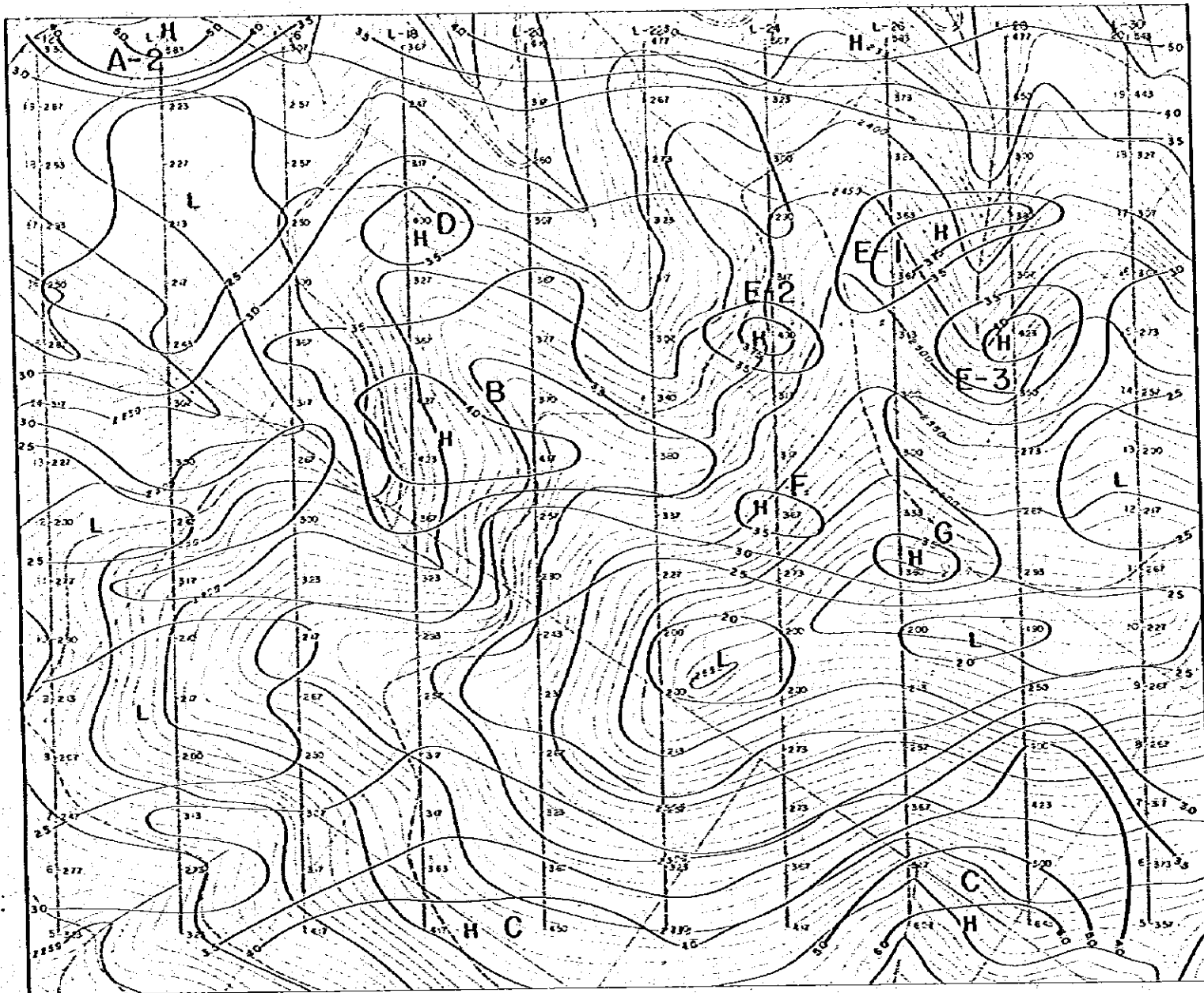


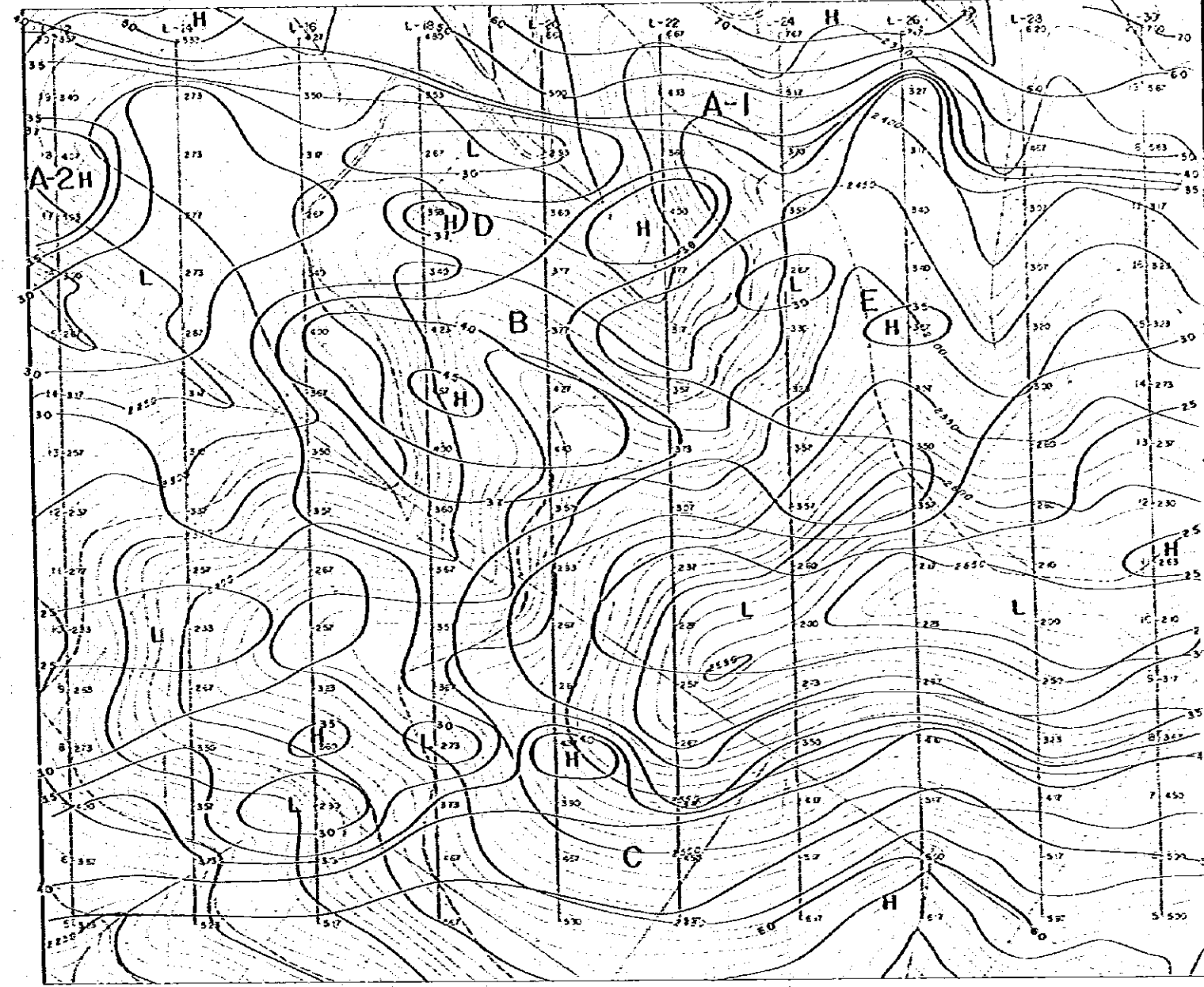
CHARGEABILITY (milli-sec)

M-1 $\sigma=100m$ (Depth)



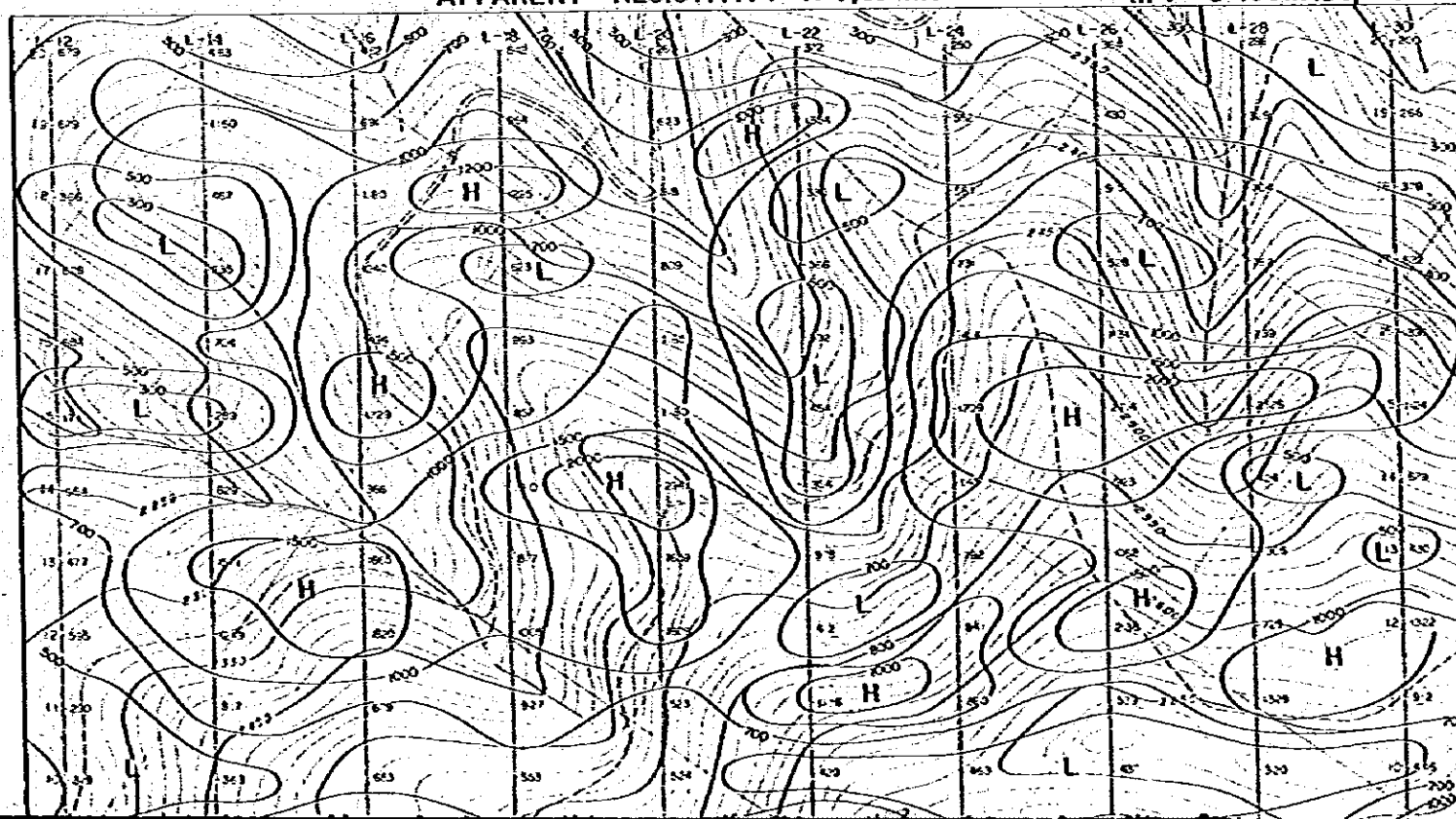
CHARGEABILITY (milli-sec)

M-2 $\sigma=200m$ (Depth)



