

Data for Natural Condition Survey Report

for

The Study

on

Maintenance Dredging

in Access Channel of Banjarmasin Port

in

The Republic of Indonesia

[ Vol. 5/9 2. Monthly Survey ]  
2.4 Echo-sounding  
(Narrow Area)

March 1990

Japan International Cooperation Agency

## Contents

2. Monthly Survey

2.4 Echo-sounding in Narrow Area

Tracking Maps

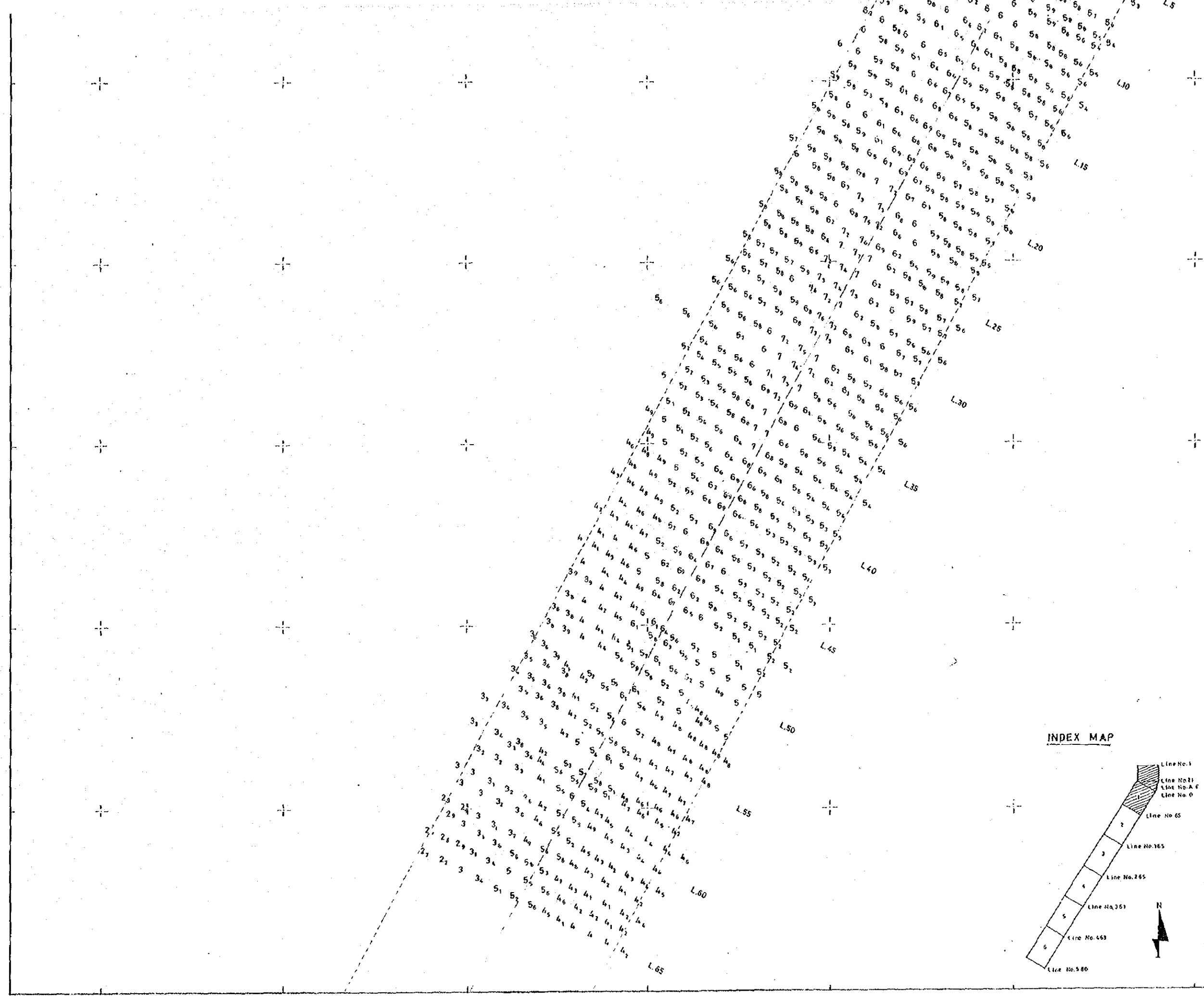
Contour Maps

Bathymetric Maps

Rebo-sounding Survey(Narrow Area) in each stage was conducted  
in the following Date

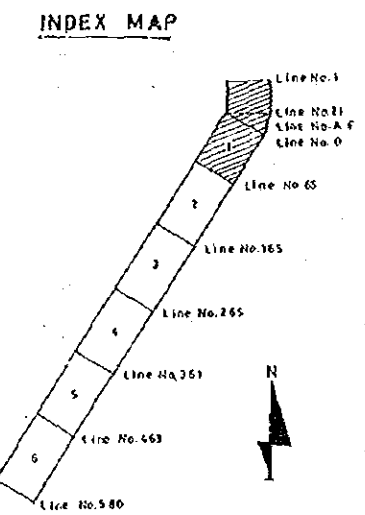
Stage	Date
1st stage(Frequency ; 210Khz) :	8 October -22 November 1988
2nd stage(Frequency ; 210Khz) :	23 November 1988 -13 January 1989
3rd stage(Frequency ; 210Khz) :	14 January -17 February 1989
4th stage(Frequency ; 210Khz) :	30 January -20 February 1989
5th stage(Frequency ; 210Khz) :	21 February - 8 March 1989
6th stage(Frequency ; 210Khz and 33Khz) :	8 March-17 April 1989
7th stage(Frequency ; 210Khz and 33Khz) :	26 April- 4 May 1989
8th satge(Frequency ; 210Khz) :	25 May - 3 June 1989
9th stage(Frequency ; 210Khz) :	16 June -23 June 1989
10th stage(Frequency ; 210Khz) :	16 July -22 July 1989
11th stage(Frequency ; 210Khz) :	21 July - 1 August 1989
12th stage(Frequency ; 210Khz) :	7 August -13 August 1989





**SURFACE LEVELLING**

REV.	DESCRIPTION	BY	DATE
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)			
GEODATA BERLIAN CENTRE P.T.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR ARRAS OF BANJARMASIN PORT			
DRAWING FILE:			
<b>ECHO SOUNDING NARROW AREA</b>			
SCALE: 1:2500			
DRAWN BY: M. GORIS		CHECKED BY:	
DESIGN BY:		APPROVED BY:	
STAGE: 1 <sup>st</sup> (30 JAN - 20 FEB 1989)			
DATE: 30 JANUARY 1989			
DRAWING NO: 01 FROM 6			REV.
<b>BATHYMETRIC MAP</b>			



8.500

9.000

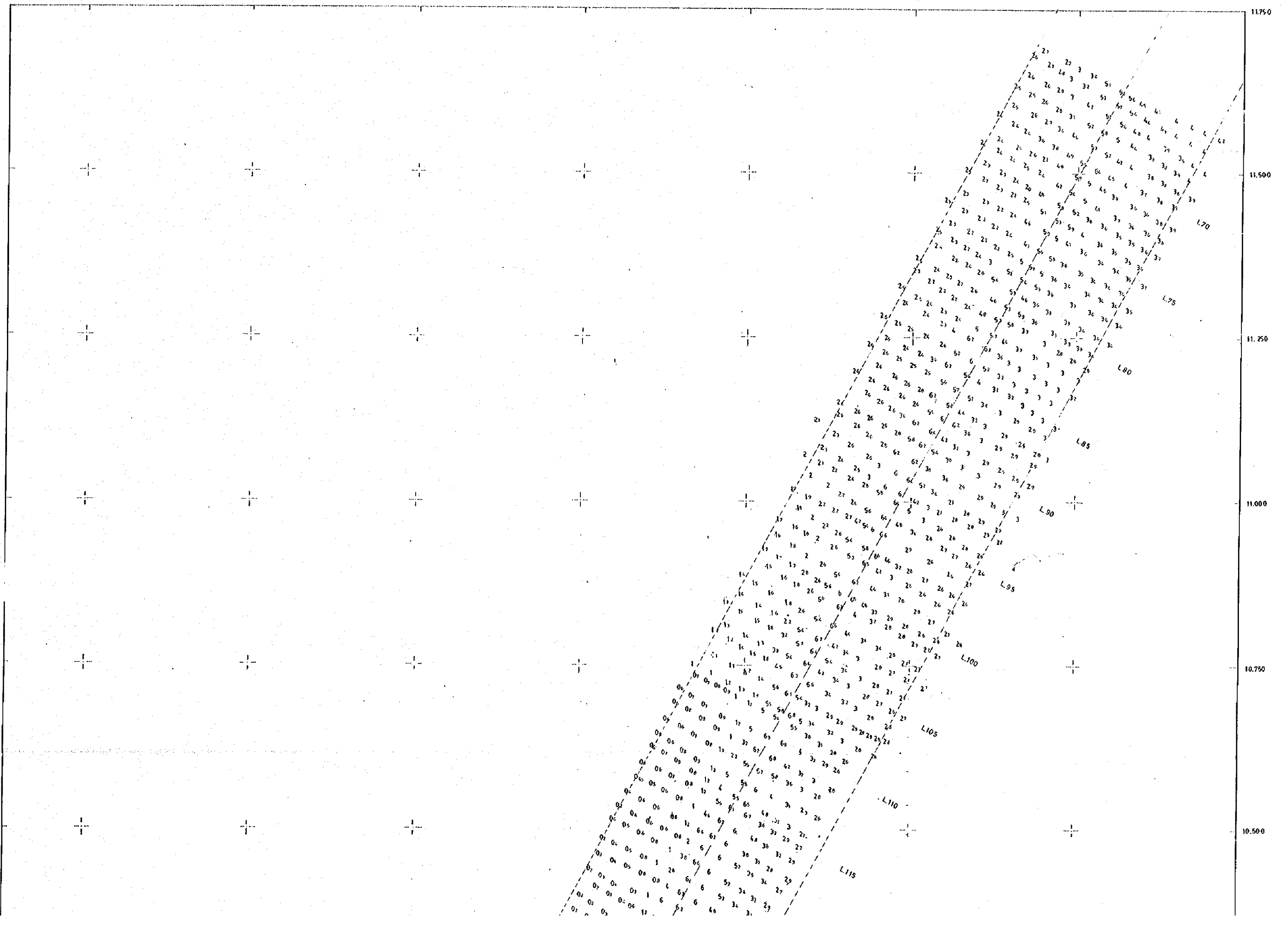
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10.000

12.500

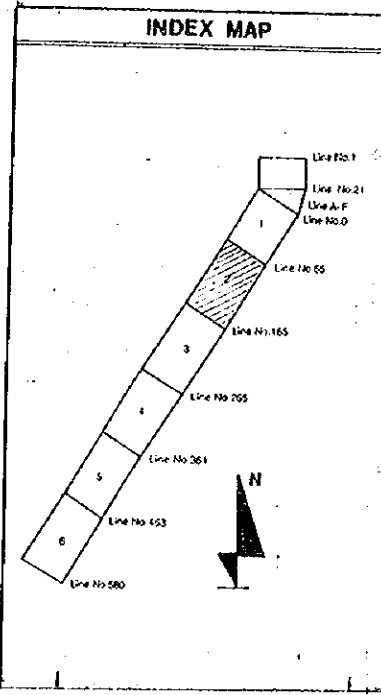
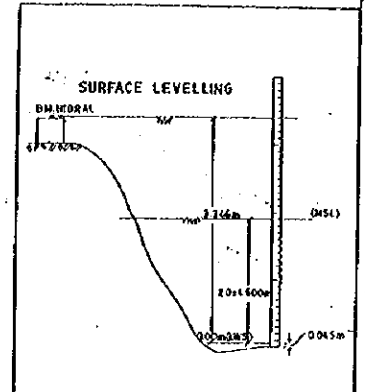
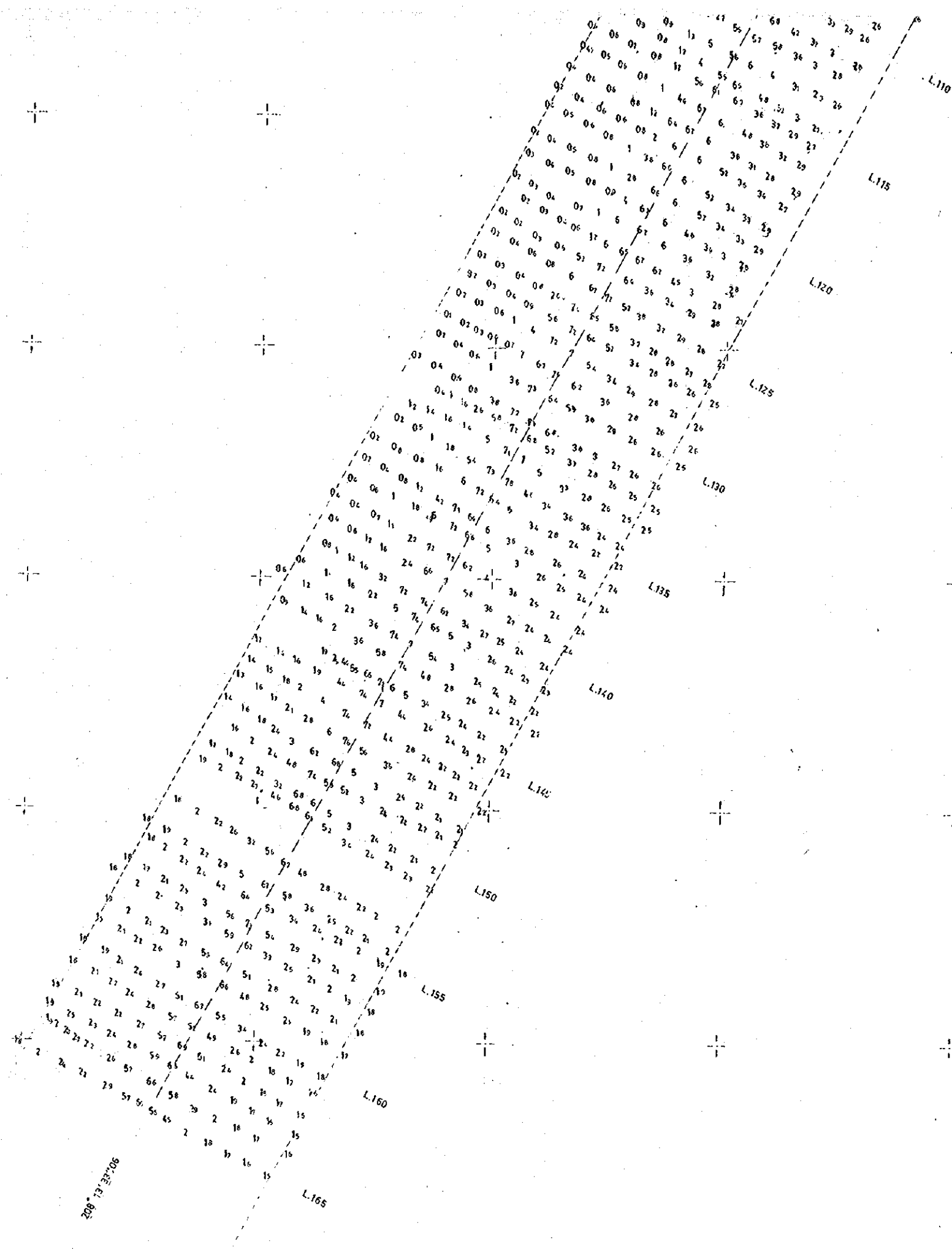
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11.500



11.750  
11.500  
11.250  
11.000  
10.750  
10.500

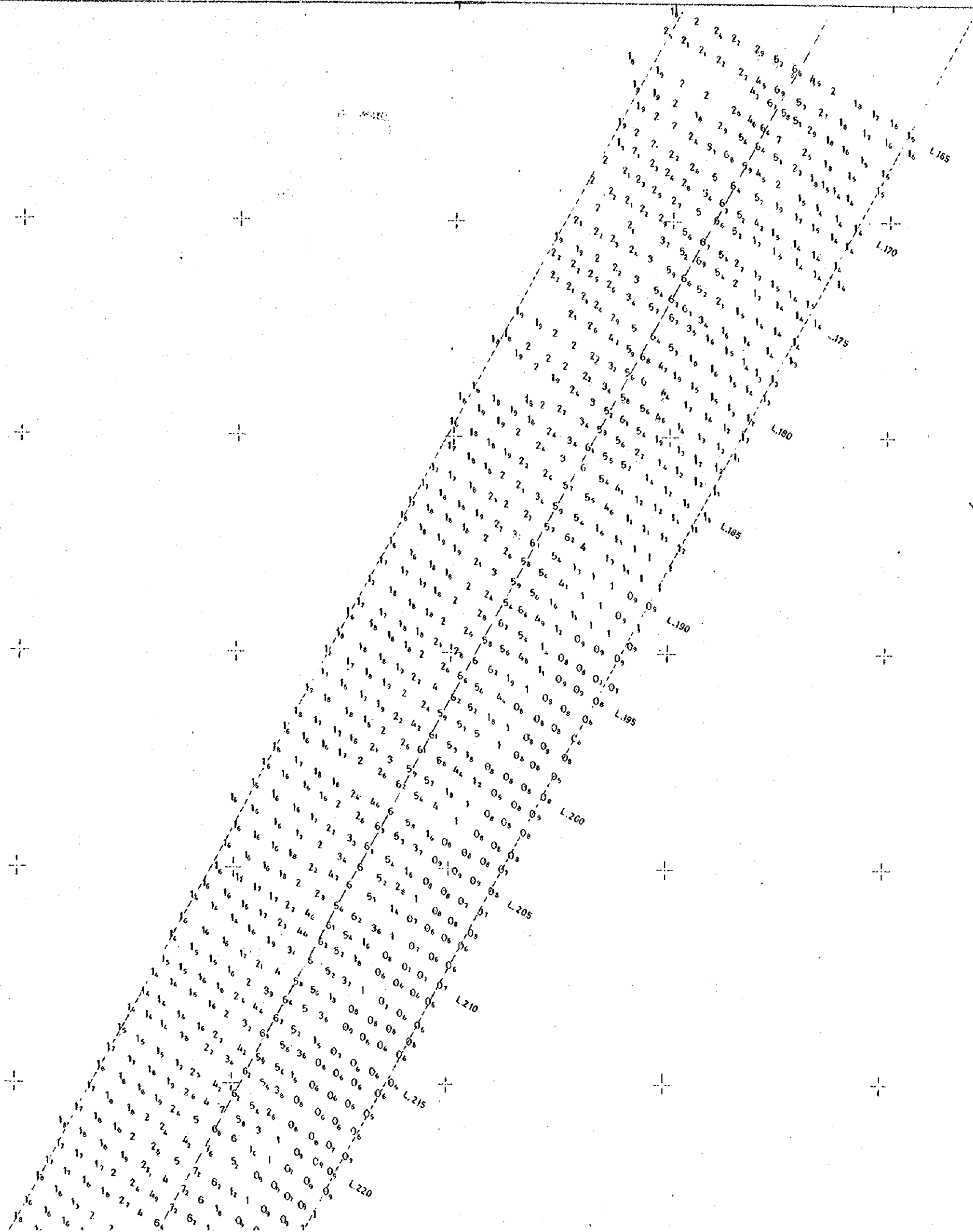
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L.115



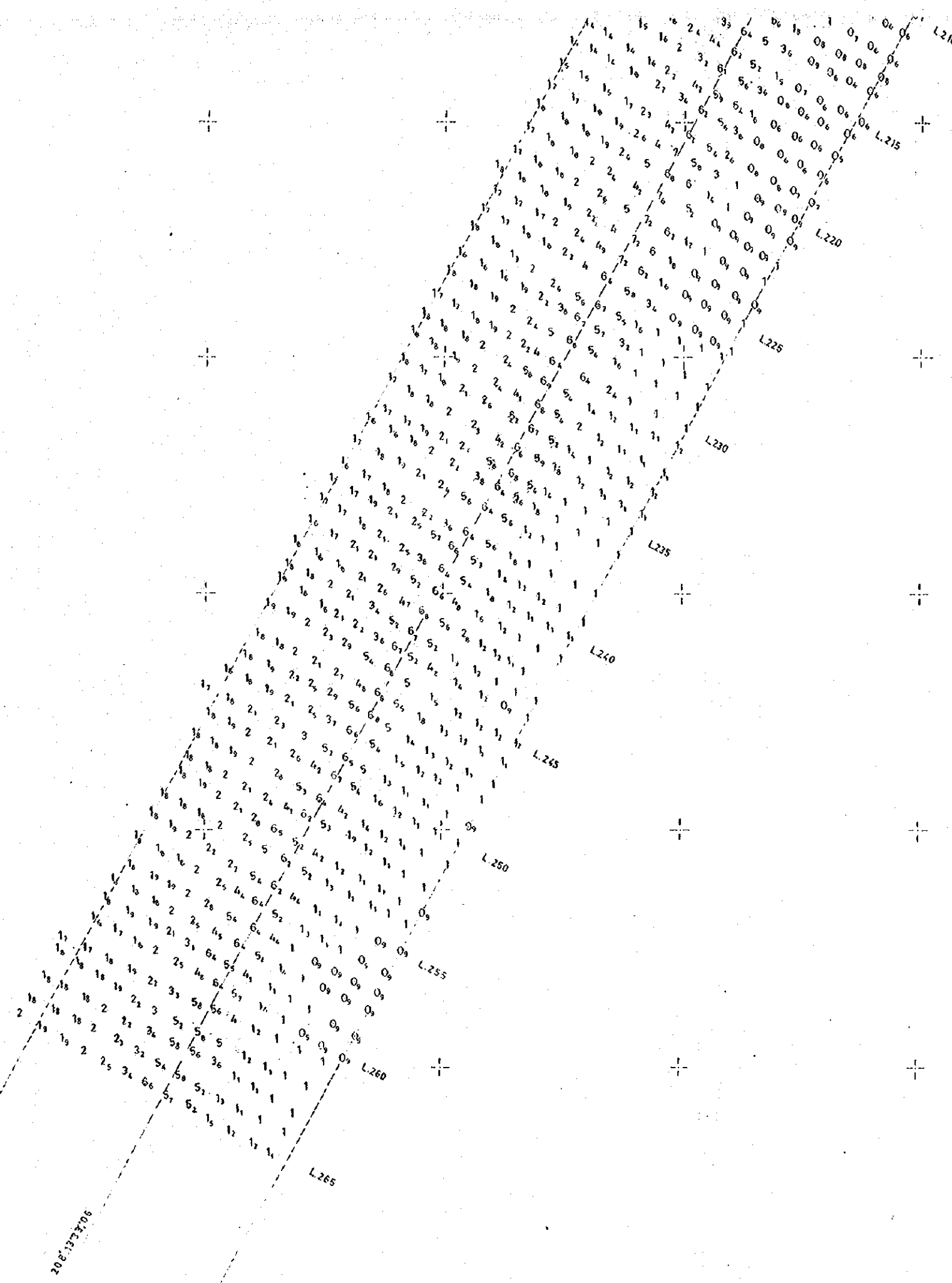
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	GEODATA BERLIAN CENTRE p.1.		
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	DRAWING TITLE		
	<b>ECHO SOUNDING NARROW AREA</b>		
	SCALE 1:2500		
	0 25 50 75 100 m		
	DRAWN BY HADI, S.	CHECKED BY	
	DESIGN BY	APPROVED BY	
	STAGE 4 <sup>th</sup> E30 JANUARY - 20 FEBRUARY 1989		
	DATE 30 JANUARY, 2, 11, 17 FEBRUARY 1989		
	DRAWING NO. 02 FROM 6	REV.	
	<b>BATHYMETRIC MAP</b>		

7.250 7.500 7.750 8.000 8.250 8.500 8.750 9.000

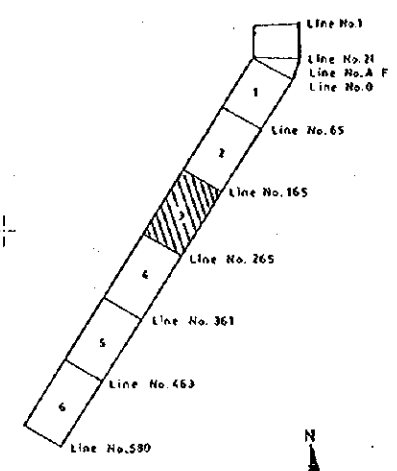
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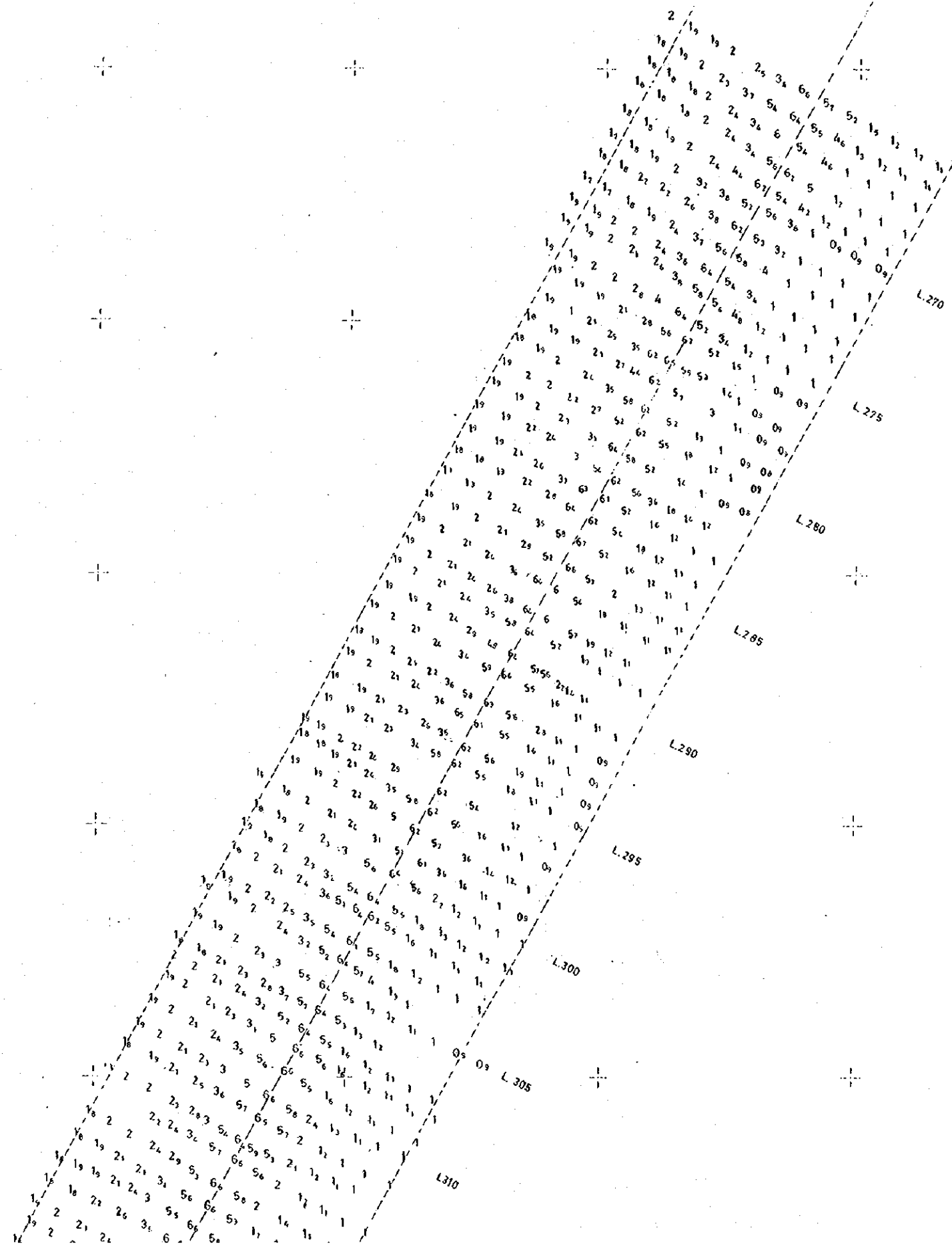


