

## **APPENDIX**

**Appendix 1 :  
Minutes of Meetings**

MINUTES OF THE MEETING  
OF  
CONTACT MISSION  
FOR  
THE FEASIBILITY STUDY ON THE NAVIGATION  
OF  
THE PARNAIBA RIVER BASIN  
IN  
THE FEDERATIVE REPUBLIC OF BRAZIL

The Japan International Cooperation Agency-JICA Contact Mission (hereafter referred to as "the Mission") headed by Dr. Tadahiko Yagyu, visited the Federative Republic of Brazil during the period from March 15 to 25, 1992, for the purpose of clarifying contents of the Feasibility Study on the Navigation of the Parnaiba River Basin (hereafter referred to as "the Study"), in the Federative Republic of Brazil.

During the stay in the Federative Republic of Brazil, the Mission had a series of discussions with representatives from the Governments of the States of Piauí and Maranhão for the Study and other related Federal Government officials. The Mission carried out field observations on Luiz Correia port, Parnaiba river, Boa Esperança lock, Balsas river and visited main cities (Teresina, Luiz Correia, Parnaiba, Floriano, Guadalupe, Uruçui, and Santa Filomena) along the Parnaiba river, and São Luis in the State of Maranhão. The list of the participants of the discussions on both sides is attached in Annex.

The main points discussed by both sides are as follows;

1. Brazilian side expressed that the reopening of Parnaiba/Balsas river vessel navigation will contribute to smooth in-land cargo transportation and regional development along the rivers.

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2. The Mission recognized that the main objectives of the Study are;

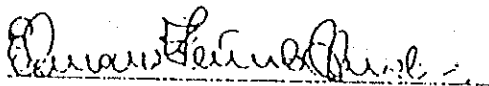
- (1) to examine a possibility of vessel navigation in Parnaiba/Balsas rivers including Boa Esperança lock and Luiz Correia port.
- (2) to formulate vessel navigation and operation plan.
- (3) to formulate cargo handling facilities development, management and operation plan related to vessel navigation including Luiz Correia Port.

3. Both sides agreed that, at the present stage of the discussions, the State Secretary of Planning of the State of Piaui will act as a counterpart institution and will coordinate other institutions concerned in the State of Piaui and in collaboration with the relevant institutions of the Federal Government and of the State of Maranhão. Appropriate arrangement on the collaboration will be finalized by the Brazilian side and informed to the Japanese side until the end of May, 1992.

4. The Mission has recognized the necessity to conduct natural conditions survey in Parnaiba/Balsas rivers as a part of the Scope of Work Mission.

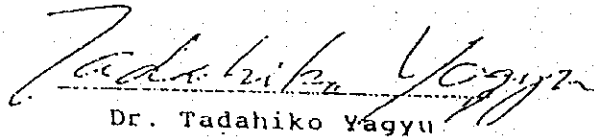
5. The Mission promised to examine the scope of the Study after bringing back its findings to Japan.

Teresina, March 25, 1992.



Dr. Elmano Ferrer de Almeida  
Secretary

State Secretary of Planning  
of the State of Piaui  
Federative Republic of Brazil



Dr. Tadahiko Yagyu

Leader of Contact Mission  
Japan International Cooperation Agency  
Japan

MEMBER LISTBRASIL SIDE

<u>NOME E ÓRGÃO</u>	<u>POSIÇÃO</u>
01. Elmano Férrer de Almeida Secretaria do Planejamento-SEPLAN/PI	Secretário
02. Seiji Nakayama Secretaria do Planejamento-SEPLAN/PI	Assessor
03. Felipe Mendes de Oliveira Secretaria Ext. de Programas Especiais-SEPE/PI	Secretário
04. Elói Portella Secretaria de Obras e Serviços Públicos-SOSP/PI	Secretário
05. Júlio César de Carvalho Lima Secretaria de Agricultura e Abastecimento-SAAB/PI	Secretário
06. Gastão Dias Vieira Secretaria de Coord. e Desenvolvimento-CODEMA	Secretário
07. José Trajano Brandão Martins Secretaria de Agric. Abast. e Irrigação/Maranhão	Secretário
08. Gilmar Ribeiro Melo Companhia de Desenvolvimento do Piauí-COMDEPI	Presidente
09. Janary Melo Lima Departamento de Estradas e Rodagem-DER/PI	Diretor Geral
10. Francisco de Assis Veloso Filho Secretaria do Planejamento-SEPLAN/PI	Assessor
11. Antônio R. Carvalho Neto Fundação CEPRO/DMA	Diretor
12. Fábio da Costa Ferreira Fundação CEPRO/DMA	Diretor
13. Luiz Carlos Lessa Vinholes Ministério das Relações Exteriores/ABC	Coordenador
14. José Oscar Frazão Frota Administração de Hidrovias do Nordeste-AHINOR Ministério da Infra-Estrutura-MINFRA/DNTA	Superintend.




JAPAN SIDE

Dr. Tadahiko YAGYU	Mission Leader
Dr. Hiroichi TSURUYA	Member
Mr. Masaru SUZUKI	Member
Mr. Akihiro MATSUMOTO	Member
Mr. Mitsuo IGARASHI	Member

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MINUTES OF MEETINGS

ON

THE SCOPE OF WORK

FOR THE FEASIBILITY STUDY

ON

THE NAVIGATION OF THE PARNAIBA RIVER BASIN

IN

THE FEDERATIVE REPUBLIC OF BRAZIL

The Japanese Preparatory Study Team (hereinafter referred to as "the Team") organized by Japan International Cooperation Agency (hereinafter referred to as "JICA") and headed by Dr. Hiroichi TSURUYA visited Piaui State of Brazil and held a series of meetings with the personnel concerned of the Government of the State of Piaui and the related organizations from 7th to 13th of August 1992.

The attendants of the meetings are shown in ANNEX.

During the meetings to finalize the Scope of Work, both sides agreed upon the following items for smooth and effective implementation of the study.

1. Brazilian side requested the counterpart training in Japan for the Brazilian counterpart personnels and a seminar in Teresina on the findings of the Study to realize an effective technology transfer.

The Team promised to convey the request to the Government of Japan.

2. Brazilian side stressed that economical examination on the river transport development plan should be carefully conducted in the course of the study.

Japanese side agreed.

3. Japanese side requested that an agricultural development plan of the area related to the river transport development should be prepared by Brazilian side before the commencement of the study.

Brazilian side agreed.

4. Both sides agreed that the extent of Environmental Consideration stated in the Scope of Work means an examination on environmental impacts caused by the river transport development itself.

5. SEPLAN shall provide the Japanese Study Team with automobiles and drivers, and airtransport services in accordance with VI.7.4) of the Scope of Work.

The Japanese Study Team shall submit trip plans in advance and shall make consultation with SEPLAN on it.




6. Brazilian side agreed, in response to the request from Japanese side, that SEPLAN should provide the Japanese Study Team with the compiled hydraulic and hydrologic data of the rivers at the time of Inception reporting.

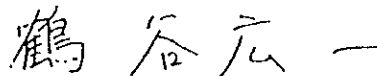
7. Japanese side proposed that a field experiment on the effects of permeable groins would be conducted by Japanese side and the second field experiment, if necessary, would be conducted by Brazilian side.

8. Both sides agreed that " 4) Boa Esperanca Locks " in III.4 of the Scope of Work should include examination of alternative measures to the locks.

Teresina, August 12th, 1992.



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Mr. Elmano Ferrer de Almeida  
Secretary  
State Secretary of Planning of  
State of Piauí  
Federative Republic of Brazil



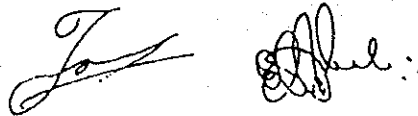
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Dr. Hiroichi Tsuruya  
Leader  
Preparatory Study Team  
Japan International  
Cooperation Agency  
Japan

MINUTES OF MEETINGS

ANNEX

JAPANESE SIDE

1. Dr. Hiroichi TSURUYA - Mission Leader
2. Mr. Takanori JIBIKI - Member
3. Mr. Seiji MATSUMOTO - Member
4. Mr. Yoshikazu TAKINO - Member
5. Mr. Masayuki WATANABE - Member

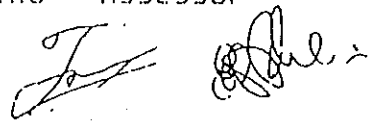
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MINUTES OF MEETINGS

ANNEX

BRAZILIAN SIDE

1. Elmano Ferrer de Almeida - Secretário  
SEPLAN - PI
2. Elói Portela Nunes Sobrinho - Secretário  
SOSP - PI
3. José Oscar Frazão Frota - Superintendente  
AHINOR
4. Francisco de Assis Veloso Filho - Chefe de Gabinete  
SEPLAN - PI
5. Seiji Nakayama - Assessor  
SEPLAN - PI
6. José Paz e Silva - Assessor  
SEPLAN - PI
7. Júlio Empílio de Arêa L.R.Costa - Assessor  
SOSP - PI
8. Antonio Alexandre S.de Carvalho - Assessor  
SOSP - PI



SCOPE OF WORK

FOR

THE FEASIBILITY STUDY

ON

THE NAVIGATION OF THE PARNAIBA RIVER BASIN

IN

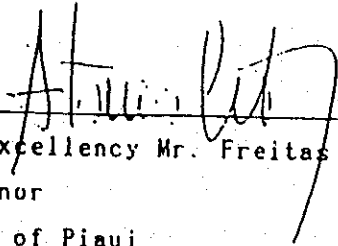
THE FEDERATIVE REPUBLIC OF BRAZIL

AGREED UPON BETWEEN

STATE SECRETARY OF PLANNING OF THE STATE OF PIAUI

AND

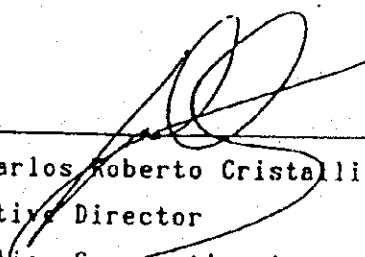
JAPAN INTERNATIONAL COOPERATION AGENCY



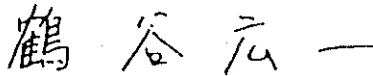
His Excellency Mr. Freitas Neto  
Governor  
State of Piaui  
Federative Republic of Brazil



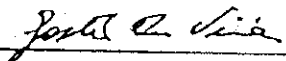
Mr. Elmano Ferrer de Almeida  
Secretary  
State Secretary of Planning of  
State of Piaui  
Federative Republic of Brazil



Mr. Carlos Roberto Cristalli  
Executive Director  
Brazilian Cooperation Agency  
Federative Republic of Brazil



Dr. Hiroichi Tsuruya  
Leader  
Preparatory Study Team  
Japan International Cooperation  
Agency  
Japan



Mr. Gastao Dias Vieira  
Secretary  
Counsel of Development of  
State of Maranhao  
Federative Republic of Brazil

Teresina, August 12, 1992

## I. INTRODUCTION

In response to the request of the Government of the Federative Republic of Brazil, the Government of Japan has decided to conduct the Feasibility Study on the Navigation of the Parnaiba River Basin in the Federative Republic of Brazil (hereinafter referred to as "the Study") in accordance with the Basic Agreement on Technical Cooperation between the Government of Japan and the Government of the Federative Republic of Brazil, signed in Brasilia on September 22, 1970 (hereinafter referred to as "the Basic Agreement").

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, and State Secretary of Planning of the State of Piaui (hereinafter referred to as "SEPLAN") will undertake the Study, in close cooperation with the authorities concerned of the Government of the Federative Republic of Brazil.

The present document sets forth the Scope of Work with regard to the Study.

## II. OBJECTIVES OF THE STUDY

The objectives of the Study are;

1. to examine a feasibility of water transportation on Parnaiba and Balsas rivers and formulate a river transport development plan, and
2. to transfer relevant technologies to Brazilian counterpart experts in the course of the Study.

## III. SCOPE OF THE STUDY

In order to achieve the above-mentioned objectives, the Study will cover the following items:

1. Data Collection and Review:

(1) to collect and review available information, data and reports relevant to the Study

(2) to conduct field survey and observation on natural conditions such as sounding survey, hydrological survey, geographical survey, etc.

2. Examination on Navigability of the Rivers

3. Traffic Demand Forecast of the River Transportation

4. Formulation of the River Transport Development Plan

1) vessel navigation and operation

2) ports along the rivers and Luis Correia including cargo handling facilities

3) channels including navigation aids

4) Boa Esperansa locks

5. Preliminary Design and Cost Estimation of the Ports, the Channels and the Locks

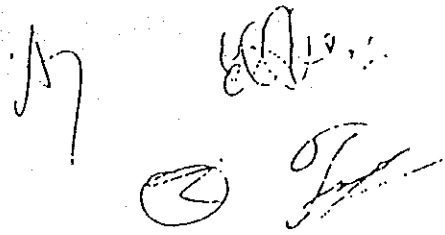
6. Environmental Consideration

7. Economic and Financial Analysis on the Development Plan

8. Recommendation on Operation and Management of the Vessel Navigation, the Ports, the Channels and the Locks

V. STUDY SCHEDULE

The Study will be carried out in accordance with the tentative schedule as shown in the attached Appendix.

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## V. REPORTS

JICA shall prepare and submit the following reports in English to Agencia Brasileira de Cooperacao and SEPLAN:

### 1. Inception Report

Twenty ( 20 ) copies at the beginning of the Study in Brazil

### 2. Interim Report I

Twenty ( 20 ) copies within nine ( 9 ) months after commencement of the Study

### 3. Progress Report

Twenty ( 20 ) copies within seventeen ( 17 ) months after commencement of the Study

### 4. Interim Report II

Twenty ( 20 ) copies within twenty ( 20 ) months after commencement of the Study

### 5. Draft Final Report

Twenty ( 20 ) copies within twenty five ( 25 ) months after commencement of the Study

### 6. Final Report

Fifty ( 50 ) copies within one ( 1 ) month after receiving the written comments on the Draft Final Report from SEPLAN, which shall be submitted to JICA within four ( 4 ) weeks after explanation of the Draft Final Report by the Japanese Study Team.

## VI. UNDERTAKING OF THE GOVERNMENT OF THE FEDERATIVE REPUBLIC OF BRAZIL

1. The Government of the Federative Republic of Brazil will accord privileges, immunities and other benefits to the Japanese Study Team in accordance with the Basic Agreement, as follows:

- 1) to ensure the safety of the Japanese Study Team.



- 2) to permit the members of the Japanese Study Team to enter, leave and stay in the Federative Republic of Brazil for the duration of their assignment therein, and exempt them from foreign registration requirement and consular fees,
- 3) to exempt the members of the Japanese Study Team from taxes, duties and any other charges on equipment, machinery, vehicles and other materials brought into the Federative Republic of Brazil for the conduct of the Study,
- 4) to exempt the members of the Japanese Study Team from income tax and charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Japanese Study Team for their services in connection with the implementation of the Study,
- 5) to provide necessary facilities to the Japanese Study Team for remittance as well as utilization of the funds introduced into the Federative Republic of Brazil from Japan in connection with the implementation of the Study, and
- 6) to provide medical services as needed. Its expenses will be chargeable on the members of the Japanese Study Team.

2. The Government of the Federative Republic of Brazil shall bear claims, if any arises against the members of the Japanese Study Team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the implementation of the Study, except when such claims arise from gross negligence or willful misconduct on the part of the members of the Japanese Study Team.

3. SEPLAN will secure permission for entry into relevant areas for the conduct of the Study, in accordance with the laws and regulations in force in the Federative Republic of Brazil.

4. SEPLAN will provide the Japanese Study Team to take all relevant data, documents, topographical maps and aerial photographs for analysis and secure permission to use them for the works in Japan during the

implementation of the Study in accordance with the laws and regulations in force in the Federative Republic of Brazil.

5. SEPLAN will secure permission for the use of commercially available radio communications facilities, in accordance with laws and regulations in force in the Federative Republic of Brazil.

