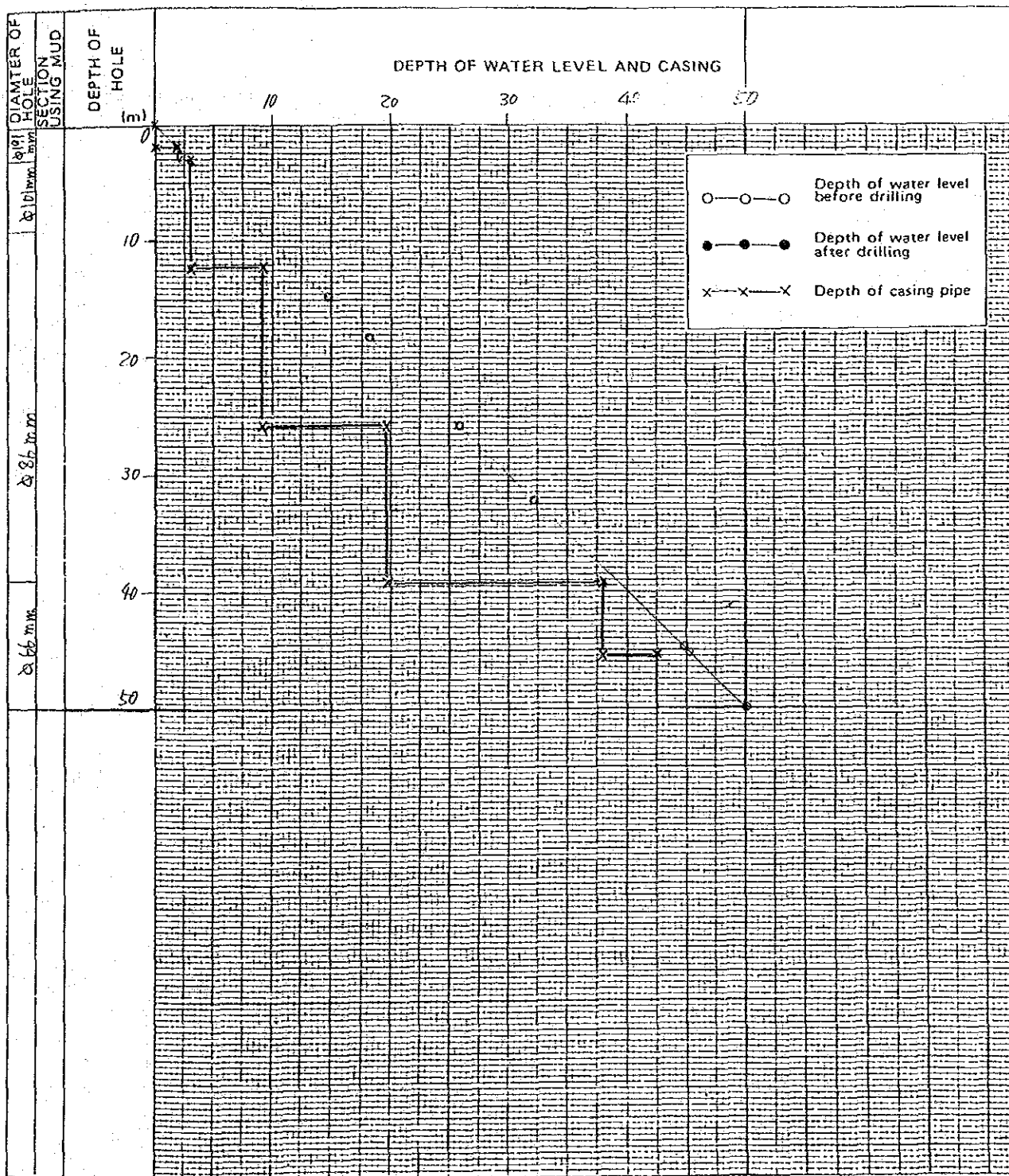


A-2-3 Record of Water Level in Borehole during Drilling

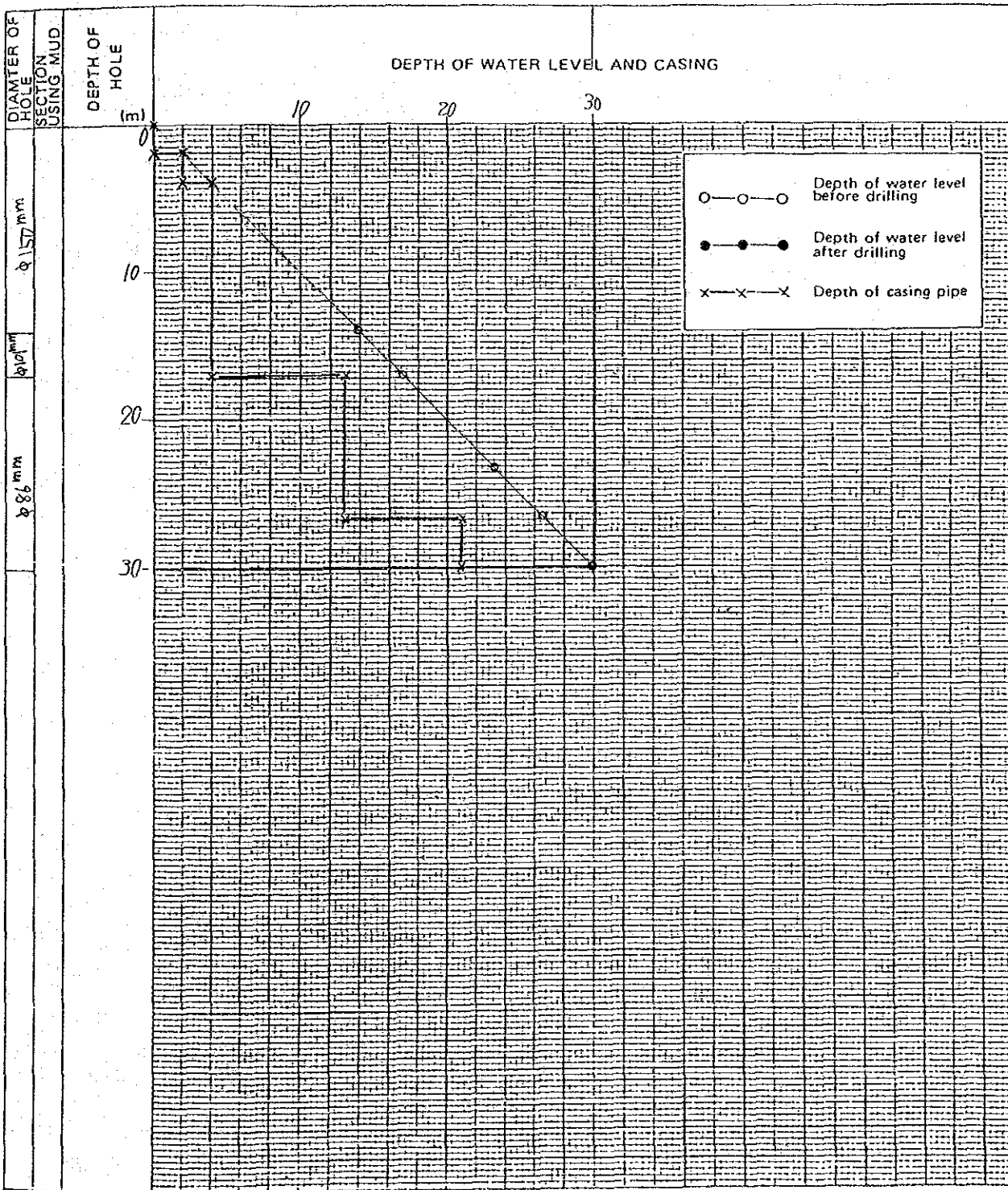
RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

PROJECT Kihansi HOLE No. 2 (SHEET OF 1)
 LOCATION Upper dam site DEPTH OF HOLE 50 m COMMENCED 8-8-89
 ELEVATION 1393.61 DIAMETER OF HOLE φ191 ~ φ114 mm COMPLETED 10-10-89
 COORDINATE _____ MEASURED BY _____
 ANGLE FROM HORIZONTAL 90°



RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

PROJECT Kihansi HOLE No. 11-2 (SHEET OF 1)
 LOCATION Upper dam site DEPTH OF HOLE 30 m COMMENCED 3.9.81
 ELEVATION 1356.66 DIAMETER OF HOLE φ150~86 mm COMPLETED 10.9.81
 COORDINATE _____
 ANGLE FROM HORIZONTAL 90° MEASURED BY _____



RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

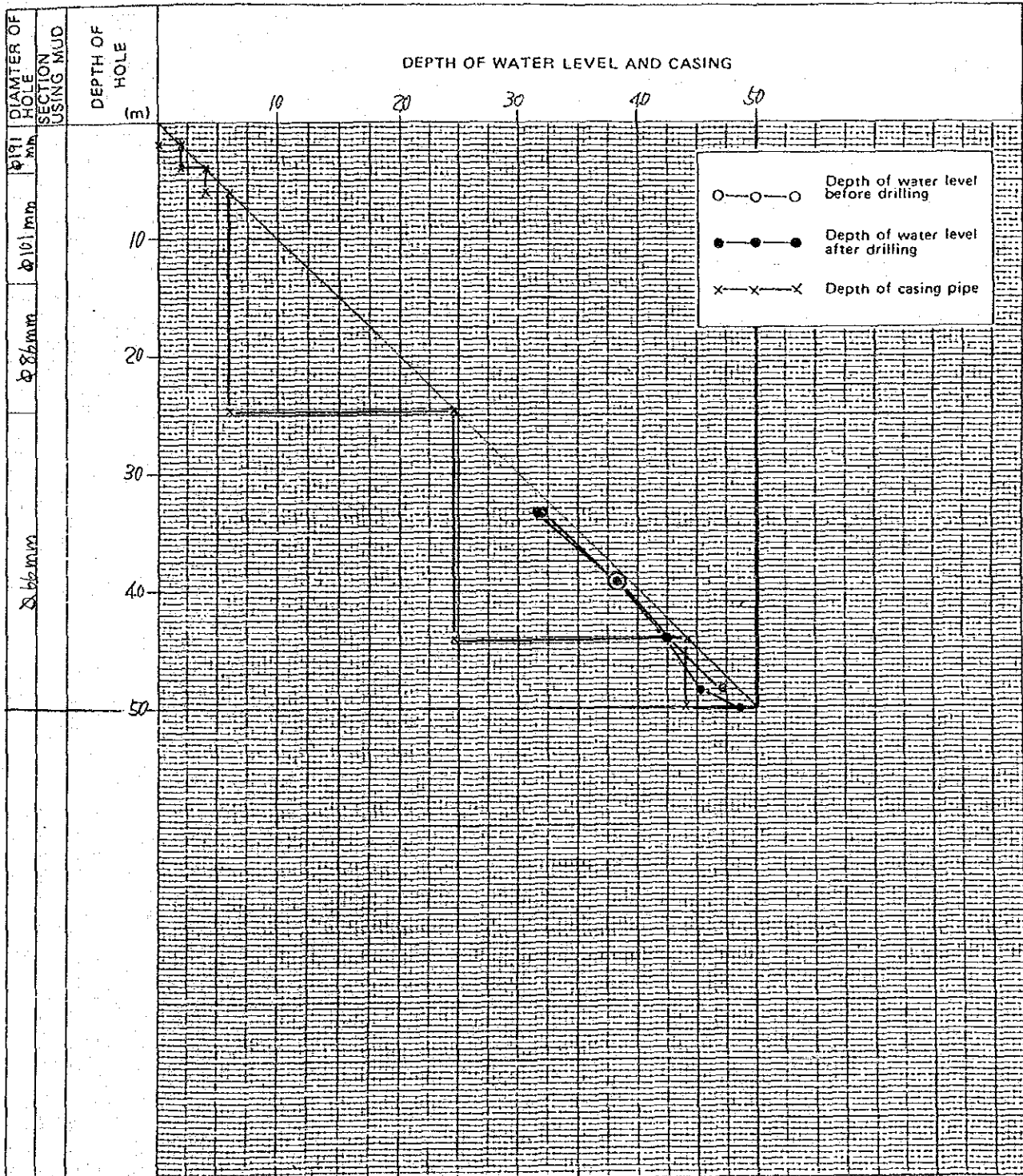
Kihansi PROJECT HOLE No. 1 SHEET OF 1

LOCATION Upper dam site DEPTH OF HOLE 50 m COMMENCED 2.2.59

ELEVATION 1361.23 DIAMETER OF HOLE φ191 ~ φ66 mm COMPLETED 21.10.59

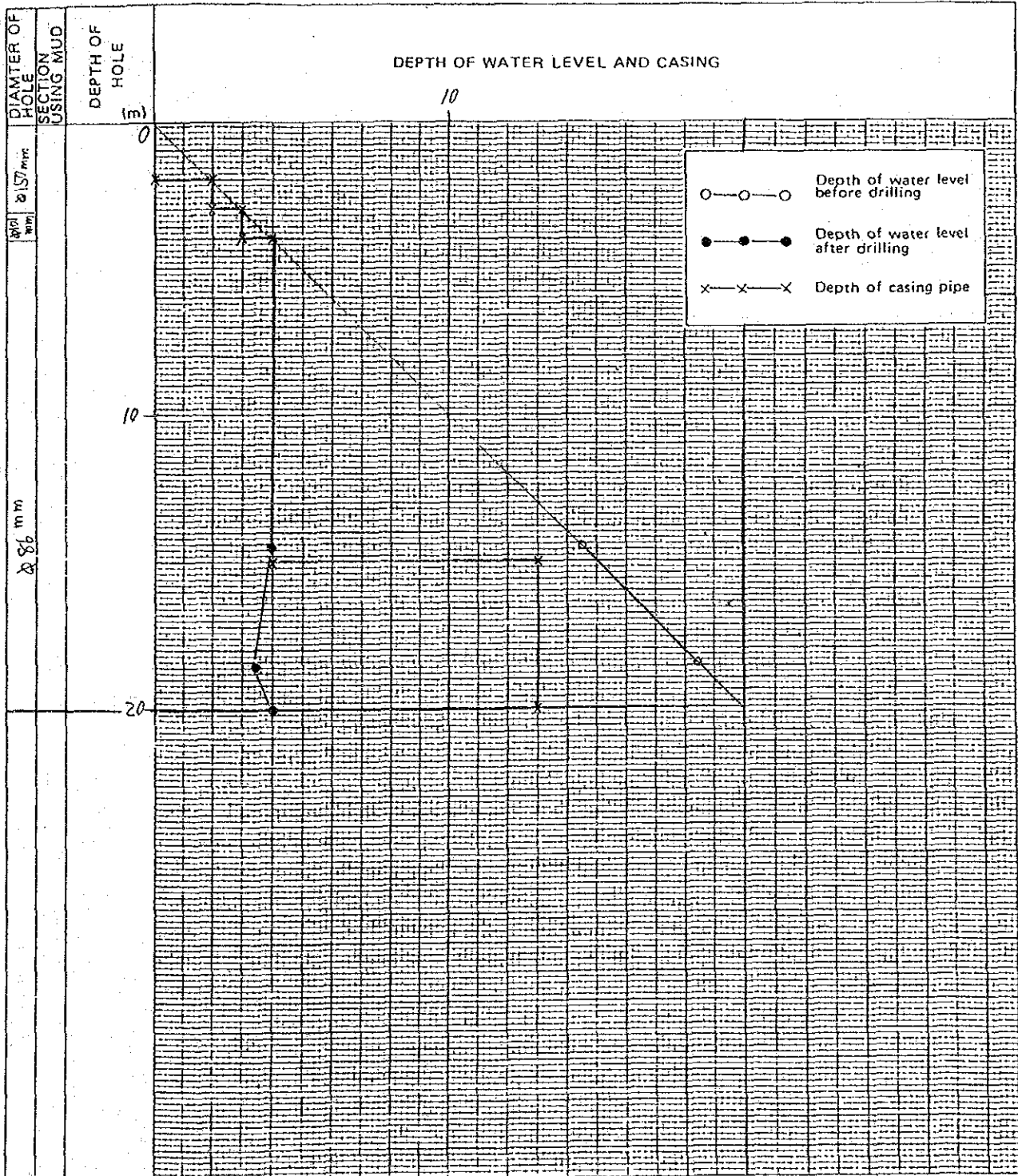
COORDINATE _____

ANGLE FROM HORIZONTAL 90° MEASURED BY _____



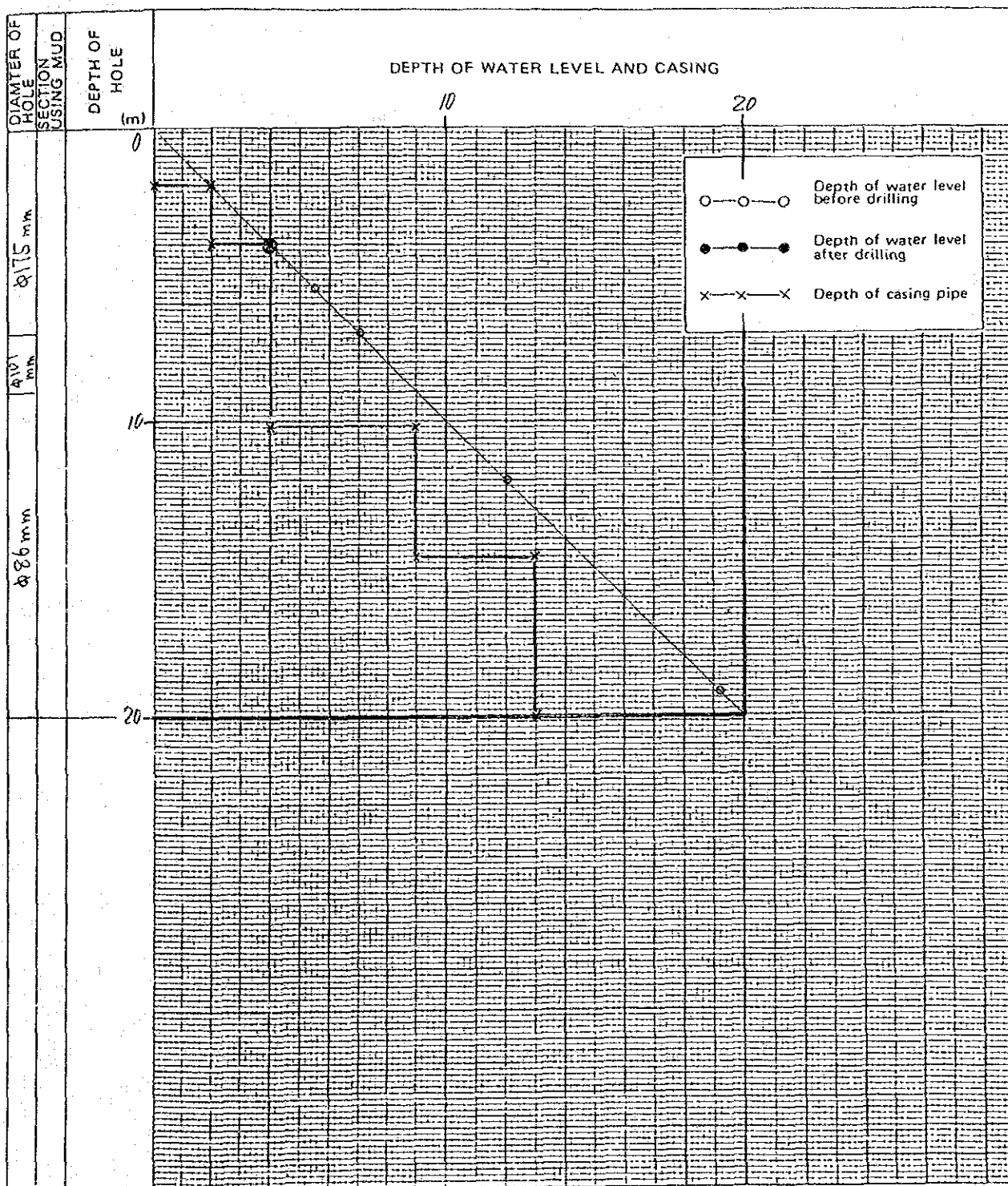
RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

LOCATION Kihansi PROJECT _____ HOLE No. KI-1 (SHEET OF _____)
 LOCATION Lower dam Site DEPTH OF HOLE 20 m COMMENCED 25.9.79
 ELEVATION 1153.30 DIAMETER OF HOLE Φ110~86 mm COMPLETED 2.10.79
 COORDINATE _____
 ANGLE FROM HORIZONTAL 90° MEASURED BY _____