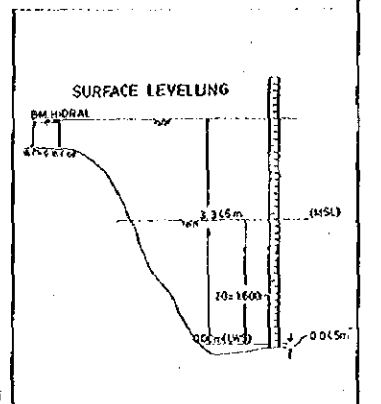
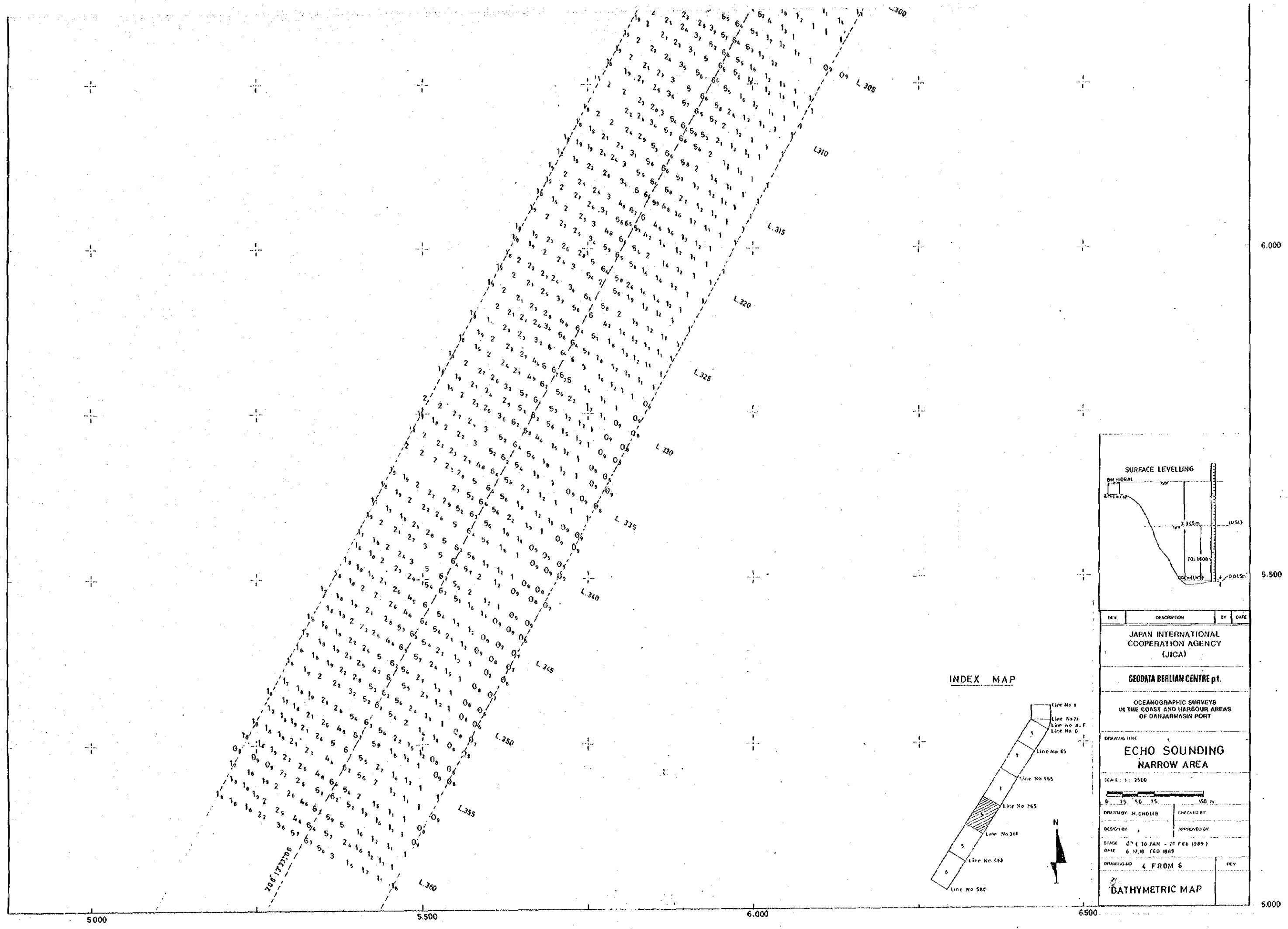
INDEX MAP



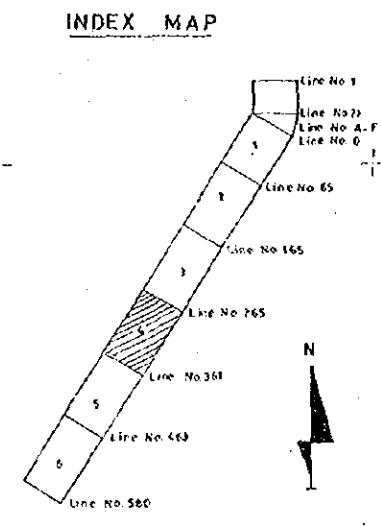
**SURFACE LEVELLING**

REV	DESCRIPTION	BY	DATE
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GEODATA BERLIAN CENTRE p.t.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
DRAWING TITLE			
<b>ECHO SOUNDING NARROW AREA</b>			
SCALE 1:2500			
DRAWN BY: M. GHOLIB		CHECKED BY:	
DESIGNED BY:		APPROVED BY:	
STAGE 4 (10 JANUARY - 20 FEBRUARY 1989)			
DATE 3, 4, 6, 12 FEBRUARY 1989			
DRAWING NO. 3 FROM 6			REV
<b>BATHYMETRIC MAP</b>			





REV.	DESCRIPTION	BY	DATE
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)			
GEODATA BERLIAN CENTRE pt.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
DRAWING TITLE			
<b>ECHO SOUNDING NARROW AREA</b>			
SCALE: 1 : 2500			
DRAWN BY: H. GHOLIB		CHECKED BY:	
DESIGNED BY:		APPROVED BY:	
STAGE: (14 JAN - 20 FEB 1989)			
DATE: 6.12.83 FEB 1989			
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<b>BATHYMETRIC MAP</b>			



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5.500

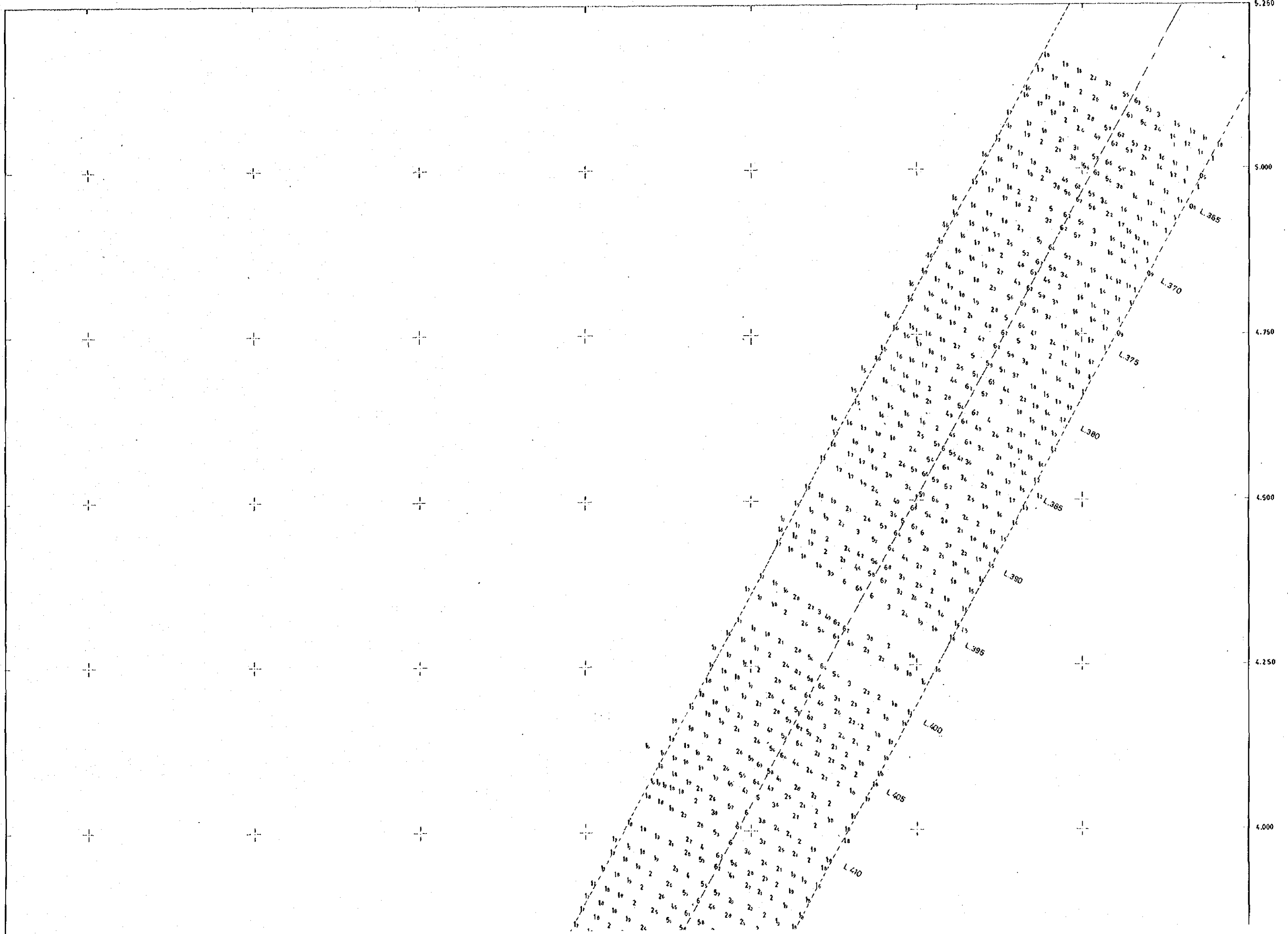
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5000

5500

6000

6500



5.250

5.000

4.750

4.500

4.250

4.000

L.365

L.370

L.375

L.380

L.385

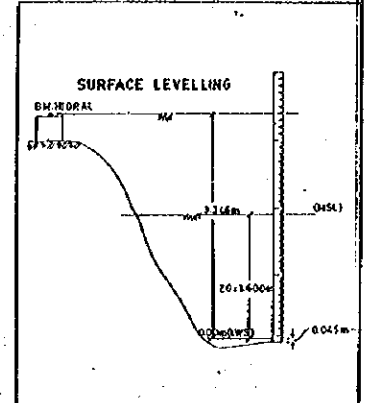
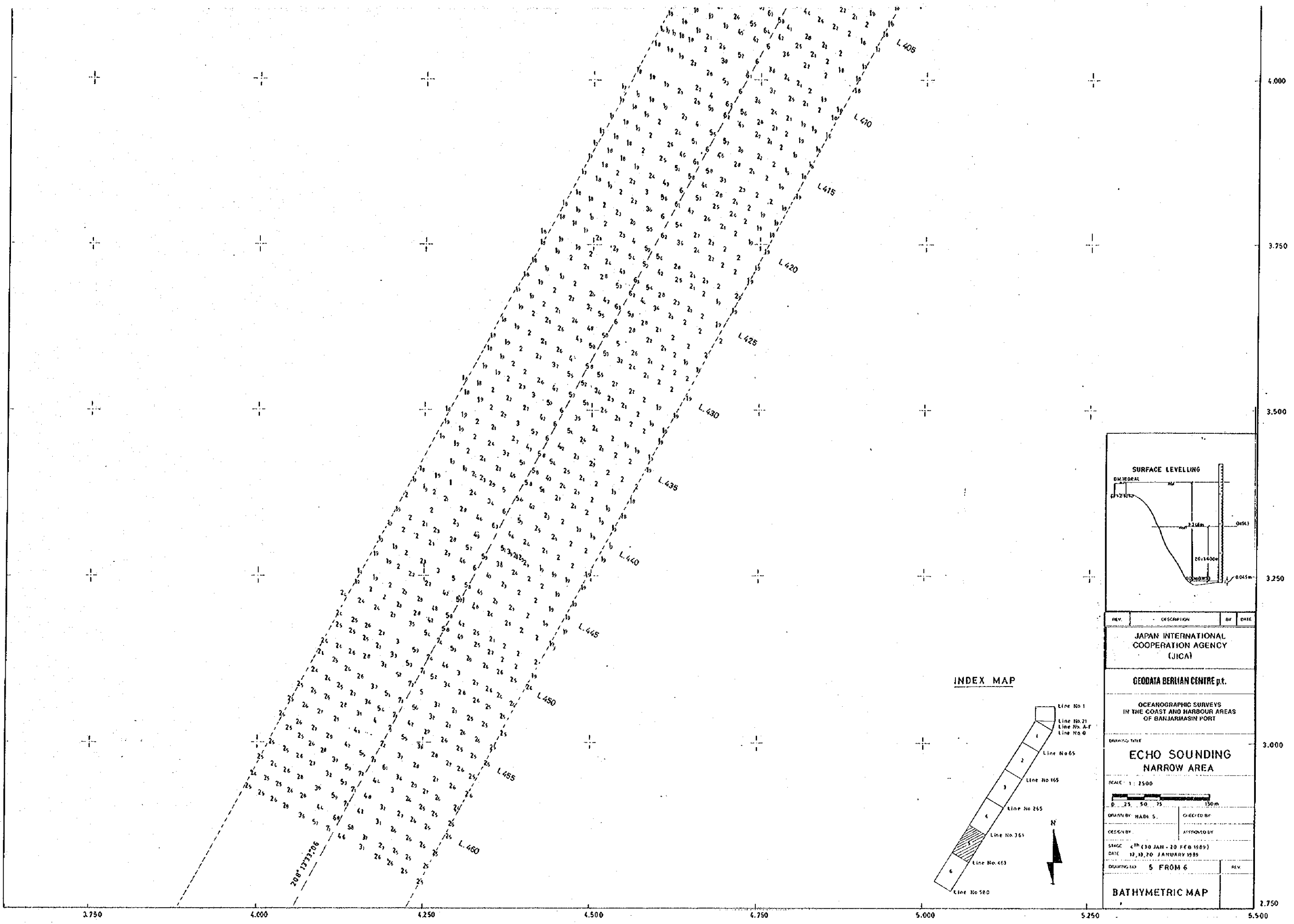
L.390

L.395

L.400

L.405

L.410



REV.	DESCRIPTION	BY	DATE
JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)			

GEODATA BERLIAN CENTRE p.t.  
 OCEANOGRAPHIC SURVEYS  
 IN THE COAST AND HARBOUR AREAS  
 OF BANJARMASIN PORT

DRAWING TITLE  
**ECHO SOUNDING  
 NARROW AREA**

SCALE: 1 : 2500

DRAWN BY: HADI S.      CHECKED BY:

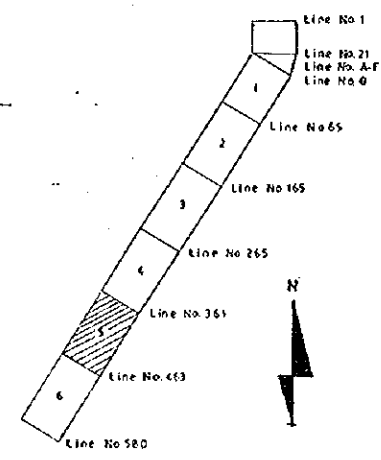
DESIGN BY:                      APPROVED BY:

STAGE: 4th (30 JAN - 20 FEB 1989)  
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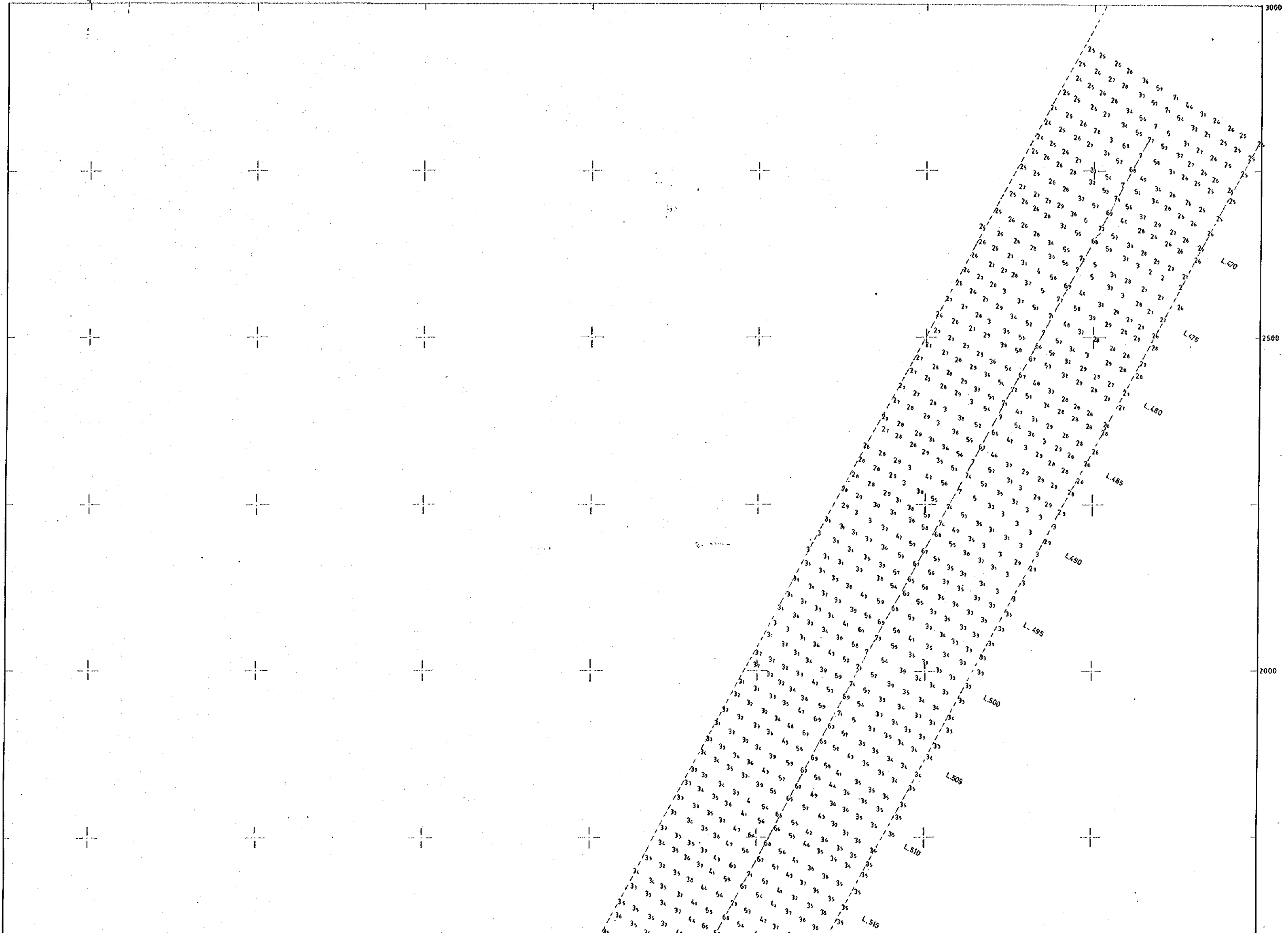
**BATHYMETRIC MAP**

**INDEX MAP**



3.750                      4.000                      4.250                      4.500                      4.750                      5.000                      5.250                      5.500

4.000  
3.750  
3.500  
3.250  
3.000  
2.750



3000

2500

2000

L.470

L.475

L.480

L.485

L.490

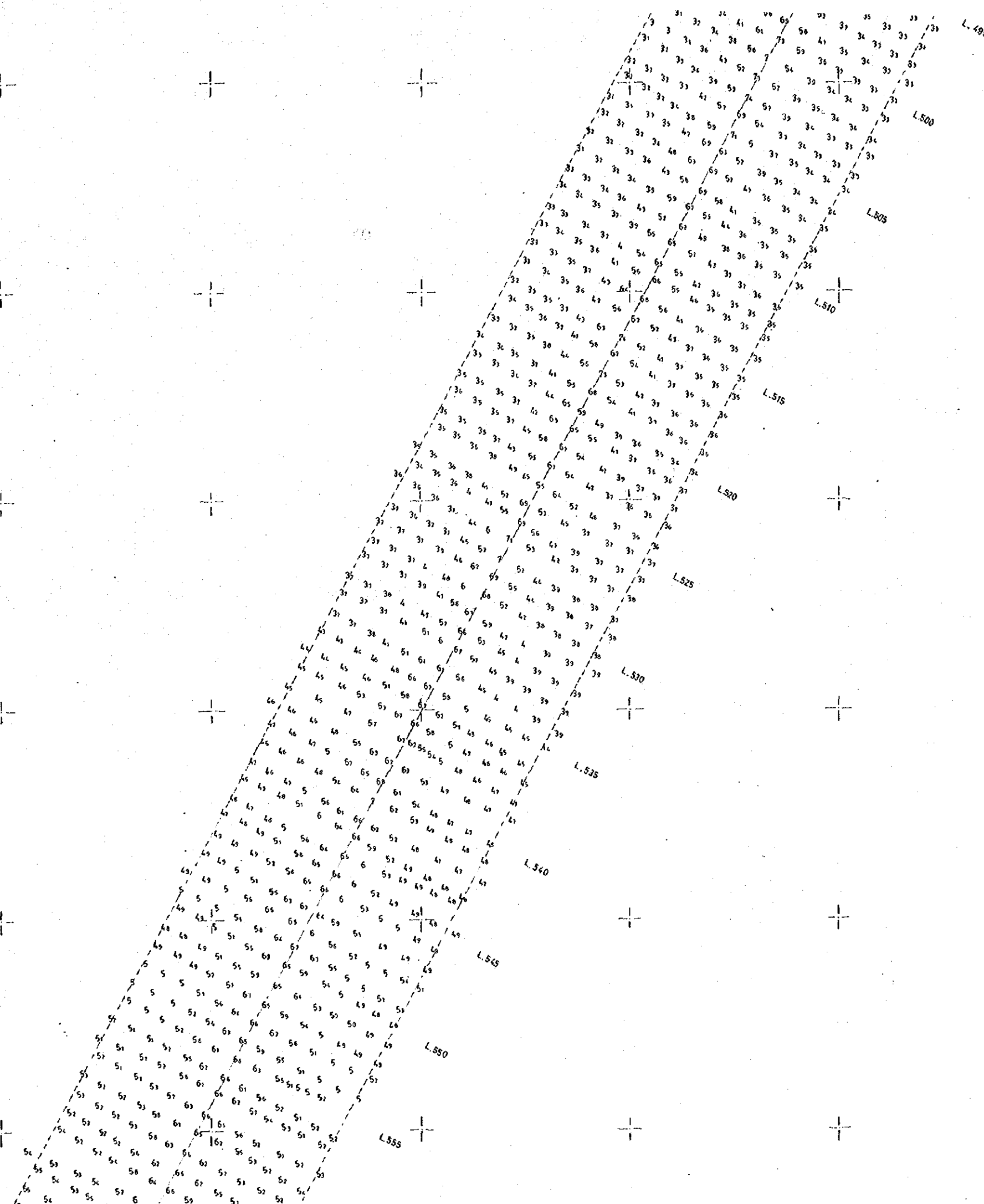
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L.500

L.505

L.510

L.515

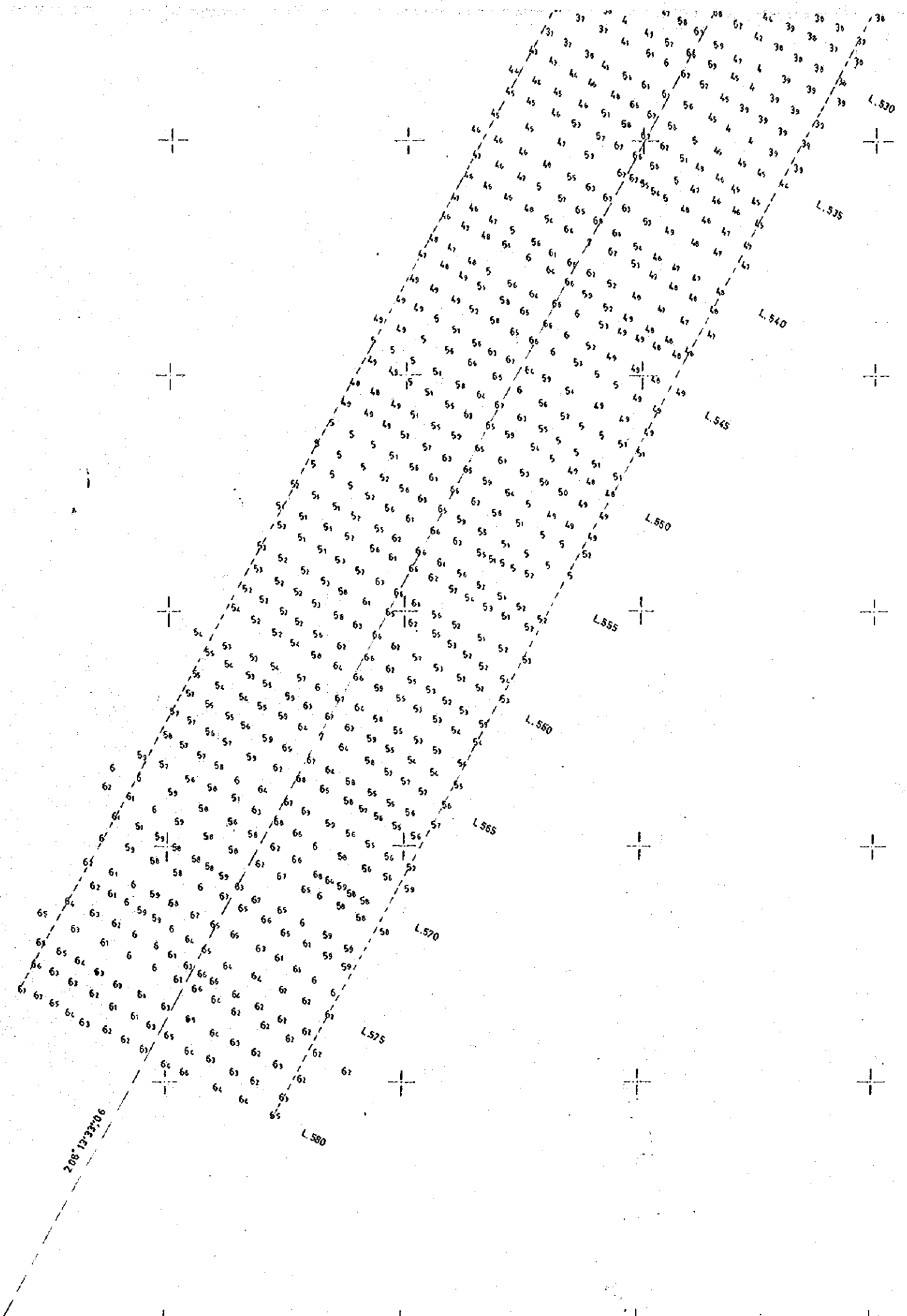


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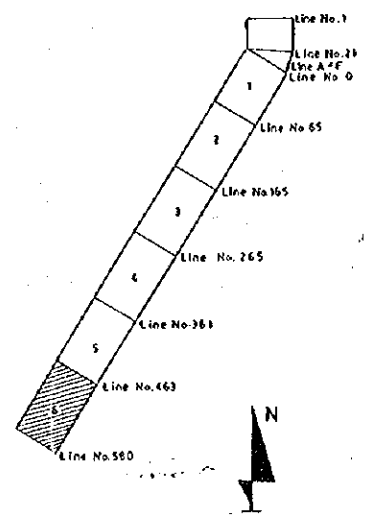
1500

