

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1088

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1088

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1089

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1089

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1089

Trial Pit Photograph



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Land East of Hemel Hempstead

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Client:

The Crown Estate

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TP1089

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1090

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1090

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1090

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1090

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1091

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1091

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1091

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1091

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1092

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1092

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1092

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1092

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1093

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1093

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1093

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1093

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1094

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1094

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1094

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1094

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1095

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1095

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1095

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1095

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1096

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1096

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1096

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1096

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1097

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1097

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1097

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1097

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1098

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1098

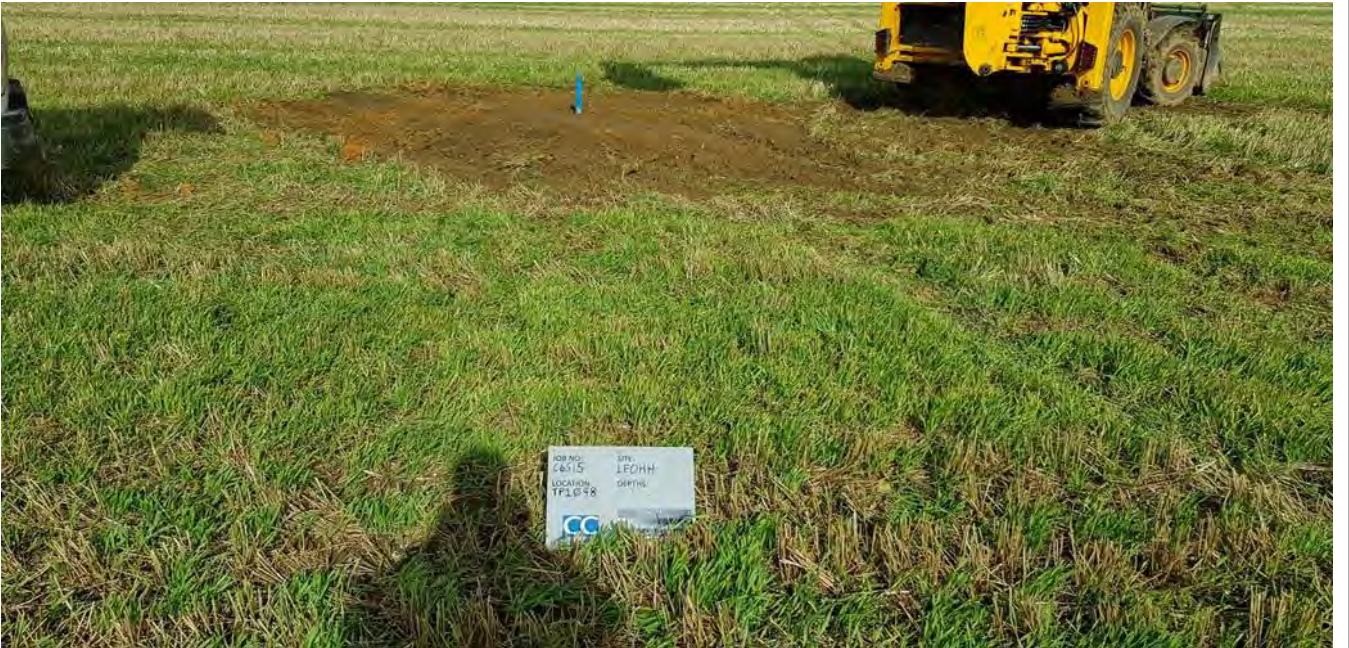
Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1098

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1098

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1099

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1099

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1099

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1099

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1100

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1100

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1100

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1100

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1101

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1101

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1101

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1101

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1102

Trial Pit Photograph



JOB NO: C6515 SITE: LEOHH
LOCATION: TP1102 DEPTH: 2.00-4.00m



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1102

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1102

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1102

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1103

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1103

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1103

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1103

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1104

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1104

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1104

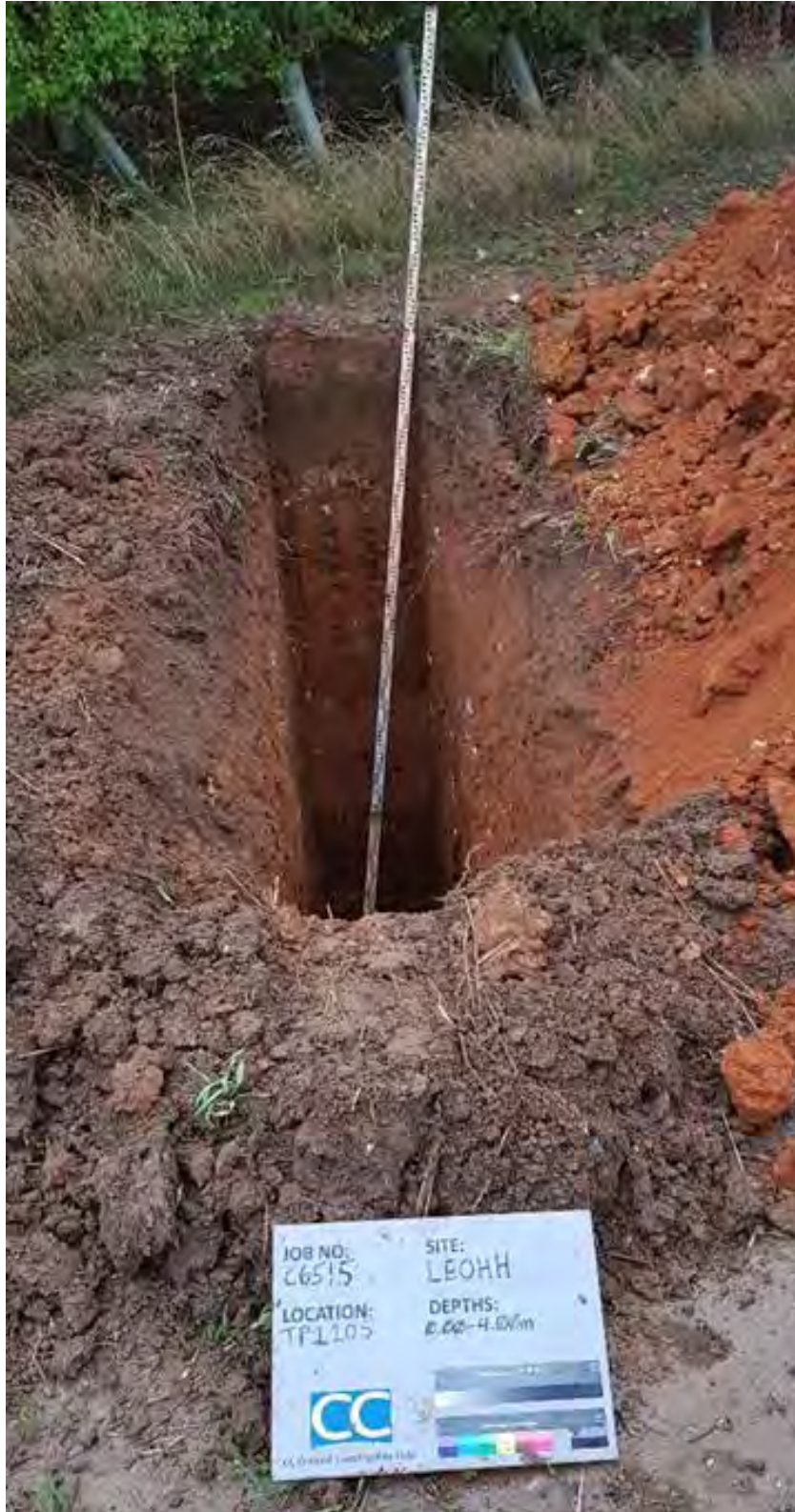
Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1105

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel
Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1105

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1105

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1105

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1106

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1106

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1106

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1106

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1107

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1107

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	Land East of Hemel Hempstead
Contract ID:	C6515
Client:	The Crown Estate
Hole ID:	TP1107

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:

Land East of Hemel Hempstead

Contract ID:

C6515

Client:

The Crown Estate

Hole ID:

TP1107

APPENDIX D

Geotechnical Laboratory Test Results



LABORATORY REPORT



4043

Contract Number: PSL19/7109

Report Date: 18 December 2019
Client's Reference: C6515
Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Richard Tucker

Contract Title: Land East of Hemel Hempstead GI
Date Received: 20/11/2019
Date Commenced: 20/11/2019
Date Completed: 16/12/2019

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:



R Gunson
(Director)

A Watkins
(Director)

R Berriman
(Quality Manager)

S Royle
(Laboratory Manager)

S Eyre
(Senior Technician)

L Knight
(Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AR
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awatkins@prosoils.co.uk

Page 1 of

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CPBH1001		B	1.00		Brown slightly gravelly slightly sandy CLAY.
CPBH1001		B	5.00	5.50	Brown slightly gravelly CLAY.
CPBH1001		B	5.90	6.40	White CHALK.
CPBH1001		B	8.00	8.50	White CHALK.
CPBH1001		B	11.00	11.50	White CHALK.
CPBH1001		B	14.00	14.50	White CHALK.
CPBH1002		B	1.20	1.70	Brown sandy CLAY.
CPBH1002		B	4.20	4.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1002		B	8.00	8.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1002		B	12.00	12.50	Brown very gravelly sandy CLAY.
CPBH1002		B	13.10	13.60	Brown slightly gravelly slightly sandy CLAY with chalk.
CPBH1002		B	14.00	14.50	White CHALK.
CPBH1003		B	1.20	1.70	Brown slightly gravelly very sandy CLAY.
CPBH1003		B	5.00	5.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1003		B	6.50	7.00	White CHALK.
CPBH1003		B	8.00	8.50	Brown slightly gravelly slightly sandy CLAY with chalk.
CPBH1003		B	11.00	11.50	White CHALK.
CPBH1003		B	14.00	14.50	White CHALK.
CPBH1004		B	1.20	1.70	Brown slightly gravelly slightly sandy CLAY.



Land East of Hemel Hempstead GI

Contract No:

PSL19/7109

Client Ref:

C6515

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CPBH1004		B	3.20	3.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1004		B	6.00	6.50	Brown slightly gravelly CLAY.
CPBH1004		B	7.50	8.00	White CHALK.
CPBH1004		B	10.00	10.50	White CHALK.
CPBH1004		B	13.00	13.50	White CHALK.
CPBH1005		B	0.50		Brown sandy CLAY.
CPBH1005		B	1.20	1.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1005		B	2.20	2.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1005		B	8.00	8.50	Brown gravelly slightly sandy CLAY.
CPBH1005		B	9.60	10.00	Brown slightly gravelly slightly sandy CLAY with chalk.
CPBH1005		B	11.00	11.50	White CHALK.
CPBH1005		B	14.00	14.50	White CHALK.
CPBH1006		B	0.50	0.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1006		B	3.00	3.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1006		UT100	4.00	4.45	Brown slightly gravelly sandy CLAY.
CPBH1006		UT100	6.50	6.95	Stiff reddish brown sandy CLAY.
CPBH1006		B	7.00	7.50	Brown slightly gravelly CLAY.
CPBH1006		B	8.00	8.50	White CHALK.
CPBH1006		B	10.00	10.50	White CHALK.



Land East of Hemel Hempstead GI

Contract No:

PSL19/7109

Client Ref:

C6515

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CPBH1006		B	13.00	13.50	White CHALK.
CPBH1006		D	15.00	15.45	White CHALK.
CPBH1007		B	1.20	1.70	Reddish brown slightly sandy CLAY.
CPBH1007		B	3.00	3.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1007		B	6.00	6.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1007		B	7.00	7.50	White CHALK.
CPBH1007		B	9.00	9.50	White CHALK.
CPBH1007		B	12.00	12.50	White CHALK.
CPBH1007		D	15.00	15.45	White CHALK.
CPBH1008		B	0.50	0.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1008		B	1.20	1.70	Brown gravelly slightly sandy CLAY.
CPBH1008		B	5.00	5.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1008		D	6.50	6.95	White CHALK.
CPBH1008		D	8.00	8.45	White CHALK.
CPBH1008		D	11.00	11.45	White CHALK.
CPBH1008		D	14.00	14.45	White CHALK.
CPBH1009		B	0.70	1.20	Brown gravelly slightly sandy CLAY.
CPBH1009		B	2.00	2.50	Brown mottled grey slightly sandy CLAY.
CPBH1009		B	4.00	4.50	Brown gravelly CLAY.



PSL
Professional Soils Laboratory

Land East of Hemel Hempstead GI

Contract No:

PSL19/7109

Client Ref:

C6515

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CPBH1009		D	9.50	9.95	Brown slightly gravelly sandy CLAY.
CPBH1009		B	11.00	11.50	Brown slightly sandy CLAY.
CPBH1009		B	15.00	15.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1009		B	16.50	17.00	Brown slightly gravelly slightly sandy CLAY with chalk.
CPBH1009		B	18.00	18.50	White CHALK.
CPBH1009		B	19.50	20.00	White CHALK.
CPBH1010		B	0.50	0.70	Brown slightly gravelly very sandy CLAY.
CPBH1010		B	2.00	2.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1010		B	5.00	5.50	Brown slightly gravelly CLAY.
CPBH1010		D	6.50	6.95	Brown gravelly slightly sandy CLAY.
CPBH1010		B	7.00	7.50	White CHALK.
CPBH1010		B	9.00	9.50	White CHALK.
CPBH1010		B	12.00	12.50	White CHALK.
CPBH1010		D	15.00	15.45	White CHALK.
CPBH1011		B	0.50	0.70	Brown gravelly slightly sandy CLAY.
CPBH1011		B	2.00	2.50	Brown very gravelly slightly sandy CLAY.
CPBH1011		B	4.00	4.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1011		D	6.50	6.95	White CHALK.
CPBH1011		B	8.00	8.50	White CHALK.



PSL
Professional Soils Laboratory

Land East of Hemel Hempstead GI

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PSL19/7109

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C6515

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CPBH1011		D	11.00	11.45	White CHALK.
CPBH1011		D	14.00	14.45	White CHALK.
CPBH1012		B	1.00	1.20	Brown gravelly slightly sandy CLAY.
CPBH1013		B	1.20	1.70	White CHALK.
CPBH1013		B	5.00	5.50	White CHALK.
CPBH1014		D	4.00	4.45	White CHALK.
CPBH1018		B	6.00	6.50	White CHALK.
CPBH1019		B	2.20	2.70	White CHALK.
CPBH1019		B	11.00	11.50	White CHALK.
CPBH1020		UT100	1.20	1.65	Stiff reddish brown CLAY.
CPBH1020		UT100	3.20	3.65	Brown slightly gravelly CLAY.
CPBH1021		SPT	1.20	1.65	Brown slightly gravelly slightly sandy CLAY.
CPBH1021		UT100	2.00	2.45	Brown slightly gravelly sandy CLAY.
CPBH1021		B	5.00	5.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1021		B	6.00	6.50	Brown gravelly slightly sandy CLAY.
CPBH1022		UT100	2.00	2.45	Brown slightly gravelly sandy CLAY.
CPBH1022		B	3.00	3.50	Brown very sandy CLAY.
CPBH1022		UT100	4.00	4.45	Stiff brown sandy CLAY.
CPBH1022		B	5.00	5.50	Brown very gravelly sandy CLAY.



PSL
Professional Soils Laboratory

Land East of Hemel Hempstead GI

Contract No:

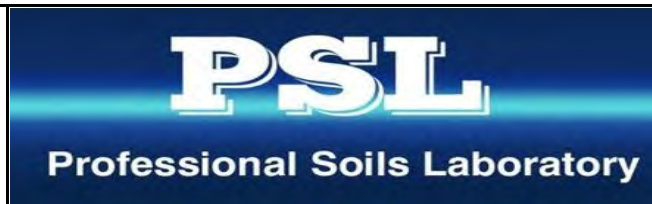
PSL19/7109

Client Ref:

C6515

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CPBH1024		SPT	1.20	1.65	Brown slightly gravelly slightly sandy CLAY.
CPBH1024		UT100	3.00	3.45	Brown slightly gravelly slightly sandy CLAY.
CPBH1024		B	6.00	6.50	White CHALK.
CPBH1024		D	6.50	6.95	White CHALK.
CPBH1024		D	11.00	11.45	White CHALK.
CPBH1025		B	4.20	4.70	White CHALK.
CPBH1025		B	8.00	8.50	White CHALK.
CPBH1025		B	12.50	13.00	White CHALK.
CPBH1026		B	2.20	2.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1027		B	6.50	7.00	Brown slightly gravelly slightly sandy CLAY.
CPBH1027		B	9.50	10.00	White CHALK.
CPBH1029		SPT	1.20	1.65	Brown slightly gravelly slightly sandy CLAY.
CPBH1029		UT100	2.00	2.45	Brown slightly gravelly slightly sandy CLAY.
CPBH1029		B	4.00	4.50	White CHALK.
CPBH1031		B	1.20	1.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1032		B	1.00		Brown slightly gravelly slightly sandy CLAY.
CPBH1033		B	1.20	1.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1033		B	2.20	2.70	Brown gravelly slightly sandy CLAY.
CPBH1033		B	3.50	4.00	White CHALK.



Land East of Hemel Hempstead GI

Contract No:
PSL19/7109
Client Ref:
C6515

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CPBH1033		B	5.00	5.50	White CHALK.
CPBH1033		B	10.00	10.50	White CHALK.
CPBH1034		B	0.50		Brown slightly gravelly CLAY.
CPBH1034		B	2.20	2.70	Brown slightly sandy CLAY.
CPBH1034		B	3.20	3.70	Brown very gravelly slightly sandy CLAY.
CPBH1034		B	5.00	5.50	Brown mottled grey slightly gravelly slightly sandy CLAY.
CPBH1034		B	7.00	7.50	Brown very gravelly slightly sandy CLAY.
CPBH1034		B	8.00	8.80	White CHALK.
CPBH1036		B	0.50	0.70	Brown gravelly sandy CLAY.
CPBH1037		B	3.20	3.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1037		B	4.20	4.70	Reddish brown sandy CLAY.
CPBH1037		B	5.00	5.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1037		B	11.00	11.50	White CHALK.
CPBH1039		B	0.50	0.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1039		SPT	2.00	2.45	Brown slightly gravelly sandy CLAY.
CPBH1039		B	3.00	3.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1039		B	4.00	4.50	White CHALK.
CPBH1039		B	5.00	5.50	White CHALK.
CPBH1040		UT100	3.00	3.45	Brown slightly gravelly sandy CLAY.

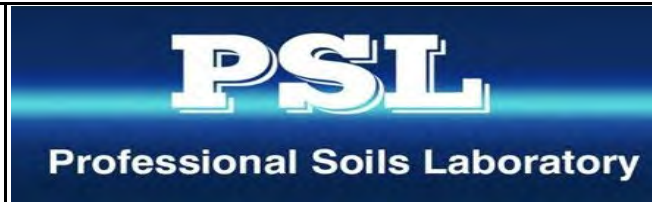


Land East of Hemel Hempstead GI

Contract No:
PSL19/7109
Client Ref:
C6515

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CPBH1040		B	9.00	9.50	White CHALK.
CPBH1041		B	5.00	5.50	Brown slightly gravelly CLAY.
CPBH1041		B	6.50	7.00	Brown slightly gravelly slightly sandy CLAY.
CPBH1041		B	8.00	8.50	White CHALK.
CPBH1042		B	1.20	1.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1042		B	2.00	2.50	Brown slightly gravelly CLAY.
CPBH1042		B	3.00	3.50	Brown very gravelly sandy CLAY.
CPBH1042		B	4.00	4.50	Reddish brown very gravelly slightly sandy CLAY.
CPBH1042		SPT	6.50	6.95	White CHALK.
CPBH1043		B	1.20	1.70	Brown very gravelly very sandy CLAY.
CPBH1043		B	3.00	3.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1043		B	4.00	4.50	Brown CLAY.
CPBH1043		B	7.00	7.50	Brown slightly gravelly slightly sandy CLAY.
CPBH1044		B	1.20	1.70	Brown slightly gravelly slightly sandy CLAY.
CPBH1044		B	3.00	3.50	Brown slightly sandy CLAY.
CPBH1044		B	4.00	4.50	Brown mottled grey gravelly slightly sandy CLAY.
CPBH1044		B	5.00	5.50	Brown very gravelly slightly sandy CLAY with cobbles.
CPBH1044		B	6.00	6.50	White CHALK.
CPBH1045		B	0.50	0.70	White CHALK.



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C6515

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
CPBH1001		B	1.00		29		66	27	39	96	High plasticity CH.
CPBH1001		B	5.00	5.50	35		81	32	49	95	Very high plasticity CV.
CPBH1001		B	5.90	6.40	32		42	25	17	100	Intermediate plasticity CI.
CPBH1001		B	8.00	8.50	28		40	23	17	100	Intermediate plasticity CI.
CPBH1001		B	11.00	11.50	28		35	20	15	93	Intermediate plasticity CI.
CPBH1001		B	14.00	14.50	28		42	22	20	100	Intermediate plasticity CI.
CPBH1002		B	1.20	1.70	29		50	25	25	98	Intermediate plasticity CI.
CPBH1002		B	4.20	4.70	35		92	33	59	98	Extremely high plasticity CE.
CPBH1002		B	8.00	8.50	36		95	34	61	95	Extremely high plasticity CE.
CPBH1002		B	12.00	12.50	23		40	21	19	68	Intermediate plasticity CI.
CPBH1002		B	13.10	13.60	33		75	29	46	74	Very high plasticity CV.
CPBH1002		B	14.00	14.50	25		39	23	16	70	Intermediate plasticity CI.
CPBH1003		B	1.20	1.70	15		31	17	14	86	Intermediate plasticity CI.
CPBH1003		B	5.00	5.50	34		73	27	46	96	Very high plasticity CV.
CPBH1003		B	6.50	7.00	34		43	23	20	72	Intermediate plasticity CI.
CPBH1003		B	8.00	8.50	36		74	28	46	91	Intermediate plasticity CI.
CPBH1003		B	11.00	11.50	33		45	23	22	77	Intermediate plasticity CI.
CPBH1003		B	14.00	14.50	25		55	28	27	76	High plasticity CH.
CPBH1004		B	1.20	1.70	26		58	25	33	96	High plasticity CH.

SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.



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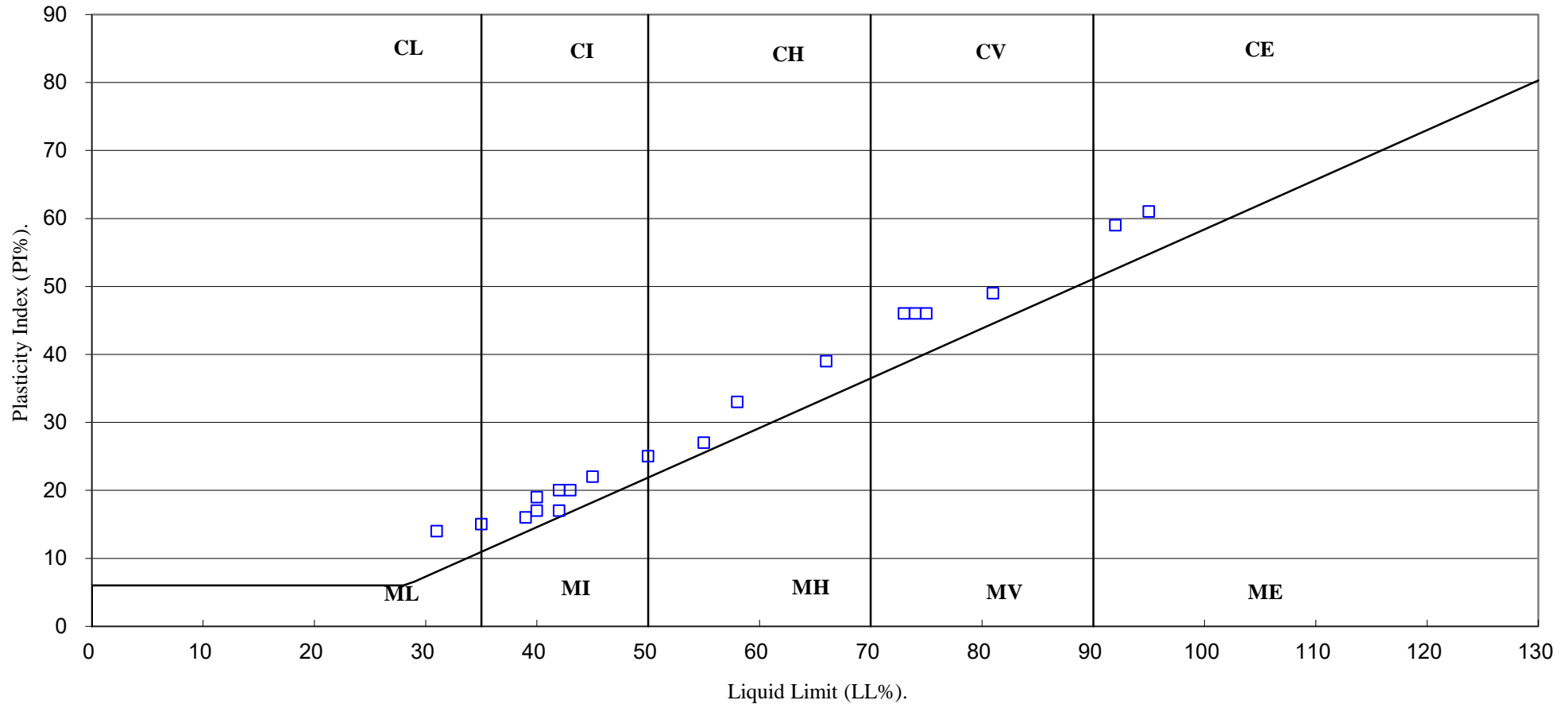
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PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



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Contract No:

PSL19/7109

Client Ref:

C6515

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
CPBH1004		B	3.20	3.70	32		84	30	54	94	Very high plasticity CV.
CPBH1004		B	6.00	6.50	43		92	32	60	96	Extremely high plasticity CE.
CPBH1004		B	7.50	8.00	34		43	25	18	76	Intermediate plasticity CI.
CPBH1004		B	10.00	10.50	30		45	26	19	74	Intermediate plasticity CI.
CPBH1004		B	13.00	13.50	28		40	23	17	80	Intermediate plasticity CI.
CPBH1005		B	0.50		24		63	27	36	100	High plasticity CH.
CPBH1005		B	1.20	1.70	29		86	30	56	89	High plasticity CH.
CPBH1005		B	2.20	2.70	29		71	25	46	95	Very high plasticity CV.
CPBH1005		B	8.00	8.50	34		71	38	33	86	Very high plasticity MV.
CPBH1005		B	9.60	10.00	32		76	29	47	78	Very high plasticity CV.
CPBH1005		B	11.00	11.50	29		42	23	19	79	Intermediate plasticity CI.
CPBH1005		B	14.00	14.50	31		46	26	20	100	Intermediate plasticity CI.
CPBH1006		B	0.50	0.70	21		63	24	39	90	High plasticity CH.
CPBH1006		B	3.00	3.50	27		66	25	41	93	High plasticity CH.
CPBH1006		B	7.00	7.50	39		90	34	56	96	Extremely high plasticity CE.
CPBH1006		B	8.00	8.50	29		39	24	15	81	Intermediate plasticity CI.
CPBH1006		B	10.00	10.50	29		36	25	11	84	Intermediate plasticity MI.
CPBH1006		B	13.00	13.50	33		42	27	15	100	Intermediate plasticity MI.
CPBH1006		D	15.00	15.45	31		40	26	14	100	Intermediate plasticity MI.

SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.



