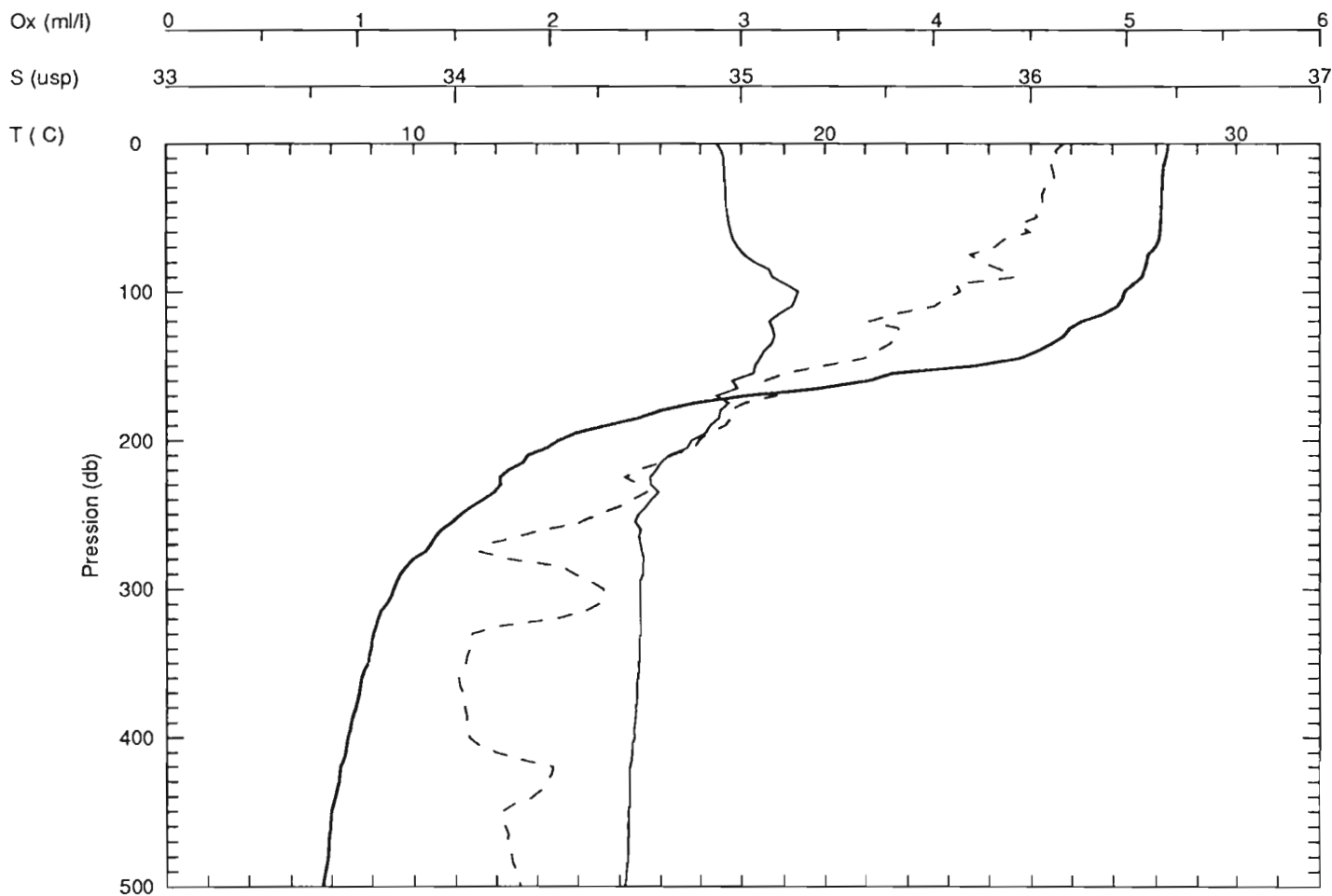
SURTROPAC11 STATION No : 33  
DATE : 16/ 1/89 HEURE : 21h20 LONGITUDE : 165.00 LATITUDE : 3.50



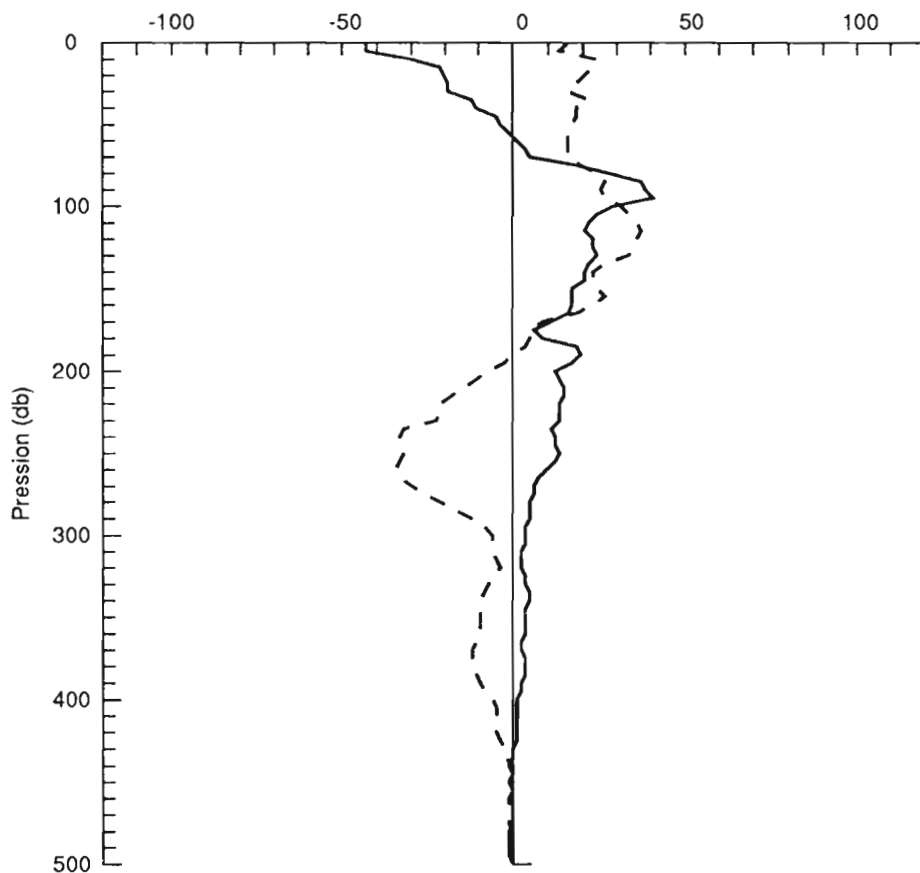
STATION : 34      CAMPAGNE : murtropac11  
 DATE : 17/ 1/89    HEURE : 3h10    LONGITUDE : 165.00    LATITUDE : 4.00

| P    | T     | S      | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T     | S      | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|--------|--------|--------|---------|----------|---------|--------|------|-------|--------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | ( usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | ( usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.28 | 34.92  | -43.2  | 15.6   | 22.24   | 22.24    | 0.000   | 4.68   | 510  | 7.75  | 34.59  | 0.0    | 0.0    | 29.31   | 27.00    | 1.337   | 1.87   |
| 5    | 28.27 | 34.93  | -43.2  | 13.2   | 22.28   | 22.26    | 0.028   | 4.63   | 520  | 7.69  | 34.59  | 0.0    | 0.0    | 29.36   | 27.01    | 1.348   | 1.75   |
| 10   | 28.24 | 34.94  | -30.0  | 24.0   | 22.32   | 22.27    | 0.056   | 4.65   | 530  | 7.65  | 34.59  | 0.0    | 0.0    | 29.41   | 27.01    | 1.359   | 1.73   |
| 15   | 28.19 | 34.94  | -21.6  | 22.8   | 22.35   | 22.29    | 0.083   | 4.61   | 540  | 7.60  | 34.59  | 0.0    | 0.0    | 29.46   | 27.02    | 1.371   | 1.71   |
| 20   | 28.17 | 34.94  | -20.4  | 20.4   | 22.38   | 22.30    | 0.111   | 4.62   | 550  | 7.54  | 34.59  | 0.0    | 0.0    | 29.52   | 27.02    | 1.382   | 1.71   |
| 25   | 28.15 | 34.94  | -19.2  | 18.0   | 22.41   | 22.31    | 0.139   | 4.63   | 560  | 7.48  | 34.58  | 0.0    | 0.0    | 29.57   | 27.03    | 1.393   | 1.68   |
| 30   | 28.14 | 34.94  | -19.2  | 15.6   | 22.44   | 22.31    | 0.166   | 4.58   | 570  | 7.40  | 34.58  | 0.0    | 0.0    | 29.63   | 27.04    | 1.404   | 1.68   |
| 35   | 28.14 | 34.94  | -12.0  | 21.6   | 22.46   | 22.31    | 0.194   | 4.56   | 580  | 7.31  | 34.58  | 0.0    | 0.0    | 29.69   | 27.05    | 1.415   | 1.59   |
| 40   | 28.13 | 34.95  | -10.8  | 18.0   | 22.49   | 22.32    | 0.222   | 4.56   | 590  | 7.22  | 34.58  | 1.2    | 0.0    | 29.75   | 27.07    | 1.426   | 1.53   |
| 45   | 28.13 | 34.95  | -4.8   | 18.0   | 22.51   | 22.32    | 0.249   | 4.52   | 600  | 7.07  | 34.58  |        |        | 29.81   | 27.08    | 1.437   | 1.44   |
| 50   | 28.12 | 34.95  | -3.6   | 16.8   | 22.53   | 22.32    | 0.277   | 4.53   | 610  | 7.01  | 34.57  |        |        | 29.86   | 27.09    | 1.448   | 1.40   |
| 55   | 28.11 | 34.96  | -1.2   | 15.6   | 22.57   | 22.33    | 0.305   | 4.44   | 620  | 6.95  | 34.57  |        |        | 29.91   | 27.09    | 1.458   | 1.39   |
| 60   | 28.10 | 34.96  | 1.2    | 15.6   | 22.60   | 22.34    | 0.332   | 4.49   | 630  | 6.82  | 34.57  |        |        | 29.98   | 27.11    | 1.469   | 1.35   |
| 65   | 28.07 | 34.97  | 3.6    | 15.6   | 22.63   | 22.36    | 0.360   | 4.36   | 640  | 6.75  | 34.56  |        |        | 30.03   | 27.12    | 1.479   | 1.49   |
| 70   | 27.99 | 34.99  | 4.8    | 15.6   | 22.69   | 22.40    | 0.387   | 4.32   | 650  | 6.66  | 34.56  |        |        | 30.09   | 27.13    | 1.490   | 1.75   |
| 75   | 27.82 | 35.01  | 8.0    | 19.2   | 22.78   | 22.47    | 0.414   | 4.19   | 660  | 6.56  | 34.56  |        |        | 30.15   | 27.14    | 1.500   | 1.75   |
| 80   | 27.79 | 35.04  | 27.6   | 24.0   | 22.84   | 22.50    | 0.441   | 4.25   | 670  | 6.55  | 34.55  |        |        | 30.19   | 27.14    | 1.510   | 1.66   |
| 85   | 27.75 | 35.09  | 37.2   | 26.4   | 22.91   | 22.56    | 0.468   | 4.34   | 680  | 6.53  | 34.55  |        |        | 30.24   | 27.14    | 1.520   | 1.60   |
| 90   | 27.68 | 35.10  | 38.4   | 25.2   | 22.96   | 22.58    | 0.494   | 4.42   | 690  | 6.43  | 34.56  |        |        | 30.30   | 27.16    | 1.531   | 1.68   |
| 95   | 27.47 | 35.15  | 40.8   | 26.4   | 23.09   | 22.69    | 0.521   | 4.11   | 700  | 6.35  | 34.55  |        |        | 30.35   | 27.16    | 1.540   | 1.47   |
| 100  | 27.27 | 35.19  | 28.0   | 31.2   | 23.20   | 22.78    | 0.547   | 4.14   | 710  | 6.28  | 34.55  |        |        | 30.41   | 27.17    | 1.550   | 1.51   |
| 105  | 27.22 | 35.18  | 24.0   | 33.6   | 23.24   | 22.79    | 0.572   | 4.05   | 720  | 6.22  | 34.56  |        |        | 30.47   | 27.18    | 1.560   | 1.27   |
| 110  | 27.10 | 35.17  | 21.6   | 36.0   | 23.29   | 22.82    | 0.598   | 4.00   | 730  | 6.13  | 34.56  |        |        | 30.52   | 27.19    | 1.570   | 1.31   |
| 115  | 26.78 | 35.13  | 20.4   | 37.2   | 23.38   | 22.89    | 0.623   | 3.80   | 740  | 6.04  | 34.55  |        |        | 30.58   | 27.20    | 1.580   | 1.41   |
| 120  | 26.27 | 35.09  | 22.8   | 36.0   | 23.54   | 23.03    | 0.647   | 3.67   | 750  | 5.99  | 34.55  |        |        | 30.63   | 27.21    | 1.589   | 1.54   |
| 125  | 25.95 | 35.10  | 22.8   | 34.8   | 23.67   | 23.14    | 0.672   | 3.82   | 760  | 5.91  | 34.55  |        |        | 30.69   | 27.22    | 1.599   | 1.81   |
| 130  | 25.81 | 35.11  | 24.0   | 33.6   | 23.74   | 23.19    | 0.695   | 3.82   | 770  | 5.82  | 34.55  |        |        | 30.74   | 27.23    | 1.608   | 1.99   |
| 135  | 25.51 | 35.10  | 21.6   | 26.4   | 23.84   | 23.27    | 0.719   | 3.77   | 780  | 5.76  | 34.54  |        |        | 30.79   | 27.23    | 1.618   | 2.07   |
| 140  | 25.16 | 35.08  | 20.4   | 22.8   | 23.96   | 23.36    | 0.742   | 3.71   | 790  | 5.71  | 34.54  |        |        | 30.85   | 27.24    | 1.627   | 2.12   |
| 145  | 24.75 | 35.06  | 20.4   | 22.8   | 24.09   | 23.48    | 0.765   | 3.64   | 800  | 5.62  | 34.55  |        |        | 30.91   | 27.25    | 1.636   | 2.05   |
| 150  | 23.68 | 35.05  | 16.8   | 24.0   | 24.42   | 23.78    | 0.786   | 3.41   | 810  | 5.55  | 34.55  |        |        | 30.96   | 27.26    | 1.645   | 2.05   |
| 155  | 21.66 | 35.04  | 16.8   | 26.4   | 25.02   | 24.35    | 0.805   | 3.23   | 820  | 5.51  | 34.54  |        |        | 31.01   | 27.26    | 1.654   | 2.09   |
| 160  | 21.09 | 34.97  | 16.8   | 22.8   | 25.14   | 24.46    | 0.823   | 3.12   | 830  | 5.46  | 34.54  |        |        | 31.06   | 27.27    | 1.663   | 2.07   |
| 165  | 19.87 | 34.99  | 15.6   | 18.0   | 25.51   | 24.80    | 0.840   | 3.15   | 840  | 5.41  | 34.54  |        |        | 31.12   | 27.27    | 1.673   | 2.12   |
| 170  | 18.10 | 34.91  | 10.8   | 8.4    | 25.93   | 25.19    | 0.855   | 3.17   | 850  | 5.36  | 34.54  |        |        | 31.17   | 27.28    | 1.681   | 2.13   |
| 175  | 16.84 | 34.96  | 6.0    | 4.8    | 26.29   | 25.53    | 0.869   | 3.01   | 860  | 5.31  | 34.54  |        |        | 31.22   | 27.28    | 1.690   | 2.11   |
| 180  | 16.00 | 34.93  | 8.4    | 4.8    | 26.49   | 25.70    | 0.881   | 2.94   | 870  | 5.26  | 34.54  |        |        | 31.28   | 27.29    | 1.699   | 2.09   |
| 185  | 15.45 | 34.92  | 18.0   | 3.6    | 26.63   | 25.82    | 0.892   | 2.95   | 880  | 5.18  | 34.55  |        |        | 31.33   | 27.30    | 1.708   | 2.10   |
| 190  | 14.68 | 34.89  | 19.2   | 0.0    | 26.80   | 25.97    | 0.903   | 2.92   | 890  | 5.14  | 34.55  |        |        | 31.38   | 27.31    | 1.717   | 2.08   |
| 195  | 13.95 | 34.88  | 16.8   | -2.4   | 26.97   | 26.11    | 0.913   | 2.83   | 900  | 5.09  | 34.55  |        |        | 31.44   | 27.31    | 1.725   | 2.08   |
| 200  | 13.53 | 34.82  | 12.0   | -7.2   | 27.04   | 26.16    | 0.923   | 2.78   | 910  | 5.03  | 34.55  |        |        | 31.49   | 27.32    | 1.734   | 2.07   |
| 205  | 13.24 | 34.81  | 13.2   | -10.8  | 27.11   | 26.20    | 0.932   | 2.76   | 920  | 4.99  | 34.55  |        |        | 31.54   | 27.33    | 1.742   | 2.07   |
| 210  | 12.77 | 34.74  | 14.4   | -14.4  | 27.18   | 26.25    | 0.941   | 2.63   | 930  | 4.95  | 34.55  |        |        | 31.59   | 27.33    | 1.751   | 2.07   |
| 215  | 12.65 | 34.72  | 14.4   | -18.0  | 27.20   | 26.25    | 0.950   | 2.57   | 940  | 4.88  | 34.55  |        |        | 31.65   | 27.34    | 1.759   | 2.05   |
| 220  | 12.30 | 34.70  | 13.2   | -21.6  | 27.28   | 26.30    | 0.959   | 2.45   | 950  | 4.84  | 34.55  |        |        | 31.70   | 27.35    | 1.768   | 2.02   |
| 225  | 12.09 | 34.68  | 13.2   | -21.6  | 27.33   | 26.33    | 0.968   | 2.39   | 960  | 4.79  | 34.55  |        |        | 31.75   | 27.35    | 1.776   | 1.98   |
| 230  | 12.09 | 34.68  | 13.2   | -22.8  | 27.35   | 26.33    | 0.977   | 2.46   | 970  | 4.74  | 34.55  |        |        | 31.81   | 27.36    | 1.784   | 1.99   |
| 235  | 11.94 | 34.71  | 10.8   | -32.4  | 27.43   | 26.38    | 0.985   | 2.50   | 980  | 4.70  | 34.55  |        |        | 31.86   | 27.36    | 1.792   | 2.07   |
| 240  | 11.67 | 34.68  | 12.0   | -33.6  | 27.48   | 26.41    | 0.994   | 2.42   | 990  | 4.65  | 34.55  |        |        | 31.91   | 27.37    | 1.800   | 2.11   |
| 245  | 11.36 | 34.66  | 12.0   | -33.6  | 27.55   | 26.45    | 1.002   | 2.35   | 1000 | 4.61  | 34.55  |        |        | 31.96   | 27.37    | 1.808   | 2.11   |
| 250  | 11.12 | 34.64  | 13.2   | -32.4  | 27.60   | 26.48    | 1.010   | 2.25   | 1020 | 4.51  | 34.56  |        |        | 32.07   | 27.39    | 1.824   | 2.09   |
| 255  | 10.91 | 34.63  | 12.0   | -33.6  | 27.65   | 26.51    | 1.018   | 2.16   | 1040 | 4.41  | 34.56  |        |        | 32.17   | 27.40    | 1.840   | 2.05   |
| 260  | 10.66 | 34.65  | 9.6    | -34.8  | 27.73   | 26.57    | 1.026   | 1.99   | 1060 | 4.35  | 34.56  |        |        | 32.27   | 27.41    | 1.856   | 2.08   |
| 265  | 10.50 | 34.64  | 7.2    | -33.6  | 27.78   | 26.59    | 1.033   | 1.81   | 1080 | 4.29  | 34.56  |        |        | 32.37   | 27.42    | 1.871   | 1.95   |
| 270  | 10.40 | 34.64  | 6.0    | -30.0  | 27.82   | 26.61    | 1.041   | 1.67   | 1100 | 4.26  | 34.56  |        |        | 32.47   | 27.42    | 1.886   | 2.05   |
| 275  | 10.27 | 34.65  | 6.0    | -26.4  | 27.87   | 26.64    | 1.048   | 1.62   | 1120 | 4.22  | 34.56  |        |        | 32.56   | 27.42    | 1.902   | 2.16   |
| 280  | 9.98  | 34.65  | 4.8    | -21.6  | 27.95   | 26.69    | 1.055   | 1.78   | 1140 | 4.20  | 34.56  |        |        | 32.66   | 27.43    | 1.917   | 2.17   |
| 285  | 9.82  | 34.65  | 4.8    | -16.8  | 28.00   | 26.72    | 1.062   | 2.06   | 1160 | 4.14  | 34.56  |        |        | 32.76   | 27.43    | 1.932   | 2.22   |
| 290  | 9.68  | 34.65  | 4.8    | -12.0  | 28.05   | 26.74    | 1.069   | 2.13   | 1180 | 4.07  | 34.57  |        |        | 32.86   | 27.44    | 1.947   | 2.12   |
| 295  | 9.59  | 34.64  | 3.6    | -8.4   | 28.07   | 26.75    | 1.076   | 2.21   | 1200 | 4.01  | 34.57  |        |        | 32.96   | 27.45    | 1.962   | 2.07   |
| 300  | 9.52  | 34.64  | 3.6    | -6.0   | 28.11   | 26.76    | 1.083   | 2.28   | 1220 | 3.91  | 34.57  |        |        | 33.07   | 27.46    | 1.976   | 2.04   |
| 305  | 9.46  | 34.64  | 3.6    | -6.0   | 28.14   | 26.77    | 1.089   | 2.28   | 1240 | 3.84  | 34.57  |        |        | 33.17   | 27.47    | 1.991   | 2.08   |
| 310  | 9.35  | 34.64  | 2.4    | -6.0   | 28.19   | 26.79    | 1.096   | 2.25   | 1260 | 3.77  | 34.58  |        |        | 33.27   | 27.48    | 2.005   | 2.11   |
| 315  | 9.22  | 34.64  | 2.4    | -4.8   | 28.23   | 26.81    | 1.103   | 2.17   | 1280 | 3.72  | 34.58  |        |        | 33.37   | 27.49    | 2.019   | 2.13   |
| 320  | 9.15  | 34.65  | 2.4    | -3.6   | 28.27   | 26.82    | 1.109   | 2.03   | 1300 | 3.66  | 34.58  |        |        | 33.47   | 27.50    | 2.033   | 2.11   |
| 325  | 9.10  | 34.65  | 3.6    | -6.0   | 28.30   | 26.83    | 1.115   | 1.73   | 1320 | 3.61  | 34.58  |        |        | 33.57   | 27.50    | 2.047   | 2.12   |
| 330  | 9.03  | 34.64  | 3.6    | -7.2   | 28.33   | 26.84    | 1.122   | 1.59   | 1340 | 3.52  | 34.58  |        |        | 33.67   | 27.51    | 2.060   | 2.10   |
| 335  | 9.00  | 34.64  | 4.8    | -8.4   | 28.36   | 26.84    | 1.128   | 1.58   | 1360 | 3.47  | 34.58  |        |        | 33.77   | 27.52    | 2.074   | 2.11   |
| 340  | 8.97  | 34.64  | 4.8    | -9.6   | 28.38   | 26.85    | 1.135   | 1.57   | 1380 | 3.42  | 34.59  |        |        | 33.87   | 27.53    | 2.087   | 2.13   |
| 345  | 8.93  | 34.64  | 3.6    | -9.6   | 28.41   | 26.85    | 1.141   | 1.56   | 1400 | 3.38  | 34.59  |        |        | 33.97   | 27.53    | 2.100   | 2.10   |
| 350  | 8.90  | 34.64  | 3.6    | -9.6   | 28.44   | 26.86    | 1.147   | 1.55   | 1420 | 3.31  | 34.59  |        |        | 34.07   | 27.54    | 2.113   | 2.12   |
| 355  | 8.81  | 34.64  | 3.6    | -9.6   | 28.48   | 26.87    | 1.153   | 1.53   | 1440 | 3.25  | 34.59  |        |        | 34.17   | 27.55    | 2.126   | 2.13   |
| 360  | 8.74  | 34.63  | 3.6    | -9.6   | 28.51   | 26.88    | 1.160   | 1.51   | 1460 | 3.21  | 34.59  |        |        | 34.27   | 27.55    | 2.139   | 2.15   |
| 365  | 8.7   |        |        |        |         |          |         |        |      |       |        |        |        |         |          |         |        |

SURTROPAC11 STATION No : 34  
DATE : 17/ 1/89 HEURE : 3h10 LONGITUDE : 165.00 LATITUDE : 4.00



Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -

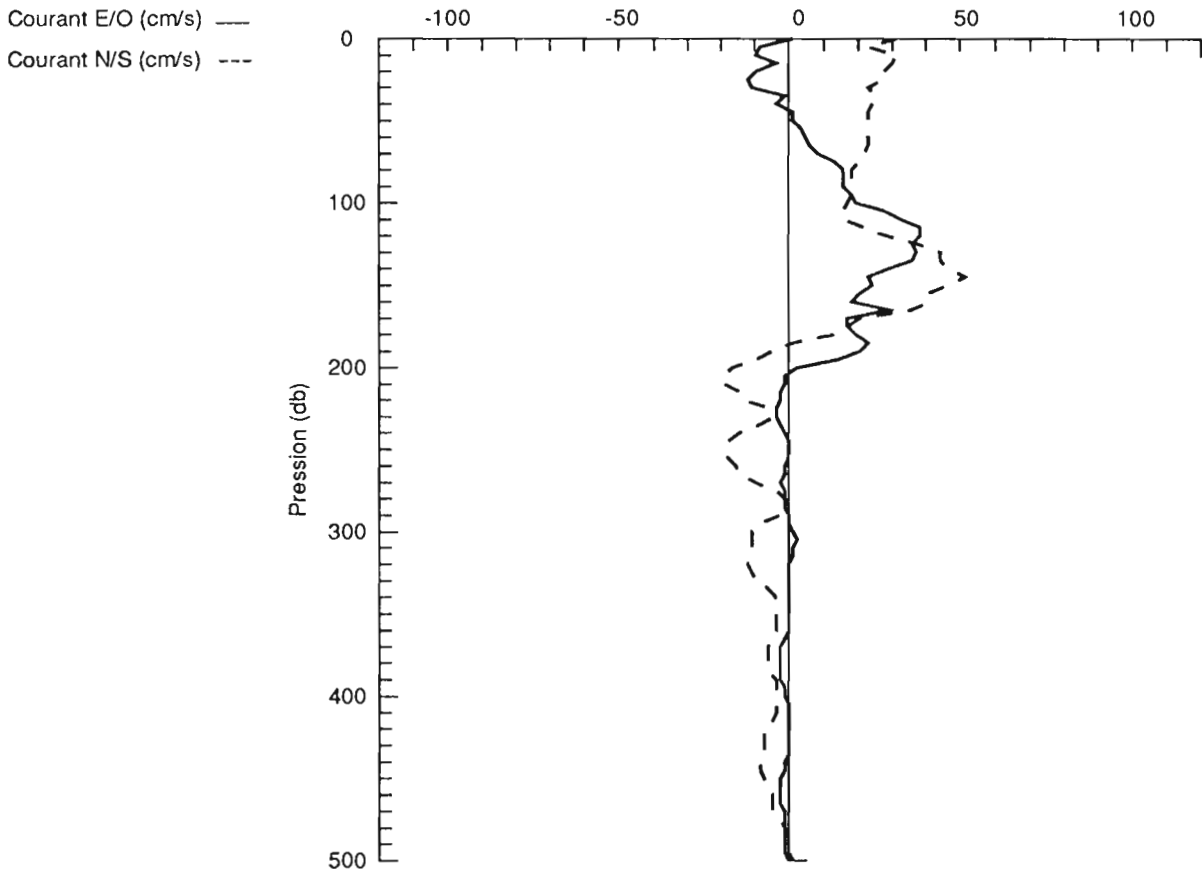
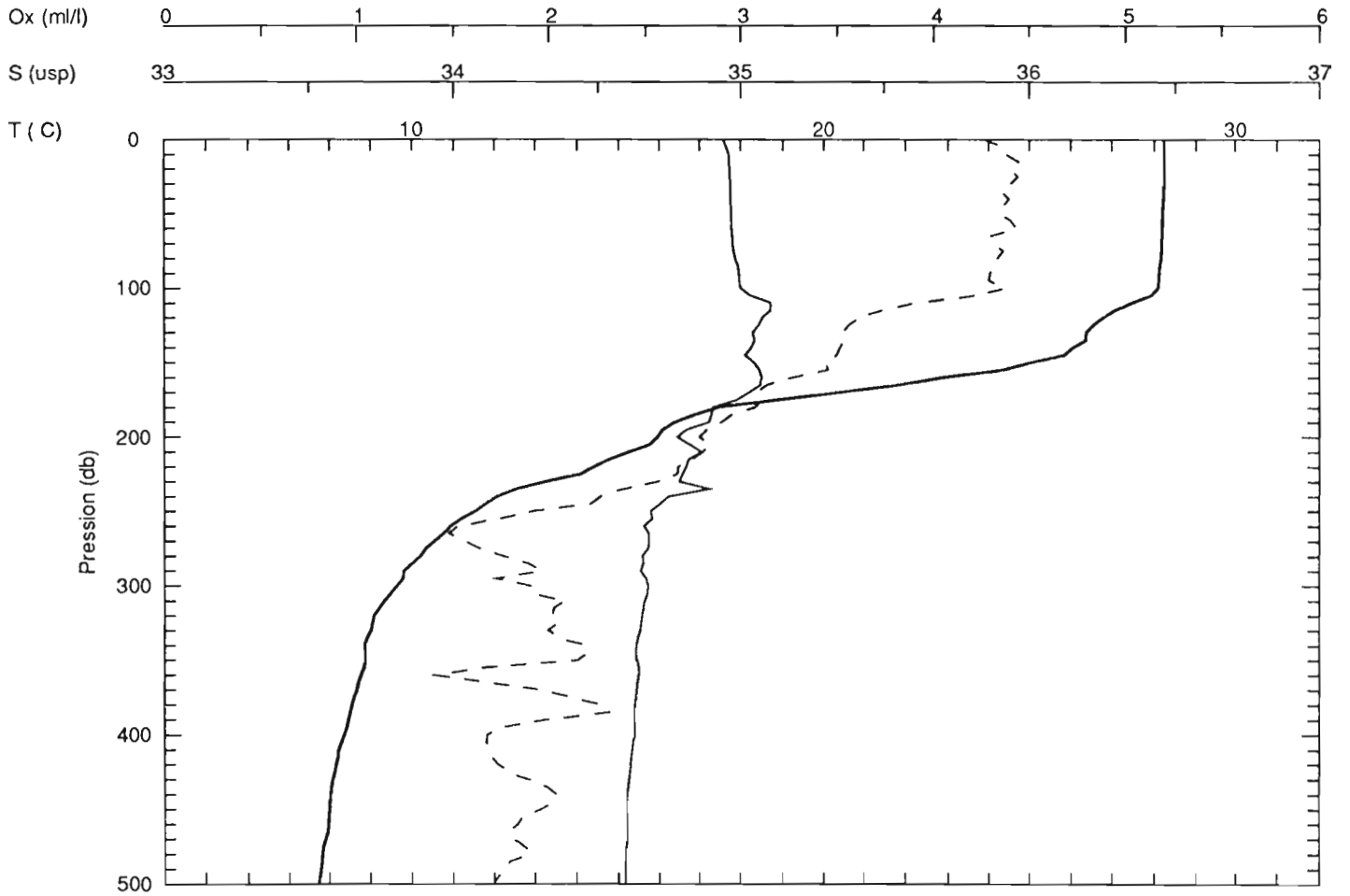


STATION : 35      CAMPAGNE : aurtropac11  
 DATE : 17/ 1/89    HEURE : 9h35      LONGITUDE : 165.00      LATITUDE : 4.50

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.23 | 34.94 | 1.2    | 31.2   | 22.27   | 22.28    | 0.000   | 4.26   | 510  | 7.72 | 34.60 | 0.0    | 1.2    | 29.32   | 27.00    | 1.390   | 1.73   |
| 5    | 28.24 | 34.95 | -8.4   | 22.0   | 22.30   | 22.28    | 0.028   | 4.36   | 520  | 7.65 | 34.59 | 0.0    | 1.2    | 29.37   | 27.01    | 1.401   | 1.77   |
| 10   | 28.24 | 34.96 | -9.6   | 31.2   | 22.33   | 22.29    | 0.055   | 4.38   | 530  | 7.61 | 34.59 | 0.0    | 0.0    | 29.42   | 27.02    | 1.412   | 1.75   |
| 15   | 28.24 | 34.96 | -3.6   | 30.0   | 22.35   | 22.29    | 0.083   | 4.45   | 540  | 7.59 | 34.59 | 1.2    | -2.4   | 29.47   | 27.02    | 1.424   | 1.74   |
| 20   | 28.24 | 34.96 | -9.6   | 27.6   | 22.38   | 22.29    | 0.111   | 4.41   | 550  | 7.48 | 34.59 | 1.2    | -2.4   | 29.53   | 27.04    | 1.435   | 1.73   |
| 25   | 28.24 | 34.96 | -12.0  | 27.6   | 22.40   | 22.29    | 0.139   | 4.44   | 560  | 7.40 | 34.59 | 1.2    | -2.4   | 29.59   | 27.05    | 1.446   | 1.60   |
| 30   | 28.24 | 34.96 | -10.8  | 22.8   | 22.42   | 22.30    | 0.166   | 4.40   | 570  | 7.37 | 34.58 | 0.0    | 0.0    | 29.63   | 27.05    | 1.457   | 1.56   |
| 35   | 28.23 | 34.97 | -1.2   | 25.2   | 22.45   | 22.30    | 0.194   | 4.36   | 580  | 7.26 | 34.59 | 0.0    | 1.2    | 29.70   | 27.07    | 1.468   | 1.51   |
| 40   | 28.22 | 34.97 | -3.6   | 24.0   | 22.47   | 22.30    | 0.222   | 4.39   | 590  | 7.12 | 34.59 | -1.2   | 2.4    | 29.77   | 27.09    | 1.479   | 1.40   |
| 45   | 28.21 | 34.97 | 1.2    | 22.8   | 22.50   | 22.31    | 0.249   | 4.37   | 600  | 7.00 | 34.58 | 0.0    | 0.0    | 29.82   | 27.10    | 1.489   | 1.55   |
| 50   | 28.20 | 34.97 | 1.2    | 22.8   | 22.52   | 22.31    | 0.277   | 4.35   | 610  | 6.98 | 34.58 | 0.0    | 0.0    | 29.87   | 27.10    | 1.500   | 1.54   |
| 55   | 28.19 | 34.97 | 3.6    | 22.8   | 22.55   | 22.31    | 0.305   | 4.40   | 620  | 6.92 | 34.58 | 0.0    | 0.0    | 29.92   | 27.10    | 1.510   | 1.45   |
| 60   | 28.19 | 34.97 | 4.8    | 22.8   | 22.57   | 22.32    | 0.333   | 4.43   | 630  | 6.83 | 34.57 | 0.0    | 0.0    | 29.98   | 27.12    | 1.521   | 1.56   |
| 65   | 28.18 | 34.97 | 6.0    | 22.8   | 22.59   | 22.32    | 0.360   | 4.30   | 640  | 6.72 | 34.57 | 0.0    | 0.0    | 30.04   | 27.13    | 1.531   | 1.64   |
| 70   | 28.18 | 34.97 | 8.4    | 21.6   | 22.61   | 22.32    | 0.388   | 4.30   | 650  | 6.64 | 34.57 | 0.0    | 0.0    | 30.09   | 27.13    | 1.541   | 1.83   |
| 75   | 28.18 | 34.98 | 13.2   | 20.4   | 22.64   | 22.33    | 0.416   | 4.36   | 660  | 6.56 | 34.56 | 0.0    | 0.0    | 30.15   | 27.14    | 1.552   | 1.81   |
| 80   | 28.16 | 34.98 | 15.6   | 18.0   | 22.67   | 22.34    | 0.443   | 4.33   | 670  | 6.47 | 34.56 | 0.0    | 0.0    | 30.21   | 27.15    | 1.562   | 1.84   |
| 85   | 28.13 | 34.99 | 15.6   | 18.0   | 22.71   | 22.35    | 0.471   | 4.32   | 680  | 6.44 | 34.56 | 0.0    | 0.0    | 30.25   | 27.16    | 1.572   | 1.75   |
| 90   | 28.11 | 34.99 | 15.6   | 18.0   | 22.74   | 22.36    | 0.498   | 4.29   | 690  | 6.39 | 34.56 | 0.0    | 0.0    | 30.31   | 27.16    | 1.582   | 1.72   |
| 95   | 28.11 | 35.00 | 18.0   | 18.0   | 22.77   | 22.37    | 0.526   | 4.29   | 700  | 6.31 | 34.56 | 0.0    | 0.0    | 30.36   | 27.17    | 1.592   | 1.70   |
| 100  | 28.09 | 35.00 | 19.2   | 16.8   | 22.79   | 22.37    | 0.553   | 4.37   | 710  | 6.27 | 34.56 | 0.0    | 0.0    | 30.41   | 27.18    | 1.602   | 1.73   |
| 105  | 27.92 | 35.03 | 27.6   | 15.6   | 22.90   | 22.46    | 0.581   | 4.22   | 720  | 6.23 | 34.56 | 0.0    | 0.0    | 30.46   | 27.18    | 1.611   | 1.64   |
| 110  | 27.48 | 35.10 | 32.4   | 15.6   | 23.12   | 22.65    | 0.608   | 3.92   | 730  | 6.11 | 34.56 | 0.0    | 0.0    | 30.53   | 27.20    | 1.621   | 1.80   |
| 115  | 27.06 | 35.10 | 38.4   | 21.6   | 23.27   | 22.79    | 0.633   | 3.74   | 740  | 6.05 | 34.55 | 0.0    | 0.0    | 30.58   | 27.20    | 1.631   | 1.94   |
| 120  | 26.78 | 35.08 | 38.4   | 27.6   | 23.36   | 22.86    | 0.659   | 3.62   | 750  | 5.98 | 34.55 | 0.0    | 0.0    | 30.63   | 27.21    | 1.640   | 2.05   |
| 125  | 26.54 | 35.06 | 36.0   | 37.2   | 23.45   | 22.92    | 0.684   | 3.56   | 760  | 5.91 | 34.55 | 0.0    | 0.0    | 30.69   | 27.22    | 1.650   | 2.08   |
| 130  | 26.36 | 35.04 | 37.2   | 44.4   | 23.51   | 22.96    | 0.709   | 3.53   | 770  | 5.82 | 34.55 | 0.0    | 0.0    | 30.74   | 27.23    | 1.659   | 2.09   |
| 135  | 26.36 | 35.05 | 36.0   | 44.4   | 23.54   | 22.97    | 0.734   | 3.54   | 780  | 5.79 | 34.55 | 0.0    | 0.0    | 30.79   | 27.23    | 1.669   | 2.05   |
| 140  | 26.04 | 35.04 | 28.8   | 46.8   | 23.65   | 23.06    | 0.758   | 3.51   | 790  | 5.71 | 34.55 | 0.0    | 0.0    | 30.85   | 27.24    | 1.678   | 2.09   |
| 145  | 25.84 | 35.02 | 22.8   | 51.6   | 23.72   | 23.11    | 0.782   | 3.50   | 800  | 5.64 | 34.55 | 0.0    | 0.0    | 30.91   | 27.25    | 1.687   | 2.15   |
| 150  | 25.03 | 35.05 | 24.0   | 46.8   | 24.01   | 23.38    | 0.806   | 3.44   | 810  | 5.60 | 34.55 | 0.0    | 0.0    | 30.96   | 27.25    | 1.696   | 2.17   |
| 155  | 24.34 | 35.06 | 20.4   | 40.8   | 24.26   | 23.60    | 0.828   | 3.45   | 820  | 5.54 | 34.55 | 0.0    | 0.0    | 31.01   | 27.26    | 1.706   | 2.16   |
| 160  | 22.87 | 35.07 | 18.0   | 40.8   | 24.72   | 24.04    | 0.849   | 3.27   | 830  | 5.51 | 34.55 | 0.0    | 0.0    | 31.06   | 27.26    | 1.715   | 2.16   |
| 165  | 21.83 | 35.07 | 28.8   | 36.0   | 25.03   | 24.33    | 0.868   | 3.14   | 840  | 5.43 | 34.55 | 0.0    | 0.0    | 31.12   | 27.28    | 1.724   | 2.15   |
| 170  | 20.39 | 35.03 | 16.8   | 20.4   | 25.42   | 24.69    | 0.885   | 3.09   | 850  | 5.41 | 34.55 | 0.0    | 0.0    | 31.17   | 27.28    | 1.733   | 2.02   |
| 175  | 18.82 | 34.99 | 16.8   | 16.8   | 25.82   | 25.07    | 0.901   | 3.10   | 860  | 5.37 | 34.55 | 0.0    | 0.0    | 31.22   | 27.28    | 1.742   | 1.97   |
| 180  | 17.48 | 34.91 | 19.2   | 13.2   | 26.12   | 25.34    | 0.914   | 3.08   | 870  | 5.32 | 34.55 | 0.0    | 0.0    | 31.27   | 27.29    | 1.750   | 2.06   |
| 185  | 16.90 | 34.90 | 22.8   | 1.2    | 26.28   | 25.47    | 0.928   | 2.96   | 880  | 5.29 | 34.55 | 0.0    | 0.0    | 31.32   | 27.29    | 1.759   | 2.08   |
| 190  | 16.40 | 34.89 | 20.4   | -4.8   | 26.41   | 25.58    | 0.940   | 2.90   | 890  | 5.26 | 34.55 | 0.0    | 0.0    | 31.37   | 27.30    | 1.768   | 1.94   |
| 195  | 16.10 | 34.81 | 14.4   | -9.6   | 26.44   | 25.59    | 0.952   | 2.83   | 900  | 5.19 | 34.55 | 0.0    | 0.0    | 31.42   | 27.30    | 1.777   | 1.95   |
| 200  | 15.97 | 34.78 | 2.4    | -16.8  | 26.47   | 25.59    | 0.965   | 2.79   | 910  | 5.14 | 34.55 | 0.0    | 0.0    | 31.48   | 27.31    | 1.786   | 2.04   |
| 205  | 15.76 | 34.83 | -1.2   | -19.2  | 26.57   | 25.68    | 0.977   | 2.84   | 920  | 5.09 | 34.55 | 0.0    | 0.0    | 31.53   | 27.32    | 1.794   | 2.12   |
| 210  | 15.26 | 34.87 | -1.2   | -19.2  | 26.74   | 25.82    | 0.988   | 2.78   | 930  | 5.05 | 34.55 | 0.0    | 0.0    | 31.58   | 27.32    | 1.803   | 2.13   |
| 215  | 14.78 | 34.82 | -2.4   | -14.4  | 26.84   | 25.89    | 0.999   | 2.75   | 940  | 5.00 | 34.55 | 0.0    | 0.0    | 31.64   | 27.33    | 1.811   | 2.11   |
| 220  | 14.41 | 34.81 | -2.4   | -13.2  | 26.93   | 25.96    | 1.010   | 2.67   | 950  | 4.97 | 34.55 | 0.0    | 0.0    | 31.68   | 27.33    | 1.820   | 2.11   |
| 225  | 14.09 | 34.80 | -3.6   | -6.0   | 27.01   | 26.02    | 1.020   | 2.67   | 960  | 4.92 | 34.56 | 0.0    | 0.0    | 31.74   | 27.34    | 1.828   | 2.10   |
| 230  | 13.27 | 34.79 | -3.6   | -4.8   | 27.20   | 26.18    | 1.030   | 2.56   | 970  | 4.87 | 34.56 | 0.0    | 0.0    | 31.79   | 27.35    | 1.836   | 2.06   |
| 235  | 12.54 | 34.90 | -2.4   | -8.4   | 27.45   | 26.41    | 1.039   | 2.39   | 980  | 4.83 | 34.56 | 0.0    | 0.0    | 31.84   | 27.35    | 1.845   | 2.07   |
| 240  | 12.07 | 34.75 | -1.2   | -14.4  | 27.46   | 26.39    | 1.048   | 2.26   | 990  | 4.78 | 34.56 | 0.0    | 0.0    | 31.90   | 27.36    | 1.853   | 2.01   |
| 245  | 11.77 | 34.72 | 0.0    | -18.0  | 27.51   | 26.42    | 1.056   | 2.21   | 1000 | 4.76 | 34.56 | 0.0    | 0.0    | 31.94   | 27.36    | 1.861   | 2.06   |
| 250  | 11.54 | 34.69 | 0.0    | -18.0  | 27.55   | 26.44    | 1.064   | 1.93   | 1020 | 4.69 | 34.56 | 0.0    | 0.0    | 32.04   | 27.37    | 1.878   | 2.10   |
| 255  | 11.20 | 34.69 | 0.0    | -18.0  | 27.64   | 26.50    | 1.072   | 1.75   | 1040 | 4.60 | 34.56 | 0.0    | 0.0    | 32.15   | 27.38    | 1.894   | 2.09   |
| 260  | 10.93 | 34.66 | -1.2   | -15.6  | 27.69   | 26.53    | 1.080   | 1.52   | 1060 | 4.52 | 34.56 | 0.0    | 0.0    | 32.25   | 27.39    | 1.910   | 2.09   |
| 265  | 10.77 | 34.68 | -1.2   | -14.4  | 27.76   | 26.57    | 1.088   | 1.48   | 1080 | 4.43 | 34.57 | 0.0    | 0.0    | 32.36   | 27.40    | 1.925   | 1.99   |
| 270  | 10.55 | 34.68 | -2.4   | -9.6   | 27.82   | 26.61    | 1.095   | 1.56   | 1100 | 4.34 | 34.57 | 0.0    | 0.0    | 32.46   | 27.42    | 1.941   | 2.07   |
| 275  | 10.35 | 34.68 | -1.2   | -3.6   | 27.88   | 26.65    | 1.103   | 1.63   | 1120 | 4.27 | 34.57 | 0.0    | 0.0    | 32.56   | 27.42    | 1.956   | 2.02   |
| 280  | 10.22 | 34.65 | -1.2   | -1.2   | 27.91   | 26.65    | 1.110   | 1.76   | 1140 | 4.21 | 34.57 | 0.0    | 0.0    | 32.66   | 27.43    | 1.971   | 1.96   |
| 285  | 10.01 | 34.66 | -1.2   | 0.0    | 27.97   | 26.69    | 1.117   | 1.89   | 1160 | 4.07 | 34.58 | 0.0    | 0.0    | 32.78   | 27.45    | 1.986   | 2.01   |
| 290  | 9.81  | 34.65 | 0.0    | -2.4   | 28.02   | 26.72    | 1.124   | 1.97   | 1180 | 4.01 | 34.57 | 0.0    | 0.0    | 32.88   | 27.46    | 2.001   | 2.02   |
| 295  | 9.79  | 34.67 | 0.0    | -8.4   | 28.06   | 26.73    | 1.131   | 1.72   | 1200 | 3.99 | 34.57 | 0.0    | 0.0    | 32.97   | 27.46    | 2.016   | 2.00   |
| 300  | 9.64  | 34.68 | 1.2    | -10.8  | 28.12   | 26.77    | 1.138   | 1.91   | 1220 | 3.97 | 34.57 | 0.0    | 0.0    | 33.06   | 27.46    | 2.030   | 1.99   |
| 305  | 9.49  | 34.67 | 2.4    | -10.8  | 28.16   | 26.79    | 1.144   | 1.91   | 1240 | 3.89 | 34.58 | 0.0    | 0.0    | 33.17   | 27.47    | 2.045   | 1.90   |
| 310  | 9.33  | 34.66 | 1.2    | -10.8  | 28.20   | 26.81    | 1.151   | 2.09   | 1260 | 3.85 | 34.58 | 0.0    | 0.0    | 33.26   | 27.48    | 2.059   | 1.91   |
| 315  | 9.22  | 34.66 | 1.2    | -10.8  | 28.24   | 26.82    | 1.157   | 2.03   | 1280 | 3.77 | 34.58 | 0.0    | 0.0    | 33.37   | 27.49    | 2.073   | 1.93   |
| 320  | 9.08  | 34.65 | 0.0    | -12.0  | 28.28   | 26.84    | 1.164   | 2.02   | 1300 | 3.68 | 34.59 | 0.0    | 0.0    | 33.47   | 27.50    | 2.087   | 1.94   |
| 325  | 9.04  | 34.65 | 0.0    | -10.8  | 28.31   | 26.84    | 1.170   | 2.05   | 1320 | 3.63 | 34.59 | 0.0    | 0.0    | 33.57   | 27.50    | 2.101   | 1.92   |
| 330  | 9.01  | 34.65 | 0.0    | -9.6   | 28.34   | 26.85    | 1.176   | 2.00   | 1340 | 3.56 | 34.59 | 0.0    | 0.0    | 33.67   | 27.51    | 2.114   | 1.94   |
| 335  | 8.91  | 34.64 | 0.0    | -6.0   | 28.37   | 26.86    | 1.183   | 2.06   | 1360 | 3.50 | 34.59 | 0.0    | 0.0    | 33.77   | 27.52    | 2.128   | 1.91   |
| 340  | 8.85  | 34.63 | 0.0    | -3.6   | 28.40   | 26.86    | 1.189   | 2.18   | 1380 | 3.46 | 34.59 | 0.0    | 0.0    | 33.87   | 27.53    | 2.141   | 1.92   |
| 345  | 8.87  | 34.63 | 0.0    | -3.6   | 28.41   | 26.86    | 1.195   | 2.20   | 1400 | 3.41 | 34.59 | 0.0    | 0.0    | 33.97   | 27.53    | 2.154   | 1.91   |
| 350  | 8.86  | 34    |        |        |         |          |         |        |      |      |       |        |        |         |          |         |        |



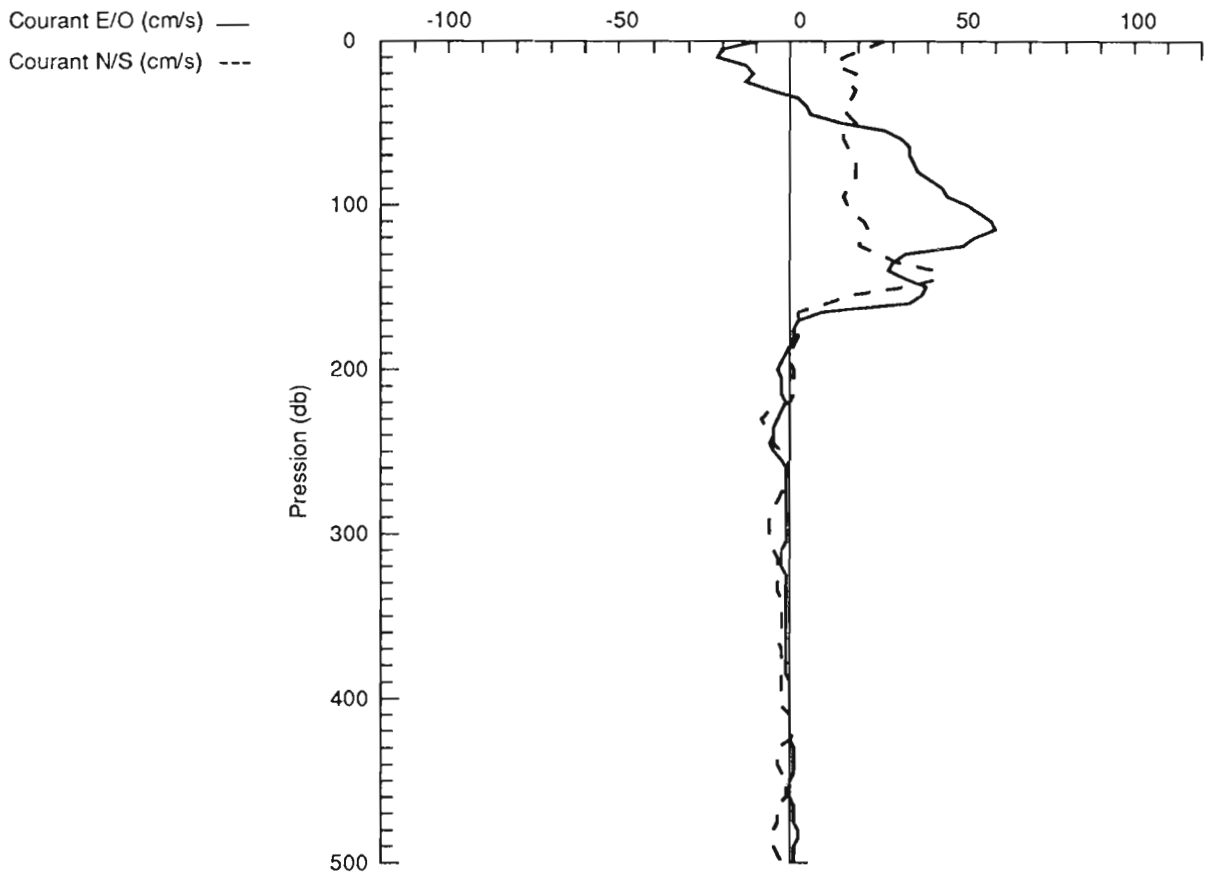
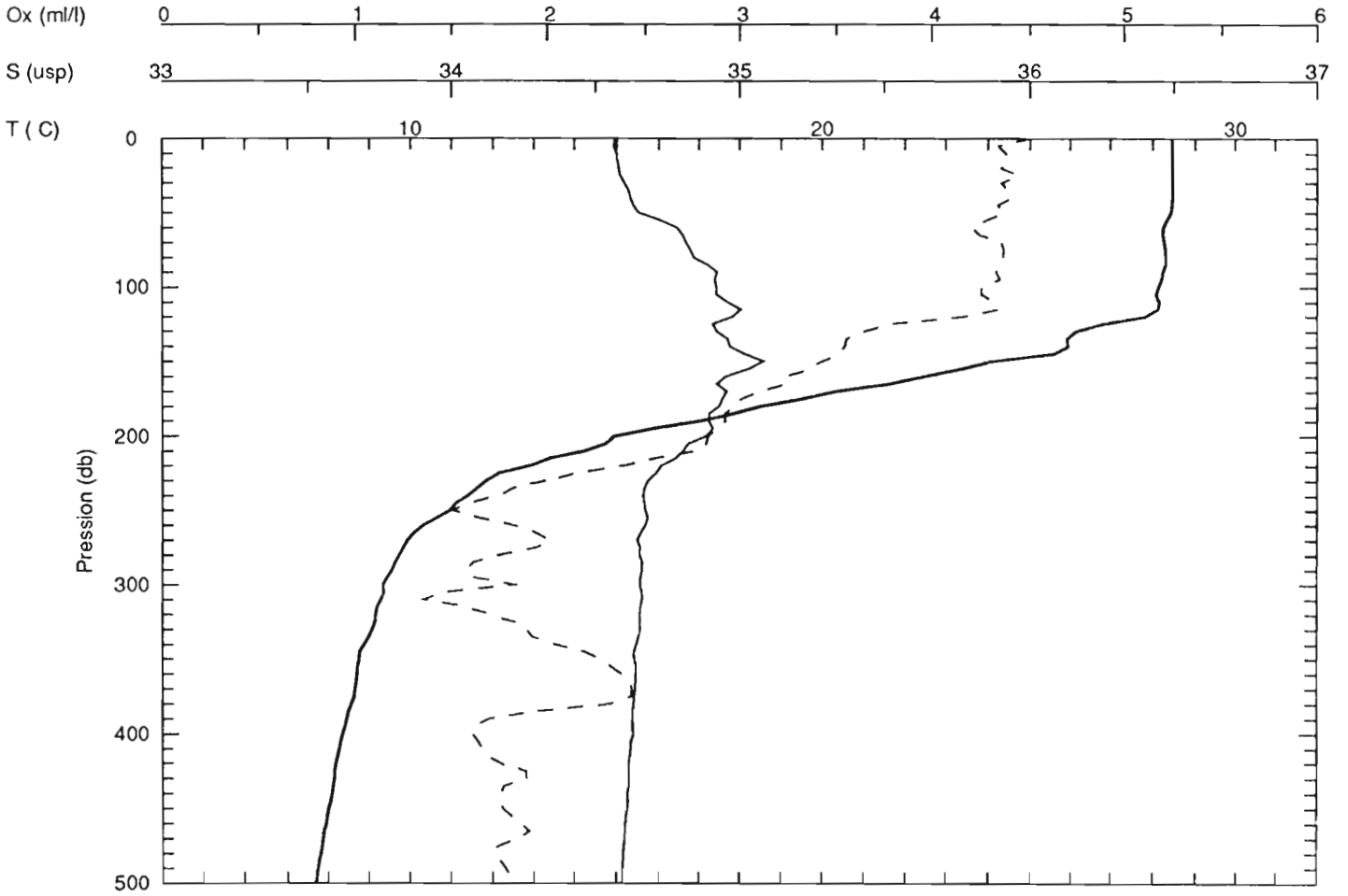
SURTROPAC11 STATION No : 35  
DATE : 17/ 1/89 HEURE : 9h35 LONGITUDE : 165.00 LATITUDE : 4.50