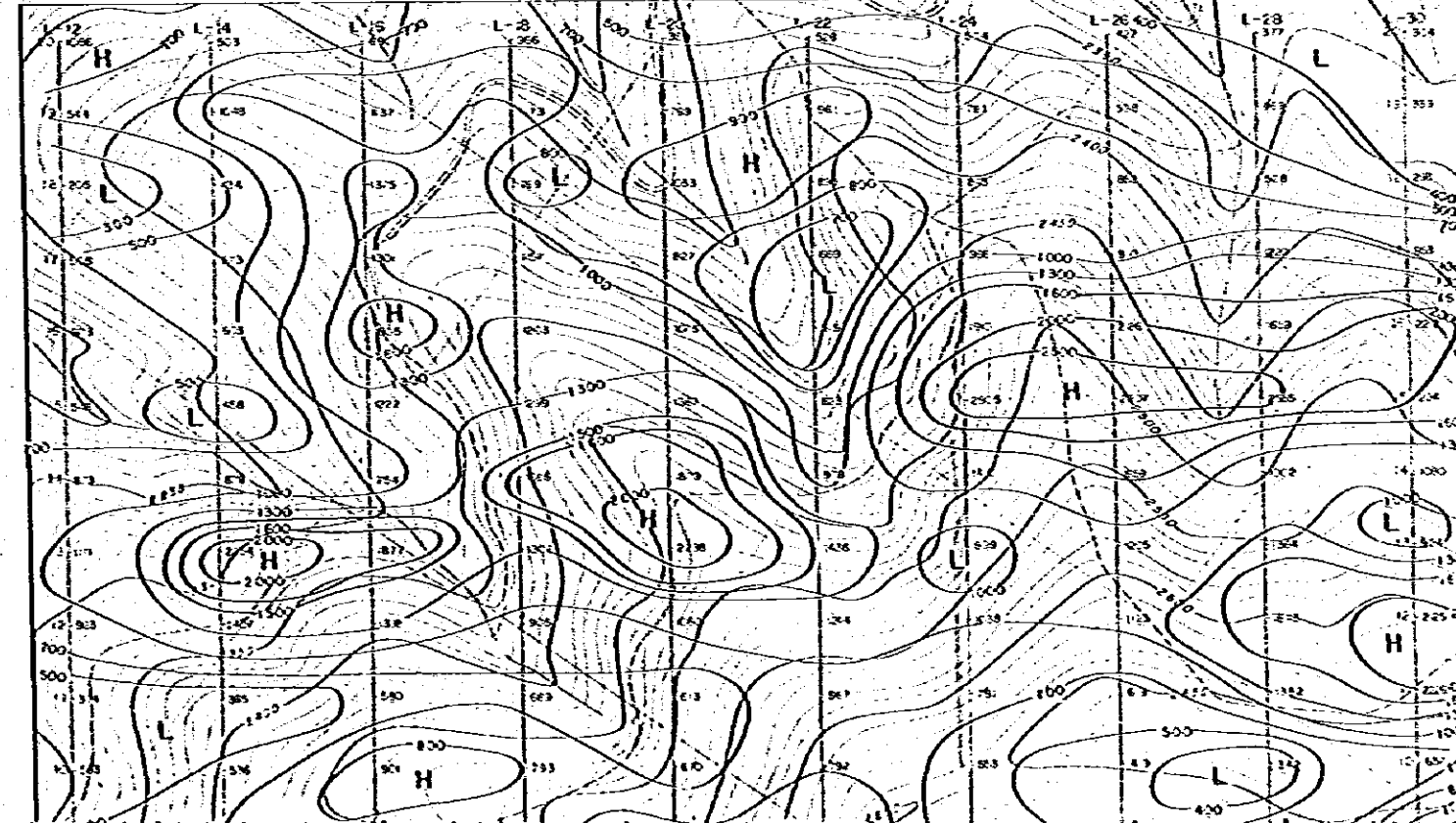
APPARENT RESISTIVITY ($\rho_a, \Omega\cdot m$)

M4 $\sigma=100m$ (Depth)



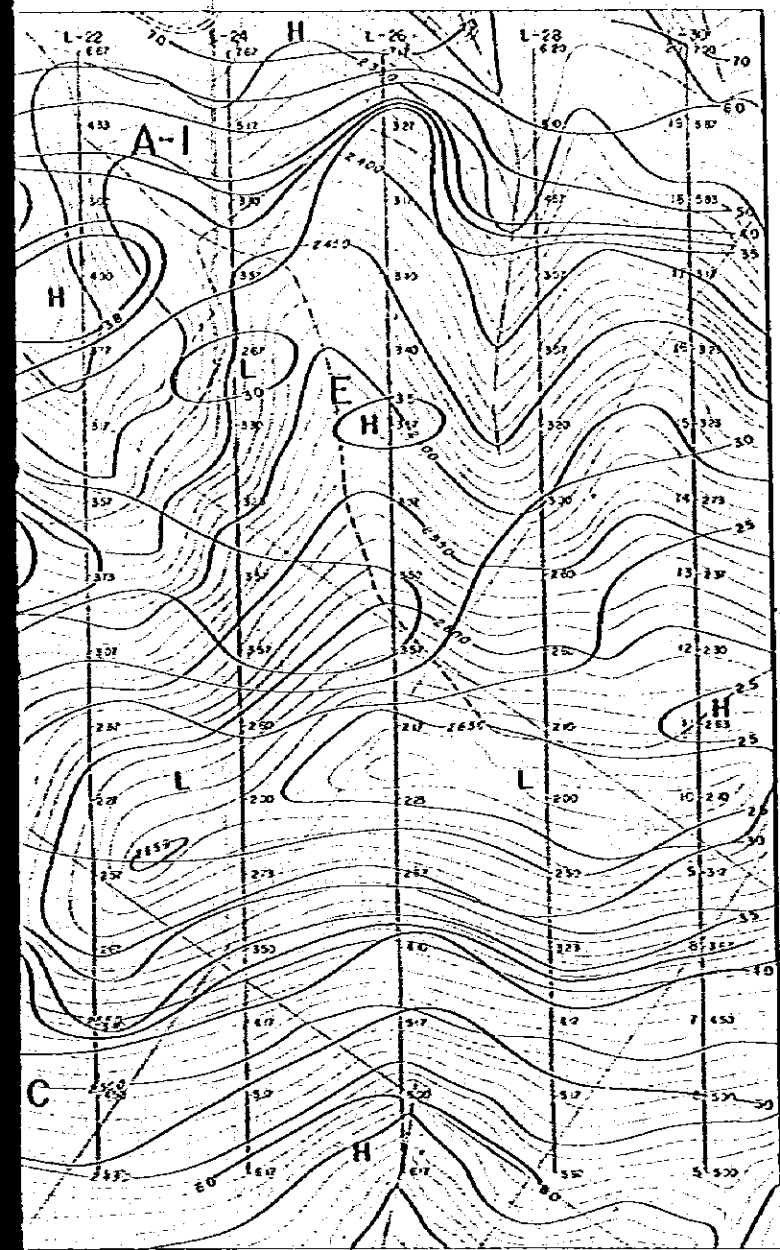
APPARENT RESISTIVITY ($\rho_a, \Omega\cdot m$)

M-5 $\sigma=200m$ (Depth)



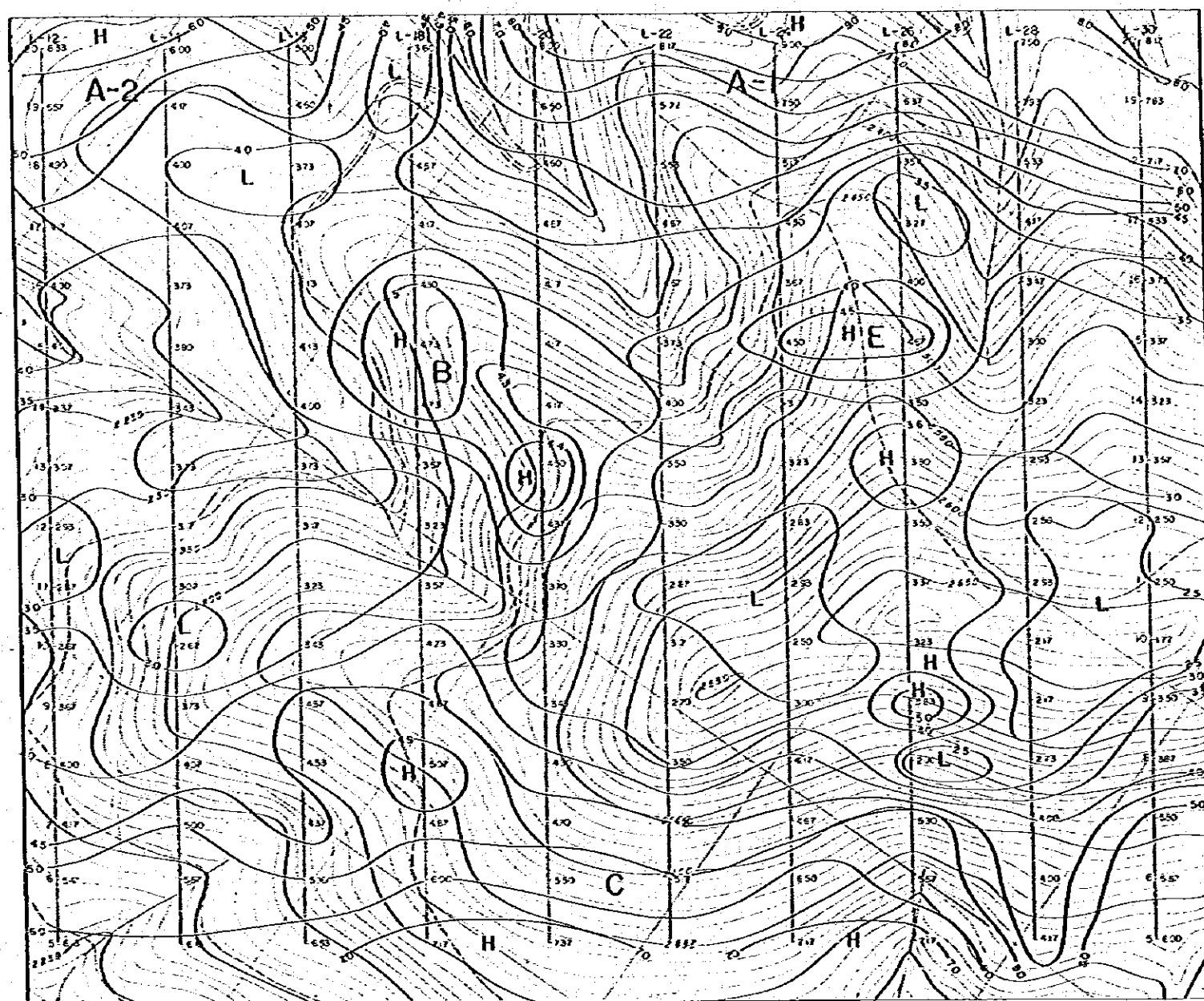
ITY (milli-sec)

M-2 $\alpha=200m$ (Depth)



CHARGEABILITY (milli-sec)

M-3 $\alpha=300m$ (Depth)



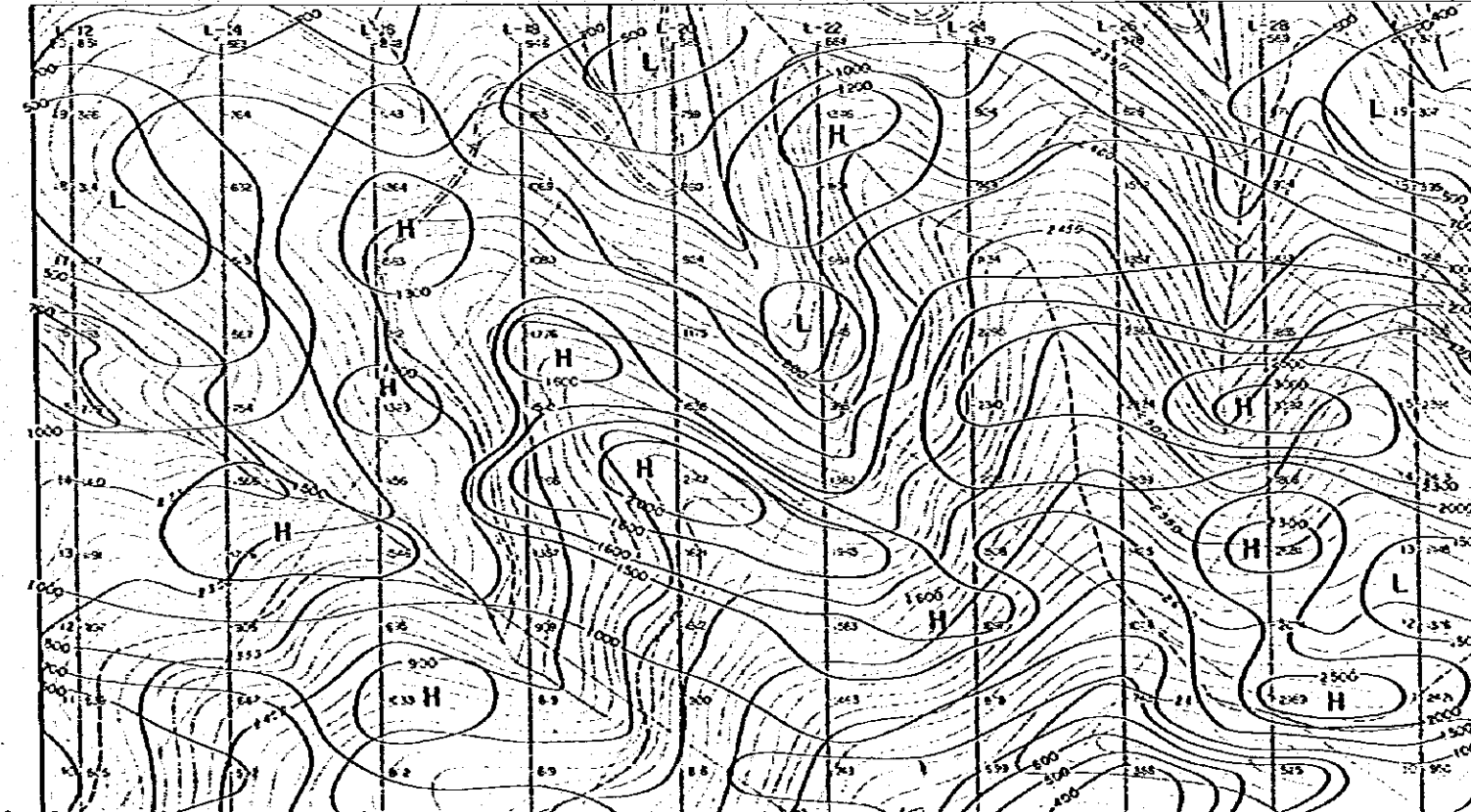
VITY ($\rho_a, \Omega-m$)