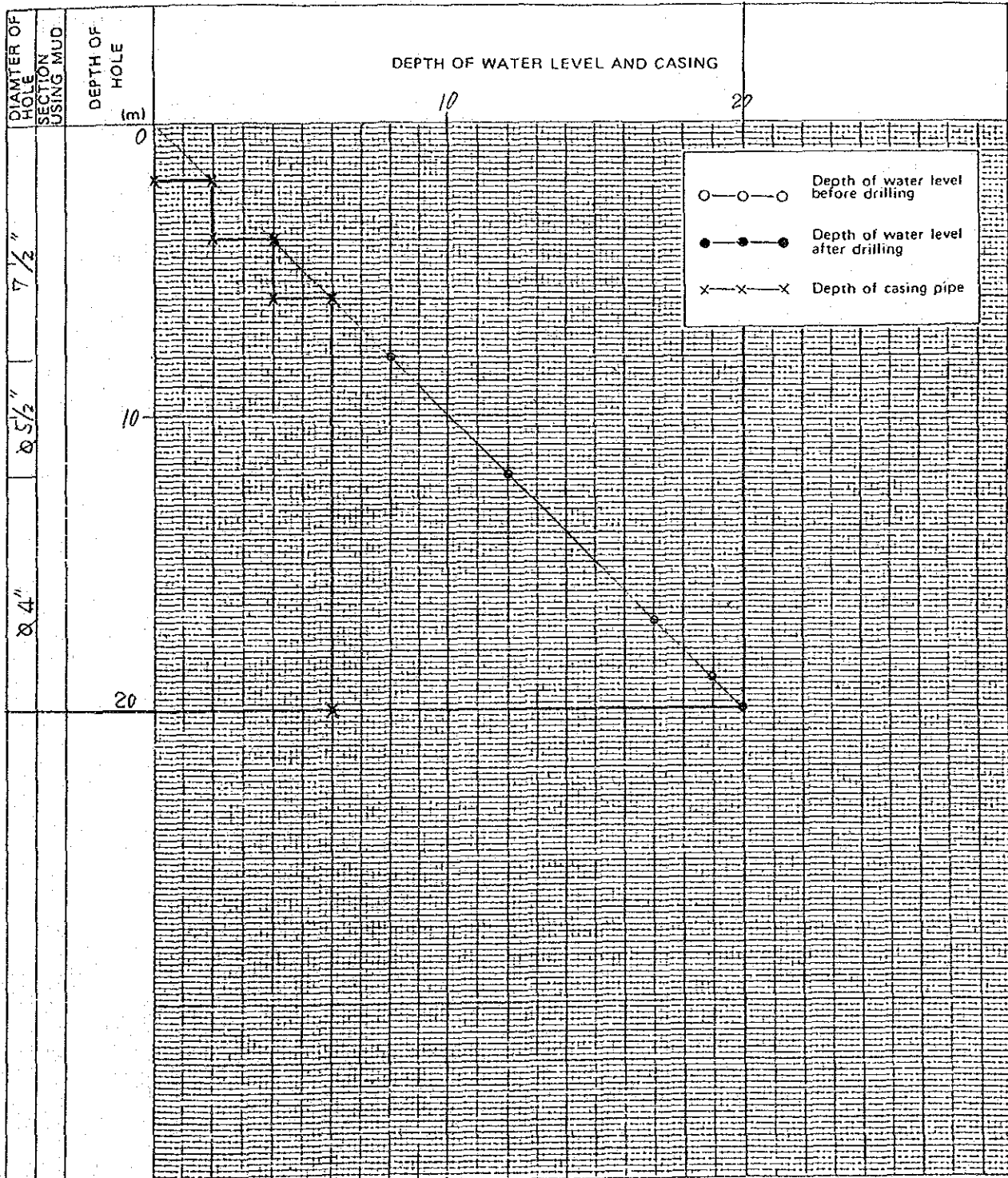
RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

LOCATION Kiharsi PROJECT _____ HOLE No. 175-2 (SHEET OF _____)
 LOCATION Lower dam site DEPTH OF HOLE 20 m COMMENCED 18.8.89
 ELEVATION 1132.2 DIAMETER OF HOLE φ175~86 mm COMPLETED 21.9.89
 COORDINATE _____
 ANGLE FROM HORIZONTAL 90° MEASURED BY _____



RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

LOCATION Kihansi PROJECT _____ HOLE No. KL-3 (SHEET OF)
 LOCATION Lower headrace tunnel DEPTH OF HOLE 20 m COMMENCED 24.8.89
 ELEVATION _____ DIAMETER OF HOLE 191-101 mm COMPLETED 30.8.89
 COORDINATE _____
 ANGLE FROM HORIZONTAL 90° MEASURED BY _____



RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

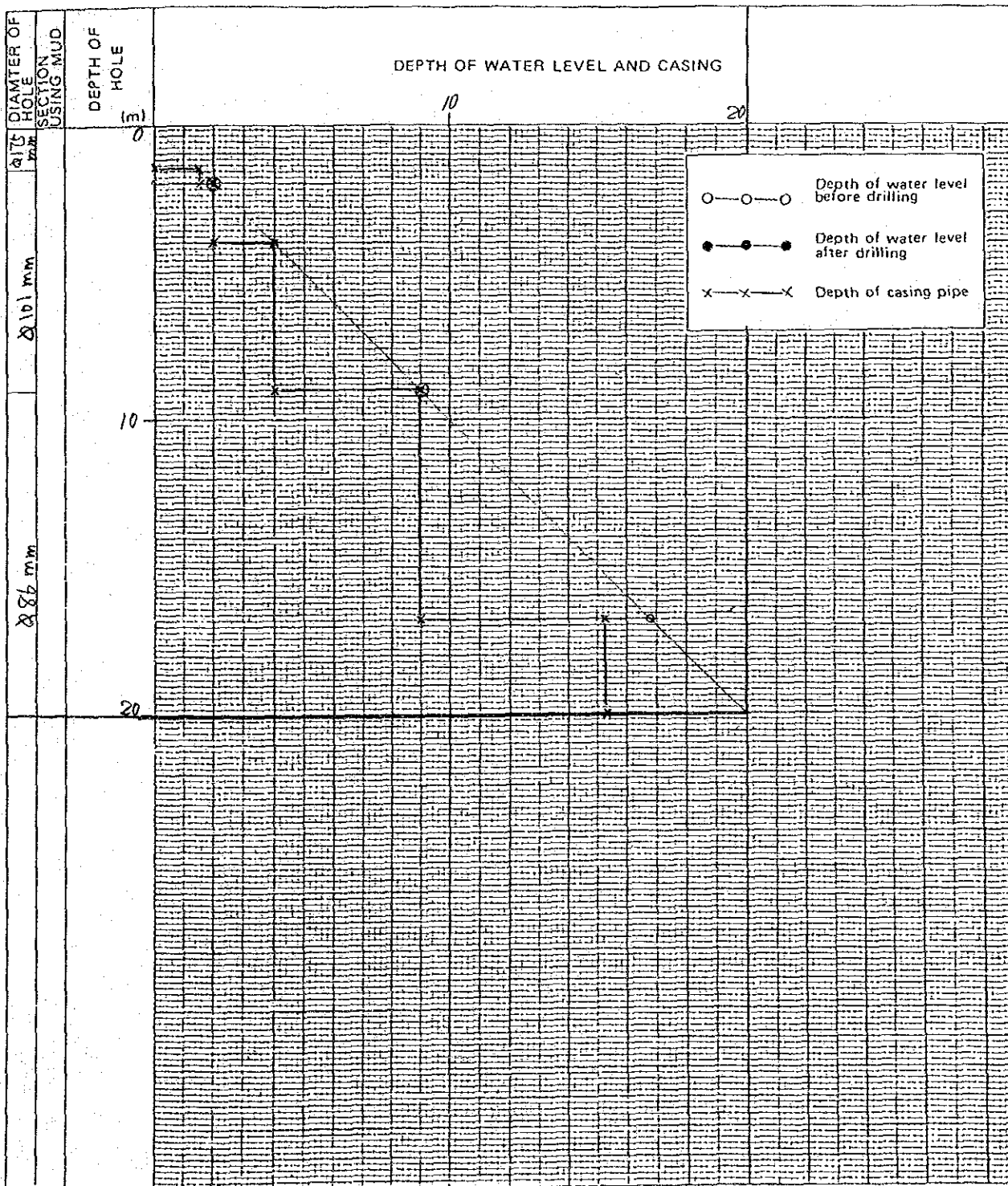
Kihansi PROJECT HOLE No. KL-4 ISHEET OF 1