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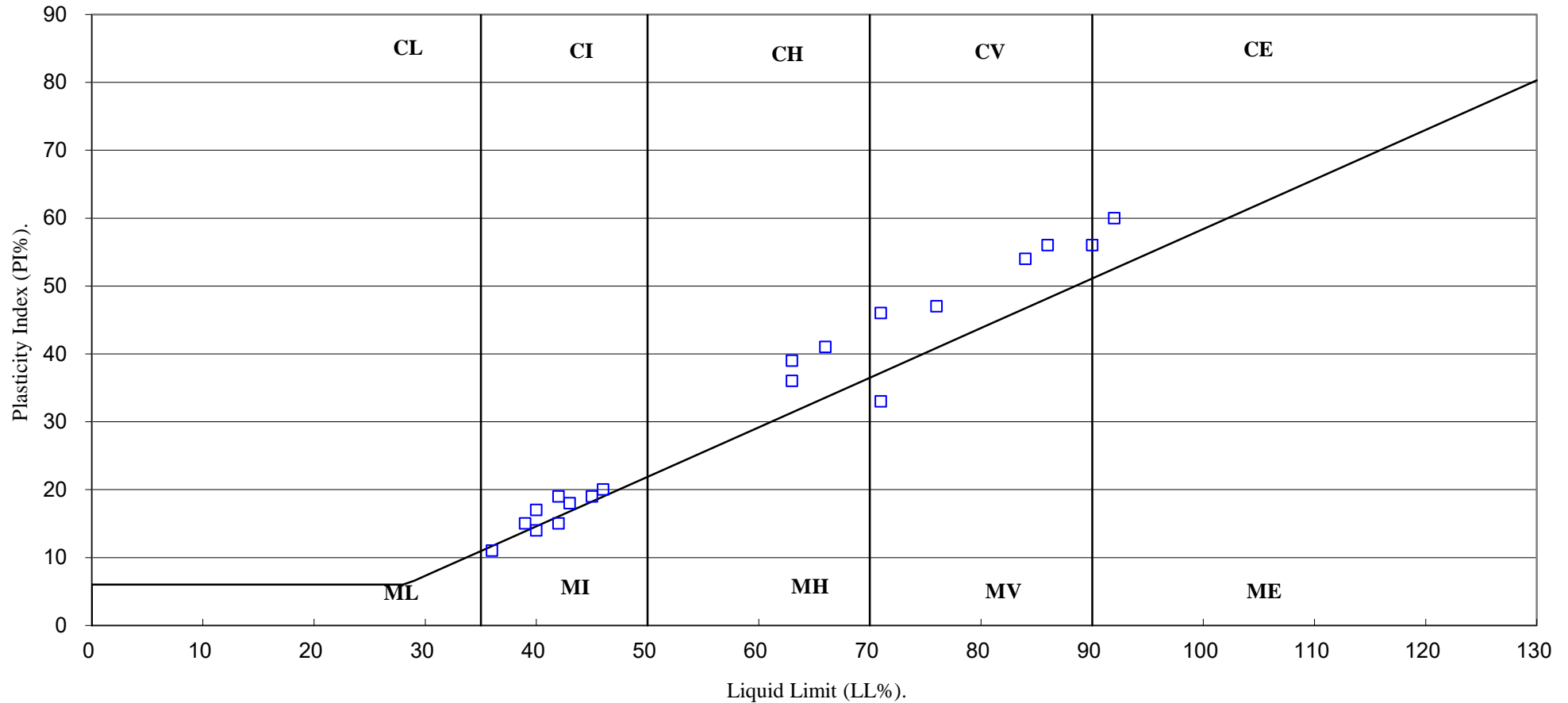
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PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



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Contract No:

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Client Ref:

C6515

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
CPBH1007		B	1.20	1.70	26		64	24	40	99	High plasticity CH.
CPBH1007		B	3.00	3.50	24		70	29	41	96	Very high plasticity CV.
CPBH1007		B	6.00	6.50	38		71	28	43	93	Very high plasticity CV.
CPBH1007		B	7.00	7.50	28		36	22	14	79	Intermediate plasticity CI.
CPBH1007		B	9.00	9.50	28		43	27	16	82	Intermediate plasticity MI.
CPBH1007		B	12.00	12.50	30		41	25	16	84	Intermediate plasticity CI.
CPBH1007		D	15.00	15.45	30		40	26	14	100	Intermediate plasticity MI.
CPBH1008		B	0.50	0.70	29		67	27	40	95	High plasticity CH.
CPBH1008		B	1.20	1.70	17		53	26	27	83	High plasticity CH.
CPBH1008		B	5.00	5.50	28		71	28	43	95	Very high plasticity CV.
CPBH1008		D	6.50	6.95	26		39	24	15	100	Intermediate plasticity CI.
CPBH1008		D	8.00	8.45	29		36	23	13	81	Intermediate plasticity CI.
CPBH1008		D	11.00	11.45	31		43	26	17	84	Intermediate plasticity CI.
CPBH1008		D	14.00	14.45	24		35	22	13	100	Intermediate plasticity CI.
CPBH1009		B	0.70	1.20	27		68	26	42	82	High plasticity CH.
CPBH1009		B	4.00	4.50	37		92	33	59	85	Extremely high plasticity CE.
CPBH1009		D	9.50	9.95	24		54	24	30	95	High plasticity CH.
CPBH1009		B	11.00	11.50	30		70	28	42	100	Very high plasticity CV.
CPBH1009		B	15.00	15.50	38		71	29	42	94	Very high plasticity CV.

SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.



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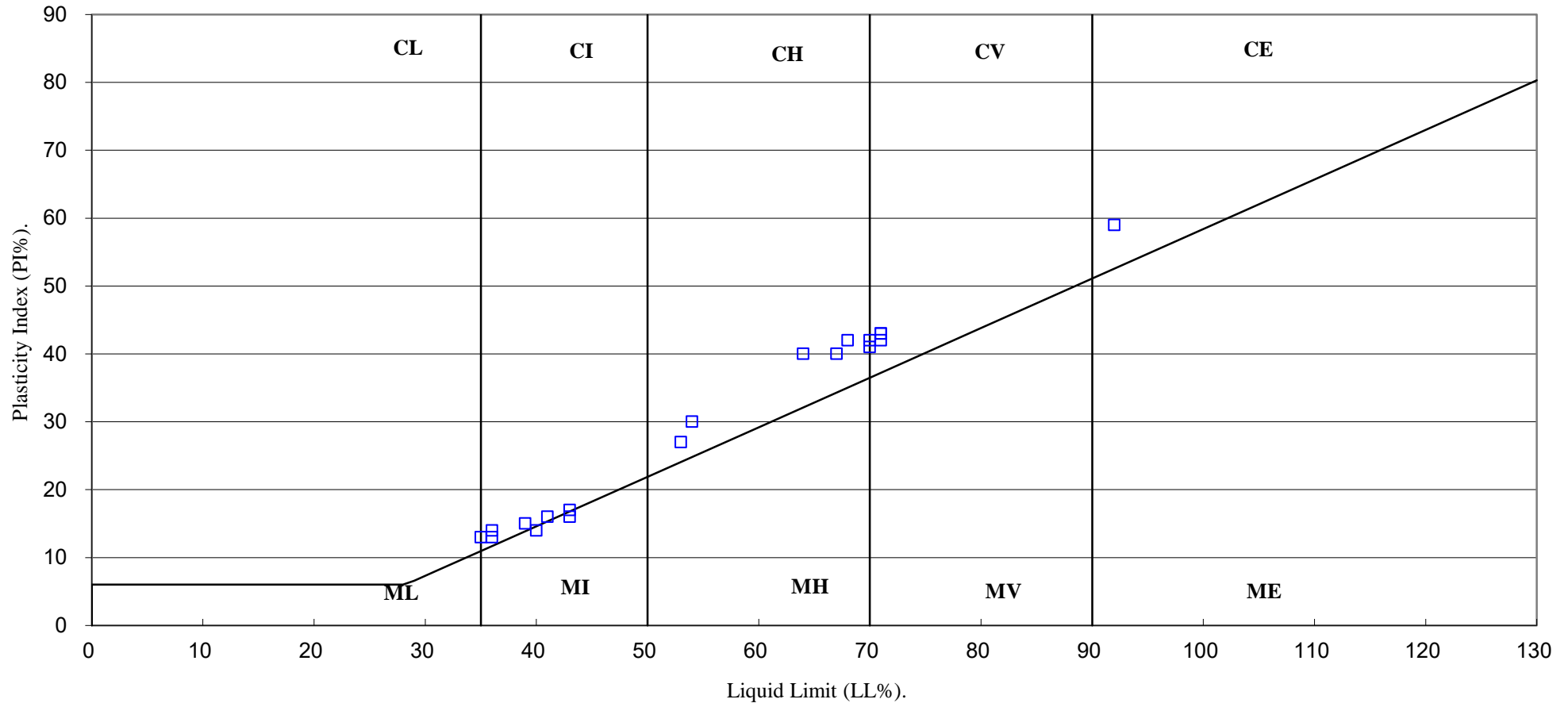
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PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



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Contract No:

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Client Ref:

C6515

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
CPBH1009		B	16.50	17.00	35		71	27	44	82	Very high plasticity CV.
CPBH1009		B	18.00	18.50	34		42	25	17	75	Intermediate plasticity CI.
CPBH1009		B	19.50	20.00	32		38	21	17	82	Intermediate plasticity CI.
CPBH1010		B	0.50	0.70	19		40	20	20	92	Intermediate plasticity CI.
CPBH1010		B	2.00	2.50	25		65	25	40	78	High plasticity CH.
CPBH1010		B	5.00	5.50	33		81	29	52	95	Very high plasticity CV.
CPBH1010		D	6.50	6.95	42		63	27	36	84	High plasticity CH.
CPBH1010		B	7.00	7.50	31		42	26	16	80	Intermediate plasticity CI.
CPBH1010		B	9.00	9.50	34		41	25	16	82	Intermediate plasticity CI.
CPBH1010		B	12.00	12.50	28		35	23	12	77	Intermediate plasticity CI.
CPBH1010		D	15.00	15.45	34		39	25	14	100	Intermediate plasticity CI.
CPBH1011		B	0.50	0.70	33		81	34	47	94	Very high plasticity CV.
CPBH1011		B	2.00	2.50	33		90	33	57	78	Very high plasticity CV.
CPBH1011		B	4.00	4.50	40		68	28	40	94	High plasticity CH.
CPBH1011		D	6.50	6.95	25		38	25	13	100	Intermediate plasticity CI.
CPBH1011		B	8.00	8.50	29		42	26	16	81	Intermediate plasticity CI.
CPBH1011		D	11.00	11.45	29		35	23	12	77	Intermediate plasticity CI.
CPBH1011		D	14.00	14.45	26		41	25	16	82	Intermediate plasticity CI.
CPBH1012		B	1.00	1.20	24		64	26	38	75	High plasticity CH.

SYMBOLS : NP : Non Plastic

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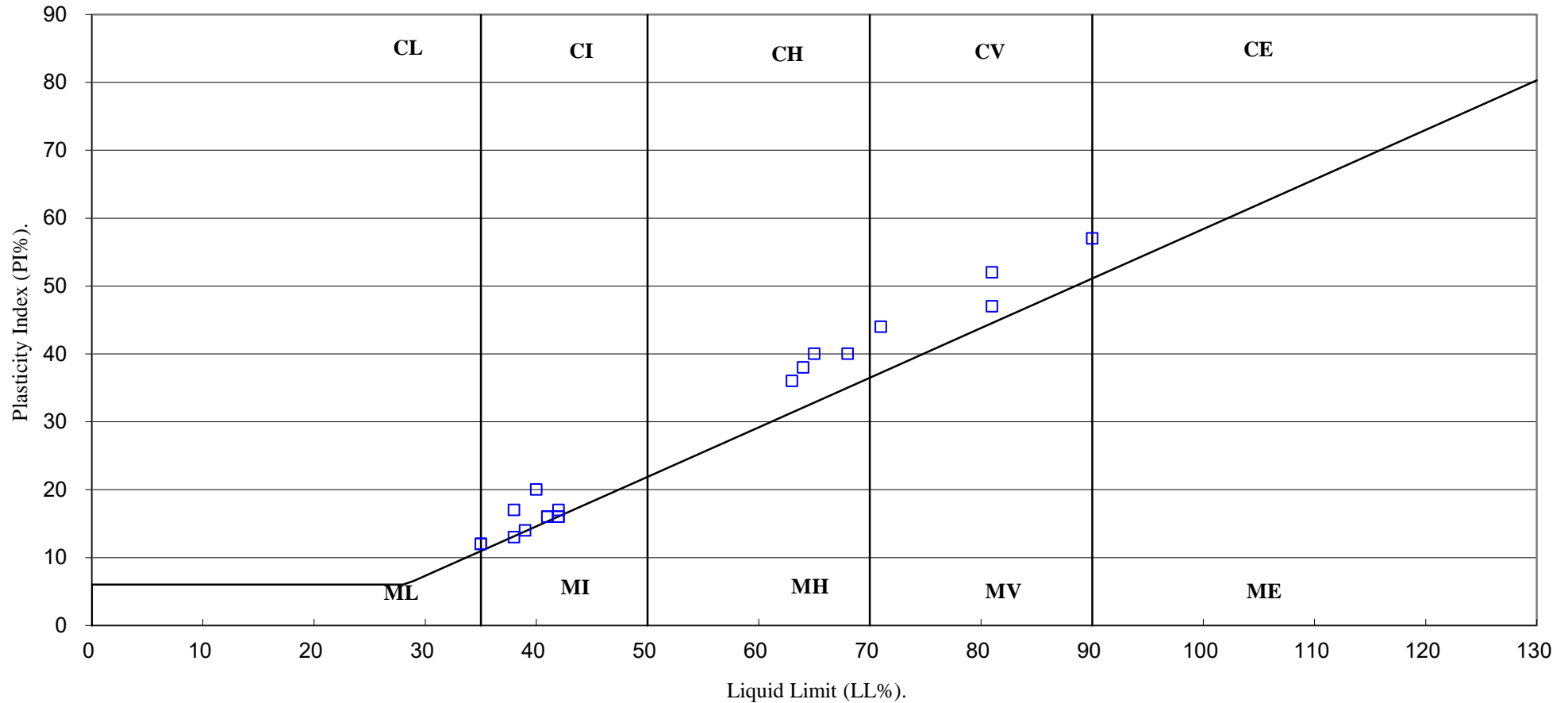
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PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



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Contract No:

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Client Ref:

C6515

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
CPBH1013		B	1.20	1.70	20		41	25	16	100	Intermediate plasticity CI.
CPBH1013		B	5.00	5.50	26		44	26	18	100	Intermediate plasticity CI.
CPBH1019		B	2.20	2.70	38		44	25	19	100	Intermediate plasticity CI.
CPBH1019		B	11.00	11.50	29		43	25	18	100	Intermediate plasticity CI.
CPBH1021		SPT	1.20	1.65	25		60	28	32	94	High plasticity CH.
CPBH1021		B	5.00	5.50	26		79	27	52	89	Very high plasticity CV.
CPBH1022		B	5.00	5.50	20		41	20	21	55	Intermediate plasticity CI.
CPBH1024		SPT	1.20	1.65	22		75	28	47	95	Very high plasticity CV.
CPBH1024		D	6.50	6.95	26		38	24	14	100	Intermediate plasticity CI.
CPBH1024		D	11.00	11.45	27		41	23	18	100	Intermediate plasticity CI.
CPBH1025		B	4.20	4.70	37		45	26	19	100	Intermediate plasticity CI.
CPBH1025		B	12.50	13.00	24		43	24	19	100	Intermediate plasticity CI.
CPBH1026		B	2.20	2.50	27		57	25	32	96	High plasticity CH.
CPBH1027		B	6.50	7.00	25		69	28	41	92	High plasticity CH.
CPBH1027		B	9.50	10.00	23		40	23	17	100	Intermediate plasticity CI.
CPBH1029		SPT	1.20	1.65	22		61	26	35	94	High plasticity CH.
CPBH1031		B	1.20	1.70	14		65	24	41	93	High plasticity CH.
CPBH1032		B	1.00		23		83	30	53	92	Very high plasticity CV.
CPBH1033		B	2.20	2.70	30		73	28	45	89	Very high plasticity CV.

SYMBOLS : NP : Non Plastic

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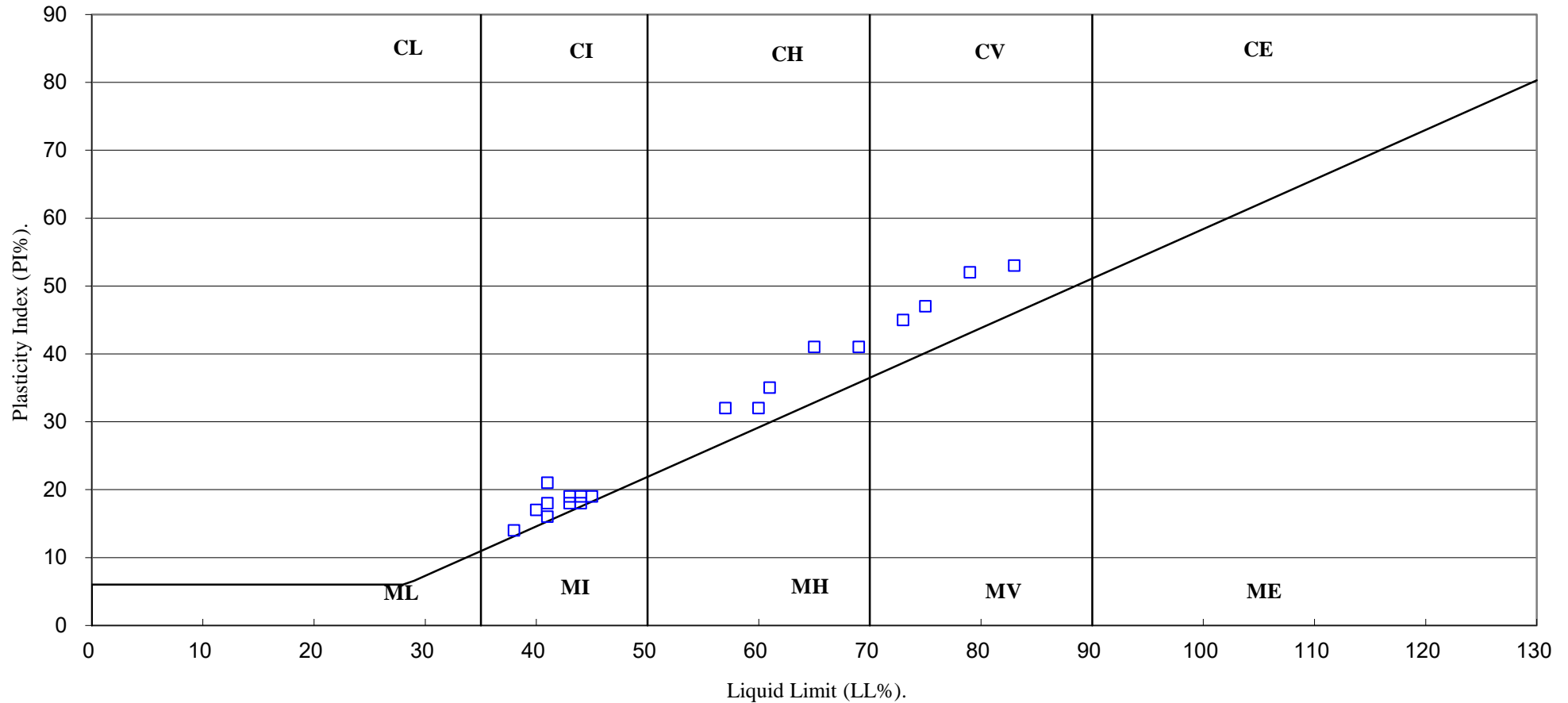
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PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



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SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
CPBH1033		B	3.50	4.00	29		43	26	17	80	Intermediate plasticity CI.
CPBH1033		B	5.00	5.50	24		43	24	19	100	Intermediate plasticity CI.
CPBH1033		B	10.00	10.50	28		35	22	13	94	Intermediate plasticity CI.
CPBH1034		B	0.50		26		73	26	47	96	Very high plasticity CV.
CPBH1034		B	3.20	3.70	39		83	31	52	70	Very high plasticity CV.
CPBH1034		B	7.00	7.50	24		85	31	54	67	Very high plasticity CV.
CPBH1034		B	8.00	8.80	20		41	24	17	100	Intermediate plasticity CI.
CPBH1036		B	0.50	0.70	18		46	23	23	87	Intermediate plasticity CI.
CPBH1037		B	3.20	3.70	25		69	27	42	96	High plasticity CH.
CPBH1037		B	4.20	4.70	21		62	22	40	98	High plasticity CH.
CPBH1039		B	0.50	0.70	29		87	30	57	96	Very high plasticity CV.
CPBH1039		SPT	2.00	2.45	39		93	35	58	90	Extremely high plasticity CE.
CPBH1039		B	5.00	5.50	18		43	25	18	100	Intermediate plasticity CI.
CPBH1041		B	5.00	5.50	36		84	32	52	94	Very high plasticity CV.
CPBH1041		B	8.00	8.50	24		41	24	17	100	Intermediate plasticity CI.
CPBH1042		B	1.20	1.70	24		71	24	47	97	Very high plasticity CV.
CPBH1042		B	3.00	3.50	16		68	24	44	60	High plasticity CH.
CPBH1042		B	4.00	4.50	15		41	20	21	67	Intermediate plasticity CI.
CPBH1042		SPT	6.50	6.95	30		36	23	13	100	Intermediate plasticity CI.

SYMBOLS : NP : Non Plastic

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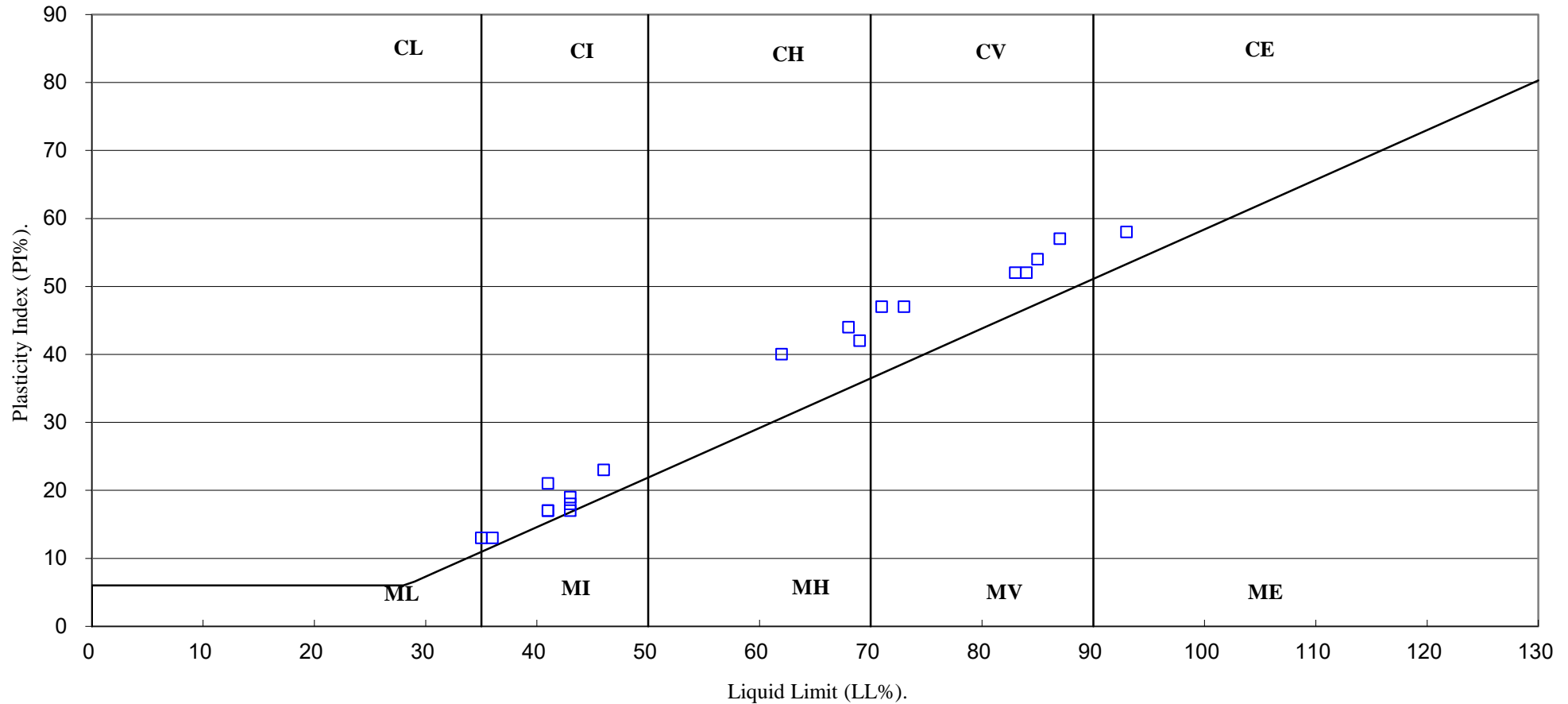
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PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



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Contract No:

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Client Ref:

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SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % <small>Clause 3.2</small>	Particle Density Mg/m ³ <small>Clause 8.2</small>	Liquid Limit % <small>Clause 4.3/4</small>	Plastic Limit % <small>Clause 5.3</small>	Plasticity Index % <small>Clause 5.4</small>	Passing .425mm %	Remarks
CPBH1043		B	1.20	1.70	22		44	22	22	92	Intermediate plasticity CI.
CPBH1043		B	3.00	3.50	29		54	24	30	67	High plasticity CH.
CPBH1043		B	7.00	7.50	32		88	31	57	94	Very high plasticity CV.
CPBH1044		B	1.20	1.70	37		70	28	42	98	Very high plasticity CV.
CPBH1044		B	3.00	3.50	40		97	34	63	99	Extremely high plasticity CE.
CPBH1044		B	5.00	5.50	34		83	28	55	50	Very high plasticity CV.
CPBH1045		B	0.50	0.70	23		42	24	18	100	Intermediate plasticity CI.
CPBH1046		B	6.50	7.00	26		41	24	17	100	Intermediate plasticity CI.
CPBH1047		B	3.20	3.70	26		42	23	19	86	Intermediate plasticity CI.
CPBH1047		B	9.50	10.00	22		42	22	20	100	Intermediate plasticity CI.

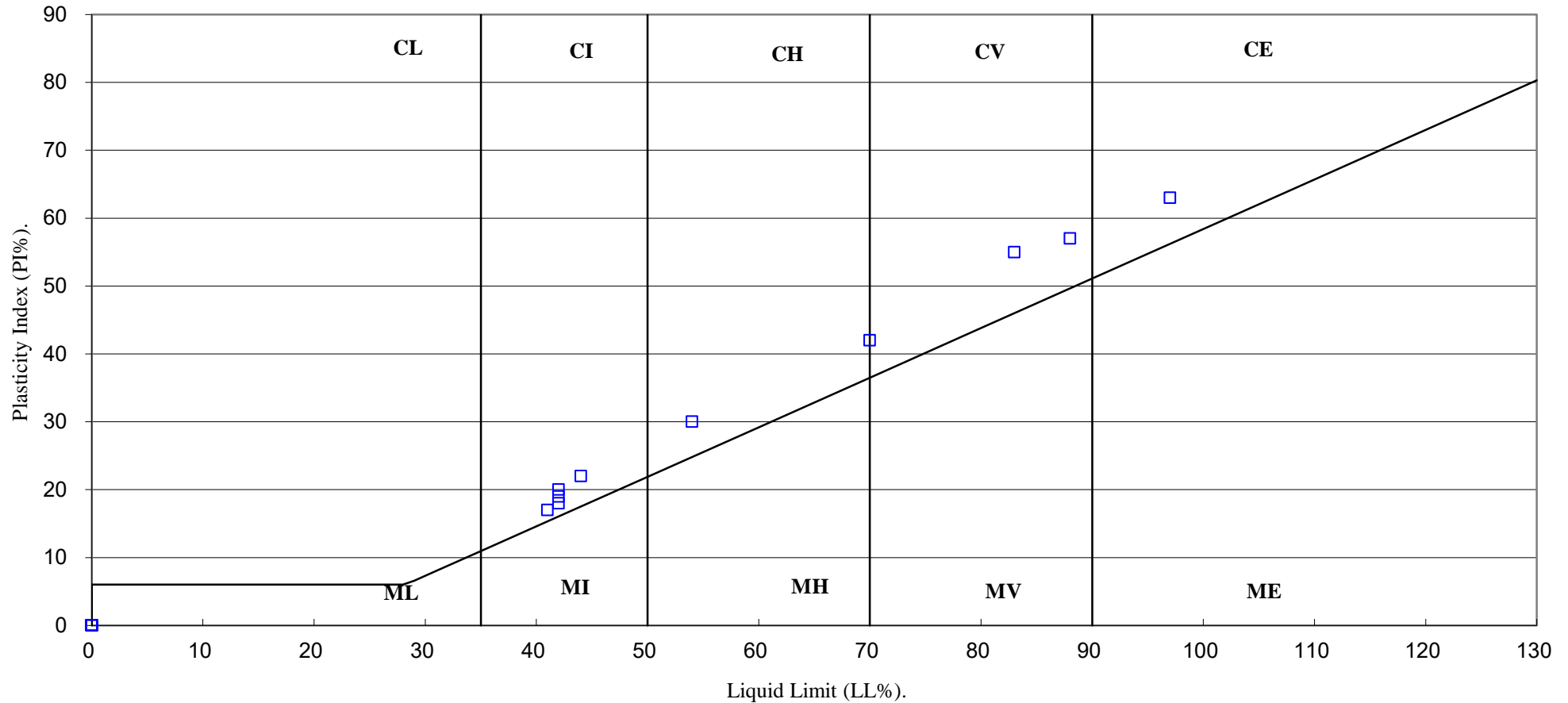
SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.

