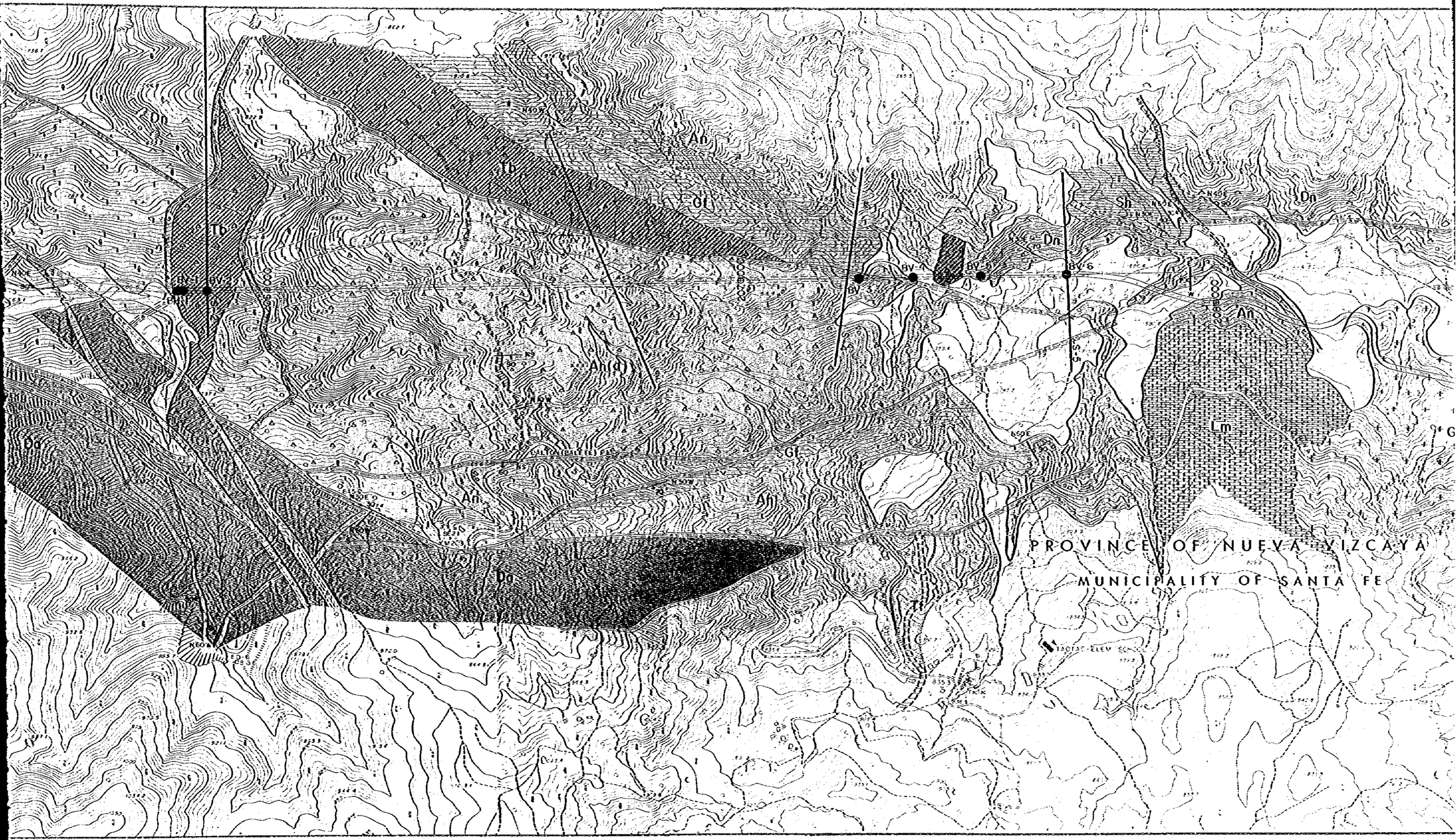
PROVINCE OF NUEVA ECIJA

MUNICIPALITY OF CARRANGLAN

DRAWING NO. GS-4 GEOLOGICAL MAP OF SECTION A


Dn
An
Tb
Gl
Sh
Dn
An
Lm
Ah(d)
Gl
An
Ah
Do
Ts
PROVINCE OF NUEVA VIZCAYA
MUNICIPALITY OF SANTA FE
BV-1
BV-2
BV-4
BV-5
BV-6
BV

Sh

Dn

Dn

An

Lm

Gr

INCE OF NUEVA VIZCAYA

UNICIPALITY OF SANTA FE

SANTA FE

LEGEND

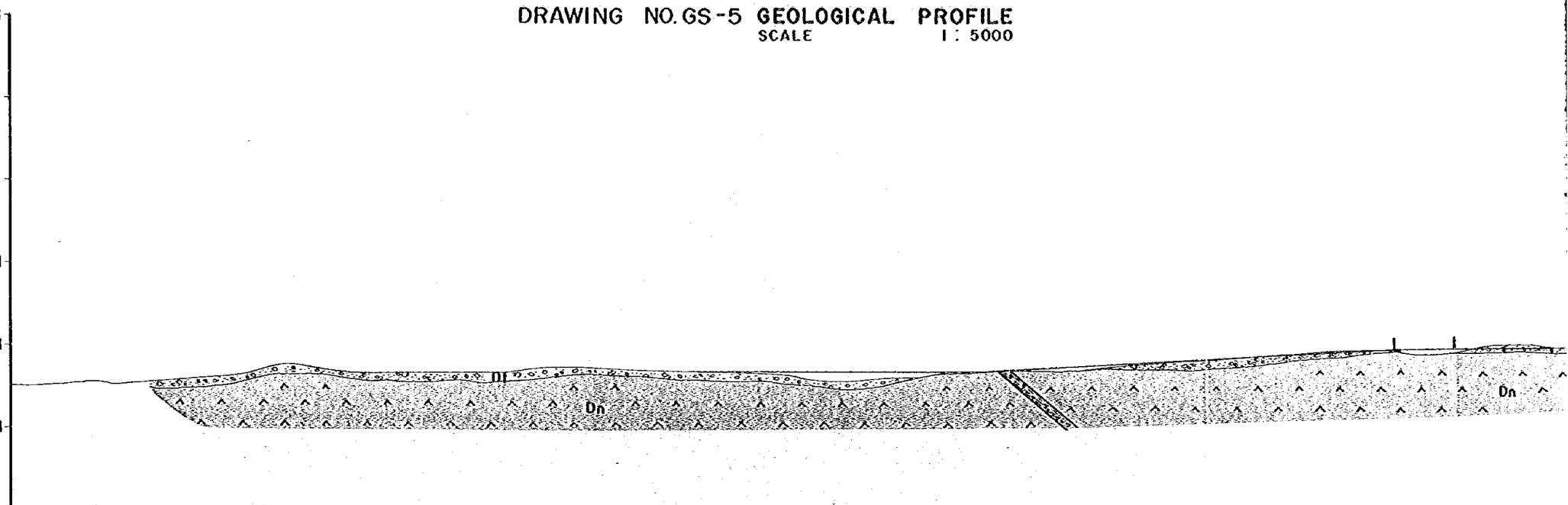
- Dt — River Deposit (Include Talus, Terrece Deposit)
- Lm — Limestone
- Dn — Dacitic Andesite
- Sh — Shale
- Tf — White Tuff
- Gt — Green Tuff
- Tb — Tuff Breecia
- An — Andesite
- An(o) — Auto Clastic Andesite
- Do — Diobase
- Gr — Granite
- Shear Zone
- Bedding
- Joint
- Altered Zone

DRAWING NO.