LOCATION Lower P/s DEPTH OF HOLE 20 m COMMENCED 12.7.89

ELEVATION 325.04 DIAMETER OF HOLE $\phi 175 \sim 86$ mm COMPLETED 15.8.89

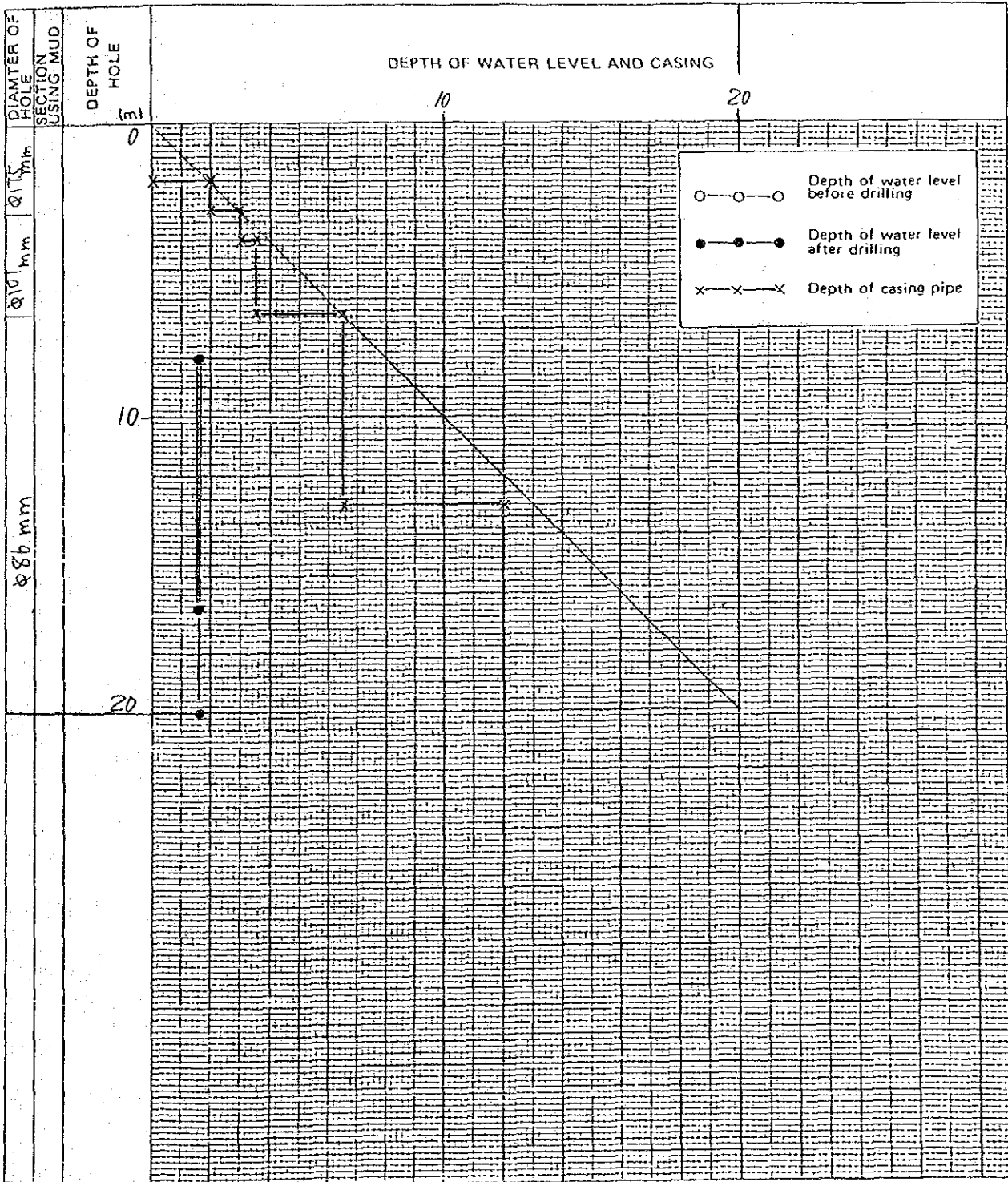
COORDINATE _____

ANGLE FROM HORIZONTAL 90° MEASURED BY _____



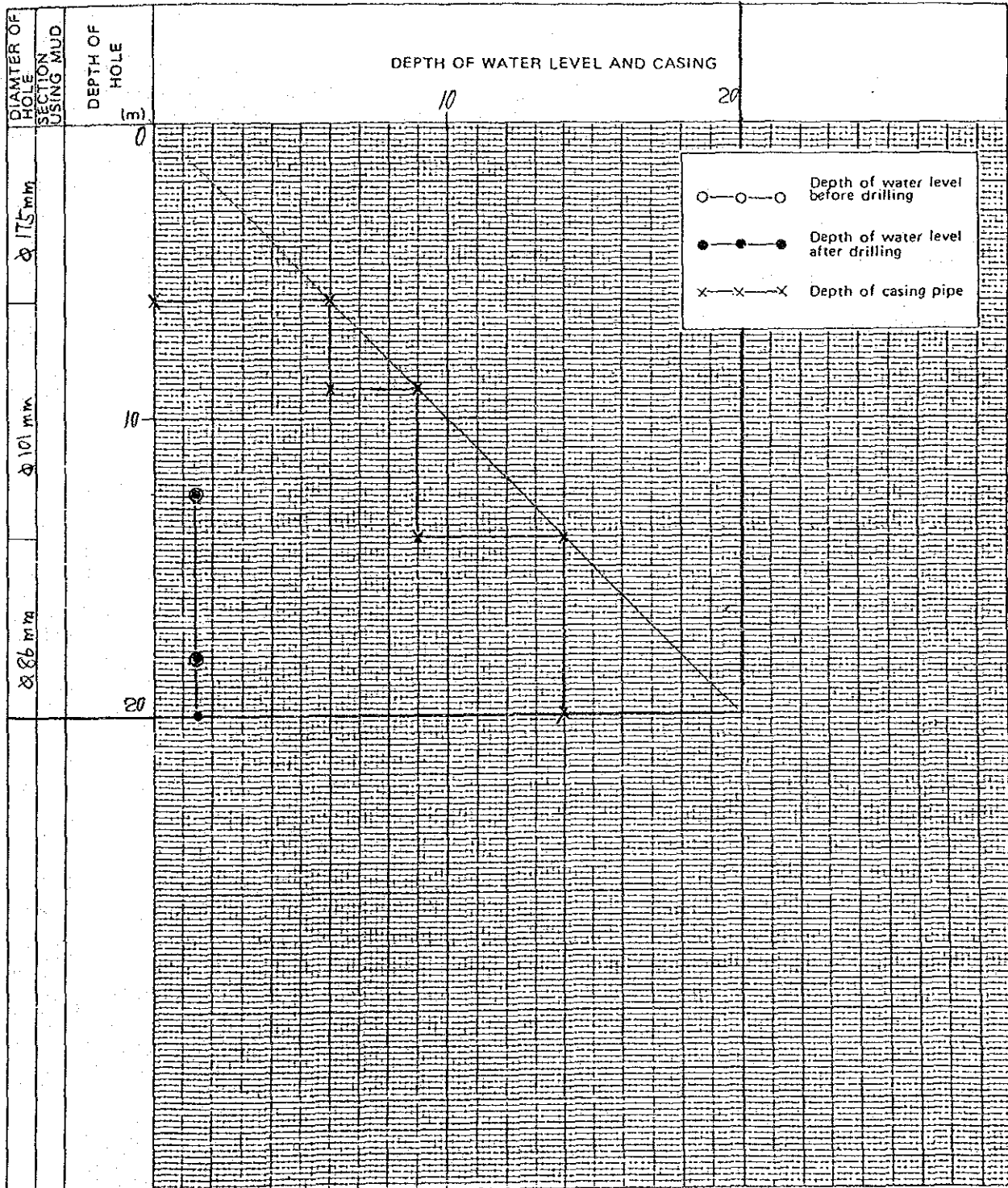
RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

PROJECT Kihansi HOLE No. KL-5 (SHEET OF 1)
 LOCATION Lower P/S DEPTH OF HOLE 20 m COMMENCED 10.9.89
 ELEVATION 315.66 DIAMETER OF HOLE φ175~86 mm COMPLETED 12.8.89
 COORDINATE _____ MEASURED BY _____
 ANGLE FROM HORIZONTAL 90°



RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

PROJECT Rihansi HOLE No. KM-1 (SHEET OF 1)
 LOCATION Sand quarry/Upper DEPTH OF HOLE 20 m COMMENCED 16-8-89
 ELEVATION 1353.7 DIAMETER OF HOLE φ175~86 mm COMPLETED 16-9-89
 COORDINATE _____ MEASURED BY _____
 ANGLE FROM HORIZONTAL 90°



RECORD OF WATER LEVEL IN BOREHOLE DURING DRILLING
(DIAGRAM)

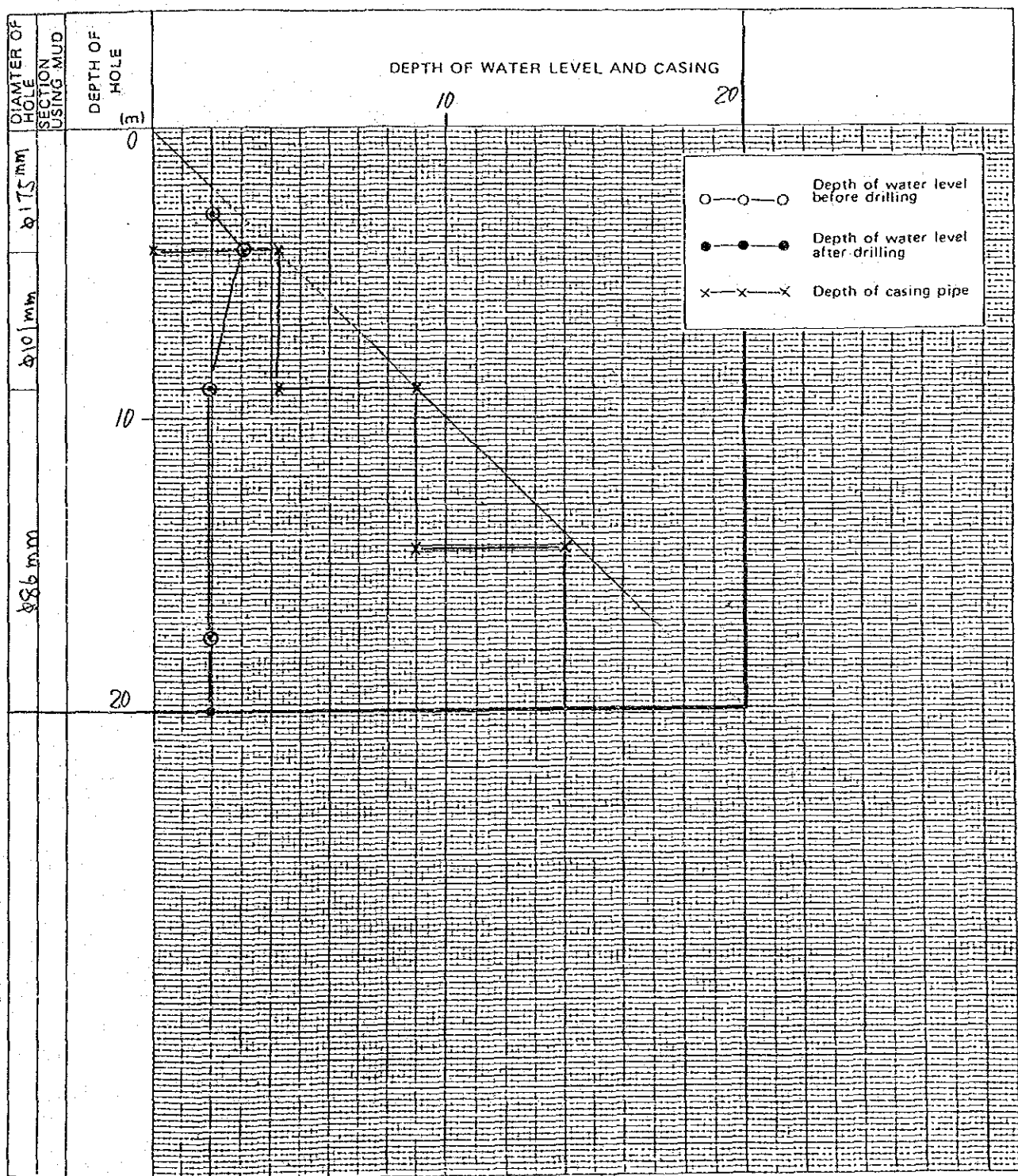
Kihansi PROJECT HOLE No. KU-2 (SHEET OF 1)

