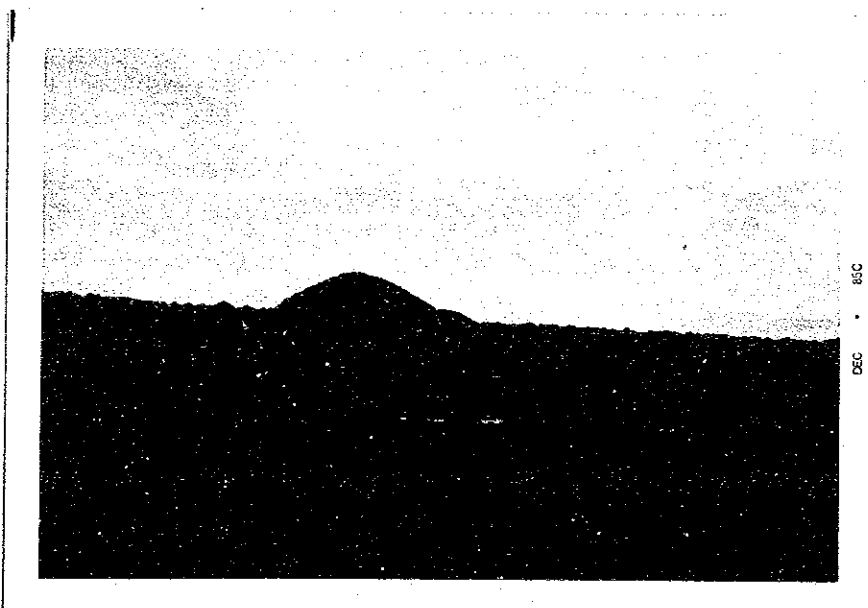


Photographs of Survey Works



Map drawing in Petrolab



Chocolate hill
(West Bohol)



DEC • 85C

Geochemical Sample Collection



DEC • 85C

P.H and Eh measuring



Caravan seen



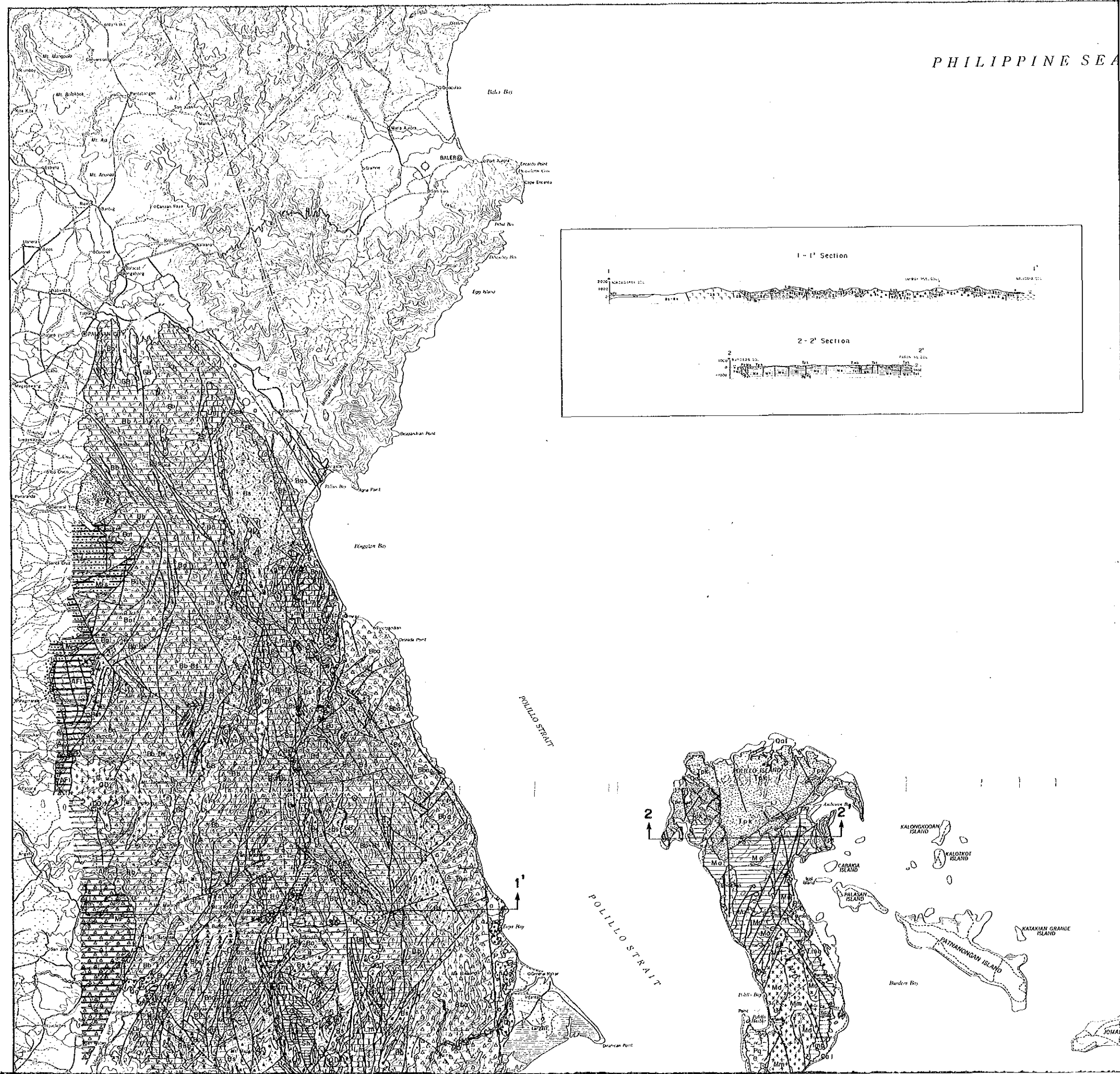
Making Campsite



Panning

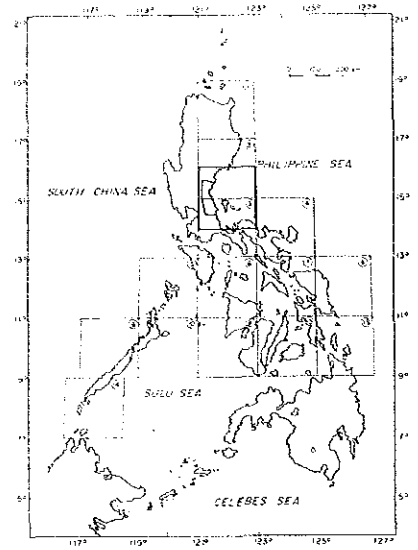


Cutting for Spot Investigation

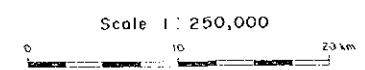


PHILIPPINE SEA

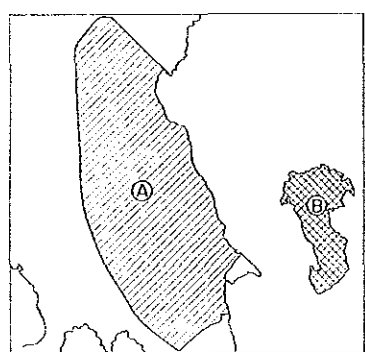
PL. I
 THE MINERAL EXPLORATION
 - MINERAL DEPOSITS AND TECTONICS OF TWO
 CONTRASTING GEOLOGIC ENVIRONMENTS -
 IN
 THE REPUBLIC OF THE PHILIPPINES
 PHASE I
 國際協力事業団
 15161
 国際地質学研究所
 GEOLOGICAL MAP AND SECTION
 SOUTHERN SIERRA MADRE-POLILLO AREA



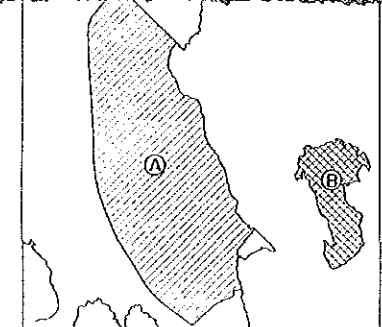
JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN
 SEPTEMBER 1985



LEGEND



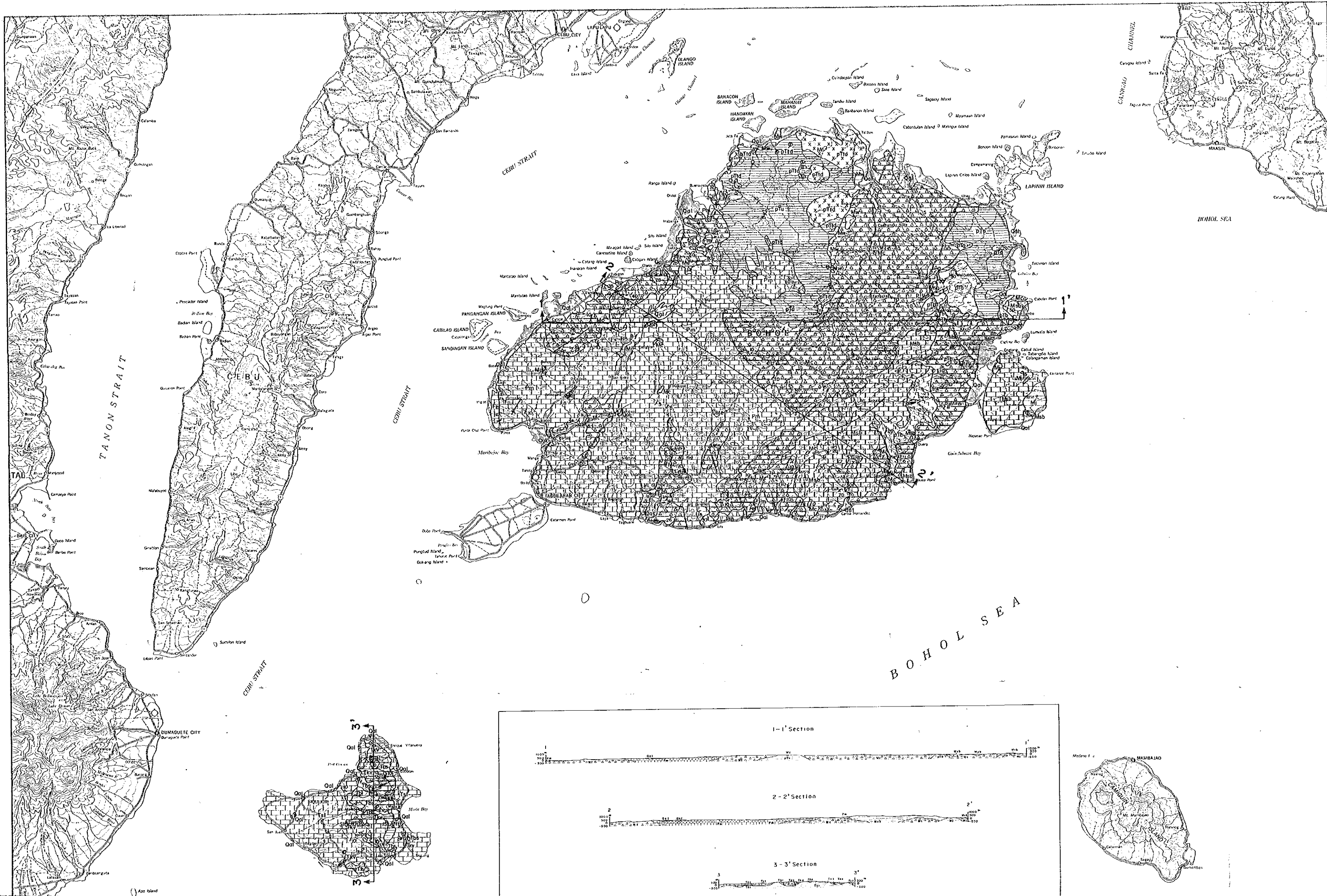
QUATERNARY	Q1	Recent River and Coastal Deposits, Coral Reef
PLIOCENE, PLEISTOCENE, HOLOCENE	Q2	Quaternary Fan Deposits, Talud
	Q3	Recent to Older Conglomerate with Unconsolidated Tuffaceous Sand and Silt
	Q4	Recent to Older Conglomerate with Unconsolidated Tuffaceous Sand and Silt
QUATERNARY FORMATION	Q5	Recent to Older Conglomerate with Unconsolidated Tuffaceous Sand and Silt
	Q6	Recent to Older Conglomerate with Unconsolidated Tuffaceous Sand and Silt
	Q7	Recent to Older Conglomerate with Unconsolidated Tuffaceous Sand and Silt
	Q8	Recent to Older Conglomerate with Unconsolidated Tuffaceous Sand and Silt
TERTIARY FORMATION	T1	Lime, Mudstone and Argillaceous Sandstone
	T2	Alternation of Conglomerate, Sandstone and Shale with intercalated Coal Seams
LAYSAN SHALE	L1	Limestone
	L2	Alternation of Conglomerate, Sandstone and Shale with intercalated Coal Seams
MIDDLE FORMATION	M1	Basaltic to Andesitic Volcanic Breccia
	M2	Conglomerate, Sandstone, Siltstone
SANGAT FORMATION	S1	Limestone with Lumpy Sandstone, Siltstone and Conglomerate
	S2	Massive Conglomerate of Sandstone, Argillaceous Sandstone and Siltstone
INTRUSIVE ROCKS	I1	Granite
	I2	Diorite
BRANDON FORMATION	B1	Limestone
	B2	Alternation of Sandstone and Shale with Conglomerate and Tuff
TERTIARY - QUATERNARY	T3	Undifferentiated Limestone
	T4	Massive Alternation of Shale and Sandstone
	T5	Massive Alternation of Shale and Sandstone
	T6	Massive Alternation of Shale and Sandstone
	T7	Massive Alternation of Shale and Sandstone
	T8	Massive Alternation of Shale and Sandstone
	T9	Massive Alternation of Shale and Sandstone
	T10	Massive Alternation of Shale and Sandstone
	T11	Massive Alternation of Shale and Sandstone
	T12	Massive Alternation of Shale and Sandstone
TERTIARY - QUATERNARY	T13	These Rocks are part of a Tuff of Coarse Grained in Middle to Quaternary
	T14	These Rocks are part of a Tuff of Coarse Grained in Middle to Quaternary
TERTIARY - QUATERNARY	T15	These Rocks are part of a Tuff of Coarse Grained in Middle to Quaternary
	T16	These Rocks are part of a Tuff of Coarse Grained in Middle to Quaternary
TERTIARY - QUATERNARY	T17	These Rocks are part of a Tuff of Coarse Grained in Middle to Quaternary
	T18	These Rocks are part of a Tuff of Coarse Grained in Middle to Quaternary
TERTIARY - QUATERNARY	T19	These Rocks are part of a Tuff of Coarse Grained in Middle to Quaternary
	T20	These Rocks are part of a Tuff of Coarse Grained in Middle to Quaternary



