

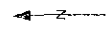
THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
FOR
GREATER NAKURU WATER SUPPLY PROJECT

Scale 1:500

MALEWA DAM SITE

SHEET INDEX

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11	12
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LEGEND

- Tarmac Road
- Murum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Revetment
- Sluice
- Waregate (flood gate)
- Rocks
- Precipice land slide
- Cliffs
- Pond
- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principal Point
- Spot height
- Contours V.I. Im. Index 7m.
- Form Lines

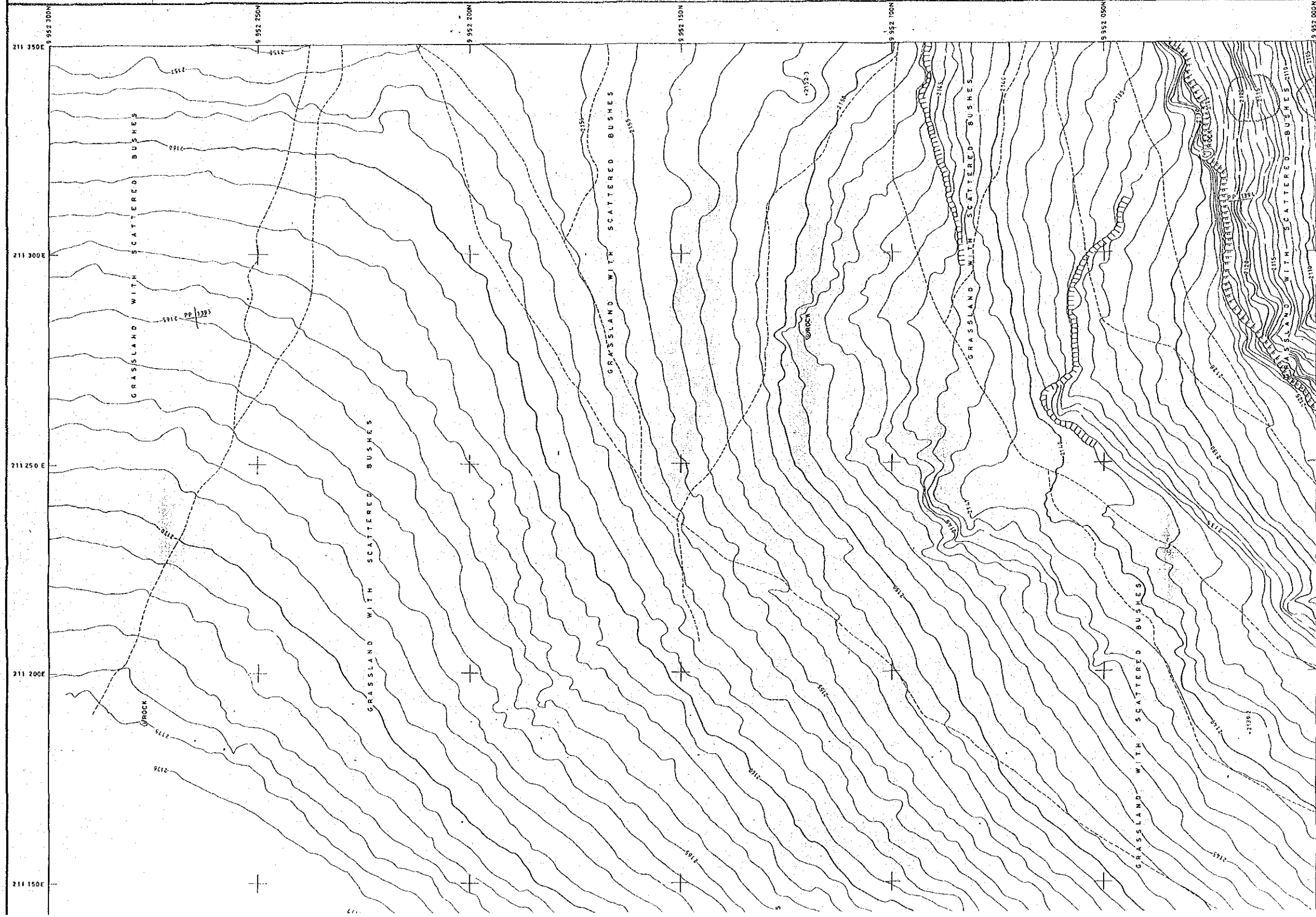
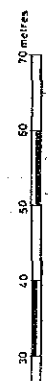
GRID INFORMATION

UTM ZONE 37

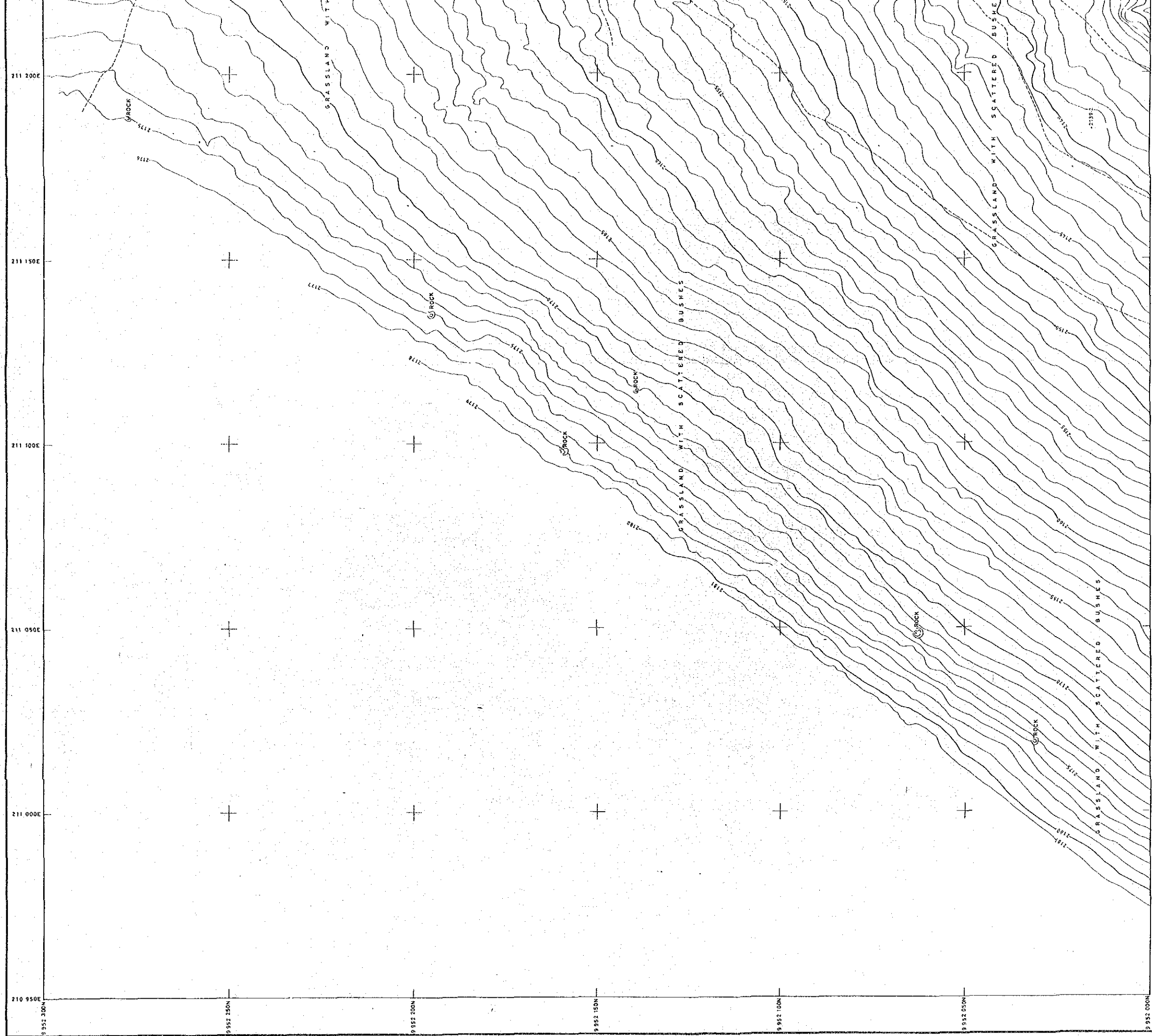
MAP HISTORY

AERIAL PHOTOGRAPHY (JANUARY 1989), GROUND CONTROL AND PHOTOGRAMMETRIC COMPILATION UNDERTAKEN BY PHOTONAP (M) LTD. FOR JAPAN INTERNATIONAL COOPERATION AGENCY.

Scale 1:500



JAPAN INTERNATIONAL COOPERATION AGENCY



Scale 1:500
metres 0 10 20 30 40 50 60 70 80 90 100

THE STUDY ON CONSTRUCTION OF DAM
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GREATER NAKURU WATER SUPPLY PROJECT

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MALEWA DAM SITE

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11	12	13		

LEGEND

- Tarmac Road
- Murum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fence, Hedge
- CULTIVATION
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, pipe culvert
- Revetment
- Sluice
- Watergate (Flood gate)
- Rocks
- Preexisting lane slide
- Ciffs
- Pond
- Rivers and streams
- Intermittent streams
- Forest, Trees
- Traverse Point, Principle Point
- Spot Height
- Contours V.L.M. Index 10m.
- Form Lines

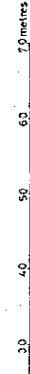
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UTM ZONE 37

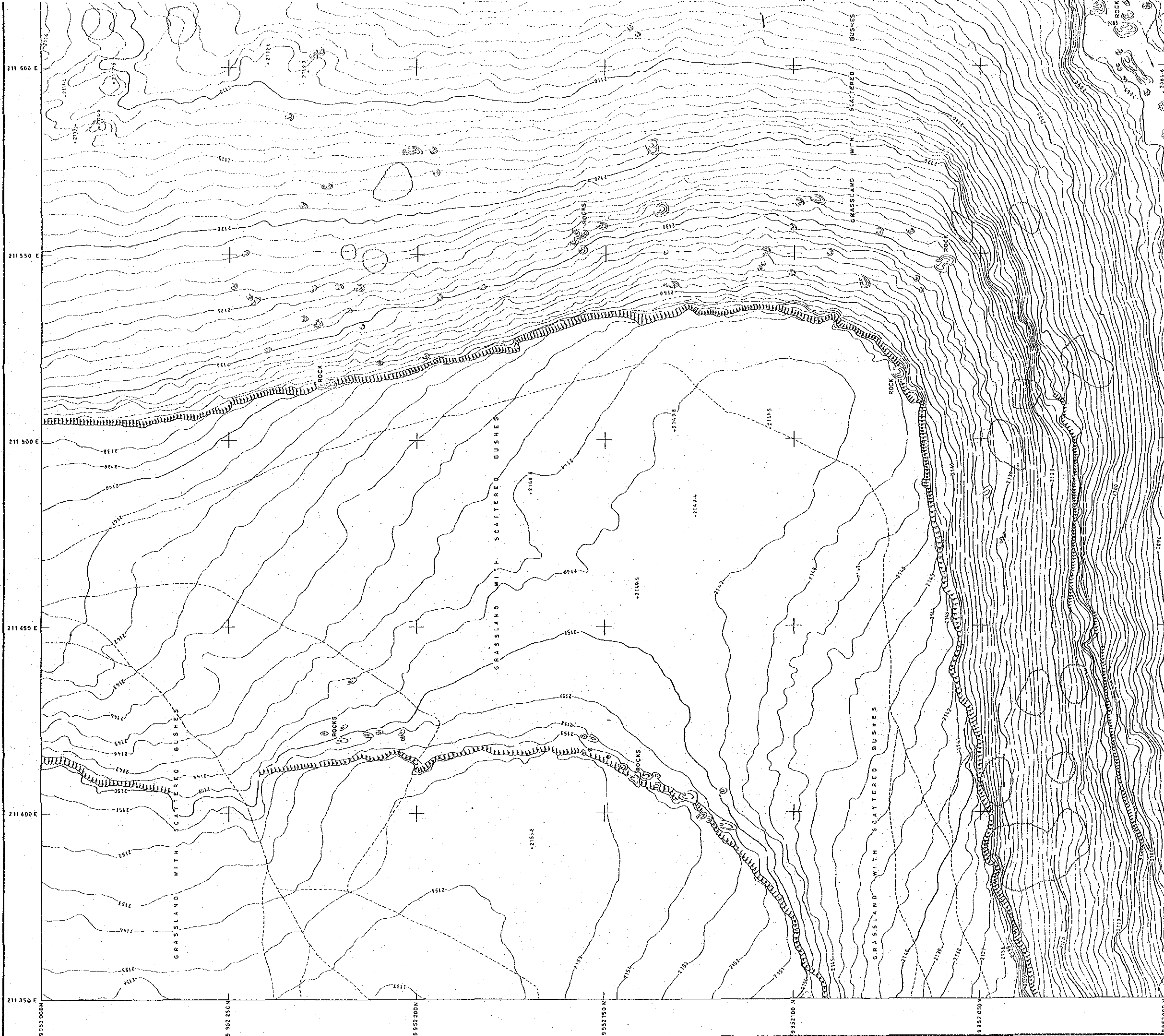
MAP HISTORY

AERIAL PHOTOGRAPHY (JANUARY 1989), GROUND
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JAPAN INTERNATIONAL COOPERATION AGENCY.