1000

SURFACE LEVELLING  
BY MORAL

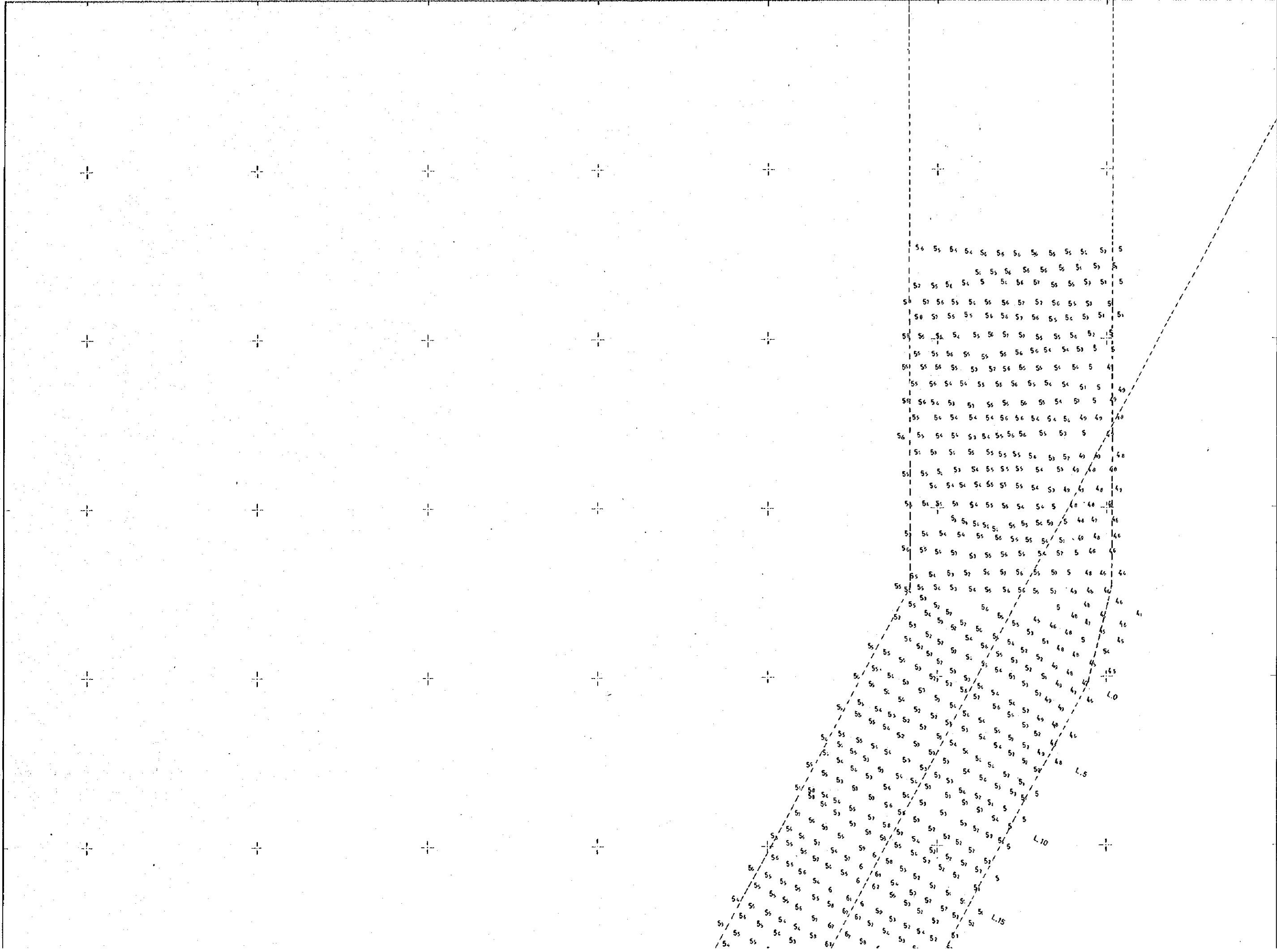


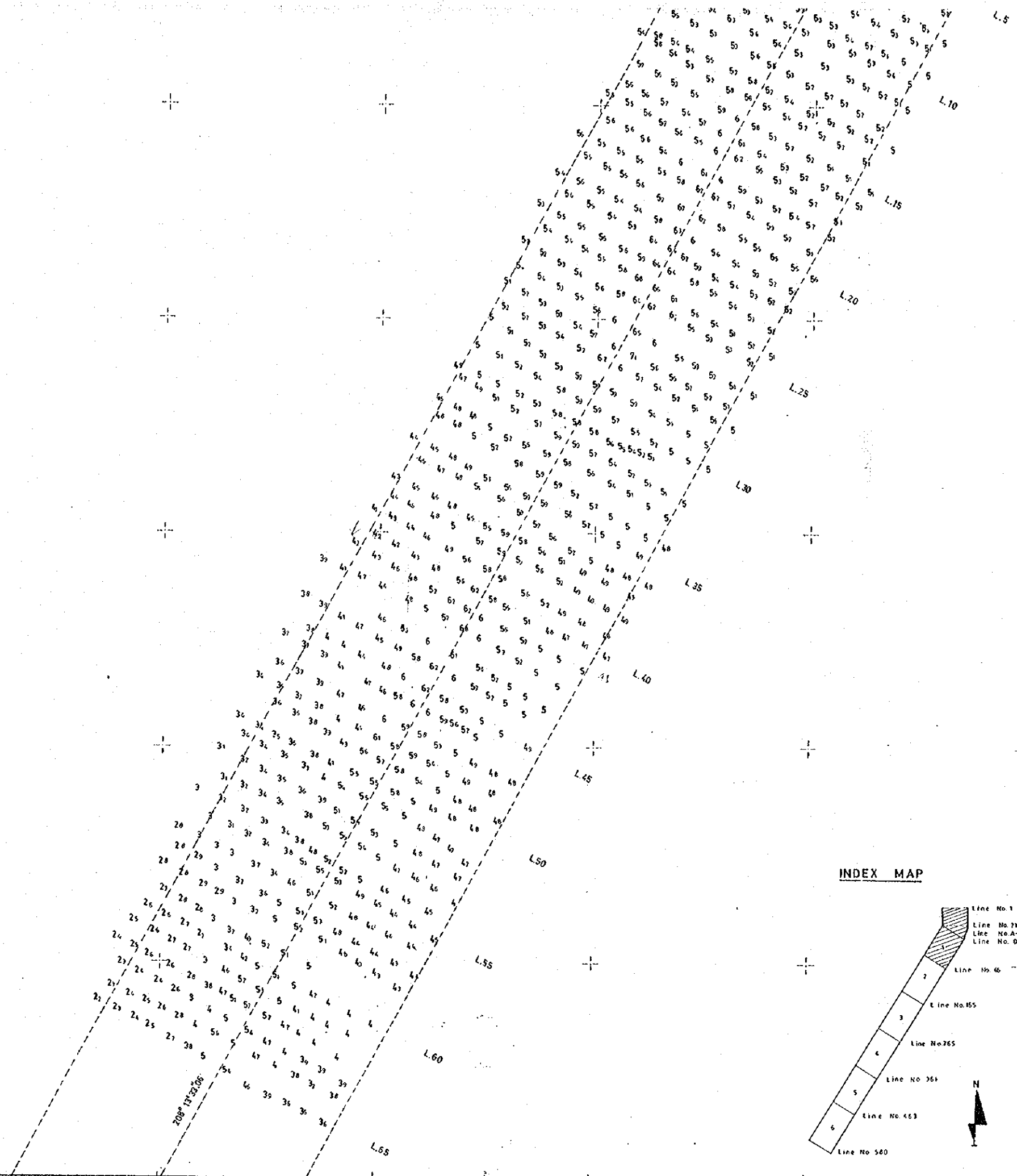
INDEX MAP



SURFACE LEVELLING																																																											
BM MEDRAL	12.46m	BM 51	10.140m																																																								
<table border="1"> <thead> <tr> <th>REV.</th> <th>DESCRIPTION</th> <th>BY</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td colspan="4">JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)</td> </tr> <tr> <td colspan="4">GEODATA BERLIAN CENTRE p.t.</td> </tr> <tr> <td colspan="4">OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT</td> </tr> <tr> <td colspan="4">DRAWING TITLE</td> </tr> <tr> <td colspan="4"><b>ECHO SOUNDING NARROW AREA</b></td> </tr> <tr> <td colspan="4">SCALE: 1 : 2500</td> </tr> <tr> <td colspan="4">0 25 50 75 150m</td> </tr> <tr> <td colspan="2">DRAWN BY: ImomPHS</td> <td colspan="2">CHECKED BY:</td> </tr> <tr> <td colspan="2">DESIGNED BY:</td> <td colspan="2">APPROVED BY:</td> </tr> <tr> <td colspan="4">STAGE: 01(10 January - 20 February 1983)</td> </tr> <tr> <td colspan="4">DATE: 11, 16, 20 February 1983</td> </tr> <tr> <td colspan="3">DRAWING NO: 6 FROM 6</td> <td>REV:</td> </tr> <tr> <td colspan="4">BATHYMETRIC MAP</td> </tr> </tbody> </table>				REV.	DESCRIPTION	BY	DATE	JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)				GEODATA BERLIAN CENTRE p.t.				OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT				DRAWING TITLE				<b>ECHO SOUNDING NARROW AREA</b>				SCALE: 1 : 2500				0 25 50 75 150m				DRAWN BY: ImomPHS		CHECKED BY:		DESIGNED BY:		APPROVED BY:		STAGE: 01(10 January - 20 February 1983)				DATE: 11, 16, 20 February 1983				DRAWING NO: 6 FROM 6			REV:	BATHYMETRIC MAP			
REV.	DESCRIPTION	BY	DATE																																																								
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SCALE: 1 : 2500																																																											
0 25 50 75 150m																																																											
DRAWN BY: ImomPHS		CHECKED BY:																																																									
DESIGNED BY:		APPROVED BY:																																																									
STAGE: 01(10 January - 20 February 1983)																																																											
DATE: 11, 16, 20 February 1983																																																											
DRAWING NO: 6 FROM 6			REV:																																																								
BATHYMETRIC MAP																																																											







8.500

9.000

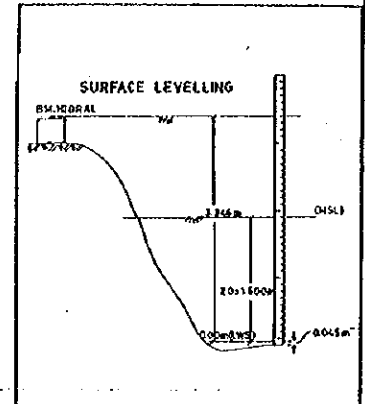
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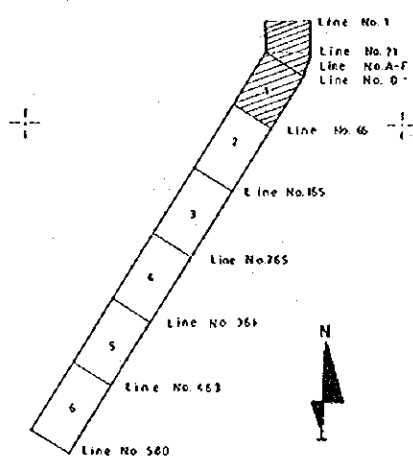
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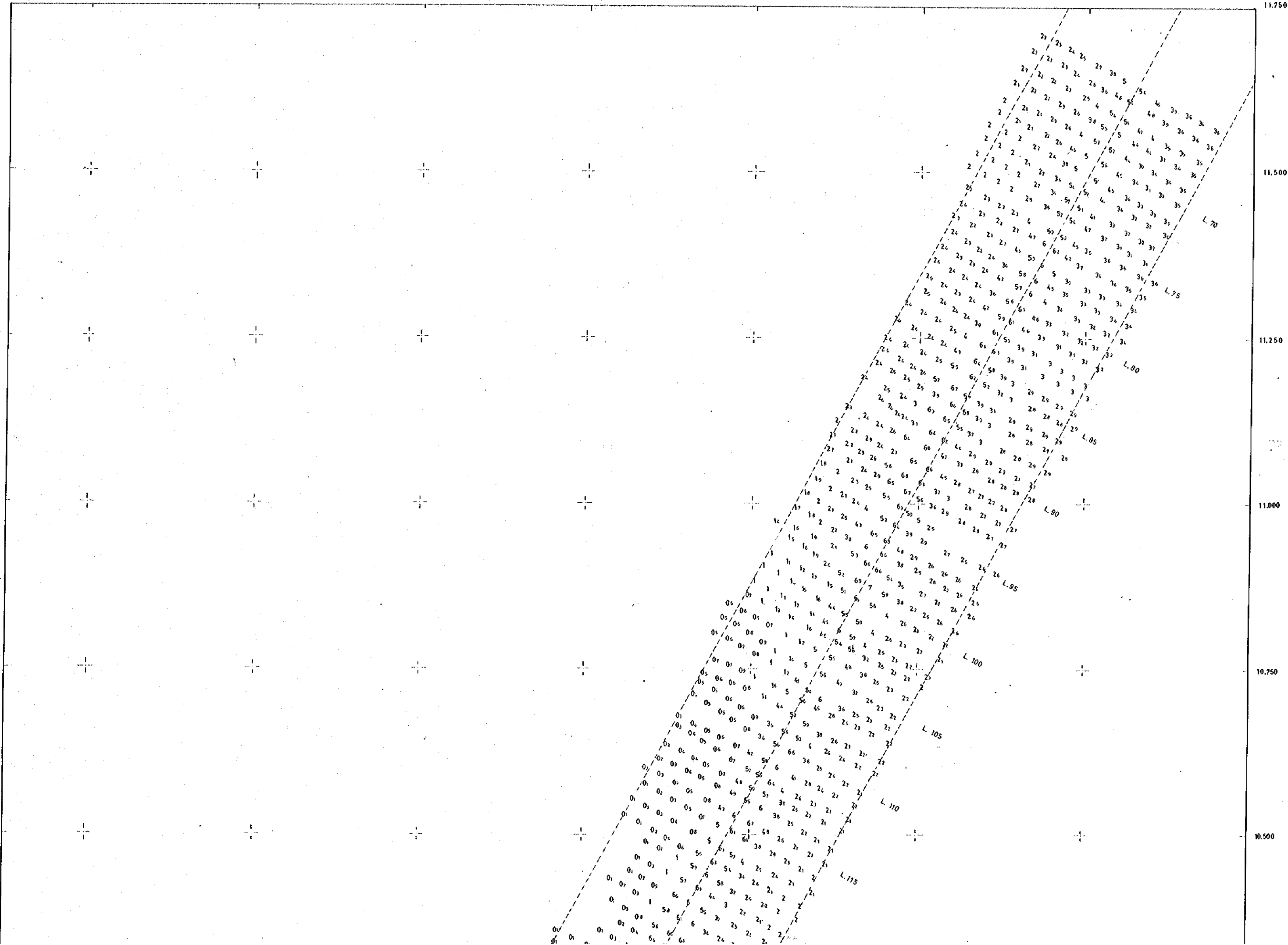
11.500



INDEX MAP



REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY GEODATA BERLIAM CENTRE p.t. OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT DRAWING TITLE <b>ECHO SOUNDING NARROW AREA</b> SCALE 1:7500 0 25 50 75 150 m DRAWN BY: MAD.S.      CHECKED BY: DESIGNED BY:              APPROVED BY: STAGE 5 <sup>1</sup> (21 Feb. 8 March 1989) DATE 25.27 February 1989 DRAWING NO. 01 FROM 6 <b>BATHYMETRIC MAP</b>			



11.750

11.500

11.250

11.000

10.750

10.500

L.70

L.75

L.80

L.85

L.90

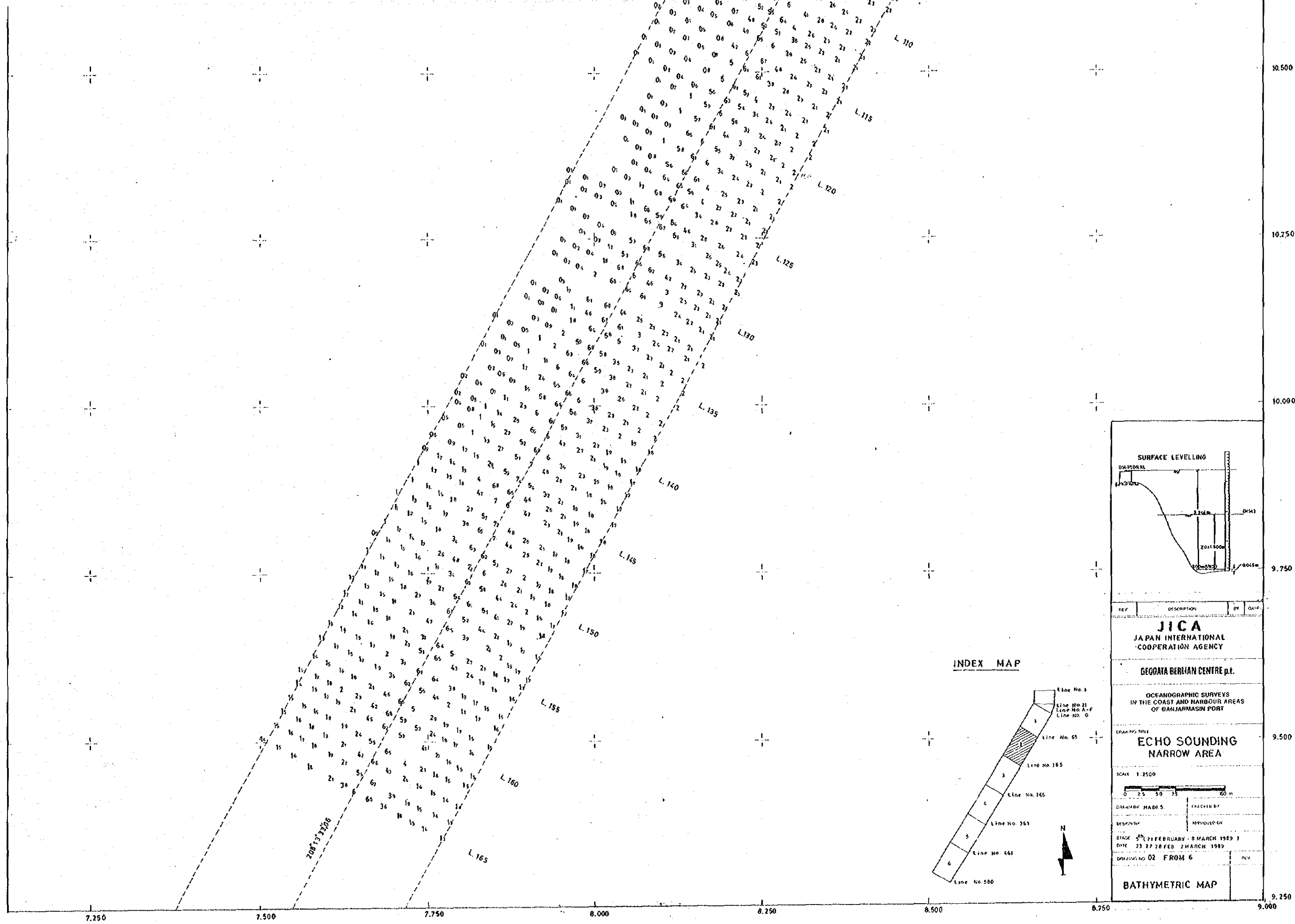
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L.100

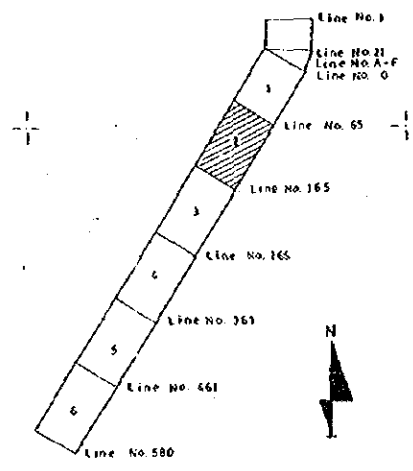
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L.110

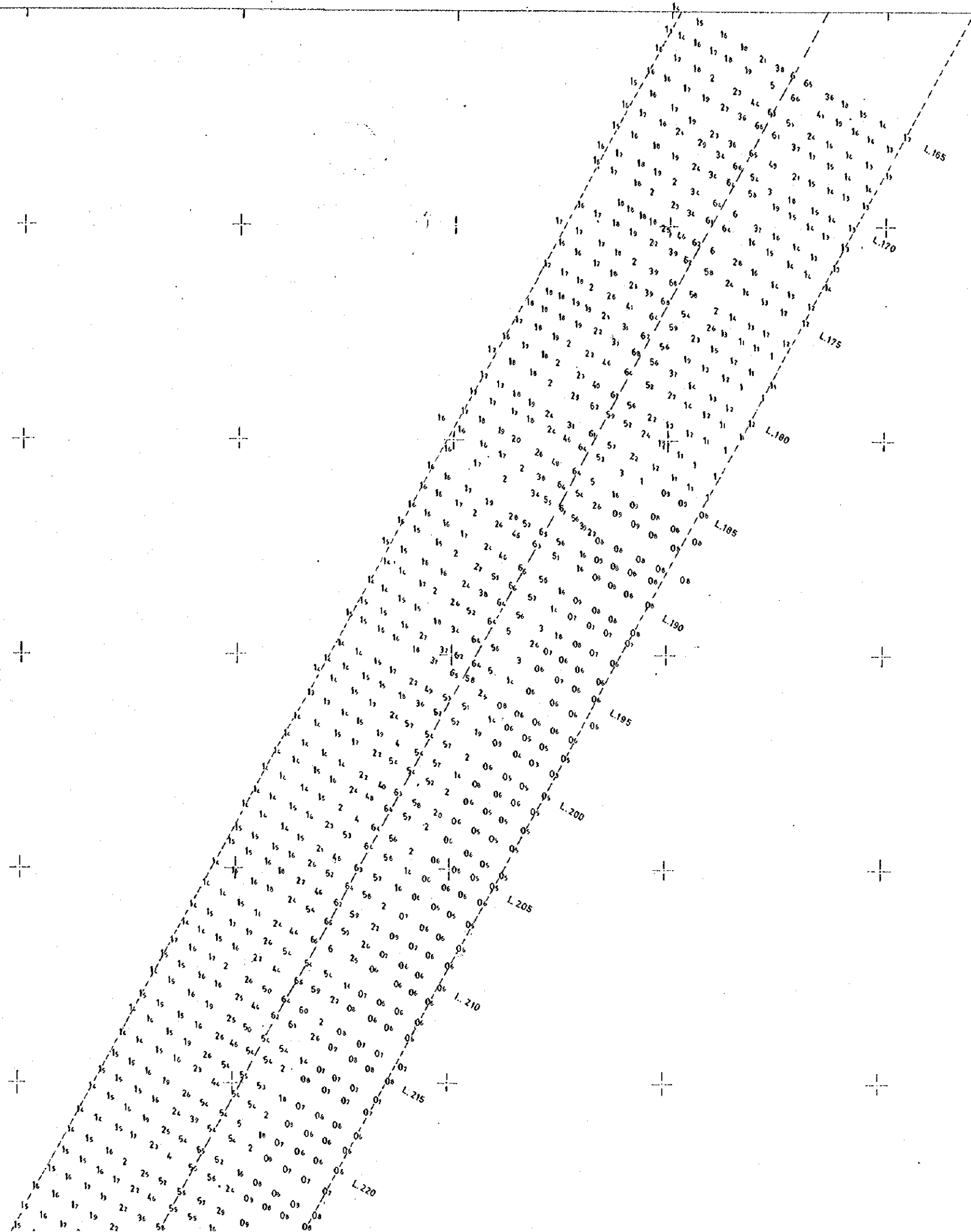
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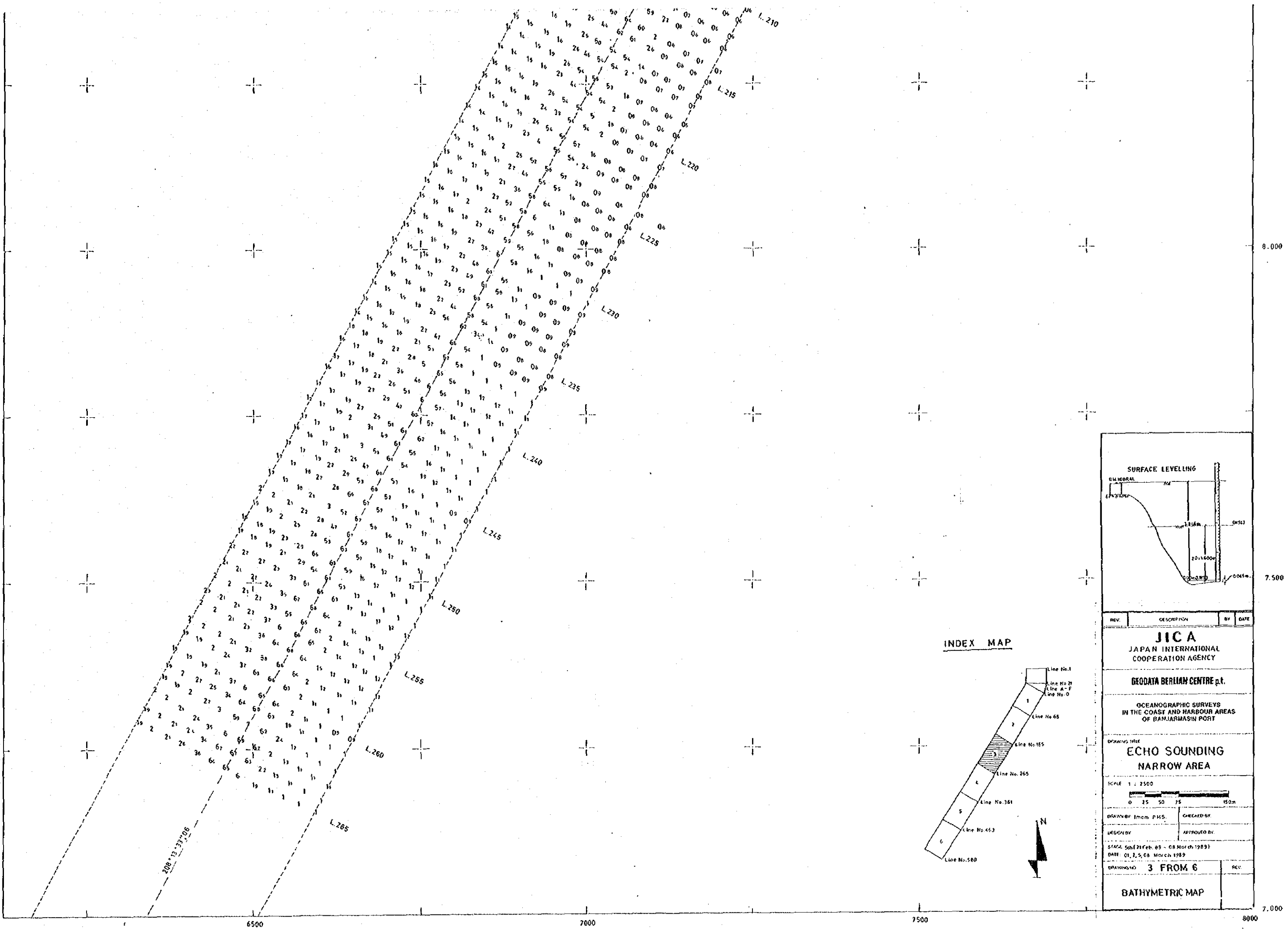