QUATERNARY	
Qd	Recent River and Coastal Deposits, Coral Reef
Qf	Mountains, Fan Deposits, Debris
Qc	Plastic to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Qb	Interbedded Sandstone to Shale with Unconsolidated Tuffaceous Sand and Silt
Qa	Loose to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Q0	Unconsolidated Tuffaceous Sand and Silt
TERTIARY	
Tp	Plate to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Tc	Interbedded Sandstone to Shale with Unconsolidated Tuffaceous Sand and Silt
Tb	Loose to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Ta	Loose to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
T0	Unconsolidated Tuffaceous Sand and Silt
CRETACEOUS	
Cp	Plate to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Cc	Interbedded Sandstone to Shale with Unconsolidated Tuffaceous Sand and Silt
Cb	Loose to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Ca	Loose to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
C0	Unconsolidated Tuffaceous Sand and Silt
MESOZOIC	
Mp	Plate to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Mc	Interbedded Sandstone to Shale with Unconsolidated Tuffaceous Sand and Silt
Mb	Loose to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Ma	Loose to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
M0	Unconsolidated Tuffaceous Sand and Silt
PALEOZOIC	
Pp	Plate to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Pc	Interbedded Sandstone to Shale with Unconsolidated Tuffaceous Sand and Silt
Pb	Loose to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
Pa	Loose to Boulder Conglomerates with Unconsolidated Tuffaceous Sand and Silt
P0	Unconsolidated Tuffaceous Sand and Silt
PRE-CAMBRIAN	
Pc	Crystalline Schist
Pb	Crystalline Schist
Pa	Crystalline Schist
P0	Crystalline Schist

SYMBOLS	
—	Strike and Dip of Bedding and Flow Structure
—	Strike and Dip of Schistosity
—	Strike and Dip of Fracture and Dyke
—	Strike and Dip of Quartz Vein
—	Fault
—	Special Fault
—	Lineage Boundary
—	Location of Soil Profile
—	Location of Rock Sample
—	Thin Section
—	Petrological Analysis
—	Some R _z Age Determination
—	Paleontological Analysis
—	Ore Assay
—	X-Ray Diffraction

QUATERNARY	
Qd	Recent Deposits
Qc	Recent Deposits
Qb	Recent Deposits
Qa	Recent Deposits
Q0	Recent Deposits
TERTIARY	
Tp	Tertiary Formation
Tc	Tertiary Formation
Tb	Tertiary Formation
Ta	Tertiary Formation
T0	Tertiary Formation
CRETACEOUS	
Cp	Cretaceous Formation
Cc	Cretaceous Formation
Cb	Cretaceous Formation
Ca	Cretaceous Formation
C0	Cretaceous Formation
MESOZOIC	
Mp	Mesozoic Formation
Mc	Mesozoic Formation
Mb	Mesozoic Formation
Ma	Mesozoic Formation
M0	Mesozoic Formation
PALEOZOIC	
Pp	Paleozoic Formation
Pc	Paleozoic Formation
Pb	Paleozoic Formation
Pa	Paleozoic Formation
P0	Paleozoic Formation
PRE-CAMBRIAN	
Pc	Pre-Cambrian Formation
Pb	Pre-Cambrian Formation
Pa	Pre-Cambrian Formation
P0	Pre-Cambrian Formation



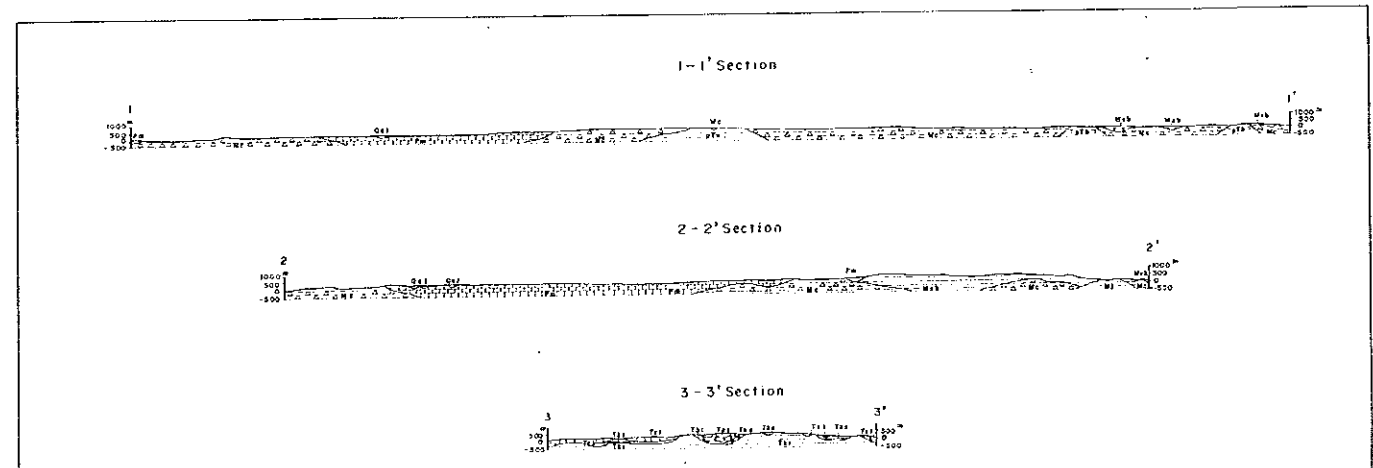
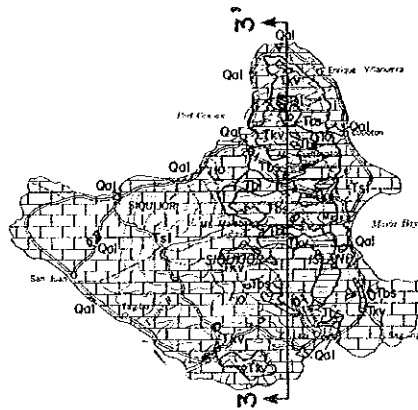
TANON STRAIT

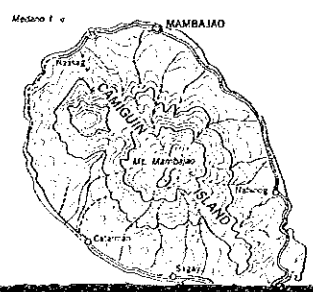
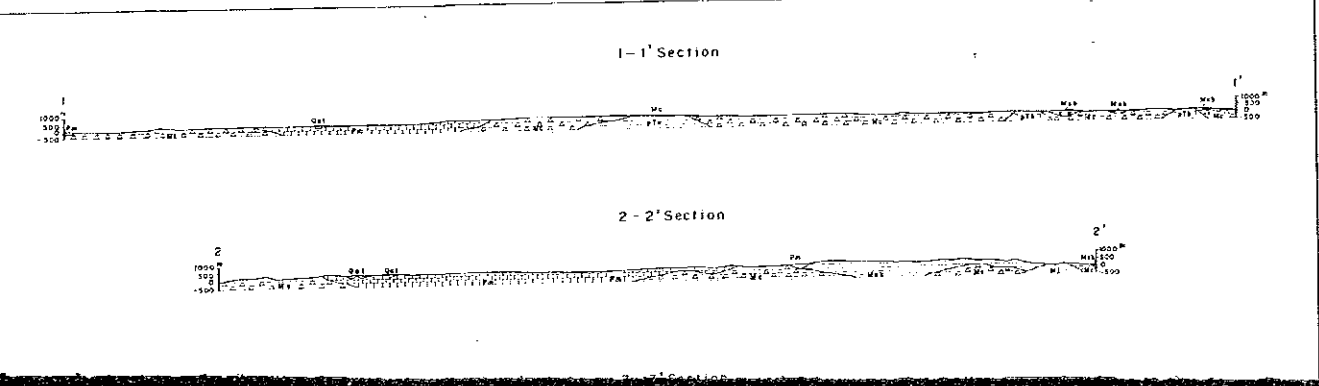
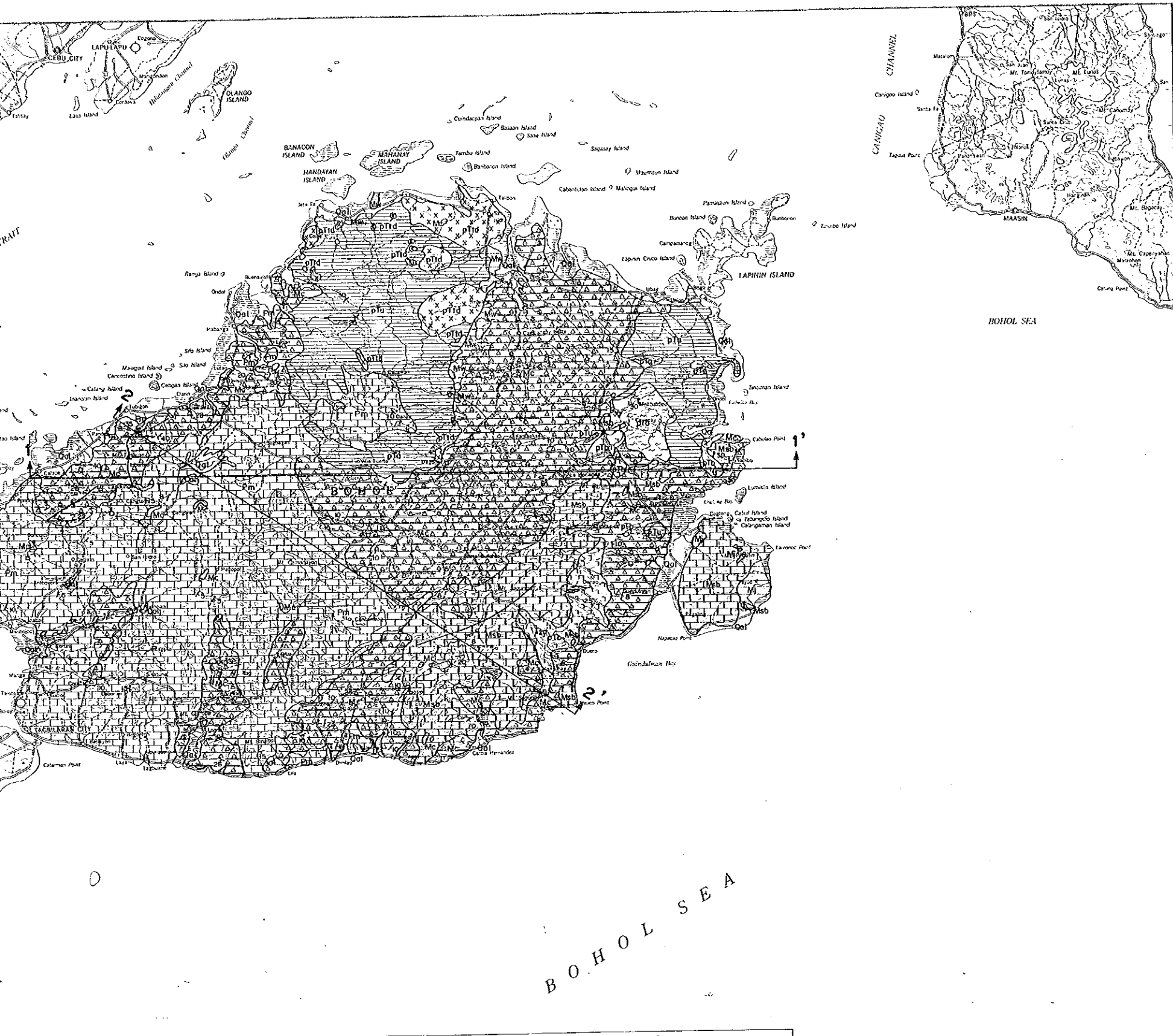
CEBU STRAIT