Scale 1:500



JAPAN INTERNATIONAL COOPERATION AGENCY



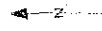
THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
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GREATER NAKURU WATER SUPPLY PROJECT

Scale 1 : 500

MALEWA DAM SITE

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LEGEND

- Tarmac Road
- Murum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Revetment
- Sluice
- Waregate (Flood gate)
- Rocks
- Precipice land slide
- Cliffs
- Pond
- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principal Point
- Spot height
- Contours V.L. Im. Index 10m.
- Fern Lines

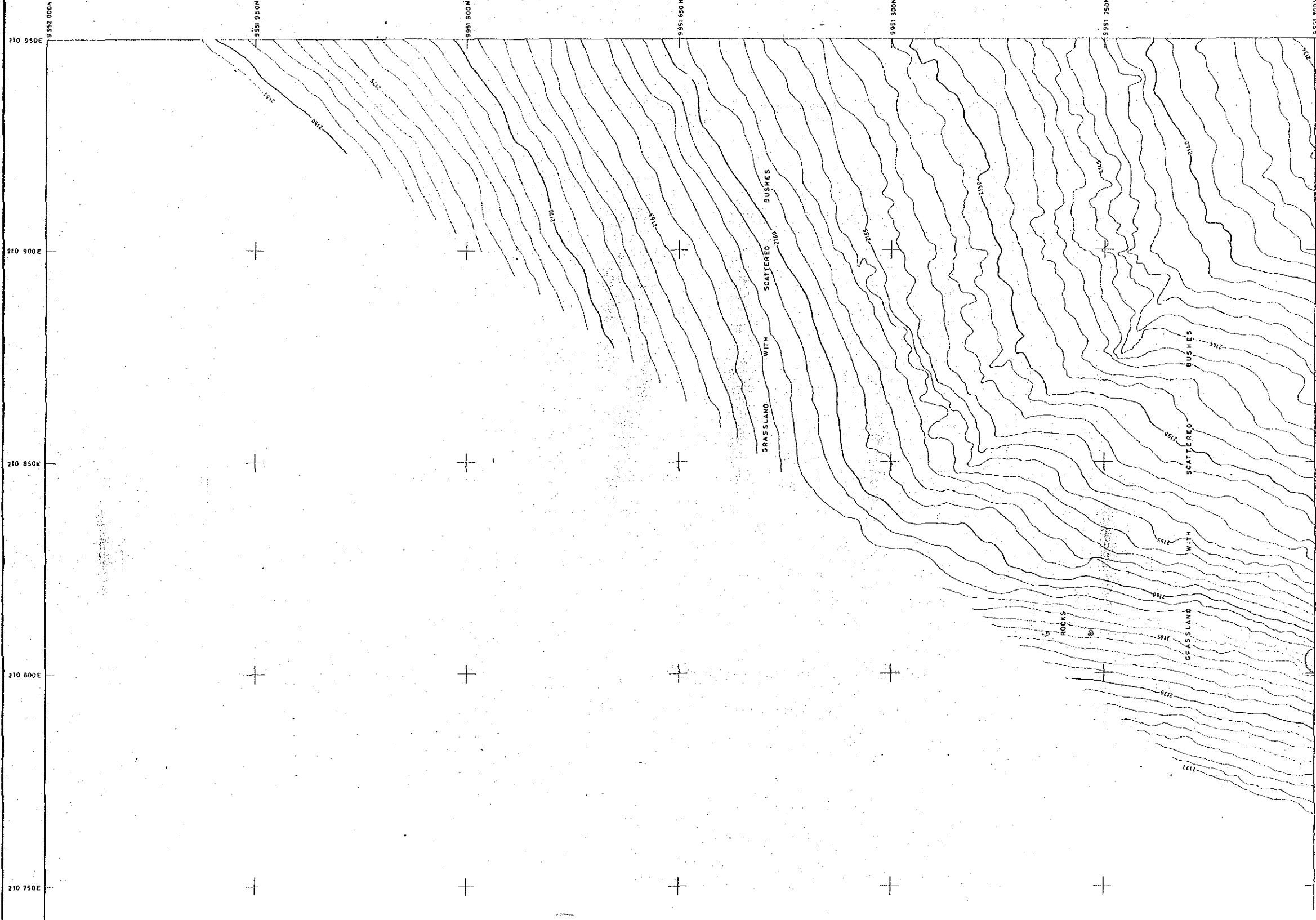
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UTM ZONE 37

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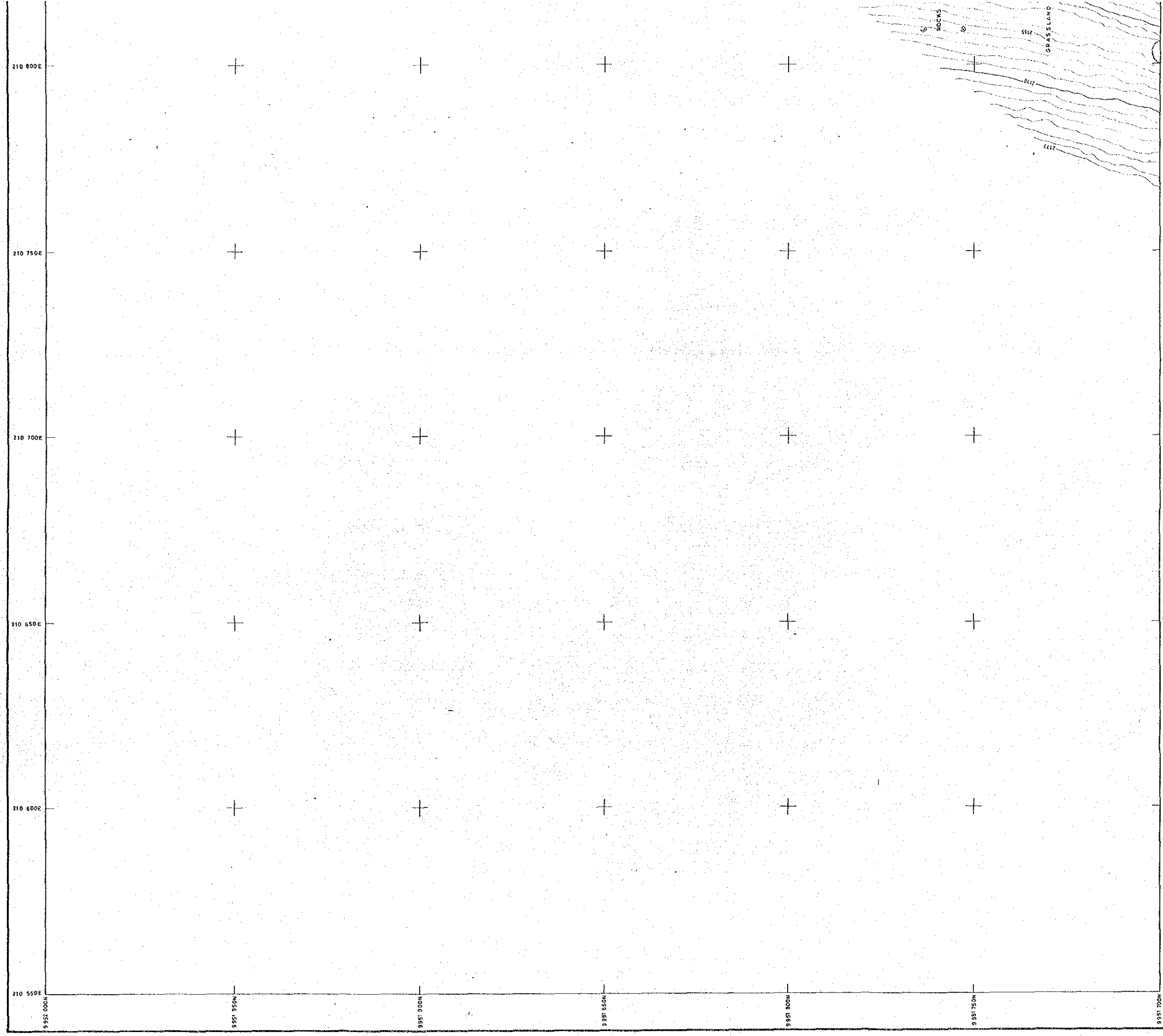
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JAPAN INTERNATIONAL COOPERATION AGENCY.

JAPAN INTERNATIONAL COOPERATION AGENCY

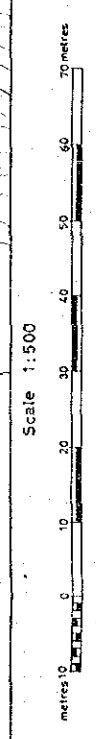
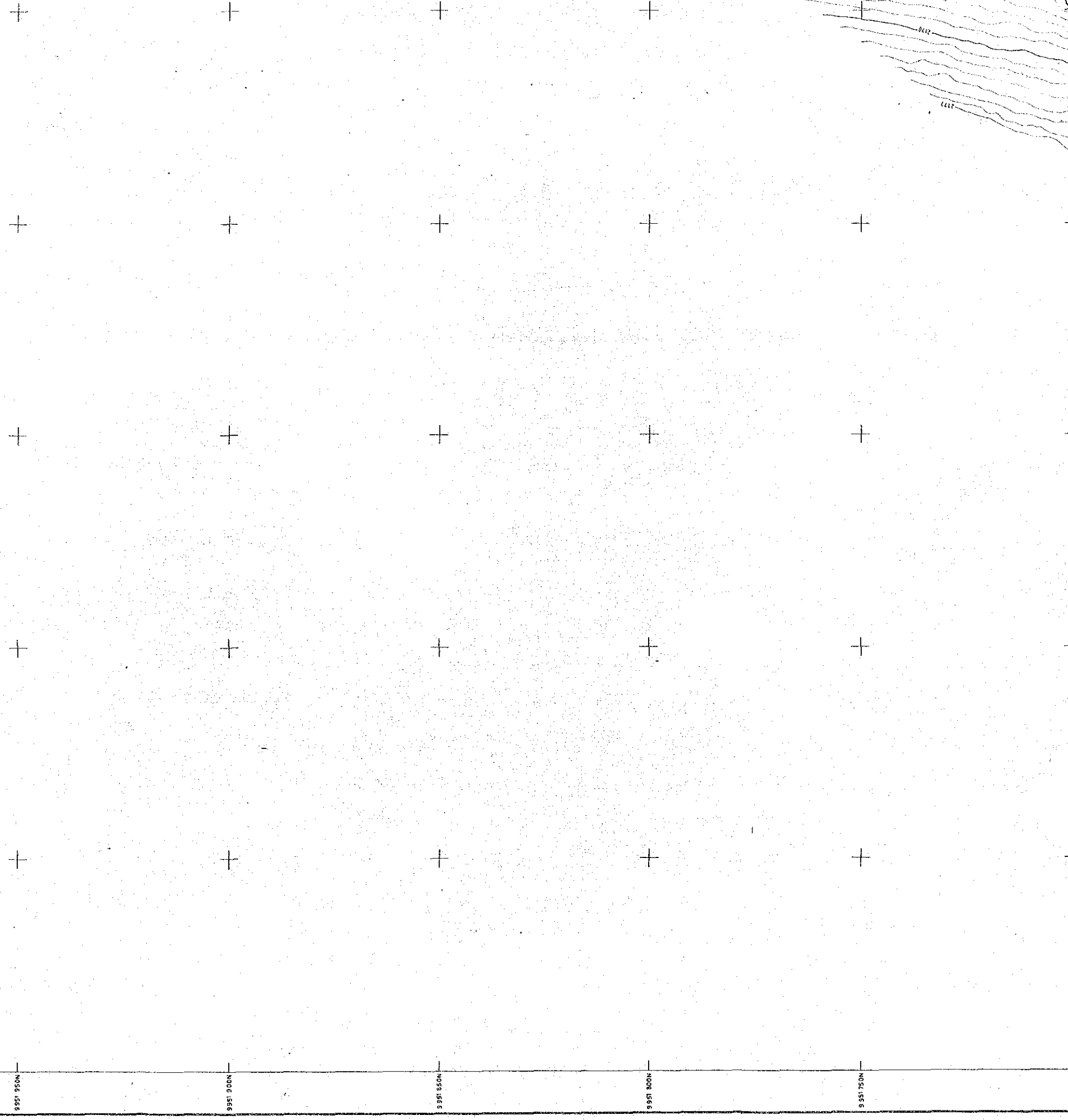


ate 1:500





210 800E
210 750E
210 700E
210 650E
210 600E
210 550E



THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
FOR
GREATER NAKURU WATER SUPPLY PROJECT

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MALEWA DAM SITE

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LEGEND

- Tarmac Road
- Murum Road
- Railway Line
- Motorbike Track
- Footpath
- Houses, Huts
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, pipe culvert
- Revetment
- Sluice
- Watergate (flood gate)
- Reels
- Precipice land slide
- Cliffs
- Pond
- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principle Point
- Spot height
- Contours V.I. 1m, Index 10m
- Form Lines

GRID INFORMATION

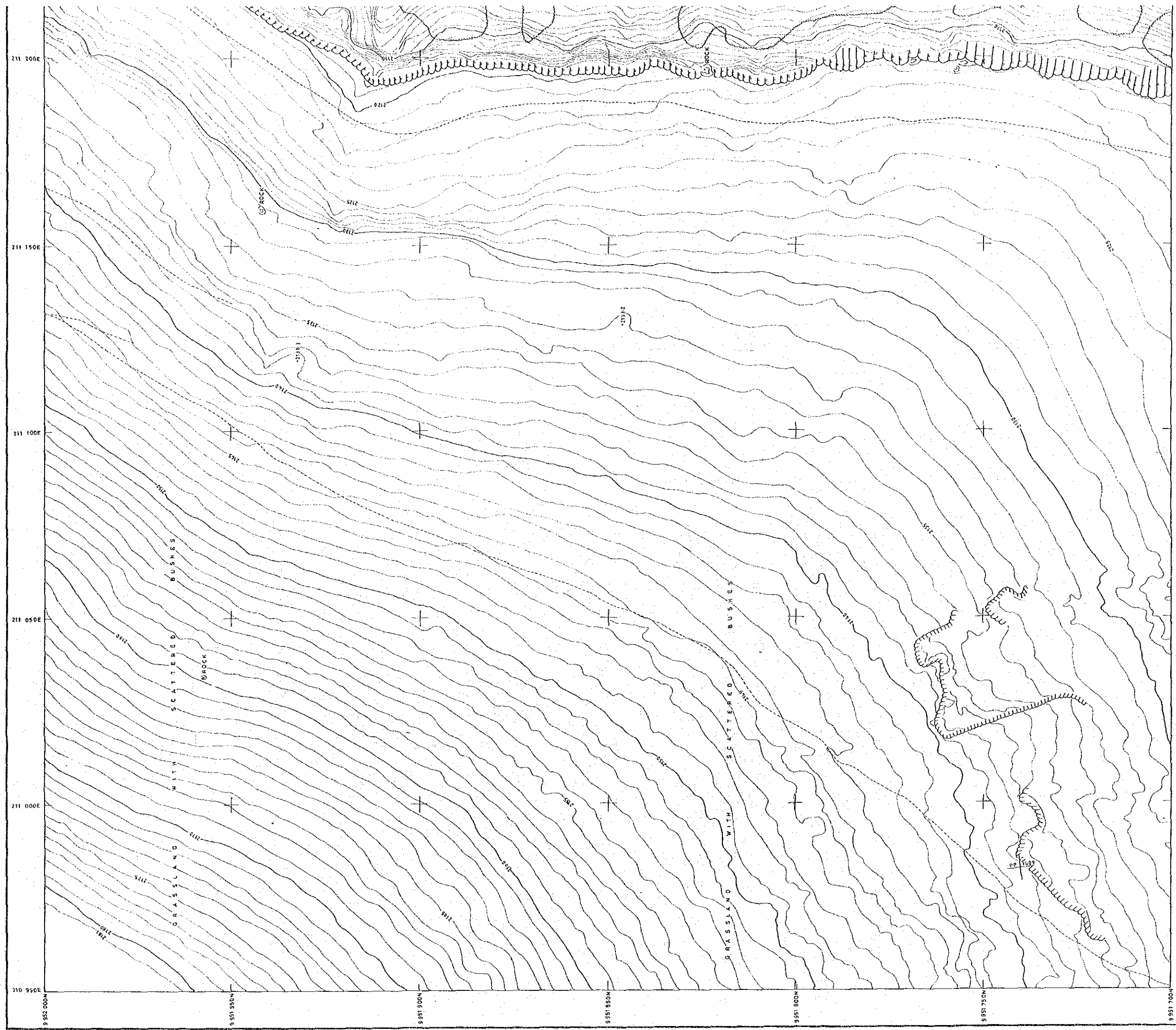
UTM ZONE 37

MAP HISTORY

AERIAL PHOTOGRAPHY (JANUARY 1985), GROUND
CONTROL AND PHOTOGRAMMETRIC COMPILATION
UNDERTAKEN BY PHOTOMAP (K) LTD. FOR
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JAPAN INTERNATIONAL COOPERATION AGENCY





Scale 1:500
metres 0 10 20 30 40 50 60 70metres

THE STUDY ON CONSTRUCTION OF DAM
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LEGEND

- Tarmac Road
- Murrum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Revetment
- Sluice
- Watergate (flood gate)
- Rocks
- Precipice and slide
- Climb
- Pond
- Rivers and streams
- Indefinite streams
- Forest, trees
- Traverse Point, Principal Point
- Spot height
- Contours V.L. Im. index 10m.
- Form Lines