LOCATION Sand quarry DEPTH OF HOLE 20 m COMMENCED 6.9.89

ELEVATION 280.9 DIAMETER OF HOLE Φ175~86 mm COMPLETED 9.8.89

COORDINATE _____

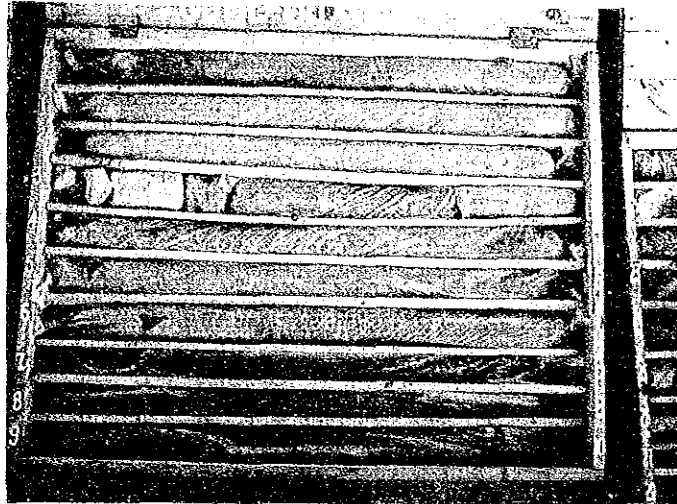
ANGLE FROM HORIZONTAL 90° MEASURED BY _____



