

**JAPAN INTERNATIONAL COOPERATION AGENCY  
THE GOVERNMENT OF THE REPUBLIC OF INDONESIA**

**THE STUDY ON FLOOD CONTROL AND WATER MANAGEMENT  
IN  
LIMBOTO-BOLANGO-BONE BASIN  
IN THE REPUBLIC OF INDONESIA**

**FINAL REPORT**

**VOLUME-VIII DRAWINGS**

DECEMBER 2002

NIKKEN CONSULTANTS, INC.  
AND  
NIPPON KOEI CO., LTD.

**THE STUDY ON FLOOD CONTROL AND WATER MANAGEMENT  
IN  
LIMBOTO-BOLANGO-BONE BASIN**

**FINAL REPORT**

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The costs are estimated based on the price and average exchange rate in November 2001. The average exchange rate is assumed as follows:

US\$ 1.00 = Rp.9,600

¥ 1 = Rp.77.4

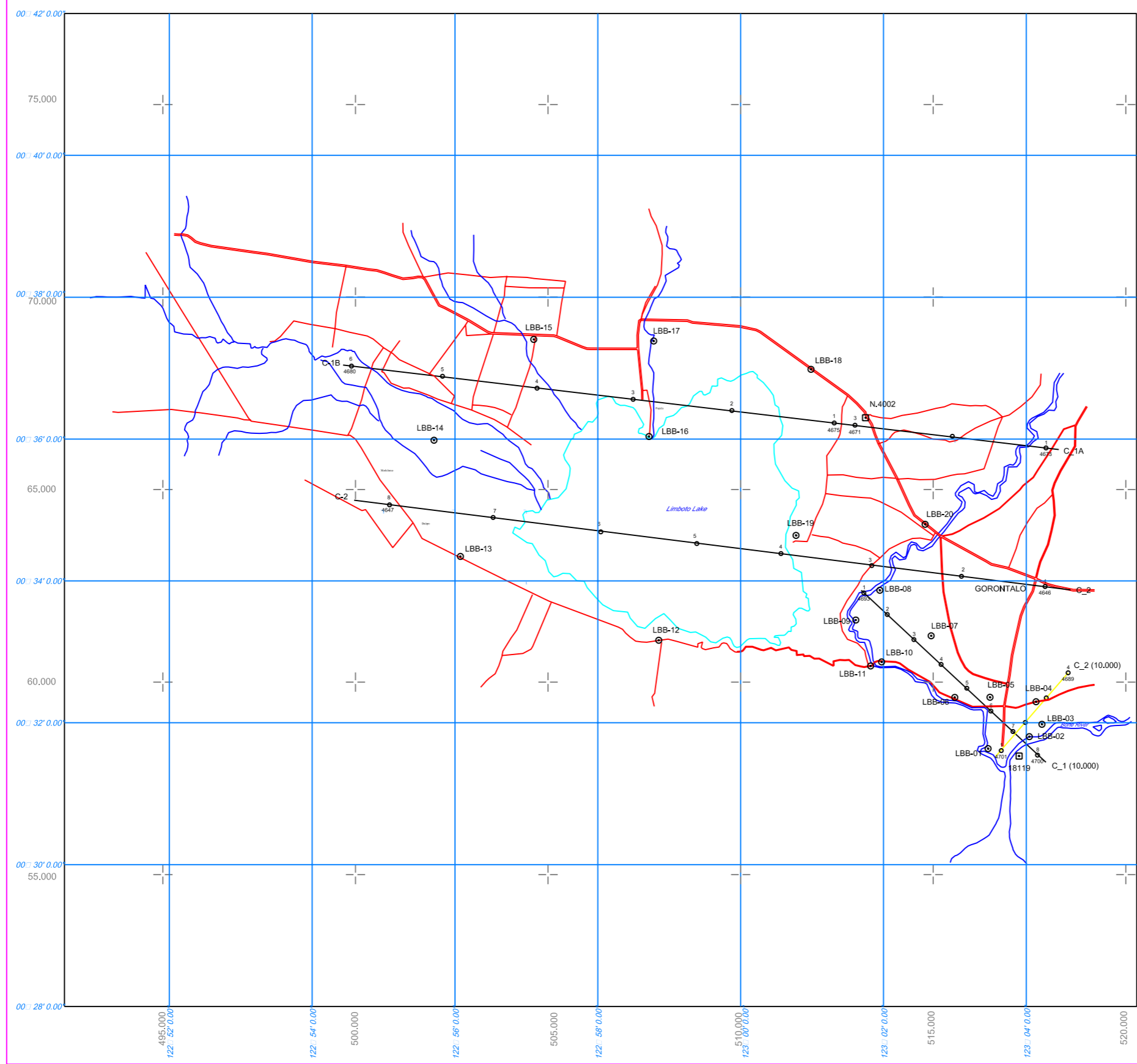