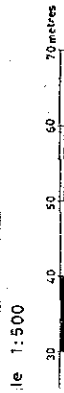
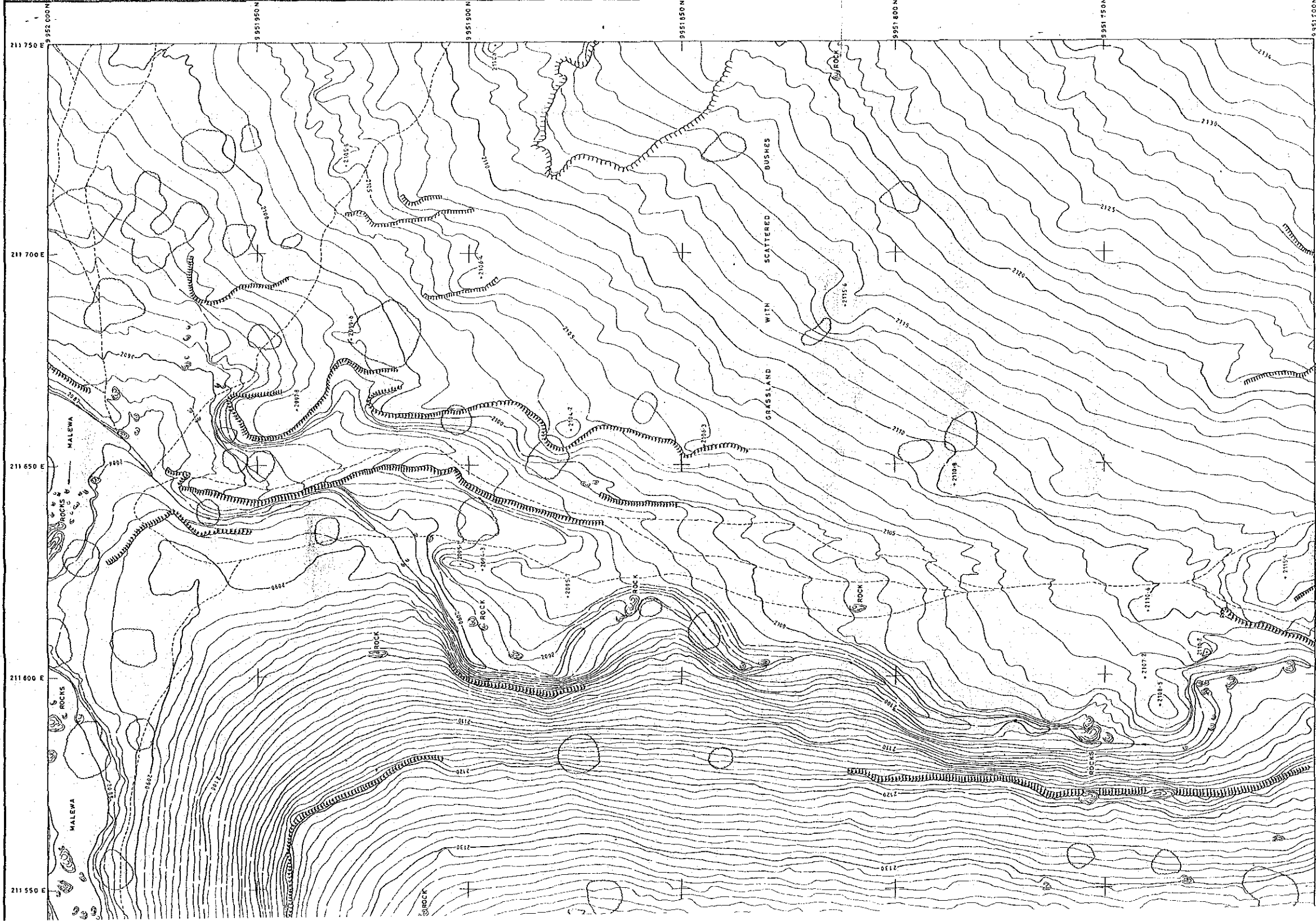
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UTM ZONE 37

MAP HISTORY

AERIAL PHOTOGRAPHY (JANUARY 1993), GROUND
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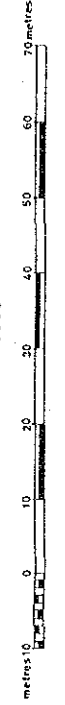




211 600 E
211 550 E
211 500 E
211 450 E
211 400 E
211 350 E

9 951 000 N
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9 951 900 N
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9 951 800 N
9 951 750 N
9 951 700 N

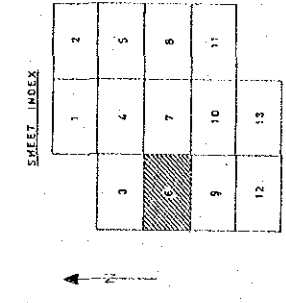
Scale 1:500



THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
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GREATER NAKURU WATER SUPPLY PROJECT

Scale 1:500

MALEWA DAM SITE



LEGEND

- Tarmac Road
- Murum Road
- Railway Line
- Motorable Track
- Footpath
- Wohans, Hut's
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Retainment
- Sluice
- Watergate flood gate
- Rocks
- Precipice and slide
- Cliffs
- Pond
- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principal point
- Spot height
- Contours V.L. 1m. Index 10m.
- Form Lines

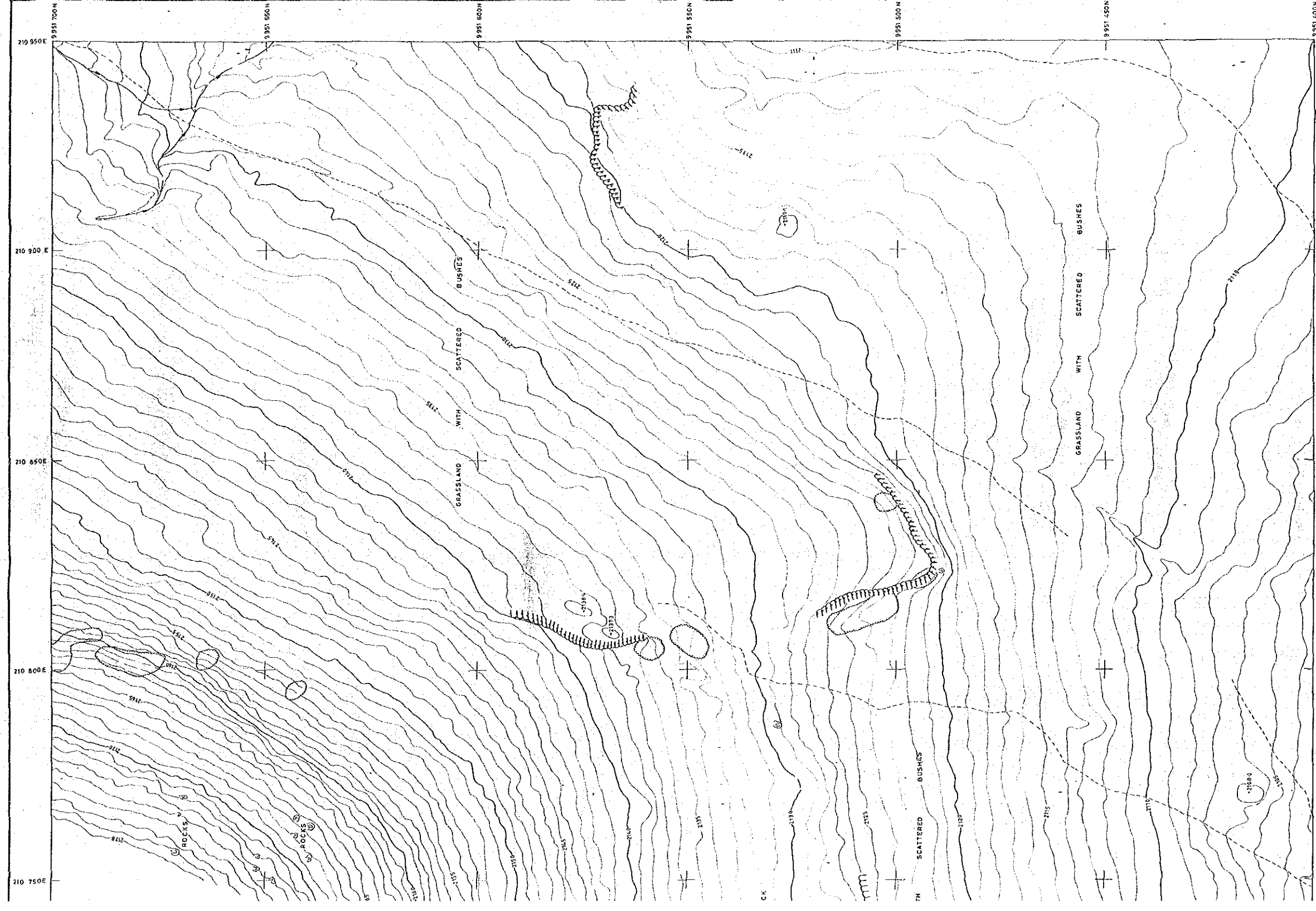
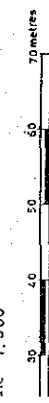
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UTM ZONE 37

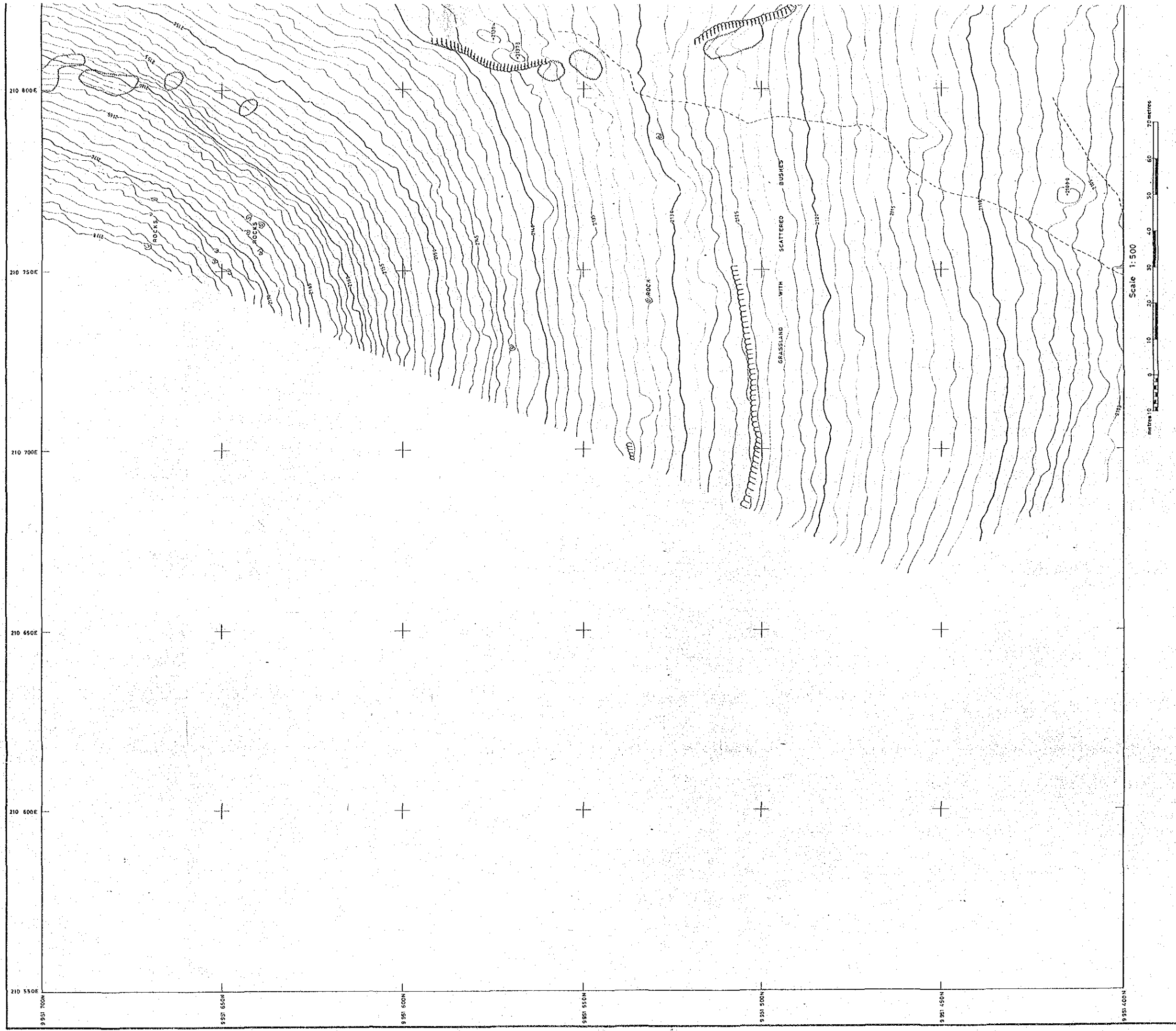
MAP HISTORY

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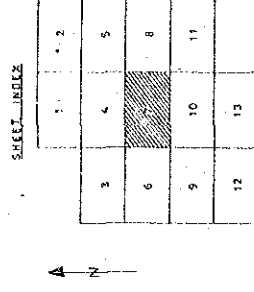
JAPAN INTERNATIONAL COOPERATION AGENCY



THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
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GREATER NAKURU WATER SUPPLY PROJECT

Scale 1:500

MALEWA DAM SITE



LEGEND

- Tarmac Road
- Murrum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fences, Hedges
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Reverment
- Sluice
- Watergate (Flood gate)
- Recks
- Precipice land slide
- Cliffs
- Pond
- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principal Point
- Spot height
- Contours V.I. 1m, Index 10m.
- Form Lines