STATION : 36      CAMPAGNE : aurtropacl1  
 DATE : 17/ 1/89    HEURE : 15h10    LONGITUDE : 165.00    LATITUDE : 5.00

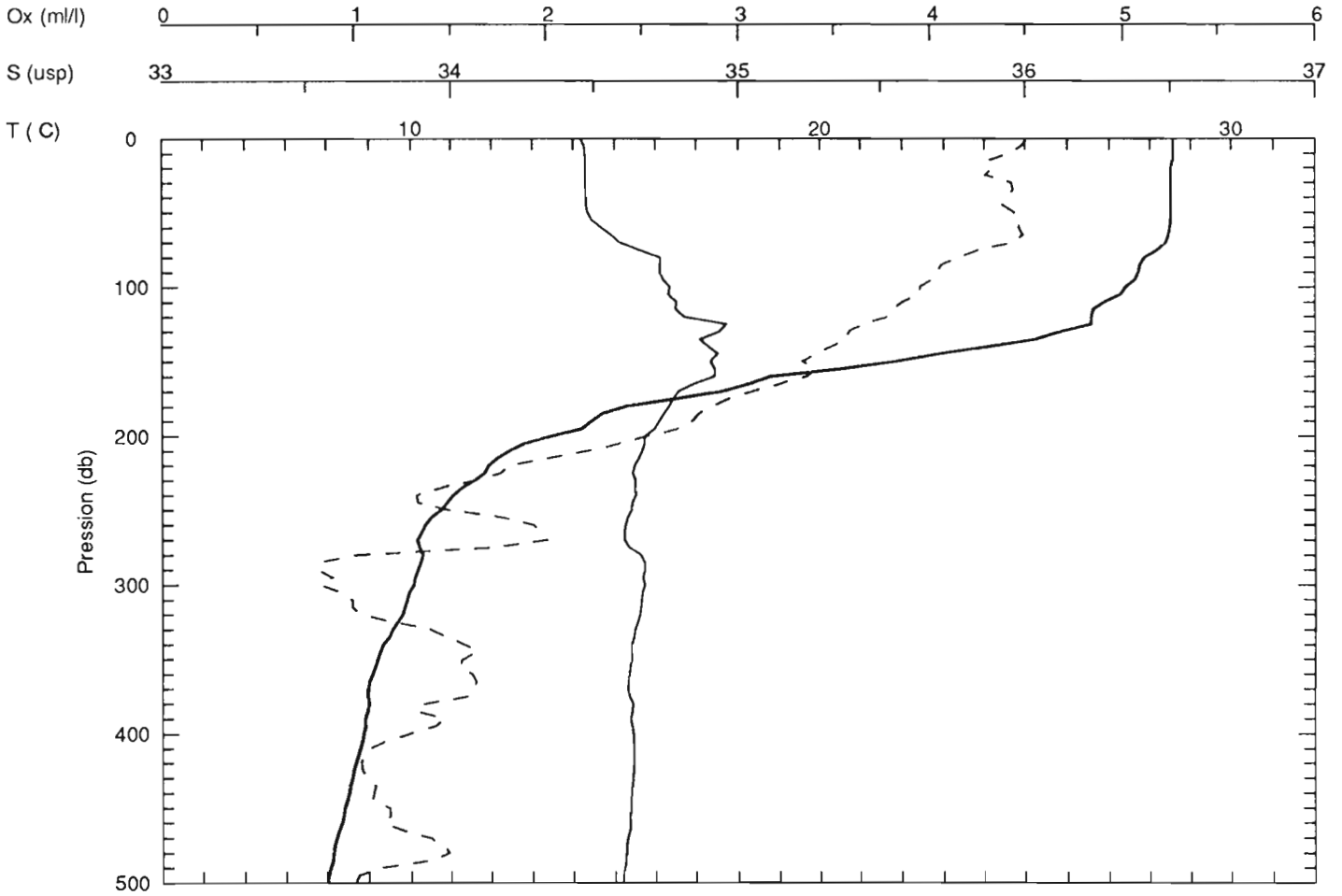
| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.45 | 34.56 | -9.6   | 27.6   | 21.92   | 21.92    | 0.000   | 4.51   | 510  | 7.64 | 34.59 | 0.0    | -1.2   | 29.33   | 27.01    | 1.408   | 1.97   |
| 5    | 28.46 | 34.56 | -20.4  | 21.6   | 21.94   | 21.91    | 0.030   | 4.34   | 520  | 7.58 | 34.59 | 0.0    | 0.0    | 29.38   | 27.02    | 1.420   | 2.00   |
| 10   | 28.47 | 34.57 | -21.6  | 15.6   | 21.96   | 21.92    | 0.059   | 4.37   | 530  | 7.52 | 34.58 | 0.0    | -1.2   | 29.43   | 27.03    | 1.431   | 1.95   |
| 15   | 28.47 | 34.57 | -13.2  | 13.2   | 21.99   | 21.92    | 0.088   | 4.39   | 540  | 7.43 | 34.58 | 0.0    | 1.2    | 29.49   | 27.04    | 1.442   | 1.98   |
| 20   | 28.47 | 34.58 | -10.8  | 19.2   | 22.01   | 21.93    | 0.118   | 4.35   | 550  | 7.32 | 34.58 | 0.0    | 1.2    | 29.55   | 27.05    | 1.453   | 1.99   |
| 25   | 28.47 | 34.58 | -13.2  | 16.8   | 22.03   | 21.93    | 0.147   | 4.44   | 560  | 7.28 | 34.58 | 0.0    | 0.0    | 29.60   | 27.06    | 1.464   | 1.89   |
| 30   | 28.48 | 34.60 | -6.0   | 19.2   | 22.06   | 21.94    | 0.177   | 4.35   | 570  | 7.16 | 34.58 | 0.0    | -1.2   | 29.66   | 27.07    | 1.475   | 1.95   |
| 35   | 28.48 | 34.61 | 2.4    | 18.0   | 22.10   | 21.95    | 0.206   | 4.39   | 580  | 7.08 | 34.57 | 0.0    | 1.2    | 29.71   | 27.08    | 1.485   | 1.90   |
| 40   | 28.47 | 34.62 | 4.8    | 15.6   | 22.13   | 21.96    | 0.235   | 4.40   | 590  | 7.02 | 34.57 | 0.0    | 2.4    | 29.77   | 27.09    | 1.496   | 1.68   |
| 45   | 28.46 | 34.63 | 6.0    | 16.8   | 22.16   | 21.97    | 0.265   | 4.33   | 600  | 6.97 | 34.57 | 0.0    | 0.0    | 29.82   | 27.09    | 1.507   | 1.35   |
| 50   | 28.43 | 34.64 | 14.4   | 19.2   | 22.20   | 21.99    | 0.294   | 4.37   | 610  | 6.92 | 34.57 | 0.0    | 0.0    | 29.87   | 27.10    | 1.517   | 1.34   |
| 55   | 28.33 | 34.72 | 27.6   | 15.6   | 22.31   | 22.08    | 0.323   | 4.28   | 620  | 6.82 | 34.57 | 0.0    | 0.0    | 29.93   | 27.11    | 1.528   | 1.63   |
| 60   | 28.25 | 34.78 | 32.4   | 15.6   | 22.41   | 22.15    | 0.352   | 4.20   | 630  | 6.64 | 34.57 | 0.0    | 0.0    | 30.01   | 27.14    | 1.538   | 1.71   |
| 65   | 28.25 | 34.80 | 34.8   | 16.8   | 22.44   | 22.17    | 0.380   | 4.24   | 640  | 6.53 | 34.56 | 0.0    | 0.0    | 30.06   | 27.15    | 1.548   | 1.83   |
| 70   | 28.27 | 34.81 | 34.8   | 18.0   | 22.47   | 22.17    | 0.409   | 4.35   | 650  | 6.36 | 34.57 | 0.0    | 0.0    | 30.14   | 27.17    | 1.558   | 1.84   |
| 75   | 28.30 | 34.83 | 36.0   | 19.2   | 22.49   | 22.17    | 0.437   | 4.36   | 660  | 6.25 | 34.56 | 0.0    | 0.0    | 30.19   | 27.18    | 1.568   | 1.92   |
| 80   | 28.31 | 34.84 | 37.2   | 19.2   | 22.52   | 22.18    | 0.465   | 4.36   | 670  | 6.23 | 34.55 | 0.0    | 0.0    | 30.24   | 27.18    | 1.578   | 1.96   |
| 85   | 28.30 | 34.89 | 40.8   | 19.2   | 22.58   | 22.22    | 0.494   | 4.34   | 680  | 6.18 | 34.55 | 0.0    | 0.0    | 30.29   | 27.18    | 1.587   | 1.97   |
| 90   | 28.25 | 34.92 | 44.4   | 16.8   | 22.64   | 22.26    | 0.522   | 4.32   | 690  | 6.14 | 34.55 | 0.0    | 0.0    | 30.34   | 27.19    | 1.597   | 2.03   |
| 95   | 28.21 | 34.91 | 45.6   | 15.6   | 22.67   | 22.27    | 0.550   | 4.34   | 700  | 6.04 | 34.55 | 0.0    | 0.0    | 30.40   | 27.20    | 1.607   | 2.06   |
| 100  | 28.14 | 34.92 | 51.6   | 16.8   | 22.72   | 22.30    | 0.578   | 4.25   | 710  | 5.98 | 34.55 | 0.0    | 0.0    | 30.45   | 27.21    | 1.616   | 2.03   |
| 105  | 28.09 | 34.92 | 55.2   | 18.0   | 22.76   | 22.31    | 0.606   | 4.25   | 720  | 5.93 | 34.55 | 0.0    | 0.0    | 30.50   | 27.22    | 1.626   | 2.00   |
| 110  | 28.16 | 34.96 | 58.8   | 21.6   | 22.78   | 22.32    | 0.633   | 4.32   | 730  | 5.79 | 34.55 | 0.0    | 0.0    | 30.57   | 27.23    | 1.635   | 2.02   |
| 115  | 28.13 | 35.00 | 60.0   | 22.8   | 22.85   | 22.37    | 0.661   | 4.33   | 740  | 5.70 | 34.55 | 0.0    | 0.0    | 30.63   | 27.24    | 1.645   | 2.06   |
| 120  | 27.83 | 34.98 | 54.0   | 20.4   | 22.95   | 22.44    | 0.689   | 4.17   | 750  | 5.65 | 34.55 | 0.0    | 0.0    | 30.68   | 27.25    | 1.654   | 2.09   |
| 125  | 26.79 | 34.90 | 50.4   | 20.4   | 23.25   | 22.73    | 0.715   | 3.78   | 760  | 5.60 | 34.55 | 0.0    | 0.0    | 30.73   | 27.25    | 1.663   | 2.02   |
| 130  | 26.13 | 34.92 | 33.6   | 26.4   | 23.49   | 22.94    | 0.741   | 3.64   | 770  | 5.55 | 34.55 | 0.0    | 0.0    | 30.78   | 27.26    | 1.672   | 1.97   |
| 135  | 25.91 | 34.96 | 30.0   | 31.2   | 23.61   | 23.04    | 0.765   | 3.55   | 780  | 5.45 | 34.55 | 0.0    | 0.0    | 30.85   | 27.28    | 1.681   | 1.92   |
| 140  | 25.94 | 34.97 | 28.8   | 42.0   | 23.63   | 23.04    | 0.790   | 3.55   | 790  | 5.40 | 34.55 | 0.0    | 0.0    | 30.90   | 27.28    | 1.690   | 1.89   |
| 145  | 25.60 | 35.01 | 33.6   | 43.2   | 23.79   | 23.18    | 0.814   | 3.51   | 800  | 5.36 | 34.55 | 0.0    | 0.0    | 30.95   | 27.28    | 1.699   | 1.86   |
| 150  | 24.06 | 35.08 | 39.6   | 33.6   | 24.33   | 23.70    | 0.836   | 3.43   | 810  | 5.31 | 34.55 | 0.0    | 0.0    | 31.00   | 27.29    | 1.707   | 1.86   |
| 155  | 23.37 | 35.03 | 38.4   | 18.0   | 24.52   | 23.86    | 0.857   | 3.36   | 820  | 5.30 | 34.55 | 0.0    | 0.0    | 31.04   | 27.29    | 1.716   | 1.90   |
| 160  | 22.47 | 34.95 | 9.6    | 10.8   | 24.74   | 24.06    | 0.877   | 3.25   | 830  | 5.25 | 34.55 | 0.0    | 0.0    | 31.10   | 27.30    | 1.725   | 2.02   |
| 165  | 21.61 | 34.92 | 3.6    | 2.4    | 24.98   | 24.28    | 0.896   | 3.25   | 840  | 5.20 | 34.55 | 0.0    | 0.0    | 31.15   | 27.30    | 1.734   | 2.09   |
| 170  | 20.31 | 34.95 | 2.4    | 2.4    | 25.39   | 24.65    | 0.913   | 3.10   | 850  | 5.16 | 34.55 | 0.0    | 0.0    | 31.20   | 27.31    | 1.742   | 2.10   |
| 175  | 19.48 | 34.94 | 1.2    | 2.4    | 25.62   | 24.86    | 0.929   | 3.01   | 860  | 5.14 | 34.55 | 0.0    | 0.0    | 31.25   | 27.31    | 1.751   | 2.11   |
| 180  | 18.51 | 34.93 | 1.2    | 2.4    | 25.88   | 25.10    | 0.945   | 2.97   | 870  | 5.12 | 34.55 | 0.0    | 0.0    | 31.30   | 27.31    | 1.759   | 2.09   |
| 185  | 17.85 | 34.89 | 0.0    | 1.2    | 26.04   | 25.24    | 0.959   | 2.92   | 880  | 5.09 | 34.55 | 0.0    | 0.0    | 31.35   | 27.32    | 1.768   | 1.75   |
| 190  | 16.99 | 34.89 | -1.2   | 0.0    | 26.27   | 25.44    | 0.972   | 2.93   | 890  | 5.05 | 34.55 | 0.0    | 0.0    | 31.40   | 27.32    | 1.776   | 1.91   |
| 195  | 15.86 | 34.91 | -2.4   | 0.0    | 26.57   | 25.71    | 0.985   | 2.88   | 900  | 5.00 | 34.55 | 0.0    | 0.0    | 31.45   | 27.33    | 1.785   | 2.00   |
| 200  | 14.94 | 34.88 | -3.6   | 1.2    | 26.78   | 25.90    | 0.996   | 2.83   | 910  | 4.97 | 34.55 | 0.0    | 0.0    | 31.50   | 27.33    | 1.793   | 2.09   |
| 205  | 14.75 | 34.82 | -2.4   | 1.2    | 26.80   | 25.89    | 1.007   | 2.83   | 920  | 4.92 | 34.55 | 0.0    | 0.0    | 31.56   | 27.34    | 1.802   | 2.11   |
| 210  | 14.26 | 34.80 | -2.4   | 1.2    | 26.91   | 25.99    | 1.017   | 2.76   | 930  | 4.88 | 34.55 | 0.0    | 0.0    | 31.61   | 27.34    | 1.810   | 2.05   |
| 215  | 13.41 | 34.78 | -2.4   | 1.2    | 27.09   | 26.14    | 1.027   | 2.55   | 940  | 4.84 | 34.55 | 0.0    | 0.0    | 31.66   | 27.35    | 1.818   | 1.94   |
| 220  | 12.92 | 34.72 | -1.2   | 0.0    | 27.18   | 26.20    | 1.037   | 2.39   | 950  | 4.82 | 34.55 | 0.0    | 0.0    | 31.71   | 27.35    | 1.827   | 1.94   |
| 225  | 12.15 | 34.71 | -2.4   | -6.0   | 27.34   | 26.34    | 1.046   | 2.16   | 960  | 4.78 | 34.56 | 0.0    | 0.0    | 31.76   | 27.36    | 1.835   | 1.93   |
| 230  | 11.84 | 34.68 | -3.6   | -8.4   | 27.40   | 26.37    | 1.054   | 2.00   | 970  | 4.76 | 34.56 | 0.0    | 0.0    | 31.81   | 27.36    | 1.843   | 1.91   |
| 235  | 11.62 | 34.67 | -4.8   | -7.2   | 27.46   | 26.41    | 1.063   | 1.82   | 980  | 4.74 | 34.56 | 0.0    | 0.0    | 31.85   | 27.36    | 1.851   | 1.92   |
| 240  | 11.40 | 34.66 | -4.8   | -4.8   | 27.52   | 26.44    | 1.071   | 1.75   | 990  | 4.69 | 34.56 | 0.0    | 0.0    | 31.91   | 27.37    | 1.859   | 1.93   |
| 245  | 11.11 | 34.67 | -6.0   | -4.8   | 27.60   | 26.50    | 1.079   | 1.60   | 1000 | 4.63 | 34.56 | 0.0    | 0.0    | 31.97   | 27.38    | 1.867   | 1.87   |
| 250  | 10.98 | 34.67 | -4.8   | -2.4   | 27.65   | 26.53    | 1.087   | 1.51   | 1020 | 4.59 | 34.56 | 0.0    | 0.0    | 32.06   | 27.38    | 1.883   | 1.82   |
| 255  | 10.65 | 34.68 | -2.4   | 0.0    | 27.73   | 26.59    | 1.094   | 1.64   | 1040 | 4.53 | 34.57 | 0.0    | 0.0    | 32.16   | 27.39    | 1.900   | 1.83   |
| 260  | 10.33 | 34.67 | -1.2   | -1.2   | 27.81   | 26.64    | 1.102   | 1.82   | 1060 | 4.49 | 34.56 | 0.0    | 0.0    | 32.26   | 27.40    | 1.915   | 1.86   |
| 265  | 10.10 | 34.65 | -1.2   | 0.0    | 27.86   | 26.67    | 1.109   | 1.94   | 1080 | 4.43 | 34.56 | 0.0    | 0.0    | 32.36   | 27.40    | 1.931   | 1.83   |
| 270  | 9.94  | 34.64 | -1.2   | -1.2   | 27.90   | 26.69    | 1.116   | 2.01   | 1100 | 4.35 | 34.57 | 0.0    | 0.0    | 32.46   | 27.41    | 1.947   | 1.86   |
| 275  | 9.84  | 34.65 | -1.2   | -2.4   | 27.95   | 26.71    | 1.123   | 1.95   | 1120 | 4.28 | 34.57 | 0.0    | 0.0    | 32.56   | 27.42    | 1.962   | 1.83   |
| 280  | 9.73  | 34.65 | -1.2   | -3.6   | 27.99   | 26.73    | 1.130   | 1.75   | 1140 | 4.23 | 34.57 | 0.0    | 0.0    | 32.66   | 27.43    | 1.977   | 1.75   |
| 285  | 9.63  | 34.66 | -1.2   | -4.8   | 28.04   | 26.75    | 1.137   | 1.61   | 1160 | 4.13 | 34.57 | 0.0    | 0.0    | 32.77   | 27.44    | 1.992   | 1.77   |
| 290  | 9.56  | 34.66 | -1.2   | -6.0   | 28.07   | 26.76    | 1.143   | 1.58   | 1180 | 4.07 | 34.58 | 0.0    | 0.0    | 32.87   | 27.45    | 2.007   | 1.82   |
| 295  | 9.43  | 34.65 | -1.2   | -6.0   | 28.11   | 26.78    | 1.150   | 1.62   | 1200 | 4.00 | 34.57 | 0.0    | 0.0    | 32.97   | 27.46    | 2.022   | 1.86   |
| 300  | 9.33  | 34.65 | -1.2   | -6.0   | 28.15   | 26.80    | 1.156   | 1.82   | 1220 | 3.92 | 34.58 | 0.0    | 0.0    | 33.07   | 27.47    | 2.036   | 1.89   |
| 305  | 9.35  | 34.66 | -1.2   | -6.0   | 28.17   | 26.80    | 1.163   | 1.47   | 1240 | 3.86 | 34.58 | 0.0    | 0.0    | 33.17   | 27.48    | 2.051   | 1.90   |
| 310  | 9.28  | 34.66 | -2.4   | -4.8   | 28.21   | 26.81    | 1.170   | 1.36   | 1260 | 3.80 | 34.58 | 0.0    | 0.0    | 33.27   | 27.48    | 2.065   | 1.92   |
| 315  | 9.19  | 34.65 | -2.4   | -3.6   | 28.24   | 26.82    | 1.176   | 1.58   | 1280 | 3.74 | 34.58 | 0.0    | 0.0    | 33.37   | 27.49    | 2.079   | 1.93   |
| 320  | 9.15  | 34.65 | -2.4   | -3.6   | 28.27   | 26.82    | 1.183   | 1.69   | 1300 | 3.69 | 34.58 | 0.0    | 0.0    | 33.47   | 27.50    | 2.093   | 1.94   |
| 325  | 9.13  | 34.65 | -1.2   | -3.6   | 28.29   | 26.83    | 1.189   | 1.82   | 1320 | 3.63 | 34.59 | 0.0    | 0.0    | 33.57   | 27.50    | 2.107   | 1.92   |
| 330  | 9.07  | 34.65 | -1.2   | -3.6   | 28.33   | 26.84    | 1.195   | 1.89   | 1340 | 3.58 | 34.59 | 0.0    | 0.0    | 33.67   | 27.51    | 2.120   | 1.97   |
| 335  | 8.98  | 34.65 | -1.2   | -3.6   | 28.36   | 26.85    | 1.202   | 1.92   | 1360 | 3.52 | 34.59 | 0.0    | 0.0    | 33.77   | 27.52    | 2.134   | 1.99   |
| 340  | 8.87  | 34.64 | -1.2   | -2.4   | 28.40   | 26.86    | 1.208   | 2.04   | 1380 | 3.49 | 34.59 | 0.0    | 0.0    | 33.86   | 27.52    | 2.147   | 1.96   |
| 345  | 8.76  | 34.63 | -1.2   | -2.4   | 28.43   | 26.87    | 1.214   | 2.20   | 1400 | 3.45 | 34.59 | 0.0    | 0.0    | 33.96   | 27.53    | 2.161   | 1.97   |
| 350  | 8.75  | 34.63 | -1.2   | -2.4   | 28.     |          |         |        |      |      |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 36  
DATE : 17/ 1/89 HEURE : 15h10 LONGITUDE : 165.00 LATITUDE : 5.00

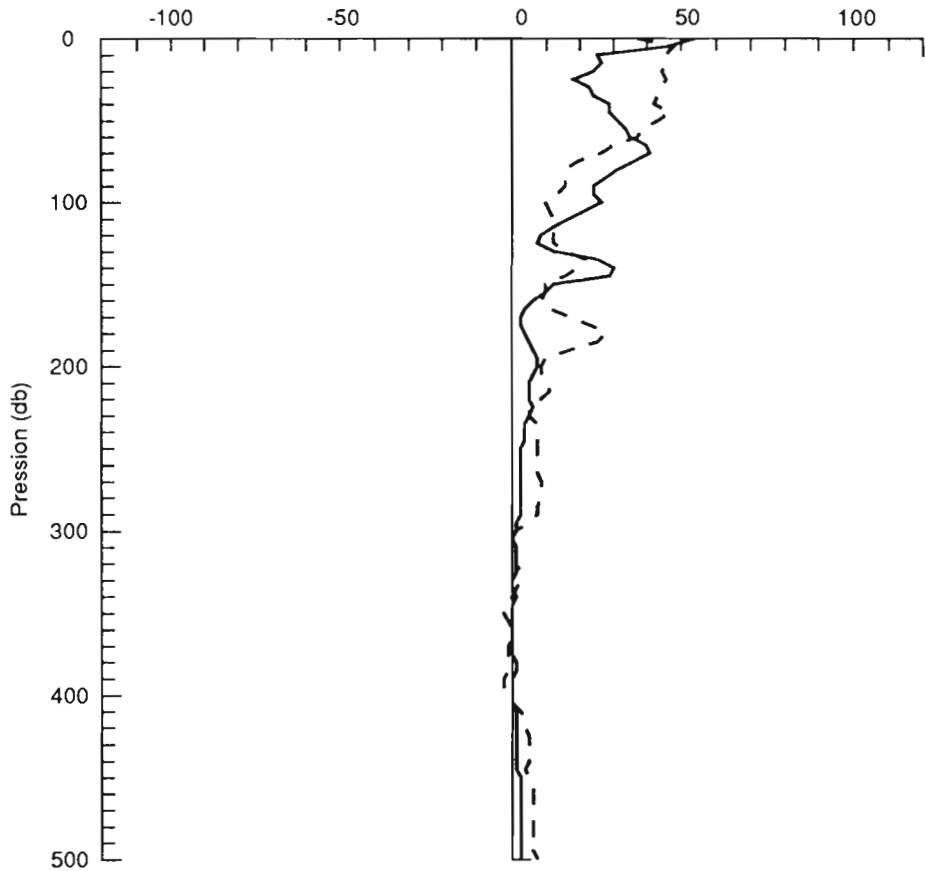




SURTROPAC11 STATION No : 37  
DATE : 18/ 1/89 HEURE : 1h40 LONGITUDE : 165.00 LATITUDE : 6.00

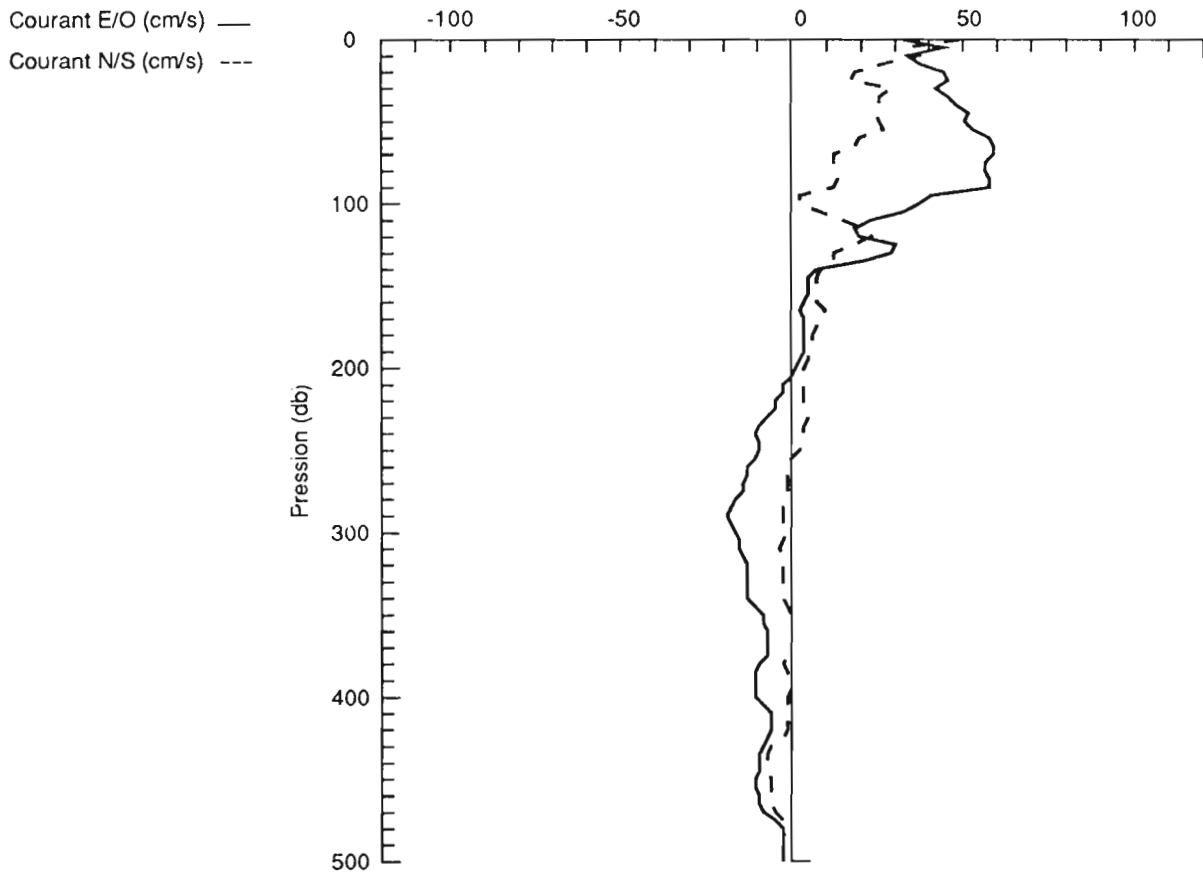
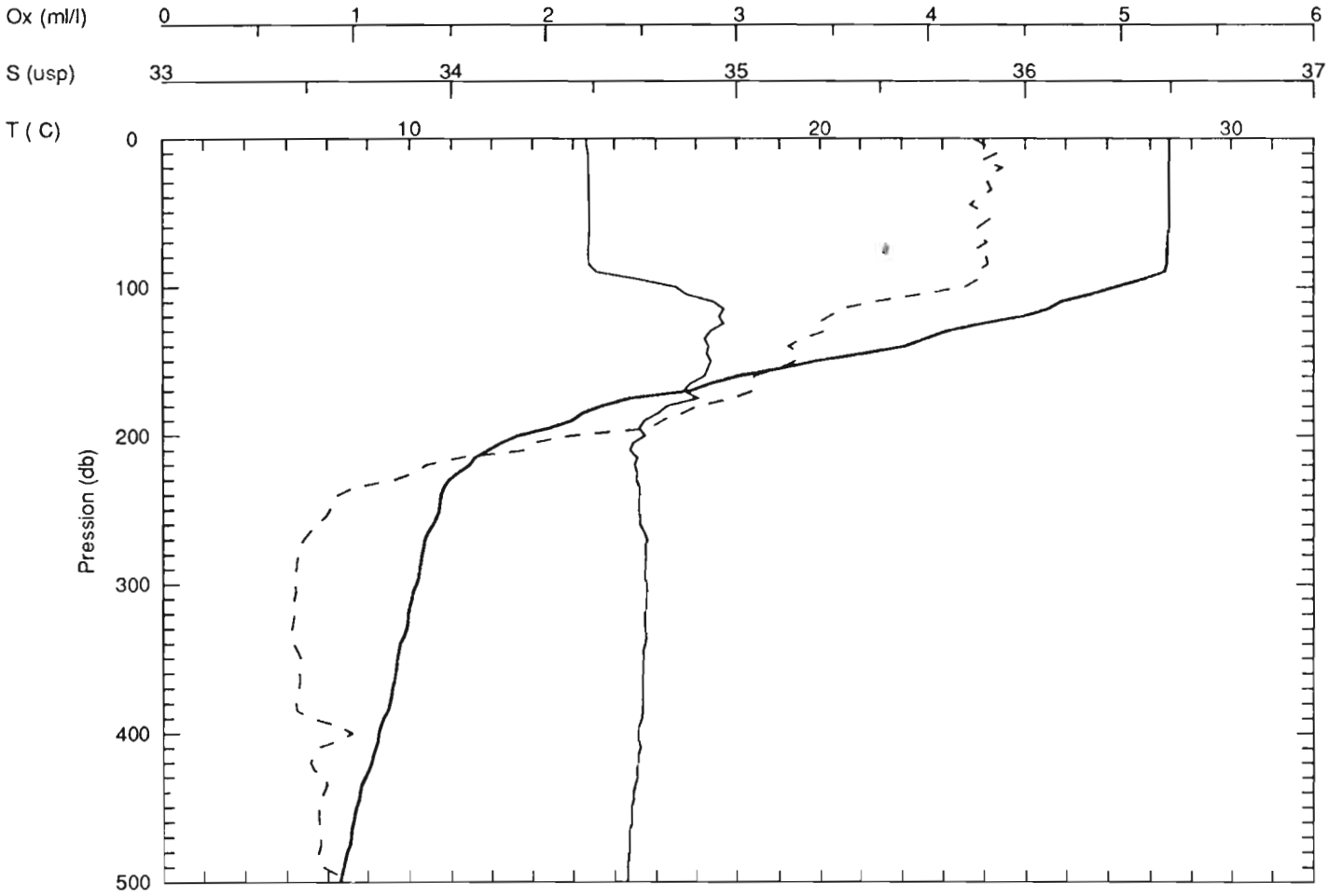


Courant E/O (cm/s) —  
Courant N/S (cm/s) ---





SURTROPAC11 STATION No : 38  
DATE : 18/ 1/89 HEURE : 10h15 LONGITUDE : 165.00 LATITUDE : 7.00

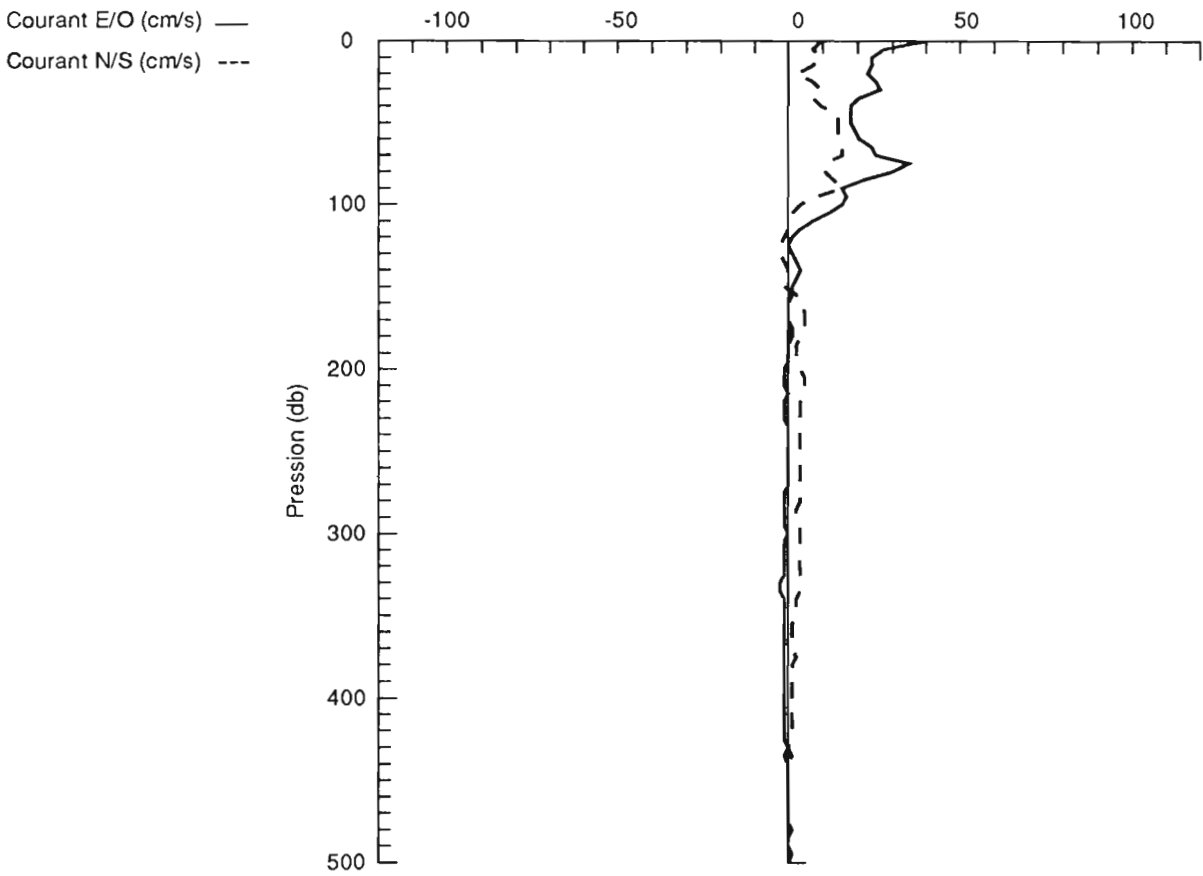
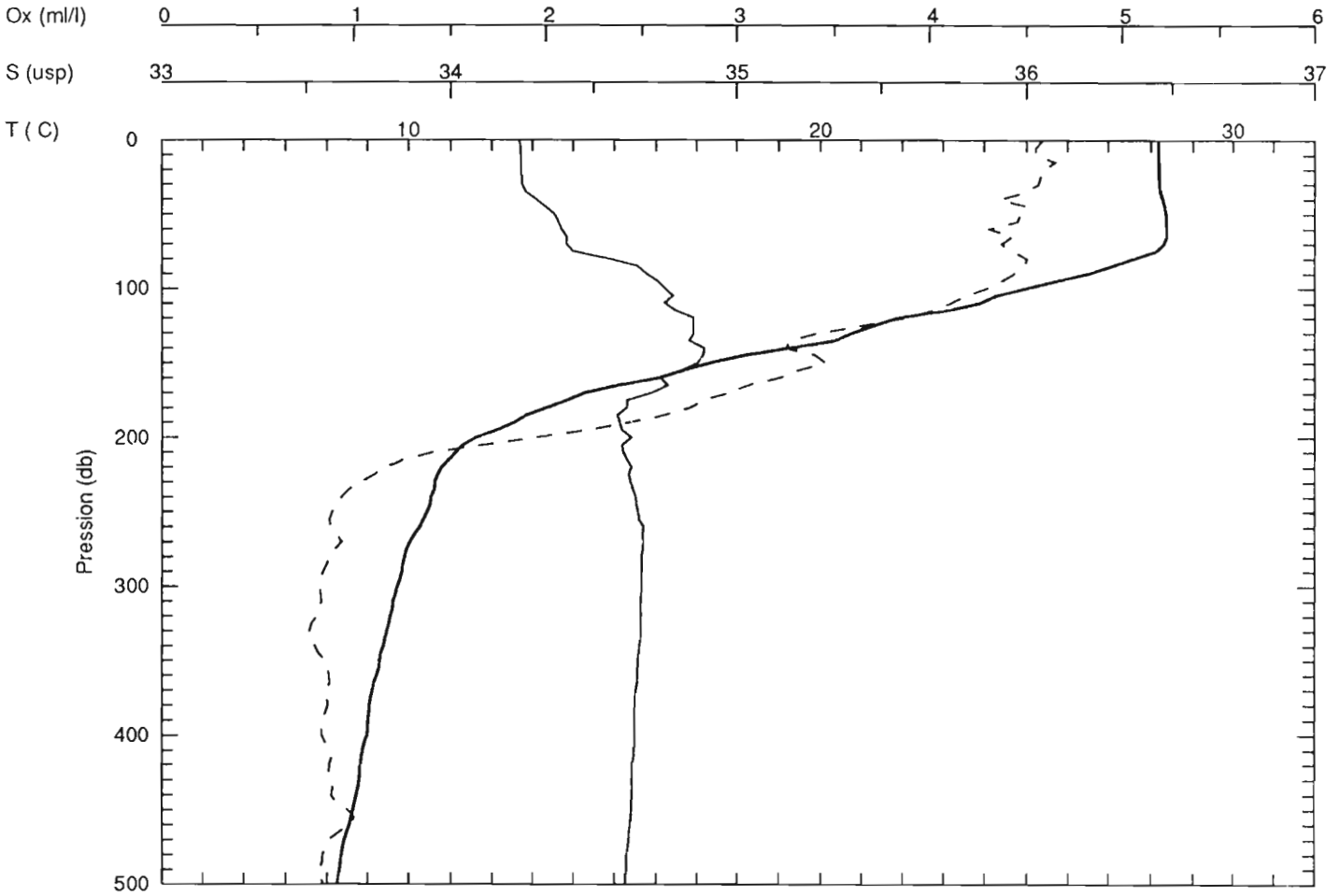


STATION : 39      CAMPAGNE : surtropical  
 DATE : 18/ 1/89    HEURE : 20h00    LONGITUDE : 165.00    LATITUDE : 8.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (uwp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | (uwp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.18 | 34.24 | 39.6   | 9.6    | 21.76   | 21.76    | 0.000   | 4.59   | 510  | 8.19  | 34.60 | 0.0    | 0.0    | 29.25   | 26.94    | 1.293   | 0.85   |
| 5    | 28.19 | 34.24 | 27.6   | 7.2    | 21.79   | 21.77    | 0.030   | 4.55   | 520  | 8.09  | 34.60 | 0.0    | 0.0    | 29.31   | 26.96    | 1.306   | 0.85   |
| 10   | 28.19 | 34.24 | 24.0   | 9.6    | 21.81   | 21.77    | 0.060   | 4.55   | 530  | 7.97  | 34.60 | 0.0    | 0.0    | 29.37   | 26.97    | 1.317   | 0.83   |
| 15   | 28.19 | 34.25 | 24.0   | 7.2    | 21.83   | 21.77    | 0.091   | 4.65   | 540  | 7.92  | 34.59 | 0.0    | 0.0    | 29.42   | 26.97    | 1.329   | 0.80   |
| 20   | 28.19 | 34.25 | 22.8   | 2.4    | 21.85   | 21.77    | 0.121   | 4.59   | 550  | 7.84  | 34.59 | 0.0    | 0.0    | 29.48   | 26.98    | 1.341   | 0.79   |
| 25   | 28.19 | 34.25 | 25.2   | 7.2    | 21.88   | 21.77    | 0.151   | 4.57   | 560  | 7.75  | 34.59 | 0.0    | 0.0    | 29.53   | 26.99    | 1.352   | 0.80   |
| 30   | 28.19 | 34.25 | 26.4   | 9.6    | 21.90   | 21.77    | 0.181   | 4.56   | 570  | 7.67  | 34.58 | 0.0    | 0.0    | 29.59   | 27.01    | 1.364   | 0.80   |
| 35   | 28.23 | 34.26 | 20.4   | 7.2    | 21.92   | 21.77    | 0.211   | 4.49   | 580  | 7.59  | 34.58 | 0.0    | 0.0    | 29.64   | 27.01    | 1.375   | 0.81   |
| 40   | 28.28 | 34.30 | 18.0   | 9.6    | 21.95   | 21.78    | 0.242   | 4.36   | 590  | 7.55  | 34.58 | 0.0    | 0.0    | 29.69   | 27.02    | 1.387   | 0.82   |
| 45   | 28.32 | 34.33 | 18.0   | 14.4   | 21.98   | 21.79    | 0.272   | 4.51   | 600  | 7.46  | 34.58 | 0.0    | 0.0    | 29.75   | 27.03    | 1.398   | 0.85   |
| 50   | 28.35 | 34.36 | 18.0   | 14.4   | 22.02   | 21.81    | 0.302   | 4.47   | 610  | 7.38  | 34.58 | 0.0    | 0.0    | 29.81   | 27.04    | 1.409   | 0.85   |
| 55   | 28.36 | 34.38 | 19.2   | 14.4   | 22.04   | 21.81    | 0.332   | 4.45   | 620  | 7.28  | 34.57 | 0.0    | 0.0    | 29.87   | 27.05    | 1.420   | 0.79   |
| 60   | 28.38 | 34.39 | 20.4   | 14.4   | 22.07   | 21.82    | 0.362   | 4.31   | 630  | 7.18  | 34.57 | 0.0    | 0.0    | 29.92   | 27.06    | 1.431   | 0.79   |
| 65   | 28.38 | 34.40 | 24.0   | 15.6   | 22.10   | 21.83    | 0.392   | 4.43   | 640  | 7.05  | 34.56 | 0.0    | 0.0    | 29.99   | 27.08    | 1.442   | 0.79   |
| 70   | 28.31 | 34.40 | 25.2   | 15.6   | 22.15   | 21.86    | 0.422   | 4.37   | 650  | 6.93  | 34.56 | 0.0    | 0.0    | 30.05   | 27.09    | 1.453   | 0.81   |
| 75   | 28.12 | 34.43 | 34.8   | 10.8   | 22.25   | 21.93    | 0.452   | 4.43   | 660  | 6.86  | 34.56 | 0.0    | 0.0    | 30.10   | 27.10    | 1.463   | 0.81   |
| 80   | 27.58 | 34.55 | 30.0   | 10.8   | 22.54   | 22.20    | 0.481   | 4.50   | 670  | 6.76  | 34.56 | 0.0    | 0.0    | 30.16   | 27.11    | 1.474   | 0.82   |
| 85   | 27.08 | 34.65 | 21.6   | 13.2   | 22.80   | 22.44    | 0.508   | 4.49   | 680  | 6.68  | 34.56 | 0.0    | 0.0    | 30.22   | 27.12    | 1.484   | 0.83   |
| 90   | 26.51 | 34.68 | 15.6   | 15.6   | 23.02   | 22.64    | 0.535   | 4.44   | 690  | 6.59  | 34.56 | 0.0    | 0.0    | 30.28   | 27.13    | 1.495   | 0.86   |
| 95   | 25.73 | 34.72 | 16.8   | 8.4    | 23.32   | 22.92    | 0.561   | 4.38   | 700  | 6.43  | 34.56 | 0.0    | 0.0    | 30.34   | 27.15    | 1.505   | 0.86   |
| 100  | 24.98 | 34.74 | 15.6   | 3.6    | 23.59   | 23.16    | 0.585   | 4.30   | 710  | 6.34  | 34.56 | 0.0    | 0.0    | 30.40   | 27.17    | 1.515   | 0.90   |
| 105  | 24.27 | 34.77 | 12.0   | 1.2    | 23.84   | 23.40    | 0.608   | 4.19   | 720  | 6.28  | 34.55 | 0.0    | 0.0    | 30.45   | 27.17    | 1.525   | 0.90   |
| 110  | 23.89 | 34.74 | 7.2    | 0.0    | 23.96   | 23.49    | 0.630   | 4.11   | 730  | 6.15  | 34.55 | 0.0    | 0.0    | 30.52   | 27.19    | 1.535   | 0.93   |
| 115  | 23.07 | 34.78 | 3.6    | 0.0    | 24.25   | 23.76    | 0.652   | 4.02   | 740  | 5.99  | 34.55 | 0.0    | 0.0    | 30.59   | 27.21    | 1.544   | 0.94   |
| 120  | 21.89 | 34.85 | 1.2    | -1.2   | 24.65   | 24.14    | 0.672   | 3.88   | 750  | 5.93  | 34.55 | 0.0    | 0.0    | 30.64   | 27.21    | 1.554   | 0.95   |
| 125  | 21.30 | 34.85 | 0.0    | -2.4   | 24.84   | 24.30    | 0.691   | 3.65   | 760  | 5.88  | 34.55 | 0.0    | 0.0    | 30.69   | 27.22    | 1.563   | 0.95   |
| 130  | 20.76 | 34.85 | 1.2    | -2.4   | 25.01   | 24.45    | 0.709   | 3.42   | 770  | 5.80  | 34.55 | 0.0    | 0.0    | 30.75   | 27.23    | 1.573   | 0.96   |
| 135  | 20.34 | 34.83 | 2.4    | -1.2   | 25.13   | 24.55    | 0.726   | 3.27   | 780  | 5.69  | 34.55 | 0.0    | 0.0    | 30.81   | 27.24    | 1.582   | 1.02   |
| 140  | 19.21 | 34.88 | 3.6    | 0.0    | 25.49   | 24.89    | 0.743   | 3.25   | 790  | 5.62  | 34.55 | 0.0    | 0.0    | 30.86   | 27.25    | 1.591   | 1.04   |
| 145  | 18.19 | 34.88 | 2.4    | -1.2   | 25.77   | 25.14    | 0.757   | 3.40   | 800  | 5.55  | 34.55 | 0.0    | 0.0    | 30.92   | 27.26    | 1.600   | 1.00   |
| 150  | 17.34 | 34.86 | 1.2    | -1.2   | 25.99   | 25.33    | 0.771   | 3.45   | 810  | 5.51  | 34.55 | 0.0    | 0.0    | 30.97   | 27.27    | 1.610   | 1.01   |
| 155  | 16.67 | 34.80 | 1.2    | 2.4    | 26.12   | 25.45    | 0.784   | 3.31   | 820  | 5.44  | 34.55 | 0.0    | 0.0    | 31.03   | 27.27    | 1.618   | 1.01   |
| 160  | 16.09 | 34.73 | 0.0    | 2.4    | 26.23   | 25.53    | 0.797   | 3.22   | 830  | 5.39  | 34.55 | 0.0    | 0.0    | 31.08   | 27.28    | 1.627   | 1.02   |
| 165  | 15.10 | 34.76 | 0.0    | 4.8    | 26.49   | 25.77    | 0.809   | 3.06   | 840  | 5.32  | 34.55 | 0.0    | 0.0    | 31.13   | 27.29    | 1.636   | 1.07   |
| 170  | 14.29 | 34.70 | 0.0    | 4.8    | 26.65   | 25.90    | 0.820   | 2.95   | 850  | 5.23  | 34.55 | 0.0    | 0.0    | 31.19   | 27.30    | 1.645   | 1.13   |
| 175  | 13.86 | 34.62 | 1.2    | 4.8    | 26.70   | 25.92    | 0.831   | 2.83   | 860  | 5.19  | 34.55 | 0.0    | 0.0    | 31.24   | 27.31    | 1.654   | 1.16   |
| 180  | 13.38 | 34.62 | 1.2    | 3.6    | 26.82   | 26.02    | 0.841   | 2.75   | 870  | 5.14  | 34.55 | 0.0    | 0.0    | 31.29   | 27.31    | 1.662   | 1.17   |
| 185  | 12.86 | 34.58 | 0.0    | 2.4    | 26.92   | 26.10    | 0.851   | 2.62   | 880  | 5.10  | 34.55 | 0.0    | 0.0    | 31.35   | 27.32    | 1.671   | 1.17   |
| 190  | 12.56 | 34.59 | 0.0    | 2.4    | 27.01   | 26.17    | 0.861   | 2.43   | 890  | 5.05  | 34.55 | 0.0    | 0.0    | 31.40   | 27.32    | 1.679   | 1.18   |
| 195  | 12.13 | 34.60 | 0.0    | 2.4    | 27.13   | 26.26    | 0.870   | 2.23   | 900  | 4.99  | 34.55 | 0.0    | 0.0    | 31.46   | 27.33    | 1.688   | 1.22   |
| 200  | 11.61 | 34.63 | -1.2   | 3.6    | 27.27   | 26.38    | 0.879   | 1.95   | 910  | 4.91  | 34.56 | 0.0    | 0.0    | 31.51   | 27.34    | 1.696   | 1.24   |
| 205  | 11.29 | 34.60 | -1.2   | 4.8    | 27.33   | 26.42    | 0.887   | 1.67   | 920  | 4.86  | 34.56 | 0.0    | 0.0    | 31.56   | 27.35    | 1.704   | 1.36   |
| 210  | 11.12 | 34.60 | -1.2   | 4.8    | 27.39   | 26.45    | 0.895   | 1.42   | 930  | 4.84  | 34.56 | 0.0    | 0.0    | 31.61   | 27.35    | 1.713   | 1.47   |
| 215  | 10.96 | 34.61 | 0.0    | 4.8    | 27.45   | 26.49    | 0.903   | 1.27   | 940  | 4.80  | 34.56 | 0.0    | 0.0    | 31.66   | 27.35    | 1.721   | 1.43   |
| 220  | 10.79 | 34.63 | -1.2   | 3.6    | 27.52   | 26.53    | 0.911   | 1.17   | 950  | 4.76  | 34.56 | 0.0    | 0.0    | 31.72   | 27.36    | 1.729   | 1.39   |
| 225  | 10.69 | 34.62 | -1.2   | 3.6    | 27.55   | 26.54    | 0.919   | 1.11   | 960  | 4.74  | 34.56 | 0.0    | 0.0    | 31.76   | 27.36    | 1.737   | 1.39   |
| 230  | 10.62 | 34.63 | -1.2   | 3.6    | 27.59   | 26.56    | 0.927   | 1.04   | 970  | 4.71  | 34.56 | 0.0    | 0.0    | 31.81   | 27.37    | 1.745   | 1.43   |
| 235  | 10.61 | 34.63 | 0.0    | 3.6    | 27.62   | 26.57    | 0.934   | 0.97   | 980  | 4.67  | 34.56 | 0.0    | 0.0    | 31.87   | 27.37    | 1.753   | 1.49   |
| 240  | 10.54 | 34.65 | 0.0    | 3.6    | 27.66   | 26.59    | 0.942   | 0.93   | 990  | 4.64  | 34.56 | 0.0    | 0.0    | 31.91   | 27.37    | 1.762   | 1.49   |
| 245  | 10.51 | 34.65 | 0.0    | 3.6    | 27.69   | 26.59    | 0.949   | 0.91   | 1000 | 4.59  | 34.56 | 0.0    | 0.0    | 31.97   | 27.38    | 1.770   | 1.53   |
| 250  | 10.45 | 34.65 | 0.0    | 3.6    | 27.73   | 26.61    | 0.957   | 0.88   | 1020 | 4.50  | 34.56 | 0.0    | 0.0    | 32.08   | 27.39    | 1.785   | 1.48   |
| 255  | 10.36 | 34.65 | 0.0    | 3.6    | 27.77   | 26.63    | 0.964   | 0.87   | 1040 | 4.40  | 34.56 | 0.0    | 0.0    | 32.18   | 27.41    | 1.801   | 1.51   |
| 260  | 10.28 | 34.67 | 0.0    | 3.6    | 27.82   | 26.65    | 0.971   | 0.88   | 1060 | 4.33  | 34.57 | 0.0    | 0.0    | 32.28   | 27.41    | 1.816   | 1.47   |
| 265  | 10.15 | 34.67 | 0.0    | 3.6    | 27.86   | 26.67    | 0.978   | 0.91   | 1080 | 4.24  | 34.57 | 0.0    | 0.0    | 32.39   | 27.43    | 1.832   | 1.62   |
| 270  | 10.04 | 34.67 | 0.0    | 3.6    | 27.91   | 26.70    | 0.985   | 0.94   | 1100 | 4.14  | 34.57 | 0.0    | 0.0    | 32.49   | 27.44    | 1.847   | 1.59   |
| 275  | 9.96  | 34.67 | -1.2   | 3.6    | 27.94   | 26.71    | 0.992   | 0.90   | 1120 | 4.05  | 34.57 | 0.0    | 0.0    | 32.60   | 27.45    | 1.861   | 1.60   |
| 280  | 9.91  | 34.67 | -1.2   | 3.6    | 27.97   | 26.71    | 0.999   | 0.87   | 1140 | 3.98  | 34.57 | 0.0    | 0.0    | 32.70   | 27.46    | 1.876   | 1.62   |
| 285  | 9.87  | 34.67 | -1.2   | 2.4    | 28.00   | 26.72    | 1.006   | 0.86   | 1160 | 3.92  | 34.58 | 0.0    | 0.0    | 32.80   | 27.46    | 1.890   | 1.63   |
| 290  | 9.84  | 34.66 | -1.2   | 2.4    | 28.03   | 26.72    | 1.013   | 0.84   | 1180 | 3.86  | 34.58 | 0.0    | 0.0    | 32.90   | 27.47    | 1.905   | 1.64   |
| 295  | 9.80  | 34.67 | -1.2   | 3.6    | 28.06   | 26.73    | 1.020   | 0.83   | 1200 | 3.80  | 34.58 | 0.0    | 0.0    | 33.00   | 27.48    | 1.919   | 1.65   |
| 300  | 9.73  | 34.67 | 0.0    | 3.6    | 28.09   | 26.74    | 1.027   | 0.82   | 1220 | 3.73  | 34.58 | 0.0    | 0.0    | 33.10   | 27.49    | 1.933   | 1.78   |
| 305  | 9.68  | 34.66 | -1.2   | 3.6    | 28.12   | 26.75    | 1.034   | 0.82   | 1240 | 3.67  | 34.58 | 0.0    | 0.0    | 33.20   | 27.50    | 1.946   | 1.80   |
| 310  | 9.63  | 34.66 | -1.2   | 3.6    | 28.15   | 26.76    | 1.040   | 0.83   | 1260 | 3.63  | 34.58 | 0.0    | 0.0    | 33.30   | 27.50    | 1.960   | 1.81   |
| 315  | 9.61  | 34.66 | -1.2   | 3.6    | 28.18   | 26.76    | 1.047   | 0.82   | 1280 | 3.56  | 34.59 | 0.0    | 0.0    | 33.40   | 27.51    | 1.974   | 1.87   |
| 320  | 9.56  | 34.66 | -1.2   | 3.6    | 28.21   | 26.77    | 1.054   | 0.81   | 1300 | 3.52  | 34.59 | 0.0    | 0.0    | 33.49   | 27.51    | 1.987   | 1.99   |
| 325  | 9.52  | 34.66 | -1.2   | 3.6    | 28.24   | 26.77    | 1.060   | 0.78   | 1320 | 3.47  | 34.59 | 0.0    | 0.0    | 33.59   | 27.52    | 2.001   | 1.98   |
| 330  | 9.48  | 34.66 | -2.4   | 3.6    | 28.27   | 26.78    | 1.067   | 0.77   | 1340 | 3.43  | 34.59 | 0.0    | 0.0    | 33.69   | 27.53    | 2.014   | 1.95   |
| 335  | 9.43  | 34.66 | -2.4   | 3.6    | 28.30   | 26.79    | 1.074   | 0.77   | 1360 | 3.39  | 34.59 | 0.0    | 0.0    | 33.79   | 27.53    | 2.027   | 1.88   |
| 340  | 9.39  | 34.66 | -1.2   | 2.4    | 28.32   | 26.79    | 1.080   | 0.79   | 1380 | 3.34  | 34.59 | 0.0    | 0.0    | 33.89   | 27.54    | 2.040   | 1.85   |
| 345  | 9.32  | 34.66 | -1.2   | 2.4    | 28.36   | 26.80    | 1.087   | 0.81   | 1400 | 3.30  | 34.59 | 0.0    | 0.0    | 33.98   | 27.54    | 2.053   | 1.86   |
| 350  | 9.30  | 34.65 | -1.2   | 2.4    | 28.38   | 26.81    | 1.093   |        |      |       |       |        |        |         |          |         |        |