BOHOL SEA

CANTABLANO CHANNEL

BOHOL SEA





PL. 2

THE MINERAL EXPLORATION
- MINERAL DEPOSITS AND TECTONICS OF TWO
CONTRASTING GEOLOGIC ENVIRONMENTS -
IN
THE REPUBLIC OF THE PHILIPPINES
PHASE I

GEOLOGICAL MAP AND SECTION
BOHOL - SQUIJOR AREA

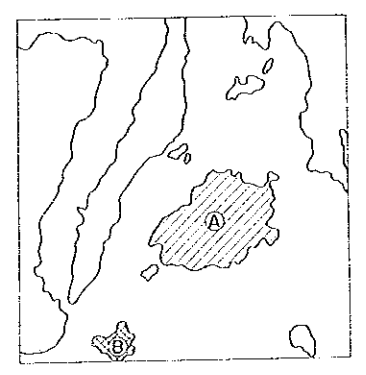
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JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
SEPTEMBER 1985

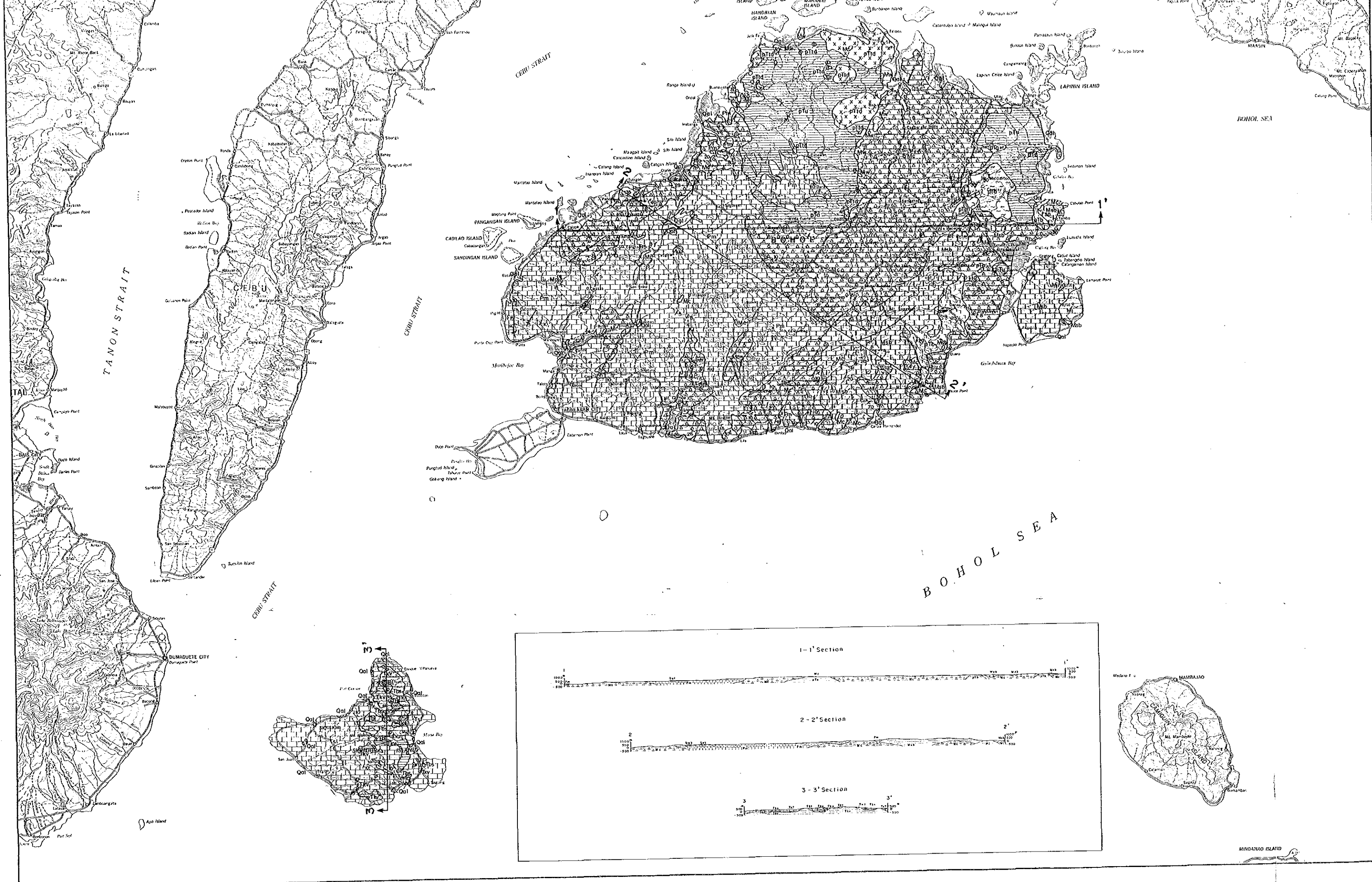
LEGEND

- | | | |
|---|---|---|
| <p>(A)</p> <p>Qal</p> <p>Psm</p> <p>Pt</p> <p>Msb</p> <p>Mc</p> <p>Mj</p> <p>Mw</p> <p>pT^v</p> <p>pTd</p> <p>pTb</p> <p>pTu</p> <p>pTs</p> | <p>Alluvium</p> <p>Maribojoc Limestone</p> <p>Kobatao Conglomerate</p> <p>Sierra Bullones Limestone</p> <p>Cormen Formation</p> <p>Jagna Andesite</p> <p>Wahig Orbitoid</p> <p>Jetafe Andesite Porphyry</p> <p>Talibon Diorite</p> <p>Boctol Serpentine</p> <p>Ubay Volcanic Rocks</p> <p>Alicia Schist</p> | <p>Recent</p> <p>Pleistocene</p> <p>Pliocene - Pleistocene</p> <p>Late Miocene</p> <p>Late middle Miocene - Late Miocene</p> <p>Miocene</p> <p>Early Miocene</p> <p>Pre-Tertiary Basement Rocks</p> |
|---|---|---|

- | | |
|--|---|
| <p>$\frac{1}{25}$</p> <p>$\frac{1}{30}$</p> <p>$\frac{1}{40}$</p> | <p>Strike and dip of flow</p> <p>Strike and dip of joint</p> <p>Strike and dip of shear</p> |
|--|---|



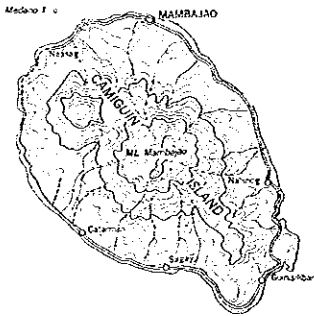
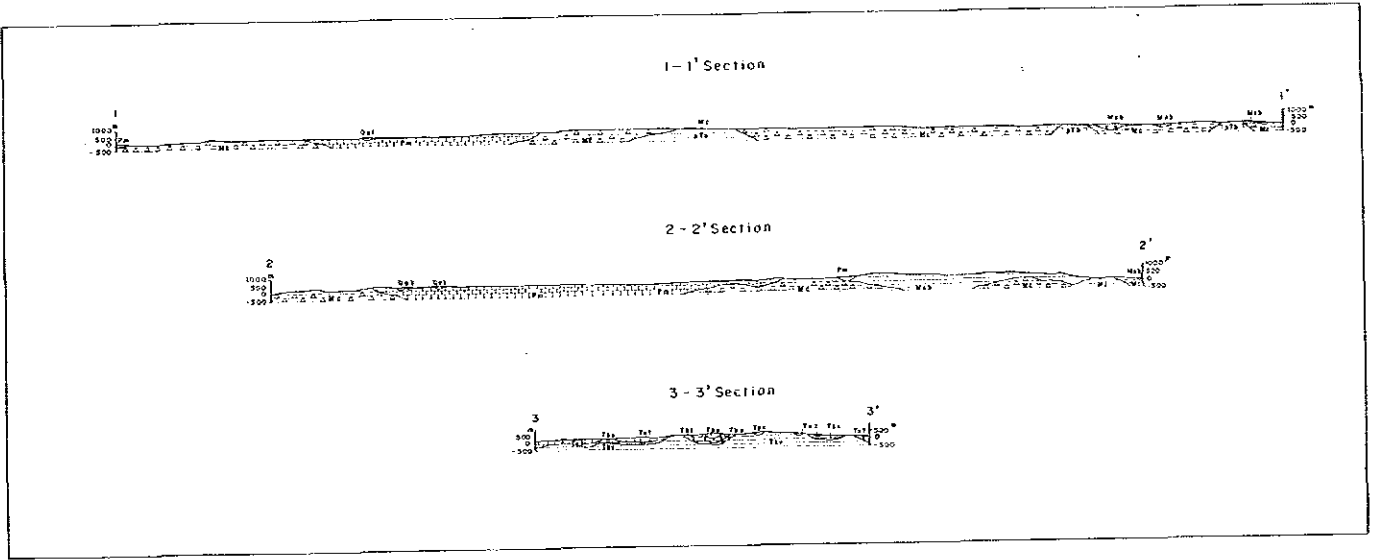
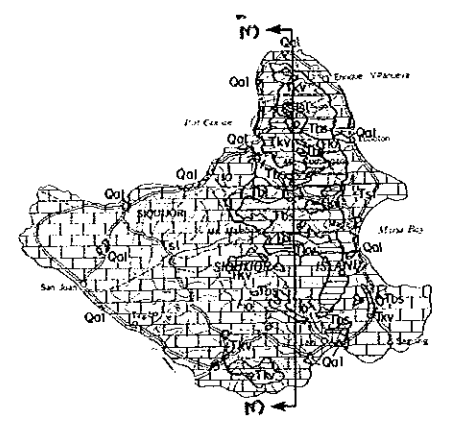
- (B)
- Qal
- Alluvium
Alluvium in stream valleys and beach deposits
- Tst
- Siquijor limestone
Reefal and clastic limestone, calcareous
- Tbt
- Basic formation
Tbt (Limestone member)-hard, cavernous,
Enoploporia bearing limestone
Tst (Shale member)-bituminous shale and
calcareous shale
- Tkv
- Kongiosog volcanics