M-5 $\alpha=200m$ (Depth)



APPARENT RESISTIVITY ($\rho_a, \Omega-m$)

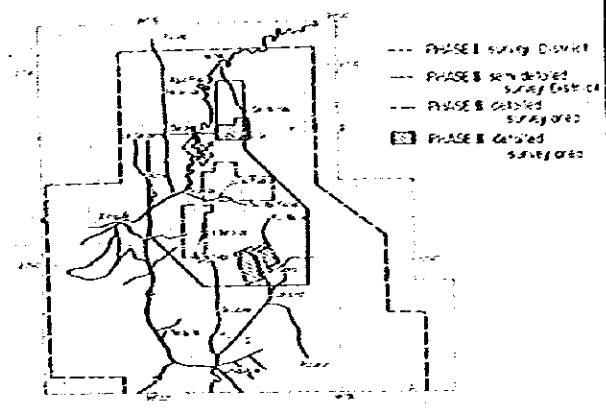
M-6 $\alpha=300m$ (Depth)



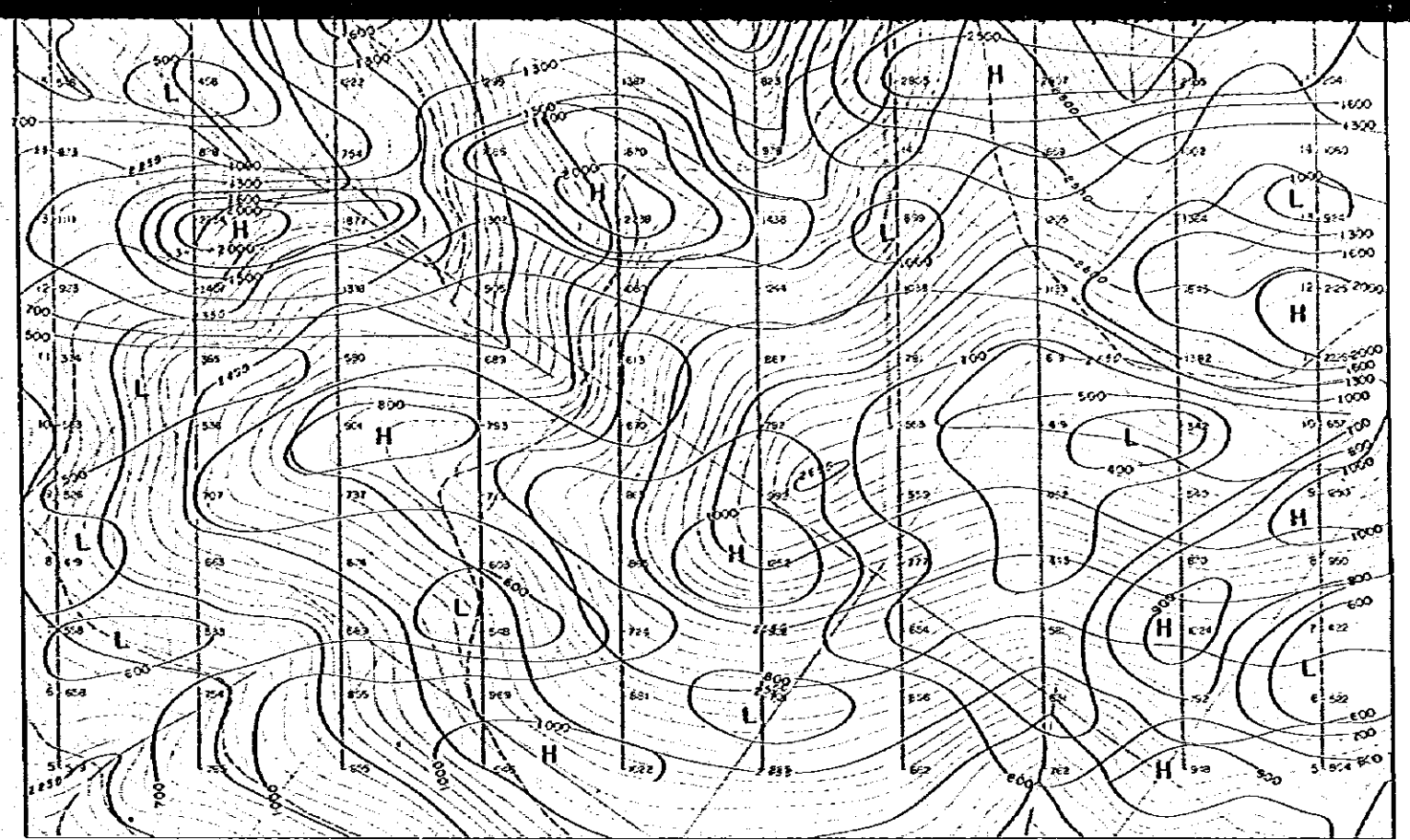
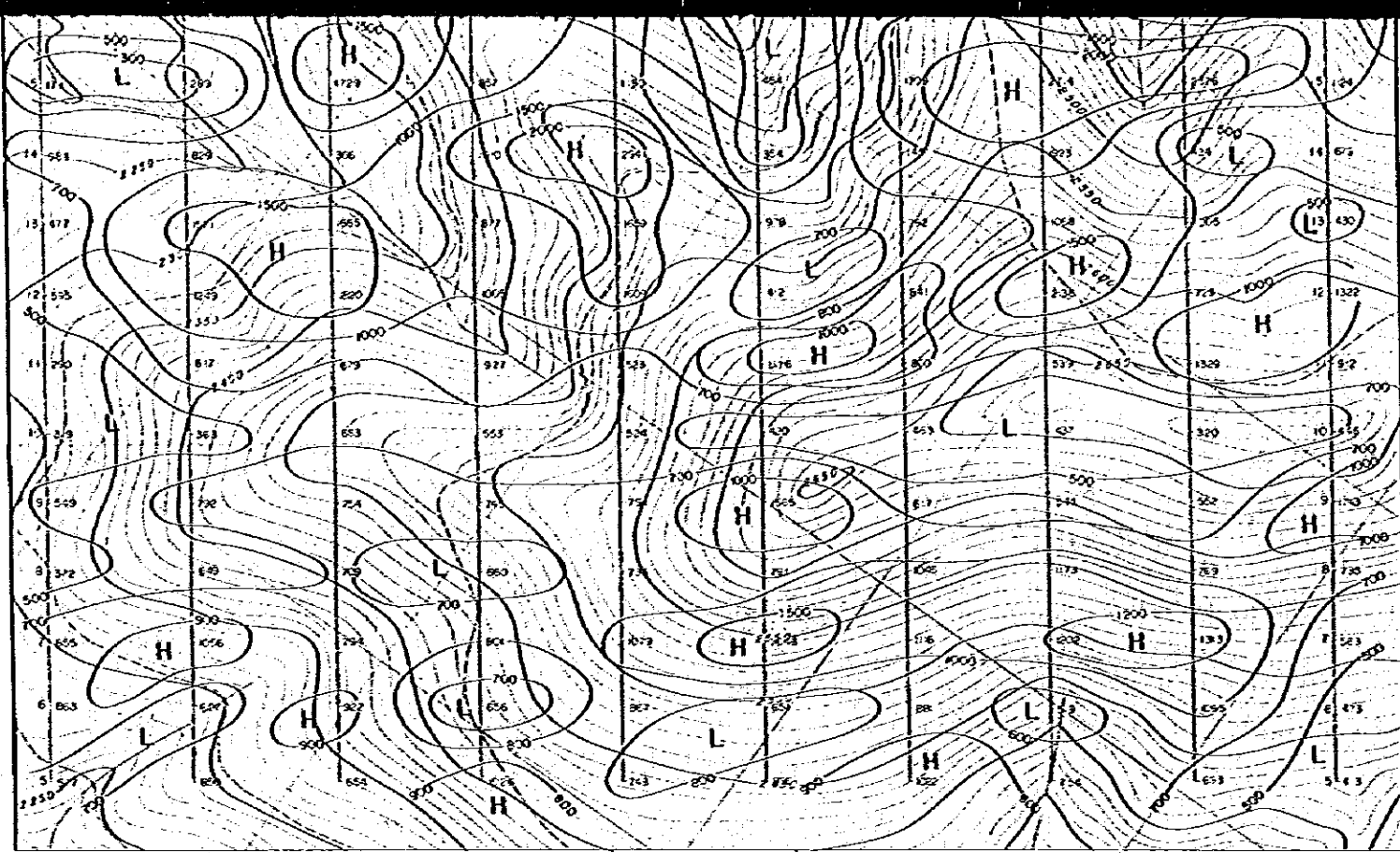
GEOLOGICAL SURVEY
OF
THE PACHUCA - ZIMAPAN AREA
PHASE II
MAPS OF IP SURVEY
PROVIDENCIA AREA