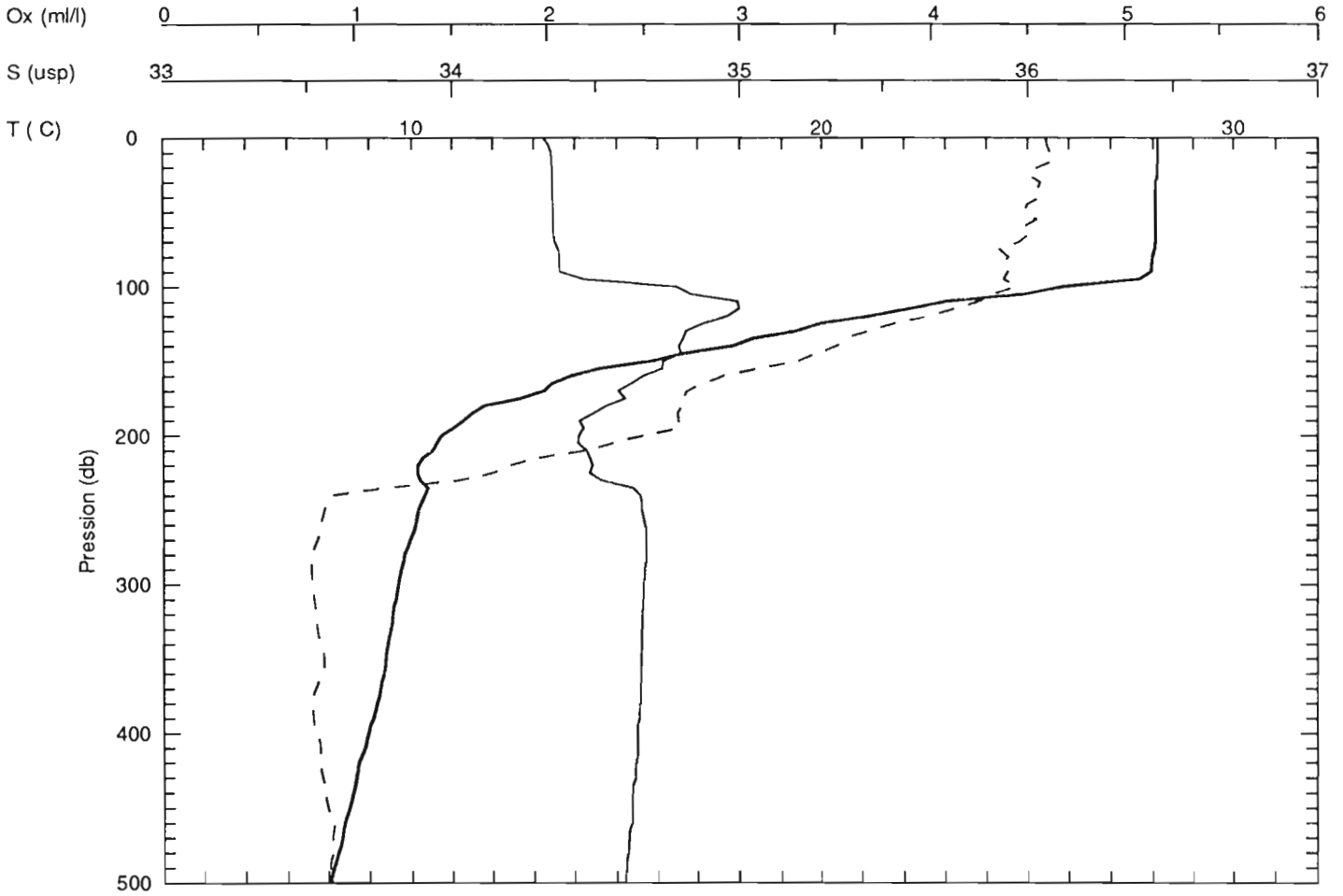
SURTROPAC11 STATION No : 39  
DATE : 18/ 1/89 HEURE : 20h00 LONGITUDE : 165.00 LATITUDE : 8.00



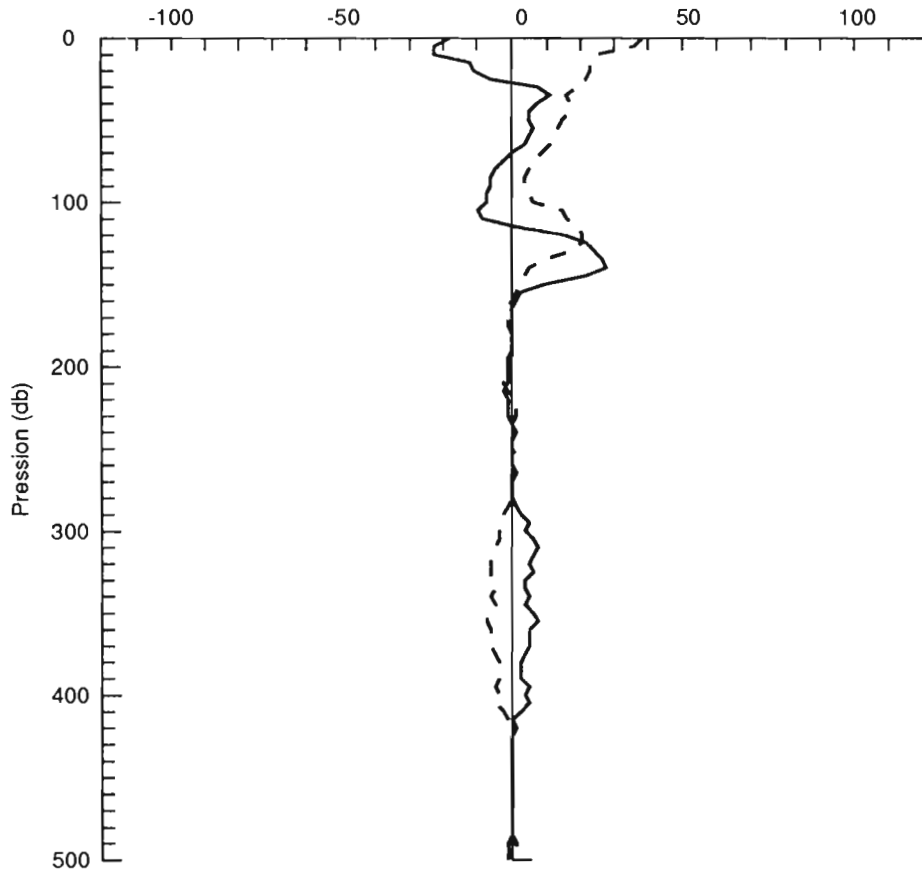
STATION : 40      CAMPAGNE : aurtropacil  
 DATE : 19/ 1/89    HEURE : 5N15      LONGITUDE : 165.00      LATITUDE : 9.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 28.12 | 34.32 | -18.0  | 38.4   | 21.85   | 21.85    | 0.000   | 4.60   | 510  | 7.99 | 34.60 | 0.0    | 0.0    | 29.28   | 26.97    | 1.271   | 0.92   |
| 5    | 28.13 | 34.34 | -22.8  | 36.0   | 21.88   | 21.86    | 0.030   | 4.60   | 520  | 7.92 | 34.59 | 0.0    | -1.2   | 29.33   | 26.97    | 1.283   | 0.93   |
| 10   | 28.12 | 34.35 | -22.8  | 25.2   | 21.91   | 21.87    | 0.060   | 4.62   | 530  | 7.81 | 34.59 | 1.2    | -1.2   | 29.39   | 26.99    | 1.295   | 0.97   |
| 15   | 28.12 | 34.35 | -17.0  | 22.8   | 21.93   | 21.87    | 0.089   | 4.64   | 540  | 7.74 | 34.58 | 0.0    | 0.0    | 29.44   | 26.99    | 1.306   | 1.09   |
| 20   | 28.12 | 34.35 | -10.8  | 22.8   | 21.96   | 21.87    | 0.119   | 4.55   | 550  | 7.67 | 34.58 | 0.0    | 0.0    | 29.49   | 27.00    | 1.318   | 1.04   |
| 25   | 28.11 | 34.35 | -6.0   | 21.6   | 21.98   | 21.88    | 0.149   | 4.51   | 560  | 7.53 | 34.57 | 0.0    | 0.0    | 29.55   | 27.01    | 1.329   | 1.18   |
| 30   | 28.07 | 34.35 | 7.2    | 19.2   | 22.02   | 21.89    | 0.178   | 4.57   | 570  | 7.43 | 34.56 | -1.2   | 1.2    | 29.61   | 27.02    | 1.340   | 1.29   |
| 35   | 28.07 | 34.35 | 10.8   | 15.6   | 22.04   | 21.89    | 0.208   | 4.55   | 580  | 7.36 | 34.57 | 0.0    | 0.0    | 29.67   | 27.04    | 1.352   | 1.08   |
| 40   | 28.06 | 34.35 | 7.2    | 16.8   | 22.06   | 21.89    | 0.238   | 4.57   | 590  | 7.25 | 34.56 | 1.2    | 0.0    | 29.73   | 27.05    | 1.363   | 1.02   |
| 45   | 28.06 | 34.35 | 4.8    | 16.8   | 22.08   | 21.89    | 0.267   | 4.50   | 600  | 7.22 | 34.57 | 0.0    | 0.0    | 29.78   | 27.06    | 1.374   | 0.89   |
| 50   | 28.06 | 34.35 | 4.8    | 14.4   | 22.10   | 21.89    | 0.297   | 4.49   | 610  | 7.14 | 34.57 | 29.84  | 27.07  | 1.385   | 0.87     |         |        |
| 55   | 28.06 | 34.35 | 6.0    | 13.2   | 22.13   | 21.89    | 0.327   | 4.55   | 620  | 7.03 | 34.56 | 29.90  | 27.08  | 1.395   | 0.83     |         |        |
| 60   | 28.06 | 34.35 | 4.8    | 12.0   | 22.15   | 21.90    | 0.356   | 4.48   | 630  | 6.93 | 34.56 | 29.96  | 27.09  | 1.406   | 0.83     |         |        |
| 65   | 28.06 | 34.36 | 3.6    | 10.8   | 22.17   | 21.90    | 0.386   | 4.51   | 640  | 6.82 | 34.55 | 30.01  | 27.10  | 1.417   | 0.89     |         |        |
| 70   | 28.06 | 34.36 | 0.0    | 8.4    | 22.20   | 21.90    | 0.416   | 4.46   | 650  | 6.78 | 34.55 | 30.06  | 27.10  | 1.427   | 0.95     |         |        |
| 75   | 28.04 | 34.37 | -2.4   | 6.0    | 22.23   | 21.92    | 0.445   | 4.35   | 660  | 6.75 | 34.55 | 30.11  | 27.10  | 1.438   | 0.96     |         |        |
| 80   | 28.00 | 34.38 | -4.8   | 4.8    | 22.27   | 21.94    | 0.475   | 4.40   | 670  | 6.73 | 34.54 | 30.15  | 27.11  | 1.448   | 0.97     |         |        |
| 85   | 27.98 | 34.38 | -6.0   | 3.6    | 22.30   | 21.94    | 0.505   | 4.37   | 680  | 6.66 | 34.55 | 30.21  | 27.12  | 1.459   | 0.97     |         |        |
| 90   | 27.96 | 34.38 | -6.0   | 3.6    | 22.33   | 21.95    | 0.534   | 4.40   | 690  | 6.58 | 34.55 | 30.27  | 27.13  | 1.469   | 0.98     |         |        |
| 95   | 27.68 | 34.46 | -7.2   | 4.8    | 22.50   | 22.10    | 0.563   | 4.38   | 700  | 6.46 | 34.56 | 30.34  | 27.15  | 1.480   | 0.89     |         |        |
| 100  | 25.84 | 34.78 | -7.2   | 6.0    | 23.35   | 22.93    | 0.590   | 4.44   | 710  | 6.37 | 34.55 | 30.39  | 27.16  | 1.490   | 0.87     |         |        |
| 105  | 24.92 | 34.83 | -9.6   | 14.4   | 23.69   | 23.25    | 0.614   | 4.32   | 720  | 6.28 | 34.55 | 30.45  | 27.17  | 1.500   | 0.85     |         |        |
| 110  | 23.05 | 34.99 | -8.4   | 15.6   | 24.39   | 23.92    | 0.636   | 4.25   | 730  | 6.19 | 34.55 | 30.51  | 27.18  | 1.510   | 0.85     |         |        |
| 115  | 22.15 | 35.00 | 1.2    | 19.2   | 24.68   | 24.18    | 0.656   | 4.12   | 740  | 6.13 | 34.55 | 30.56  | 27.19  | 1.519   | 0.90     |         |        |
| 120  | 21.18 | 34.96 | 14.4   | 20.4   | 24.94   | 24.42    | 0.674   | 3.98   | 750  | 6.02 | 34.55 | 30.62  | 27.20  | 1.529   | 0.94     |         |        |
| 125  | 19.97 | 34.88 | 21.6   | 20.4   | 25.22   | 24.68    | 0.691   | 3.81   | 760  | 5.98 | 34.55 | 30.68  | 27.21  | 1.539   | 0.94     |         |        |
| 130  | 19.37 | 34.82 | 24.0   | 16.8   | 25.36   | 24.79    | 0.707   | 3.68   | 770  | 5.91 | 34.54 | 30.73  | 27.21  | 1.548   | 0.97     |         |        |
| 135  | 18.30 | 34.81 | 26.4   | 9.6    | 25.64   | 25.06    | 0.723   | 3.56   | 780  | 5.84 | 34.55 | 30.79  | 27.22  | 1.558   | 0.95     |         |        |
| 140  | 17.82 | 34.79 | 27.6   | 4.8    | 25.77   | 25.16    | 0.737   | 3.51   | 790  | 5.81 | 34.54 | 30.84  | 27.23  | 1.567   | 0.94     |         |        |
| 145  | 16.67 | 34.80 | 21.6   | 3.6    | 26.08   | 25.45    | 0.751   | 3.41   | 800  | 5.75 | 34.55 | 30.89  | 27.24  | 1.577   | 0.94     |         |        |
| 150  | 15.87 | 34.74 | 9.6    | 2.4    | 26.24   | 25.58    | 0.763   | 3.30   | 810  | 5.66 | 34.55 | 30.95  | 27.25  | 1.586   | 0.96     |         |        |
| 155  | 14.61 | 34.73 | 2.4    | 1.2    | 26.54   | 25.86    | 0.775   | 3.10   | 820  | 5.61 | 34.55 | 31.00  | 27.26  | 1.595   | 0.98     |         |        |
| 160  | 13.91 | 34.66 | 1.2    | 0.0    | 26.66   | 25.95    | 0.785   | 2.92   | 830  | 5.54 | 34.55 | 31.06  | 27.26  | 1.604   | 0.99     |         |        |
| 165  | 13.46 | 34.62 | 0.0    | -1.2   | 26.74   | 26.01    | 0.796   | 2.82   | 840  | 5.46 | 34.55 | 31.12  | 27.27  | 1.613   | 1.04     |         |        |
| 170  | 13.27 | 34.58 | 0.0    | -1.2   | 26.77   | 26.02    | 0.806   | 2.74   | 850  | 5.39 | 34.55 | 31.17  | 27.28  | 1.622   | 1.10     |         |        |
| 175  | 12.68 | 34.60 | 0.0    | -1.2   | 26.93   | 26.15    | 0.816   | 2.70   | 860  | 5.35 | 34.55 | 31.22  | 27.29  | 1.631   | 1.15     |         |        |
| 180  | 11.80 | 34.54 | 0.0    | 0.0    | 27.08   | 26.27    | 0.825   | 2.70   | 870  | 5.28 | 34.55 | 31.28  | 27.30  | 1.640   | 1.17     |         |        |
| 185  | 11.50 | 34.49 | 0.0    | 0.0    | 27.12   | 26.29    | 0.834   | 2.68   | 880  | 5.26 | 34.55 | 31.32  | 27.30  | 1.649   | 1.14     |         |        |
| 190  | 11.27 | 34.44 | 0.0    | 0.0    | 27.15   | 26.30    | 0.842   | 2.68   | 890  | 5.23 | 34.55 | 31.37  | 27.30  | 1.657   | 1.11     |         |        |
| 195  | 11.02 | 34.46 | 0.0    | -1.2   | 27.23   | 26.35    | 0.851   | 2.69   | 900  | 5.15 | 34.55 | 31.43  | 27.31  | 1.666   | 1.12     |         |        |
| 200  | 10.73 | 34.44 | -1.2   | -1.2   | 27.29   | 26.39    | 0.859   | 2.50   | 910  | 5.11 | 34.55 | 31.48  | 27.32  | 1.675   | 1.18     |         |        |
| 205  | 10.61 | 34.44 | -1.2   | -1.2   | 27.33   | 26.41    | 0.868   | 2.34   | 920  | 5.05 | 34.56 | 31.54  | 27.33  | 1.683   | 1.23     |         |        |
| 210  | 10.52 | 34.47 | -1.2   | -2.4   | 27.40   | 26.45    | 0.876   | 2.21   | 930  | 4.97 | 34.56 | 31.60  | 27.34  | 1.692   | 1.20     |         |        |
| 215  | 10.27 | 34.48 | -2.4   | -1.2   | 27.47   | 26.50    | 0.884   | 1.95   | 940  | 4.93 | 34.55 | 31.65  | 27.34  | 1.700   | 1.24     |         |        |
| 220  | 10.15 | 34.49 | -1.2   | 1.2    | 27.52   | 26.53    | 0.892   | 1.80   | 950  | 4.88 | 34.55 | 31.70  | 27.34  | 1.708   | 1.28     |         |        |
| 225  | 10.13 | 34.48 | -1.2   | 1.2    | 27.54   | 26.53    | 0.899   | 1.72   | 960  | 4.87 | 34.55 | 31.74  | 27.34  | 1.717   | 1.28     |         |        |
| 230  | 10.20 | 34.52 | -1.2   | 1.2    | 27.58   | 26.55    | 0.907   | 1.54   | 970  | 4.85 | 34.55 | 31.79  | 27.35  | 1.725   | 1.26     |         |        |
| 235  | 10.39 | 34.63 | 0.0    | 0.0    | 27.65   | 26.60    | 0.915   | 1.16   | 980  | 4.81 | 34.55 | 31.84  | 27.35  | 1.733   | 1.26     |         |        |
| 240  | 10.32 | 34.65 | 1.2    | -1.2   | 27.71   | 26.63    | 0.922   | 0.88   | 990  | 4.75 | 34.56 | 31.90  | 27.36  | 1.742   | 1.27     |         |        |
| 245  | 10.23 | 34.66 | 0.0    | 0.0    | 27.75   | 26.65    | 0.929   | 0.85   | 1000 | 4.70 | 34.56 | 31.95  | 27.37  | 1.750   | 1.30     |         |        |
| 250  | 10.16 | 34.66 | 0.0    | 0.0    | 27.79   | 26.66    | 0.936   | 0.84   | 1020 | 4.62 | 34.56 | 32.06  | 27.38  | 1.766   | 1.40     |         |        |
| 255  | 10.12 | 34.66 | 0.0    | 1.2    | 27.82   | 26.67    | 0.943   | 0.83   | 1040 | 4.51 | 34.56 | 32.16  | 27.39  | 1.782   | 1.51     |         |        |
| 260  | 10.09 | 34.67 | 0.0    | 0.0    | 27.85   | 26.68    | 0.951   | 0.82   | 1060 | 4.45 | 34.56 | 32.26  | 27.40  | 1.798   | 1.52     |         |        |
| 265  | 10.04 | 34.67 | 1.2    | 0.0    | 27.89   | 26.70    | 0.958   | 0.81   | 1080 | 4.38 | 34.56 | 32.36  | 27.41  | 1.813   | 1.53     |         |        |
| 270  | 9.96  | 34.67 | 0.0    | 0.0    | 27.92   | 26.71    | 0.965   | 0.80   | 1100 | 4.30 | 34.56 | 32.47  | 27.42  | 1.829   | 1.51     |         |        |
| 275  | 9.90  | 34.67 | 0.0    | 0.0    | 27.96   | 26.72    | 0.971   | 0.79   | 1120 | 4.23 | 34.57 | 32.57  | 27.43  | 1.844   | 1.52     |         |        |
| 280  | 9.82  | 34.67 | 0.0    | 0.0    | 27.99   | 26.73    | 0.978   | 0.78   | 1140 | 4.15 | 34.57 | 32.67  | 27.44  | 1.859   | 1.57     |         |        |
| 285  | 9.79  | 34.67 | 1.2    | -1.2   | 28.02   | 26.74    | 0.985   | 0.77   | 1160 | 4.07 | 34.57 | 32.77  | 27.45  | 1.874   | 1.64     |         |        |
| 290  | 9.74  | 34.67 | 2.4    | -2.4   | 28.05   | 26.74    | 0.992   | 0.77   | 1180 | 4.00 | 34.57 | 32.87  | 27.45  | 1.888   | 1.66     |         |        |
| 295  | 9.71  | 34.67 | 4.8    | -3.6   | 28.07   | 26.75    | 0.999   | 0.77   | 1200 | 3.95 | 34.57 | 32.97  | 27.46  | 1.903   | 1.70     |         |        |
| 300  | 9.68  | 34.66 | 3.6    | -3.6   | 28.10   | 26.75    | 1.005   | 0.78   | 1220 | 3.90 | 34.58 | 33.07  | 27.47  | 1.917   | 1.66     |         |        |
| 305  | 9.65  | 34.66 | 6.0    | -3.6   | 28.13   | 26.75    | 1.012   | 0.78   | 1240 | 3.83 | 34.58 | 33.17  | 27.48  | 1.932   | 1.75     |         |        |
| 310  | 9.62  | 34.66 | 7.2    | -4.8   | 28.15   | 26.76    | 1.019   | 0.78   | 1260 | 3.77 | 34.58 | 33.27  | 27.48  | 1.946   | 1.80     |         |        |
| 315  | 9.56  | 34.66 | 6.0    | -6.0   | 28.19   | 26.77    | 1.026   | 0.79   | 1280 | 3.71 | 34.58 | 33.37  | 27.49  | 1.960   | 1.82     |         |        |
| 320  | 9.54  | 34.66 | 4.8    | -6.0   | 28.21   | 26.77    | 1.032   | 0.79   | 1300 | 3.65 | 34.58 | 33.48  | 27.50  | 1.974   | 1.83     |         |        |
| 325  | 9.52  | 34.66 | 6.0    | -6.0   | 28.23   | 26.77    | 1.039   | 0.80   | 1320 | 3.61 | 34.58 | 33.57  | 27.50  | 1.987   | 1.80     |         |        |
| 330  | 9.50  | 34.66 | 3.6    | -6.0   | 28.26   | 26.78    | 1.046   | 0.80   | 1340 | 3.54 | 34.59 | 33.67  | 27.51  | 2.001   | 1.79     |         |        |
| 335  | 9.46  | 34.66 | 3.6    | -4.8   | 28.29   | 26.78    | 1.052   | 0.81   | 1360 | 3.48 | 34.59 | 33.77  | 27.52  | 2.014   | 1.81     |         |        |
| 340  | 9.43  | 34.66 | 4.8    | -6.0   | 28.32   | 26.79    | 1.059   | 0.83   | 1380 | 3.41 | 34.59 | 33.87  | 27.53  | 2.028   | 1.84     |         |        |
| 345  | 9.39  | 34.65 | 3.6    | -4.8   | 28.34   | 26.79    | 1.066   | 0.83   | 1400 | 3.38 | 34.59 | 33.97  | 27.53  | 2.041   | 1.85     |         |        |
| 350  | 9.38  | 34.66 | 6.0    | -7.2   | 28.37   | 26.79    | 1.072   | 0.83   | 1420 | 3.32 | 34.59 | 34.07  | 27.54  | 2.054   | 1.86     |         |        |
| 355  | 9.36  | 34.65 | 7.2    | -7.2   | 28.40   | 26.80    | 1.079   | 0.84   | 1440 | 3.28 | 34.59 | 34.17  | 27.54  | 2.067   | 1.88     |         |        |
| 360  | 9.33  | 34.65 | 4.8    | -6.0   | 28.42   | 26.80    | 1.085   | 0.83   | 1460 | 3.25 | 34.59 | 34.26  | 27.55  | 2.080   | 1.91     |         |        |
| 365  | 9.28  | 34.65 | 4.8    | -6.0   | 28.45   | 26.81    | 1.092   | 0.81   | 1480 | 3.21 | 34.60 | 34.36  | 27.55  | 2.093   | 1.94     |         |        |
| 370  | 9.25  | 34.65 | 4.8    | -6.0   | 28.48   | 26.81    | 1.098   | 0.79   | 1500 | 3.16 | 34.60 | 34.46  | 27.56  | 2.105   | 1.96     |         |        |
| 375  | 9.22  | 34.65 | 3.6    | -4.8   | 28.51   | 26.82    | 1.105   | 0.78   | 1520 | 3.12 | 34.60 | 34.55  | 27.56  | 2.118   | 1.97     |         |        |
| 380  | 9.17  | 34.65 | 2.4    | -3.6   | 28.54   | 26.83    | 1.111   | 0.77   | 1540 | 3.08 | 34.60 |        |        |         |          |         |        |

SURTROPAC11 STATION No : 40  
DATE : 19/ 1/89 HEURE : 5h15 LONGITUDE : 165.00 LATITUDE : 9.00



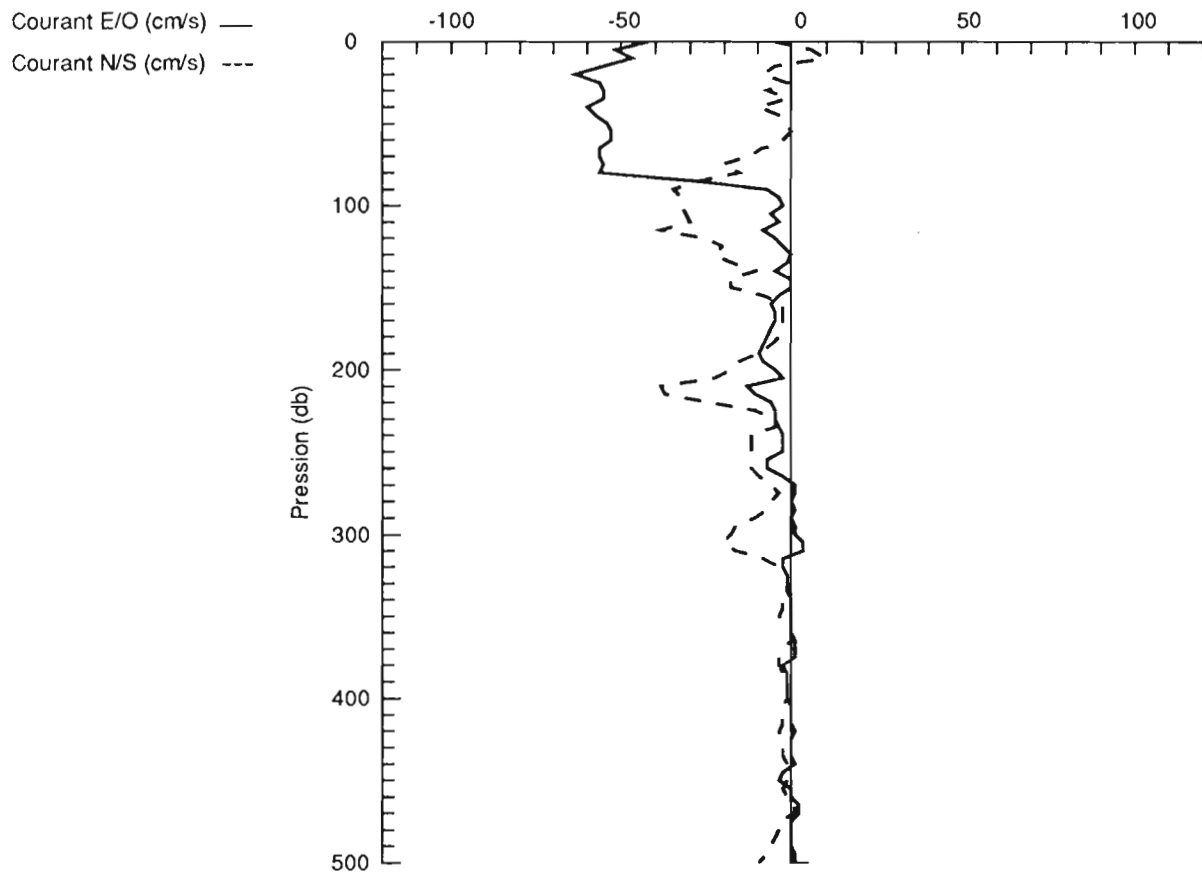
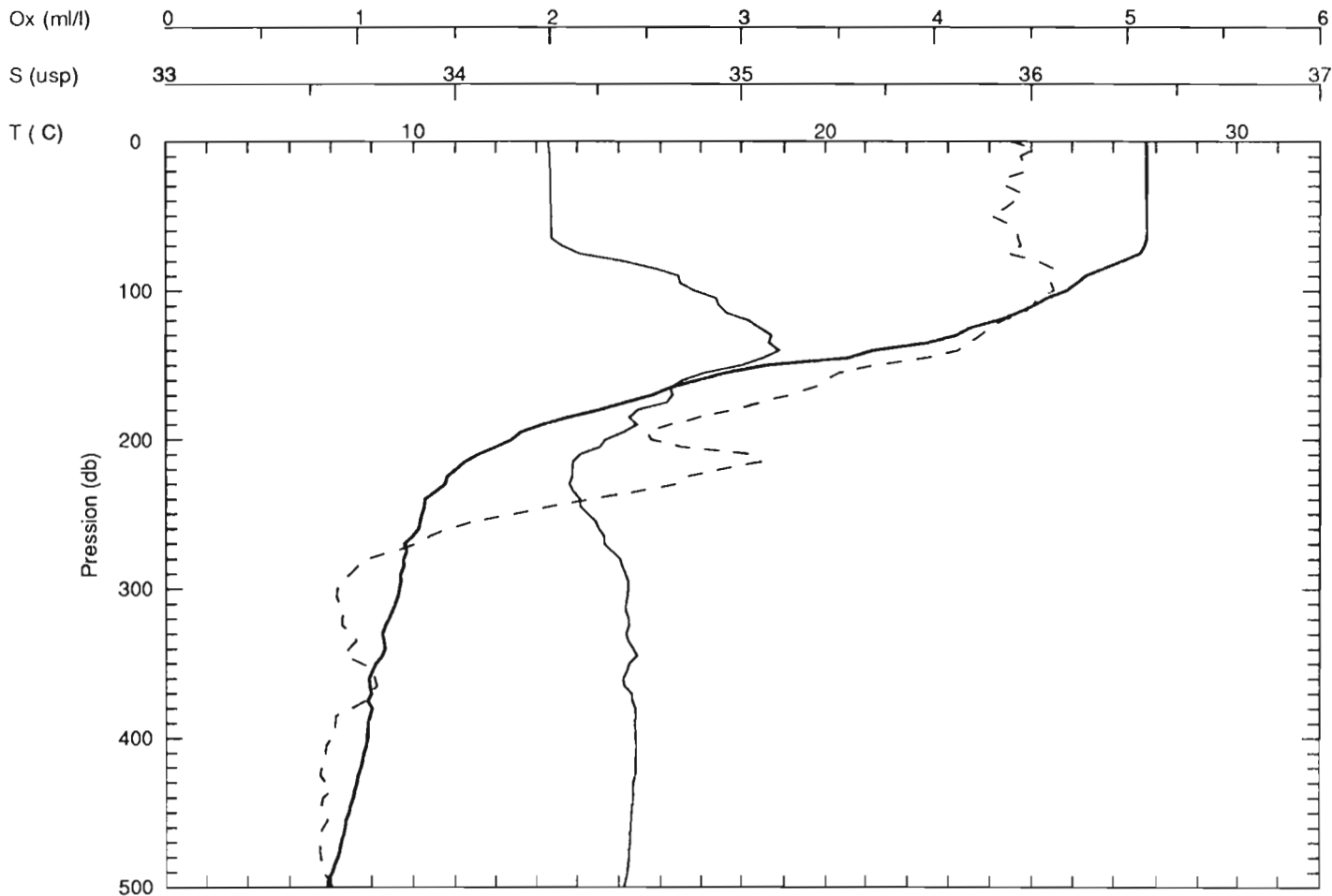
Courant E/O (cm/s) —  
Courant N/S (cm/s) ---



STATION : 41      CAMPAGNE : surtropa11  
 DATE : 19/ 1/89    BEURE : 15h40    LONGITUDE : 165.00    LATITUDE : 10.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C ) | (uwp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C ) | (uwp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 27.77 | 34.33 | -42.0  | -4.8   | 21.97   | 21.97    | 0.000   | 4.39   | 510  | 7.87  | 34.59 | 2.4    | -9.6   | 29.29   | 26.98    | 1.316   | 0.87   |
| 5    | 27.78 | 34.33 | -51.6  | 6.0    | 21.99   | 21.97    | 0.029   | 4.52   | 520  | 7.73  | 34.58 | 2.4    | -9.6   | 29.35   | 26.99    | 1.328   | 0.94   |
| 10   | 27.79 | 34.33 | -46.8  | 9.6    | 22.01   | 21.97    | 0.059   | 4.45   | 530  | 7.60  | 34.58 | -2.4   | -15.6  | 29.41   | 27.01    | 1.339   | 0.99   |
| 15   | 27.79 | 34.33 | -55.2  | -4.8   | 22.03   | 21.97    | 0.088   | 4.46   | 540  | 7.51  | 34.57 | -2.4   | -6.0   | 29.47   | 27.02    | 1.351   | 1.02   |
| 20   | 27.79 | 34.33 | -63.6  | -8.4   | 22.05   | 21.97    | 0.117   | 4.48   | 550  | 7.39  | 34.57 | -2.4   | -8.4   | 29.53   | 27.03    | 1.362   | 1.05   |
| 25   | 27.79 | 34.34 | -56.4  | -1.2   | 22.07   | 21.97    | 0.146   | 4.35   | 560  | 7.26  | 34.57 | -2.4   | -10.8  | 29.60   | 27.05    | 1.373   | 1.07   |
| 30   | 27.79 | 34.34 | -55.2  | -7.2   | 22.09   | 21.97    | 0.176   | 4.37   | 570  | 7.19  | 34.56 | -2.4   | -20.4  | 29.65   | 27.06    | 1.384   | 0.99   |
| 35   | 27.80 | 34.34 | -55.2  | -1.2   | 22.11   | 21.97    | 0.205   | 4.46   | 580  | 7.18  | 34.56 | -1.2   | -21.6  | 29.69   | 27.06    | 1.395   | 0.92   |
| 40   | 27.80 | 34.34 | -60.0  | -9.6   | 22.14   | 21.97    | 0.234   | 4.41   | 590  | 7.09  | 34.57 | 1.2    | -16.8  | 29.75   | 27.07    | 1.406   | 0.91   |
| 45   | 27.80 | 34.34 | -57.6  | -3.6   | 22.16   | 21.97    | 0.263   | 4.36   | 600  | 7.01  | 34.56 |        |        | 29.81   | 27.08    | 1.416   | 0.97   |
| 50   | 27.80 | 34.34 | -54.0  | -1.2   | 22.18   | 21.97    | 0.293   | 4.29   | 610  | 6.94  | 34.56 |        |        | 29.86   | 27.09    | 1.427   | 0.98   |
| 55   | 27.79 | 34.34 | -52.8  | 0.0    | 22.20   | 21.97    | 0.322   | 4.38   | 620  | 6.85  | 34.56 |        |        | 29.92   | 27.10    | 1.438   | 0.91   |
| 60   | 27.80 | 34.34 | -52.8  | -2.4   | 22.22   | 21.97    | 0.351   | 4.42   | 630  | 6.77  | 34.55 |        |        | 29.98   | 27.11    | 1.448   | 0.89   |
| 65   | 27.79 | 34.34 | -56.4  | -8.4   | 22.25   | 21.97    | 0.381   | 4.43   | 640  | 6.68  | 34.55 |        |        | 30.03   | 27.12    | 1.459   | 0.88   |
| 70   | 27.74 | 34.38 | -56.4  | -13.2  | 22.31   | 22.02    | 0.410   | 4.45   | 650  | 6.61  | 34.55 |        |        | 30.09   | 27.13    | 1.469   | 0.85   |
| 75   | 27.63 | 34.44 | -55.2  | -20.4  | 22.41   | 22.10    | 0.439   | 4.38   | 660  | 6.57  | 34.55 |        |        | 30.14   | 27.13    | 1.479   | 0.88   |
| 80   | 27.21 | 34.59 | -56.4  | -15.6  | 22.69   | 22.35    | 0.467   | 4.53   | 670  | 6.51  | 34.55 |        |        | 30.19   | 27.14    | 1.489   | 0.89   |
| 85   | 26.78 | 34.69 | -28.8  | -27.6  | 22.92   | 22.57    | 0.494   | 4.61   | 680  | 6.37  | 34.55 |        |        | 30.25   | 27.16    | 1.500   | 1.09   |
| 90   | 26.34 | 34.78 | -7.2   | -34.8  | 23.15   | 22.77    | 0.520   | 4.62   | 690  | 6.30  | 34.54 |        |        | 30.31   | 27.16    | 1.510   | 1.13   |
| 95   | 26.11 | 34.78 | -3.6   | -32.4  | 23.25   | 22.85    | 0.546   | 4.60   | 700  | 6.24  | 34.54 |        |        | 30.36   | 27.17    | 1.520   | 1.16   |
| 100  | 25.87 | 34.83 | -2.4   | -32.4  | 23.38   | 22.96    | 0.571   | 4.62   | 710  | 6.19  | 34.54 |        |        | 30.41   | 27.17    | 1.529   | 1.18   |
| 105  | 25.38 | 34.91 | -6.0   | -31.2  | 23.61   | 23.17    | 0.595   | 4.54   | 720  | 6.14  | 34.53 |        |        | 30.46   | 27.18    | 1.539   | 1.33   |
| 110  | 25.07 | 34.92 | -3.6   | -30.0  | 23.74   | 23.27    | 0.618   | 4.51   | 730  | 6.09  | 34.53 |        |        | 30.51   | 27.18    | 1.549   | 1.41   |
| 115  | 24.67 | 34.95 | -8.4   | -28.4  | 23.90   | 23.41    | 0.641   | 4.46   | 740  | 6.05  | 34.54 |        |        | 30.57   | 27.19    | 1.559   | 1.29   |
| 120  | 24.18 | 35.03 | -4.8   | -26.4  | 24.13   | 23.62    | 0.663   | 4.36   | 750  | 6.04  | 34.54 |        |        | 30.62   | 27.20    | 1.569   | 1.10   |
| 125  | 23.54 | 35.06 | -2.4   | -20.4  | 24.36   | 23.83    | 0.684   | 4.28   | 760  | 5.99  | 34.55 |        |        | 30.67   | 27.20    | 1.578   | 1.07   |
| 130  | 23.20 | 35.10 | 0.0    | -22.8  | 24.52   | 23.95    | 0.705   | 4.24   | 770  | 5.88  | 34.55 |        |        | 30.74   | 27.22    | 1.588   | 1.11   |
| 135  | 22.49 | 35.09 | -1.2   | -18.0  | 24.73   | 24.16    | 0.724   | 4.17   | 780  | 5.78  | 34.55 |        |        | 30.79   | 27.23    | 1.597   | 1.18   |
| 140  | 21.18 | 35.13 | -4.8   | -10.8  | 25.15   | 24.55    | 0.743   | 4.12   | 790  | 5.76  | 34.54 |        |        | 30.84   | 27.23    | 1.607   | 1.15   |
| 145  | 20.58 | 35.08 | 0.0    | -18.0  | 25.30   | 24.67    | 0.760   | 3.96   | 800  | 5.72  | 34.54 |        |        | 30.89   | 27.24    | 1.616   | 1.14   |
| 150  | 19.60 | 35.00 | 0.0    | -18.0  | 25.78   | 25.13    | 0.775   | 3.70   | 810  | 5.63  | 34.55 |        |        | 30.95   | 27.25    | 1.625   | 1.07   |
| 155  | 17.63 | 34.87 | -3.6   | -8.4   | 25.94   | 25.27    | 0.789   | 3.50   | 820  | 5.56  | 34.55 |        |        | 31.01   | 27.26    | 1.634   | 1.13   |
| 160  | 16.93 | 34.79 | -6.0   | -2.4   | 26.08   | 25.38    | 0.803   | 3.42   | 830  | 5.50  | 34.55 |        |        | 31.06   | 27.27    | 1.643   | 1.19   |
| 165  | 16.24 | 34.75 | -4.8   | -2.4   | 26.23   | 25.51    | 0.816   | 3.36   | 840  | 5.42  | 34.55 |        |        | 31.12   | 27.28    | 1.652   | 1.09   |
| 170  | 15.80 | 34.76 | -4.8   | -2.4   | 26.36   | 25.61    | 0.828   | 3.24   | 850  | 5.34  | 34.55 |        |        | 31.18   | 27.29    | 1.661   | 1.14   |
| 175  | 15.15 | 34.74 | -6.0   | -2.4   | 26.51   | 25.74    | 0.840   | 3.10   | 860  | 5.31  | 34.54 |        |        | 31.22   | 27.29    | 1.670   | 1.26   |
| 180  | 14.54 | 34.64 | -7.2   | -3.6   | 26.59   | 25.80    | 0.851   | 2.96   | 870  | 5.25  | 34.55 |        |        | 31.28   | 27.30    | 1.679   | 1.26   |
| 185  | 13.77 | 34.61 | -8.4   | -6.0   | 26.76   | 25.94    | 0.862   | 2.78   | 880  | 5.17  | 34.55 |        |        | 31.33   | 27.30    | 1.688   | 1.43   |
| 190  | 13.14 | 34.63 | -9.6   | -9.6   | 26.93   | 26.09    | 0.872   | 2.62   | 890  | 5.13  | 34.55 |        |        | 31.38   | 27.31    | 1.696   | 1.47   |
| 195  | 12.62 | 34.59 | -8.4   | -15.6  | 27.02   | 26.16    | 0.882   | 2.50   | 900  | 5.07  | 34.55 |        |        | 31.44   | 27.32    | 1.705   | 1.45   |
| 200  | 12.39 | 34.53 | -4.8   | -18.0  | 27.04   | 26.15    | 0.891   | 2.52   | 910  | 5.03  | 34.55 |        |        | 31.49   | 27.32    | 1.714   | 1.49   |
| 205  | 11.99 | 34.51 | -2.4   | -22.8  | 27.13   | 26.21    | 0.901   | 2.68   | 920  | 4.96  | 34.55 |        |        | 31.55   | 27.33    | 1.722   | 1.50   |
| 210  | 11.56 | 34.44 | -13.2  | -38.4  | 27.18   | 26.24    | 0.910   | 3.08   | 930  | 4.92  | 34.55 |        |        | 31.60   | 27.33    | 1.730   | 1.53   |
| 215  | 11.22 | 34.41 | -10.8  | -37.2  | 27.25   | 26.28    | 0.919   | 3.10   | 940  | 4.89  | 34.55 |        |        | 31.65   | 27.34    | 1.739   | 1.54   |
| 220  | 11.02 | 34.41 | -6.0   | -25.2  | 27.30   | 26.32    | 0.928   | 2.90   | 950  | 4.86  | 34.55 |        |        | 31.70   | 27.34    | 1.747   | 1.49   |
| 225  | 10.80 | 34.41 | -4.8   | -10.8  | 27.37   | 26.36    | 0.936   | 2.72   | 960  | 4.82  | 34.55 |        |        | 31.75   | 27.35    | 1.755   | 1.45   |
| 230  | 10.76 | 34.40 | -4.8   | -4.8   | 27.39   | 26.36    | 0.945   | 2.66   | 970  | 4.76  | 34.56 |        |        | 31.81   | 27.36    | 1.764   | 1.40   |
| 235  | 10.53 | 34.42 | -3.6   | -4.8   | 27.46   | 26.41    | 0.953   | 2.45   | 980  | 4.71  | 34.56 |        |        | 31.86   | 27.37    | 1.772   | 1.40   |
| 240  | 10.28 | 34.44 | -2.4   | -12.0  | 27.55   | 26.47    | 0.962   | 2.22   | 990  | 4.69  | 34.55 |        |        | 31.91   | 27.37    | 1.780   | 1.38   |
| 245  | 10.26 | 34.44 | -2.4   | -12.0  | 27.58   | 26.48    | 0.970   | 2.00   | 1000 | 4.68  | 34.56 |        |        | 31.95   | 27.37    | 1.788   | 1.38   |
| 250  | 10.21 | 34.47 | -2.4   | -12.0  | 27.63   | 26.50    | 0.978   | 1.82   | 1020 | 4.58  | 34.56 |        |        | 32.02   | 27.38    | 1.804   | 1.39   |
| 255  | 10.16 | 34.49 | -7.2   | -12.0  | 27.68   | 26.53    | 0.985   | 1.60   | 1040 | 4.54  | 34.56 |        |        | 32.16   | 27.39    | 1.820   | 1.43   |
| 260  | 10.12 | 34.50 | -7.2   | -12.0  | 27.72   | 26.55    | 0.993   | 1.47   | 1060 | 4.43  | 34.56 |        |        | 32.27   | 27.40    | 1.836   | 1.46   |
| 265  | 9.99  | 34.52 | -2.4   | -9.6   | 27.78   | 26.59    | 1.001   | 1.37   | 1080 | 4.34  | 34.56 |        |        | 32.37   | 27.41    | 1.851   | 1.52   |
| 270  | 9.79  | 34.52 | 1.2    | -6.0   | 27.84   | 26.62    | 1.008   | 1.31   | 1100 | 4.25  | 34.57 |        |        | 32.47   | 27.42    | 1.867   | 1.55   |
| 275  | 9.85  | 34.55 | 1.2    | -3.6   | 27.87   | 26.63    | 1.015   | 1.20   | 1120 | 4.19  | 34.57 |        |        | 32.57   | 27.43    | 1.882   | 1.63   |
| 280  | 9.78  | 34.58 | 0.0    | -6.0   | 27.92   | 26.66    | 1.023   | 1.05   | 1140 | 4.11  | 34.57 |        |        | 32.68   | 27.44    | 1.897   | 1.65   |
| 285  | 9.78  | 34.58 | 1.2    | -7.2   | 27.95   | 26.67    | 1.030   | 1.00   | 1160 | 4.02  | 34.57 |        |        | 32.78   | 27.45    | 1.911   | 1.66   |
| 290  | 9.70  | 34.60 | 0.0    | -10.8  | 28.00   | 26.69    | 1.037   | 0.96   | 1180 | 3.94  | 34.58 |        |        | 32.89   | 27.46    | 1.926   | 1.67   |
| 295  | 9.71  | 34.60 | 1.2    | -16.8  | 28.03   | 26.70    | 1.044   | 0.91   | 1200 | 3.90  | 34.57 |        |        | 32.98   | 27.47    | 1.940   | 1.73   |
| 300  | 9.67  | 34.60 | 1.2    | -18.0  | 28.05   | 26.71    | 1.051   | 0.89   | 1220 | 3.83  | 34.58 |        |        | 33.08   | 27.48    | 1.955   | 1.74   |
| 305  | 9.64  | 34.60 | 3.6    | -20.4  | 28.08   | 26.71    | 1.058   | 0.89   | 1240 | 3.79  | 34.58 |        |        | 33.18   | 27.48    | 1.969   | 1.75   |
| 310  | 9.57  | 34.60 | 3.6    | -16.8  | 28.11   | 26.72    | 1.065   | 0.90   | 1260 | 3.72  | 34.58 |        |        | 33.28   | 27.49    | 1.983   | 1.80   |
| 315  | 9.51  | 34.60 | -2.4   | -8.4   | 28.14   | 26.73    | 1.072   | 0.93   | 1280 | 3.68  | 34.58 |        |        | 33.38   | 27.49    | 1.997   | 1.82   |
| 320  | 9.43  | 34.61 | -2.4   | -3.6   | 28.19   | 26.75    | 1.078   | 0.92   | 1300 | 3.62  | 34.58 |        |        | 33.48   | 27.50    | 2.010   | 1.86   |
| 325  | 9.33  | 34.61 | -1.2   | -1.2   | 28.23   | 26.76    | 1.085   | 0.92   | 1320 | 3.58  | 34.58 |        |        | 33.58   | 27.51    | 2.024   | 1.88   |
| 330  | 9.27  | 34.60 | -1.2   | -1.2   | 28.25   | 26.77    | 1.092   | 0.97   | 1340 | 3.54  | 34.58 |        |        | 33.67   | 27.51    | 2.038   | 1.86   |
| 335  | 9.30  | 34.60 | -1.2   | 0.0    | 28.28   | 26.77    | 1.099   | 0.99   | 1360 | 3.50  | 34.58 |        |        | 33.77   | 27.52    | 2.051   | 1.87   |
| 340  | 9.33  | 34.62 | 0.0    | -2.4   | 28.31   | 26.77    | 1.105   | 0.95   | 1380 | 3.46  | 34.59 |        |        | 33.87   | 27.52    | 2.065   | 1.84   |
| 345  | 9.25  | 34.63 | 0.0    | -2.4   | 28.35   | 26.80    | 1.112   | 0.93   | 1400 | 3.38  | 34.59 |        |        | 33.97   | 27.53    | 2.078   | 1.90   |
| 350  | 9.10  | 34.61 | 0.0    | -3.6   | 28.38   | 26.80    | 1.118   | 1.02   | 1420 | 3.33  | 34.59 |        |        | 34.07   | 27.54    | 2.091   | 1.91   |
| 355  | 9.02  | 34.60 | 0.0    | -2.4   | 28.41   | 26.81    | 1.125   | 1.08   | 1440 | 3.24  | 34.60 |        |        | 34.17   | 27.55    | 2.104   | 1.92   |
| 360  | 8.94  | 34.59 | 0.0    | 0.0    | 28.44   | 26.81    | 1.132   | 1.09   | 1460 | 3.17  | 34.60 |        |        | 34.28   | 27.56    | 2.117   | 1.97   |
| 365  | 8.96  | 34.59 | 1.2    | 0.0    | 28      |          |         |        |      |       |       |        |        |         |          |         |        |

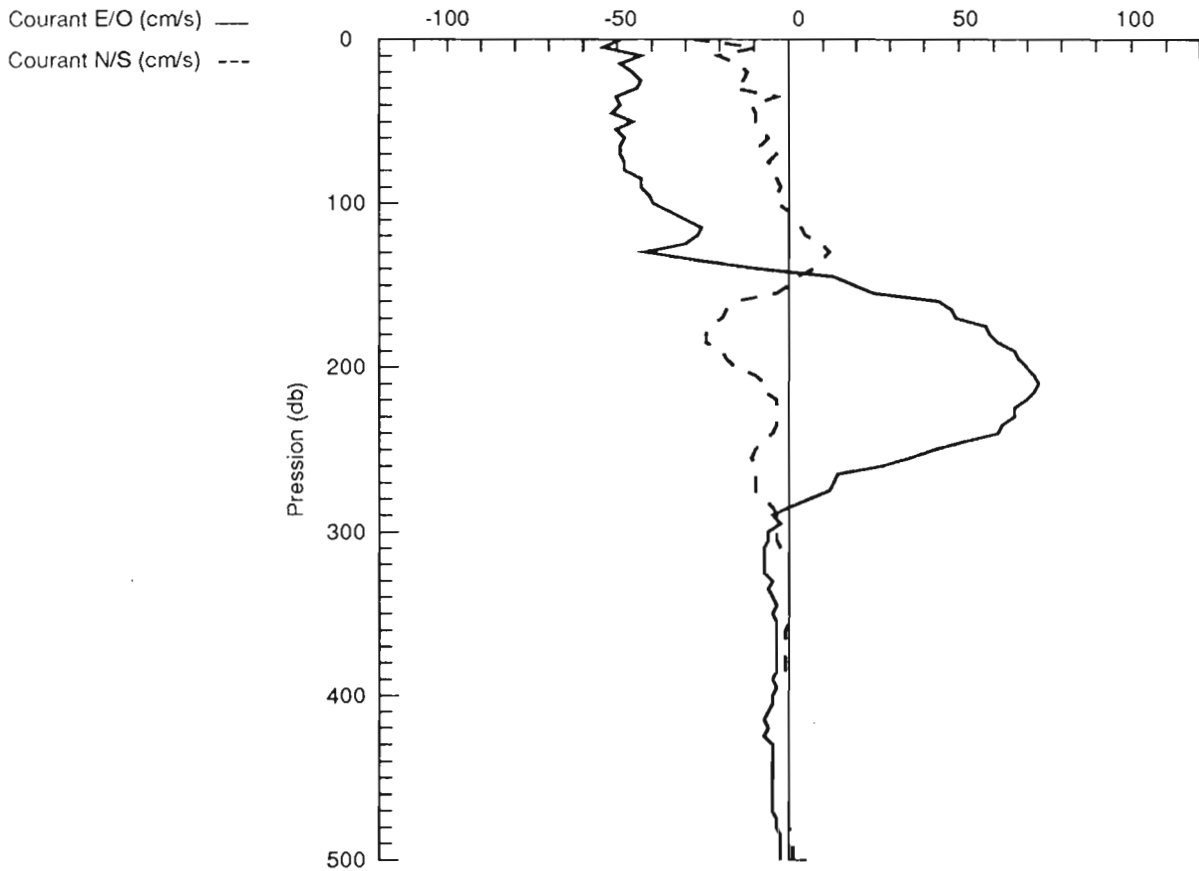
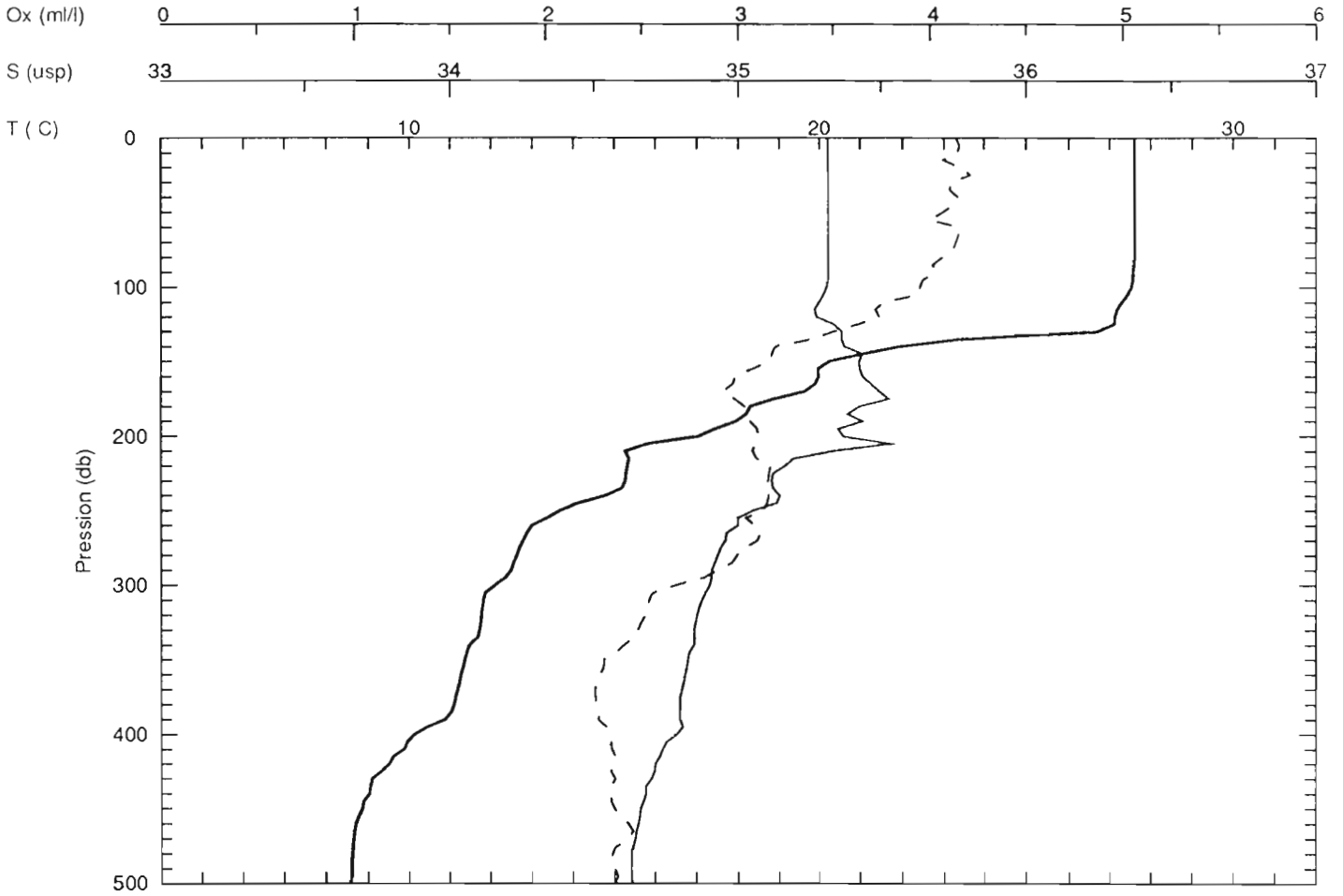
SURTROPAC11 STATION No : 41  
DATE : 19/ 1/89 HEURE : 15h40 LONGITUDE : 165.00 LATITUDE : 10.00