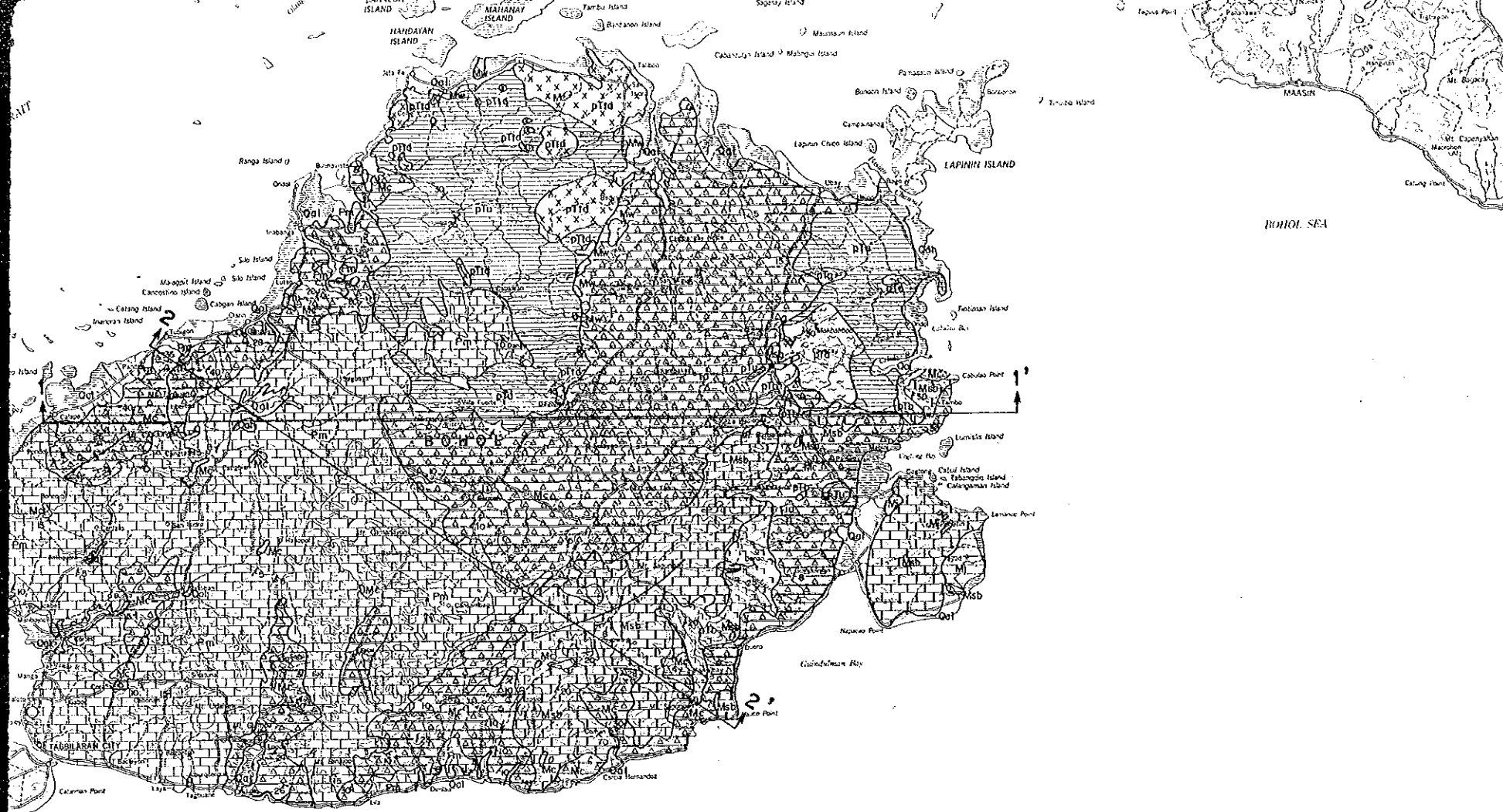
TANON STRAIT

CEBU STRAIT

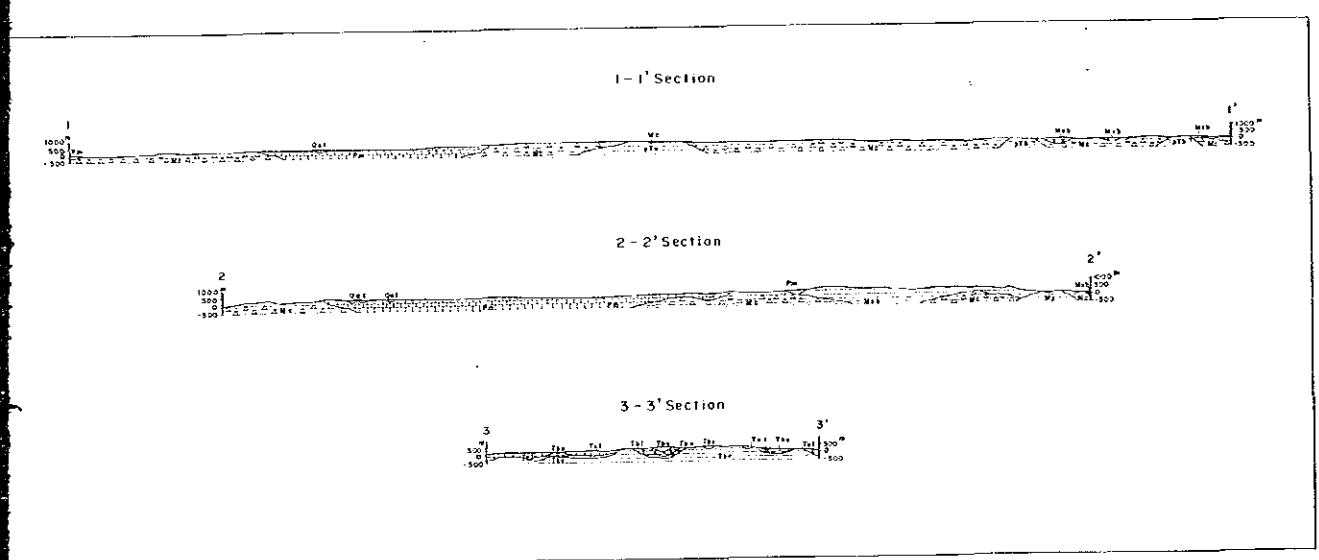
BOHOL SEA



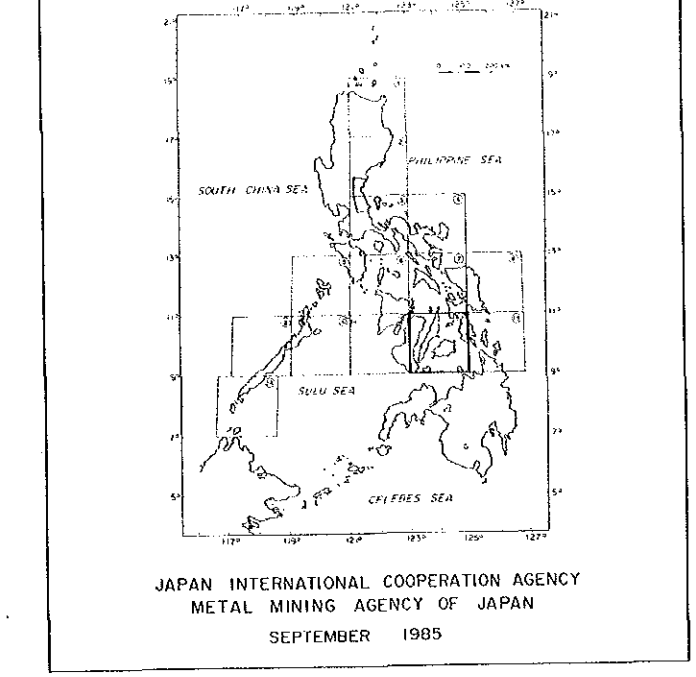
MINDANAO ISLAND



BOHOL SEA



MINDANAO ISLAND



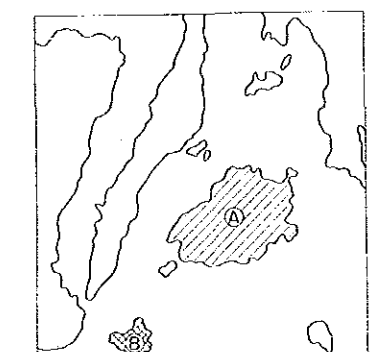
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LEGEND

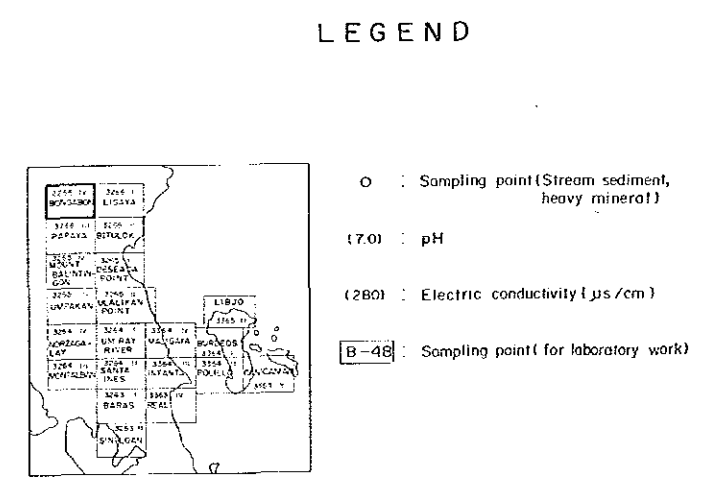
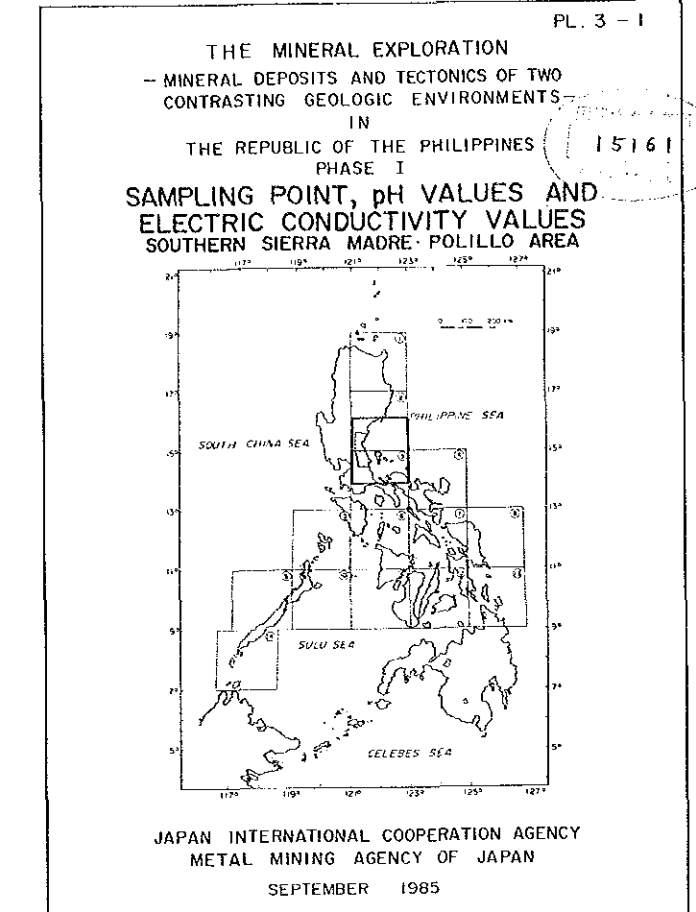
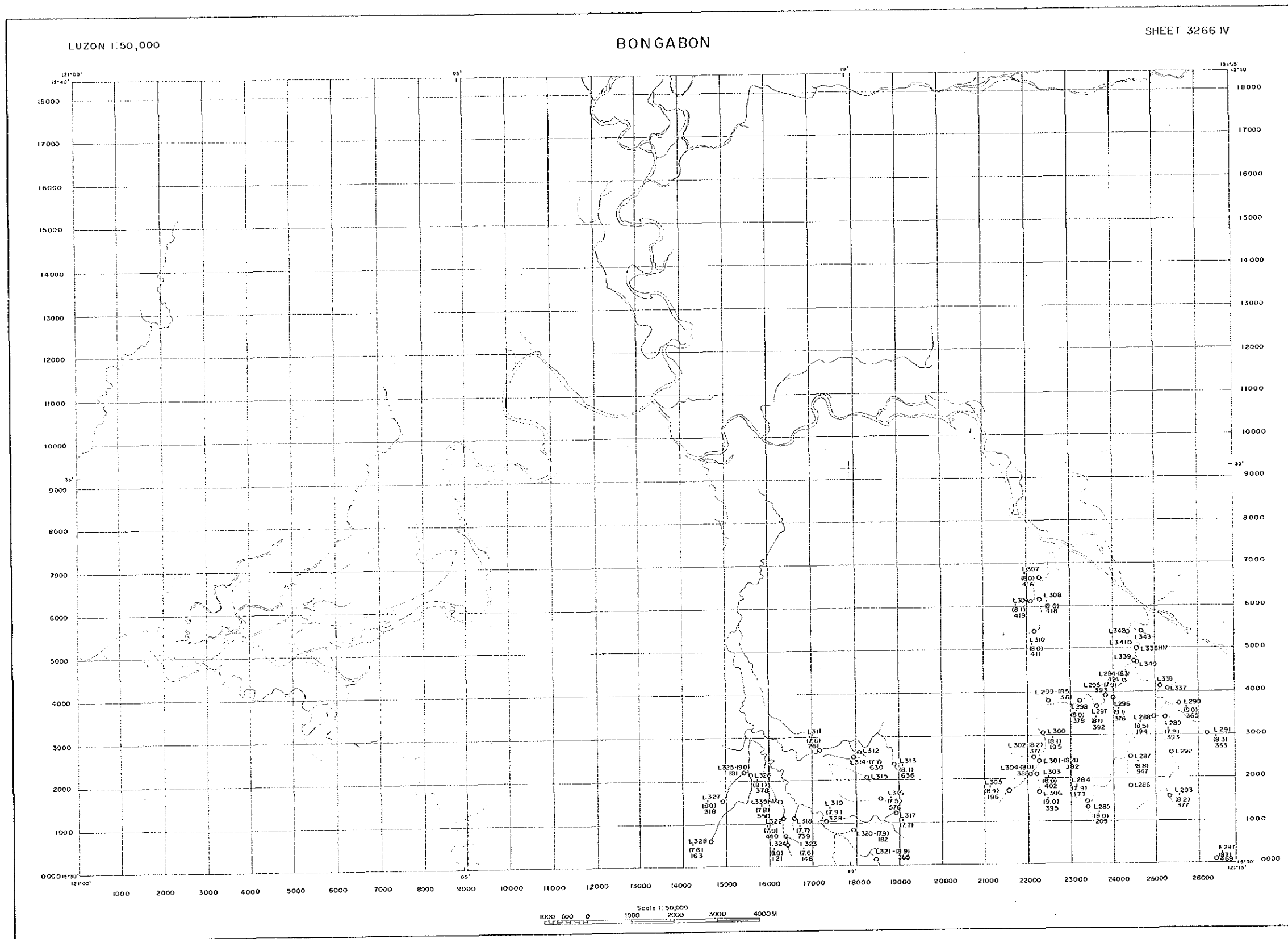
- (A)
 - Qal Alluvium Recent
 - Pm Moribojoc Limestone Pleistocene
 - Pl Kabulao Conglomerate Pliocene - Pleistocene
 - Msb Sierra Butlones Limestone Late Miocene
 - Mc Cermen Formation Late middle Miocene - Late Miocene
 - Mj Jagna Andesite Miocene
 - Mw Wabig Orbitoid Early Miocene
 - ptl Jetate Andesite Porphyry
 - ptd Talibon Diorite
 - ptb Bactol Serpentine
 - ptu Ubay Volcanic Rocks
 - pto Alicia Schist
- Pre-Tertiary Basement Rocks