 4043		Land East of Hemel Hempstead GI	Contract No:
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			Client Ref:
			C6515

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



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Land East of Hemel Hempstead GI

Contract No:

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Client Ref:

C6515

SUMMARY OF CHALK TESTS

(BS1377 : PART 2 & 4 : 1990)

Hole Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Saturated MC %	Dry Density Mg/m ³	Passing 10mm Sieve %	Chalk Crushing Value CCV	Remarks
CPBH1001	B	5.90	6.40	37	31	1.48			
CPBH1001	B	8.00	8.50	29	32	1.45			
CPBH1001	B	11.00	11.50	33	29	1.51			
CPBH1001	B	14.00	14.50	32	31	1.47			
CPBH1002	B	13.10	13.60	34	32	1.45			
CPBH1002	B	14.00	14.50	36	32	1.45			
CPBH1003	B	6.50	7.00	27	28	1.54			
CPBH1003	B	8.00	8.50	34	30	1.48			
CPBH1003	B	11.00	11.50	21	28	1.54			
CPBH1003	B	14.00	14.50	38	30	1.49			
CPBH1004	B	7.50	8.00	38	41	1.28			
CPBH1004	B	10.00	10.50	34	29	1.53			
CPBH1004	B	13.00	13.50	25	27	1.55			
CPBH1005	B	9.60	10.00	22	30	1.49			
CPBH1005	B	11.00	11.50	33	29	1.52			
CPBH1005	B	14.00	14.50	30	26	1.59			
CPBH1006	B	8.00	8.50	33	29	1.51			
CPBH1006	B	10.00	10.50	35	31	1.48			
CPBH1006	B	13.00	13.50	36	29	1.51			

* CCV testing is not UKAS accredited



PSL
Professional Soils Laboratory

Land East of Hemel Hempstead GI

Contract No:

PSL19/7109

Client Ref:


C6515

SUMMARY OF CHALK TESTS

(BS1377 : PART 2 & 4 : 1990)

Hole Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Saturated MC %	Dry Density Mg/m ³	Passing 10mm Sieve %	Chalk Crushing Value CCV	Remarks
CPBH1007	B	7.00	7.50	25	29	1.51			
CPBH1007	B	9.00	9.50	29	29	1.51			
CPBH1007	B	12.00	12.50	33	28	1.54			
CPBH1008	D	8.00	8.45	24	29	1.51			
CPBH1008	D	11.00	11.45	37	27	1.56			
CPBH1009	B	16.50	17.00	27	30	1.49			
CPBH1009	B	18.00	18.50	32	29	1.50			
CPBH1009	B	19.50	20.00	34	30	1.48			
CPBH1010	B	7.00	7.50	31	29	1.51			
CPBH1010	B	9.00	9.50	31	30	1.49			
CPBH1010	B	12.00	12.50	32	26	1.58			
CPBH1011	B	8.00	8.50	29	29	1.52			
CPBH1011	D	11.00	11.45	33	30	1.49			
CPBH1011	D	14.00	14.45	30	30	1.48			
CPBH1014	D	4.00	4.45	36					
CPBH1018	B	6.00	6.50	31	29	1.52			
CPBH1024	B	6.00	6.50	25	28	1.54			
CPBH1025	B	8.00	8.50	29	29	1.51			
CPBH1029	B	4.00	4.50	30	30	1.49			

* CCV testing is not UKAS accredited



 PSL Professional Soils Laboratory	Land East of Hemel Hempstead GI	Contract No: PSL19/7109
		Client Ref: C6515

SUMMARY OF CHALK TESTS

(BS1377 : PART 2 & 4 : 1990)

Hole Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Saturated MC %	Dry Density Mg/m ³	Passing 10mm Sieve %	Chalk Crushing Value CCV	Remarks
CPBH1033	B	3.50	4.00	25	28	1.54			
CPBH1037	B	11.00	11.50	34	28	1.53			
CPBH1039	B	4.00	4.50	33	29	1.51			
CPBH1040	B	9.00	9.50	31	31	1.46			
CPBH1044	B	6.00	6.50	32	28	1.55			
CPBH1045	D	2.00	2.45	38					
CPBH1046	B	6.50	7.00	27	28	1.54			

* CCV testing is not UKAS accredited

 4043		Land East of Hemel Hempstead GI	Contract No:
			PSL19/7109
			Client Ref:
			C6515

PARTICLE SIZE DISTRIBUTION TEST

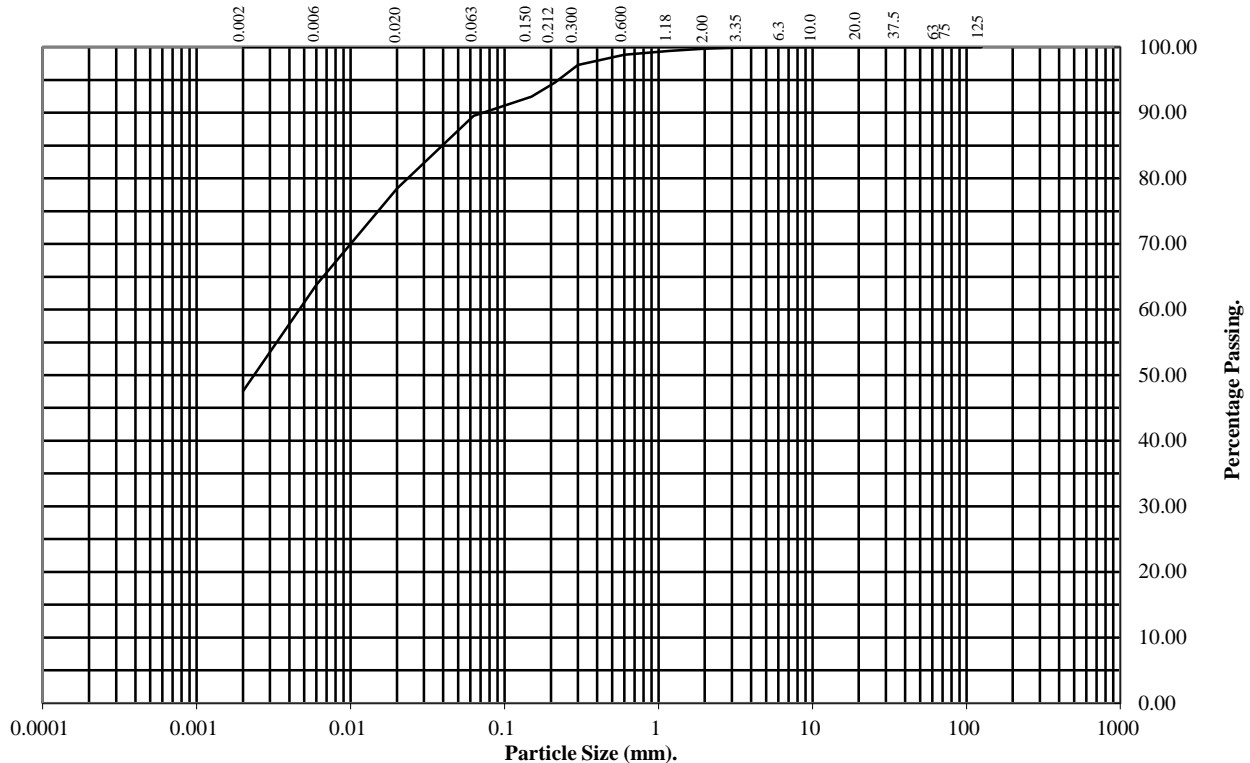
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1002 Top Depth (m): 1.20

Sample Number: Base Depth(m): 1.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	99
0.6	99
0.3	97
0.212	95
0.15	92
0.063	90

Particle Diameter	Percentage Passing
0.02	78
0.006	64
0.002	48

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	10
Silt	42
Clay	48

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

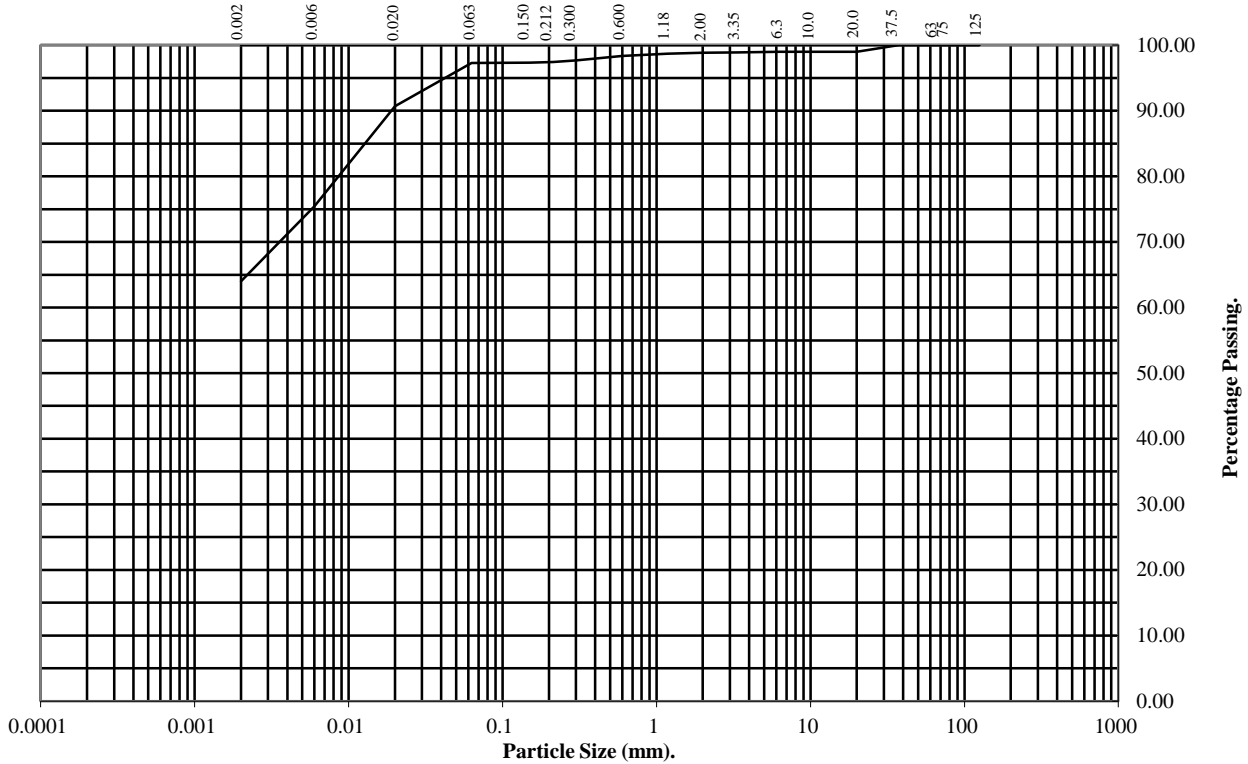
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1002 Top Depth (m): 4.20

Sample Number: Base Depth(m): 4.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	99
6.3	99
3.35	99
2	99
1.18	99
0.6	98
0.3	98
0.212	97
0.15	97
0.063	97

Particle Diameter	Percentage Passing
0.02	91
0.006	75
0.002	64

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	2
Silt	33
Clay	64

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

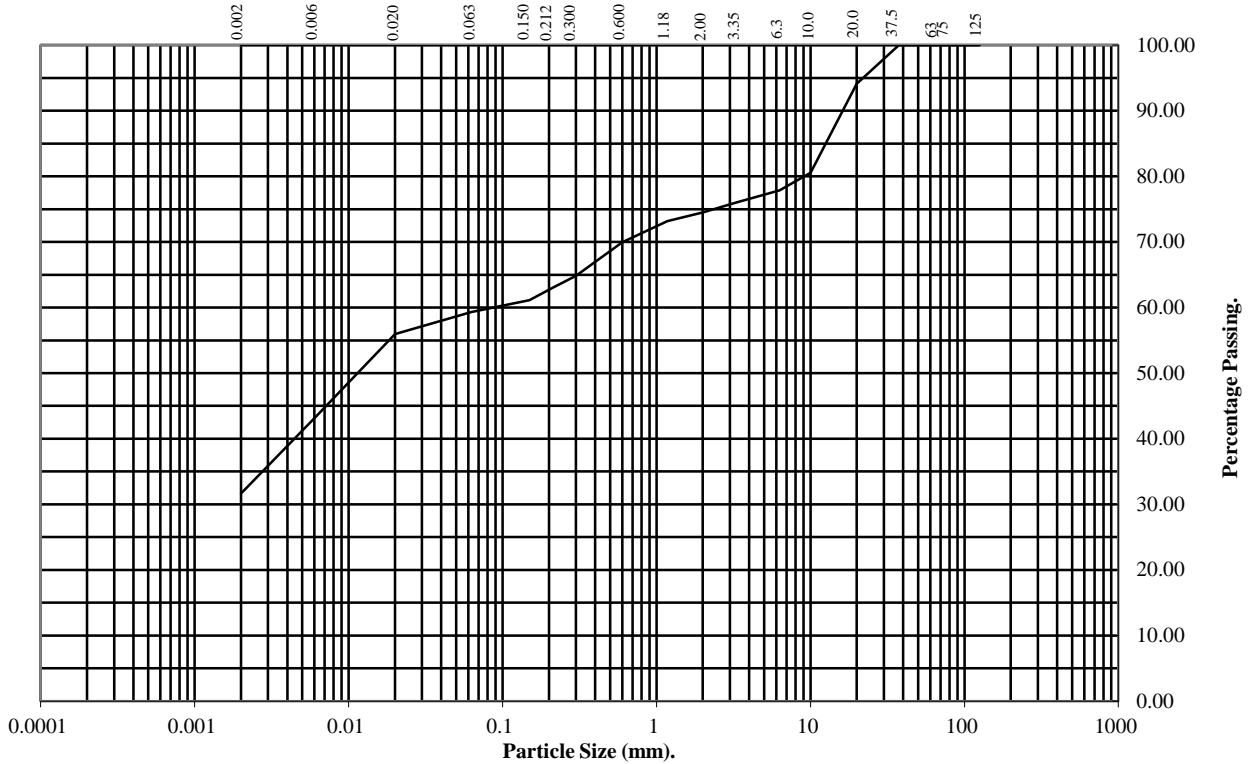
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1002 Top Depth (m): 12.00

Sample Number: Base Depth(m): 12.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	94
10	81
6.3	78
3.35	76
2	74
1.18	73
0.6	70
0.3	65
0.212	63
0.15	61
0.063	59

Particle Diameter	Percentage Passing
0.02	56
0.006	43
0.002	32

Soil Fraction	Total Percentage
Cobbles	0
Gravel	26
Sand	15
Silt	27
Clay	32

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

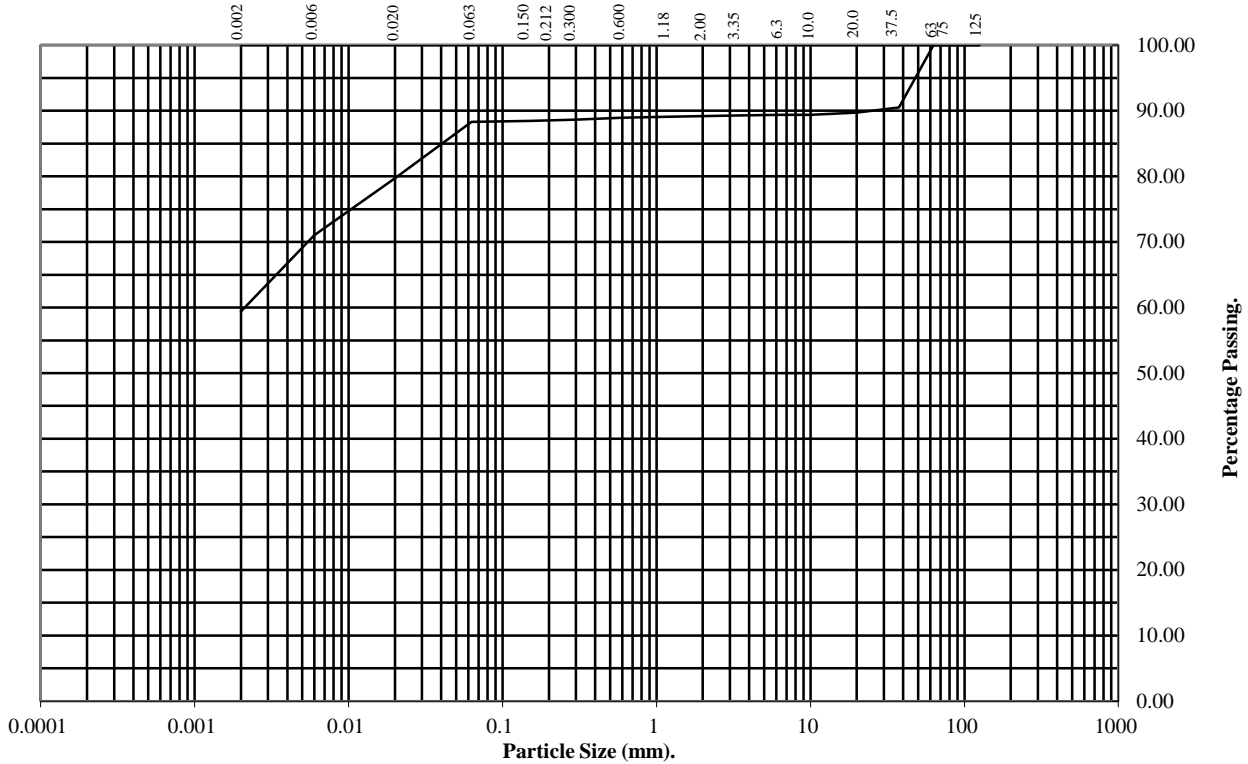
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1005 **Top Depth (m):** 1.20

Sample Number: **Base Depth(m):** 1.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	91
20	90
10	89
6.3	89
3.35	89
2	89
1.18	89
0.6	89
0.3	89
0.212	89
0.15	88
0.063	88

Particle Diameter	Percentage Passing
0.02	80
0.006	71
0.002	59

Soil Fraction	Total Percentage
Cobbles	0
Gravel	11
Sand	1
Silt	29
Clay	59

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

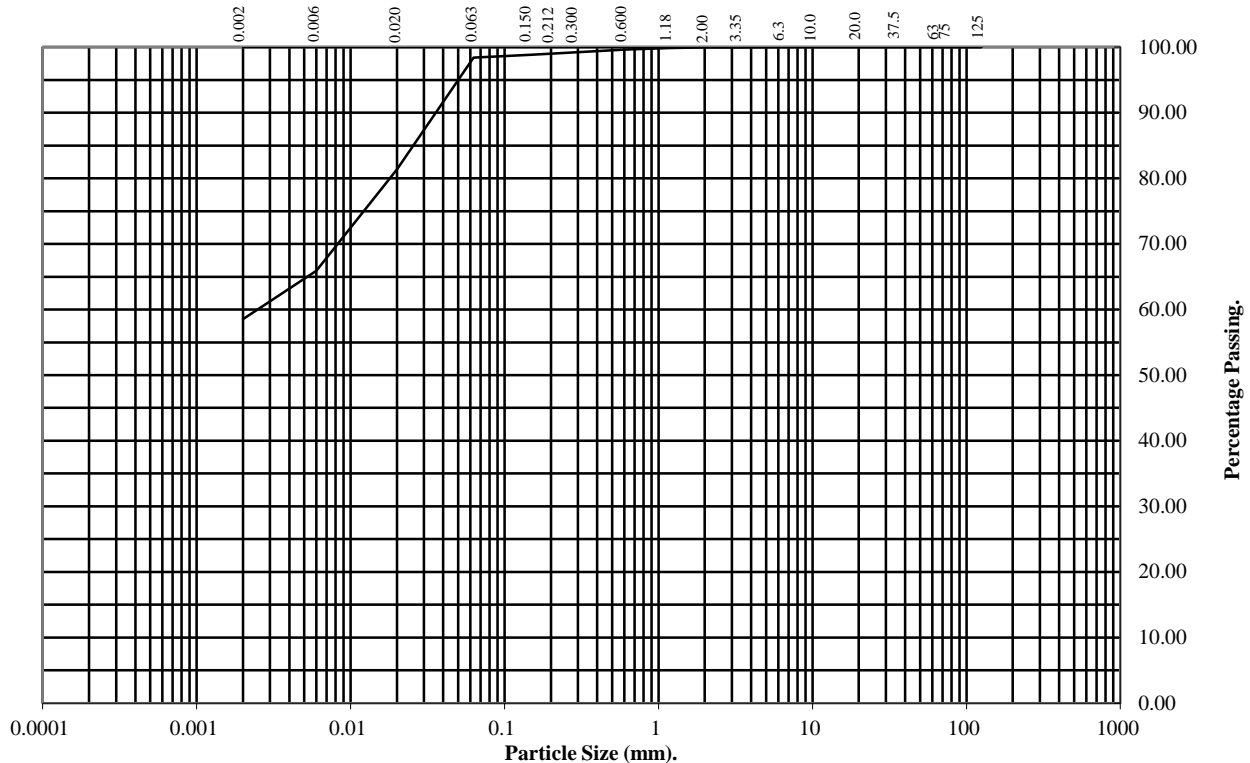
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1007 **Top Depth (m):** 1.20

Sample Number: **Base Depth(m):** 1.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	99
0.212	99
0.15	99
0.063	98

Particle Diameter	Percentage Passing
0.02	81
0.006	66
0.002	59

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	2
Silt	39
Clay	59

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

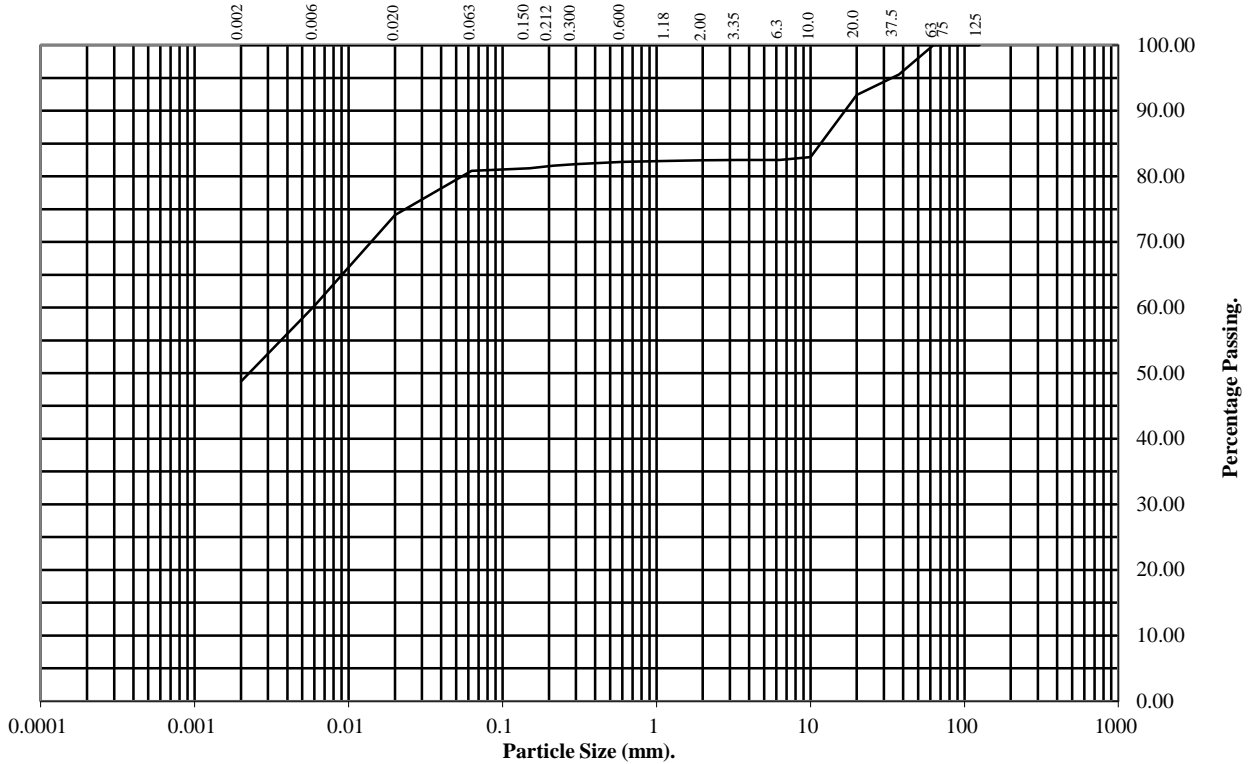
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1009 **Top Depth (m):** 0.70

Sample Number: **Base Depth(m):** 1.20

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	96
20	92
10	83
6.3	83
3.35	83
2	82
1.18	82
0.6	82
0.3	82
0.212	82
0.15	81
0.063	81

Particle Diameter	Percentage Passing
0.02	74
0.006	60
0.002	49

Soil Fraction	Total Percentage
Cobbles	0
Gravel	18
Sand	1
Silt	32
Clay	49

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

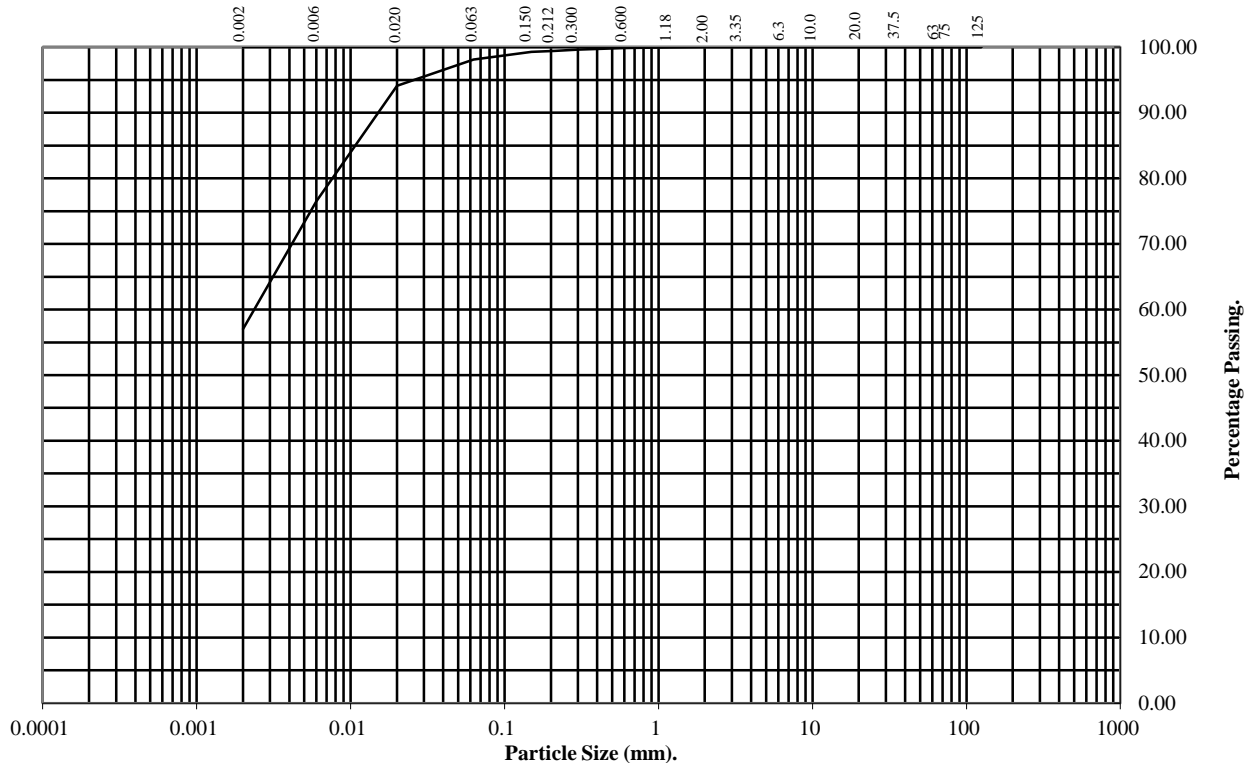
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1009 **Top Depth (m):** 2.00

Sample Number: **Base Depth(m):** 2.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	100
0.212	99
0.15	99
0.063	98

Particle Diameter	Percentage Passing
0.02	94
0.006	77
0.002	57

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	2
Silt	41
Clay	57

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

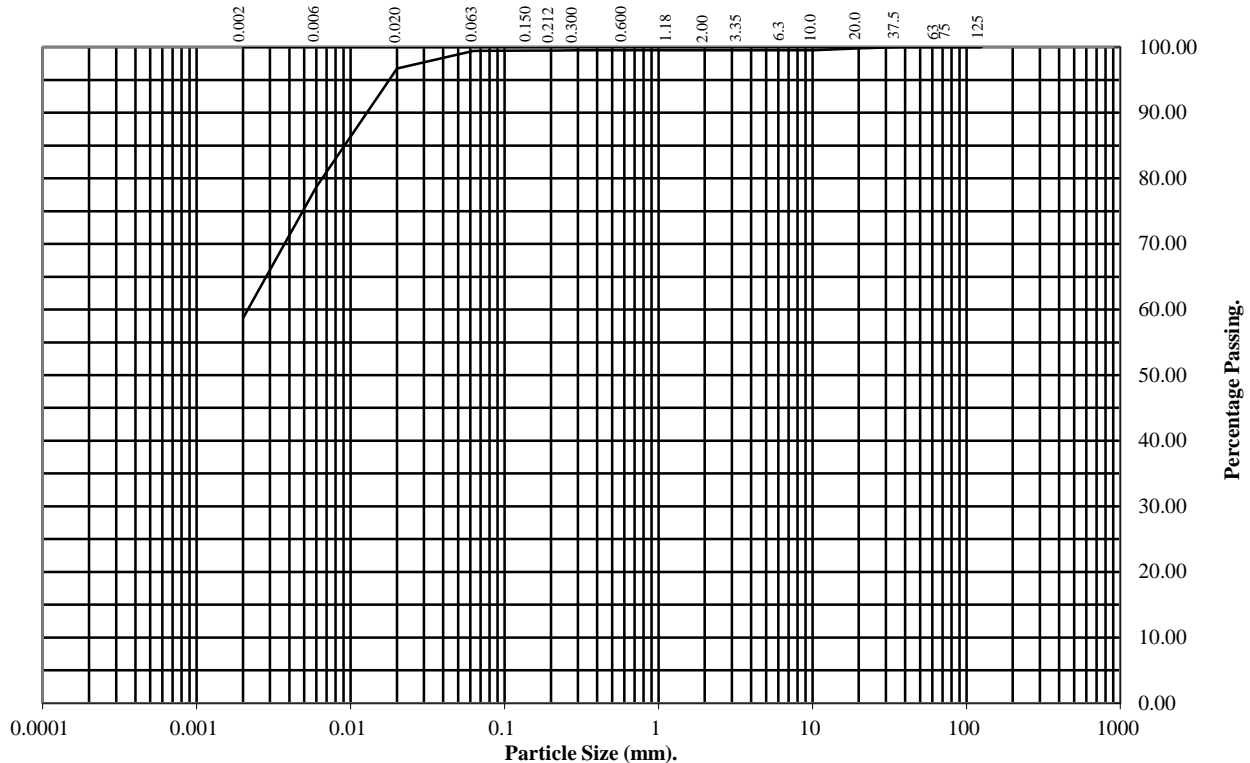
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1009 **Top Depth (m):** 11.00