STATION : 42      CAMPAGNE : surtropa11  
 DATE : 25/ 1/89    HEURE : 21h57    LONGITUDE : 165.00    LATITUDE : 0.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    | P    | T   | S     | U      | V      | Sigt    | Sigtheta | Rdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|-----|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 27.61 | 35.31 | -49.2  | -27.6  | 22.76   | 22.76    | 0.000   | 4.14   |      |     |       |        |        |         |          |         |        |
| 5    | 27.61 | 35.32 | -54.0  | -9.6   | 22.78   | 22.76    | 0.025   | 4.15   |      |     |       |        |        |         |          |         |        |
| 10   | 27.61 | 35.32 | -43.2  | -20.4  | 22.81   | 22.76    | 0.051   | 4.14   |      |     |       |        |        |         |          |         |        |
| 15   | 27.61 | 35.32 | -49.2  | -14.4  | 22.83   | 22.76    | 0.076   | 4.07   |      |     |       |        |        |         |          |         |        |
| 20   | 27.61 | 35.32 | -45.6  | -12.0  | 22.85   | 22.77    | 0.102   | 4.16   |      |     |       |        |        |         |          |         |        |
| 25   | 27.61 | 35.32 | -43.2  | -13.2  | 22.87   | 22.77    | 0.127   | 4.21   |      |     |       |        |        |         |          |         |        |
| 30   | 27.61 | 35.32 | -44.4  | -15.6  | 22.89   | 22.77    | 0.153   | 4.11   |      |     |       |        |        |         |          |         |        |
| 35   | 27.61 | 35.32 | -50.4  | -3.6   | 22.91   | 22.77    | 0.178   | 4.10   |      |     |       |        |        |         |          |         |        |
| 40   | 27.61 | 35.32 | -49.2  | -10.8  | 22.94   | 22.77    | 0.204   | 4.15   |      |     |       |        |        |         |          |         |        |
| 45   | 27.61 | 35.32 | -51.6  | -9.6   | 22.96   | 22.77    | 0.229   | 4.12   |      |     |       |        |        |         |          |         |        |
| 50   | 27.61 | 35.32 | -45.6  | -9.6   | 22.98   | 22.77    | 0.255   | 4.07   |      |     |       |        |        |         |          |         |        |
| 55   | 27.61 | 35.32 | -50.4  | -8.4   | 23.00   | 22.77    | 0.280   | 4.00   |      |     |       |        |        |         |          |         |        |
| 60   | 27.61 | 35.32 | -48.0  | -6.0   | 23.02   | 22.77    | 0.306   | 4.15   |      |     |       |        |        |         |          |         |        |
| 65   | 27.61 | 35.32 | -49.2  | -8.4   | 23.04   | 22.77    | 0.331   | 4.15   |      |     |       |        |        |         |          |         |        |
| 70   | 27.62 | 35.32 | -49.2  | -3.6   | 23.06   | 22.77    | 0.357   | 4.14   |      |     |       |        |        |         |          |         |        |
| 75   | 27.61 | 35.32 | -48.0  | -6.0   | 23.08   | 22.77    | 0.382   | 4.12   |      |     |       |        |        |         |          |         |        |
| 80   | 27.61 | 35.32 | -48.0  | -3.6   | 23.11   | 22.77    | 0.408   | 4.06   |      |     |       |        |        |         |          |         |        |
| 85   | 27.59 | 35.32 | -43.2  | -3.6   | 23.13   | 22.78    | 0.433   | 4.01   |      |     |       |        |        |         |          |         |        |
| 90   | 27.58 | 35.32 | -43.2  | -2.4   | 23.16   | 22.78    | 0.459   | 4.03   |      |     |       |        |        |         |          |         |        |
| 95   | 27.57 | 35.32 | -40.8  | -3.6   | 23.18   | 22.78    | 0.484   | 3.96   |      |     |       |        |        |         |          |         |        |
| 100  | 27.53 | 35.31 | -39.6  | -3.6   | 23.21   | 22.79    | 0.510   | 3.95   |      |     |       |        |        |         |          |         |        |
| 105  | 27.43 | 35.30 | -34.8  | 0.0    | 23.26   | 22.81    | 0.535   | 3.94   |      |     |       |        |        |         |          |         |        |
| 110  | 27.30 | 35.29 | -30.0  | 0.0    | 23.31   | 22.85    | 0.561   | 3.76   |      |     |       |        |        |         |          |         |        |
| 115  | 27.17 | 35.27 | -25.2  | 3.6    | 23.36   | 22.88    | 0.586   | 3.72   |      |     |       |        |        |         |          |         |        |
| 120  | 27.12 | 35.28 | -26.4  | 4.8    | 23.40   | 22.90    | 0.611   | 3.74   |      |     |       |        |        |         |          |         |        |
| 125  | 27.11 | 35.34 | -30.0  | 9.6    | 23.48   | 22.95    | 0.636   | 3.63   |      |     |       |        |        |         |          |         |        |
| 130  | 26.68 | 35.37 | -42.0  | 12.0   | 23.66   | 23.11    | 0.660   | 3.50   |      |     |       |        |        |         |          |         |        |
| 135  | 23.42 | 35.37 | -26.4  | 9.6    | 24.67   | 24.10    | 0.683   | 3.39   |      |     |       |        |        |         |          |         |        |
| 140  | 21.91 | 35.38 | -8.4   | 7.2    | 25.14   | 24.54    | 0.701   | 3.20   |      |     |       |        |        |         |          |         |        |
| 145  | 21.06 | 35.44 | 13.2   | 2.4    | 25.44   | 24.82    | 0.717   | 3.18   |      |     |       |        |        |         |          |         |        |
| 150  | 20.25 | 35.43 | 19.2   | 0.0    | 25.67   | 25.03    | 0.733   | 3.16   |      |     |       |        |        |         |          |         |        |
| 155  | 19.97 | 35.43 | 25.2   | -3.6   | 25.77   | 25.10    | 0.747   | 3.08   |      |     |       |        |        |         |          |         |        |
| 160  | 19.98 | 35.44 | 44.4   | -15.6  | 25.80   | 25.11    | 0.762   | 2.98   |      |     |       |        |        |         |          |         |        |
| 165  | 19.90 | 35.47 | 48.0   | -18.0  | 25.86   | 25.15    | 0.776   | 2.97   |      |     |       |        |        |         |          |         |        |
| 170  | 19.64 | 35.49 | 49.2   | -19.2  | 25.98   | 25.24    | 0.790   | 2.92   |      |     |       |        |        |         |          |         |        |
| 175  | 18.87 | 35.53 | 57.6   | -22.8  | 26.22   | 25.47    | 0.804   | 2.98   |      |     |       |        |        |         |          |         |        |
| 180  | 18.30 | 35.43 | 58.8   | -24.0  | 26.32   | 25.54    | 0.816   | 3.03   |      |     |       |        |        |         |          |         |        |
| 185  | 18.19 | 35.38 | 61.2   | -24.0  | 26.33   | 25.53    | 0.829   | 3.05   |      |     |       |        |        |         |          |         |        |
| 190  | 17.94 | 35.44 | 66.0   | -19.2  | 26.46   | 25.63    | 0.841   | 3.06   |      |     |       |        |        |         |          |         |        |
| 195  | 17.44 | 35.35 | 67.2   | -18.0  | 26.54   | 25.69    | 0.853   | 3.10   |      |     |       |        |        |         |          |         |        |
| 200  | 17.03 | 35.37 | 69.6   | -15.6  | 26.67   | 25.80    | 0.865   | 3.10   |      |     |       |        |        |         |          |         |        |
| 205  | 15.81 | 35.53 | 72.0   | -9.6   | 27.11   | 26.21    | 0.876   | 3.09   |      |     |       |        |        |         |          |         |        |
| 210  | 15.27 | 35.33 | 73.2   | -7.2   | 27.10   | 26.17    | 0.884   | 3.08   |      |     |       |        |        |         |          |         |        |
| 215  | 15.35 | 35.19 | 72.0   | -7.2   | 26.99   | 26.05    | 0.894   | 3.10   |      |     |       |        |        |         |          |         |        |
| 220  | 15.32 | 35.17 | 69.6   | -3.6   | 27.00   | 26.04    | 0.905   | 3.17   |      |     |       |        |        |         |          |         |        |
| 225  | 15.28 | 35.12 | 66.0   | -3.6   | 27.00   | 26.01    | 0.915   | 3.16   |      |     |       |        |        |         |          |         |        |
| 230  | 15.26 | 35.12 | 66.0   | -3.6   | 27.02   | 26.01    | 0.925   | 3.15   |      |     |       |        |        |         |          |         |        |
| 235  | 15.19 | 35.12 | 62.4   | -3.6   | 27.06   | 26.03    | 0.935   | 3.14   |      |     |       |        |        |         |          |         |        |
| 240  | 14.78 | 35.15 | 61.2   | -4.8   | 27.20   | 26.14    | 0.945   | 3.16   |      |     |       |        |        |         |          |         |        |
| 245  | 14.11 | 35.13 | 51.6   | -7.2   | 27.35   | 26.27    | 0.955   | 3.15   |      |     |       |        |        |         |          |         |        |
| 250  | 13.69 | 35.05 | 43.2   | -9.6   | 27.41   | 26.30    | 0.964   | 3.13   |      |     |       |        |        |         |          |         |        |
| 255  | 13.37 | 35.00 | 36.0   | -10.8  | 27.45   | 26.32    | 0.972   | 3.04   |      |     |       |        |        |         |          |         |        |
| 260  | 13.00 | 35.00 | 27.6   | -9.6   | 27.55   | 26.40    | 0.981   | 3.09   |      |     |       |        |        |         |          |         |        |
| 265  | 12.88 | 34.96 | 14.4   | -9.6   | 27.57   | 26.39    | 0.989   | 3.11   |      |     |       |        |        |         |          |         |        |
| 270  | 12.78 | 34.96 | 13.2   | -9.6   | 27.61   | 26.41    | 0.998   | 3.10   |      |     |       |        |        |         |          |         |        |
| 275  | 12.70 | 34.94 | 12.0   | -9.6   | 27.63   | 26.41    | 1.006   | 3.04   |      |     |       |        |        |         |          |         |        |
| 280  | 12.64 | 34.93 | 6.0    | -7.2   | 27.66   | 26.42    | 1.015   | 2.99   |      |     |       |        |        |         |          |         |        |
| 285  | 12.56 | 34.92 | 0.0    | -4.8   | 27.69   | 26.43    | 1.023   | 2.97   |      |     |       |        |        |         |          |         |        |
| 290  | 12.49 | 34.91 | -4.8   | -3.6   | 27.72   | 26.43    | 1.031   | 2.89   |      |     |       |        |        |         |          |         |        |
| 295  | 12.35 | 34.91 | -2.4   | -3.6   | 27.77   | 26.46    | 1.040   | 2.82   |      |     |       |        |        |         |          |         |        |
| 300  | 12.10 | 34.90 | -6.0   | -3.6   | 27.84   | 26.50    | 1.048   | 2.68   |      |     |       |        |        |         |          |         |        |
| 305  | 11.85 | 34.89 | -6.0   | -3.6   | 27.89   | 26.54    | 1.056   | 2.56   |      |     |       |        |        |         |          |         |        |
| 310  | 11.82 | 34.88 | -7.2   | -2.4   | 27.92   | 26.54    | 1.064   | 2.54   |      |     |       |        |        |         |          |         |        |
| 315  | 11.79 | 34.87 | -7.2   | 0.0    | 27.94   | 26.53    | 1.071   | 2.54   |      |     |       |        |        |         |          |         |        |
| 320  | 11.78 | 34.86 | -7.2   | 0.0    | 27.96   | 26.53    | 1.079   | 2.52   |      |     |       |        |        |         |          |         |        |
| 325  | 11.76 | 34.85 | -7.2   | 0.0    | 27.98   | 26.53    | 1.087   | 2.50   |      |     |       |        |        |         |          |         |        |
| 330  | 11.73 | 34.85 | -4.8   | 0.0    | 28.00   | 26.53    | 1.095   | 2.48   |      |     |       |        |        |         |          |         |        |
| 335  | 11.68 | 34.85 | -6.0   | 0.0    | 28.04   | 26.54    | 1.103   | 2.46   |      |     |       |        |        |         |          |         |        |
| 340  | 11.48 | 34.85 | -4.8   | 0.0    | 28.09   | 26.58    | 1.111   | 2.41   |      |     |       |        |        |         |          |         |        |
| 345  | 11.41 | 34.83 | -3.6   | 0.0    | 28.12   | 26.58    | 1.118   | 2.37   |      |     |       |        |        |         |          |         |        |
| 350  | 11.37 | 34.83 | -4.8   | 0.0    | 28.14   | 26.58    | 1.126   | 2.30   |      |     |       |        |        |         |          |         |        |
| 355  | 11.32 | 34.82 | -3.6   | 0.0    | 28.17   | 26.59    | 1.134   | 2.30   |      |     |       |        |        |         |          |         |        |
| 360  | 11.27 | 34.82 | -3.6   | -1.2   | 28.20   | 26.59    | 1.141   | 2.29   |      |     |       |        |        |         |          |         |        |
| 365  | 11.24 | 34.81 | -3.6   | -1.2   | 28.22   | 26.60    | 1.149   | 2.27   |      |     |       |        |        |         |          |         |        |
| 370  | 11.19 | 34.81 | -3.6   | -1.2   | 28.25   | 26.60    | 1.157   | 2.26   |      |     |       |        |        |         |          |         |        |
| 375  | 11.14 | 34.80 | -3.6   | -1.2   | 28.28   | 26.60    | 1.164   | 2.26   |      |     |       |        |        |         |          |         |        |
| 380  | 11.10 | 34.80 | -3.6   | -1.2   | 28.31   | 26.61    | 1.172   | 2.26   |      |     |       |        |        |         |          |         |        |
| 385  | 11.04 | 34.80 | -3.6   | -1.2   | 28.34   | 26.62    | 1.179   | 2.28   |      |     |       |        |        |         |          |         |        |
| 390  | 10.89 | 34.80 | -4.8   | 0.0    | 28.39   | 26.65    | 1.187   | 2.28   |      |     |       |        |        |         |          |         |        |
| 395  | 10.44 | 34.81 | -3.6   | 0.0    | 28.50   | 26.74    | 1.194   | 2.31   |      |     |       |        |        |         |          |         |        |
| 400  | 10.12 | 34.79 | -4.8   | 0.0    | 28.57   | 26.78    | 1.201   | 2.33   |      |     |       |        |        |         |          |         |        |
| 405  | 9.95  | 34.75 | -4.8   | 0.0    | 28.59   | 26.78    | 1.208   | 2.34   |      |     |       |        |        |         |          |         |        |
| 410  | 9.88  | 34.74 | -6.0   | 0.0    | 28.62   | 26.78    | 1.214   | 2.34   |      |     |       |        |        |         |          |         |        |
| 415  | 9.61  | 34.73 | -7.2   | 0.0    | 28.68   | 26.82    | 1.221   | 2.36   |      |     |       |        |        |         |          |         |        |
| 420  | 9.51  | 34.72 | -6.0   | 0.0    | 28.71   | 26.82    | 1.228   | 2.36   |      |     |       |        |        |         |          |         |        |
| 425  | 9.31  | 34.71 | -7.2   | 0.0    | 28.76   | 26.85    | 1.234   | 2.34   |      |     |       |        |        |         |          |         |        |
| 430  | 9.08  | 34.70 | -4.8   | 0.0    | 28.82   | 26.88    | 1.240   | 2.36   |      |     |       |        |        |         |          |         |        |
| 435  | 9.04  | 34.68 | -4.8   | 0.0    | 28.83   | 26.87    | 1.247   | 2.34   |      |     |       |        |        |         |          |         |        |
| 440  | 9.02  | 34.68 | -4.8   | 0.0    | 28.86   | 26.87    | 1.253   | 2.34   |      |     |       |        |        |         |          |         |        |
| 445  | 8.89  | 34.67 | -4.8   | 0.0    | 28.90   | 26.89    | 1.259   | 2.34   |      |     |       |        |        |         |          |         |        |
| 450  | 8.85  | 34.66 | -4.8   | 0.0    | 28.92   | 26.89    | 1.265   | 2.36   |      |     |       |        |        |         |          |         |        |
| 455  | 8.77  | 34.66 | -4.8   | 0.0    | 28.95   | 26.90    | 1.272   | 2.39   |      |     |       |        |        |         |          |         |        |
| 460  | 8.70  | 34.66 | -4.8   | 0.0    | 28.98   | 26.90    | 1.278   | 2.43   |      |     |       |        |        |         |          |         |        |
| 465  | 8.66  | 34.65 | -4.8   | 0.0    | 29.00   | 26.90    | 1.284   | 2.46   |      |     |       |        |        |         |          |         |        |
| 470  | 8.64  | 34.65 | -4.8   | 0.0    | 29.03   | 26.91    | 1.290   | 2.43   |      |     |       |        |        |         |          |         |        |
| 475  | 8.63  | 34.64 | -3.6   | 0.0    | 29.05   | 26.90    | 1.296   | 2.37   |      |     |       |        |        |         |          |         |        |
| 480  | 8.62  | 34.63 | -3.6   | 0.0    | 29.07</ |          |         |        |      |     |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 42  
DATE : 25/ 1/89 HEURE : 21h57 LONGITUDE : 165.00 LATITUDE : 0.00

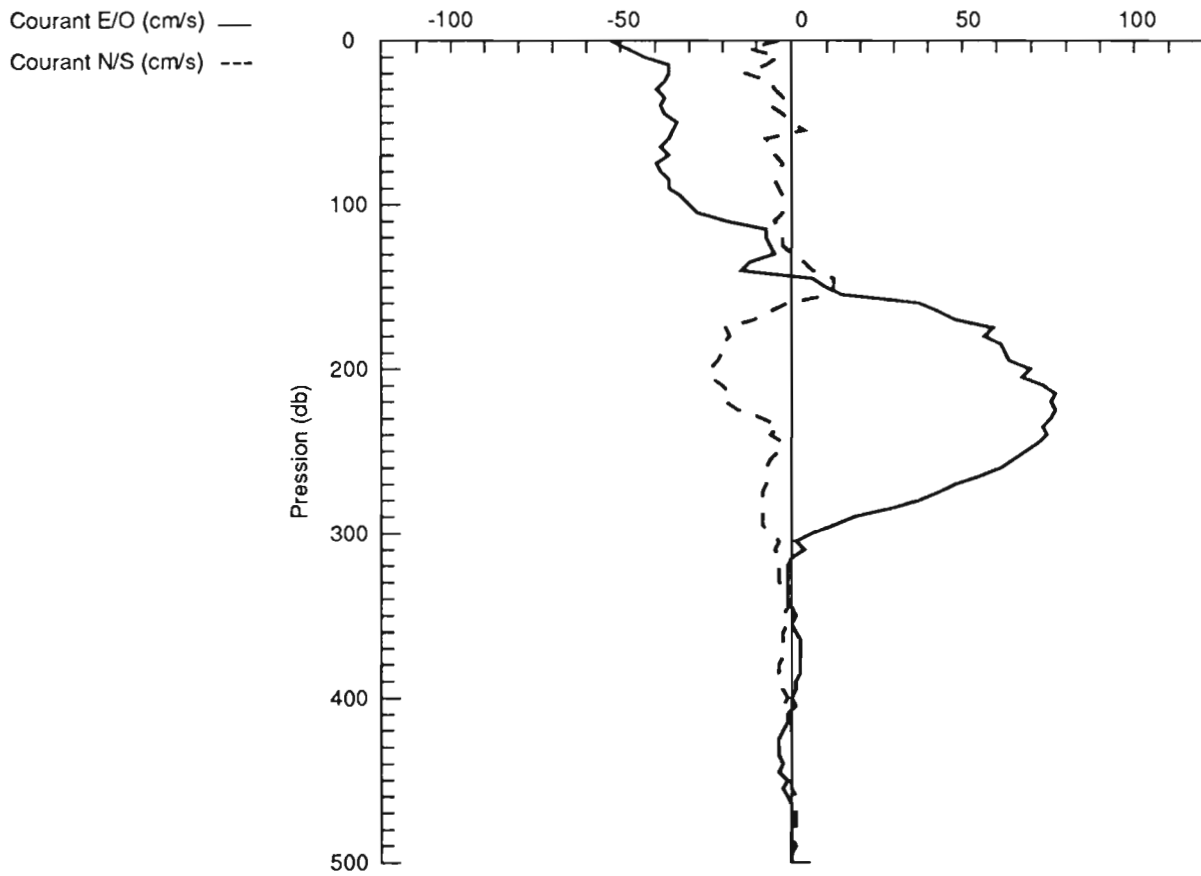
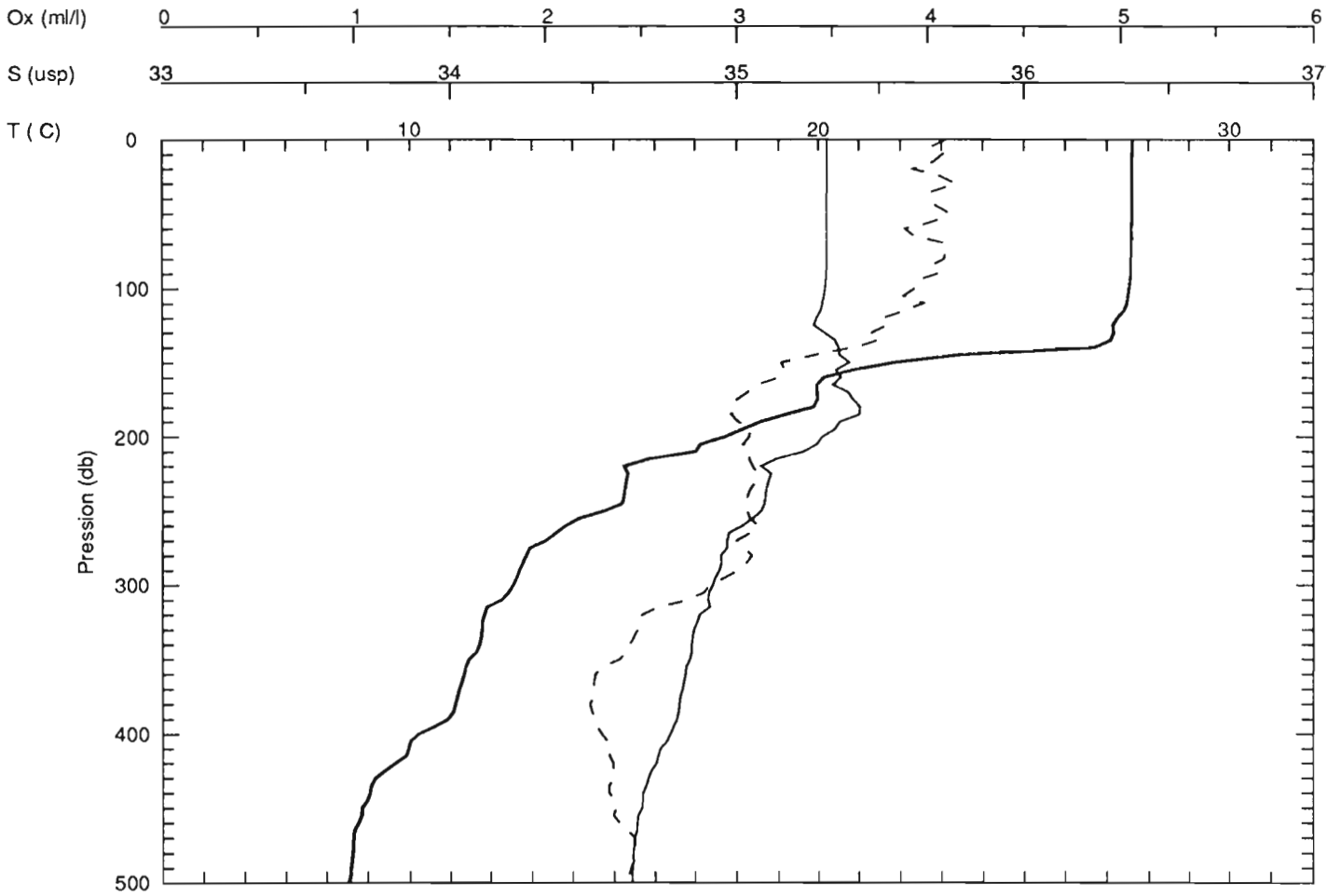


STATION : 43      CAMPAGNE : surtropa11  
 DATE : 26/ 1/89    REURE : 0h25      LONGITUDE : 165.00    LATITUDE : 0.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 27.61 | 35.32 | -52.8  | -3.6   | 22.76   | 22.76    | 0.000   | 4.09   | 510  | 8.26 | 34.63 | 0.0    | 0.0    | 29.26   | 26.95    | 1.385   | 2.49   |
| 5    | 27.61 | 35.32 | -48.0  | -12.0  | 22.78   | 22.76    | 0.025   | 4.02   |      |      |       |        |        |         |          |         |        |
| 10   | 27.61 | 35.31 | -43.2  | -3.6   | 22.80   | 22.76    | 0.051   | 4.00   |      |      |       |        |        |         |          |         |        |
| 15   | 27.60 | 35.31 | -36.0  | -7.2   | 22.83   | 22.77    | 0.076   | 4.03   |      |      |       |        |        |         |          |         |        |
| 20   | 27.60 | 35.31 | -36.0  | -13.2  | 22.85   | 22.77    | 0.102   | 3.92   |      |      |       |        |        |         |          |         |        |
| 25   | 27.60 | 35.32 | -37.2  | -6.0   | 22.87   | 22.77    | 0.127   | 4.07   |      |      |       |        |        |         |          |         |        |
| 30   | 27.59 | 35.32 | -39.6  | -4.8   | 22.89   | 22.77    | 0.153   | 4.15   |      |      |       |        |        |         |          |         |        |
| 35   | 27.59 | 35.32 | -37.2  | -2.4   | 22.92   | 22.77    | 0.178   | 4.02   |      |      |       |        |        |         |          |         |        |
| 40   | 27.59 | 35.32 | -38.4  | -6.0   | 22.94   | 22.77    | 0.204   | 4.01   |      |      |       |        |        |         |          |         |        |
| 45   | 27.59 | 35.32 | -37.2  | -2.4   | 22.96   | 22.77    | 0.229   | 4.05   |      |      |       |        |        |         |          |         |        |
| 50   | 27.59 | 35.32 | -33.6  | 0.0    | 22.98   | 22.77    | 0.255   | 4.11   |      |      |       |        |        |         |          |         |        |
| 55   | 27.59 | 35.32 | -34.8  | 3.6    | 23.01   | 22.77    | 0.280   | 4.04   |      |      |       |        |        |         |          |         |        |
| 60   | 27.59 | 35.32 | -36.0  | -7.2   | 23.03   | 22.77    | 0.306   | 3.88   |      |      |       |        |        |         |          |         |        |
| 65   | 27.59 | 35.32 | -38.4  | -4.8   | 23.05   | 22.77    | 0.331   | 3.93   |      |      |       |        |        |         |          |         |        |
| 70   | 27.58 | 35.32 | -36.0  | -4.8   | 23.07   | 22.78    | 0.356   | 4.10   |      |      |       |        |        |         |          |         |        |
| 75   | 27.58 | 35.32 | -39.6  | -2.4   | 23.09   | 22.78    | 0.382   | 4.09   |      |      |       |        |        |         |          |         |        |
| 80   | 27.58 | 35.31 | -38.4  | -3.6   | 23.11   | 22.78    | 0.407   | 4.08   |      |      |       |        |        |         |          |         |        |
| 85   | 27.58 | 35.31 | -36.0  | -4.8   | 23.14   | 22.78    | 0.433   | 4.01   |      |      |       |        |        |         |          |         |        |
| 90   | 27.57 | 35.31 | -36.0  | -3.6   | 23.16   | 22.78    | 0.459   | 4.05   |      |      |       |        |        |         |          |         |        |
| 95   | 27.56 | 35.31 | -32.4  | -2.4   | 23.18   | 22.78    | 0.484   | 3.95   |      |      |       |        |        |         |          |         |        |
| 100  | 27.53 | 35.31 | -30.0  | -2.4   | 23.21   | 22.79    | 0.510   | 3.93   |      |      |       |        |        |         |          |         |        |
| 105  | 27.50 | 35.31 | -27.6  | -2.4   | 23.24   | 22.80    | 0.535   | 3.88   |      |      |       |        |        |         |          |         |        |
| 110  | 27.47 | 35.30 | -19.2  | -4.8   | 23.27   | 22.80    | 0.561   | 3.98   |      |      |       |        |        |         |          |         |        |
| 115  | 27.41 | 35.29 | -7.2   | -3.6   | 23.30   | 22.82    | 0.586   | 3.88   |      |      |       |        |        |         |          |         |        |
| 120  | 27.24 | 35.28 | -7.2   | -2.4   | 23.37   | 22.86    | 0.611   | 3.77   |      |      |       |        |        |         |          |         |        |
| 125  | 27.14 | 35.27 | -6.0   | -2.4   | 23.41   | 22.89    | 0.637   | 3.79   |      |      |       |        |        |         |          |         |        |
| 130  | 27.16 | 35.31 | -4.8   | 0.0    | 23.46   | 22.91    | 0.662   | 3.71   |      |      |       |        |        |         |          |         |        |
| 135  | 27.08 | 35.34 | -12.0  | 3.6    | 23.53   | 22.96    | 0.687   | 3.76   |      |      |       |        |        |         |          |         |        |
| 140  | 26.68 | 35.36 | -14.4  | 6.0    | 23.69   | 23.10    | 0.711   | 3.61   |      |      |       |        |        |         |          |         |        |
| 145  | 23.44 | 35.36 | 6.0    | 12.0   | 24.71   | 24.09    | 0.733   | 3.41   |      |      |       |        |        |         |          |         |        |
| 150  | 21.86 | 35.40 | 9.6    | 12.0   | 25.21   | 24.57    | 0.751   | 3.23   |      |      |       |        |        |         |          |         |        |
| 155  | 20.87 | 35.35 | 14.4   | 10.8   | 25.47   | 24.80    | 0.767   | 3.24   |      |      |       |        |        |         |          |         |        |
| 160  | 20.12 | 35.37 | 37.2   | -1.2   | 25.71   | 25.02    | 0.783   | 3.22   |      |      |       |        |        |         |          |         |        |
| 165  | 19.96 | 35.34 | 43.2   | -6.0   | 25.75   | 25.04    | 0.798   | 3.11   |      |      |       |        |        |         |          |         |        |
| 170  | 19.96 | 35.39 | 48.0   | -10.8  | 25.81   | 25.08    | 0.812   | 3.05   |      |      |       |        |        |         |          |         |        |
| 175  | 19.97 | 35.41 | 58.8   | -19.2  | 25.85   | 25.09    | 0.827   | 3.00   |      |      |       |        |        |         |          |         |        |
| 180  | 19.88 | 35.43 | 56.4   | -18.0  | 25.91   | 25.13    | 0.842   | 3.01   |      |      |       |        |        |         |          |         |        |
| 185  | 19.18 | 35.43 | 61.2   | -20.4  | 26.11   | 25.31    | 0.856   | 2.97   |      |      |       |        |        |         |          |         |        |
| 190  | 18.55 | 35.36 | 62.4   | -20.4  | 26.24   | 25.42    | 0.869   | 3.01   |      |      |       |        |        |         |          |         |        |
| 195  | 18.12 | 35.34 | 63.6   | -21.6  | 26.36   | 25.51    | 0.882   | 3.07   |      |      |       |        |        |         |          |         |        |
| 200  | 17.71 | 35.30 | 69.6   | -24.0  | 26.45   | 25.58    | 0.895   | 3.06   |      |      |       |        |        |         |          |         |        |
| 205  | 17.14 | 35.28 | 67.2   | -24.0  | 26.60   | 25.71    | 0.906   | 3.03   |      |      |       |        |        |         |          |         |        |
| 210  | 17.01 | 35.23 | 73.2   | -20.4  | 26.61   | 25.70    | 0.918   | 3.07   |      |      |       |        |        |         |          |         |        |
| 215  | 15.85 | 35.13 | 76.8   | -18.0  | 26.83   | 25.89    | 0.929   | 3.06   |      |      |       |        |        |         |          |         |        |
| 220  | 15.25 | 35.08 | 75.6   | -19.2  | 26.95   | 25.99    | 0.940   | 3.08   |      |      |       |        |        |         |          |         |        |
| 225  | 15.33 | 35.12 | 76.8   | -15.6  | 26.98   | 26.00    | 0.950   | 3.10   |      |      |       |        |        |         |          |         |        |
| 230  | 15.29 | 35.11 | 75.6   | -8.4   | 27.01   | 26.00    | 0.961   | 3.10   |      |      |       |        |        |         |          |         |        |
| 235  | 15.27 | 35.10 | 73.2   | -3.6   | 27.03   | 26.00    | 0.971   | 3.07   |      |      |       |        |        |         |          |         |        |
| 240  | 15.23 | 35.10 | 74.4   | -6.0   | 27.06   | 26.00    | 0.981   | 3.05   |      |      |       |        |        |         |          |         |        |
| 245  | 15.20 | 35.09 | 72.0   | -2.4   | 27.08   | 26.01    | 0.992   | 3.06   |      |      |       |        |        |         |          |         |        |
| 250  | 14.77 | 35.08 | 68.4   | -3.6   | 27.19   | 26.10    | 1.002   | 3.05   |      |      |       |        |        |         |          |         |        |
| 255  | 14.16 | 35.05 | 64.8   | -6.0   | 27.33   | 26.20    | 1.012   | 3.07   |      |      |       |        |        |         |          |         |        |
| 260  | 13.83 | 35.02 | 61.2   | -7.2   | 27.39   | 26.25    | 1.021   | 3.11   |      |      |       |        |        |         |          |         |        |
| 265  | 13.59 | 34.97 | 55.2   | -7.2   | 27.43   | 26.26    | 1.030   | 3.07   |      |      |       |        |        |         |          |         |        |
| 270  | 13.34 | 34.97 | 48.0   | -7.2   | 27.50   | 26.31    | 1.039   | 3.00   |      |      |       |        |        |         |          |         |        |
| 275  | 12.95 | 34.97 | 43.2   | -8.4   | 27.61   | 26.39    | 1.048   | 3.04   |      |      |       |        |        |         |          |         |        |
| 280  | 12.86 | 34.95 | 37.2   | -8.4   | 27.63   | 26.39    | 1.056   | 3.08   |      |      |       |        |        |         |          |         |        |
| 285  | 12.77 | 34.95 | 28.8   | -8.4   | 27.67   | 26.41    | 1.065   | 3.05   |      |      |       |        |        |         |          |         |        |
| 290  | 12.69 | 34.94 | 18.0   | -8.4   | 27.70   | 26.42    | 1.073   | 3.00   |      |      |       |        |        |         |          |         |        |
| 295  | 12.62 | 34.93 | 12.0   | -8.4   | 27.73   | 26.42    | 1.082   | 2.94   |      |      |       |        |        |         |          |         |        |
| 300  | 12.54 | 34.92 | 6.0    | -6.0   | 27.76   | 26.43    | 1.090   | 2.87   |      |      |       |        |        |         |          |         |        |
| 305  | 12.42 | 34.90 | 1.2    | -3.6   | 27.80   | 26.44    | 1.098   | 2.83   |      |      |       |        |        |         |          |         |        |
| 310  | 12.25 | 34.90 | 3.6    | -4.8   | 27.85   | 26.47    | 1.107   | 2.75   |      |      |       |        |        |         |          |         |        |
| 315  | 11.89 | 34.91 | 0.0    | -3.6   | 27.95   | 26.55    | 1.115   | 2.60   |      |      |       |        |        |         |          |         |        |
| 320  | 11.84 | 34.87 | -1.2   | -3.6   | 27.96   | 26.53    | 1.122   | 2.50   |      |      |       |        |        |         |          |         |        |
| 325  | 11.78 | 34.87 | -1.2   | -3.6   | 27.98   | 26.53    | 1.130   | 2.49   |      |      |       |        |        |         |          |         |        |
| 330  | 11.77 | 34.85 | -1.2   | -3.6   | 28.00   | 26.53    | 1.138   | 2.48   |      |      |       |        |        |         |          |         |        |
| 335  | 11.76 | 34.85 | -1.2   | -1.2   | 28.02   | 26.53    | 1.146   | 2.46   |      |      |       |        |        |         |          |         |        |
| 340  | 11.72 | 34.85 | -1.2   | -1.2   | 28.05   | 26.53    | 1.154   | 2.44   |      |      |       |        |        |         |          |         |        |
| 345  | 11.64 | 34.85 | 0.0    | -1.2   | 28.08   | 26.55    | 1.162   | 2.42   |      |      |       |        |        |         |          |         |        |
| 350  | 11.46 | 34.84 | 1.2    | -2.4   | 28.13   | 26.57    | 1.170   | 2.39   |      |      |       |        |        |         |          |         |        |
| 355  | 11.38 | 34.83 | 0.0    | -1.2   | 28.16   | 26.58    | 1.177   | 2.30   |      |      |       |        |        |         |          |         |        |
| 360  | 11.34 | 34.82 | 1.2    | -2.4   | 28.19   | 26.59    | 1.185   | 2.26   |      |      |       |        |        |         |          |         |        |
| 365  | 11.28 | 34.82 | 2.4    | -2.4   | 28.22   | 26.59    | 1.193   | 2.25   |      |      |       |        |        |         |          |         |        |
| 370  | 11.22 | 34.81 | 2.4    | -2.4   | 28.25   | 26.60    | 1.200   | 2.25   |      |      |       |        |        |         |          |         |        |
| 375  | 11.17 | 34.81 | 2.4    | -2.4   | 28.28   | 26.60    | 1.208   | 2.25   |      |      |       |        |        |         |          |         |        |
| 380  | 11.12 | 34.80 | 2.4    | -3.6   | 28.31   | 26.61    | 1.216   | 2.23   |      |      |       |        |        |         |          |         |        |
| 385  | 11.07 | 34.80 | 2.4    | -3.6   | 28.33   | 26.61    | 1.223   | 2.24   |      |      |       |        |        |         |          |         |        |
| 390  | 10.95 | 34.79 | 1.2    | -2.4   | 28.38   | 26.63    | 1.231   | 2.26   |      |      |       |        |        |         |          |         |        |
| 395  | 10.60 | 34.78 | 1.2    | -2.4   | 28.45   | 26.68    | 1.238   | 2.27   |      |      |       |        |        |         |          |         |        |
| 400  | 10.21 | 34.77 | 0.0    | -1.2   | 28.54   | 26.74    | 1.245   | 2.29   |      |      |       |        |        |         |          |         |        |
| 405  | 10.02 | 34.76 | 1.2    | -2.4   | 28.58   | 26.77    | 1.252   | 2.32   |      |      |       |        |        |         |          |         |        |
| 410  | 9.96  | 34.73 | -1.2   | 0.0    | 28.60   | 26.76    | 1.259   | 2.34   |      |      |       |        |        |         |          |         |        |
| 415  | 9.91  | 34.73 | -1.2   | 0.0    | 28.62   | 26.76    | 1.266   | 2.33   |      |      |       |        |        |         |          |         |        |
| 420  | 9.63  | 34.72 | -2.4   | 0.0    | 28.69   | 26.80    | 1.272   | 2.35   |      |      |       |        |        |         |          |         |        |
| 425  | 9.39  | 34.70 | -3.6   | 0.0    | 28.74   | 26.83    | 1.279   | 2.36   |      |      |       |        |        |         |          |         |        |
| 430  | 9.16  | 34.69 | -3.6   | 0.0    | 28.80   | 26.86    | 1.285   | 2.36   |      |      |       |        |        |         |          |         |        |
| 435  | 9.07  | 34.68 | -3.6   | 0.0    | 28.83   | 26.87    | 1.292   | 2.33   |      |      |       |        |        |         |          |         |        |
| 440  | 9.04  | 34.67 | -2.4   | 0.0    | 28.85   | 26.86    | 1.298   | 2.33   |      |      |       |        |        |         |          |         |        |
| 445  | 8.98  | 34.67 | -3.6   | 0.0    | 28.88   | 26.87    | 1.304   | 2.36   |      |      |       |        |        |         |          |         |        |
| 450  | 8.85  | 34.67 | -1.2   | 0.0    | 28.92   | 26.89    | 1.311   | 2.37   |      |      |       |        |        |         |          |         |        |
| 455  | 8.84  | 34.65 | -2.4   | 0.0    | 28.93   | 26.88    | 1.317   | 2.35   |      |      |       |        |        |         |          |         |        |
| 460  | 8.77  | 34.65 | -1.2   | 1.2    | 28.97   | 26.89    | 1.323   | 2.39   |      |      |       |        |        |         |          |         |        |
| 465  | 8.67  | 34.65 | 0.0    | 1.2    | 29.01   | 26.91    | 1.329   | 2.47   |      |      |       |        |        |         |          |         |        |
| 470  | 8.65  | 34.64 | 0.0    | 1.2    | 29.02   | 26.90    | 1.335   | 2.47   |      |      |       |        |        |         |          |         |        |
| 475  | 8.65  | 34.64 | 0.0    | 1.2    | 29.04   | 26.90    | 1.342   | 2.47   |      |      |       |        |        |         |          |         |        |

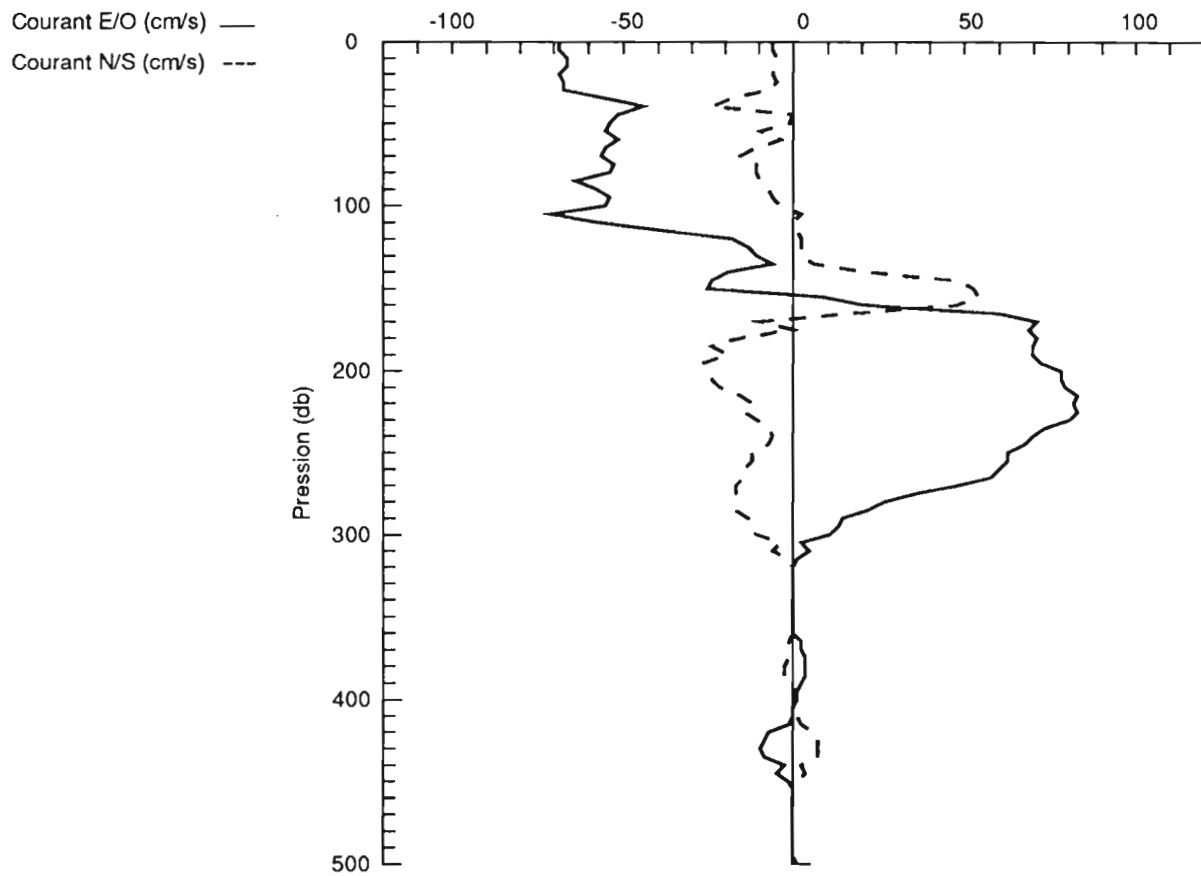
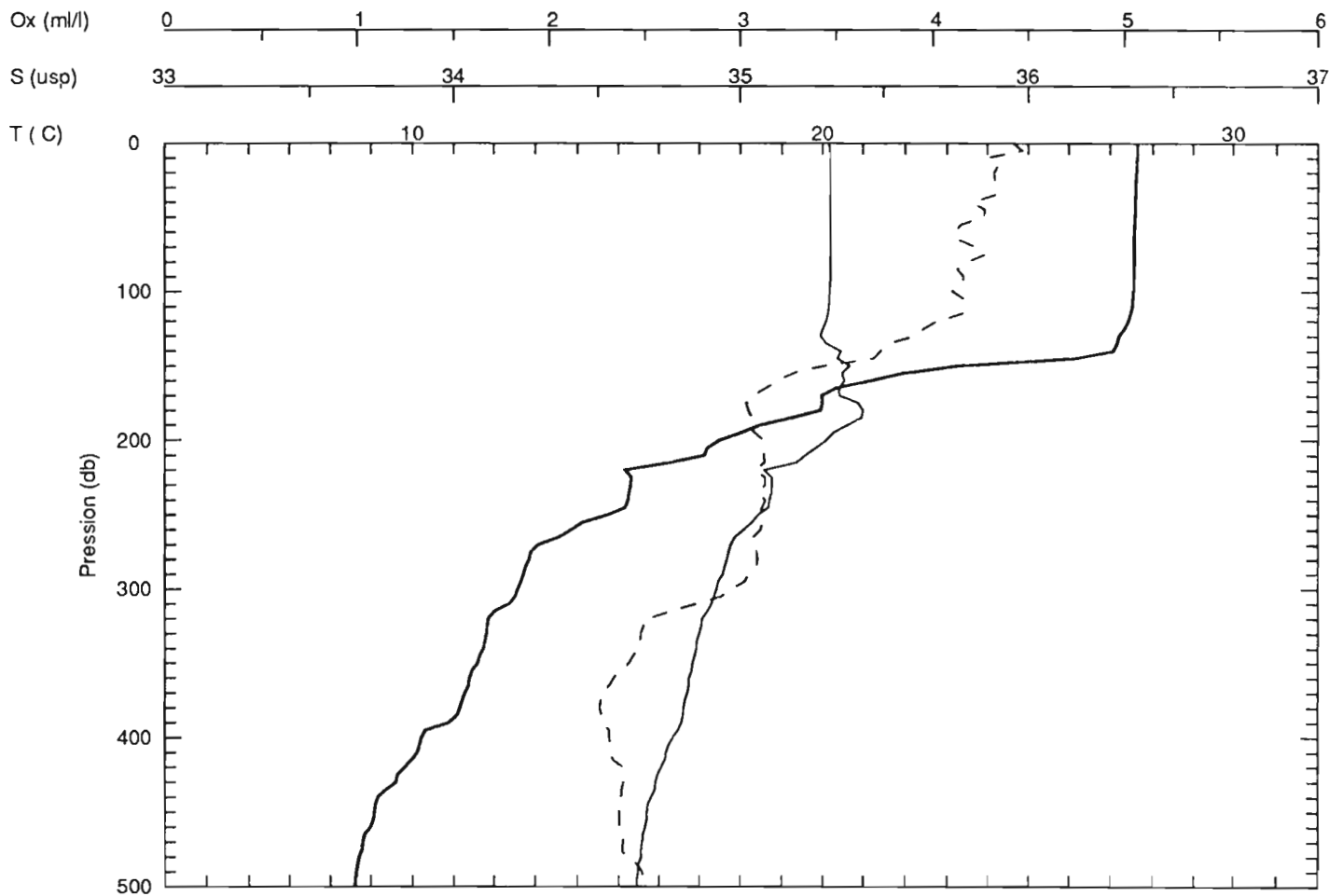


SURTROPAC11 STATION No : 43  
DATE : 26/ 1/89 HEURE : 0h25 LONGITUDE : 165.00 LATITUDE : 0.00



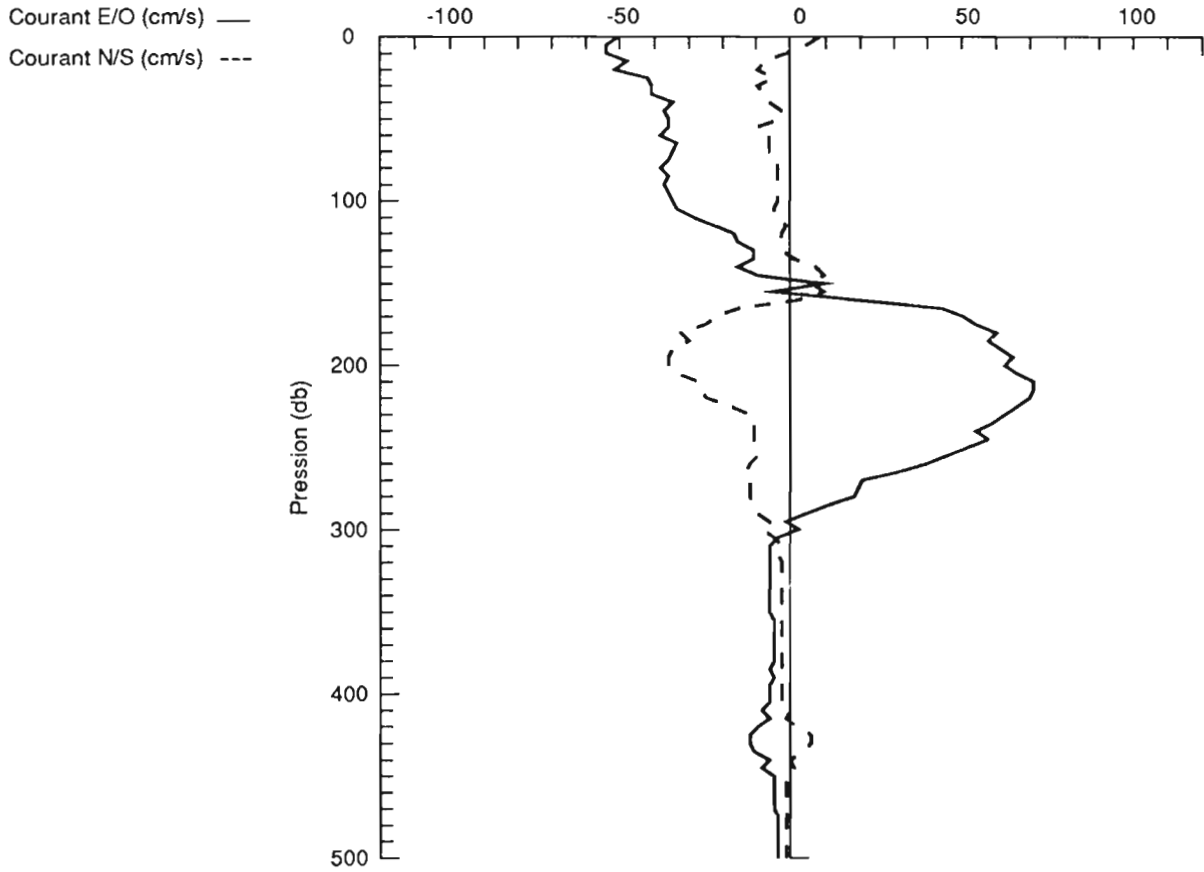
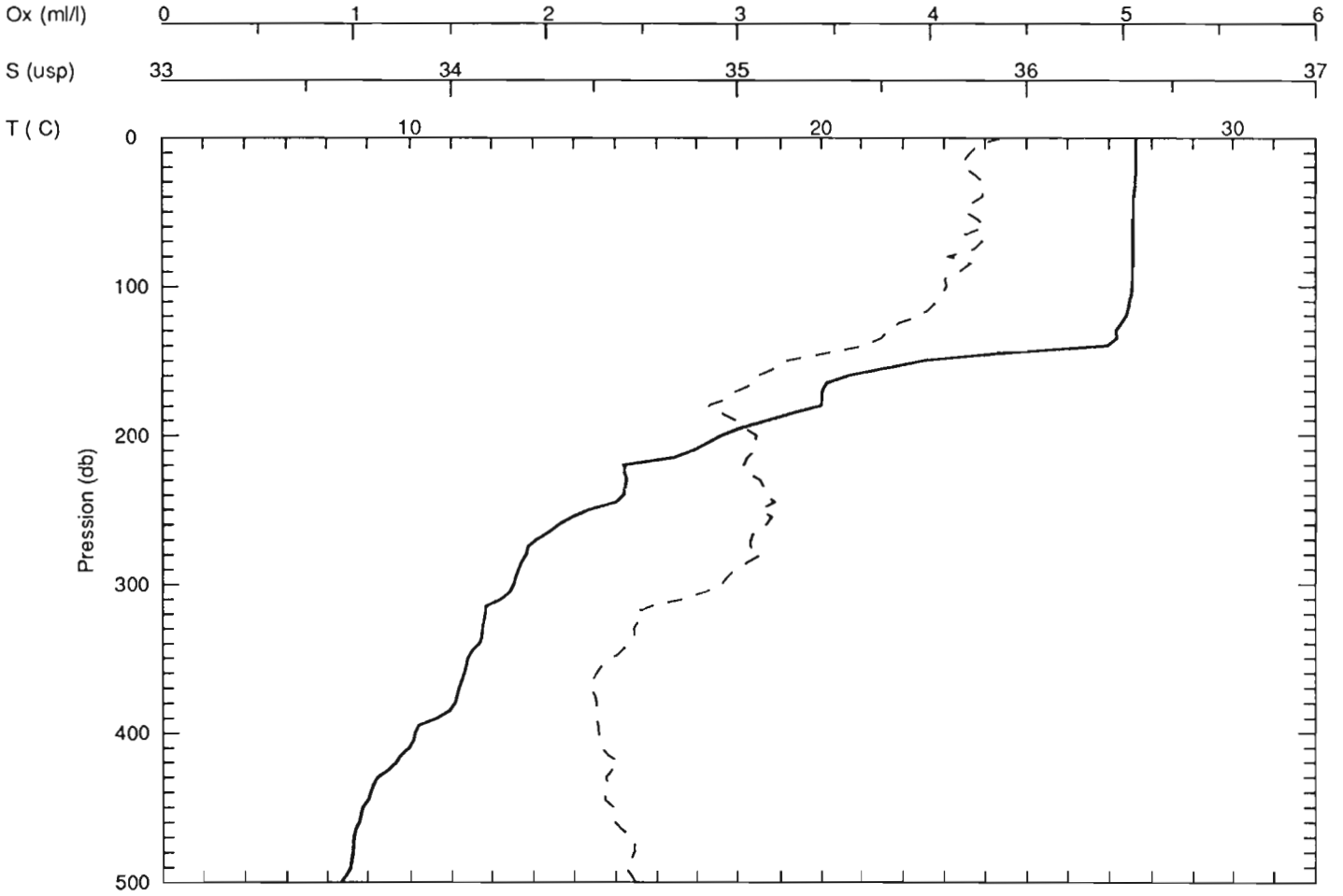


