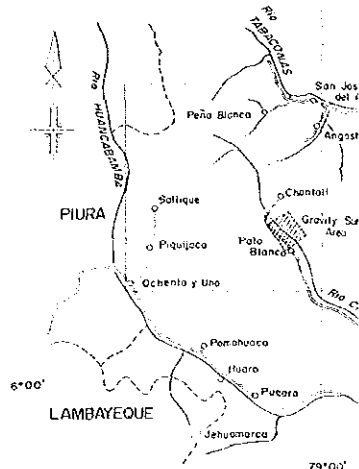


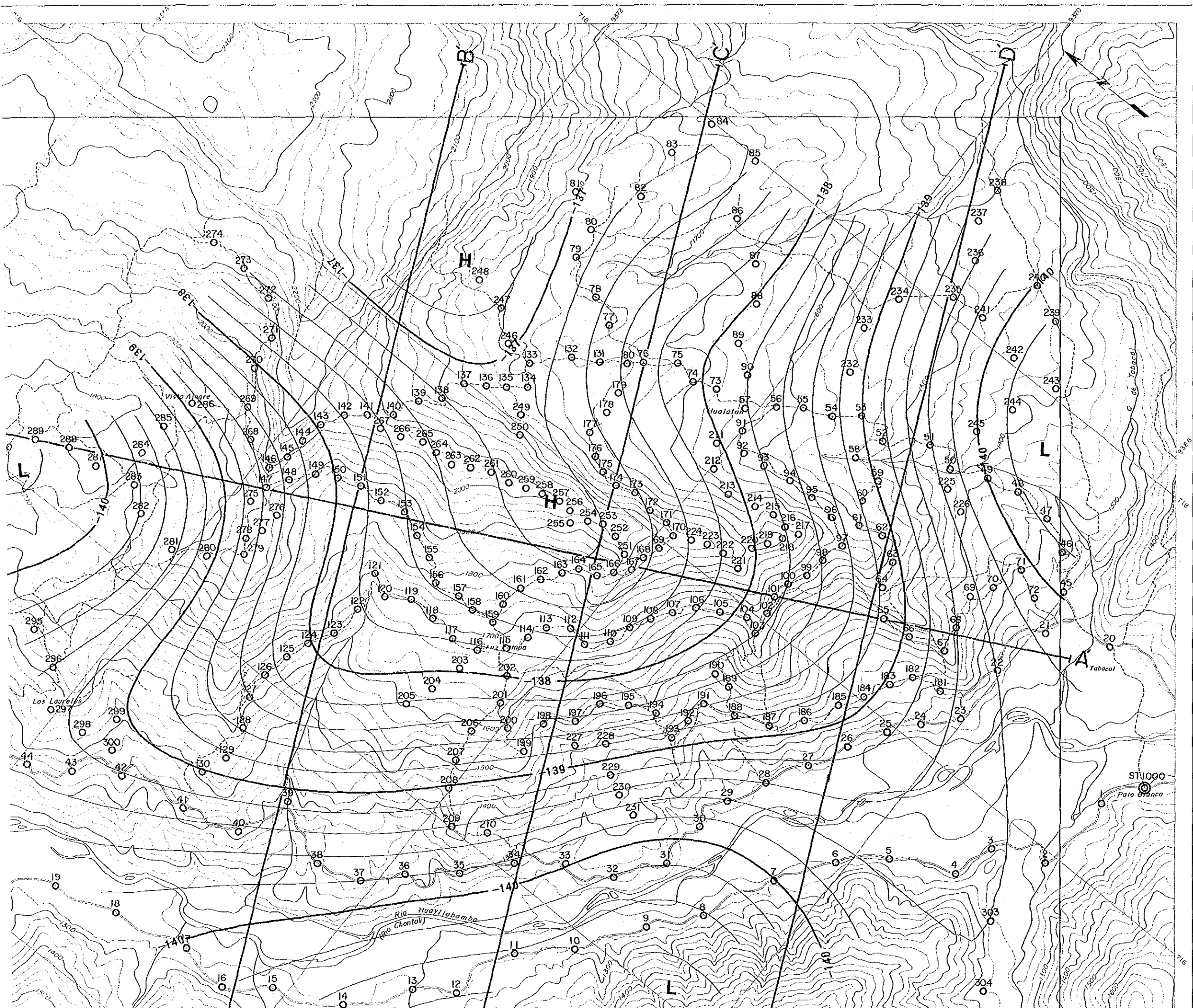
THE MINERAL EXPLORATION  
 IN  
 THE PACHAPIRIANA AREA,  
 (PHASE II)  
 PL.-4(1) Long-wave



JAPAN INTERNATIONAL COOPERATION  
 METAL MINING AGENCY  
 FEBRUARY  
 Prepared by

### LEGEND

- Gravity station
- A-A' Cross section
- 1.0 mgal interval
- - - 0.2 mgal interval
- H High gravity zone
- L Low gravity zone

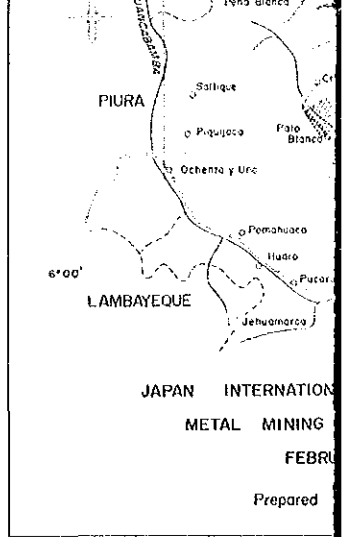
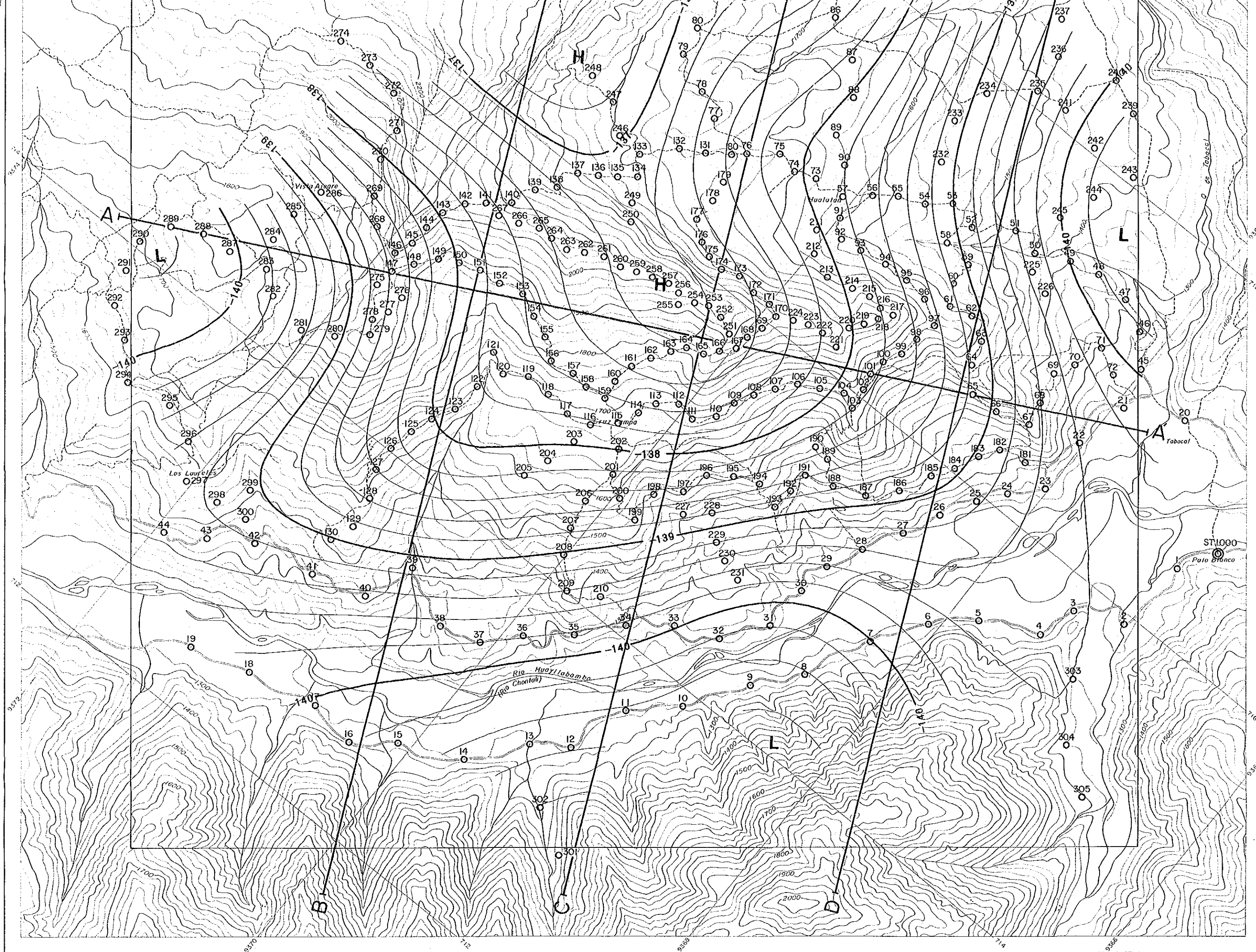


THE MINERAL EXPLORATION  
IN  
THE PACHAPIRIANA AREA, REPUBLIC OF PERU  
( PHASE III )

PL.-4(1) Long-wave Gravity Map

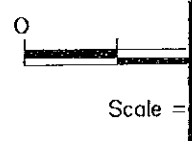
JAPAN INTERNATIONAL COOPERATION AGENCY  
METAL MINING AGENCY OF JAPAN  
FEBRUARY 1991  
Prepared by MINDECO

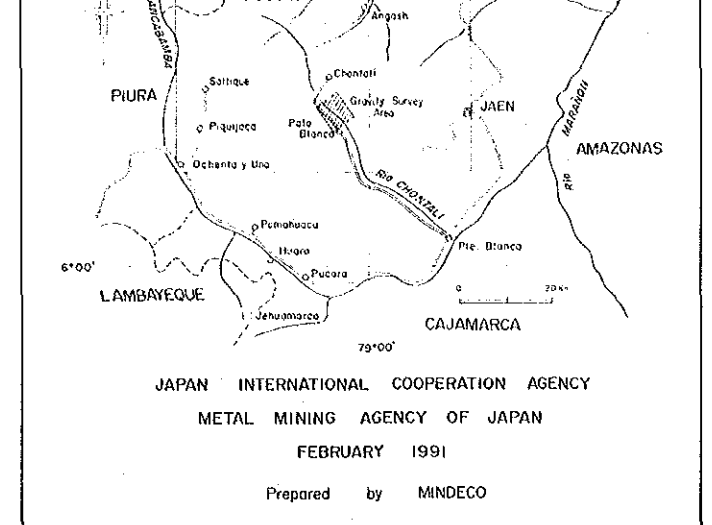
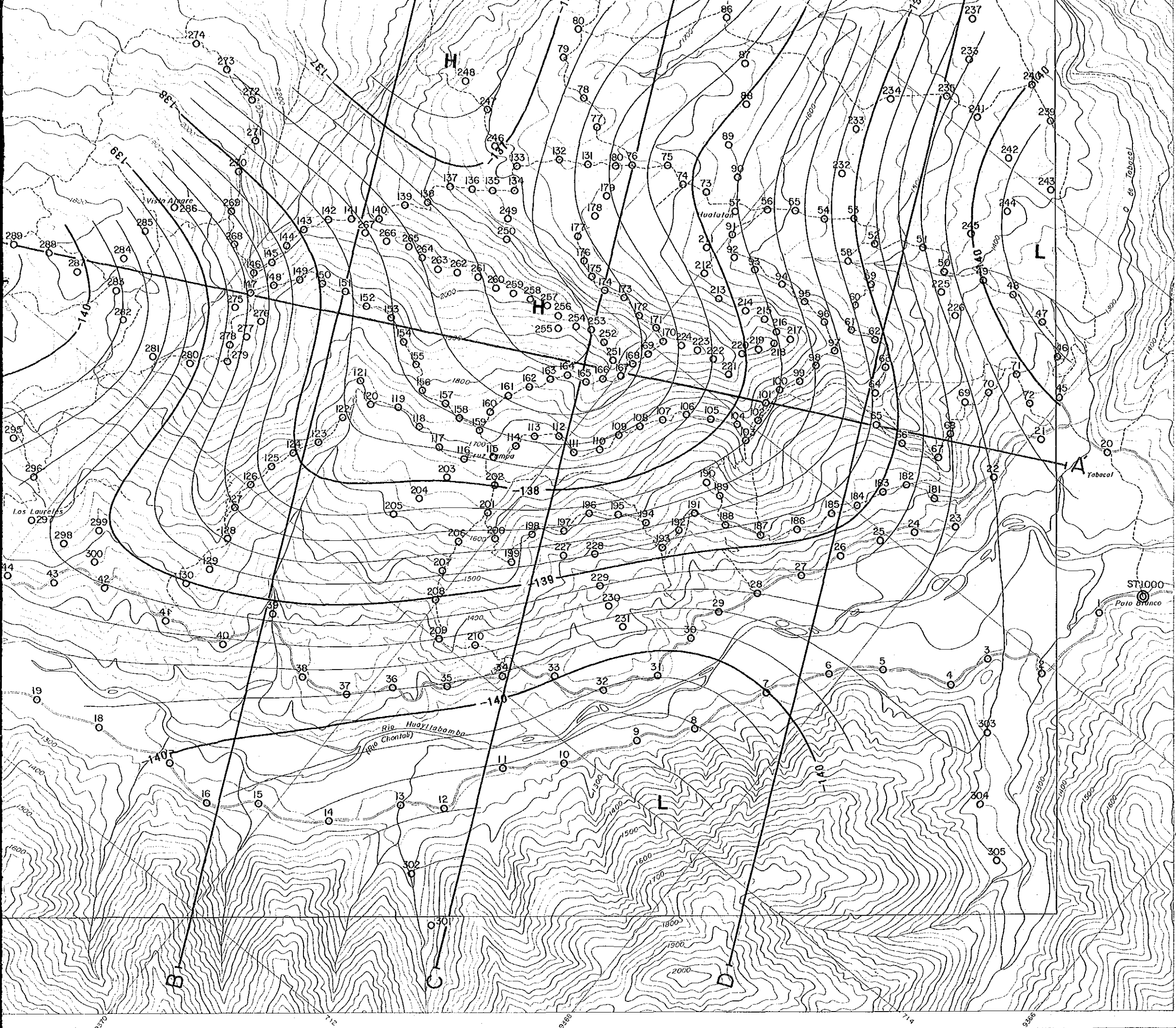
- ### LEGEND
- Gravity station
  - A-A' Cross section
  - 1.0 mgal interval
  - 0.2 mgal interval
  - H High gravity zone
  - L Low gravity zone



LEG

- Gravity station
- A-A' Cross section
- 1.0 mgal interval
- - - 0.2 mgal interval
- H High gravity
- L Low gravity