PL : 4 - 2

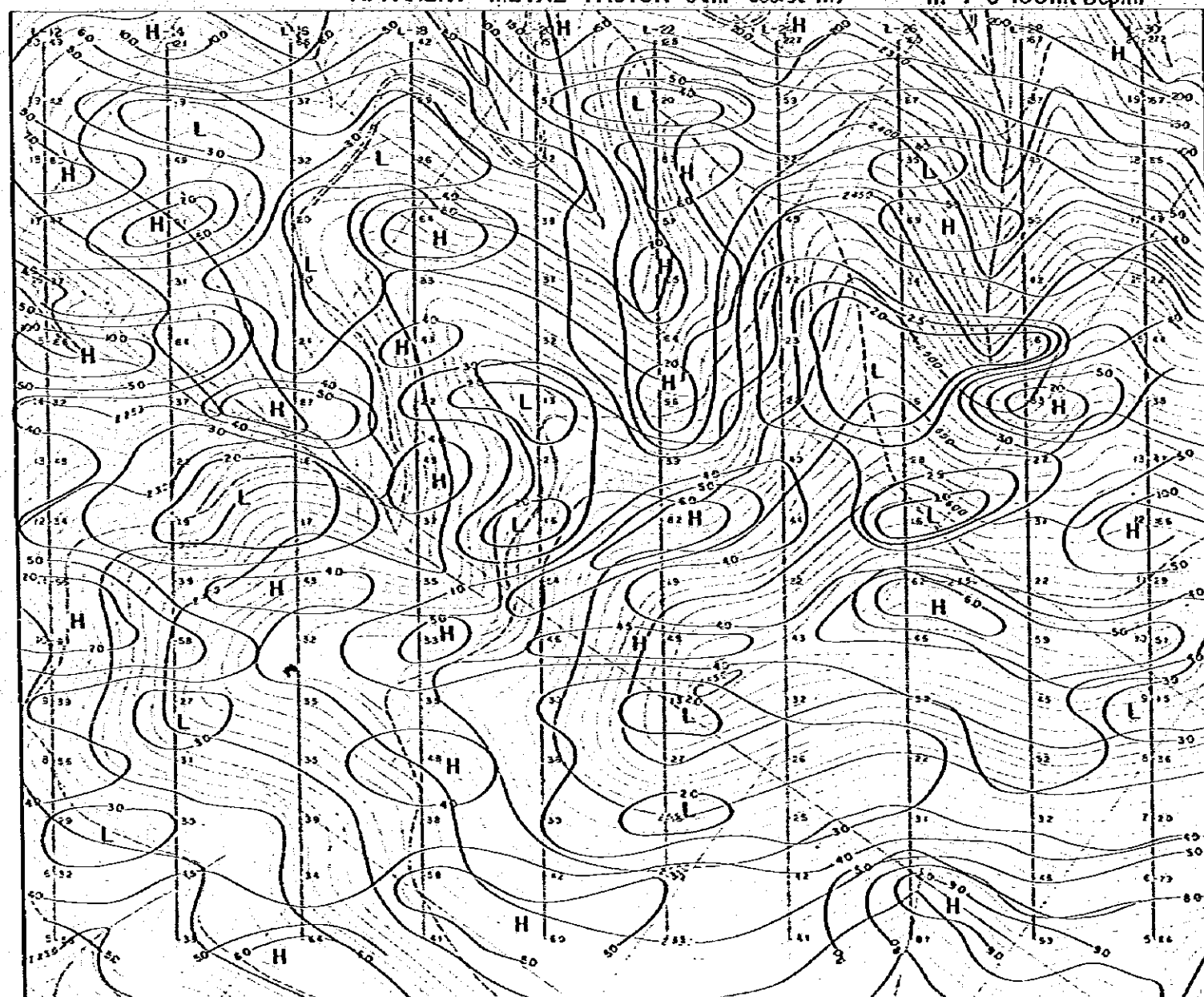
Scale 1 : 5000



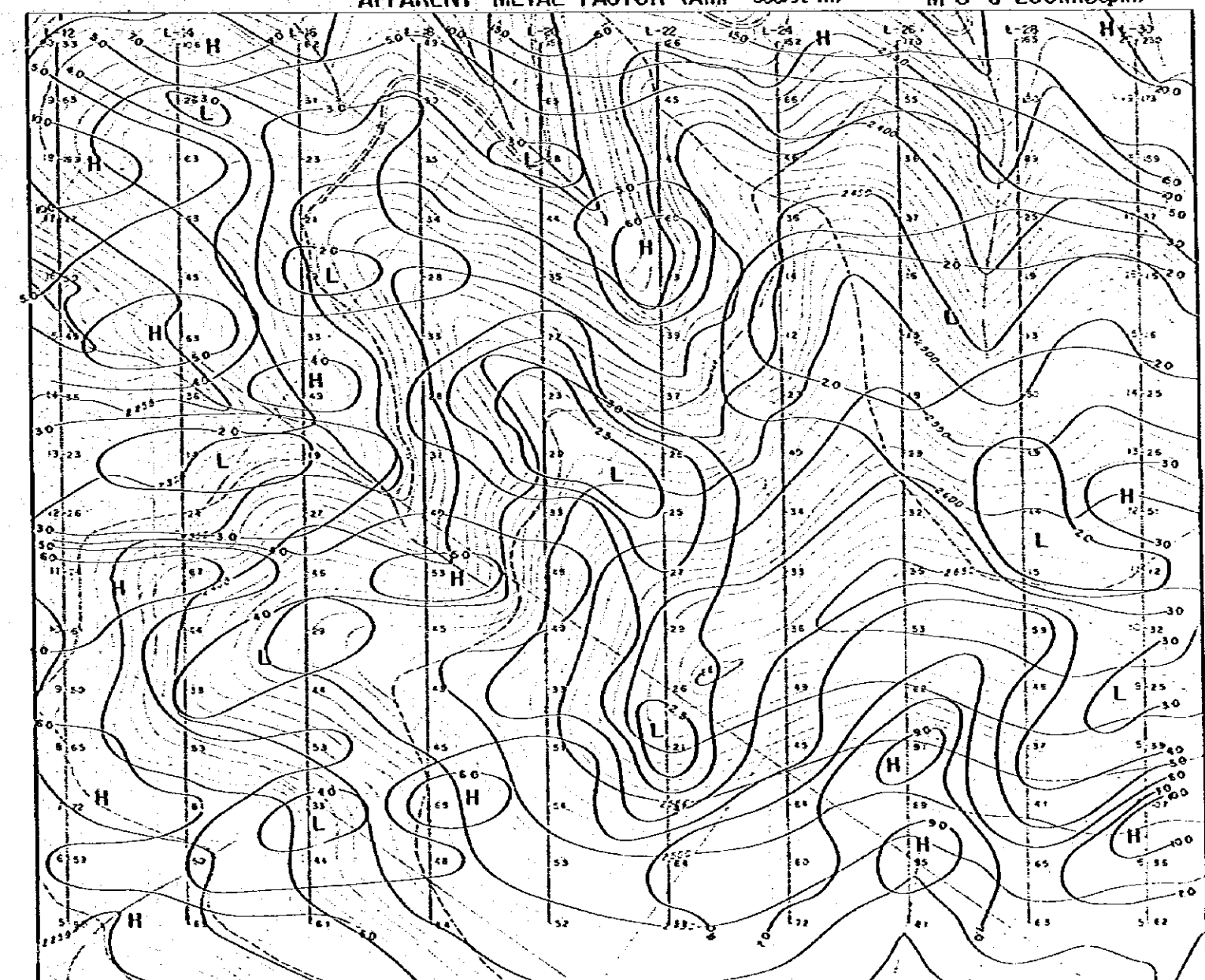
JAPAN INTERNATIONAL COOPERATION AGENCY AND
METAL MINING AGENCY OF JAPAN
IN COLLABORATION WITH
COMISSI3N DE RECURSOS MINERALES DE MEXICO
FEBRUARY 1982

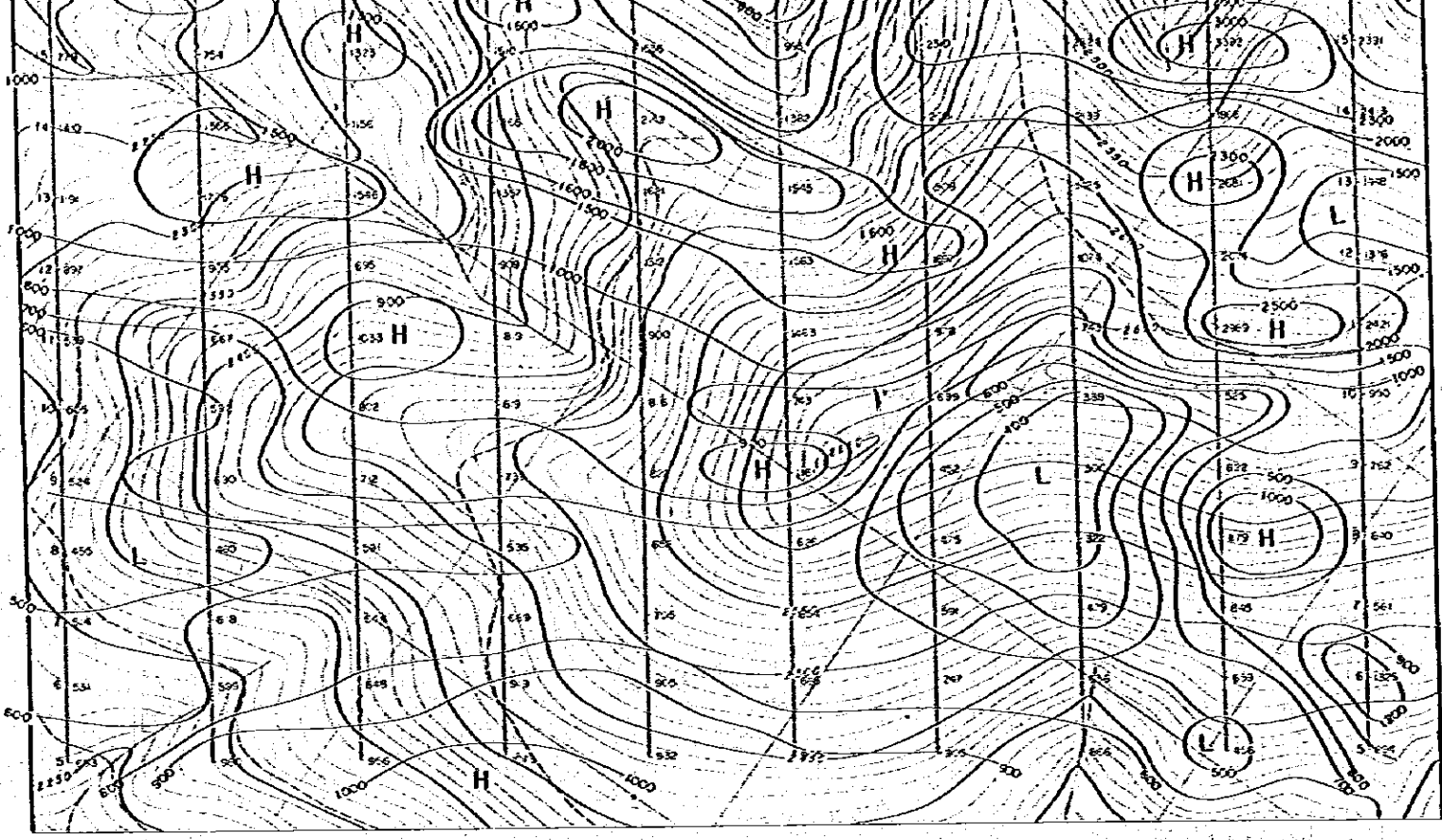
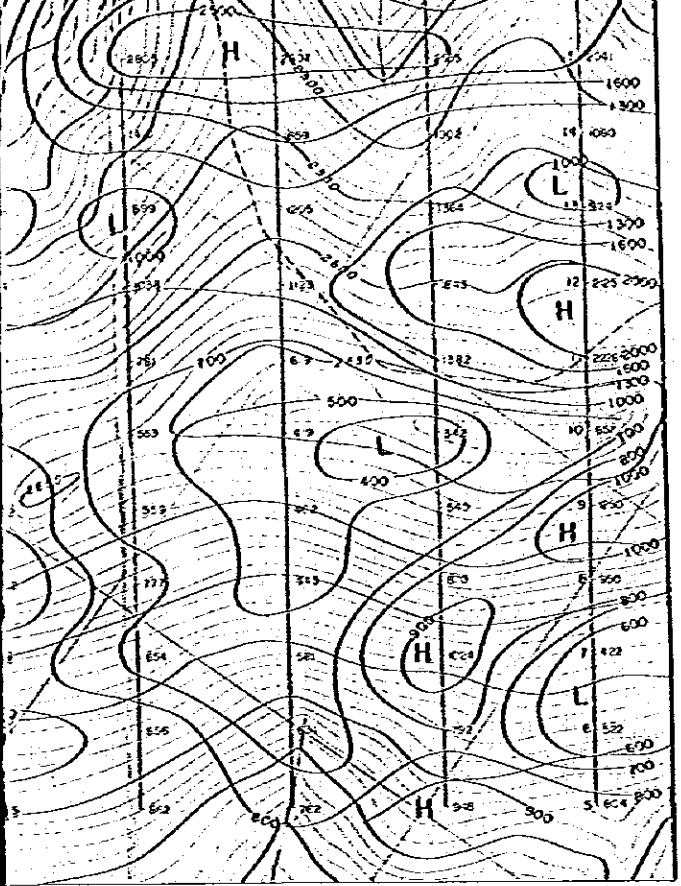


APPARENT METAL FACTOR (AMF sec/n-m) M-7 $\sigma=100m$ (Depth)