Sample Number: **Base Depth(m):** 11.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	100
0.212	99
0.15	99
0.063	99

Particle Diameter	Percentage Passing
0.02	97
0.006	79
0.002	59

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	1
Silt	40
Clay	59

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

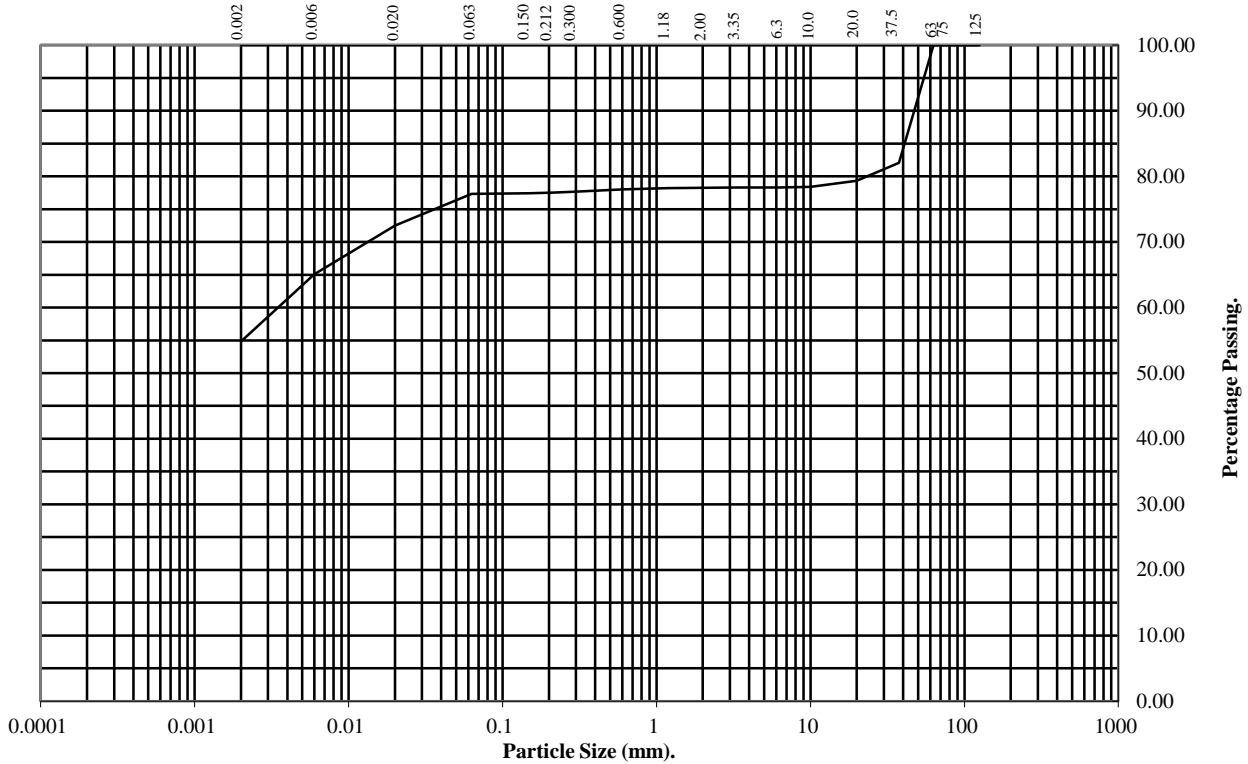
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1011 **Top Depth (m):** 2.00

Sample Number: **Base Depth(m):** 2.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	82
20	79
10	78
6.3	78
3.35	78
2	78
1.18	78
0.6	78
0.3	78
0.212	78
0.15	77
0.063	77

Particle Diameter	Percentage Passing
0.02	72
0.006	65
0.002	55

Soil Fraction	Total Percentage
Cobbles	0
Gravel	22
Sand	1
Silt	22
Clay	55

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

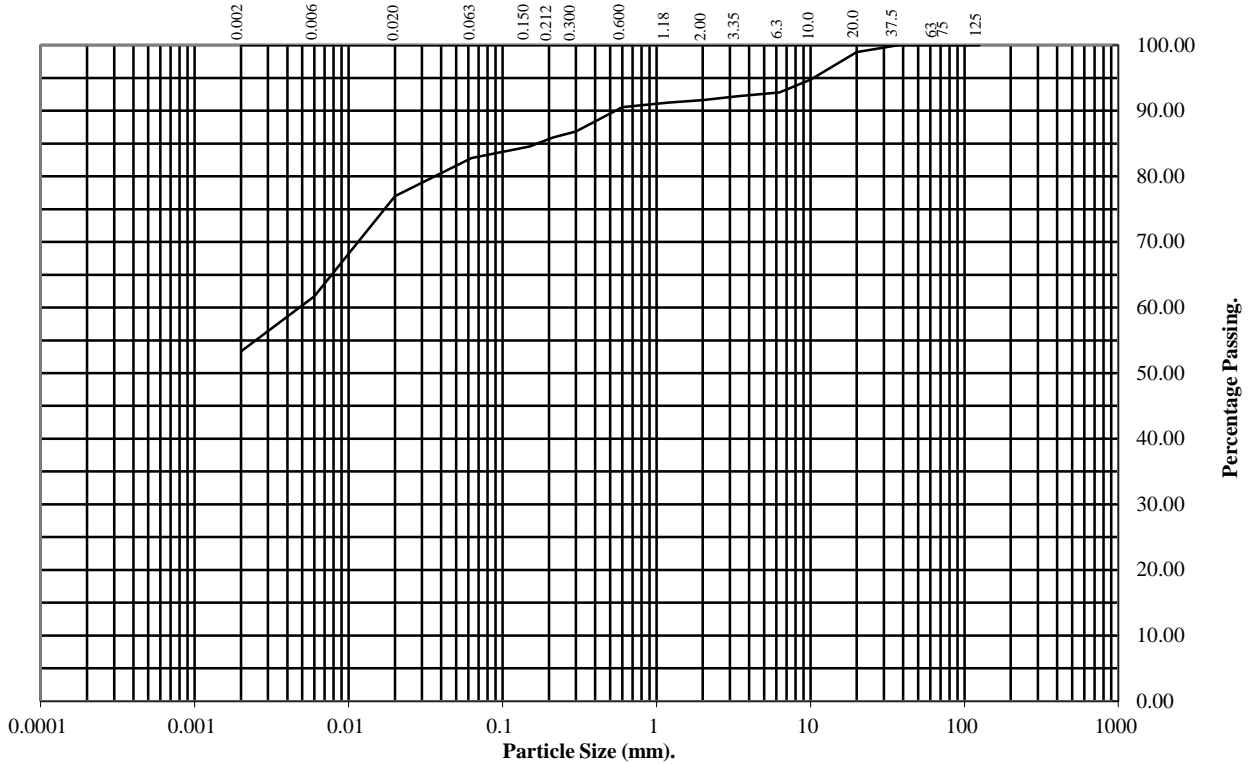
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1021 Top Depth (m): 5.00

Sample Number: Base Depth(m): 5.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	95
6.3	93
3.35	92
2	92
1.18	91
0.6	91
0.3	87
0.212	86
0.15	85
0.063	83

Particle Diameter	Percentage Passing
0.02	77
0.006	62
0.002	53

Soil Fraction	Total Percentage
Cobbles	0
Gravel	8
Sand	9
Silt	30
Clay	53

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

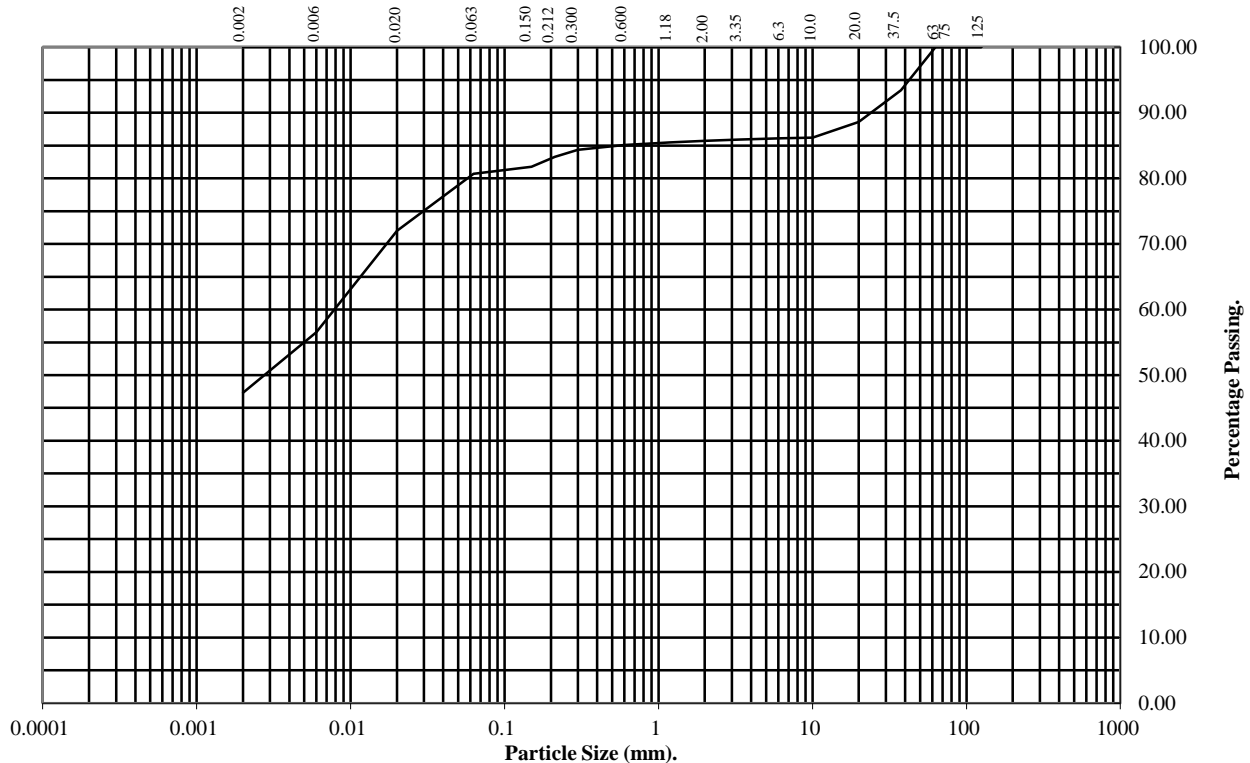
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1021 **Top Depth (m):** 6.00

Sample Number: **Base Depth(m):** 6.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	93
20	89
10	86
6.3	86
3.35	86
2	86
1.18	85
0.6	85
0.3	84
0.212	83
0.15	82
0.063	81

Particle Diameter	Percentage Passing
0.02	72
0.006	57
0.002	47

Soil Fraction	Total Percentage
Cobbles	0
Gravel	14
Sand	5
Silt	34
Clay	47

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

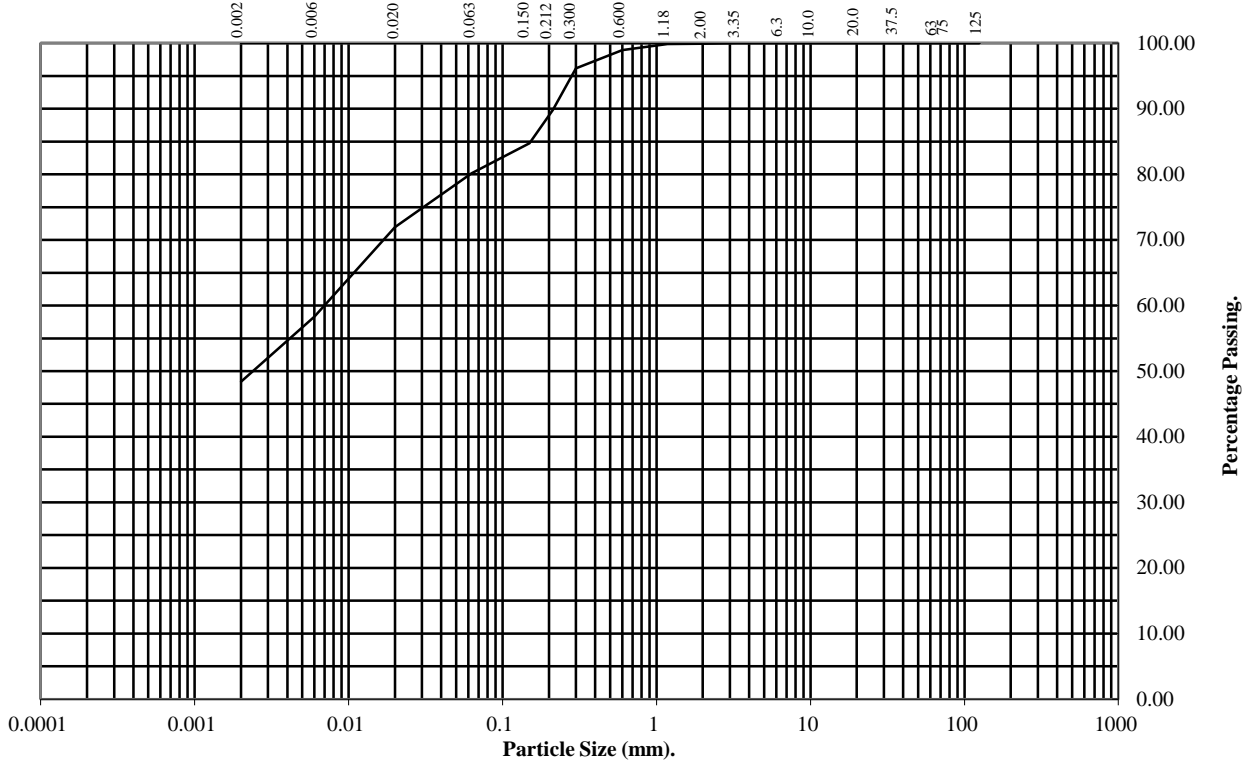
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1022 **Top Depth (m):** 3.00

Sample Number: **Base Depth(m):** 3.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	99
0.3	96
0.212	90
0.15	85
0.063	80

Particle Diameter	Percentage Passing
0.02	72
0.006	58
0.002	48

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	20
Silt	32
Clay	48

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

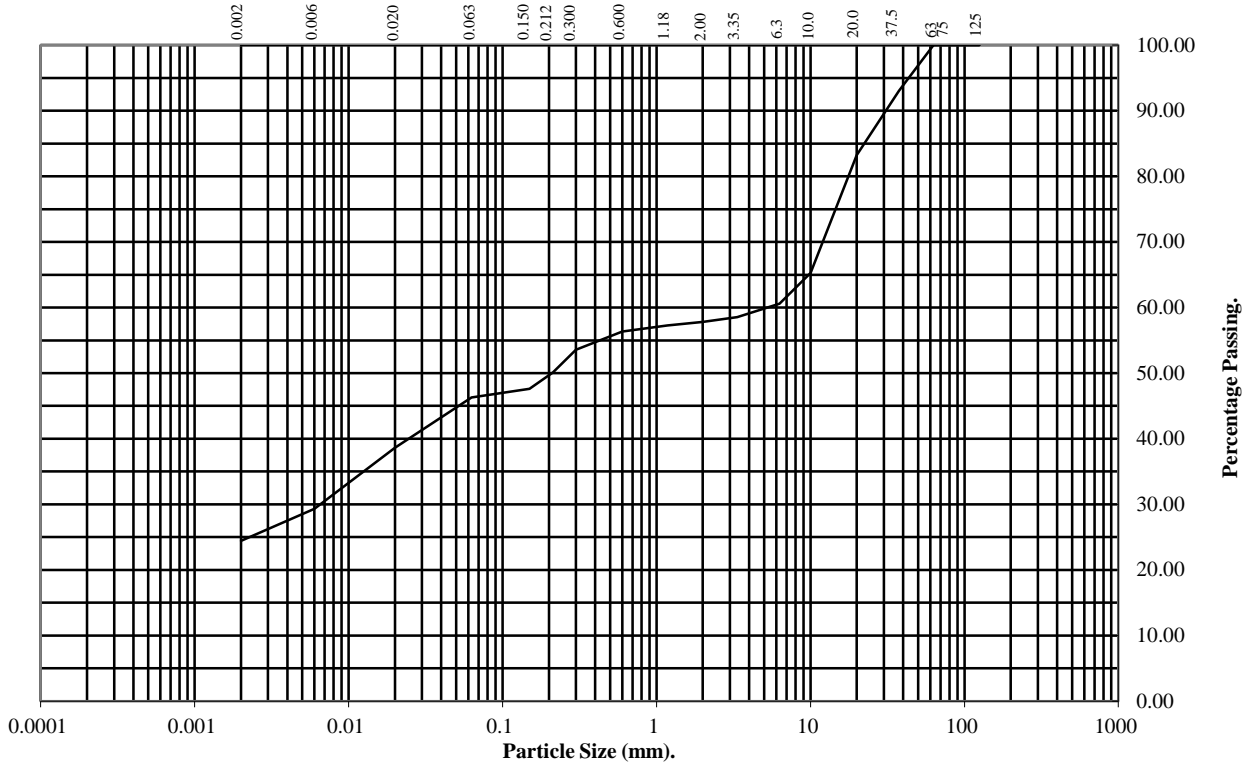
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1022 Top Depth (m): 5.00

Sample Number: Base Depth(m): 5.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	93
20	83
10	65
6.3	61
3.35	59
2	58
1.18	57
0.6	56
0.3	54
0.212	50
0.15	48
0.063	46

Particle Diameter	Percentage Passing
0.02	39
0.006	29
0.002	24

Soil Fraction	Total Percentage
Cobbles	0
Gravel	42
Sand	12
Silt	22
Clay	24

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

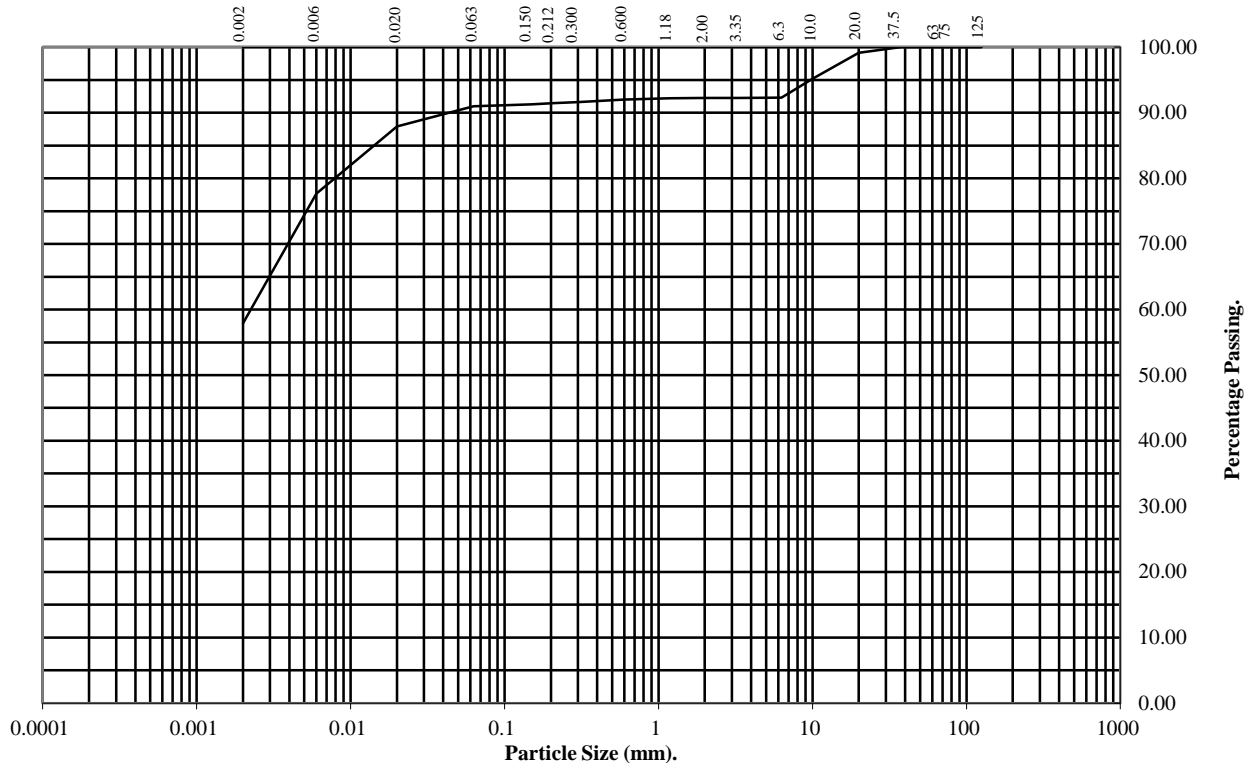
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1032 **Top Depth (m):** 1.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	95
6.3	92
3.35	92
2	92
1.18	92
0.6	92
0.3	92
0.212	91
0.15	91
0.063	91

Particle Diameter	Percentage Passing
0.02	88
0.006	78
0.002	58

Soil Fraction	Total Percentage
Cobbles	0
Gravel	8
Sand	1
Silt	33
Clay	58

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

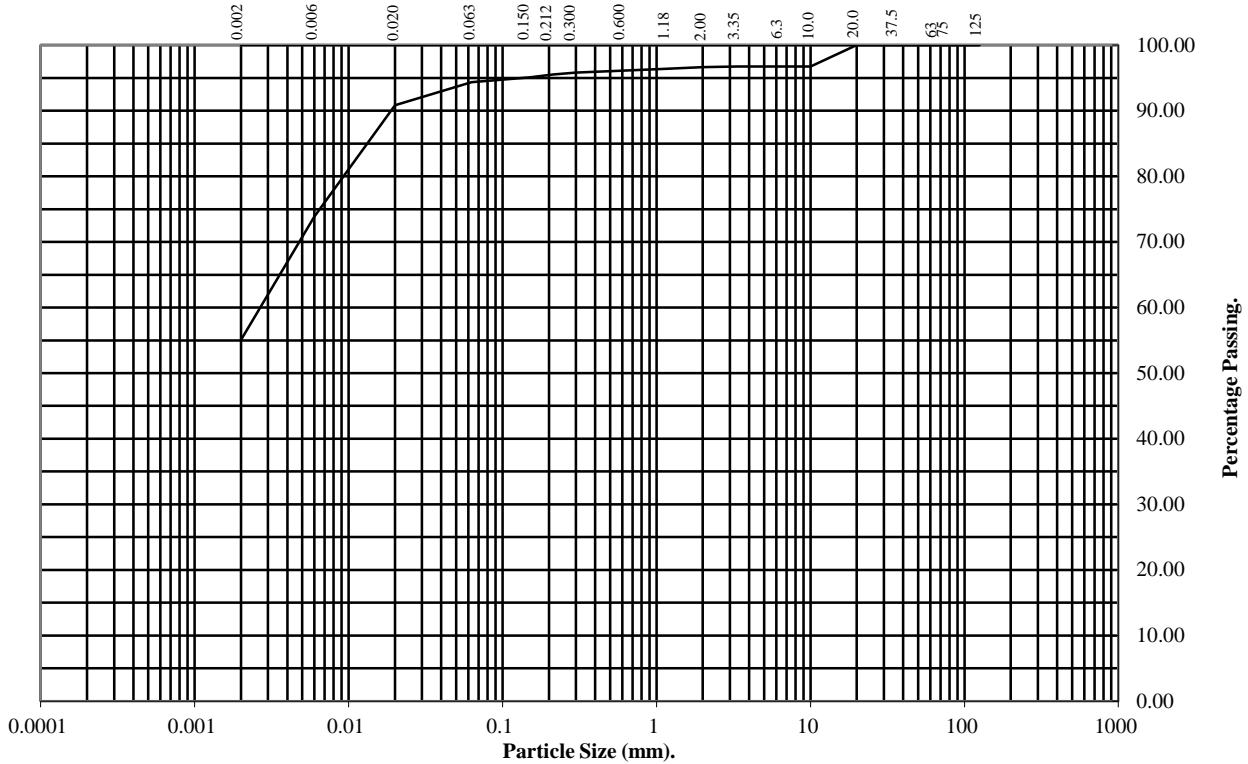
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1033 **Top Depth (m):** 1.20

Sample Number: **Base Depth(m):** 1.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	97
6.3	97
3.35	97
2	97
1.18	96
0.6	96
0.3	96
0.212	96
0.15	95
0.063	94

Particle Diameter	Percentage Passing
0.02	91
0.006	74
0.002	55

Soil Fraction	Total Percentage
Cobbles	0
Gravel	3
Sand	3
Silt	39
Clay	55

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

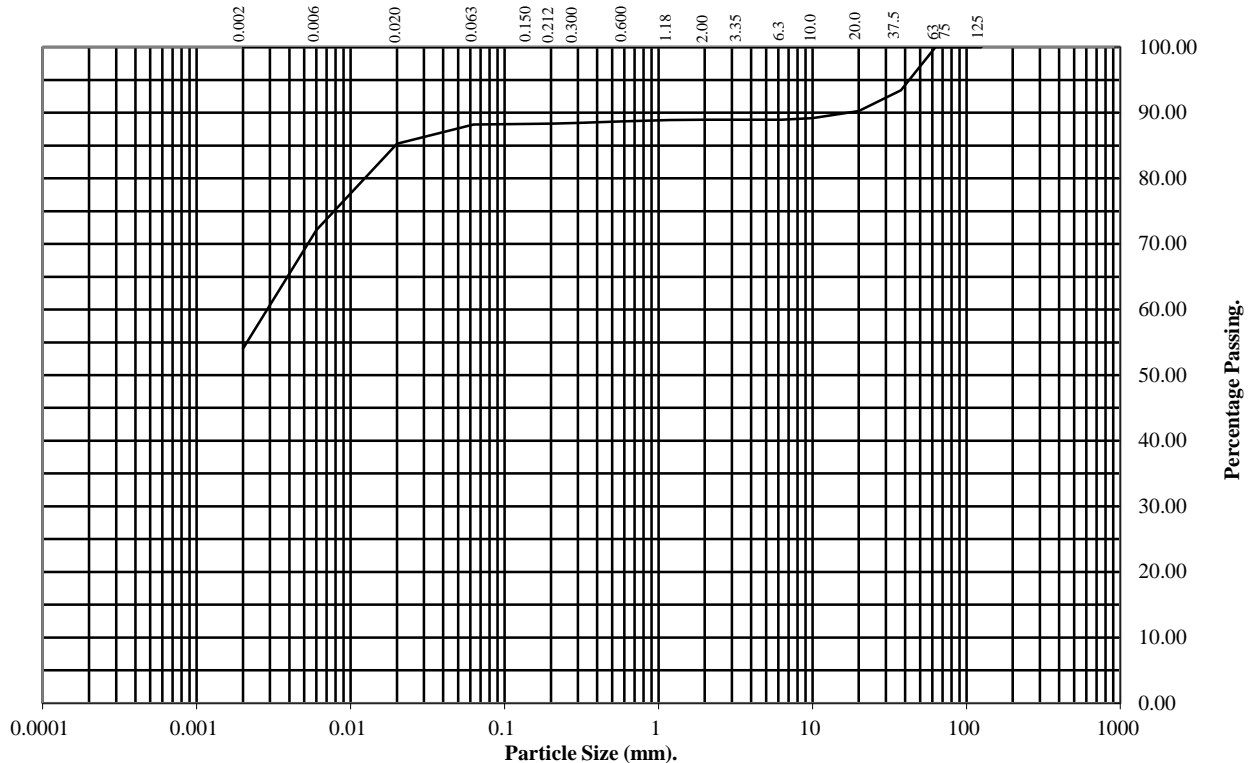
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1033 **Top Depth (m):** 2.20

Sample Number: **Base Depth(m):** 2.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	93
20	90
10	89
6.3	89
3.35	89
2	89
1.18	89
0.6	89
0.3	88
0.212	88
0.15	88
0.063	88