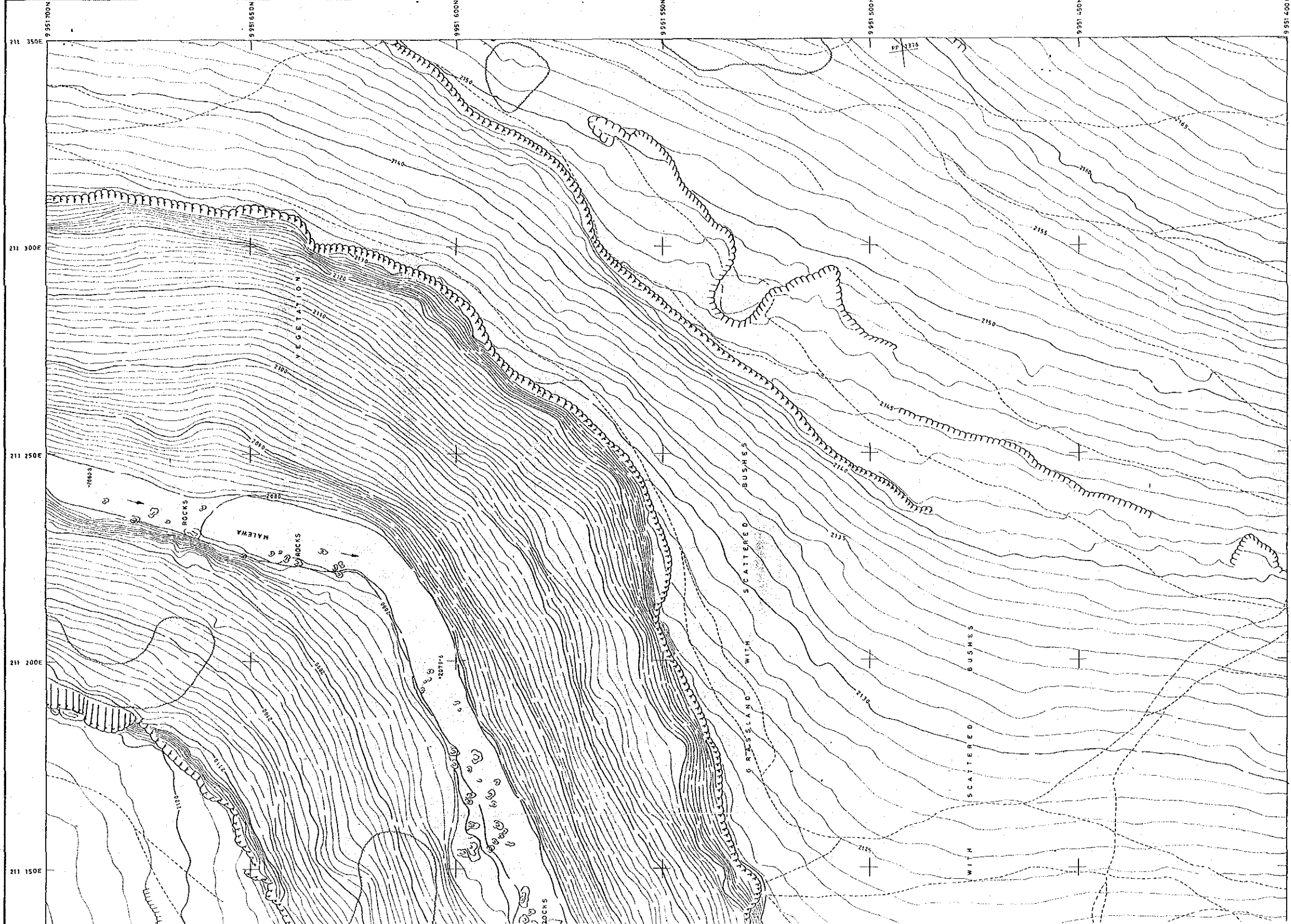
GRID INFORMATION

UTM ZONE 37

MAP HISTORY

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Scale 1:500



9951700N

211 350E

211 300E

211 250E

211 200E

211 150E

9951650N

9951600N

9951550N

9951500N

9951450N

9951400N



Scale 1:500
metres 0 10 20 30 40 50 60 70

THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
FOR
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MALEWA DAM SITE

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LEGEND

- Tarmac Road
- Murrum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Revetment
- Sluice
- Watergate (Flood gate)
- Roofs
- Precipice land slide
- Cliffs
- Pond
- Rivers and streams
- Indefinite streams
- Fores, Trees
- Traverse Point, Principle Point
- Spot Height
- Contours V.L.M. Index 10m
- Form Lines

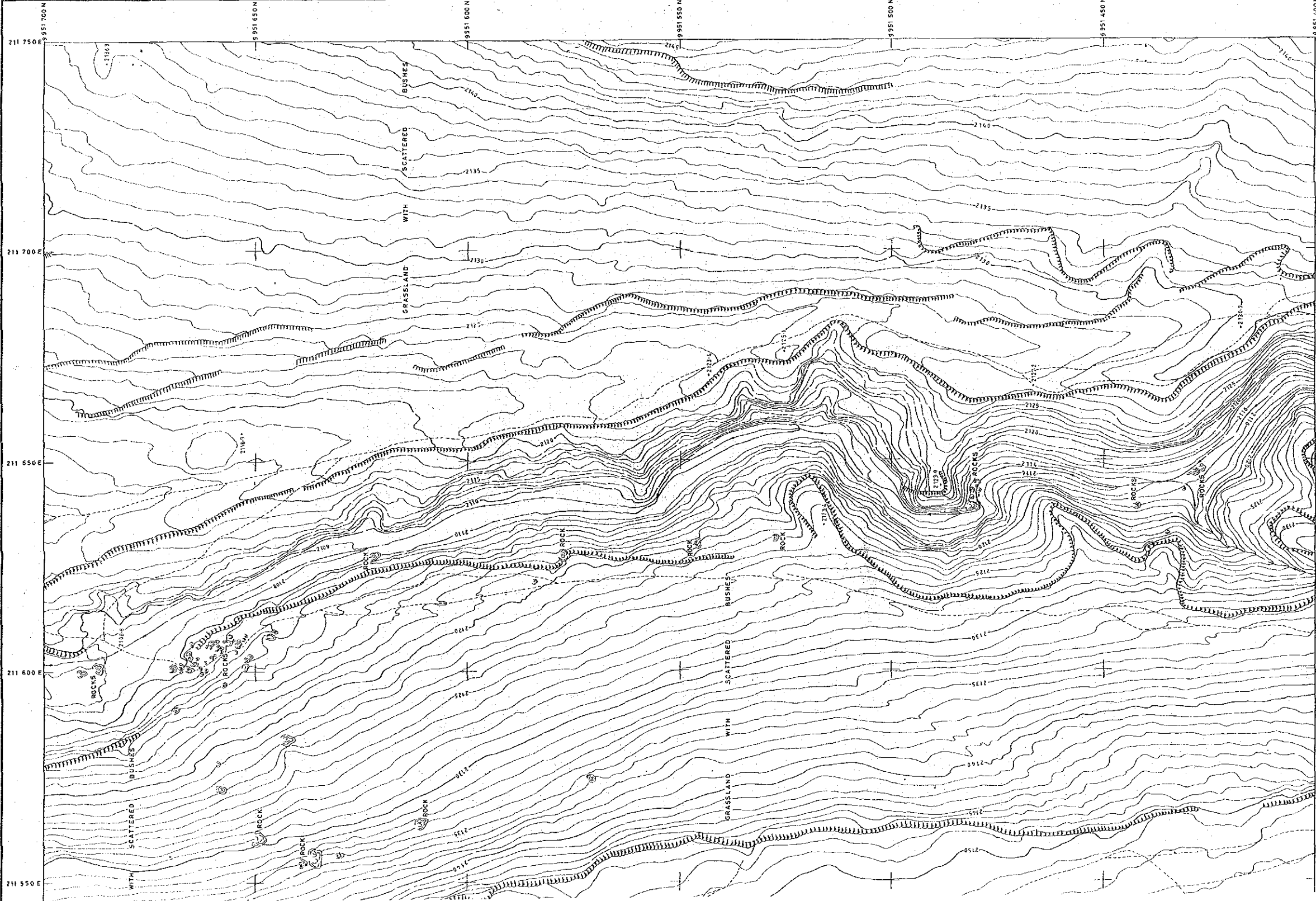
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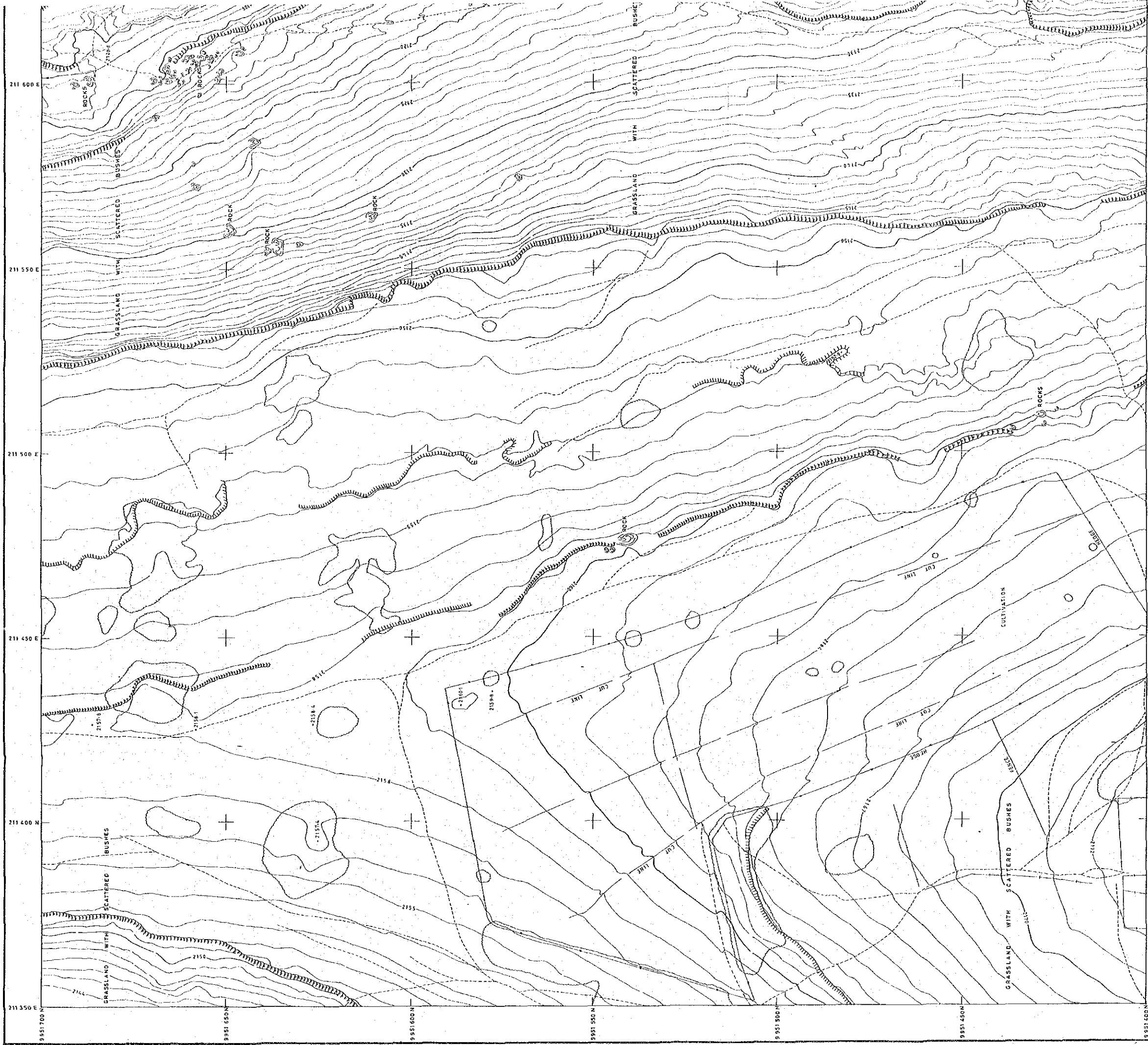
MAP HISTORY

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CONTROL AND PHOTOGRAMMETRIC COMPILATION
UNDERTAKEN BY PHOTOMAP (K) LTD. FOR
JAPAN INTERNATIONAL COOPERATION AGENCY.

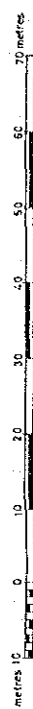
Scale 1:500



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THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
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LEGEND

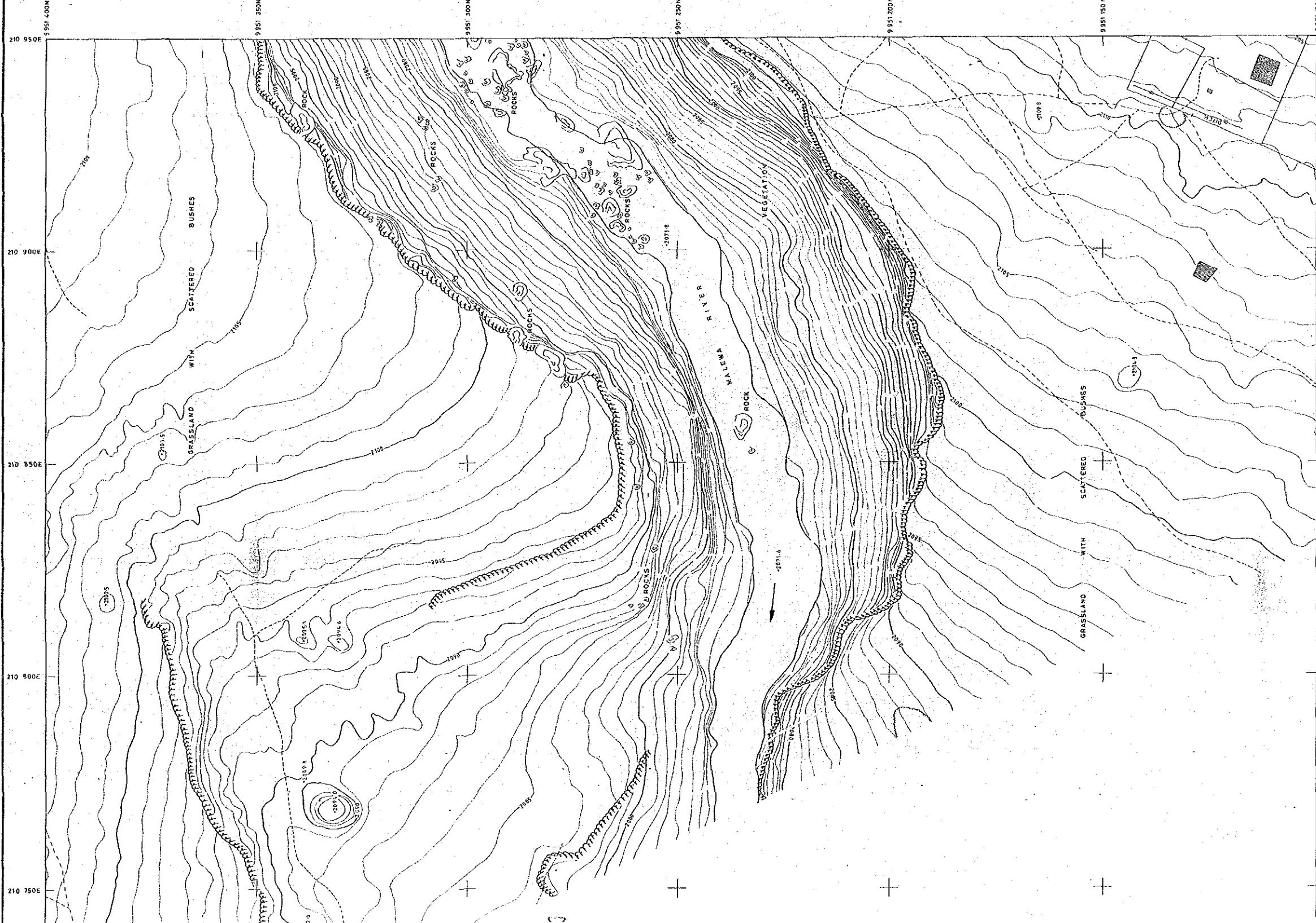
- Tarmac Road
- Murum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Revetment
- Sluice
- Warrigate (flood gate)
- Recks
- Praciple land slide
- Cliffs
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- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principal Point
- Spot height
- Contours V.I. m. index 10m.
- Form Lines

