Line D

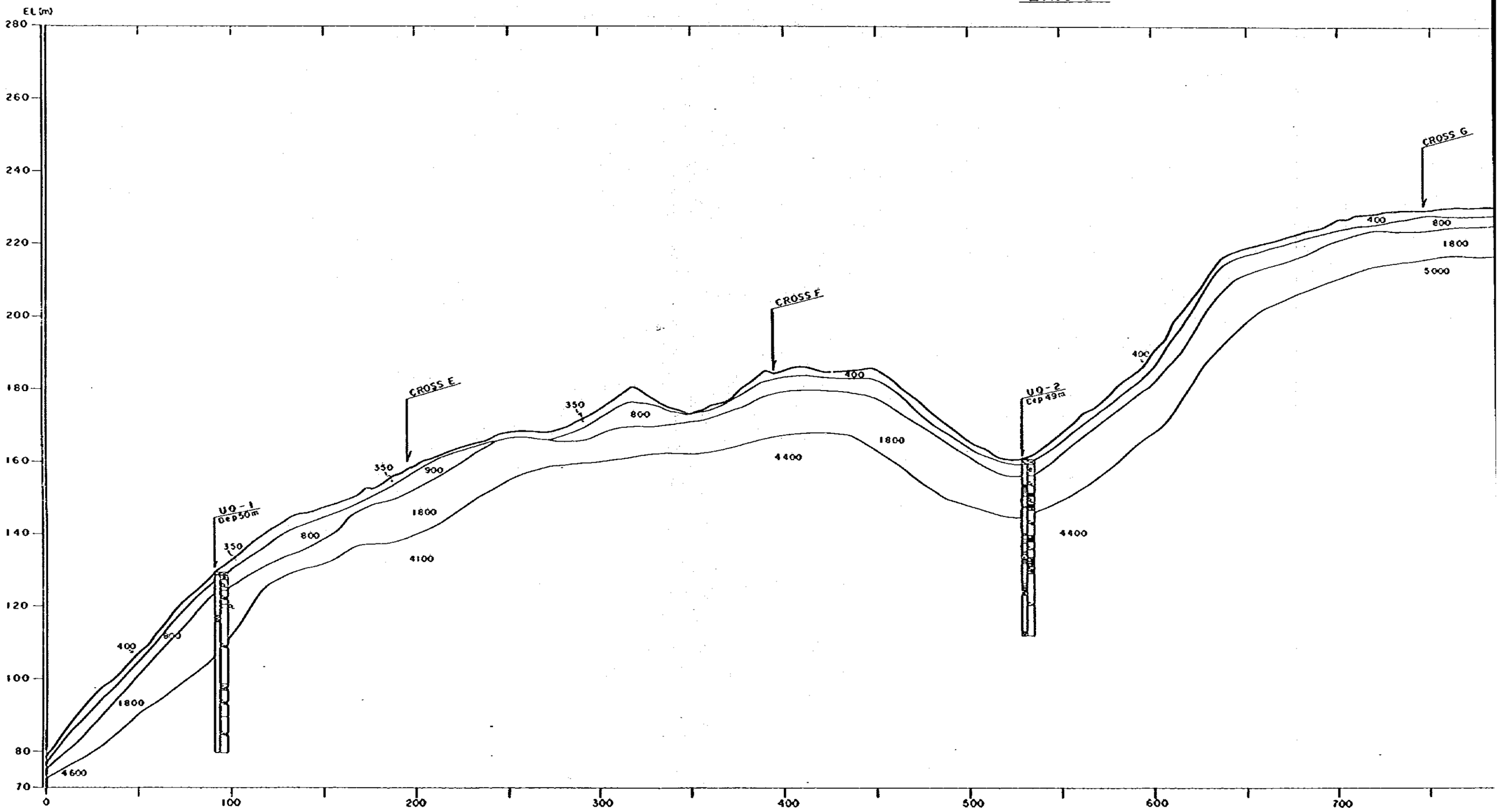
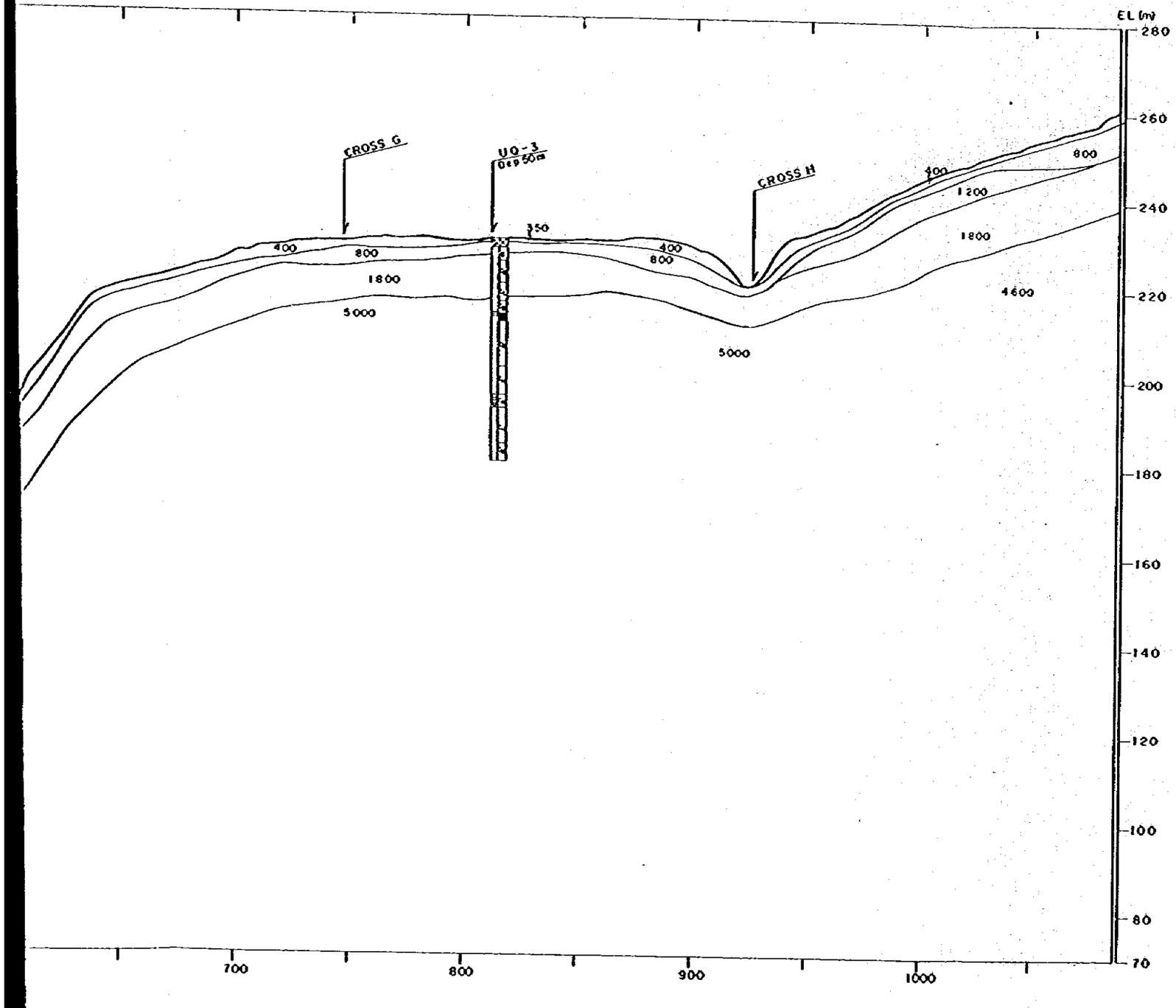
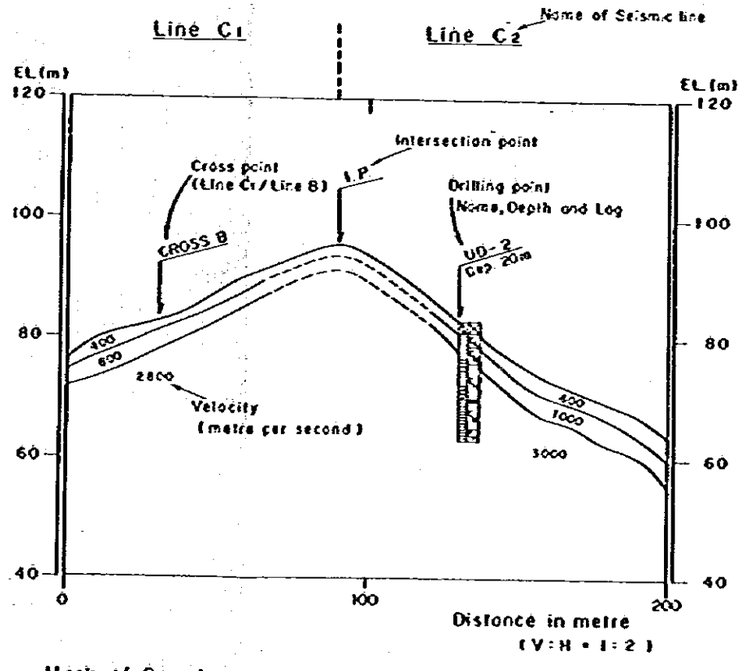

EL (m)
280
260
240
220
200
180
160
140
120
100
80
70
0
100
200
300
400
500
600
700
CROSS F
CROSS E
CROSS G
U0-1
Dep 50m
U0-2
Dep 49m
350
800
900
1800
4100
4400
4600
400

Fig. 4.14.1

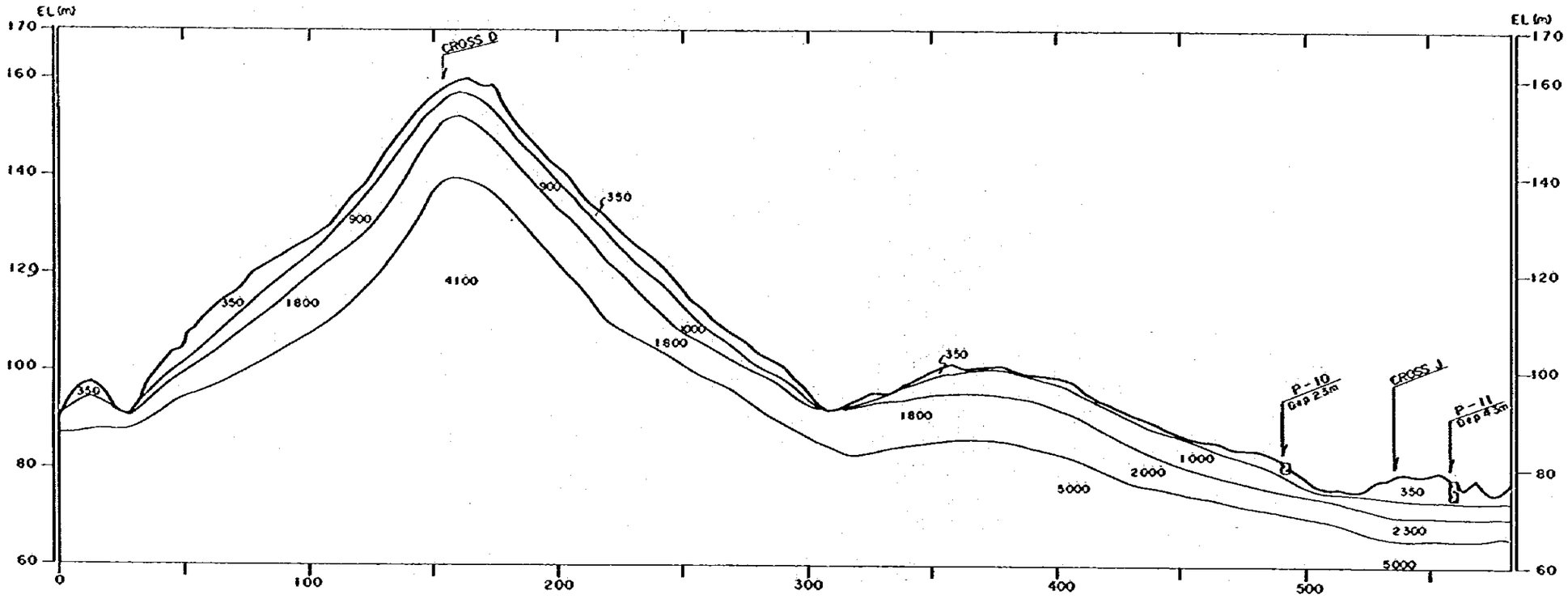
SEISMIC PROSPECTING



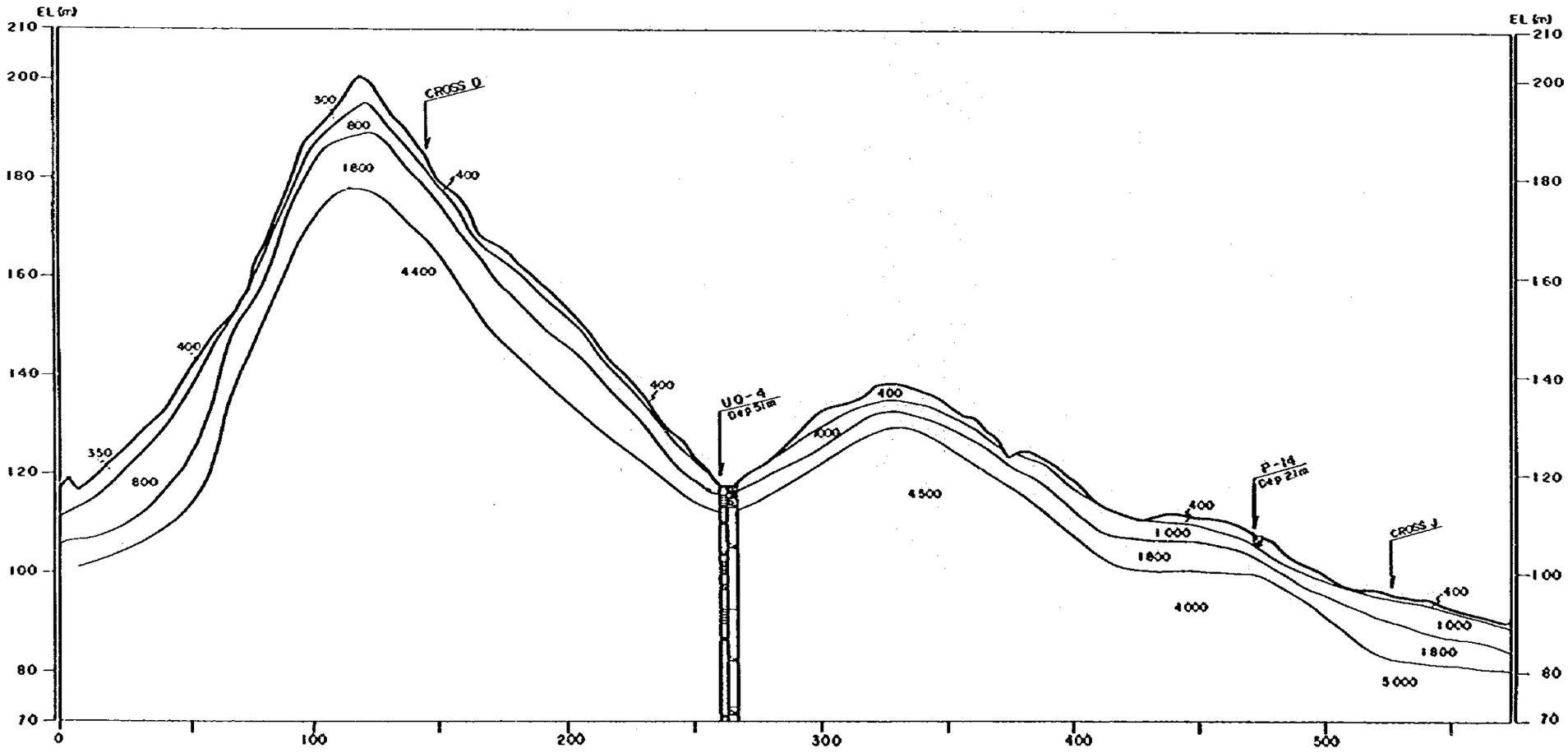


Line D
(Upper Quarry Area)

Line E


EL (m)
CROSS D
350
900
1800
4100
1000
2000
5000
P-10
Dep 2.5m
CROSS J
P-11
Dep 4.5m
2300

Line F


EL (m)
CROSS D
300
800
1800
400
4400
UO-4
Dep 51m
4500
P-14
Dep 21m
CROSS J
1000
4000
5000