SURTROPAC11 STATION No : 44  
DATE : 26/ 1/89 HEURE : 3h00 LONGITUDE : 165.00 LATITUDE : 0.00





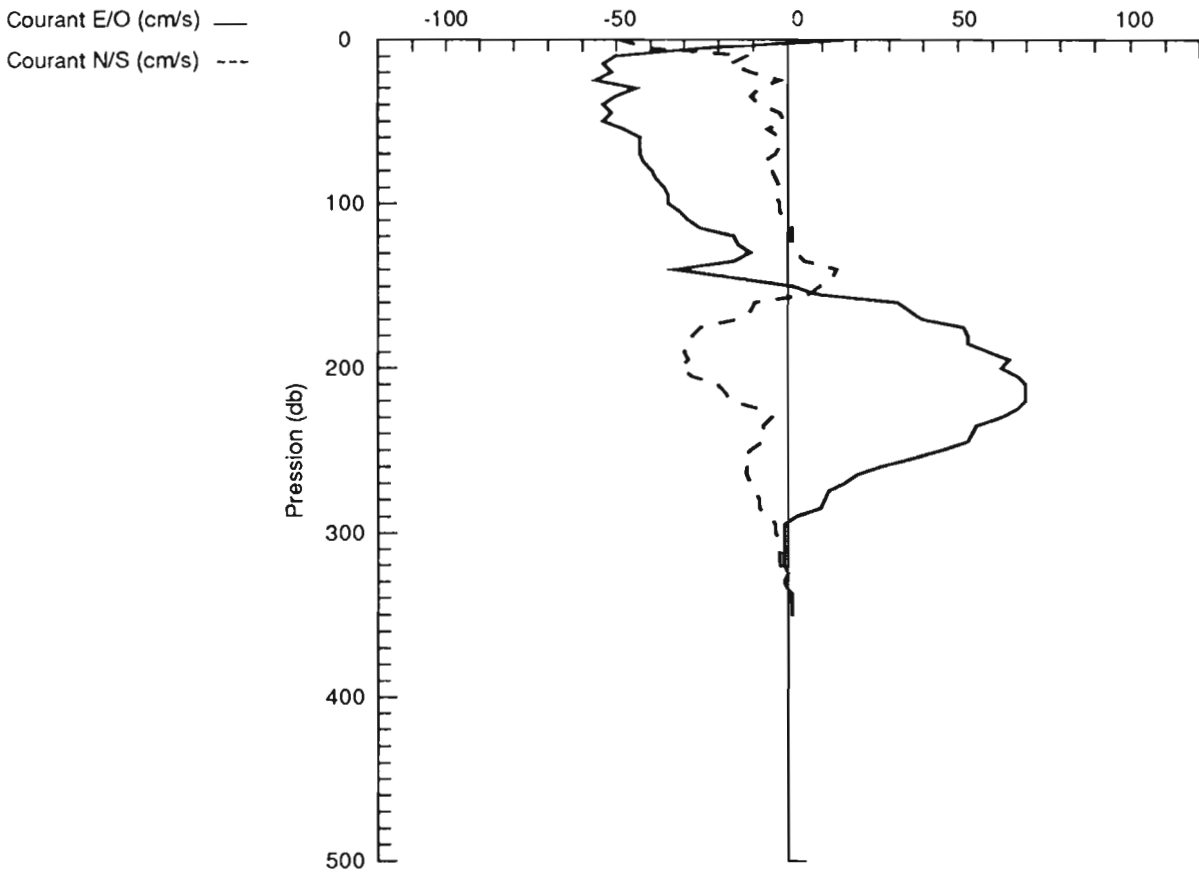
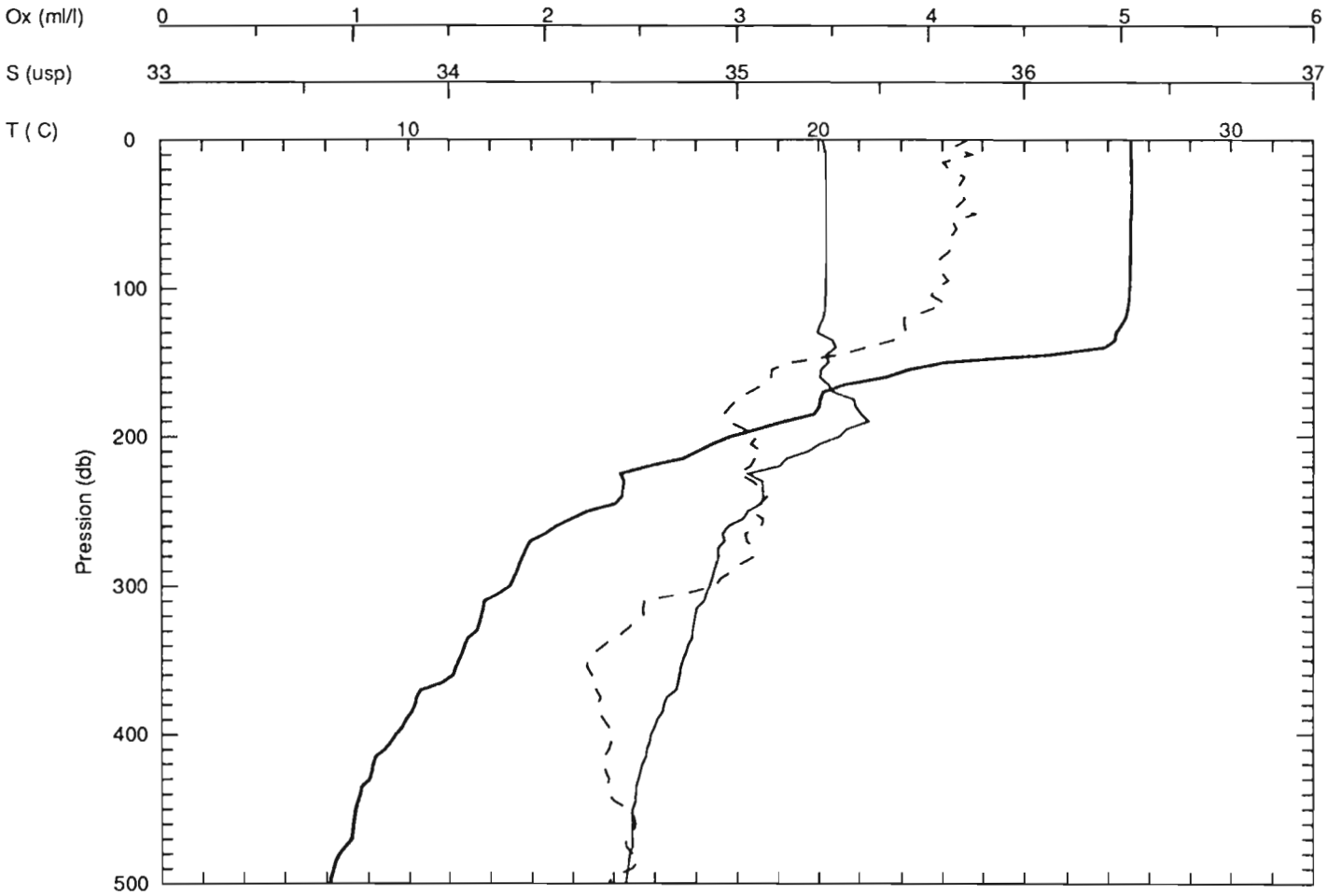
SURTROPAC11 STATION No : 45  
DATE : 26/ 1/89 HEURE : 6h00 LONGITUDE : 165.00 LATITUDE : 0.00



STATION : 46      CAMPAGNE : #urtropacl1  
 DATE : 26/ 1/89    HEURE : 8h40      LONGITUDE : 165.00      LATITUDE : 0.00

| P    | T     | S     | U      | V      | Sigt    | Sigttheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigttheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|-----------|---------|--------|------|------|-------|--------|--------|---------|-----------|---------|--------|
| (db) | ( C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)   | (m.dyn) | (ml/l) | (db) | ( C) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)   | (m.dyn) | (ml/l) |
| 0    | 27.57 | 35.30 | 16.8   | -49.2  | 22.76   | 22.76     | 0.000   | 4.21   | 510  | 8.00 | 34.61 |        |        |         | 29.29     | 26.98   | 2.42   |
| 5    | 27.57 | 35.31 | -22.8  | -40.8  | 22.79   | 22.77     | 0.025   | 4.13   |      |      |       |        |        |         |           |         |        |
| 10   | 27.58 | 35.31 | -50.4  | -12.0  | 22.81   | 22.77     | 0.051   | 4.23   |      |      |       |        |        |         |           |         |        |
| 15   | 27.58 | 35.31 | -54.0  | -16.8  | 22.84   | 22.77     | 0.076   | 4.08   |      |      |       |        |        |         |           |         |        |
| 20   | 27.58 | 35.31 | -51.6  | -10.0  | 22.86   | 22.77     | 0.102   | 4.11   |      |      |       |        |        |         |           |         |        |
| 25   | 27.59 | 35.31 | -56.4  | -2.4   | 22.87   | 22.77     | 0.127   | 4.19   |      |      |       |        |        |         |           |         |        |
| 30   | 27.59 | 35.31 | -44.4  | -8.4   | 22.90   | 22.77     | 0.153   | 4.16   |      |      |       |        |        |         |           |         |        |
| 35   | 27.59 | 35.31 | -50.4  | -10.0  | 22.92   | 22.77     | 0.170   | 4.15   |      |      |       |        |        |         |           |         |        |
| 40   | 27.59 | 35.31 | -54.0  | -8.4   | 22.94   | 22.77     | 0.203   | 4.19   |      |      |       |        |        |         |           |         |        |
| 45   | 27.58 | 35.31 | -51.6  | -2.4   | 22.96   | 22.77     | 0.229   | 4.15   |      |      |       |        |        |         |           |         |        |
| 50   | 27.58 | 35.32 | -54.0  | -1.2   | 22.99   | 22.78     | 0.254   | 4.25   |      |      |       |        |        |         |           |         |        |
| 55   | 27.56 | 35.31 | -48.0  | -6.0   | 23.01   | 22.78     | 0.280   | 4.13   |      |      |       |        |        |         |           |         |        |
| 60   | 27.56 | 35.31 | -43.2  | -2.4   | 23.03   | 22.78     | 0.305   | 4.15   |      |      |       |        |        |         |           |         |        |
| 65   | 27.56 | 35.31 | -43.2  | -2.4   | 23.06   | 22.78     | 0.331   | 4.12   |      |      |       |        |        |         |           |         |        |
| 70   | 27.56 | 35.31 | -43.2  | -3.6   | 23.08   | 22.78     | 0.356   | 4.12   |      |      |       |        |        |         |           |         |        |
| 75   | 27.55 | 35.31 | -42.0  | -7.2   | 23.10   | 22.78     | 0.382   | 4.11   |      |      |       |        |        |         |           |         |        |
| 80   | 27.55 | 35.31 | -39.6  | -4.0   | 23.12   | 22.79     | 0.407   | 4.06   |      |      |       |        |        |         |           |         |        |
| 85   | 27.55 | 35.31 | -38.4  | -3.6   | 23.14   | 22.79     | 0.433   | 4.07   |      |      |       |        |        |         |           |         |        |
| 90   | 27.55 | 35.31 | -36.0  | -2.4   | 23.16   | 22.79     | 0.458   | 4.07   |      |      |       |        |        |         |           |         |        |
| 95   | 27.54 | 35.31 | -34.8  | -3.6   | 23.19   | 22.79     | 0.484   | 4.10   |      |      |       |        |        |         |           |         |        |
| 100  | 27.53 | 35.31 | -34.8  | -2.4   | 23.21   | 22.79     | 0.509   | 4.03   |      |      |       |        |        |         |           |         |        |
| 105  | 27.52 | 35.31 | -31.2  | -2.4   | 23.23   | 22.79     | 0.535   | 4.01   |      |      |       |        |        |         |           |         |        |
| 110  | 27.50 | 35.31 | -28.8  | -1.2   | 23.26   | 22.80     | 0.560   | 4.08   |      |      |       |        |        |         |           |         |        |
| 115  | 27.48 | 35.31 | -25.2  | 1.2    | 23.29   | 22.81     | 0.586   | 3.99   |      |      |       |        |        |         |           |         |        |
| 120  | 27.42 | 35.30 | -15.6  | 1.2    | 23.33   | 22.82     | 0.611   | 3.87   |      |      |       |        |        |         |           |         |        |
| 125  | 27.32 | 35.29 | -14.4  | 1.2    | 23.37   | 22.85     | 0.637   | 3.87   |      |      |       |        |        |         |           |         |        |
| 130  | 27.19 | 35.28 | -10.8  | 2.4    | 23.43   | 22.88     | 0.662   | 3.88   |      |      |       |        |        |         |           |         |        |
| 135  | 27.16 | 35.33 | -15.6  | 4.8    | 23.50   | 22.93     | 0.687   | 3.82   |      |      |       |        |        |         |           |         |        |
| 140  | 26.91 | 35.35 | -32.4  | 14.4   | 23.61   | 23.02     | 0.712   | 3.68   |      |      |       |        |        |         |           |         |        |
| 145  | 25.53 | 35.31 | -15.6  | 13.2   | 24.04   | 23.43     | 0.736   | 3.53   |      |      |       |        |        |         |           |         |        |
| 150  | 23.05 | 35.32 | 1.2    | 9.6    | 24.81   | 24.17     | 0.756   | 3.28   |      |      |       |        |        |         |           |         |        |
| 155  | 22.16 | 35.29 | 8.4    | 6.0    | 25.07   | 24.41     | 0.774   | 3.18   |      |      |       |        |        |         |           |         |        |
| 160  | 21.62 | 35.29 | 32.4   | -9.6   | 25.24   | 24.55     | 0.792   | 3.18   |      |      |       |        |        |         |           |         |        |
| 165  | 20.63 | 35.32 | 36.0   | -10.8  | 25.56   | 24.85     | 0.808   | 3.13   |      |      |       |        |        |         |           |         |        |
| 170  | 20.10 | 35.34 | 39.6   | -14.4  | 25.73   | 25.00     | 0.824   | 3.06   |      |      |       |        |        |         |           |         |        |
| 175  | 20.03 | 35.41 | 51.6   | -25.2  | 25.83   | 25.07     | 0.839   | 3.00   |      |      |       |        |        |         |           |         |        |
| 180  | 20.01 | 35.42 | 52.8   | -27.6  | 25.86   | 25.09     | 0.853   | 2.96   |      |      |       |        |        |         |           |         |        |
| 185  | 19.88 | 35.44 | 52.8   | -27.6  | 25.93   | 25.13     | 0.868   | 2.93   |      |      |       |        |        |         |           |         |        |
| 190  | 19.15 | 35.46 | 58.8   | -30.0  | 26.17   | 25.35     | 0.882   | 2.95   |      |      |       |        |        |         |           |         |        |
| 195  | 18.50 | 35.38 | 64.8   | -28.8  | 26.30   | 25.45     | 0.895   | 3.03   |      |      |       |        |        |         |           |         |        |
| 200  | 17.82 | 35.36 | 62.4   | -31.2  | 26.47   | 25.60     | 0.908   | 3.10   |      |      |       |        |        |         |           |         |        |
| 205  | 17.39 | 35.29 | 67.2   | -27.6  | 26.54   | 25.65     | 0.920   | 3.07   |      |      |       |        |        |         |           |         |        |
| 210  | 17.04 | 35.25 | 69.6   | -20.4  | 26.62   | 25.71     | 0.932   | 3.12   |      |      |       |        |        |         |           |         |        |
| 215  | 16.69 | 35.17 | 69.6   | -18.0  | 26.67   | 25.73     | 0.943   | 3.09   |      |      |       |        |        |         |           |         |        |
| 220  | 15.87 | 35.15 | 69.6   | -16.8  | 26.86   | 25.90     | 0.955   | 3.07   |      |      |       |        |        |         |           |         |        |
| 225  | 15.18 | 35.03 | 67.2   | -8.4   | 26.96   | 25.97     | 0.965   | 3.00   |      |      |       |        |        |         |           |         |        |
| 230  | 15.26 | 35.09 | 62.4   | -4.8   | 27.00   | 25.99     | 0.976   | 3.08   |      |      |       |        |        |         |           |         |        |
| 235  | 15.23 | 35.09 | 55.2   | -7.2   | 27.03   | 26.00     | 0.986   | 3.13   |      |      |       |        |        |         |           |         |        |
| 240  | 15.21 | 35.09 | 54.0   | -7.2   | 27.06   | 26.01     | 0.996   | 3.15   |      |      |       |        |        |         |           |         |        |
| 245  | 15.04 | 35.08 | 52.8   | -7.2   | 27.11   | 26.04     | 1.007   | 3.12   |      |      |       |        |        |         |           |         |        |
| 250  | 14.36 | 35.04 | 45.6   | -10.8  | 27.25   | 26.15     | 1.017   | 3.07   |      |      |       |        |        |         |           |         |        |
| 255  | 13.97 | 35.02 | 37.2   | -13.2  | 27.34   | 26.22     | 1.026   | 3.13   |      |      |       |        |        |         |           |         |        |
| 260  | 13.60 | 34.97 | 27.6   | -12.0  | 27.40   | 26.25     | 1.035   | 3.13   |      |      |       |        |        |         |           |         |        |
| 265  | 13.33 | 34.95 | 20.4   | -12.0  | 27.47   | 26.29     | 1.044   | 3.04   |      |      |       |        |        |         |           |         |        |
| 270  | 12.96 | 34.96 | 16.8   | -10.8  | 27.57   | 26.37     | 1.053   | 3.05   |      |      |       |        |        |         |           |         |        |
| 275  | 12.87 | 34.93 | 12.0   | -9.6   | 27.59   | 26.37     | 1.062   | 3.09   |      |      |       |        |        |         |           |         |        |
| 280  | 12.79 | 34.93 | 10.8   | -8.4   | 27.63   | 26.39     | 1.070   | 3.09   |      |      |       |        |        |         |           |         |        |
| 285  | 12.71 | 34.93 | 9.6    | -8.4   | 27.67   | 26.40     | 1.079   | 3.02   |      |      |       |        |        |         |           |         |        |
| 290  | 12.64 | 34.92 | 2.4    | -4.8   | 27.70   | 26.41     | 1.087   | 2.97   |      |      |       |        |        |         |           |         |        |
| 295  | 12.56 | 34.91 | -1.2   | -3.6   | 27.73   | 26.42     | 1.096   | 2.91   |      |      |       |        |        |         |           |         |        |
| 300  | 12.47 | 34.90 | -1.2   | -3.6   | 27.76   | 26.43     | 1.104   | 2.88   |      |      |       |        |        |         |           |         |        |
| 305  | 12.19 | 34.89 | -1.2   | -2.4   | 27.83   | 26.48     | 1.112   | 2.73   |      |      |       |        |        |         |           |         |        |
| 310  | 11.85 | 34.88 | -1.2   | -2.4   | 27.92   | 26.54     | 1.120   | 2.52   |      |      |       |        |        |         |           |         |        |
| 315  | 11.82 | 34.86 | -1.2   | -2.4   | 27.93   | 26.52     | 1.128   | 2.51   |      |      |       |        |        |         |           |         |        |
| 320  | 11.78 | 34.85 | -1.2   | -2.4   | 27.95   | 26.53     | 1.136   | 2.52   |      |      |       |        |        |         |           |         |        |
| 325  | 11.72 | 34.85 | 0.0    | -1.2   | 27.98   | 26.53     | 1.144   | 2.47   |      |      |       |        |        |         |           |         |        |
| 330  | 11.67 | 34.85 | -1.2   | -1.2   | 28.01   | 26.54     | 1.152   | 2.42   |      |      |       |        |        |         |           |         |        |
| 335  | 11.45 | 34.84 | 0.0    | 0.0    | 28.07   | 26.58     | 1.160   | 2.36   |      |      |       |        |        |         |           |         |        |
| 340  | 11.37 | 34.83 | 1.2    | 2.4    | 28.10   | 26.58     | 1.167   | 2.31   |      |      |       |        |        |         |           |         |        |
| 345  | 11.31 | 34.82 | 1.2    | 2.4    | 28.13   | 26.59     | 1.175   | 2.26   |      |      |       |        |        |         |           |         |        |
| 350  | 11.23 | 34.81 | 1.2    | 2.4    | 28.16   | 26.60     | 1.183   | 2.22   |      |      |       |        |        |         |           |         |        |
| 355  | 11.15 | 34.81 |        |        | 28.19   | 26.61     | 1.190   | 2.22   |      |      |       |        |        |         |           |         |        |
| 360  | 11.09 | 34.80 |        |        | 28.22   | 26.61     | 1.198   | 2.24   |      |      |       |        |        |         |           |         |        |
| 365  | 10.84 | 34.80 |        |        | 28.29   | 26.65     | 1.205   | 2.27   |      |      |       |        |        |         |           |         |        |
| 370  | 10.29 | 34.79 |        |        | 28.40   | 26.75     | 1.212   | 2.27   |      |      |       |        |        |         |           |         |        |
| 375  | 10.19 | 34.76 |        |        | 28.42   | 26.74     | 1.219   | 2.29   |      |      |       |        |        |         |           |         |        |
| 380  | 10.15 | 34.75 |        |        | 28.44   | 26.74     | 1.226   | 2.27   |      |      |       |        |        |         |           |         |        |
| 385  | 10.06 | 34.74 |        |        | 28.48   | 26.75     | 1.233   | 2.28   |      |      |       |        |        |         |           |         |        |
| 390  | 9.92  | 34.72 |        |        | 28.51   | 26.76     | 1.240   | 2.30   |      |      |       |        |        |         |           |         |        |
| 395  | 9.83  | 34.72 |        |        | 28.54   | 26.77     | 1.247   | 2.33   |      |      |       |        |        |         |           |         |        |
| 400  | 9.67  | 34.70 |        |        | 28.58   | 26.78     | 1.253   | 2.36   |      |      |       |        |        |         |           |         |        |
| 405  | 9.55  | 34.70 |        |        | 28.62   | 26.80     | 1.260   | 2.34   |      |      |       |        |        |         |           |         |        |
| 410  | 9.40  | 34.69 |        |        | 28.66   | 26.82     | 1.267   | 2.33   |      |      |       |        |        |         |           |         |        |
| 415  | 9.17  | 34.69 |        |        | 28.72   | 26.85     | 1.273   | 2.31   |      |      |       |        |        |         |           |         |        |
| 420  | 9.11  | 34.67 |        |        | 28.74   | 26.85     | 1.280   | 2.30   |      |      |       |        |        |         |           |         |        |
| 425  | 9.08  | 34.67 |        |        | 28.77   | 26.85     | 1.286   | 2.32   |      |      |       |        |        |         |           |         |        |
| 430  | 9.03  | 34.66 |        |        | 28.79   | 26.85     | 1.292   | 2.33   |      |      |       |        |        |         |           |         |        |
| 435  | 8.83  | 34.65 |        |        | 28.84   | 26.88     | 1.299   | 2.33   |      |      |       |        |        |         |           |         |        |
| 440  | 8.80  | 34.65 |        |        | 28.87   | 26.88     | 1.305   | 2.33   |      |      |       |        |        |         |           |         |        |
| 445  | 8.75  | 34.65 |        |        | 28.90   | 26.89     | 1.311   | 2.36   |      |      |       |        |        |         |           |         |        |
| 450  | 8.69  | 34.64 |        |        | 28.92   | 26.89     | 1.317   | 2.44   |      |      |       |        |        |         |           |         |        |
| 455  | 8.66  | 34.63 |        |        | 28.95   | 26.89     | 1.323   | 2.46   |      |      |       |        |        |         |           |         |        |
| 460  | 8.64  | 34.64 |        |        | 28.98   | 26.90     | 1.330   | 2.47   |      |      |       |        |        |         |           |         |        |
| 465  | 8.62  | 34.63 |        |        | 29.00   | 26.90     | 1.336   | 2.46   |      |      |       |        |        |         |           |         |        |
| 470  | 8.59  | 34.64 |        |        |         |           |         |        |      |      |       |        |        |         |           |         |        |

SURTROPAC11 STATION No : 46  
DATE : 26/ 1/89 HEURE : 8h40 LONGITUDE : 165.00 LATITUDE : 0.00

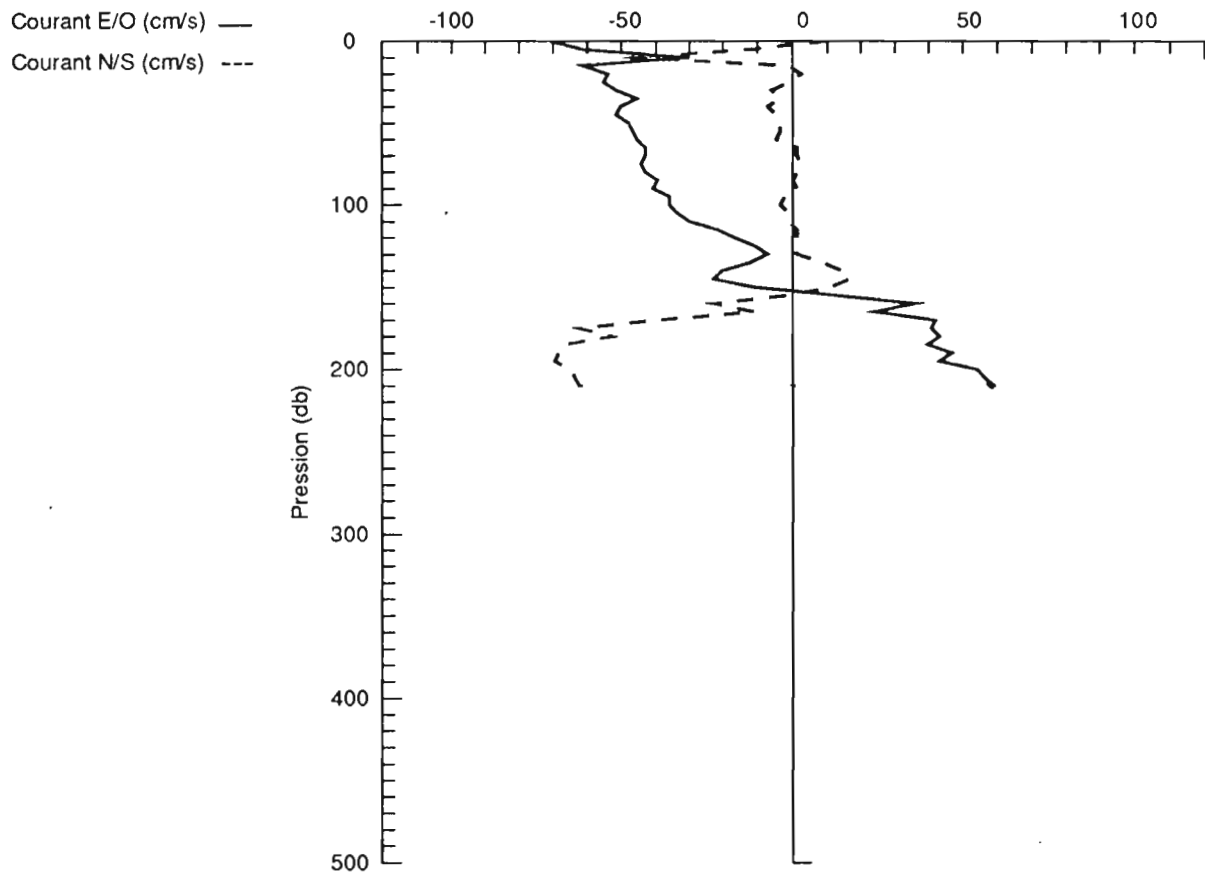
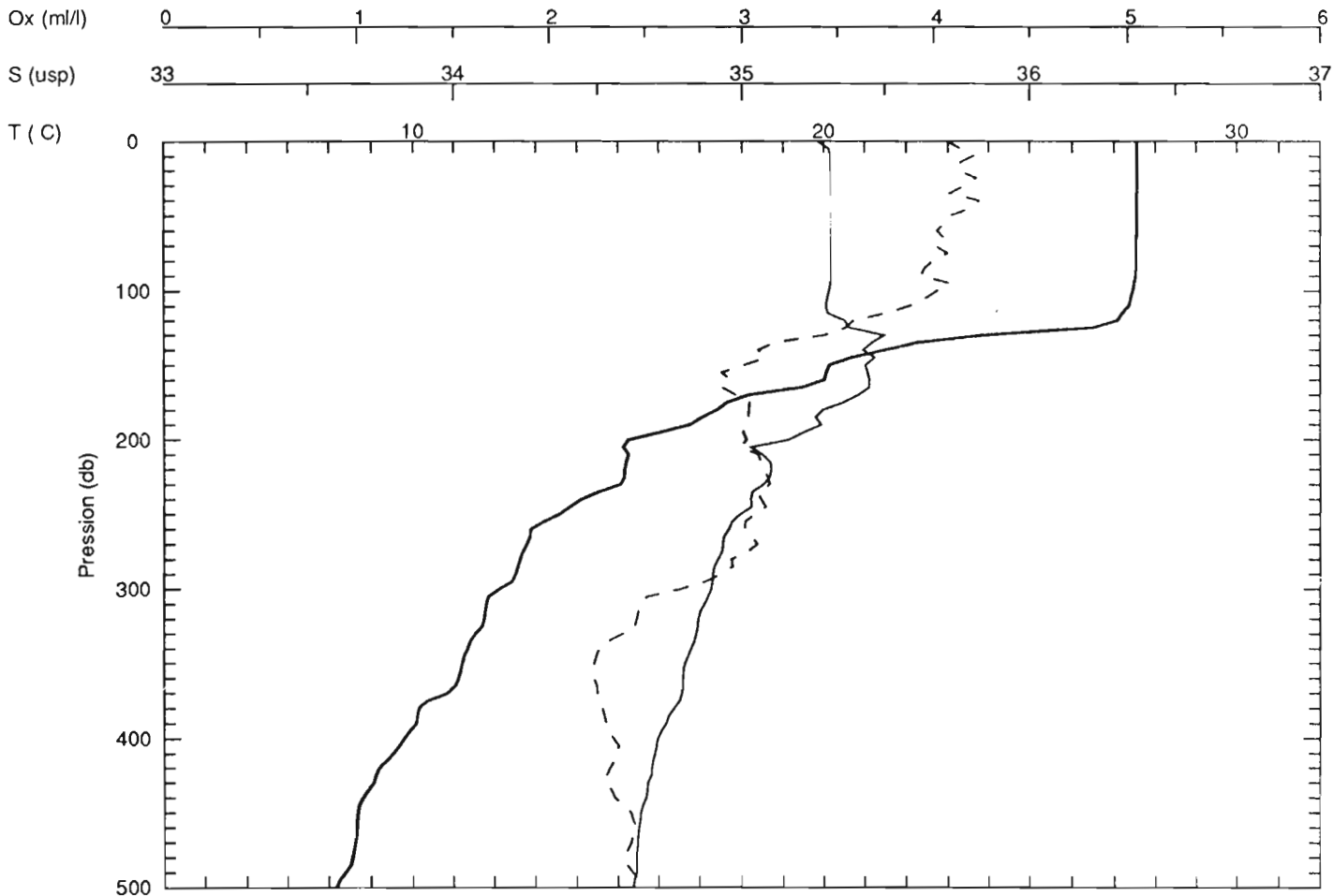


STATION : 47      CAMPAGNE : aurtropac11  
 DATE : 26/ 1/89    HEURE : 11h30    LONGITUDE : 165.00    LATITUDE : 0.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usp) | (cm/a) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usp) | (cm/a) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 27.54 | 35.26 | -70.8  | 9.6    | 22.74   | 22.74    | 0.000   | 4.06   | 510  | 8.12 | 34.63 |        |        | 29.28   | 26.97    |         | 2.36   |
| 5    | 27.55 | 35.30 | -61.2  | -12.0  | 22.79   | 22.77    | 0.025   | 4.14   |      |      |       |        |        |         |          |         |        |
| 10   | 27.55 | 35.31 | -30.0  | -46.8  | 22.82   | 22.78    | 0.051   | 4.20   |      |      |       |        |        |         |          |         |        |
| 15   | 27.55 | 35.31 | -61.2  | -1.2   | 22.84   | 22.78    | 0.076   | 4.13   |      |      |       |        |        |         |          |         |        |
| 20   | 27.55 | 35.31 | -54.0  | 2.4    | 22.86   | 22.78    | 0.101   | 4.14   |      |      |       |        |        |         |          |         |        |
| 25   | 27.55 | 35.31 | -55.2  | -1.2   | 22.89   | 22.78    | 0.127   | 4.22   |      |      |       |        |        |         |          |         |        |
| 30   | 27.55 | 35.31 | -51.6  | -6.0   | 22.91   | 22.78    | 0.152   | 4.16   |      |      |       |        |        |         |          |         |        |
| 35   | 27.55 | 35.31 | -45.6  | -3.6   | 22.93   | 22.78    | 0.178   | 4.08   |      |      |       |        |        |         |          |         |        |
| 40   | 27.55 | 35.31 | -50.4  | -7.2   | 22.95   | 22.78    | 0.203   | 4.23   |      |      |       |        |        |         |          |         |        |
| 45   | 27.55 | 35.31 | -51.6  | -4.8   | 22.97   | 22.78    | 0.228   | 4.19   |      |      |       |        |        |         |          |         |        |
| 50   | 27.55 | 35.31 | -48.0  | -3.6   | 22.99   | 22.78    | 0.254   | 4.08   |      |      |       |        |        |         |          |         |        |
| 55   | 27.55 | 35.31 | -46.8  | -3.6   | 23.02   | 22.78    | 0.279   | 4.05   |      |      |       |        |        |         |          |         |        |
| 60   | 27.55 | 35.31 | -45.6  | -4.8   | 23.04   | 22.78    | 0.305   | 4.02   |      |      |       |        |        |         |          |         |        |
| 65   | 27.54 | 35.31 | -43.2  | 1.2    | 23.06   | 22.79    | 0.330   | 4.05   |      |      |       |        |        |         |          |         |        |
| 70   | 27.54 | 35.31 | -43.2  | 1.2    | 23.08   | 22.79    | 0.356   | 4.01   |      |      |       |        |        |         |          |         |        |
| 75   | 27.54 | 35.31 | -44.4  | 2.4    | 23.10   | 22.79    | 0.381   | 4.07   |      |      |       |        |        |         |          |         |        |
| 80   | 27.54 | 35.31 | -43.2  | 1.2    | 23.13   | 22.79    | 0.407   | 3.99   |      |      |       |        |        |         |          |         |        |
| 85   | 27.53 | 35.31 | -39.6  | 0.0    | 23.15   | 22.79    | 0.432   | 3.95   |      |      |       |        |        |         |          |         |        |
| 90   | 27.52 | 35.31 | -40.8  | 1.2    | 23.17   | 22.79    | 0.458   | 3.93   |      |      |       |        |        |         |          |         |        |
| 95   | 27.49 | 35.31 | -36.0  | -2.4   | 23.20   | 22.80    | 0.483   | 4.08   |      |      |       |        |        |         |          |         |        |
| 100  | 27.46 | 35.31 | -36.0  | -3.6   | 23.23   | 22.81    | 0.508   | 4.02   |      |      |       |        |        |         |          |         |        |
| 105  | 27.40 | 35.30 | -33.6  | -1.2   | 23.27   | 22.82    | 0.534   | 3.96   |      |      |       |        |        |         |          |         |        |
| 110  | 27.36 | 35.29 | -30.0  | -1.2   | 23.30   | 22.83    | 0.559   | 3.88   |      |      |       |        |        |         |          |         |        |
| 115  | 27.20 | 35.30 | -21.6  | 1.2    | 23.38   | 22.89    | 0.585   | 3.76   |      |      |       |        |        |         |          |         |        |
| 120  | 27.08 | 35.36 | -16.8  | 1.2    | 23.48   | 22.97    | 0.609   | 3.59   |      |      |       |        |        |         |          |         |        |
| 125  | 26.48 | 35.38 | -10.8  | 0.0    | 23.70   | 23.18    | 0.634   | 3.54   |      |      |       |        |        |         |          |         |        |
| 130  | 23.84 | 35.50 | -7.2   | 1.2    | 24.63   | 24.07    | 0.656   | 3.43   |      |      |       |        |        |         |          |         |        |
| 135  | 22.26 | 35.45 | -12.0  | 8.4    | 25.08   | 24.50    | 0.674   | 3.17   |      |      |       |        |        |         |          |         |        |
| 140  | 21.49 | 35.42 | -20.4  | 14.4   | 25.29   | 24.69    | 0.691   | 3.08   |      |      |       |        |        |         |          |         |        |
| 145  | 20.68 | 35.46 | -22.8  | 16.8   | 25.57   | 24.94    | 0.707   | 3.12   |      |      |       |        |        |         |          |         |        |
| 150  | 20.13 | 35.43 | -10.8  | 10.8   | 25.71   | 25.06    | 0.721   | 3.01   |      |      |       |        |        |         |          |         |        |
| 155  | 20.06 | 35.44 | 12.0   | -1.2   | 25.76   | 25.09    | 0.736   | 2.90   |      |      |       |        |        |         |          |         |        |
| 160  | 20.01 | 35.44 | 36.0   | -22.8  | 25.80   | 25.11    | 0.751   | 2.94   |      |      |       |        |        |         |          |         |        |
| 165  | 19.46 | 35.44 | 24.0   | -10.8  | 25.96   | 25.25    | 0.765   | 2.90   |      |      |       |        |        |         |          |         |        |
| 170  | 18.17 | 35.41 | 42.0   | -39.6  | 26.29   | 25.55    | 0.778   | 2.97   |      |      |       |        |        |         |          |         |        |
| 175  | 17.64 | 35.35 | 40.8   | -62.4  | 26.40   | 25.64    | 0.790   | 3.04   |      |      |       |        |        |         |          |         |        |
| 180  | 17.41 | 35.28 | 43.2   | -52.8  | 26.43   | 25.64    | 0.802   | 3.03   |      |      |       |        |        |         |          |         |        |
| 185  | 17.06 | 35.26 | 39.6   | -67.2  | 26.51   | 25.71    | 0.814   | 3.04   |      |      |       |        |        |         |          |         |        |
| 190  | 16.76 | 35.28 | 46.8   | -68.4  | 26.62   | 25.79    | 0.826   | 3.03   |      |      |       |        |        |         |          |         |        |
| 195  | 16.05 | 35.22 | 43.2   | -69.6  | 26.76   | 25.91    | 0.837   | 3.01   |      |      |       |        |        |         |          |         |        |
| 200  | 15.25 | 35.16 | 54.0   | -64.8  | 26.93   | 26.05    | 0.847   | 3.02   |      |      |       |        |        |         |          |         |        |
| 205  | 15.13 | 35.03 | 56.4   | -63.6  | 26.88   | 25.97    | 0.858   | 2.99   |      |      |       |        |        |         |          |         |        |
| 210  | 15.25 | 35.07 | 58.8   | -62.4  | 26.90   | 25.98    | 0.868   | 3.08   |      |      |       |        |        |         |          |         |        |
| 215  | 15.20 | 35.10 |        |        | 26.96   | 26.01    | 0.878   | 3.10   |      |      |       |        |        |         |          |         |        |
| 220  | 15.16 | 35.10 |        |        | 26.99   | 26.02    | 0.889   | 3.11   |      |      |       |        |        |         |          |         |        |
| 225  | 15.16 | 35.10 |        |        | 27.01   | 26.02    | 0.899   | 3.13   |      |      |       |        |        |         |          |         |        |
| 230  | 15.06 | 35.07 |        |        | 27.04   | 26.03    | 0.909   | 3.15   |      |      |       |        |        |         |          |         |        |
| 235  | 14.53 | 35.03 |        |        | 27.14   | 26.11    | 0.919   | 3.08   |      |      |       |        |        |         |          |         |        |
| 240  | 14.10 | 35.03 |        |        | 27.26   | 26.20    | 0.929   | 3.10   |      |      |       |        |        |         |          |         |        |
| 245  | 13.83 | 35.03 |        |        | 27.34   | 26.26    | 0.938   | 3.12   |      |      |       |        |        |         |          |         |        |
| 250  | 13.58 | 34.99 |        |        | 27.38   | 26.28    | 0.947   | 3.06   |      |      |       |        |        |         |          |         |        |
| 255  | 13.19 | 34.97 |        |        | 27.46   | 26.33    | 0.956   | 3.02   |      |      |       |        |        |         |          |         |        |
| 260  | 12.88 | 34.96 |        |        | 27.54   | 26.39    | 0.965   | 3.02   |      |      |       |        |        |         |          |         |        |
| 265  | 12.87 | 34.94 |        |        | 27.55   | 26.38    | 0.973   | 3.05   |      |      |       |        |        |         |          |         |        |
| 270  | 12.79 | 34.94 |        |        | 27.59   | 26.39    | 0.982   | 3.08   |      |      |       |        |        |         |          |         |        |
| 275  | 12.70 | 34.93 |        |        | 27.63   | 26.41    | 0.990   | 3.03   |      |      |       |        |        |         |          |         |        |
| 280  | 12.62 | 34.92 |        |        | 27.66   | 26.41    | 0.999   | 2.95   |      |      |       |        |        |         |          |         |        |
| 285  | 12.57 | 34.91 |        |        | 27.68   | 26.41    | 1.007   | 2.95   |      |      |       |        |        |         |          |         |        |
| 290  | 12.51 | 34.90 |        |        | 27.71   | 26.42    | 1.015   | 2.89   |      |      |       |        |        |         |          |         |        |
| 295  | 12.42 | 34.90 |        |        | 27.75   | 26.44    | 1.024   | 2.81   |      |      |       |        |        |         |          |         |        |
| 300  | 12.11 | 34.90 |        |        | 27.83   | 26.50    | 1.032   | 2.69   |      |      |       |        |        |         |          |         |        |
| 305  | 11.84 | 34.88 |        |        | 27.90   | 26.54    | 1.040   | 2.51   |      |      |       |        |        |         |          |         |        |
| 310  | 11.80 | 34.87 |        |        | 27.92   | 26.54    | 1.048   | 2.49   |      |      |       |        |        |         |          |         |        |
| 315  | 11.77 | 34.86 |        |        | 27.94   | 26.53    | 1.056   | 2.46   |      |      |       |        |        |         |          |         |        |
| 320  | 11.74 | 34.85 |        |        | 27.96   | 26.53    | 1.064   | 2.46   |      |      |       |        |        |         |          |         |        |
| 325  | 11.70 | 34.85 |        |        | 27.99   | 26.54    | 1.071   | 2.44   |      |      |       |        |        |         |          |         |        |
| 330  | 11.53 | 34.85 |        |        | 28.04   | 26.57    | 1.079   | 2.39   |      |      |       |        |        |         |          |         |        |
| 335  | 11.40 | 34.84 |        |        | 28.08   | 26.59    | 1.087   | 2.31   |      |      |       |        |        |         |          |         |        |
| 340  | 11.35 | 34.83 |        |        | 28.10   | 26.59    | 1.094   | 2.26   |      |      |       |        |        |         |          |         |        |
| 345  | 11.26 | 34.82 |        |        | 28.14   | 26.60    | 1.102   | 2.24   |      |      |       |        |        |         |          |         |        |
| 350  | 11.21 | 34.81 |        |        | 28.16   | 26.60    | 1.110   | 2.23   |      |      |       |        |        |         |          |         |        |
| 355  | 11.17 | 34.80 |        |        | 28.18   | 26.60    | 1.117   | 2.23   |      |      |       |        |        |         |          |         |        |
| 360  | 11.12 | 34.80 |        |        | 28.22   | 26.61    | 1.125   | 2.23   |      |      |       |        |        |         |          |         |        |
| 365  | 11.04 | 34.80 |        |        | 28.25   | 26.62    | 1.132   | 2.24   |      |      |       |        |        |         |          |         |        |
| 370  | 10.84 | 34.80 |        |        | 28.31   | 26.65    | 1.140   | 2.25   |      |      |       |        |        |         |          |         |        |
| 375  | 10.34 | 34.79 |        |        | 28.42   | 26.74    | 1.147   | 2.26   |      |      |       |        |        |         |          |         |        |
| 380  | 10.14 | 34.77 |        |        | 28.46   | 26.76    | 1.154   | 2.27   |      |      |       |        |        |         |          |         |        |
| 385  | 10.10 | 34.75 |        |        | 28.47   | 26.75    | 1.161   | 2.28   |      |      |       |        |        |         |          |         |        |
| 390  | 10.08 | 34.74 |        |        | 28.49   | 26.74    | 1.168   | 2.29   |      |      |       |        |        |         |          |         |        |
| 395  | 9.92  | 34.72 |        |        | 28.53   | 26.76    | 1.174   | 2.30   |      |      |       |        |        |         |          |         |        |
| 400  | 9.78  | 34.71 |        |        | 28.57   | 26.77    | 1.181   | 2.33   |      |      |       |        |        |         |          |         |        |
| 405  | 9.66  | 34.71 |        |        | 28.61   | 26.79    | 1.188   | 2.36   |      |      |       |        |        |         |          |         |        |
| 410  | 9.52  | 34.70 |        |        | 28.65   | 26.81    | 1.195   | 2.34   |      |      |       |        |        |         |          |         |        |
| 415  | 9.36  | 34.69 |        |        | 28.70   | 26.83    | 1.201   | 2.34   |      |      |       |        |        |         |          |         |        |
| 420  | 9.18  | 34.69 |        |        | 28.75   | 26.86    | 1.208   | 2.31   |      |      |       |        |        |         |          |         |        |
| 425  | 9.10  | 34.69 |        |        | 28.78   | 26.87    | 1.214   | 2.30   |      |      |       |        |        |         |          |         |        |
| 430  | 9.06  | 34.67 |        |        | 28.80   | 26.86    | 1.220   | 2.29   |      |      |       |        |        |         |          |         |        |
| 435  | 8.92  | 34.67 |        |        | 28.85   | 26.88    | 1.227   | 2.32   |      |      |       |        |        |         |          |         |        |
| 440  | 8.80  | 34.67 |        |        | 28.89   | 26.90    | 1.233   | 2.34   |      |      |       |        |        |         |          |         |        |
| 445  | 8.72  | 34.66 |        |        | 28.91   | 26.90    | 1.239   | 2.38   |      |      |       |        |        |         |          |         |        |
| 450  | 8.68  | 34.65 |        |        | 28.94   | 26.90    | 1.245   | 2.42   |      |      |       |        |        |         |          |         |        |
| 455  | 8.66  | 34.65 |        |        | 28.96   | 26.90    | 1.251   | 2.44   |      |      |       |        |        |         |          |         |        |
| 460  | 8.66  | 34.65 |        |        | 28.98   | 26.90    | 1.257   | 2.46   |      |      |       |        |        |         |          |         |        |
| 465  | 8.65  | 34.64 |        |        | 29.00   | 26.90    | 1.264   | 2.43   |      |      |       |        |        |         |          |         |        |
| 470  | 8.62  | 34.64 |        |        | 29.03   | 26.90    | 1.270   | 2.43   |      |      |       |        |        |         |          |         |        |
| 475  | 8.60  | 34.64 |        |        | 29.05   | 26.91    | 1.276   | 2.41   |      |      |       |        |        |         |          |         |        |
| 480  | 8.56  | 34.64 |        |        | 29.08   | 26.91    | 1.282   | 2.39   |      |      |       |        |        |         |          |         |        |
| 485  | 8.52  | 34.63 |        |        | 29.11   | 26.92    | 1.288   | 2.40   |      |      |       |        |        |         |          |         |        |
| 490  | 8.40  | 34.63 |        |        | 29.15   | 26.93    | 1.294   | 2.43   |      |      |       |        |        |         |          |         |        |
| 495  | 8.27  | 34.63 |        |        | 29.19   | 26.95    | 1.300   | 2.47   |      |      |       |        |        |         |          |         |        |



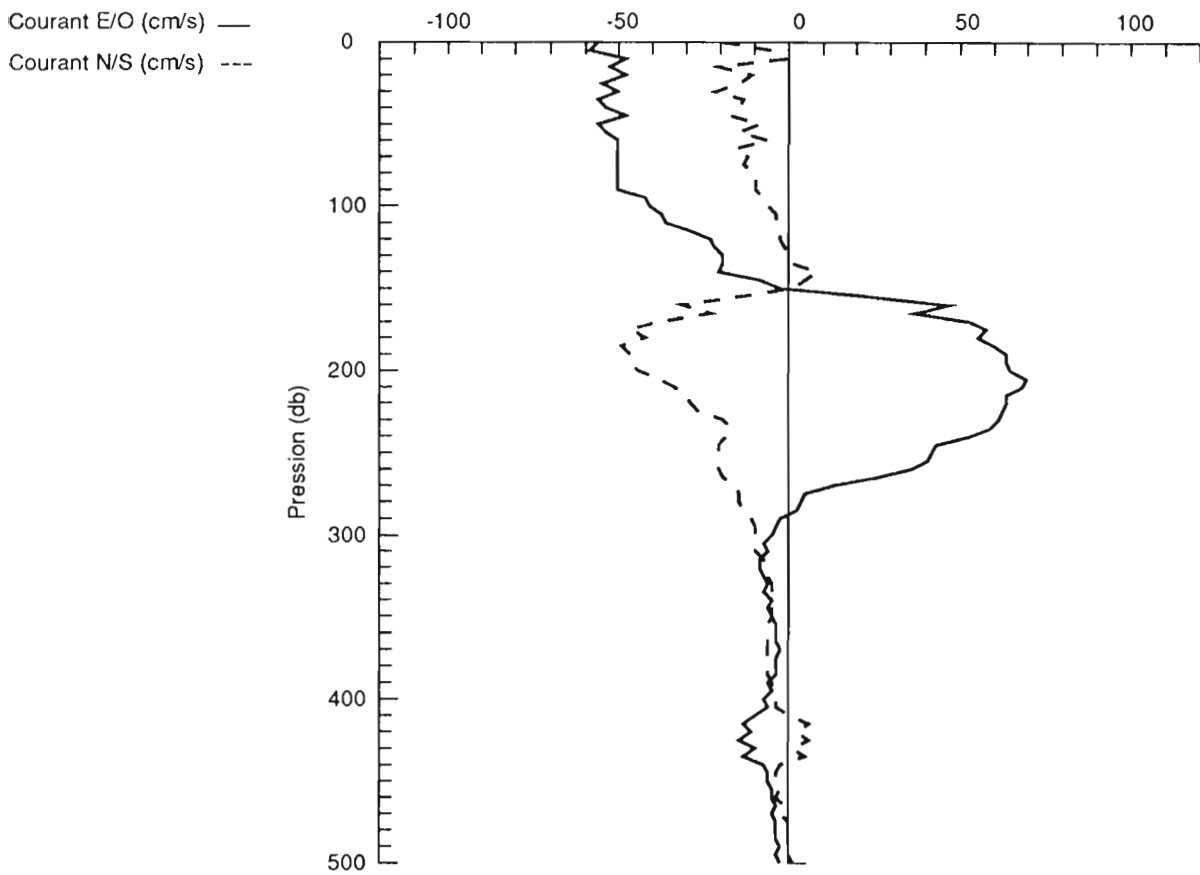
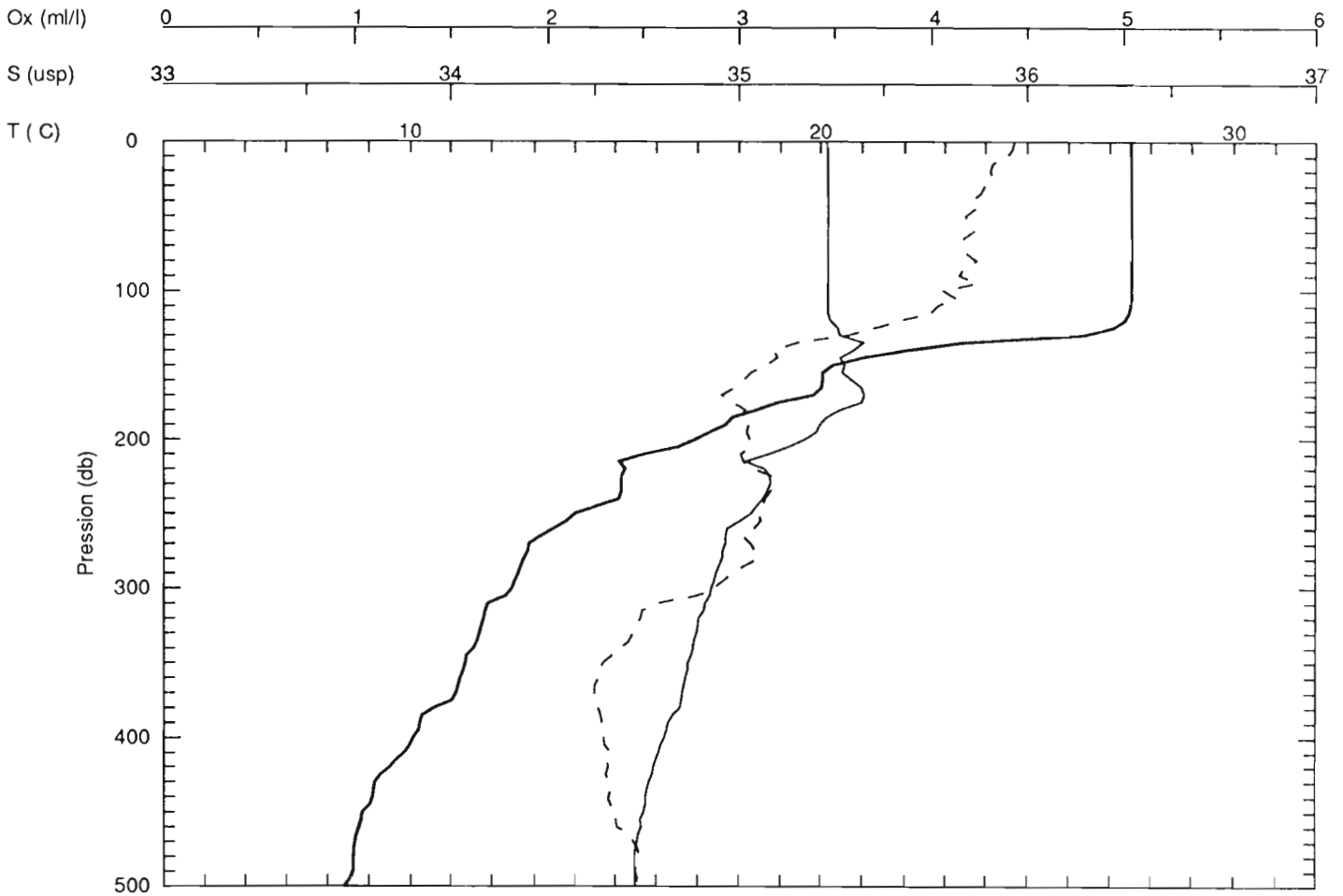
SURTROPAC11 STATION No : 47  
DATE : 26/ 1/89 HEURE : 11h30 LONGITUDE : 165.00 LATITUDE : 0.00