Particle Diameter	Percentage Passing
0.02	85
0.006	72
0.002	54

Soil Fraction	Total Percentage
Cobbles	0
Gravel	11
Sand	1
Silt	34
Clay	54

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

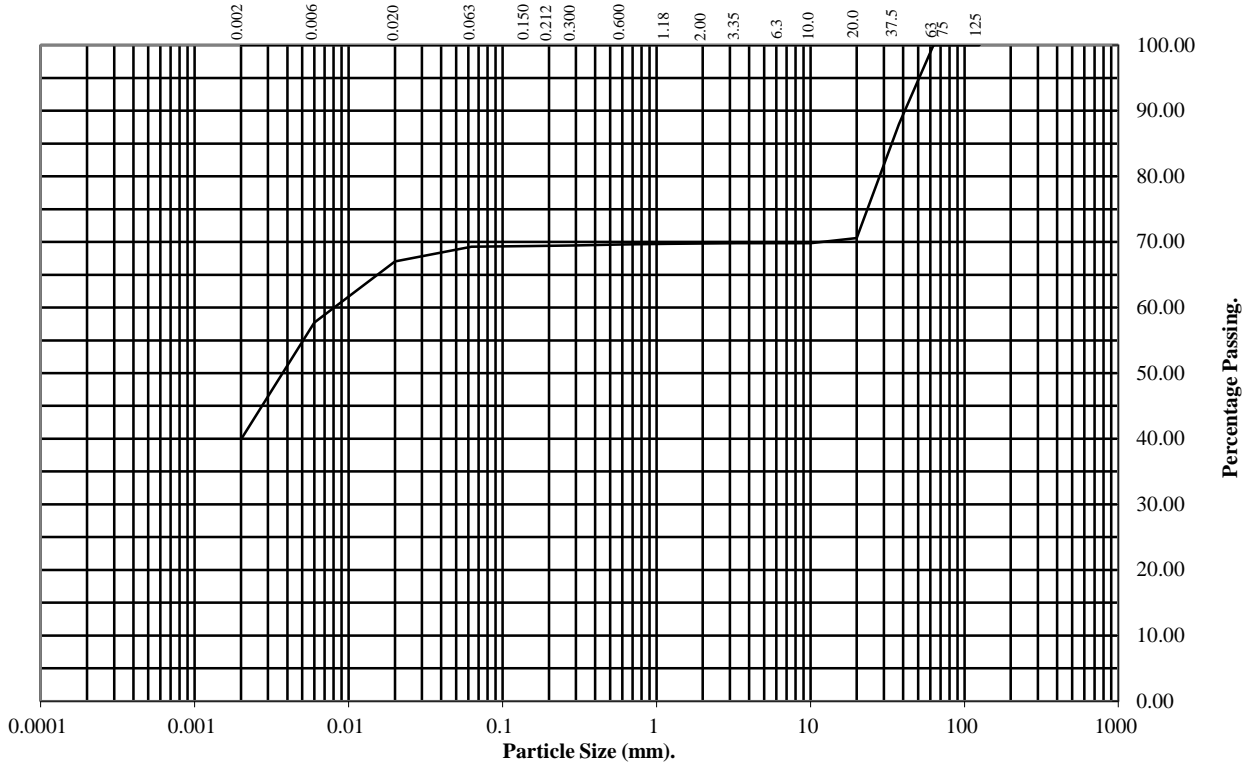
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1034 Top Depth (m): 3.20

Sample Number: Base Depth(m): 3.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	88
20	71
10	70
6.3	70
3.35	70
2	70
1.18	70
0.6	70
0.3	69
0.212	69
0.15	69
0.063	69

Particle Diameter	Percentage Passing
0.02	67
0.006	58
0.002	40

Soil Fraction	Total Percentage
Cobbles	0
Gravel	30
Sand	1
Silt	29
Clay	40

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

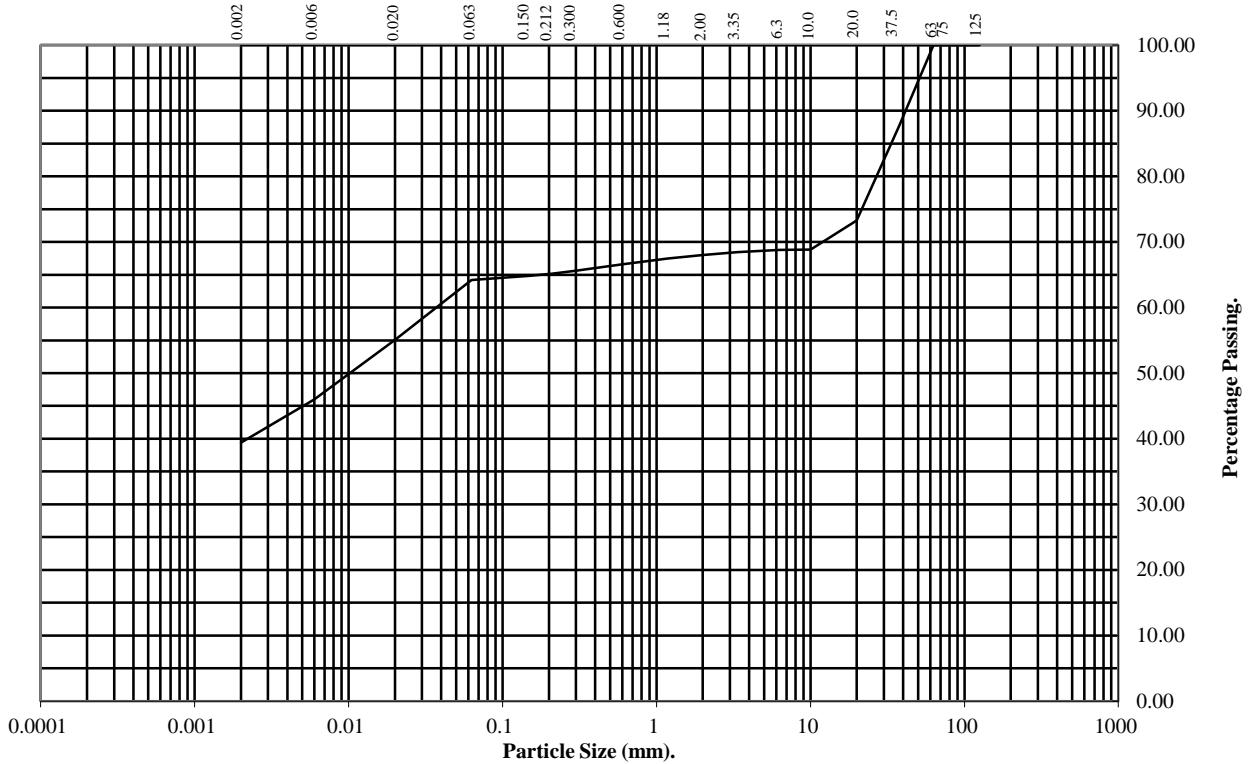
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1034 Top Depth (m): 7.00

Sample Number: Base Depth(m): 7.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	88
20	73
10	69
6.3	69
3.35	68
2	68
1.18	67
0.6	67
0.3	66
0.212	65
0.15	65
0.063	64

Particle Diameter	Percentage Passing
0.02	55
0.006	46
0.002	39

Soil Fraction	Total Percentage
Cobbles	0
Gravel	32
Sand	4
Silt	25
Clay	39

Remarks:
See Summary of Soil Descriptions



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C6515

PARTICLE SIZE DISTRIBUTION TEST

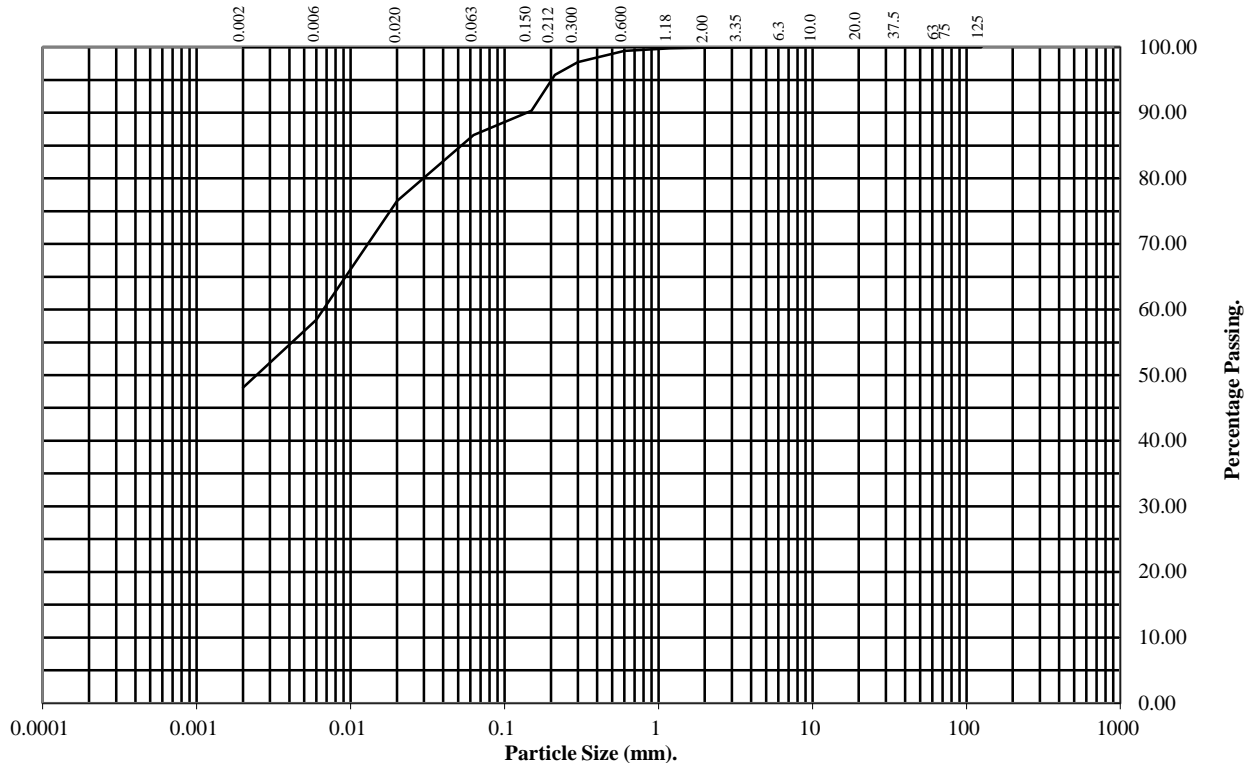
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1037 **Top Depth (m):** 4.20

Sample Number: **Base Depth(m):** 4.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	99
0.3	98
0.212	96
0.15	90
0.063	87

Particle Diameter	Percentage Passing
0.02	77
0.006	58
0.002	48

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	13
Silt	39
Clay	48

Remarks:
See Summary of Soil Descriptions



Land East of Hemel Hempstead GI

Contract No:
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PARTICLE SIZE DISTRIBUTION TEST

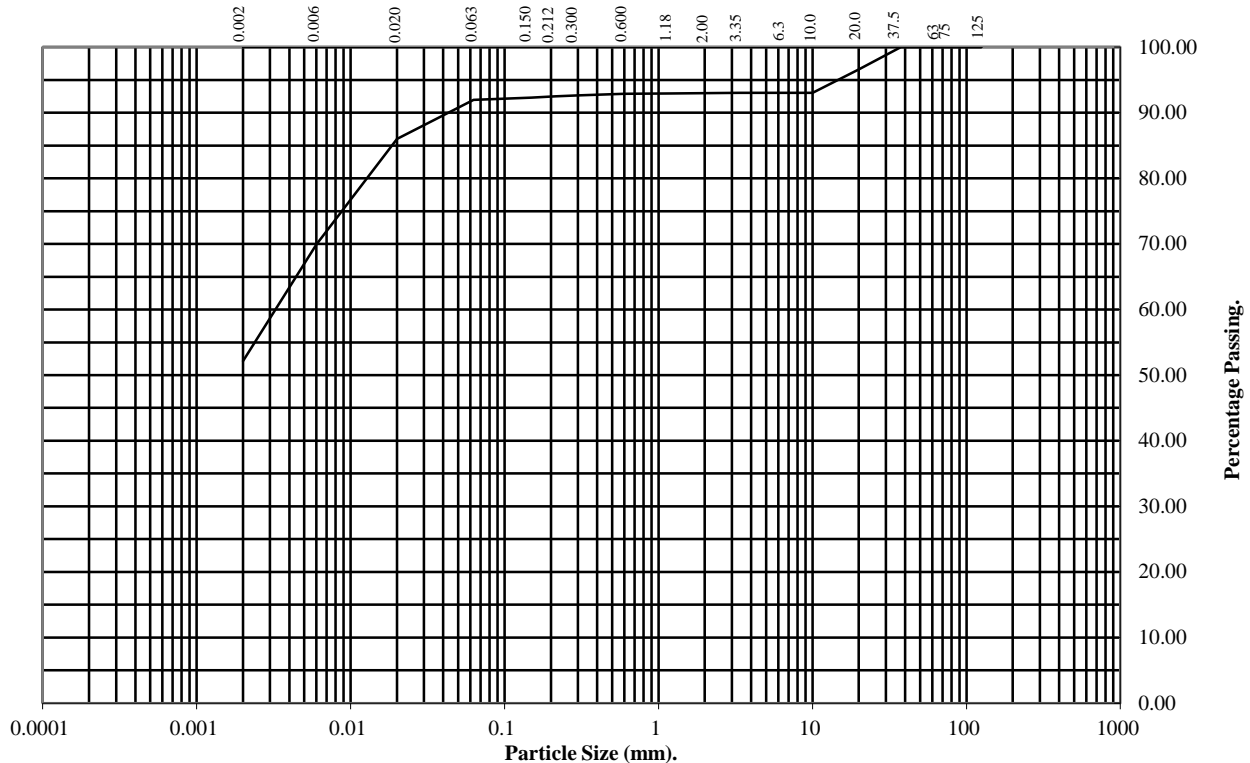
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1037 Top Depth (m): 5.00

Sample Number: Base Depth(m): 5.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	97
10	93
6.3	93
3.35	93
2	93
1.18	93
0.6	93
0.3	93
0.212	93
0.15	92
0.063	92

Particle Diameter	Percentage Passing
0.02	86
0.006	70
0.002	52

Soil Fraction	Total Percentage
Cobbles	0
Gravel	7
Sand	1
Silt	40
Clay	52

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

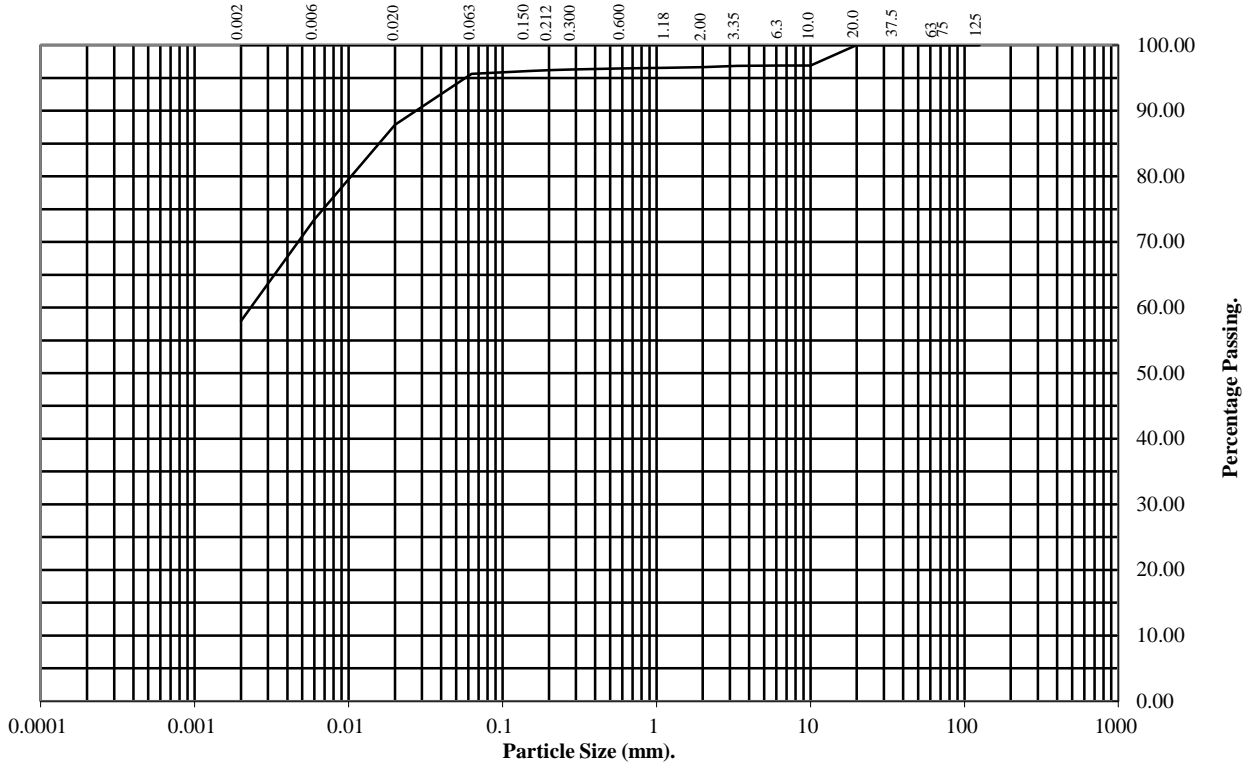
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1039 **Top Depth (m):** 0.50

Sample Number: **Base Depth(m):** 0.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	97
6.3	97
3.35	97
2	97
1.18	97
0.6	96
0.3	96
0.212	96
0.15	96
0.063	96

Particle Diameter	Percentage Passing
0.02	88
0.006	73
0.002	58

Soil Fraction	Total Percentage
Cobbles	0
Gravel	3
Sand	1
Silt	38
Clay	58

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

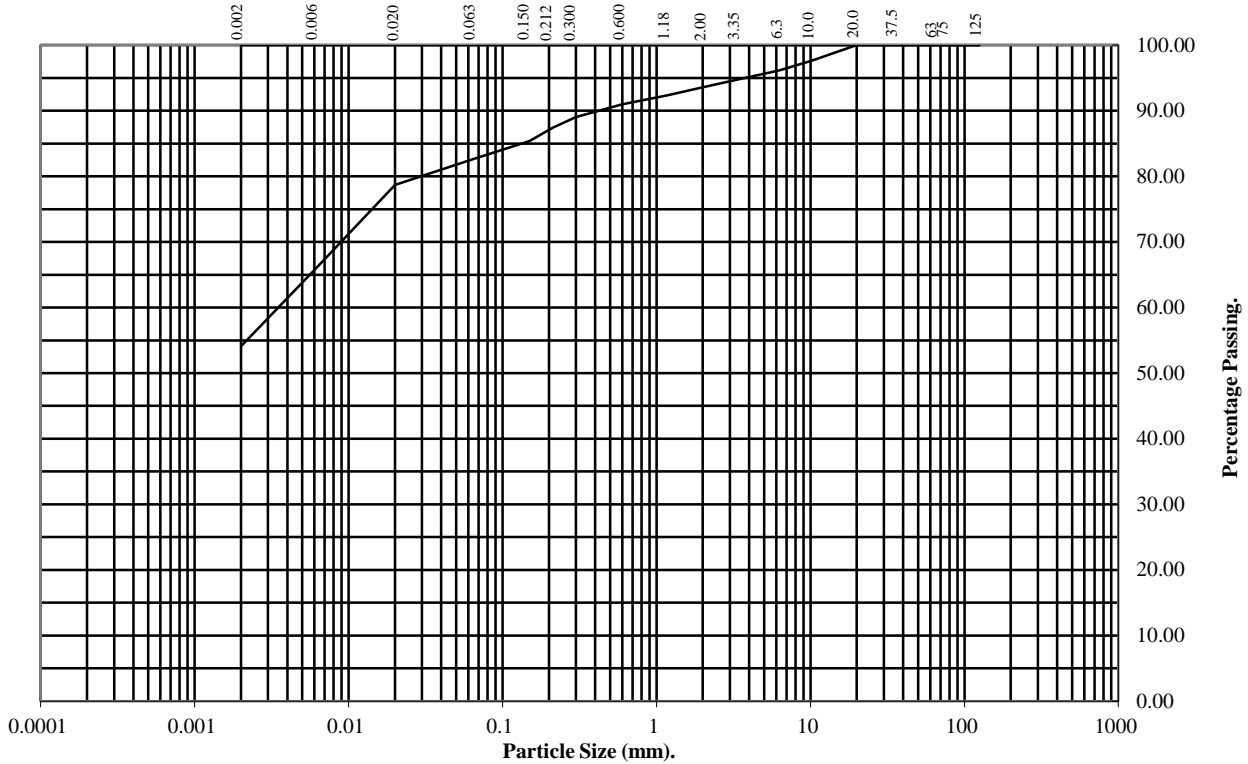
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1039 Top Depth (m): 2.00

Sample Number: Base Depth(m): 2.45

Sample Type: SPT



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	98
6.3	96
3.35	95
2	94
1.18	92
0.6	91
0.3	89
0.212	87
0.15	85
0.063	83

Particle Diameter	Percentage Passing
0.02	79
0.006	66
0.002	54

Soil Fraction	Total Percentage
Cobbles	0
Gravel	6
Sand	11
Silt	29
Clay	54

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

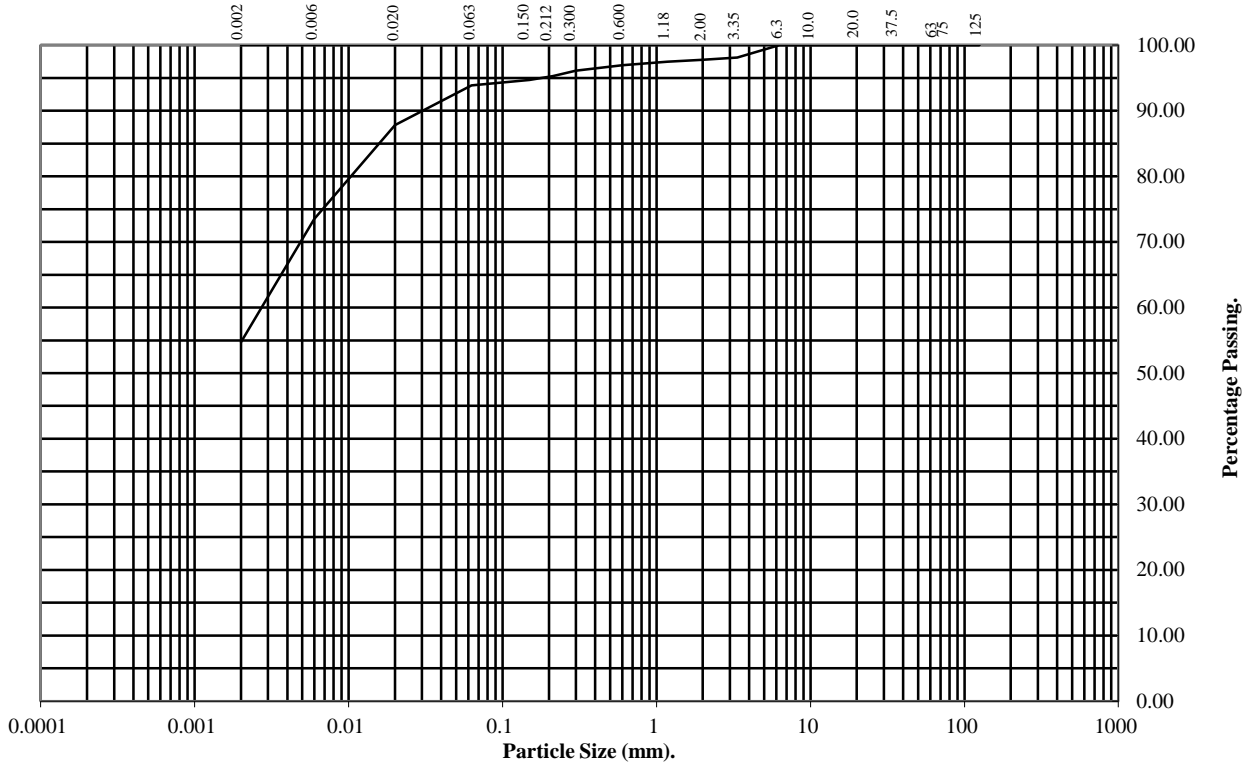
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1041 Top Depth (m): 6.50

Sample Number: Base Depth(m): 7.00

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	98
2	98
1.18	97
0.6	97
0.3	96
0.212	95
0.15	95
0.063	94

Particle Diameter	Percentage Passing
0.02	88
0.006	74
0.002	55

Soil Fraction	Total Percentage
Cobbles	0
Gravel	2
Sand	4
Silt	39
Clay	55

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

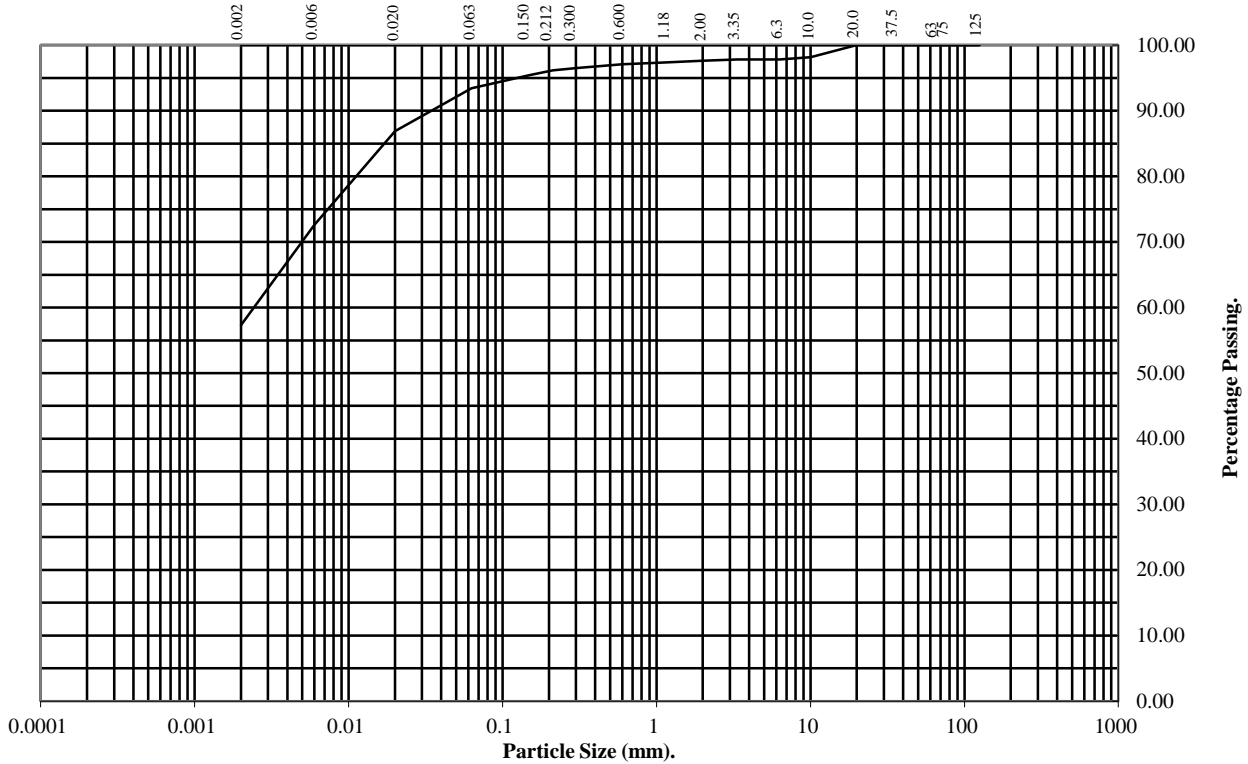
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1042 Top Depth (m): 1.20

Sample Number: Base Depth(m): 1.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	98
6.3	98
3.35	98
2	98
1.18	97
0.6	97
0.3	97
0.212	96
0.15	95
0.063	93

Particle Diameter	Percentage Passing
0.02	87
0.006	73
0.002	57

Soil Fraction	Total Percentage
Cobbles	0
Gravel	2
Sand	5
Silt	36
Clay	57

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

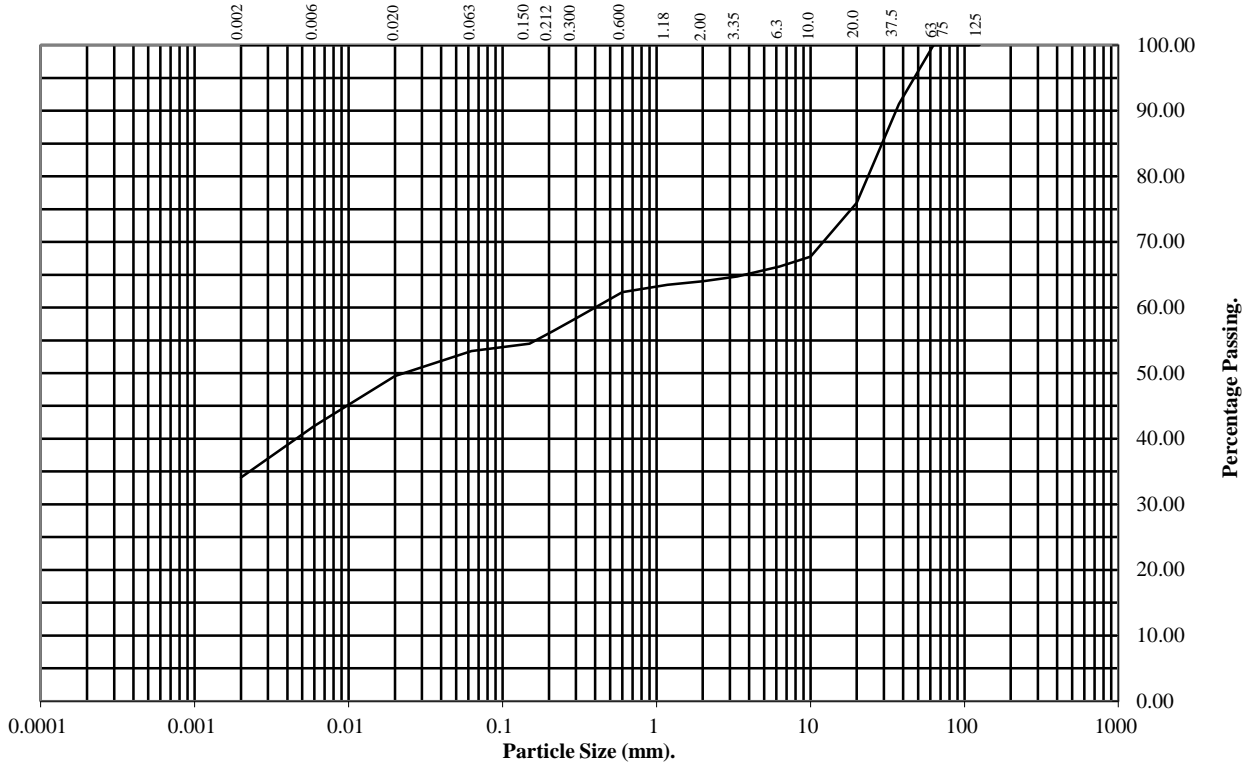
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1042 **Top Depth (m):** 3.00