- Strike and dip of flow
- Strike and dip of joint
- Strike and dip of shear
- Strike and dip of schistosity
- Strike and dip of beds
- Anticline
- Syncline
- Geologic contact

- XX Mineral and Mines prospect
- RI Rock sample



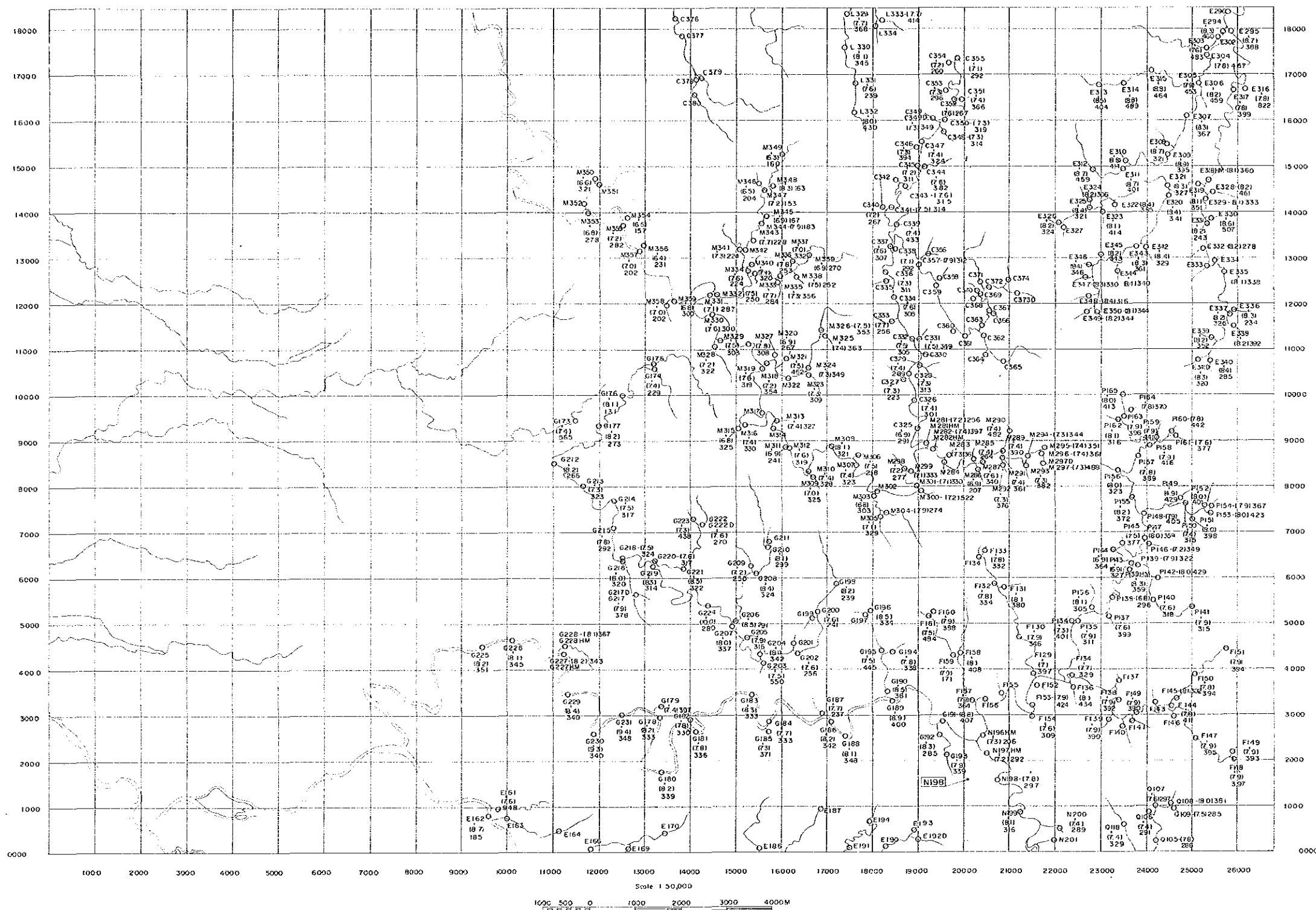
- (B)
- Qal Alluvium Alluvium in stream valleys and beach deposits
- Tsl Siquijor Limestone Recent and eolic limestone, calcareous
- Tbl Basal formation Tbl (Limestone member) - hard, calcareous, Lepidodermis-bearing limestone Tbl (Shale member) - siliceous shale and calcareous shale
- Tkv Xanglosog volcanics Coarse basalt, andesite, coarse to fine-grained tuff and minor volcanic flow
- Geologic contact
- U Fault Upthrown side, D, opposite downthrown side
- XX Mineral and Mines prospect
- RI Rock sample



LUZON 1:50,000

PAPAYA

SHEET 3266 III



PL 3 - 2

THE MINERAL EXPLORATION
- MINERAL DEPOSITS AND TECTONICS OF TWO
CONTRASTING GEOLOGIC ENVIRONMENTS
IN
THE REPUBLIC OF THE PHILIPPINES
PHASE I

**SAMPLING POINT, pH VALUES AND
ELECTRIC CONDUCTIVITY VALUES
SOUTHERN SIERRA MADRE-POLILLO AREA**

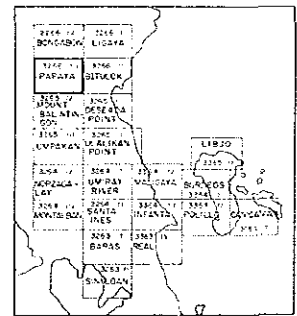
國際協力事業団
15161
国産資源調査会

JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
SEPTEMBER 1985

Scale 1: 50,000

LEGEND

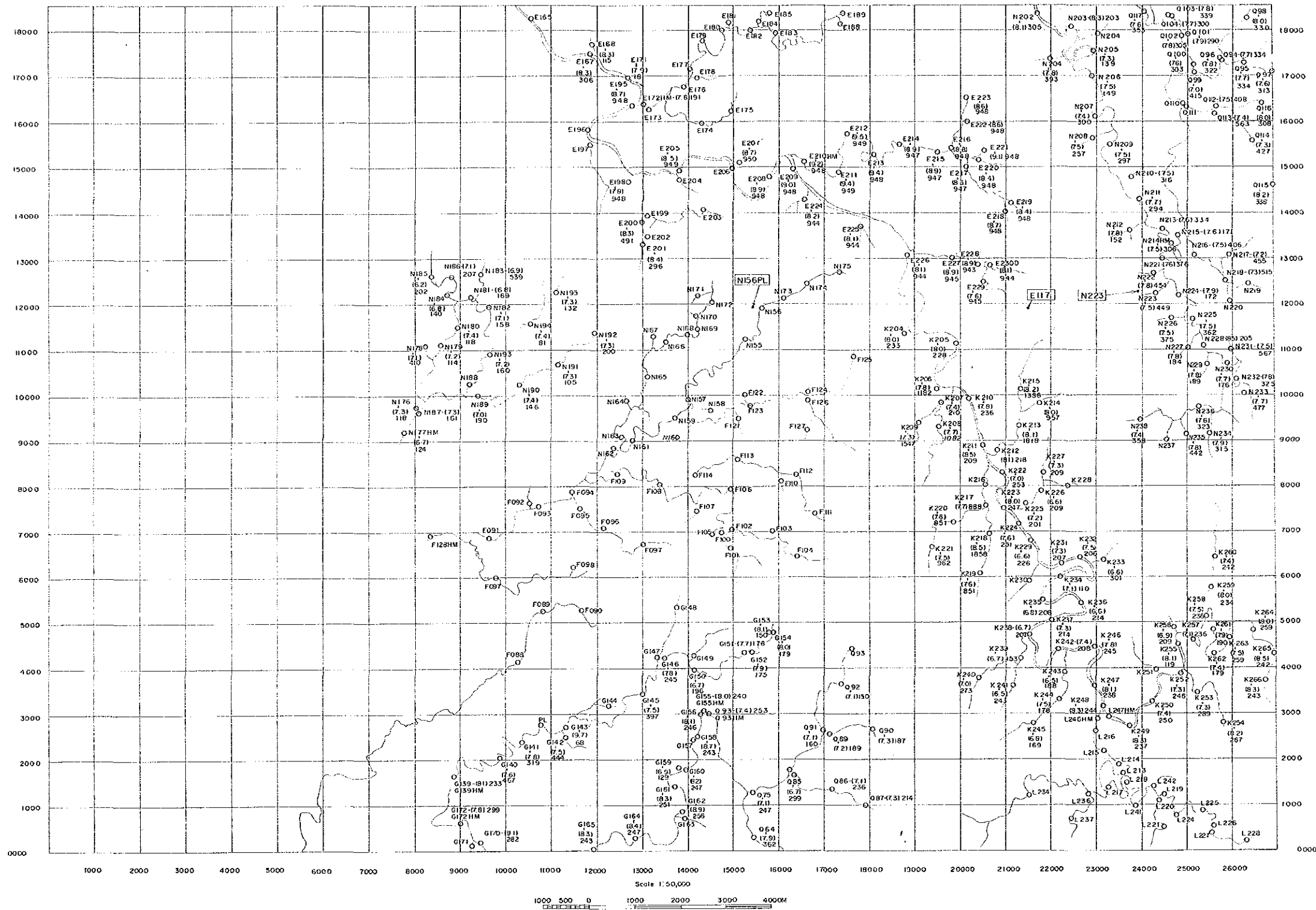
- : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- (280) : Electric conductivity (μs/cm)
- B-48 : Sampling point (for laboratory work)