A-2-4 Core Photograph

CORE PHOTOGRAPHS

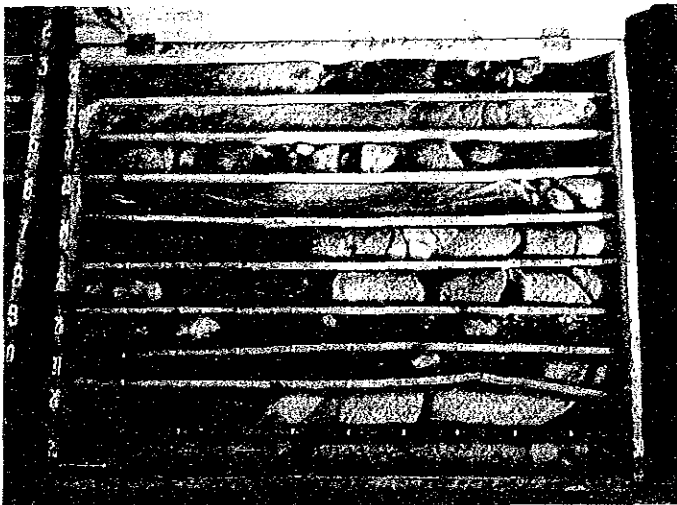
KU-1 Depth 0.0-10.0m



KU-1 Depth 10.0-20.0m



KU-1 Depth 20.0-30.0m

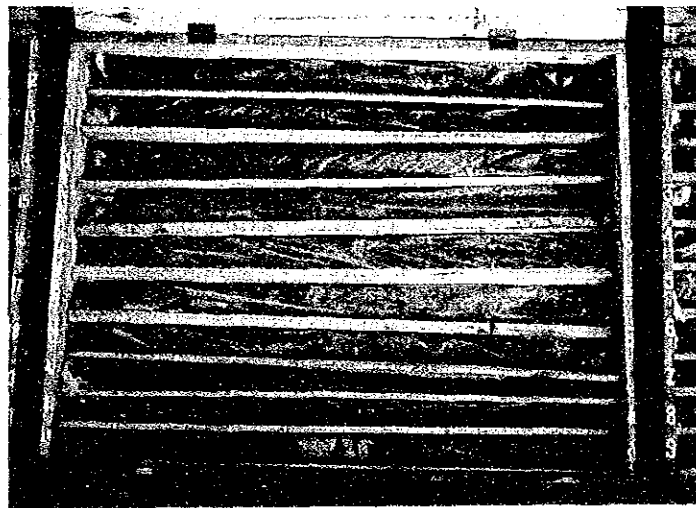


CORE PHOTOGRAPHS

KU-1 Depth 30.0-40.0m



KU-1 Depth 40.0-50.0m

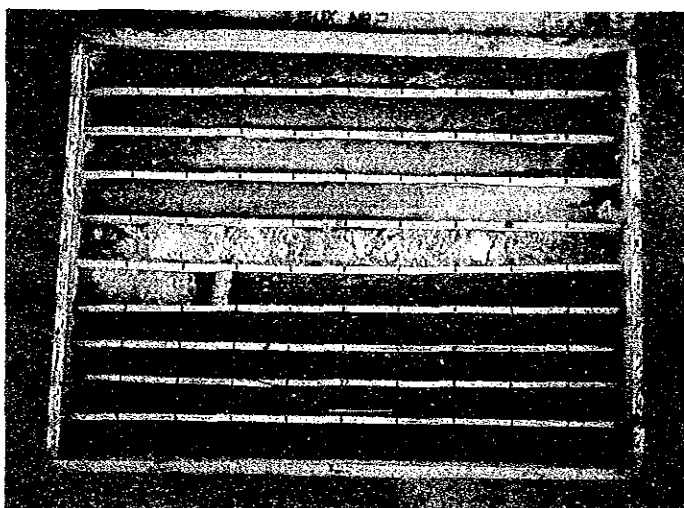


CORE PHOTOGRAPHS

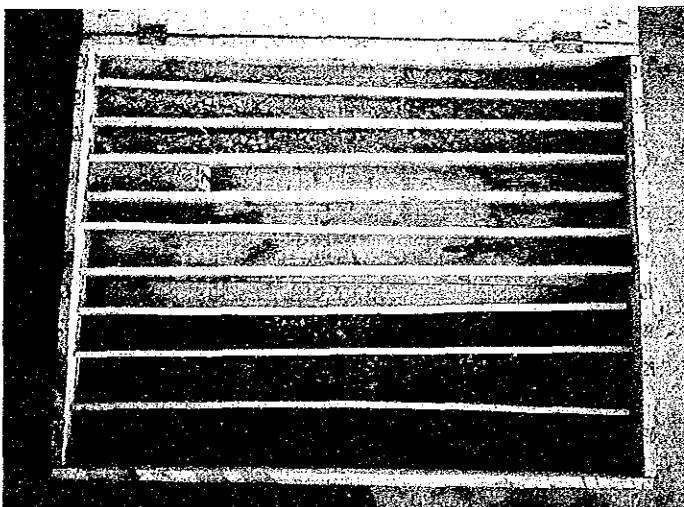
KU-2 Depth 0.0-10.0m



KU-2 Depth 10.0-20.0m

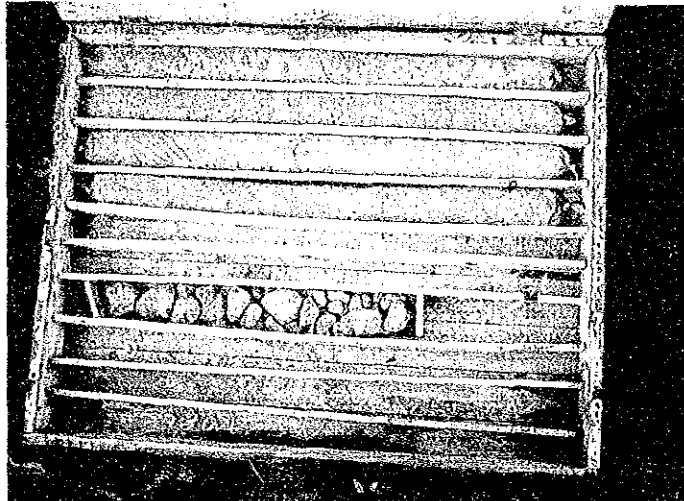


KU-2 Depth 20.0-30.0m

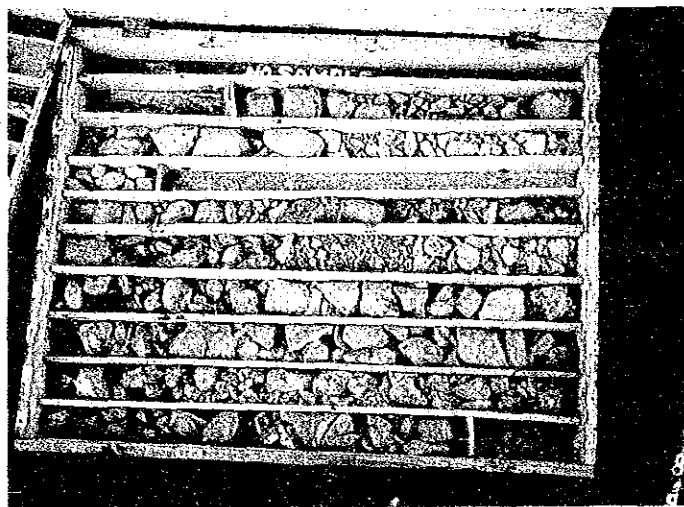


CORE PHOTOGRAPHS

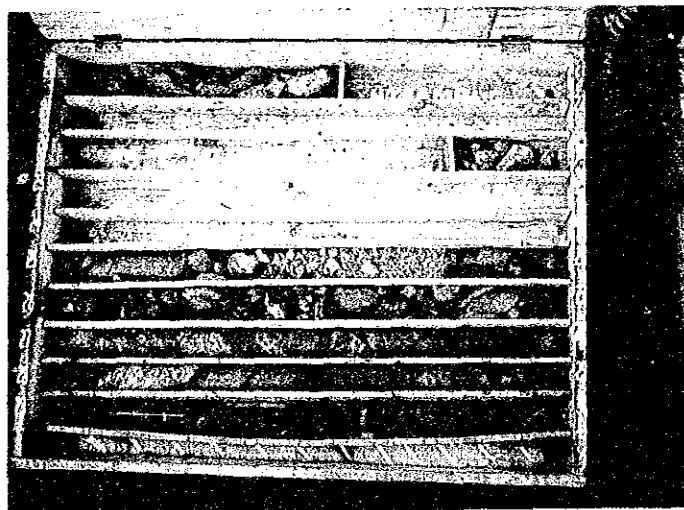
KU-3 Depth 0.0-10.0m



KU-3 Depth 10.0-20.0m



KU-3 Depth 20.0-30.0m

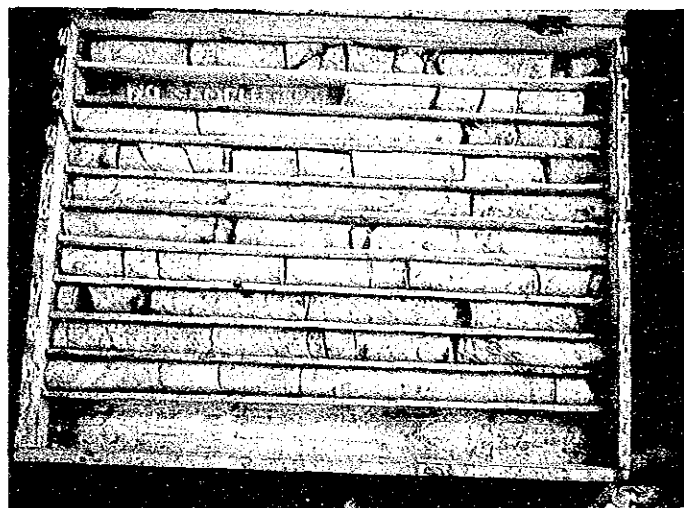


CORE PHOTOGRAPHS

KU-3 Depth 30.0-40.0m

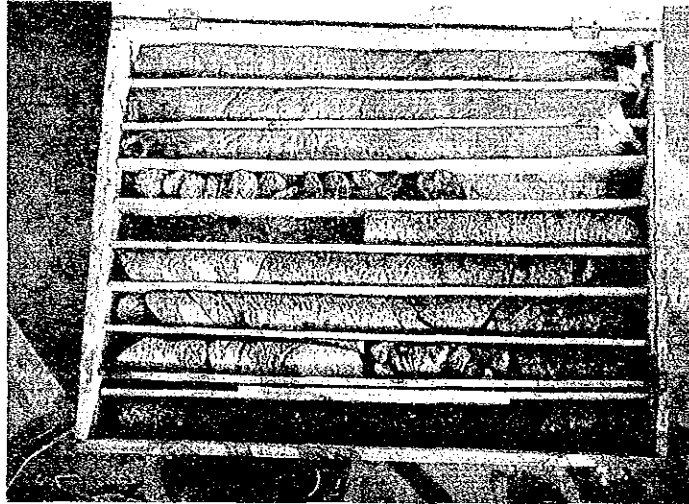


KU-3 Depth 40.0-50.0m

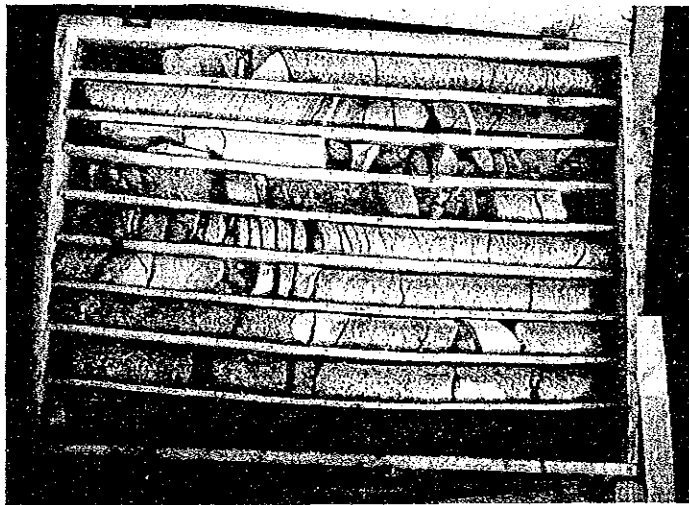


CORE PHOTOGRAPHS

KL-1 Depth 0.0-9.0m



KL-1 Depth 9.0-18.0m

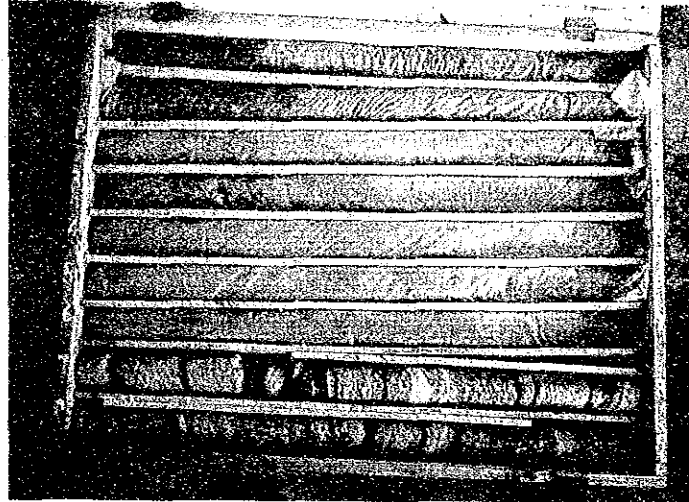


KL-1 Depth 18.0-20.0m

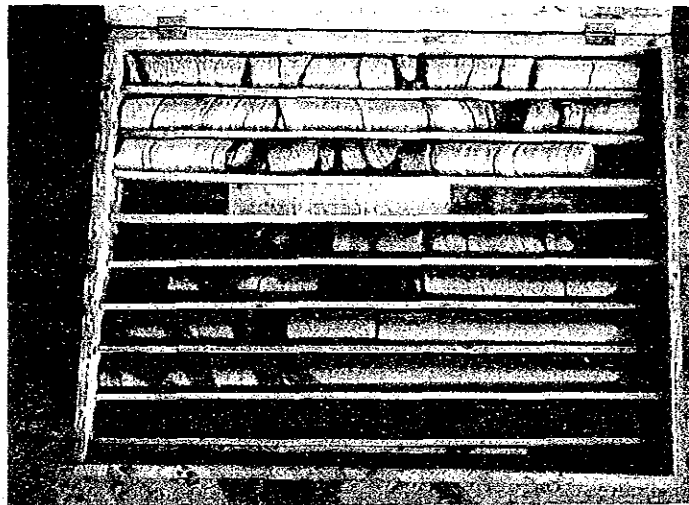


CORE PHOTOGRAPHS

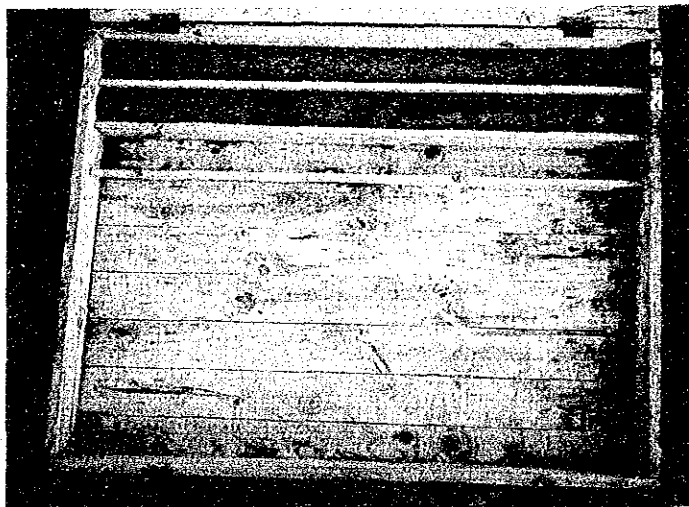
KL-2 Depth 0.0-9.0m