6. SEPLAN shall act as executing institution and a counterpart to the Japanese Study Team and also SEPLAN will act as coordinating authority in relation with other governmental and non-governmental organizations concerned for the smooth implementation of the Study, in accordance with the attached document, dated May 5, 1992.

7. SEPLAN shall, at its own expense, provide the Japanese Study Team with the followings, in cooperation with other organizations concerned:

- 1) available data and information related to the Study,
- 2) full-time Brazilian counterpart experts, technical supporting staff, clerical staff, etc.,
- 3) suitable office space with necessary equipment in the city of Teresina,
- 4) adequate means of transportation for the Japanese Study Team, and
- 5) credentials or identification cards.

#### VII. UNDERTAKING OF THE GOVERNMENT OF JAPAN

For the implementation of the Study, the Government of Japan through JICA shall take the following measures:

1. to dispatch, at its own expense, the Japanese Study Team to the Federative Republic of Brazil,
2. to pursue technology transfer to the Brazilian counterpart experts in the course of the Study,
3. to carry out necessary works in Japan, and
4. to provide the necessary equipment and tools for implementation of the

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Study at its own expense.

**VI. MUTUAL CONSULTATION**

The two Government will consult mutually in respect of any matter that may arise from or in connection with this Scope of Work.

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Appendix Tentative Schedule of the Study

Month	3	6	9	12	15	18	21	24	27
Work in Brasil									
Work in Japan									
Report									

- ( REMARKS )
- IC/R .....Inception Report
  - PR/R .....Progress Report
  - IT/R (I) ..Interim Rrport (I)
  - IT/R (II) ..Interim Rrport (II)
  - DF/R .....Draft Final Report
  - F/R .....Final Report

FOR FEASIBILITY STUDY ON THE NAVI  
GATION OF THE PARNAÍBA RIVER BA  
SIN

State of Piauí and Maranhão, engaged in this mentioned Project, and,

CONSIDERING:

1. That the Contact Mission of Japan International Cooperation Agency (JICA) to make the preliminary studies of mentioned Project, realizes during the period from March 15 to 25, signed the Minutes on March, 25/1992, with knowledge of authorities of both States.
2. That referred Minutes, in its 3rd item, grants to Planning Secretariat of Piauí State (SEPLAN-PI), counterpart institution, the coordination of institutions in Piauí with collaboration of the main institution of Federal Government and Maranhão State.

RESOLVE:

That the Project of Japan-Brazil International Cooperation for Feasibility Study on the Navigation of the Parnaíba River Basin (Parnaíba and Balsas River), to be executed by Japan International Cooperation Agency (JICA) experts, with participation of Brazilian experts it will be coordinated by Planning Secretariat of Piauí State, with collaboration of Maranhão State Government.

And, therefore, being absolutely in accordance, sign the present Agreement Minutes.

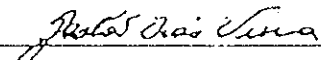
Teresina, May 05, 1992



Dr. Elmano Ferrer de Almeida

SECRETARY

State Secretariat of Planning  
of State of Piauí



Dep. Gastão Dias Vieira

SECRETARY

Counsel of Development  
of Maranhão State

MINUTES OF MEETINGS HELD BETWEEN  
THE STATE SECRETARY OF PLANNING OF THE STATE OF PIAUÍ  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY STUDY TEAM  
REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION  
OF THE PARNAIBA RIVER BASIN  
IN THE FEDERATIVE REPUBLIC OF BRAZIL

In compliance with the Scope of Work and the Minutes of Meetings thereof agreed upon between the State Secretary of Planning of the State of Piauí (hereinafter referred to as "SEPLAN-PI") and the Preparatory Study Team on August 12, 1992, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the full-scale Study Team (hereinafter referred to as the "Study Team") headed by Mr. Makoto Tanaka, for the realization of the Feasibility Study on the Navigation of the Parnaíba River Basin (hereinafter referred to as the "Study") from January 6, 1993.

Meetings were held on January 11 and 18, 1993, at SEPLAN-PI, concerning the Inception Report of the Study submitted by the Study Team. The list of the participants of the said meetings is attached as Annex.

During the meetings, both sides agreed upon the following items for the smooth and effective implementation of the Study:

1. The Study Team submitted to SEPLAN-PI twenty (20) copies of the Inception Report, and explained the detailed study contents and its methodology stipulated in the Inception Report. The Study will be conducted for twenty seven (27) months from January 6, 1993 to February 1995 through five (5) Phases of work. Brazilian side accepted and agreed upon the contents and methodology of the Study stipulated in the Inception Report.
2. The Study Team requested the nomination of Piauí State counterpart personnel for the realization of the Study. SEPLAN-PI nominated the following technical counterpart personnel, as a first stage, for coordination, natural condition study, river study and port facility planning:

Mr. Adolfo Martins de Moraes; Coordinator

Mr. Seiji Nakayama; Coordinator

Mr. José Oscar Frazão Frota; Port Facility Planning  
and River Study


Mr. Júlio Emilio; River Study

Mr. Antonio Alexandre; Natural Condition Study.

Other counterpart personnel for other fields will be nominated in accordance with the progress of the Study.

3. The Study Team submitted to SEPLAN-PI the transportation utilization schedule for the field work as per Item 5. of the Minutes of Meetings on the Scope of Work. SEPLAN-PI promised to make maximum effort to meet the requirement of the Study Team.
4. After the commencement of the Study, it was found out that, at some points, there already existed water level observation stations where the Study Team had planned to install new ones. In this regard, both sides discussed on the number of water level observation stations necessary for the Study, and came to an agreement that the number should be eleven (11) in total, including both the existing and new ones, as has been suggested by the Study Team in the Inception Report.
5. Brazilian side expressed its satisfaction to the realization of the Study.

January 20, 1993, Teresina



Elmano Férrer de Almeida  
Secretário

SECRETARIA DO PLANEJAMENTO-SEPLAN/PI



Makoto Tanaka  
Team Leader

JICA STUDY TEAM

MEETINGS REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION  
OF THE PARNAIBA RIVER BASIN  
IN THE FEDERATIVE REPUBLIC OF BRAZIL

PARTICIPANTS LIST

Brazilian Side

	<u>NOME E ÓRGÃO</u>	<u>POSICAO</u>
01.	Elmano Férrer de Almeida Secretaria do Planejamento-SEPLAN/PI	Secretário
02.	Elói Portela Nunes Sobriho Secretaria de Obras e Serviços Públicos-SOSP/PI	Secretário
03.	Adolfo Martins de Moraes Departamento de Programas e Projetos Secretaria do Planejamento-SEPLAN/PI	Dir. Depto.
04.	Seiji Nakayama Secretaria do Planejamento-SEPLAN/PI	Assesor
05.	José Oscar Frazão Frota Administração de Hidrovia do Nordeste-AHINOR	Superintendente
06.	Antônio Rodrigues de Carvalho Neto Departamento de Meio Ambiente DMA/CEPRO	Dir. Depto.
07.	Júlio Emilio de Arêa Leão Rosa Costa Departamento de Transporte-SOSP	Eng <sup>o</sup> Civil
08.	Antonio Alexandre Santos de Carvalho Departamento de Fiscalização-SOSP	Eng <sup>o</sup> Agrimensor

Japanese Side

01.	Makoto Tanaka	Study Team Leader
02.	Tsutomu Kameyama	Study Team Member
03.	Masakazu Ikehara	Study Team Member
04.	Hiroichi Tsuruya	Advisory Committee Chairman
05.	Masayuki Watanabe	Advisory Committee Member
06.	Atsusi Hanatani	JICA, Tokyo

January, 1993



MINUTES OF MEETINGS HELD BETWEEN  
THE STATE SECRETARY OF PLANNING OF THE STATE OF PIAUI  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY STUDY TEAM  
REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION  
OF THE PARNAIBA RIVER BASIN  
IN THE FEDERATIVE REPUBLIC OF BRAZIL


In compliance with the Scope of Work and the Minutes of Meetings thereof agreed upon between the State Secretary of Planning of the State of Piauí (hereinafter referred to as "SEPLAN-PI") and the Preparatory Study Team on August 12, 1992, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Phase III Study Team (hereinafter referred to as the "Study Team") headed by Mr. Makoto Tanaka, for the realization of the Feasibility Study on the Navigation of the Parnaíba River Basin (hereinafter referred to as the "Study") from September 16, 1993.


Meetings were held on September 27 and 28, 1993, at SEPLAN-PI, concerning the Interim Report (I) of the Study submitted by the Study Team. The list of the participants of the said meetings is attached as Annex.

During the meetings, both sides agreed upon the following items for the smooth and effective implementation of the Study:

1. The Study Team submitted to SEPLAN-PI twenty (20) copies of the Interim Report (I), one set (516 sheets) of contact paper print of Aerial photography and one set (225 sheets) of Photo-Mosaic polyester base print, and explained the results of Phase II study and the study items in Phase III study, stipulated in the Interim Report (I).
2. The Study Team requested the nomination of Piauí State counterpart personnel for the monitoring of the river bed movement study. SEPLAN-PI understood the importance of the said nomination, and expressed to take necessary action in due course of time.
3. Brazilian side expressed its satisfaction to the realization of the Study.

September 29, 1993, Teresina

  
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Elmano Ferrer de Almeida  
SECRETARIO DO PLANEJAMENTO  
SEPLAN/PI

  
Makoto Tanaka  
Team Leader  
JICA STUDY TEAM

ANEXO

ESTUDO DE VIABILIDADE DE NAVEGAÇÃO NA BACIA DO  
RIO PARNAÍBA

REUNIÕES, NA SEPLAN-PI.

LISTA DOS PARTICIPANTES

LADO JAPONÊS

01.	Dr. Hiroichi Tsuruya	Ministério de Transporte
02.	Dr. Isao Tobiki	Ministério de Transporte
03.	Dr. Masayuki Watanabe	JICA
04.	Dr. Hiroaki Takashima	JICA
05.	Dr. Makoto Tanaka	PCI
06.	Dr. Tsutomu Kameyama	PCI
07.	Dr. Dino Sinobu Esasika	PCI

LADO BRASILEIRO

08.	Dr. Elmano Férrer de Almeida	SEPLAN-PI
09.	Dr. Eloi Portela	SOSP-PI
10.	Dr. Aguinaldo Portela	SEPLAN-PI
11.	Dr. Seiji Nakayama	SEPLAN-PI
12.	Dr. Adolfo Martins de Moraes	SEPLAN-PI
13.	Dr. Agacy Furtado de Mendonça	SEPLAN-PI
14.	Dr. Júlio Emílio Costa	SOSP-PI
15.	Dr. Paulo Roberto C. de Godoy	Ministério de Transporte
16.	Dr. José Oscar Frazão Frota	AHINOR

Teresina, 27/28 de setembro de 1993

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MINUTES OF MEETINGS HELD BETWEEN  
THE STATE SECRETARY OF PLANNING OF THE STATE OF PIAUÍ  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY STUDY TEAM  
REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION  
OF THE PARNAIBA RIVER BASIN  
IN THE FEDERATIVE REPUBLIC OF BRAZIL

In compliance with the Scope of Work and the Minutes of Meetings thereof agreed upon between the State Secretary of Planning of the State of Piauí (hereinafter referred to as "SEPLAN-PI") and the Preparatory Study Team on August 12, 1992, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Phase III Study Team (hereinafter referred to as the "Study Team") headed by Mr. Makoto Tanaka, for the realization of the Feasibility Study on the Navigation of the Parnaíba River Basin (hereinafter referred to as the "Study") from March 14, 1994.

Meetings were held on March 16 and 21, 1994, at SEPLAN-PI, concerning the Progress Report of the Study submitted by the Study Team. The list of the participants of the said meetings is attached as Annex.

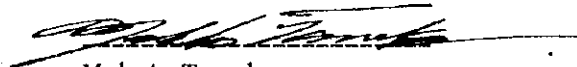
During the meetings, both sides agreed upon the following items for the smooth and effective implementation of the Study:

1. The Study Team submitted to SEPLAN-PI twenty (20) copies of the Progress Report, and explained the results of Phase III study and the study items in Phase IV study, stipulated in the Progress Report.
2. As for the observation of riverbed movement, Brazilian side express his opinion and requests to convey it JICA Headquarters, that monitoring to be executed by Japanese side for one year, namely "a field experiment" - one rainy season and dry season -, in accordance with Article 7.0 of the Minute of Meetings on the Scope of Work dated August 12, 1992.
3. Brazilian side expressed its satisfaction to the realization of the Study and Japanese side acknowledged intensive cooperation of Brazilian counterparts.

March 23, 1994, Teresina



Elmano Férrer de Almeida  
Secretário  
SECRETARIA DO  
PLANEJAMENTO-SEPLAN/PI



Makoto Tanaka  
Team Leader  
JICA STUDY TEAM

ANNEX

MEETINGS REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION  
OF THE PARNAIBA RIVER BASIN  
IN THE FEDERATIVE REPUBLIC OF BRAZIL

PARTICIPANTS LIST

Brazilian Side


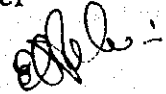
01. Elmano Férrer de Almeida
02. Seiji Nakayama
03. Adolfo Martins de Moraes

Secretário  
Assesor  
Diretor de DPP

Japanese Side

01. Makoto Tanaka

Study Team Leader



**MINUTES OF MEETINGS HELD BETWEEN**  
**THE STATE SECRETARY OF PLANNING OF THE STATE OF PIAUÍ**  
**AND**  
**JAPAN INTERNATIONAL COOPERATION AGENCY STUDY TEAM**  
**REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION**  
**OF THE PARNAÍBA RIVER BASIN**  
**IN THE FEDERATIVE REPUBLIC OF BRAZIL**

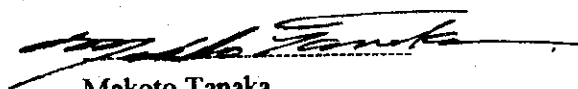
In compliance with the Scope of Work and the Minutes of Meetings thereof agreed upon between the State Secretary of Planning of the State of Piauí (hereinafter referred to as "SEPLAN-PI") and the Preparatory Study Team on August 12, 1992, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Phase IV Study Team (hereinafter referred to as the "Study Team") headed by Mr. Makoto Tanaka, for the realization of the Feasibility Study on the Navigation of the Parnaíba River Basin (hereinafter referred to as the "Study") from September 3, 1994.

1. The Study Team submitted to SEPLAN-PI twenty (20) copies of the Interim Report (II) (hereinafter referred to as the "Report"). Meetings were held on September 5 and 6, 1994, at SEPLAN-PI, concerning the Report. The list of the participants of the said meetings is attached as Annex.
2. Following the discussions on the Report, Brazilian side understood and agreed on the contents of the Report in principle. The major items of the discussions are as follows :
  - 1) The Brazilian side shall submit to the Study Team "new" projection of future agricultural production volume by the target year 2010.  
The Study Team will make an additional examination of cargo volume demand forecast and planning of river transportation system based on the said "new" projection.
  - 2) In undertaking such additional examination, both sides agreed that new lock construction and large scale river improvement alternatives shall be excluded from the examination. However, in the event that the forecasted cargo volumes based on the "new" projection exceeds maximum transport capacities under the same navigational conditions as examined in the Report, the Study Team will make preliminary recommendations in the Final Report on the methods for transporting such exceeding cargoes.
  - 3) The Study Team explained the necessity of continuing river bed movement observation by the Brazilian side. The Brazilian side showed understanding on this point and agreed to discuss this matter with the Federal Government for necessary actions.