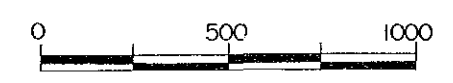




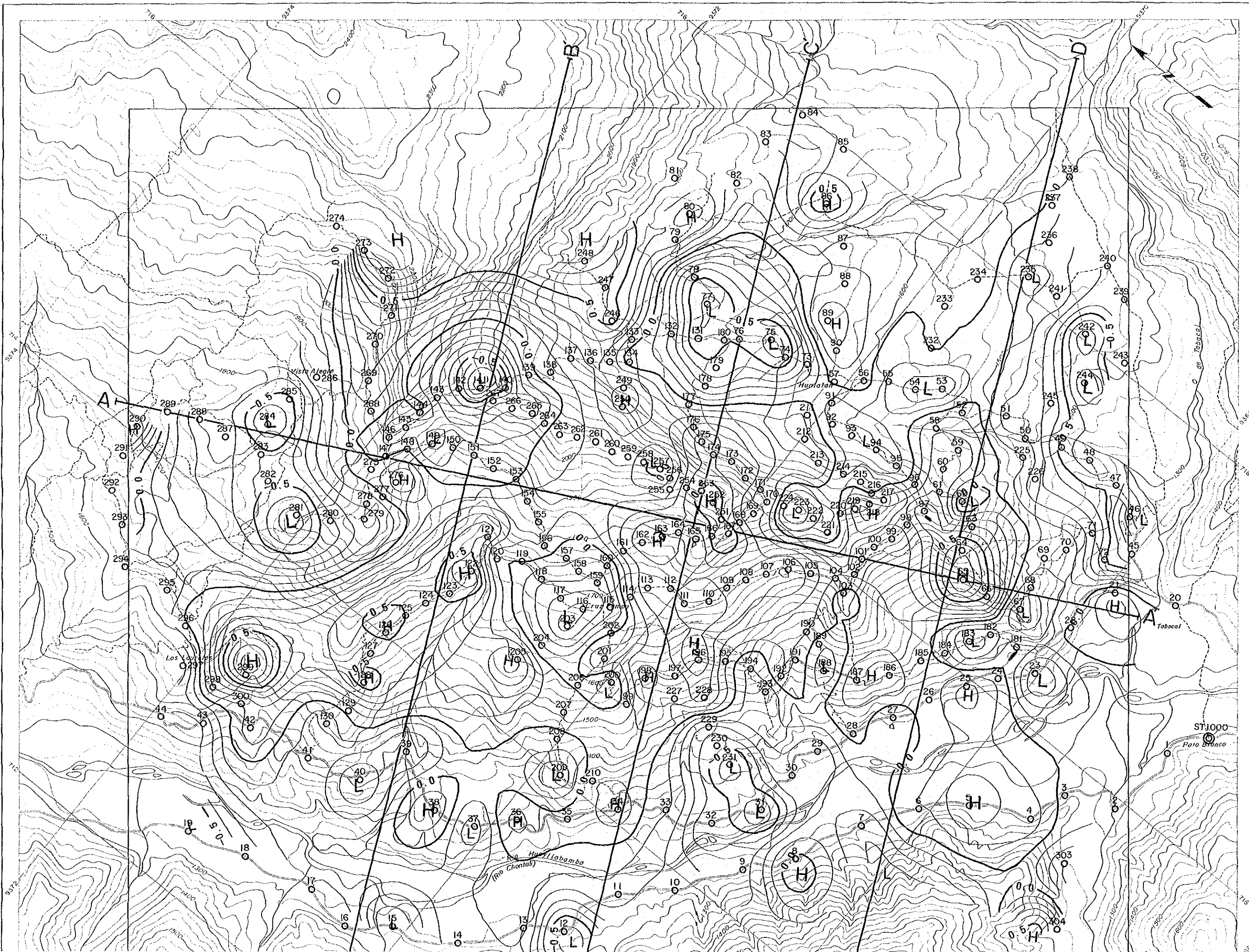
JAPAN INTERNATIONAL COOPERATION AGENCY  
 METAL MINING AGENCY OF JAPAN  
 FEBRUARY 1991  
 Prepared by MINDECO

## LEGEND

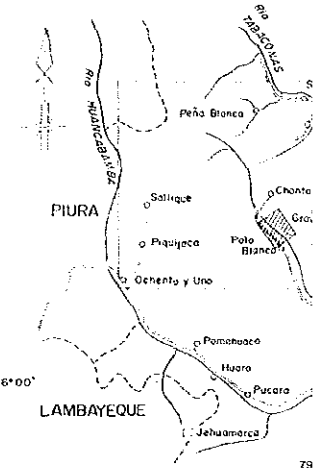
- Gravity station
- A-A' Cross section
- 1.0 mgal interval
- - - 0.2 mgal interval
- H High gravity zone
- L Low gravity zone



Scale = 1 : 10,000



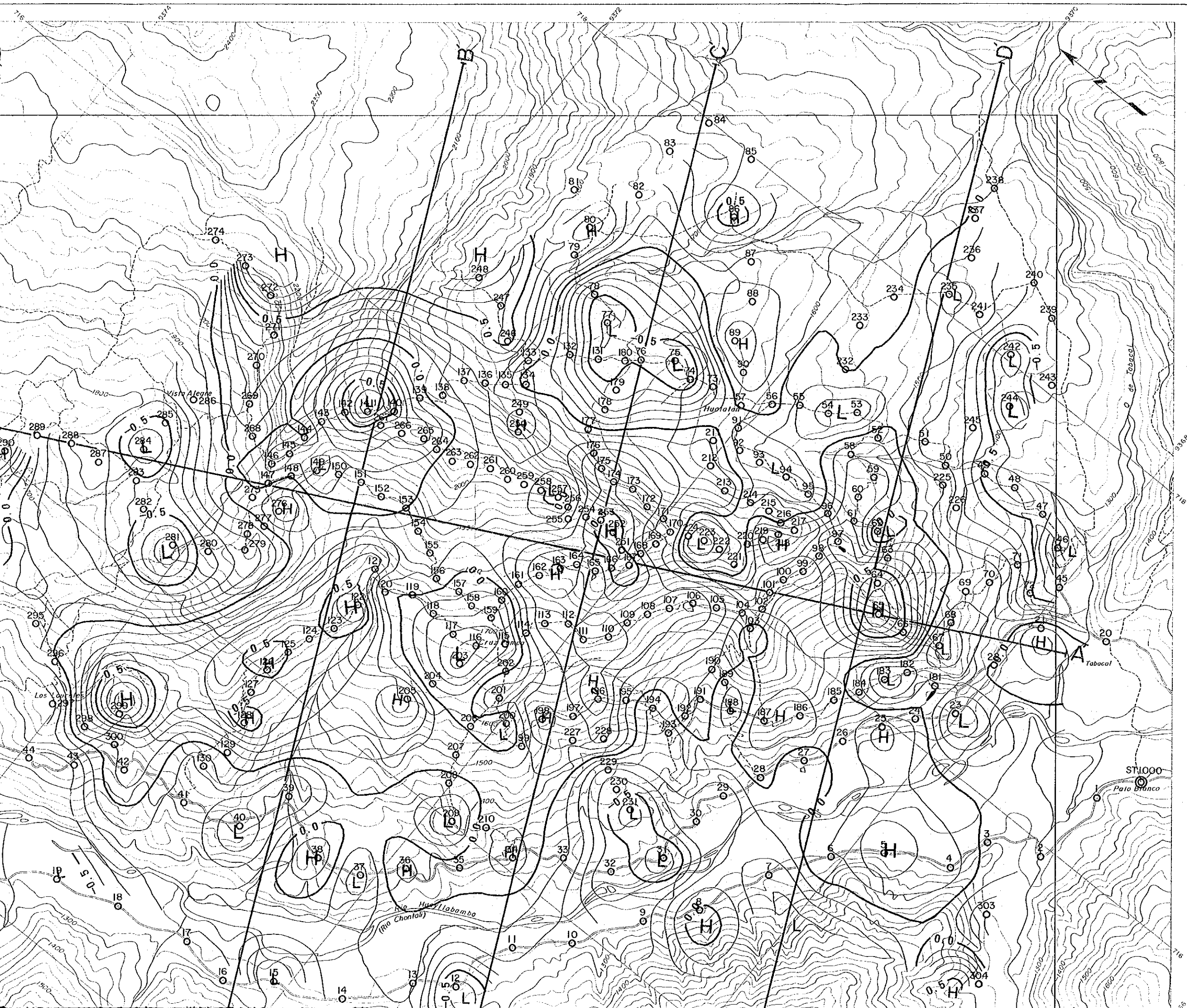
THE MINERAL  
IN  
THE PACHAPIRIANA AREA  
(PHASE I)  
PL.-4(2) Short-w



JAPAN INTERNATIONAL  
METAL MINING A  
FEBRUAR  
Prepared t

LEGE

- Gravity stat.
- A-A' Cross section
- 0.5 mgal int.
- 0.1 mgal int.
- H High gravity
- L Low gravity



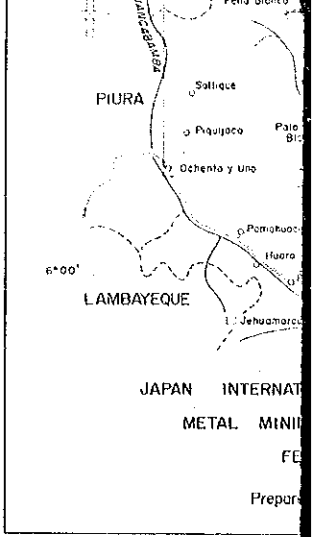
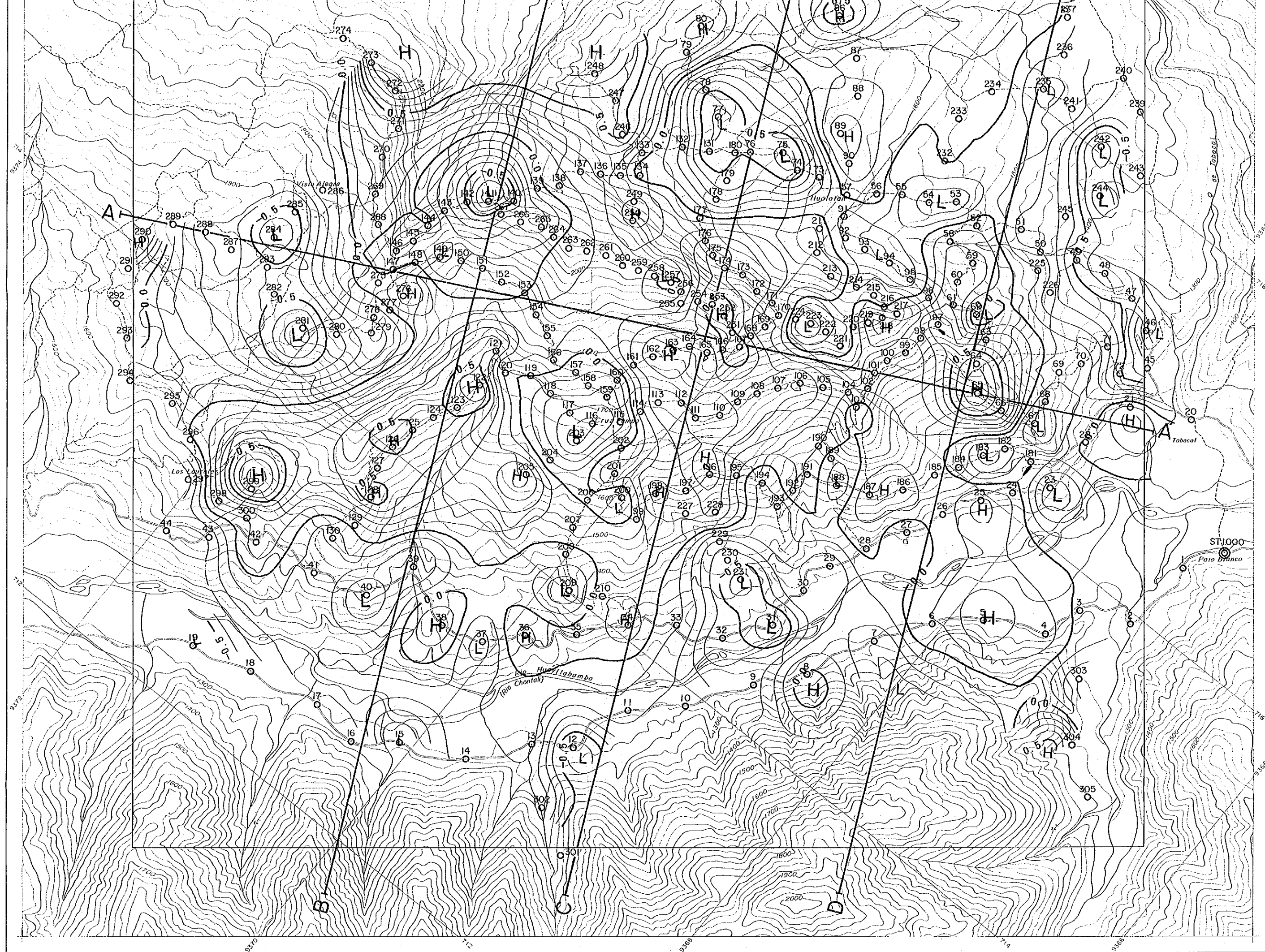
THE MINERAL EXPLORATION  
IN  
THE PACHAPIRIANA AREA, REPUBLIC OF PERU  
( PHASE III )

PL.-4(2) Short-wave Gravity Map

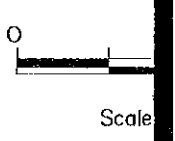
JAPAN INTERNATIONAL COOPERATION AGENCY  
METAL MINING AGENCY OF JAPAN  
FEBRUARY 1991  
Prepared by MINDECO

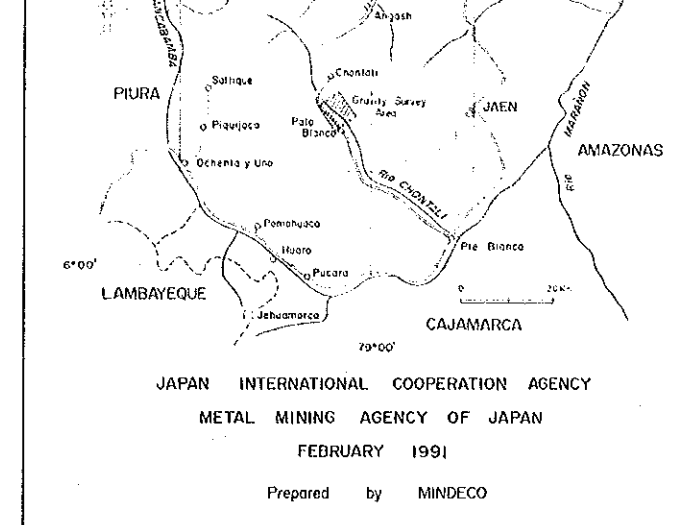
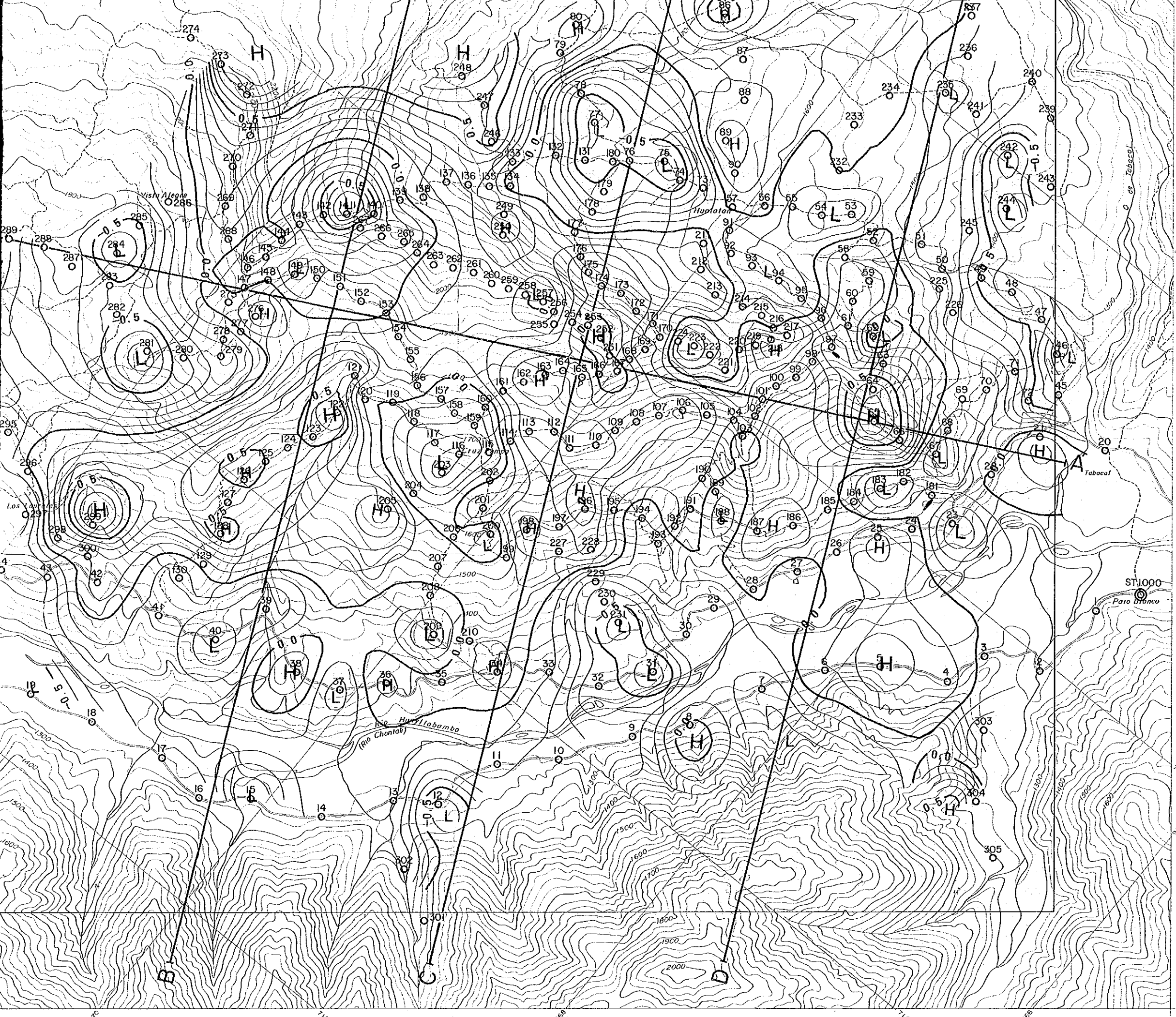
## LEGEND