GRID INFORMATION

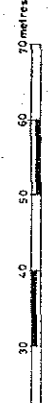
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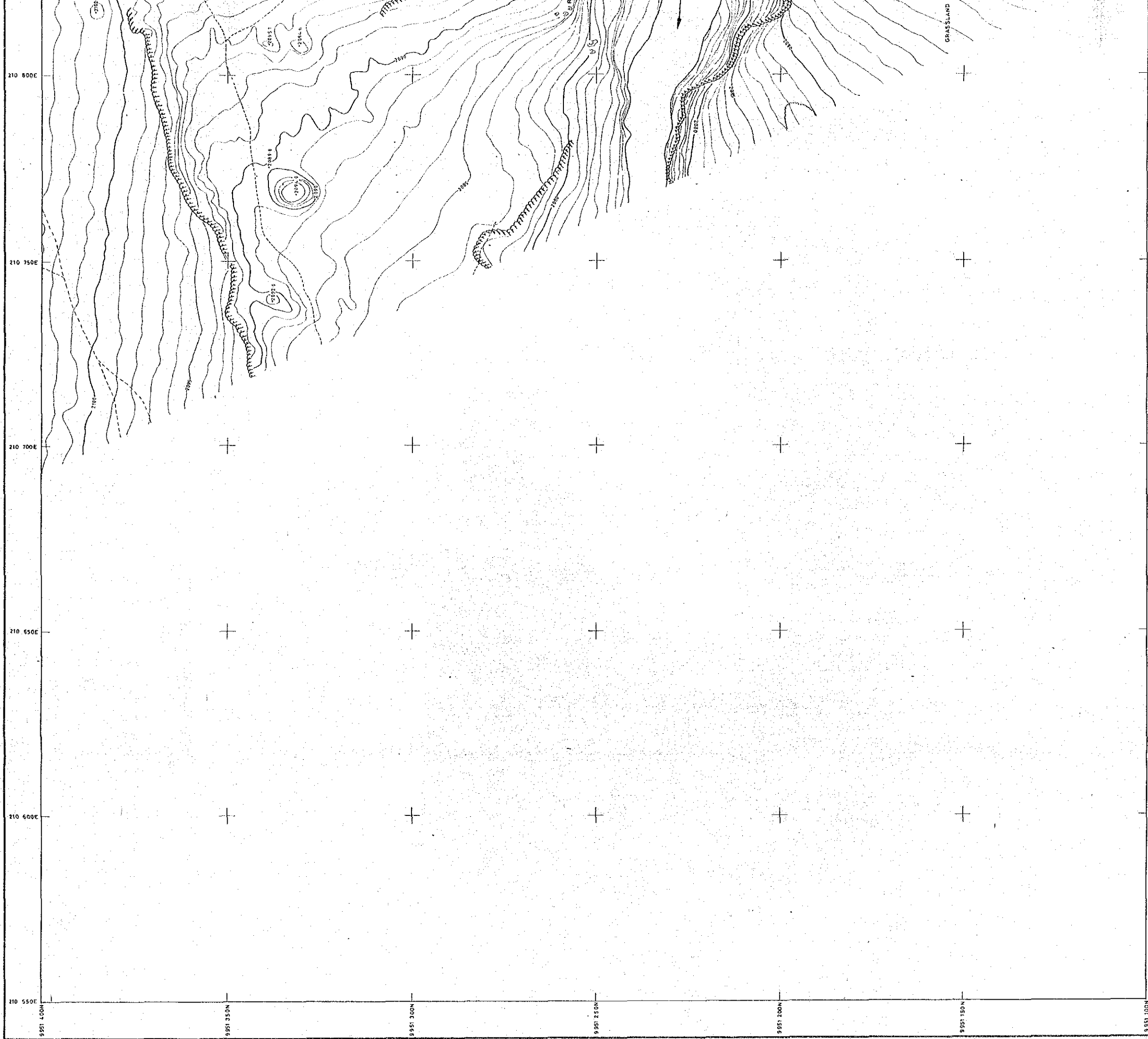
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Scale 1:500



JAPAN INTERNATIONAL COOPERATION AGENCY



Scale 1:500

metres 0 10 20 30 40 50 60 70 metres

THE STUDY ON CONSTRUCTION OF DAM
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LEGEND

- Tarmac Road
- Murum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Retainment
- Sluice
- Watergate (Flood gate)
- Rocks
- Precipice land slide
- Cliffs
- Pond
- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principle Point
- Spot height
- Contours 2.5m. Incer 10m.
- Form Lines

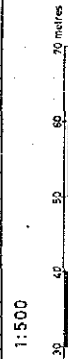
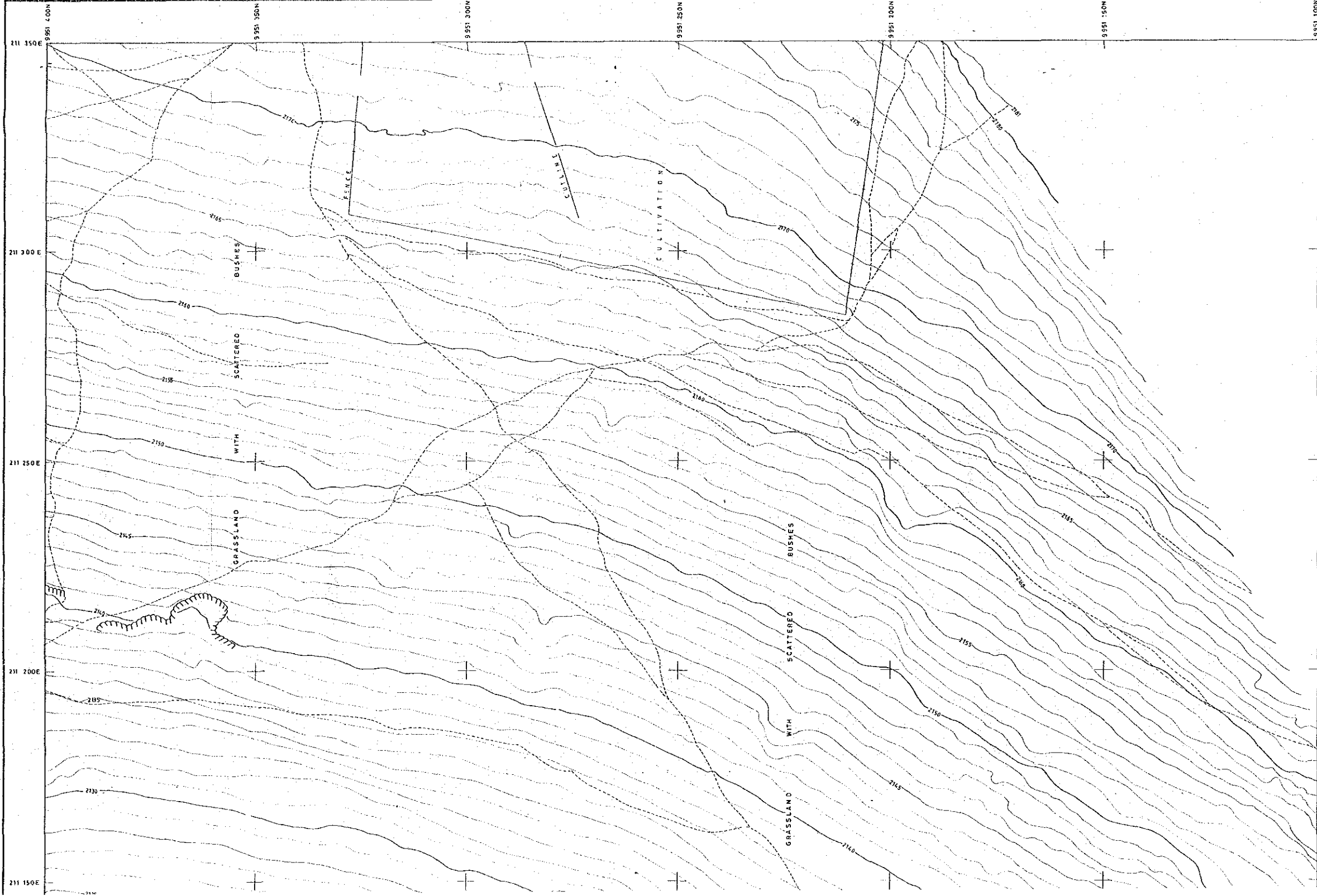
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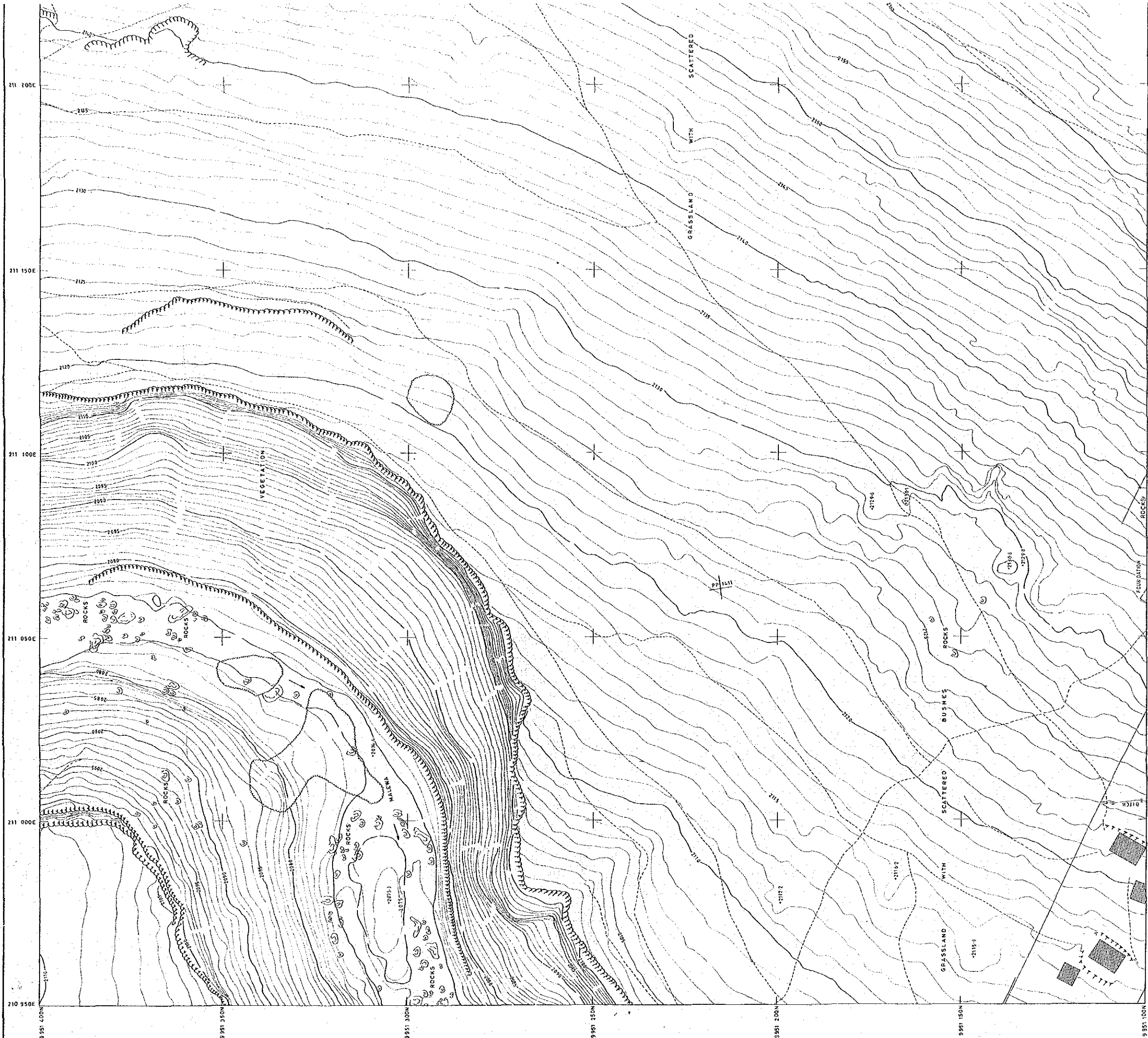
UTM ZONE 32

MAP HISTORY

AERIAL PHOTOGRAPHY (JANUARY 1989), GROUND
CONTROL AND PHOTOGRAMMETRIC COMPILATION
UNDERTAKEN BY PHOTOMAP (K) LTD. FOR
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Scale 1:500
metres 0 10 20 30 40 50 60

THE STUDY ON CONSTRUCTION OF DAM
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11	12
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LEGEND

- Tarmac Road
- Murum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Revetment
- Sluice
- Watergate (flood gate)
- Resika
- Practise land slide
- Cliffs
- Pond
- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principal Point
- Spot height
- Contours V.I. 1m, Index 10m
- Form Lines

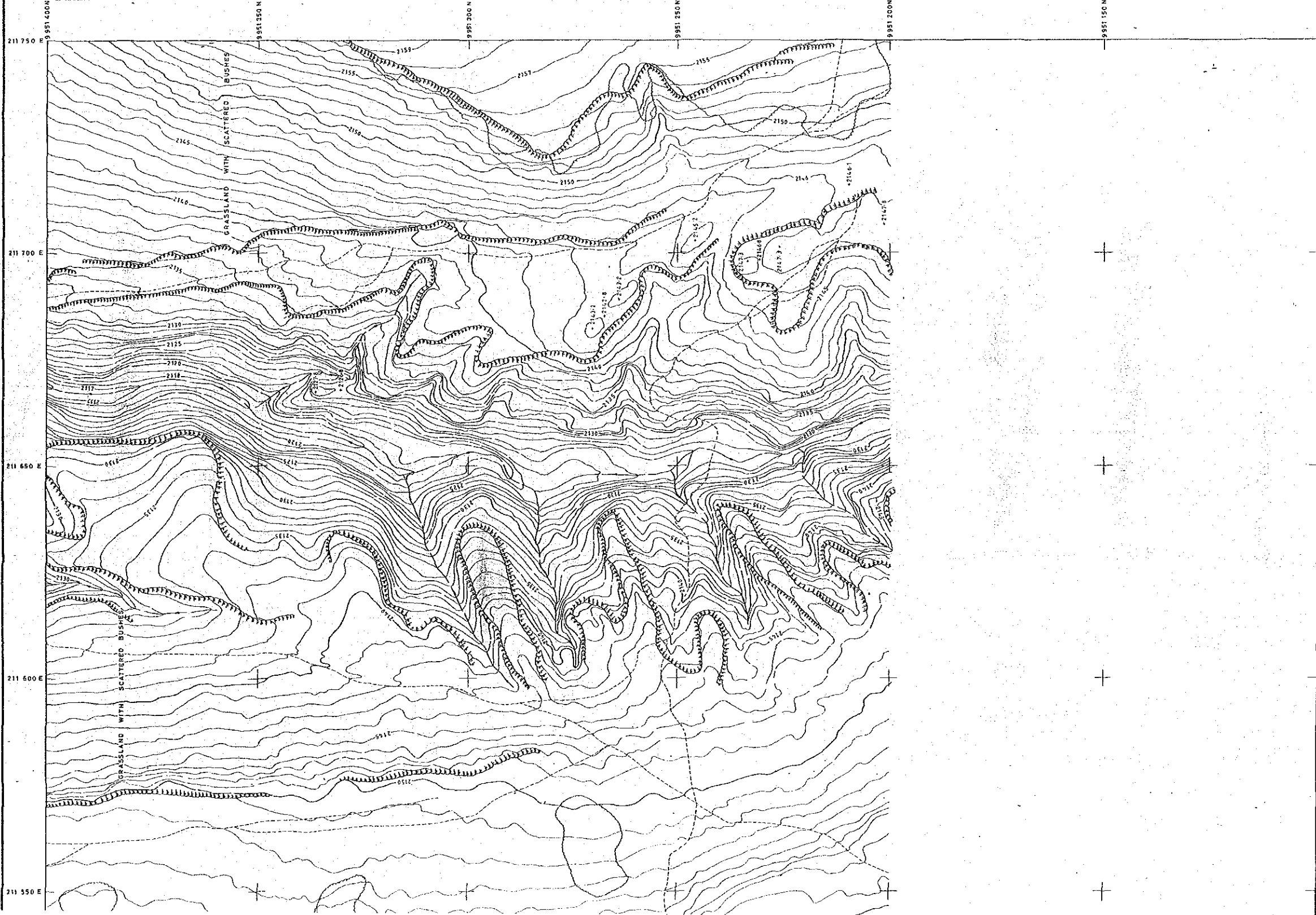
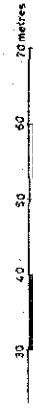
GRID INFORMATION