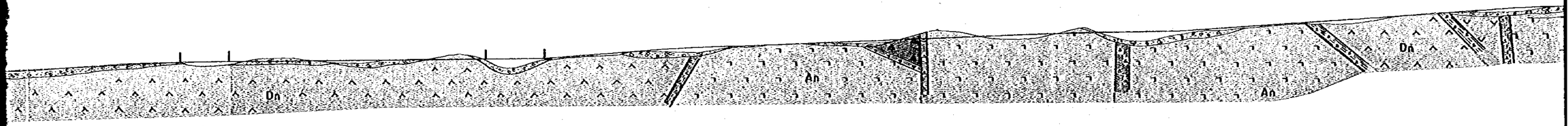
GS- 4

DRAWING NO. GS-5 GEOLOGICAL PROFILE

SCALE 1 : 5000

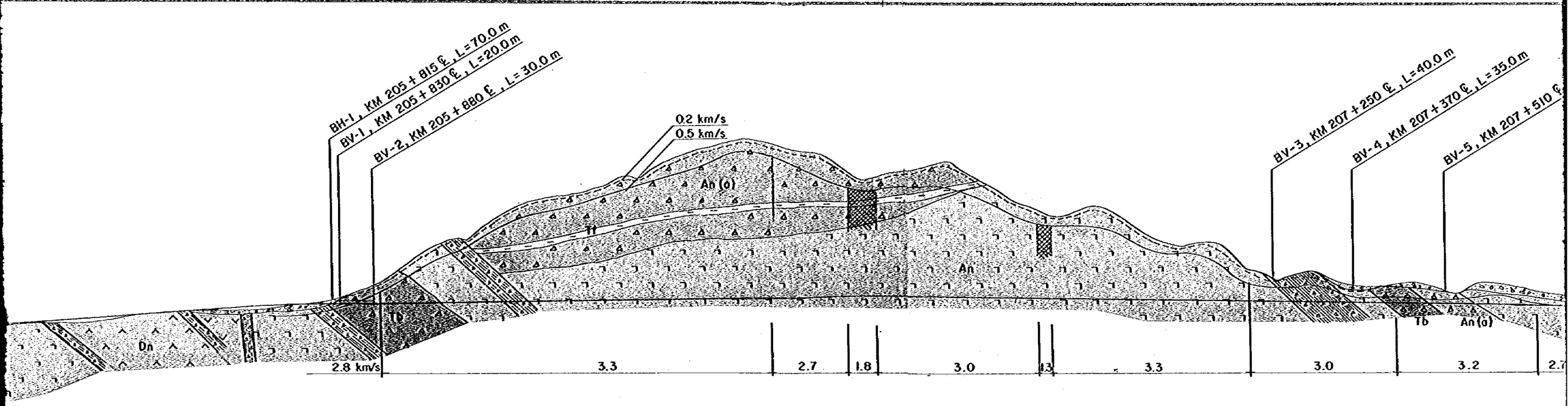


STATION (KM)	202 + 000	202 + 500	203 + 000	203 + 500	
KIND OF CONSTRUCTION	Improvement of Existing Rood		Bridge No.1	Bridge No.2	
GEOLOGICAL CONDITION	River Deposit / Docitic Andesite		Docitic Andesite	River Deposit / Docitic Andesite	
PORTION OF SHEAR ZONE					
VELOCITY OF ELASTIC WAVE					
ROCK SPECIMEN TEST	P WAVE				
	S WAVE				
	qu(kg/cm²)				
CRACKY FACTOR					
BASE ROCK CLASSIFICATION					
CONSTRUCTION DIFFICULTY					



203 + 500 | 204 + 000 | 204 + 500 | 205 + 000 | 205 + 500

Bridge No.2		Bridge No. 3				Bridge No.4			
River Deposit Dacitic Andesite		Talus Dacitic Andesite	Andesite	Tuff Breccio	Andesite	Talus Andesite	Andesite	Dacitic Andesite	Talus Andesite



205 + 500 | 206 + 000 | 206 + 500 | 207 + 000 | 207 + 500

T U N N E L

esite | Dacitic Andesite | Talus Andesite | Tuff Breccia | Andesite | Talus , Tere | TUFF AUTOCRASTIC BRECCIA/ ANDESITE

2.8 | 3.3 | 2.7 | 1.8 | 3.0 | 1.3 | 3.3 | 3.0 | 3.2 | 2.7

BH-1 qu = 262.15 , 197.21 , BV-2 144.92 | BV-3 qu = 151.61 , 139.45 | BV-4 qu = 58.81 | BV-5 qu = 100.75 | BV-6 qu = 126.

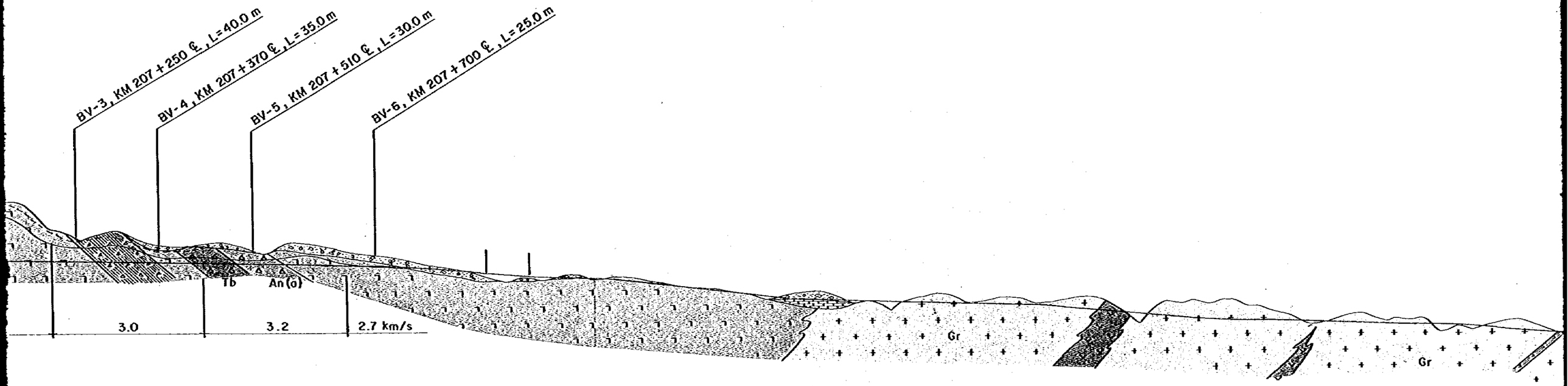
C | B | D | E | C | E | B | C | D

BH-1, BV-1, BV-2 (Tuff Breccia)

- Core recoved is fragment , long core is few,
- RQD 20%
- Sheoring Zone BH-1 39.50 - 46.00 M
  BV-2 7.50 - 10.50 M

BV-3, BV-4, BV-5, BV-6 (Andesite)

- Core recovered is short - long core
- RQD BV-3 < 50% , BV-4 < 60% , BV-5 < 30%
  BV-6 = 50-70% (Bose Rock)
- Sheoring Zone BV-3 25.0 - 27.0 M



207 + 500 | 208 + 000 | 208 + 500 | 209 + 000 | 209 +

Bridge No.5

Talus, Terecce Deposil | Andesite | Talus | Granite | Dia base | Granite

TUFF (AUTOCRASTIC BRECCIA) ANDESITE | Andesite | ANDESITE | GRANITE

3.0 | 3.2 | 2.7

BV-3 qa=151.61 , 139.45 | BV-4 qa= 58.81 | BV-5 qa=100.76 | BV-6 qa=126.10 , 254.08

C | D

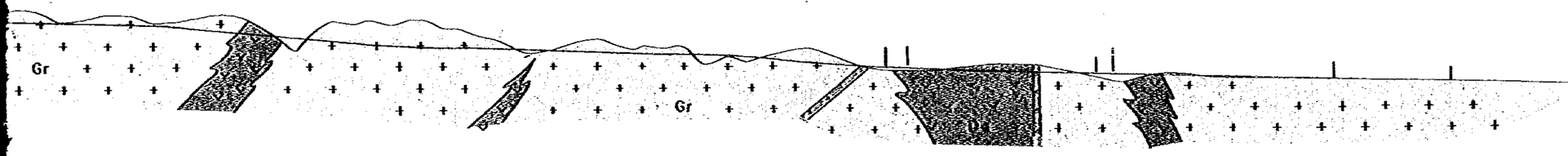
V-3, BV-4, BV-5, BV-6 (Andesite)

re recovered is short-long core

QD BV-3 < 50%, BV-4 < 60%, BV-5 < 30%

BV-6= 50-70% (Bose Rock)