## VOLUME-VIII

### DRAWING

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**DWG-A: SURVEY RESULTS**



**N**

**LEGEND:**

- Existing Triangulation Point  
Titik Yelap Triangulasi
- GPS Point  
Titik GPS
- Existing Bench Mark  
Titik Benck Mark
- Road  
Jalan
- Pond, Lake  
Kolam, Danau
- a. River / Sungai  
b. Ruahet / Anak Sungai  
c. Direction / Arak Sungai
- Run Number  
Nomor Jalur
- Photo Number  
Nomor Foto

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DIRECTORATE GENERAL OF WATER RESOURCES,  
MINISTRY OF SETTLEMENT AND REGIONAL INFRASTRUCTURE

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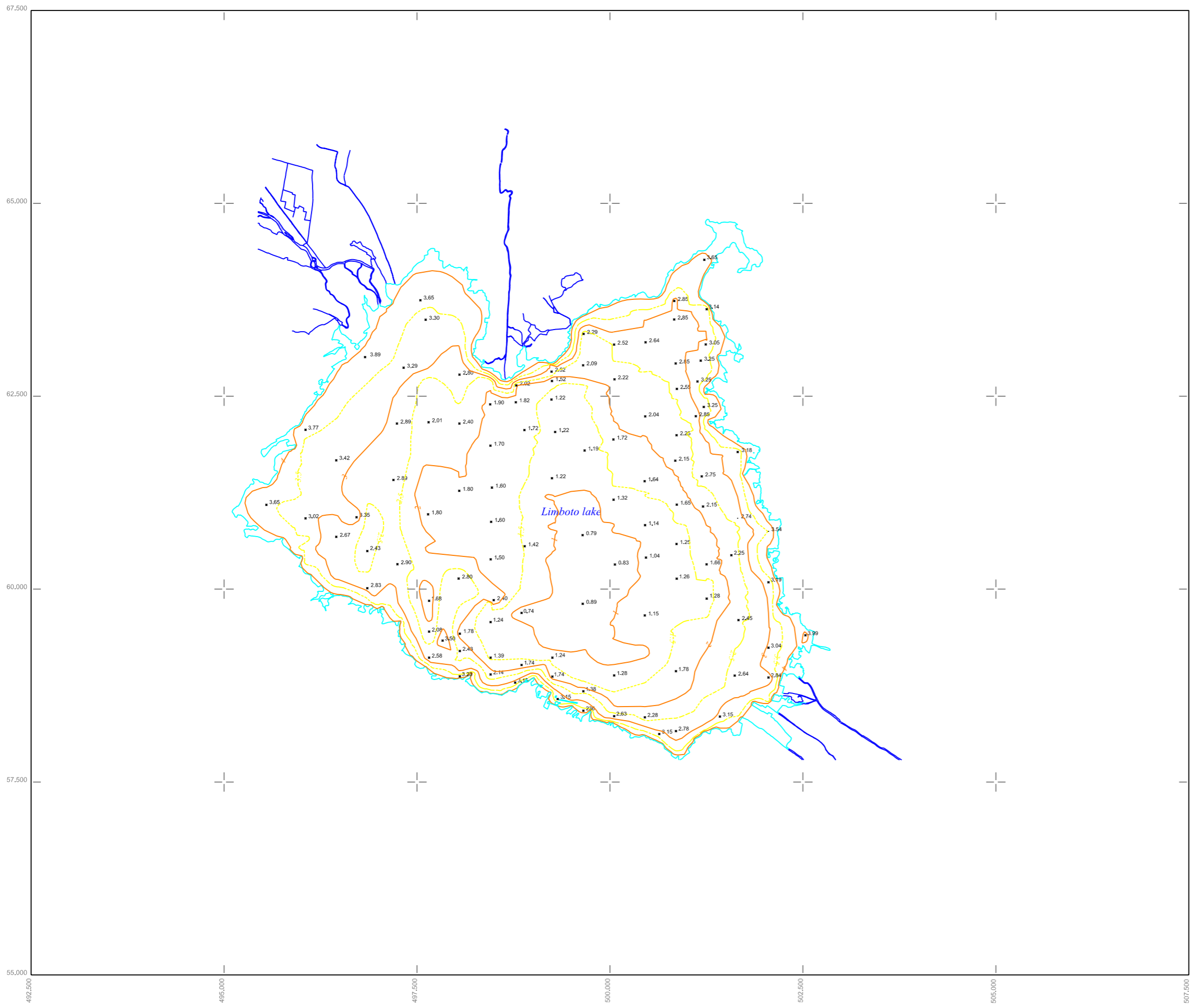
**AERIAL PHOTO SURVEY FLIGHT INDEX MAP**