STATION : 48      CAMPAGNE : aurtropacll  
 DATE : 26/ 1/89    HEURE : 14h45      LONGITUDE : 165.00      LATITUDE : 0.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 27.51 | 35.31 | -56.4  | -19.2  | 22.79   | 22.79    | 0.000   | 4.43   | 510  | 8.20 | 34.62 | -2.4   | 1.2    | 29.26   | 26.96    | 1.348   | 2.50   |
| 5    | 27.51 | 35.31 | -58.8  | -4.8   | 22.81   | 22.79    | 0.025   | 4.43   | 520  | 8.13 | 34.63 | -2.4   | 1.2    | 29.32   | 26.97    |         | 2.41   |
| 10   | 27.51 | 35.31 | -48.0  | -1.2   | 22.83   | 22.79    | 0.051   | 4.40   |      |      |       |        |        |         |          |         |        |
| 15   | 27.52 | 35.31 | -52.8  | -20.4  | 22.85   | 22.79    | 0.076   | 4.32   |      |      |       |        |        |         |          |         |        |
| 20   | 27.52 | 35.31 | -48.0  | -10.8  | 22.87   | 22.79    | 0.101   | 4.31   |      |      |       |        |        |         |          |         |        |
| 25   | 27.52 | 35.31 | -55.2  | -14.4  | 22.89   | 22.79    | 0.127   | 4.32   |      |      |       |        |        |         |          |         |        |
| 30   | 27.53 | 35.31 | -50.4  | -21.6  | 22.91   | 22.79    | 0.152   | 4.28   |      |      |       |        |        |         |          |         |        |
| 35   | 27.53 | 35.31 | -56.4  | -13.2  | 22.94   | 22.79    | 0.177   | 4.26   |      |      |       |        |        |         |          |         |        |
| 40   | 27.53 | 35.31 | -54.0  | -14.4  | 22.96   | 22.79    | 0.203   | 4.21   |      |      |       |        |        |         |          |         |        |
| 45   | 27.53 | 35.31 | -48.0  | -16.8  | 22.98   | 22.79    | 0.228   | 4.23   |      |      |       |        |        |         |          |         |        |
| 50   | 27.53 | 35.31 | -56.4  | -8.4   | 23.00   | 22.79    | 0.254   | 4.18   |      |      |       |        |        |         |          |         |        |
| 55   | 27.53 | 35.31 | -54.0  | -14.4  | 23.02   | 22.79    | 0.279   | 4.19   |      |      |       |        |        |         |          |         |        |
| 60   | 27.54 | 35.31 | -50.4  | -6.0   | 23.04   | 22.79    | 0.304   | 4.23   |      |      |       |        |        |         |          |         |        |
| 65   | 27.54 | 35.31 | -50.4  | -15.6  | 23.06   | 22.79    | 0.330   | 4.17   |      |      |       |        |        |         |          |         |        |
| 70   | 27.54 | 35.31 | -50.4  | -12.0  | 23.08   | 22.79    | 0.355   | 4.19   |      |      |       |        |        |         |          |         |        |
| 75   | 27.54 | 35.31 | -50.4  | -13.2  | 23.11   | 22.79    | 0.381   | 4.18   |      |      |       |        |        |         |          |         |        |
| 80   | 27.53 | 35.31 | -50.4  | -9.6   | 23.13   | 22.79    | 0.406   | 4.24   |      |      |       |        |        |         |          |         |        |
| 85   | 27.53 | 35.31 | -50.4  | -9.6   | 23.15   | 22.79    | 0.432   | 4.17   |      |      |       |        |        |         |          |         |        |
| 90   | 27.53 | 35.31 | -50.4  | -9.6   | 23.17   | 22.79    | 0.457   | 4.15   |      |      |       |        |        |         |          |         |        |
| 95   | 27.53 | 35.31 | -42.0  | -7.2   | 23.19   | 22.79    | 0.483   | 4.24   |      |      |       |        |        |         |          |         |        |
| 100  | 27.52 | 35.31 | -40.8  | -6.0   | 23.21   | 22.79    | 0.508   | 4.06   |      |      |       |        |        |         |          |         |        |
| 105  | 27.51 | 35.31 | -37.2  | -3.6   | 23.24   | 22.80    | 0.534   | 4.13   |      |      |       |        |        |         |          |         |        |
| 110  | 27.50 | 35.31 | -36.0  | -3.6   | 23.26   | 22.80    | 0.559   | 4.03   |      |      |       |        |        |         |          |         |        |
| 115  | 27.46 | 35.31 | -28.8  | -2.4   | 23.30   | 22.82    | 0.585   | 4.00   |      |      |       |        |        |         |          |         |        |
| 120  | 27.35 | 35.32 | -22.8  | -2.4   | 23.36   | 22.86    | 0.610   | 3.84   |      |      |       |        |        |         |          |         |        |
| 125  | 27.07 | 35.35 | -21.6  | -1.2   | 23.49   | 22.97    | 0.635   | 3.71   |      |      |       |        |        |         |          |         |        |
| 130  | 26.34 | 35.35 | -19.2  | 0.0    | 23.75   | 23.20    | 0.659   | 3.57   |      |      |       |        |        |         |          |         |        |
| 135  | 23.43 | 35.43 | -19.2  | 1.2    | 24.72   | 24.15    | 0.680   | 3.31   |      |      |       |        |        |         |          |         |        |
| 140  | 22.00 | 35.40 | -20.4  | 8.4    | 25.13   | 24.53    | 0.698   | 3.18   |      |      |       |        |        |         |          |         |        |
| 145  | 21.01 | 35.35 | -8.4   | 4.8    | 25.39   | 24.77    | 0.715   | 3.20   |      |      |       |        |        |         |          |         |        |
| 150  | 20.30 | 35.37 | -2.4   | 1.2    | 25.62   | 24.97    | 0.731   | 3.14   |      |      |       |        |        |         |          |         |        |
| 155  | 20.05 | 35.36 | 24.0   | -14.4  | 25.70   | 25.03    | 0.746   | 3.06   |      |      |       |        |        |         |          |         |        |
| 160  | 20.05 | 35.39 | 46.8   | -31.2  | 25.75   | 25.06    | 0.761   | 3.03   |      |      |       |        |        |         |          |         |        |
| 165  | 20.02 | 35.42 | 37.2   | -22.8  | 25.80   | 25.09    | 0.775   | 2.98   |      |      |       |        |        |         |          |         |        |
| 170  | 19.82 | 35.44 | 52.8   | -37.2  | 25.88   | 25.15    | 0.790   | 2.91   |      |      |       |        |        |         |          |         |        |
| 175  | 18.93 | 35.42 | 57.6   | -46.8  | 26.13   | 25.37    | 0.804   | 2.96   |      |      |       |        |        |         |          |         |        |
| 180  | 18.42 | 35.35 | 55.2   | -42.0  | 26.23   | 25.45    | 0.817   | 3.03   |      |      |       |        |        |         |          |         |        |
| 185  | 17.84 | 35.31 | 60.0   | -49.2  | 26.36   | 25.56    | 0.830   | 3.01   |      |      |       |        |        |         |          |         |        |
| 190  | 17.67 | 35.28 | 63.6   | -46.8  | 26.40   | 25.58    | 0.842   | 3.05   |      |      |       |        |        |         |          |         |        |
| 195  | 17.29 | 35.27 | 63.6   | -46.8  | 26.51   | 25.66    | 0.854   | 3.04   |      |      |       |        |        |         |          |         |        |
| 200  | 16.94 | 35.23 | 64.8   | -44.4  | 26.59   | 25.71    | 0.866   | 3.06   |      |      |       |        |        |         |          |         |        |
| 205  | 16.53 | 35.17 | 69.6   | -38.4  | 26.66   | 25.77    | 0.878   | 3.06   |      |      |       |        |        |         |          |         |        |
| 210  | 15.70 | 35.10 | 68.4   | -33.6  | 26.82   | 25.90    | 0.889   | 3.01   |      |      |       |        |        |         |          |         |        |
| 215  | 15.11 | 35.02 | 63.6   | -30.0  | 26.92   | 25.97    | 0.899   | 3.02   |      |      |       |        |        |         |          |         |        |
| 220  | 15.24 | 35.09 | 63.6   | -28.8  | 26.96   | 26.00    | 0.910   | 3.07   |      |      |       |        |        |         |          |         |        |
| 225  | 15.16 | 35.11 | 62.4   | -26.4  | 27.01   | 26.03    | 0.920   | 3.17   |      |      |       |        |        |         |          |         |        |
| 230  | 15.14 | 35.11 | 61.2   | -19.2  | 27.04   | 26.03    | 0.930   | 3.18   |      |      |       |        |        |         |          |         |        |
| 235  | 15.15 | 35.10 | 58.8   | -16.8  | 27.06   | 26.02    | 0.940   | 3.16   |      |      |       |        |        |         |          |         |        |
| 240  | 15.09 | 35.08 | 52.8   | -18.0  | 27.08   | 26.03    | 0.951   | 3.13   |      |      |       |        |        |         |          |         |        |
| 245  | 14.52 | 35.06 | 43.2   | -20.4  | 27.21   | 26.13    | 0.961   | 3.12   |      |      |       |        |        |         |          |         |        |
| 250  | 14.00 | 35.04 | 42.0   | -20.4  | 27.33   | 26.23    | 0.970   | 3.10   |      |      |       |        |        |         |          |         |        |
| 255  | 13.79 | 35.00 | 40.8   | -20.4  | 27.37   | 26.24    | 0.979   | 3.11   |      |      |       |        |        |         |          |         |        |
| 260  | 13.46 | 34.96 | 36.0   | -20.4  | 27.43   | 26.27    | 0.989   | 3.08   |      |      |       |        |        |         |          |         |        |
| 265  | 13.15 | 34.95 | 26.4   | -19.2  | 27.51   | 26.33    | 0.998   | 3.02   |      |      |       |        |        |         |          |         |        |
| 270  | 12.87 | 34.95 | 13.2   | -15.6  | 27.59   | 26.39    | 1.006   | 3.06   |      |      |       |        |        |         |          |         |        |
| 275  | 12.85 | 34.94 | 4.8    | -14.4  | 27.61   | 26.39    | 1.015   | 3.08   |      |      |       |        |        |         |          |         |        |
| 280  | 12.75 | 34.94 | 3.6    | -14.4  | 27.65   | 26.41    | 1.023   | 3.10   |      |      |       |        |        |         |          |         |        |
| 285  | 12.68 | 34.93 | 2.4    | -13.2  | 27.68   | 26.41    | 1.032   | 3.03   |      |      |       |        |        |         |          |         |        |
| 290  | 12.61 | 34.92 | -2.4   | -10.8  | 27.70   | 26.42    | 1.040   | 2.96   |      |      |       |        |        |         |          |         |        |
| 295  | 12.54 | 34.92 | -3.6   | -9.6   | 27.74   | 26.43    | 1.048   | 2.92   |      |      |       |        |        |         |          |         |        |
| 300  | 12.47 | 34.90 | -4.8   | -9.6   | 27.76   | 26.43    | 1.057   | 2.87   |      |      |       |        |        |         |          |         |        |
| 305  | 12.33 | 34.90 | -7.2   | -9.6   | 27.81   | 26.46    | 1.065   | 2.78   |      |      |       |        |        |         |          |         |        |
| 310  | 11.91 | 34.88 | -6.0   | -9.6   | 27.90   | 26.52    | 1.073   | 2.58   |      |      |       |        |        |         |          |         |        |
| 315  | 11.85 | 34.88 | -8.4   | -7.2   | 27.94   | 26.53    | 1.081   | 2.50   |      |      |       |        |        |         |          |         |        |
| 320  | 11.81 | 34.86 | -8.4   | -7.2   | 27.95   | 26.53    | 1.089   | 2.49   |      |      |       |        |        |         |          |         |        |
| 325  | 11.76 | 34.86 | -7.2   | -6.0   | 27.98   | 26.53    | 1.097   | 2.47   |      |      |       |        |        |         |          |         |        |
| 330  | 11.71 | 34.85 | -6.0   | -4.8   | 28.01   | 26.54    | 1.105   | 2.45   |      |      |       |        |        |         |          |         |        |
| 335  | 11.65 | 34.85 | -7.2   | -4.8   | 28.04   | 26.54    | 1.113   | 2.43   |      |      |       |        |        |         |          |         |        |
| 340  | 11.57 | 34.84 | -4.8   | -4.8   | 28.07   | 26.56    | 1.120   | 2.38   |      |      |       |        |        |         |          |         |        |
| 345  | 11.39 | 34.84 | -6.0   | -4.8   | 28.12   | 26.58    | 1.128   | 2.34   |      |      |       |        |        |         |          |         |        |
| 350  | 11.36 | 34.82 | -4.8   | -4.8   | 28.14   | 26.58    | 1.136   | 2.29   |      |      |       |        |        |         |          |         |        |
| 355  | 11.31 | 34.82 | -3.6   | -6.0   | 28.17   | 26.59    | 1.143   | 2.28   |      |      |       |        |        |         |          |         |        |
| 360  | 11.23 | 34.82 | -3.6   | -6.0   | 28.21   | 26.60    | 1.151   | 2.27   |      |      |       |        |        |         |          |         |        |
| 365  | 11.18 | 34.81 | -3.6   | -6.0   | 28.23   | 26.60    | 1.159   | 2.25   |      |      |       |        |        |         |          |         |        |
| 370  | 11.13 | 34.81 | -2.4   | -6.0   | 28.26   | 26.61    | 1.166   | 2.25   |      |      |       |        |        |         |          |         |        |
| 375  | 11.03 | 34.80 | -3.6   | -6.0   | 28.30   | 26.63    | 1.174   | 2.25   |      |      |       |        |        |         |          |         |        |
| 380  | 10.59 | 34.80 | -3.6   | -6.0   | 28.40   | 26.70    | 1.181   | 2.27   |      |      |       |        |        |         |          |         |        |
| 385  | 10.28 | 34.77 | -3.6   | -6.0   | 28.46   | 26.73    | 1.188   | 2.28   |      |      |       |        |        |         |          |         |        |
| 390  | 10.23 | 34.76 | -6.0   | -4.8   | 28.48   | 26.73    | 1.195   | 2.29   |      |      |       |        |        |         |          |         |        |
| 395  | 10.19 | 34.75 | -4.8   | -4.8   | 28.50   | 26.73    | 1.202   | 2.30   |      |      |       |        |        |         |          |         |        |
| 400  | 10.06 | 34.74 | -7.2   | -3.6   | 28.54   | 26.75    | 1.209   | 2.30   |      |      |       |        |        |         |          |         |        |
| 405  | 9.98  | 34.73 | -6.0   | -3.6   | 28.57   | 26.75    | 1.216   | 2.30   |      |      |       |        |        |         |          |         |        |
| 410  | 9.85  | 34.72 | -9.6   | 0.0    | 28.61   | 26.77    | 1.223   | 2.34   |      |      |       |        |        |         |          |         |        |
| 415  | 9.65  | 34.71 | -13.2  | 6.0    | 28.66   | 26.80    | 1.229   | 2.32   |      |      |       |        |        |         |          |         |        |
| 420  | 9.49  | 34.71 | -10.8  | 2.4    | 28.70   | 26.81    | 1.236   | 2.32   |      |      |       |        |        |         |          |         |        |
| 425  | 9.27  | 34.70 | -14.4  | 6.0    | 28.76   | 26.85    | 1.242   | 2.31   |      |      |       |        |        |         |          |         |        |
| 430  | 9.13  | 34.69 | -9.6   | 1.2    | 28.80   | 26.86    | 1.249   | 2.32   |      |      |       |        |        |         |          |         |        |
| 435  | 9.11  | 34.68 | -13.2  | 4.8    | 28.82   | 26.86    | 1.255   | 2.33   |      |      |       |        |        |         |          |         |        |
| 440  | 9.08  | 34.68 | -7.2   | -2.4   | 28.84   | 26.86    | 1.262   | 2.32   |      |      |       |        |        |         |          |         |        |
| 445  | 9.02  | 34.68 | -6.0   | -3.6   | 28.88   | 26.87    | 1.268   | 2.33   |      |      |       |        |        |         |          |         |        |
| 450  | 8.83  | 34.67 | -6.0   | -3.6   | 28.92   | 26.89    | 1.274   | 2.37   |      |      |       |        |        |         |          |         |        |
| 455  | 8.81  | 34.66 | -4.8   | -2.4   | 28.94   | 26.89    | 1.280   | 2.36   |      |      |       |        |        |         |          |         |        |
| 460  | 8.76  | 34.66 | -4.8   | -3.6   | 28.98   | 26.90    | 1.287   | 2.37   |      |      |       |        |        |         |          |         |        |
| 465  | 8.69  | 34.65 | -3.6   | -1.2   | 29.00   | 26.90    | 1.293   | 2.43   |      |      |       |        |        |         |          |         |        |
| 470  | 8.66  | 34.65 | -4.8   | -2.4   | 29.03   | 26.90    | 1.299   | 2.45   |      |      |       |        |        |         |          |         |        |
| 475  | 8.63  | 34.64 | -3.6   | 0.0    | 29.05   | 26.90    |         |        |      |      |       |        |        |         |          |         |        |

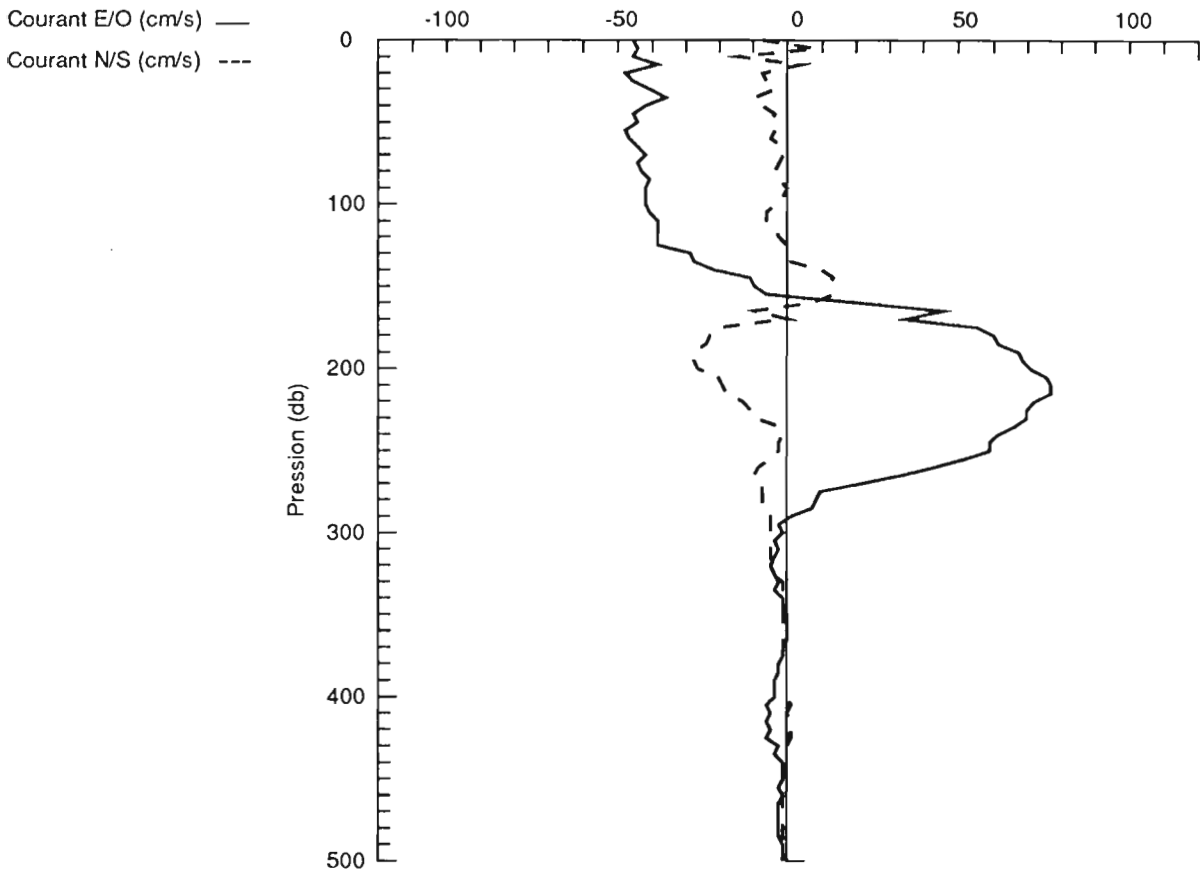
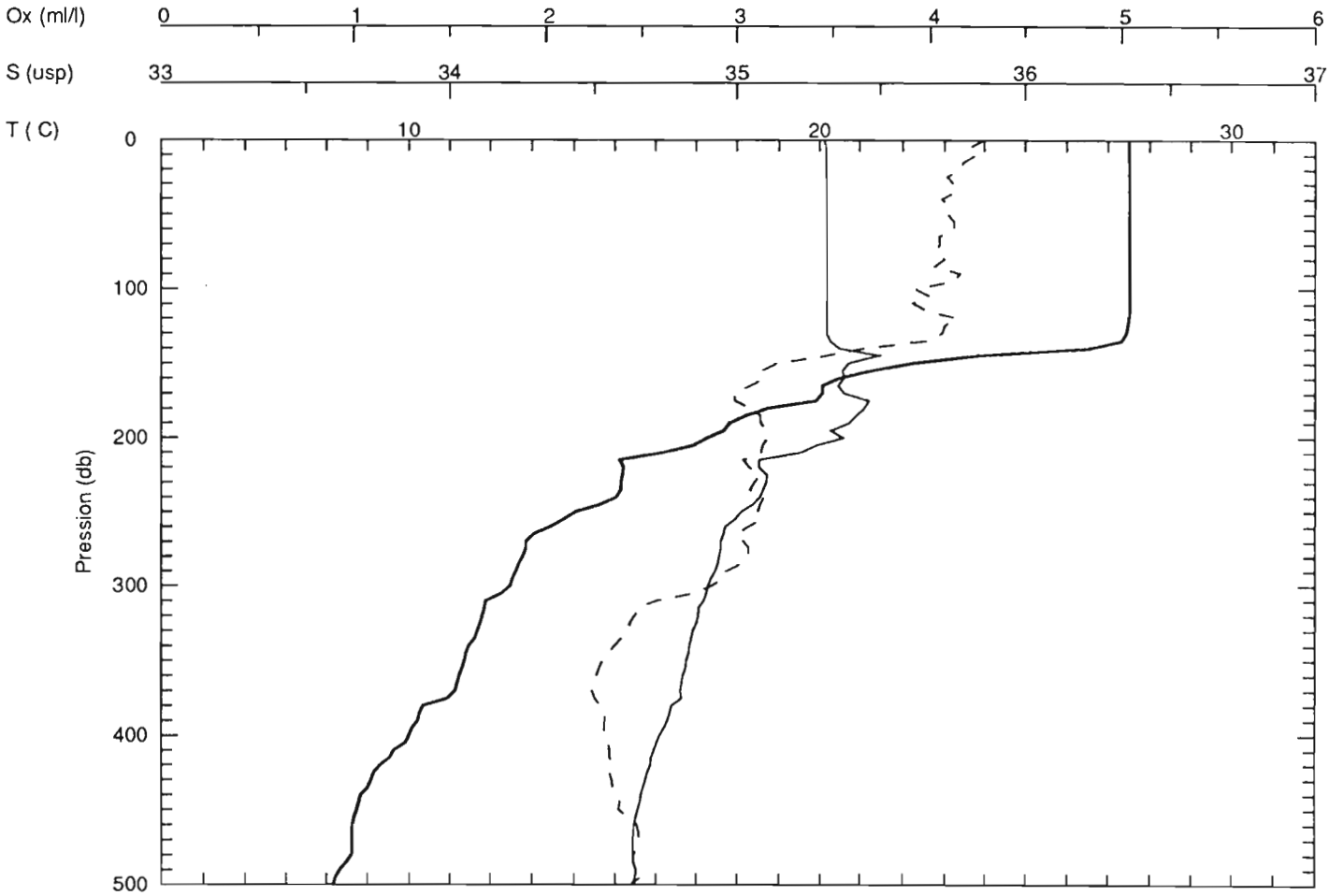
SURTROPAC11 STATION No : 48  
DATE : 26/ 1/89 HEURE : 14h45 LONGITUDE : 165.00 LATITUDE : 0.00



STATION : 49      CAMPAGNE : surtropa11  
 DATE : 26/ 1/89    HEURE : 17h20    LONGITUDE : 165.00    LATITUDE : 0.00

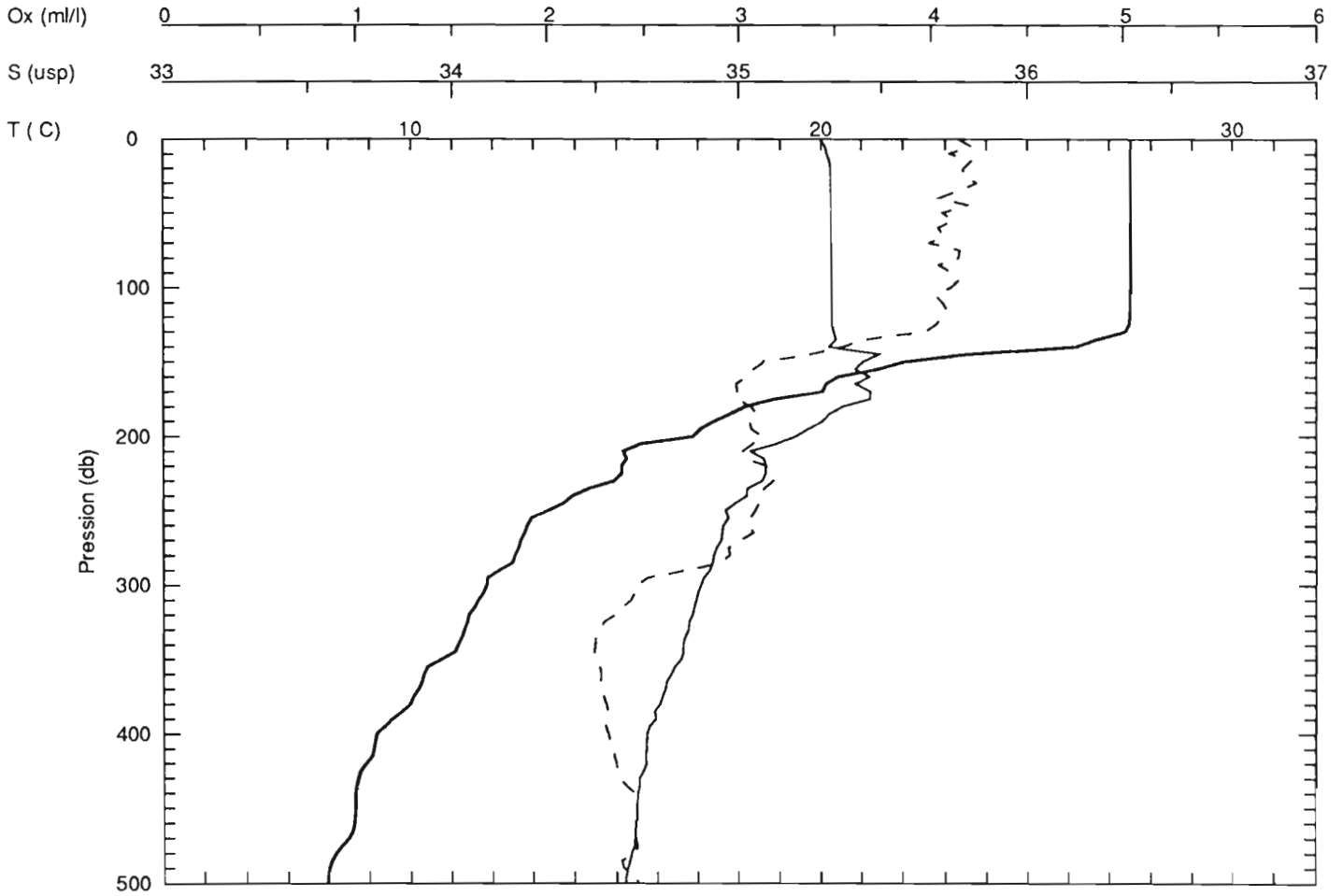
| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (usp) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 27.51 | 35.30 | -45.6  | -7.2   | 22.79   | 22.79    | 0.000   | 4.28   |      |      |       |        |        |         |          |         |        |
| 5    | 27.50 | 35.31 | -44.4  | 8.4    | 22.81   | 22.79    | 0.025   | 4.21   |      |      |       |        |        |         |          |         |        |
| 10   | 27.50 | 35.31 | -45.6  | -14.4  | 22.83   | 22.79    | 0.051   | 4.24   |      |      |       |        |        |         |          |         |        |
| 15   | 27.51 | 35.31 | -38.4  | 3.6    | 22.85   | 22.79    | 0.076   | 4.17   |      |      |       |        |        |         |          |         |        |
| 20   | 27.52 | 35.31 | -48.0  | -7.2   | 22.87   | 22.79    | 0.101   | 4.15   |      |      |       |        |        |         |          |         |        |
| 25   | 27.52 | 35.31 | -45.6  | -6.0   | 22.90   | 22.79    | 0.126   | 4.09   |      |      |       |        |        |         |          |         |        |
| 30   | 27.52 | 35.31 | -40.8  | -3.6   | 22.92   | 22.79    | 0.152   | 4.12   |      |      |       |        |        |         |          |         |        |
| 35   | 27.52 | 35.31 | -36.0  | -9.6   | 22.94   | 22.79    | 0.177   | 4.14   |      |      |       |        |        |         |          |         |        |
| 40   | 27.52 | 35.31 | -42.0  | -7.2   | 22.96   | 22.79    | 0.203   | 4.06   |      |      |       |        |        |         |          |         |        |
| 45   | 27.52 | 35.31 | -45.6  | -3.6   | 22.98   | 22.79    | 0.228   | 4.09   |      |      |       |        |        |         |          |         |        |
| 50   | 27.52 | 35.31 | -44.4  | -4.8   | 23.00   | 22.79    | 0.253   | 4.09   |      |      |       |        |        |         |          |         |        |
| 55   | 27.52 | 35.31 | -48.0  | -3.6   | 23.02   | 22.79    | 0.279   | 4.12   |      |      |       |        |        |         |          |         |        |
| 60   | 27.52 | 35.31 | -46.8  | -4.8   | 23.04   | 22.79    | 0.304   | 4.12   |      |      |       |        |        |         |          |         |        |
| 65   | 27.52 | 35.31 | -44.4  | -1.2   | 23.07   | 22.79    | 0.330   | 4.04   |      |      |       |        |        |         |          |         |        |
| 70   | 27.52 | 35.31 | -42.0  | -1.2   | 23.09   | 22.79    | 0.355   | 4.05   |      |      |       |        |        |         |          |         |        |
| 75   | 27.53 | 35.31 | -44.4  | -2.4   | 23.11   | 22.79    | 0.380   | 4.02   |      |      |       |        |        |         |          |         |        |
| 80   | 27.53 | 35.31 | -43.2  | -3.6   | 23.13   | 22.79    | 0.406   | 4.07   |      |      |       |        |        |         |          |         |        |
| 85   | 27.53 | 35.31 | -40.8  | -2.4   | 23.15   | 22.79    | 0.431   | 4.02   |      |      |       |        |        |         |          |         |        |
| 90   | 27.53 | 35.31 | -42.0  | 0.0    | 23.17   | 22.79    | 0.457   | 4.15   |      |      |       |        |        |         |          |         |        |
| 95   | 27.53 | 35.31 | -42.0  | -1.2   | 23.19   | 22.79    | 0.482   | 4.12   |      |      |       |        |        |         |          |         |        |
| 100  | 27.53 | 35.31 | -42.0  | -3.6   | 23.22   | 22.79    | 0.508   | 3.92   |      |      |       |        |        |         |          |         |        |
| 105  | 27.53 | 35.31 | -40.8  | -6.0   | 23.24   | 22.80    | 0.533   | 3.99   |      |      |       |        |        |         |          |         |        |
| 110  | 27.53 | 35.31 | -38.4  | -6.0   | 23.26   | 22.80    | 0.559   | 3.91   |      |      |       |        |        |         |          |         |        |
| 115  | 27.52 | 35.31 | -38.4  | -3.6   | 23.28   | 22.80    | 0.584   | 3.98   |      |      |       |        |        |         |          |         |        |
| 120  | 27.50 | 35.31 | -38.4  | -2.4   | 23.31   | 22.80    | 0.610   | 4.14   |      |      |       |        |        |         |          |         |        |
| 125  | 27.47 | 35.31 | -38.4  | 0.0    | 23.34   | 22.81    | 0.635   | 4.07   |      |      |       |        |        |         |          |         |        |
| 130  | 27.43 | 35.31 | -28.8  | 1.2    | 23.37   | 22.83    | 0.661   | 4.06   |      |      |       |        |        |         |          |         |        |
| 135  | 27.32 | 35.32 | -27.6  | 1.2    | 23.44   | 22.87    | 0.686   | 3.97   |      |      |       |        |        |         |          |         |        |
| 140  | 26.50 | 35.36 | -21.6  | 9.6    | 23.75   | 23.16    | 0.711   | 3.67   |      |      |       |        |        |         |          |         |        |
| 145  | 23.84 | 35.49 | -10.8  | 13.2   | 24.69   | 24.07    | 0.733   | 3.46   |      |      |       |        |        |         |          |         |        |
| 150  | 22.21 | 35.39 | -9.6   | 13.2   | 25.10   | 24.46    | 0.751   | 3.20   |      |      |       |        |        |         |          |         |        |
| 155  | 21.28 | 35.37 | -6.0   | 13.2   | 25.37   | 24.71    | 0.768   | 3.13   |      |      |       |        |        |         |          |         |        |
| 160  | 20.49 | 35.37 | 20.4   | 7.2    | 25.61   | 24.93    | 0.784   | 3.14   |      |      |       |        |        |         |          |         |        |
| 165  | 20.07 | 35.35 | 45.6   | -9.6   | 25.73   | 25.02    | 0.799   | 3.07   |      |      |       |        |        |         |          |         |        |
| 170  | 20.07 | 35.37 | 34.8   | 0.0    | 25.77   | 25.04    | 0.813   | 2.98   |      |      |       |        |        |         |          |         |        |
| 175  | 19.90 | 35.46 | 55.2   | -19.2  | 25.90   | 25.15    | 0.828   | 2.99   |      |      |       |        |        |         |          |         |        |
| 180  | 18.73 | 35.44 | 60.0   | -22.8  | 26.22   | 25.44    | 0.842   | 3.06   |      |      |       |        |        |         |          |         |        |
| 185  | 18.20 | 35.42 | 61.2   | -24.0  | 26.35   | 25.55    | 0.855   | 3.12   |      |      |       |        |        |         |          |         |        |
| 190  | 17.81 | 35.39 | 67.2   | -27.6  | 26.45   | 25.63    | 0.867   | 3.12   |      |      |       |        |        |         |          |         |        |
| 195  | 17.67 | 35.33 | 68.4   | -27.6  | 26.46   | 25.61    | 0.879   | 3.15   |      |      |       |        |        |         |          |         |        |
| 200  | 17.27 | 35.37 | 70.8   | -26.4  | 26.61   | 25.74    | 0.891   | 3.15   |      |      |       |        |        |         |          |         |        |
| 205  | 16.94 | 35.28 | 75.6   | -20.4  | 26.64   | 25.75    | 0.903   | 3.13   |      |      |       |        |        |         |          |         |        |
| 210  | 16.19 | 35.22 | 76.8   | -19.2  | 26.80   | 25.88    | 0.914   | 3.12   |      |      |       |        |        |         |          |         |        |
| 215  | 15.11 | 35.08 | 76.8   | -18.0  | 26.96   | 26.01    | 0.924   | 3.03   |      |      |       |        |        |         |          |         |        |
| 220  | 15.20 | 35.07 | 72.0   | -13.2  | 26.96   | 25.99    | 0.934   | 3.06   |      |      |       |        |        |         |          |         |        |
| 225  | 15.18 | 35.10 | 69.6   | -10.8  | 27.01   | 26.02    | 0.945   | 3.12   |      |      |       |        |        |         |          |         |        |
| 230  | 15.14 | 35.10 | 69.6   | -9.6   | 27.04   | 26.03    | 0.955   | 3.09   |      |      |       |        |        |         |          |         |        |
| 235  | 15.14 | 35.09 | 66.0   | -2.4   | 27.05   | 26.02    | 0.965   | 3.07   |      |      |       |        |        |         |          |         |        |
| 240  | 15.02 | 35.08 | 61.2   | -1.2   | 27.09   | 26.04    | 0.976   | 3.14   |      |      |       |        |        |         |          |         |        |
| 245  | 14.62 | 35.05 | 58.8   | -2.4   | 27.18   | 26.10    | 0.986   | 3.12   |      |      |       |        |        |         |          |         |        |
| 250  | 14.04 | 35.01 | 58.8   | -2.4   | 27.30   | 26.20    | 0.995   | 3.11   |      |      |       |        |        |         |          |         |        |
| 255  | 13.75 | 34.99 | 51.6   | -4.8   | 27.37   | 26.24    | 1.005   | 3.13   |      |      |       |        |        |         |          |         |        |
| 260  | 13.43 | 34.96 | 43.2   | -8.4   | 27.43   | 26.28    | 1.014   | 3.06   |      |      |       |        |        |         |          |         |        |
| 265  | 13.04 | 34.95 | 33.6   | -9.6   | 27.53   | 26.36    | 1.023   | 3.00   |      |      |       |        |        |         |          |         |        |
| 270  | 12.86 | 34.94 | 21.6   | -7.2   | 27.58   | 26.38    | 1.031   | 3.04   |      |      |       |        |        |         |          |         |        |
| 275  | 12.85 | 34.94 | 9.6    | -7.2   | 27.61   | 26.39    | 1.040   | 3.06   |      |      |       |        |        |         |          |         |        |
| 280  | 12.79 | 34.94 | 8.4    | -7.2   | 27.64   | 26.40    | 1.048   | 3.05   |      |      |       |        |        |         |          |         |        |
| 285  | 12.69 | 34.93 | 7.2    | -7.2   | 27.68   | 26.41    | 1.057   | 3.02   |      |      |       |        |        |         |          |         |        |
| 290  | 12.62 | 34.92 | 1.2    | -4.8   | 27.70   | 26.42    | 1.065   | 2.94   |      |      |       |        |        |         |          |         |        |
| 295  | 12.54 | 34.91 | -2.4   | -4.8   | 27.73   | 26.42    | 1.074   | 2.93   |      |      |       |        |        |         |          |         |        |
| 300  | 12.48 | 34.90 | -1.2   | -4.8   | 27.76   | 26.43    | 1.082   | 2.87   |      |      |       |        |        |         |          |         |        |
| 305  | 12.27 | 34.89 | -3.6   | -4.8   | 27.82   | 26.46    | 1.090   | 2.77   |      |      |       |        |        |         |          |         |        |
| 310  | 11.88 | 34.88 | -2.4   | -4.8   | 27.91   | 26.53    | 1.098   | 2.58   |      |      |       |        |        |         |          |         |        |
| 315  | 11.85 | 34.87 | -3.6   | -4.8   | 27.93   | 26.52    | 1.106   | 2.48   |      |      |       |        |        |         |          |         |        |
| 320  | 11.80 | 34.86 | -4.8   | -3.6   | 27.95   | 26.53    | 1.114   | 2.46   |      |      |       |        |        |         |          |         |        |
| 325  | 11.75 | 34.86 | -3.6   | -3.6   | 27.98   | 26.54    | 1.122   | 2.44   |      |      |       |        |        |         |          |         |        |
| 330  | 11.68 | 34.85 | -2.4   | -1.2   | 28.01   | 26.54    | 1.130   | 2.41   |      |      |       |        |        |         |          |         |        |
| 335  | 11.61 | 34.84 | -3.6   | -1.2   | 28.04   | 26.55    | 1.138   | 2.39   |      |      |       |        |        |         |          |         |        |
| 340  | 11.46 | 34.83 | -1.2   | -1.2   | 28.09   | 26.57    | 1.145   | 2.35   |      |      |       |        |        |         |          |         |        |
| 345  | 11.39 | 34.83 | -1.2   | -1.2   | 28.12   | 26.58    | 1.153   | 2.32   |      |      |       |        |        |         |          |         |        |
| 350  | 11.35 | 34.82 | 0.0    | -1.2   | 28.14   | 26.58    | 1.161   | 2.29   |      |      |       |        |        |         |          |         |        |
| 355  | 11.30 | 34.82 | 0.0    | -1.2   | 28.17   | 26.59    | 1.168   | 2.27   |      |      |       |        |        |         |          |         |        |
| 360  | 11.23 | 34.81 | 0.0    | -1.2   | 28.20   | 26.59    | 1.176   | 2.26   |      |      |       |        |        |         |          |         |        |
| 365  | 11.18 | 34.81 | 0.0    | -1.2   | 28.23   | 26.60    | 1.184   | 2.24   |      |      |       |        |        |         |          |         |        |
| 370  | 11.13 | 34.80 | -1.2   | -1.2   | 28.26   | 26.61    | 1.191   | 2.24   |      |      |       |        |        |         |          |         |        |
| 375  | 10.94 | 34.81 | -1.2   | -1.2   | 28.32   | 26.64    | 1.199   | 2.25   |      |      |       |        |        |         |          |         |        |
| 380  | 10.35 | 34.77 | -2.4   | 0.0    | 28.42   | 26.72    | 1.206   | 2.28   |      |      |       |        |        |         |          |         |        |
| 385  | 10.26 | 34.76 | -2.4   | 0.0    | 28.46   | 26.73    | 1.213   | 2.30   |      |      |       |        |        |         |          |         |        |
| 390  | 10.22 | 34.76 | -3.6   | 0.0    | 28.48   | 26.73    | 1.220   | 2.30   |      |      |       |        |        |         |          |         |        |
| 395  | 10.08 | 34.74 | -3.6   | 0.0    | 28.52   | 26.75    | 1.227   | 2.30   |      |      |       |        |        |         |          |         |        |
| 400  | 10.00 | 34.73 | -3.6   | 0.0    | 28.54   | 26.75    | 1.234   | 2.31   |      |      |       |        |        |         |          |         |        |
| 405  | 9.91  | 34.72 | -6.0   | 1.2    | 28.57   | 26.76    | 1.241   | 2.32   |      |      |       |        |        |         |          |         |        |
| 410  | 9.63  | 34.71 | -4.8   | 0.0    | 28.64   | 26.79    | 1.247   | 2.33   |      |      |       |        |        |         |          |         |        |
| 415  | 9.54  | 34.70 | -6.0   | 1.2    | 28.67   | 26.80    | 1.254   | 2.33   |      |      |       |        |        |         |          |         |        |
| 420  | 9.31  | 34.70 | -4.8   | 1.2    | 28.73   | 26.84    | 1.260   | 2.35   |      |      |       |        |        |         |          |         |        |
| 425  | 9.15  | 34.69 | -6.0   | 1.2    | 28.77   | 26.86    | 1.267   | 2.33   |      |      |       |        |        |         |          |         |        |
| 430  | 9.09  | 34.68 | -2.4   | 0.0    | 28.80   | 26.86    | 1.273   | 2.34   |      |      |       |        |        |         |          |         |        |
| 435  | 9.00  | 34.67 | -3.6   | 1.2    | 28.83   | 26.87    | 1.280   | 2.34   |      |      |       |        |        |         |          |         |        |
| 440  | 8.83  | 34.66 | -1.2   | 0.0    | 28.87   | 26.89    | 1.286   | 2.36   |      |      |       |        |        |         |          |         |        |
| 445  | 8.79  | 34.66 | -1.2   | 0.0    | 28.90   | 26.89    | 1.292   | 2.38   |      |      |       |        |        |         |          |         |        |
| 450  | 8.74  | 34.65 | -1.2   | 0.0    | 28.93   | 26.90    | 1.298   | 2.38   |      |      |       |        |        |         |          |         |        |
| 455  | 8.67  | 34.64 | -2.4   | -1.2   | 28.95   | 26.90    | 1.304   | 2.44   |      |      |       |        |        |         |          |         |        |
| 460  | 8.64  | 34.64 | -1.2   | -1.2   | 28.98   | 26.90    | 1.311   | 2.47   |      |      |       |        |        |         |          |         |        |
| 465  | 8.62  | 34.64 | -2.4   | -1.2   | 29.00   | 26.90    | 1.317   | 2.48   |      |      |       |        |        |         |          |         |        |
| 470  | 8.62  | 34.63 | -2.4   | -1.2   | 29.02   | 26.90    | 1.323   | 2.49   |      |      |       |        |        |         |          |         |        |
| 475  | 8.62  | 34.63 | -2.4   | -1.2   | 29.04   | 26.90    | 1.329   | 2.47   |      |      |       |        |        |         |          |         |        |
| 480  | 8.61  | 34.63 | -2.4   | -1.2   | 29.07   | 2        |         |        |      |      |       |        |        |         |          |         |        |

SURTROPAC11 STATION No : 49  
DATE : 26/ 1/89 HEURE : 17h20 LONGITUDE : 165.00 LATITUDE : 0.00

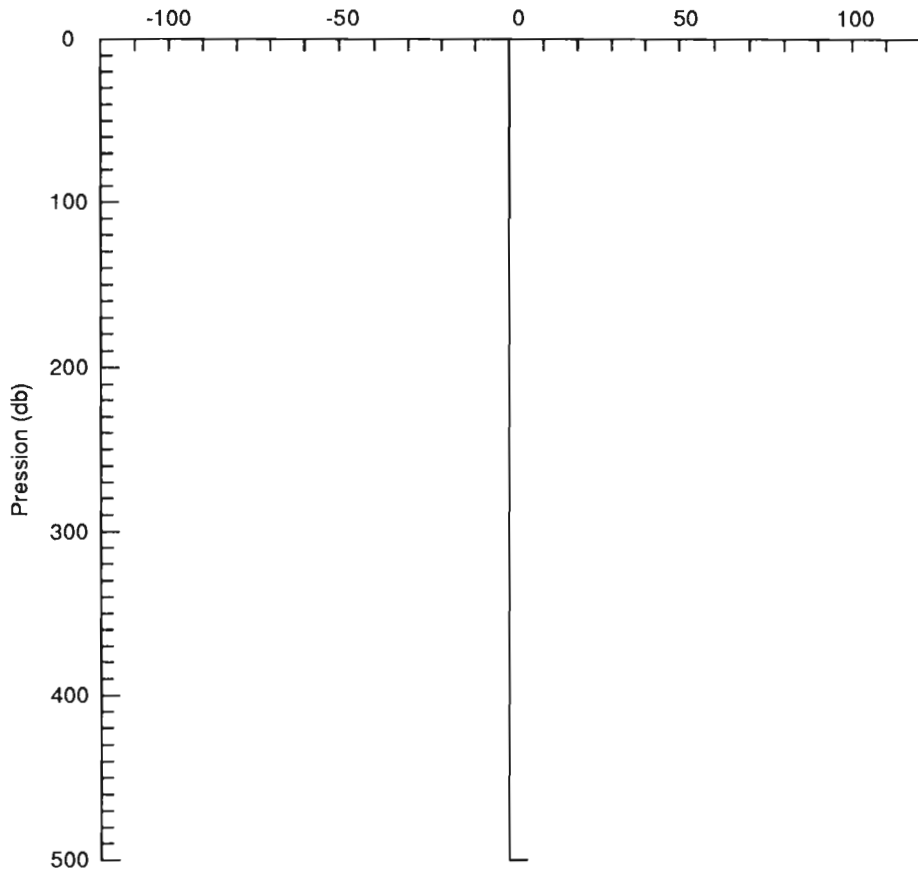




SURTROPAC11 STATION No : 50  
DATE : 26/ 1/89 HEURE : 22h20 LONGITUDE : 165.00 LATITUDE : 0.00



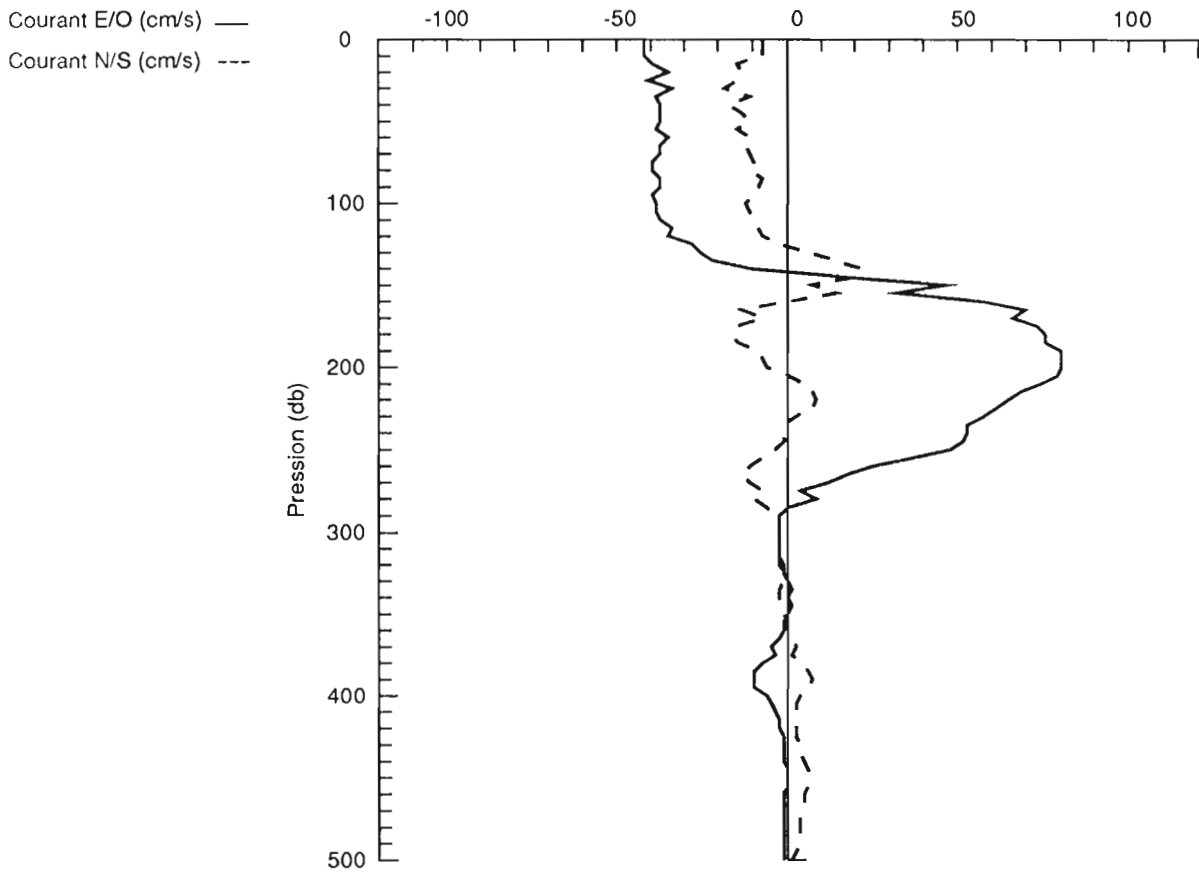
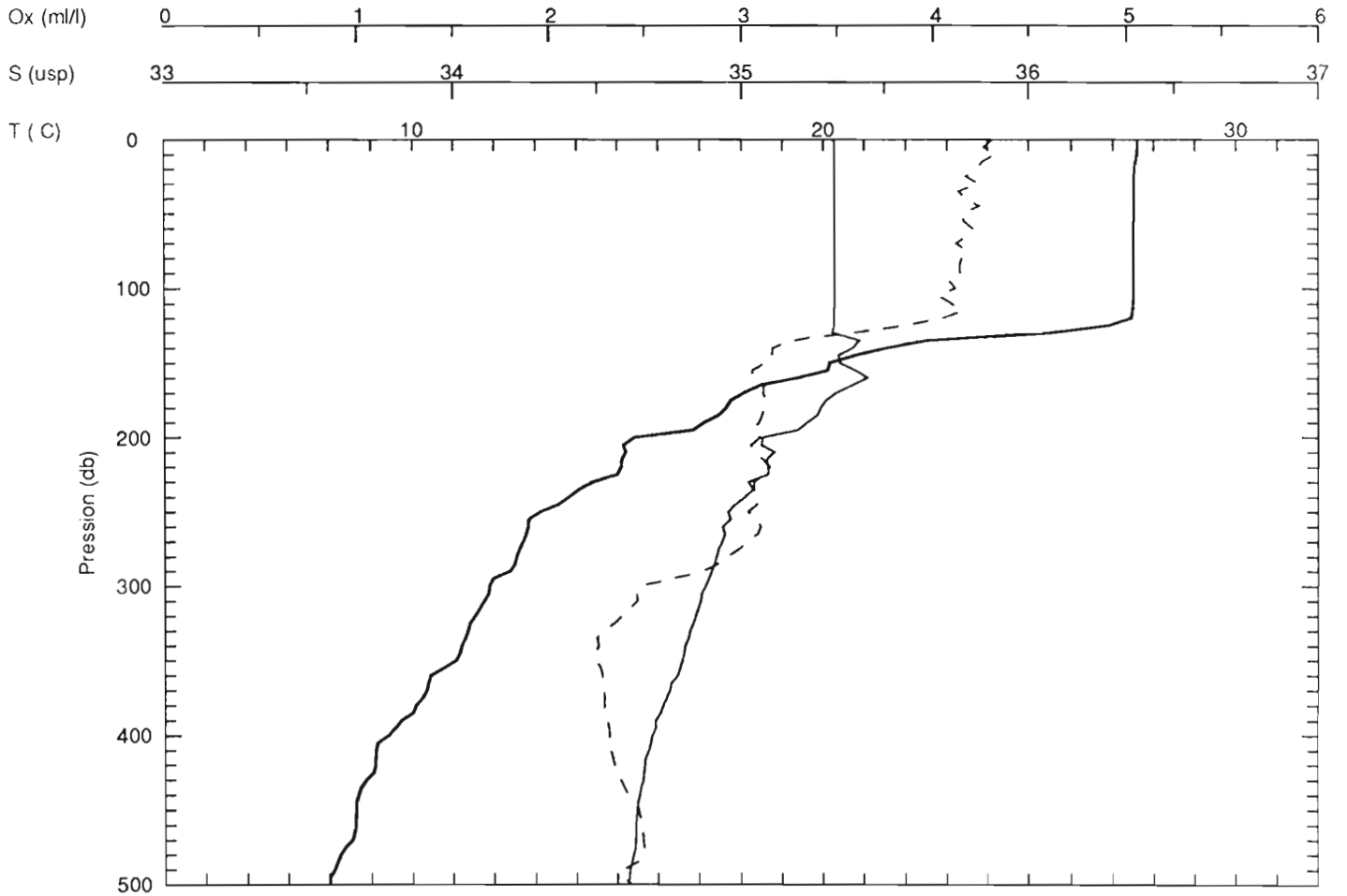
Courant E/O (cm/s) —  
Courant N/S (cm/s) ---