- Gravity station
- A-A' Cross section
- 0.5 mgal interval
- - - 0.1 mgal interval
- H High gravity zone
- L Low gravity zone



- LEO
- Gravity station
  - A-A' Cross section
  - 0.5 mgal
  - 0.1 mgal
  - H High gravity
  - L Low gravity





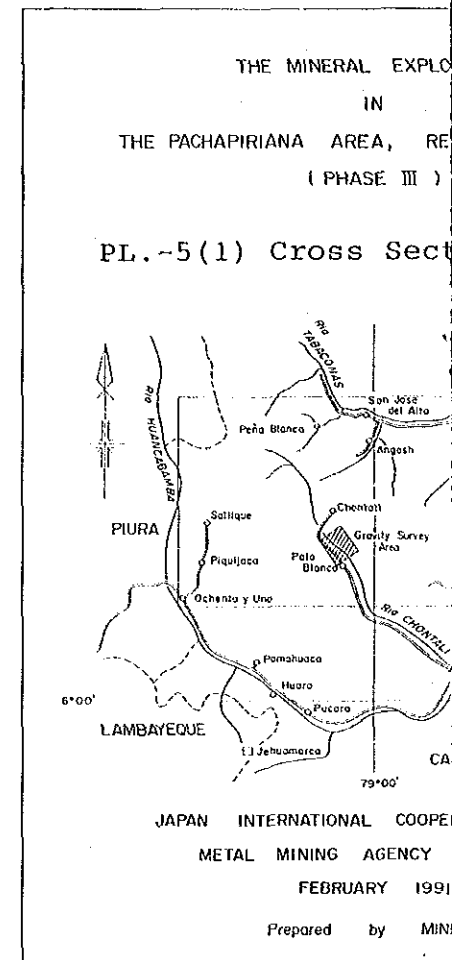
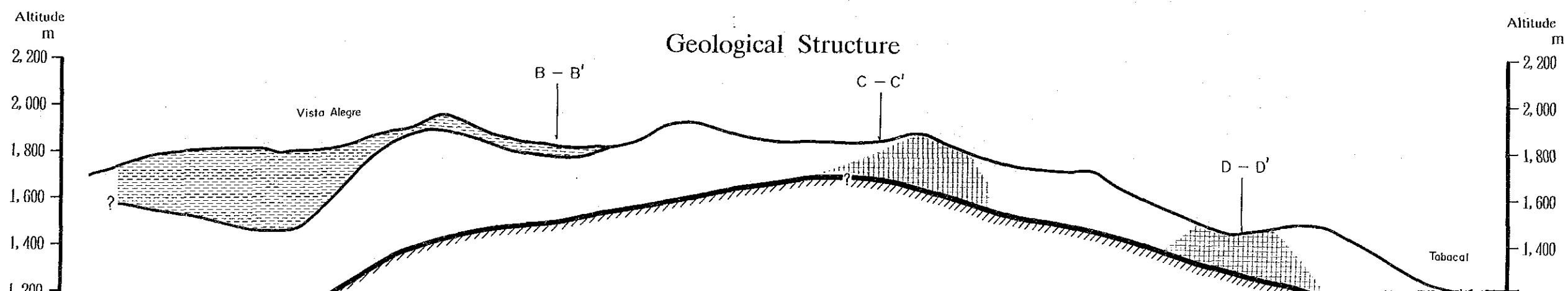
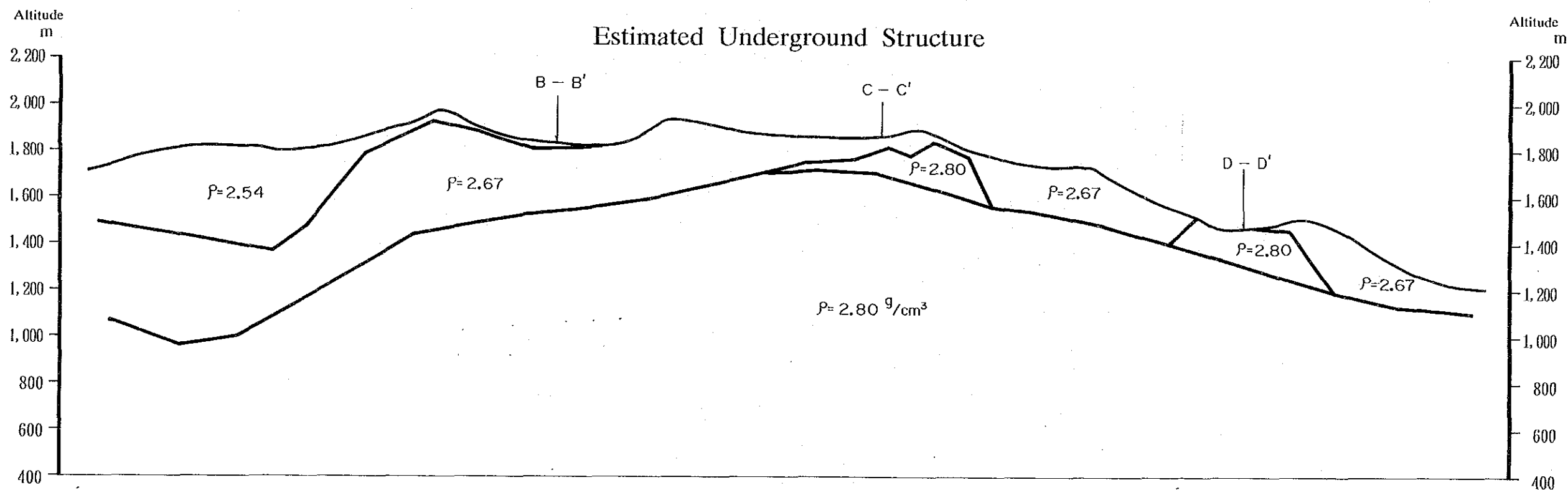
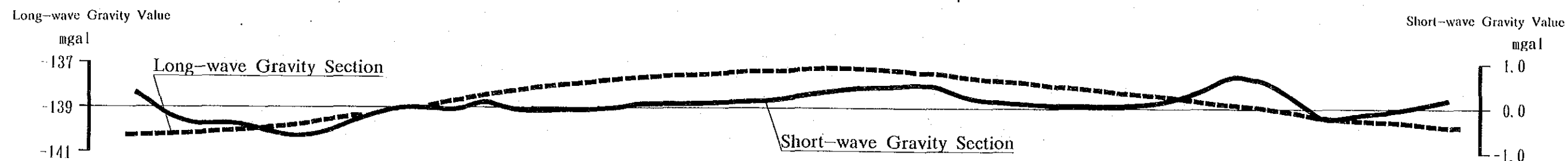
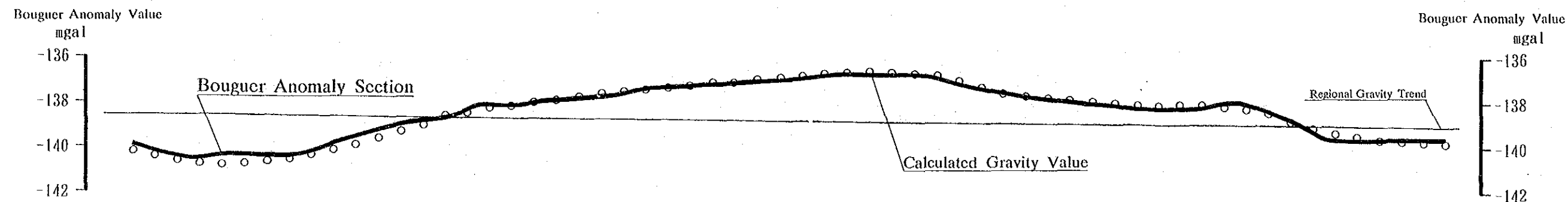
### LEGEND

- Gravity station
- A-A' Cross section
- 0.5 mgal interval
- 0.1 mgal interval
- H High gravity zone
- L Low gravity zone

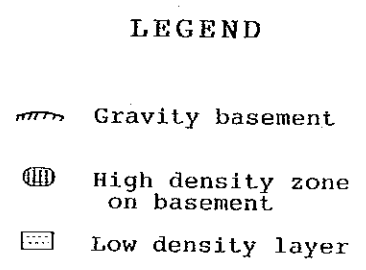
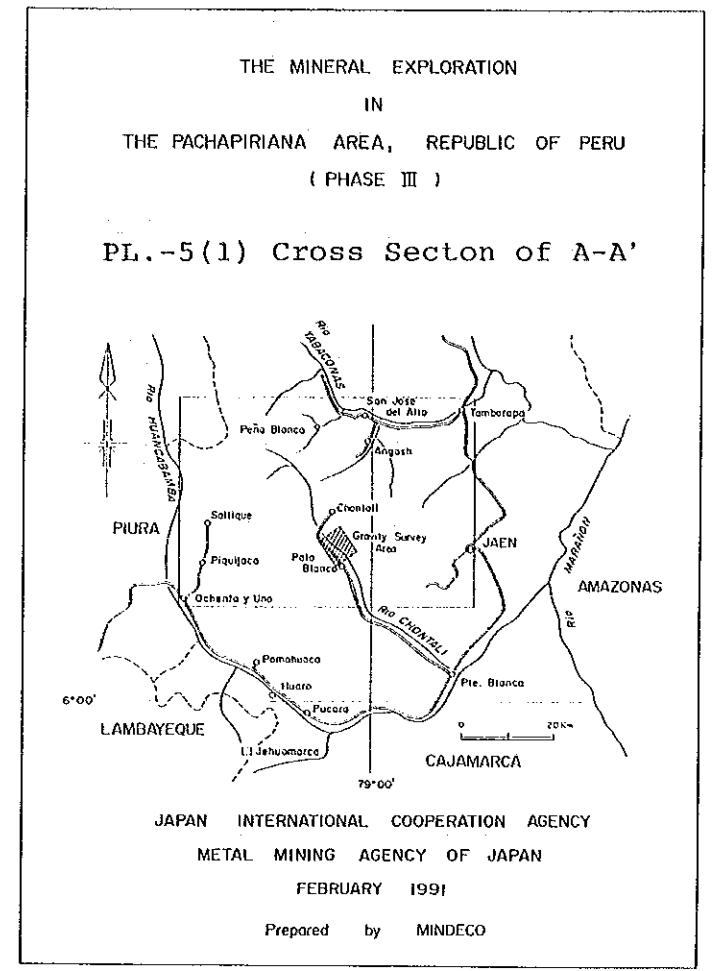
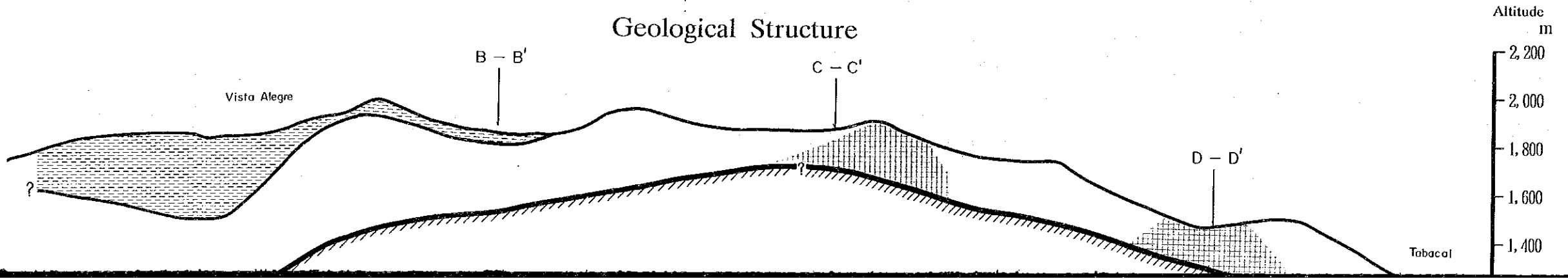
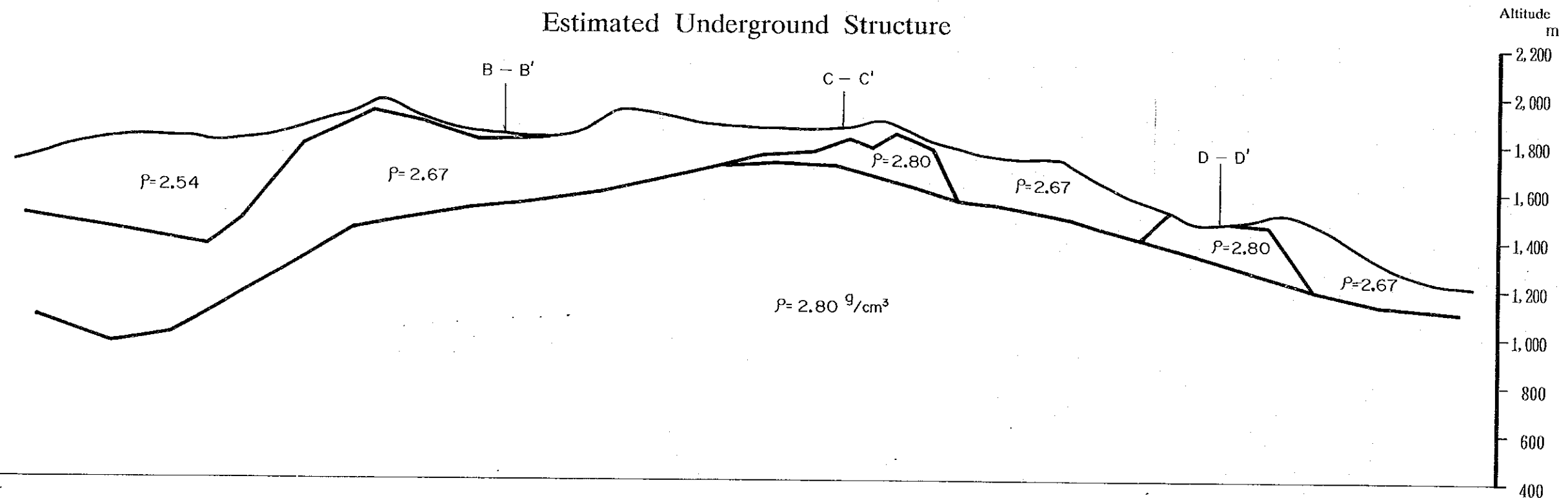
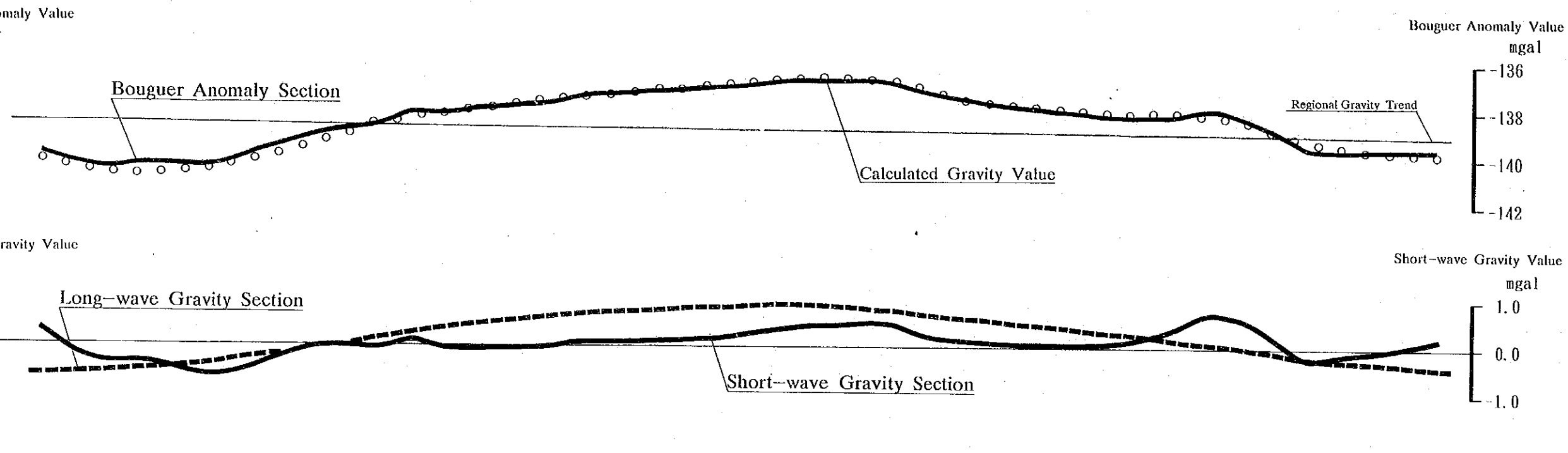