INDEX MAP

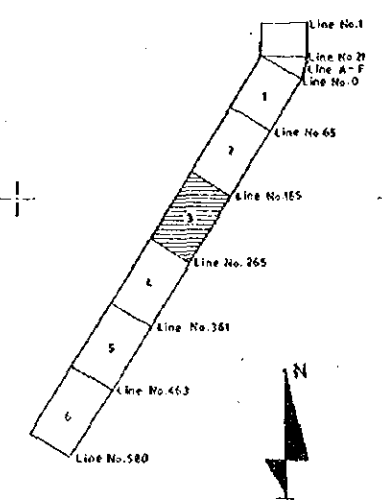


REV	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
GEOGATA BERHAN CENTRE p.t.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
DRAWING TITLE <b>ECHO SOUNDING NARROW AREA</b>			
SCALE 1:2500			
0 25 50 75 100 m			
DRAWN BY HADI S.		CHECKED BY	
DESIGNED BY		APPROVED BY	
STAGE 5 <sup>th</sup> FEBRUARY - 8 MARCH 1989 DATE 23 27 28 FEB 2 MARCH 1989			
DRAWING NO 02 FROM 6			REV.
<b>BATHYMETRIC MAP</b>			

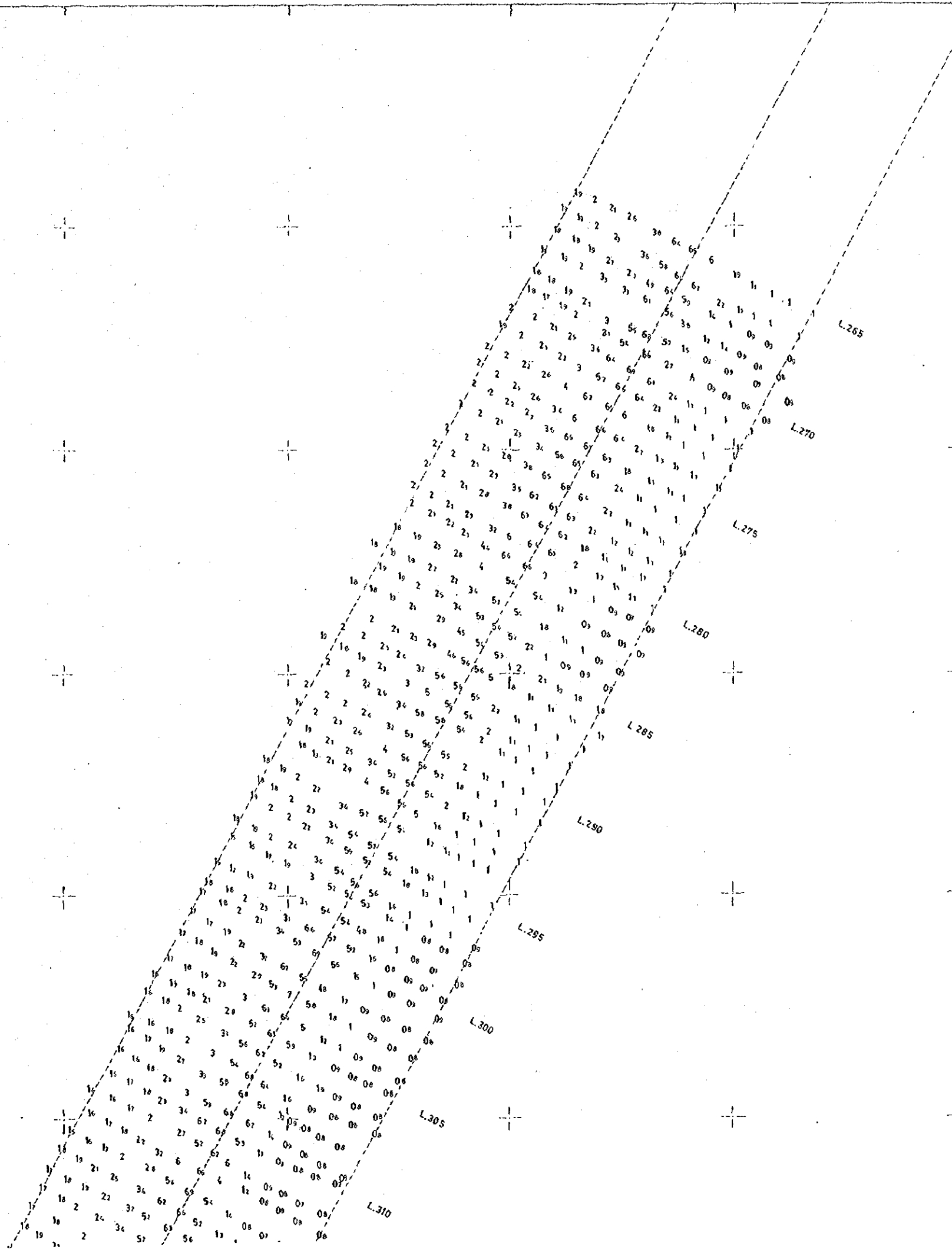


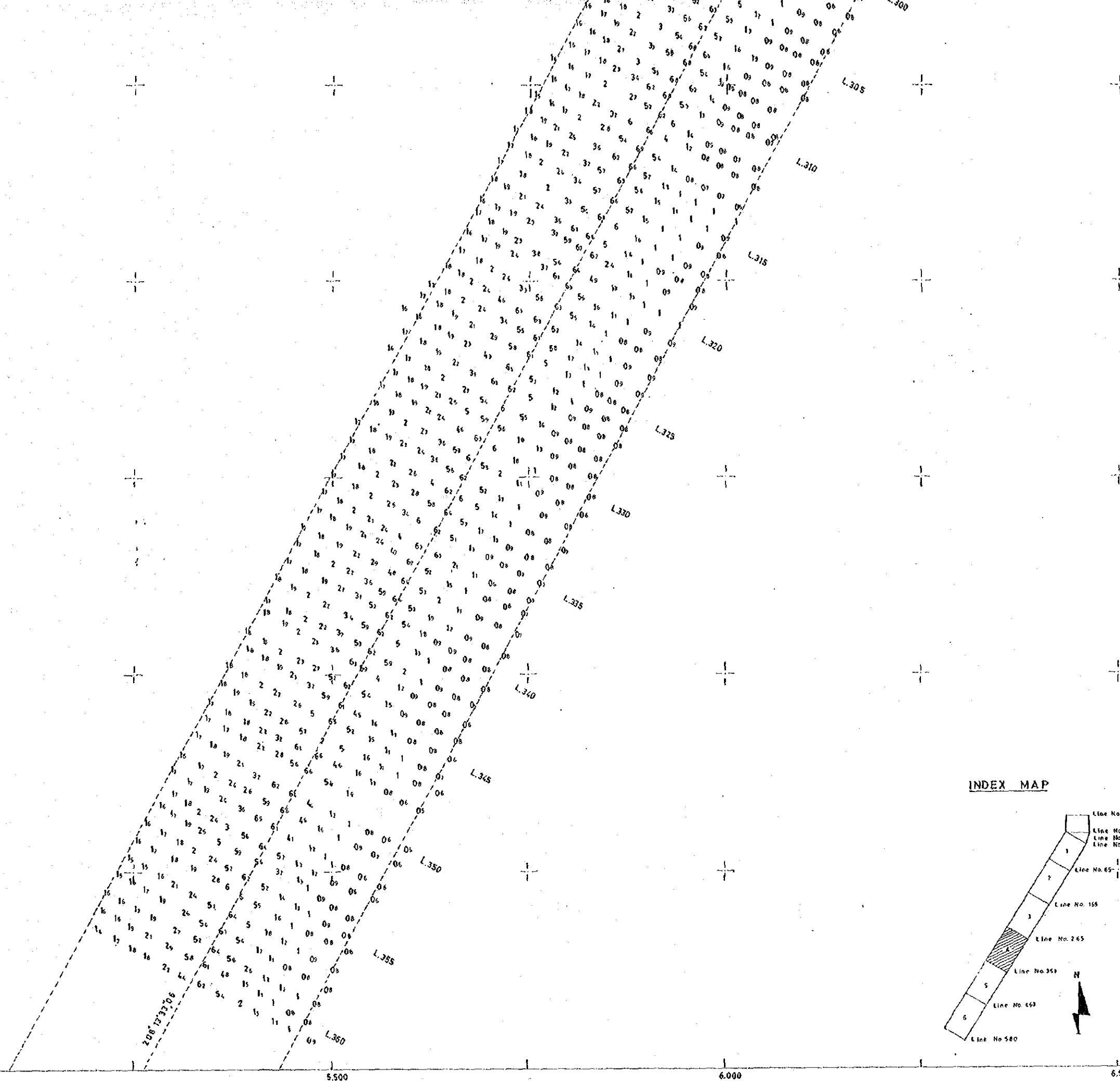


INDEX MAP

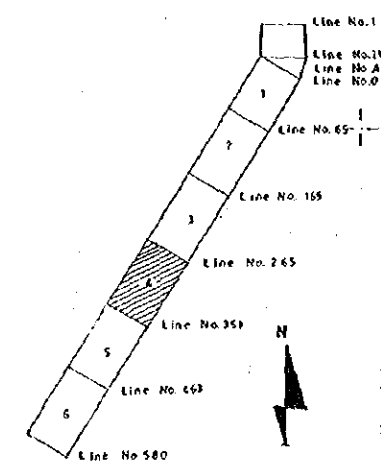


SURFACE LEVELLING		
REV.	DESCRIPTION	BY DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY		
<b>GEO DATA BERLIAN CENTRE p.t.</b>		
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT		
DRAWING TITLE		
<b>ECHO SOUNDING          NARROW AREA</b>		
SCALE 1 : 2500		
DRAWN BY: Imom. P.H.S.		CHECKED BY:
DESIGNED BY:		APPROVED BY:
STA. 50 (21 Feb. 89 - 08 March 1989) DATE: 01, 2, 5, 08 March 1989		
DRAWING NO. <b>3 FROM 6</b>	REV.	
<b>BATHYMETRIC MAP</b>		





INDEX MAP



REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
GEODATA BERLIAN CENTRE p.1.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
DRAWING TITLE <b>ECHO SOUNDING NARROW AREA</b>			
SCALE: 1: 1500 0 25 50 75 100 m			
DRAWN BY: HADI S.		CHECKED BY:	
DESIGNED BY:		APPROVED BY:	
STAGE 5 <sup>th</sup> (17 FEB - 8 MARCH 1989)			
DATE 24 FEB - 1, 4, 5 MARCH 1989			
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<b>BATHYMETRIC MAP</b>			

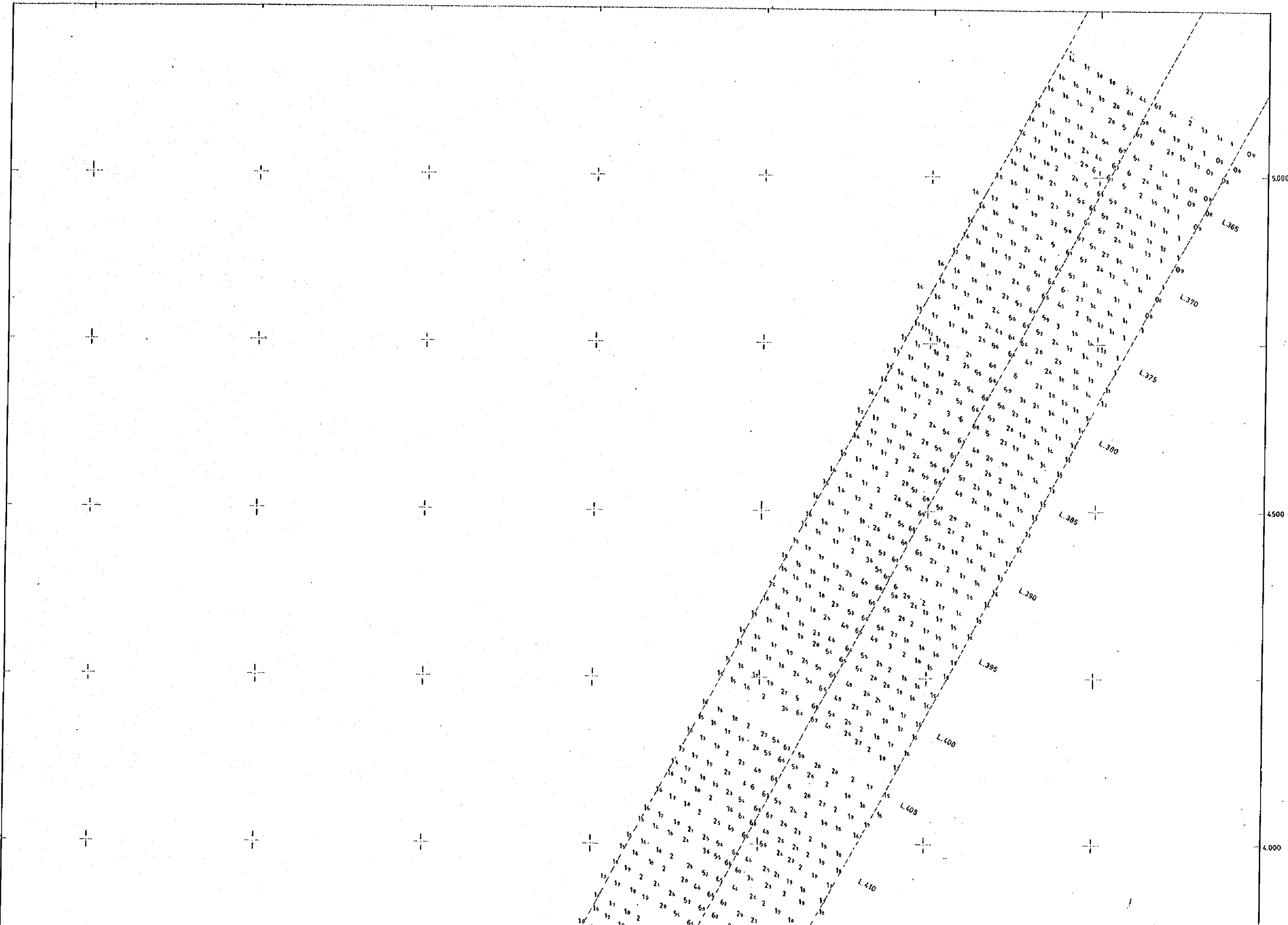
5.000 5.500 6.000 6.500 6.750

5.000

5.500

5.000





5000

4500

4000

L.365

L.370

L.375

L.380

L.385

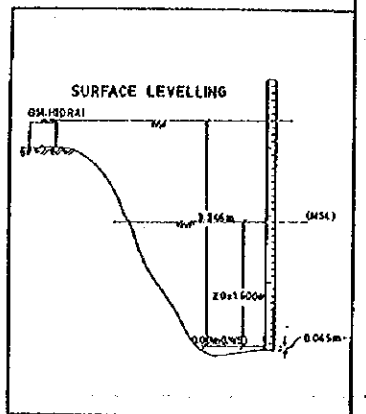
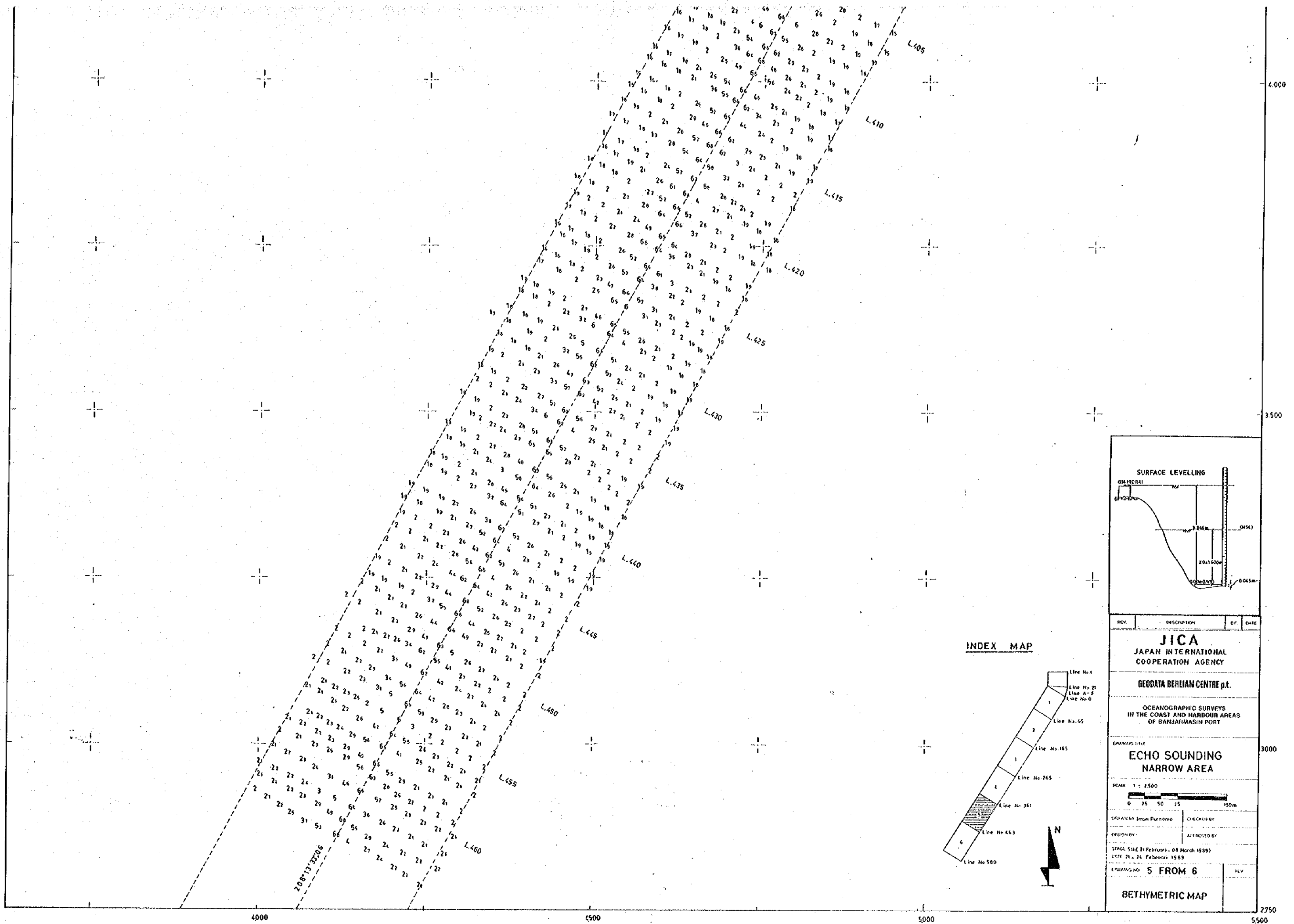
L.390

L.395

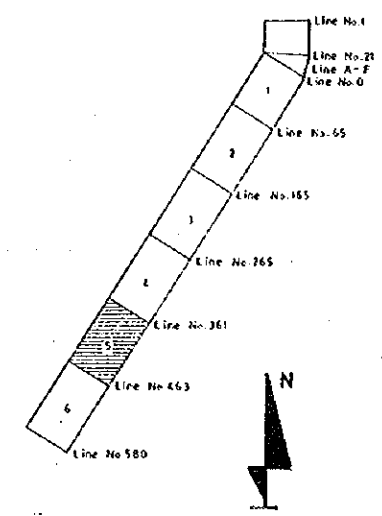
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L.405

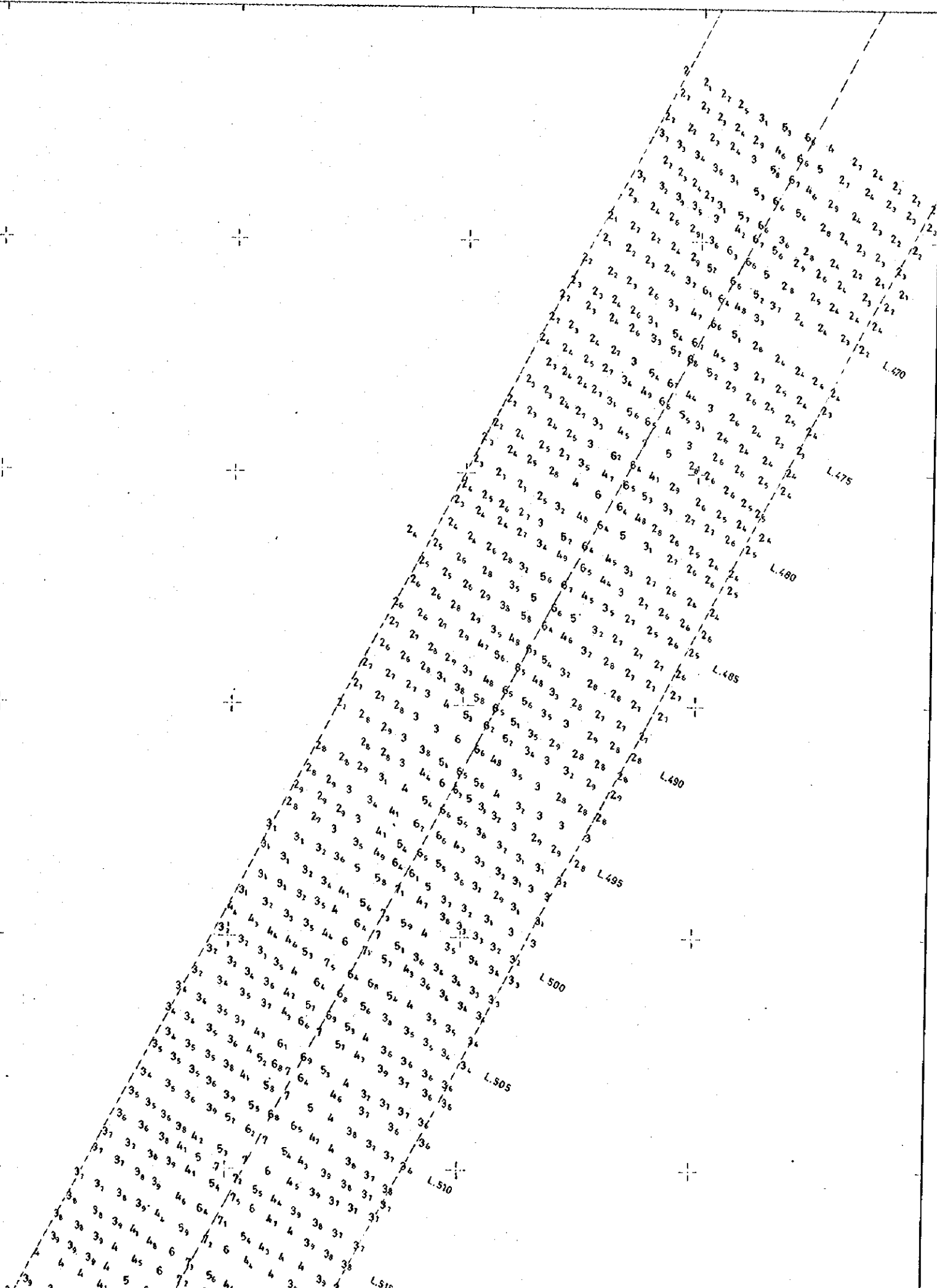
L.410



INDEX MAP



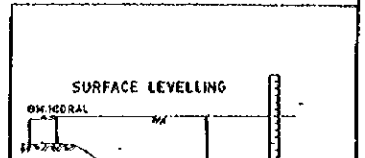
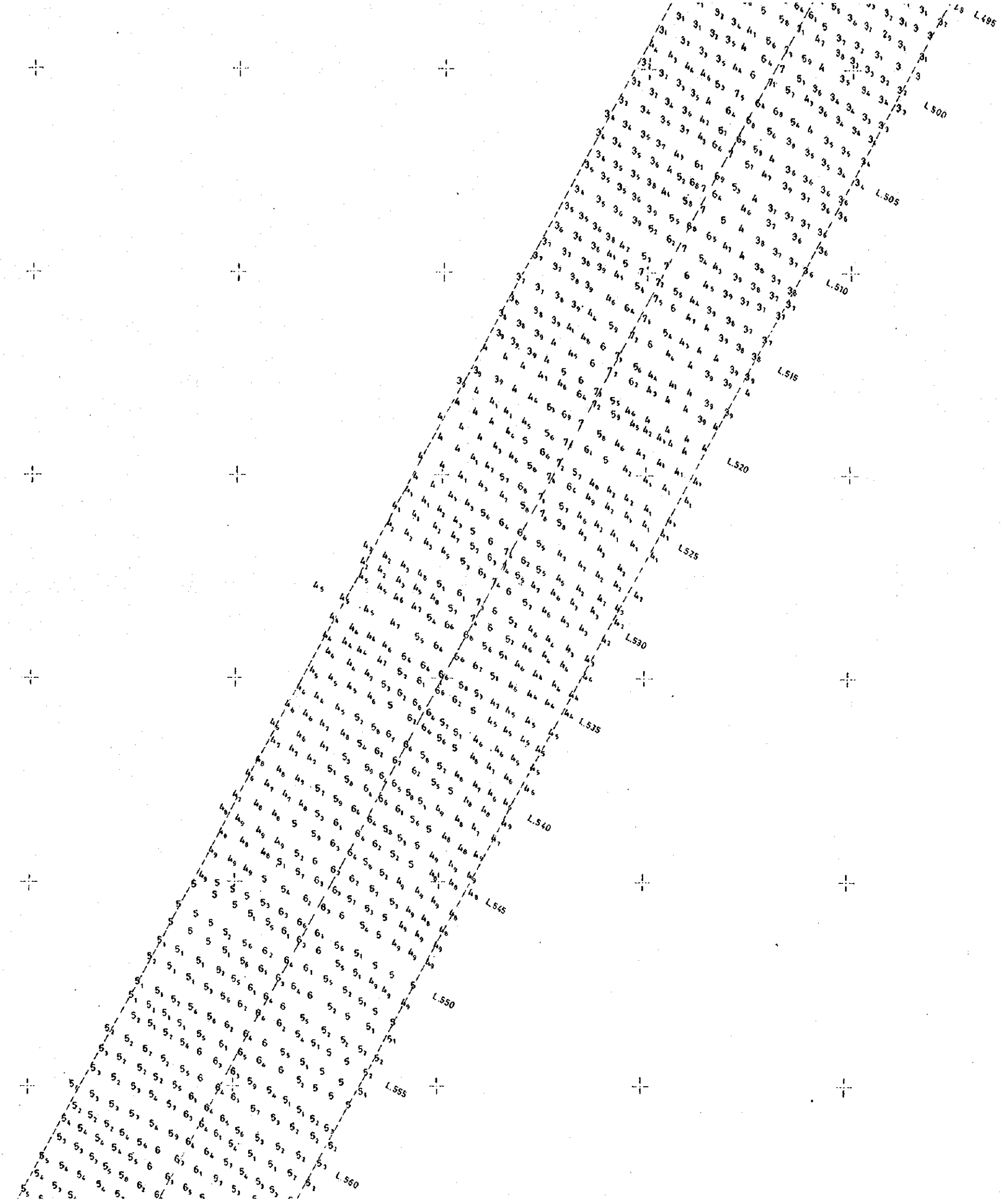
REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
GEODATA BERLIAN CENTRE p.t.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
DRAWING TITLE			
<b>ECHO SOUNDING NARROW AREA</b>			
SCALE 1 : 2500			
0 25 50 75 100m			
DRAWN BY Imam Purmono		CHECKED BY	
DESIGN BY		APPROVED BY	
STAGE SIN 21 February - 08 March 1989			
DATE 21 - 24 February 1989			
DRAWING NO. 5 FROM 6			REV
<b>BETHYMETRIC MAP</b>			