UTM ZONE 32

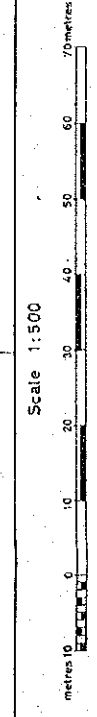
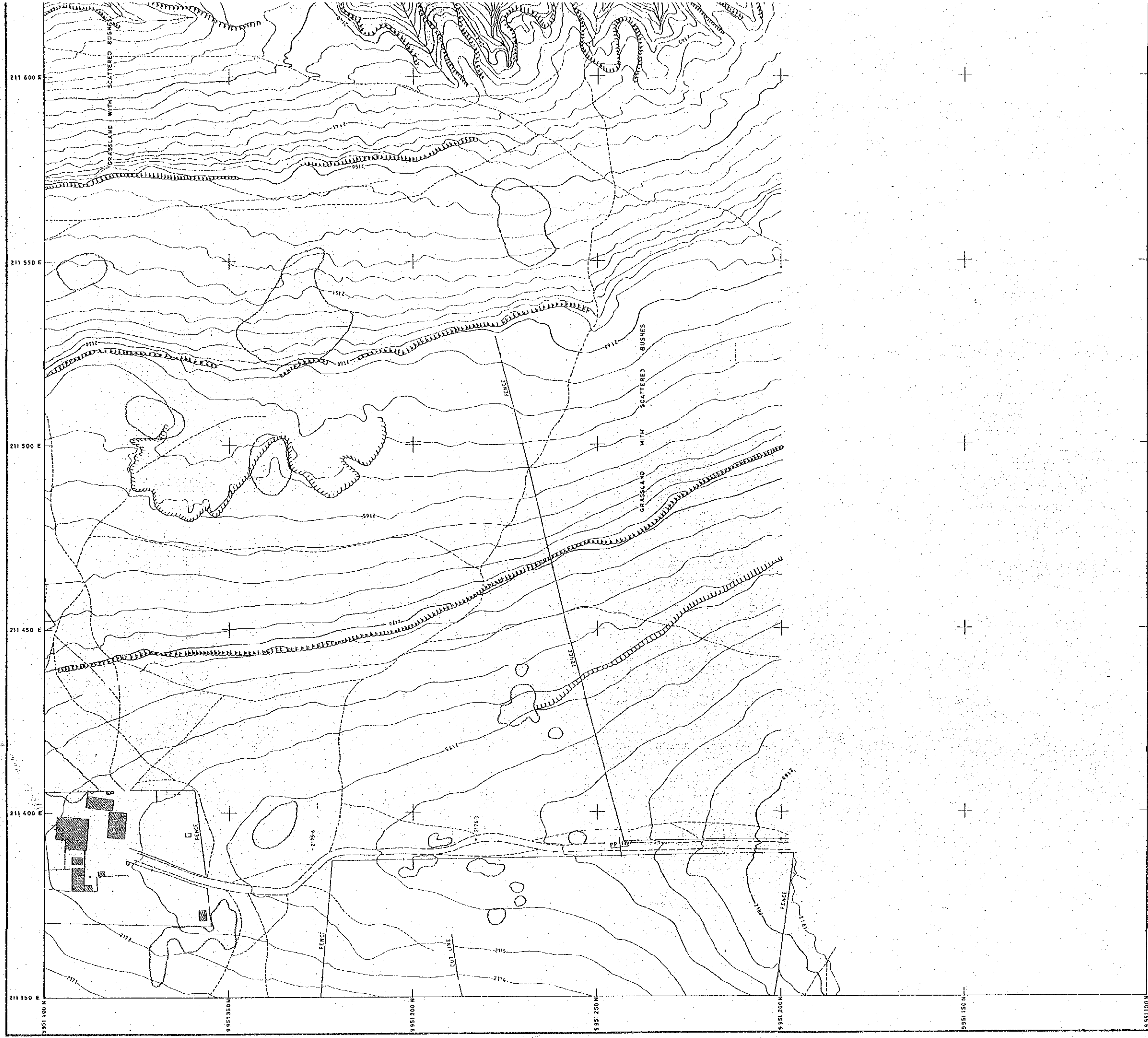
MAP HISTORY

AERIAL PHOTOGRAPHY (JANUARY 1989), GROUND
CONTROL AND PHOTOGRAMMETRIC COMPILATION
UNDERTAKEN BY PHOTOMAP (KI) LTD. FOR
JAPAN INTERNATIONAL COOPERATION AGENCY.

Scale 1:500



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9951 150 N

9951 200 N

9951 250 N

9951 300 N

9951 350 N

9951 400 N

211 350 E

211 400 E

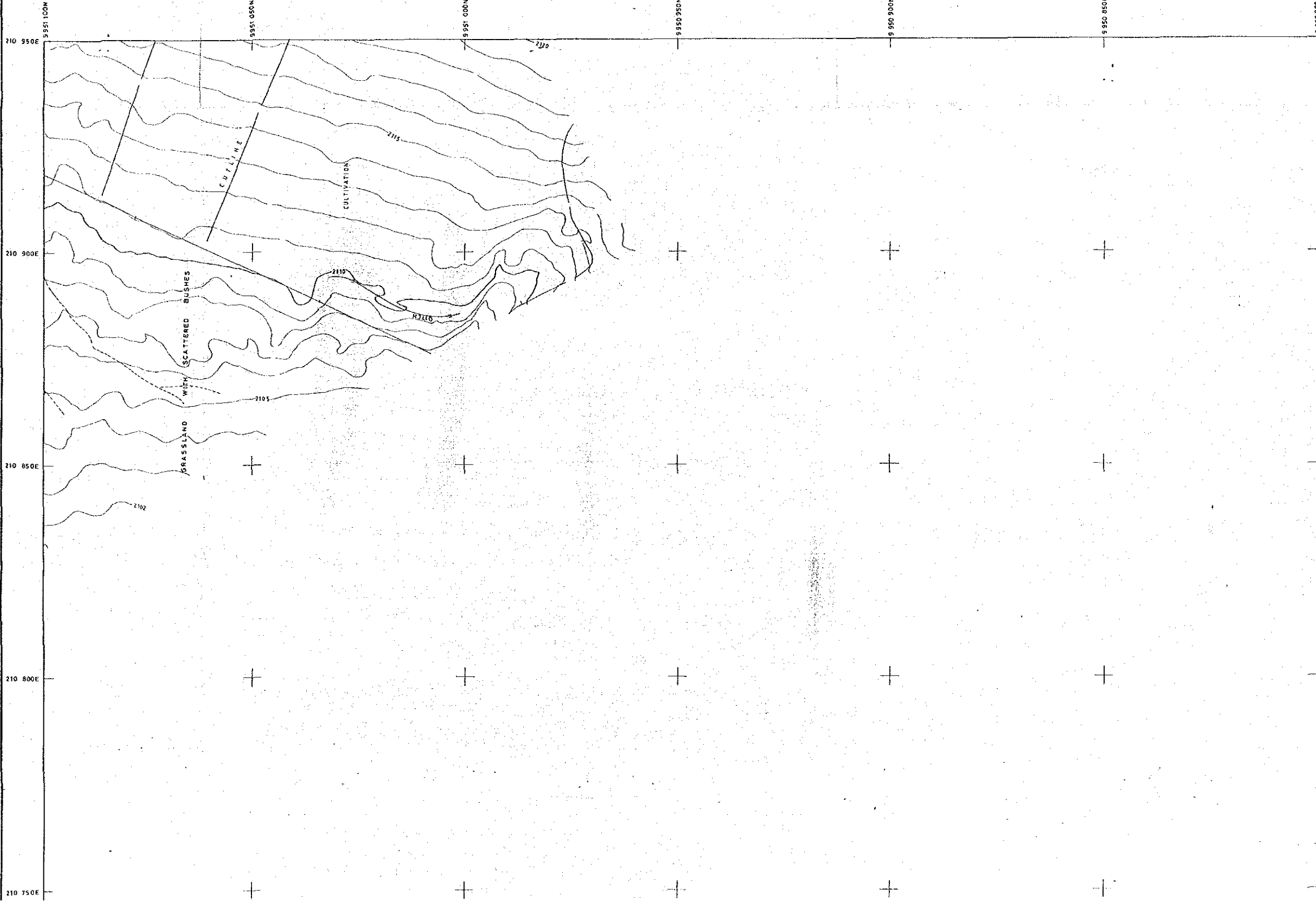
211 450 E

211 500 E

211 550 E

211 600 E

THE STUDY ON CONSTRUCTION OF DAM
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MALEWA DAM SITE

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LEGEND

- Tarmac Road
- Murum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Huts
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Retirement
- Sluice
- Watergate (blood gate)
- Recks
- Precipice land slide
- Ciffs
- Pond
- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principal Point
- Spot height
- Contours V.I.M., Index 10m.
- Fern Lines

GRID INFORMATION

UTM ZONE 37

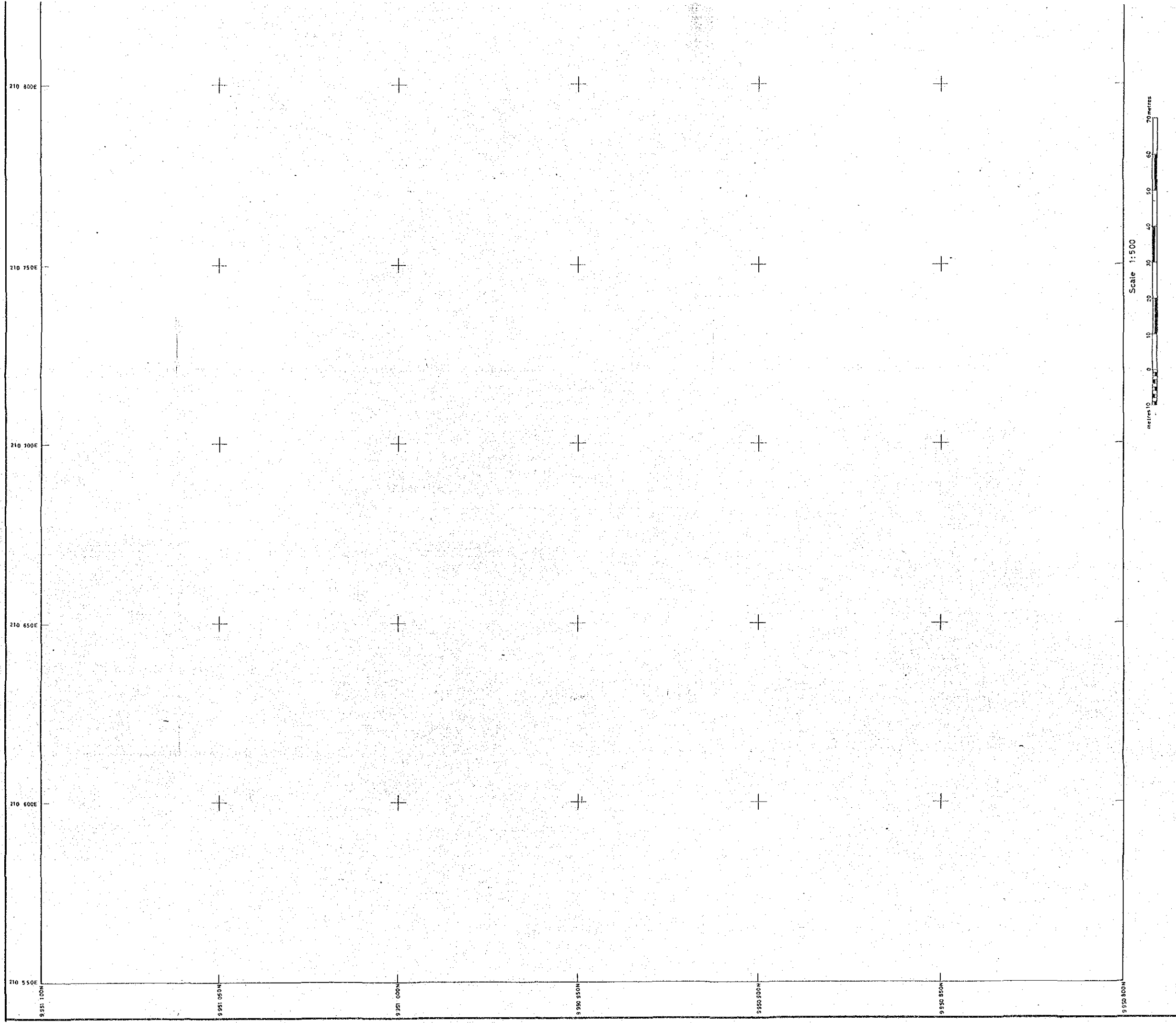
MAP HISTORY

AERIAL PHOTOGRAPHY (JANUARY 1989), GROUND CONTROL AND PHOTOGRAMMETRIC COMPILATION UNDERTAKEN BY PHOTOMAP (K) LTD. FOR JAPAN INTERNATIONAL COOPERATION AGENCY.