September 8, 1994, Teresina



**Elmano Ferrer de Almeida**  
 Secretário  
 SECRETARIA DO  
 PLANEJAMENTO-SEPLAN/PI



**Makoto Tanaka**  
 Team Leader  
 JICA STUDY TEAM

**MEETINGS REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION  
OF THE PARNAÍBA RIVER BASIN  
IN THE FEDERATIVE REPUBLIC OF BRAZIL**

**PARTICIPANTS LIST**

**Brazilian Side**

- |     |                          |  |
|-----|--------------------------|--|
| 01. | Elmano Férrer de Almeida | Secretário, SEPLAN-PI                        |
| 02. | Ferdinand Silveira       | Secretário, SAAB-PI                          |
| 03. | Janary Melo              | Secretário, SOSPI-PI                         |
| 04. | Seiji Nakayama           | International Cooperation Advisor, SEPLAN-PI |
| 05. | Adolfo Martins de Moraes | Director, SEPLAN-PI                          |

**Japanese Side**

**Advisory Committee :**

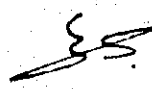
- |     |                   |   |
|-----|-------------------|---|
| 01. | Hiroichi Tsuruya  | Chairman, Advisory Committee                  |
| 02. | Masayuki Watanabe | Member, Advisory Committee (River Hydraulics) |
| 03. | Masataka Shiozaki | Member, Advisory Committee (Channel Planning) |
| 04. | Atsushi Hanatani  | Project Coordinator, JICA HDQ                 |

**JICA Belém :**

- |    |                   |            |
|----|-------------------|------------|
| 05 | Akihiro Matsumoto | JICA Belém |
|----|-------------------|------------|

**Study Team :**

- |     |                    |  |
|-----|--------------------|--|
| 06. | Makoto Tanaka      | Team Leader                                      |
| 07. | Tsutomu Kameyama   | Member (River)                                   |
| 08. | Akira Watanabe     | Member (Vessel Maneuvering)                      |
| 09. | Motoyoshi Yamada   | Member (Demand Predict/Project Evaluation)       |
| 10. | Eizaburo Yoshitaka | Member (Cargo Transportation System)             |
| 11. | Youichi Takasugi   | Member (Inland Waterway Transportation Planning) |
| 12. | Hideo Kurokawa     | Member (Lock Facilities)                         |

*K. S. ...* 

TRADUÇÃO


ATA DAS REUNIÕES REALIZADAS ENTRE  
A SECRETARIA DO PLANEJAMENTO DO ESTADO DO PIAUÍ  
E


A EQUIPE DE ESTUDOS DA AGÊNCIA DE COOPERAÇÃO INTERNACIONAL DO JAPÃO  
RELATIVAMENTE AO ESTUDO DE VIABILIDADE DE NAVEGAÇÃO NA  
BACIA DO RIO PARNAÍBA  
NA REPÚBLICA FEDERATIVA DO BRASIL

Em conformidade com o SCOPE OF WORK e as Atas das Reuniões decorren-  
tes do mesmo, realizadas entre a Secretaria do Planejamento do Estado do  
Piauí (doravante denominada "SEPLAN-PI"), e a Equipe de Estudos Prepara-  
tórios, em 12 de agosto de 1992, a Agência de Cooperação Internacional  
do Japão (doravante denominado "JICA") enviou a Equipe de Estudos da Fa-  
se IV (aqui designada como "Equipe de Estudos"), liderada pelo Sr. Mako-  
to Tanaka, para a realização do Estudo de Viabilidade de Navegação na Ba-  
cia do Rio Parnaíba (doravante denominado "Estudo") a partir de 3 de se-  
ntembro de 1994.

1. A Equipe de Estudos apresentou à SEPLAN-PI. vinte (20) cópias do Re-  
latório Interino II (doravante denominado "Relatório"). As reuniões  
foram realizadas em 5 e 6 de setembro de 1994, na SEPLAN-PI, a respei-  
to do Relatório. A lista dos participantes das referidas reuniões  
segue anexo.
2. Prossequindo as discussões sobre o Relatório, o lado brasileiro, em  
princípio, entendeu e concordou a respeito do teor do Relatório. Os  
pontos mais relevantes das discussões foram os seguintes:
  - 1) O lado brasileiro deve apresentar à Equipe de Estudos "nova" pro-  
jeção da produção agrícola futura até o ano 2010. A Equipe de Estu-  
dos fará um exame adicional do prognóstico da demanda do volume de  
cargas e planejamento do sistema de transporte hidroviário baseado  
na nova projeção mencionada.
  - 2) Em relação ao referido exame adicional, ambos os lados concordaram  
que nova construção das eclusas e alternativas de melhorias hidroviá-  
rios em longa escala serão excluídas da análise.  
No entanto, na eventualidade de que os volumes de cargas previstas  
com base na nova projeção excedam capacidades de transporte máximas  
sob as mesmas condições de navegação verificadas no Relatório, a E-  
quipe de Estudos recomendaria, no Relatório Final, alternativas so-  
bre os métodos de transporte das referidas cargas excedentes.
  - 3) A Equipe de Estudos esclareceu a necessidade da oportunidade de  
observação do movimento do leito fluvial pelo lado brasileiro. O la-  
do brasileiro demonstrou compreensão nesse ponto e concordou em dis-  
cutir o assunto com o Governo Federal para as medidas necessárias.

Teresina, 8 de setembro de 1994

  
Elmano Férrer de Almeida  
Secretário  
Secretaria do Planejamento-SEPLAN/PI

  
Makoto Tanaka  
Chefe da Equipe  
Equipe de Estudos da JICA

**MEETINGS REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION  
OF THE PARNAÍBA RIVER BASIN  
IN THE FEDERATIVE REPUBLIC OF BRAZIL**

**PARTICIPANTS LIST**

**Brazilian Side**

- |     |                          |  |
|-----|--------------------------|--|
| 01. | Elmano Férrer de Almeida | Secretário, SEPLAN-PI                        |
| 02. | Ferdinand Silveira       | Secretário, SAAB-PI                          |
| 03. | Janary Melo              | Secretário, SOSP-PI                          |
| 04. | Seiji Nakayama           | International Cooperation Advisor, SEPLAN-PI |
| 05. | Adolfo Martins de Moraes | Director, SEPLAN-PI                          |

**Japanese Side**

**Advisory Committee :**

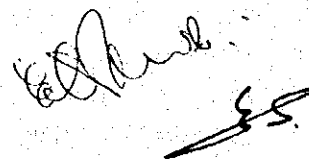
- |     |                   |   |
|-----|-------------------|---|
| 01. | Hiroichi Tsuruya  | Chairman, Advisory Committee                  |
| 02. | Masayuki Watanabe | Member, Advisory Committee (River Hydraulics) |
| 03. | Masataka Shiozaki | Member, Advisory Committee (Channel Planning) |
| 04. | Atsushi Hanatani  | Project Coordinator, JICA HDQ                 |

**JICA Belém :**

- |    |                   |            |
|----|-------------------|------------|
| 05 | Akihiro Matsumoto | JICA Belém |
|----|-------------------|------------|

**Study Team :**

- |     |                    |  |
|-----|--------------------|--|
| 06. | Makoto Tanaka      | Team Leader                                      |
| 07. | Tsutomu Kameyama   | Member (River)                                   |
| 08. | Akira Watanabe     | Member (Vessel Maneuvering)                      |
| 09. | Motoyoshi Yamada   | Member (Demand Predict/Project Evaluation)       |
| 10. | Eizaburo Yoshitaka | Member (Cargo Transportation System)             |
| 11. | Youichi Takasugi   | Member (Inland Waterway Transportation Planning) |
| 12. | Hideo Kurokawa     | Member (Lock Facilities)                         |





**MINUTES OF MEETINGS HELD BETWEEN  
THE STATE SECRETARY OF PLANNING OF THE STATE OF PIAUÍ  
AND  
JAPAN INTERNATIONAL COOPERATION AGENCY STUDY TEAM  
REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION  
OF THE PARNAÍBA RIVER BASIN  
IN THE FEDERATIVE REPUBLIC OF BRAZIL**

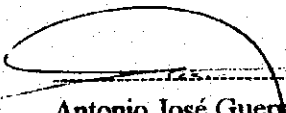
In compliance with the Scope of Work and the Minutes of Meetings thereof agreed upon between the State Secretary of Planning of the State of Piauí (hereinafter referred to as "SEPLAN-PI") and the Preparatory Study Team on August 12, 1992, the Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Phase V Study Team (hereinafter referred to as the "Study Team") headed by Mr. Makoto Tanaka, for the explanation and discussion of Draft Final Report of the Feasibility Study on the Navigation of the Parnaíba River Basin (hereinafter referred to as the "Study") from January 7, 1995.

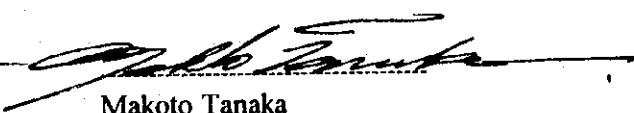
Meeting were held on January 9, 10, and 11, 1995 at SEPLAN-PI, concerning the Draft Final Report of the Study submitted by the Study Team. The list of the participants of the said meetings is attached as Annex.

During the meetings, both sides agreed upon the following items for the smooth and effective implementation of the Study.

1. The Study Team submitted to SEPLAN-PI twenty (20) copies of the Draft Final Report and explained the results of the Study.
2. The Brazilian side expressed its satisfaction to the realization of the Study and Japanese side acknowledged intensive cooperation of Brazilian counterparts.
3. The Brazilian side shall submit to the Study Team "comments on the Report" if any within four weeks in accordance with the scope of works for the Study on August 12, 1992.
4. The Brazilian side expressed their strong wish in the continuation of Technical Cooperation from Government of Japan for the implementation of the Pilot Project, as suggested in the Draft Final Report.

January 12, 1995, Teresina

  
Antonio José Guerra  
Secretário  
SECRETARIA DO  
PLANEJAMENTO-SEPLAN/PI

  
Makoto Tanaka  
Team Leader  
JICA STUDY TEAM

**MEETINGS REGARDING THE FEASIBILITY STUDY ON THE NAVIGATION  
OF THE PARNAÍBA RIVER BASIN  
IN THE FEDERATIVE REPUBLIC OF BRAZIL**

**PARTICIPANTS LIST**

**Brazilian Side**

- |     |                          |                                   |
|-----|--------------------------|-----------------------------------|
| 01. | Antonio José Guerra      | Secretário, SEPLAN-PI             |
| 02. | Paulo de T.M.Souza       | Secretário da Fazenda             |
| 03. | Haroldo Vasconcelos      | Secretário da Agricultura         |
| 04. | João V.M.Claudino        | Secretário da Ind. Com            |
| 05. | Luiz Gonzaga Oliveira    | Secretário da Obra e Ser. Publico |
| 06. | Seiji Nakayama           | Coordenador, SEPLAN-PI            |
| 07. | Adolfo Martins de Moraes | Coordenador, SEPLAN-PI            |
| 08. | Alberto T. Silva         | Deputado Federal                  |
| 09. | Antonio José M. Souza    | FIEPI                             |
| 10. | José Elias Tajra         | Associação Comercial              |

**Japanese Side**

**Advisory Committee :**

- |     |                  |  |
|-----|------------------|--|
| 01. | Hiroichi Tsuruya | Chairman, Advisory Committee               |
| 02. | Isao Tobiki      | Member, Advisory Committee (Port Planning) |
| 03. | Hironobu Ito     | Project Coordinator, JICA HDQ              |

**JICA Belém :**

- |    |                   |            |
|----|-------------------|------------|
| 04 | Akihiro Matsumoto | JICA Belem |
|----|-------------------|------------|

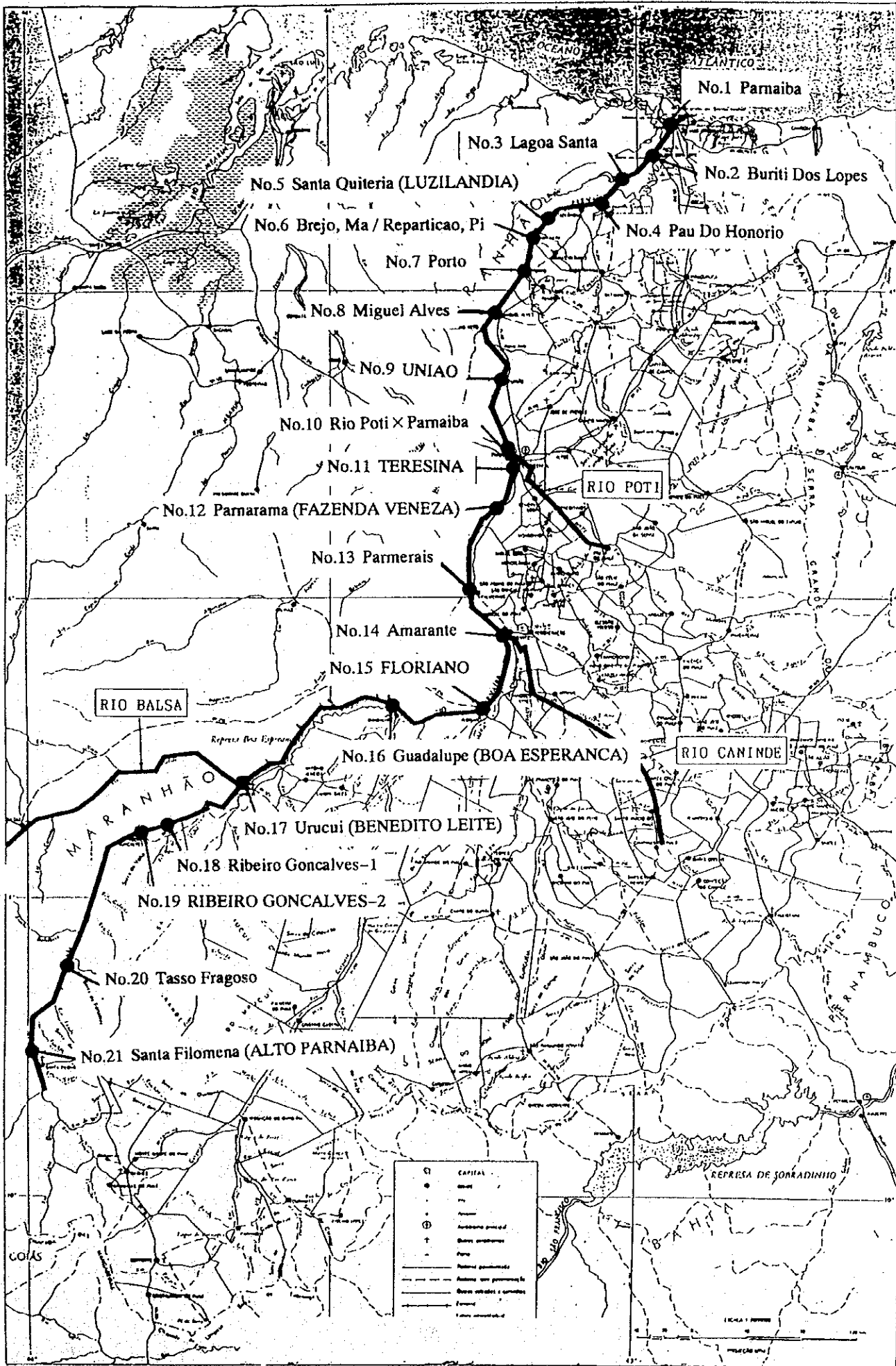
**Study Team :**

- |     |                  |  |
|-----|------------------|--|
| 05. | Makoto Tanaka    | Team Leader/Port Planning/Environment      |
| 06. | Motoyoshi Yamada | Member (Demand Predict/Project Evaluation) |
| 07. | Kentaro Yoshida  | Member (Port Design/Cost Estimation)       |




**Appendix 2 :  
Topo Survey Results**



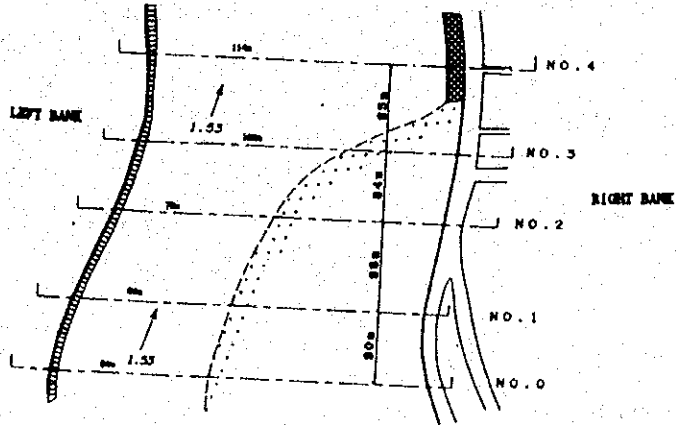


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(Paraulho)