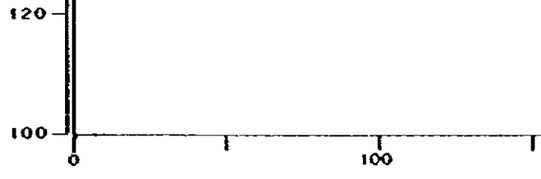
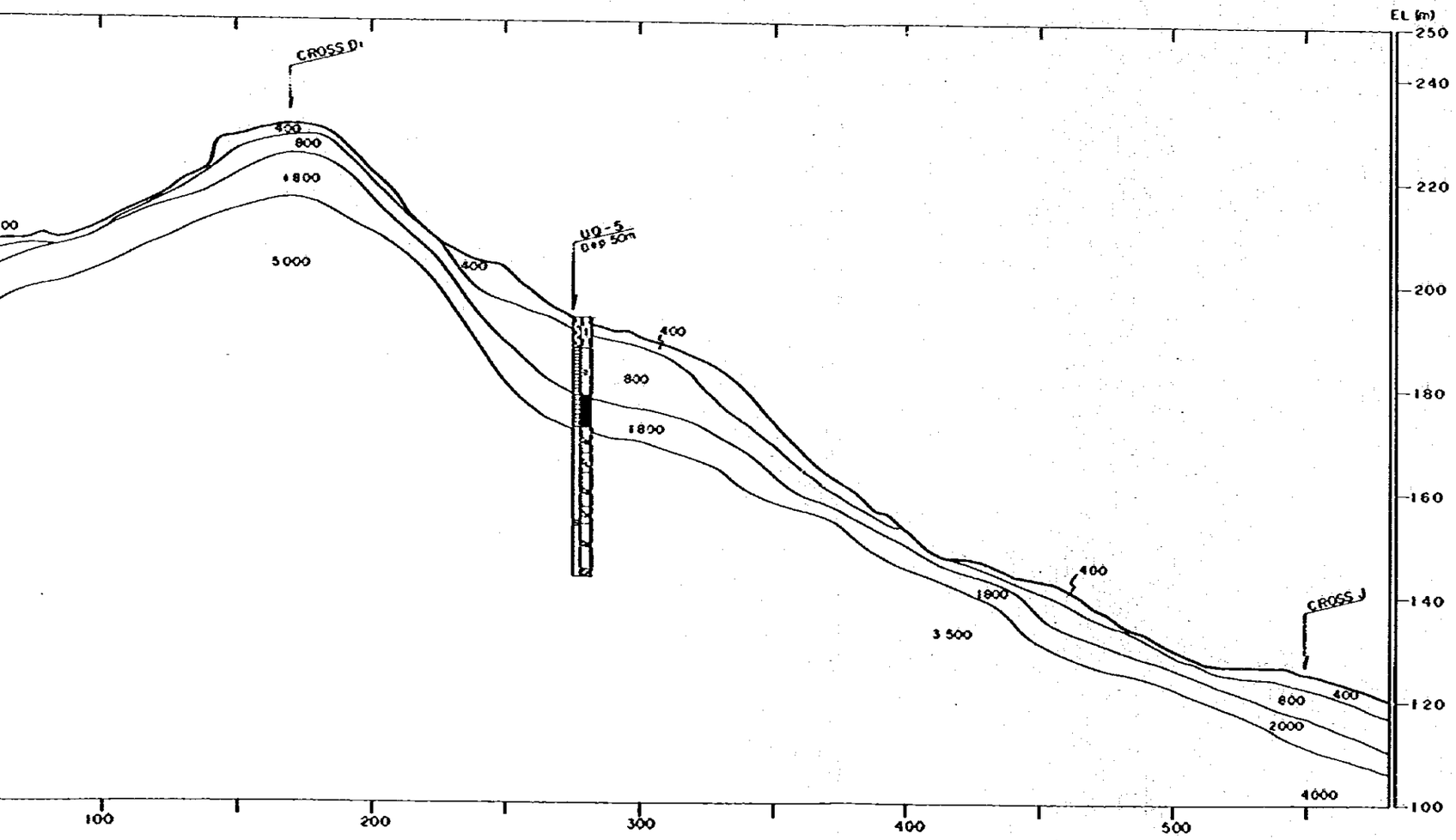
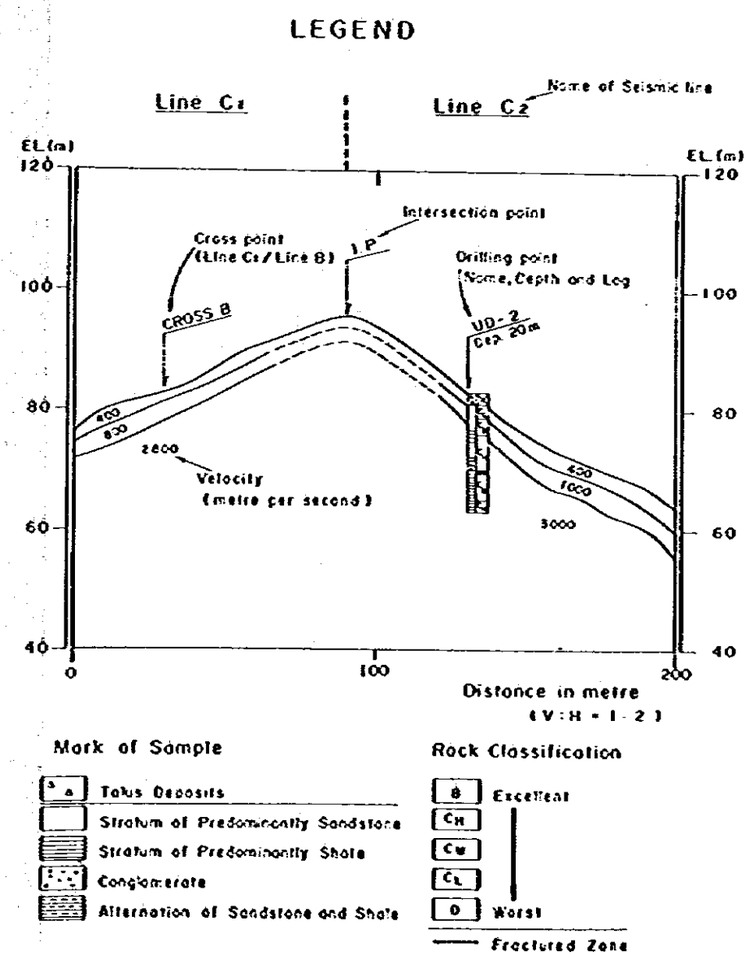

EL (m)
400
800
5000

Fig. 4.14.2

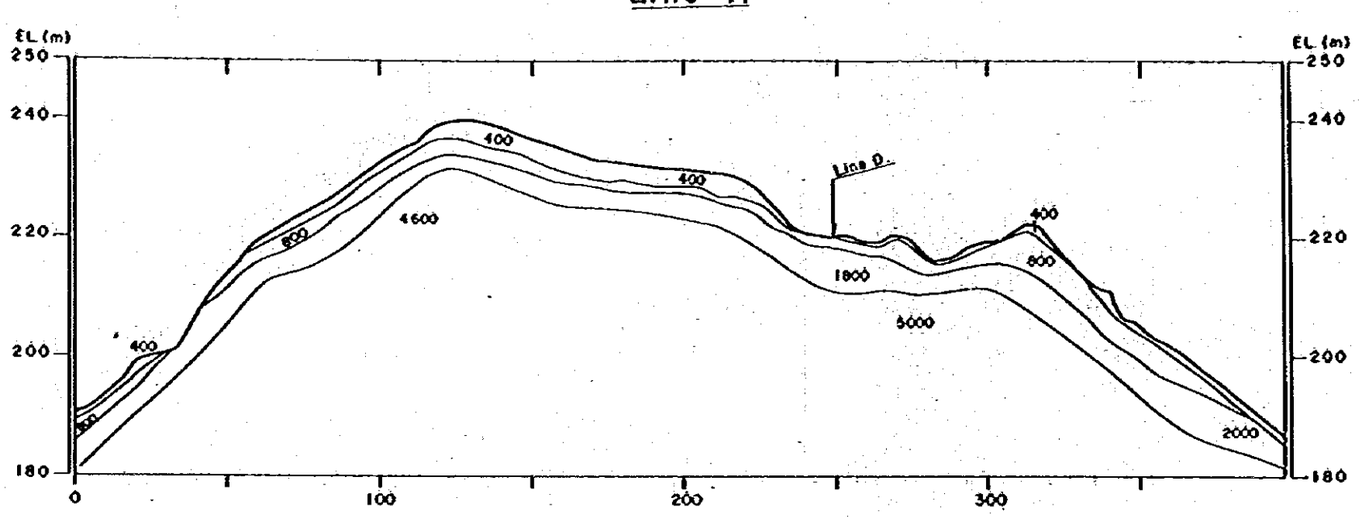
SEISMIC PROSPECTING

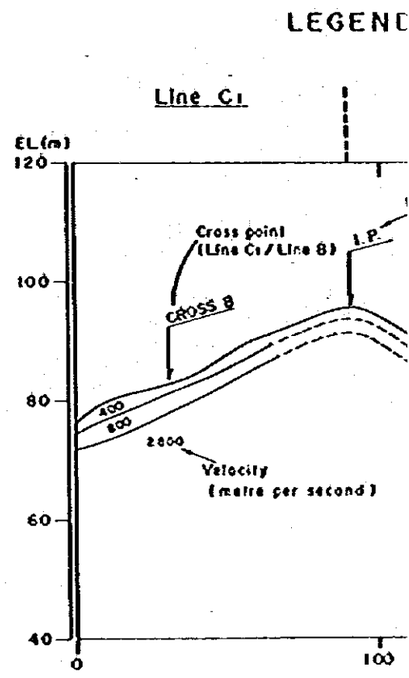


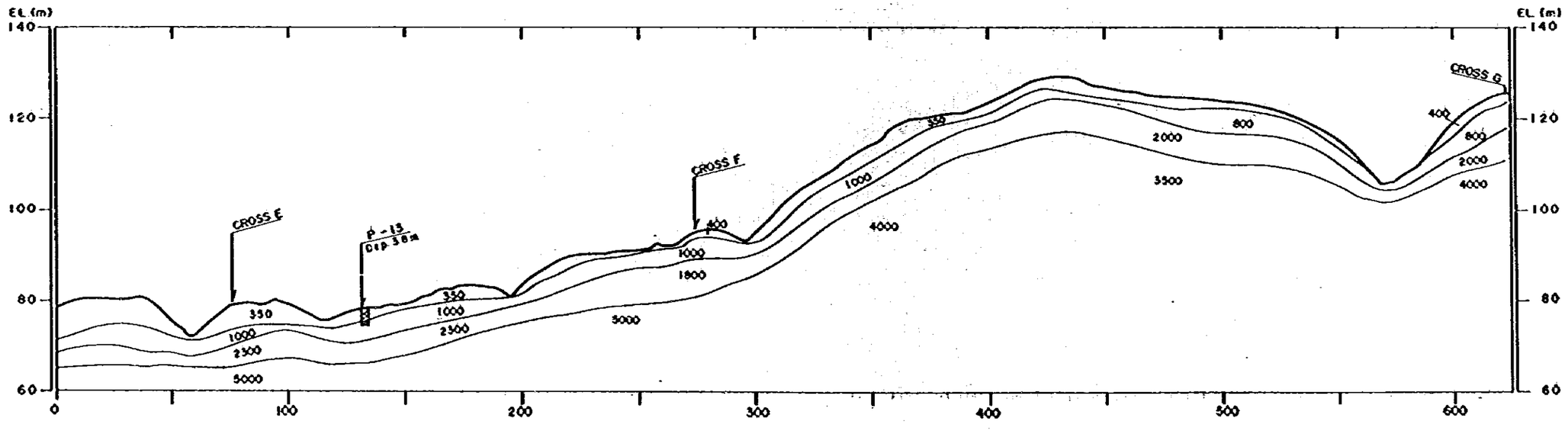


Line E, F, G,
(Upper Quarry Area)

Fig. 4.14.3
SEISMIC PROS





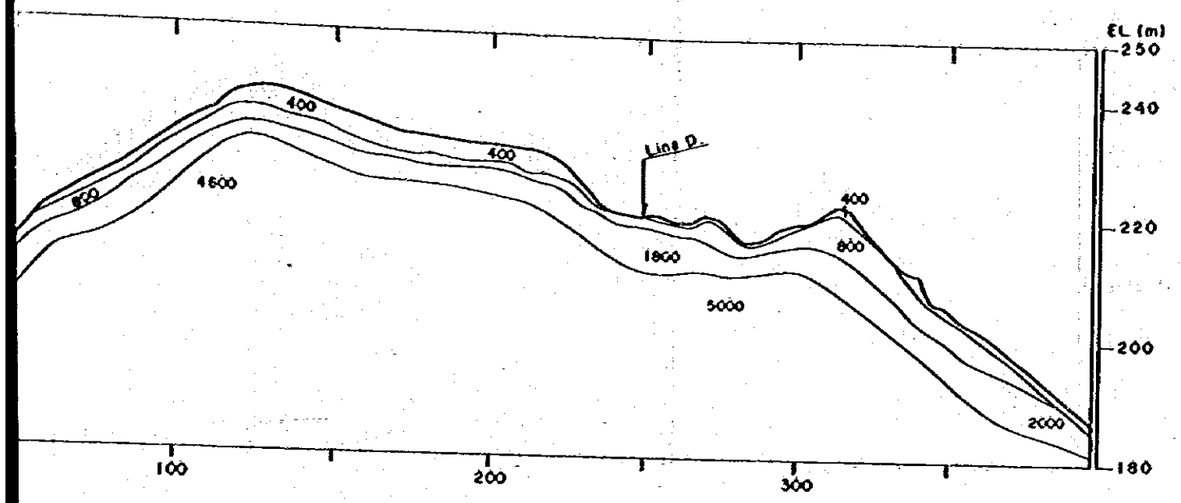


Mark of Sample

- Talus Deposits
- Stratum of Predominantly Sandstone
- Stratum of Predominantly Shale
- Conglomerate
- Alternation of Sandstone and Shale

Line H, I
(Upper Quarr

Line H



Line I

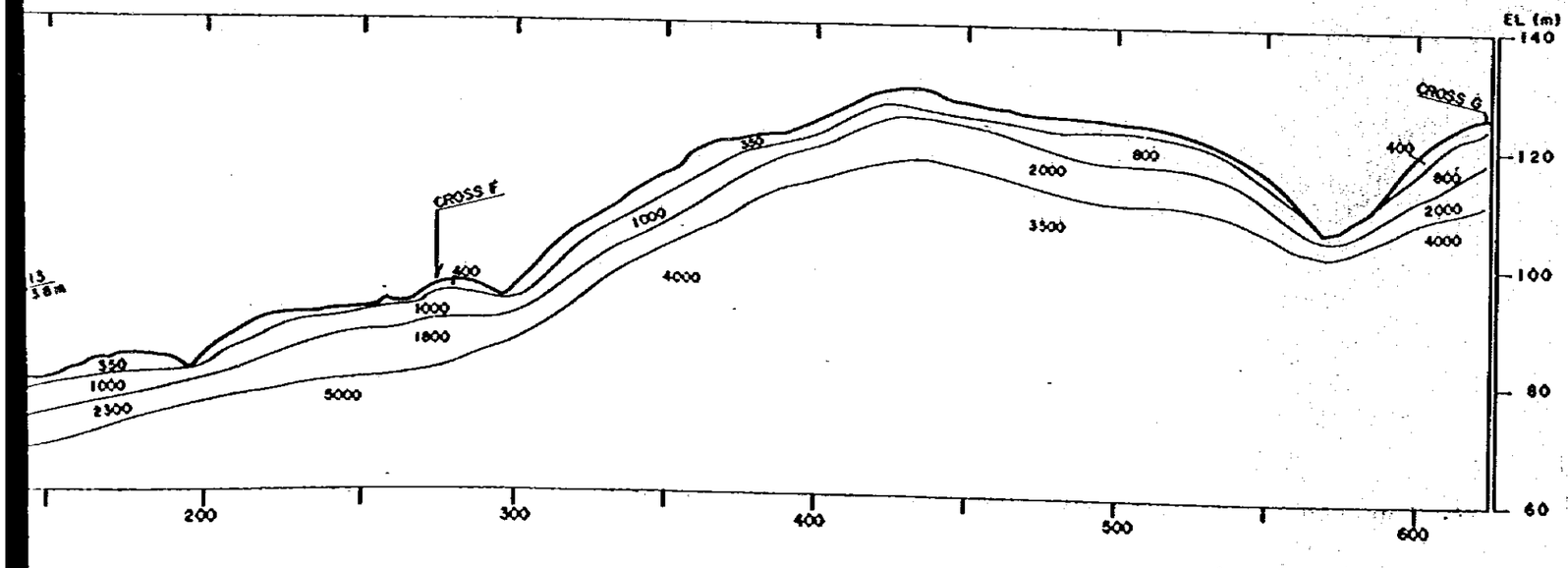
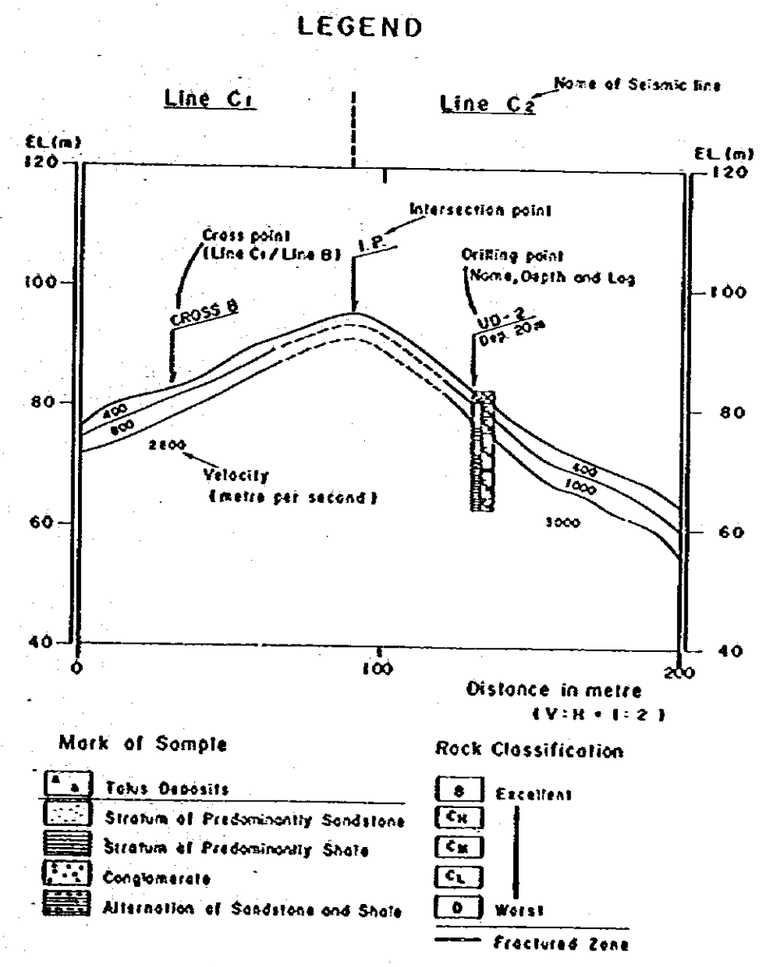