Checked by		Approved by	
Name			
Signature			
Date			

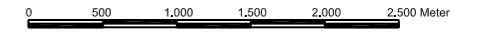
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**PT. ATLAS DELTASATYA**  
JICA PROJECT CONSULTANT



N



LEGEND

- x 1.21 Spot Height  
Tinggi Titik
- Contour Line  
Garis Kontur
- Swamp  
Rawan
- Pond, lake  
Kolam, danau
- a. River / Sungai  
b. Rivulet / Anak Sungai  
c. Direction / Arah Sungai

Information

- \* Sounding Survey : August 2001
- \* Sounding Survey map ( 1 / 25,000 ) : October 2001
- \* Horizontal System : UTM ( 51 Zone )
- \* Elevation System : MSL
- \* Contour Interval : 1 m



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SOUNDING SURVEY MAP : LAKE LIMBOTO

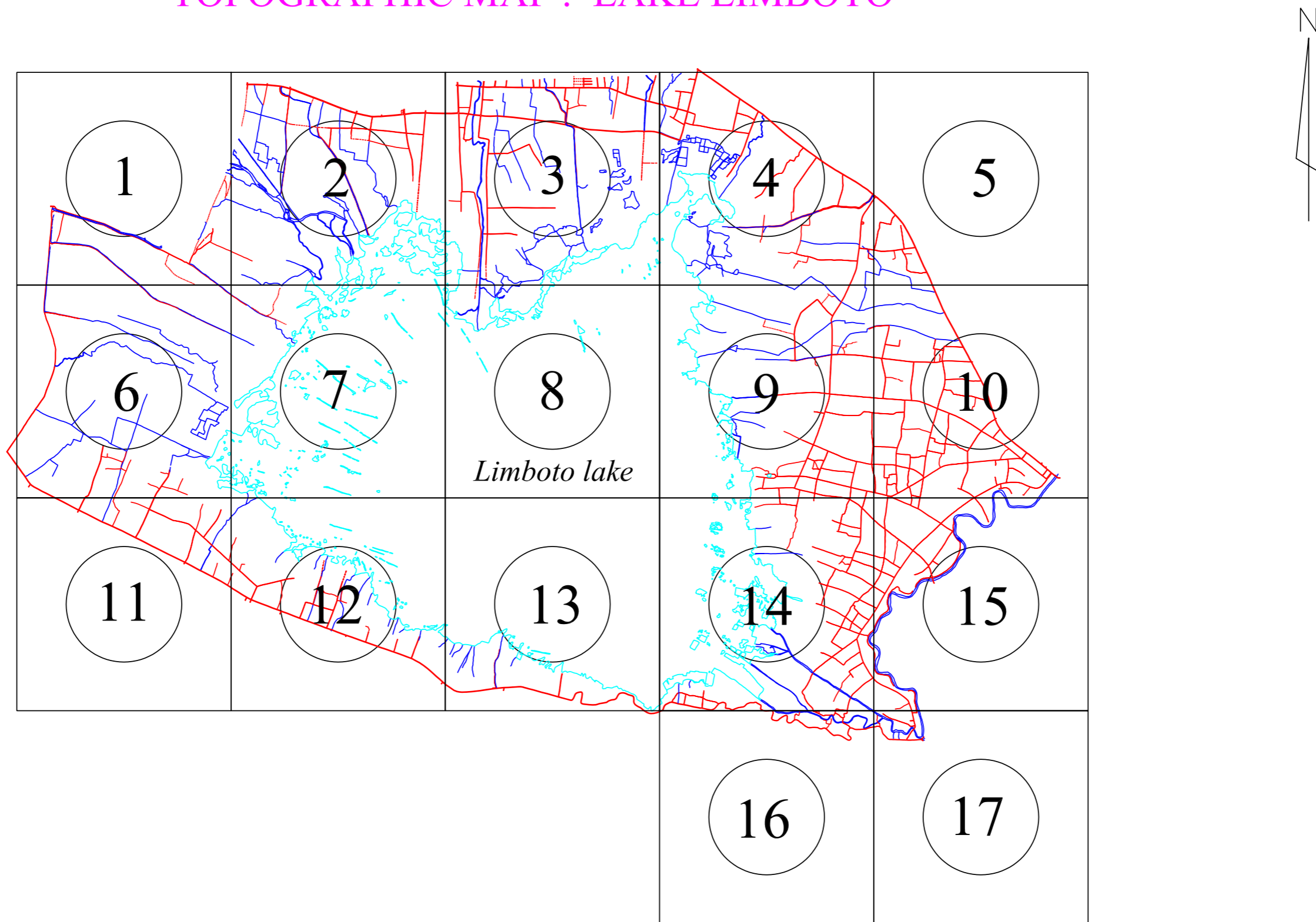
Checked by		Approved by	
Name	PT. ATLAS DELTASATYA	Isao Ikeshima	
Signature			
Date	October 9, 2001	October 19, 2001	