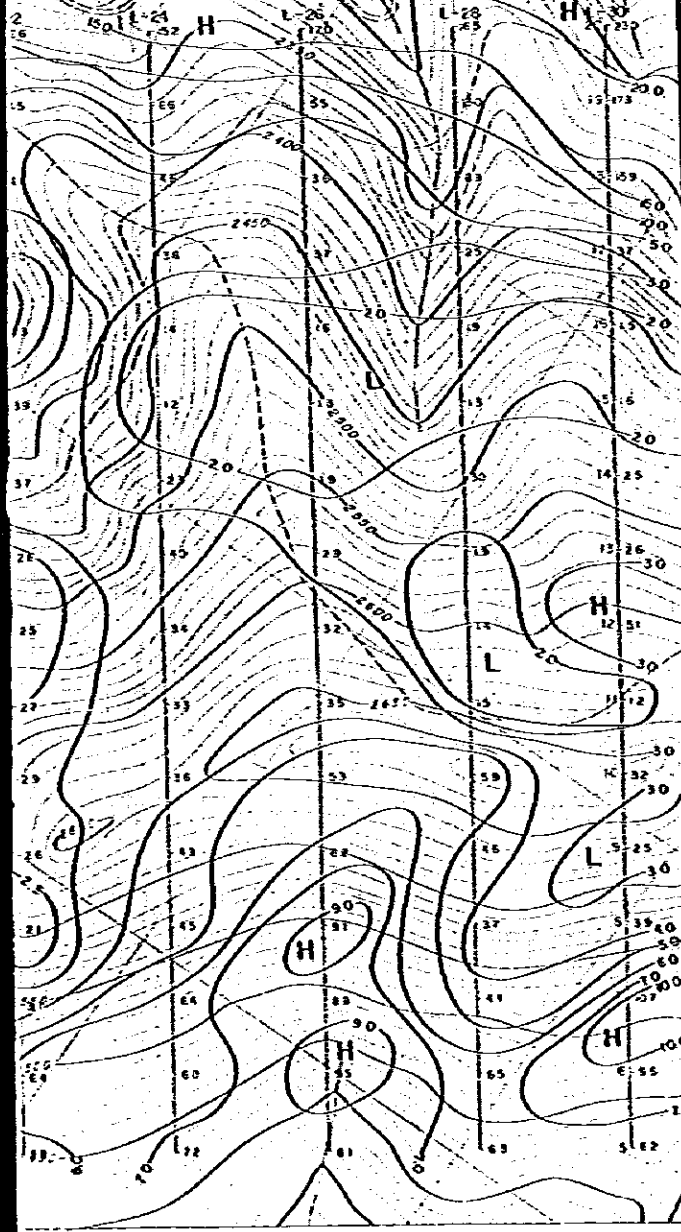


APPARENT METAL FACTOR (AMF sec/n-m) M-8 $\sigma=200m$ (Depth)





(AMF sec/n-m) M-8 $\alpha=200\text{m}(\text{Depth})$

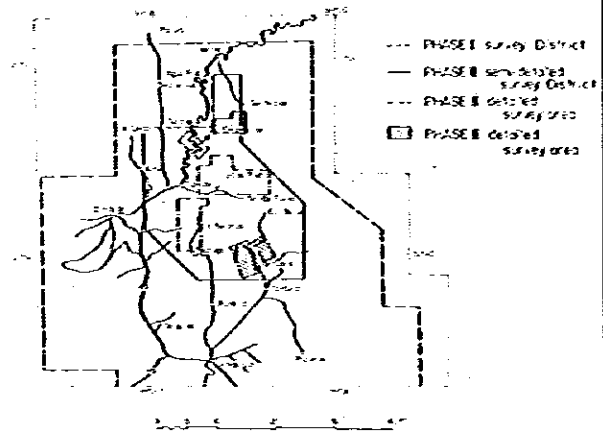


APPARENT METAL FACTOR (AMF sec-n-m) M-9 $\alpha=300\text{m}(\text{Depth})$

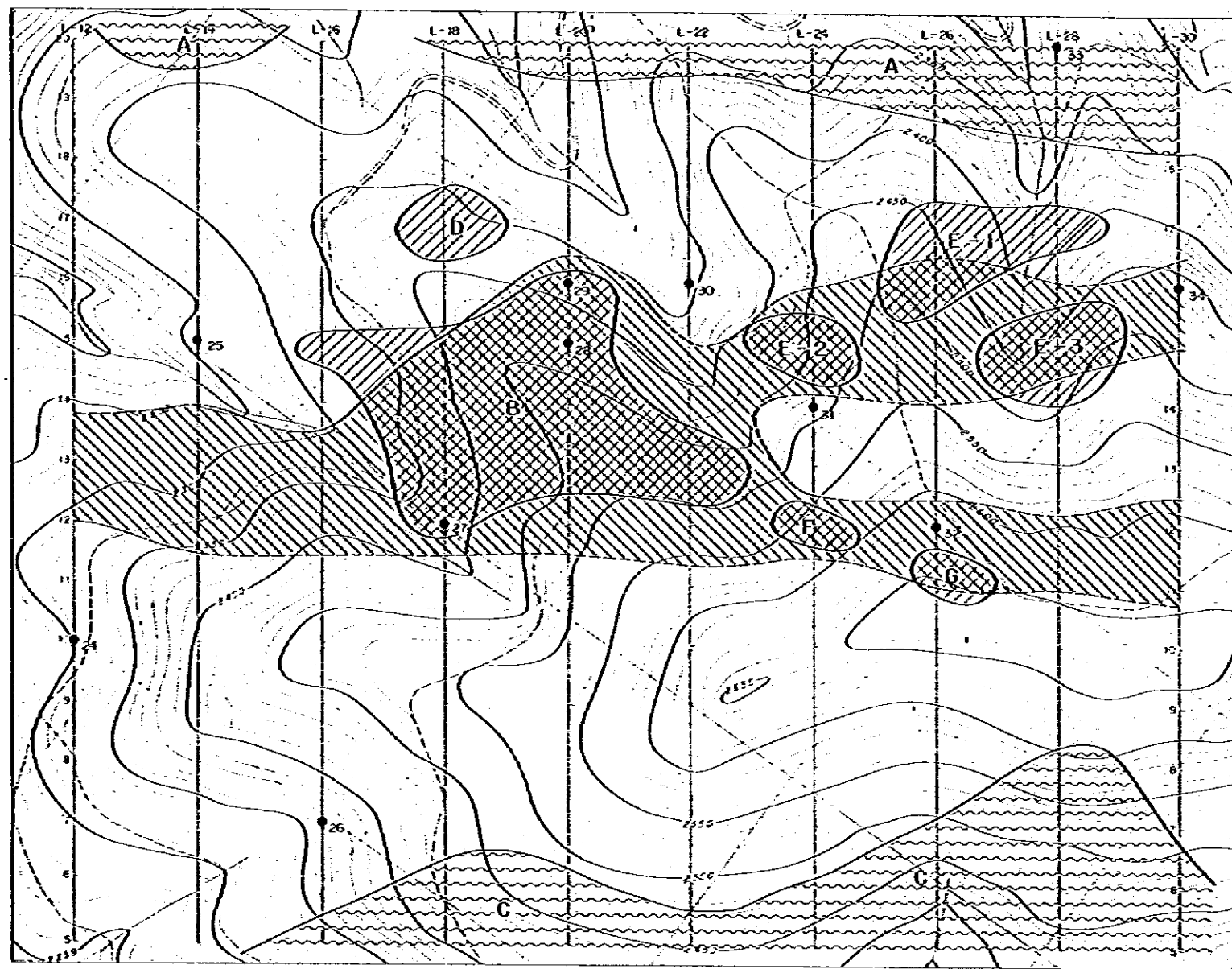


GEOLOGICAL SURVEY
OF
THE PACHUCA - ZIMAPAN AREA
PHASE II

INTERPRETATION MAP OF IP SURVEY

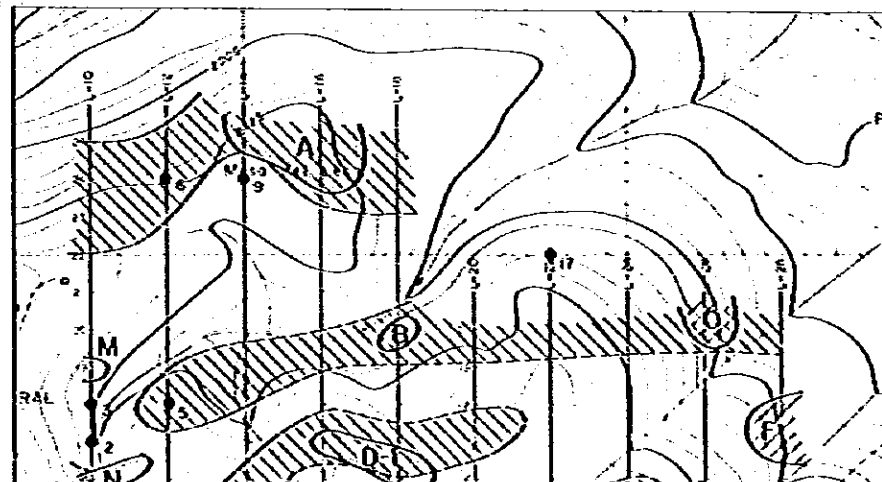


JAPAN INTERNATIONAL COOPERATION AGENCY AND
METAL MINING AGENCY OF JAPAN
IN COLLABORATION WITH
CONSEJO DE RECURSOS MINERALES DE MEXICO
FEBRUARY 1982







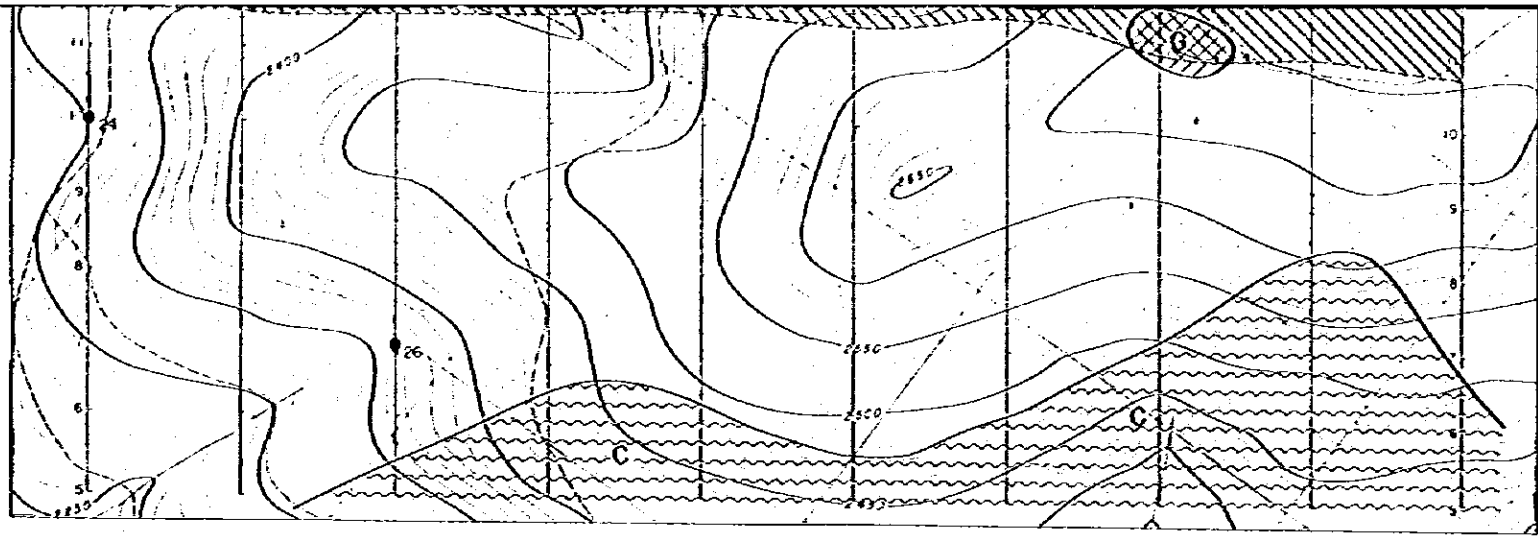
EL TEJOCOTE AREA

S = 1:5,000



EXPLANATION

-  IP anomalous zone (high possibility in the EL TEJOCOTE, a little possibility in the FRONTERONIA)
-  IP anomalous zone (less possibility)
-  IP anomalous zone (weak possibility)
-  High resistivity zone
- A, B** Name of IP anomalous zone
- Location of rock sample and its number