2.000

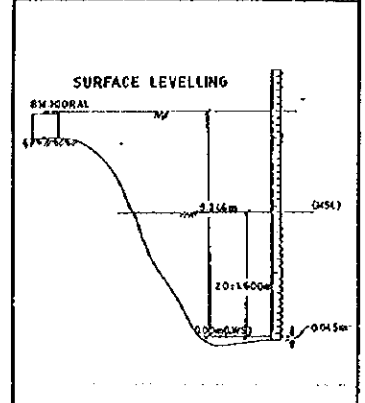
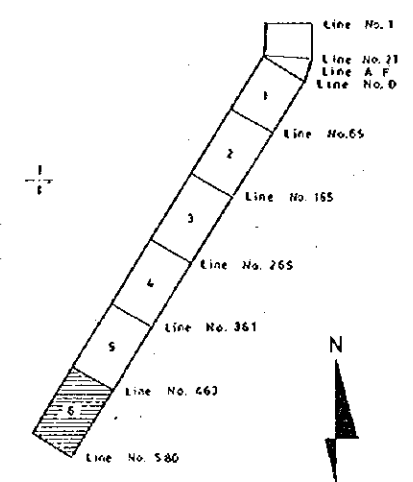
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1000





INDEX MAP

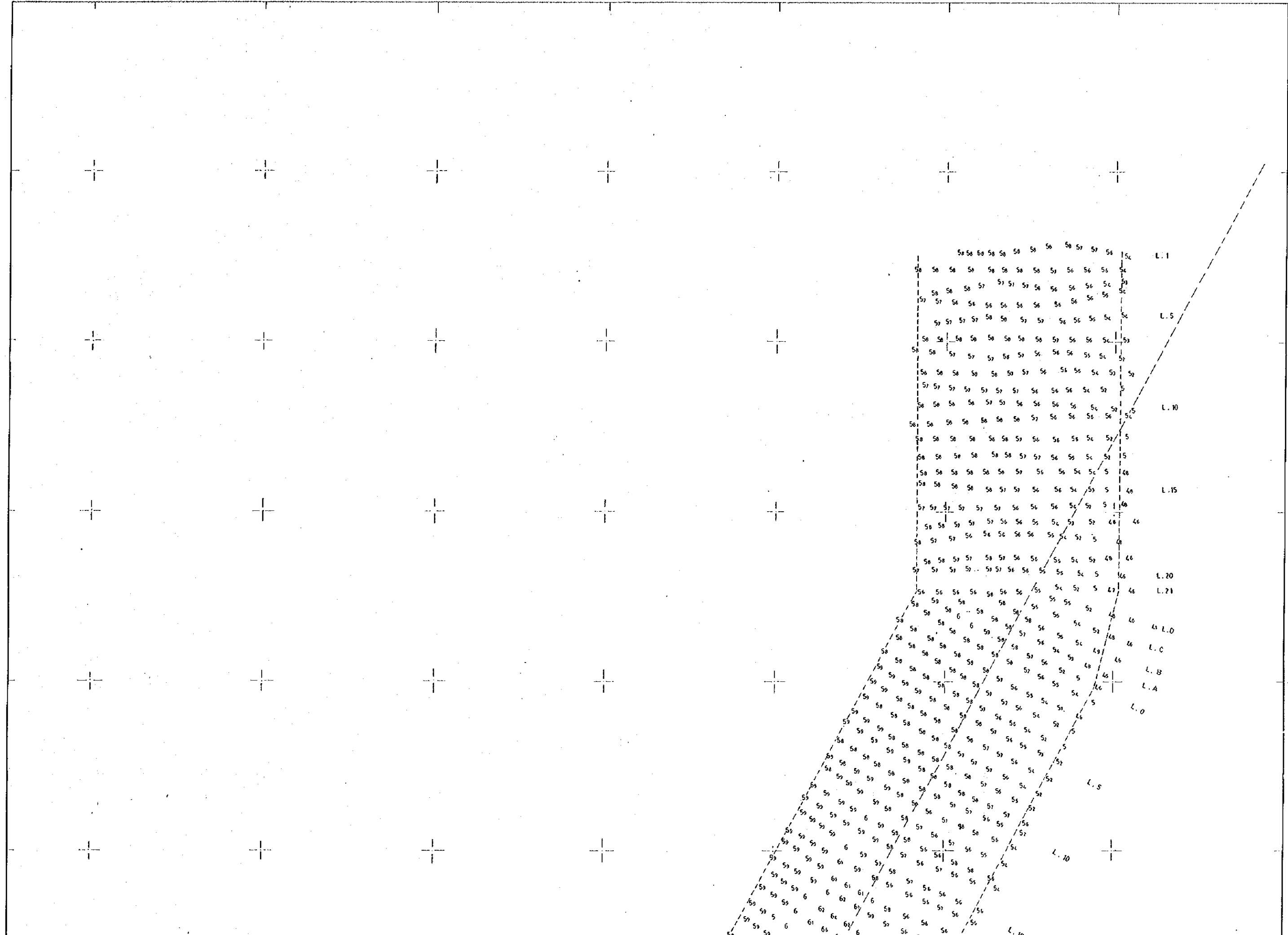


REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
<b>GEDDATA BERLIAN CENTRE p.t.</b>			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARHASN PORT			
DRAWING TITLE <b>ECHO SOUNDING            NARROW AREA</b>			
SCALE 1:2500 			
DRAWN BY: M. GHOLIB		CHECKED BY:	
DESIGNED BY:		APPROVED BY:	
STAGE: S-1 ( 21 FEBRUARY - 8 MARCH 1989 ) DATE: 21.22 FEBRUARY 1989			
DRAWING NO: 6 FROM 6		REV:	
<b>BATHYMETRIC MAP</b>			

1000

500

00



L.1

L.5

L.10

L.15

L.20

L.21

L.0

L.C

L.B

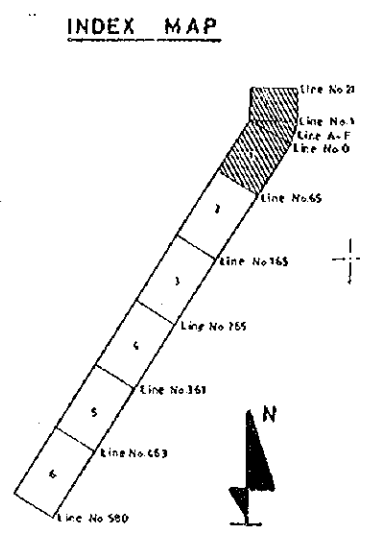
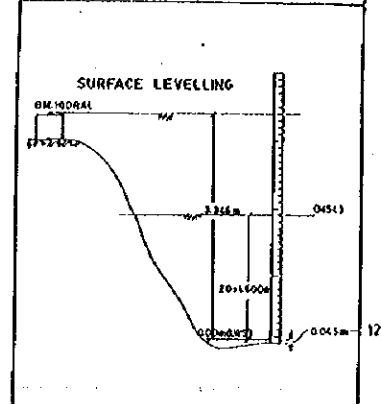
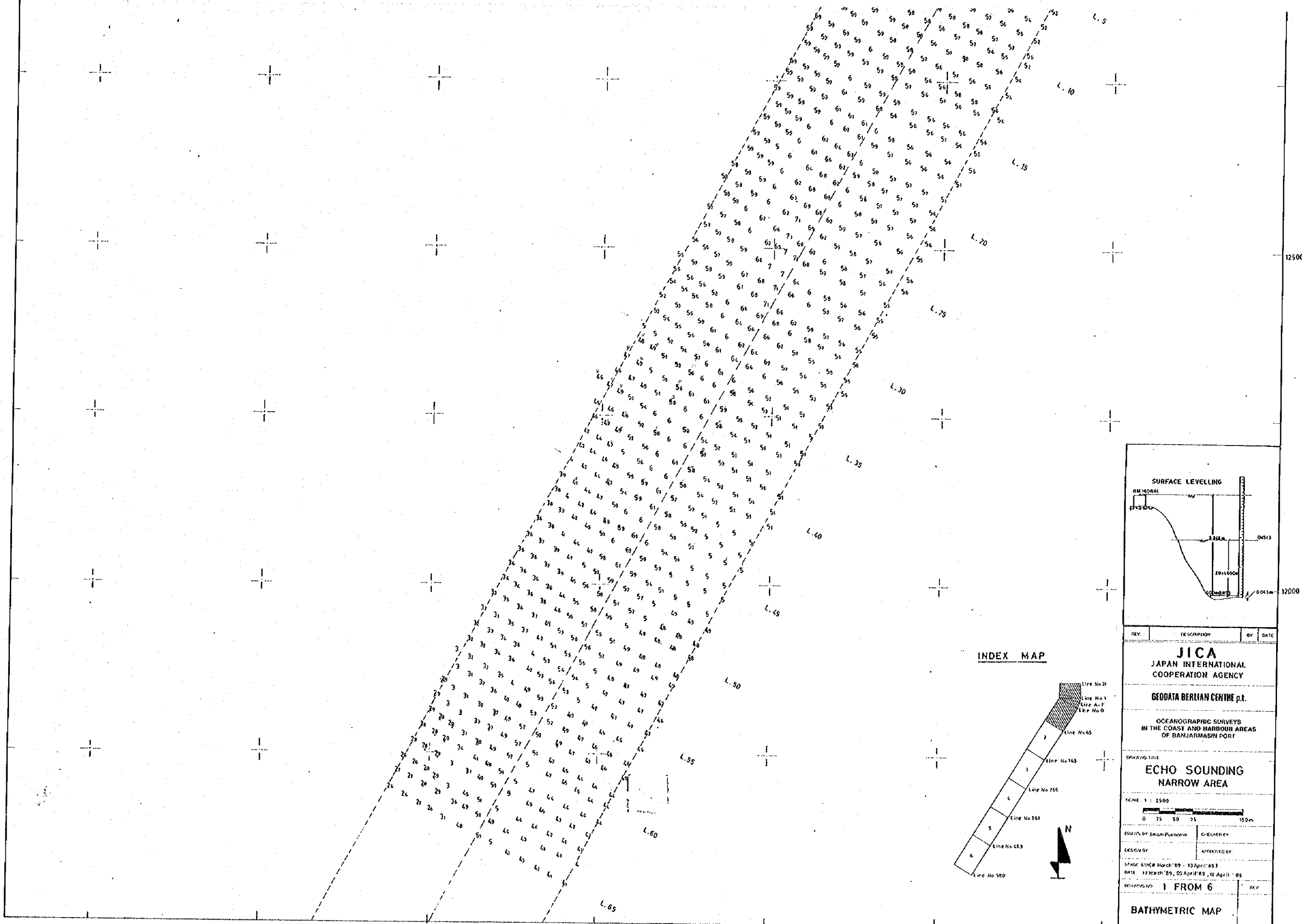
L.A

L.0

L.S

L.10

L.15



REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
GEODATA BERLIAN CENTRE p.r.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIH PORT			
DRAWING TITLE <b>ECHO SOUNDING NARROW AREA</b>			
SCALE: 1 : 2500			
0 25 50 75 100m			
DRAWN BY: Imam Purmono		CHECKED BY:	
DESIGNED BY:		APPROVED BY:	
STAGE: 61/68 March '89 - 13 April '89			
DATE: 12 March '89, 02 April '89, 11 April '89			
DRAWING NO: 1 FROM 6			REV.
<b>BATHYMETRIC MAP</b>			

8.500

9.000

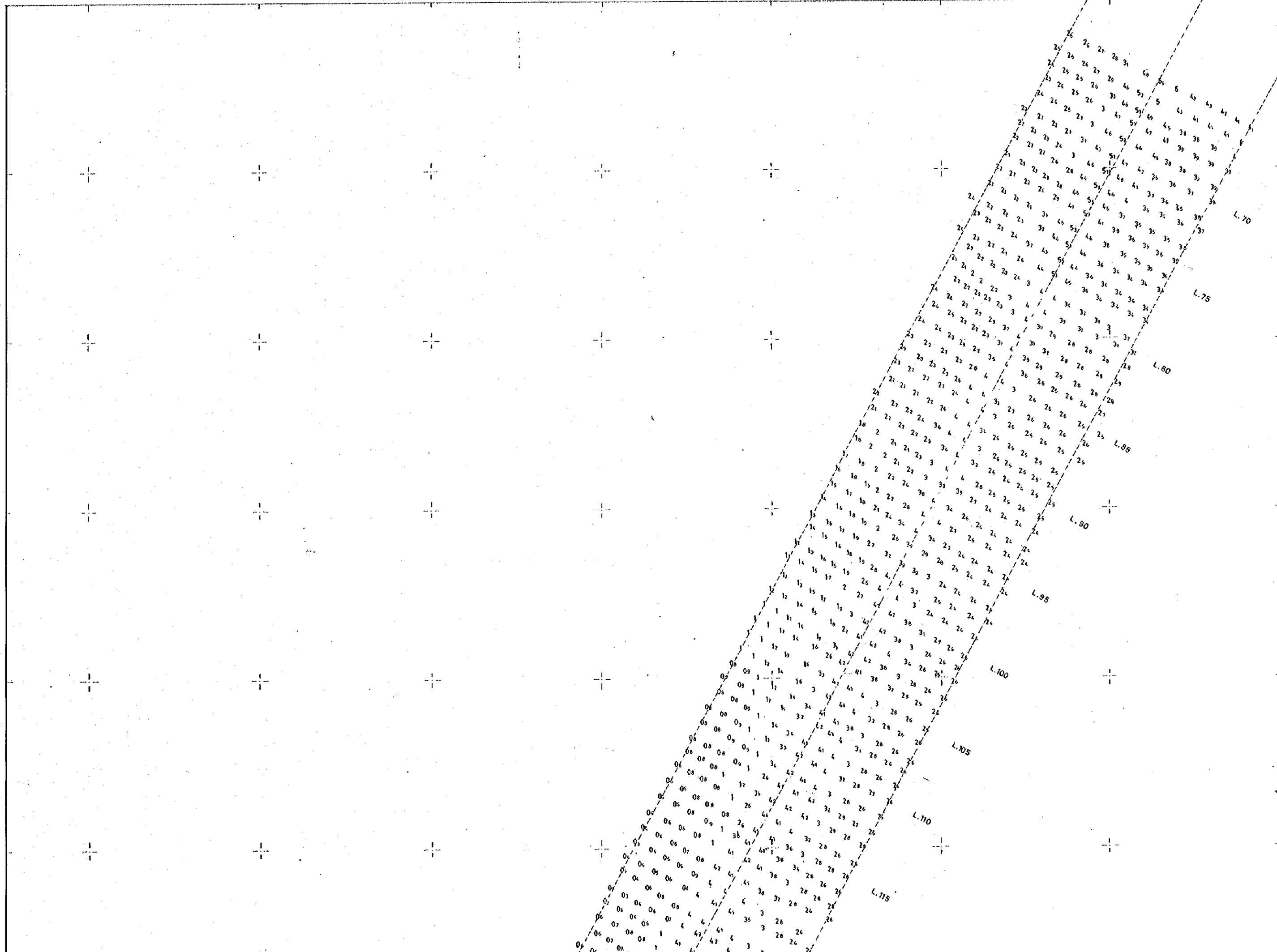
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10.000

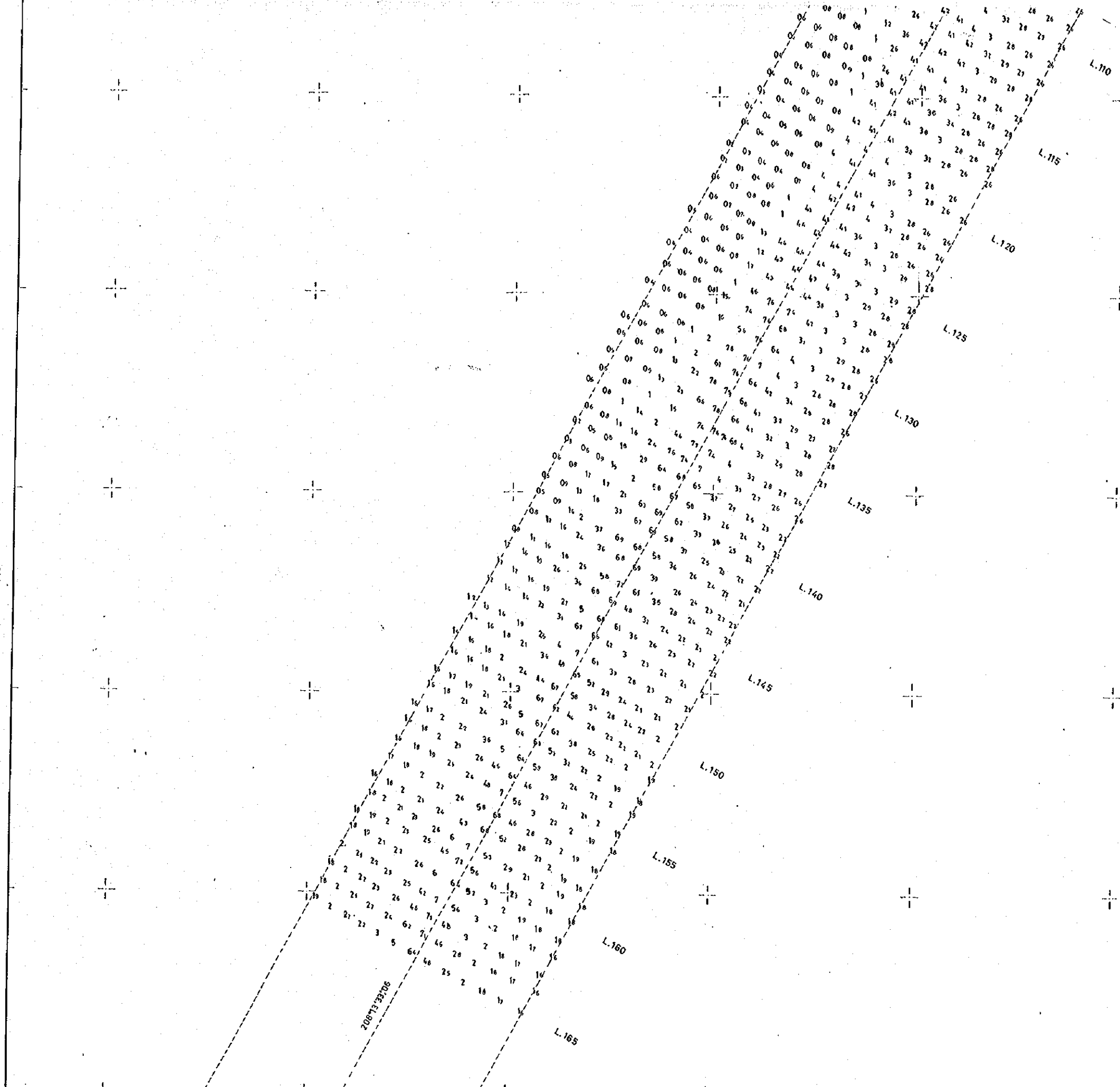
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12000

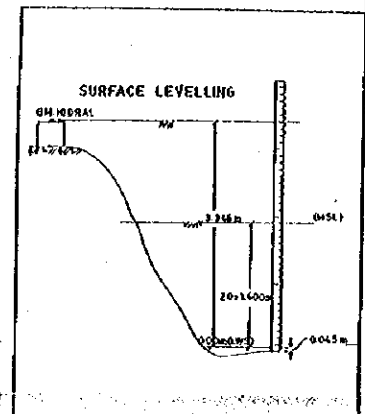
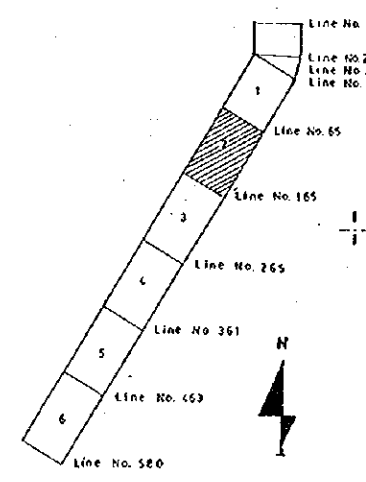
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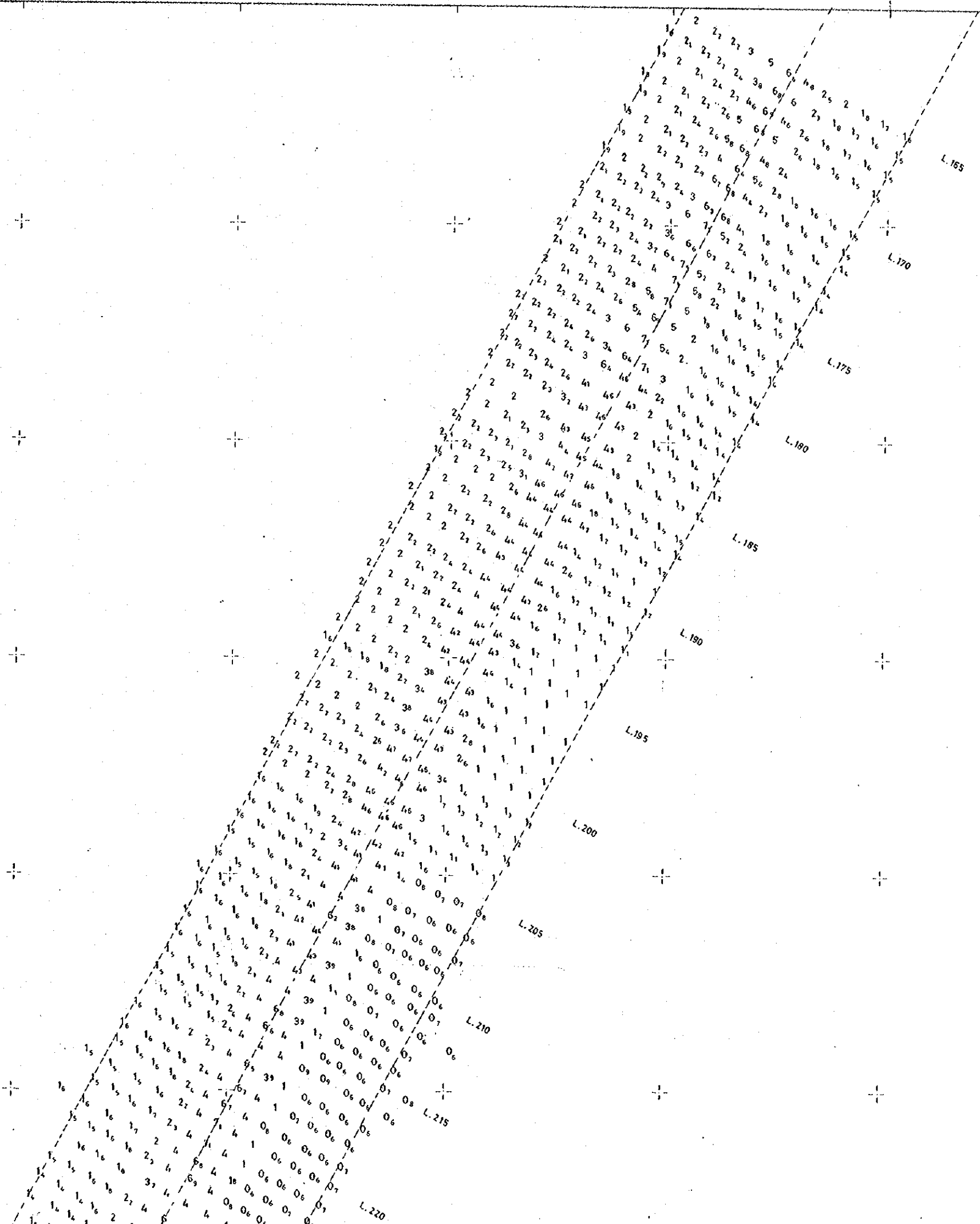


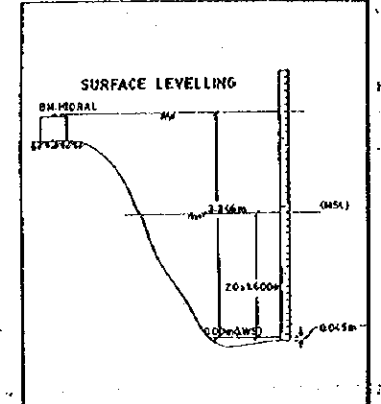
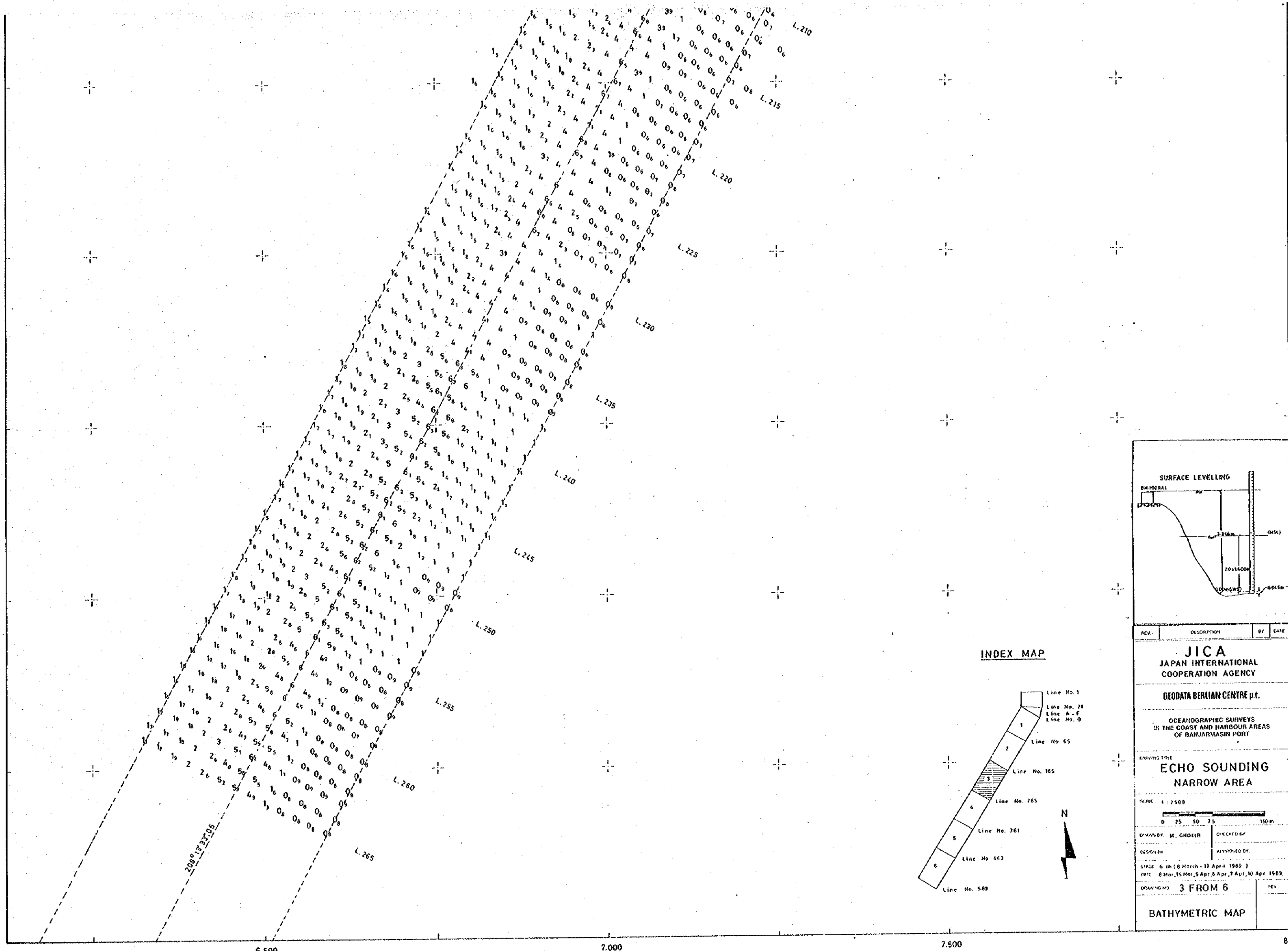
INDEX MAP