Fig. 4.14.3

SEISMIC PROSPECTING

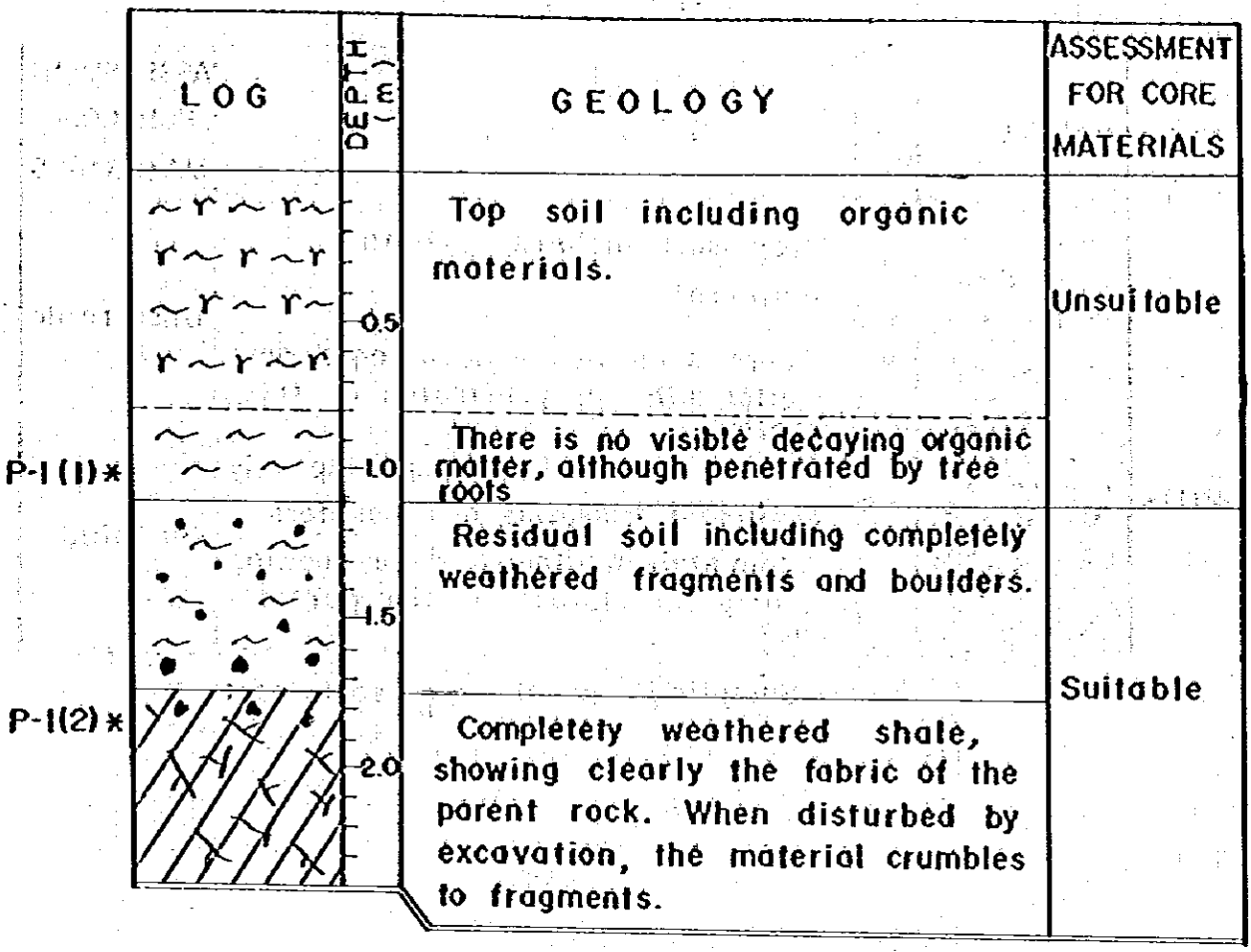


Line H, I

(Upper Quarry Area)

Fig. 4.15.1 TEST PIT HOLE – GEOLOGICAL LOG

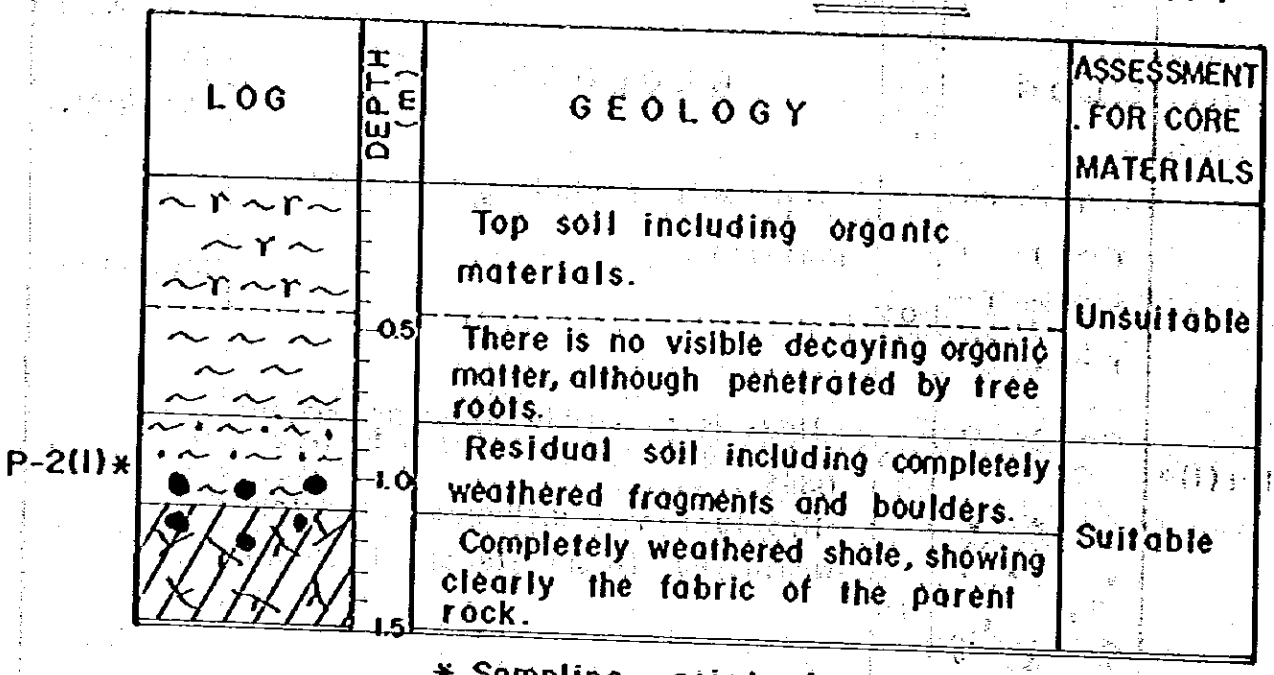
HOLE NO. P - 1 (SITE A)



* Sampling point for soil test

Fig.4.18.2 TEST PIT HOLE - GEOLOGICAL LOG

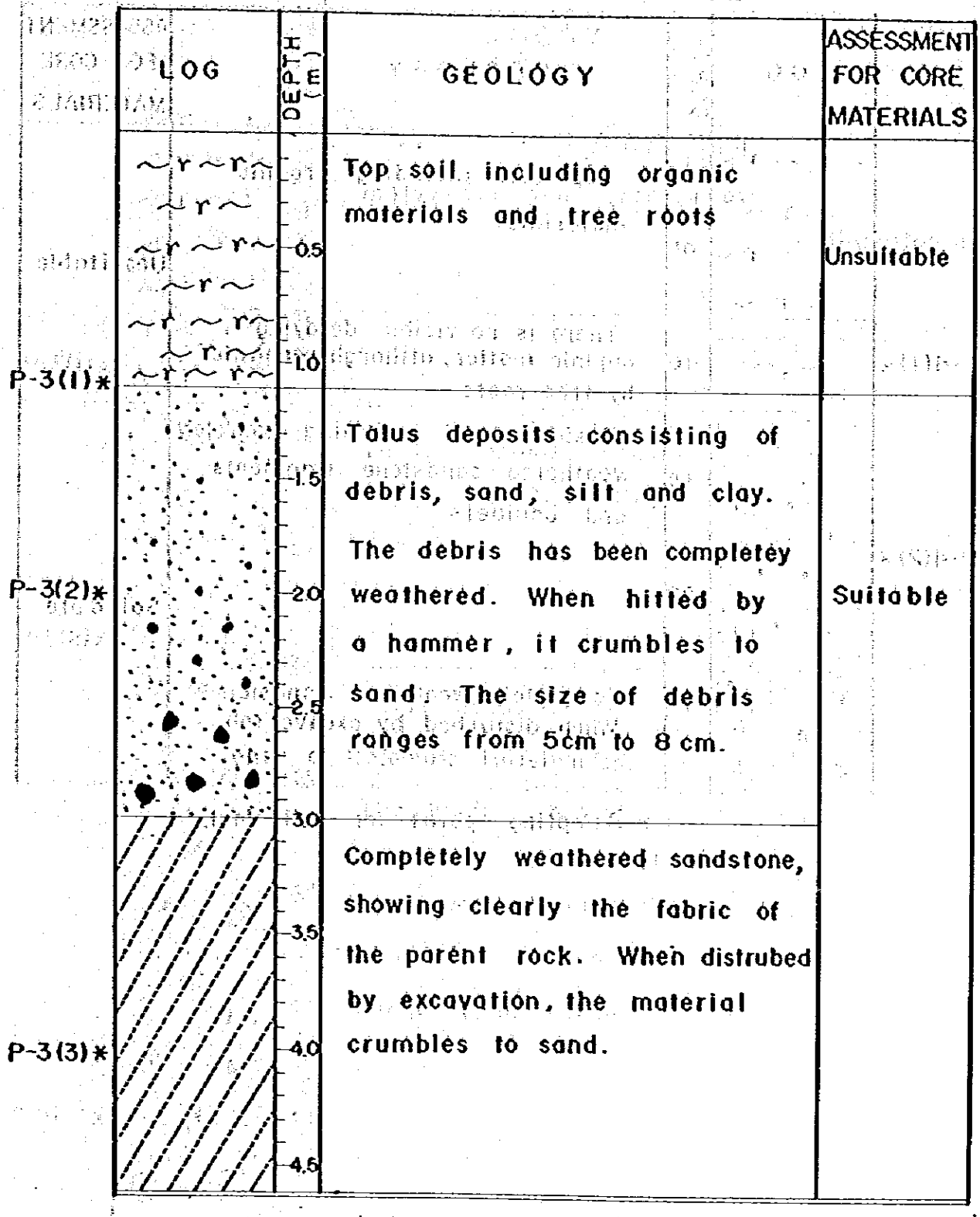
HOLE NO. P-2 (SITE A)



* Sampling point for soil test

Fig. 4.15.3 TEST PIT HOLE - GEOLOGICAL LOG

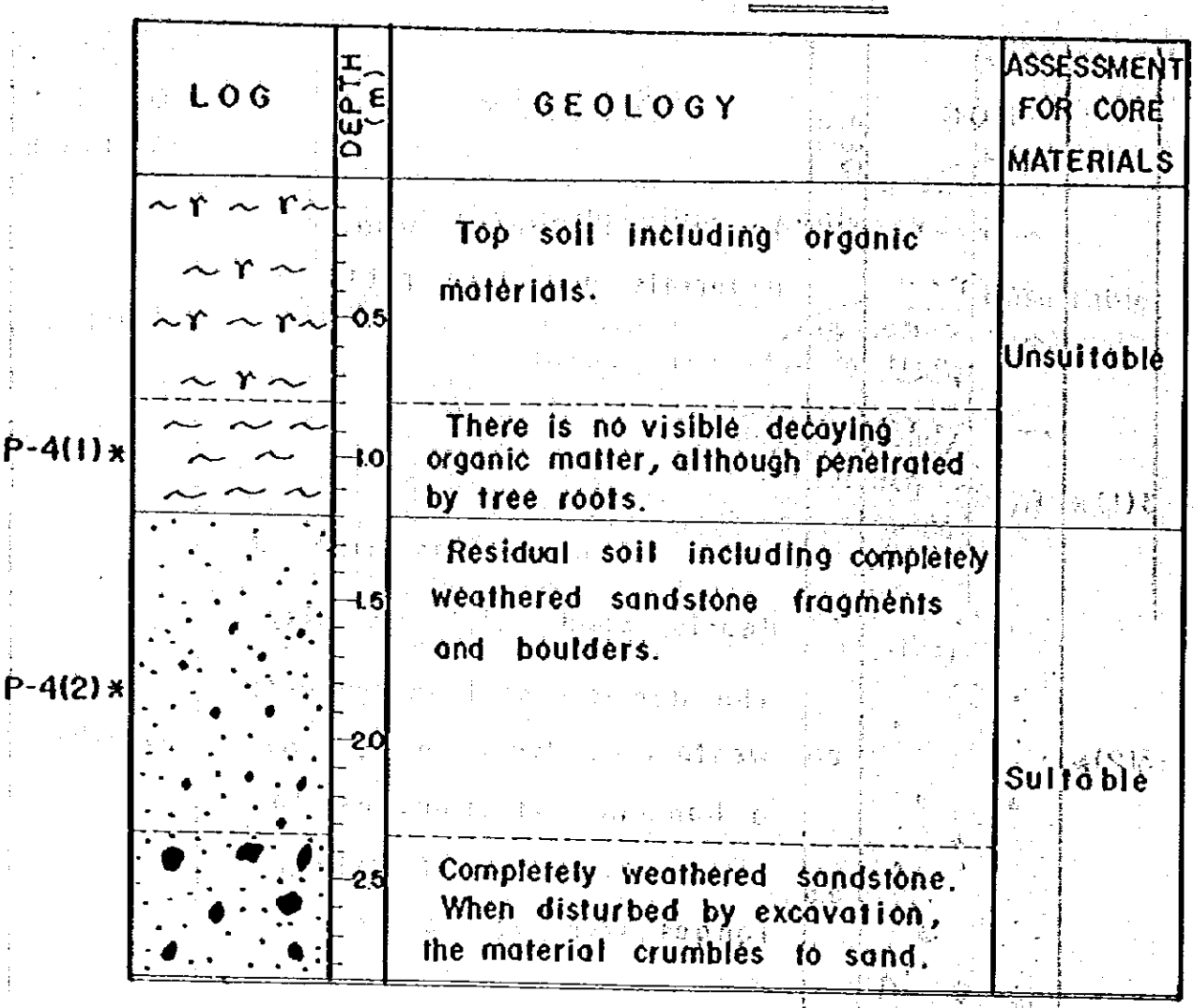
HOLE NO. P - 3 (SITE A)



* Sampling point for soil test

Fig. 4.15.4 TEST PIT HOLE - GEOLOGICAL LOG

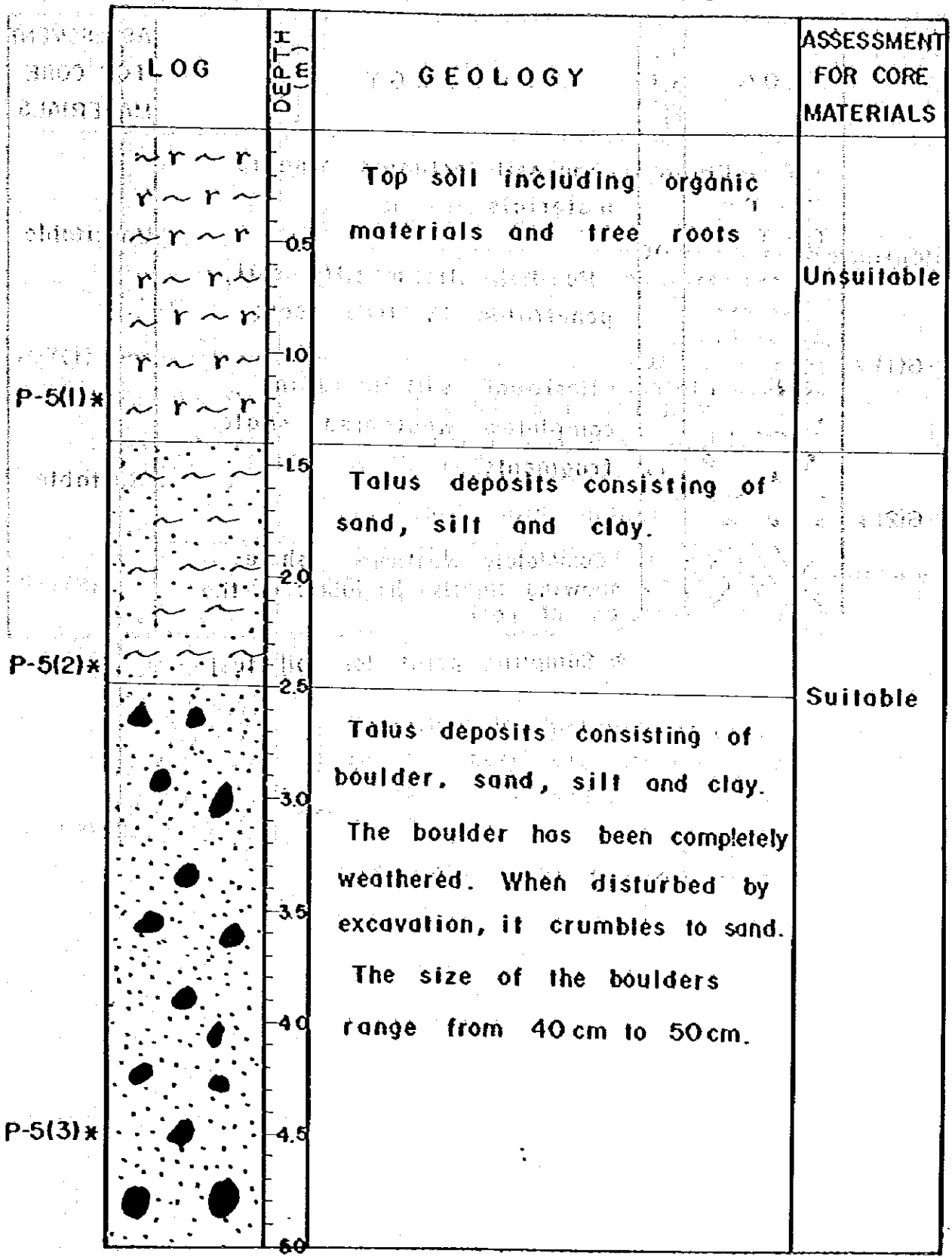
HOLE NO. P-4 (SITE A)



* Sampling point for soil test.