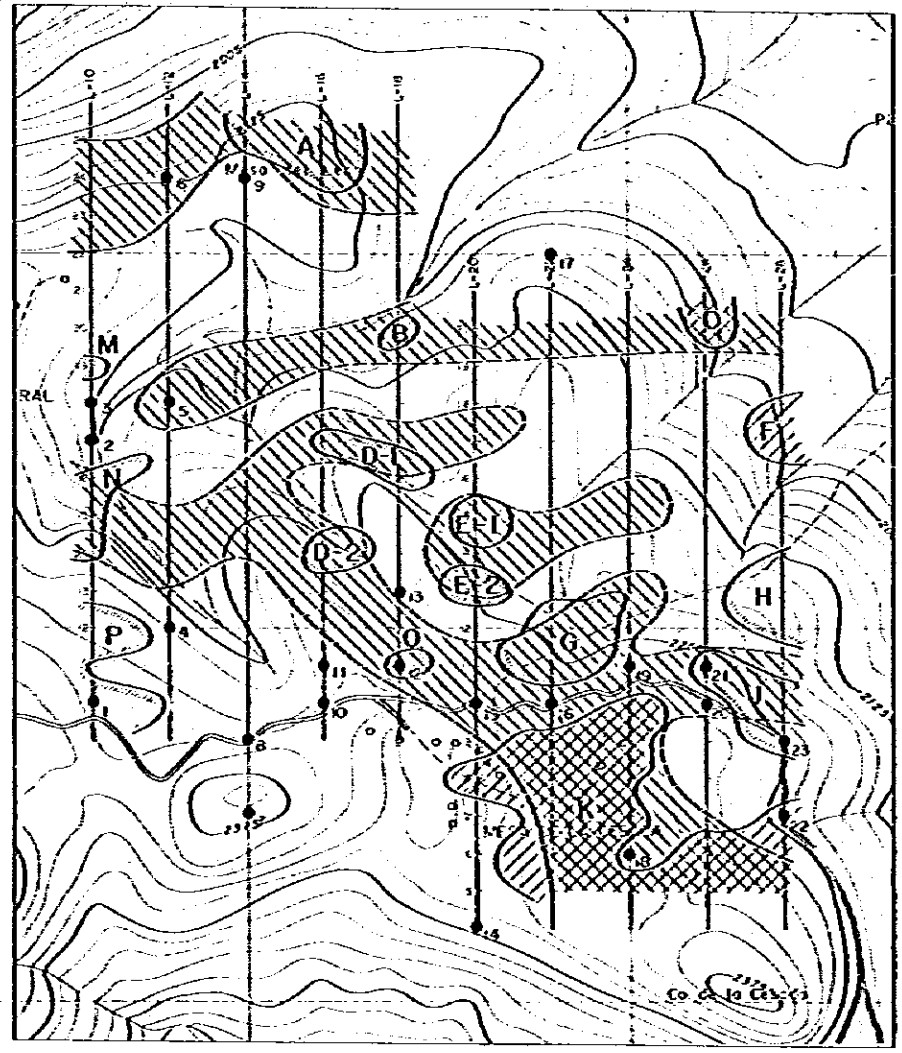
EL TEJÓCOTE AREA

0 100 200 400
S = 1:5,000

JAPAN INTERNATIONAL COOPERATION AGENCY AND
METAL MINING AGENCY OF JAPAN
IN COLLABORATION WITH
CONSEJO DE RECURSOS MINERALES DE MEXICO
FEBRUARY 1982

EXPLANATION

-  IP anomalous zone (high possibility in the EL TEJÓCOTE, a little possibility in the PROVIDENCIA)
-  IP anomalous zone (less possibility)
-  IP anomalous zone (weak possibility)
-  High resistivity zone
- A, B** Name of IP anomalous zone
-  Location of rock sample and its number



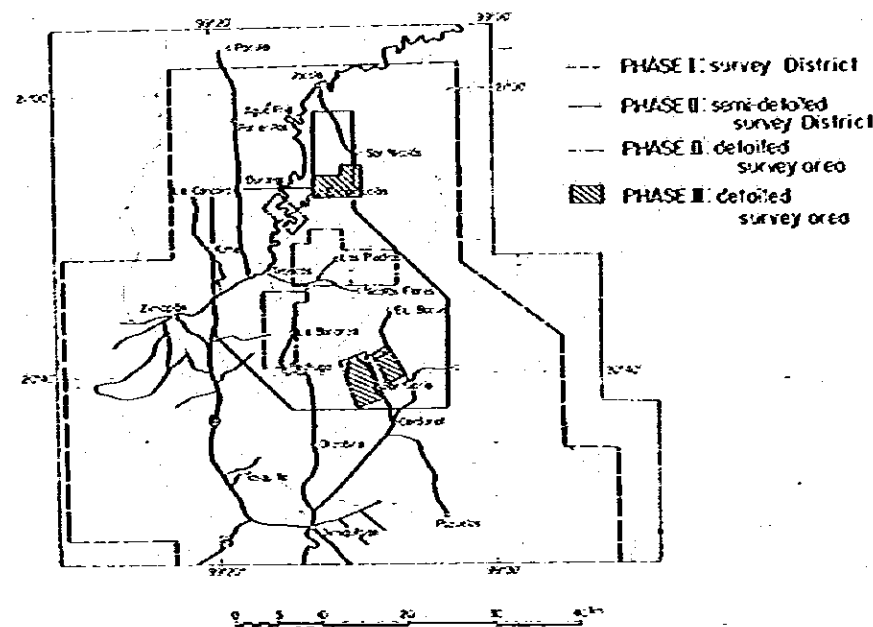
PROVIDENCIA AREA

0 200 400
S = 1:10,000

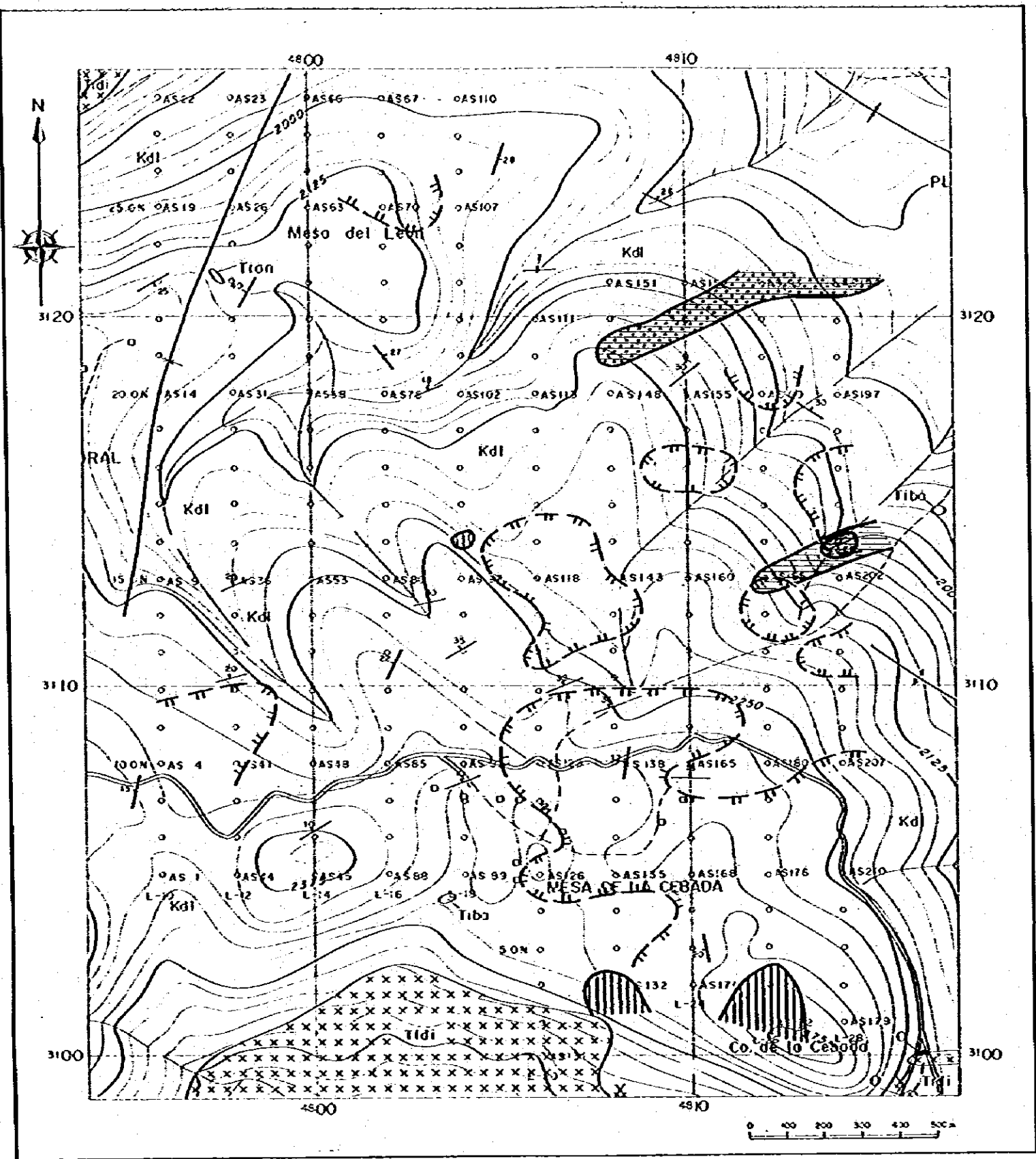
GEOLOGICAL SURVEY
OF
THE PACHUCA - ZIMAPAN AREA
PHASE II

INTERPRETATION MAP OF THE
EL TEJOCOTE AREA

Scale 1 : 10,000



JAPAN INTERNATIONAL COOPERATION AGENCY AND
METAL MINING AGENCY OF JAPAN
IN COLLABORATION WITH
CONSEJO DE RECURSOS MINERALES DE MEXICO
FEBRUARY 1982



LEGEND

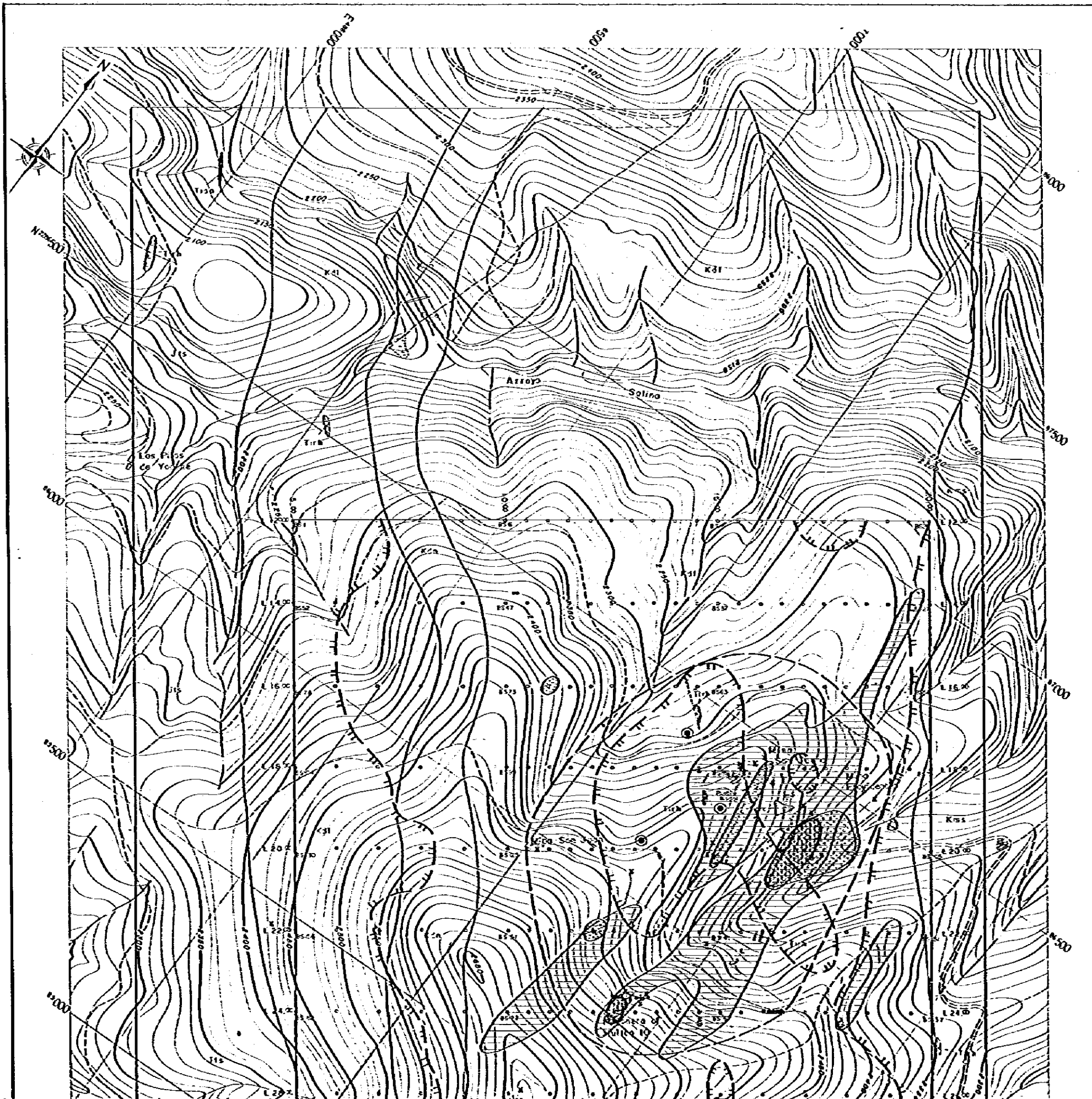
- | | | |
|-------------|------------------------|-----------------|
| Ore outcrop | Diorite ~ granodiorite | Anticlinal axis |
| Andesite | Limestone | Synclinal axis |
| Basalt | Bedding | Prospect |