Sample Number: **Base Depth(m):** 3.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	91
20	76
10	68
6.3	66
3.35	65
2	64
1.18	63
0.6	62
0.3	58
0.212	56
0.15	55
0.063	53

Particle Diameter	Percentage Passing
0.02	50
0.006	42
0.002	34

Soil Fraction	Total Percentage
Cobbles	0
Gravel	36
Sand	11
Silt	19
Clay	34

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

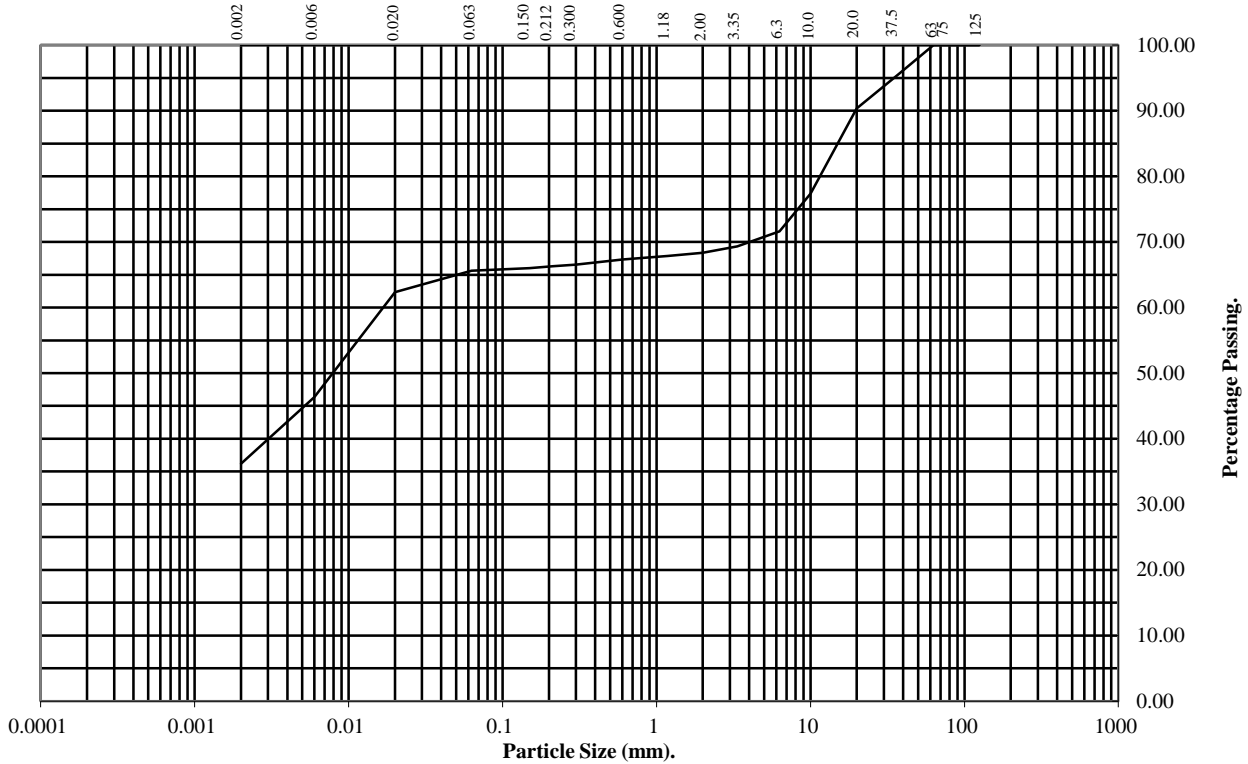
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1042 Top Depth (m): 4.00

Sample Number: Base Depth(m): 4.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	96
20	90
10	77
6.3	72
3.35	69
2	68
1.18	68
0.6	67
0.3	67
0.212	66
0.15	66
0.063	66

Particle Diameter	Percentage Passing
0.02	62
0.006	46
0.002	36

Soil Fraction	Total Percentage
Cobbles	0
Gravel	32
Sand	2
Silt	30
Clay	36

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

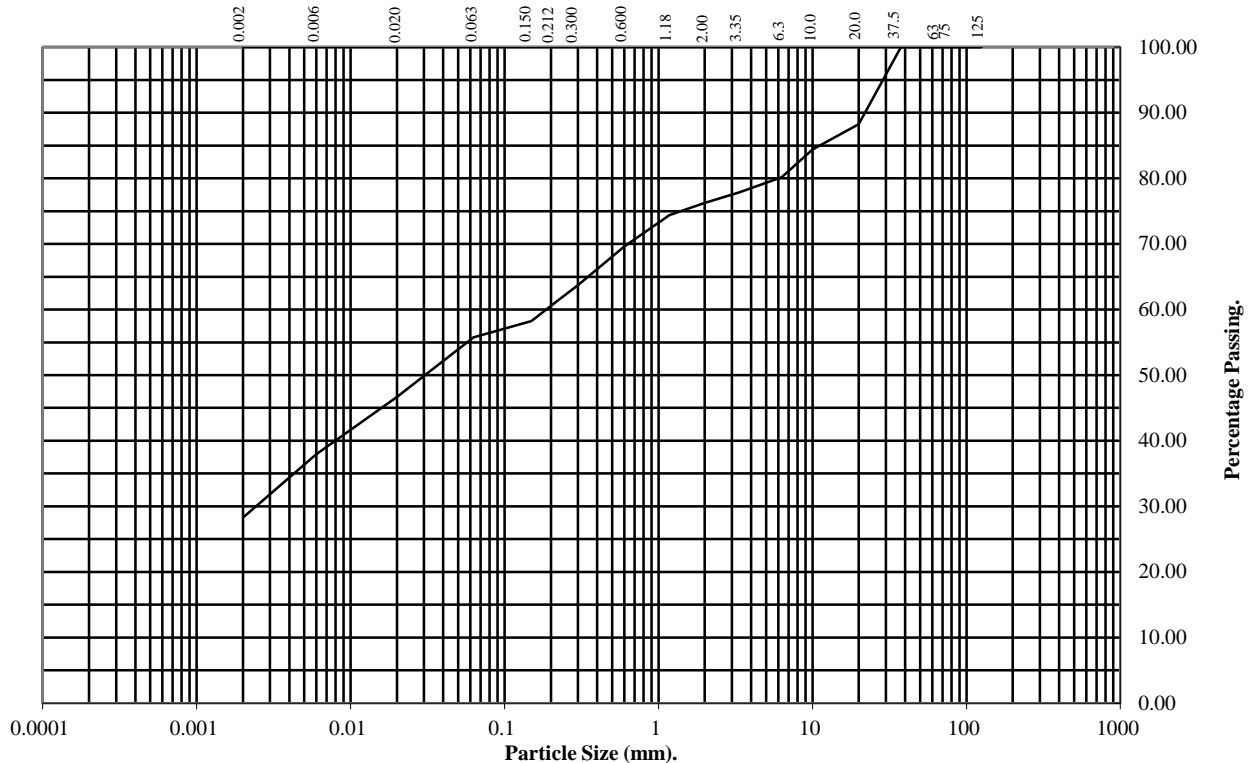
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1043 **Top Depth (m):** 1.20

Sample Number: **Base Depth(m):** 1.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	88
10	84
6.3	80
3.35	78
2	76
1.18	74
0.6	70
0.3	64
0.212	61
0.15	58
0.063	56

Particle Diameter	Percentage Passing
0.02	47
0.006	38
0.002	28

Soil Fraction	Total Percentage
Cobbles	0
Gravel	24
Sand	20
Silt	28
Clay	28

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

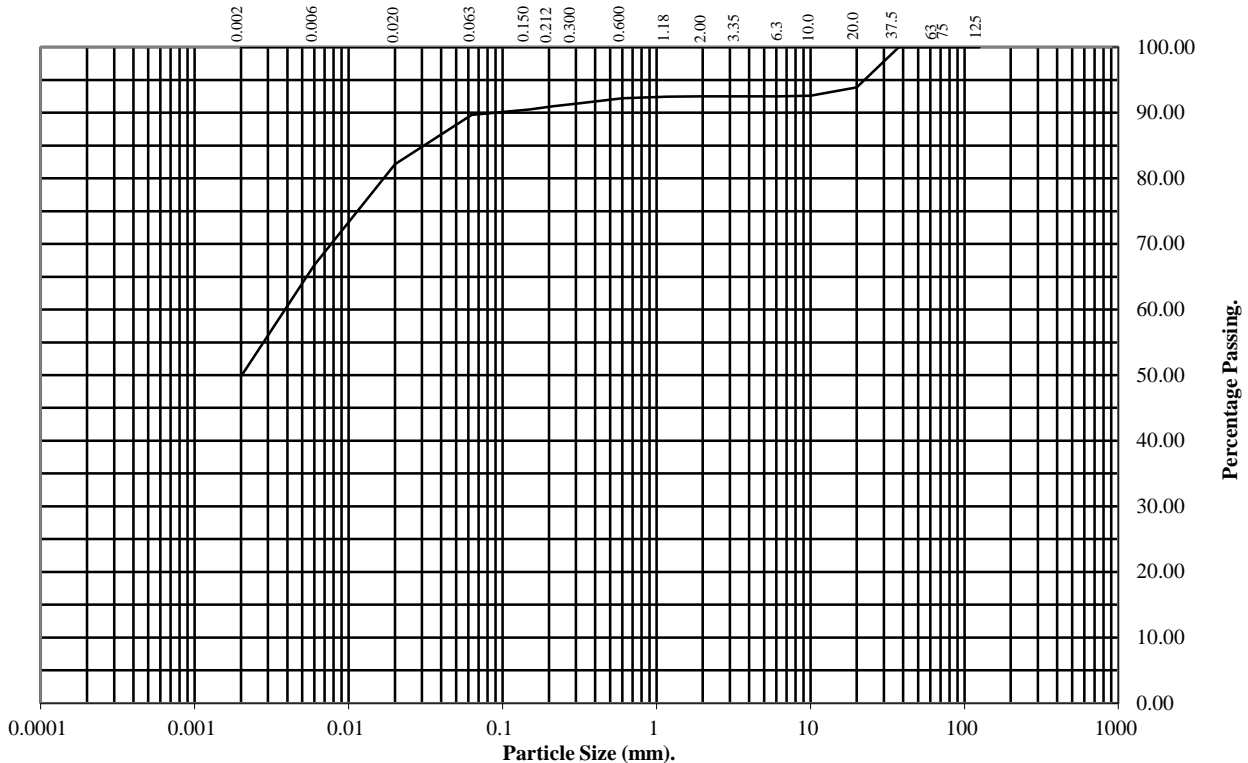
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1043 **Top Depth (m):** 3.00

Sample Number: **Base Depth(m):** 3.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	94
10	93
6.3	93
3.35	93
2	92
1.18	92
0.6	92
0.3	91
0.212	91
0.15	90
0.063	90

Particle Diameter	Percentage Passing
0.02	82
0.006	67
0.002	50

Soil Fraction	Total Percentage
Cobbles	0
Gravel	8
Sand	2
Silt	40
Clay	50

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

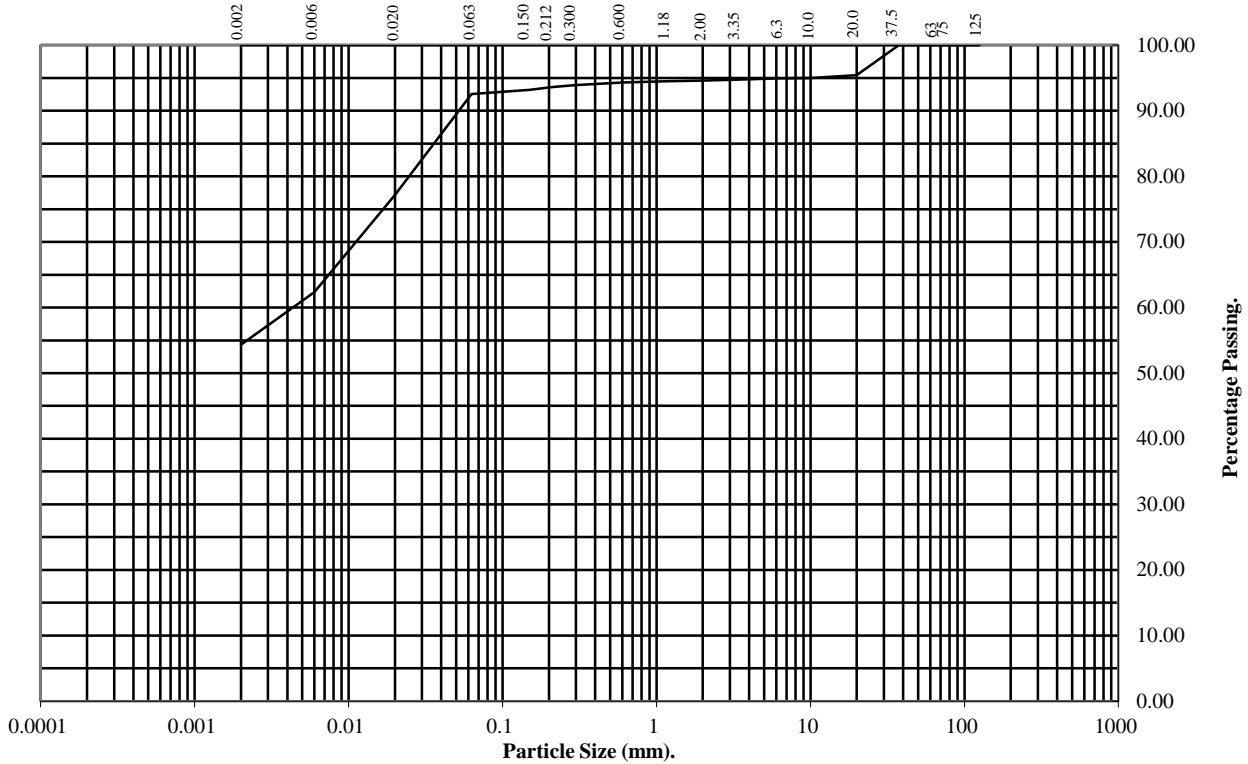
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1043 Top Depth (m): 7.00

Sample Number: Base Depth(m): 7.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	95
10	95
6.3	95
3.35	95
2	95
1.18	94
0.6	94
0.3	94
0.212	94
0.15	93
0.063	93

Particle Diameter	Percentage Passing
0.02	77
0.006	62
0.002	54

Soil Fraction	Total Percentage
Cobbles	0
Gravel	5
Sand	2
Silt	39
Clay	54

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

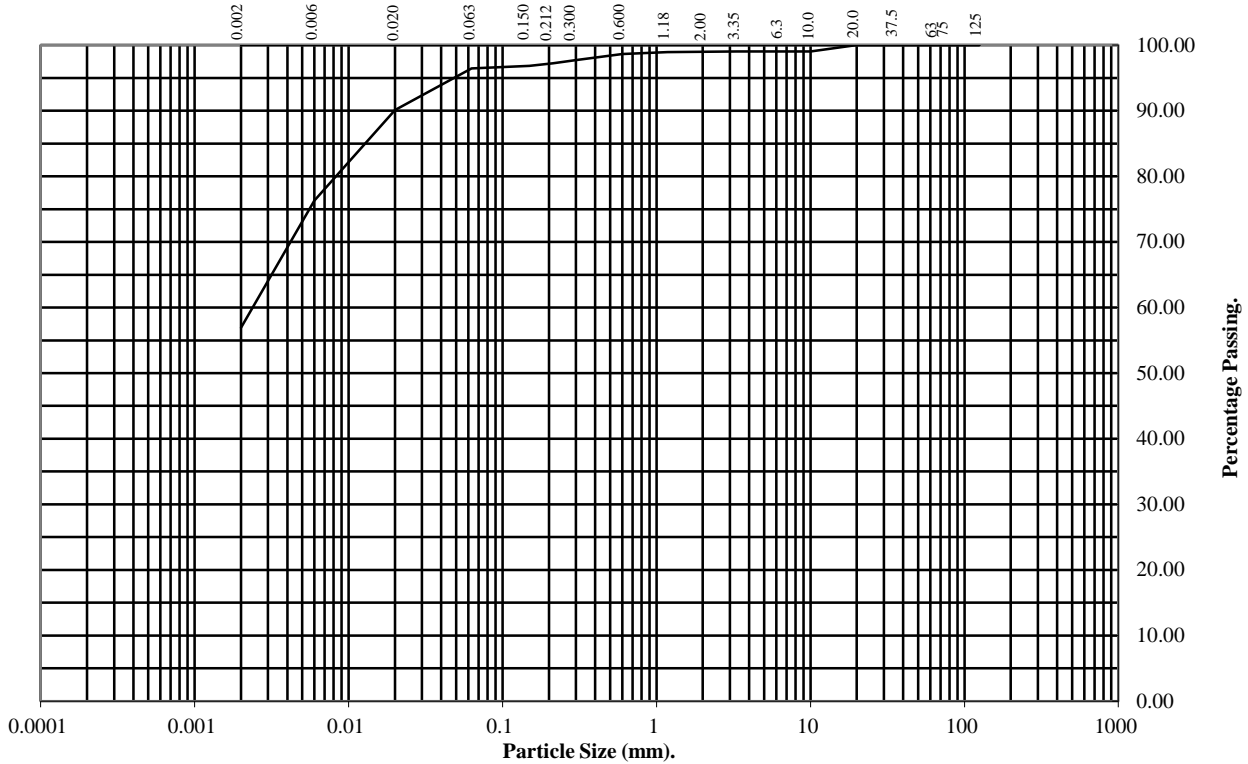
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1044 **Top Depth (m):** 1.20

Sample Number: **Base Depth(m):** 1.70

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	99
6.3	99
3.35	99
2	99
1.18	99
0.6	99
0.3	98
0.212	97
0.15	97
0.063	96

Particle Diameter	Percentage Passing
0.02	90
0.006	76
0.002	57

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	3
Silt	39
Clay	57

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

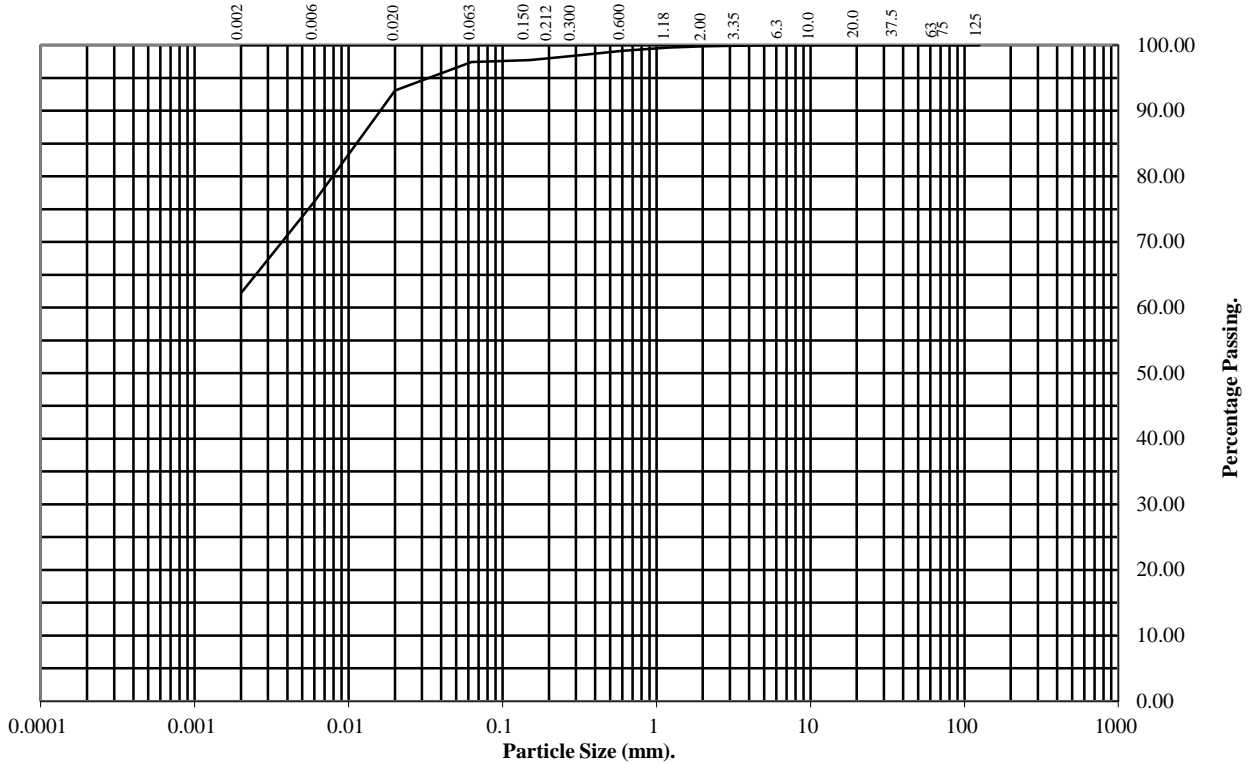
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1044 **Top Depth (m):** 3.00

Sample Number: **Base Depth(m):** 3.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	99
0.3	98
0.212	98
0.15	98
0.063	97

Particle Diameter	Percentage Passing
0.02	93
0.006	76
0.002	62

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	3
Silt	35
Clay	62

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

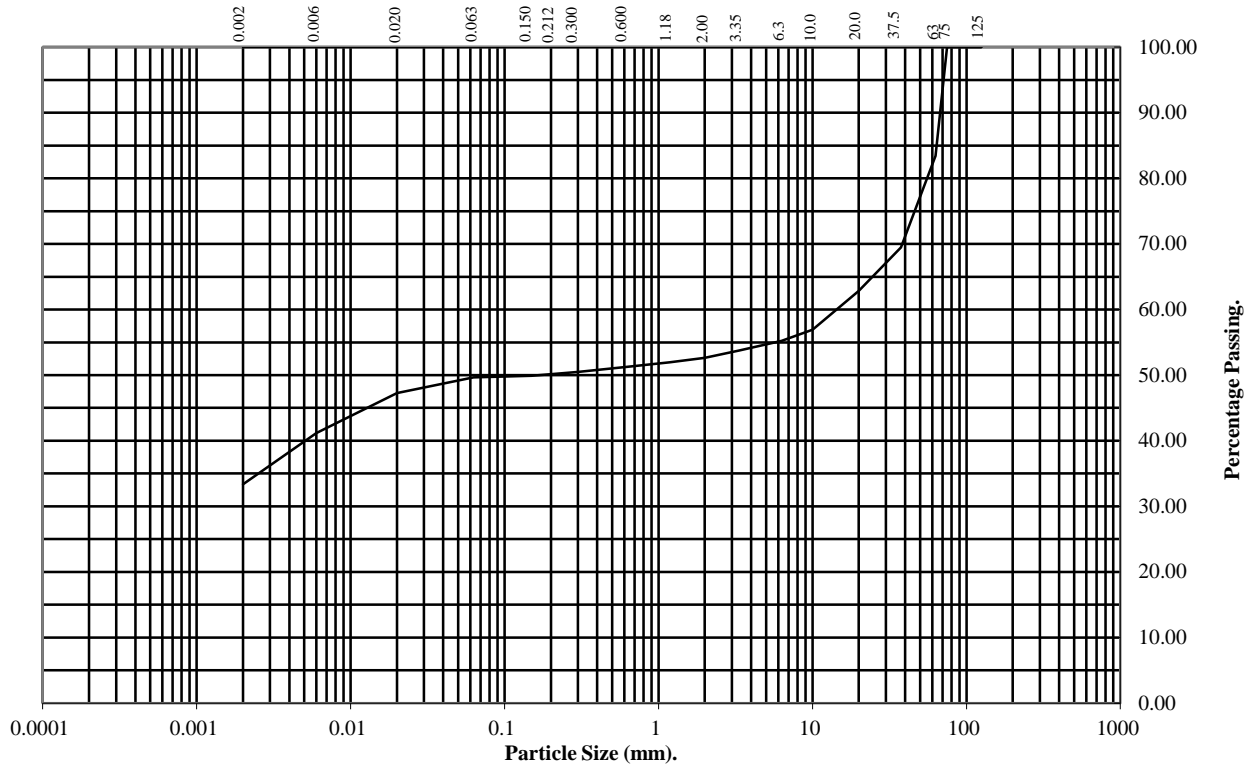
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: CPBH1044 **Top Depth (m):** 5.00

Sample Number: **Base Depth(m):** 5.50

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	83
37.5	69
20	63
10	57
6.3	55
3.35	54
2	53
1.18	52
0.6	51
0.3	50
0.212	50
0.15	50
0.063	50

Particle Diameter	Percentage Passing
0.02	47
0.006	41
0.002	33

Soil Fraction	Total Percentage
Cobbles	17
Gravel	30
Sand	3
Silt	17
Clay	33

Remarks:
See Summary of Soil Descriptions



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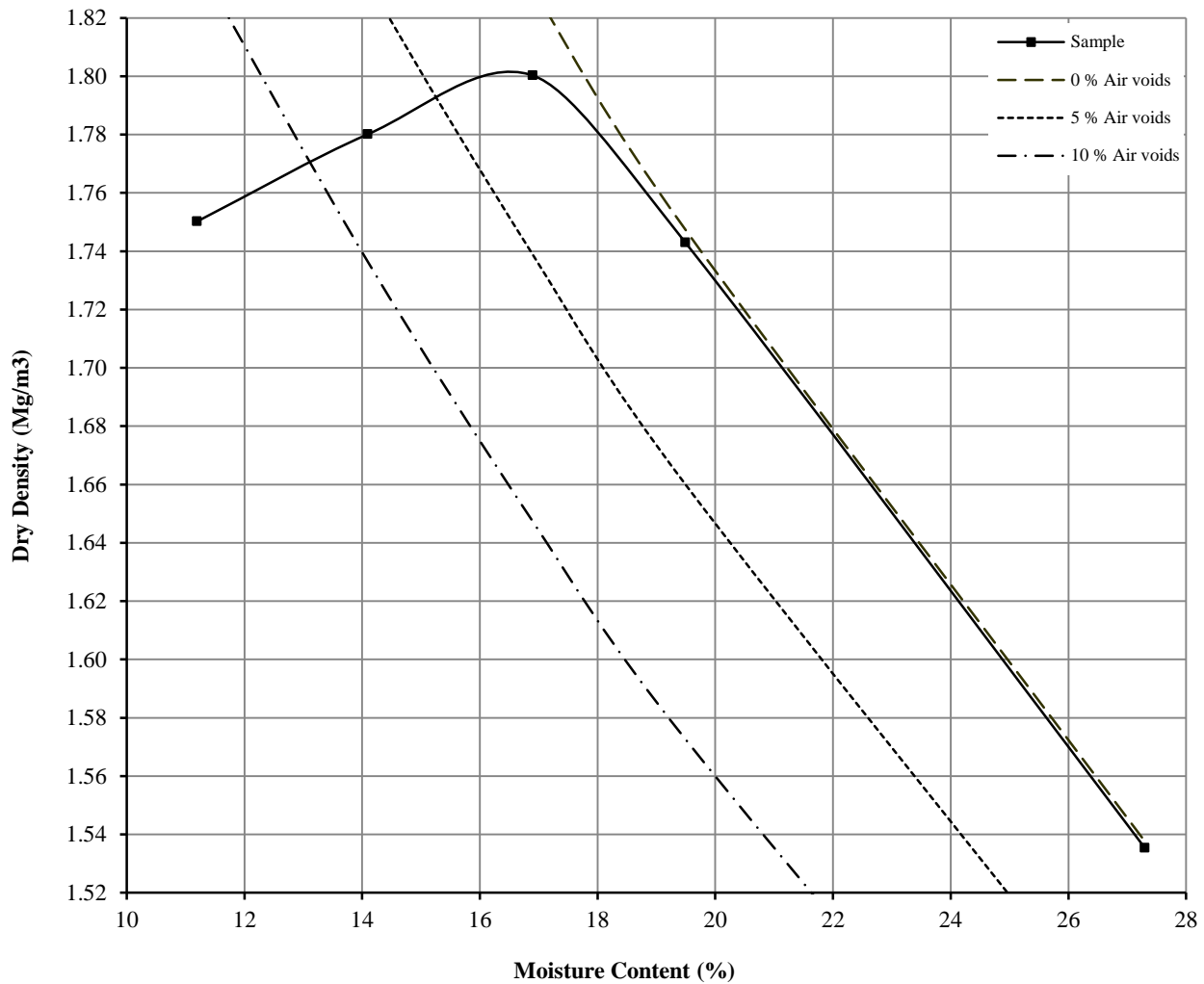
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number: CPBH1021 Top Depth (m) : 6.00

Sample Number: Base Depth (m) : 6.50

Sample Type: B



Initial Moisture Content:	27	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	7
Maximum Dry Density (Mg/m ³):	1.80		Material Retained on 20.0 mm Test Sieve (%):	4
Optimum Moisture Content (%):	17			
Remarks See summary of soil descriptions.				