JAN 29, 1994



**PLANE POSITION**



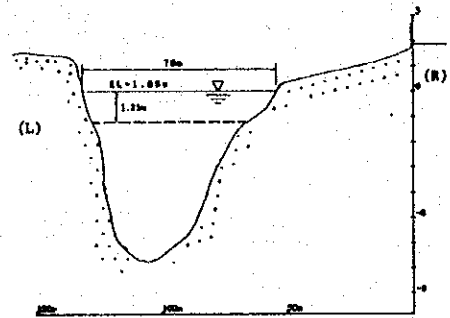
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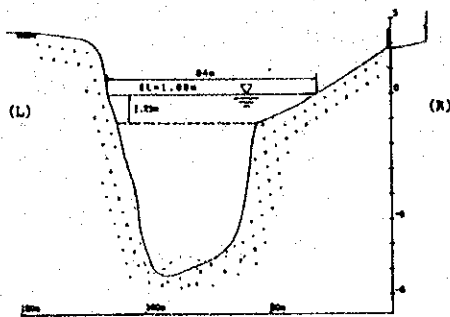
..... : Jun-Aug, 1993

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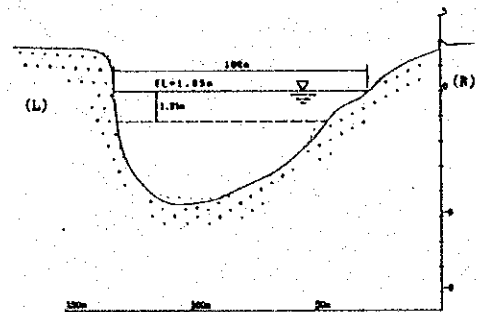
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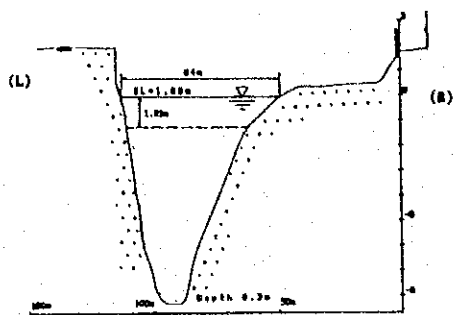
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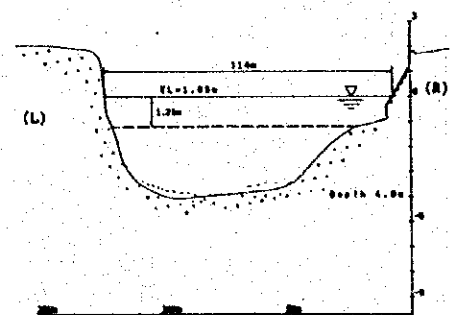
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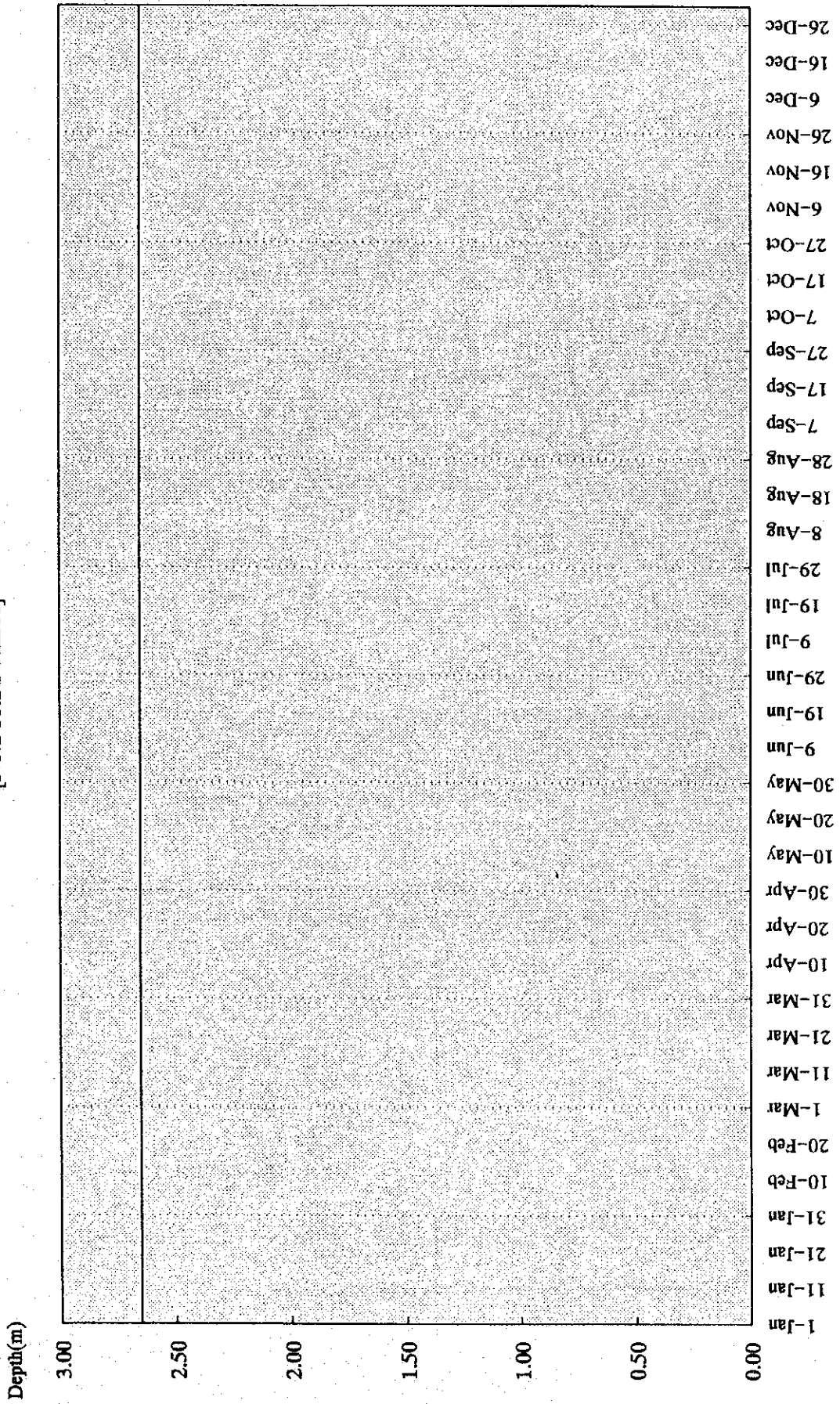
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**NO. 4**



Parnaiba River Depth Data  
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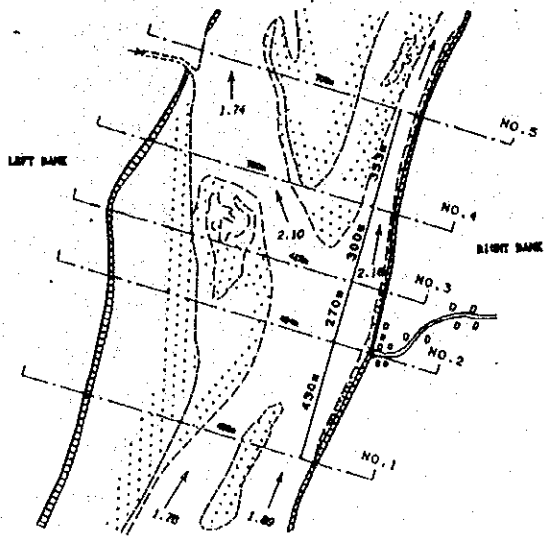


**NO. 2**

Bariti  
des Laped

JAN. 30, 1994

**PLANE POSITION**

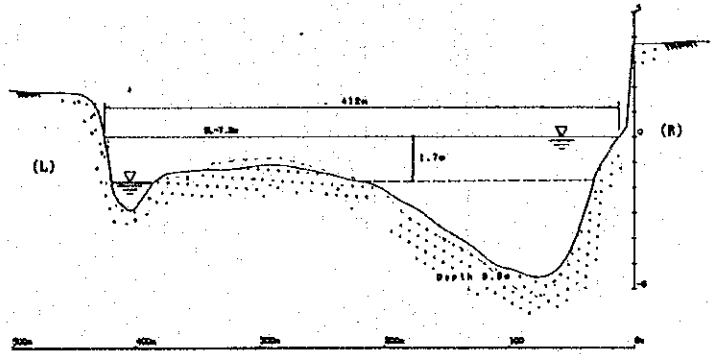


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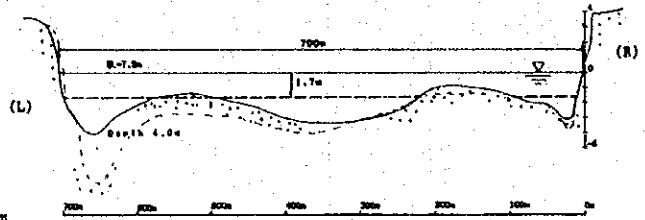
— : Jan-Mar. 1994

..... : Jun-Aug. 1993

**NO. 3**

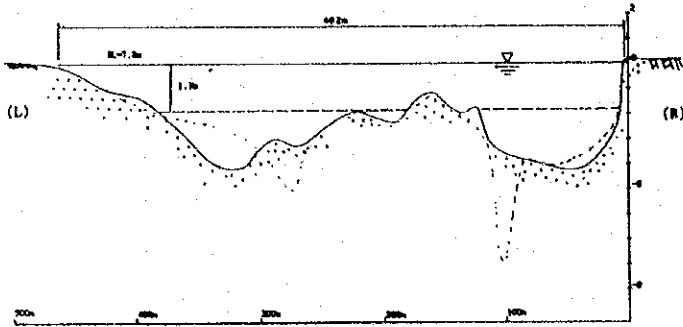


**NO. 4**

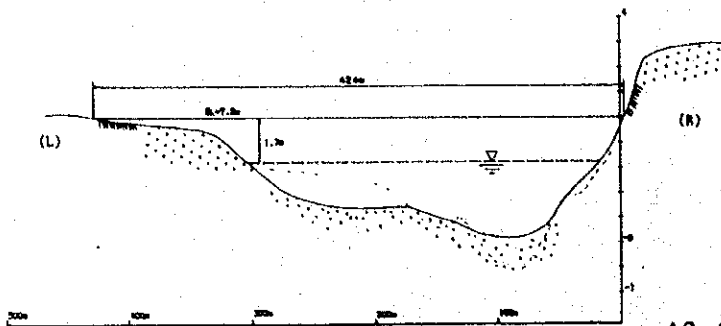


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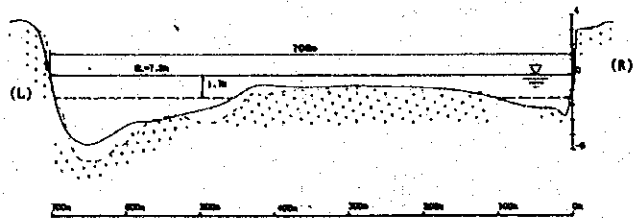
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**NO. 2**

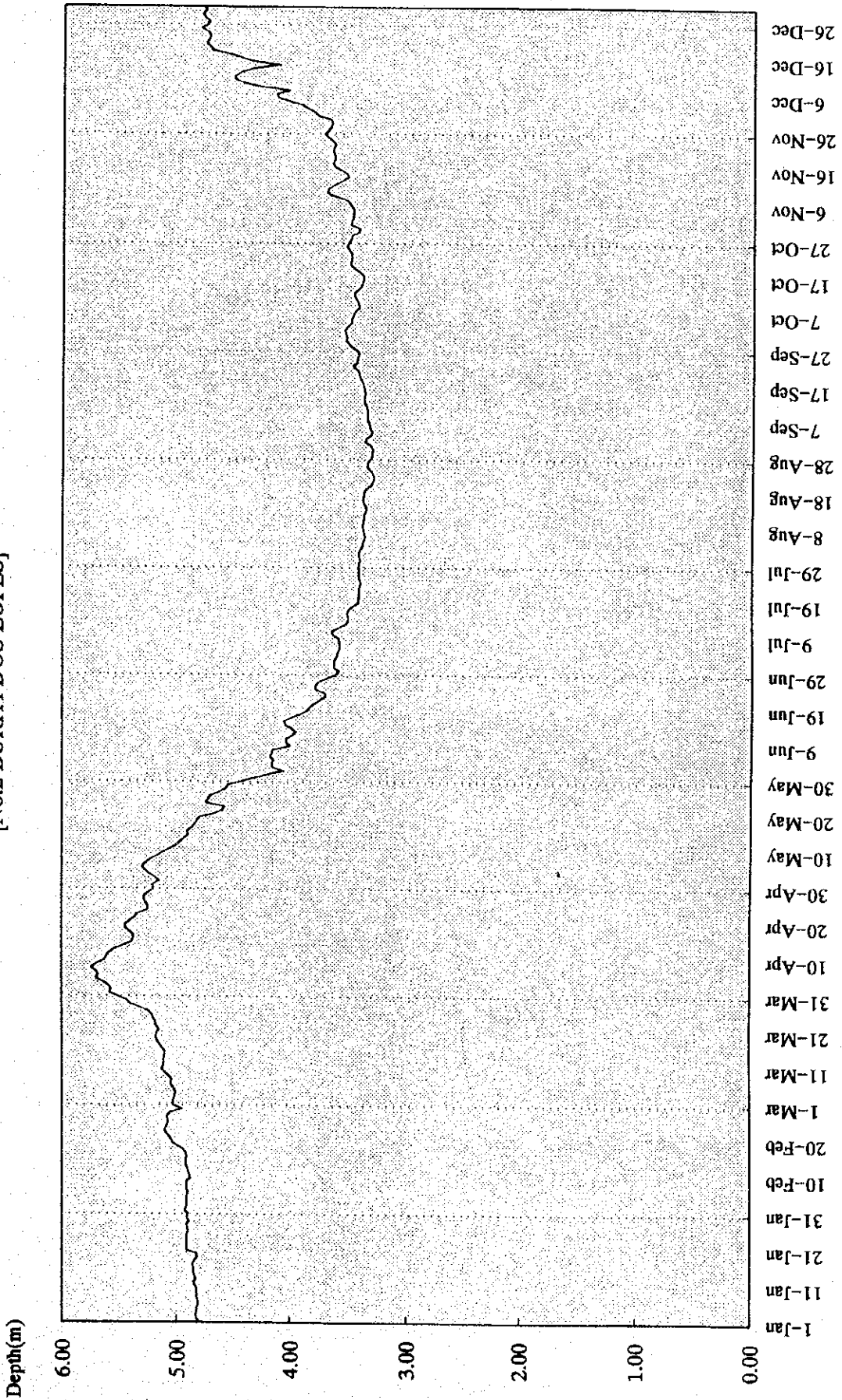


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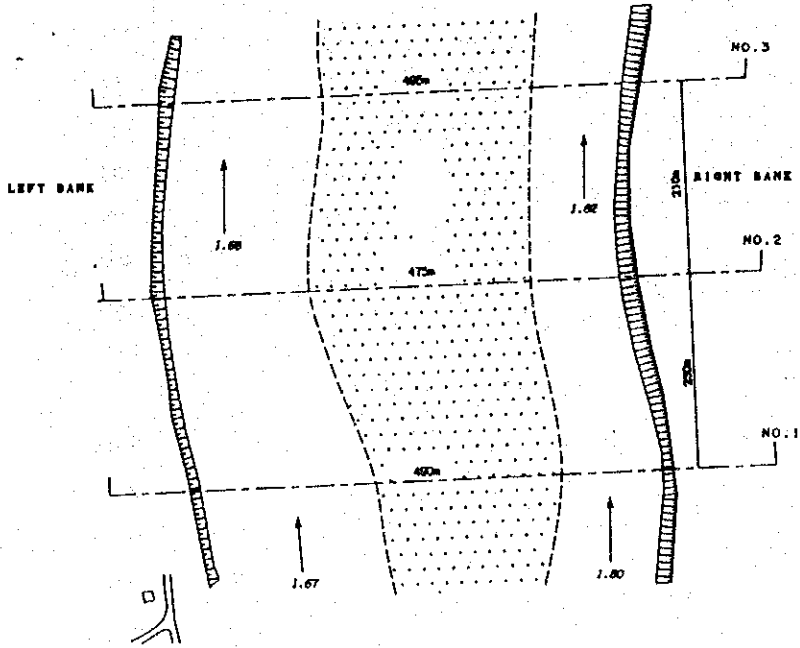
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[No.2 BURITI DOS LOPES]