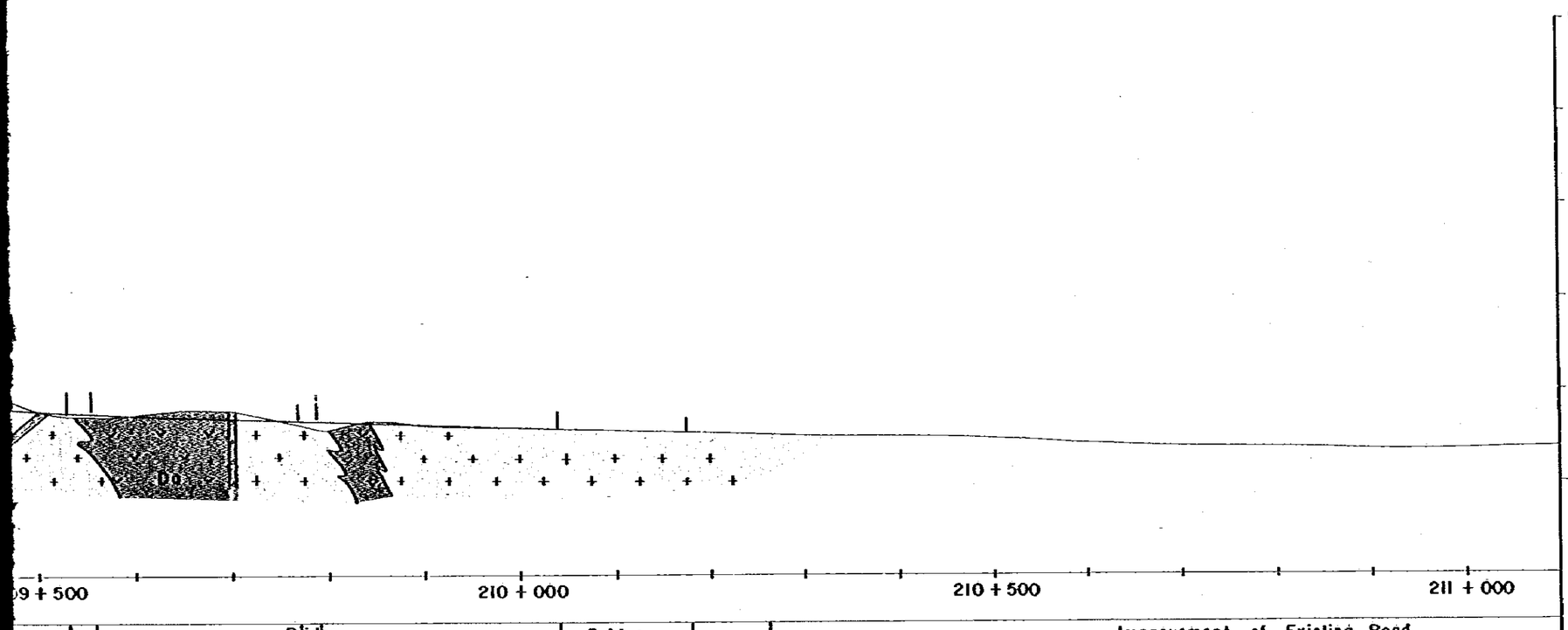
earing Zone BV-3 25.0 - 27.0 M



0 209 + 000 209 + 500 210 + 000 210 + 500

Bridge No.6 Bridge No.7 Bridge No.8 Improvement of Existing R

Granite | Dia base | Granite | Diabase | Granite | Dia base | Granite

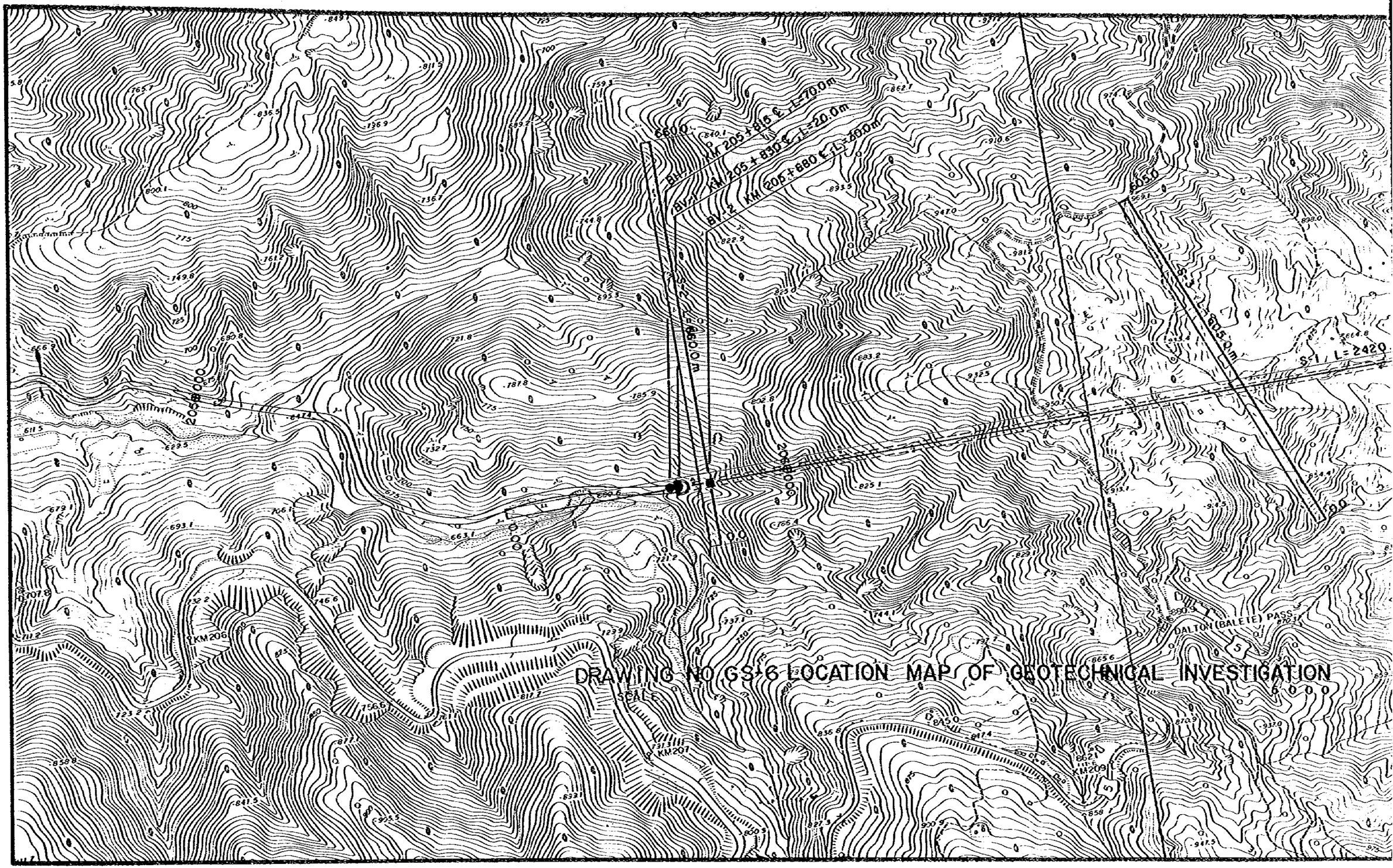


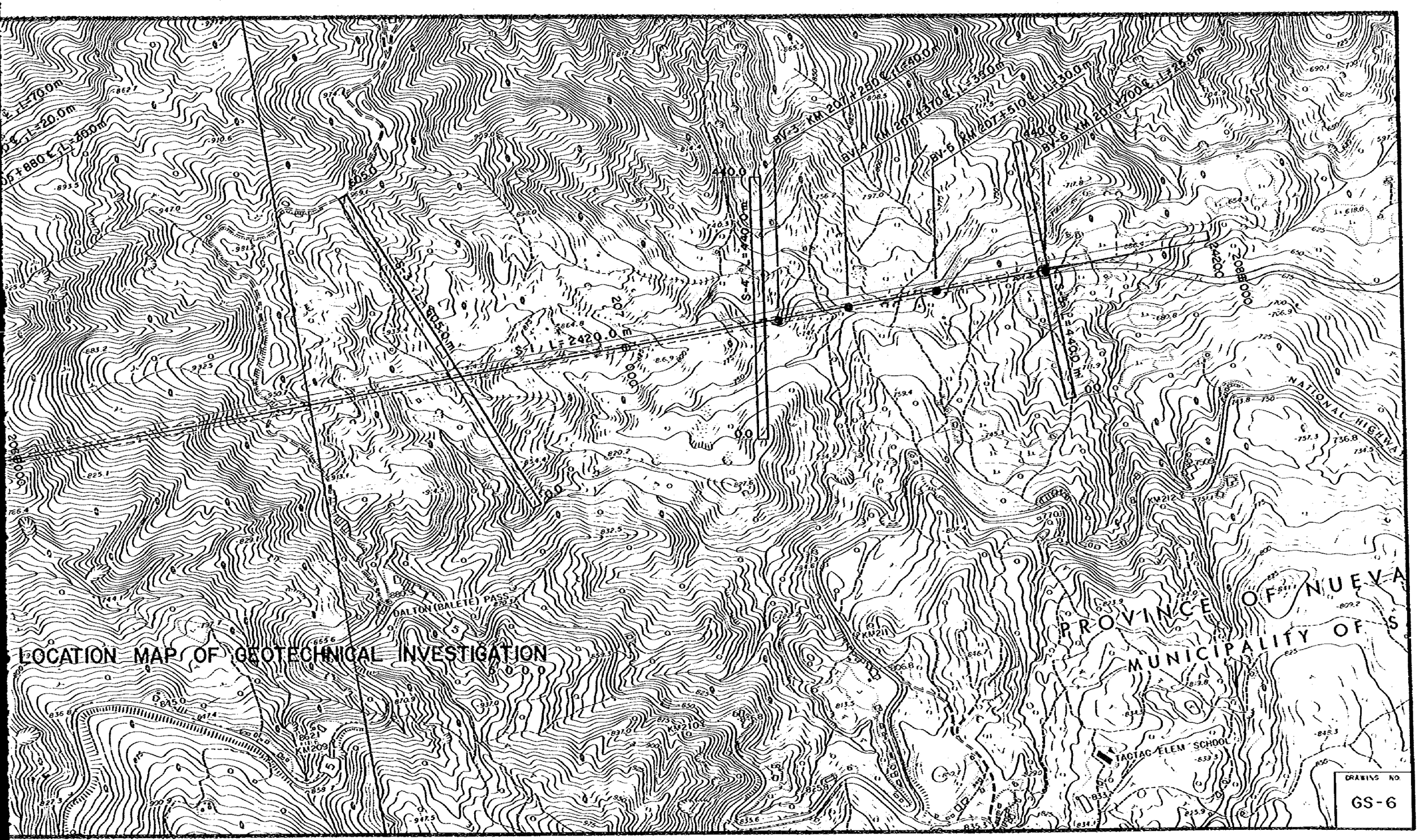
LEGEND

Dt	River Deposit (Talus, Terrece dpst)
Lm	Limestone
Dn	Dacitic Andesite
Sh	Shale
Tf	White Tuff
Gt	Green Tuff
Tb	Tuff Breecia
An	Andesite
An(a)	Autoclastic Andesite
Do	Diabose
Gr	Granite
	Shear Zone

DRAWING NO.