Scale = 1 : 10,000





- LEGEND**
- Gravity basement
  - High density zone on basement
  - Low density layer



Long-wave Gravity Value

mgal  
-137  
-139  
-141

Long-wave Gravity Section

Short-wave Gravity Value

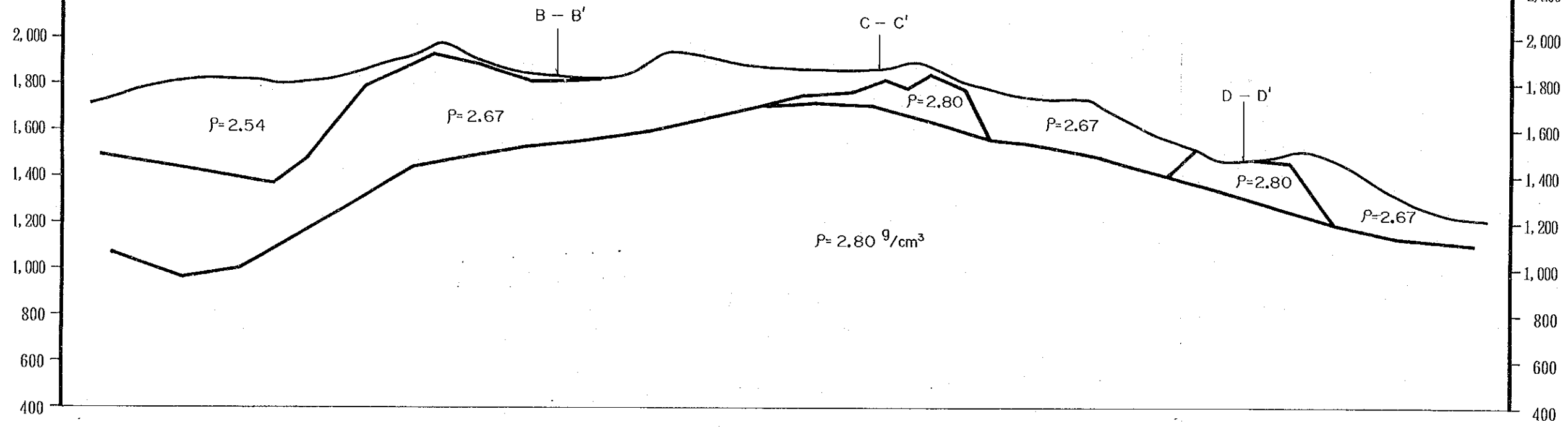
mgal  
1.0  
0.0  
-1.0

Short-wave Gravity Section

Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600  
400

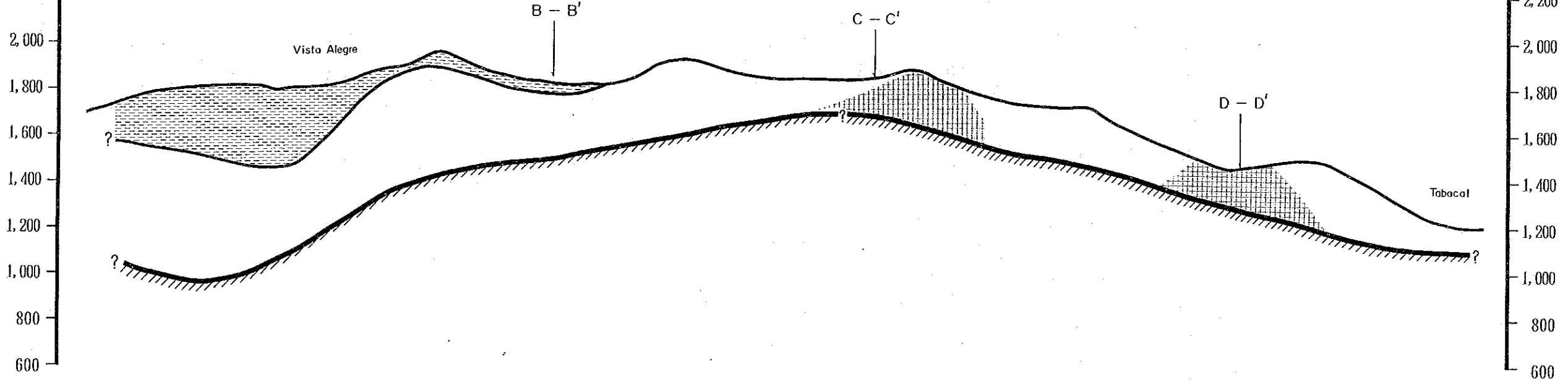
### Estimated Underground Structure



Altitude  
m

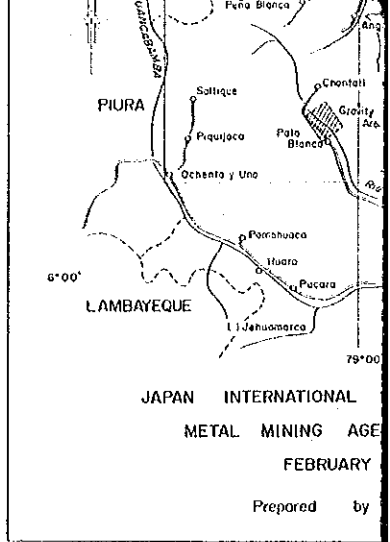
2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600

### Geological Structure



Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600



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METAL MINING AGENCY  
FEBRUARY  
Prepared by

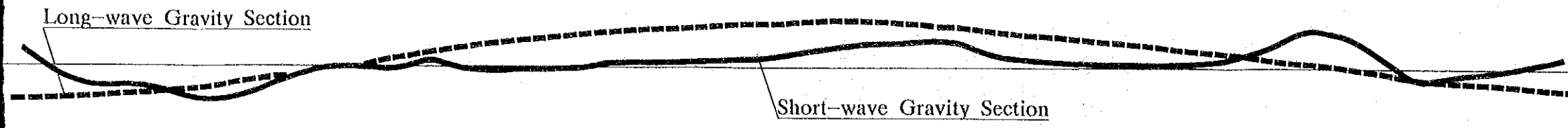
### LEGEND

- Gravity base
- High density on basement
- Low density

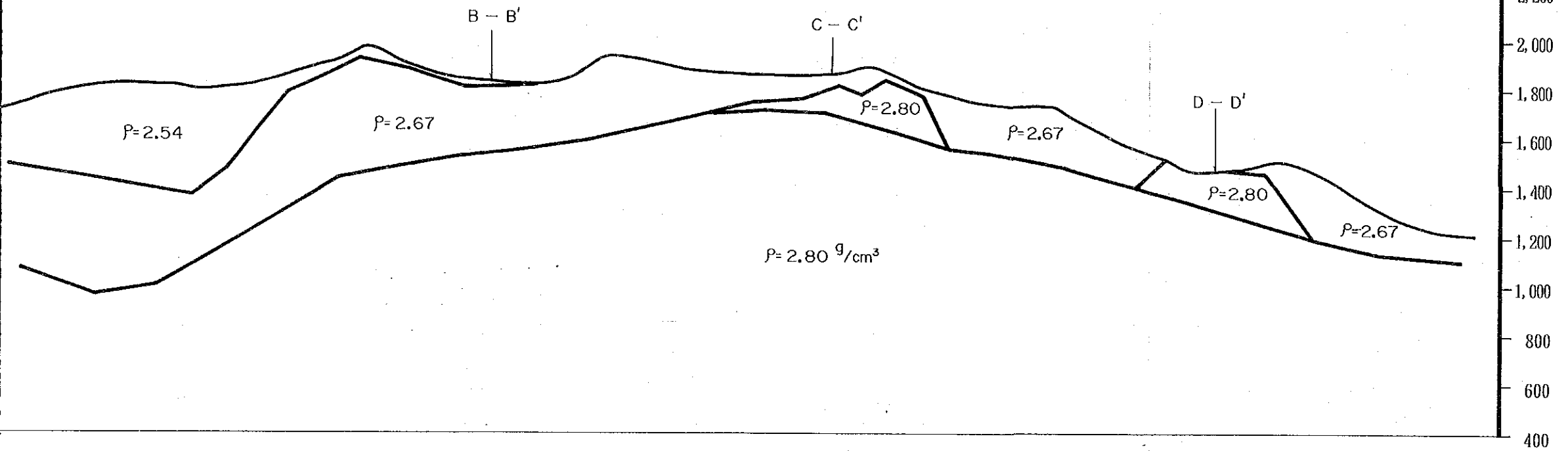


Scale = 1 : 100,000

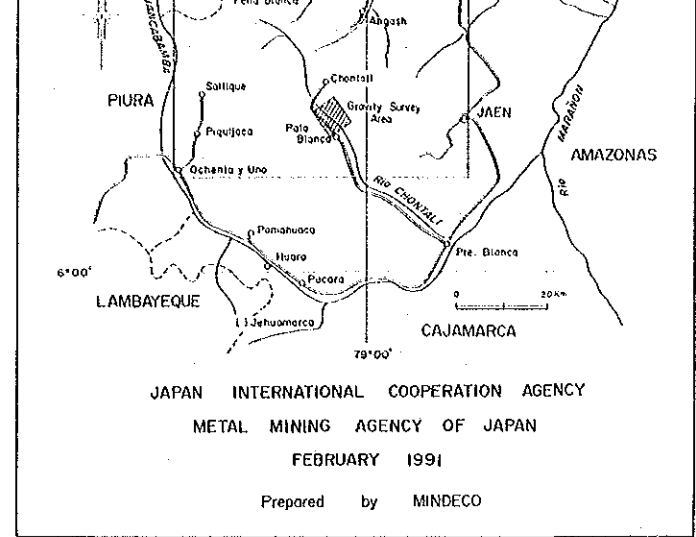
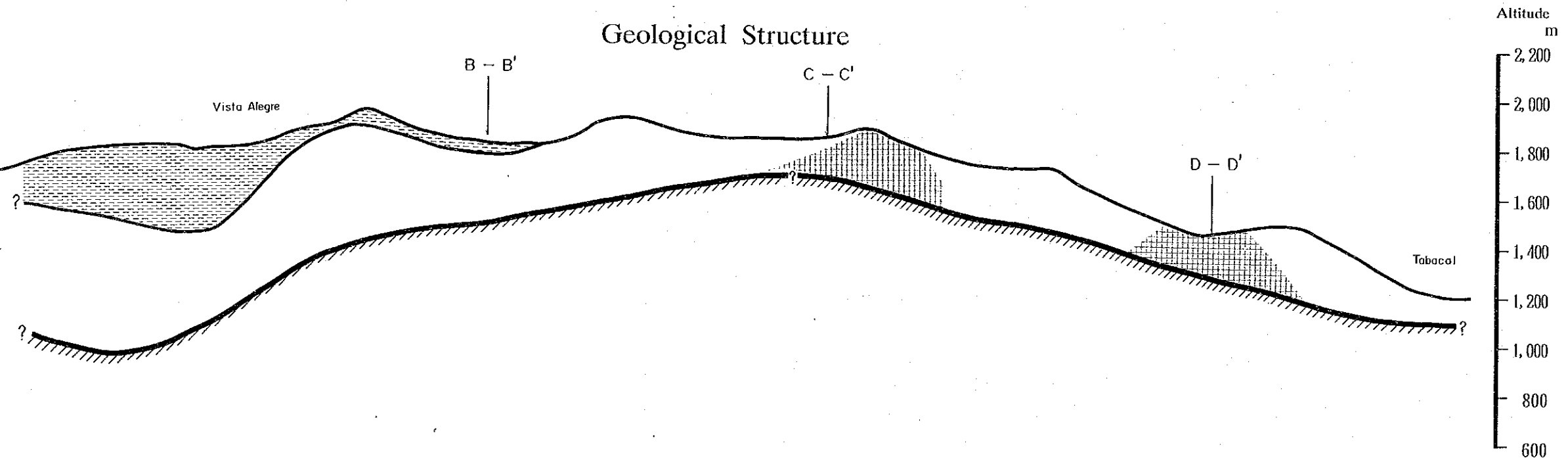
ty Value



Estimated Underground Structure



Geological Structure



LEGEND

- Gravity basement
- High density zone on basement
- Low density layer



Scale = 1:10,000

Bouguer Anomaly Value  
mgal

-136  
-138  
-140  
-142

Bouguer Anomaly Section

Calculated Gravity Value

Regional Gravity Trend

Long-wave Gravity Value  
mgal

-137  
-139  
-141

Long-wave Gravity Section

Short-wave Gravity Section

Bouguer Anomaly Value  
mgal

-136  
-138  
-140  
-142

Short-wave Gravity Value  
mgal

1.0  
0.0  
-1.0

Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600  
400

Estimated Underground Structure

A - A'