LUZON 1:50,000

MOUNT BALINTINGON

SHEET 3265 IV

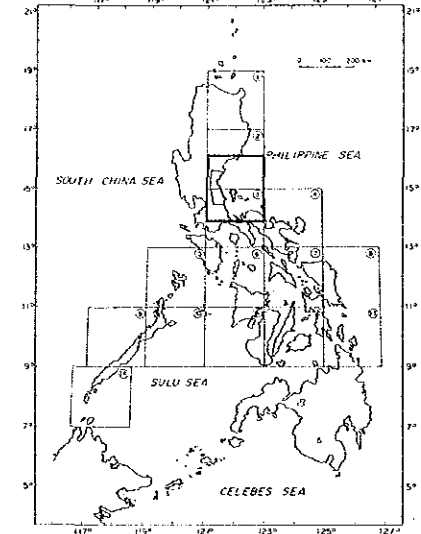


PL. 3-3

THE MINERAL EXPLORATION
- MINERAL DEPOSITS AND TECTONICS OF TWO
CONTRASTING GEOLOGIC ENVIRONMENTS -
IN
THE REPUBLIC OF THE PHILIPPINES
PHASE I

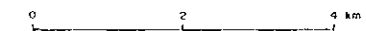
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SAMPLING POINT, pH VALUES AND
ELECTRIC CONDUCTIVITY VALUES
SOUTHERN SIERRA MADRE, POLILLO AREA



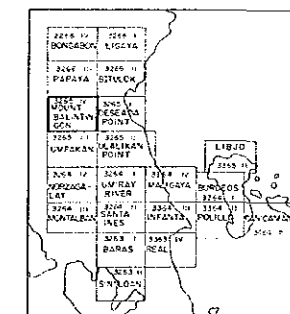
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
SEPTEMBER 1985

Scale 1: 50,000



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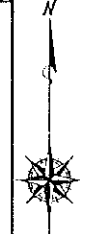
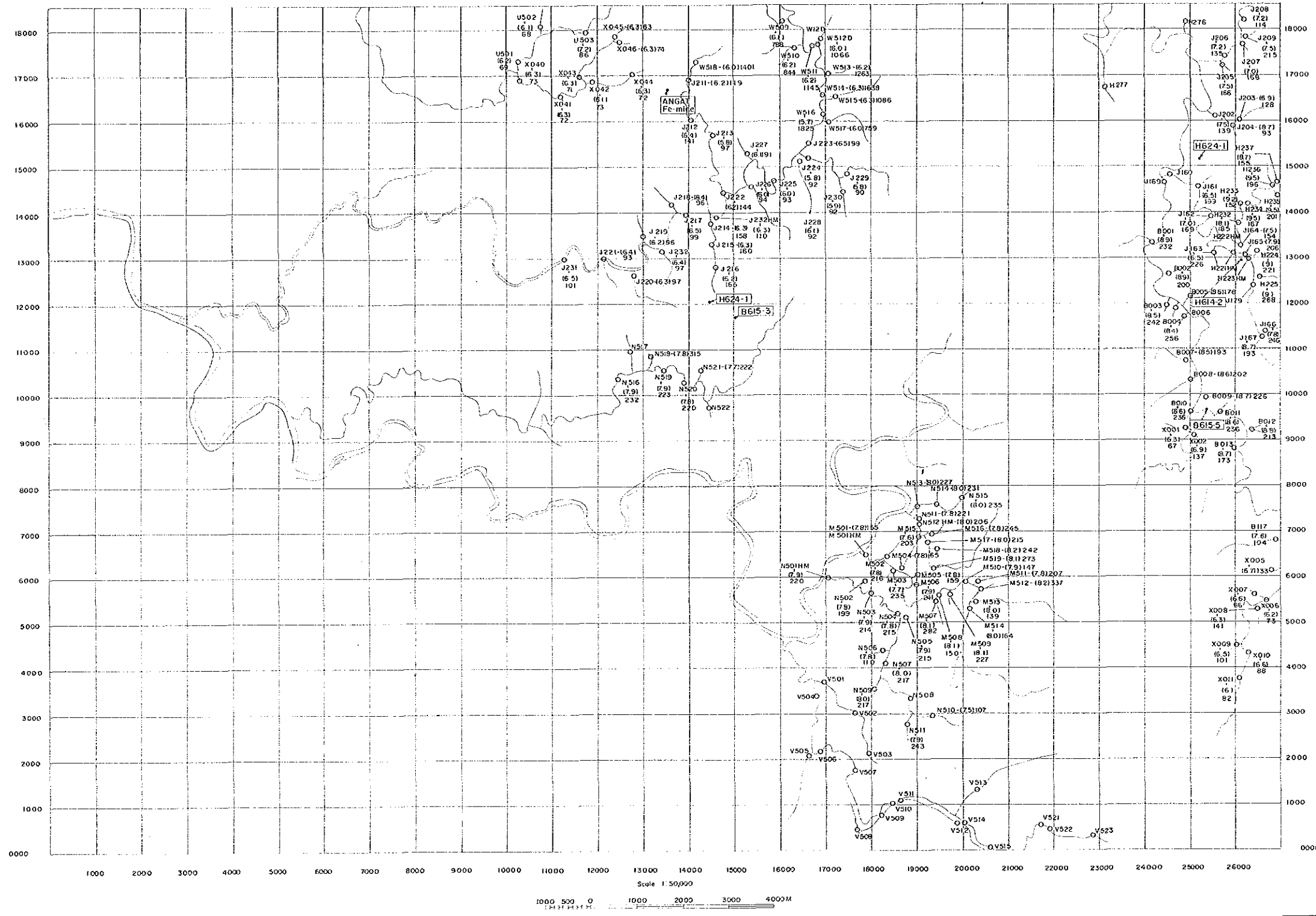
- O : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- (280) : Electric conductivity ($\mu\text{s}/\text{cm}$)
- B-48 : Sampling point (for laboratory work)



LUZON 1:50,000

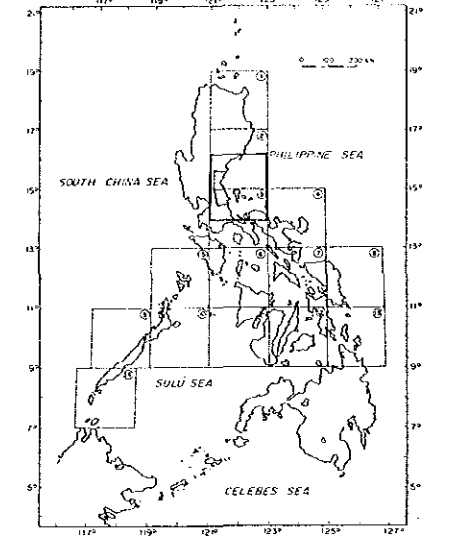
NORZAGARAY

SHEET 3264 IV



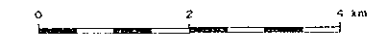
PL. 3-5

THE MINERAL EXPLORATION
 - MINERAL DEPOSITS AND TECTONICS OF TWO
 CONTRASTING GEOLOGIC ENVIRONMENTS
 IN
 THE REPUBLIC OF THE PHILIPPINES
 PHASE I
**SAMPLING POINT, pH VALUES AND
 ELECTRIC CONDUCTIVITY VALUES**
 SOUTHERN SIERRA MADRE, POLILLO AREA