NO. 3

FEB. 01, 1994

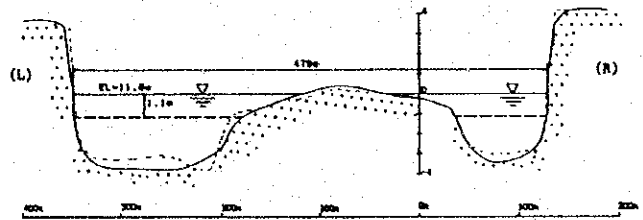
PLANE POSITION



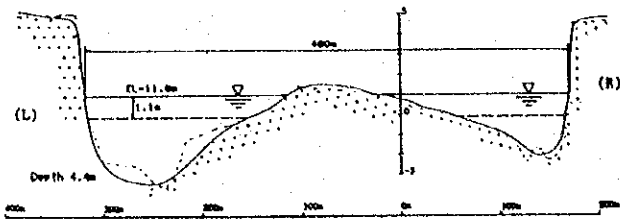
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—: Jan-Mar. 1994  
.....: Jun-Aug. 1993

CROSS SECTION

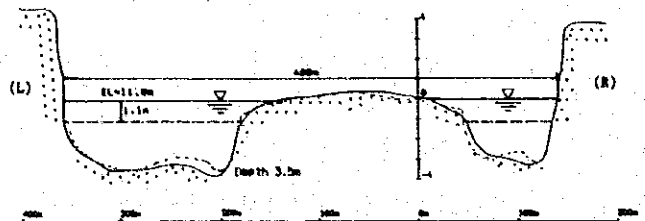
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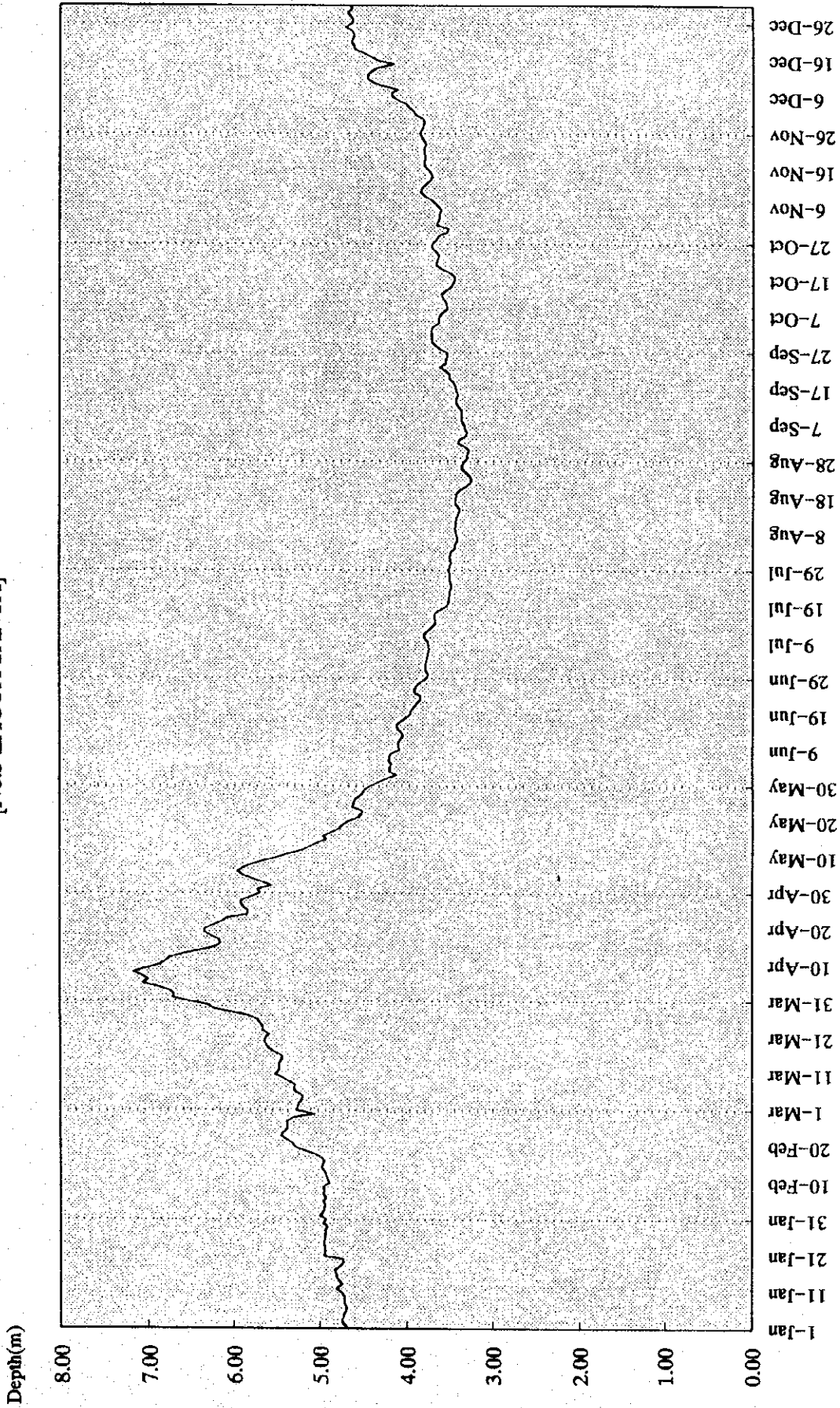
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NO. 3



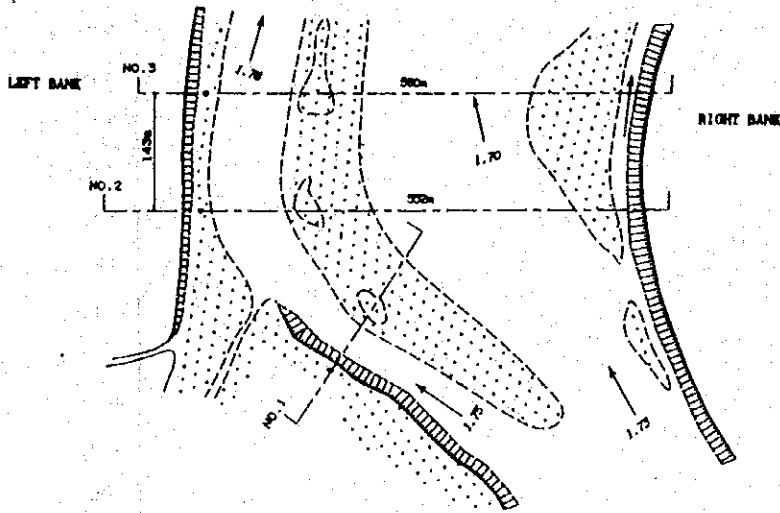
Parnaiba River Depth Data  
[No.3 LAGOA SANTA]



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(Magalhães de Almeida)

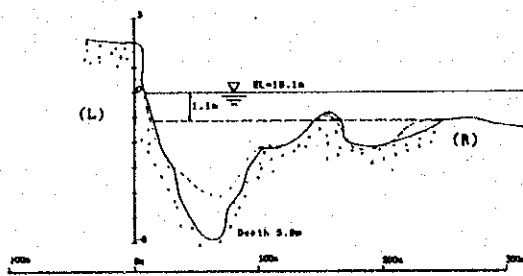
JAN. 31. 1994

PLANE POSITION

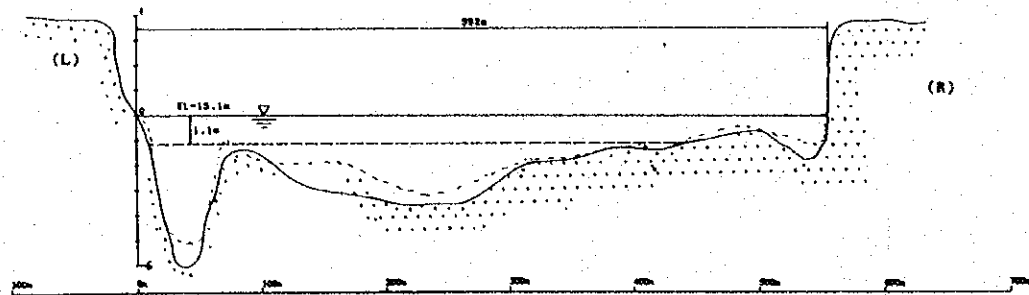


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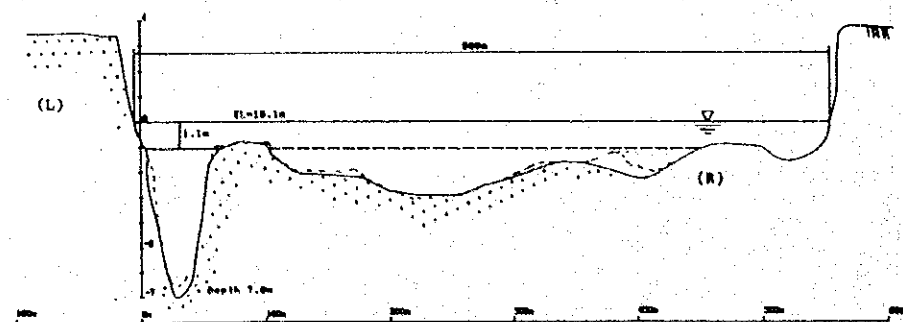
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NO. 2

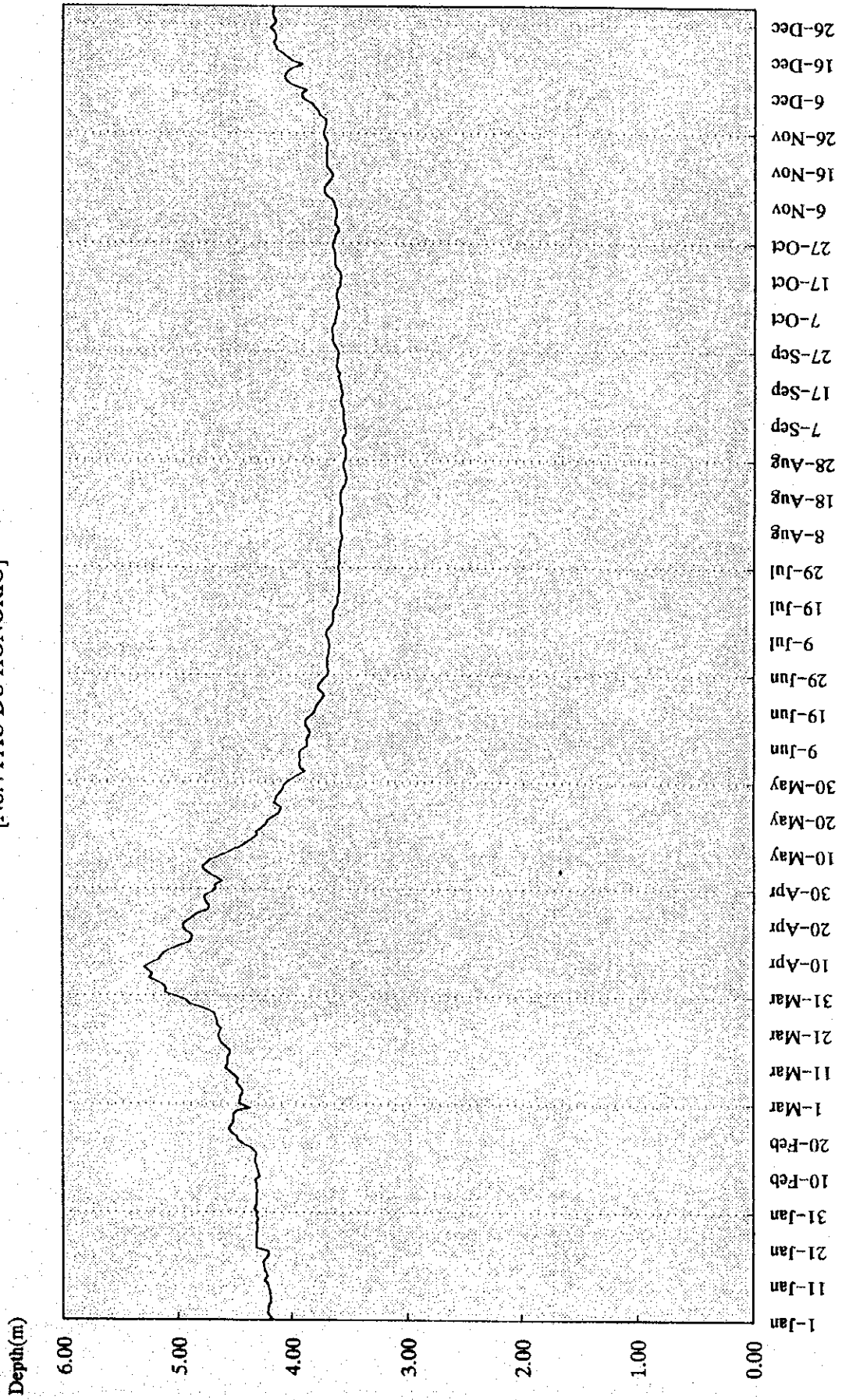


NO. 3



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 — : Jan-Mar. 1994  
 - - - : Jun-Aug. 1993

Parnaiba River Depth Data  
[No.4 PAU DU HONORIO]

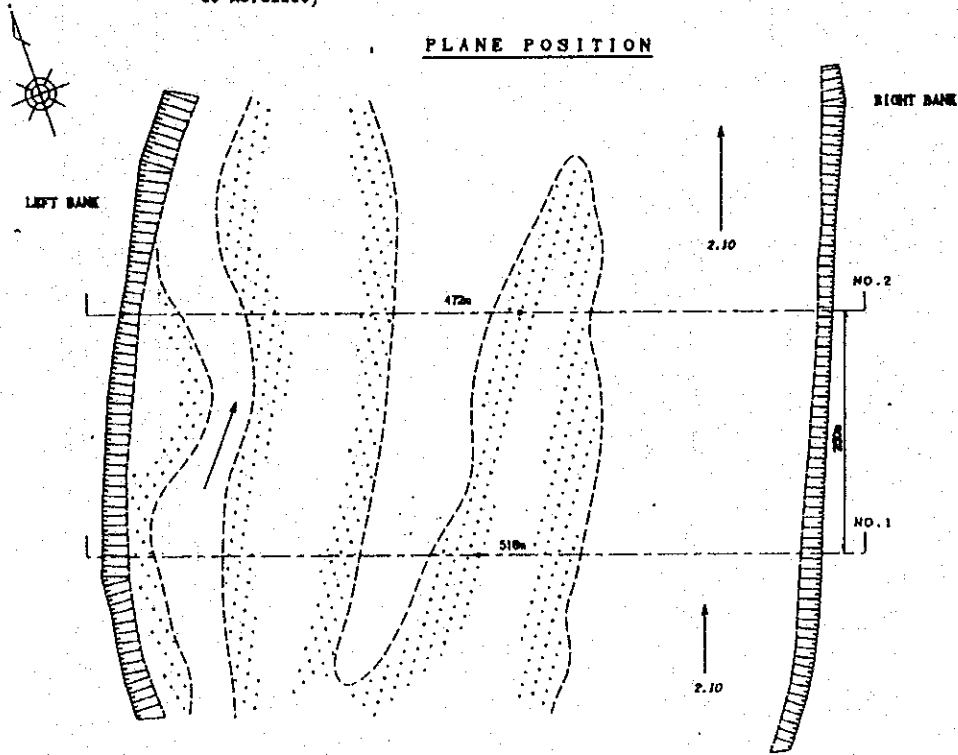


NO. 5

FEB .02. 1994

(Santa Quitéria  
do Maranhão)