$\rho = 2.54$

$\rho = 2.67$

$\rho = 2.56$

$\rho = 2.80 \text{ g/cm}^3$

Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600  
400

Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200

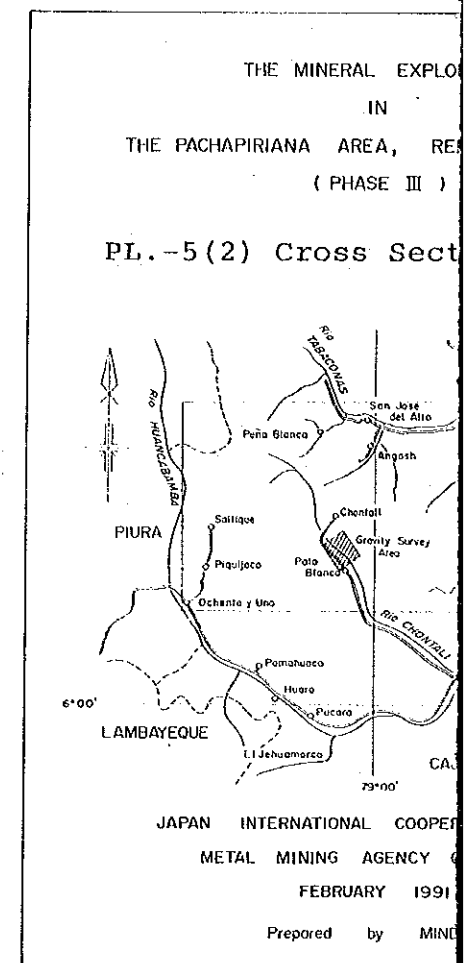
Geological Structure

A - A'

Rio Huayllabamba  
(Rio Chontali)

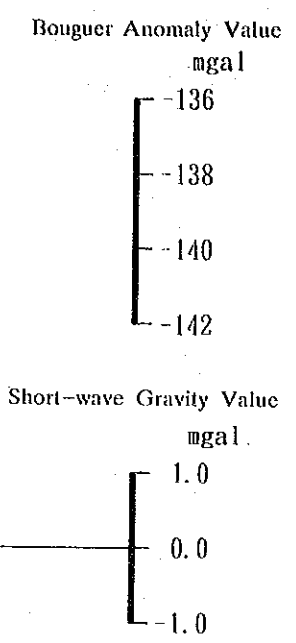
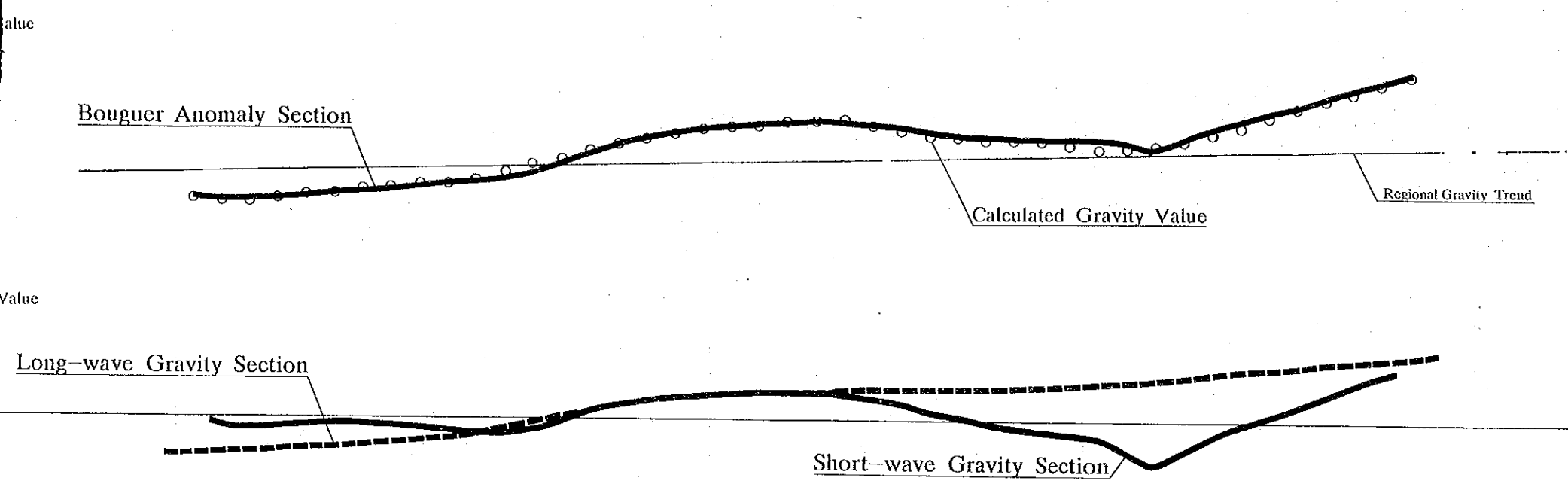
Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200

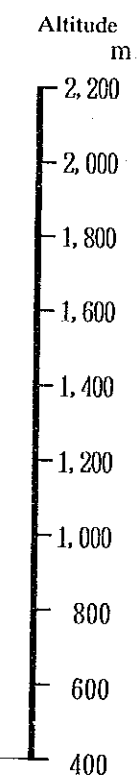
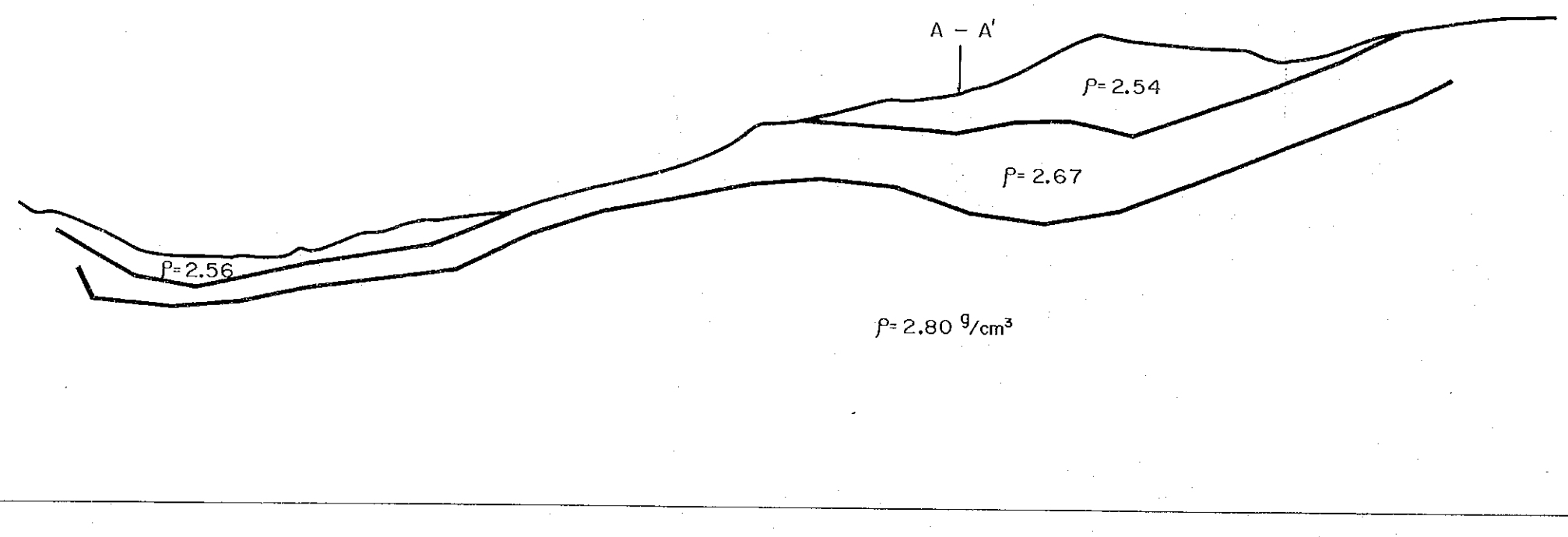


LEGEND

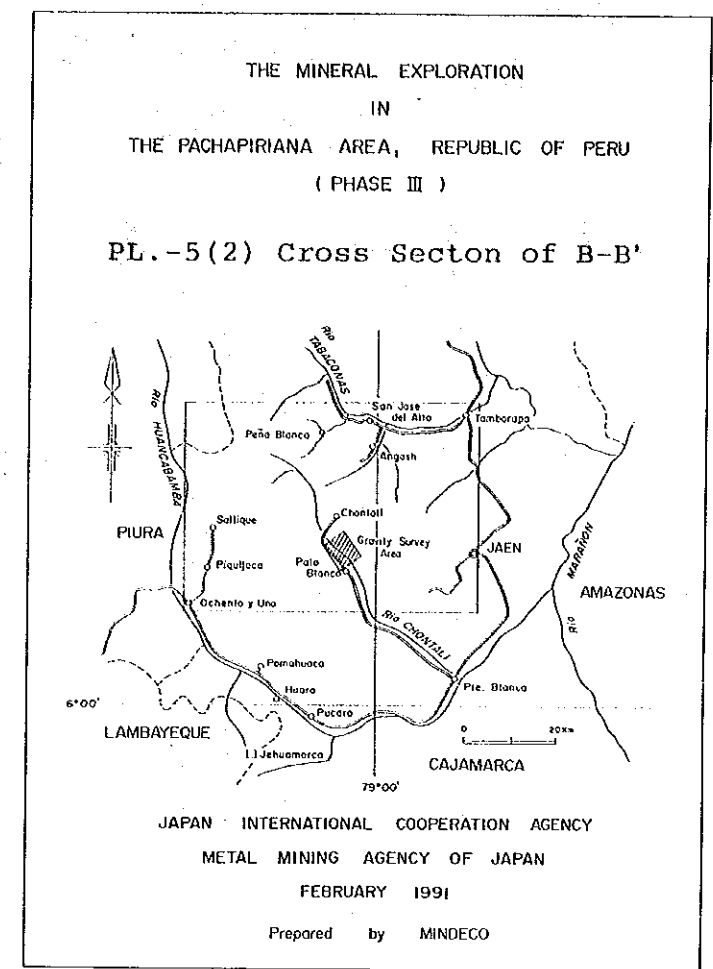
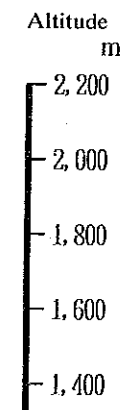
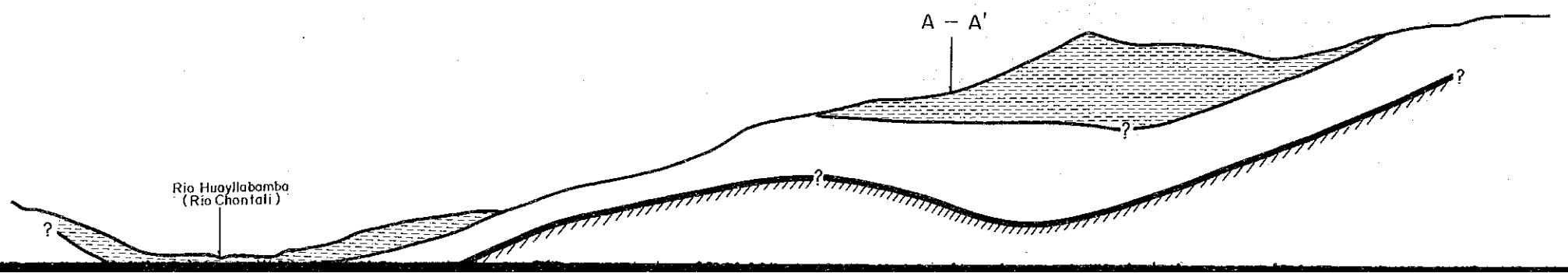
- Gravity basement
- High density zone on basement
- Low density layer



Estimated Underground Structure



Geological Structure



LEGEND

- Gravity basement
- High density zone on basement
- Low density layer

Long-wave Gravity Value

mga  
-137  
-139  
-141

Long-wave Gravity Section

Short-wave Gravity Value

mga  
1.0  
0.0  
-1.0

Short-wave Gravity Section

Altitude  
m  
2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600  
400

Estimated Underground Structure

A - A'

$\rho = 2.54$

$\rho = 2.67$

$\rho = 2.56$

$\rho = 2.80 \text{ g/cm}^3$

Altitude  
m  
2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600  
400

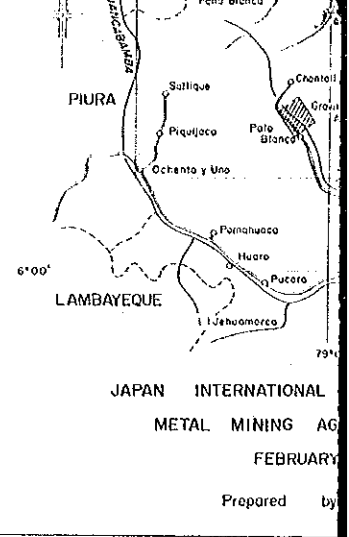
Altitude  
m  
2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600

Geological Structure

A - A'

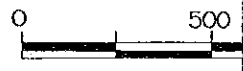
Rio Huayllabamba  
(Rio Chontali)

Altitude  
m  
2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600



LEGEND

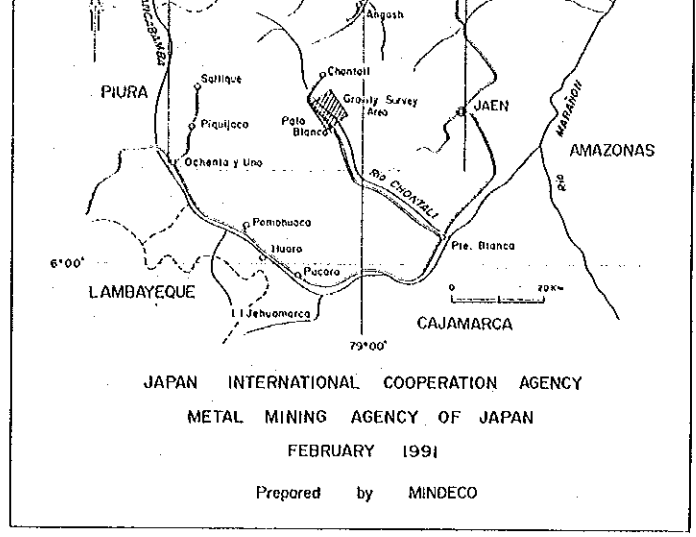
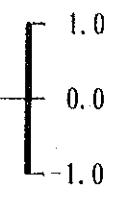
- Gravity ba
- High densi on baseme
- Low densit