1:500



JAPAN INTERNATIONAL COOPERATION AGENCY



THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
FOR
GREATER NAKURU WATER SUPPLY PROJECT

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LEGEND

- Tarmac Road
- Murum Road
- Railway Line
- Motorable Track
- Footpath
- Houses, Hut's
- Fence, Hedge
- Cultivation
- Quarry
- Cutting, Embankment
- Bridge
- Box culvert, Pipe culvert
- Revetment
- Sluice
- Watergate (flood gate)
- Reeks
- Precipice land slide
- Cliffs
- Pond
- Rivers and streams
- Indefinite streams
- Forest, Trees
- Traverse Point, Principal Point
- Spot height
- Contours V.I. Im. Index 10m
- Form Lines

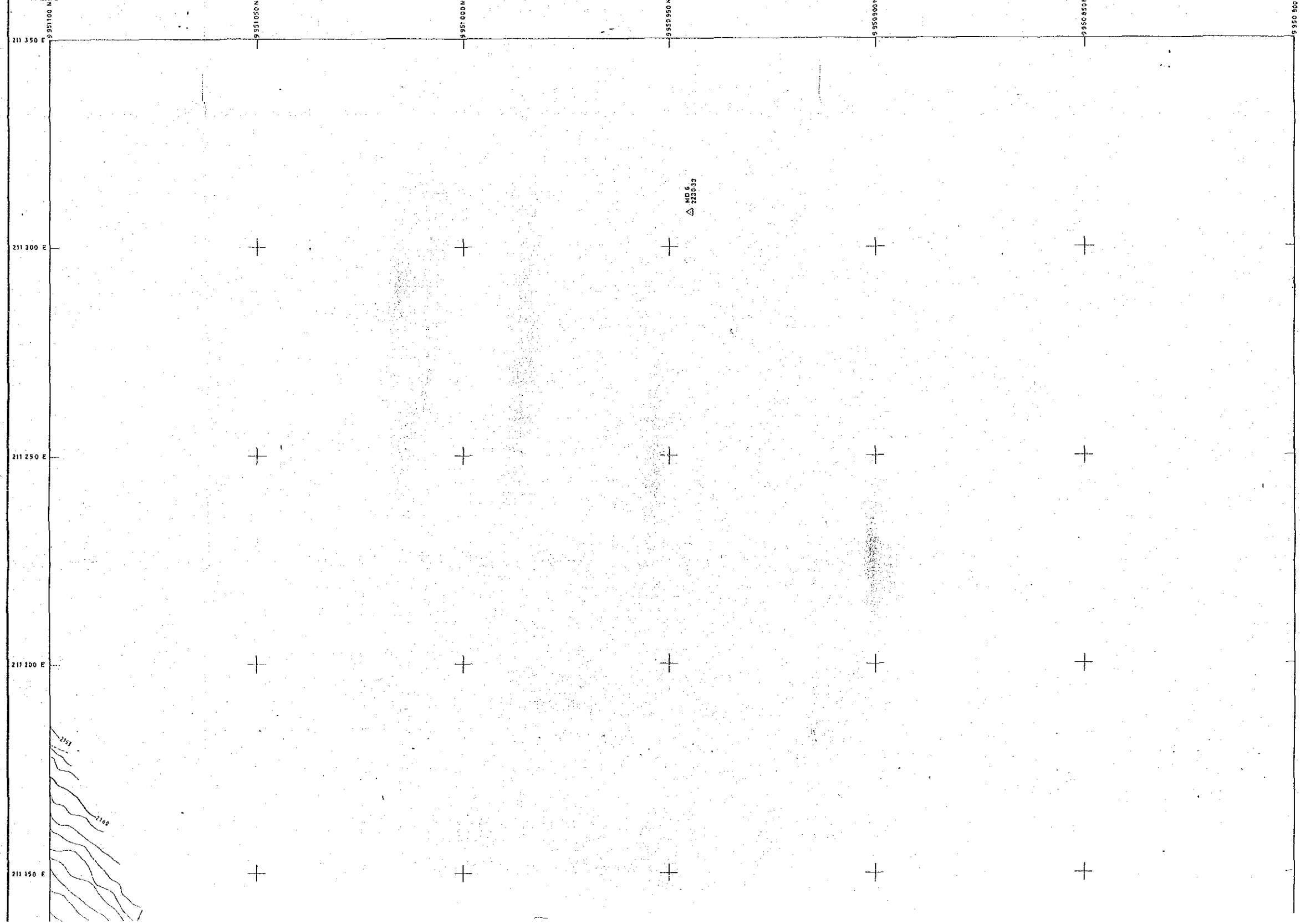
GRID INFORMATION

UTM ZONE 37

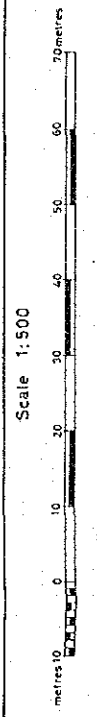
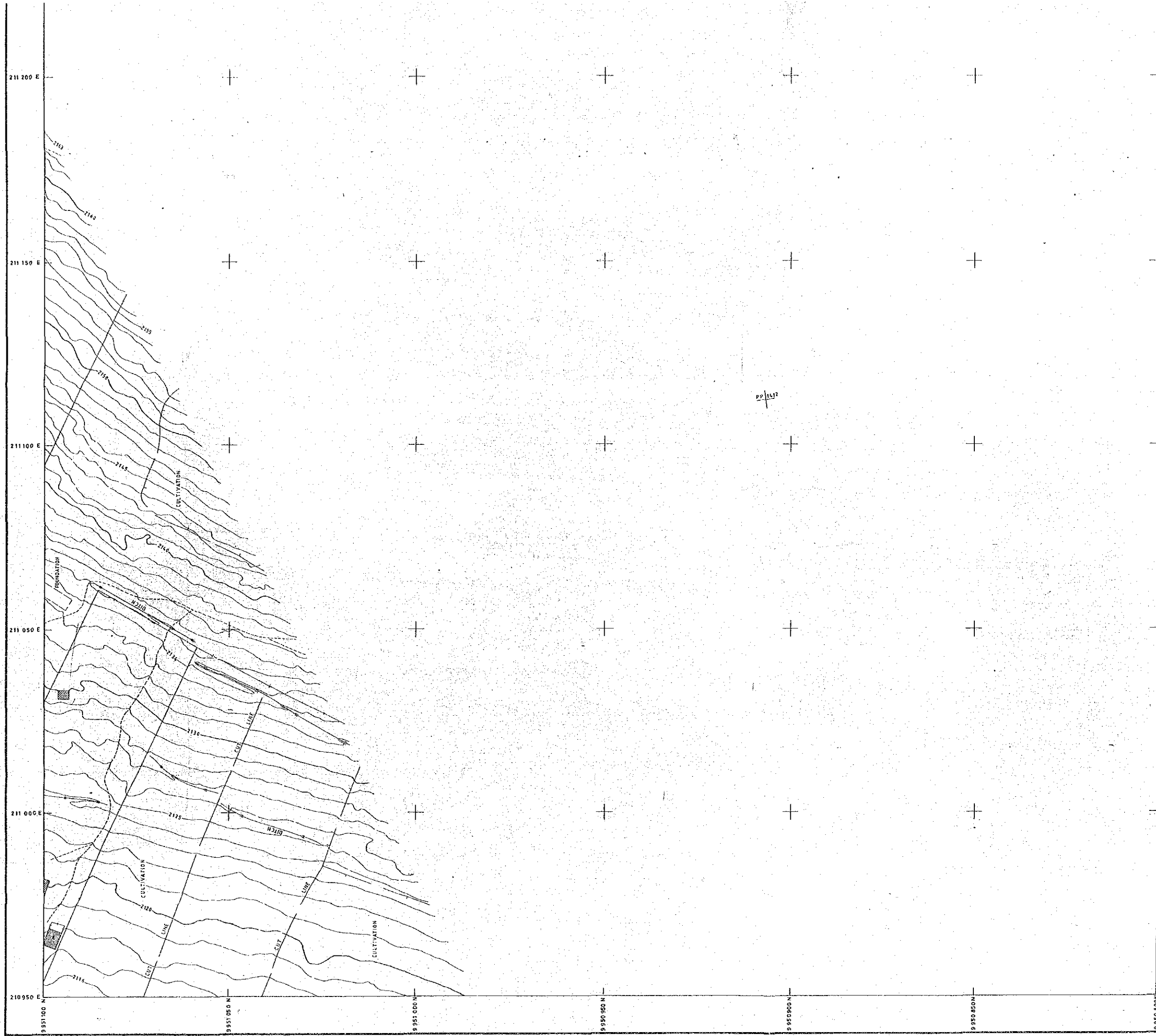
MAP HISTORY

AERIAL PHOTOGRAPHY (JANUARY 1989), GROUND
CONTROL AND PHOTOGRAMMETRIC COMPILATION
UNDERTAKEN BY PHOTOHAP (K) LTD. FOR
JAPAN INTERNATIONAL COOPERATION AGENCY.

JAPAN INTERNATIONAL COOPERATION AGENCY



Scale 1:500



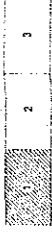
THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
FOR
GREATER NAKURU WATER SUPPLY PROJECT

RIVER CROSS SECTION SURVEY

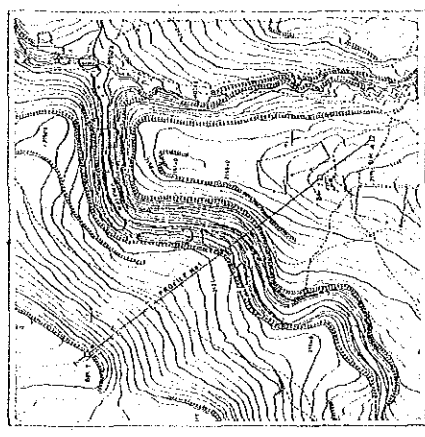
Scale H = 1 : 500
V = 1 : 500

MALEWA RIVER

SHEET INDEX



INDEX MAP
Scale 1 : 10,000

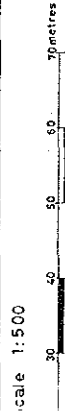
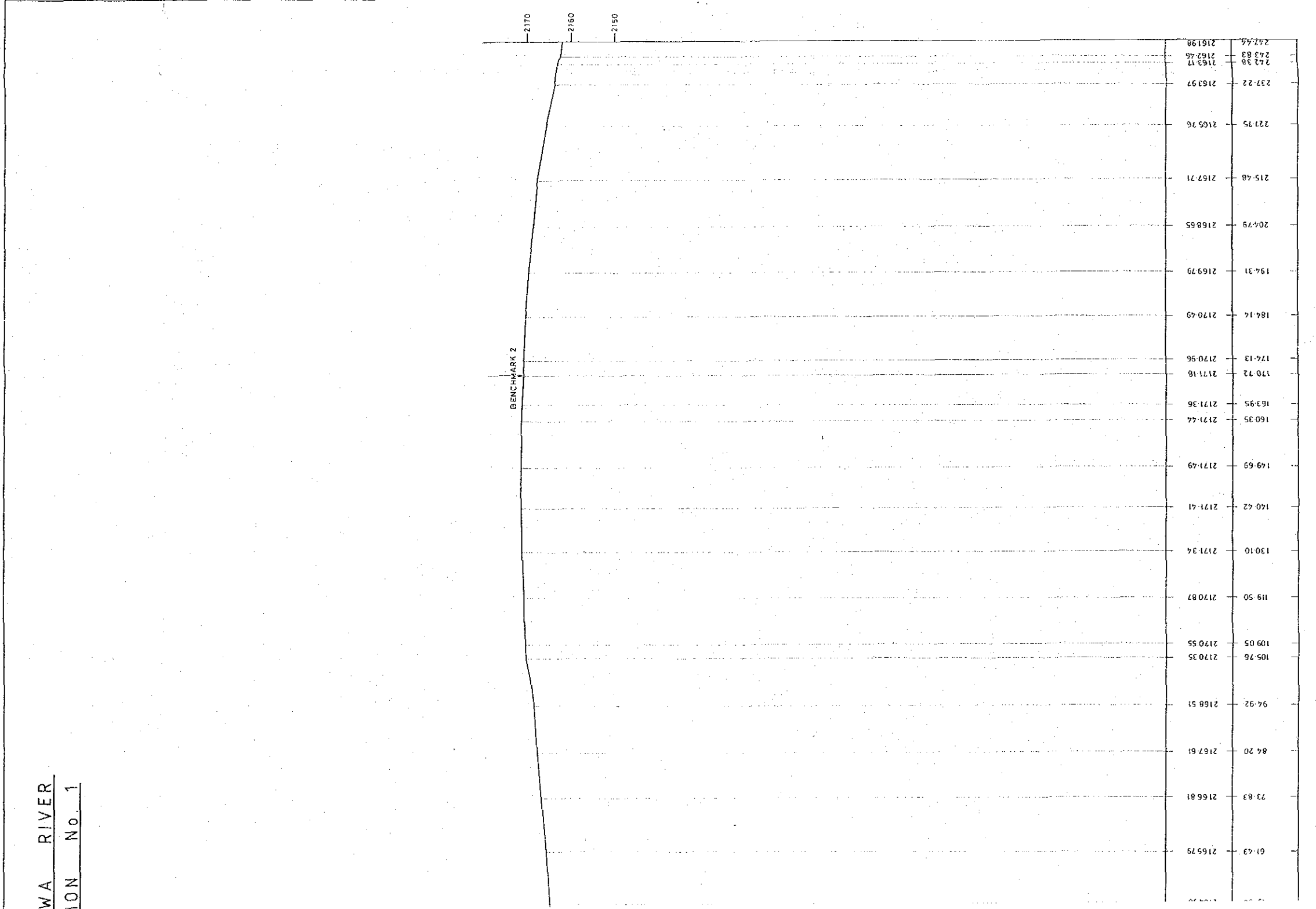


MAP HISTORY

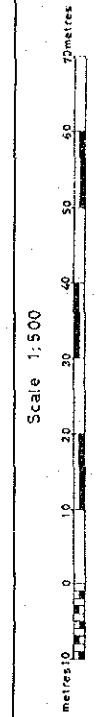
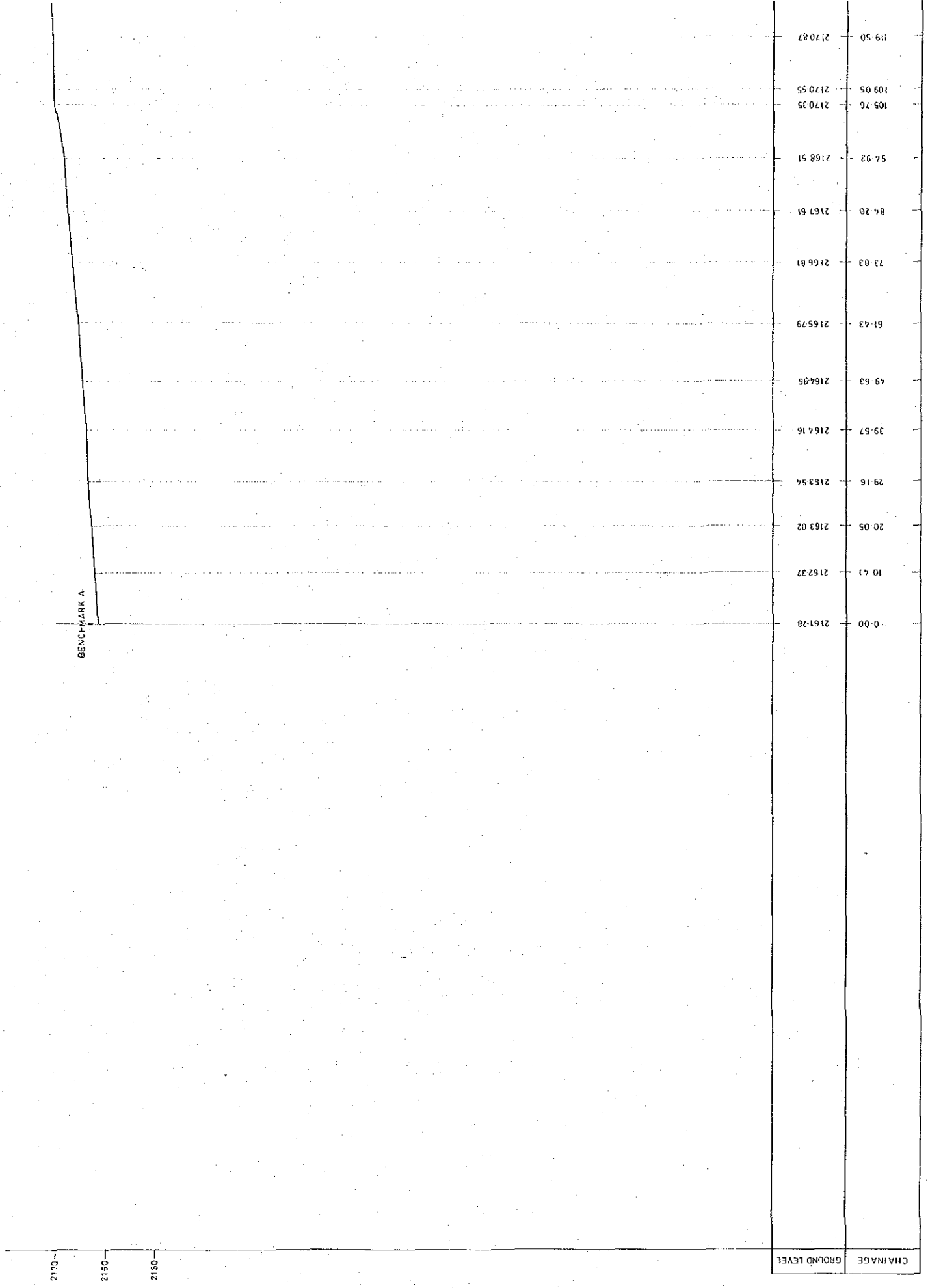
RIVER CROSS SECTION SURVEY UNDERTAKEN BY
PHOTOMAP (P), LTD. FOR JAPAN INTERNATIONAL
COOPERATION AGENCY.