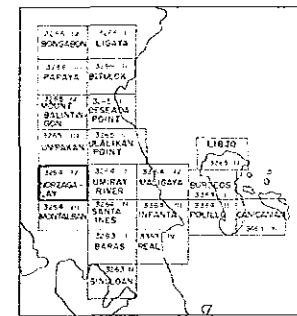


JAPAN INTERNATIONAL COOPERATION AGENCY
 METAL MINING AGENCY OF JAPAN
 SEPTEMBER 1985

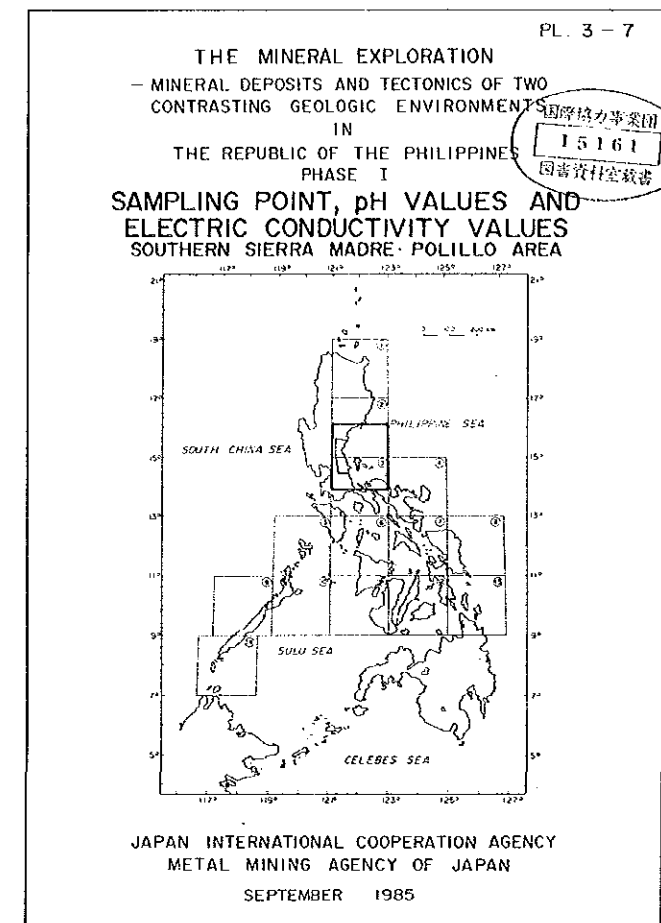
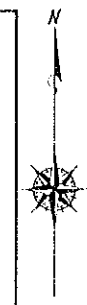
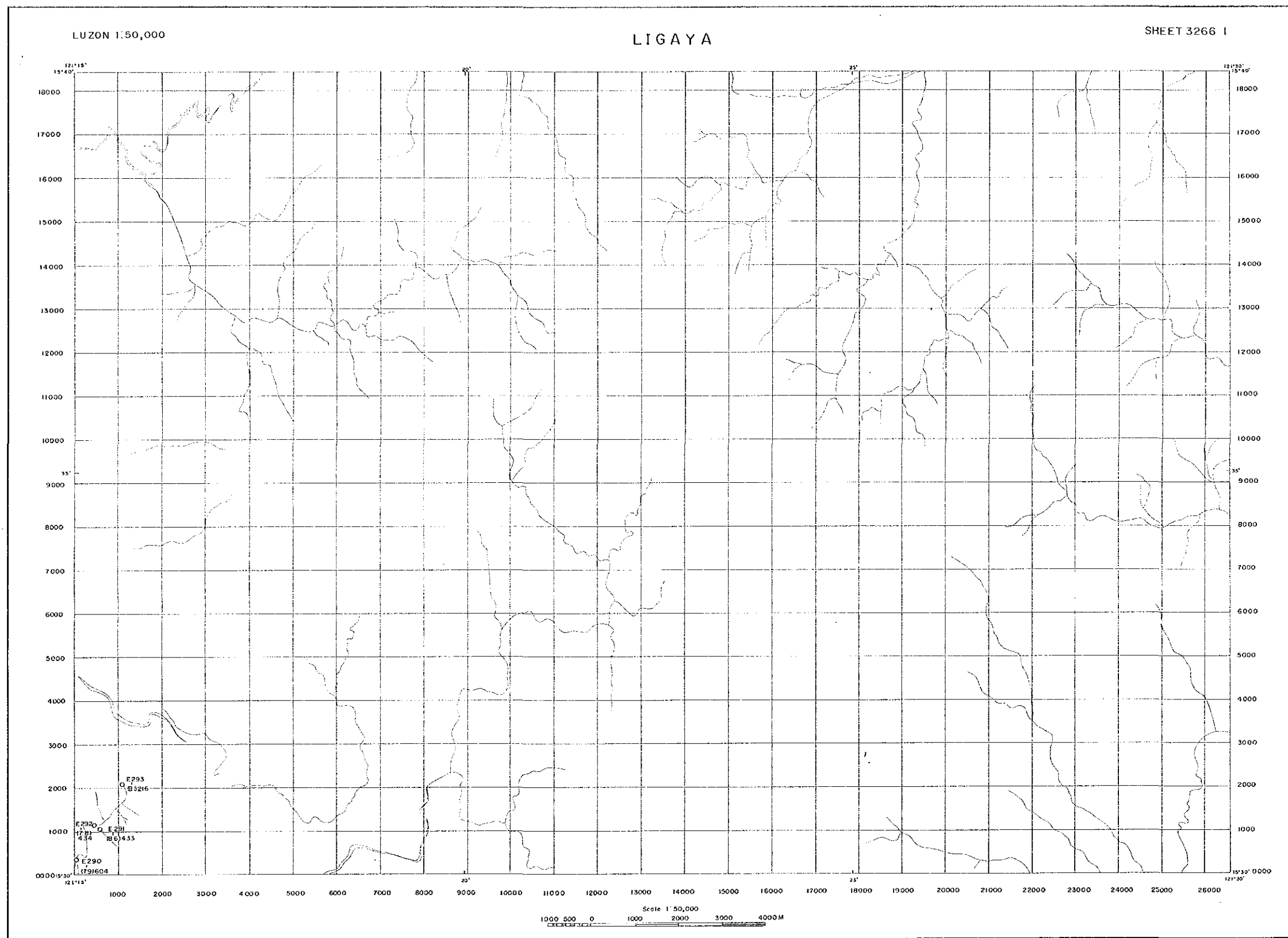
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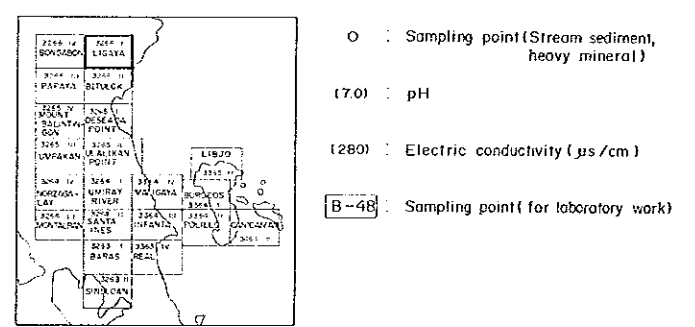
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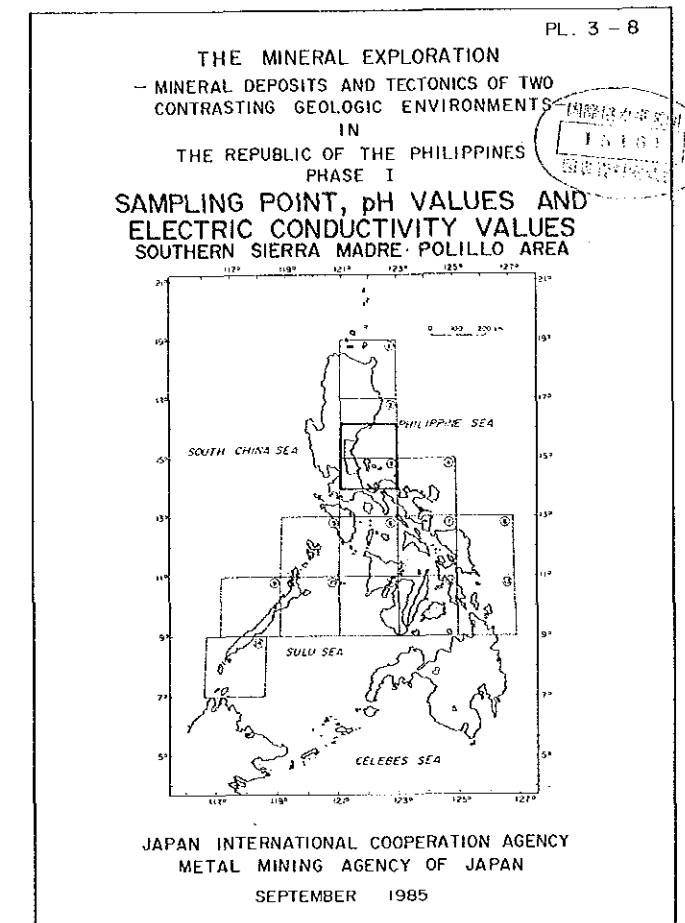
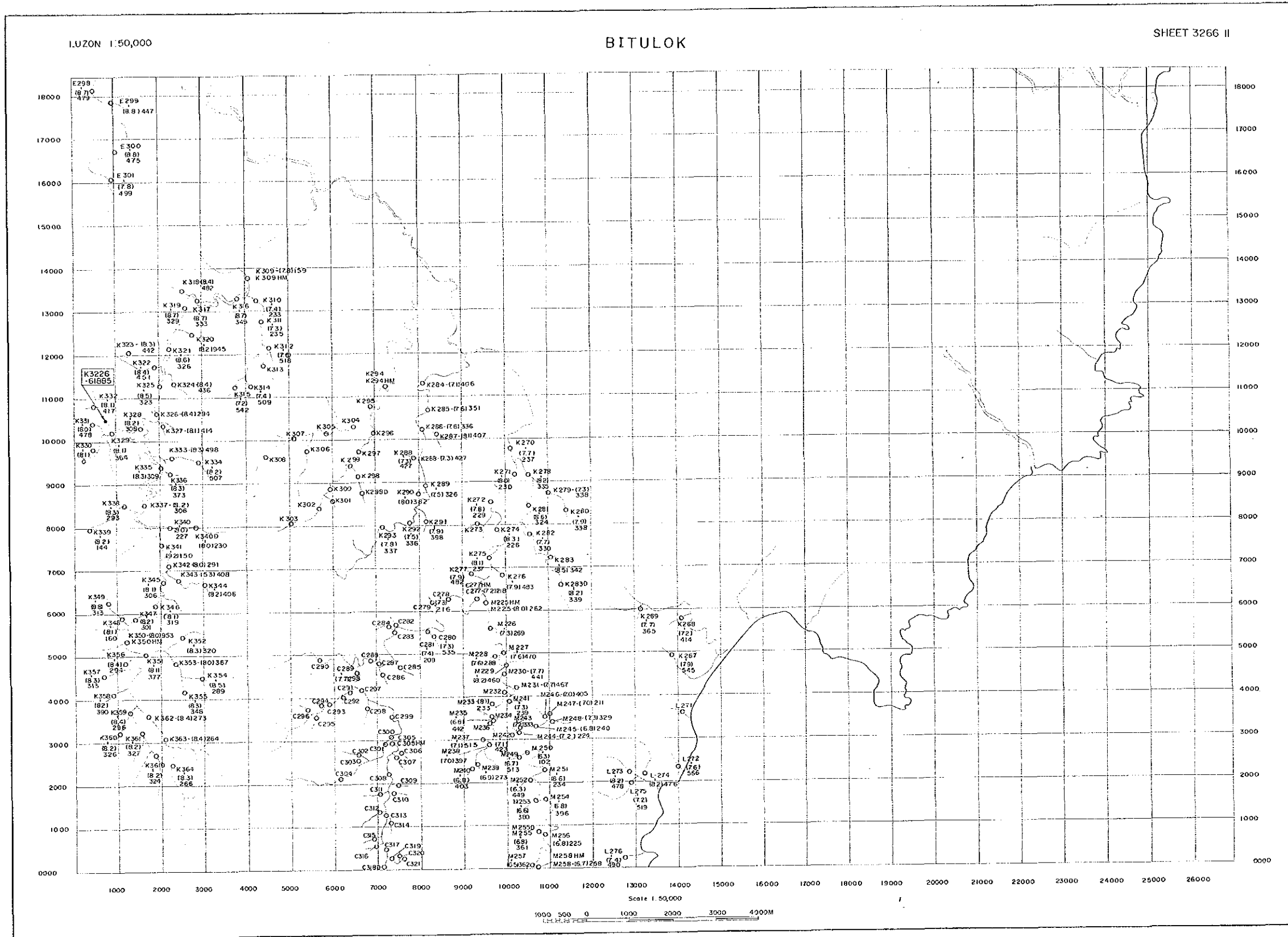


- O : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- (280) : Electric conductivity ($\mu\text{s/cm}$)
- [B-48] : Sampling point (for laboratory work)

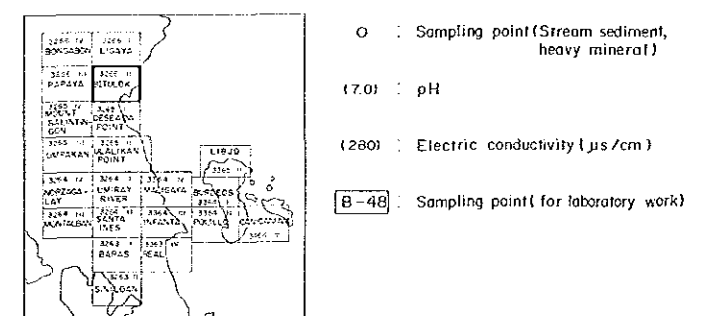


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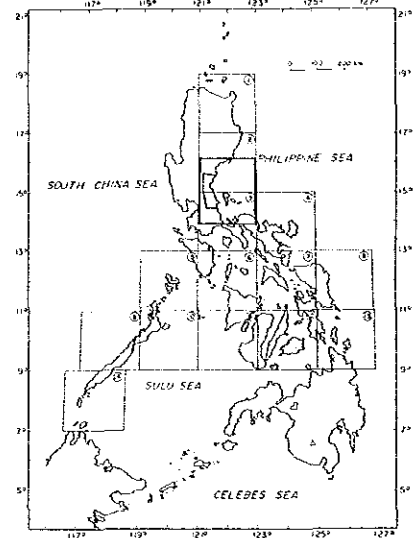




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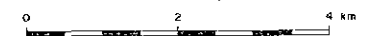


THE MINERAL EXPLORATION
-- MINERAL DEPOSITS AND TECTONICS OF TWO
CONTRASTING GEOLOGIC ENVIRONMENTS --
IN
THE REPUBLIC OF THE PHILIPPINES
PHASE I
SAMPLING POINT, pH VALUES AND
ELECTRIC CONDUCTIVITY VALUES
SOUTHERN SIERRA MADRE-POLILLO AREA



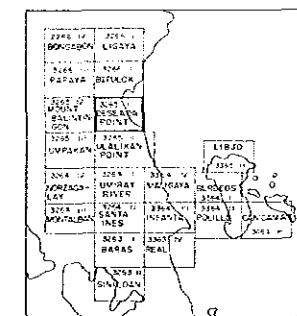
JAPAN INTERNATIONAL COOPERATION AGENCY
METAL MINING AGENCY OF JAPAN
SEPTEMBER 1985

Scale 1 : 50,000



LEGEND

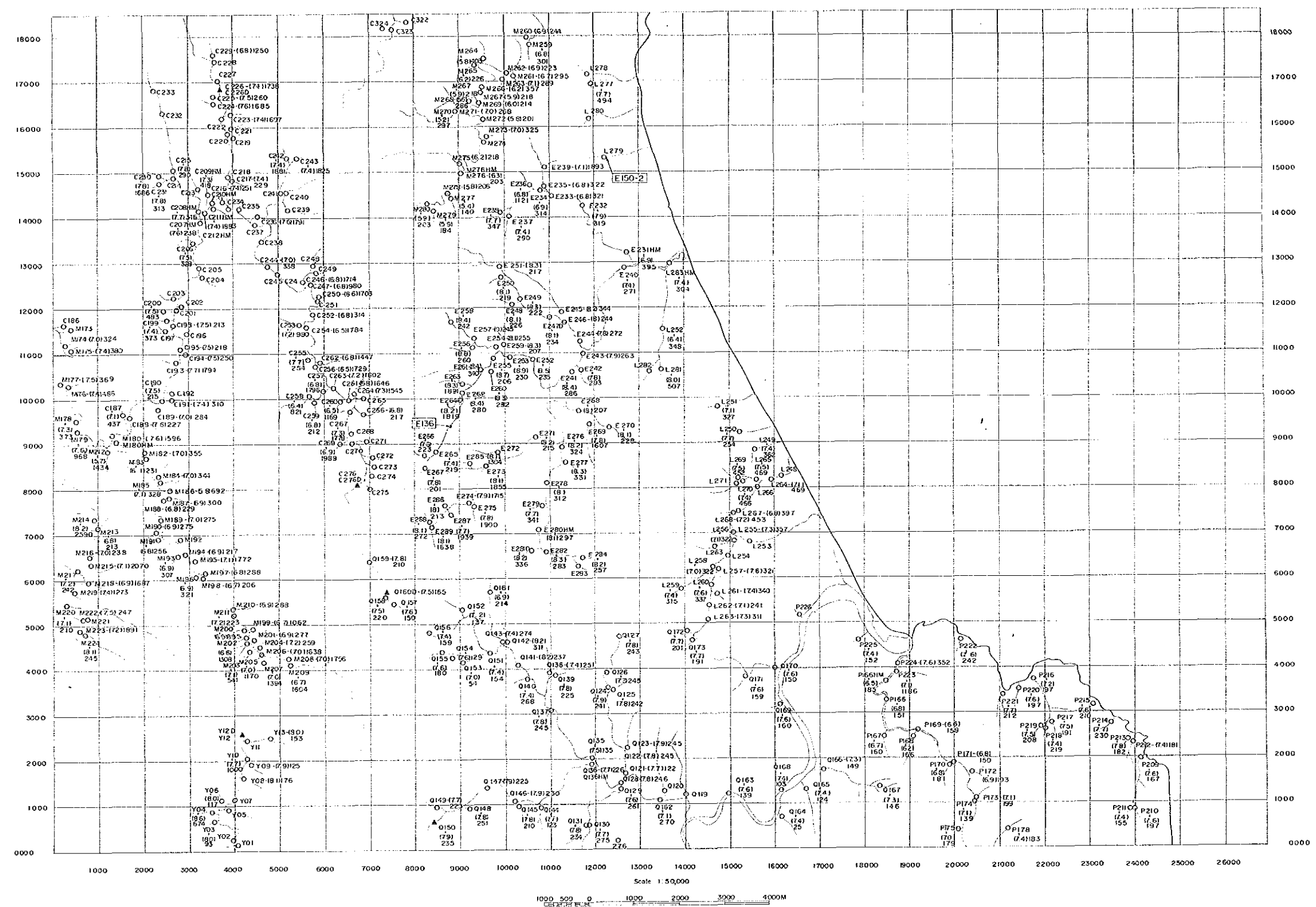
- O : Sampling point (Stream sediment, heavy mineral)
- (7.0) : pH
- (280) : Electric conductivity ($\mu\text{s/cm}$)
- B-48 : Sampling point (for laboratory work)