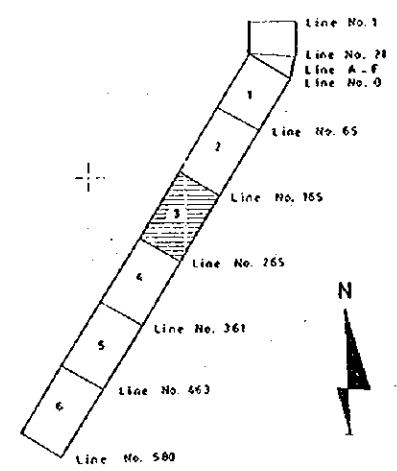
REV	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
GEODATA BERLIAN CENTRE p.t.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
DRAWING FILE			
<b>ECHO SOUNDING</b> NARROW AREA			
SCALE 1:1500			
0 25 50 75 150 m			
DRAWN BY: HADI, S.		CHECKED BY:	
DESIGN BY:		APPROVED BY:	
6th (8 March - 13 April 1989) 17 March - 5, 6 April 1989			
DRAWING NO. 02 FROM 6			REV
BATHYMETRIC MAP			Line : 80-95 20 Apr 89

10.500  
10.000  
9.500  
9.250  
9.000

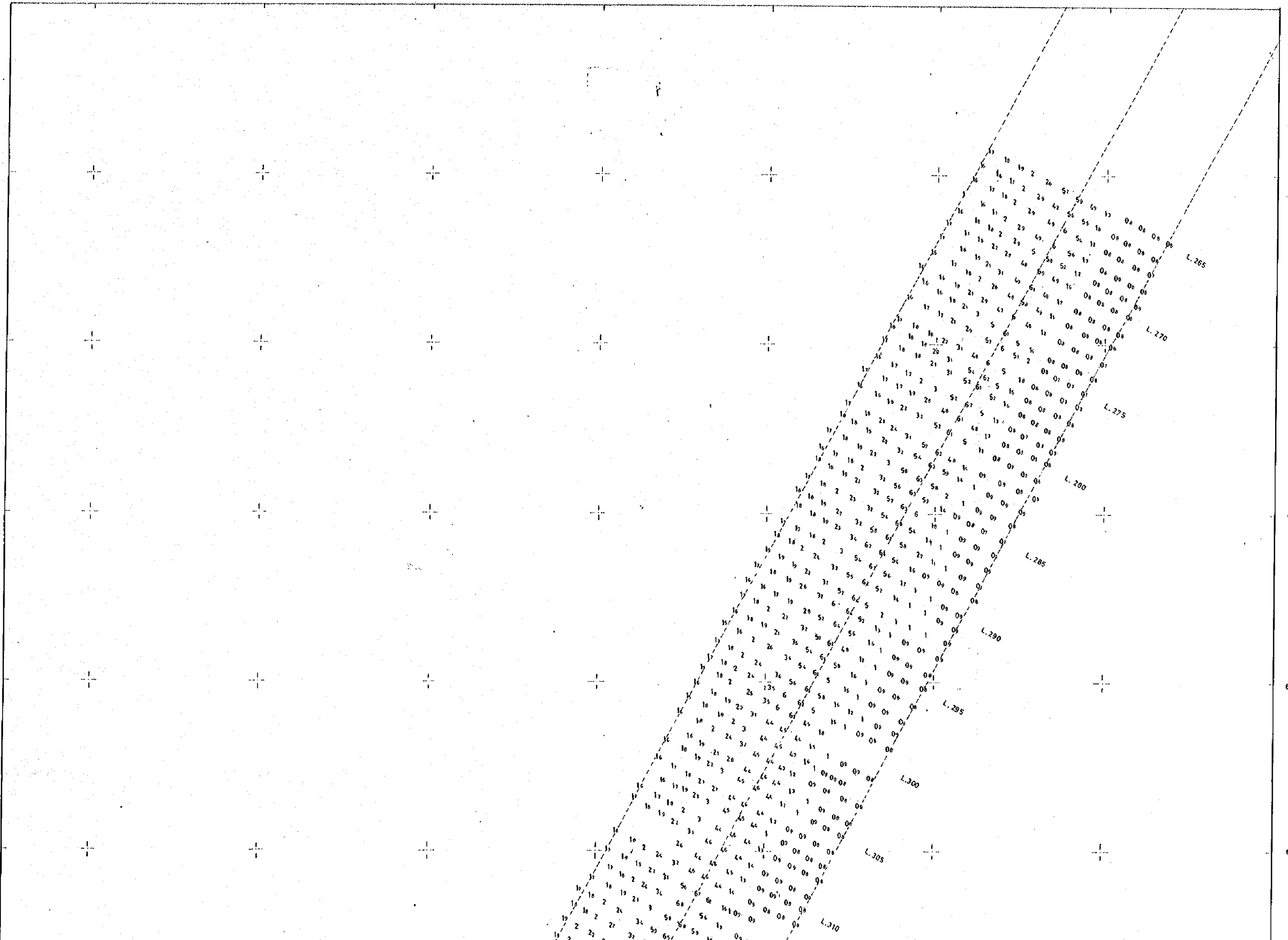




INDEX MAP



REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
GEODATA BERLIAN CENTRE p.t.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
<b>ECHO SOUNDING</b> <b>NARROW AREA</b>			
SCALE: 1 : 2500 			
DRAWN BY: M. GHOLIB		CHECKED BY:	
DESIGNED BY:		APPROVED BY:	
STAGE: 6 IN (6 March - 13 April 1989) DATE: 8 Mar, 15 Mar, 5 Apr, 5 Apr, 7 Apr, 10 Apr 1989			
DRAWING NO: 3 FROM 6			REV:
<b>BATHYMETRIC MAP</b>			

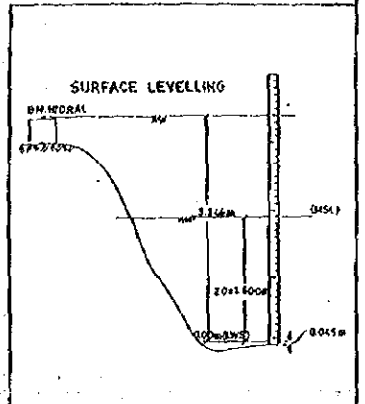
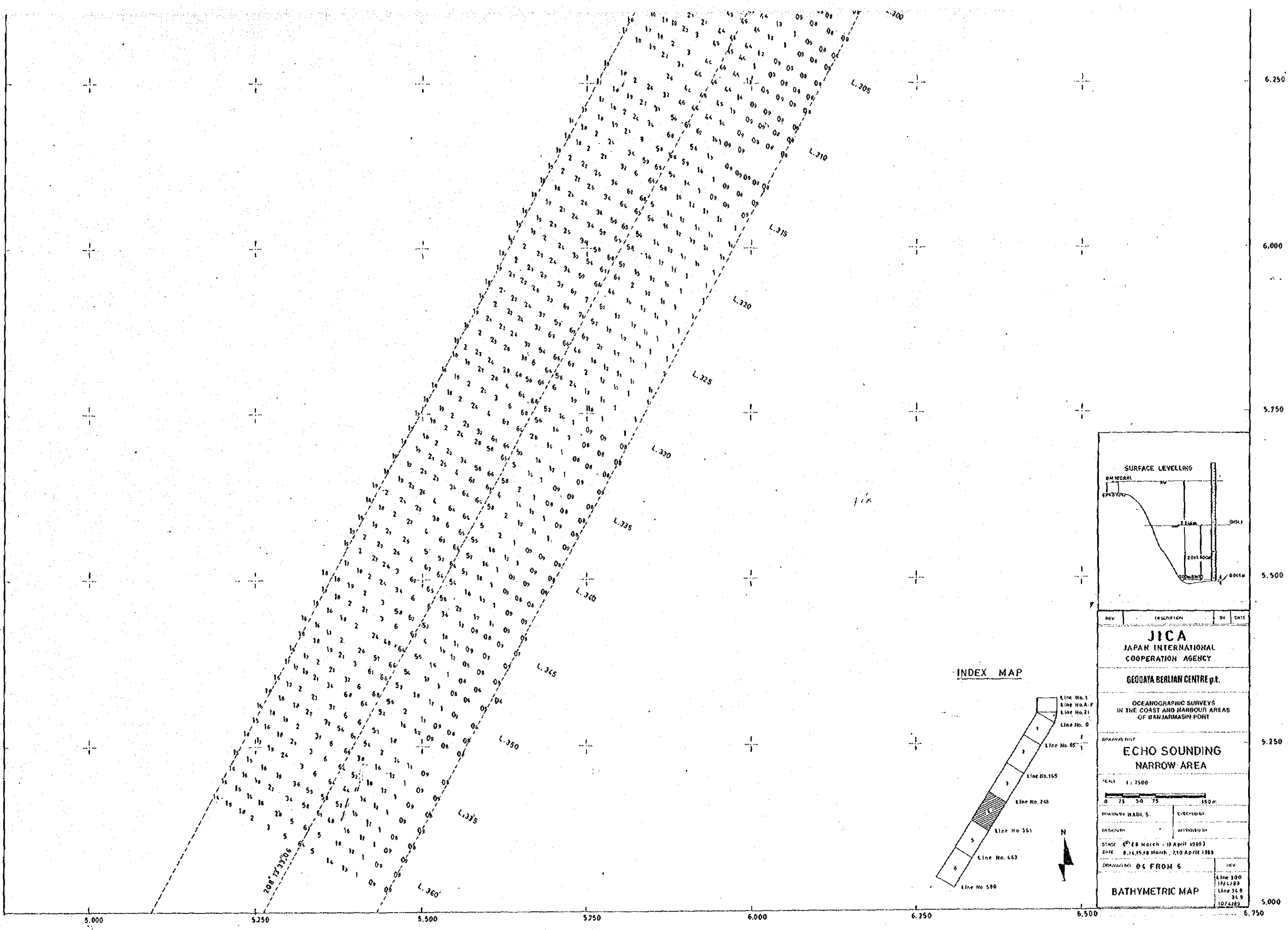


7.500  
7.250  
7.000  
6.750  
6.500  
6.250

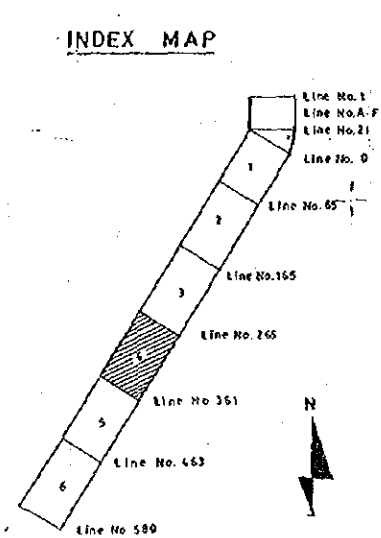
1

L. 265  
L. 270  
L. 275  
L. 280  
L. 285  
L. 290  
L. 295  
L. 300  
L. 305  
L. 310

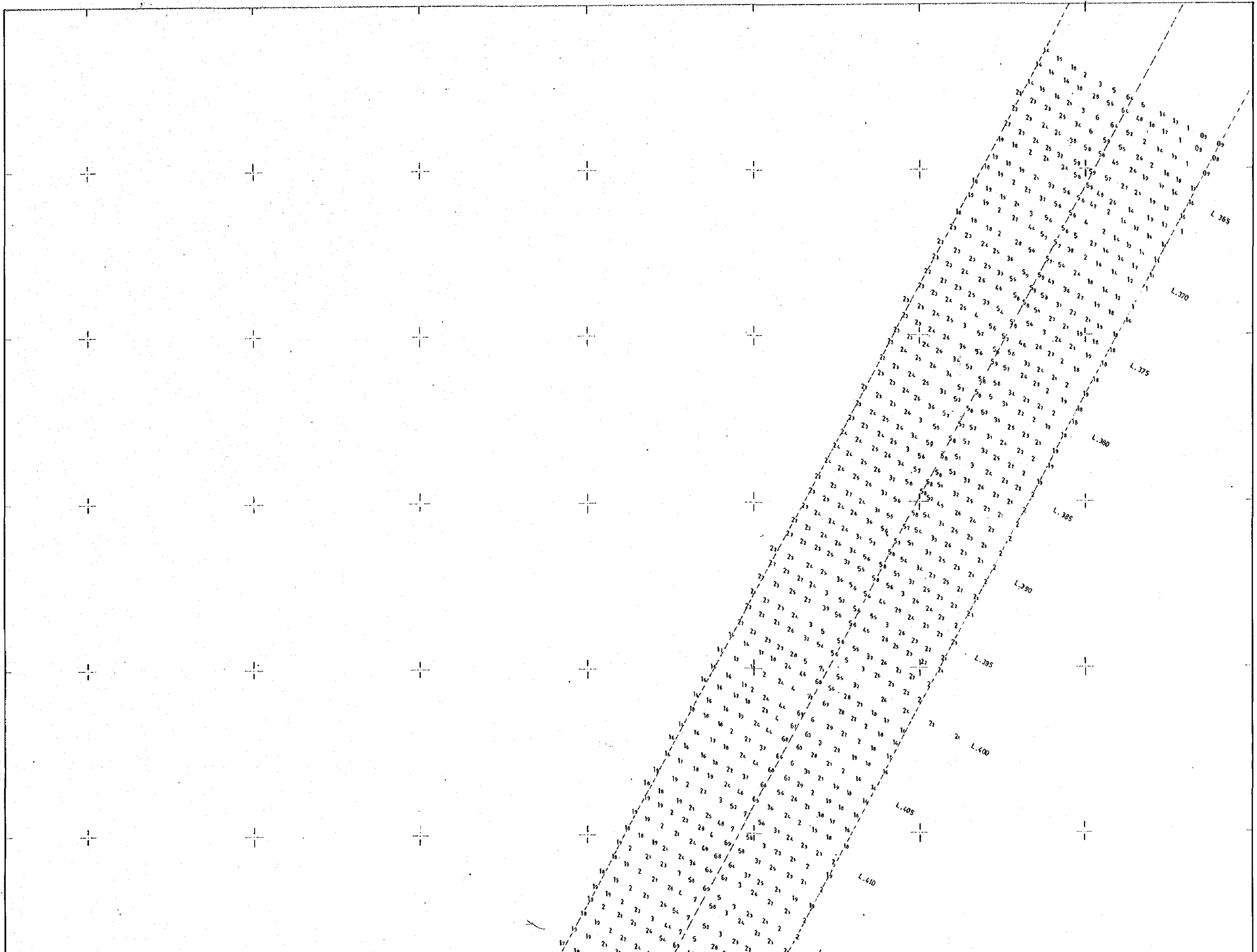
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REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
GEODATA BERLIAN CENTRE p.t.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
DRAWING FILE <b>ECHO SOUNDING NARROW AREA</b>			
SCALE 1:2500			
DRAWN BY HADI S.		CHECKED BY	
DESIGNED BY		APPROVED BY	
STAGE 6 <sup>th</sup> (8 March - 13 April 1989)			
DATE 8, 14, 15, 18 March, 21, 24 April 1989			
DRAWING NO. 04 FROM 6			REV.
			Line 300
			17/2/89
			Line 308
			30.9
			10/4/89



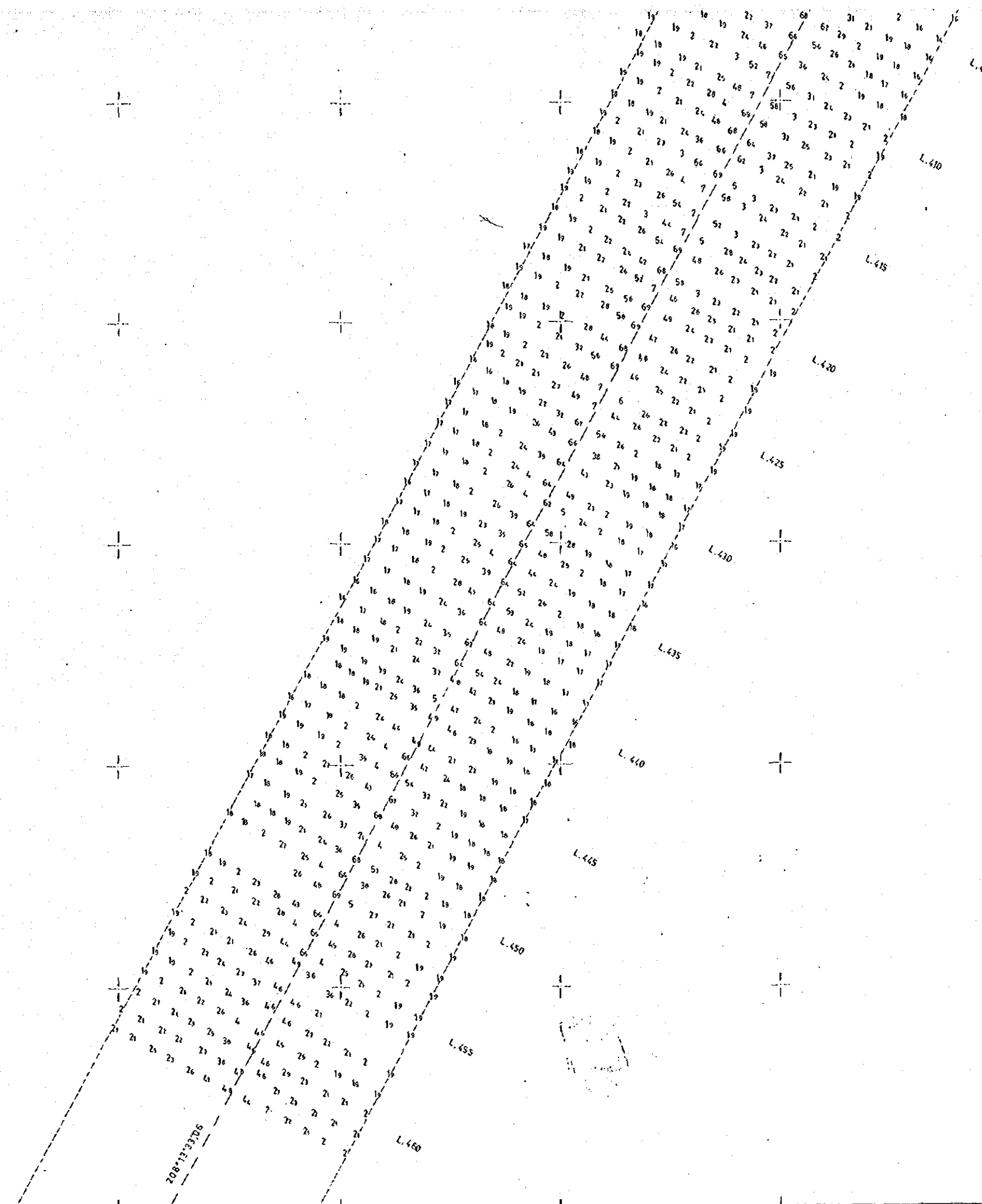
6.250  
6.000  
5.750  
5.500  
5.250  
5.000



5.000

4.500

4.000



**SURFACE LEVELLING**

REV.	DESCRIPTION	BY	DATE

**JICA**  
JAPAN INTERNATIONAL COOPERATION AGENCY

**GEODATA BERLIAN CENTRE p.t.**

OCEANOGRAPHIC SURVEYS  
IN THE COAST AND HARBOUR AREAS  
OF BATJARANASIH PORT

BRANCH TITLE  
**ECHO SOUNDING  
NARROW AREA**

SCALE: 1 : 2500

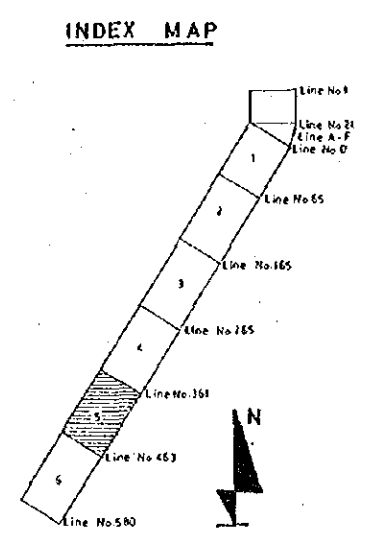
ENTRUSTED BY: **300m Purabaya**      CHECKED BY: \_\_\_\_\_

DRAWN BY: \_\_\_\_\_      APPROVED BY: \_\_\_\_\_

SPACE: 8th, 18 March 89 - 13 April 89  
DATE: 9, 10, 11, 14 March & 10, 20 April 1989