Fig.4.15.5 TEST PIT HOLE — GEOLOGICAL LOG

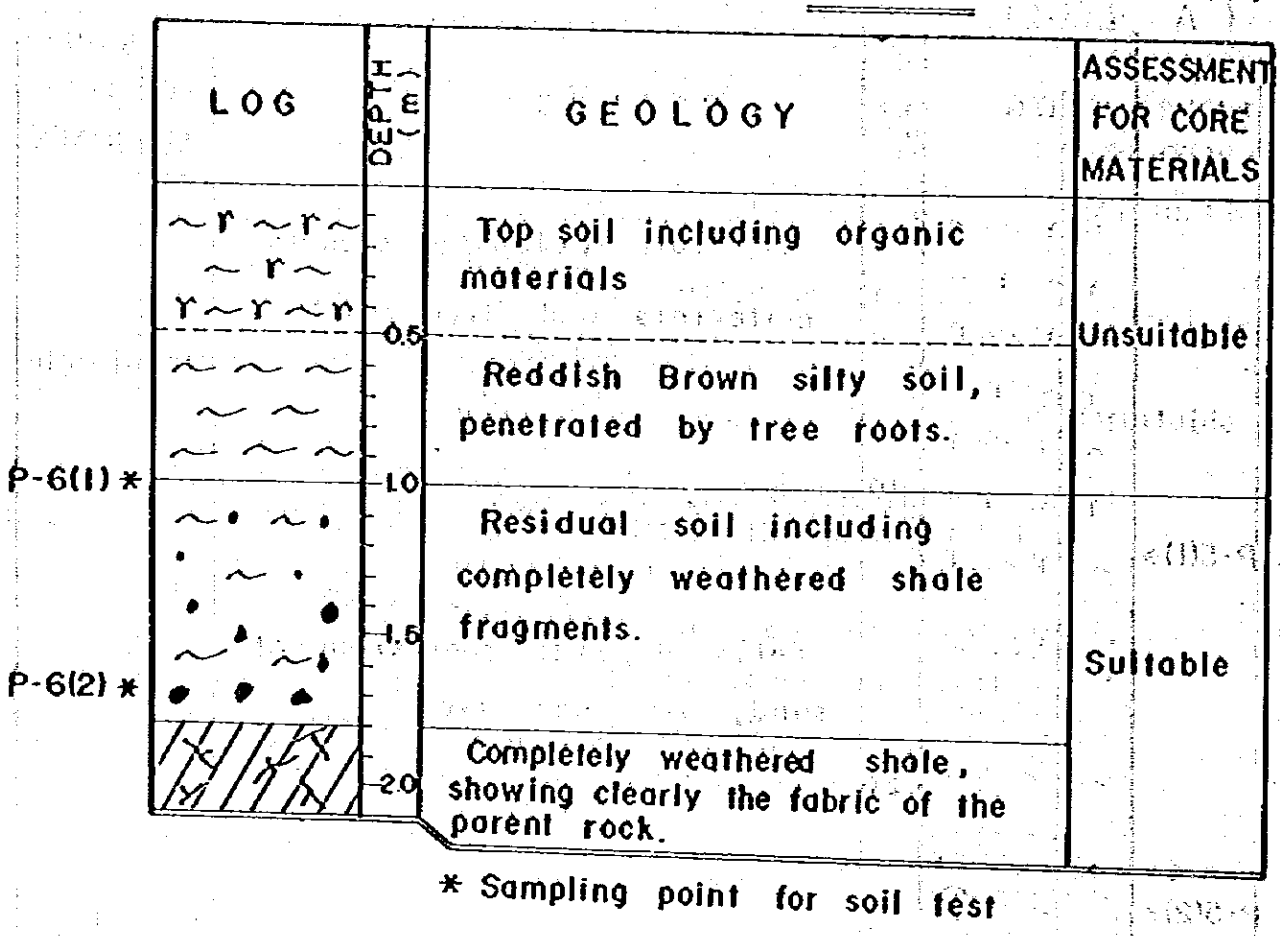
(A SITE) HOLE NO. P-5 (SITE A)



* Sampling point for soil test

Fig.4.15.6 TEST PIT HOLE - GEOLOGICAL LOG

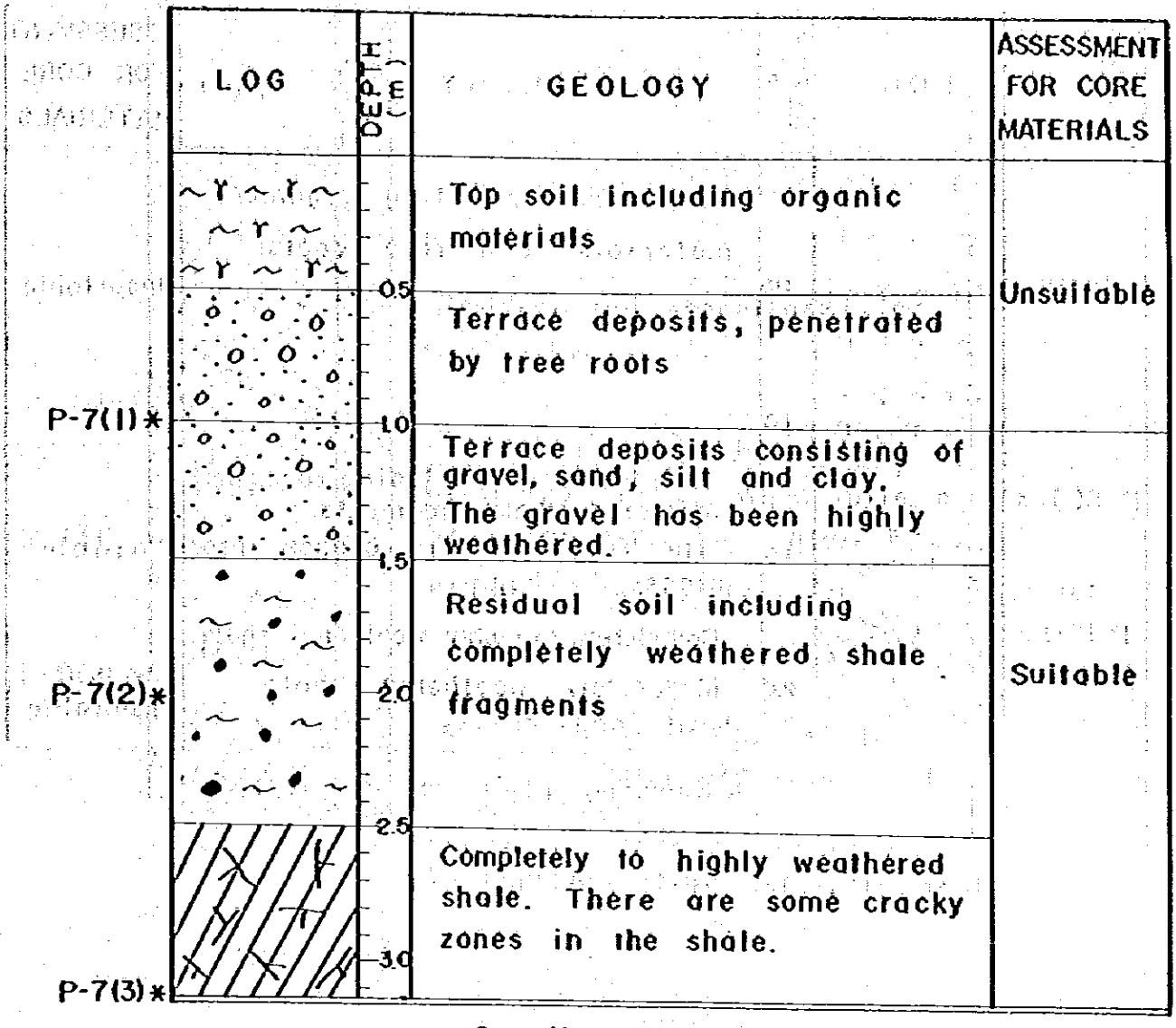
HOLE NO. P - 6 (SITE A)



* Sampling point for soil test

Fig.4.15.7 TEST PIT HOLE - GEOLOGICAL LOG

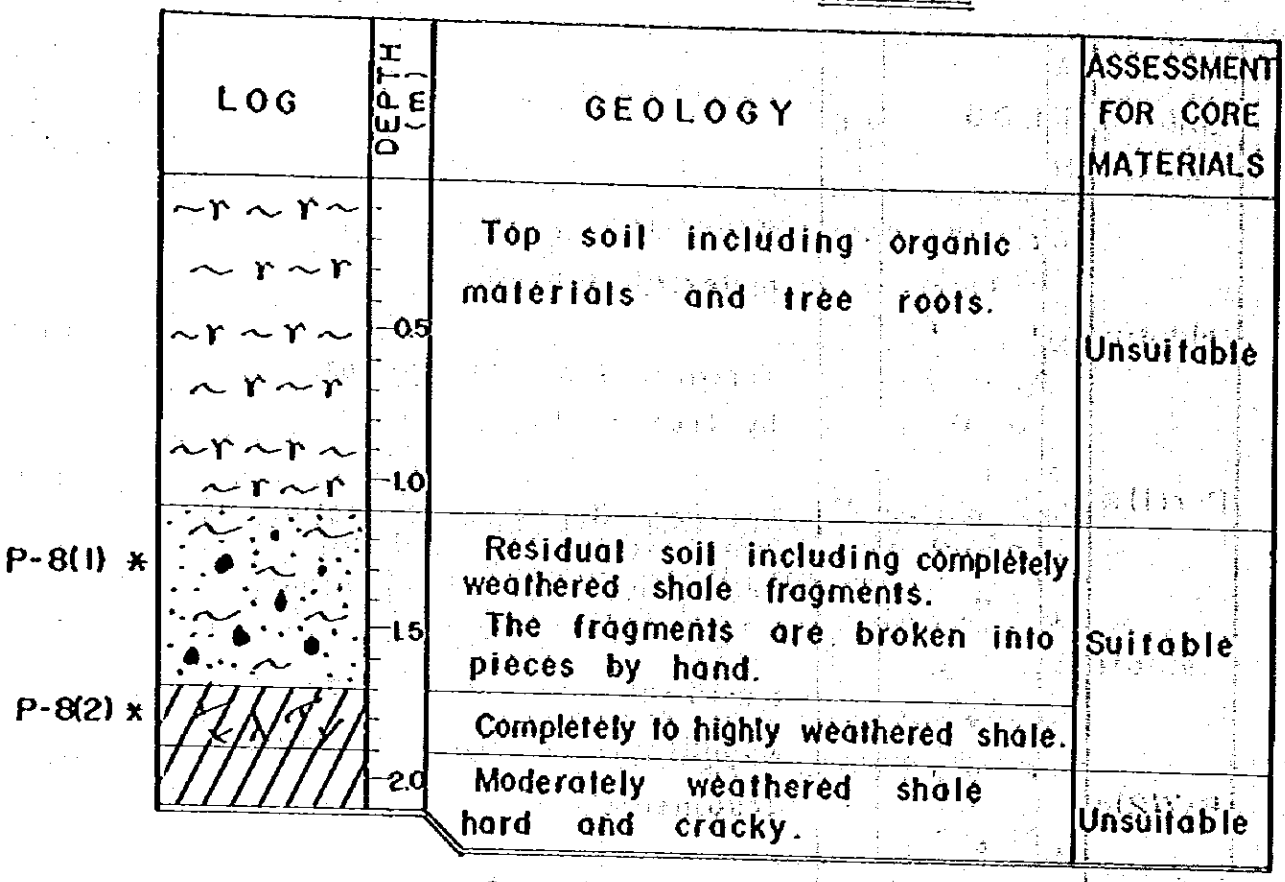
HOLE NO. P - 7 (SITE A)



* Sampling point for soil test

Fig.4.15.8 TEST PIT HOLE - GEOLOGICAL LOG

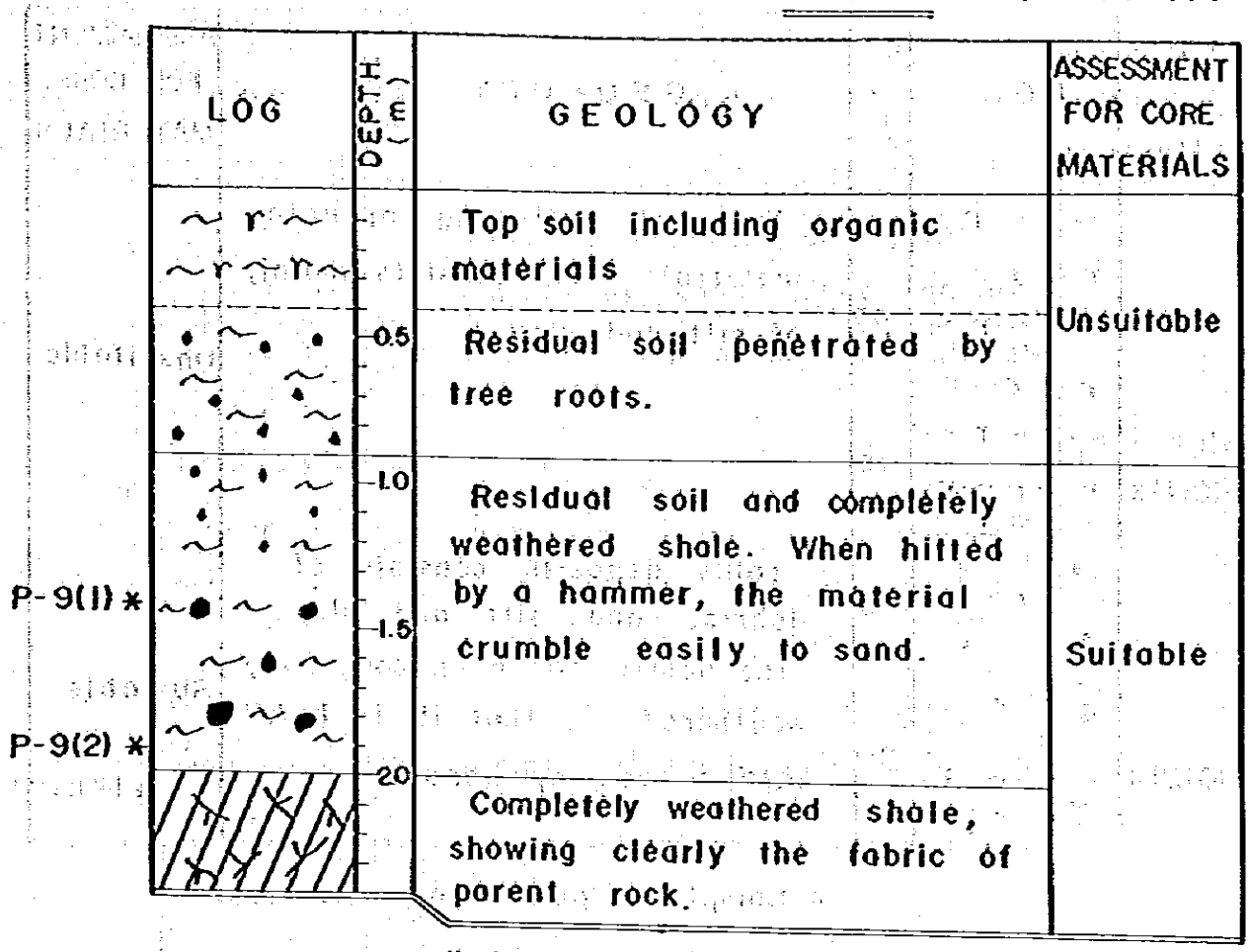
HOLE NO. P - 8 (SITE A)



* Sampling point for soil test.