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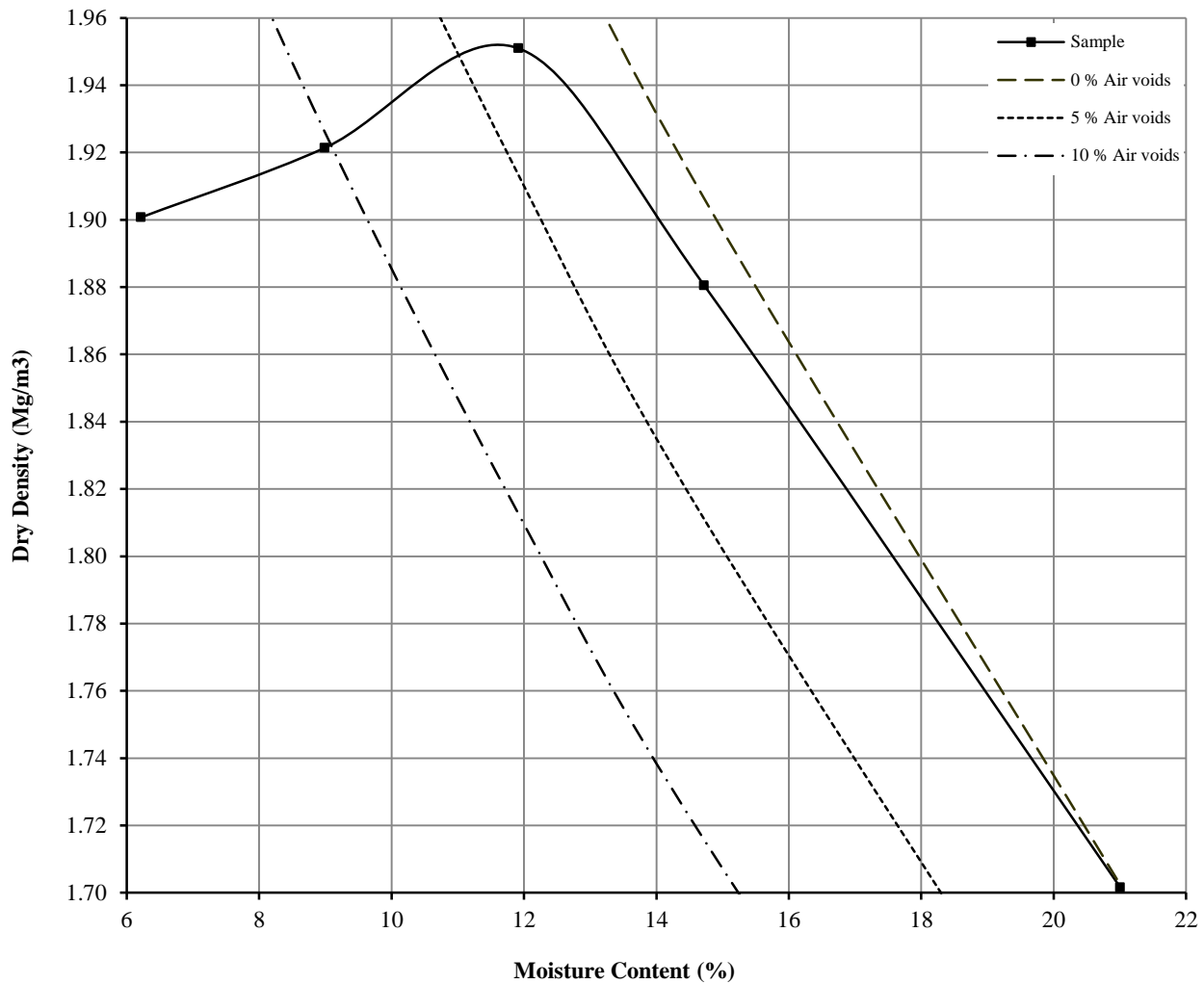
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: CPBH1022 Top Depth (m) : 3.00

Sample Number: Base Depth (m) : 3.50

Sample Type: B



Initial Moisture Content:	21	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.95	Material Retained on 20.0 mm Test Sieve (%):	0	
Optimum Moisture Content (%):	12			
Remarks				
See summary of soil descriptions.				



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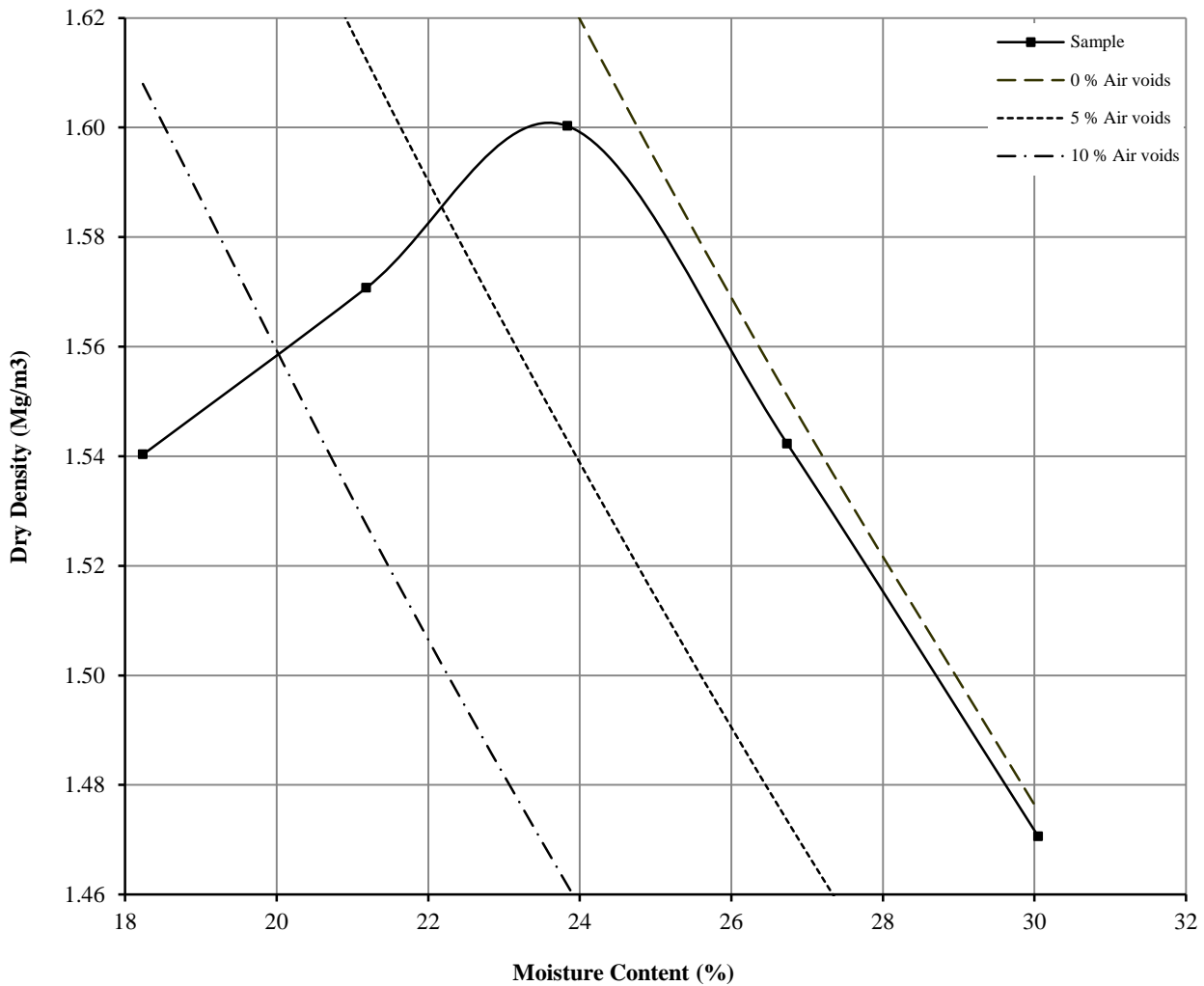
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: CPBH1033 Top Depth (m) : 1.20

Sample Number: Base Depth (m) : 1.70

Sample Type: B



Initial Moisture Content:	30	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.60	Material Retained on 20.0 mm Test Sieve (%):	0	
Optimum Moisture Content (%):	24			
Remarks				
See summary of soil descriptions.				



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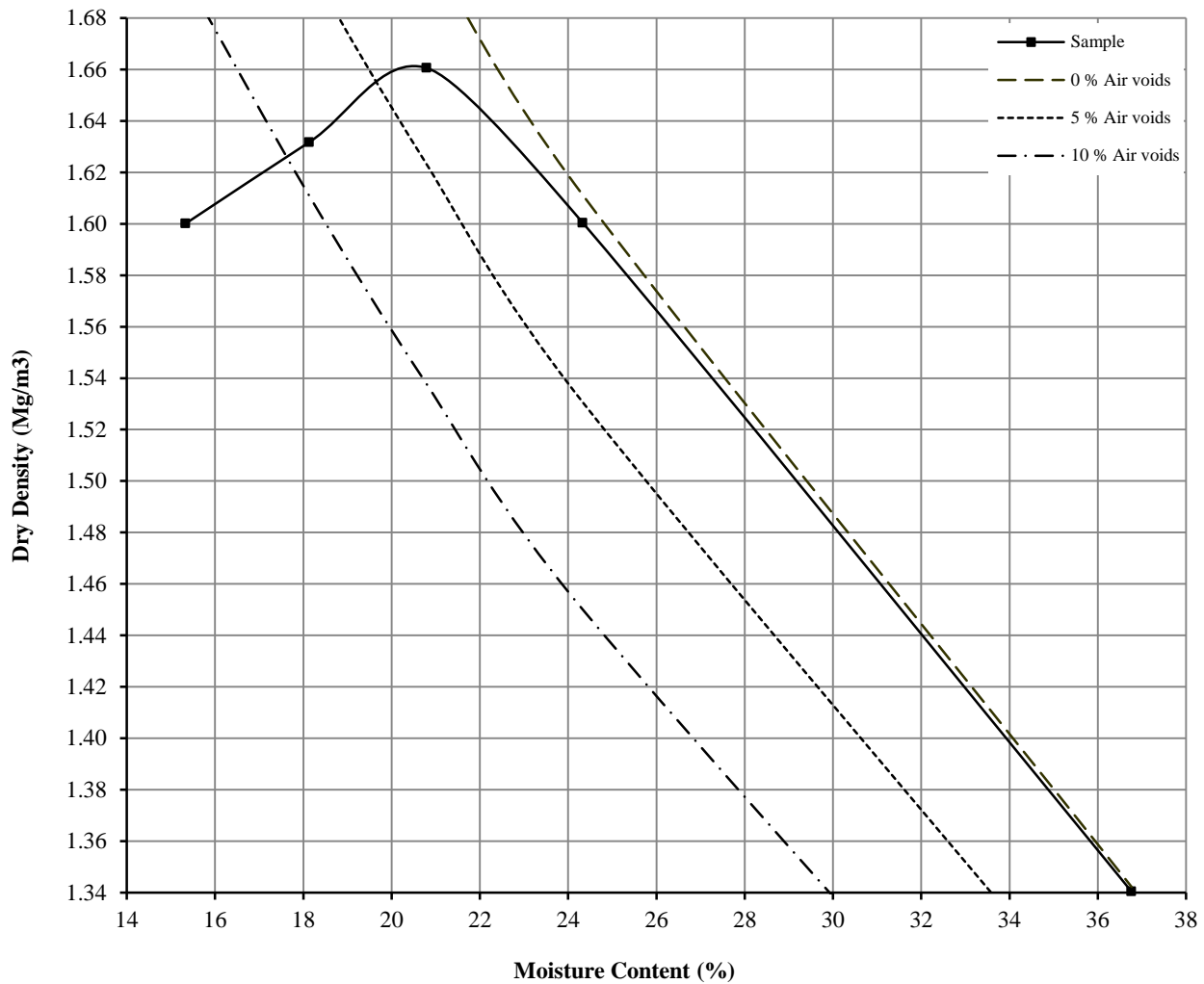
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: CPBH1034 Top Depth (m) : 2.20

Sample Number: Base Depth (m) : 2.70

Sample Type: B



Initial Moisture Content:	37	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.66		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	21			
Remarks				
See summary of soil descriptions.				



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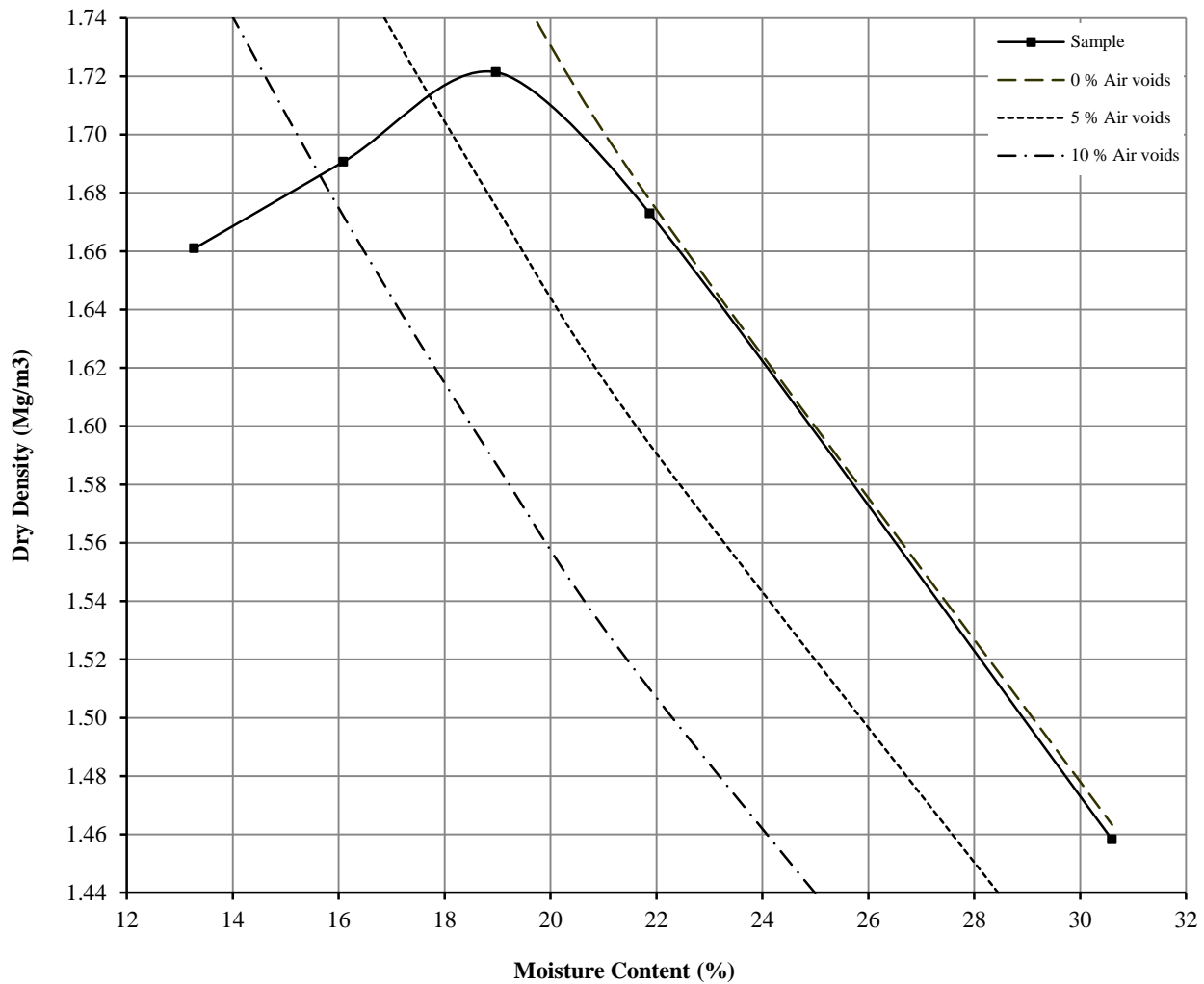
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: CPBH1034 Top Depth (m) : 5.00

Sample Number: Base Depth (m) : 5.50

Sample Type: B



Initial Moisture Content:	31	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.72		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	19			
Remarks See summary of soil descriptions.				



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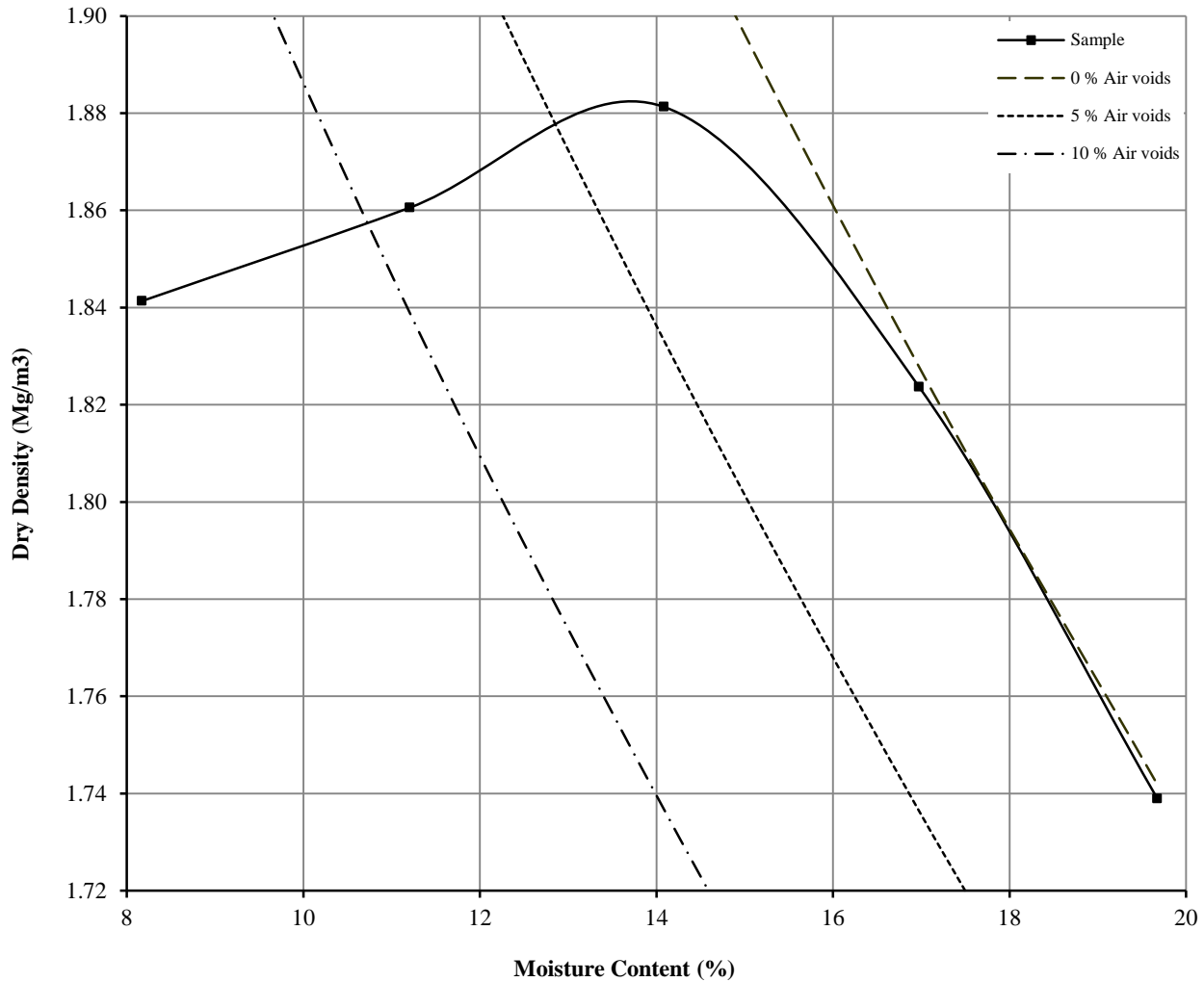
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: CPBH1037 Top Depth (m) : 5.00

Sample Number: Base Depth (m) : 5.50

Sample Type: B



Initial Moisture Content:	20	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.88	Material Retained on 20.0 mm Test Sieve (%):	3	
Optimum Moisture Content (%):	14			
Remarks				
See summary of soil descriptions.				



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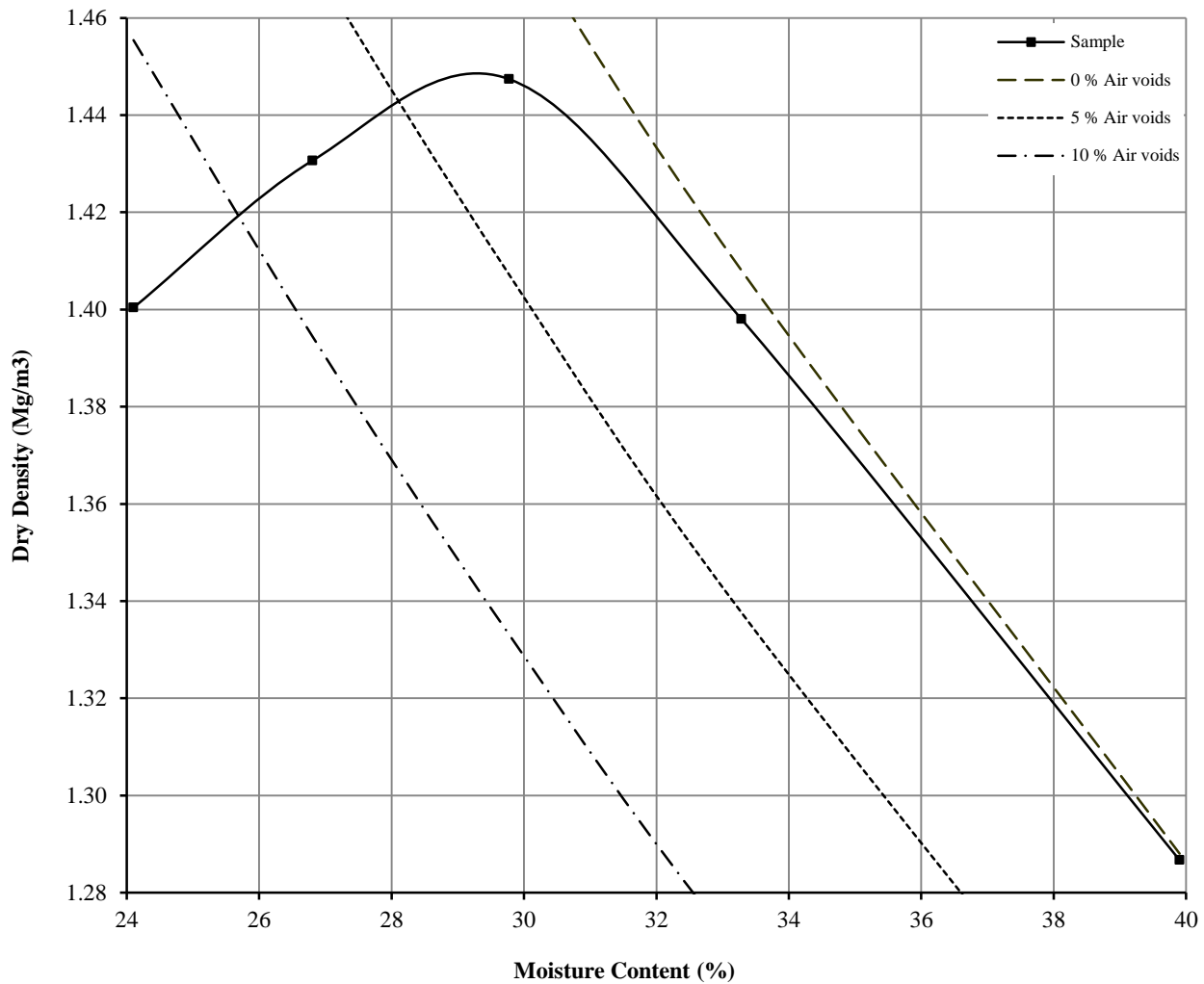
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: CPBH1039 Top Depth (m) : 3.00

Sample Number: Base Depth (m) : 3.50

Sample Type: B



Initial Moisture Content:	40	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.45	Material Retained on 20.0 mm Test Sieve (%):	0	
Optimum Moisture Content (%):	29			
Remarks				
See summary of soil descriptions.				



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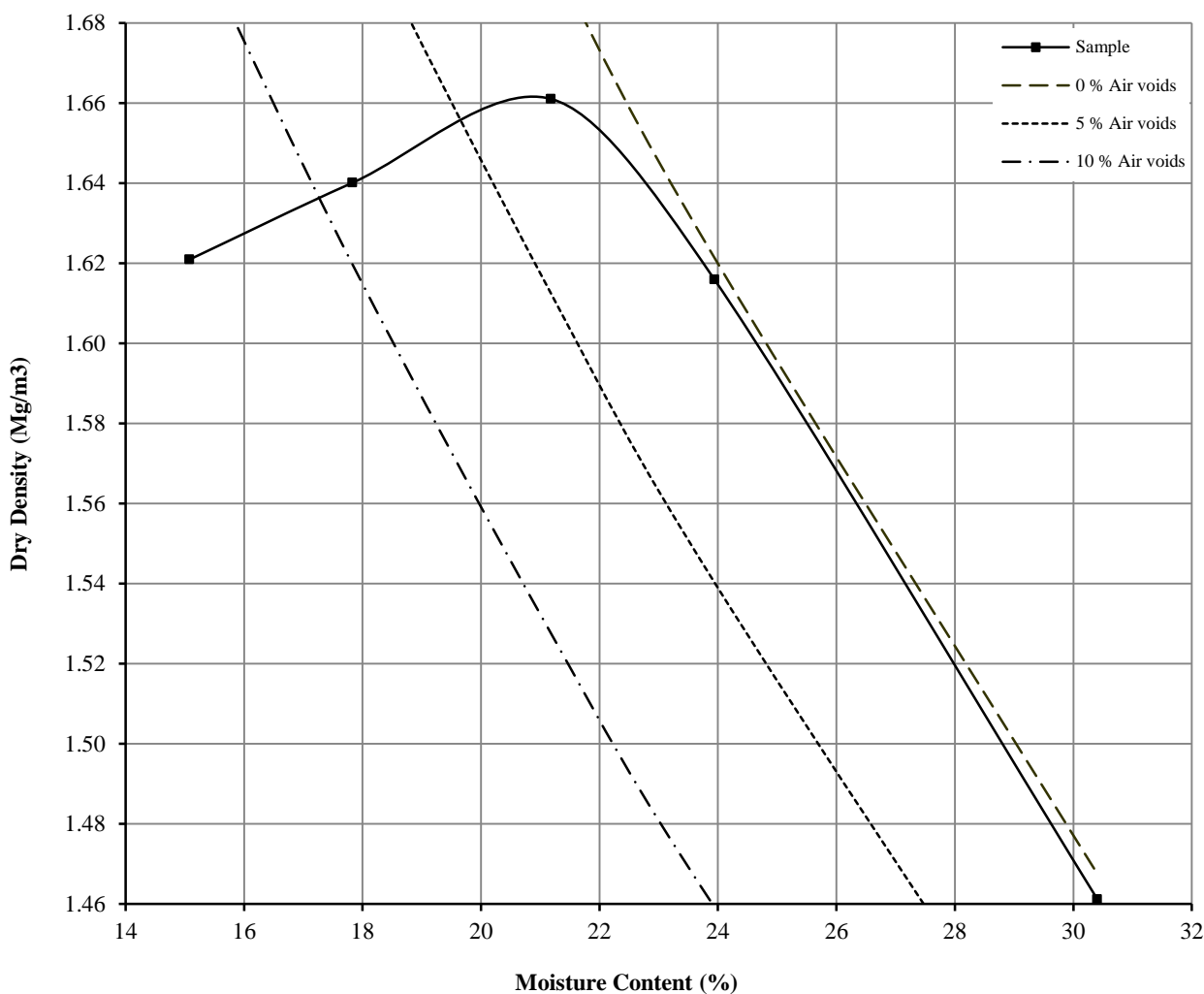
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

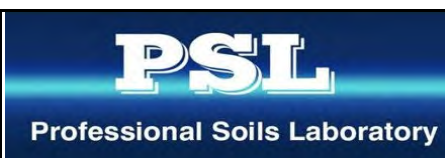
Hole Number: CPBH1041 Top Depth (m) : 6.50

Sample Number: Base Depth (m) : 7.00

Sample Type: B



Initial Moisture Content:	30	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.66		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	21			
Remarks				
See summary of soil descriptions.				