GS-5


BH1
BH2
KM 205+815 ℄ L=70.0m
KM 205+830 ℄ L=20.0m
KM 205+880 ℄ L=50.0m
S-1, L=460.0m
S-1, L=605.0m
S-1, L=2420
KM206
KM207
KM208
DALTON (BALETE) PASS
DRAWING NO GS-6 LOCATION MAP OF GEOTECHNICAL INVESTIGATION
SCALE


LOCATION MAP OF GEOTECHNICAL INVESTIGATION
DALTON (BALETE) PASS
PROVINCE OF NUEVA
MUNICIPALITY OF S
TACTAC ELEM. SCHOOL
NATIONAL HIGHWA
S-1, L=2420.0 m
S-2, L=805.0m
S-3, L=440.0 m
S-4, L=440.0 m
S-5, L=440.0 m
BV-3 KM 207+280 ℄, L=400.0 m
BV-4 KM 207+370 ℄, L=330.0 m
BV-6 KM 207+510 ℄, L=30.0 m
BV-6 KM 207+700 ℄, L=225.0m
℄, L=70.0m
℄, L=20.0m
℄, L=100.0m
0+880 ℄, L=100.0m
KM209
KM210
KM211
KM212
DRAWING NO.
GS-6

DRAWING NO.GS-7 RESULT OF BORING SURVEY

SCALE = 1 / 5,000

EL=800.00 M.

EL=750.00 M.

EL=700.00 M.

BH-1, KM 205+815 ℄, L=70.0 m

BV-1, KM 205+830 ℄, L=20.0 m

BV-2, KM 205+880 ℄, L=30.0 m

BV-3, KM 207+250 ℄, L=40.0 m

BV-4, KM 207+370 ℄, L=35.0 m

BV-5, KM 207+510 L, L=30.0 m

BV-6, KM 207+700 ℄
L=25.0 m

LEGEND

- Sand & Gravel
- Talus (Breccia Mix Clay)
- Talus (Breccia Mix Sand)

(Dl)

Soft Rock
- Tuff Breccia (Tb)
- Andesite (An)
- Shearing Zone (F)

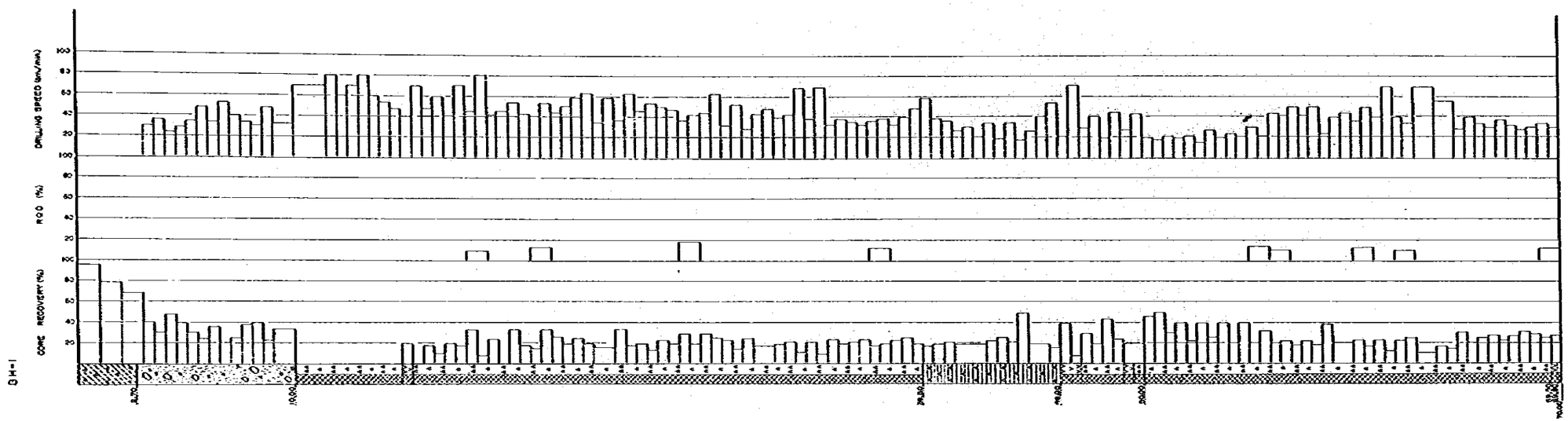
Hard Rock
- Andesite (An)
- (Altered) Andesite

Shearing Zone

Tb, Tb, An, F, F, F, An, An, Tb, An(o), Dl, An

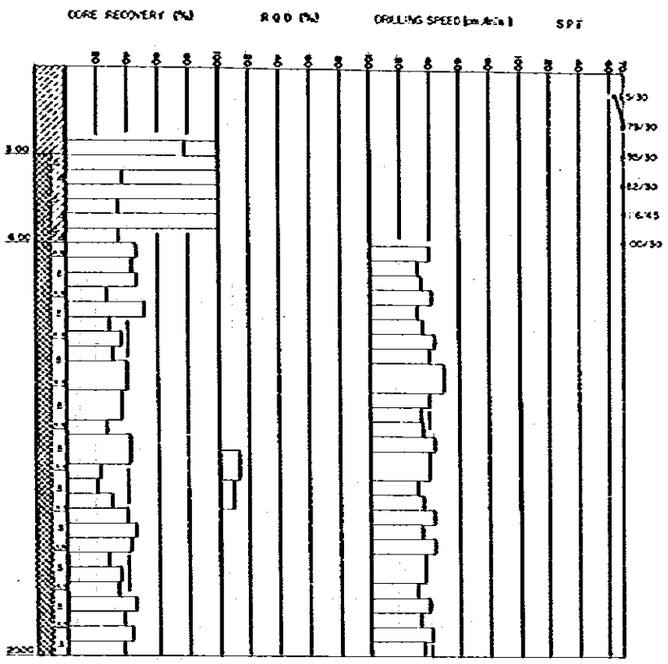
KM 206+000, KM 207+000

DRAWING NO. GS-7

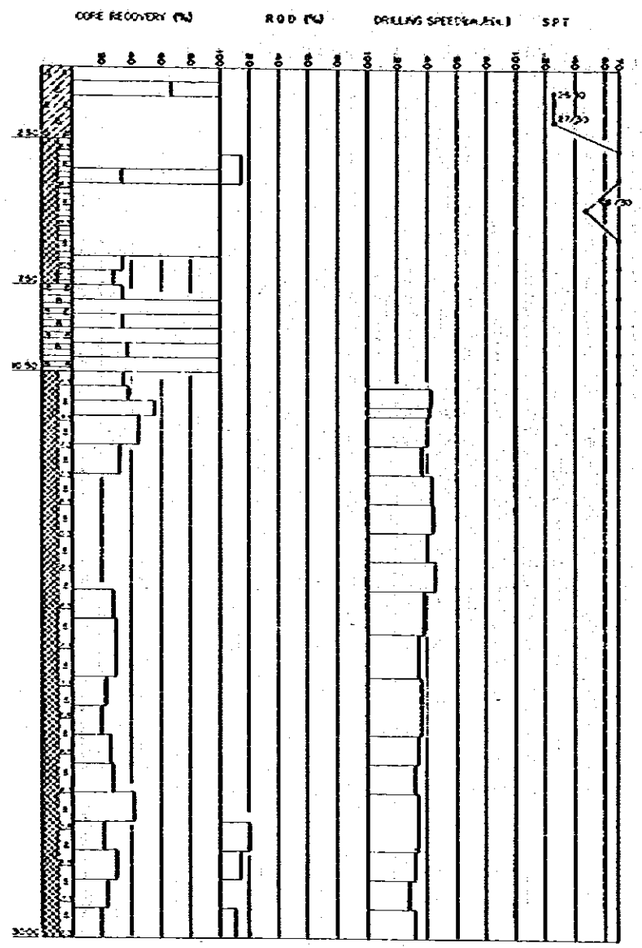


JAPAN INTERNATIONAL COOPERATION AGENCY	DALTON PASS TUNNEL PROJECT FEASIBILITY STUDY	BORING COLUMNAR(I) BH-1 DATE: MAR '82	DRAWING NO. GS - 8