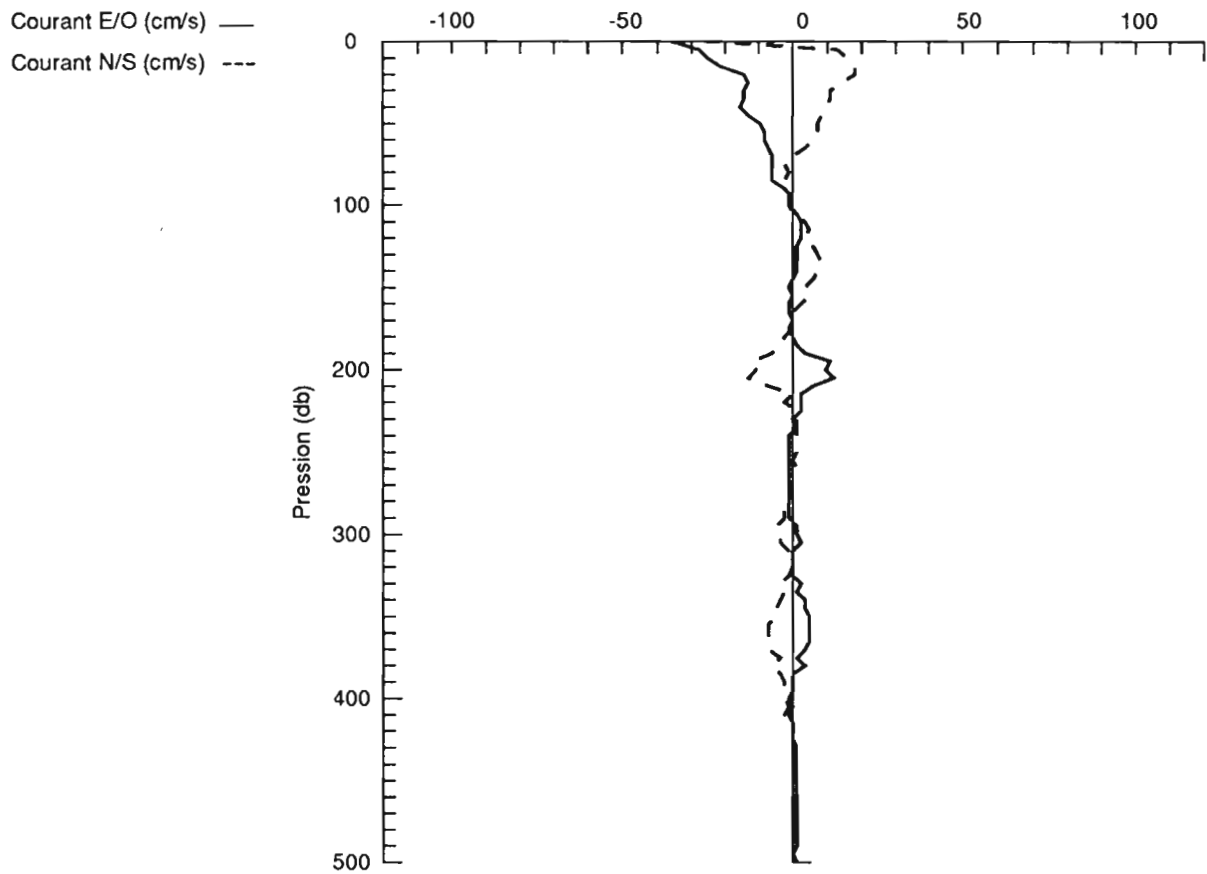
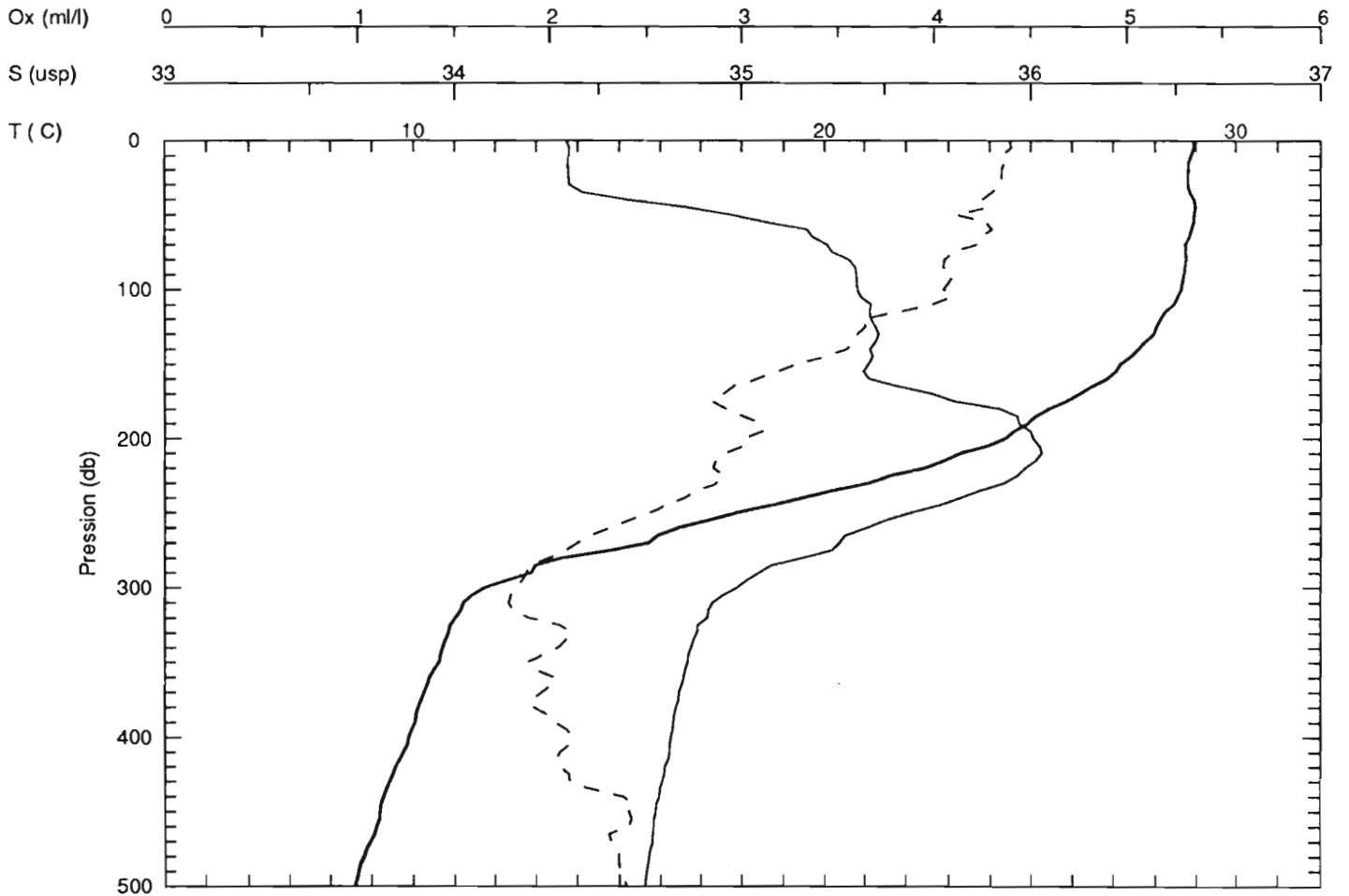
SURTROPAC11 STATION No : 51  
DATE : 27/ 1/89 HEURE : 1h35 LONGITUDE : 165.00 LATITUDE : 0.00



STATION : 52      CAMPAGNE : aurtropac11  
 DATE : 29/ 1/89    HEURE : 7h45    LONGITUDE : 165.00    LATITUDE : -5.00

| P (db) | T (C) | S (usp) | U (cm/s) | V (cm/s) | Sigt (kg/m3) | Sigtheta (kg/m3) | Hdyn (m.dyn) | Oxy (ml/l) | P (db) | T (C) | S (usp) | U (cm/s) | V (cm/s) | Sigt (kg/m3) | Sigtheta (kg/m3) | Hdyn (m.dyn) | Oxy (ml/l) |
|--------|-------|---------|----------|----------|--------------|------------------|--------------|------------|--------|-------|---------|----------|----------|--------------|------------------|--------------|------------|
| 0      | 28.94 | 34.39   | -36.0    | -26.4    | 21.63        | 21.63            | 0.000        | 4.39       | 510    | 8.49  | 34.65   | 0.0      | 0.0      | 29.24        | 26.93            | 1.576        | 2.43       |
| 5      | 28.94 | 34.40   | -27.6    | 13.2     | 21.66        | 21.64            | 0.031        | 4.40       | 520    | 8.38  | 34.64   | 0.0      | 1.2      | 29.30        | 26.95            | 1.588        | 2.49       |
| 10     | 28.88 | 34.40   | -25.2    | 15.6     | 21.70        | 21.66            | 0.062        | 4.35       | 530    | 8.28  | 34.64   | 1.2      | 0.0      | 29.36        | 26.96            | 1.600        | 2.41       |
| 15     | 28.82 | 34.40   | -21.6    | 18.0     | 21.74        | 21.67            | 0.092        | 4.36       | 540    | 8.16  | 34.63   | 1.2      | 0.0      | 29.41        | 26.97            | 1.612        | 2.42       |
| 20     | 28.81 | 34.40   | -14.4    | 18.0     | 21.76        | 21.68            | 0.123        | 4.35       | 550    | 8.10  | 34.63   | 1.2      | 0.0      | 29.46        | 26.97            | 1.624        | 2.48       |
| 25     | 28.80 | 34.40   | -13.2    | 14.4     | 21.79        | 21.68            | 0.154        | 4.35       | 560    | 7.96  | 34.62   | 0.0      | 0.0      | 29.52        | 26.99            | 1.636        | 2.55       |
| 30     | 28.80 | 34.40   | -14.4    | 10.8     | 21.81        | 21.69            | 0.184        | 4.35       | 570    | 7.81  | 34.61   | 0.0      | 0.0      | 29.58        | 27.00            | 1.647        | 2.60       |
| 35     | 28.84 | 34.44   | -14.4    | 10.8     | 21.85        | 21.70            | 0.215        | 4.30       | 580    | 7.75  | 34.60   | -1.2     | 1.2      | 29.64        | 27.01            | 1.659        | 2.59       |
| 40     | 28.95 | 34.60   | -15.6    | 9.6      | 21.95        | 21.78            | 0.245        | 4.24       | 590    | 7.67  | 34.60   | 0.0      | 0.0      | 29.69        | 27.02            | 1.670        | 2.61       |
| 45     | 28.98 | 34.81   | -13.2    | 8.4      | 22.12        | 21.93            | 0.275        | 4.28       | 600    | 7.59  | 34.60   | 0.0      | 0.0      | 29.75        | 27.03            | 1.681        | 2.58       |
| 50     | 28.95 | 34.96   | -9.6     | 7.2      | 22.27        | 22.06            | 0.304        | 4.11       | 610    | 7.47  | 34.59   |          |          | 29.80        | 27.04            | 1.693        | 2.63       |
| 55     | 28.94 | 35.08   | -8.4     | 7.2      | 22.38        | 22.15            | 0.333        | 4.26       | 620    | 7.35  | 34.58   |          |          | 29.86        | 27.05            | 1.704        | 2.72       |
| 60     | 28.89 | 35.22   | -8.4     | 6.0      | 22.53        | 22.28            | 0.361        | 4.30       | 630    | 7.22  | 34.58   |          |          | 29.92        | 27.06            | 1.715        | 2.81       |
| 65     | 28.83 | 35.24   | -7.2     | 5.6      | 22.58        | 22.31            | 0.389        | 4.24       | 640    | 7.15  | 34.57   |          |          | 29.98        | 27.07            | 1.726        | 2.83       |
| 70     | 28.74 | 35.29   | -6.0     | 0.0      | 22.68        | 22.38            | 0.416        | 4.22       | 650    | 7.09  | 34.56   |          |          | 30.03        | 27.07            | 1.737        | 2.87       |
| 75     | 28.74 | 35.31   | -6.0     | -2.4     | 22.71        | 22.39            | 0.444        | 4.10       | 660    | 7.00  | 34.56   |          |          | 30.08        | 27.08            | 1.747        | 2.88       |
| 80     | 28.75 | 35.37   | -6.0     | -1.2     | 22.77        | 22.44            | 0.471        | 4.05       | 670    | 6.95  | 34.56   |          |          | 30.14        | 27.09            | 1.758        | 2.80       |
| 85     | 28.73 | 35.40   | -6.0     | -2.4     | 22.82        | 22.46            | 0.498        | 4.04       | 680    | 6.84  | 34.56   |          |          | 30.20        | 27.10            | 1.769        | 2.88       |
| 90     | 28.70 | 35.40   | -2.4     | -1.2     | 22.85        | 22.47            | 0.525        | 4.09       | 690    | 6.68  | 34.55   |          |          | 30.26        | 27.12            | 1.779        | 2.90       |
| 95     | 28.67 | 35.40   | 0.0      | -1.2     | 22.88        | 22.49            | 0.552        | 4.07       | 700    | 6.60  | 34.55   |          |          | 30.32        | 27.13            | 1.790        | 2.95       |
| 100    | 28.63 | 35.40   | -1.2     | -1.2     | 22.92        | 22.50            | 0.579        | 4.05       | 710    | 6.45  | 34.55   |          |          | 30.38        | 27.15            | 1.800        | 2.91       |
| 105    | 28.54 | 35.42   | 1.2      | 0.0      | 22.98        | 22.54            | 0.606        | 4.09       | 720    | 6.38  | 34.54   |          |          | 30.43        | 27.15            | 1.810        | 2.88       |
| 110    | 28.46 | 35.45   | 2.4      | 3.6      | 23.05        | 22.59            | 0.633        | 3.99       | 730    | 6.36  | 34.54   |          |          | 30.48        | 27.15            | 1.820        | 2.79       |
| 115    | 28.24 | 35.45   | 2.4      | 4.8      | 23.14        | 22.66            | 0.659        | 3.82       | 740    | 6.32  | 34.54   |          |          | 30.53        | 27.16            | 1.831        | 2.84       |
| 120    | 28.14 | 35.45   | 2.4      | 3.6      | 23.21        | 22.70            | 0.685        | 3.64       | 750    | 6.27  | 34.54   |          |          | 30.58        | 27.16            | 1.841        | 2.86       |
| 125    | 28.03 | 35.47   | 1.2      | 6.0      | 23.27        | 22.75            | 0.711        | 3.65       | 760    | 6.23  | 34.54   |          |          | 30.63        | 27.17            | 1.851        | 2.56       |
| 130    | 27.97 | 35.48   | 1.2      | 7.2      | 23.32        | 22.78            | 0.737        | 3.60       | 770    | 6.15  | 34.54   |          |          | 30.69        | 27.18            | 1.860        | 2.44       |
| 135    | 27.77 | 35.47   | 1.2      | 8.4      | 23.40        | 22.83            | 0.762        | 3.59       | 780    | 6.11  | 34.54   |          |          | 30.74        | 27.19            | 1.870        | 2.45       |
| 140    | 27.60 | 35.45   | 1.2      | 7.2      | 23.46        | 22.88            | 0.787        | 3.55       | 790    | 6.01  | 34.54   |          |          | 30.80        | 27.20            | 1.880        | 2.43       |
| 145    | 27.42 | 35.46   | 0.0      | 6.0      | 23.55        | 22.94            | 0.813        | 3.43       | 800    | 5.95  | 34.54   |          |          | 30.86        | 27.21            | 1.890        | 2.49       |
| 150    | 27.17 | 35.44   | -1.2     | 3.6      | 23.64        | 23.01            | 0.837        | 3.28       | 810    | 5.85  | 34.54   |          |          | 30.91        | 27.22            | 1.899        | 2.60       |
| 155    | 27.06 | 35.42   | 0.0      | 4.8      | 23.68        | 23.03            | 0.862        | 3.18       | 820    | 5.71  | 34.54   |          |          | 30.98        | 27.23            | 1.909        | 2.74       |
| 160    | 26.84 | 35.44   | -1.2     | 2.4      | 23.79        | 23.12            | 0.886        | 3.09       | 830    | 5.63  | 34.53   |          |          | 31.03        | 27.24            | 1.918        | 2.77       |
| 165    | 26.48 | 35.55   | -1.2     | 0.0      | 24.01        | 23.31            | 0.910        | 2.96       | 840    | 5.59  | 34.53   |          |          | 31.08        | 27.24            | 1.928        | 2.74       |
| 170    | 26.18 | 35.66   | 0.0      | 0.0      | 24.21        | 23.49            | 0.933        | 2.90       | 850    | 5.55  | 34.53   |          |          | 31.13        | 27.25            | 1.937        | 2.70       |
| 175    | 25.85 | 35.73   | -1.2     | 0.0      | 24.39        | 23.65            | 0.955        | 2.85       | 860    | 5.41  | 34.53   |          |          | 31.20        | 27.26            | 1.946        | 2.63       |
| 180    | 25.44 | 35.89   | 0.0      | -2.4     | 24.65        | 23.89            | 0.976        | 2.92       | 870    | 5.36  | 34.53   |          |          | 31.25        | 27.27            | 1.955        | 2.56       |
| 185    | 25.12 | 35.95   | 1.2      | -3.6     | 24.82        | 24.04            | 0.996        | 3.01       | 880    | 5.31  | 34.53   |          |          | 31.30        | 27.28            | 1.964        | 2.53       |
| 190    | 24.92 | 35.96   | 3.6      | -6.0     | 24.91        | 24.11            | 1.015        | 3.10       | 890    | 5.24  | 34.53   |          |          | 31.36        | 27.29            | 1.973        | 2.54       |
| 195    | 24.59 | 36.00   | 10.8     | -12.0    | 25.06        | 24.24            | 1.034        | 3.11       | 900    | 5.17  | 34.53   |          |          | 31.41        | 27.29            | 1.982        | 2.54       |
| 200    | 24.37 | 36.01   | 9.6      | -10.8    | 25.16        | 24.31            | 1.053        | 3.02       | 910    | 5.17  | 34.53   |          |          | 31.46        | 27.29            | 1.991        | 2.52       |
| 205    | 23.92 | 36.03   | 12.0     | -13.2    | 25.33        | 24.46            | 1.071        | 3.02       | 920    | 5.12  | 34.53   |          |          | 31.51        | 27.30            | 2.000        | 2.48       |
| 210    | 23.29 | 36.04   | 6.0      | -7.2     | 25.54        | 24.65            | 1.089        | 2.91       | 930    | 5.00  | 34.54   |          |          | 31.58        | 27.32            | 2.008        | 2.46       |
| 215    | 22.89 | 36.02   | 2.4      | 0.0      | 25.67        | 24.75            | 1.105        | 2.87       | 940    | 4.92  | 34.54   |          |          | 31.64        | 27.33            | 2.017        | 2.46       |
| 220    | 22.44 | 35.98   | 2.4      | -2.4     | 25.79        | 24.85            | 1.121        | 2.85       | 950    | 4.84  | 34.54   |          |          | 31.69        | 27.34            | 2.025        | 2.47       |
| 225    | 21.64 | 35.95   | 2.4      | 1.2      | 26.02        | 25.06            | 1.137        | 2.90       | 960    | 4.77  | 34.54   |          |          | 31.75        | 27.35            | 2.033        | 2.50       |
| 230    | 21.11 | 35.91   | 0.0      | 1.2      | 26.15        | 25.17            | 1.151        | 2.87       | 970    | 4.73  | 34.54   |          |          | 31.80        | 27.35            | 2.042        | 2.54       |
| 235    | 20.22 | 35.82   | 1.2      | 1.2      | 26.36        | 25.35            | 1.165        | 2.78       | 980    | 4.69  | 34.54   |          |          | 31.85        | 27.35            | 2.050        | 2.50       |
| 240    | 19.46 | 35.75   | -1.2     | 1.2      | 26.53        | 25.49            | 1.179        | 2.70       | 990    | 4.64  | 34.54   |          |          | 31.90        | 27.36            | 2.058        | 2.52       |
| 245    | 18.69 | 35.68   | -1.2     | 1.2      | 26.69        | 25.63            | 1.191        | 2.61       | 1000   | 4.58  | 34.54   |          |          | 31.96        | 27.37            | 2.066        | 2.48       |
| 250    | 17.89 | 35.59   | -1.2     | 1.2      | 26.85        | 25.76            | 1.203        | 2.52       |        |       |         |          |          |              |                  |              |            |
| 255    | 17.19 | 35.50   | -1.2     | 0.0      | 26.98        | 25.87            | 1.215        | 2.41       |        |       |         |          |          |              |                  |              |            |
| 260    | 16.46 | 35.44   | -1.2     | 1.2      | 27.12        | 25.99            | 1.225        | 2.30       |        |       |         |          |          |              |                  |              |            |
| 265    | 15.94 | 35.36   | -1.2     | 0.0      | 27.21        | 26.05            | 1.236        | 2.21       |        |       |         |          |          |              |                  |              |            |
| 270    | 15.70 | 35.34   | -1.2     | 0.0      | 27.27        | 26.09            | 1.246        | 2.14       |        |       |         |          |          |              |                  |              |            |
| 275    | 14.80 | 35.31   | -1.2     | 0.0      | 27.47        | 26.27            | 1.255        | 2.08       |        |       |         |          |          |              |                  |              |            |
| 280    | 13.64 | 35.21   | -1.2     | -1.2     | 27.67        | 26.43            | 1.264        | 2.00       |        |       |         |          |          |              |                  |              |            |
| 285    | 12.98 | 35.10   | -1.2     | -2.4     | 27.75        | 26.48            | 1.272        | 1.90       |        |       |         |          |          |              |                  |              |            |
| 290    | 12.88 | 35.06   | -1.2     | -2.4     | 27.76        | 26.47            | 1.281        | 1.88       |        |       |         |          |          |              |                  |              |            |
| 295    | 12.28 | 35.02   | 1.2      | -4.8     | 27.87        | 26.56            | 1.288        | 1.86       |        |       |         |          |          |              |                  |              |            |
| 300    | 11.73 | 34.98   | 1.2      | -3.6     | 27.97        | 26.64            | 1.296        | 1.81       |        |       |         |          |          |              |                  |              |            |
| 305    | 11.41 | 34.94   | 2.4      | -3.6     | 28.02        | 26.66            | 1.303        | 1.79       |        |       |         |          |          |              |                  |              |            |
| 310    | 11.22 | 34.90   | 0.0      | -1.2     | 28.05        | 26.66            | 1.311        | 1.78       |        |       |         |          |          |              |                  |              |            |
| 315    | 11.15 | 34.88   | 0.0      | 0.0      | 28.07        | 26.66            | 1.318        | 1.81       |        |       |         |          |          |              |                  |              |            |
| 320    | 11.02 | 34.88   | 0.0      | 0.0      | 28.12        | 26.69            | 1.325        | 1.89       |        |       |         |          |          |              |                  |              |            |
| 325    | 10.89 | 34.85   | 0.0      | -1.2     | 28.14        | 26.68            | 1.332        | 2.05       |        |       |         |          |          |              |                  |              |            |
| 330    | 10.85 | 34.84   | 2.4      | -3.6     | 28.16        | 26.69            | 1.339        | 2.11       |        |       |         |          |          |              |                  |              |            |
| 335    | 10.78 | 34.83   | 1.2      | -2.4     | 28.19        | 26.69            | 1.346        | 2.08       |        |       |         |          |          |              |                  |              |            |
| 340    | 10.71 | 34.82   | 3.6      | -3.6     | 28.22        | 26.70            | 1.354        | 2.04       |        |       |         |          |          |              |                  |              |            |
| 345    | 10.66 | 34.81   | 3.6      | -4.8     | 28.24        | 26.70            | 1.361        | 1.96       |        |       |         |          |          |              |                  |              |            |
| 350    | 10.62 | 34.81   | 4.8      | -4.8     | 28.27        | 26.70            | 1.368        | 1.88       |        |       |         |          |          |              |                  |              |            |
| 355    | 10.50 | 34.80   | 4.8      | -7.2     | 28.31        | 26.72            | 1.375        | 1.92       |        |       |         |          |          |              |                  |              |            |
| 360    | 10.39 | 34.80   | 4.8      | -7.2     | 28.35        | 26.73            | 1.382        | 2.03       |        |       |         |          |          |              |                  |              |            |
| 365    | 10.34 | 34.79   | 4.8      | -7.2     | 28.37        | 26.74            | 1.389        | 2.01       |        |       |         |          |          |              |                  |              |            |
| 370    | 10.27 | 34.78   | 3.6      | -7.2     | 28.40        | 26.74            | 1.395        | 1.96       |        |       |         |          |          |              |                  |              |            |
| 375    | 10.19 | 34.78   | 1.2      | -3.6     | 28.44        | 26.75            | 1.402        | 1.90       |        |       |         |          |          |              |                  |              |            |
| 380    | 10.12 | 34.77   | 3.6      | -6.0     | 28.46        | 26.76            | 1.409        | 1.91       |        |       |         |          |          |              |                  |              |            |
| 385    | 10.07 | 34.76   | 0.0      | -3.6     | 28.49        | 26.76            | 1.416        | 2.00       |        |       |         |          |          |              |                  |              |            |
| 390    | 10.05 | 34.76   | 0.0      | -2.4     | 28.51        | 26.76            | 1.423        | 2.03       |        |       |         |          |          |              |                  |              |            |
| 395    | 9.96  | 34.76   | 0.0      | -2.4     | 28.55        | 26.78            | 1.430        | 2.09       |        |       |         |          |          |              |                  |              |            |
| 400    | 9.89  | 34.75   | -1.2     | -2.4     | 28.58        | 26.78            | 1.436        | 2.11       |        |       |         |          |          |              |                  |              |            |
| 405    | 9.86  | 34.75   |          |          |              |                  |              |            |        |       |         |          |          |              |                  |              |            |

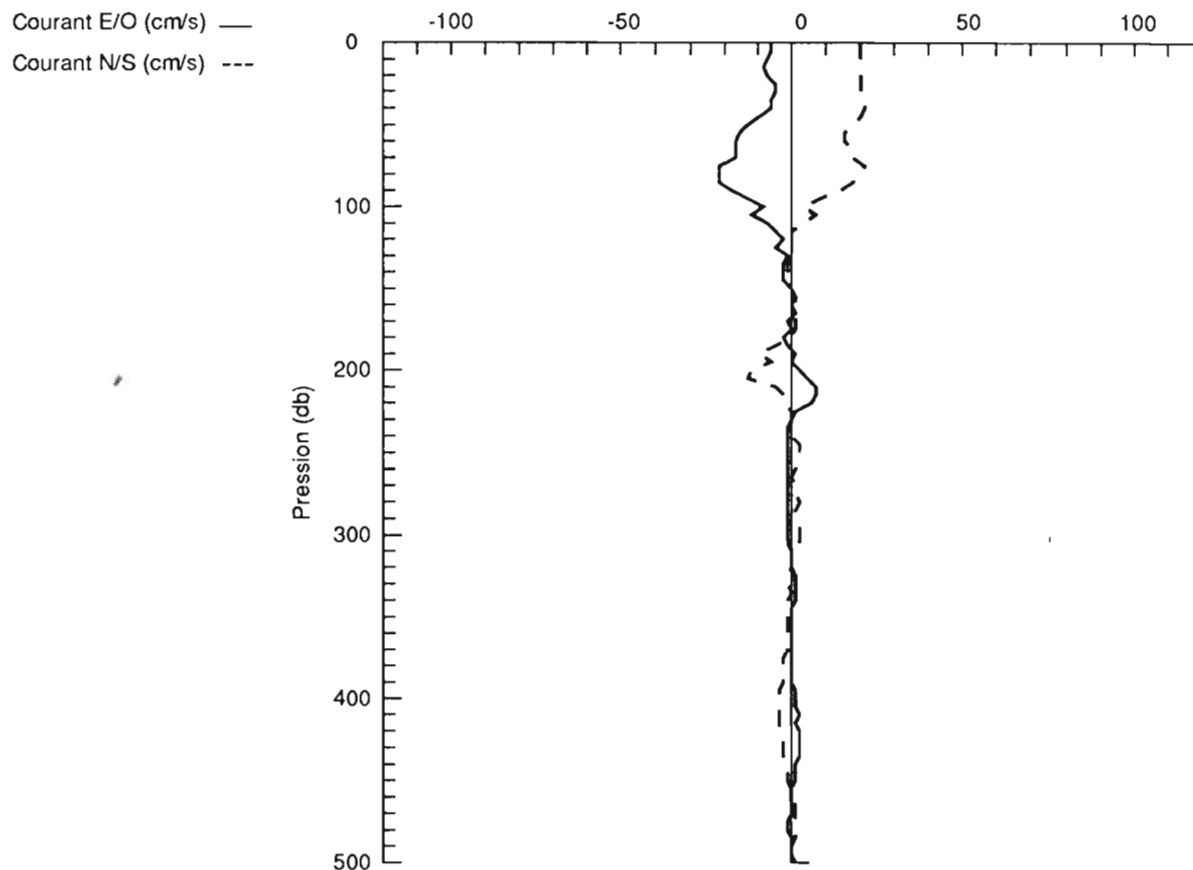
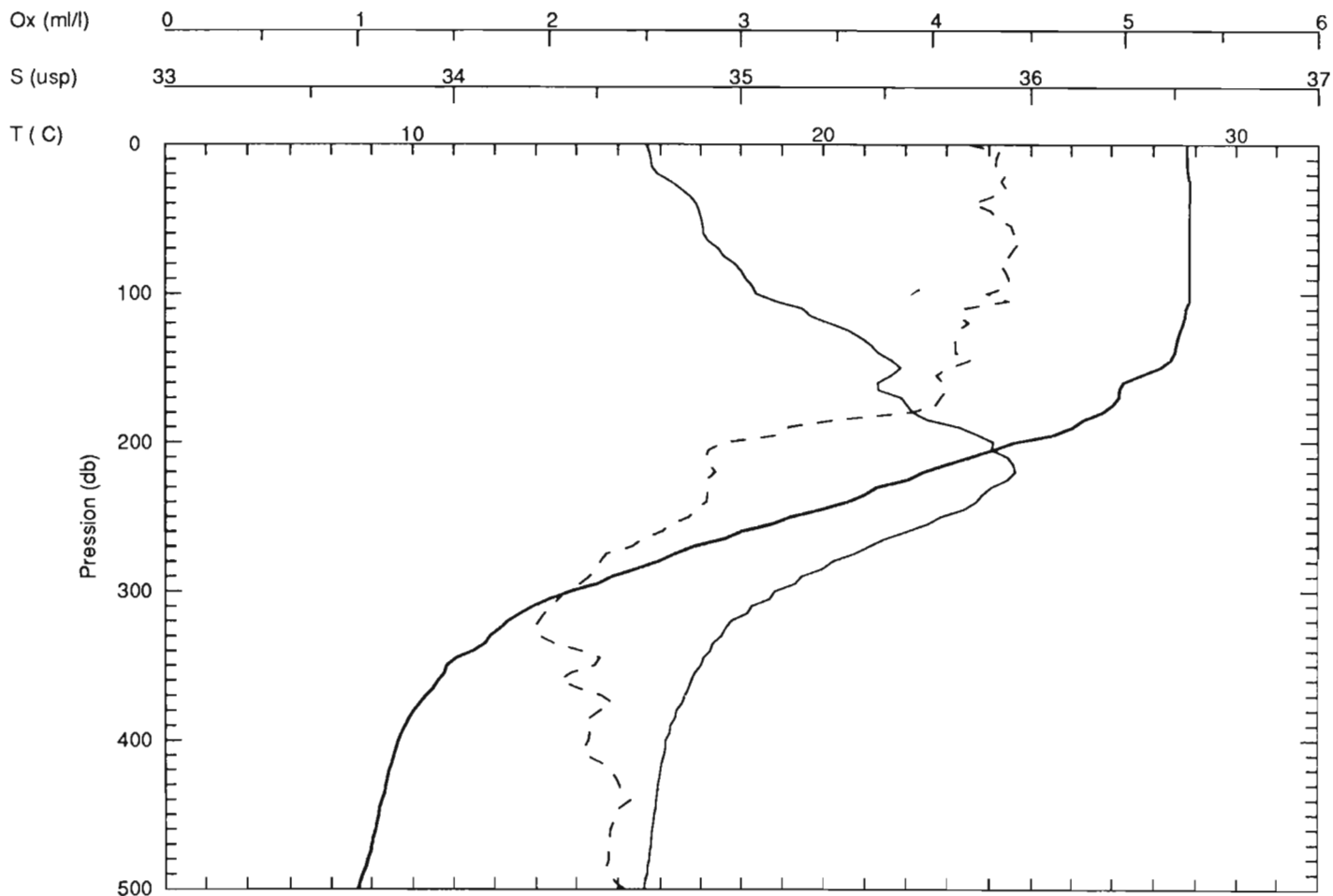
SURTROPAC11 STATION No : 52  
DATE : 29/ 1/89 HEURE : 7h45 LONGITUDE : 165.00 LATITUDE : -5.00



STATION : 53      CAMPAGNE : #utropacl1  
 DATE : 29/ 1/89    HEURE : 17h12    LONGITUDE : 165.00    LATITUDE : -6.00

| P    | T     | S       | U        | V        | Sigt      | Sigtheta  | Rdyn      | Oxy      | P      | T     | S       | U        | V        | Sigt      | Sigtheta  | Rdyn      | Oxy      |
|------|-------|---------|----------|----------|-----------|-----------|-----------|----------|--------|-------|---------|----------|----------|-----------|-----------|-----------|----------|
| (db) | ( C ) | ( usp ) | ( cm/s ) | ( cm/s ) | ( kg/m3 ) | ( kg/m3 ) | ( m.dyn ) | ( ml/l ) | ( db ) | ( C ) | ( usp ) | ( cm/s ) | ( cm/s ) | ( kg/m3 ) | ( kg/m3 ) | ( m.dyn ) | ( ml/l ) |
| 0    | 28.80 | 34.67   | -6.0     | 20.4     | 21.88     | 21.88     | 0.000     | 4.18     | 510    | 8.46  | 34.65   | 0.0      | -1.2     | 29.24     | 26.94     | 1.640     | 2.43     |
| 5    | 28.80 | 34.68   | -6.0     | 20.4     | 21.91     | 21.89     | 0.030     | 4.34     | 520    | 8.31  | 34.64   | 0.0      | -2.4     | 29.30     | 26.95     | 1.652     | 2.40     |
| 10   | 28.80 | 34.68   | -7.2     | 20.4     | 21.94     | 21.89     | 0.059     | 4.32     | 530    | 8.18  | 34.63   | 0.0      | -2.4     | 29.36     | 26.96     | 1.664     | 2.45     |
| 15   | 28.81 | 34.68   | -8.4     | 20.4     | 21.96     | 21.89     | 0.089     | 4.32     | 540    | 8.06  | 34.62   | 0.0      | -2.4     | 29.42     | 26.98     | 1.676     | 2.51     |
| 20   | 28.82 | 34.71   | -7.2     | 20.4     | 21.99     | 21.91     | 0.118     | 4.37     | 550    | 7.92  | 34.61   | 0.0      | -1.2     | 29.48     | 26.99     | 1.688     | 2.54     |
| 25   | 28.86 | 34.75   | -4.8     | 20.4     | 22.04     | 21.93     | 0.148     | 4.35     | 560    | 7.83  | 34.61   | 0.0      | 0.0      | 29.54     | 27.00     | 1.699     | 2.62     |
| 30   | 28.87 | 34.78   | -4.8     | 20.4     | 22.08     | 21.95     | 0.177     | 4.37     | 570    | 7.70  | 34.60   | -1.2     | 1.2      | 29.60     | 27.01     | 1.711     | 2.66     |
| 35   | 28.86 | 34.82   | -6.0     | 21.6     | 22.13     | 21.98     | 0.207     | 4.30     | 580    | 7.64  | 34.60   | -1.2     | 1.2      | 29.65     | 27.02     | 1.722     | 2.66     |
| 40   | 28.87 | 34.84   | -6.0     | 21.6     | 22.16     | 22.00     | 0.236     | 4.20     | 590    | 7.54  | 34.59   | 0.0      | 0.0      | 29.71     | 27.03     | 1.733     | 2.69     |
| 45   | 28.87 | 34.85   | -9.6     | 20.4     | 22.19     | 22.00     | 0.265     | 4.29     | 600    | 7.45  | 34.59   | 1.2      | -1.2     | 29.76     | 27.04     | 1.745     | 2.60     |
| 50   | 28.86 | 34.86   | -13.2    | 18.0     | 22.22     | 22.01     | 0.294     | 4.33     | 610    | 7.36  | 34.58   |          |          | 29.82     | 27.05     | 1.756     | 2.52     |
| 55   | 28.86 | 34.86   | -15.6    | 15.6     | 22.25     | 22.02     | 0.323     | 4.40     | 620    | 7.23  | 34.58   |          |          | 29.88     | 27.06     | 1.767     | 2.53     |
| 60   | 28.86 | 34.87   | -16.8    | 15.6     | 22.27     | 22.02     | 0.352     | 4.41     | 630    | 7.13  | 34.58   |          |          | 29.94     | 27.08     | 1.778     | 2.57     |
| 65   | 28.85 | 34.88   | -16.8    | 18.0     | 22.31     | 22.04     | 0.381     | 4.45     | 640    | 6.95  | 34.57   |          |          | 30.00     | 27.09     | 1.788     | 2.66     |
| 70   | 28.85 | 34.92   | -16.8    | 18.0     | 22.36     | 22.06     | 0.410     | 4.41     | 650    | 6.78  | 34.56   |          |          | 30.07     | 27.11     | 1.799     | 2.74     |
| 75   | 28.85 | 34.94   | -21.6    | 21.6     | 22.39     | 22.08     | 0.439     | 4.39     | 660    | 6.77  | 34.56   |          |          | 30.11     | 27.11     | 1.809     | 2.72     |
| 80   | 28.85 | 34.98   | -21.6    | 20.4     | 22.44     | 22.11     | 0.468     | 4.34     | 670    | 6.72  | 34.55   |          |          | 30.16     | 27.11     | 1.820     | 2.72     |
| 85   | 28.86 | 35.00   | -21.6    | 18.0     | 22.48     | 22.12     | 0.497     | 4.37     | 680    | 6.60  | 34.55   |          |          | 30.23     | 27.13     | 1.830     | 2.73     |
| 90   | 28.86 | 35.02   | -18.0    | 14.4     | 22.51     | 22.13     | 0.525     | 4.38     | 690    | 6.56  | 34.55   |          |          | 30.27     | 27.13     | 1.840     | 2.71     |
| 95   | 28.86 | 35.04   | -13.2    | 8.4      | 22.55     | 22.15     | 0.554     | 4.39     | 700    | 6.46  | 34.55   |          |          | 30.33     | 27.14     | 1.851     | 2.65     |
| 100  | 28.86 | 35.05   | -8.4     | 3.6      | 22.58     | 22.16     | 0.583     | 4.28     | 710    | 6.35  | 34.55   |          |          | 30.40     | 27.16     | 1.861     | 2.57     |
| 105  | 28.85 | 35.12   | -12.0    | 7.2      | 22.66     | 22.22     | 0.611     | 4.38     | 720    | 6.25  | 34.55   |          |          | 30.45     | 27.17     | 1.871     | 2.46     |
| 110  | 28.77 | 35.21   | -7.2     | 3.6      | 22.77     | 22.31     | 0.639     | 4.16     | 730    | 6.17  | 34.54   |          |          | 30.51     | 27.18     | 1.881     | 2.44     |
| 115  | 28.75 | 35.24   | -4.8     | 0.0      | 22.82     | 22.34     | 0.667     | 4.13     | 740    | 6.10  | 34.54   |          |          | 30.56     | 27.18     | 1.890     | 2.48     |
| 120  | 28.71 | 35.31   | -2.4     | 0.0      | 22.91     | 22.40     | 0.695     | 4.18     | 750    | 6.05  | 34.54   |          |          | 30.61     | 27.19     | 1.900     | 2.52     |
| 125  | 28.63 | 35.37   | -4.8     | 0.0      | 23.00     | 22.48     | 0.722     | 4.13     | 760    | 5.98  | 34.54   |          |          | 30.67     | 27.20     | 1.910     | 2.51     |
| 130  | 28.58 | 35.42   | -1.2     | 0.0      | 23.07     | 22.53     | 0.749     | 4.12     | 770    | 5.90  | 34.54   |          |          | 30.72     | 27.21     | 1.920     | 2.53     |
| 135  | 28.53 | 35.45   | -2.4     | -1.2     | 23.14     | 22.57     | 0.775     | 4.11     | 780    | 5.86  | 34.53   |          |          | 30.77     | 27.21     | 1.929     | 2.53     |
| 140  | 28.50 | 35.48   | -2.4     | -1.2     | 23.19     | 22.60     | 0.802     | 4.11     | 790    | 5.79  | 34.53   |          |          | 30.83     | 27.22     | 1.939     | 2.53     |
| 145  | 28.40 | 35.52   | -2.4     | -1.2     | 23.28     | 22.67     | 0.828     | 4.20     | 800    | 5.78  | 34.53   |          |          | 30.87     | 27.22     | 1.948     | 2.54     |
| 150  | 28.16 | 35.56   | 0.0      | 0.0      | 23.40     | 22.77     | 0.854     | 4.08     | 810    | 5.68  | 34.54   |          |          | 30.94     | 27.24     | 1.958     | 2.51     |
| 155  | 27.70 | 35.52   | 1.2      | 1.2      | 23.55     | 22.90     | 0.880     | 4.02     | 820    | 5.63  | 34.54   |          |          | 30.99     | 27.24     | 1.967     | 2.49     |
| 160  | 27.27 | 35.47   | 0.0      | 1.2      | 23.67     | 23.00     | 0.905     | 4.05     | 830    | 5.55  | 34.53   |          |          | 31.04     | 27.25     | 1.976     | 2.47     |
| 165  | 27.18 | 35.48   | 1.2      | 1.2      | 23.73     | 23.03     | 0.929     | 4.07     | 840    | 5.45  | 34.53   |          |          | 31.10     | 27.26     | 1.985     | 2.50     |
| 170  | 27.16 | 35.56   | -1.2     | 1.2      | 23.82     | 23.10     | 0.953     | 4.04     | 850    | 5.47  | 34.53   |          |          | 31.15     | 27.26     | 1.994     | 2.54     |
| 175  | 27.02 | 35.58   | 0.0      | 1.2      | 23.90     | 23.16     | 0.978     | 4.02     | 860    | 5.38  | 34.53   |          |          | 31.20     | 27.27     | 2.003     | 2.53     |
| 180  | 26.78 | 35.60   | -2.4     | 0.0      | 24.01     | 23.25     | 1.001     | 3.89     | 870    | 5.32  | 34.53   |          |          | 31.26     | 27.27     | 2.013     | 2.51     |
| 185  | 26.30 | 35.65   | -1.2     | -4.8     | 24.22     | 23.44     | 1.025     | 3.49     | 880    | 5.26  | 34.53   |          |          | 31.31     | 27.28     | 2.022     | 2.50     |
| 190  | 26.04 | 35.76   | 1.2      | -9.6     | 24.41     | 23.61     | 1.047     | 3.25     | 890    | 5.18  | 34.53   |          |          | 31.37     | 27.29     | 2.030     | 2.44     |
| 195  | 25.55 | 35.82   | 0.0      | -6.0     | 24.63     | 23.81     | 1.068     | 3.20     | 900    | 5.09  | 34.54   |          |          | 31.43     | 27.31     | 2.039     | 2.41     |
| 200  | 24.60 | 35.87   | 2.4      | -12.0    | 24.98     | 24.14     | 1.088     | 2.92     | 910    | 5.00  | 34.54   |          |          | 31.49     | 27.32     | 2.048     | 2.42     |
| 205  | 24.08 | 35.86   | 4.8      | -13.2    | 25.15     | 24.29     | 1.107     | 2.83     | 920    | 4.96  | 34.54   |          |          | 31.54     | 27.32     | 2.056     | 2.43     |
| 210  | 23.55 | 35.92   | 7.2      | -4.8     | 25.38     | 24.48     | 1.125     | 2.82     | 930    | 4.84  | 34.54   |          |          | 31.60     | 27.34     | 2.065     | 2.43     |
| 215  | 22.99 | 35.94   | 7.2      | -2.4     | 25.58     | 24.66     | 1.143     | 2.83     | 940    | 4.81  | 34.54   |          |          | 31.65     | 27.34     | 2.073     | 2.46     |
| 220  | 22.44 | 35.94   | 6.0      | -2.4     | 25.76     | 24.83     | 1.159     | 2.86     | 950    | 4.76  | 34.54   |          |          | 31.70     | 27.35     | 2.081     | 2.47     |
| 225  | 22.05 | 35.92   | 1.2      | 0.0      | 25.88     | 24.92     | 1.175     | 2.82     | 960    | 4.72  | 34.54   |          |          | 31.75     | 27.35     | 2.090     | 2.48     |
| 230  | 21.30 | 35.86   | 0.0      | 0.0      | 26.07     | 25.08     | 1.190     | 2.83     | 970    | 4.67  | 34.54   |          |          | 31.81     | 27.36     | 2.098     | 2.48     |
| 235  | 21.00 | 35.83   | -1.2     | 0.0      | 26.15     | 25.14     | 1.204     | 2.82     | 980    | 4.60  | 34.54   |          |          | 31.86     | 27.37     | 2.106     | 2.48     |
| 240  | 20.58 | 35.81   | -1.2     | 0.0      | 26.27     | 25.24     | 1.219     | 2.82     | 990    | 4.55  | 34.54   |          |          | 31.92     | 27.37     | 2.114     | 2.45     |
| 245  | 19.94 | 35.77   | -1.2     | 2.4      | 26.43     | 25.38     | 1.233     | 2.76     | 1000   | 4.49  | 34.55   |          |          | 31.97     | 27.38     | 2.122     | 2.45     |
| 250  | 19.22 | 35.69   | -1.2     | 2.4      | 26.59     | 25.51     | 1.246     | 2.73     |        |       |         |          |          |           |           |           |          |
| 255  | 18.76 | 35.65   | -1.2     | 2.4      | 26.69     | 25.59     | 1.258     | 2.64     |        |       |         |          |          |           |           |           |          |
| 260  | 18.01 | 35.57   | -1.2     | 1.2      | 26.85     | 25.72     | 1.270     | 2.58     |        |       |         |          |          |           |           |           |          |
| 265  | 17.58 | 35.50   | -1.2     | 0.0      | 26.92     | 25.77     | 1.282     | 2.48     |        |       |         |          |          |           |           |           |          |
| 270  | 16.81 | 35.44   | -1.2     | 1.2      | 27.09     | 25.91     | 1.293     | 2.43     |        |       |         |          |          |           |           |           |          |
| 275  | 16.36 | 35.39   | -1.2     | 1.2      | 27.18     | 25.98     | 1.304     | 2.30     |        |       |         |          |          |           |           |           |          |
| 280  | 15.96 | 35.32   | -1.2     | 2.4      | 27.24     | 26.01     | 1.315     | 2.27     |        |       |         |          |          |           |           |           |          |
| 285  | 15.43 | 35.28   | -1.2     | 1.2      | 27.35     | 26.11     | 1.325     | 2.24     |        |       |         |          |          |           |           |           |          |
| 290  | 14.88 | 35.21   | -1.2     | 2.4      | 27.45     | 26.17     | 1.335     | 2.21     |        |       |         |          |          |           |           |           |          |
| 295  | 14.52 | 35.19   | -1.2     | 2.4      | 27.53     | 26.23     | 1.344     | 2.16     |        |       |         |          |          |           |           |           |          |
| 300  | 13.86 | 35.12   | -1.2     | 2.4      | 27.64     | 26.32     | 1.353     | 2.09     |        |       |         |          |          |           |           |           |          |
| 305  | 13.34 | 35.10   | -1.2     | 2.4      | 27.76     | 26.41     | 1.362     | 2.05     |        |       |         |          |          |           |           |           |          |
| 310  | 12.94 | 35.04   | 0.0      | 0.0      | 27.82     | 26.44     | 1.370     | 2.02     |        |       |         |          |          |           |           |           |          |
| 315  | 12.63 | 35.02   | 0.0      | 0.0      | 27.89     | 26.49     | 1.379     | 1.97     |        |       |         |          |          |           |           |           |          |
| 320  | 12.32 | 34.97   | 0.0      | 0.0      | 27.93     | 26.51     | 1.387     | 1.94     |        |       |         |          |          |           |           |           |          |
| 325  | 12.12 | 34.94   | 1.2      | -1.2     | 27.98     | 26.53     | 1.395     | 1.92     |        |       |         |          |          |           |           |           |          |
| 330  | 11.88 | 34.93   | 1.2      | -1.2     | 28.04     | 26.57     | 1.403     | 1.94     |        |       |         |          |          |           |           |           |          |
| 335  | 11.76 | 34.90   | 1.2      | 0.0      | 28.06     | 26.57     | 1.410     | 2.03     |        |       |         |          |          |           |           |           |          |
| 340  | 11.47 | 34.89   | 1.2      | -1.2     | 28.13     | 26.61     | 1.418     | 2.16     |        |       |         |          |          |           |           |           |          |
| 345  | 11.06 | 34.87   | 0.0      | -1.2     | 28.21     | 26.67     | 1.425     | 2.26     |        |       |         |          |          |           |           |           |          |
| 350  | 10.82 | 34.86   | 0.0      | -1.2     | 28.27     | 26.70     | 1.432     | 2.24     |        |       |         |          |          |           |           |           |          |
| 355  | 10.77 | 34.83   | 0.0      | -1.2     | 28.28     | 26.70     | 1.439     | 2.11     |        |       |         |          |          |           |           |           |          |
| 360  | 10.62 | 34.82   | 0.0      | -1.2     | 28.32     | 26.71     | 1.446     | 2.06     |        |       |         |          |          |           |           |           |          |
| 365  | 10.50 | 34.81   | 0.0      | -1.2     | 28.36     | 26.73     | 1.454     | 2.15     |        |       |         |          |          |           |           |           |          |
| 370  | 10.32 | 34.80   | 0.0      | -1.2     | 28.41     | 26.75     | 1.460     | 2.27     |        |       |         |          |          |           |           |           |          |
| 375  | 10.17 | 34.79   | 0.0      | -2.4     | 28.45     | 26.77     | 1.467     | 2.33     |        |       |         |          |          |           |           |           |          |
| 380  | 10.03 | 34.77   | 0.0      | -2.4     | 28.48     | 26.78     | 1.474     | 2.27     |        |       |         |          |          |           |           |           |          |
| 385  | 9.91  | 34.77   | 0.0      | -2.4     | 28.52     | 26.79     | 1.481     | 2.21     |        |       |         |          |          |           |           |           |          |
| 390  | 9.81  | 34.75   | 0.0      | -2.4     | 28.55     | 26.80     | 1.487     | 2.19     |        |       |         |          |          |           |           |           |          |
| 395  | 9.72  | 34.75   | 1.2      | -3.6     | 28.58     | 26.81     | 1.494     | 2.21     |        |       |         |          |          |           |           |           |          |
| 400  | 9.65  | 34.73   | 1.2      | -3.6     | 28.61     | 26.81     | 1.5       |          |        |       |         |          |          |           |           |           |          |

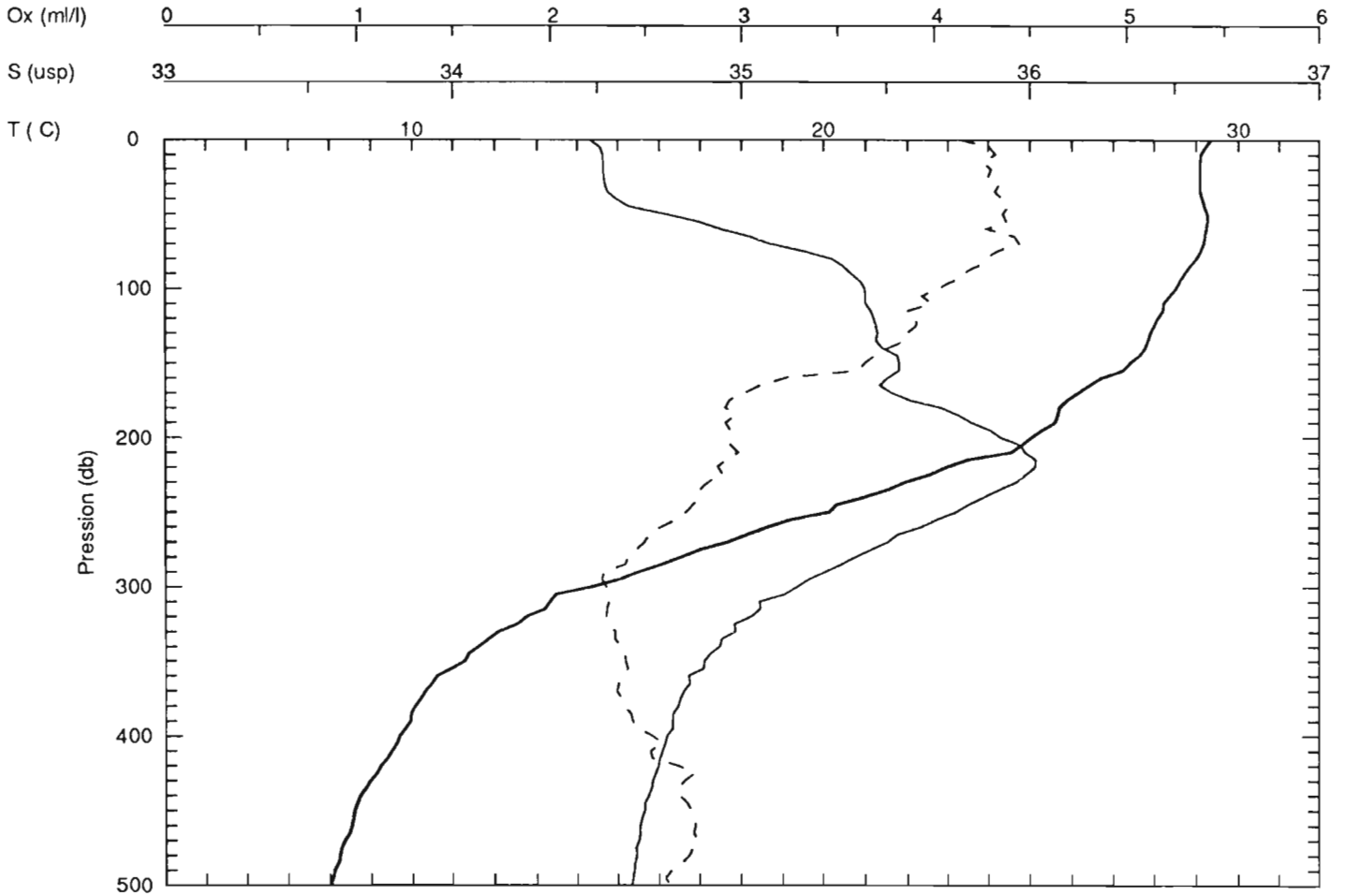
SURTROPAC11 STATION No : 53  
DATE : 29/ 1/89 HEURE : 17h12 LONGITUDE : 165.00 LATITUDE : -6.00