KL-2 Depth 9.0-18.0m

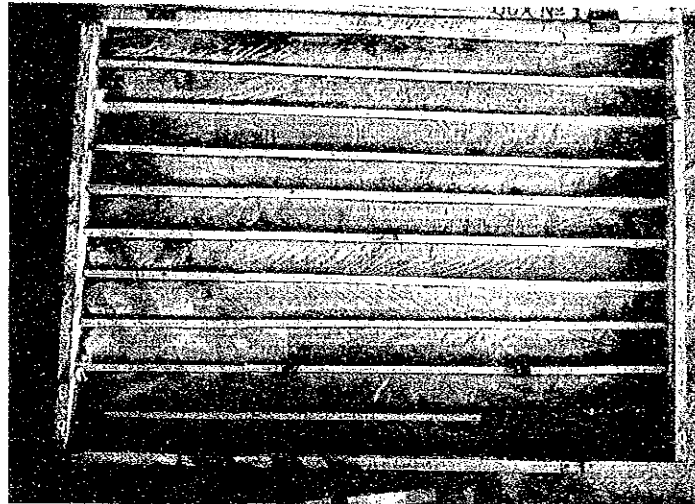


KL-2 Depth 18.0-20.0m

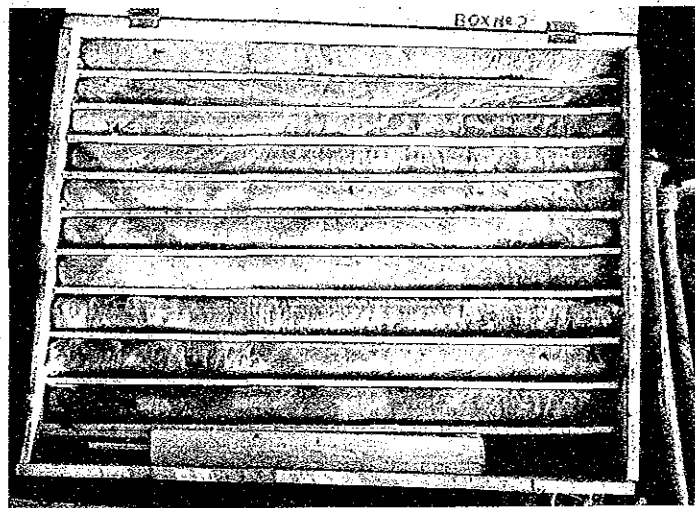


CORE PHOTOGRAPHS

KL-3 Depth 0.0-10.0m

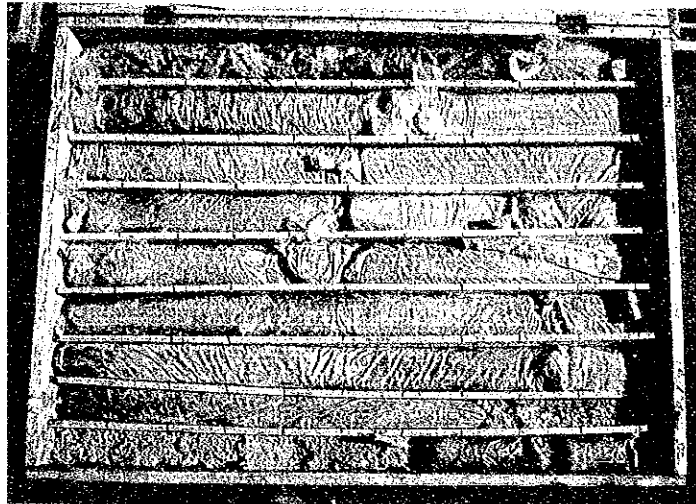


KL-3 Depth 10.0-20.0m

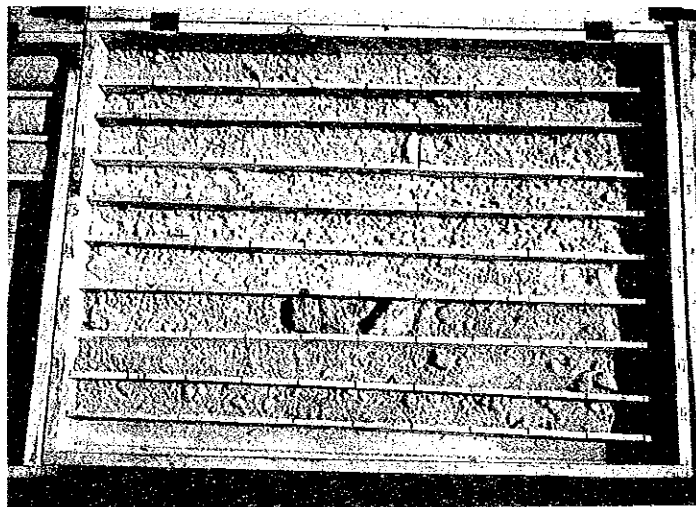


CORE PHOTOGRAPHS

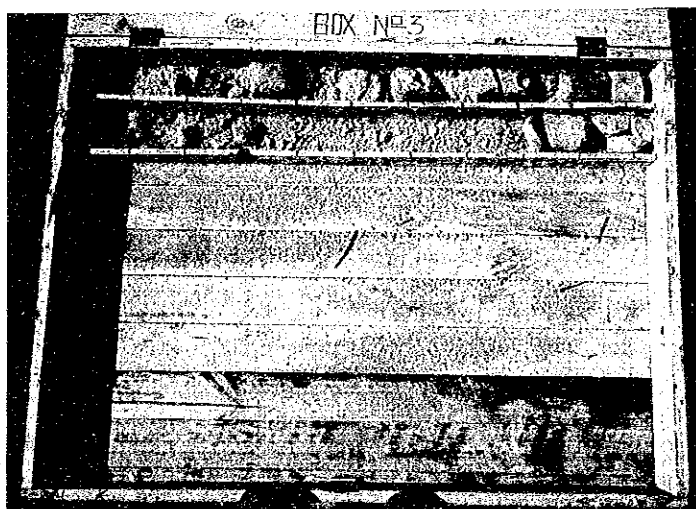
KL-4 Depth 0.0-9.0m



KL-4 Depth 9.0-18.0m

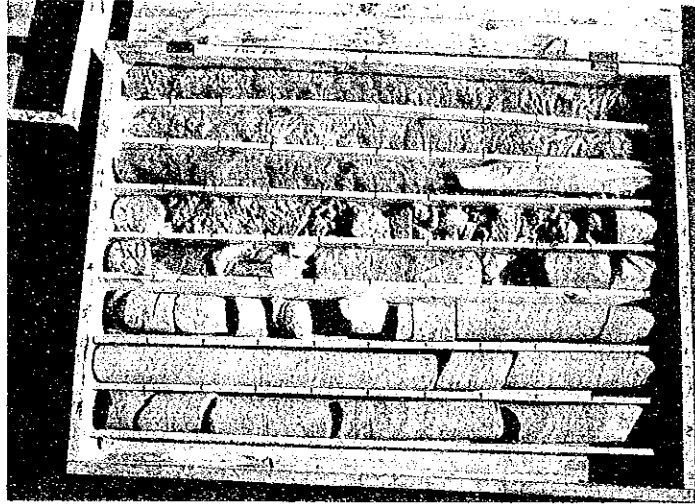


KL-4 Depth 18.0-20.0m

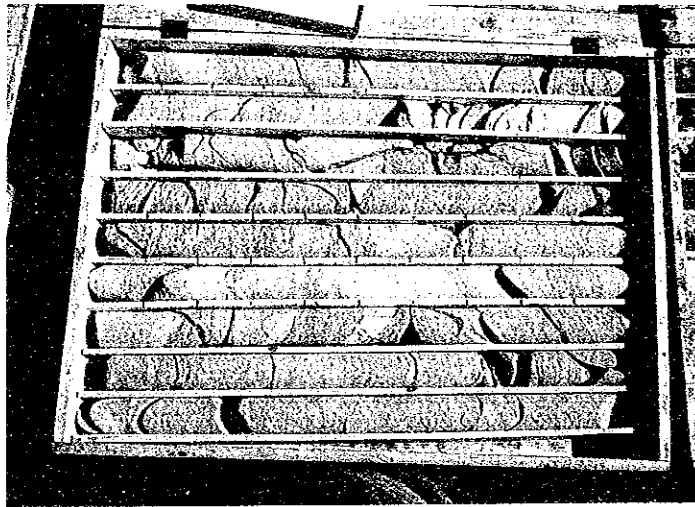


CORE PHOTOGRAPHS

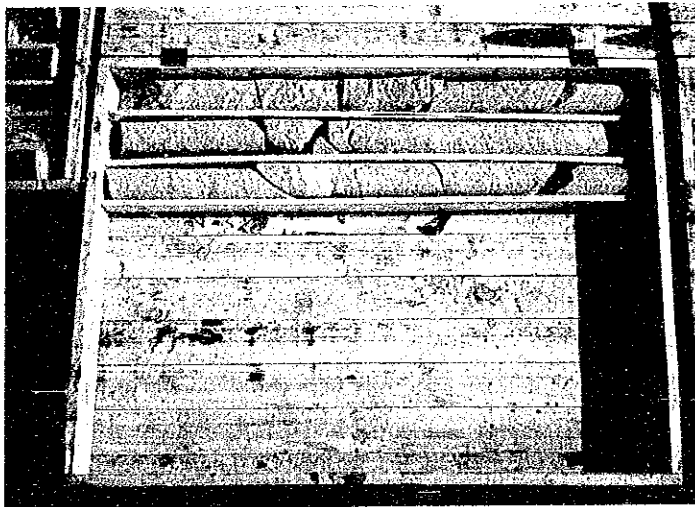
KL-5 Depth 0.0-8.0m



KL-5 Depth 8.0-17.0m

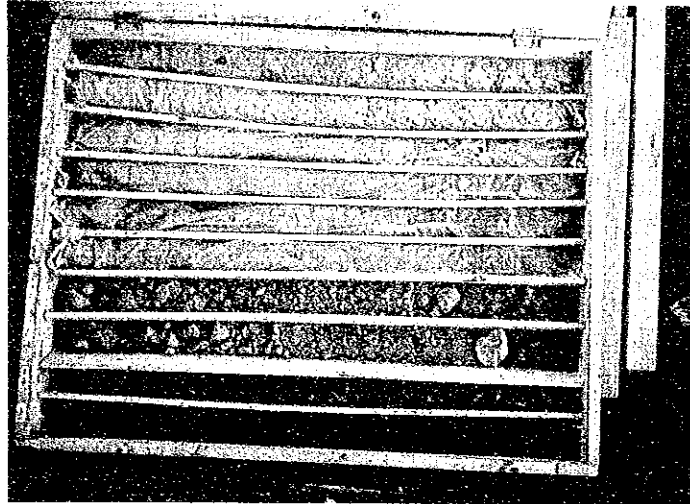


KL-5 Depth 17.0-20.0m

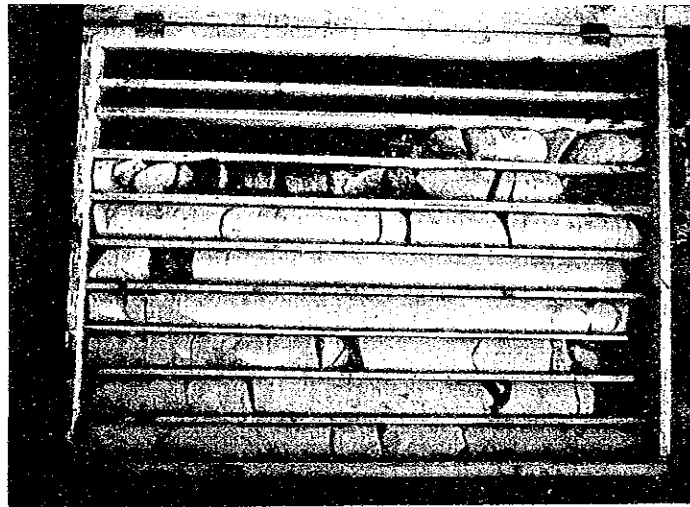


CORE PHOTOGRAPHS

KM-1 Depth 0.0-10.0m



KM-1 Depth 10.0-20.0m



CORE PHOTOGRAPHS

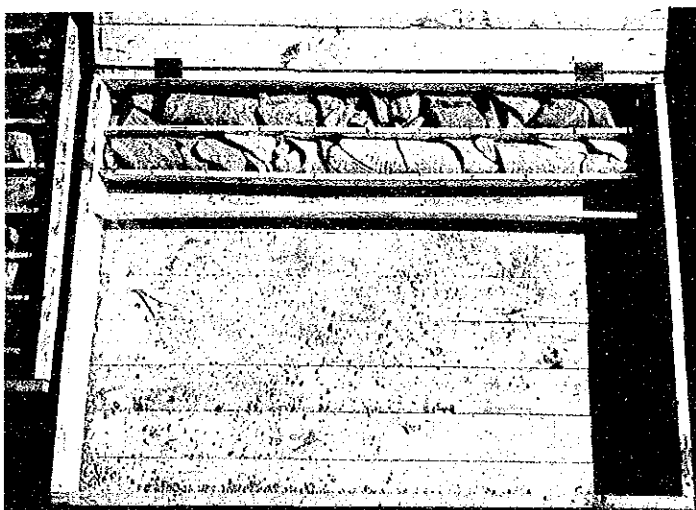
KM-2 Depth 0.0-10.0m



KM-2 Depth 10.0-18.0m



KM-2 Depth 18.0-20.0m



A-2-5 Microscopic Observation

Microscopic Observation

Sheet of

Project; Kihansi Hydroelectric Power Development Project.

Locality; Drillhole KU-1, Depth 34.0m, Upper Damsite.