Geochemical Cu, Pb and Ag anomalies

- | | |
|--|---|
| | : A-class of anomalies, Cu \geq 240ppm |
| | : A-class of anomalies, Pb \geq 1230ppm |
| | : A-class of anomalies, Ag \geq 8.3ppm |

Geophysical Ip anomalies

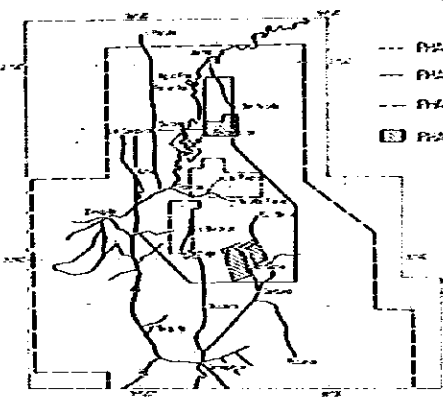
- | | |
|--|------------|
| | : d = 200m |
|--|------------|



PL 5-2

GEOLOGICAL SURVEY
OF
THE PACHUCA - ZIMAPAN AREA
PHASE III
INTERPRETATION MAP OF THE
PROVIDENCIA AREA

Scale 1 : 5,000



--- PHASE I survey District

--- PHASE II semi-detailed survey District

--- PHASE II detailed survey area

▭ PHASE II detailed survey area

JAPAN INTERNATIONAL COOPERATION AGENCY AND
METAL MINING AGENCY OF JAPAN
IN COLLABORATION WITH
CONSEJO DE RECURSOS MINERALES DE MEXICO
FEBRUARY 1982

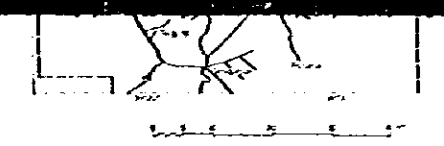
LEGEND

Tertiary intrusive rocks		Rhyolite	
		Andesite	
Mendez Formation		Shale interbedded with siltstone and marl	
		Alteration of muddy limestone and black Fe-4 band	
El Doctor Formation		Limestone with black Fe-4 nodules	
		Massive limestone	
Los Francos Formation		Alteration of shale, calcareous shale, marl and muddy limestone	

	Open pit
	Old mine or prospect
	Waste dump
	Ore bank
	Slag dump
	Ore vein (out crop)
	Ore float
	Mining claim stake

Geochemical Cu, Pb and Ag anomalies

	A class of anomalies, Cu ≥ 141 ppm
	AA and A class of anomalies, Fe ≥ 923 ppm
	A class of anomalies, Ag ≥ 66 ppm



JAPAN INTERNATIONAL COOPERATION AGENCY AND
 METAL MINING AGENCY OF JAPAN
 IN COLLABORATION WITH
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 FEBRUARY 1982

LEGEND

- | | | |
|--------------------------|--|---|
| Tertiary intrusive rocks | | Rhyolite |
| | | Andesite |
| Mendez Formation | | Shale intercalated with siltstone and mud |
| | | Alternation of muddy limestone and black E. l. band |
| El Doctor Formation | | Limestone with black fine nodules |
| | | Massive limestone |
| Los Troncos Formation | | Alternation of shale, calcareous shale, mud and muddy limestone |

- Open pit
- Old mine or prospect
- Waste dump
- Ore bank
- Slag dump
- Ore vein (out crop)
- Ore float
- Mining claim stake

Geochemical Cu, Pb and Ag anomalies

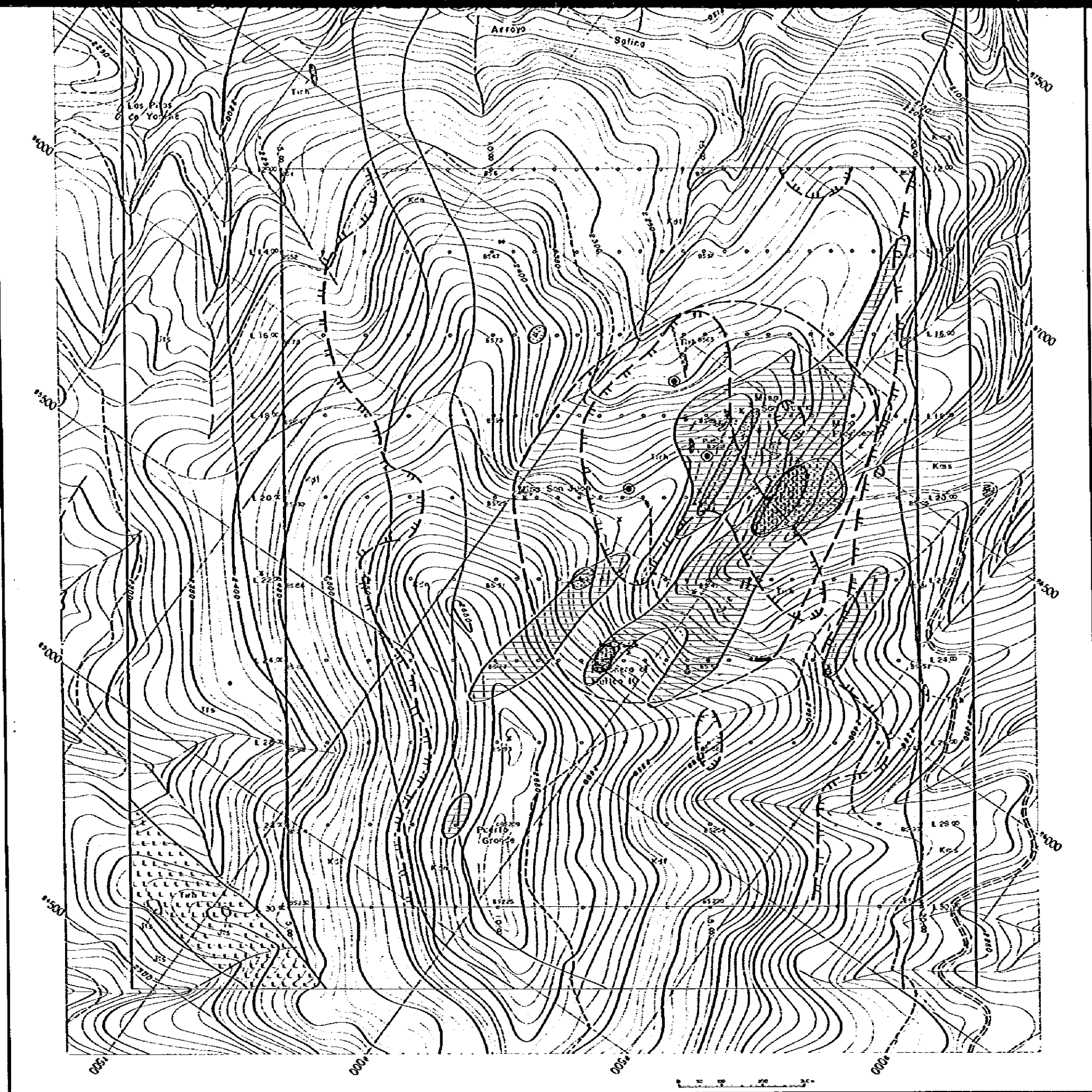
- : A class of anomalies, $Cu \geq 161 ppm$
- : AA and A class of anomalies, $Pb \geq 923 ppm$
- : A class of anomalies, $Ag \geq 6.6 ppm$