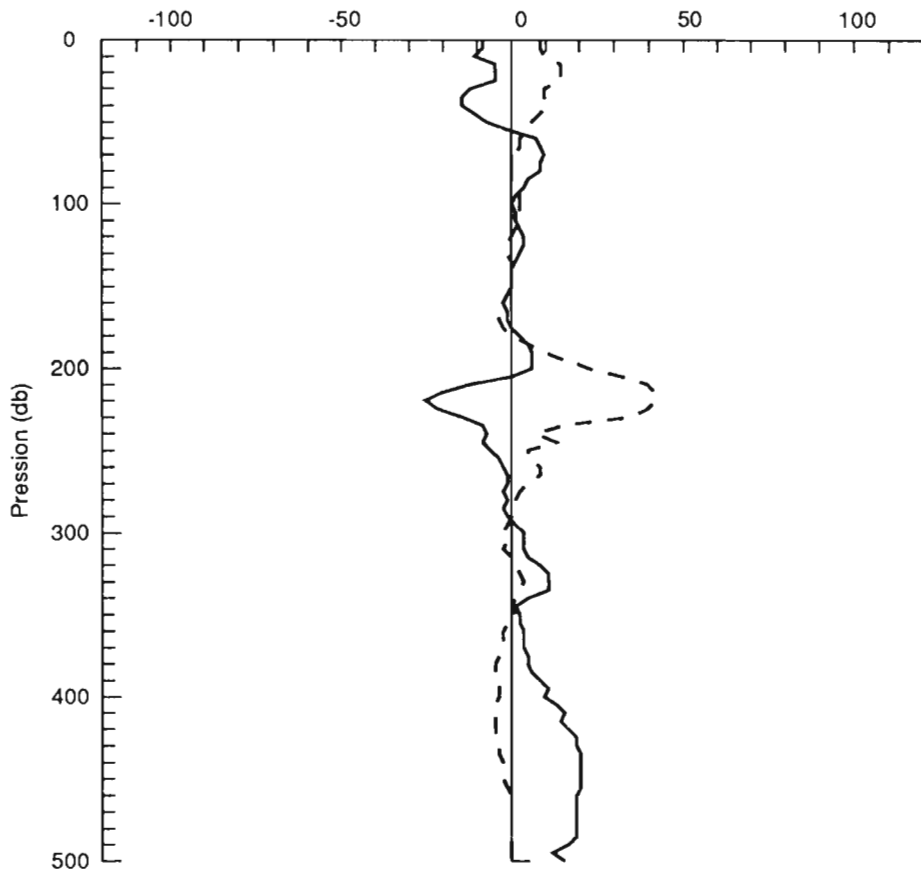
STATION : 54      CAMPAGNE : surtropical  
 DATE : 30/ 1/89    HEURE : 2H00      LONGITUDE : 165.00      LATITUDE : -7.00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | (C)   | (usg) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | (C)  | (usg) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 29.34 | 34.47 | -8.4   | 8.4    | 21.55   | 21.55    | 0.000   | 4.14   | 510  | 7.90 | 34.61 | 3.6    | -1.2   | 29.30   | 26.99    | 1.629   | 2.67   |
| 5    | 29.21 | 34.51 | -8.4   | 8.4    | 21.65   | 21.63    | 0.031   | 4.29   | 520  | 7.79 | 34.61 | 2.4    | -1.2   | 29.36   | 27.00    | 1.640   | 2.69   |
| 10   | 29.11 | 34.52 | -10.8  | 9.6    | 21.71   | 21.67    | 0.062   | 4.32   | 530  | 7.66 | 34.60 | 2.4    | -2.4   | 29.42   | 27.02    | 1.652   | 2.73   |
| 15   | 29.09 | 34.52 | -4.8   | 14.4   | 21.74   | 21.68    | 0.093   | 4.26   | 540  | 7.50 | 34.59 | 2.4    | -2.4   | 29.48   | 27.03    | 1.663   | 2.79   |
| 20   | 29.08 | 34.52 | -4.8   | 14.4   | 21.77   | 21.68    | 0.123   | 4.30   | 550  | 7.45 | 34.59 | 2.4    | -1.2   | 29.53   | 27.04    | 1.674   | 2.84   |
| 25   | 29.08 | 34.52 | -4.8   | 14.4   | 21.79   | 21.68    | 0.154   | 4.28   | 560  | 7.30 | 34.58 | 1.2    | -1.2   | 29.60   | 27.05    | 1.685   | 2.84   |
| 30   | 29.08 | 34.53 | -12.0  | 9.6    | 21.81   | 21.69    | 0.184   | 4.34   | 570  | 7.22 | 34.57 | 1.2    | -1.2   | 29.65   | 27.06    | 1.696   | 2.84   |
| 35   | 29.09 | 34.53 | -14.4  | 9.6    | 21.84   | 21.69    | 0.215   | 4.32   | 580  | 7.07 | 34.57 | -1.2   | 1.2    | 29.72   | 27.08    | 1.707   | 2.88   |
| 40   | 29.14 | 34.57 | -14.4  | 10.8   | 21.86   | 21.70    | 0.246   | 4.36   | 590  | 6.96 | 34.56 | -1.2   | 1.2    | 29.77   | 27.09    | 1.717   | 2.94   |
| 45   | 29.19 | 34.61 | -10.8  | 8.4    | 21.90   | 21.71    | 0.276   | 4.39   | 600  | 6.93 | 34.56 |        |        | 29.82   | 27.09    | 1.728   | 2.93   |
| 50   | 29.25 | 34.74 | -7.2   | 6.0    | 22.00   | 21.79    | 0.307   | 4.36   | 610  | 6.79 | 34.56 |        |        | 29.88   | 27.11    | 1.739   | 2.98   |
| 55   | 29.26 | 34.65 | -1.2   | 4.8    | 22.10   | 21.87    | 0.337   | 4.38   | 620  | 6.71 | 34.55 |        |        | 29.93   | 27.11    | 1.749   | 3.04   |
| 60   | 29.23 | 34.93 | 7.2    | 2.4    | 22.19   | 21.94    | 0.366   | 4.28   | 630  | 6.66 | 34.55 |        |        | 29.98   | 27.12    | 1.760   | 3.05   |
| 65   | 29.20 | 35.03 | 8.4    | 2.4    | 22.30   | 22.02    | 0.396   | 4.42   | 640  | 6.50 | 34.54 |        |        | 30.05   | 27.14    | 1.770   | 3.09   |
| 70   | 29.17 | 35.10 | 9.6    | 1.2    | 22.38   | 22.09    | 0.424   | 4.45   | 650  | 6.34 | 34.54 |        |        | 30.12   | 27.16    | 1.780   | 3.09   |
| 75   | 29.09 | 35.22 | 8.4    | 0.0    | 22.52   | 22.21    | 0.453   | 4.33   | 660  | 6.23 | 34.54 |        |        | 30.18   | 27.17    | 1.790   | 3.06   |
| 80   | 29.00 | 35.31 | 8.4    | 0.0    | 22.64   | 22.31    | 0.481   | 4.27   | 670  | 6.16 | 34.53 |        |        | 30.23   | 27.17    | 1.800   | 3.14   |
| 85   | 28.86 | 35.35 | 4.8    | 0.0    | 22.74   | 22.38    | 0.509   | 4.23   | 680  | 6.04 | 34.53 |        |        | 30.29   | 27.18    | 1.809   | 3.18   |
| 90   | 28.73 | 35.38 | 3.6    | 1.2    | 22.83   | 22.45    | 0.536   | 4.15   | 690  | 5.96 | 34.53 |        |        | 30.34   | 27.19    | 1.819   | 3.16   |
| 95   | 28.62 | 35.41 | 1.2    | 2.4    | 22.90   | 22.51    | 0.563   | 4.11   | 700  | 5.94 | 34.52 |        |        | 30.39   | 27.19    | 1.829   | 3.11   |
| 100  | 28.53 | 35.42 | 0.0    | 2.4    | 22.97   | 22.55    | 0.590   | 4.01   | 710  | 5.87 | 34.53 |        |        | 30.45   | 27.20    | 1.838   | 3.08   |
| 105  | 28.37 | 35.43 | 1.2    | 2.4    | 23.04   | 22.60    | 0.616   | 3.93   | 720  | 5.80 | 34.53 |        |        | 30.50   | 27.21    | 1.848   | 2.95   |
| 110  | 28.23 | 35.43 | 1.2    | 2.4    | 23.11   | 22.65    | 0.642   | 3.98   | 730  | 5.75 | 34.53 |        |        | 30.56   | 27.22    | 1.857   | 2.94   |
| 115  | 28.21 | 35.44 | 2.4    | 1.2    | 23.15   | 22.67    | 0.669   | 3.85   | 740  | 5.72 | 34.53 |        |        | 30.60   | 27.22    | 1.867   | 2.94   |
| 120  | 28.09 | 35.45 | 3.6    | 0.0    | 23.22   | 22.72    | 0.695   | 3.90   | 750  | 5.66 | 34.53 |        |        | 30.66   | 27.23    | 1.876   | 2.87   |
| 125  | 28.00 | 35.46 | 3.6    | -1.2   | 23.28   | 22.75    | 0.720   | 3.90   | 760  | 5.61 | 34.53 |        |        | 30.71   | 27.23    | 1.885   | 2.79   |
| 130  | 27.91 | 35.47 | 2.4    | -1.2   | 23.33   | 22.79    | 0.746   | 3.85   | 770  | 5.57 | 34.53 |        |        | 30.76   | 27.24    | 1.895   | 2.78   |
| 135  | 27.85 | 35.46 | 1.2    | 0.0    | 23.37   | 22.80    | 0.772   | 3.85   | 780  | 5.54 | 34.53 |        |        | 30.81   | 27.24    | 1.904   | 2.71   |
| 140  | 27.77 | 35.48 | 0.0    | 0.0    | 23.43   | 22.85    | 0.797   | 3.75   | 790  | 5.52 | 34.53 |        |        | 30.86   | 27.25    | 1.913   | 2.69   |
| 145  | 27.64 | 35.53 | 0.0    | 0.0    | 23.54   | 22.93    | 0.822   | 3.69   | 800  | 5.43 | 34.53 |        |        | 30.92   | 27.26    | 1.922   | 2.69   |
| 150  | 27.40 | 35.54 | 0.0    | 0.0    | 23.64   | 23.01    | 0.847   | 3.64   | 810  | 5.39 | 34.53 |        |        | 30.97   | 27.26    | 1.931   | 2.69   |
| 155  | 27.23 | 35.54 | -1.2   | -1.2   | 23.72   | 23.07    | 0.872   | 3.61   | 820  | 5.36 | 34.53 |        |        | 31.02   | 27.27    | 1.940   | 2.55   |
| 160  | 26.69 | 35.50 | -2.4   | -2.4   | 23.88   | 23.21    | 0.896   | 3.22   | 830  | 5.26 | 34.53 |        |        | 31.08   | 27.28    | 1.949   | 2.49   |
| 165  | 26.41 | 35.47 | -1.2   | -3.6   | 23.97   | 23.28    | 0.919   | 3.10   | 840  | 5.20 | 34.53 |        |        | 31.14   | 27.29    | 1.958   | 2.46   |
| 170  | 26.14 | 35.51 | -1.2   | -3.6   | 24.11   | 23.39    | 0.942   | 3.02   | 850  | 5.16 | 34.53 |        |        | 31.19   | 27.29    | 1.967   | 2.44   |
| 175  | 25.88 | 35.58 | 0.0    | -2.4   | 24.26   | 23.52    | 0.965   | 2.94   | 860  | 5.13 | 34.53 |        |        | 31.24   | 27.30    | 1.975   | 2.44   |
| 180  | 25.70 | 35.69 | 2.4    | 0.0    | 24.42   | 23.66    | 0.987   | 2.91   | 870  | 5.10 | 34.53 |        |        | 31.29   | 27.30    | 1.984   | 2.43   |
| 185  | 25.66 | 35.75 | 4.8    | 4.8    | 24.50   | 23.72    | 1.008   | 2.97   | 880  | 5.07 | 34.53 |        |        | 31.34   | 27.31    | 1.993   | 2.45   |
| 190  | 25.59 | 35.79 | 6.0    | 9.6    | 24.58   | 23.77    | 1.029   | 2.92   | 890  | 5.02 | 34.54 |        |        | 31.39   | 27.31    | 2.001   | 2.46   |
| 195  | 25.27 | 35.86 | 6.0    | 15.6   | 24.75   | 23.93    | 1.050   | 2.94   | 900  | 4.95 | 34.54 |        |        | 31.45   | 27.32    | 2.010   | 2.47   |
| 200  | 25.02 | 35.90 | 6.0    | 22.8   | 24.88   | 24.03    | 1.070   | 2.93   | 910  | 4.93 | 34.54 |        |        | 31.50   | 27.32    | 2.019   | 2.45   |
| 205  | 24.80 | 35.97 | 0.0    | 32.4   | 25.02   | 24.15    | 1.089   | 2.94   | 920  | 4.86 | 34.54 |        |        | 31.55   | 27.33    | 2.027   | 2.46   |
| 210  | 24.54 | 35.98 | -12.0  | 39.6   | 25.13   | 24.24    | 1.108   | 2.98   | 930  | 4.80 | 34.54 |        |        | 31.61   | 27.34    | 2.035   | 2.42   |
| 215  | 23.49 | 36.02 | -20.4  | 42.0   | 25.49   | 24.58    | 1.126   | 2.91   | 940  | 4.74 | 34.54 |        |        | 31.66   | 27.35    | 2.043   | 2.42   |
| 220  | 22.94 | 36.02 | -25.2  | 42.0   | 25.67   | 24.74    | 1.143   | 2.87   | 950  | 4.72 | 34.54 |        |        | 31.71   | 27.35    | 2.052   | 2.38   |
| 225  | 22.52 | 35.98 | -21.6  | 39.6   | 25.79   | 24.83    | 1.160   | 2.91   | 960  | 4.68 | 34.54 |        |        | 31.76   | 27.36    | 2.060   | 2.38   |
| 230  | 21.94 | 35.95 | -14.4  | 34.8   | 25.96   | 24.97    | 1.175   | 2.83   | 970  | 4.64 | 34.54 |        |        | 31.81   | 27.36    | 2.068   | 2.38   |
| 235  | 21.51 | 35.89 | -8.4   | 15.6   | 26.05   | 25.05    | 1.190   | 2.79   | 980  | 4.61 | 34.54 |        |        | 31.86   | 27.37    | 2.076   | 2.38   |
| 240  | 20.94 | 35.84 | -7.2   | 7.2    | 26.19   | 25.16    | 1.205   | 2.79   | 990  | 4.58 | 34.54 |        |        | 31.91   | 27.37    | 2.084   | 2.36   |
| 245  | 20.30 | 35.78 | -8.4   | 13.2   | 26.35   | 25.29    | 1.219   | 2.75   | 1000 | 4.56 | 34.54 |        |        | 31.96   | 27.37    | 2.092   | 2.40   |
| 250  | 20.14 | 35.74 | -6.0   | 4.8    | 26.78   | 25.30    | 1.233   | 2.71   |      |      |       |        |        |         |          |         |        |
| 255  | 19.21 | 35.67 | -3.6   | 4.8    | 26.60   | 25.50    | 1.246   | 2.65   |      |      |       |        |        |         |          |         |        |
| 260  | 18.64 | 35.62 | -2.4   | 8.4    | 26.73   | 25.60    | 1.259   | 2.59   |      |      |       |        |        |         |          |         |        |
| 265  | 18.13 | 35.54 | -1.2   | 8.4    | 26.81   | 25.66    | 1.271   | 2.52   |      |      |       |        |        |         |          |         |        |
| 270  | 17.66 | 35.50 | -1.2   | 4.8    | 26.92   | 25.75    | 1.283   | 2.50   |      |      |       |        |        |         |          |         |        |
| 275  | 17.01 | 35.45 | -2.4   | 2.4    | 27.06   | 25.87    | 1.295   | 2.45   |      |      |       |        |        |         |          |         |        |
| 280  | 16.55 | 35.40 | -1.2   | 1.2    | 27.16   | 25.93    | 1.306   | 2.41   |      |      |       |        |        |         |          |         |        |
| 285  | 16.06 | 35.35 | -2.4   | 1.2    | 27.26   | 26.01    | 1.316   | 2.39   |      |      |       |        |        |         |          |         |        |
| 290  | 15.51 | 35.29 | -1.2   | 0.0    | 27.36   | 26.09    | 1.326   | 2.29   |      |      |       |        |        |         |          |         |        |
| 295  | 15.05 | 35.23 | 1.2    | -1.2   | 27.45   | 26.15    | 1.336   | 2.28   |      |      |       |        |        |         |          |         |        |
| 300  | 14.36 | 35.19 | 3.6    | -2.4   | 27.59   | 26.27    | 1.346   | 2.30   |      |      |       |        |        |         |          |         |        |
| 305  | 13.47 | 35.15 | 3.6    | -1.2   | 27.77   | 26.42    | 1.354   | 2.30   |      |      |       |        |        |         |          |         |        |
| 310  | 13.32 | 35.06 | 3.6    | -2.4   | 27.76   | 26.39    | 1.363   | 2.31   |      |      |       |        |        |         |          |         |        |
| 315  | 13.20 | 35.06 | 4.8    | 0.0    | 27.80   | 26.41    | 1.372   | 2.30   |      |      |       |        |        |         |          |         |        |
| 320  | 12.77 | 35.03 | 8.4    | 1.2    | 27.89   | 26.48    | 1.380   | 2.30   |      |      |       |        |        |         |          |         |        |
| 325  | 12.53 | 34.98 | 10.8   | 2.4    | 27.92   | 26.48    | 1.388   | 2.31   |      |      |       |        |        |         |          |         |        |
| 330  | 12.10 | 34.98 | 10.8   | 3.6    | 28.03   | 26.56    | 1.396   | 2.34   |      |      |       |        |        |         |          |         |        |
| 335  | 11.86 | 34.93 | 10.8   | 2.4    | 28.06   | 26.57    | 1.404   | 2.34   |      |      |       |        |        |         |          |         |        |
| 340  | 11.63 | 34.92 | 4.8    | 1.2    | 28.12   | 26.61    | 1.411   | 2.37   |      |      |       |        |        |         |          |         |        |
| 345  | 11.39 | 34.89 | 1.2    | 0.0    | 28.17   | 26.63    | 1.419   | 2.39   |      |      |       |        |        |         |          |         |        |
| 350  | 11.30 | 34.87 | 2.4    | 1.2    | 28.19   | 26.63    | 1.426   | 2.40   |      |      |       |        |        |         |          |         |        |
| 355  | 10.98 | 34.87 | 2.4    | -1.2   | 28.27   | 26.69    | 1.434   | 2.41   |      |      |       |        |        |         |          |         |        |
| 360  | 10.62 | 34.82 | 3.6    | -2.4   | 28.32   | 26.71    | 1.441   | 2.39   |      |      |       |        |        |         |          |         |        |
| 365  | 10.49 | 34.82 | 3.6    | -2.4   | 28.37   | 26.74    | 1.448   | 2.36   |      |      |       |        |        |         |          |         |        |
| 370  | 10.33 | 34.80 | 3.6    | -2.4   | 28.41   | 26.75    | 1.455   | 2.35   |      |      |       |        |        |         |          |         |        |
| 375  | 10.22 | 34.79 | 4.8    | -3.6   | 28.44   | 26.76    | 1.462   | 2.37   |      |      |       |        |        |         |          |         |        |
| 380  | 10.08 | 34.78 | 4.8    | -4.8   | 28.48   | 26.78    | 1.468   | 2.38   |      |      |       |        |        |         |          |         |        |
| 385  | 9.98  | 34.76 | 6.0    | -4.8   | 28.51   | 26.78    | 1.475   | 2.42   |      |      |       |        |        |         |          |         |        |
| 390  | 9.96  | 34.76 | 8.4    | -3.6   | 28.53   | 26.78    | 1.482   | 2.43   |      |      |       |        |        |         |          |         |        |
| 395  | 9.83  | 34.76 | 10.8   | -3.6   | 28.58   | 26.80    | 1.488   | 2.46   |      |      |       |        |        |         |          |         |        |
| 400  | 9.69  | 34.74 | 9.6    | -3.6   | 28.61   | 26.81    | 1.495   | 2.54   |      |      |       | </     |        |         |          |         |        |

SURTROPAC11 STATION No : 54  
DATE : 30/ 1/89 HEURE : 2h00 LONGITUDE : 165.00 LATITUDE : -7.00



Courant E/O (cm/s) —  
Courant N/S (cm/s) - - -

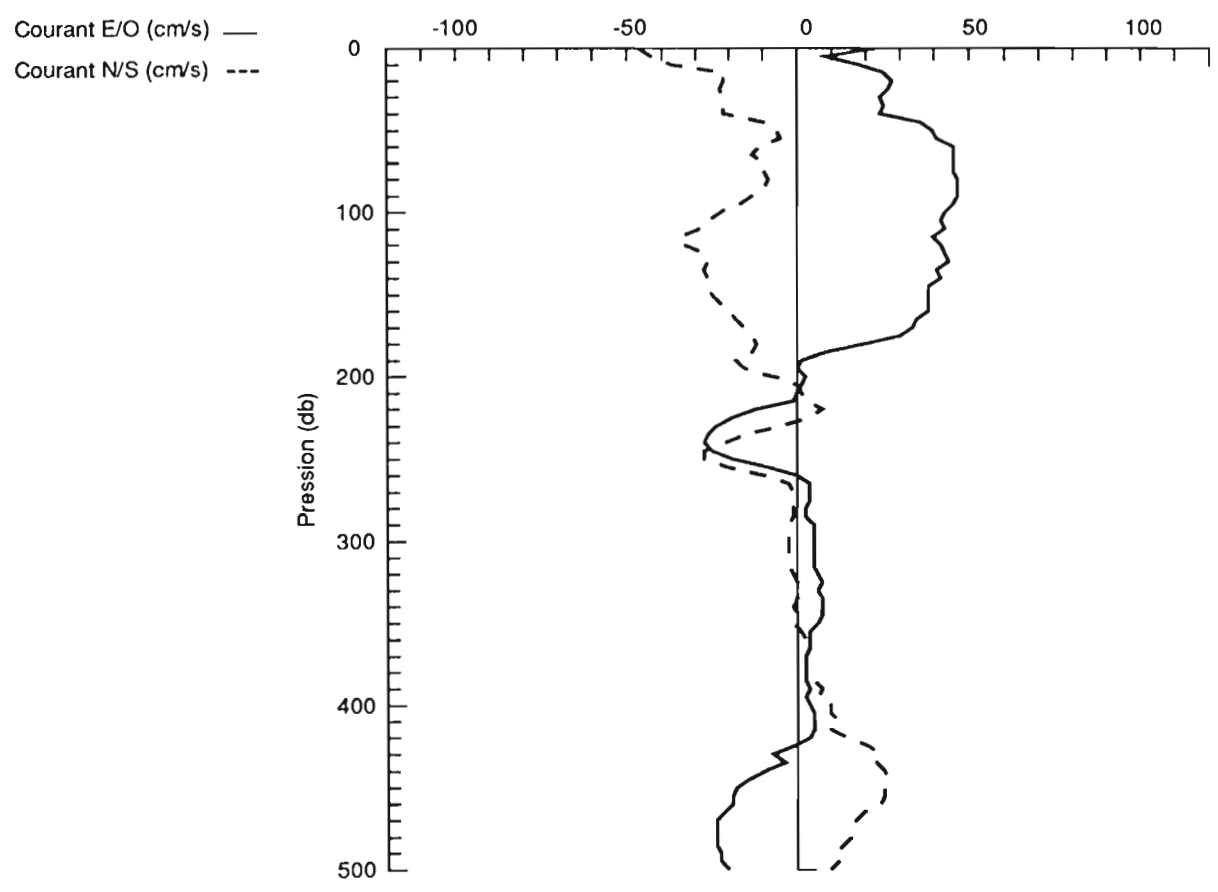
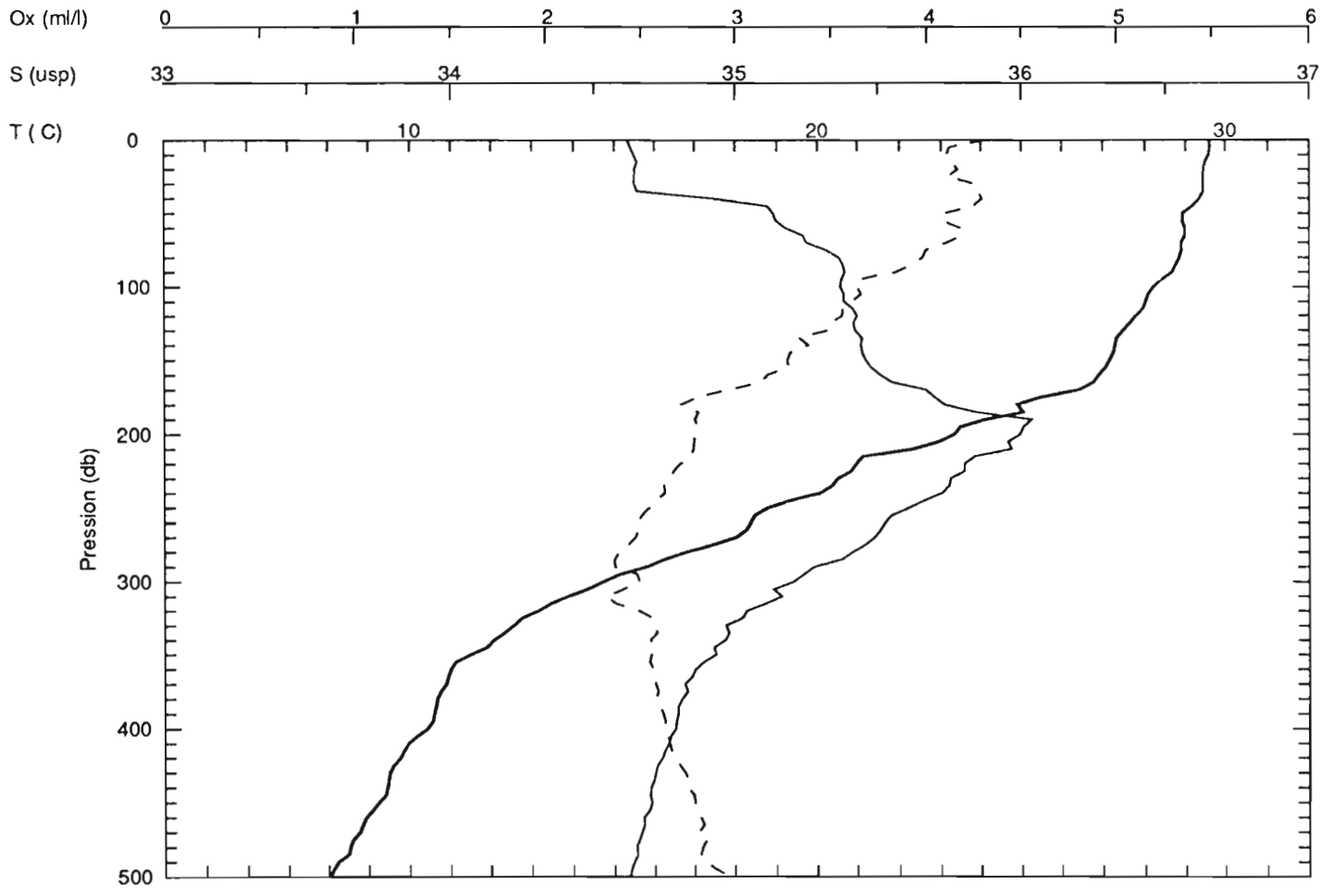


STATION : 55      CAMPAGNE : murtropac11  
 DATE : 30/ 1/89    HEURE : 10h12    LONGITUDE : 165.00    LATITUDE : -8 00

| P    | T     | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    | P    | T    | S     | U      | V      | Sigt    | Sigtheta | Hdyn    | Oxy    |
|------|-------|-------|--------|--------|---------|----------|---------|--------|------|------|-------|--------|--------|---------|----------|---------|--------|
| (db) | ( C)  | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) | (db) | ( C) | (uap) | (cm/s) | (cm/s) | (kg/m3) | (kg/m3)  | (m.dyn) | (ml/l) |
| 0    | 29.61 | 34.62 | 22.8   | -46.8  | 21.58   | 21.58    | 0.000   | 4.31   | 510  | 7.97 | 34.61 | -16.8  | 8.4    | 29.29   | 26.98    | 1.600   | 2.96   |
| 5    | 29.61 | 34.63 | 8.4    | -43.2  | 21.61   | 21.58    | 0.031   | 4.11   | 520  | 7.74 | 34.60 | -9.6   | 4.8    | 29.37   | 27.01    | 1.612   | 2.99   |
| 10   | 29.58 | 34.64 | 18.0   | -37.2  | 21.64   | 21.60    | 0.062   | 4.10   | 530  | 7.60 | 34.60 | -7.2   | 3.6    | 29.41   | 27.02    | 1.623   | 3.05   |
| 15   | 29.49 | 34.65 | 25.2   | -21.6  | 21.71   | 21.64    | 0.093   | 4.13   | 540  | 7.44 | 34.58 | 2.4    | 1.2    | 29.49   | 27.04    | 1.634   | 3.03   |
| 20   | 29.45 | 34.64 | 27.6   | -21.6  | 21.73   | 21.65    | 0.124   | 4.16   | 550  | 7.33 | 34.58 | -2.4   | 1.2    | 29.55   | 27.05    | 1.645   | 3.03   |
| 25   | 29.44 | 34.64 | 26.4   | -22.8  | 21.76   | 21.65    | 0.155   | 4.10   | 560  | 7.20 | 34.57 | -2.4   | 1.2    | 29.61   | 27.06    | 1.656   | 3.08   |
| 30   | 29.44 | 34.64 | 24.0   | -21.6  | 21.78   | 21.65    | 0.185   | 4.25   | 570  | 7.08 | 34.56 | 0.0    | -1.2   | 29.66   | 27.07    | 1.667   | 3.08   |
| 35   | 29.44 | 34.65 | 25.2   | -21.6  | 21.81   | 21.66    | 0.216   | 4.26   | 580  | 7.04 | 34.56 | 1.2    | -1.2   | 29.71   | 27.07    | 1.677   | 3.03   |
| 40   | 29.33 | 34.92 | 24.0   | -21.6  | 22.07   | 21.90    | 0.246   | 4.29   | 590  | 6.91 | 34.55 | 2.4    | -1.2   | 29.77   | 27.09    | 1.688   | 3.12   |
| 45   | 29.16 | 35.11 | 36.0   | -9.6   | 22.29   | 22.10    | 0.276   | 4.24   | 600  | 6.88 | 34.55 |        |        | 29.82   | 27.09    | 1.699   | 3.13   |
| 50   | 28.91 | 35.13 | 39.6   | -6.0   | 22.41   | 22.20    | 0.304   | 4.09   | 610  | 6.82 | 34.55 |        |        | 29.87   | 27.10    | 1.709   | 3.16   |
| 55   | 28.91 | 35.14 | 40.8   | -4.8   | 22.44   | 22.21    | 0.332   | 4.07   | 620  | 6.72 | 34.54 |        |        | 29.93   | 27.11    | 1.720   | 3.13   |
| 60   | 28.97 | 35.17 | 45.6   | -10.8  | 22.46   | 22.21    | 0.360   | 4.18   | 630  | 6.59 | 34.55 |        |        | 30.00   | 27.13    | 1.730   | 3.03   |
| 65   | 28.98 | 35.23 | 45.6   | -13.2  | 22.53   | 22.26    | 0.389   | 4.19   | 640  | 6.56 | 34.54 |        |        | 30.04   | 27.12    | 1.740   | 3.04   |
| 70   | 28.89 | 35.25 | 45.6   | -9.6   | 22.59   | 22.30    | 0.416   | 4.10   | 650  | 6.50 | 34.54 |        |        | 30.09   | 27.13    | 1.751   | 3.08   |
| 75   | 28.89 | 35.32 | 45.6   | -9.6   | 22.66   | 22.35    | 0.444   | 3.99   | 660  | 6.41 | 34.54 |        |        | 30.15   | 27.14    | 1.761   | 3.07   |
| 80   | 28.84 | 35.36 | 46.8   | -8.4   | 22.74   | 22.40    | 0.472   | 3.97   | 670  | 6.33 | 34.53 |        |        | 30.20   | 27.15    | 1.771   | 3.03   |
| 85   | 28.75 | 35.38 | 46.8   | -9.6   | 22.80   | 22.44    | 0.499   | 3.91   | 680  | 6.26 | 34.53 |        |        | 30.26   | 27.16    | 1.781   | 2.94   |
| 90   | 28.67 | 35.38 | 46.8   | -13.2  | 22.85   | 22.47    | 0.526   | 3.85   | 690  | 6.19 | 34.53 |        |        | 30.21   | 27.16    | 1.791   | 2.96   |
| 95   | 28.40 | 35.37 | 45.6   | -16.8  | 22.95   | 22.55    | 0.553   | 3.64   | 700  | 6.11 | 34.53 |        |        | 30.37   | 27.18    | 1.801   | 2.92   |
| 100  | 28.21 | 35.37 | 43.2   | -22.8  | 23.03   | 22.61    | 0.579   | 3.64   | 710  | 6.02 | 34.53 |        |        | 30.42   | 27.18    | 1.811   | 2.98   |
| 105  | 28.07 | 35.38 | 42.0   | -26.4  | 23.11   | 22.67    | 0.606   | 3.66   | 720  | 5.99 | 34.52 |        |        | 30.48   | 27.19    | 1.820   | 2.99   |
| 110  | 28.01 | 35.38 | 43.2   | -28.8  | 23.15   | 22.69    | 0.632   | 3.61   | 730  | 5.93 | 34.52 |        |        | 30.53   | 27.19    | 1.830   | 2.98   |
| 115  | 27.95 | 35.41 | 39.6   | -34.8  | 23.22   | 22.73    | 0.658   | 3.57   | 740  | 5.86 | 34.52 |        |        | 30.58   | 27.20    | 1.840   | 3.03   |
| 120  | 27.78 | 35.43 | 42.0   | -33.6  | 23.30   | 22.80    | 0.683   | 3.56   | 750  | 5.83 | 34.52 |        |        | 30.63   | 27.20    | 1.849   | 3.01   |
| 125  | 27.63 | 35.41 | 43.2   | -27.6  | 23.36   | 22.84    | 0.709   | 3.49   | 760  | 5.77 | 34.52 |        |        | 30.68   | 27.21    | 1.859   | 3.04   |
| 130  | 27.47 | 35.42 | 44.4   | -26.4  | 23.44   | 22.90    | 0.734   | 3.48   | 770  | 5.74 | 34.52 |        |        | 30.73   | 27.21    | 1.868   | 3.01   |
| 135  | 27.32 | 35.44 | 40.8   | -27.6  | 23.53   | 22.96    | 0.759   | 3.33   | 780  | 5.67 | 34.52 |        |        | 30.79   | 27.22    | 1.878   | 3.04   |
| 140  | 27.28 | 35.44 | 42.0   | -26.4  | 23.56   | 22.97    | 0.784   | 3.38   | 790  | 5.58 | 34.52 |        |        | 30.85   | 27.23    | 1.887   | 3.05   |
| 145  | 27.24 | 35.44 | 38.4   | -26.4  | 23.60   | 22.99    | 0.808   | 3.29   | 800  | 5.53 | 34.52 |        |        | 30.90   | 27.24    | 1.897   | 3.03   |
| 150  | 27.16 | 35.46 | 38.4   | -25.2  | 23.66   | 23.03    | 0.833   | 3.27   | 810  | 5.52 | 34.52 |        |        | 30.94   | 27.24    | 1.906   | 3.05   |
| 155  | 27.05 | 35.48 | 38.4   | -22.8  | 23.73   | 23.07    | 0.857   | 3.28   | 820  | 5.44 | 34.53 |        |        | 31.01   | 27.26    | 1.915   | 2.93   |
| 160  | 26.89 | 35.51 | 38.4   | -20.4  | 23.87   | 23.15    | 0.881   | 3.17   | 830  | 5.40 | 34.53 |        |        | 31.06   | 27.26    | 1.924   | 2.78   |
| 165  | 26.76 | 35.55 | 34.8   | -18.0  | 23.92   | 23.22    | 0.905   | 3.13   | 840  | 5.36 | 34.52 |        |        | 31.11   | 27.26    | 1.933   | 2.70   |
| 170  | 26.42 | 35.66 | 33.6   | -15.6  | 24.13   | 23.41    | 0.928   | 2.96   | 850  | 5.33 | 34.52 |        |        | 31.16   | 27.27    | 1.942   | 2.74   |
| 175  | 25.46 | 35.69 | 30.0   | -13.2  | 24.47   | 23.74    | 0.951   | 2.80   | 860  | 5.21 | 34.52 |        |        | 31.22   | 27.28    | 1.951   | 2.85   |
| 180  | 24.90 | 35.72 | 19.2   | -12.0  | 24.70   | 23.93    | 0.971   | 2.71   | 870  | 5.17 | 34.52 |        |        | 31.27   | 27.28    | 1.960   | 2.96   |
| 185  | 25.01 | 35.84 | 8.4    | -13.2  | 24.76   | 23.98    | 0.991   | 2.81   | 880  | 5.09 | 34.52 |        |        | 31.32   | 27.29    | 1.969   | 2.98   |
| 190  | 24.10 | 36.04 | 1.2    | -18.0  | 25.22   | 24.41    | 1.011   | 2.79   | 890  | 5.05 | 34.52 |        |        | 31.37   | 27.30    | 1.978   | 3.01   |
| 195  | 23.46 | 36.01 | 0.0    | -15.6  | 25.40   | 24.57    | 1.028   | 2.80   | 900  | 5.00 | 34.52 |        |        | 31.43   | 27.30    | 1.987   | 3.00   |
| 200  | 23.32 | 35.99 | 2.4    | -7.2   | 25.46   | 24.61    | 1.045   | 2.79   | 910  | 4.95 | 34.52 |        |        | 31.48   | 27.31    | 1.995   | 3.05   |
| 205  | 22.93 | 35.95 | 1.2    | 0.0    | 25.56   | 24.69    | 1.062   | 2.78   | 920  | 4.94 | 34.52 |        |        | 31.52   | 27.31    | 2.004   | 3.07   |
| 210  | 22.32 | 35.96 | 0.0    | 1.2    | 25.77   | 24.87    | 1.078   | 2.78   | 930  | 4.89 | 34.52 |        |        | 31.58   | 27.32    | 2.013   | 3.05   |
| 215  | 21.14 | 35.83 | -1.2   | 2.4    | 26.03   | 25.10    | 1.094   | 2.76   | 940  | 4.86 | 34.52 |        |        | 31.63   | 27.32    | 2.021   | 3.07   |
| 220  | 20.97 | 35.80 | -12.0  | 7.2    | 26.06   | 25.12    | 1.108   | 2.71   | 950  | 4.83 | 34.52 |        |        | 31.68   | 27.32    | 2.030   | 3.08   |
| 225  | 20.83 | 35.80 | -19.2  | 3.6    | 26.12   | 25.16    | 1.123   | 2.67   | 960  | 4.76 | 34.52 |        |        | 31.73   | 27.33    | 2.038   | 3.11   |
| 230  | 20.51 | 35.75 | -24.0  | -4.8   | 26.20   | 25.21    | 1.137   | 2.65   | 970  | 4.74 | 34.52 |        |        | 31.78   | 27.33    | 2.046   | 3.20   |
| 235  | 20.35 | 35.74 | -26.4  | -14.4  | 26.26   | 25.25    | 1.151   | 2.62   | 980  | 4.72 | 34.52 |        |        | 31.83   | 27.33    | 2.055   | 3.15   |
| 240  | 20.07 | 35.72 | -27.6  | -21.6  | 26.34   | 25.30    | 1.165   | 2.63   | 990  | 4.66 | 34.52 |        |        | 31.88   | 27.34    | 2.063   | 3.16   |
| 245  | 19.32 | 35.65 | -25.2  | -27.6  | 26.51   | 25.45    | 1.179   | 2.58   | 1000 | 4.59 | 34.52 |        |        | 31.94   | 27.35    | 2.072   | 3.15   |
| 250  | 18.78 | 35.60 | -19.2  | -27.6  | 26.63   | 25.55    | 1.191   | 2.55   | 1020 | 4.40 | 34.53 |        |        | 32.06   | 27.38    |         | 3.20   |
| 255  | 18.47 | 35.54 | -8.4   | -20.4  | 26.69   | 25.58    | 1.204   | 2.50   |      |      |       |        |        |         |          |         |        |
| 260  | 18.38 | 35.52 | 0.0    | -9.6   | 26.72   | 25.59    | 1.216   | 2.50   |      |      |       |        |        |         |          |         |        |
| 265  | 18.27 | 35.51 | 3.6    | -2.4   | 26.76   | 25.61    | 1.229   | 2.48   |      |      |       |        |        |         |          |         |        |
| 270  | 18.02 | 35.49 | 3.6    | -1.2   | 26.82   | 25.65    | 1.241   | 2.47   |      |      |       |        |        |         |          |         |        |
| 275  | 17.49 | 35.46 | 3.6    | -1.2   | 26.95   | 25.76    | 1.253   | 2.43   |      |      |       |        |        |         |          |         |        |
| 280  | 16.81 | 35.41 | 2.4    | -1.2   | 27.11   | 25.89    | 1.264   | 2.38   |      |      |       |        |        |         |          |         |        |
| 285  | 16.25 | 35.37 | 2.4    | -1.2   | 27.23   | 25.99    | 1.275   | 2.36   |      |      |       |        |        |         |          |         |        |
| 290  | 15.79 | 35.27 | 4.8    | -2.4   | 27.29   | 26.02    | 1.285   | 2.36   |      |      |       |        |        |         |          |         |        |
| 295  | 15.14 | 35.24 | 4.8    | -2.4   | 27.43   | 26.14    | 1.296   | 2.48   |      |      |       |        |        |         |          |         |        |
| 300  | 14.71 | 35.20 | 4.8    | -2.4   | 27.52   | 26.20    | 1.305   | 2.49   |      |      |       |        |        |         |          |         |        |
| 305  | 14.33 | 35.13 | 4.8    | -2.4   | 27.57   | 26.23    | 1.315   | 2.41   |      |      |       |        |        |         |          |         |        |
| 310  | 13.86 | 35.16 | 4.8    | -2.4   | 27.72   | 26.35    | 1.324   | 2.31   |      |      |       |        |        |         |          |         |        |
| 315  | 13.47 | 35.11 | 4.8    | -2.4   | 27.78   | 26.39    | 1.332   | 2.36   |      |      |       |        |        |         |          |         |        |
| 320  | 13.17 | 35.04 | 6.0    | -1.2   | 27.81   | 26.40    | 1.341   | 2.48   |      |      |       |        |        |         |          |         |        |
| 325  | 12.78 | 35.03 | 7.2    | 0.0    | 27.91   | 26.47    | 1.349   | 2.56   |      |      |       |        |        |         |          |         |        |
| 330  | 12.56 | 34.97 | 6.0    | -1.2   | 27.93   | 26.46    | 1.358   | 2.57   |      |      |       |        |        |         |          |         |        |
| 335  | 12.33 | 34.98 | 7.2    | 0.0    | 28.01   | 26.52    | 1.366   | 2.59   |      |      |       |        |        |         |          |         |        |
| 340  | 12.07 | 34.97 | 7.2    | -1.2   | 28.07   | 26.56    | 1.374   | 2.55   |      |      |       |        |        |         |          |         |        |
| 345  | 11.89 | 34.93 | 7.2    | 0.0    | 28.10   | 26.56    | 1.382   | 2.58   |      |      |       |        |        |         |          |         |        |
| 350  | 11.49 | 34.93 | 6.0    | -1.2   | 28.20   | 26.64    | 1.389   | 2.55   |      |      |       |        |        |         |          |         |        |
| 355  | 11.12 | 34.89 | 3.6    | 1.2    | 28.26   | 26.68    | 1.396   | 2.55   |      |      |       |        |        |         |          |         |        |
| 360  | 11.01 | 34.86 | 3.6    | 2.4    | 28.28   | 26.67    | 1.404   | 2.56   |      |      |       |        |        |         |          |         |        |
| 365  | 10.94 | 34.85 | 3.6    | 2.4    | 28.31   | 26.68    | 1.411   | 2.57   |      |      |       |        |        |         |          |         |        |
| 370  | 10.89 | 34.82 | 2.4    | 2.4    | 28.32   | 26.67    | 1.418   | 2.58   |      |      |       |        |        |         |          |         |        |
| 375  | 10.76 | 34.83 | 2.4    | 2.4    | 28.37   | 26.70    | 1.425   | 2.59   |      |      |       |        |        |         |          |         |        |
| 380  | 10.67 | 34.81 | 2.4    | 2.4    | 28.40   | 26.70    | 1.433   | 2.58   |      |      |       |        |        |         |          |         |        |
| 385  | 10.64 | 34.80 | 2.4    | 4.8    | 28.41   | 26.69    | 1.440   | 2.60   |      |      |       |        |        |         |          |         |        |
| 390  | 10.60 | 34.80 | 3.6    | 7.2    | 28.44   | 26.70    | 1.447   | 2.62   |      |      |       |        |        |         |          |         |        |
| 395  | 10.56 | 34.79 | 2.4    | 6.0    | 28.47   | 26.70    | 1.454   | 2.63   |      |      |       |        |        |         |          |         |        |
|      |       |       |        |        |         |          |         |        |      |      |       |        |        |         |          |         |        |

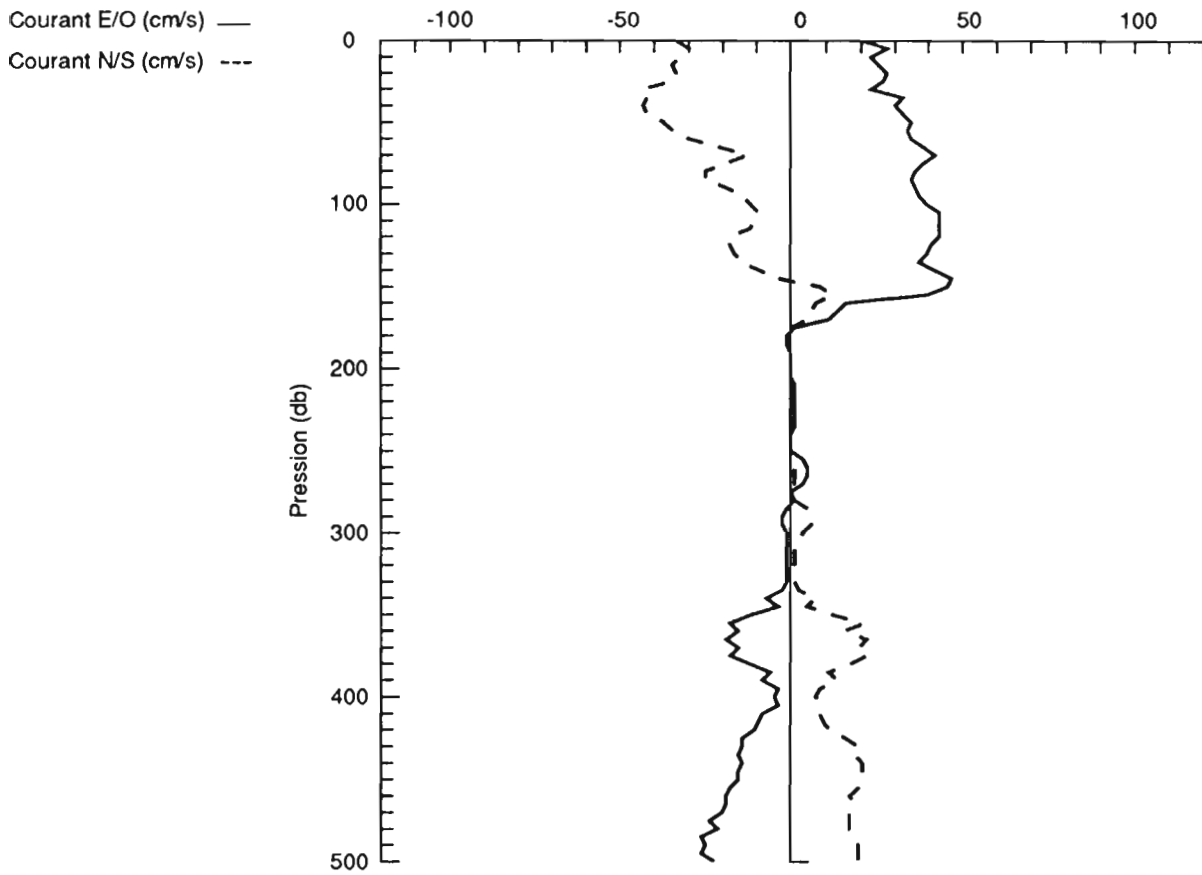
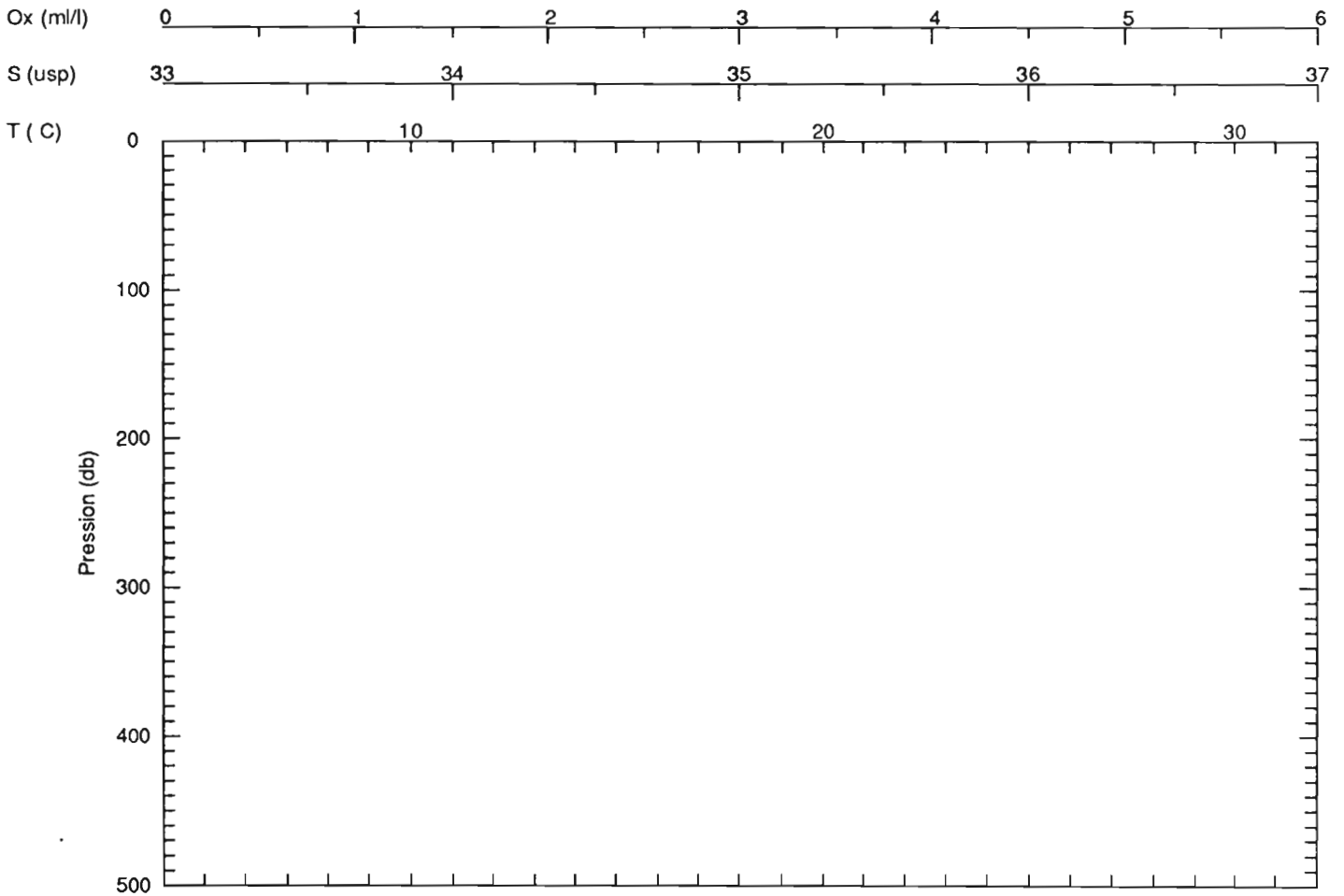


SURTROPAC11 STATION No : 55  
DATE : 30/ 1/89 HEURE : 10h12 LONGITUDE : 165.00 LATITUDE : -8.00



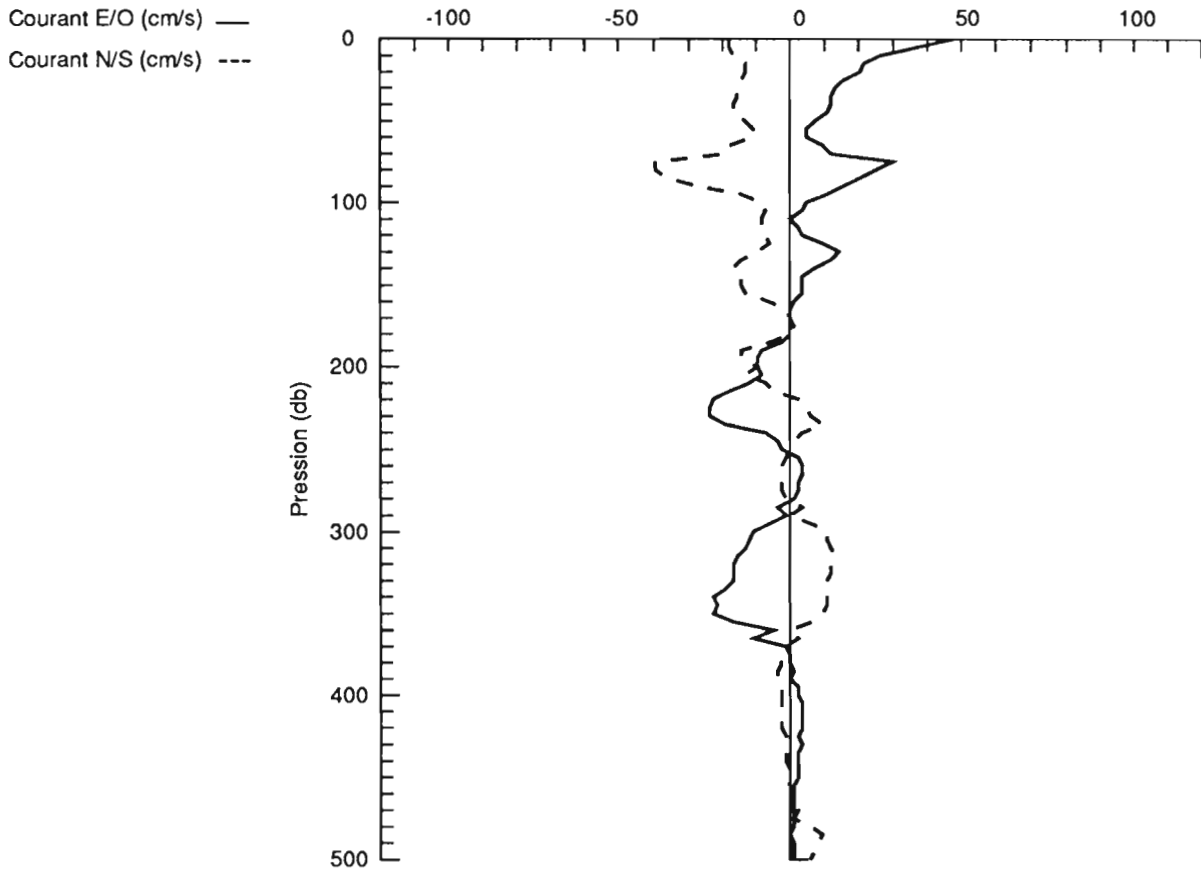
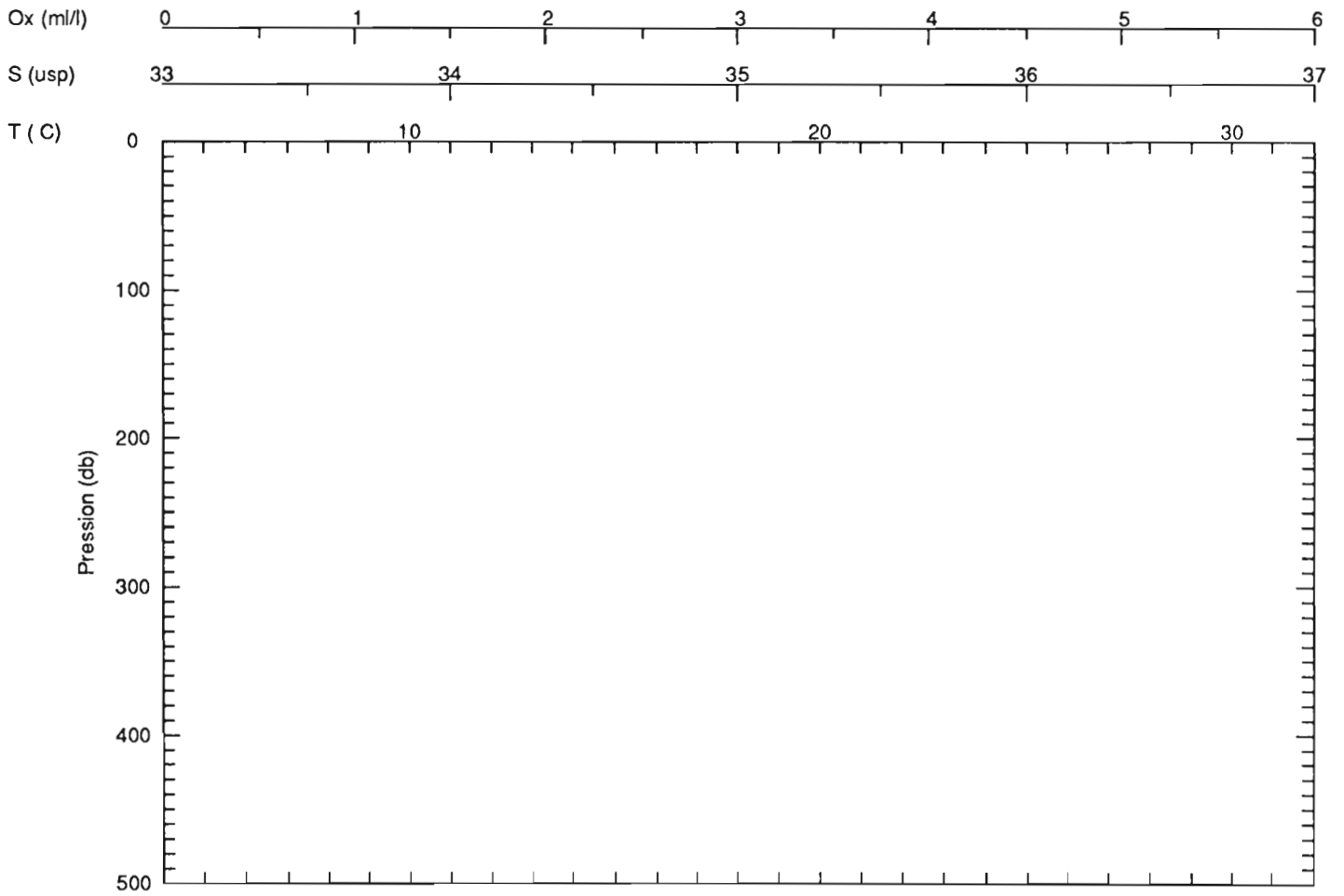


SURTROPAC11 STATION No : 56  
DATE : 30/ 1/89 HEURE : 20h40 LONGITUDE : 165.00 LATITUDE : -9.00





SURTROPAC11 STATION No : 57  
DATE : 31/ 1/89 HEURE : 4h07 LONGITUDE : 165.00 LATITUDE : -10.00





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