PLANE POSITION



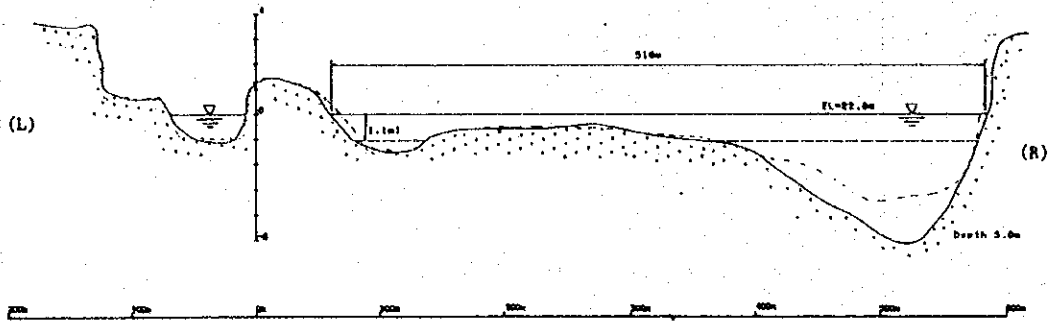
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— : Jan-Mar. 1994

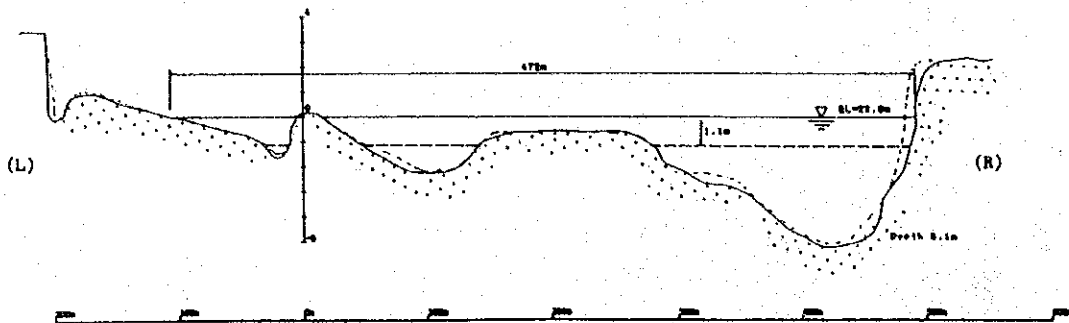
..... : Jun-Aug. 1993

CROSS SECTION

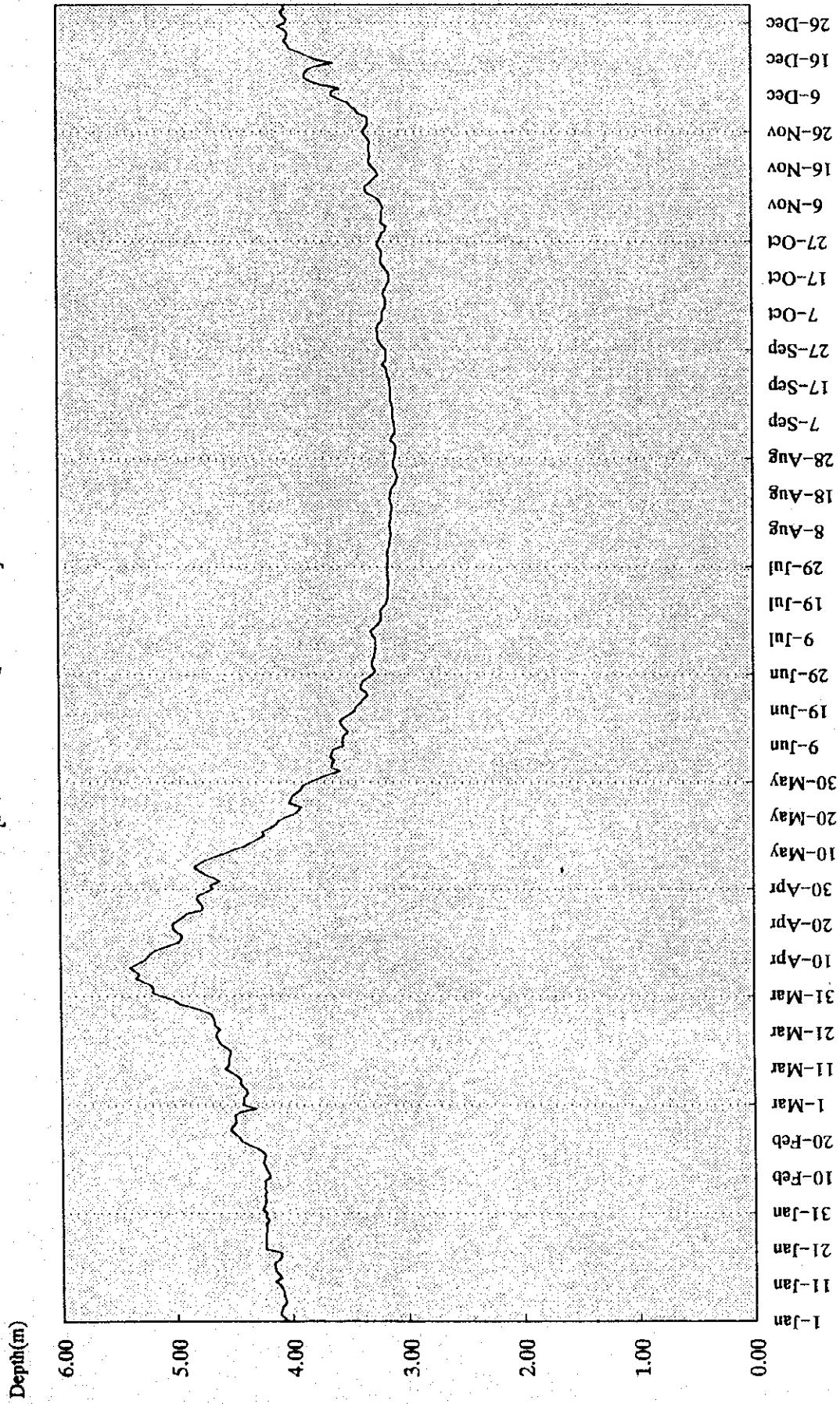
NO. 1



NO. 2



Parnaiba River Depth Data  
[No.5 SANTA QUITERIA]

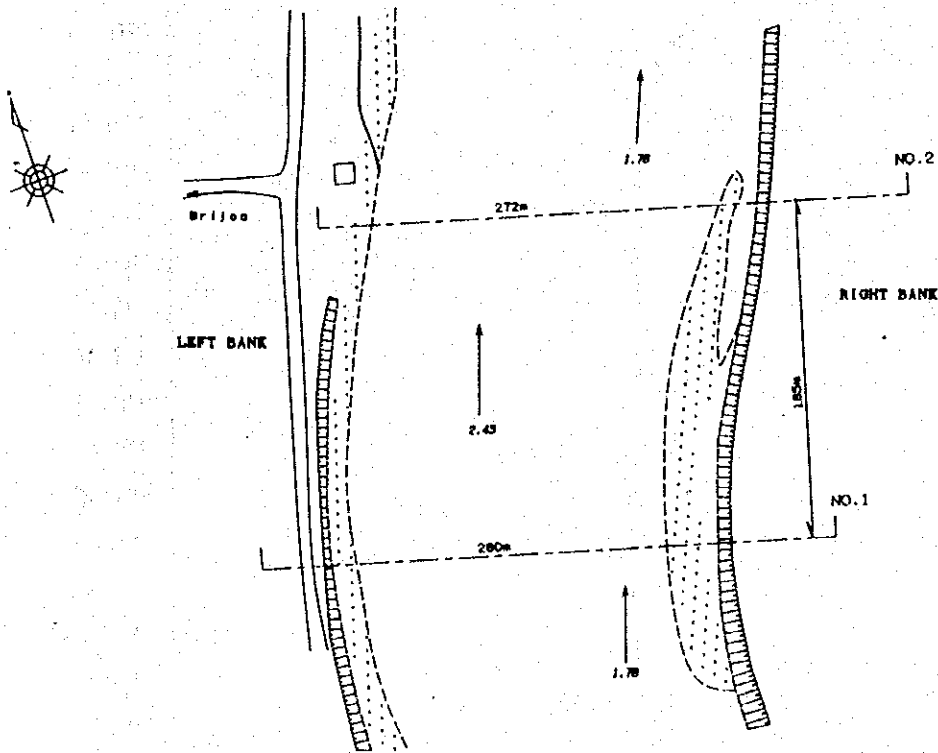


**NO. 6**

**(Brijo)**

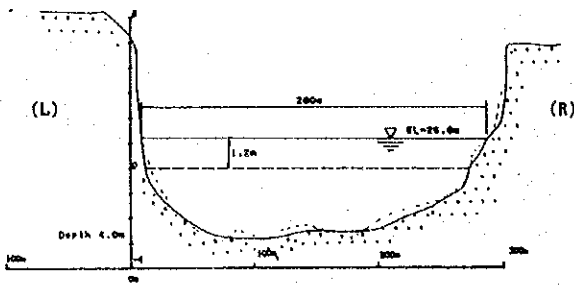
FEBY. 03. 1994

PLANE POSITION

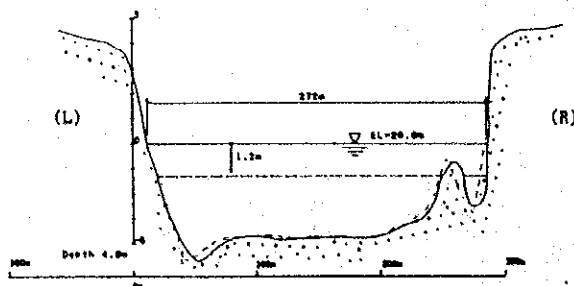


CROSS SECTION

NO. 1



NO. 2



Legend : Survey Date

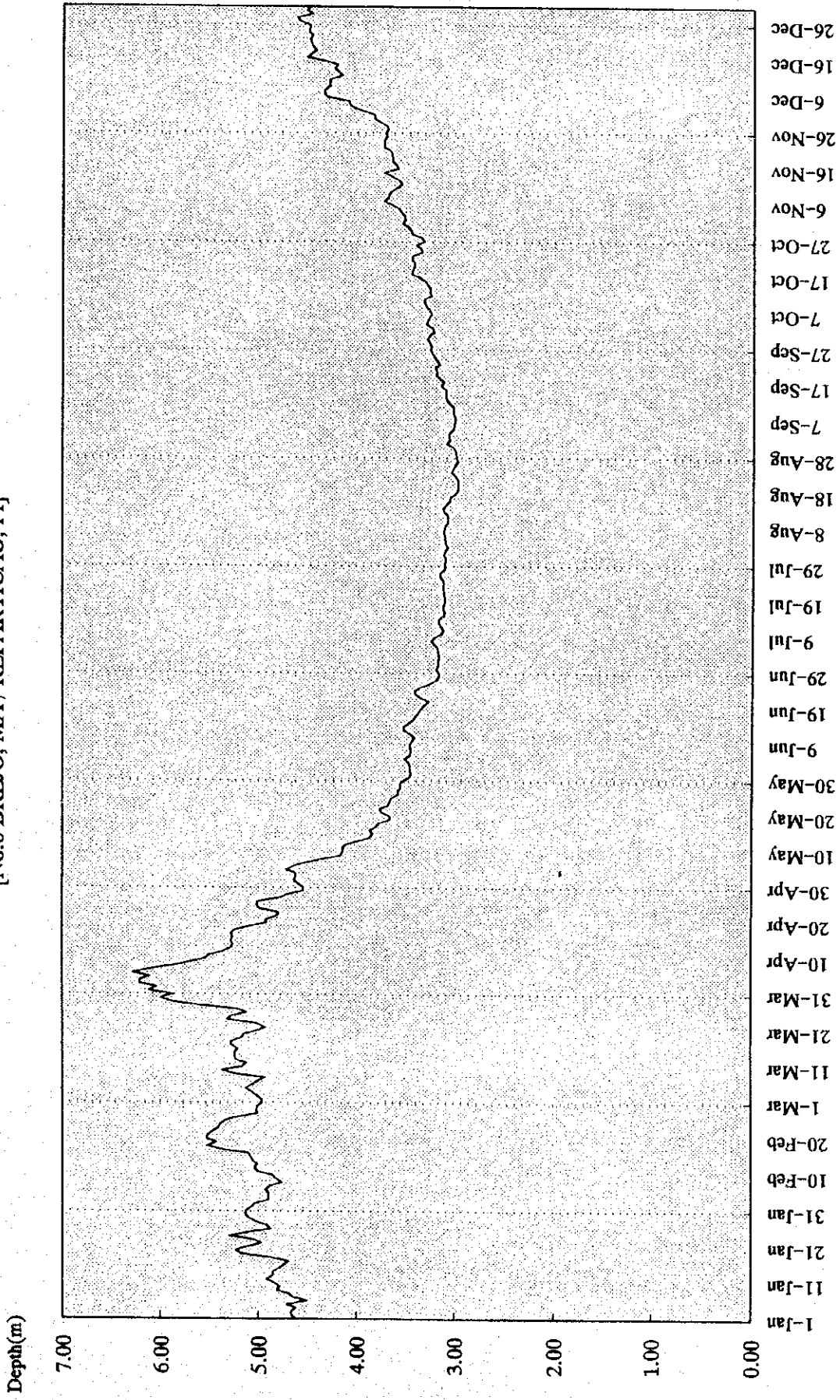
— : Jan-Mar. 1994

..... : Jun-Aug. 1993

± : Water Level



Parnaiba River Depth Data  
[No.6 BREJO, MA / REPARTICAO, PI]

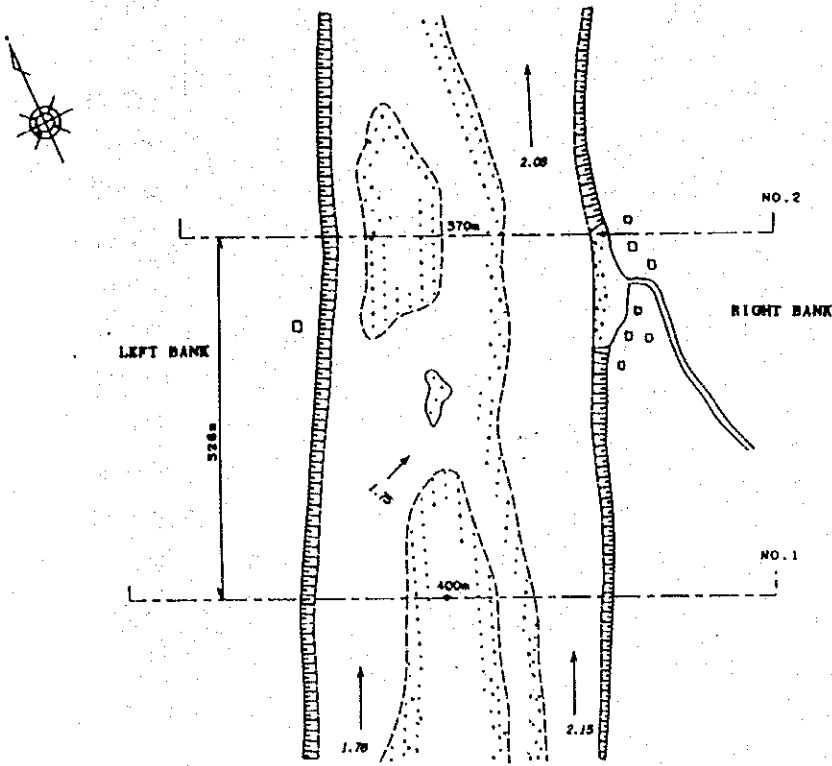


NO. 7

(Porto)