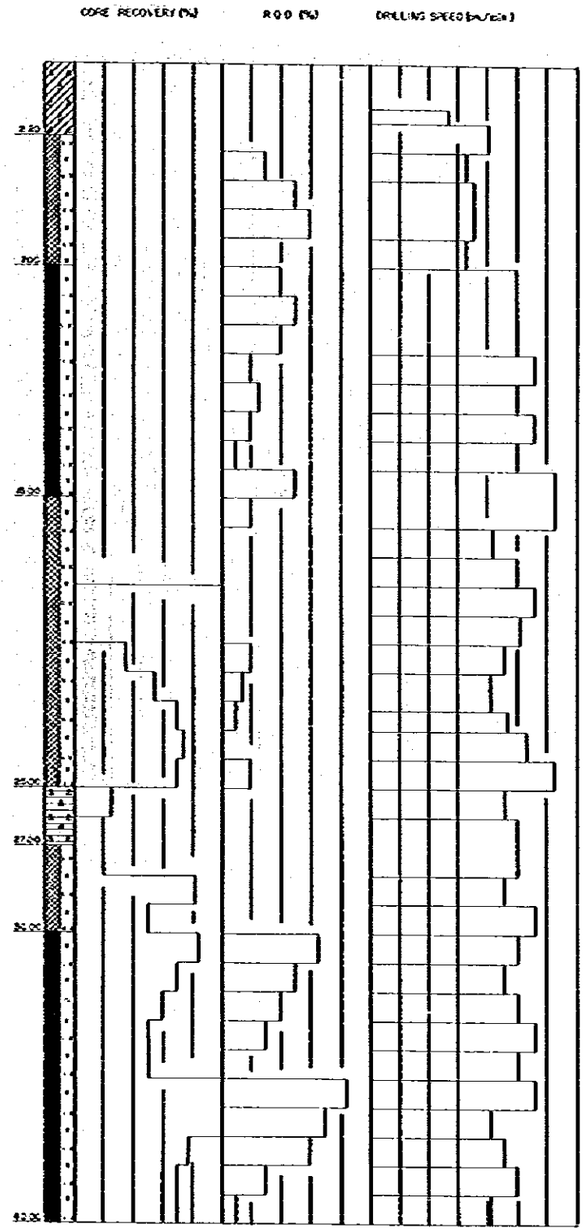
BV-1



BV-2

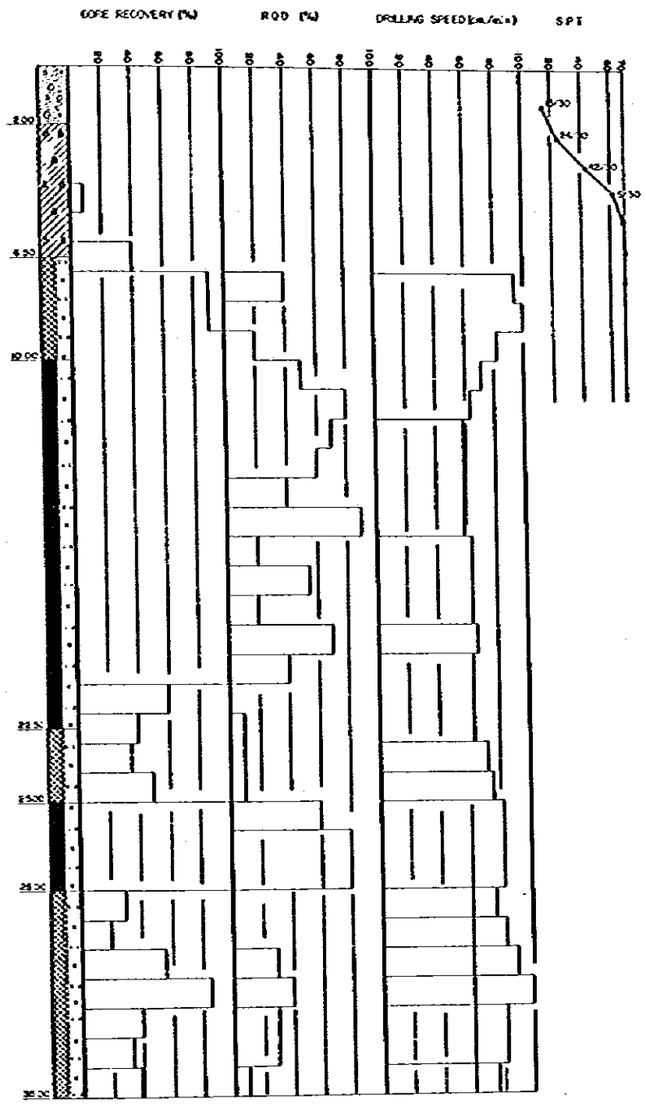


BV-3

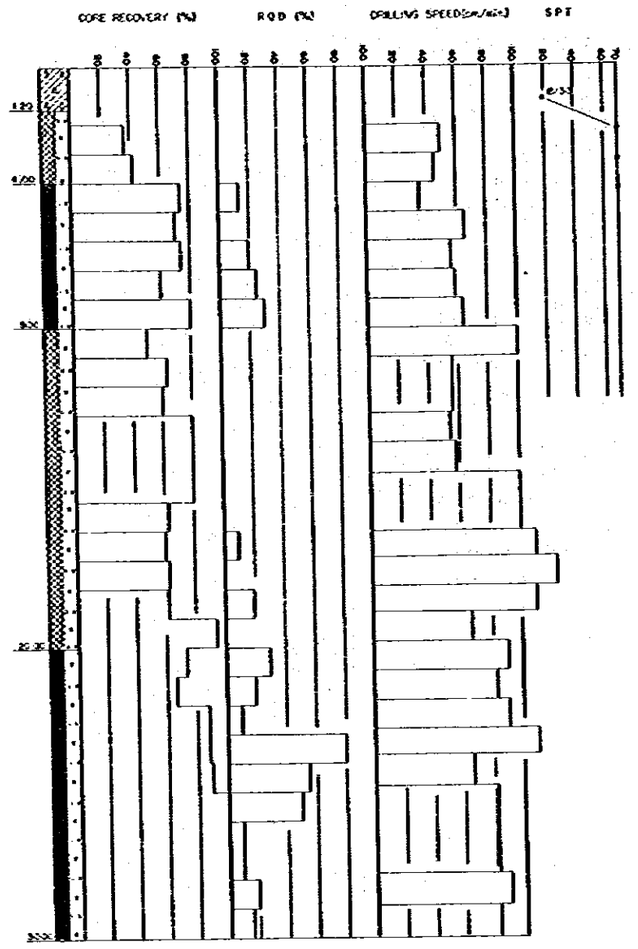


JAPAN INTERNATIONAL COOPERATION AGENCY	DALTON PASS TUNNEL PROJECT FEASIBILITY STUDY	BORING COLUMNAR (2) BV-1, BV-2, BV-3 DATE: MAR '82	DRAWING NO. GS - 9