Fig.4.15.9 TEST PIT HOLE - GEOLOGICAL LOG

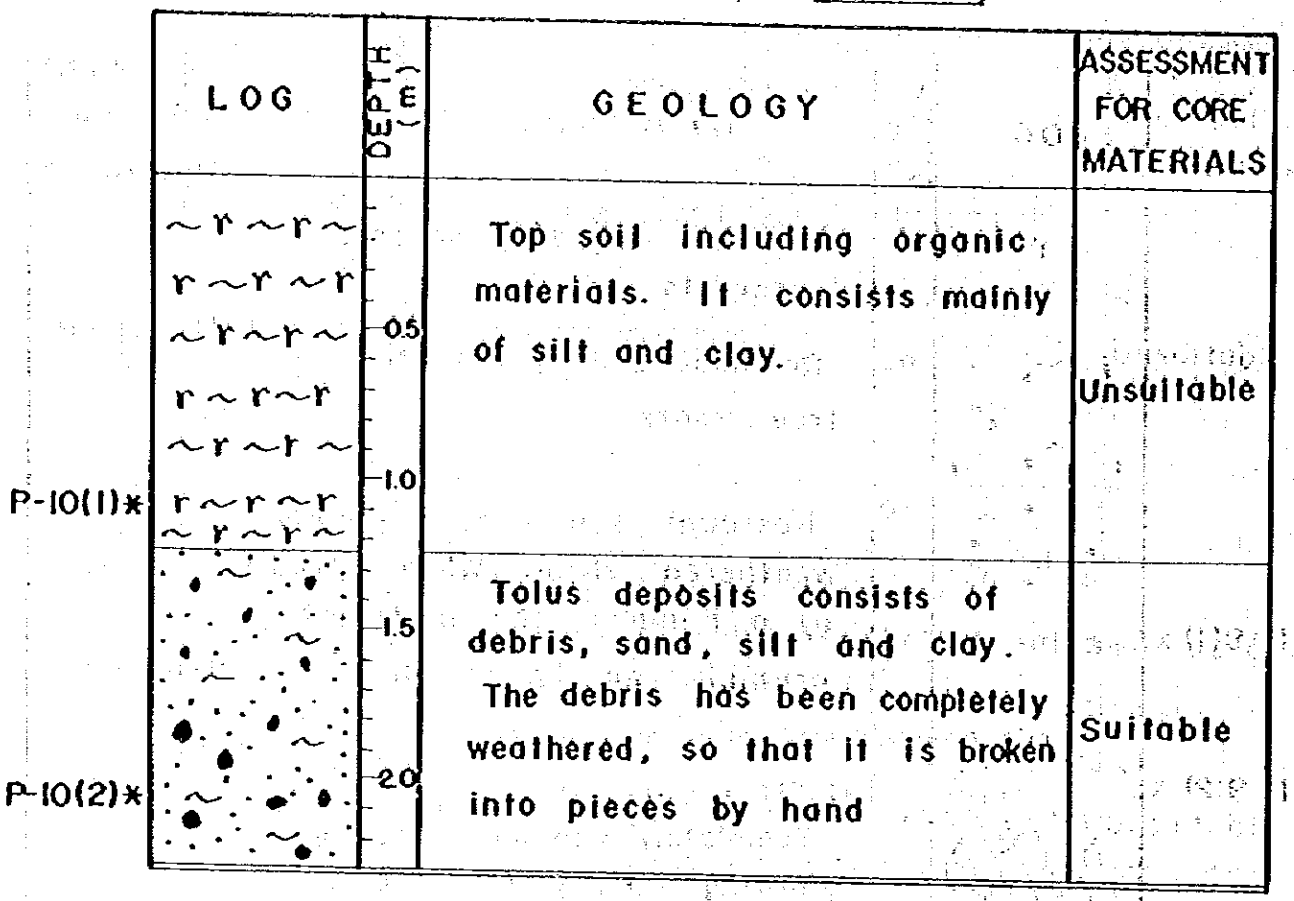
HOLE NO. P-9 (SITE A)



* Sampling point for soil test

Fig.4.15.10 TEST PIT HOLE - GEOLOGICAL LOG

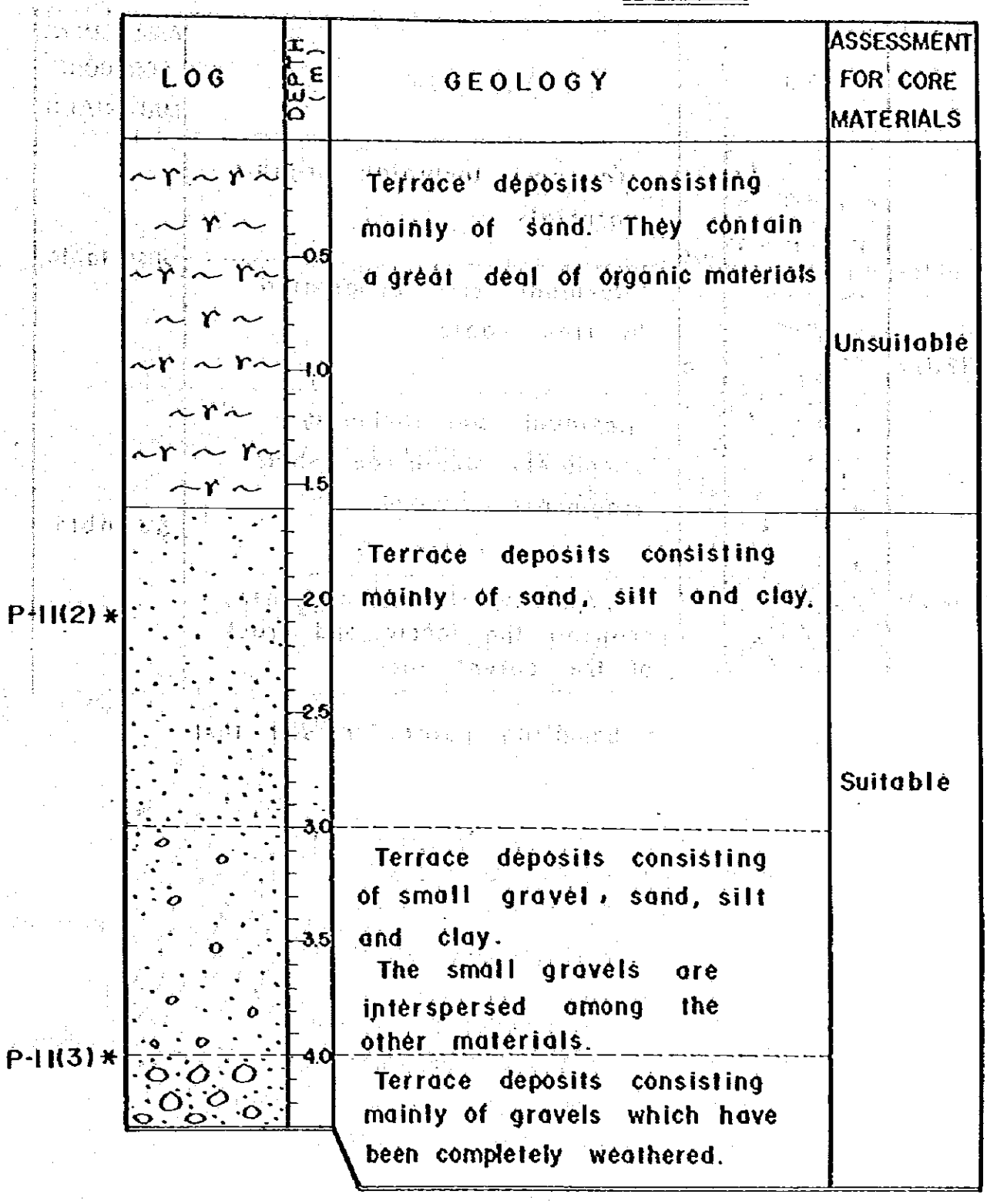
HOLE NO. P-10 (SITE B)



* Sampling point for soil test

Fig.4.15.11 TEST PIT HOLE - GEOLOGICAL LOG

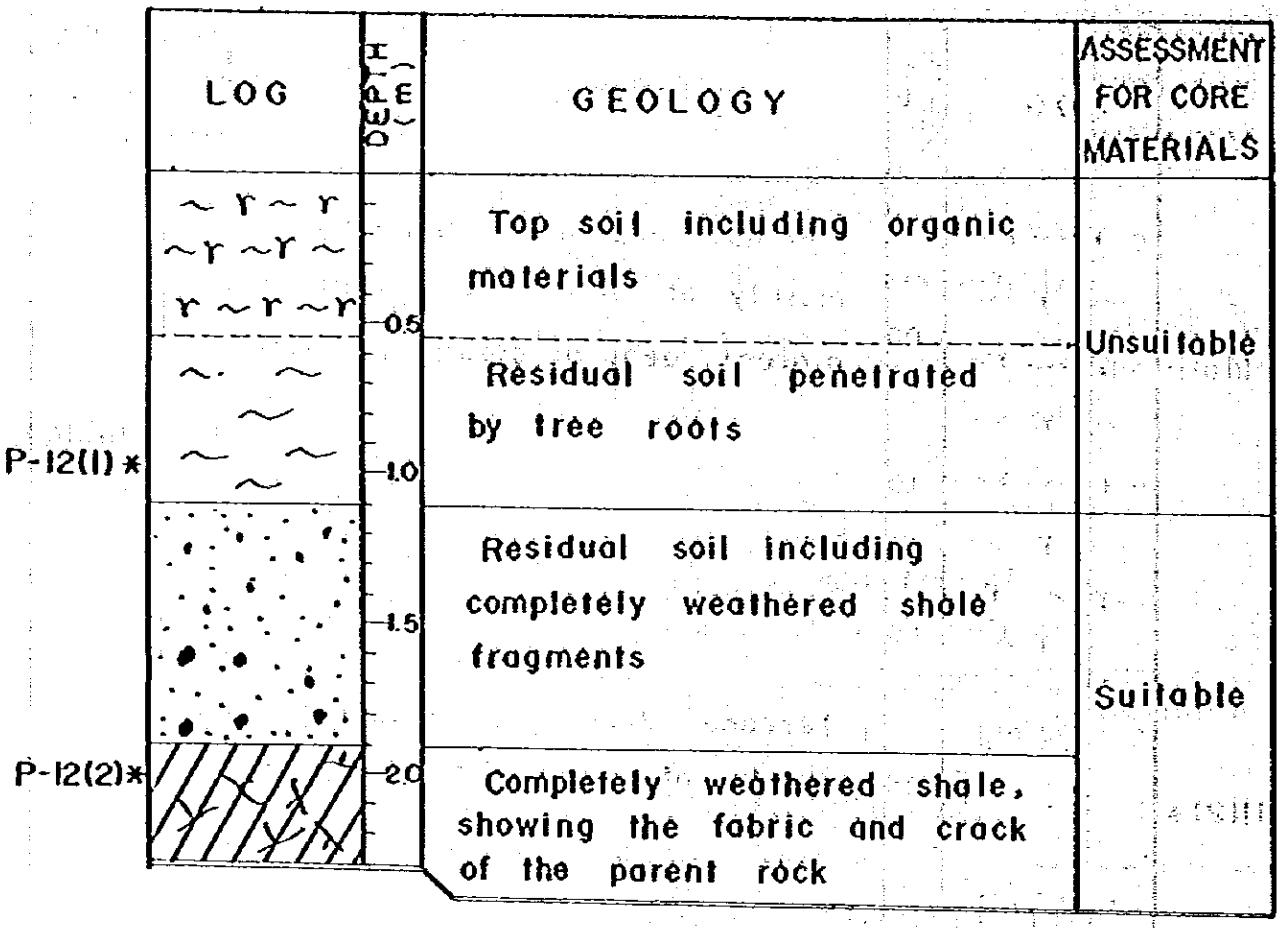
HOLE NO. P - 11 (SITE B)



* Sampling point for soil test

Fig.4.15.12 TEST PIT HOLE - GEOLOGICAL LOG

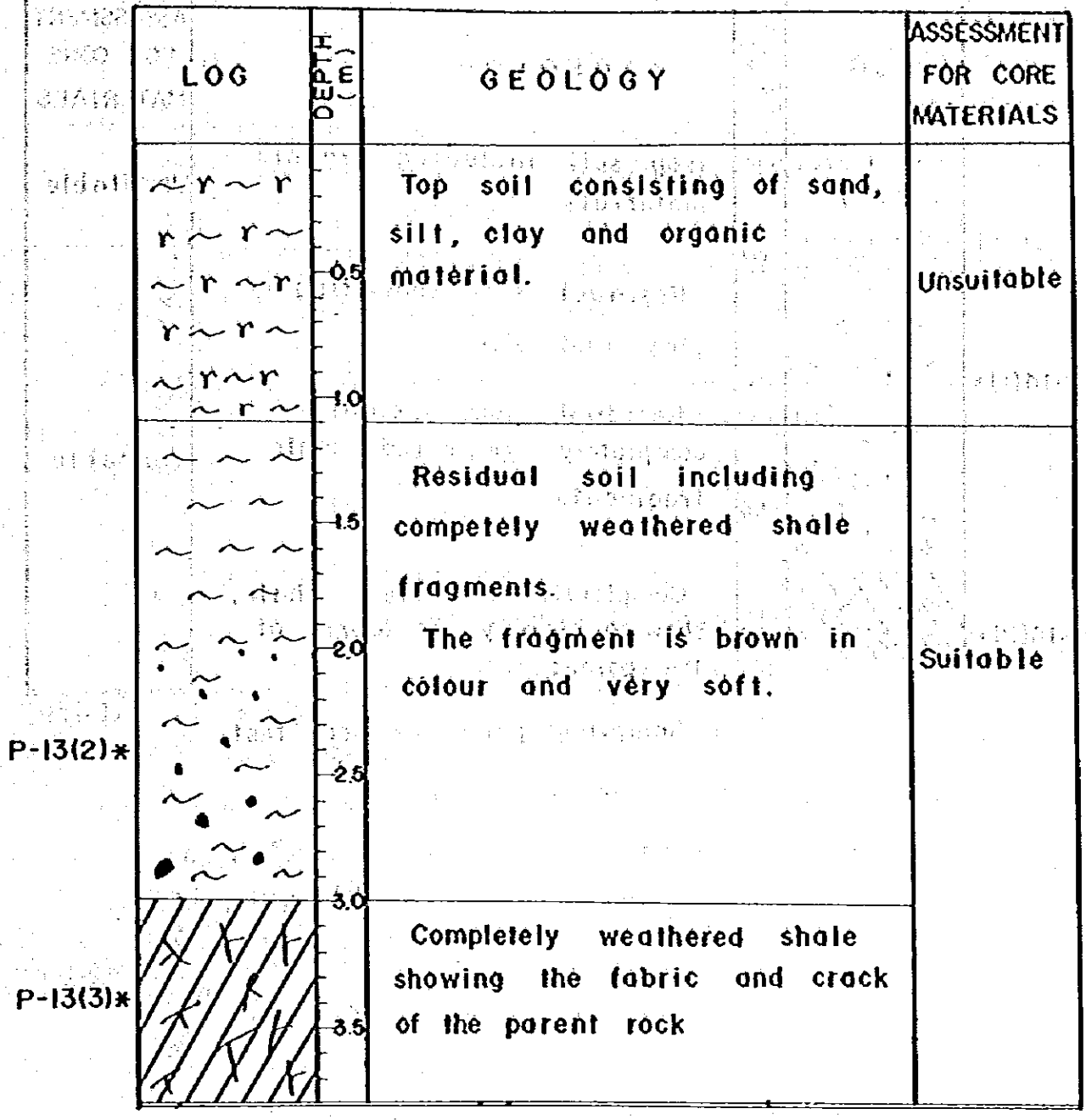
HOLE NO. P-12 (SITE B)



* Sampling paint for soil test

Fig.4.15.13 TEST PIT HOLE - GEOLOGICAL LOG

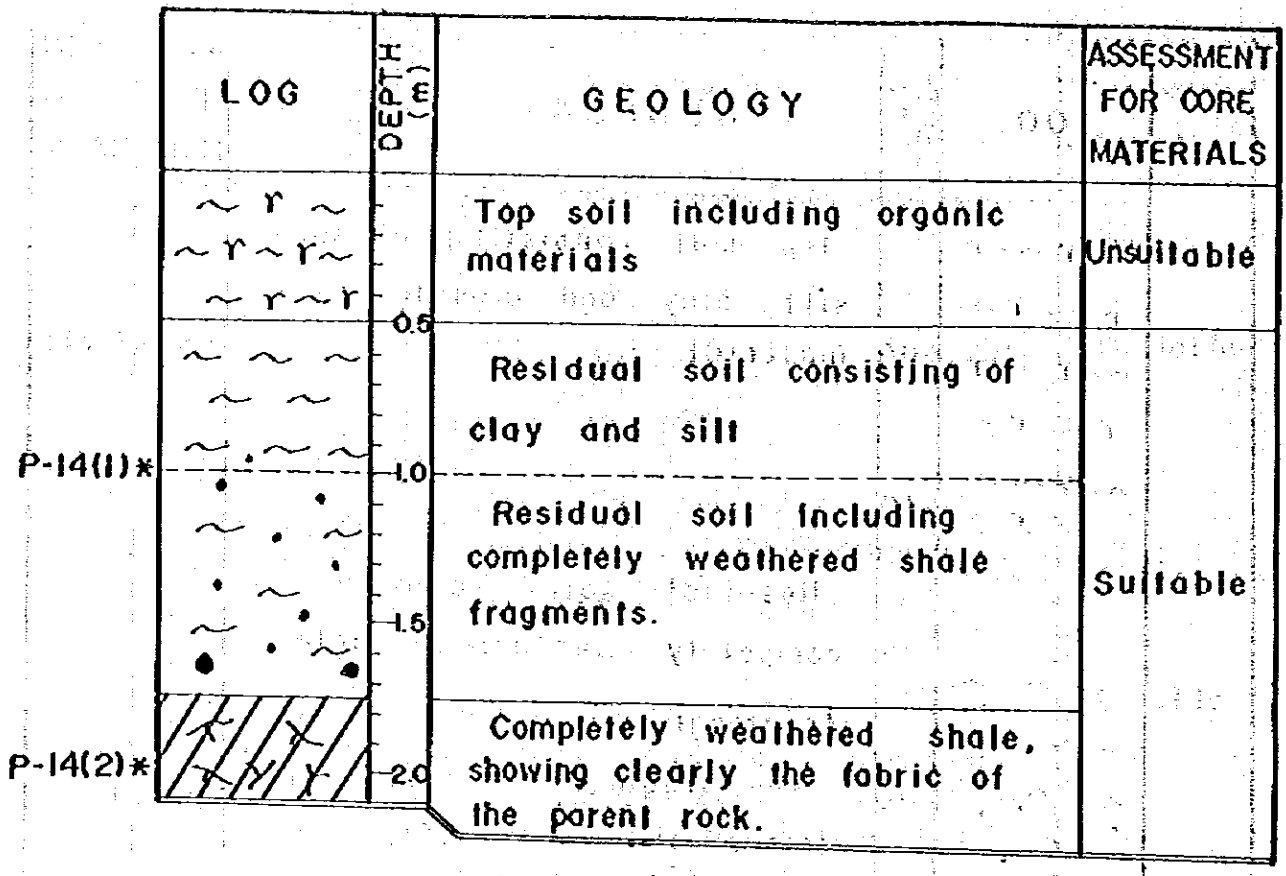
HOLE NO. P - 13 (SITE B)