JAPAN INTERNATIONAL COOPERATION AGENCY

WA RIVER
ION No. 1



MALEWA RIVER
SECTION No. 1



2170
2160
2150

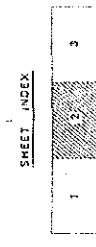
CHANNAGE
GROUND LEVEL

THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
FOR
GREATER NAKURU WATER SUPPLY PROJECT

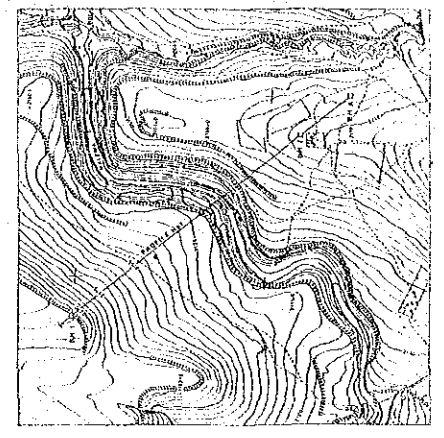
RIVER CROSS SECTION SURVEY

Scale H = 1 : 500
V = 1 : 500

MALEWA RIVER



INDEX MAP
Scale 1 : 10,000

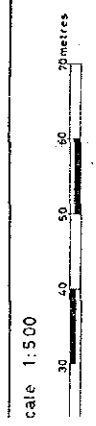
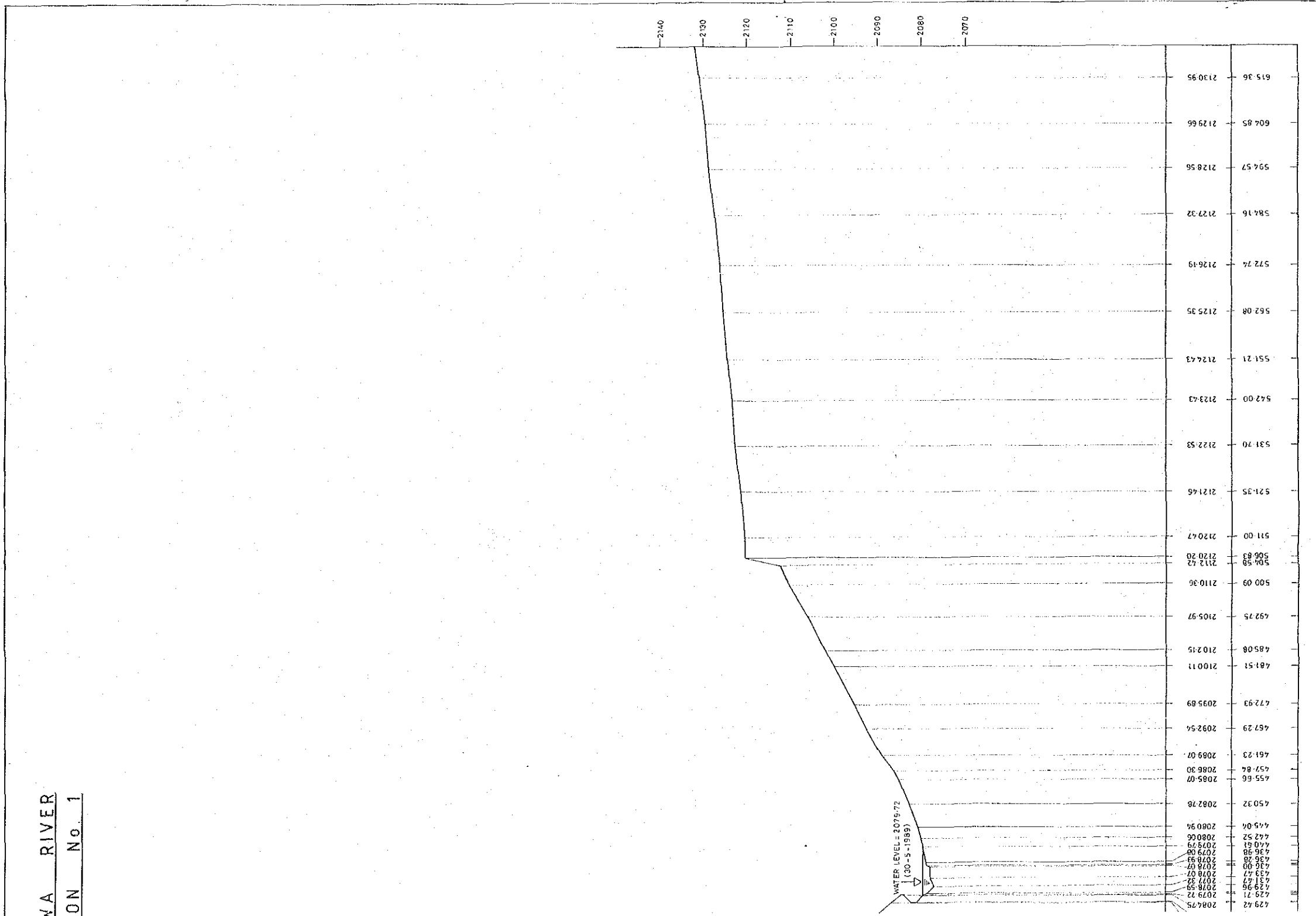


MAP HISTORY

RIVER CROSS SECTION SURVEY UNDERTAKEN BY
PHOTOMAP INC. LTD. FOR JAPAN INTERNATIONAL
COOPERATION AGENCY.

JAPAN INTERNATIONAL COOPERATION AGENCY

MA RIVER
ON No. 1



THE STUDY ON CONSTRUCTION OF DAM
IN MALEWA RIVER SYSTEM
FOR
GREATER NAKURU WATER SUPPLY PROJECT

RIVER CROSS SECTION SURVEY

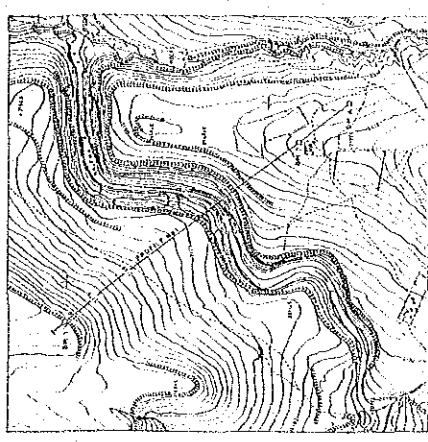
Scale H = 1 : 500
V = 1 : 500

MALEWA RIVER

SHEET INDEX

1	2	3
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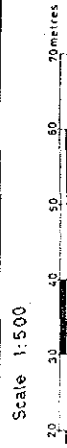
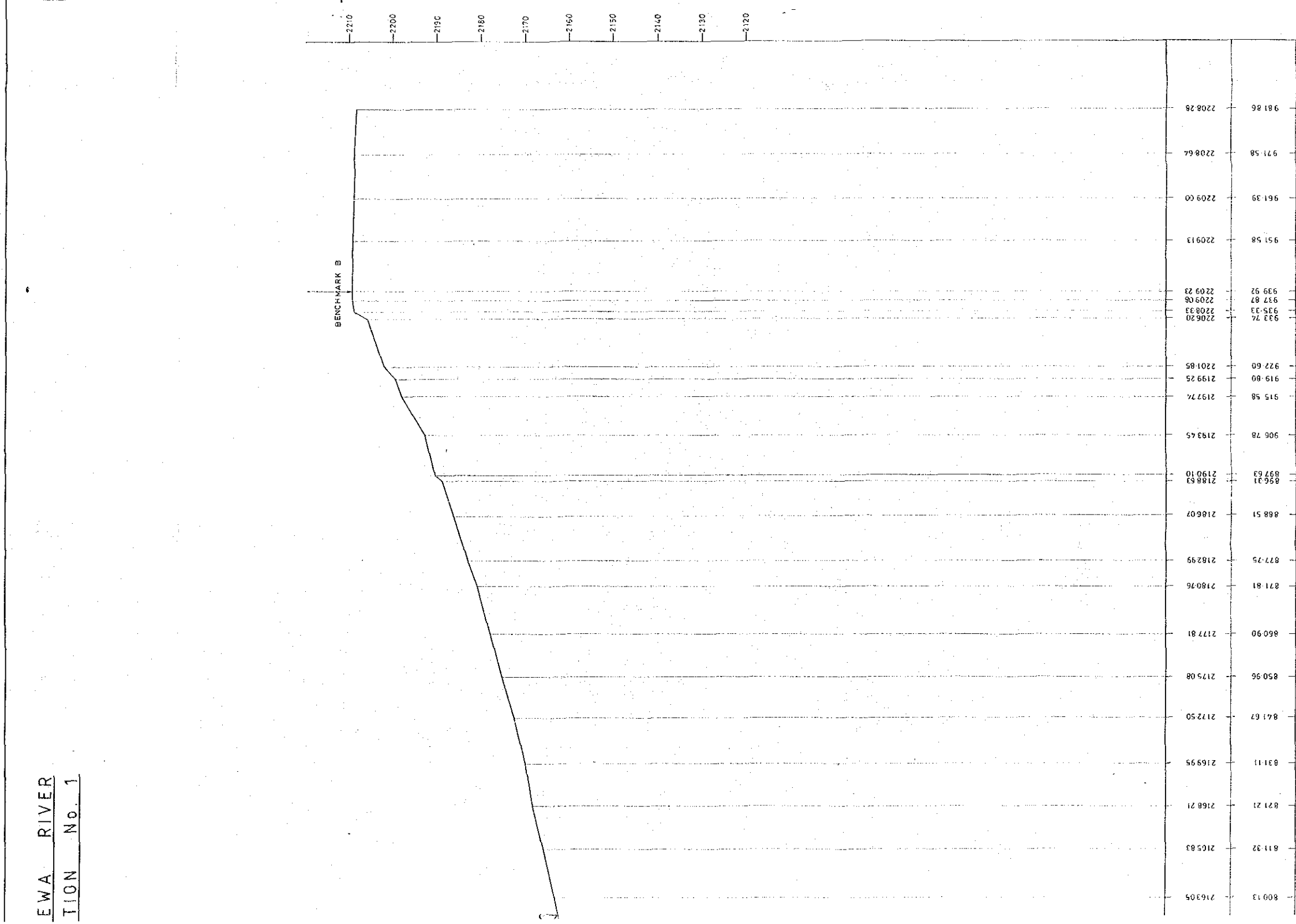
INDEX MAP
Scale 1 : 10,000



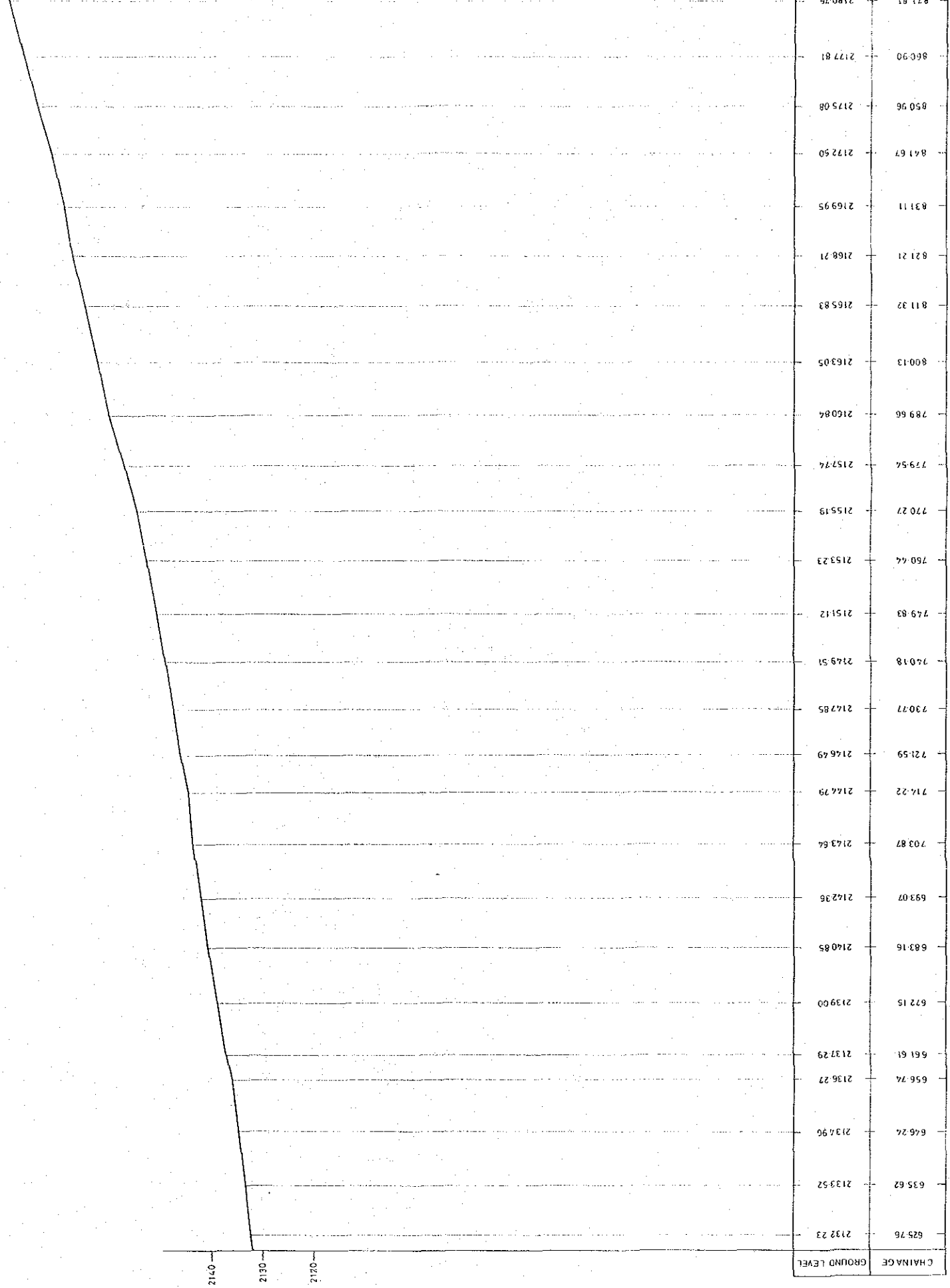
MAP HISTORY
RIVER CROSS SECTION SURVEY UNDERTAKEN BY
PHOTOMAP IKI, LTD. FOR JAPAN INTERNATIONAL
COOPERATION AGENCY.

JAPAN INTERNATIONAL COOPERATION AGENCY

EWA RIVER
SECTION No. 1



MALEWA RIVER
SECTION No. 1



Scale 1:500
metres 0 10 20 30 40 50 60 70 79metres

CHAINAGE GROUND LEVEL