Scale = 1:10

Short-wave Gravity Value

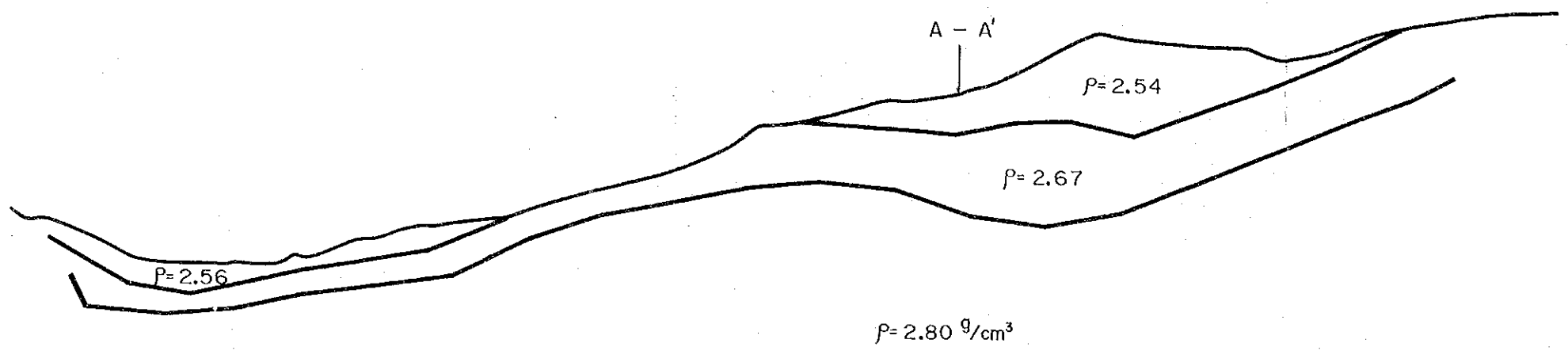
mgal



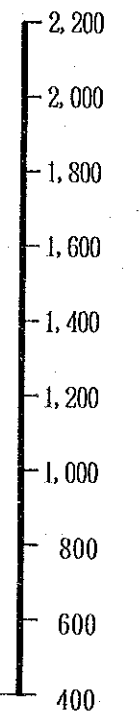
Long-wave Gravity Section

Short-wave Gravity Section

Estimated Underground Structure



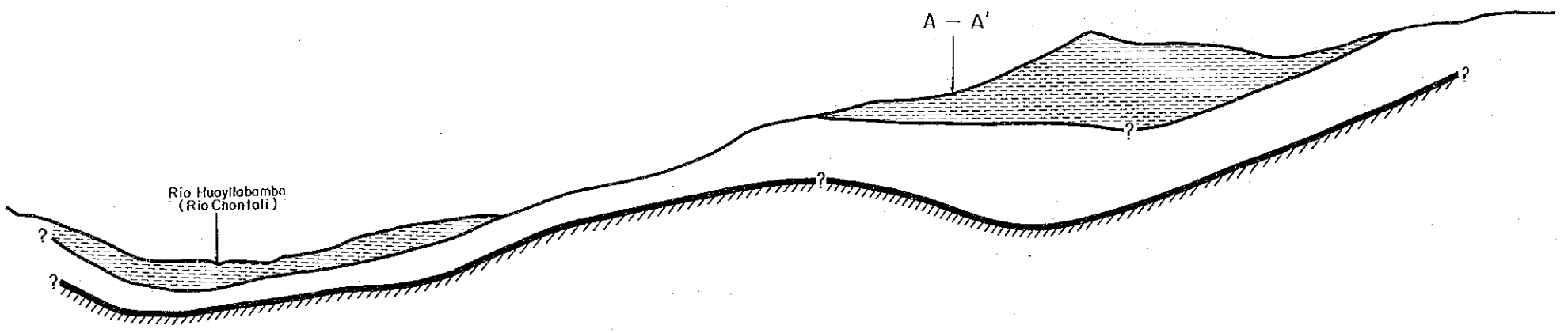
Altitude m



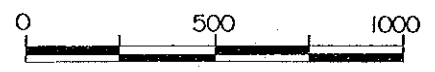
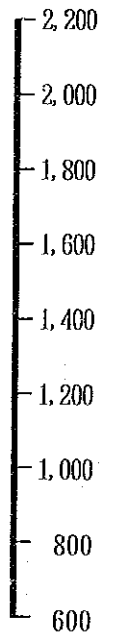
LEGEND

- Gravity basement
- High density zone on basement
- Low density layer

Geological Structure

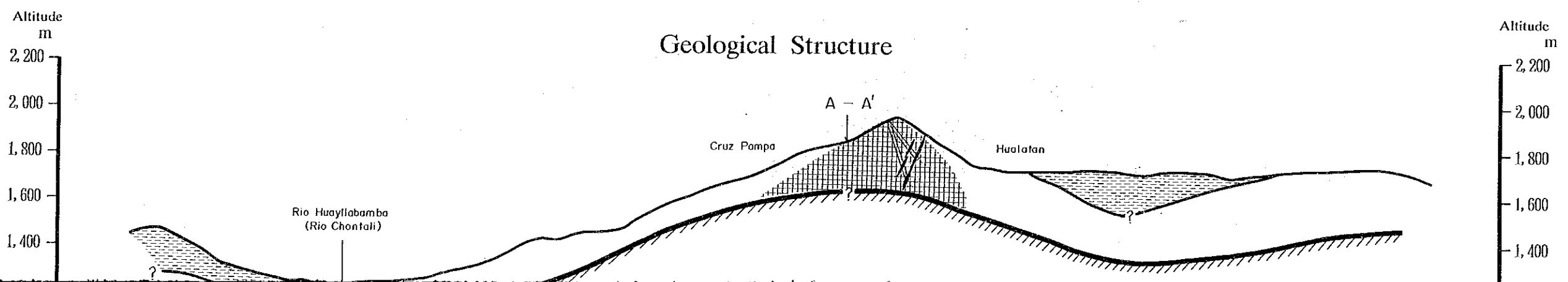
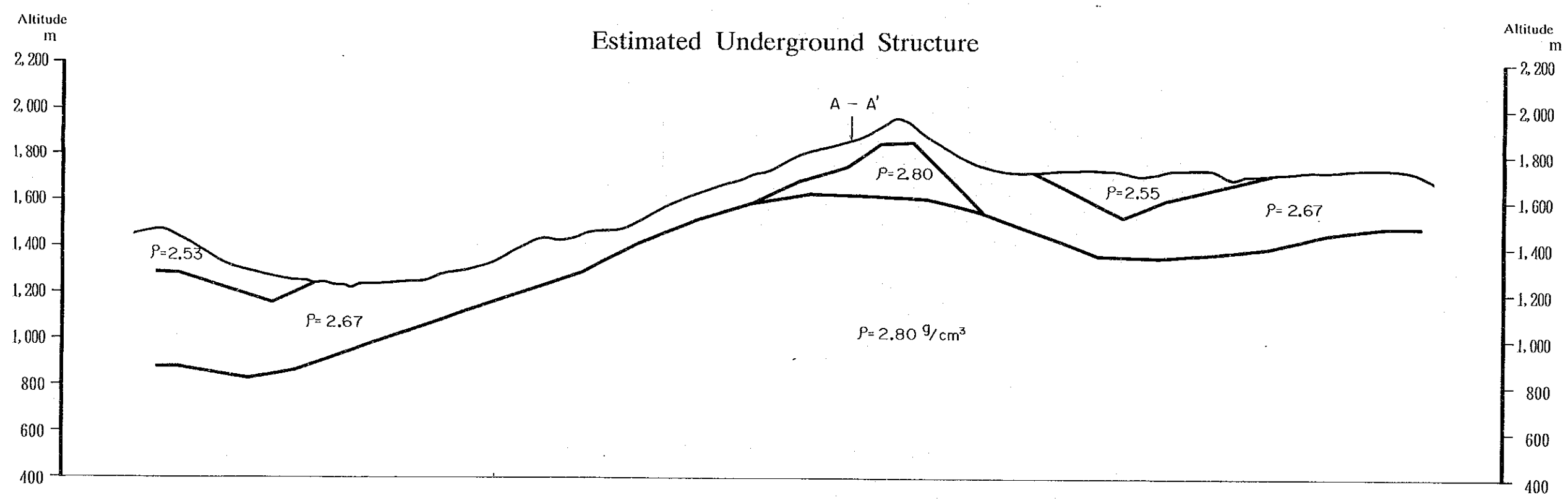
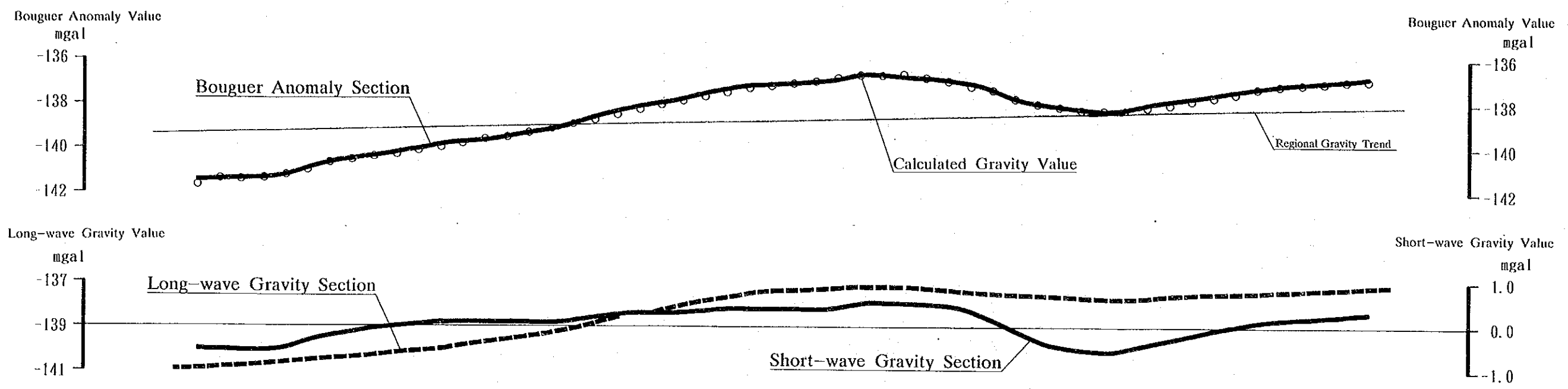


Altitude m



Scale = 1 : 10,000





THE MINERAL EXPLORATION  
IN  
THE PACHAPIRIANA AREA, REPUBLIC  
( PHASE III )

PL.-5(3) Cross Section

PIURA

LAMBAYEQUE

CAJAMARCA

JAPAN INTERNATIONAL COOPERATION  
METAL MINING AGENCY OF JAPAN  
FEBRUARY 1991  
Prepared by MINDECO

- LEGEND**
- Boring site
  - Quartz vein
  - Gravity basement
  - High density zone on basement
  - Low density layer

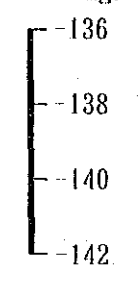
Anomaly Value

Bouguer Anomaly Section

Calculated Gravity Value

Regional Gravity Trend

Bouguer Anomaly Value  
mgal

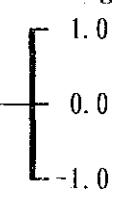


Gravity Value

Long-wave Gravity Section

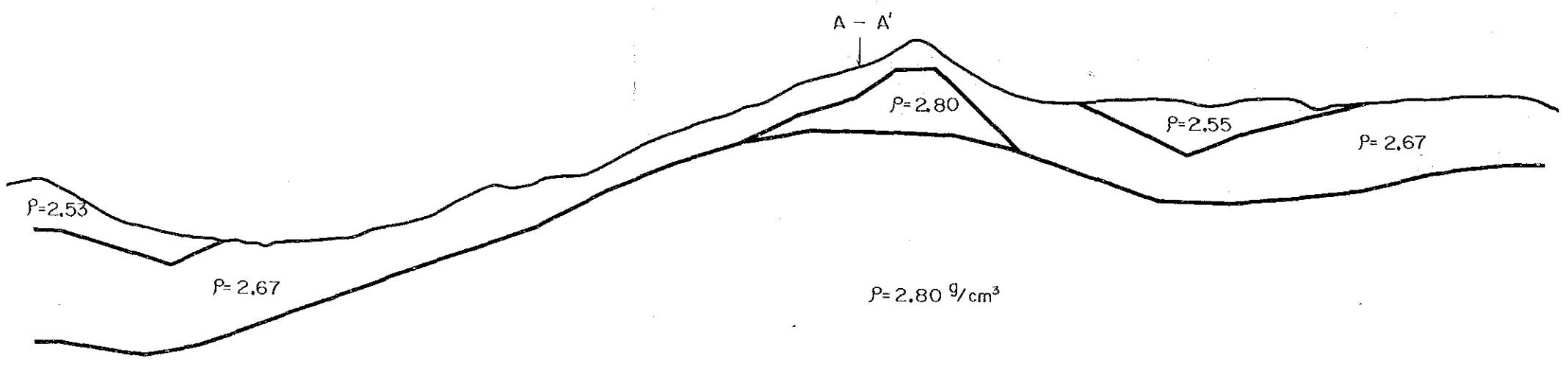
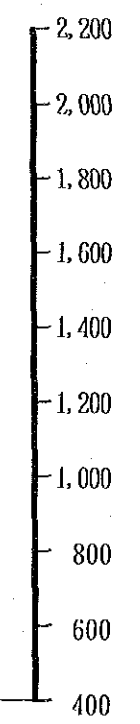
Short-wave Gravity Section

Short-wave Gravity Value  
mgal



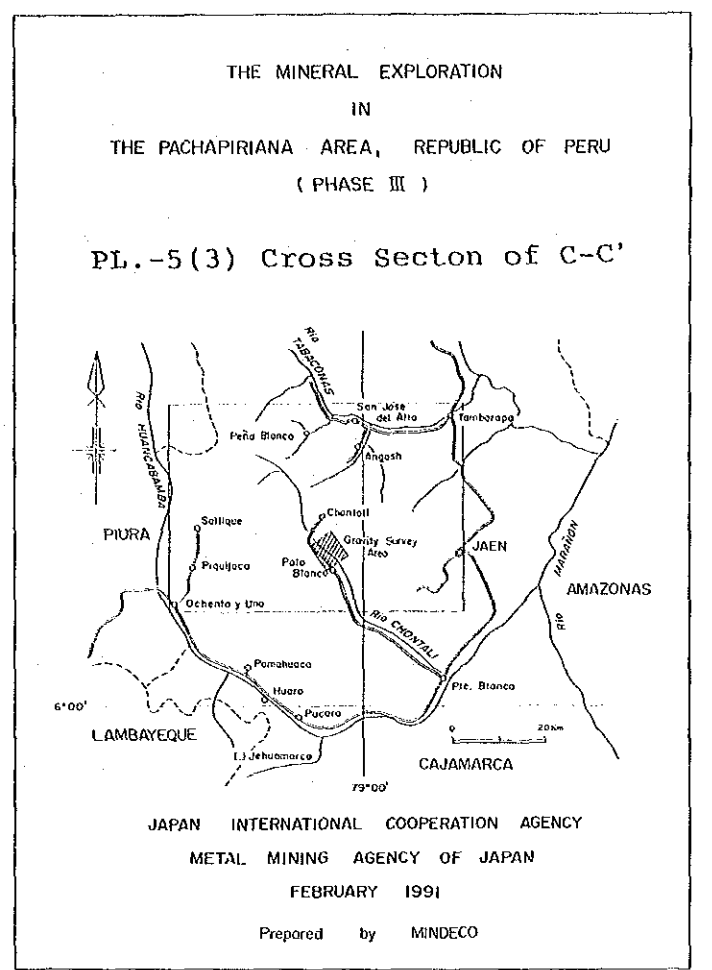
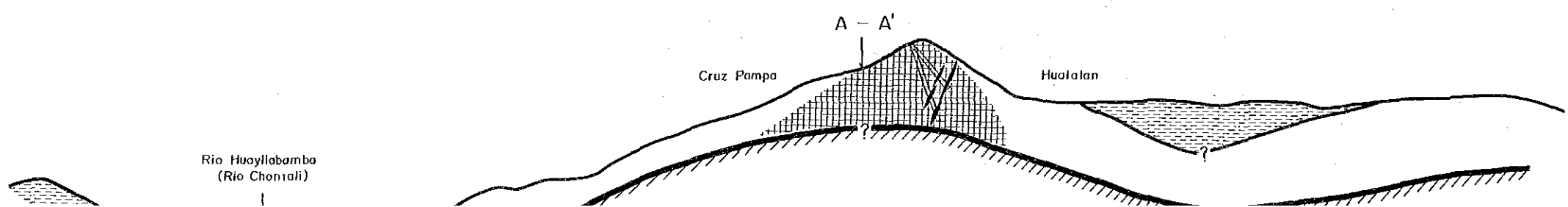
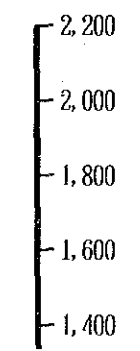
Estimated Underground Structure