* Sampling point for soil test

Fig.4.15.14 TEST PIT HOLE - GEOLOGICAL LOG

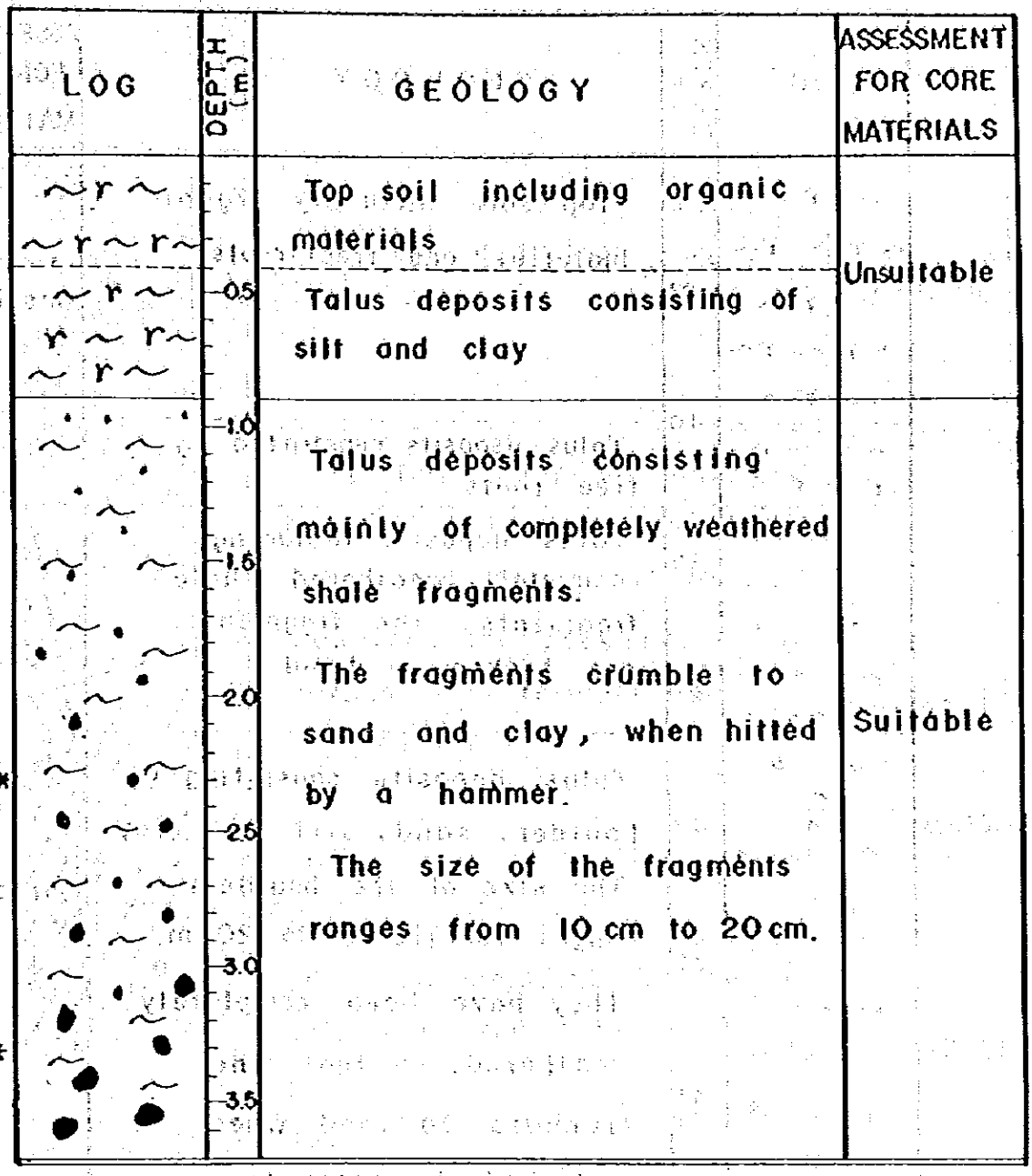
HOLE NO. P - 14 (SITE B)



* Sampling point for soil test

Fig.4.15.15 TEST PIT HOLE – GEOLOGICAL LOG

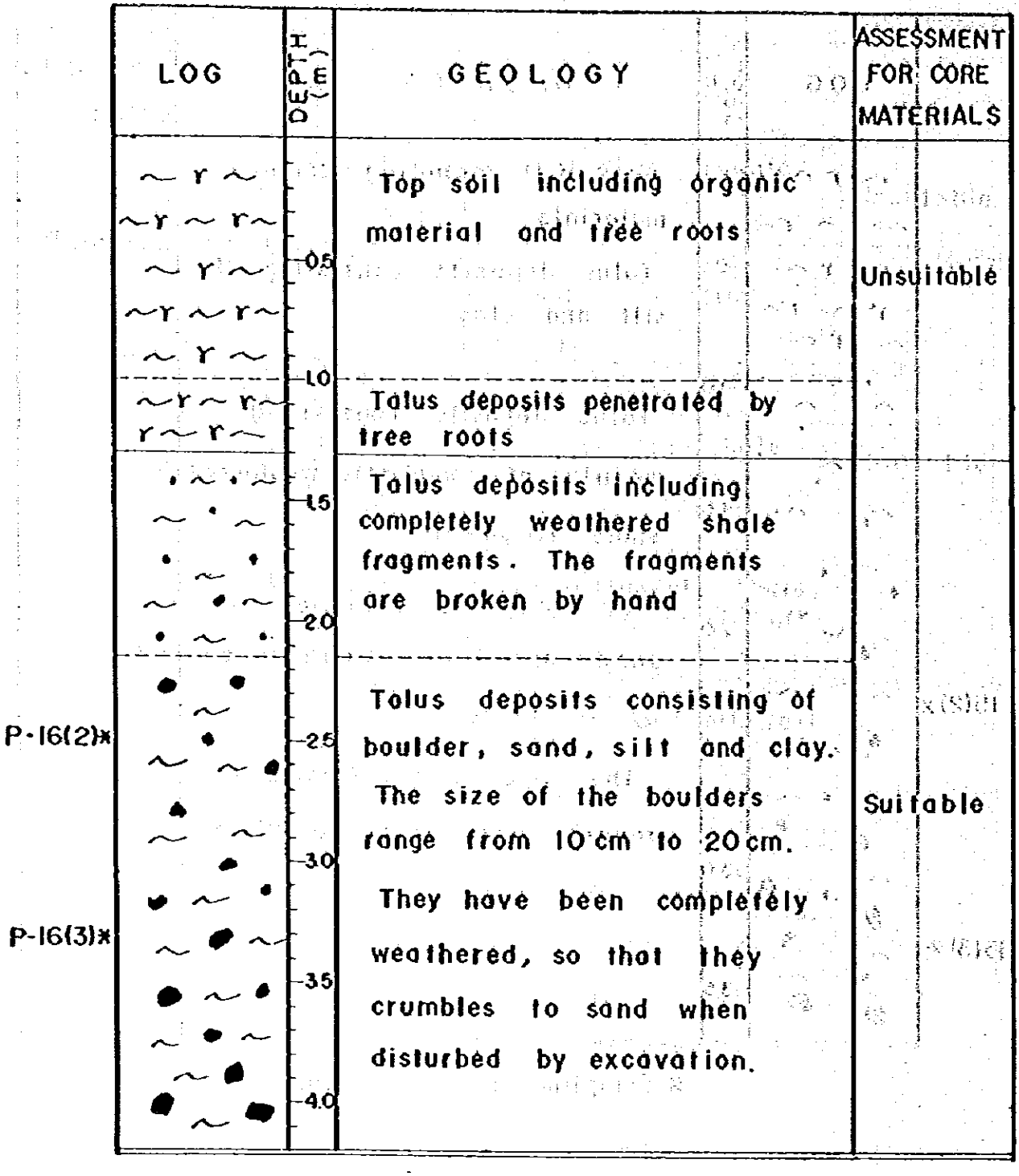
HOLE NO. P-15 (SITE B)



* Sampling point for soil test

Fig.4.15.16 TEST PIT HOLE – GEOLOGICAL LOG

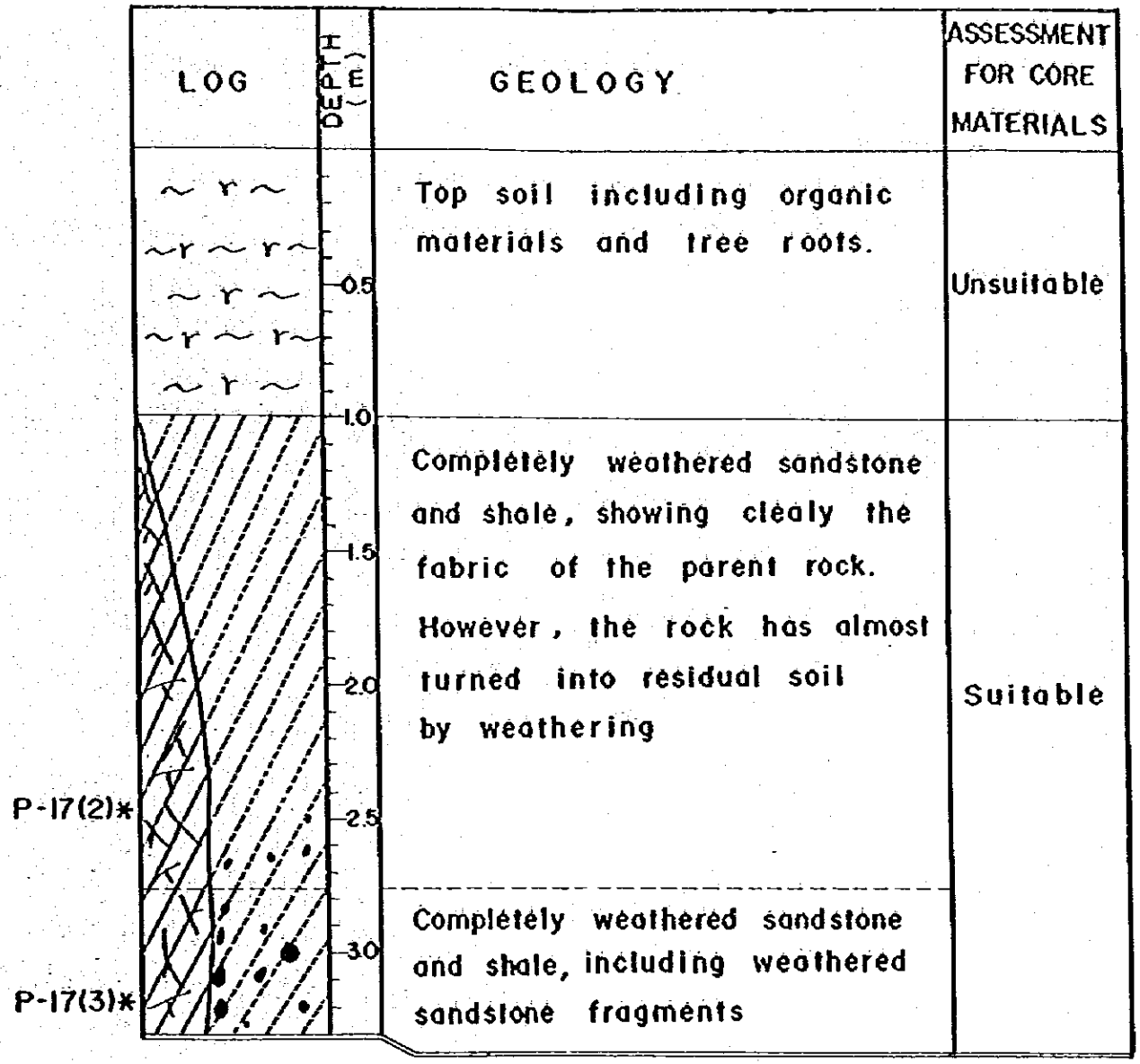
HOLE NO. P-16 (SITE B)



* Sampling point for soil test

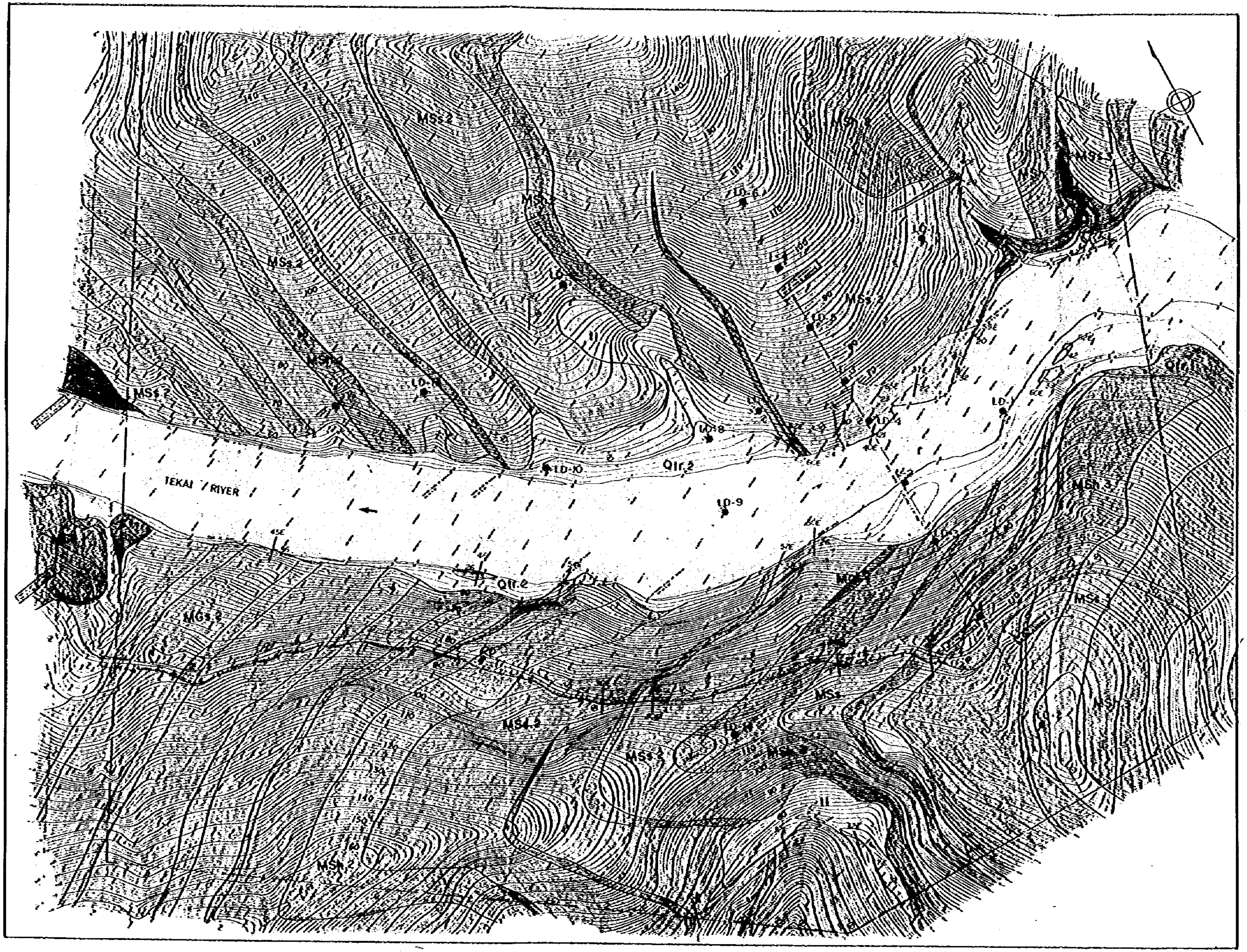
Fig.4.15.17 TEST PIT HOLE – GEOLOGICAL LOG

HOLE NO. P-17 (SITE B)



* Sampling point for soil test

5. GEOLOGY OF THE LOWER SITE



TEKAI RIVER
Qlr.5
Qlr.2
MSs.2
MSs.3
MSh.3
MGs.2
MSs
LD-9
LD-10
LD-18
LD-6
LD-5

Fig.5.1 LITHOLOGIC MAP OF LOWER TEKAI DAM SITE

LEGEND

GEOLOGICAL AGE		COLOR	SYMBOL	FORMATION	LITHOLOGY
CENOZOIC	QUATERNARY	░	r	River Bed Deposits	Mainly quartz sand including silt and gravel.
			tl	Talus Deposits	Mainly breccia including sand and clay.
		░	Qtr.2	Terrace Deposits	Mainly fine sand including silt and clay containing organic material.
		▓	Qtr.1		Mainly clayey sand including gravel and clay.
MESOZOIC	UPPER JURASSIC	░	MSh.3	Mangking sandstone	Purplish / Purplish red shale interbedded with purplish fine sandstone.
		░	MSs.3		Predominantly quartzose sandstone and sandstone.
		▓	Mal.2		Alternation of sandstone and shale.
		▒	MSh.2		Mainly grayish shale and purplish shale interbedded with sandy shale and silty shale.
		░	MSs.2		Predominantly quartzose sandstone and sandstone interbedded with shale and shaly sandstone.
		█	MSh.1		Dark grey / Greyish shale.

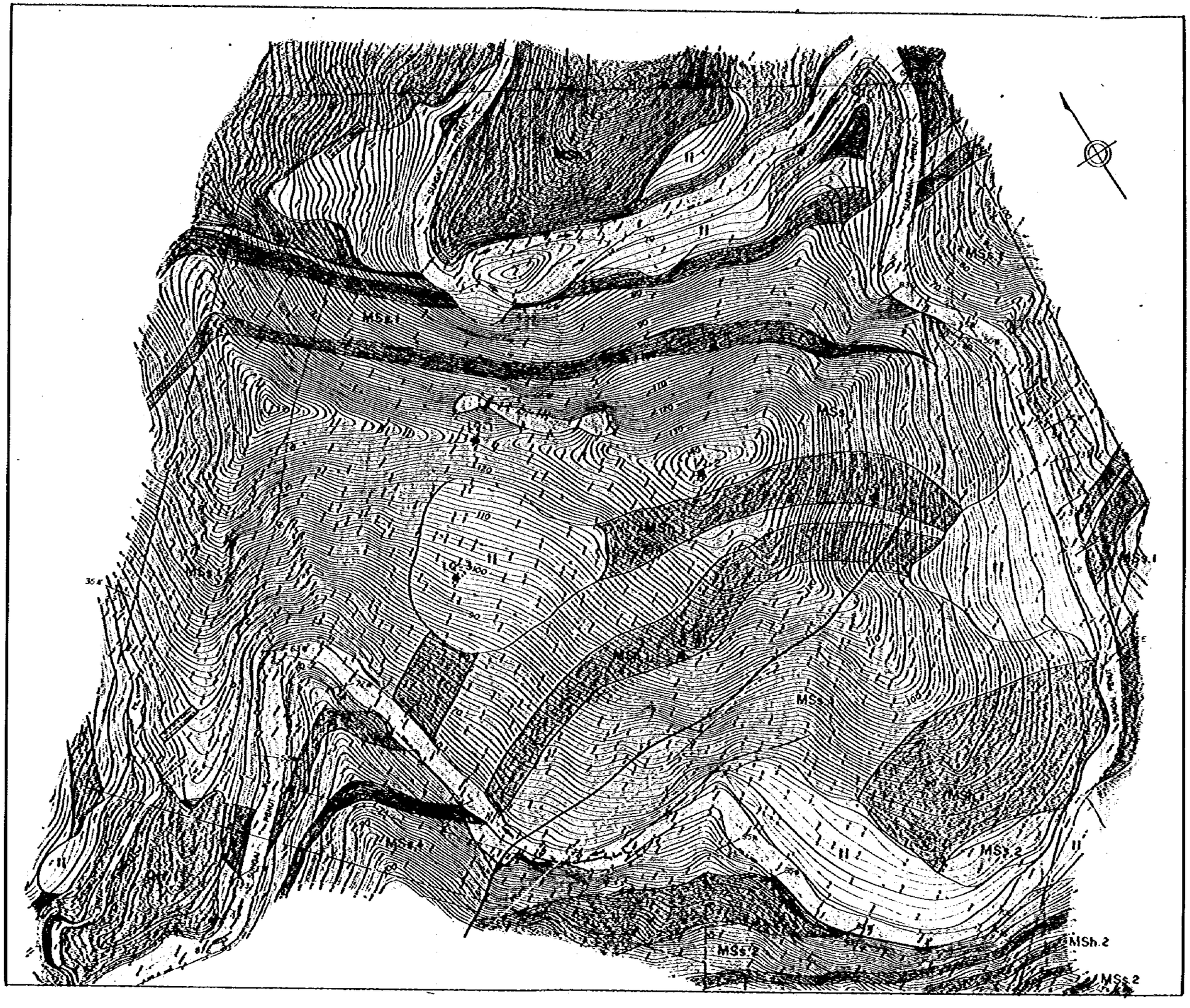
40° 21 Strike and dip of stratum.