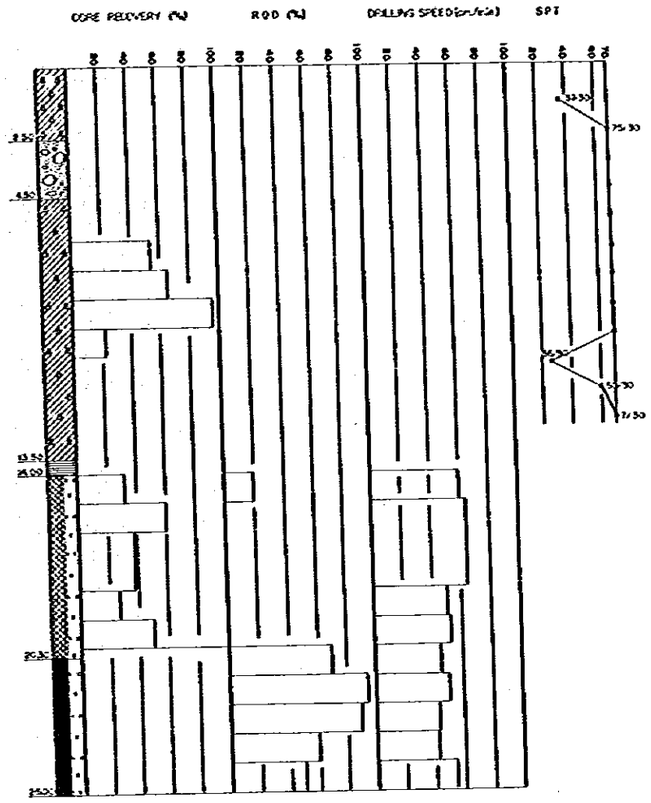
BV-4



BV-5

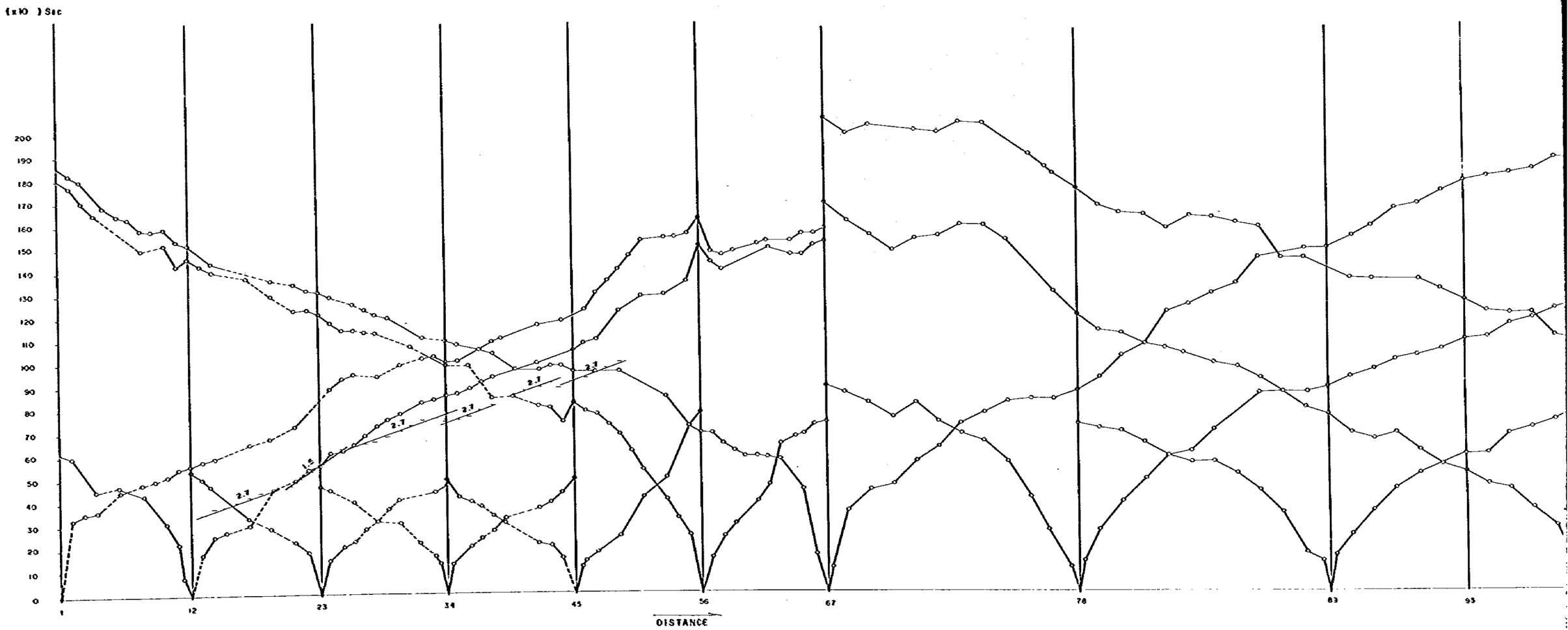


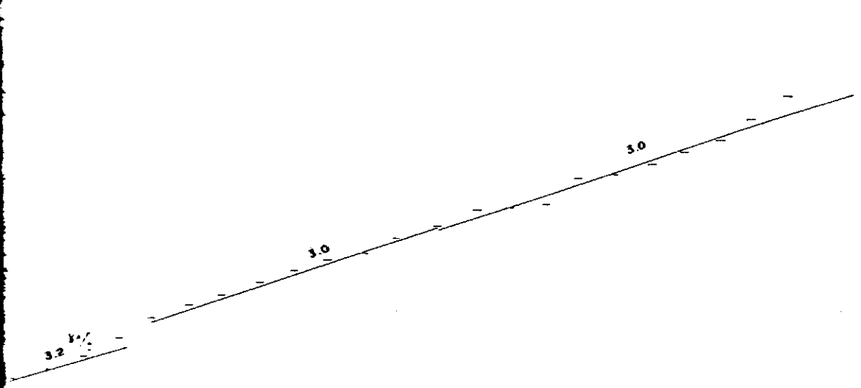
BV-6

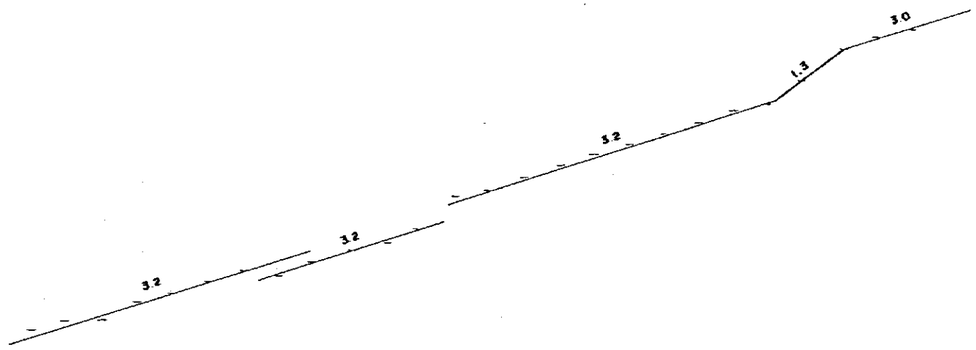


JAPAN INTERNATIONAL COOPERATION AGENCY	DALTON PASS TUNNEL PROJECT FEASIBILITY STUDY	BORING COLUMNAR (3) BV-4, BV-5, BV-6 DATE: MAR '82	DRAWING NO. GS - 10