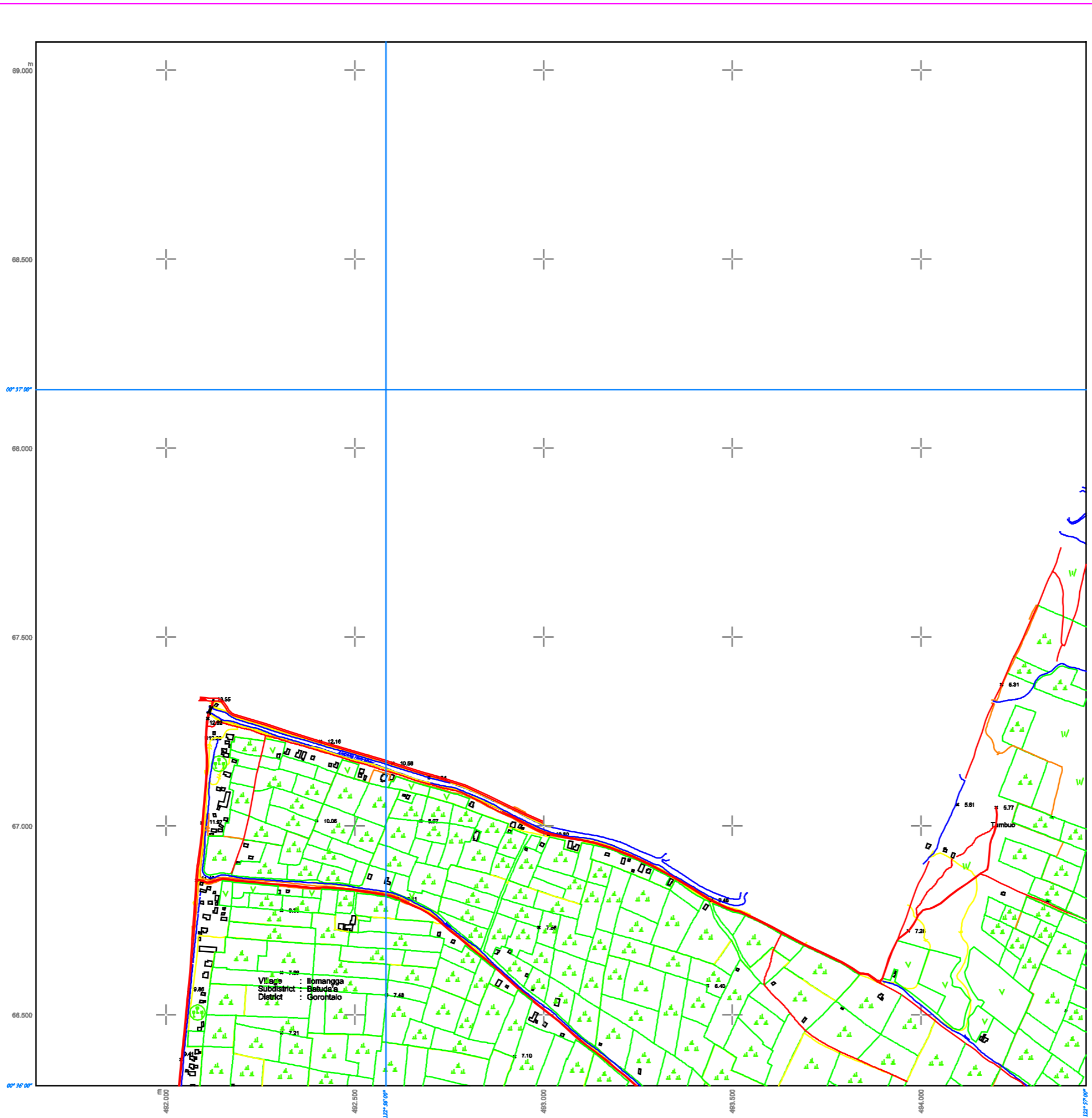


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01/01

# INDEX MAP

## TOPOGRAPHIC MAP : LAKE LIMBOTO





LEGEND

Elevated Triangulation Point Titik Tetap Triangulasi	Electric Power Line Jalur Tegangan Tinggi
GPS Point Titik GPS	Cutting and Embankment Kerukan dan Timbunan
Elevated Bench Mark	Swamp
Spot Height Titik Tinggi	Muslim graves Kuburan Muslim
House / Building Bangunan	Christian cemetery Kuburan Kristen
Factory	Chinese graves Kuburan Cina
Public Hall Balai Kota	Paddy field Sawah
Police Station Kantor Polisi	Boundary of Vegetation Batas Tanaman
Fire Station Stasiun Pemadam Kebakaran	Field Ladang
Post Office Kantor Pos	Forest Hutan
Mosque Masjid	Grass Rumput
Church Gereja	Tree Pohon
Hospital Rumah Sakit	Water hole Lubang Air
School Sekolahan	Sluice Pintu Air
Market Pasar	Pipe Culvert Gorong - gorong
Telephone Office Kantor Telepon	Monuments Tugu
Government Office Kantor Pemerintahan	Contour Line Garis Kontur
Hotel	Pond, lake Kolam, danau
Gasoline Pump Pompa Bensin	Sand Pasir
Road Jalan	Land Slide Tebing
Path Jalan Sepak	a. River / Sungai
Bridge Jembatan	b. Rivulet / Anak Sungai
Station	c. Direction / Arah Sungai
Subdistrict Boundary Batas Kecamatan	
Village Boundary Batas Kelurahan	

INDEX MAP

- Aerial Photography ( 1 / 25.000 )	: August 2001
- Topographic map ( 1 / 8.000 )	: October 2001
- Horizontal System	: UTM ( 51 Zone )
- Elevation System	: MSL
- Contour Interval	: 1 m

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**TOPOGRAPHIC MAP : LAKE LIMBOTO**

Checked by	Approved by
Name PT. ATLAS DELTASATYA	Isao Iizushima
Signature	
Date October 8, 2001	October 19, 2001

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COOPERATION AGENCY

**PT. ATLAS DELTASATYA**  
JALAN ...

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**01/17**