LD-1～LD-14 ● Borehole point and borehole No. carried out in 1982.

L-1～L-4 ■ Borehole point and borehole No. carried out in 1981.

SCALE 1 : 2,000

0 50 100m


MSs.1
MSs.2
MSh.2
SCALE

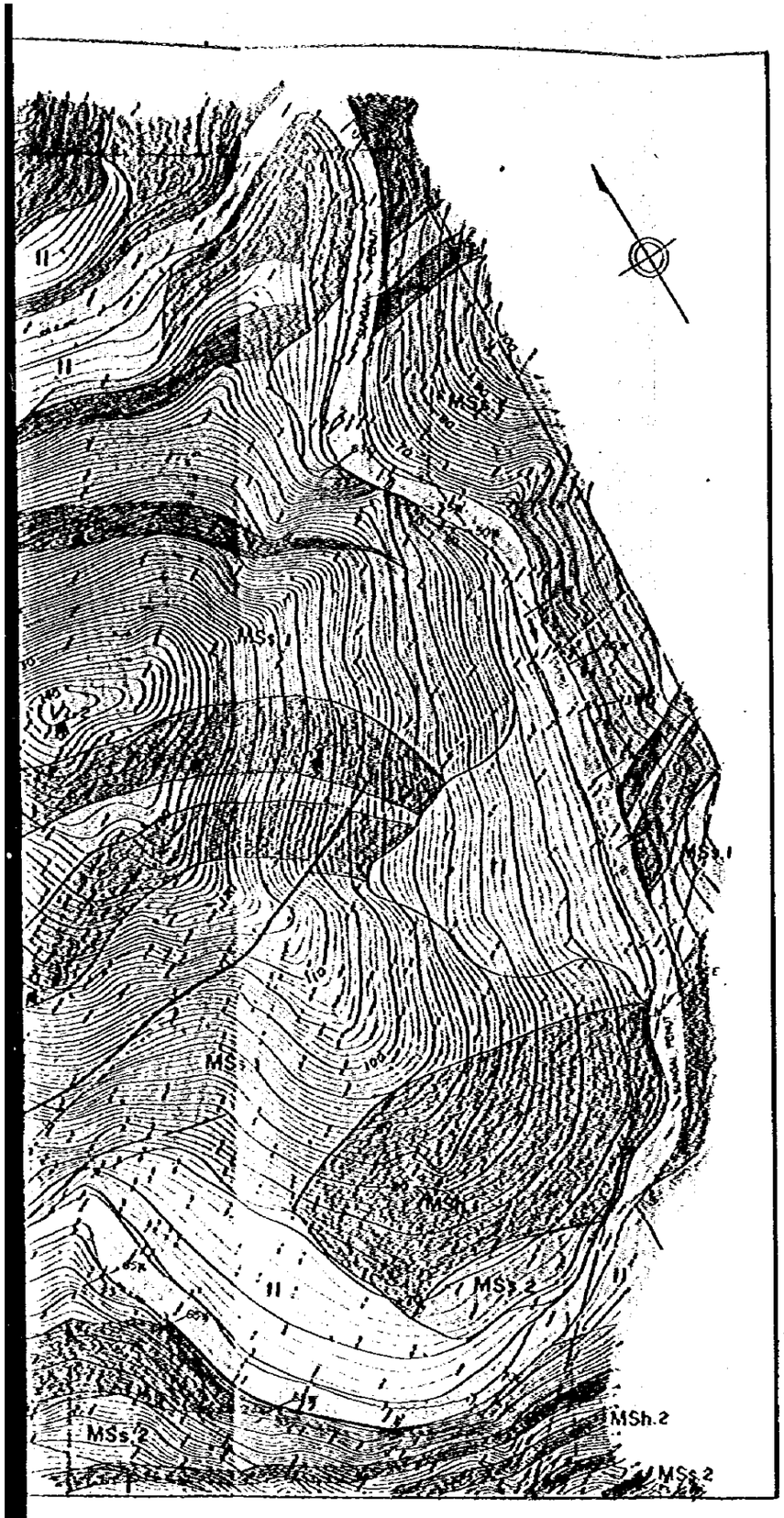


Fig.5.2 LITHOLOGIC MAP OF LOWER TEKAI QUARRY AREA (SITE.C)

LEGEND

GEOLOGICAL AGE		COLOR	SYMBOL	FORMATION	LITHOLOGY
CENOZOIC	QUATERNARY		r	River Bed Deposits	Mainly quartz sand including silt and gravel.
			tl	Talus Deposits	Mainly breccia, including sand and clay.
			Qtr.1	Terrace Deposits	Mainly clayey sand, including gravel containing organic material.
MESOZOIC	UPPER JURASSIC		MSh.2	Mangking Sandstone	Mainly greyish shale Purplish shale interbedded with sandy shale and silty shale.
			MSs.2		Predominantly quartzose sandstone and sandstone.
			MSh.1		Dark-grey/Greyish shale interbedded with siltstone and fine sandstone.
			MSs.1		Mainly quartzose sandstone and sandstone interbedded with shale and shaly sandstone.

65W / 45 Strike and dip of stratum.

65 E Strike and dip of fault.

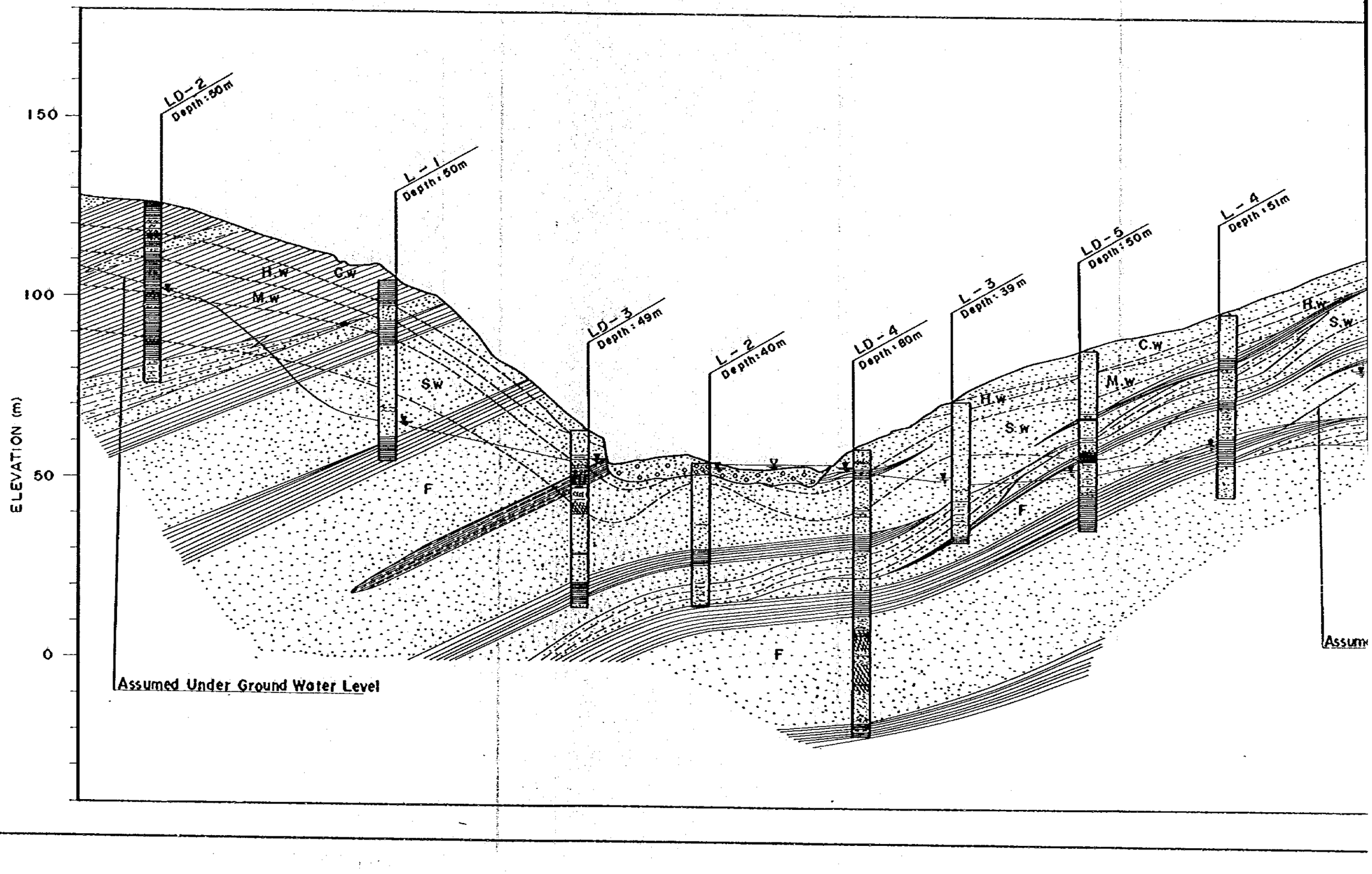
LQ-1~LQ-6 ● Borehole point and borehole No. carried in 1982.

SCALE 1 : 2,000

0 50 100m

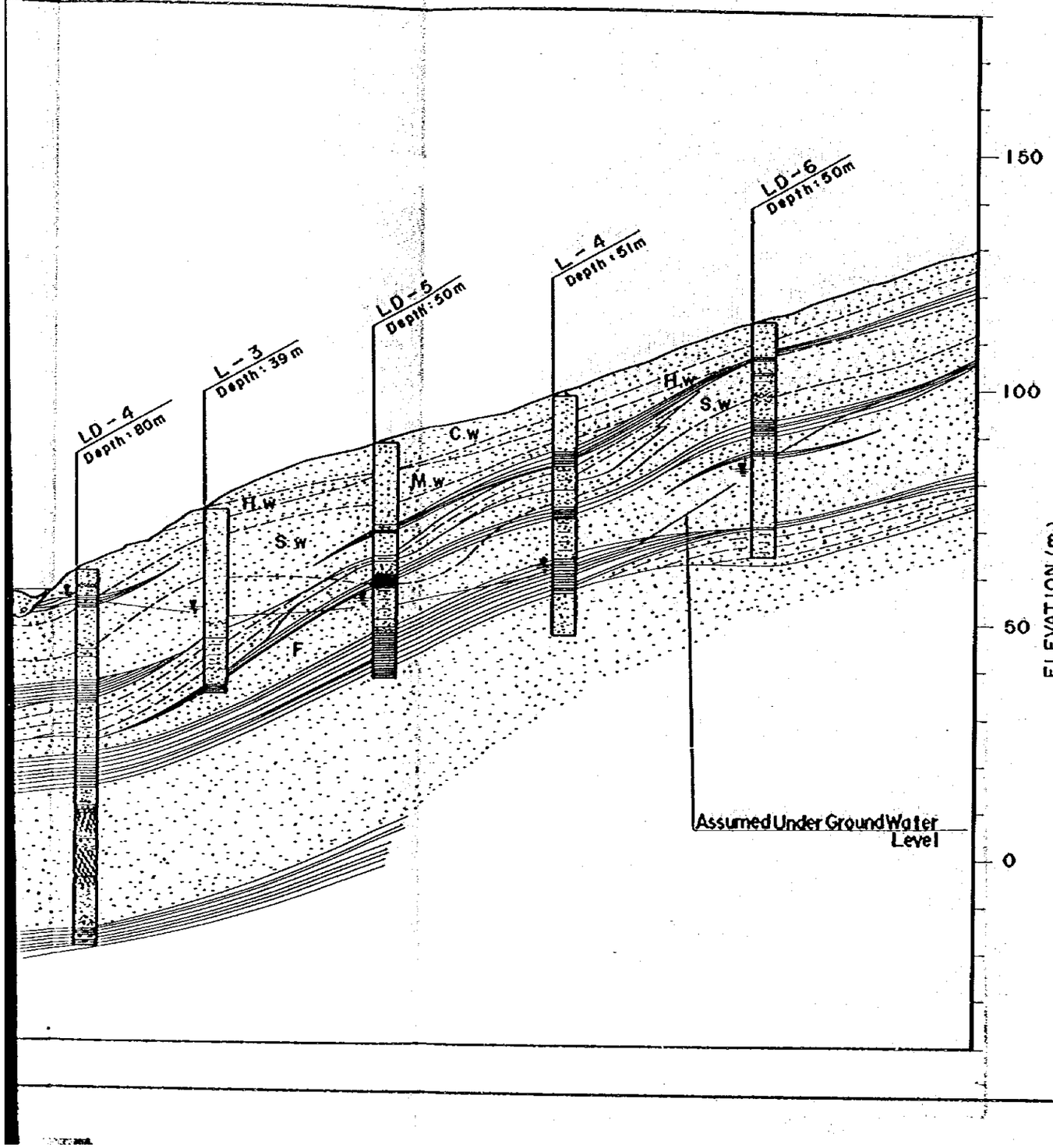
Fig.5.3 LITHOLOGIC PROFILE OF LOWER TEKAI DAM SITE

(Scale 1 : 1,000)



F LOWER TEKAI DAM SITE

le 1 : 1,000)



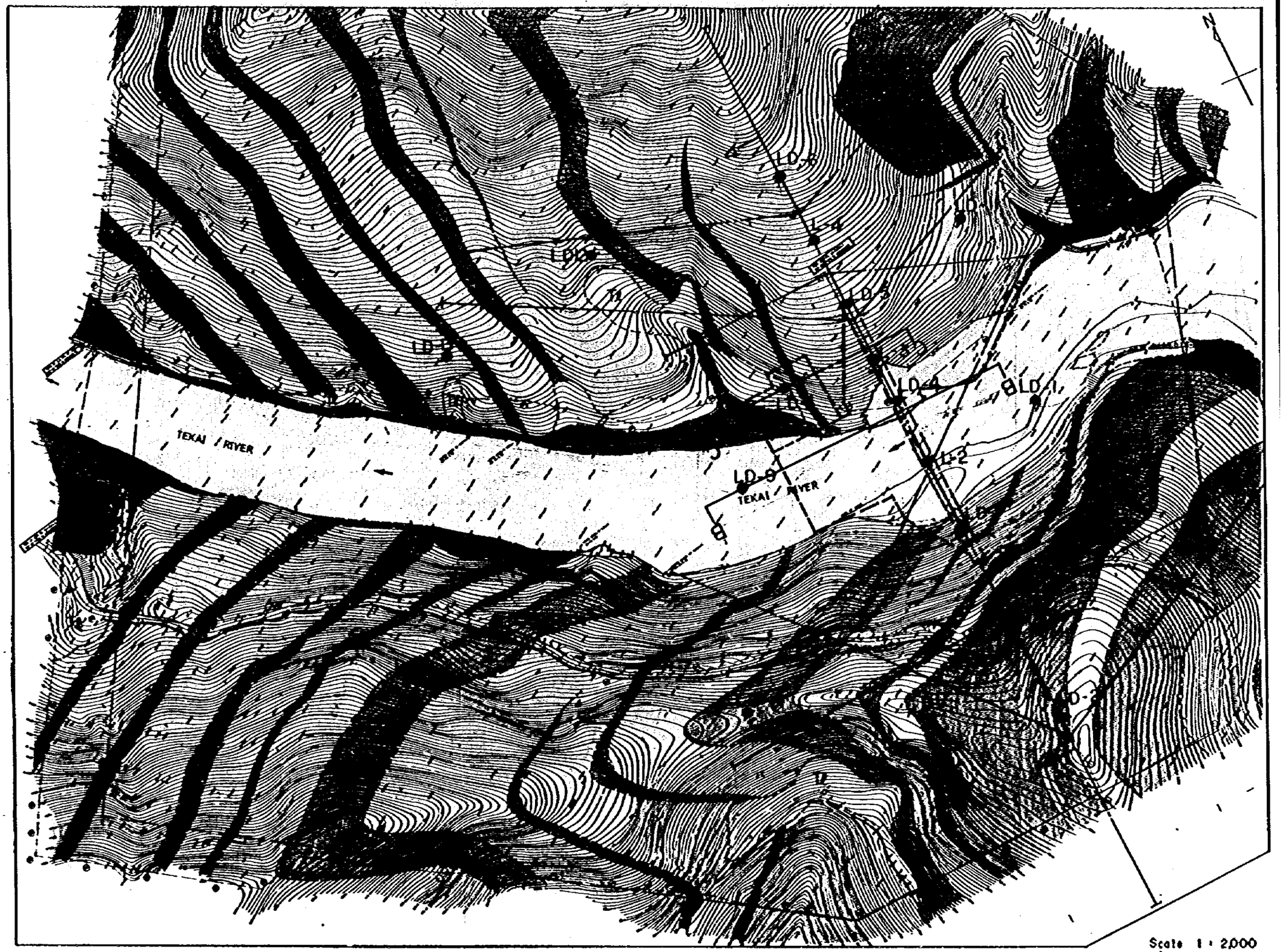
LEGEND

LD-2, L-1 — HoleNo. Carried out in 1982 / HoleNo. Carried out in 1981

- Mainly quartzose sandstone, Sandstone with shale layer
- Shale and mudstone
- Silty shale
- Shaly sandstone
- Sandy shale
- Alternation of sandstone and shale
- Fractured zone, with clay
- Cracky zone
- Clay
- Gravel and sand
- Under ground water level