DRAWING NO: **5 FROM 6**      REV. \_\_\_\_\_

**BATHYMETRIC MAP**      208/89



4.000  
3.500  
3.000  
4.000  
4.500  
5.000  
5.500

2.500

3.000

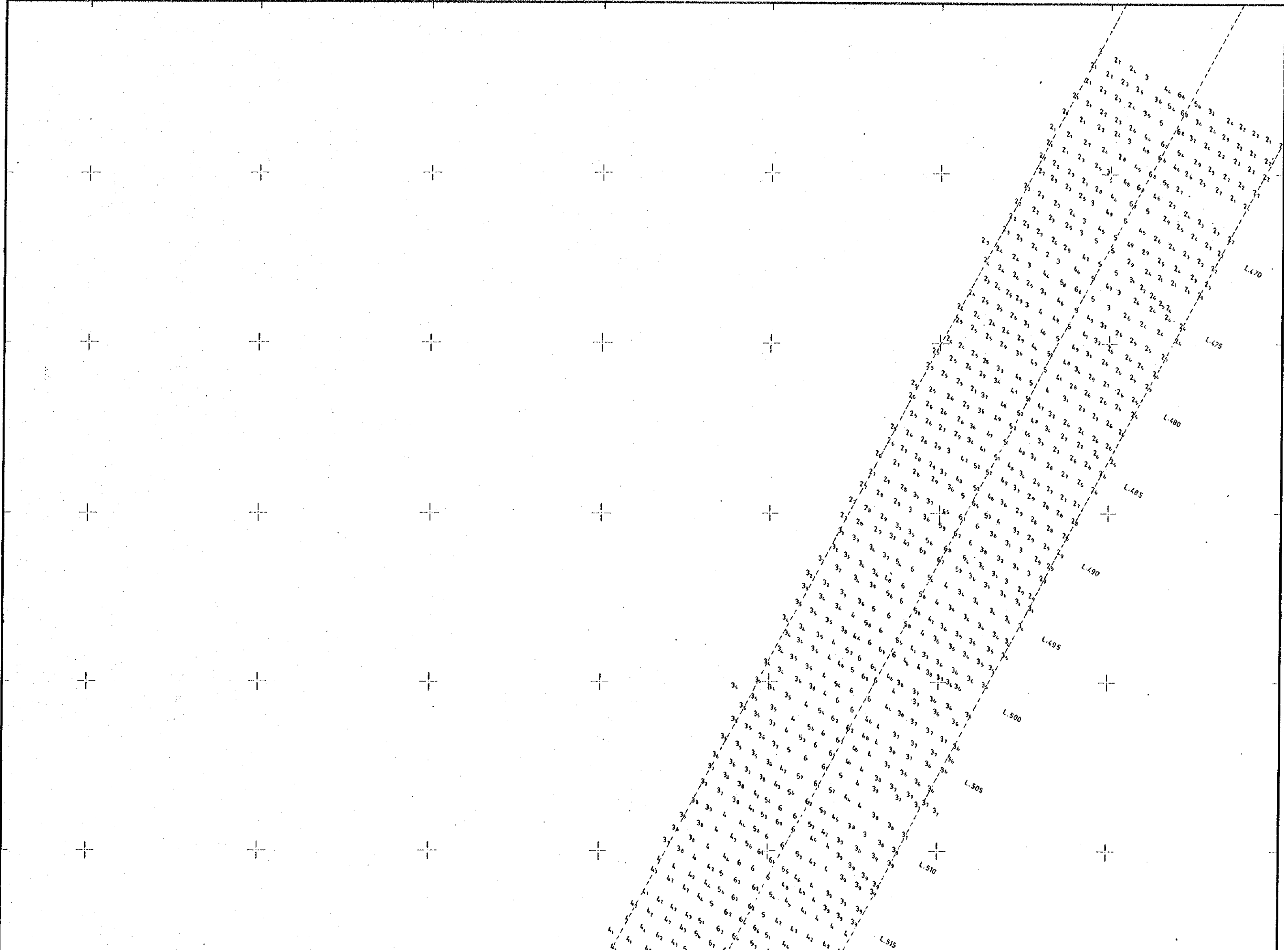
3.500

4.000

3.000

2.500

2.000

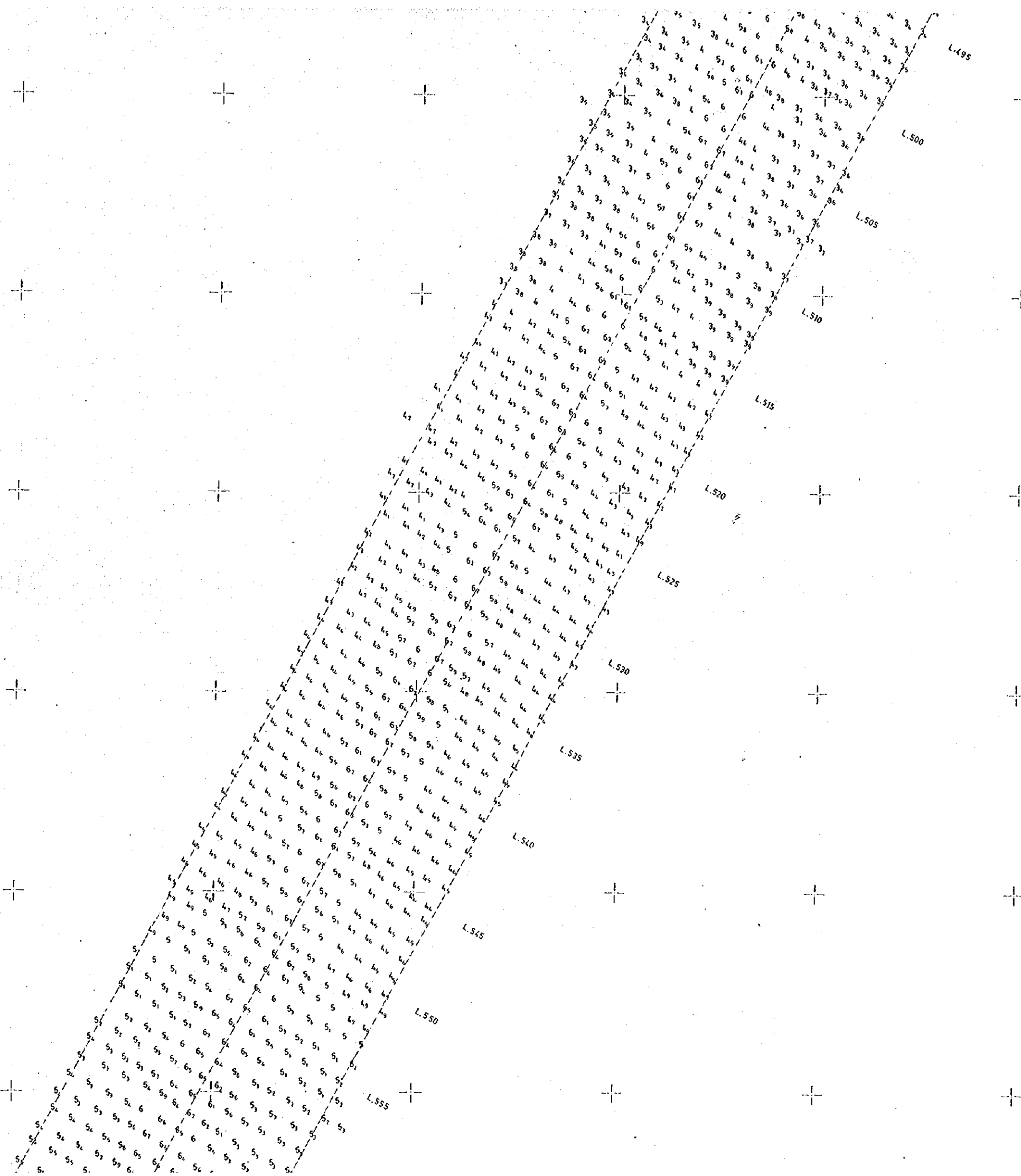


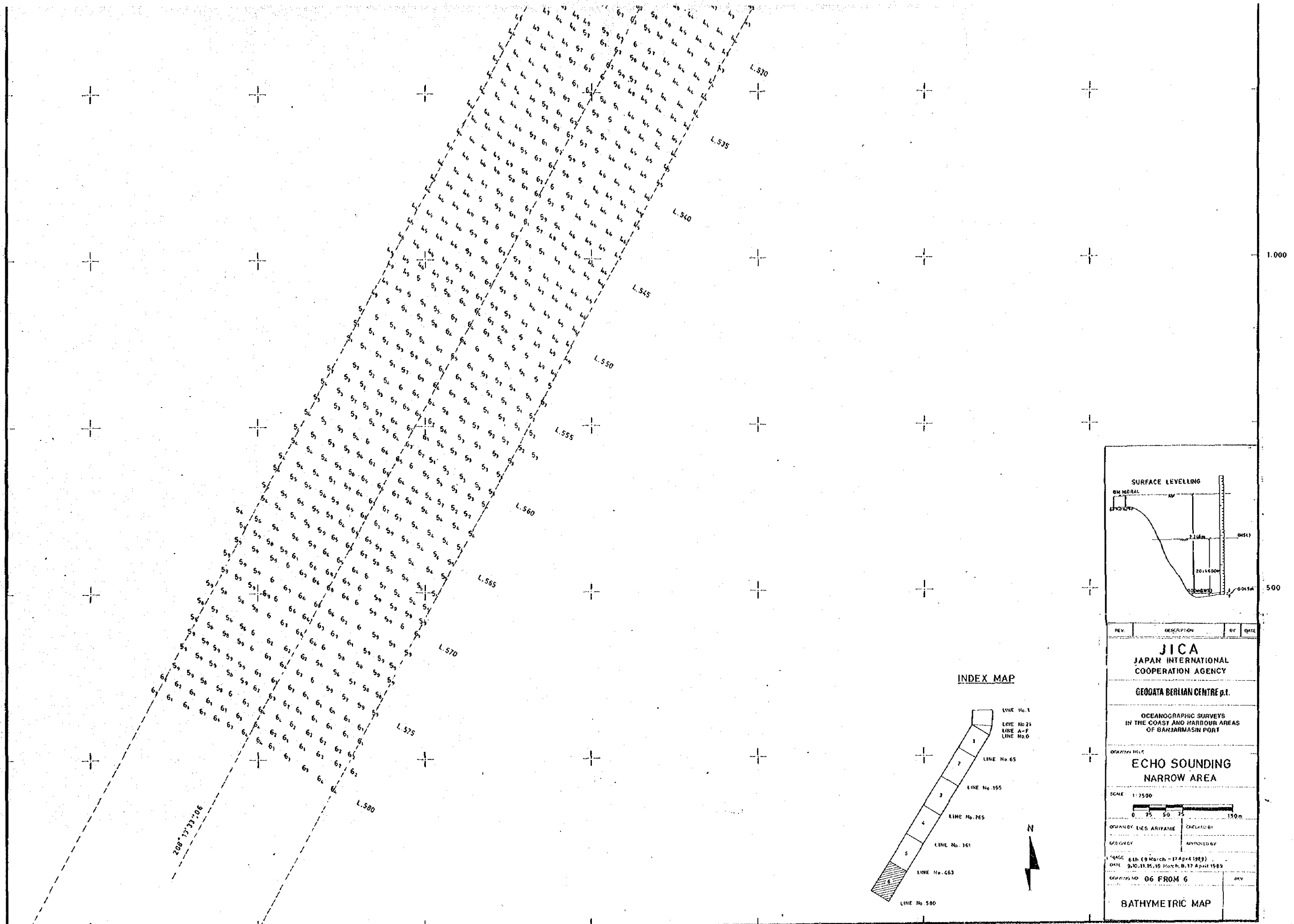


2.000

1.500

1.000

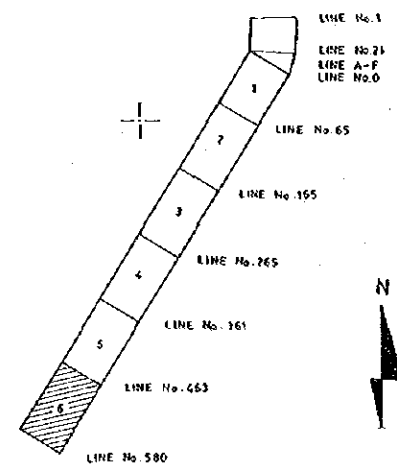




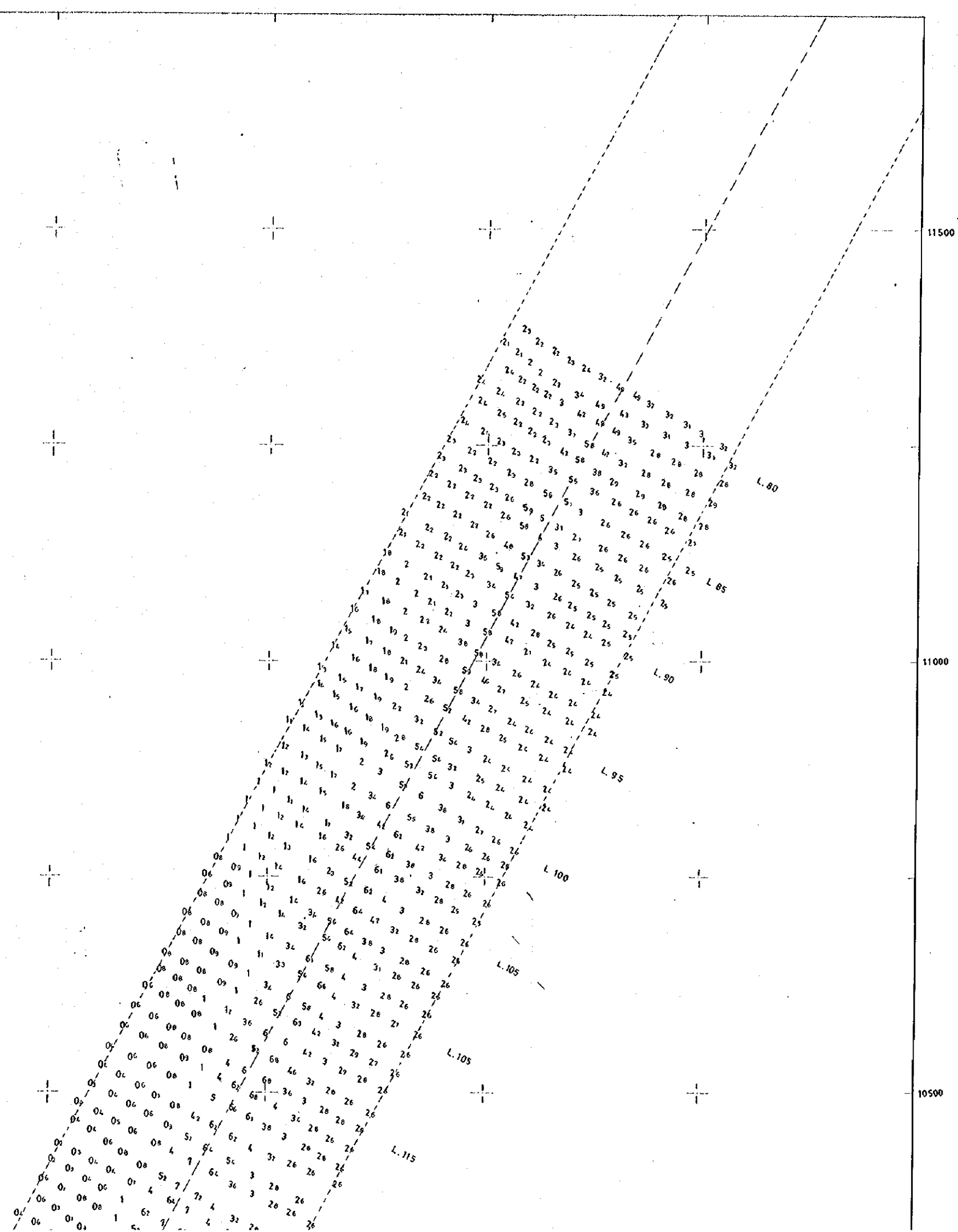
1.000

500

INDEX MAP



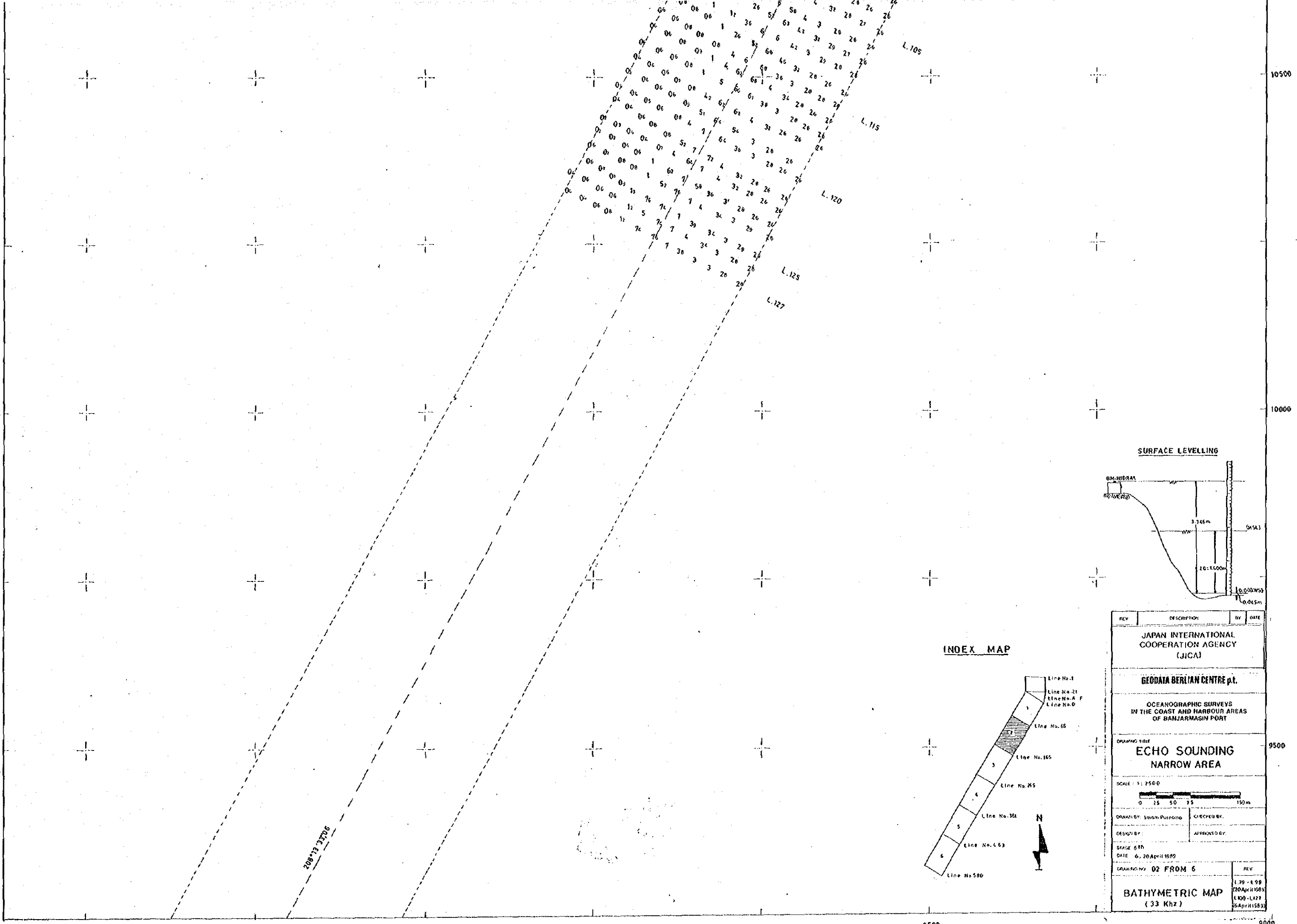
REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY GEODATA BERLIAN CENTRE p.t. OCEANOGRAPHIC SURVEYS IN THE COASTY AND HARBOUR AREAS OF BANJARMASIN PORT OCEANOGRAPHY DIV. <b>ECHO SOUNDING NARROW AREA</b>			
SCALE 1:7500			
DRAWN BY: EIS ARIYANE		CHECKED BY:	
DESIGNED BY:		APPROVED BY:	
RANGE 6th (9 March - 17 April 1983) DATE 9, 10, 11, 15, 19 March, 8, 17 April 1983			
GEODATA NO. 06 FROM 6			REV.
<b>BATHYMETRIC MAP</b>			



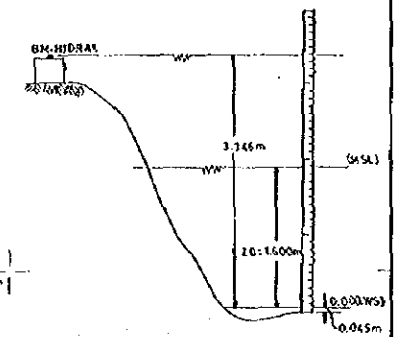
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11000

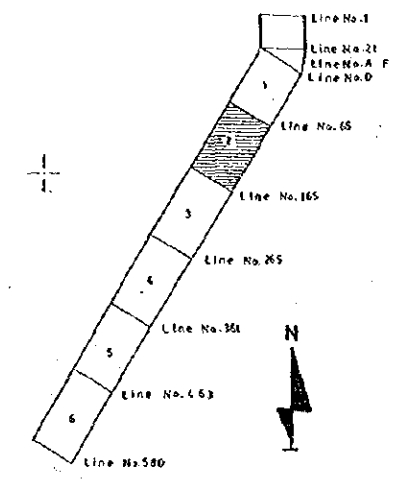
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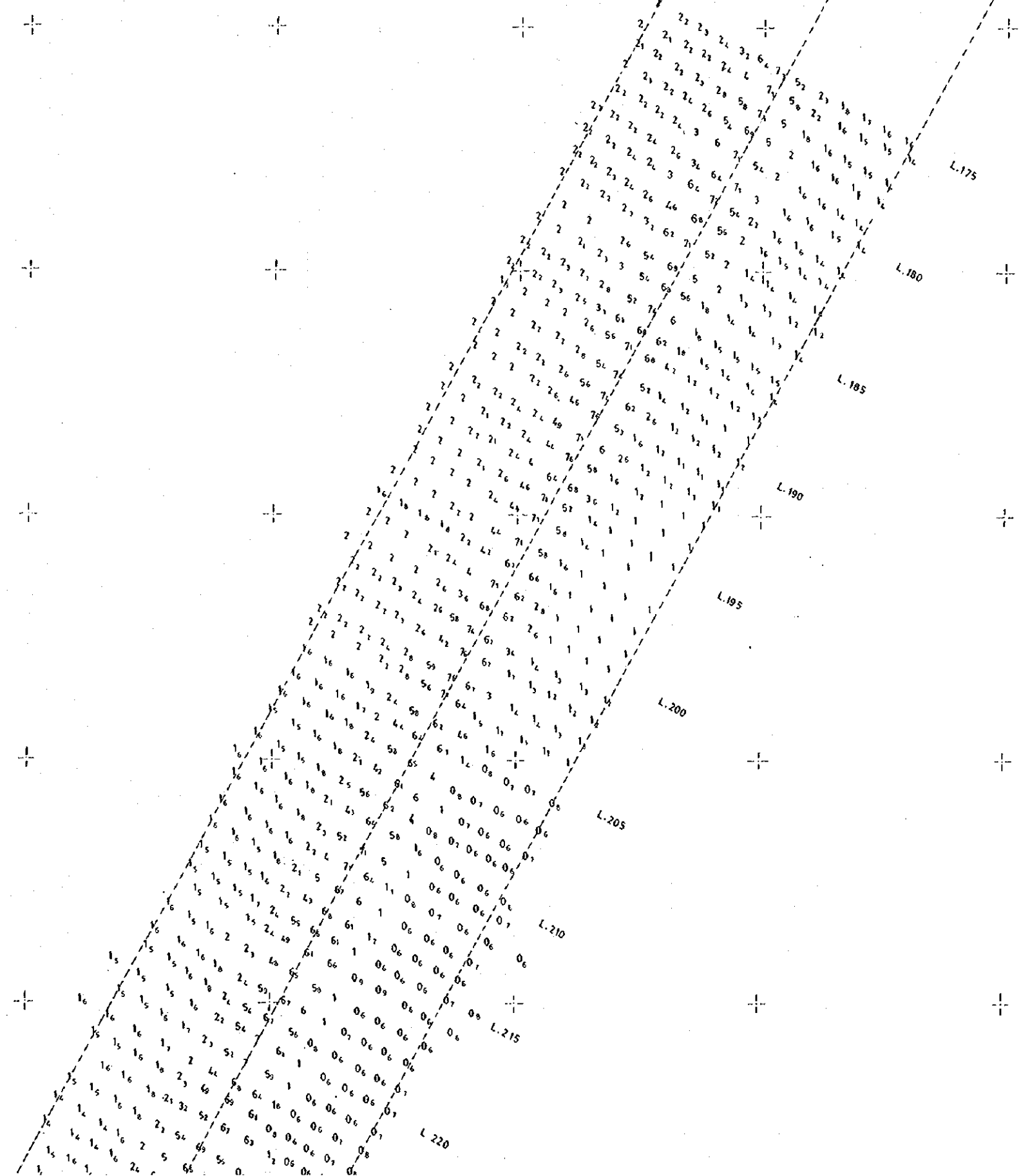
**SURFACE LEVELLING**

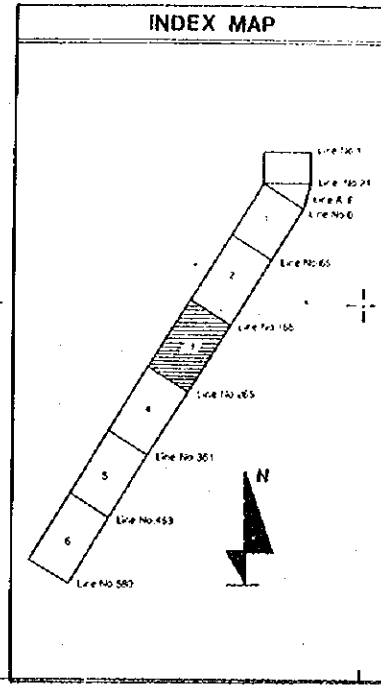
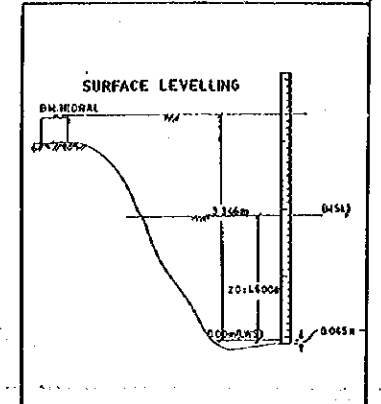
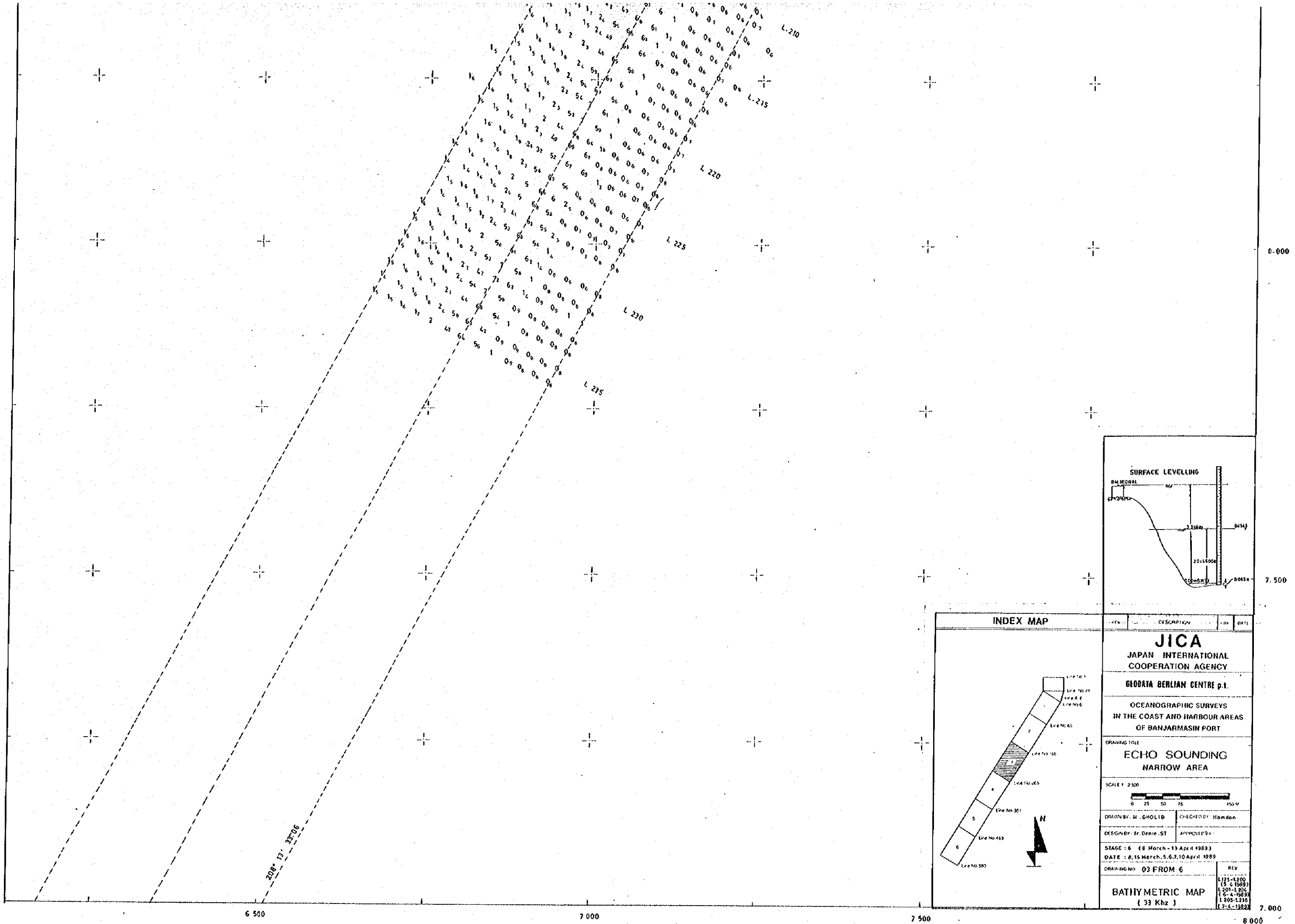