Altitude  
m



Geological Structure

Altitude  
m

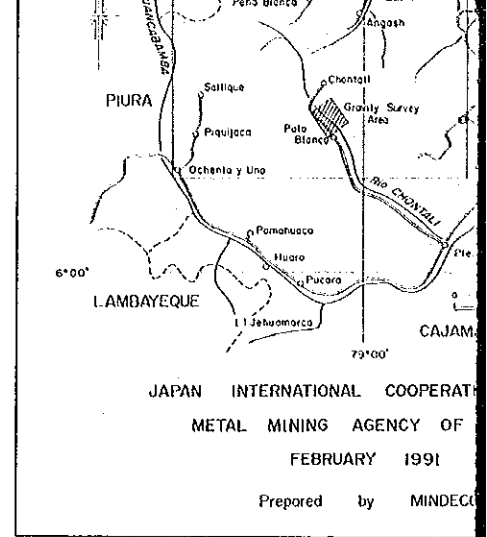
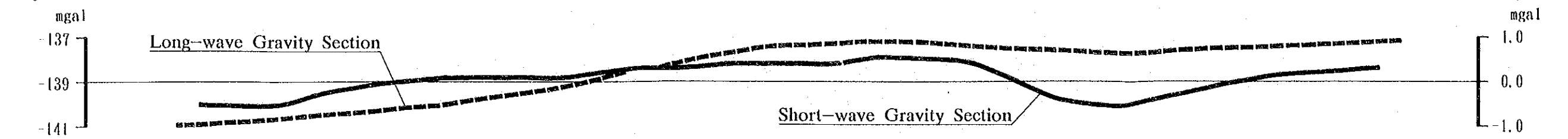


LEGEND

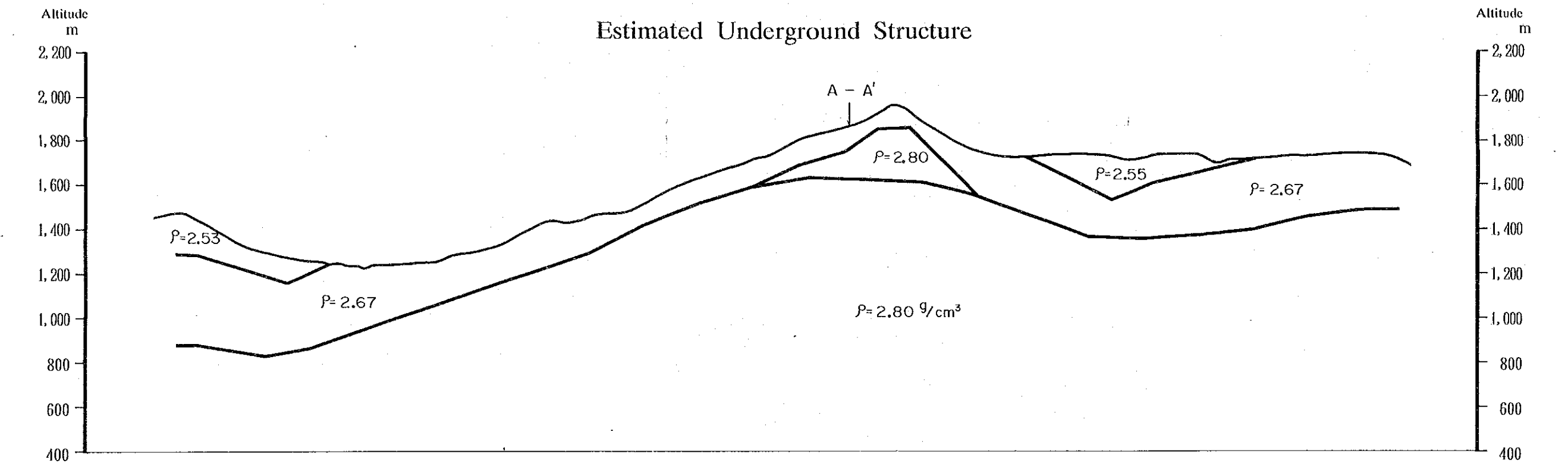
- Boring site
- Quartz vein
- Gravity basement
- High density zone on basement
- Low density layer

Long-wave Gravity Value

Short-wave Gravity Value



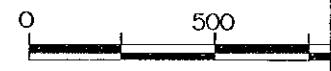
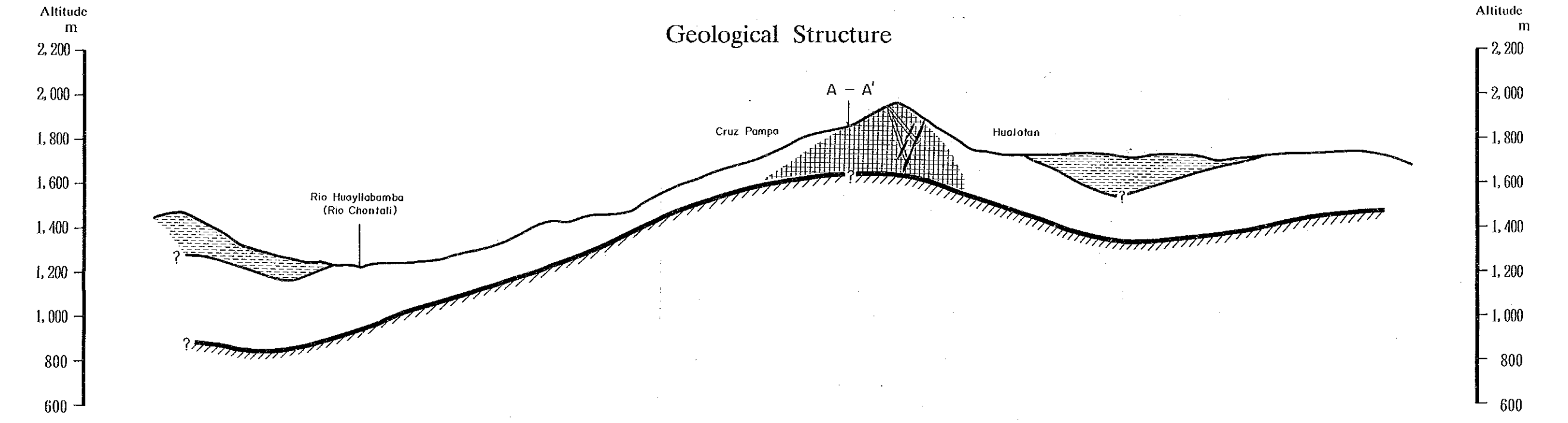
### Estimated Underground Structure



### LEGEND

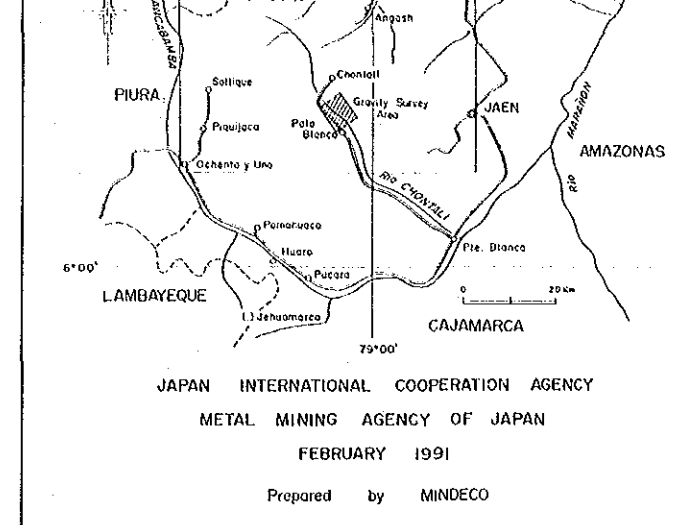
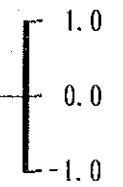
- Boring site
- Quartz vein
- Gravity basement
- High density zone on basement
- Low density layer

### Geological Structure



Scale = 1 : 10,000

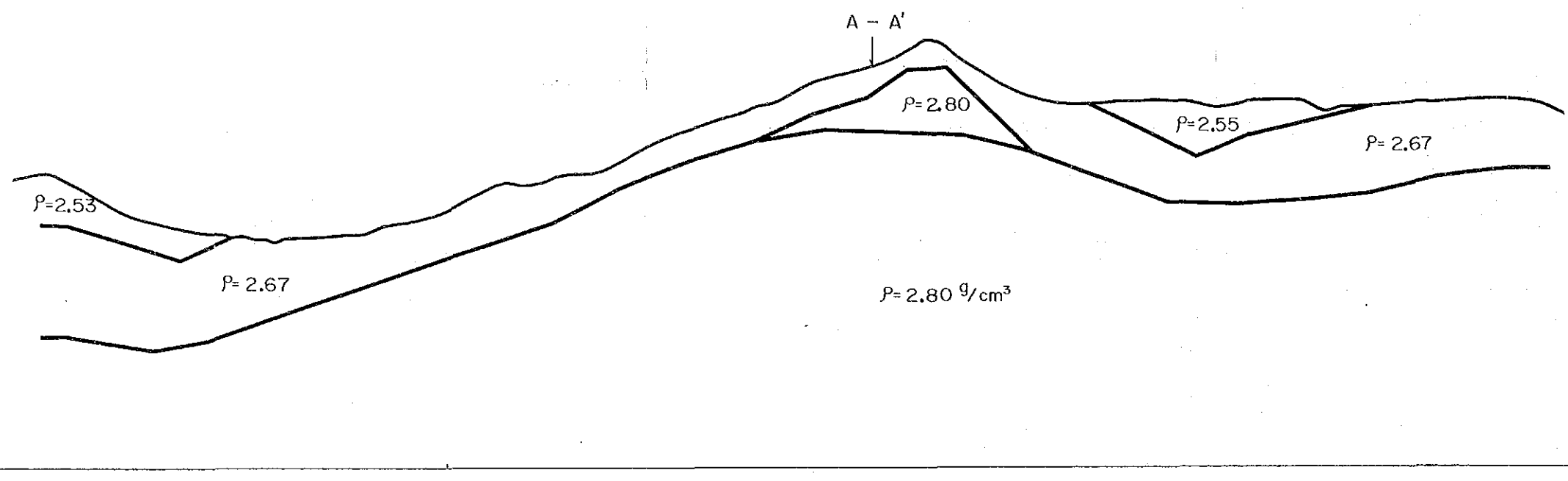
mgal



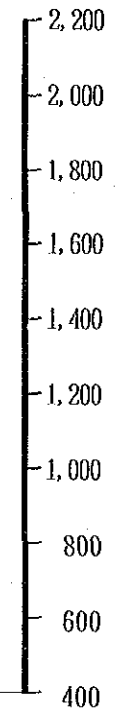
Long-wave Gravity Section

Short-wave Gravity Section

Estimated Underground Structure



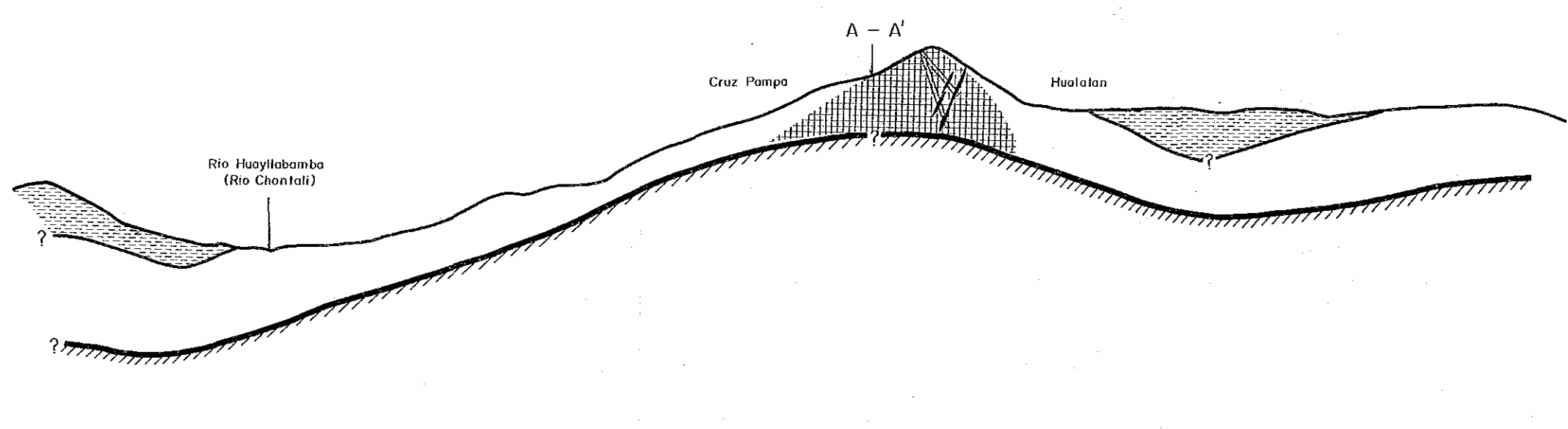
Altitude m



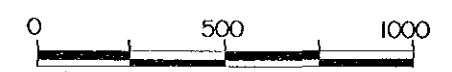
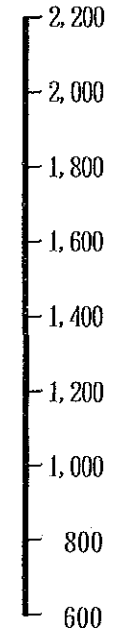
LEGEND

- Boring site
- Quartz vein
- Gravity basement
- High density zone on basement
- Low density layer

Geological Structure



Altitude m



Scale = 1 : 10,000

Bouguer Anomaly Value  
mgal

-136  
-138  
-140  
-142

Bouguer Anomaly Section

Regional Gravity Trend

Calculated Gravity Value

Bouguer Anomaly Value  
mgal

-136  
-138  
-140  
-142

Long-wave Gravity Value  
mgal

-137  
-139  
-141

Long-wave Gravity Section

Short-wave Gravity Value  
mgal

1.0  
0.0  
-1.0

Short-wave Gravity Section

Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600  
400

### Estimated Underground Structure

A - A'

$\rho = 2.67$

$\rho = 2.57$

$\rho = 2.80$

$\rho = 2.80$

$\rho = 2.67$

$\rho = 2.80 \text{ g/cm}^3$

Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600  
400

Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200

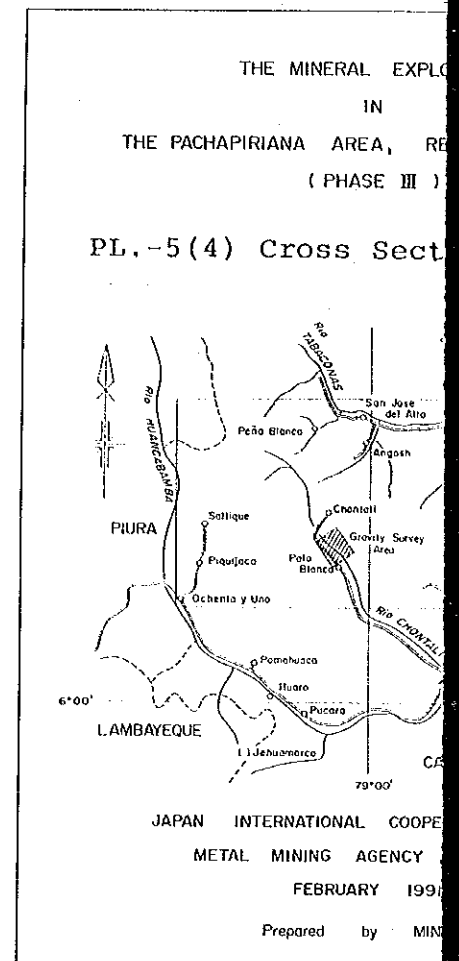
### Geological Structure

A - A'