- Mainly quartzose sandstone, Sandstone with shale layer
- Mainly shale, with silty shale, sandy shale
- Shaly sandstone
- Alternation of sandstone and shale
- River bed deposits, gravel and sand

- C.w Completely weathered zone
- H.w Highly weathered zone
- M.w Moderately weathered zone
- S.w Slightly weathered zone
- F. Fresh zone


LD-8
LD-7
LD-6
LD-5
LD-4
LD-3
LD-2
LD-1
LD-9
TEKAI RIVER
TEKAI RIVER
N
Scale 1 : 2,000
50

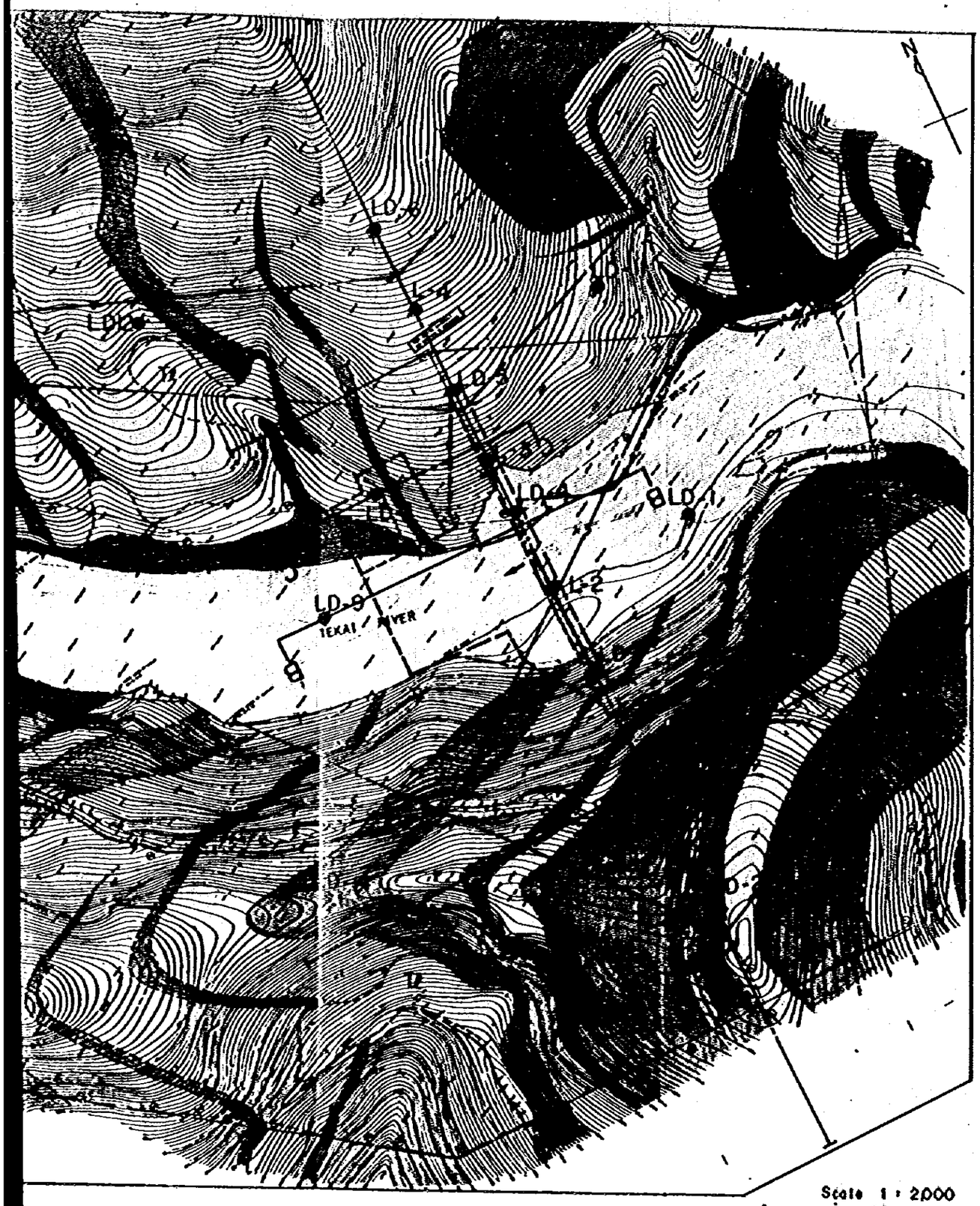


Fig.5.4 GEOLOGICAL MAP OF LOWER TEKAI DAM

LEGEND

GEOLOGICAL AGE		COLOR	FORMATION	NAME OF STRATUM
CENOZOIC	QUATERNARY			River Bed Deposits
		Tl		Talus Deposits
				Terrace Deposits.
MESOZOIC	UPPER JURASSIC		Mangking Sandstone	Stratum of Predominantly Sandstone
				Stratum of Predominantly Shale
				Alternation of Sandstone and Shale

- ● Drilling point and hole number.
- Seismic prospecting line
- A — A Geological profile line.
- A - A Dam axis
- B - B Overflow section.
- C - C Powel station.

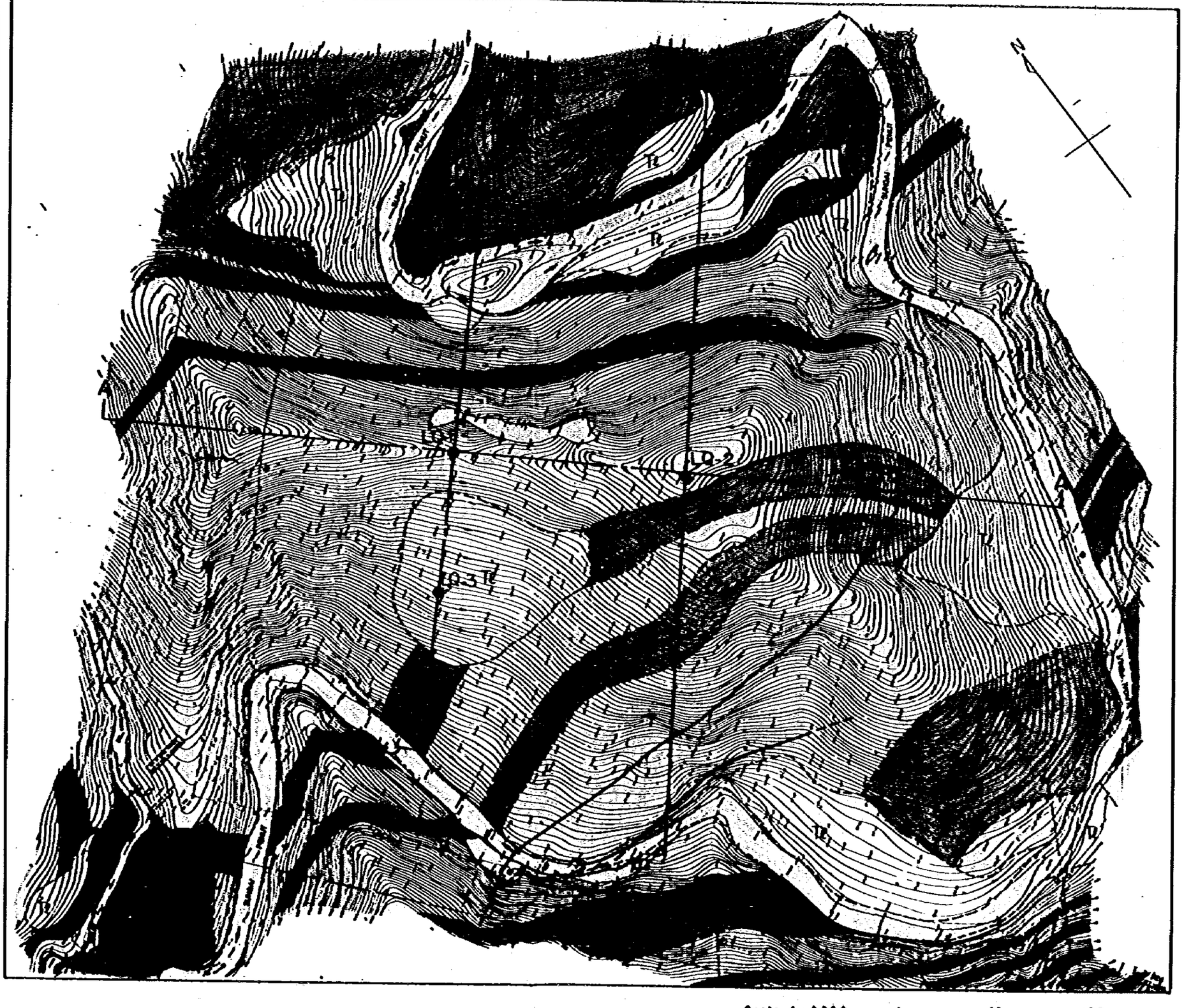


Fig.5.5 GEOLOGI

GEOLOGICAL	
CENOZOIC	QUATERNAR
MESOZOIC	UPPER JURASSIC

A

Scale 1:2000 0 50 100m

Scale 1:2000 0 50 100m

Fig.5.5 GEOLOGICAL MAP OF LOWER TEKAI QUARRY AREA
(SITE.C)

LEGEND

GEOLOGICAL AGE		COLOR	FORMATION	NAME OF STRATUM
CENOZOIC	QUATERNARY			River Bed Deposites.
		Tt		Talus Deposites.
				Terrace Deposites.
MESOZOIC	UPPER JURASSIC		Mangking Sandstone	Stratum of Predominantly Sandstone.
				Stratum of Predominantly shale.

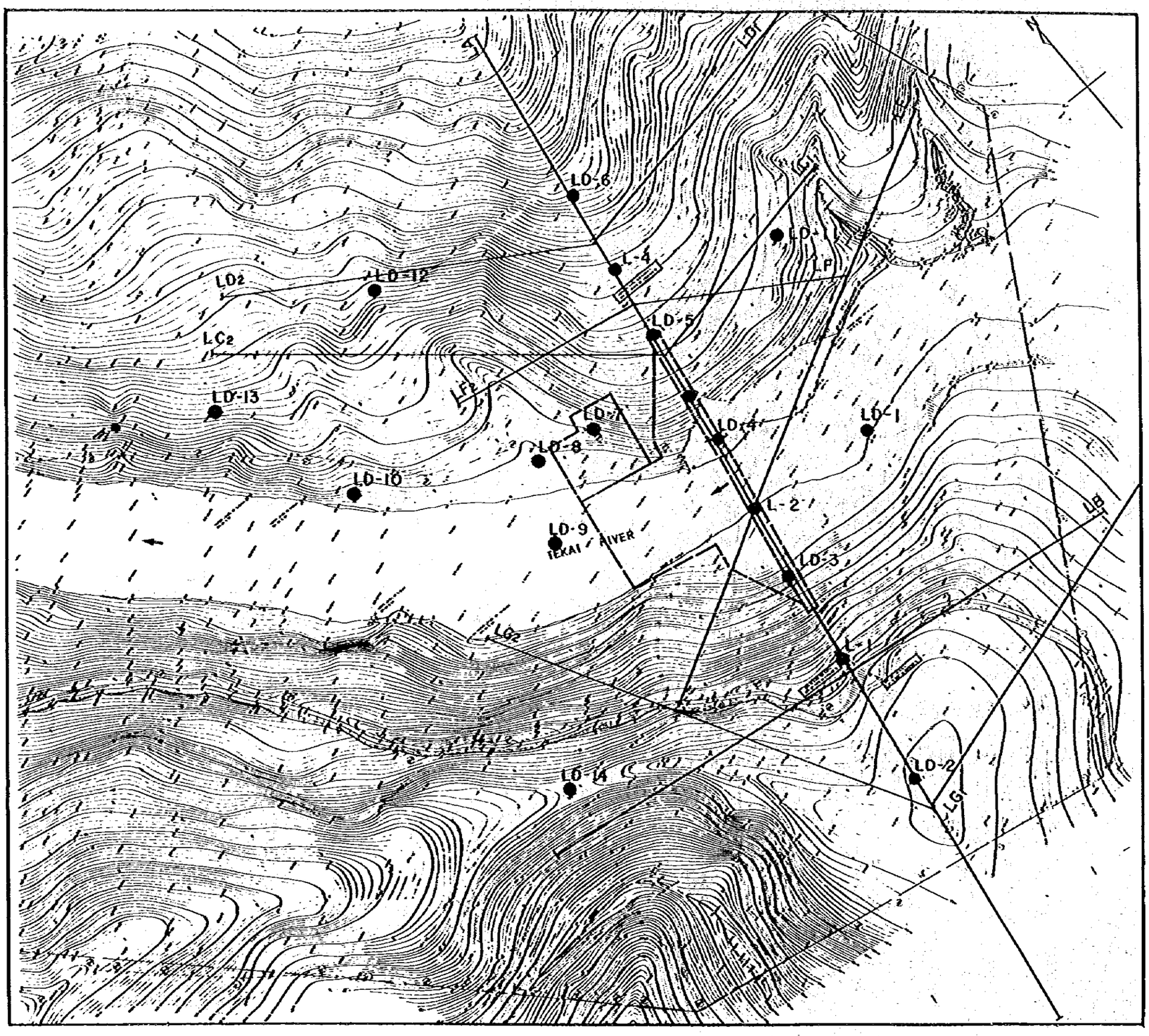
Fault

Drilling point and hole number

Seismic prospecting line

A A Geological profile line

Fig. 5.6 LOCATION MAP OF LOWER TEKAI DAM SITE

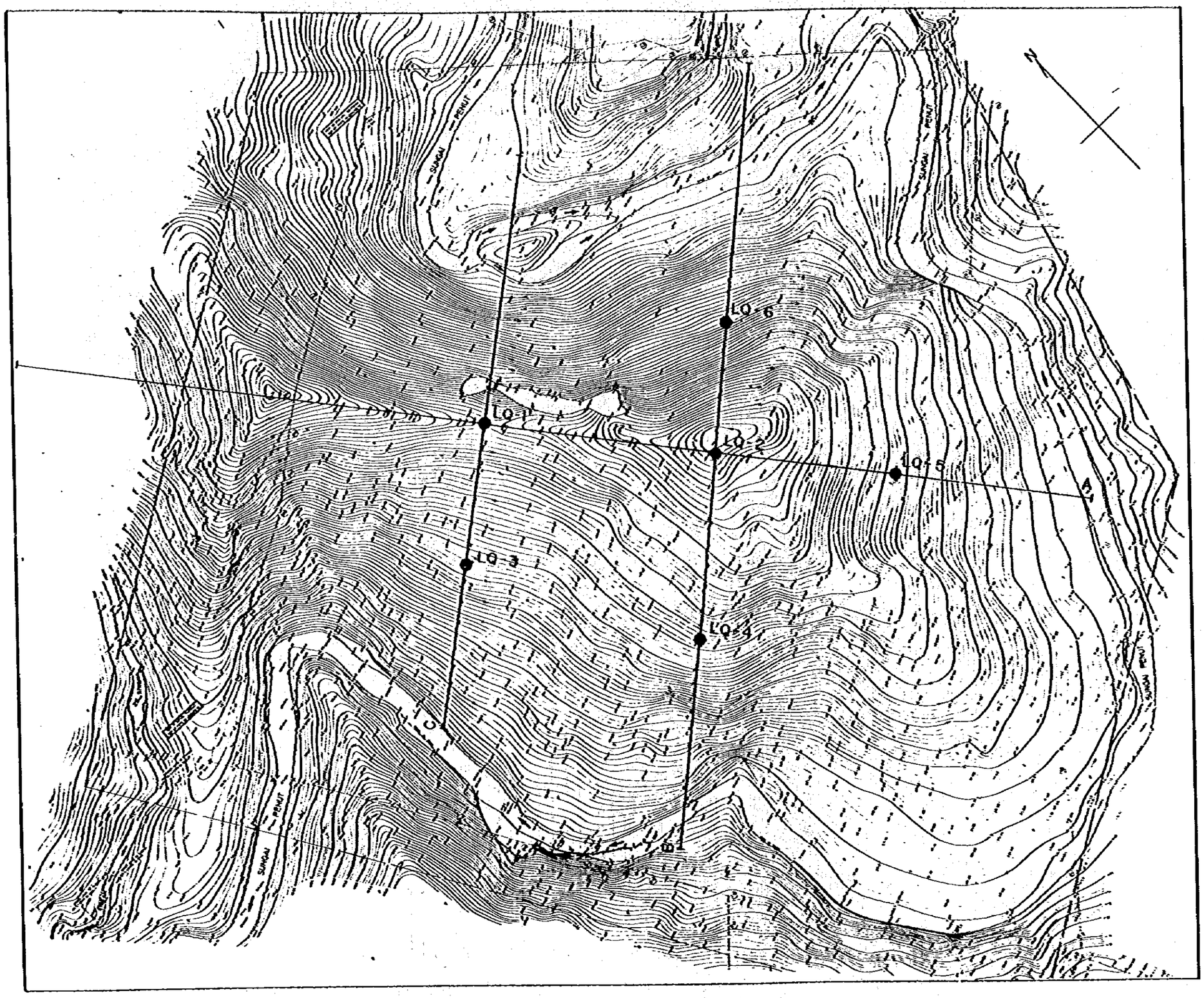


LEGEND

● LD-1 ~ LD-14	Drilling point and hole No. Carried out in 1982
● L-1 ~ L-4	Drilling point and hole No. Carried out in 1981
—— LA~LG	Seismic prospecting line Carried out in 1981

Scale 1: 2000
0 50 100m

Fig.5.7 LOCATION MAP OF LOWER TEKAI QUARRY AREA (SITE C)



LEGEND

● LQ-1~LQ-6 Drilling point and hole No. Carried out in 1982

A~C Seismic prospecting line Carried out in 1982

Scale 1:2000
0 50 100m