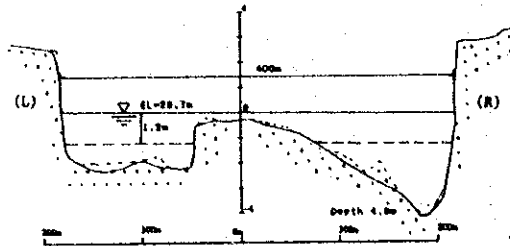
FEBY. 04. 1994

PLANE POSITION

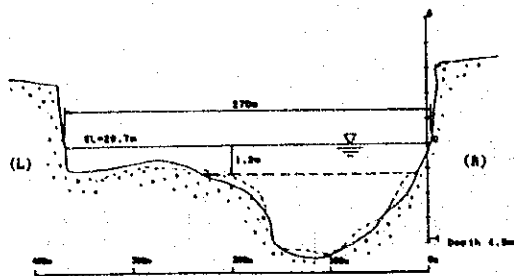


CROSS SECTION

NO. 1



NO. 2



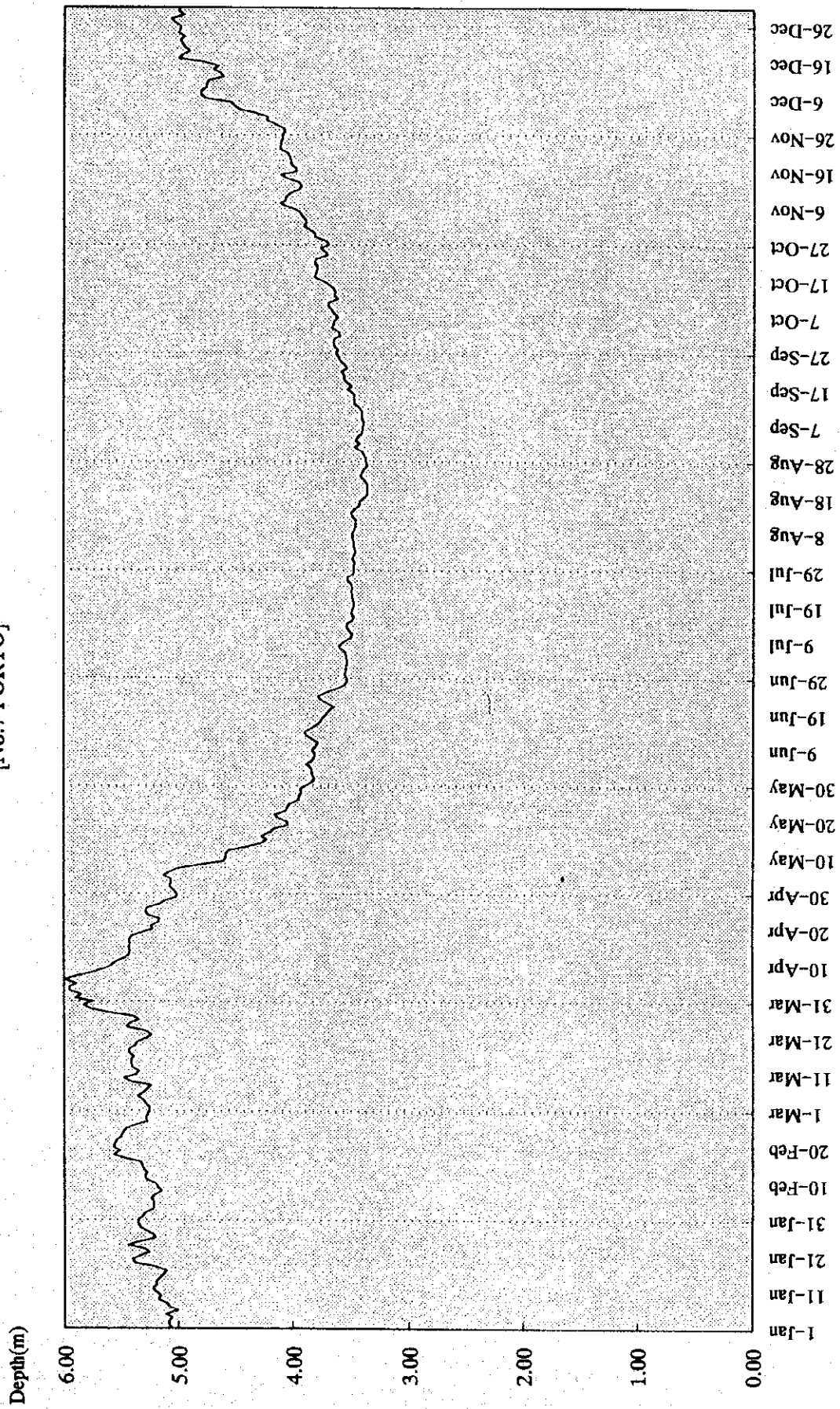
Legend : Survey Date

— : Jan-Mar. 1994

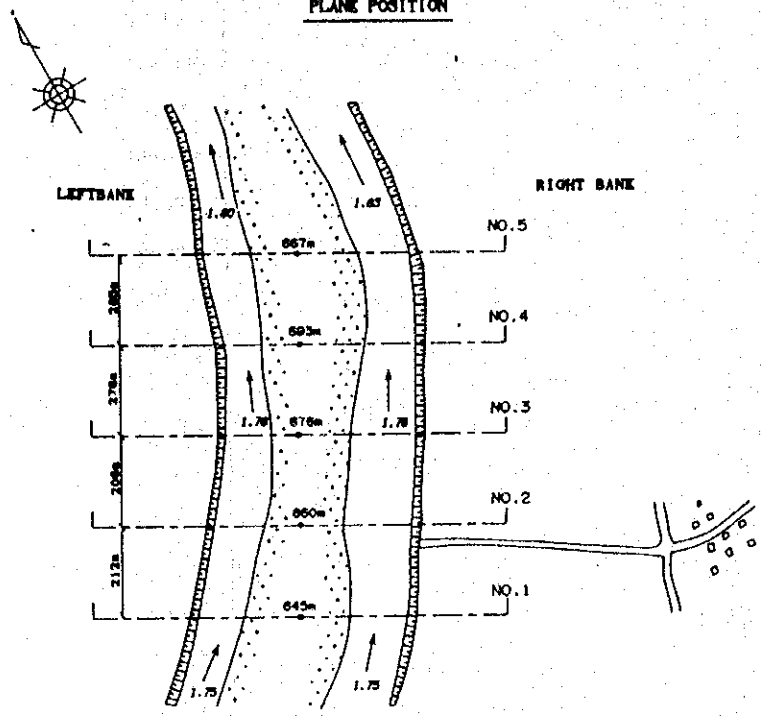
..... : Jun-Aug. 1993

⊕ : Water Level

Parnaiba River Depth Data  
[No.7 PORTO]

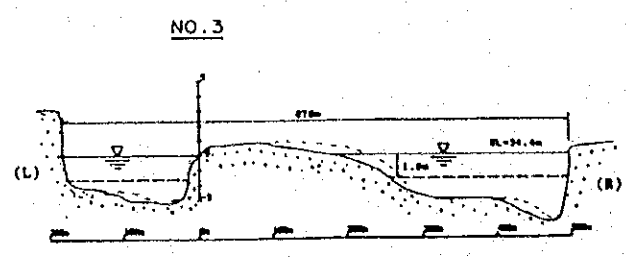
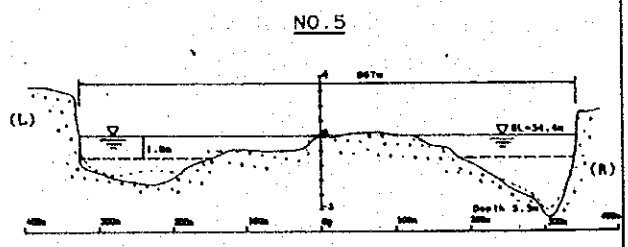
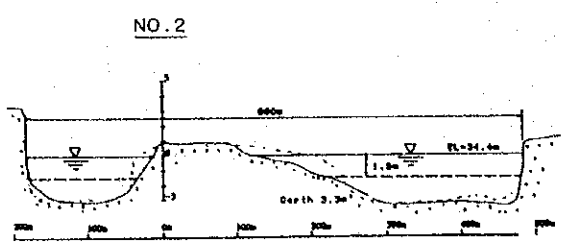
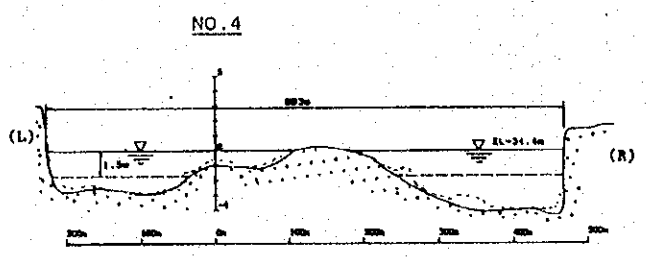
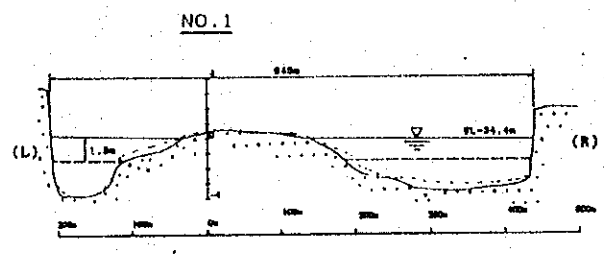


**PLANE POSITION**

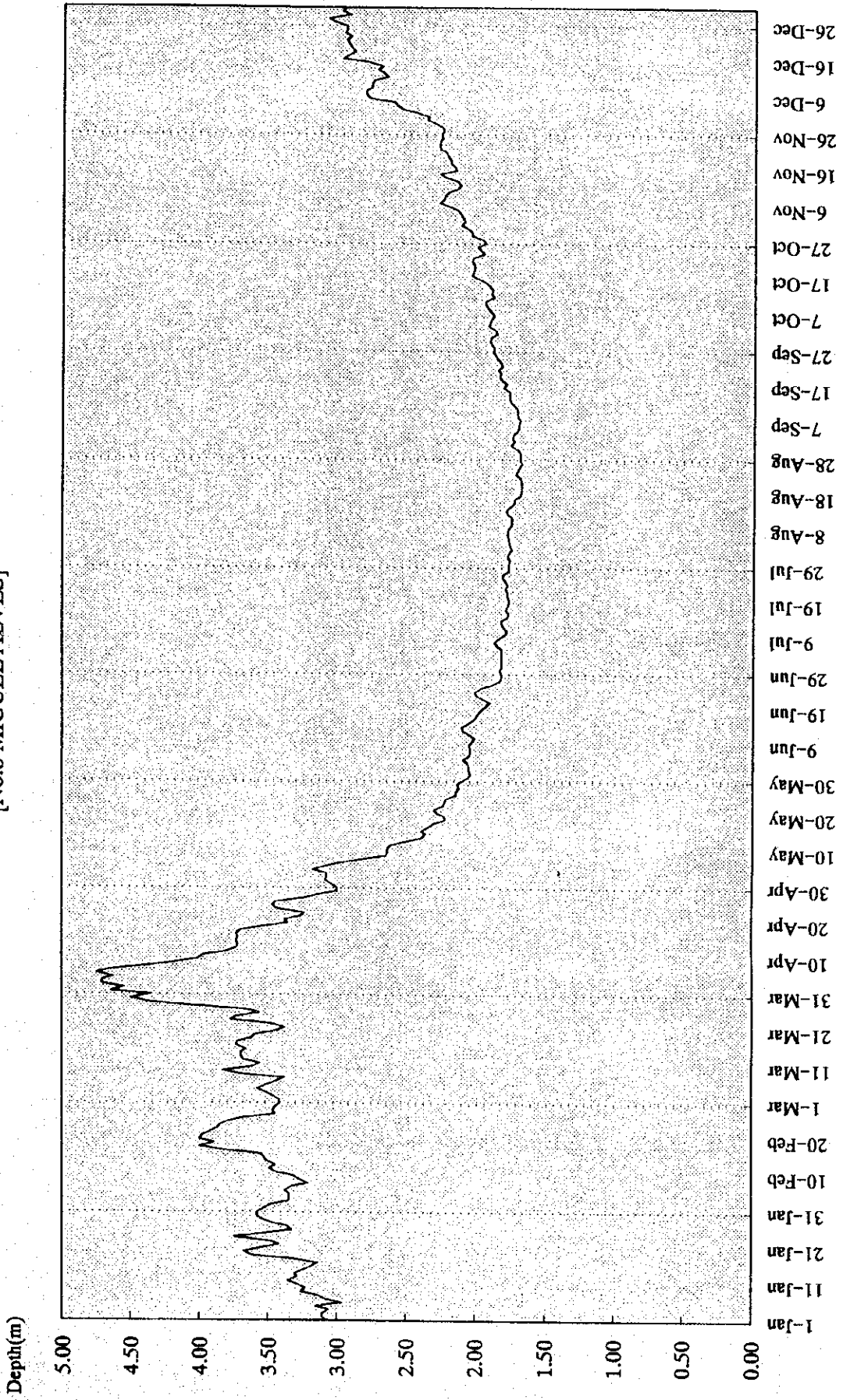


**CROSS SECTION**

Legend : Survey Date  
 — : Jan-Mar. 1994  
 ..... : Jun-Aug. 1993



Parnaíba River Depth Data  
[No.8 MIGUEL ALVES]

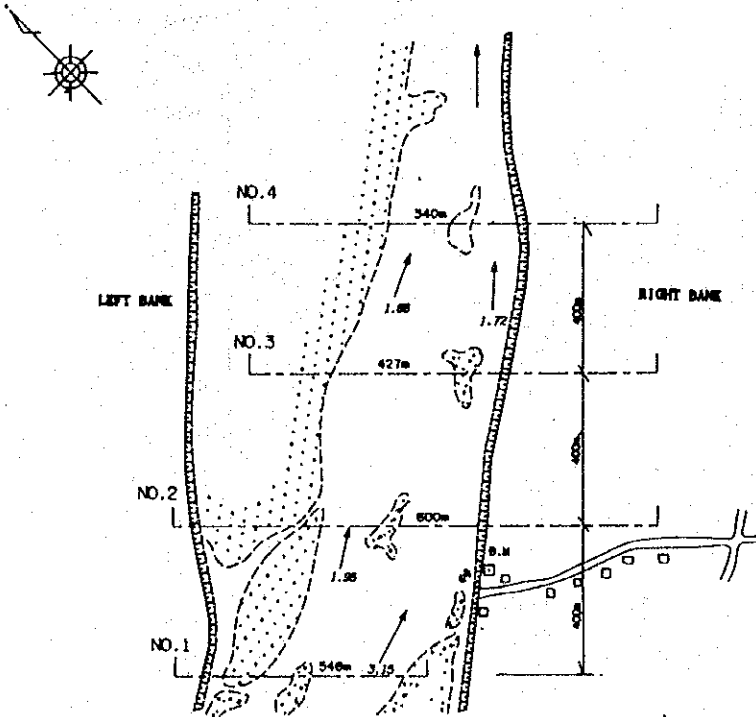


NO. 9

(Uniso)