Rio Huayllamba  
(Rio Chontali)

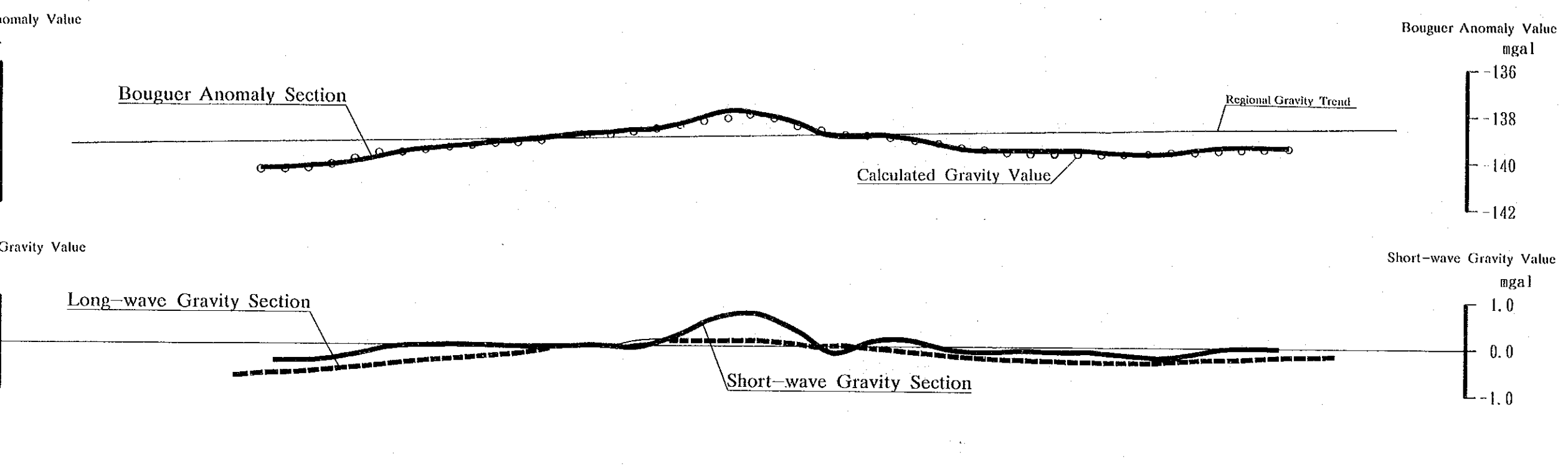
Altitude  
m

2,200  
2,000  
1,800  
1,600  
1,400  
1,200

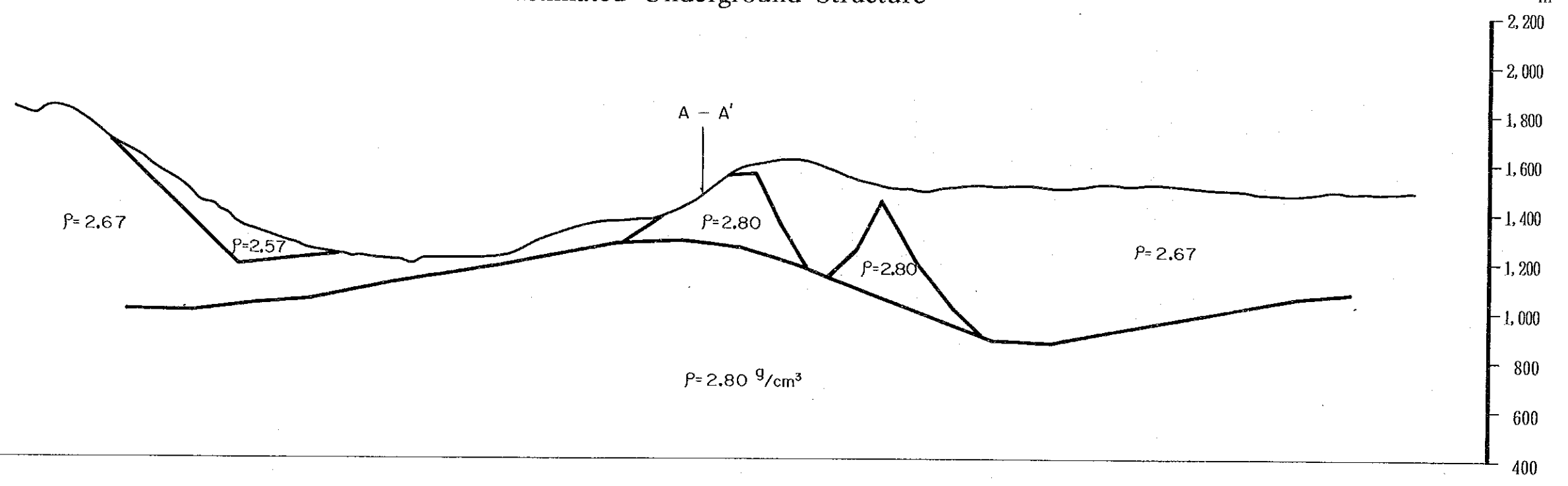


### LEGEND

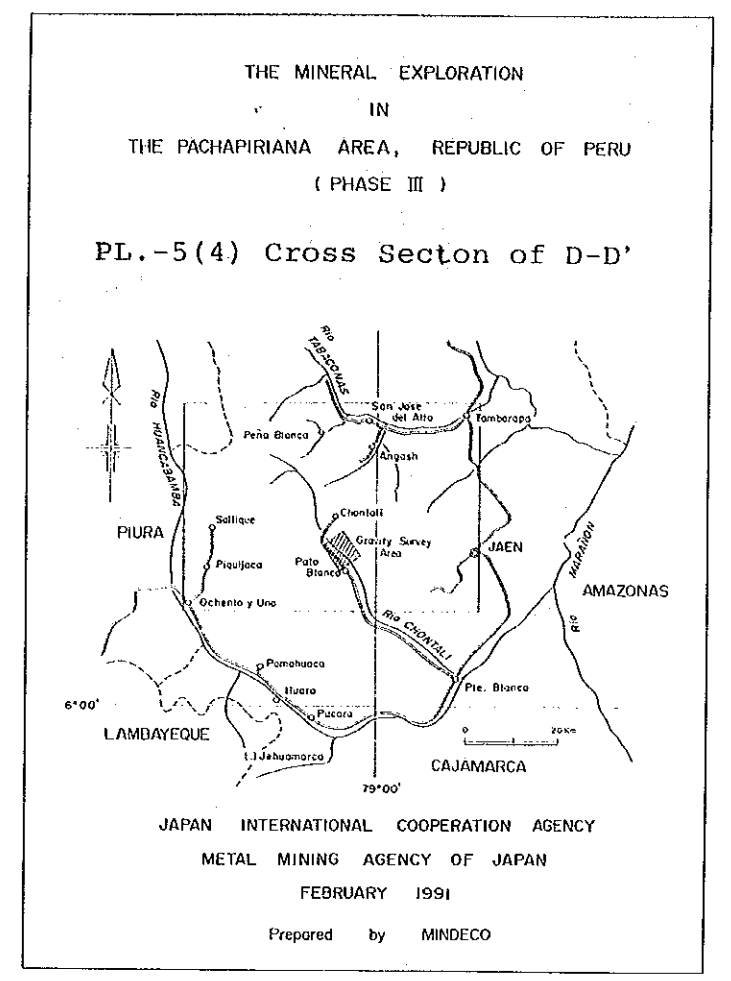
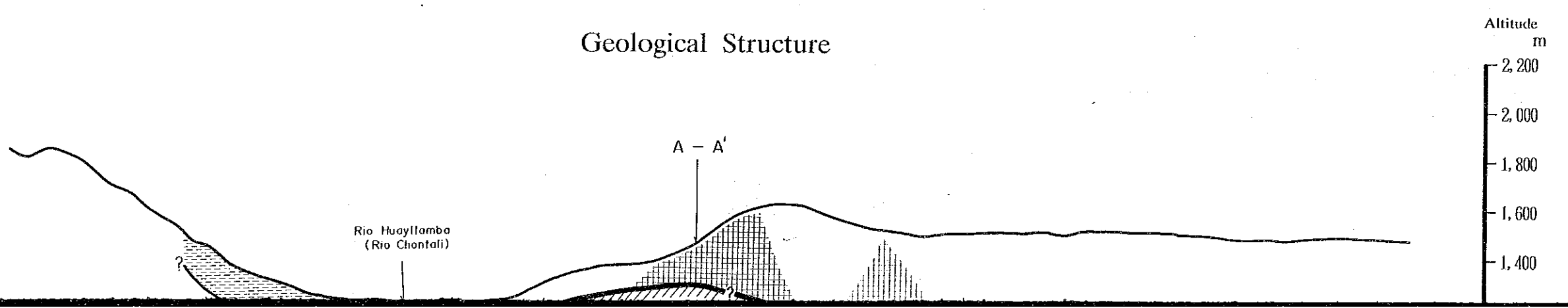
- Gravity basement
- High density zone on basement
- Low density layer



Estimated Underground Structure



Geological Structure



LEGEND

- Gravity basement
- High density zone on basement
- Low density layer

Long-wave Gravity Value

mgal  
-137  
-139  
-141

Long-wave Gravity Section

Short-wave Gravity Value

mgal  
1.0  
0.0  
-1.0

Short-wave Gravity Section

Altitude  
m  
2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600  
400

### Estimated Underground Structure

Altitude  
m  
2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600  
400

$\rho = 2.67$

$\rho = 2.57$

$\rho = 2.80 \text{ g/cm}^3$

A - A'

$\rho = 2.80$

$\rho = 2.80$

$\rho = 2.67$

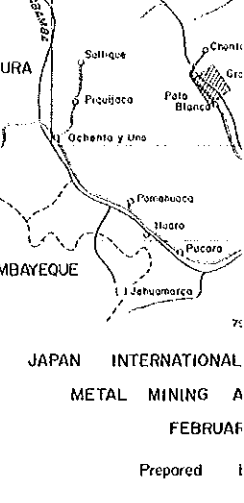
Altitude  
m  
2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600

### Geological Structure

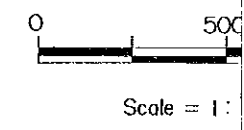
Altitude  
m  
2,200  
2,000  
1,800  
1,600  
1,400  
1,200  
1,000  
800  
600

Rio Huayllamba  
(Rio Chontali)

A - A'



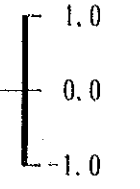
- LEGEND
- Gravity Section
  - High density on basement
  - Low density



Value

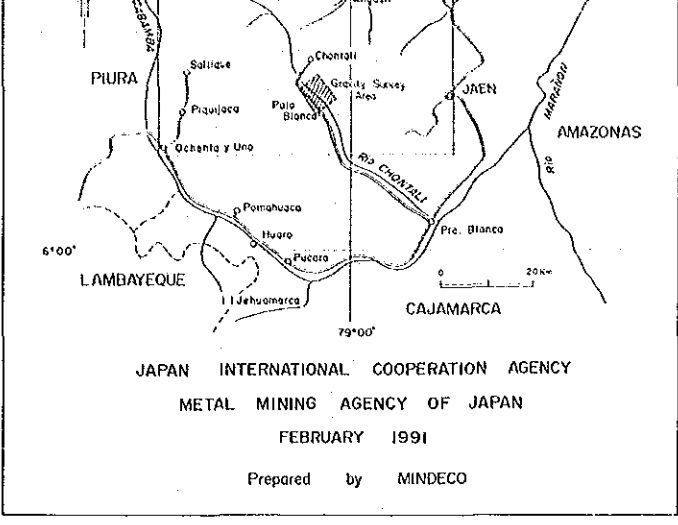
Short-wave Gravity Value

mgal



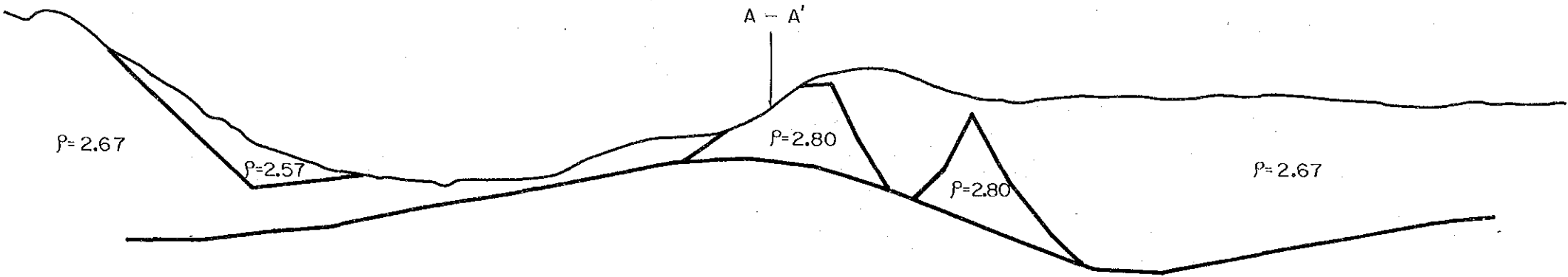
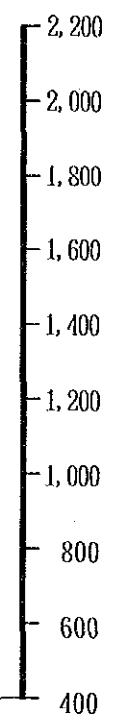
Long-wave Gravity Section

Short-wave Gravity Section



### Estimated Underground Structure

Altitude m



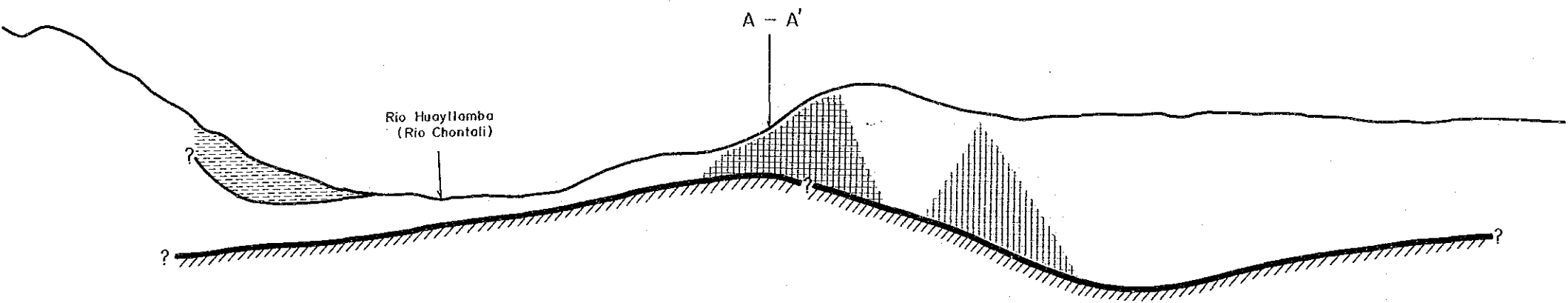
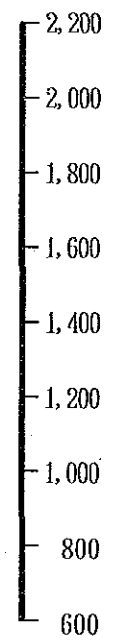
$\rho = 2.80 \text{ g/cm}^3$

### LEGEND

- Gravity basement
- High density zone on basement
- Low density layer

### Geological Structure

Altitude m



Rio Huayllamba  
(Rio Chontali)



Scale = 1:10,000