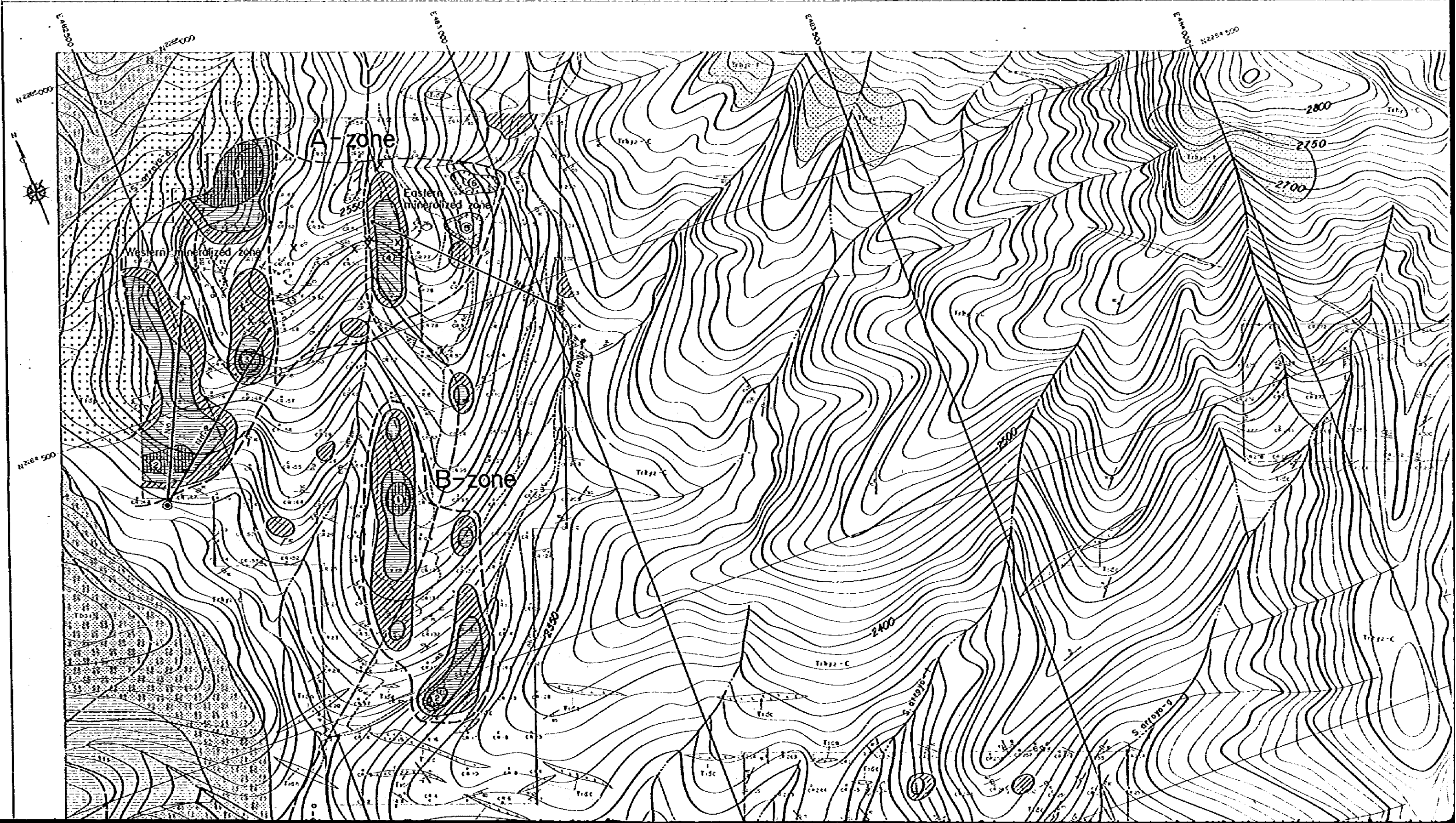
Geophysical I.P. anomalies

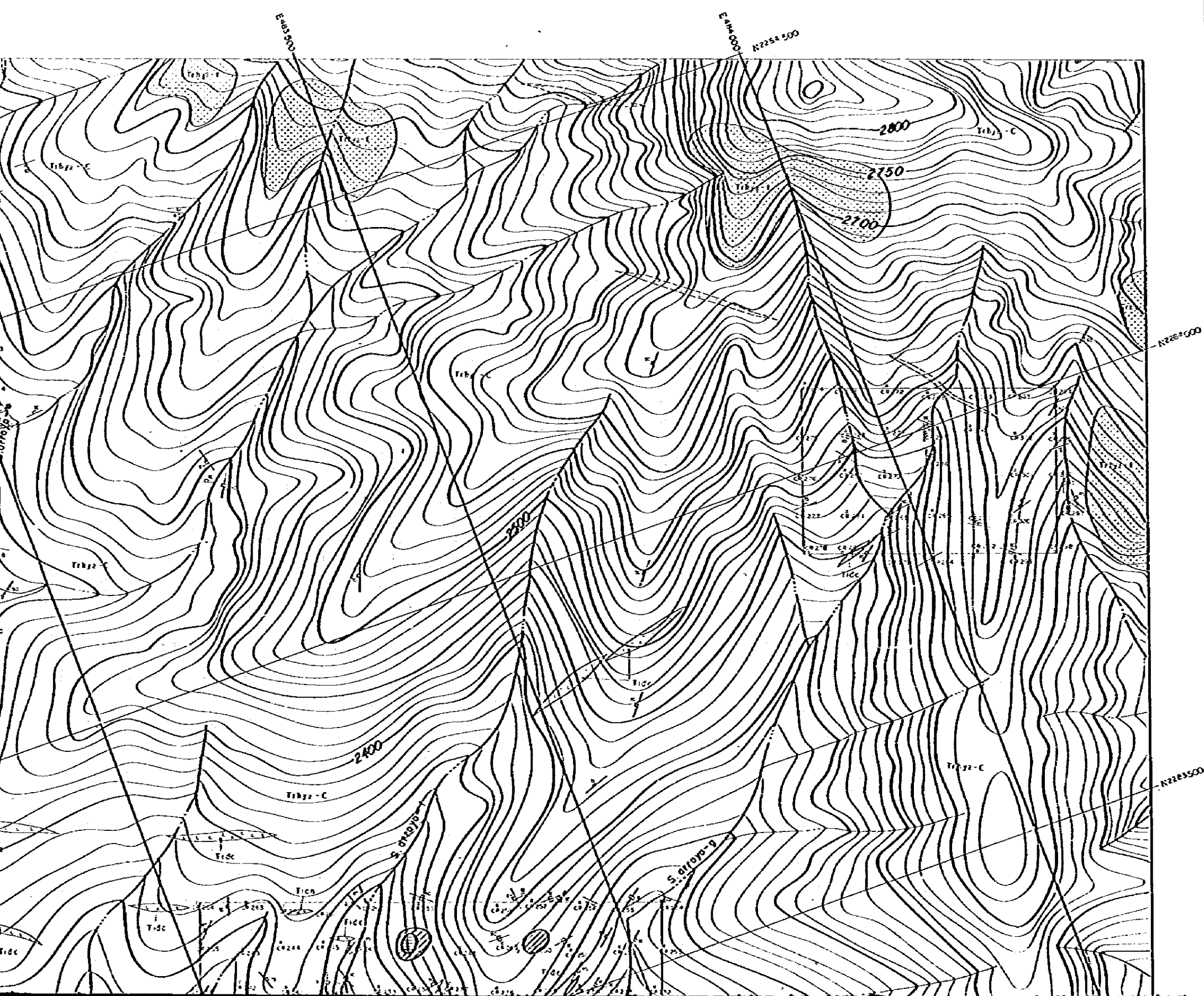
- : $\delta = 200 m$

Recommended exploration work for next phase

- : Diamond drilling to investigate the anomalies of I.P. survey and geochemical prospecting (number of drilling—3, inclination—vertical, depth—300m)
- : Detailed mapping and sketching of ore outcrops in the mineralized zone





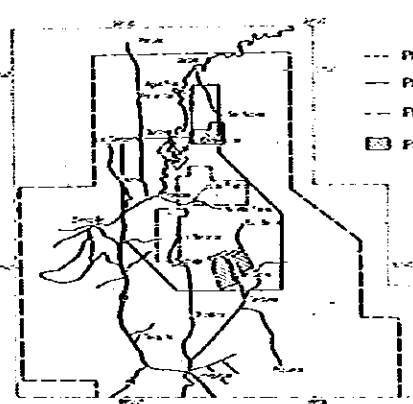


PL. 5-3

GEOLOGICAL SURVEY
OF
THE PACHUCA - ZIMAPAN AREA
PHASE III

INTERPRETATION MAP OF THE
SAN CLEMENTE AREA

Scale 1 : 2,500



--- PHASE I survey District

--- PHASE II semi-detailed survey District

--- PHASE III detailed survey area

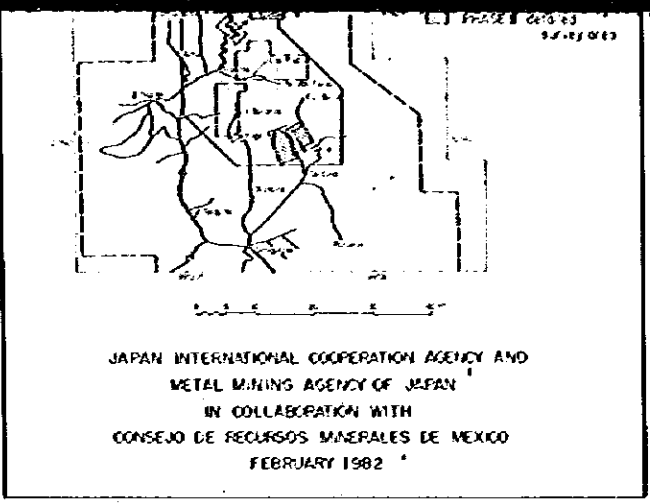
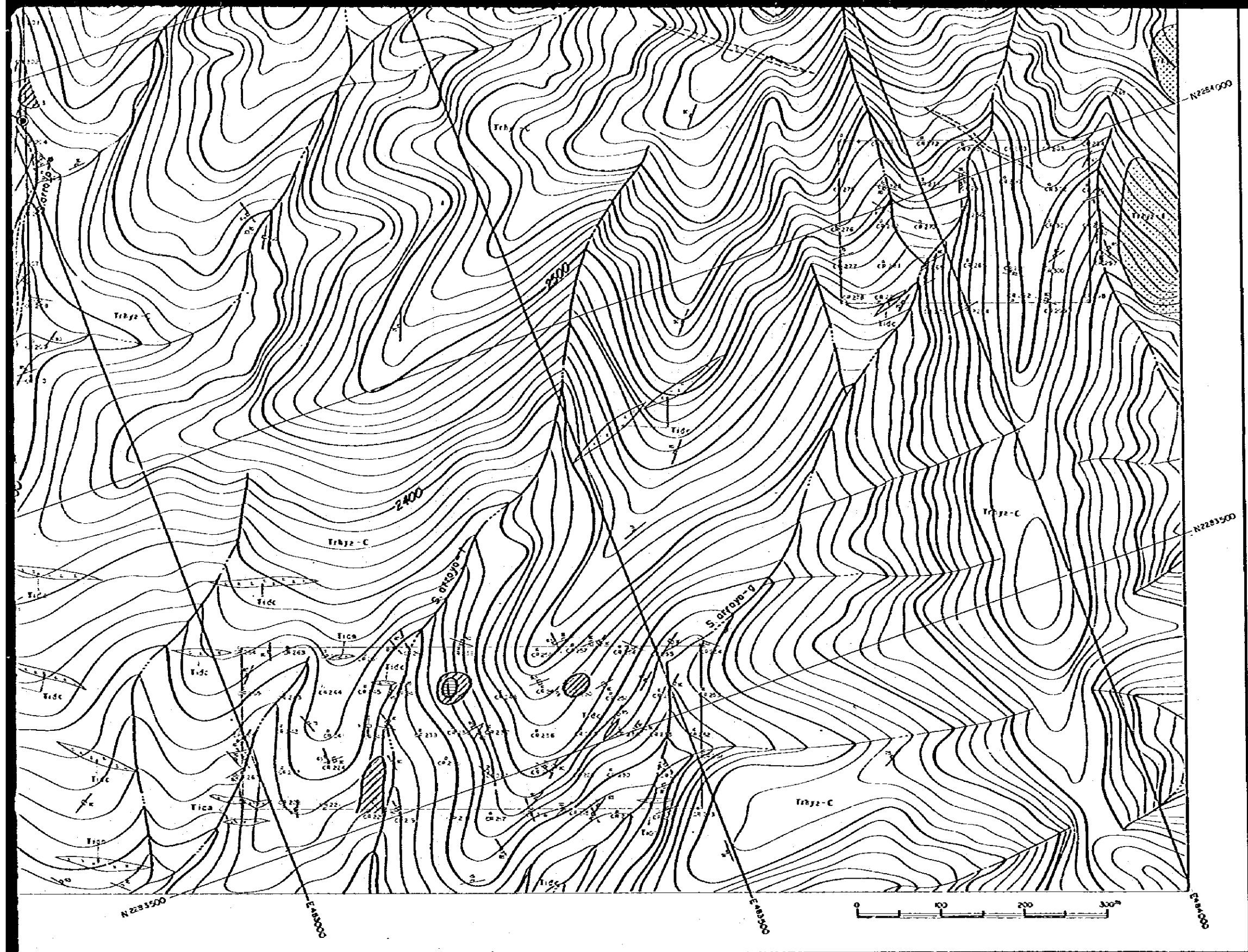
▨ PHASE III detailed survey area

JAPAN INTERNATIONAL COOPERATION AGENCY AND
METAL MINING AGENCY OF JAPAN
IN COLLABORATION WITH
CONSEJO DE RECURSOS MINERALES DE MEXICO
FEBRUARY 1992

LEGEND

- Geology**
- | | |
|--|--|
| <p> Rhyolitic tuff breccia</p> <p> Compact rhyolite</p> <p> Basalt lava and pyroclastic rocks</p> <p> Shale intercalated with sandstone and marl</p> | <p> Basalt dike</p> <p> Andesite dike</p> <p> Diorite porphyry</p> |
|--|--|
- Geological symbols**
- | | |
|---|--|
| <p> Brecciated zone</p> <p> Joint</p> <p> Fault</p> | <p> Adit</p> <p> Open pit</p> <p> Trench and pit</p> |
|---|--|
- Geophysical ^{40}K & ^{137}Cs anomalies**
- | | |
|---|--|
| <p> AA class of anomalies</p> <p> A class of anomalies</p> <p> B class of anomalies</p> | <p>AA $\geq 4.47 \text{ RCm}$</p> <p>A $4.47 > A \geq 1.00 \text{ RCm}$</p> <p>B $1.00 > B \geq 0.63 \text{ RCm}$</p> |
|---|--|





LEGEND

- Geology**
- Rhyolitic tuff breccia
 - Compact rhyolite
 - Basalt lava and pyroclastic rocks
 - Shale intercalated with sandstone and marl
 - Diorite dike
 - Andesite dike
 - Diorite porphyry
- Geological symbols**
- Brecciated zone
 - Joint
 - Fault
 - Adit
 - Open pit
 - Trench and pit
- Geochemical** $Ag \pm \frac{1}{50} Au$ anomalies
- AA class of anomalies $AA \geq 4.47 ppm$
 - A class of anomalies $4.47 > A \geq 1.00 ppm$
 - B class of anomalies $1.00 > B \geq 0.63 ppm$
- Random sample of higher gold contents than 19/1 of Aa
- Average of the showing
 - Spot sample
- Recommended exploration work for next phase**
- Trenching and channel sampling with adequate interval to investigate average gold and silver contents of the mineralized zone
 - Discard drilling to investigate the mineralization of the deeper part
- | No | direction | inclination | length |
|------|-----------|-------------|--------|
| No.1 | N 25°E | horizontal | 300 m |
| No.2 | N 50°E | horizontal | 300 m |
| No.3 | N 45°W | horizontal | 300 m |

①~⑥ : Number of mineralized zone.