DRAWING . NO . GS - 1 1 TRAVEL TIME CURVE S-1



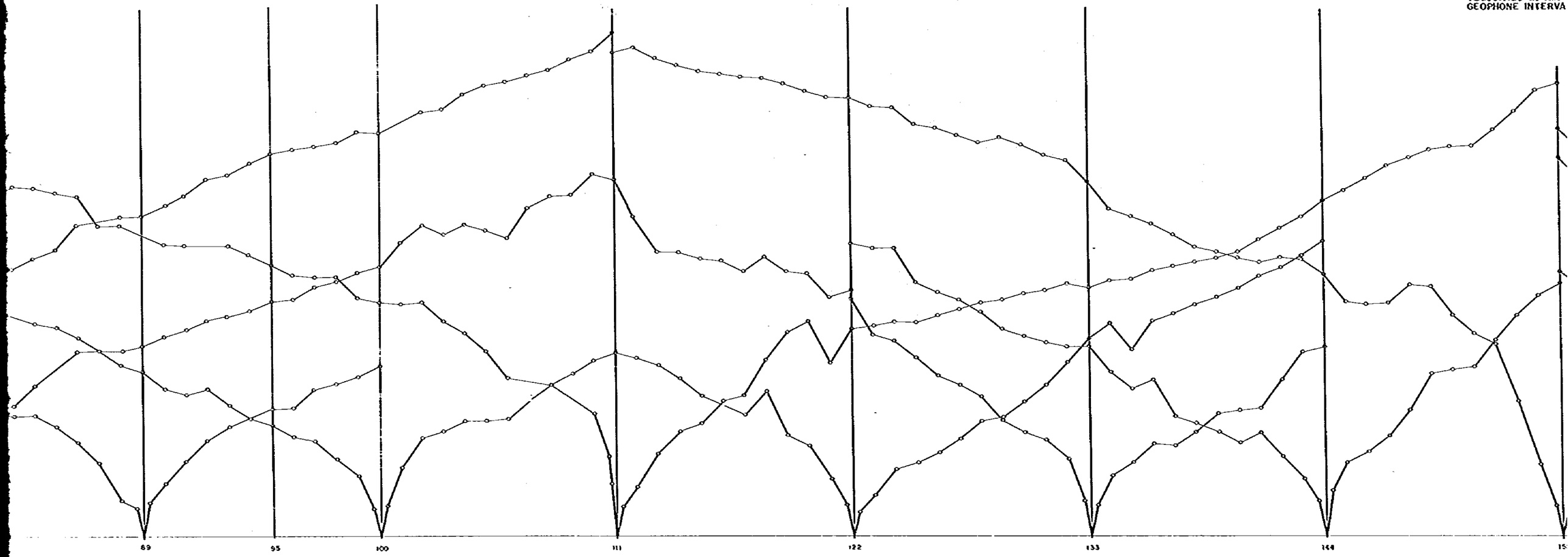


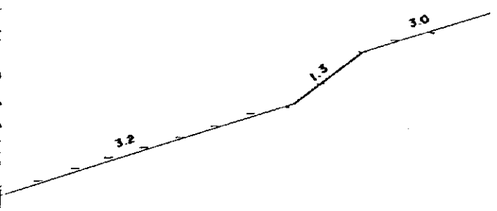


TRAVEL TIM
SURVEY LIN

SEISMIC F
HOR.SCALE
VERT SCALE

VELOCITIES IN KM
GEOPHONE INTERVA



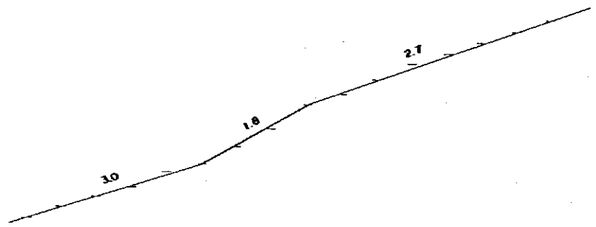


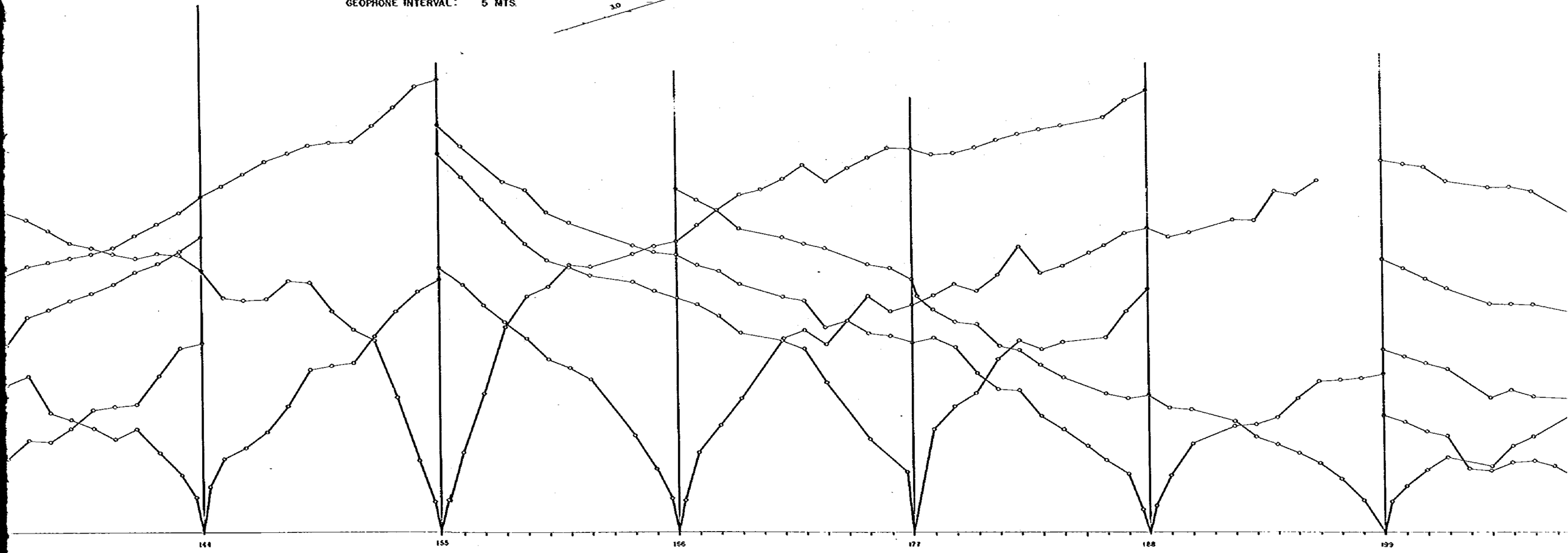
TRAVEL TIME CURVE

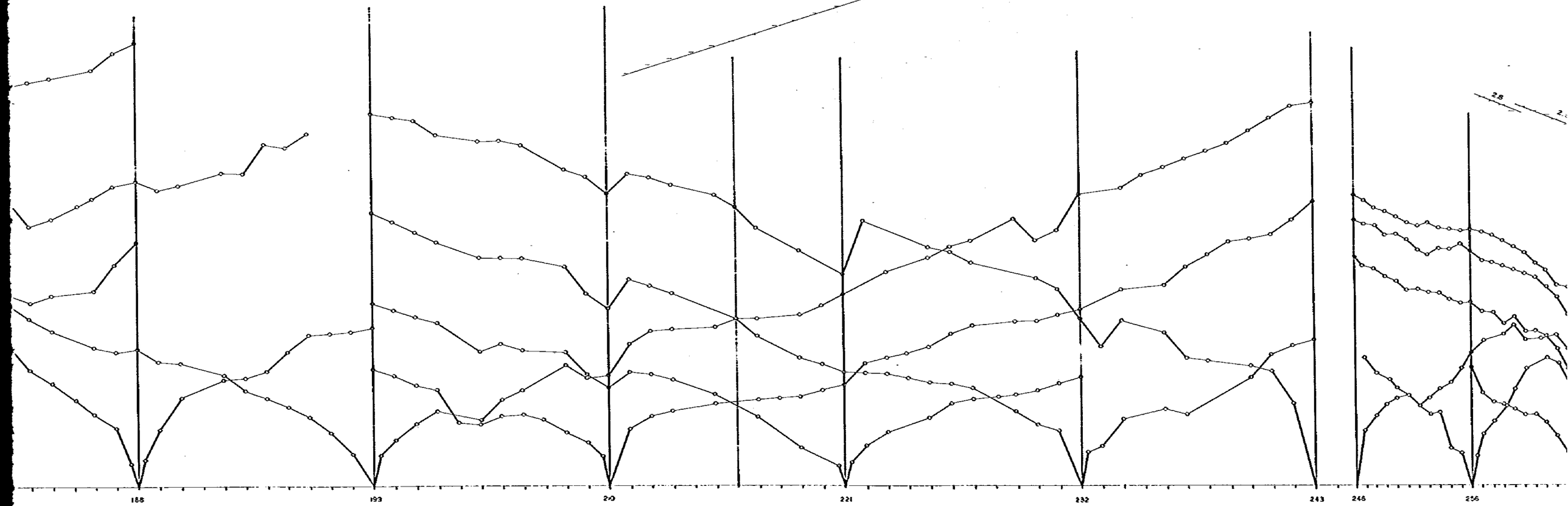
SURVEY LINE S-I

SEISMIC PROFILE
HOR.SCALE 1:500
VERT.SCALE 1:500

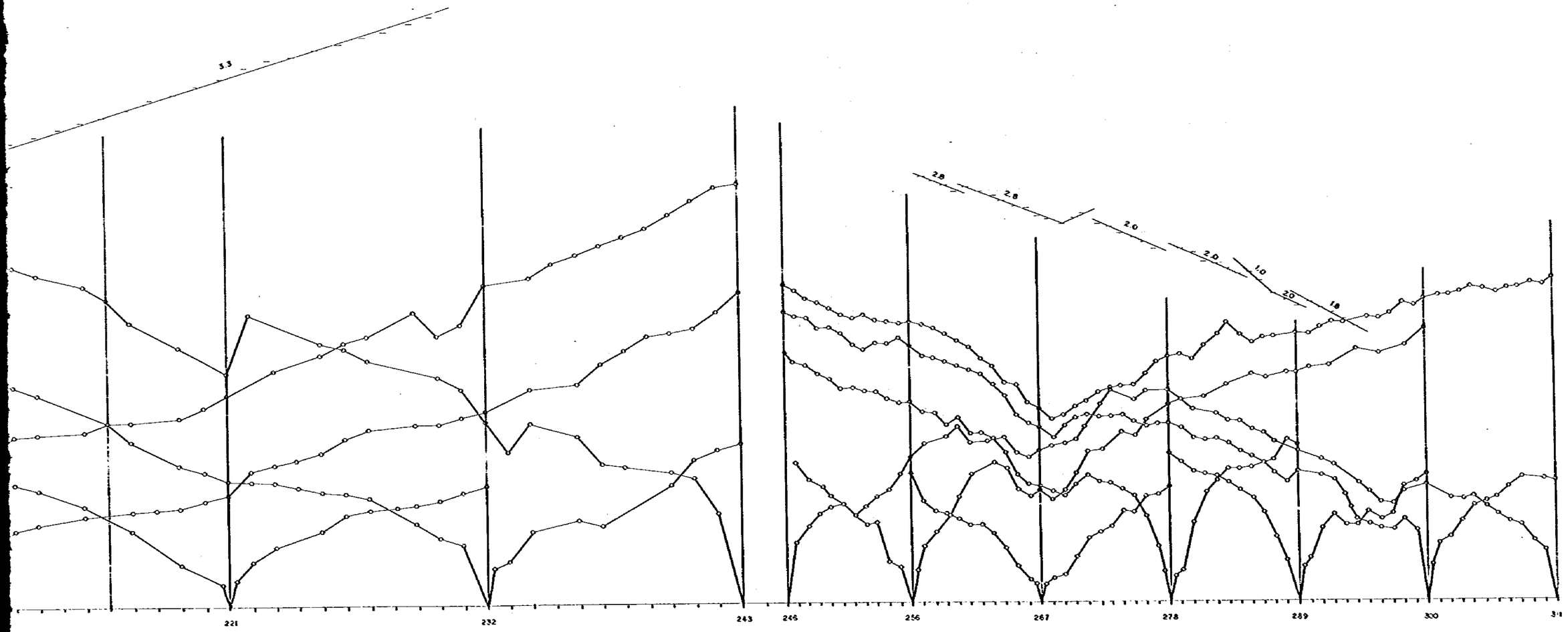
VELOCITIES IN KM. PER SECOND
GEOPHONE INTERVAL: 5 MTS.