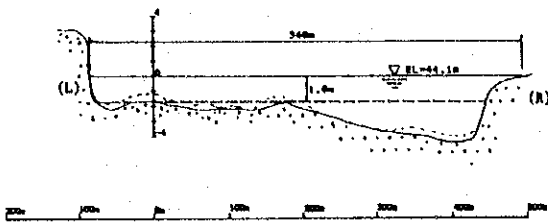
JAN .22.1994

PLANE POSITION

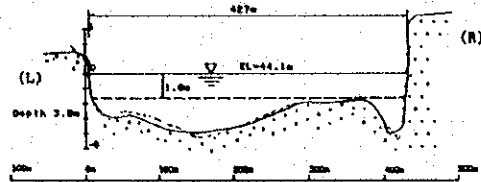


CROSS SECTION

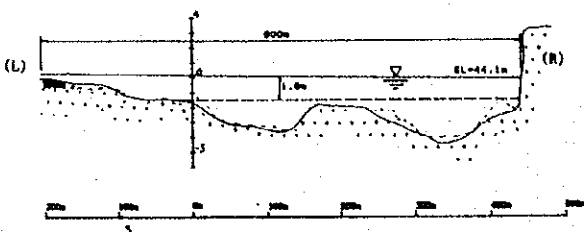
NO. 1



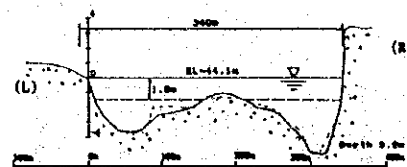
NO. 3



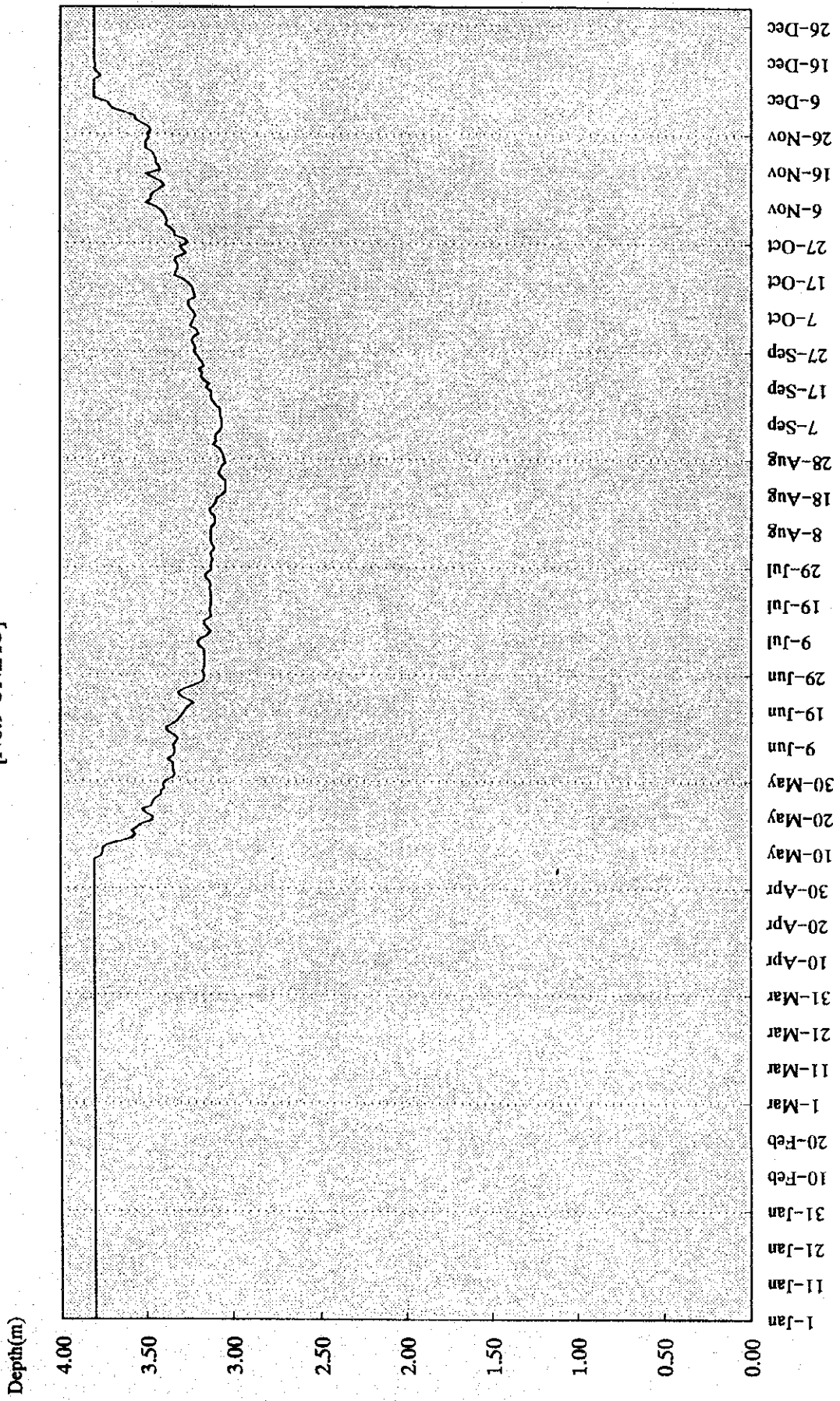
NO. 2



NO. 4



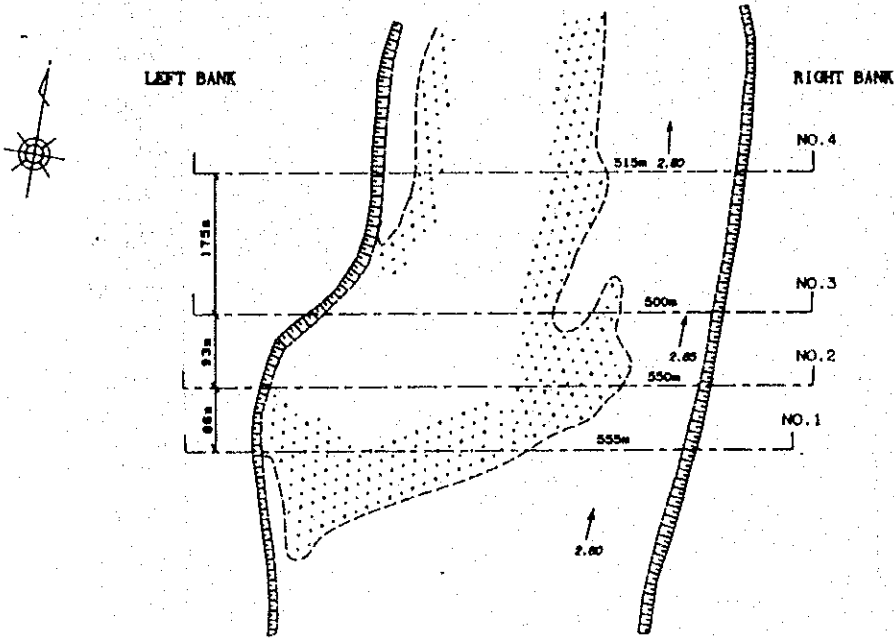
Parnaiba River Depth Data  
[No.9 UNIAO]



NO. 10

JAN .20.1994

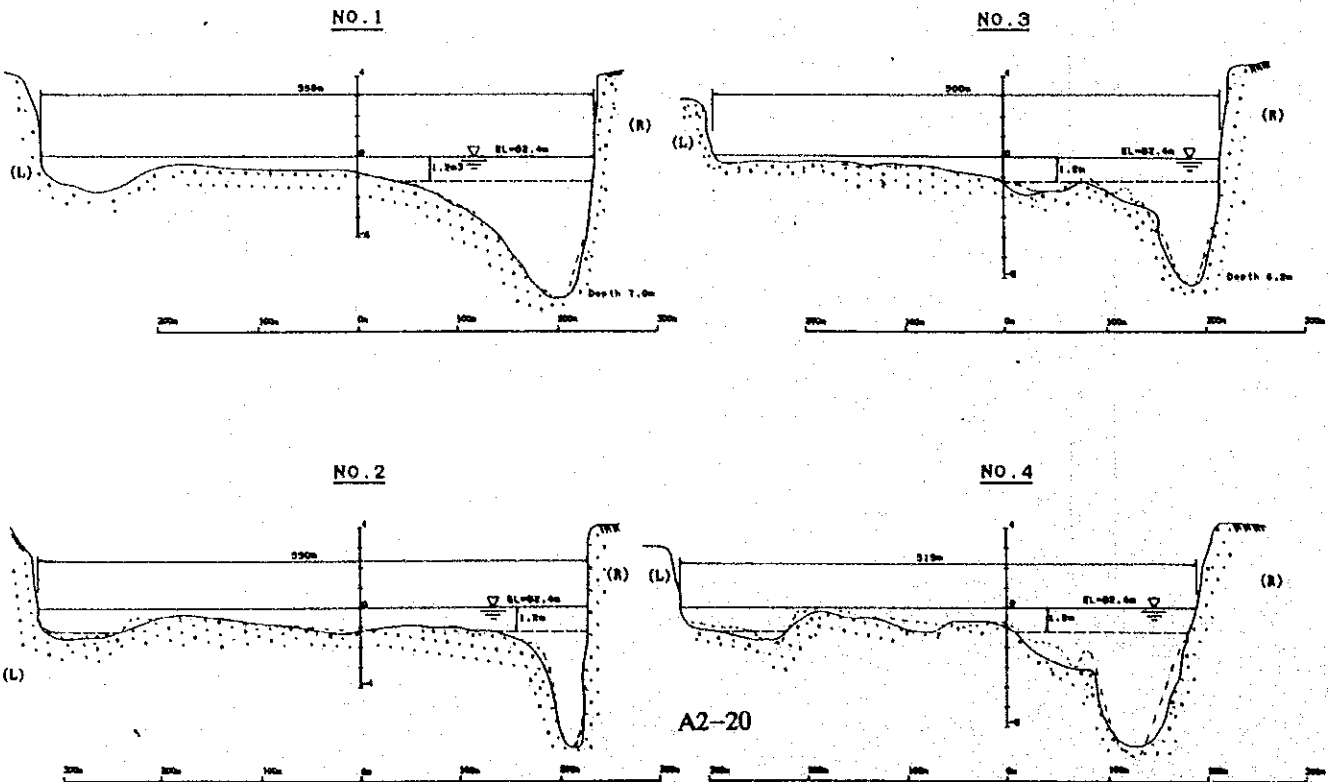
PLANE POSITION



Legend : Survey Date  
— : Jan-Mar. 1994  
- - - : Jun-Aug. 1993

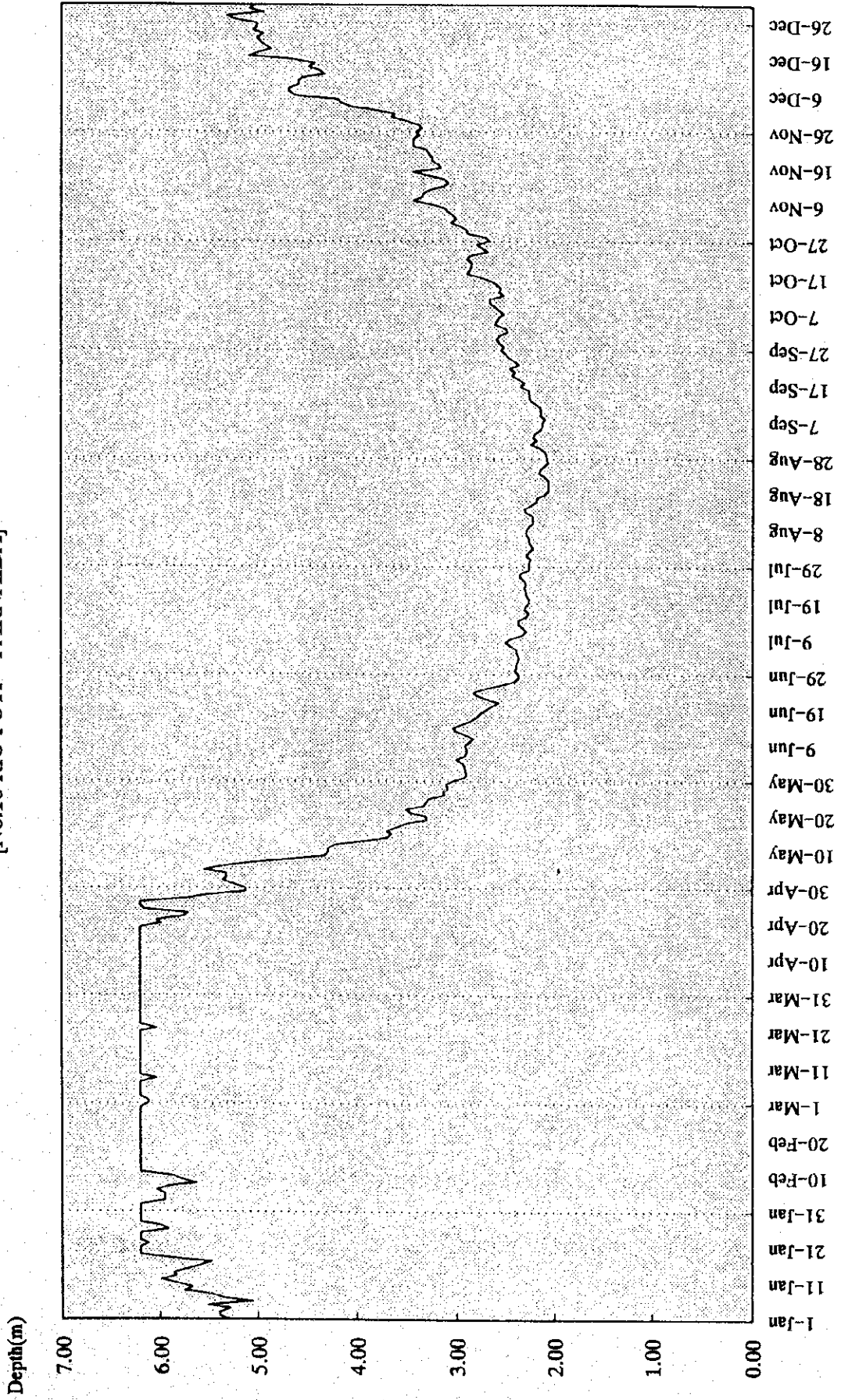
CROSS SECTION

↑ ↓ : Water Level





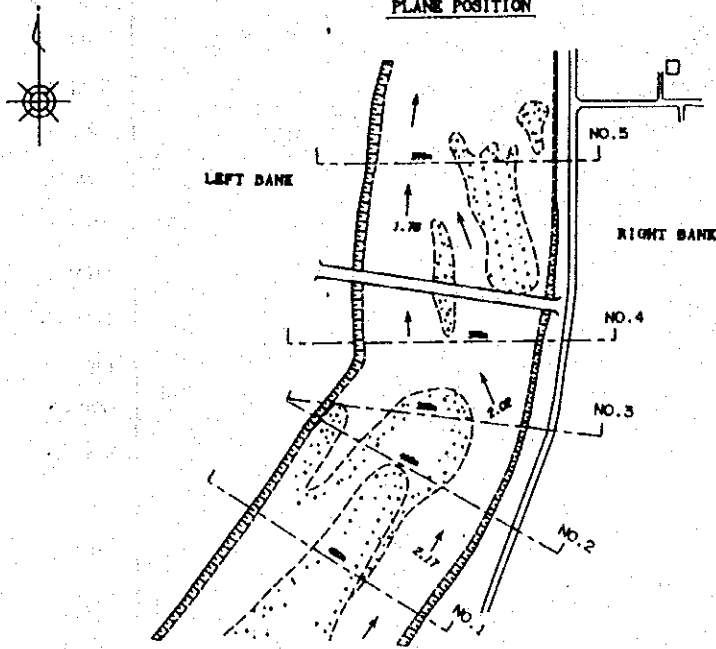
Parnaiba River Depth Data  
[No.10 RIO POTI \* PARNAIBA]



**NO. 11**  
(Teresina)

JAN .19.1994

**PLANE POSITION**



**CROSS SECTION**

Legend : Survey Date  
 — : Jan-Mar. 1994  
 ..... : Jun-Aug. 1993

0.0 : Water Level