SHEET 3265 I

DESEADA POINT

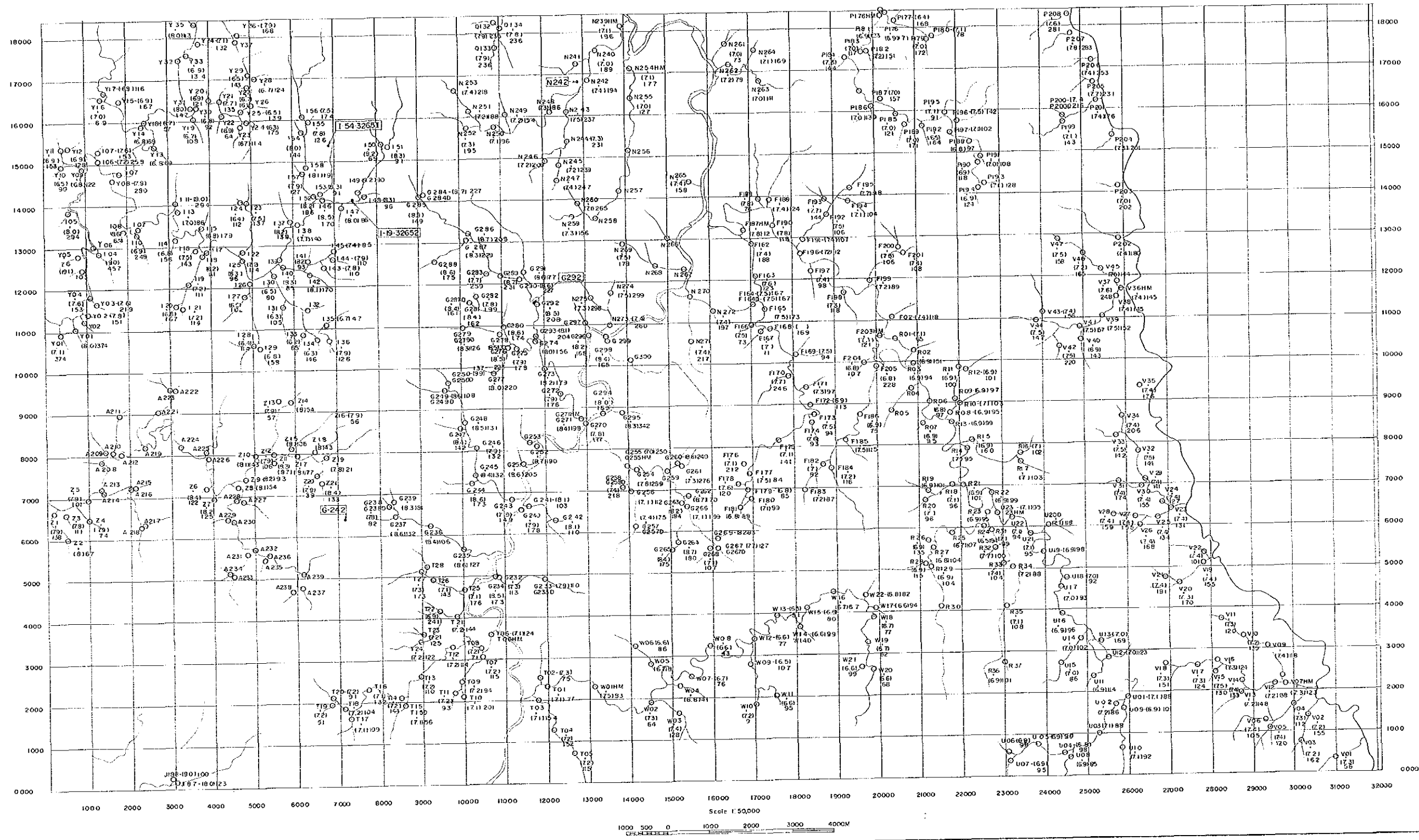
LUZON 1:50,000



LUZON 1:50,000

ULALIKAN POINT

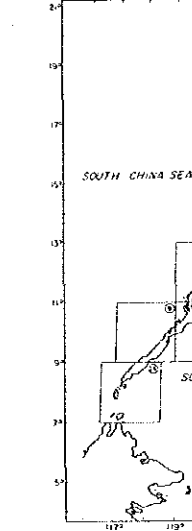
SHEET 3265II



THE MINERAL DEPOSITS CONTRASTING

THE REPUBLIC

SAMPLING POINTS OF THE ELECTRIC CO. SOUTHERN SIERRA



JAPAN INTERNATIONAL METAL MINING CORPORATION

SEPTEMBER

Scale

0 1000 2000 3000 4000

Scale

0 1000 2000 3000 4000

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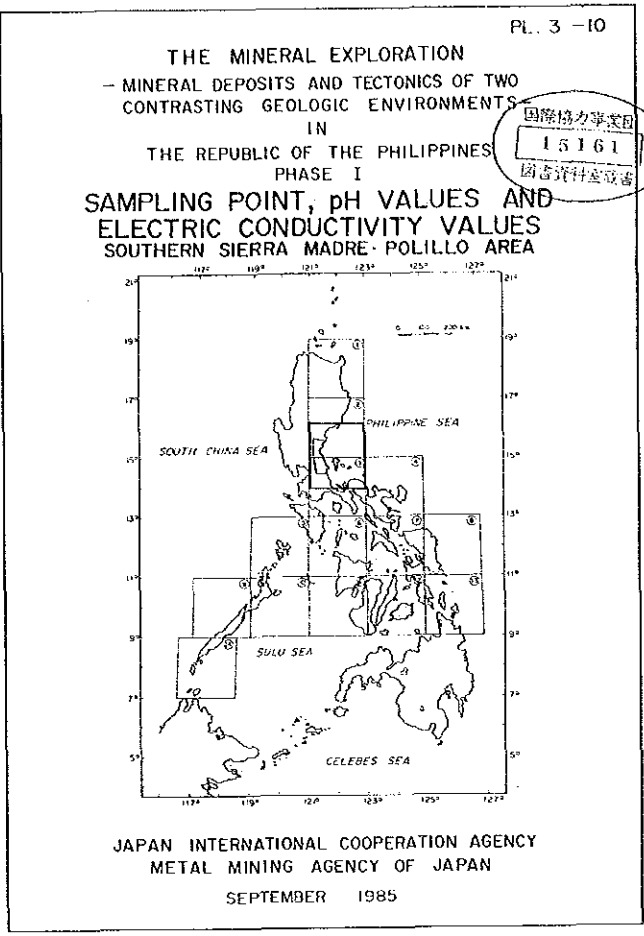
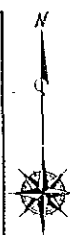
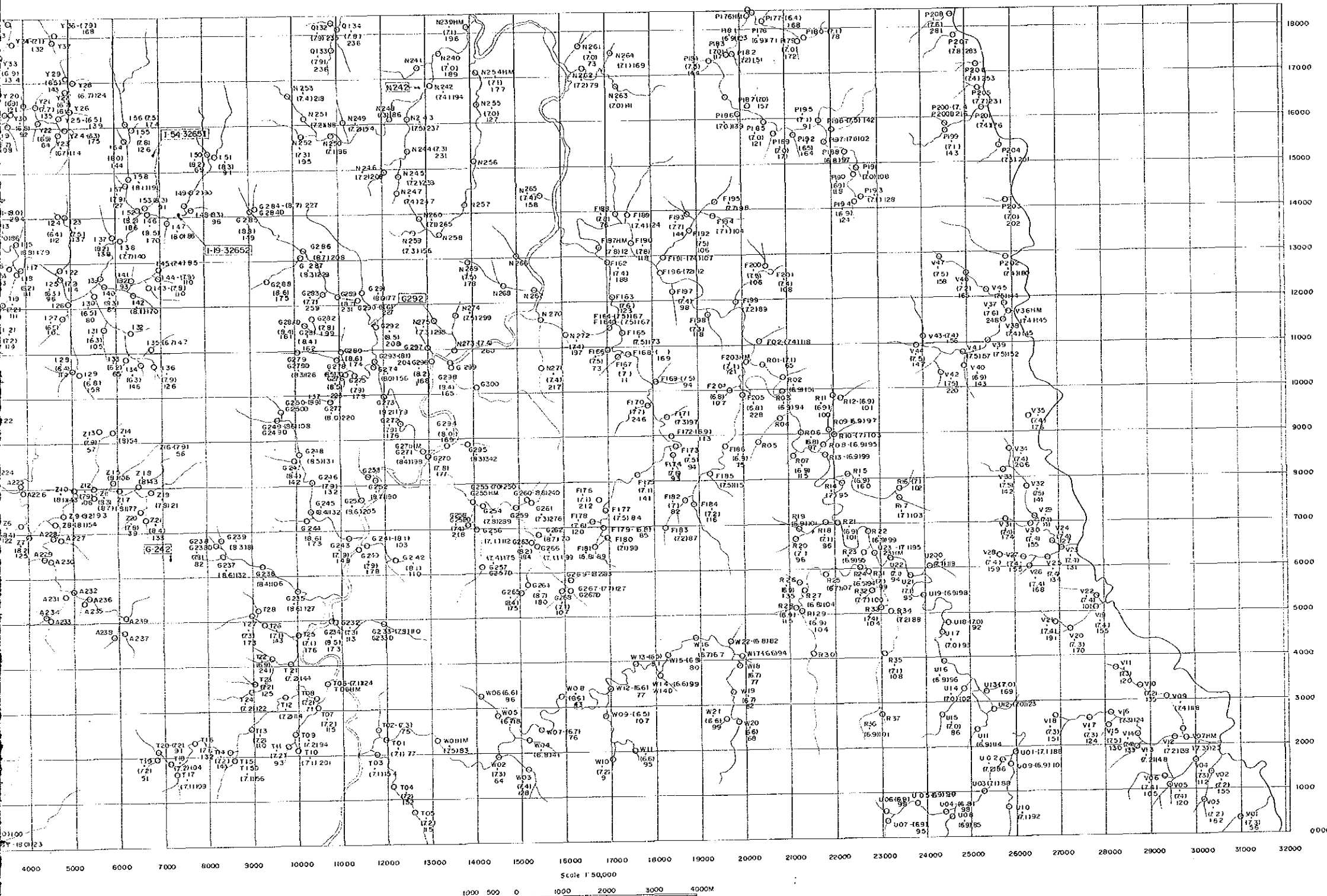
Scale

0 1000 2000 3000 4000

Scale

ULALIKAN POINT

SHEET 3265 II



LEGEND

- : Sampling point (Stream sediment, heavy mineral)
- (7.01) : pH
- (280) : Electric conductivity (μs/cm)
- 48 : Sampling point (for laboratory work)