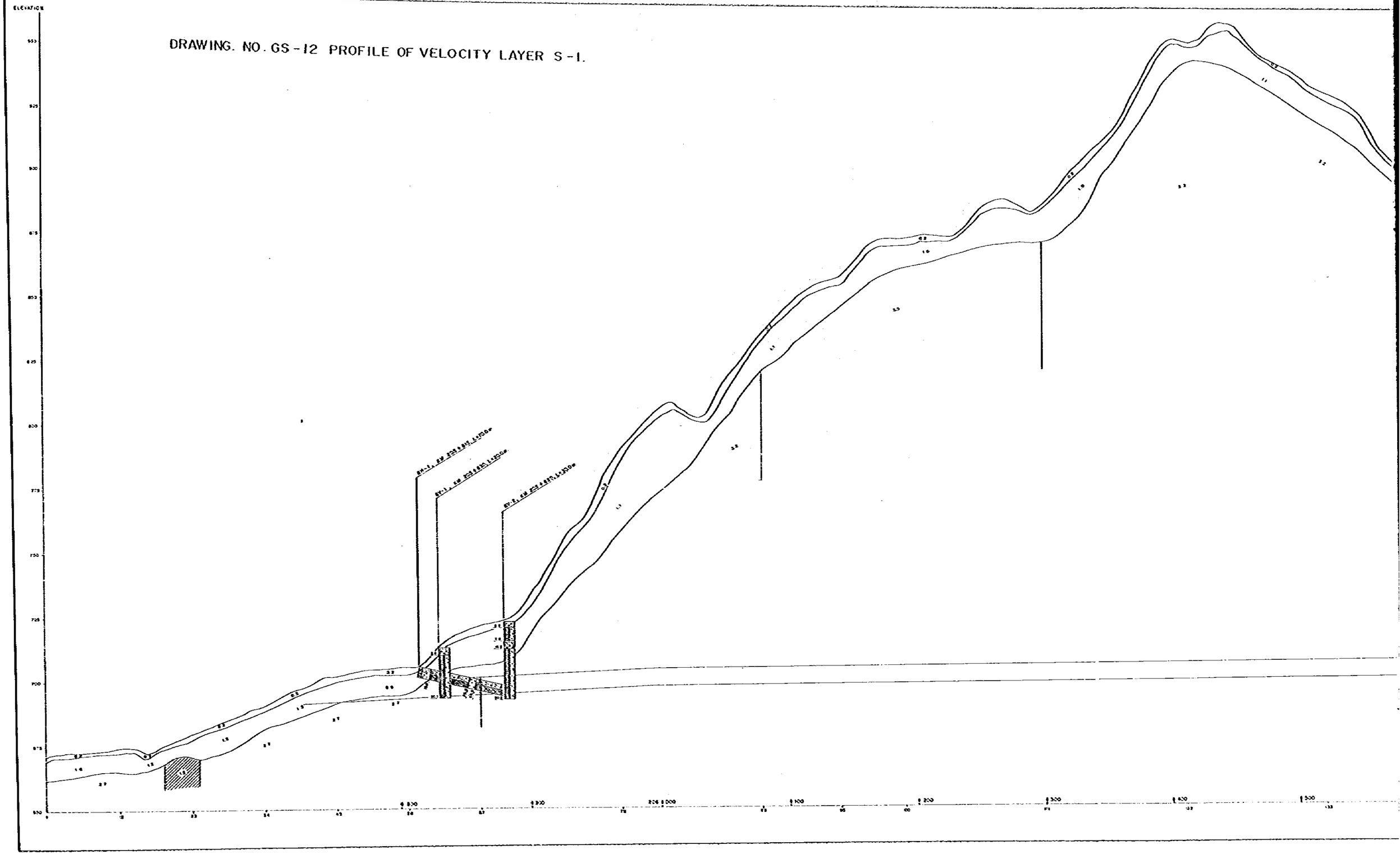


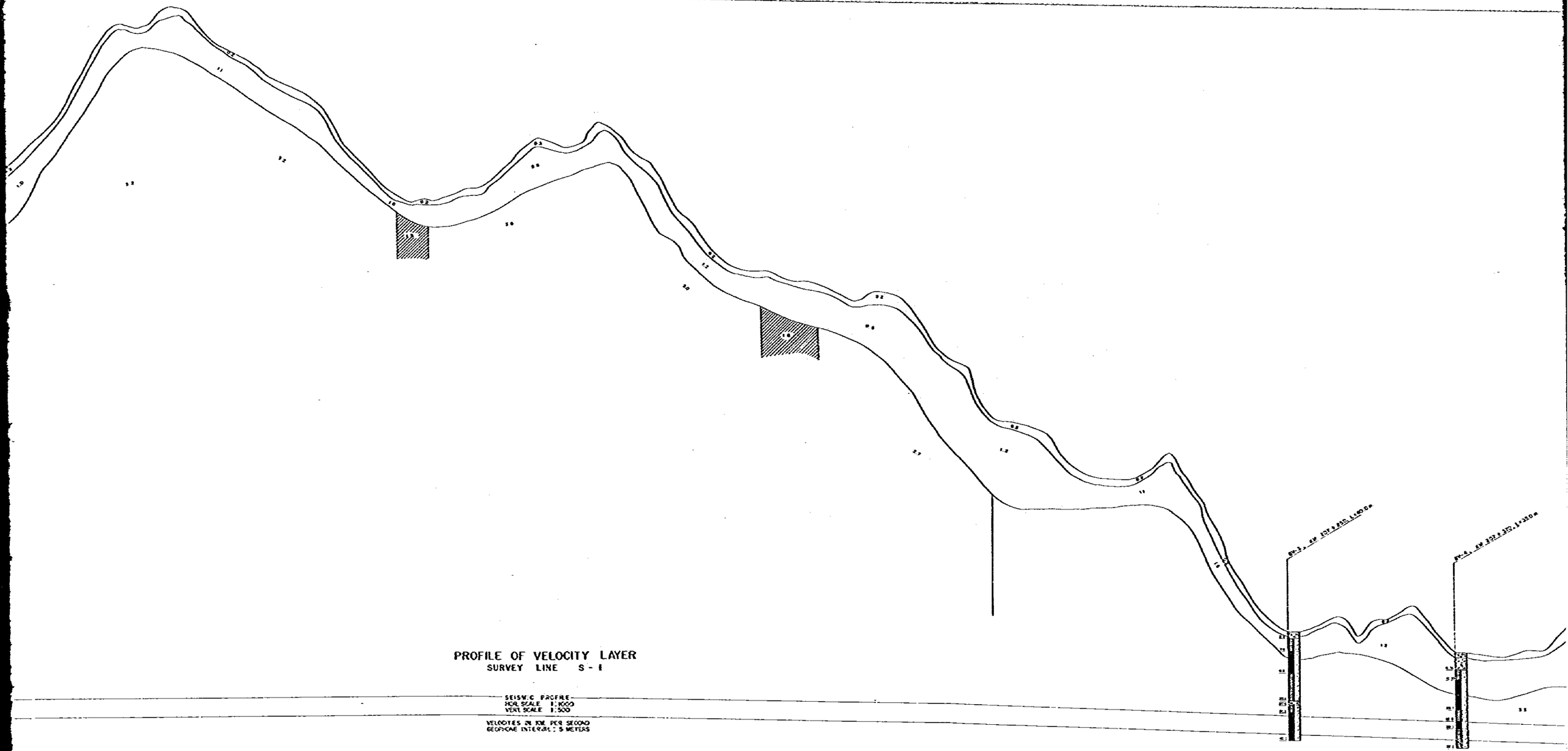

188
193
210
221
232
243
246
256

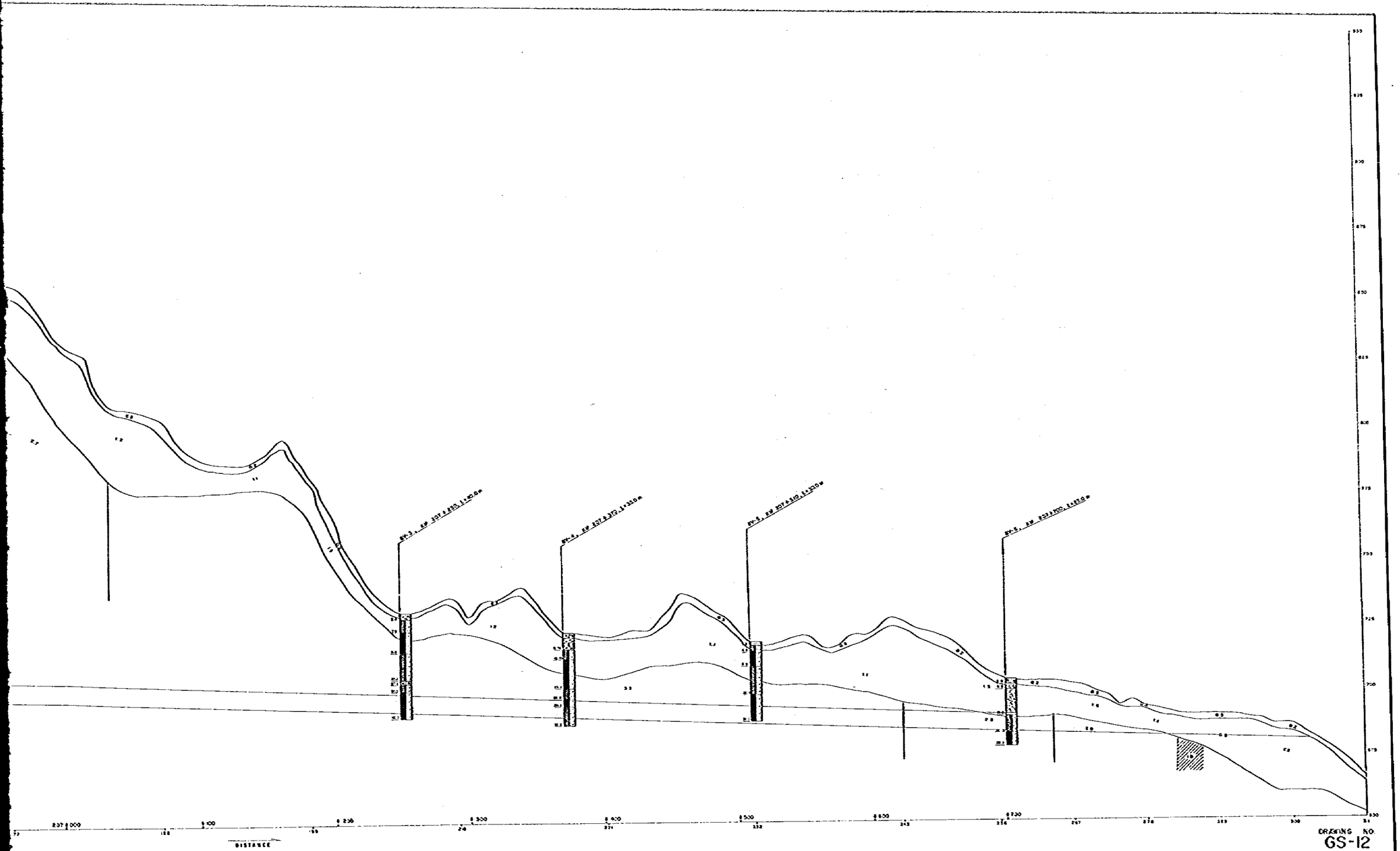
DRAWING NO.
GS-11



DRAWING. NO. GS-12 PROFILE OF VELOCITY LAYER S-1.




PROFILE OF VELOCITY LAYER
SURVEY LINE S - E
SEISMIC PROFILE
HOR. SCALE 1:1000
VERT. SCALE 1:500
VELOCITIES IN KM. PER SECOND
GEOPHONE INTERVAL : 5 METERS
DISTANCE


DRILLING NO.
GS-12