Sample No.; K - 1 Slice No.; K - 1

Rock name ; Biotite psammitic gneiss

Texture ; Dynamothermal metamorphism. Gneissose fabric - Cataclastic fabric.
Psammitic type, holocrystalline, equi-granular banded structure.
Granoblastic - Lepidoblastic texture and Porphyroblastic texture.

	Name	Characteristics
Rock forming mineral	Constituents : Granoblastic fraction : - Lepidoblastic fraction : Porphyroblastic portion :	0.1 - 0.8 - 3.0 mm., in size. consisting of chiefly quartz (elongated) - orthoclase - microcline - plagioclase (oligoclase, An _{27/25}), and retained as the palimpsest the original grain-boundaries of psammitic facies. consisting of chiefly biotite (brown type), associating with epidote - sphene granules. plagioclase with poikiloblastic inclusions.
Description	This rock was determined by the granoblastic - lepidoblastic texture and the psammitic palimpsests.	
Degree of alteration		

Occurrence;

Macroscopic observation;
 This rock is the coarse grained, leucocratic, crystalline, and gneissic rock.

Microscopic Observation

Sheet of

Project; Kihansi Hydroelectric Power Development Project.

Locality; Drillhole Kl-1, Depth 18.4m, Lower Damsite.

Sample No.; K - 2 Slice No.; K - 2

Rock name ; Lamprophyre --- Comptonite ---

Texture ; Hypabyssal rocks, holocrystalline, granophyric structure.
porphyritic texture.
Bostonitic texture in groundmass.

	Name	Characteristics
Rock forming mineral	Constituents : Porphyritic phenocrysts : In groundmass, bostonitic texture :	0.3 - 1.5 mm., in size. Amphibole (Berkevikite, darkish brown, masked, Extinction angle 19°, birefringence 0.013) - olivine pseudomorphs (replaced serpentines) Plagioclase small laths (albitized) - amphibole (berkevikite) - olivine pseudomorphs (serpentinitized)
Description	This rock was determined by the textures and the constituents, as the lamprophyre - comptonite - .	
Degree of alteration	Serpentinisation products Serpentine Biotitisation products biotite Albitisation products albite Paragenesis of garnets	

Occurrence;

Macroscopic observation;

This rock is the fine grained, melanocratic, holocrystalline, and homogeneous rocks.

Microscopic Observation

Sheet of

Project; Kihansi Hydroelectric Power Development Project.

Locality; Drillhole KL-2, Depth 20.0m, Lower Damsite.

Sample No.; K - 3 Slice No.; K - 3

Rock name ; Gneissic amphibolite

Texture ; Dynamothermal metamorphism. Gneissose fabric, holocrystalline, equi-granular banded structure.
Granoblastic - nematoblastic texture, and porphyroblastic texture.

	Name	Characteristics
Rock forming mineral	Constituents : Granoblastic texture : Nematoblastic texture : Porphyroblastic texture :	0.1 - 1.0 - 1.5 mm., in size. Quartz - plagioclase (oligoclase - andesine, An) .- Hornblende (green variety, very abundantly) with a few biotite - garnet - haematite. Hornblende (green type, sieved by poikiloblastic texture).
Description	This rock was determined by the textures and the constituents, as the amphibolite, derived from the basic igneous rocks.	
Degree of alteration		

Occurrence;

Macroscopic observation;
This rock is the medium grained, melanocratic, and gneissose banded rocks.

Microscopic Observation

Sheet of

Project; Kihansi Hydroelectric Power Development Project.

Locality; Right bank of Lower Damsite.

Sample No.; K - 4 Slice No.; K - 4

Rock name ; Biotite psammitic gneiss

Texture ; Dynamothermal metamorphism. Gneissose fabric - Granulose fabric.
Psammitic type, holocrystalline, equi-granular banded structure.
Granoblastic - lepidoblastic texture.

	Name	Characteristics
Rock forming mineral	Constituents : Granoblastic -Granulose texture : Lepidoblastic texture :	0.2 - 2.0 mm., in size. Quartz - plagioclase - microcline (very abundant) , associating with the mozaic interlocked sub-equigranular grain -boundaries of psammitic palimpsest. Biotite (brown type) with a few epidote and garnet granules.
Description	This rock was determined by the textures and constituents of psammitic palimpsests, as the biotite psammitic gneiss.	
Degree of alteration		

Occurence;

Macroscopic observation;

This rock is the medium to coarse grained, leucocratic, banded and granulose rocks.

A-2-6 Microscopic Photograph

Microscopic Photograph

Sheet 2 of

Project ; Locality ; The KL - 1 boring, 18.4 m.

Sample No. ; K - 2 Slice No. ; K - 2

Rock Name ; Lamprophyre - Comptonite -



Film No. 3

Parallel polars Magn. X 20



Film No. 4

Crossed polars Magn. X 20 0 0.7 mm. Scale

Microscopic Photograph

Sheet 1 of

Project ; Locality ; The KU - 1 boring, 34 m.

Sample No. ; K - 1 Slice No. ; K - 1

Rock Name ; Biotite psammitic gneiss



Film No. 9

Parallel polars Magn. X 40



Film No. 10

Crossed polars Magn. X 40 0 0.35 mm. Scale

Microscopic Photograph

Sheet 4 of

Project ; _____ Locality ; The outcrops of Dam-site.

Sample No. ; K - 4 _____ Slice No. ; K - 4

Rock Name ; _____ Biotite psammitic gneiss



Film No. 7

Parallel polars Magn. X 20



Film No. 8

Crossed polars Magn. X 20 0.7 mm. Scale

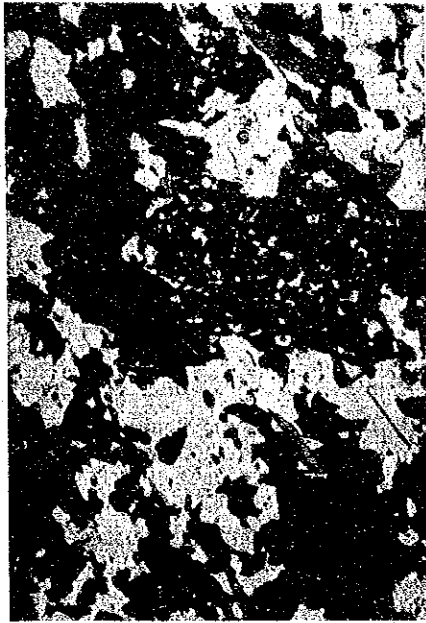
Microscopic Photograph

Sheet 3 of

Project ; _____ Locality ; The KL - 2 boring, 20.0 m.

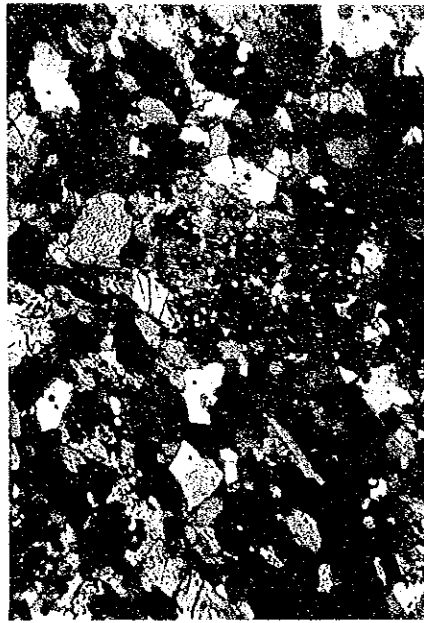
Sample No. ; K - 3 _____ Slice No. ; K - 3

Rock Name ; _____ Gneissic amphibolite



Film No. 5

Parallel polars Magn. X 20



Film No. 6

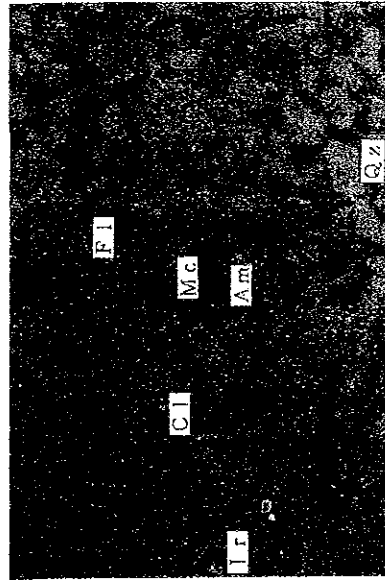
Crossed polars Magn. X 20 0.7 mm. Scale

MICROSCOPIC PHOTOGRAPH

Project Name: _____
 Sample No. : L-2



0 1mm CROSS 4x10

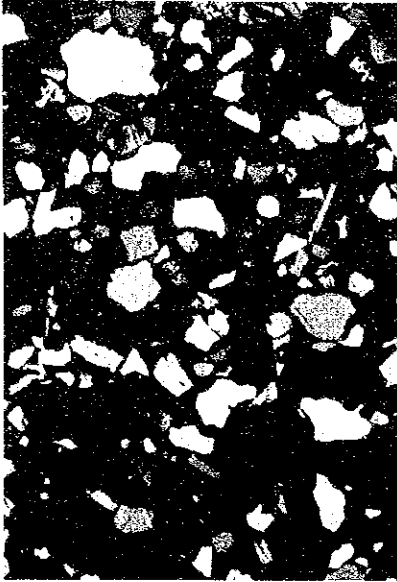


0 1mm OPEN 4x10

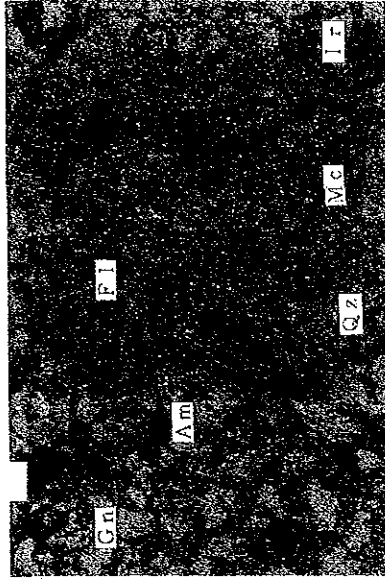
EX. QZ.: Quartz Am.: Amphibole Cl.: Claymineral
 FI.: Feldspar Mc.: Mica Ir.: Ironmineral
 Gn.: Garnet

MICROSCOPIC PHOTOGRAPH

Project Name: _____
 Sample No. : L-1



0 1mm CROSS 4x10



0 1mm OPEN 4x10

EX. QZ.: Quartz Am.: Amphibole Cl.: Claymineral
 FI.: Feldspar Mc.: Mica Gn.: Garnet
 Ir.: Ironmineral

A-2-7 X-ray Analysis Data