**INDEX MAP**

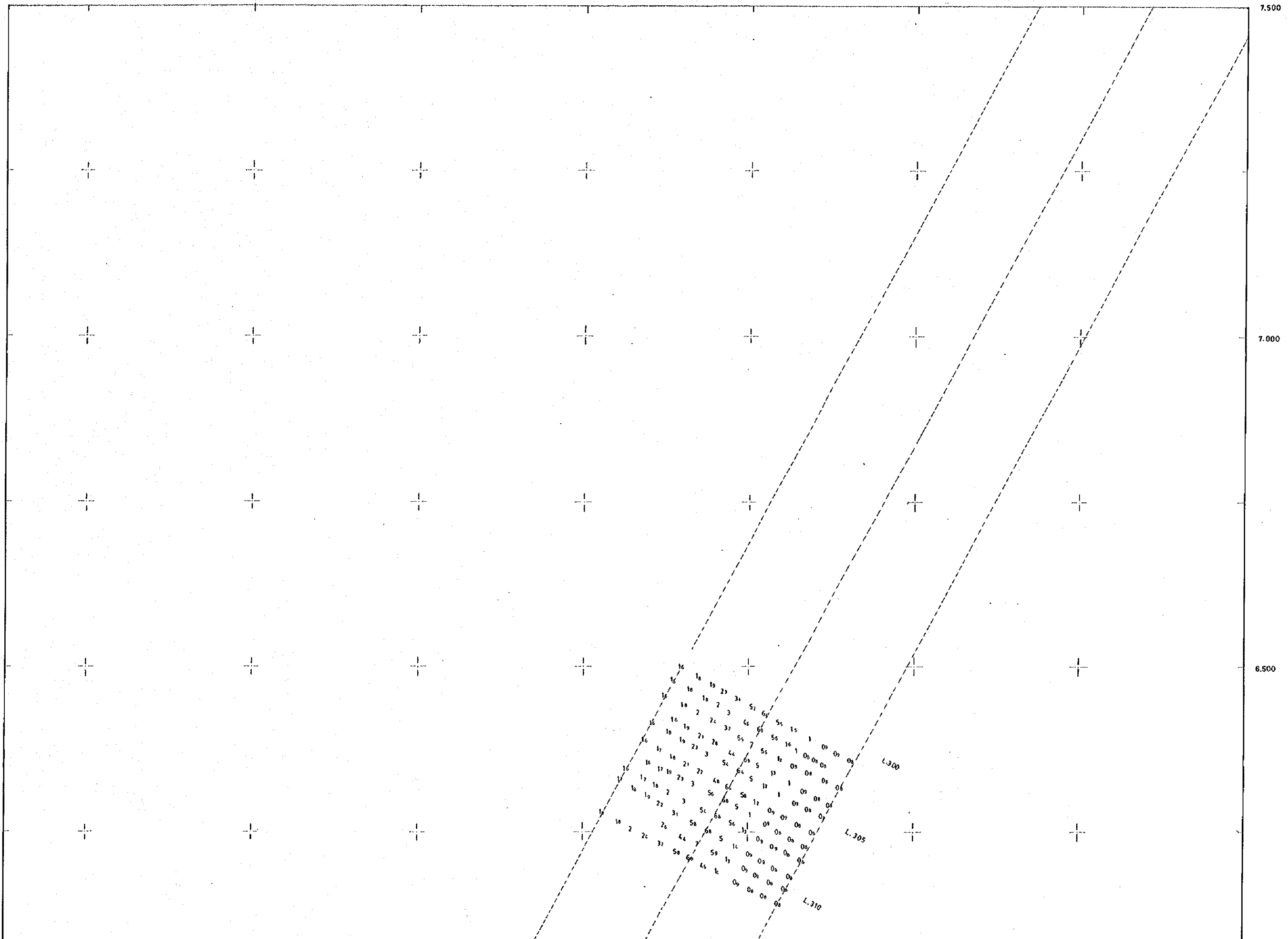


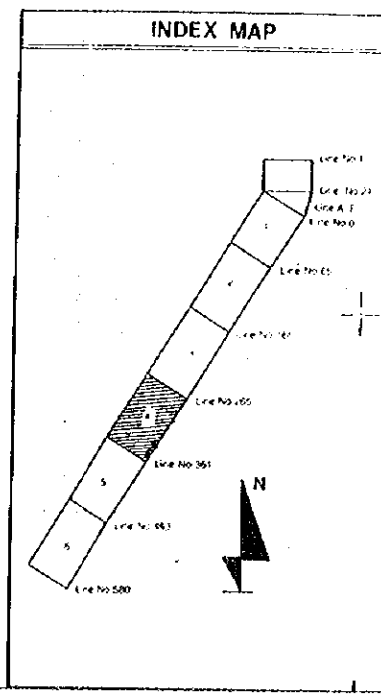
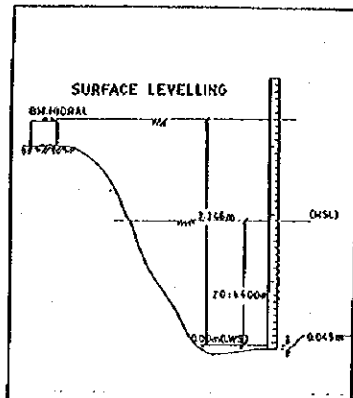
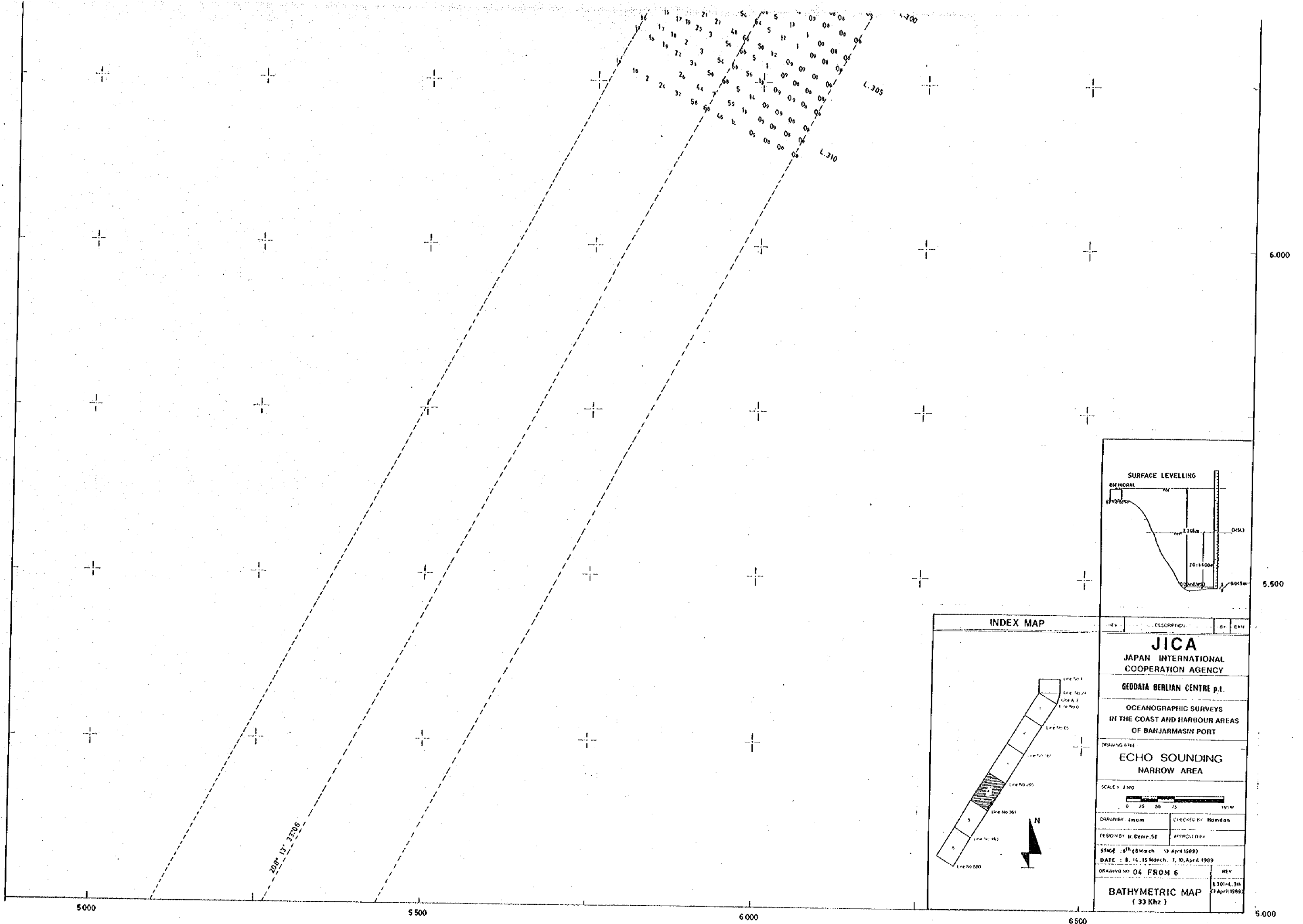
REV	DESCRIPTION	BY	DATE
<b>JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)</b> <b>GEODATA BERLIAN CENTRE p.t.</b> <b>OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT</b> DRAWING TITLE <b>ECHO SOUNDING NARROW AREA</b> SCALE: 1:2500 DRAWN BY: Imam Purandono      CHECKED BY: DESIGN BY:                              APPROVED BY: STAGE: 6th DATE: 6.20 April 1989 DRAWING NO: 02 FROM 6 <b>BATHYMETRIC MAP (33 KHz)</b>			
			REV
			1.79 - 1.99
			20 April 1989
			L100-L127
			26 April 1989





REV	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
GEDDIA BERLIAN CENTRE p.1.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
DRAWING TITLE			
<b>ECHO SOUNDING NARROW AREA</b>			
SCALE 1:2500			
DRAWN BY: M. GHOLID		CHECKED BY: Hamdon	
DESIGN BY: Ir. Denie ST		APPROVED BY:	
STAGE : 6 (8 March - 13 April 1989)			
DATE : 8, 15 March, 5, 6, 7, 10 April 1989			
DRAWING NO. 03 FROM 6			REV
BATHYMETRIC MAP ( 33 KHz )			L125-L200 (5 G 1989) L201-L235 (6 G 1989) L205-L235 (7 G 1989)





REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY			
GEDDATA BERLIAN CENTRE p.t.			
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT			
DRAWING TITLE <b>ECHO SOUNDING NARROW AREA</b>			
SCALE 1:2500 0 25 50 75 100M			
DRAWN BY: zmom		CHECKED BY: Hamdan	
DESIGN BY: M. Dahir, ST		APPROVED BY:	
STAGE: 5th (8 March - 13 April 1989)			
DATE: 8, 14, 15 March, 7, 10 April 1989			
DRAWING NO. 04 FROM 6			
BATHYMETRIC MAP (33 KHz)			REV 1.301-1.311 27 April 1989



4.000

4.500

5.000

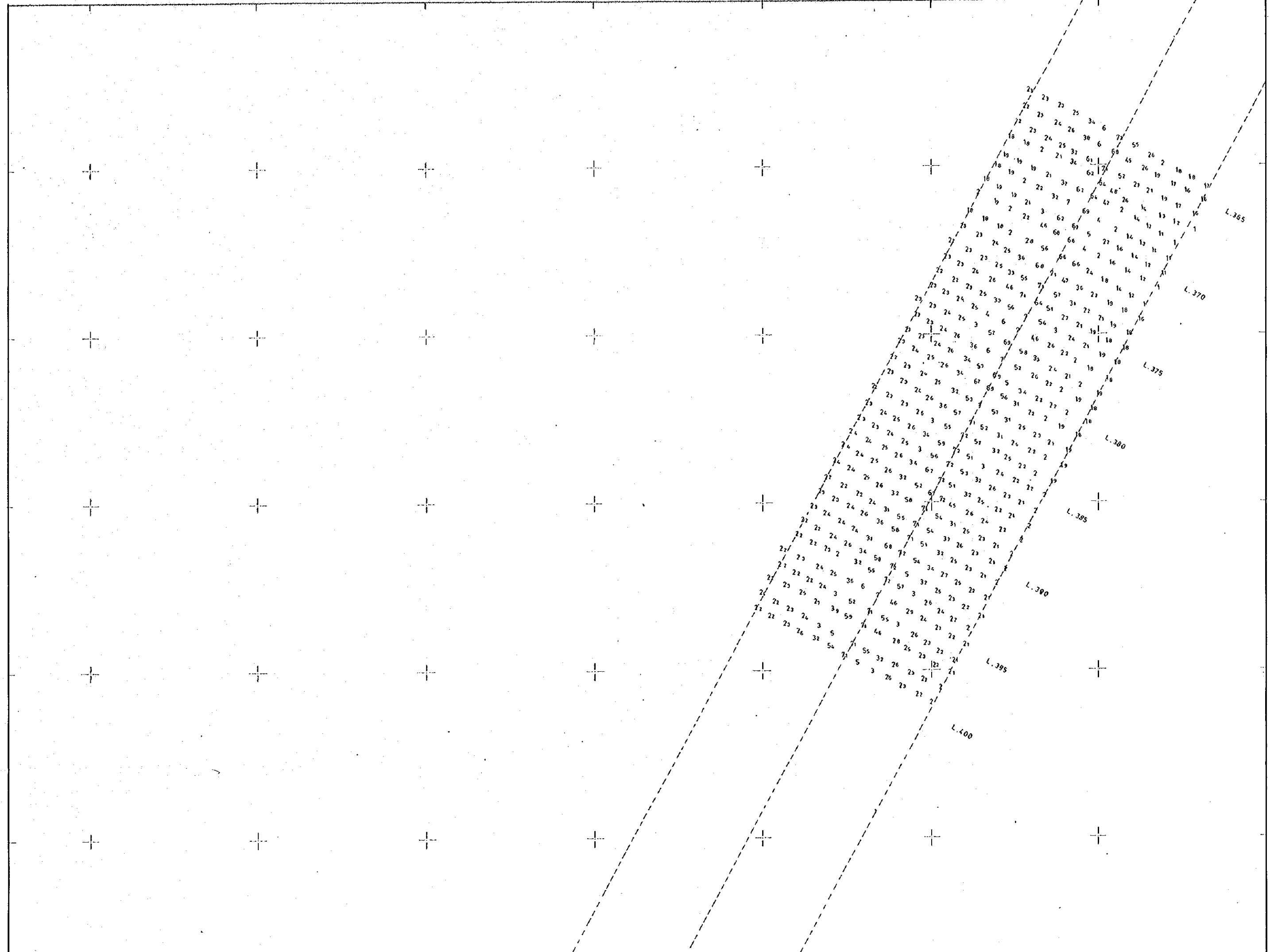
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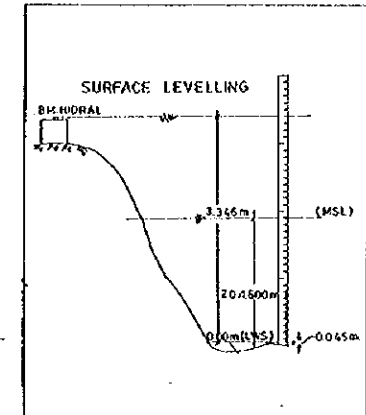
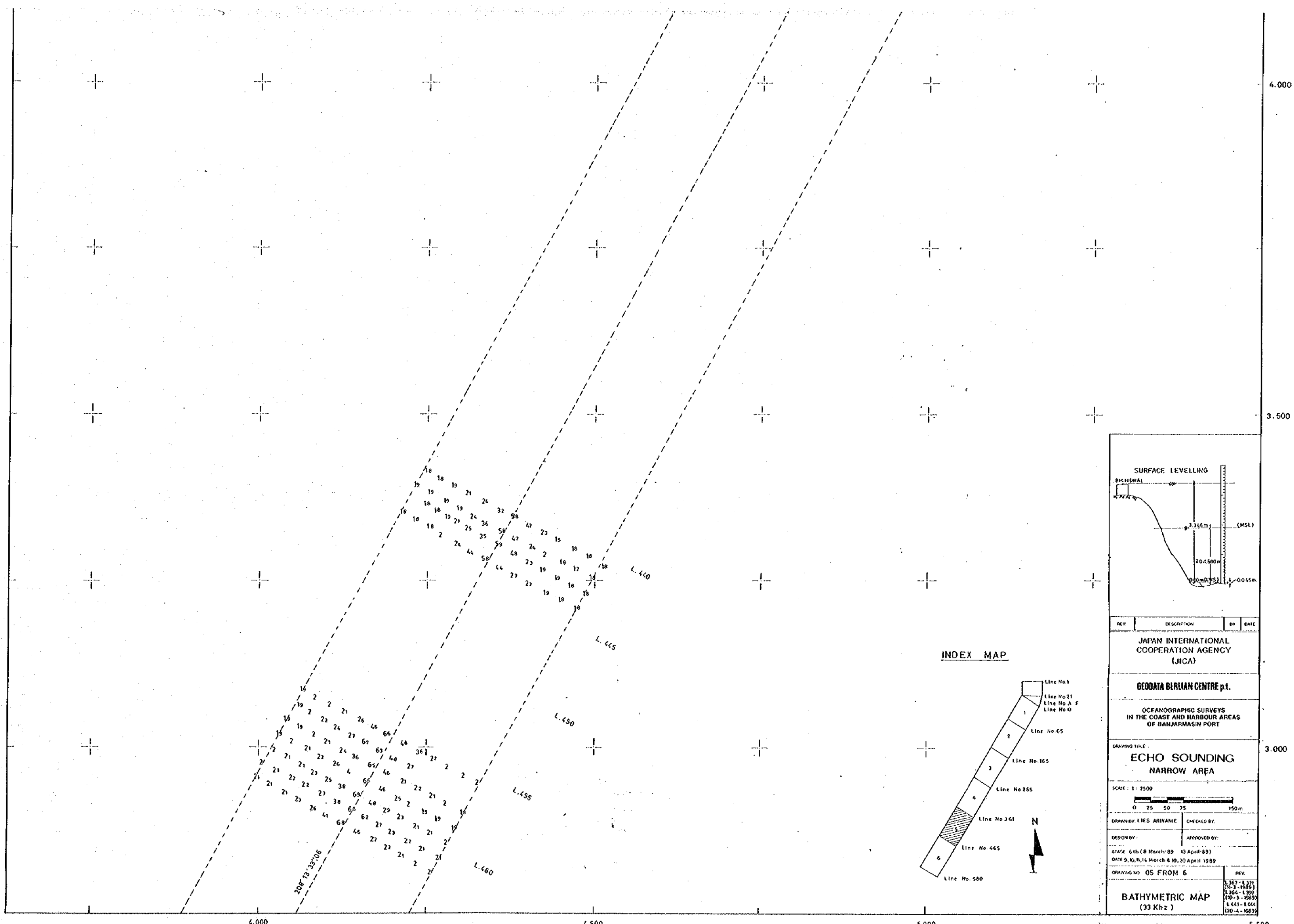
5.250

5.000

4.500

4.000





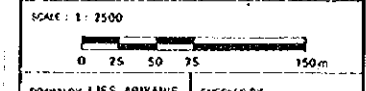
REV	DESCRIPTION	BY	DATE

JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)

GEO DATA BERLIAN CENTRE p.t.

OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT

ECHO SOUNDING NARROW AREA

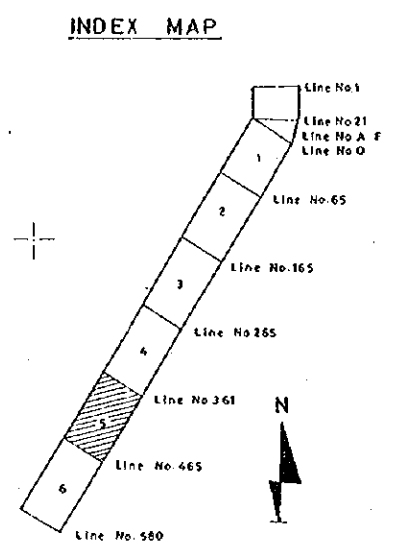


DRAWN BY: LIES ARIYANI  
 CHECKED BY:  
 DESIGNED BY:  
 APPROVED BY:

DATE: 6th (8 March 89) 13 April 89  
 DATE: 9, 10, 11, 14 March & 10, 20 April 1989

DRAWING NO	REV
05 FROM 6	

BATHYMETRIC MAP (33 KHz)



4.000

3.500

3.000

5.500

4.000

4.500

5.000

2.500

3.000

3.500

4.000

3.000

2500

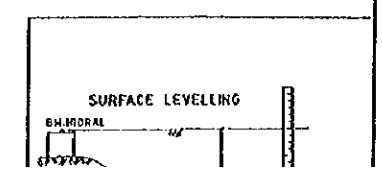
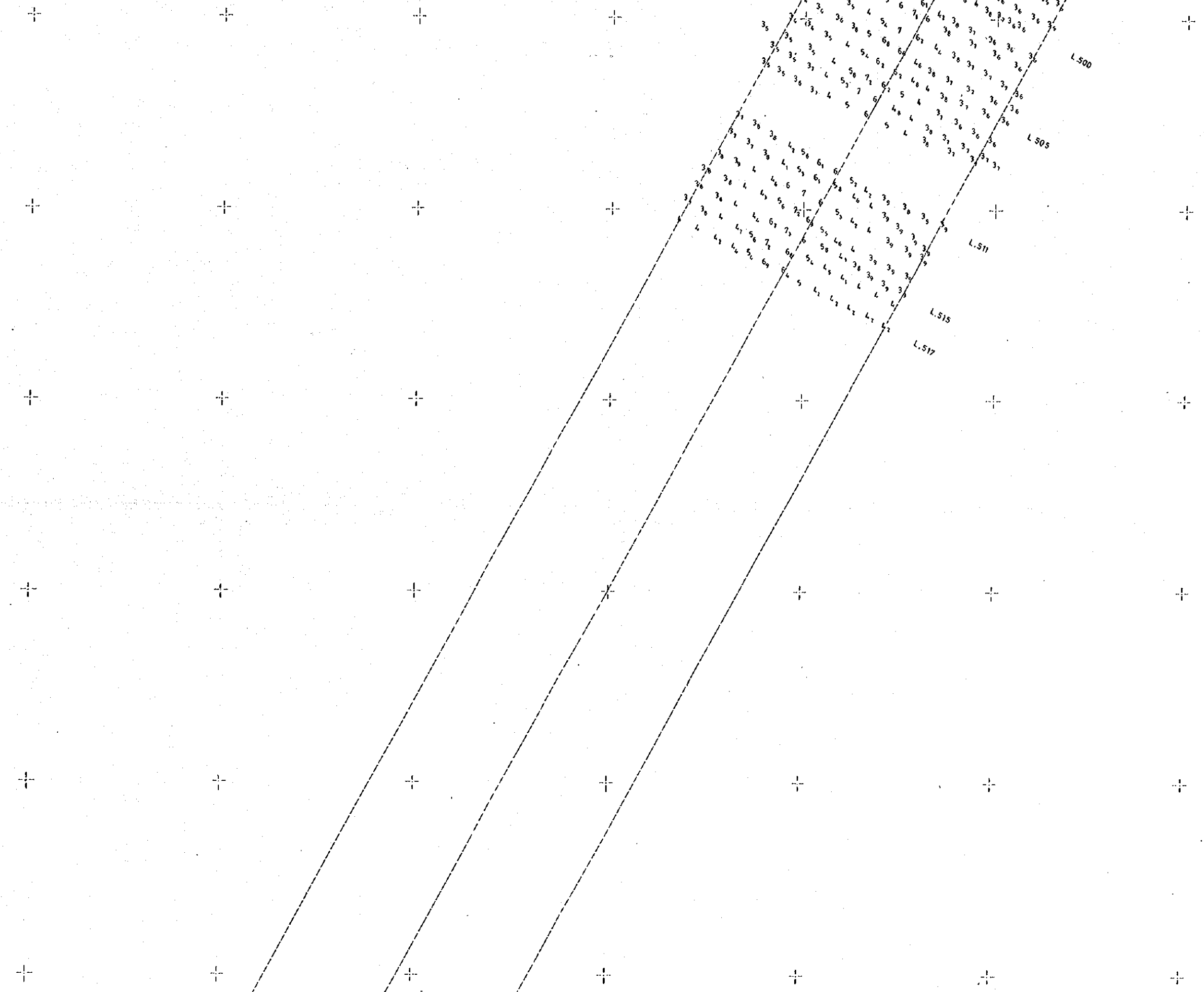
2.000



2.000

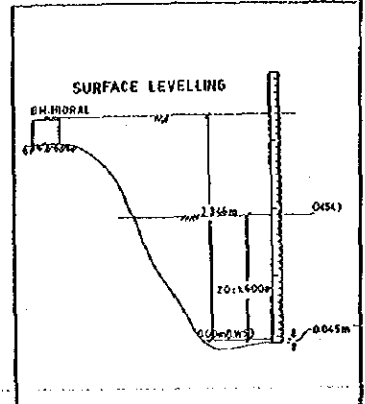
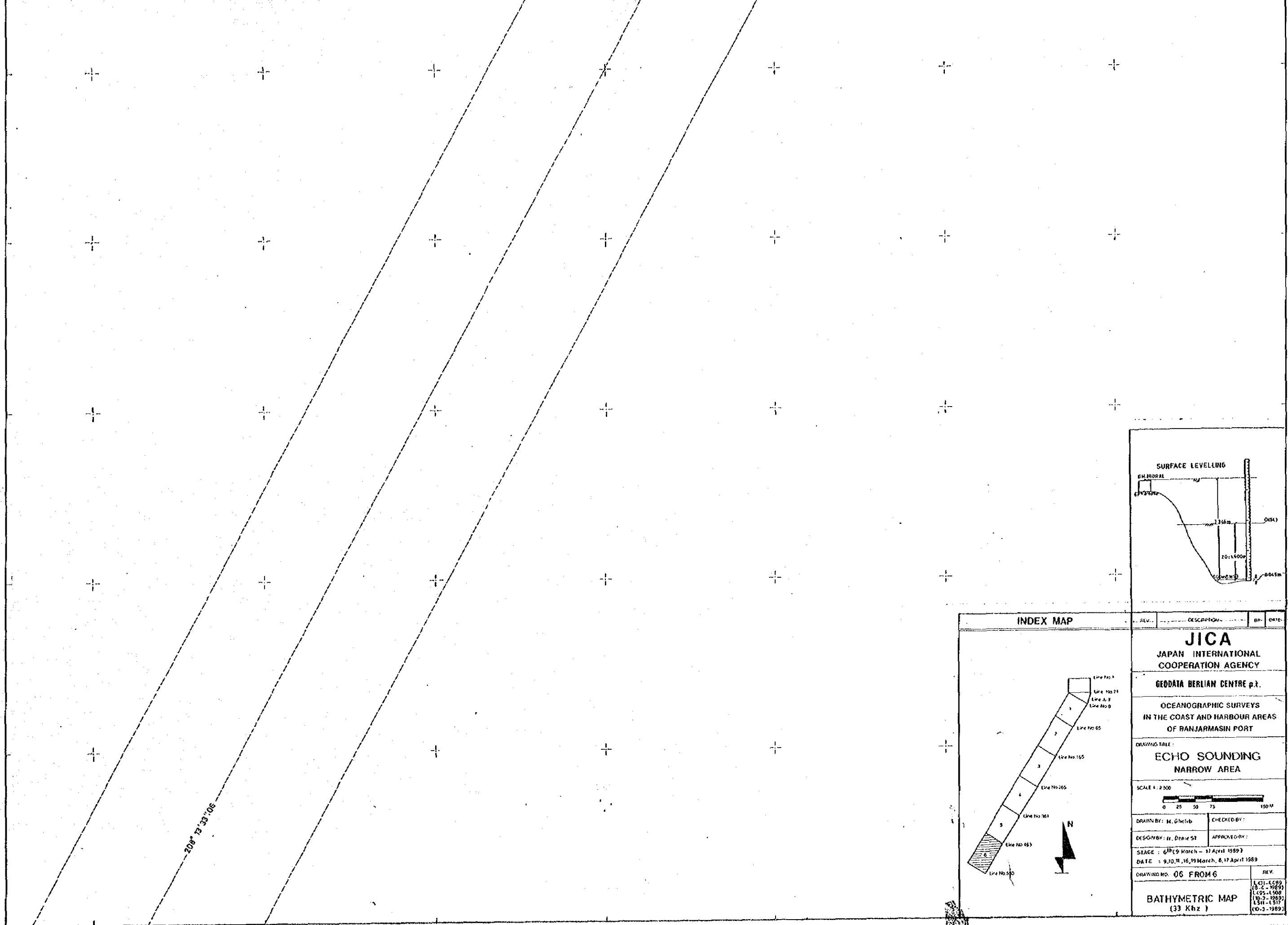
1.500

1.000



1,000

500



INDEX MAP		REV.	DESCRIPTION	BY	DATE
<b>JICA</b> JAPAN INTERNATIONAL COOPERATION AGENCY					
GEODATA BERLIAN CENTRE p.t.					
OCEANOGRAPHIC SURVEYS IN THE COAST AND HARBOUR AREAS OF BANJARMASIN PORT					
DRAWING TITLE:					
<b>ECHO SOUNDING NARROW AREA</b>					
SCALE 1:2 500					
DRAWN BY: M. Ghah			CHECKED BY:		
DESIGNED BY: H. Denis ST			APPROVED BY:		
STAGE : 6 <sup>th</sup> 19 March - 17 April 1989					
DATE : 9,10,11,16,19 March, 6,17 April 1989					
DRAWING NO. 06 FROM 6					REV.
<b>BATHYMETRIC MAP</b> (33 Khz)					L41-L499
					(8-2-1989)
					L495-L508
					(10-3-1989)
					L511-L517
					(00-3-1989)