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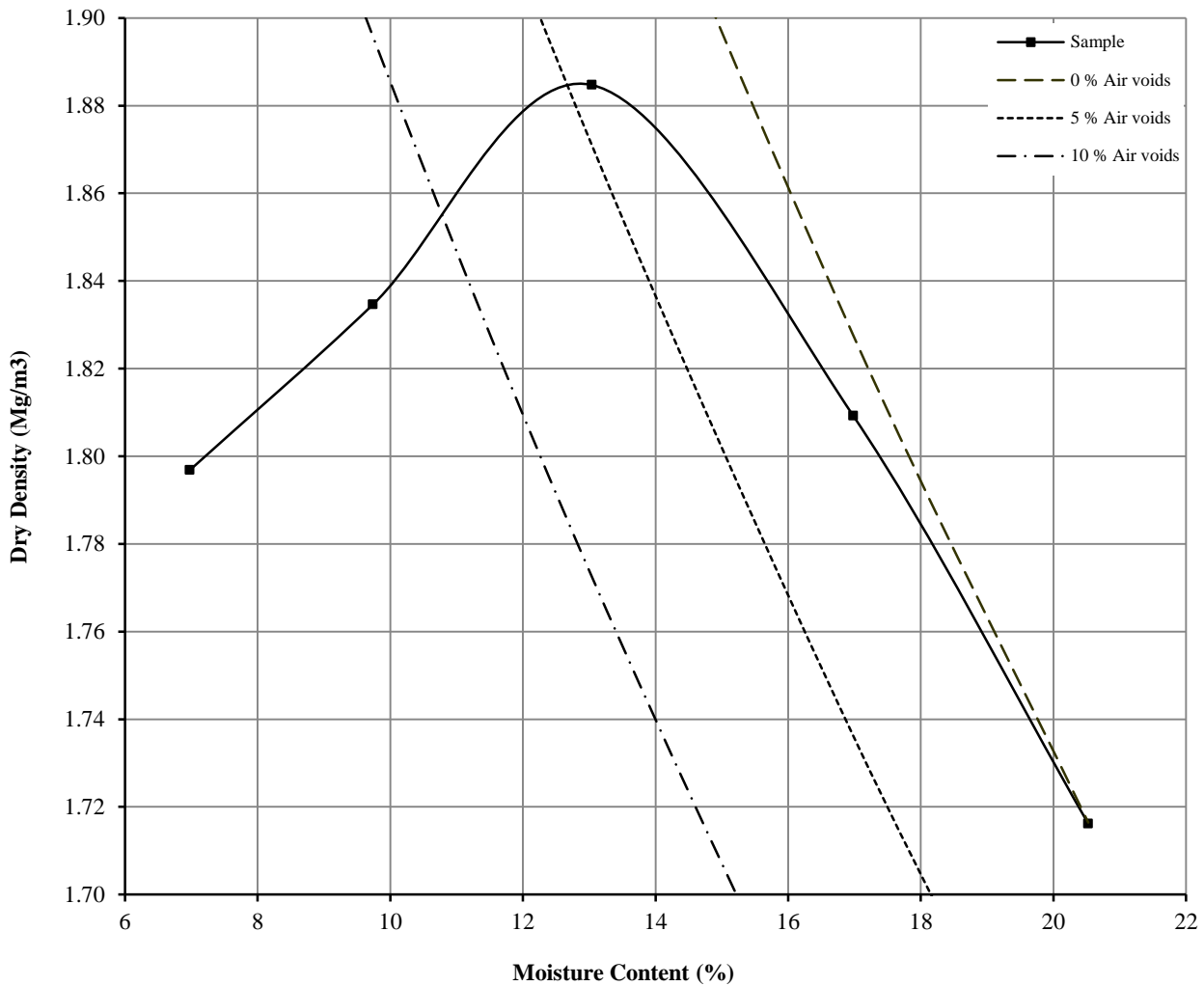
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: CPBH1042 Top Depth (m) : 2.00

Sample Number: Base Depth (m) : 2.50

Sample Type: B



Initial Moisture Content:	21	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.88		Material Retained on 20.0 mm Test Sieve (%):	5
Optimum Moisture Content (%):	13			
Remarks				
See summary of soil descriptions.				



Land East of Hemel Hempstead GI

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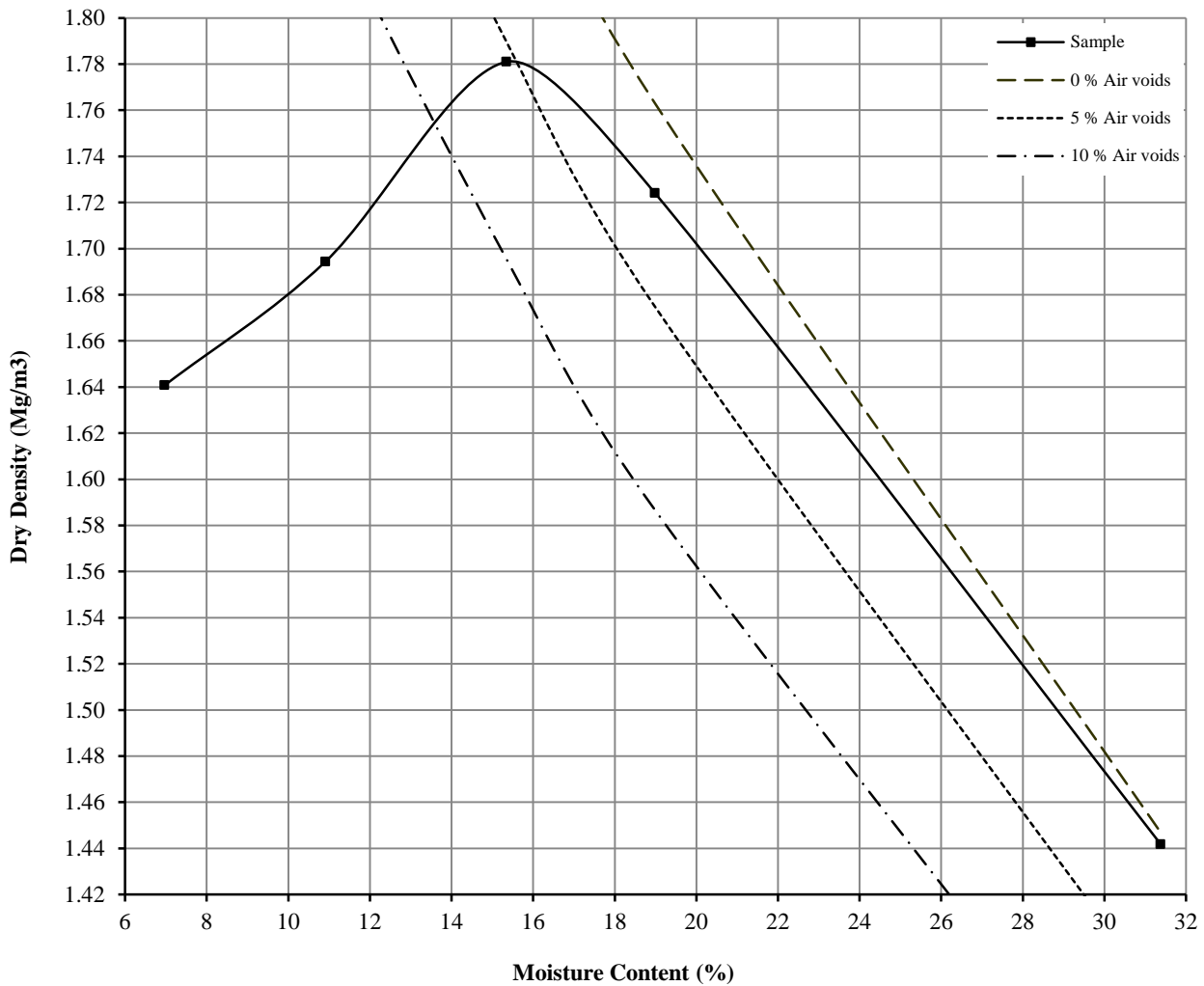
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: CPBH1043 Top Depth (m) : 4.00

Sample Number: Base Depth (m) : 4.50

Sample Type: B



Initial Moisture Content:	31	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.78		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	15			
Remarks				
See summary of soil descriptions.				



Land East of Hemel Hempstead GI

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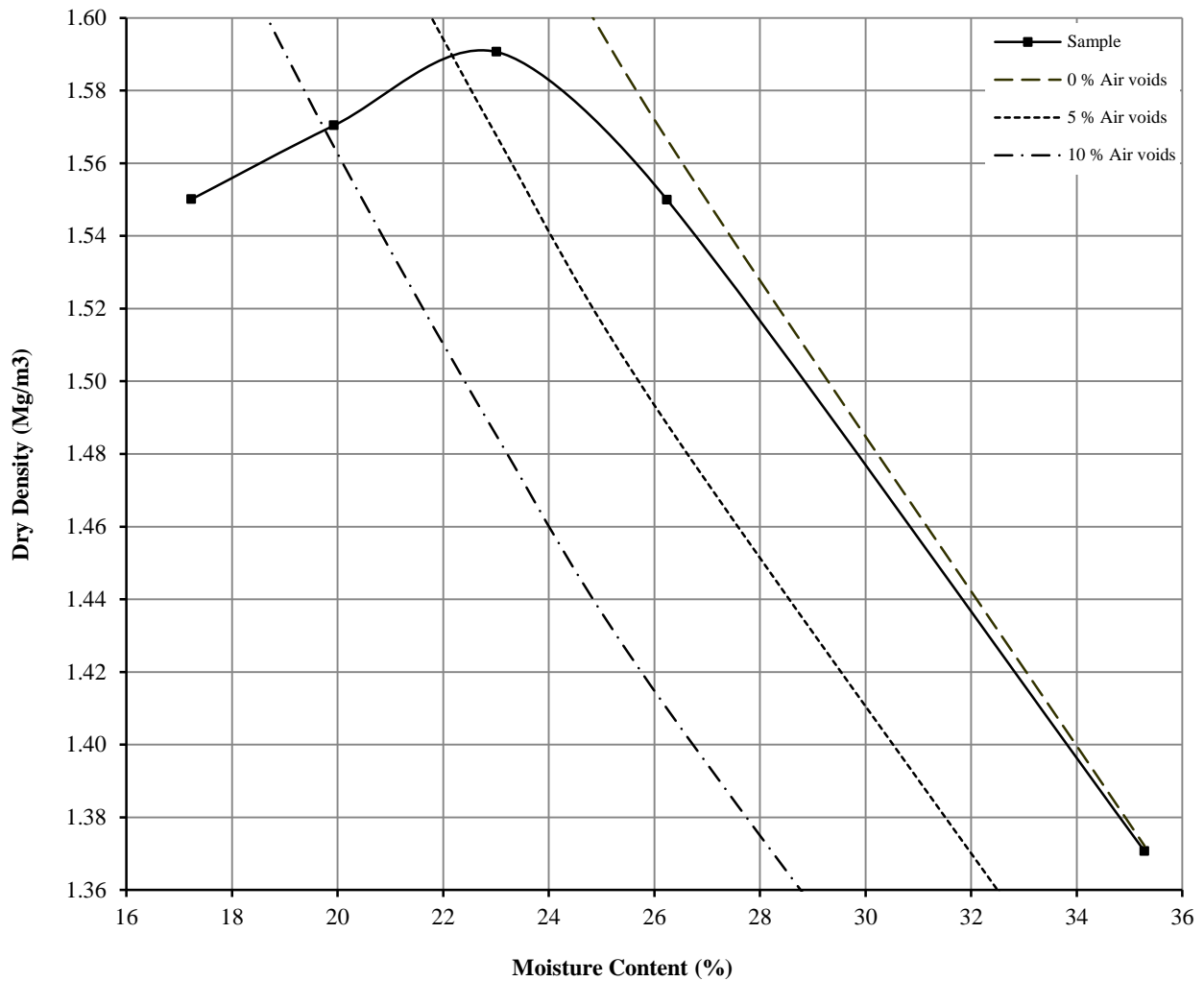
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: CPBH1044 Top Depth (m) : 4.00

Sample Number: Base Depth (m) : 4.50

Sample Type: B



Initial Moisture Content:	35	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.66	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.59		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	23			
Remarks				
See summary of soil descriptions.				



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

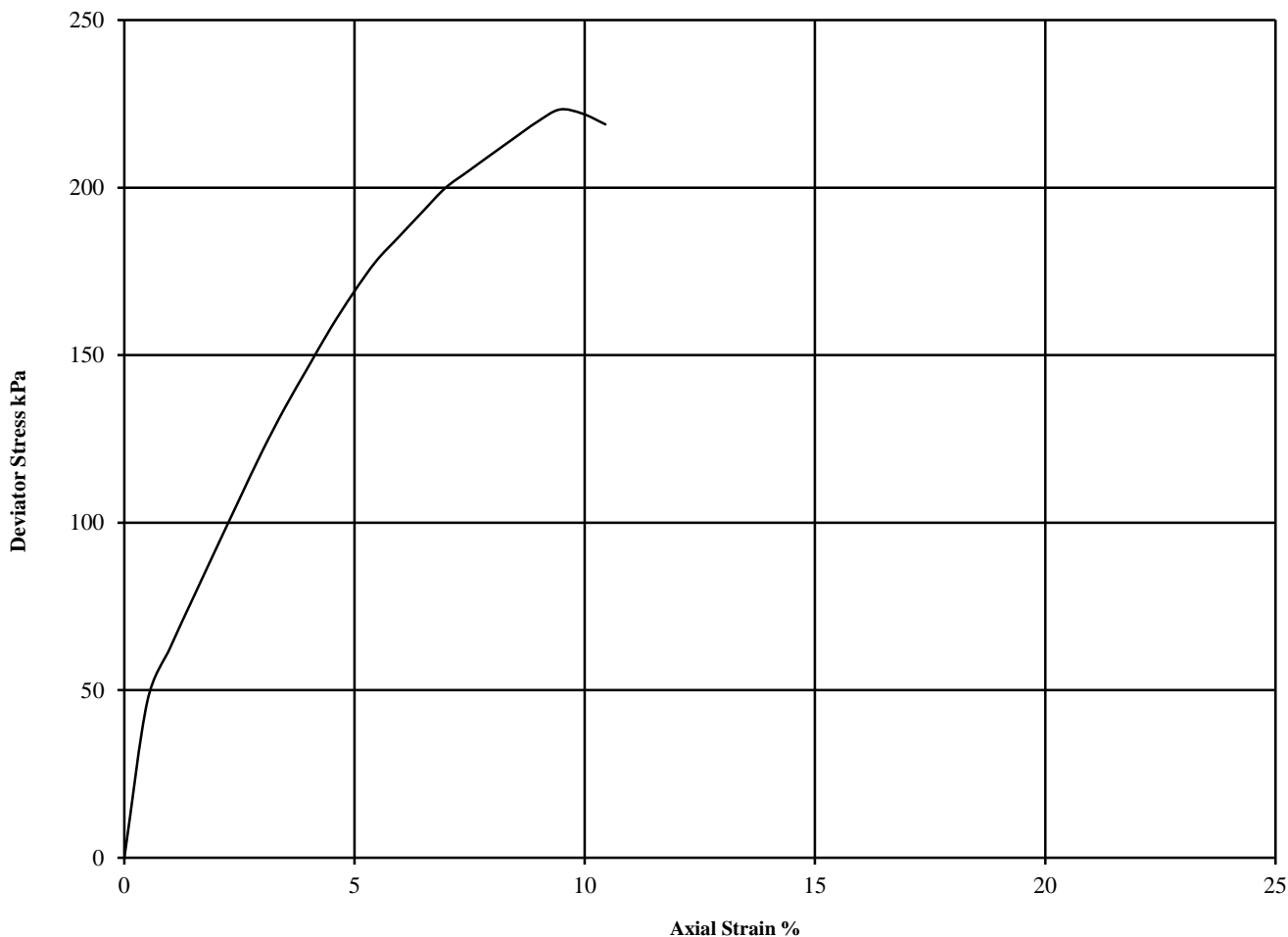
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **CPBH1006** Top Depth (m): **6.50**

Sample Number: Base Depth (m): **6.95**

Sample Type **UT100**



Diameter (mm):		103		Height (mm):		207		Test:		UU Single Stage		Remarks:	
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure					
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$							
1	25	2.02	1.62	130	223	112	9.5	Brittle					Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.35 See summary of soil descriptions



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

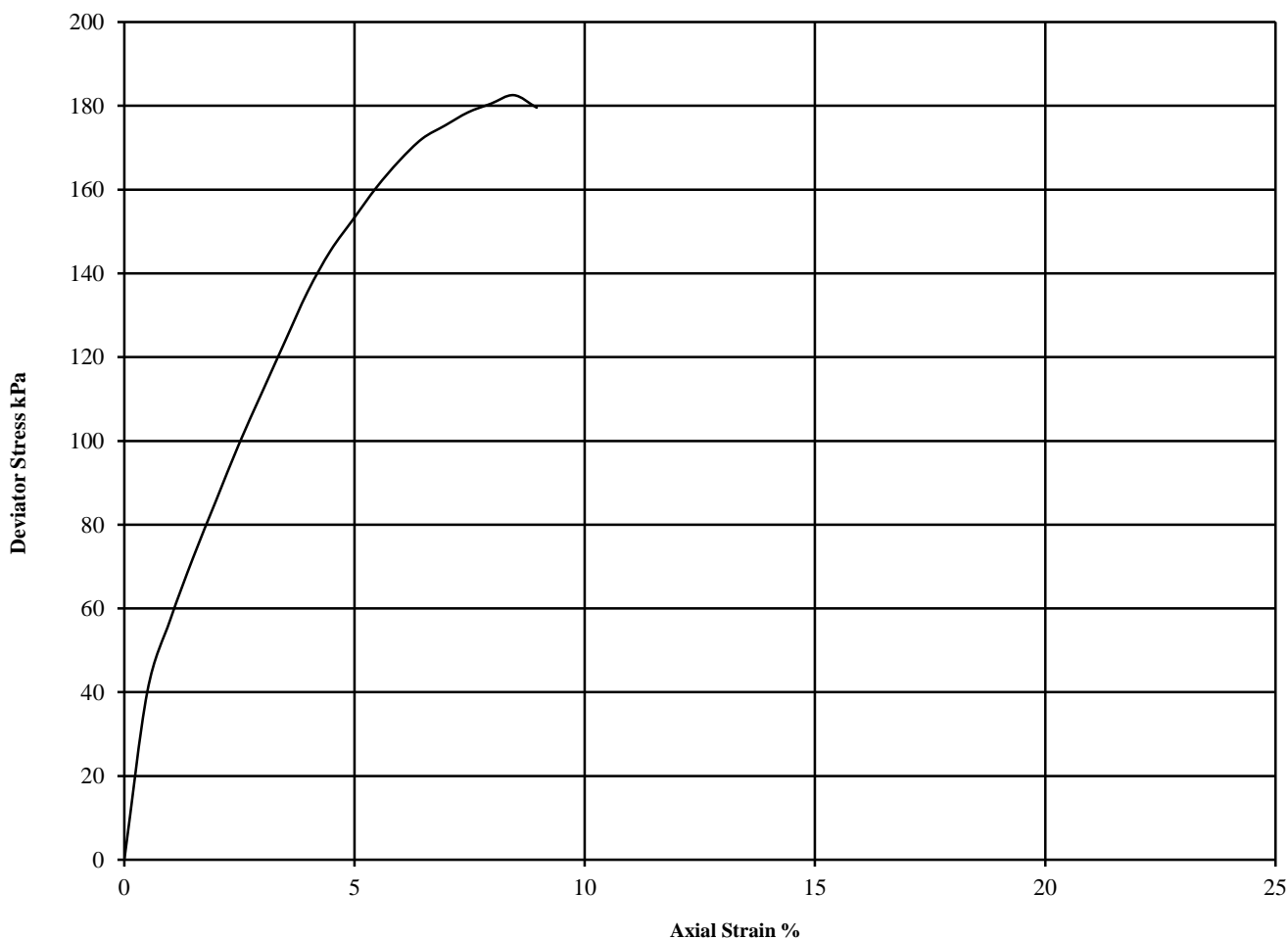
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CPBH1020 Top Depth (m): 1.20

Sample Number: Base Depth (m): 1.65

Sample Type UT100



Diameter (mm):		103		Height (mm):		207		Test:		UU Single Stage		Remarks:	
Specimen	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure					
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$							
1	32	1.75	1.32	25	183	91	8.5	Brittle	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.35 See summary of soil descriptions				



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

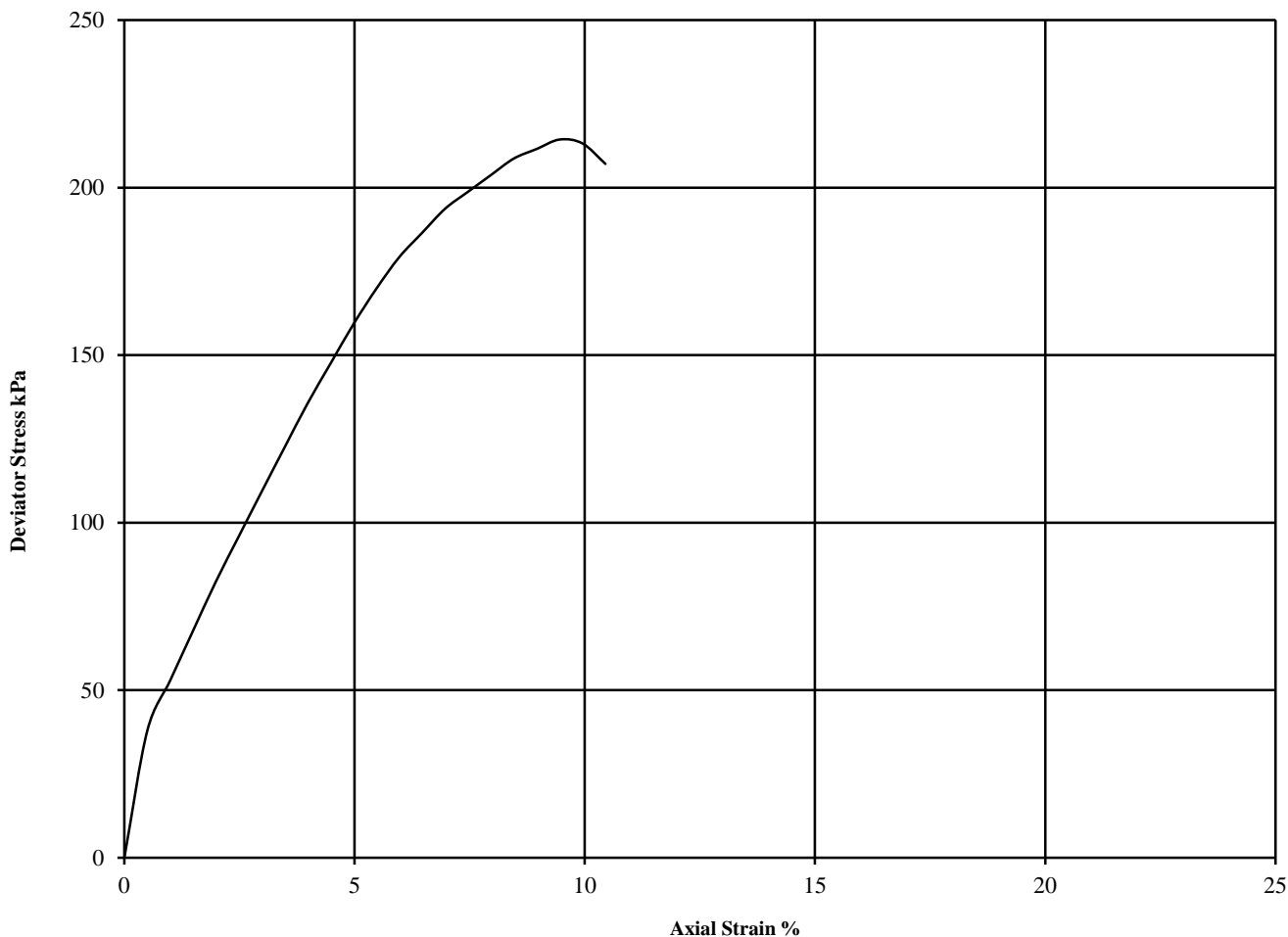
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **CPBH1022** Top Depth (m): **4.00**

Sample Number: Base Depth (m): **4.45**

Sample Type **UT100**



Diameter (mm):		103	Height (mm):			207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.35 See summary of soil descriptions	
			θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$					
1	21	2.06	1.70	80	214	107	9.5	Brittle		



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Professional Soils Laboratory

Land East of Hemel Hempstead GI

Contract No:
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C6515

ONE DIMENSIONAL CONSOLIDATION TEST

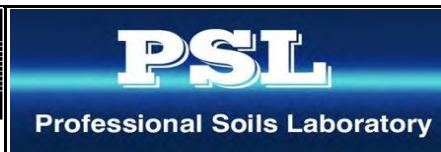
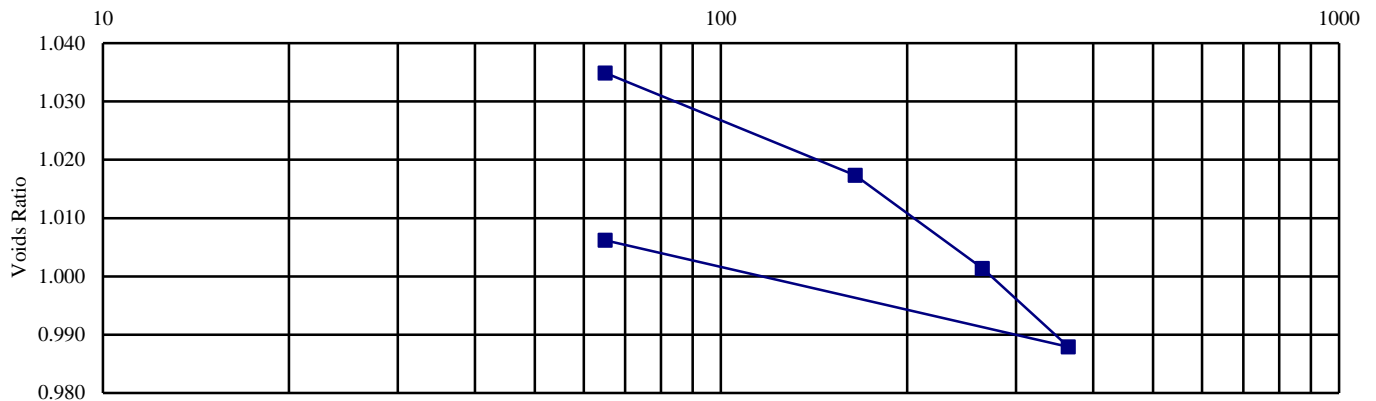
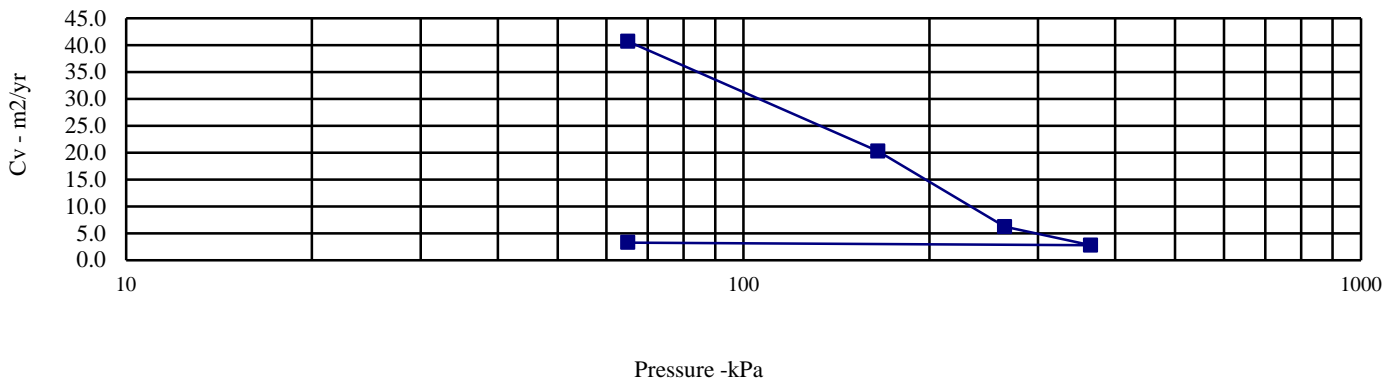
BS 1377: Part 5: 1990: Clause 3

Hole Number: CPBH1020 Top Depth (m): 3.20

Sample Number: Base Depth (m) : 3.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	39	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.80	0	65	0.126	40.685	Method used to	
Dry Density (Mg/m3):	1.29	65	165	0.086	20.266	determine CV:	T90
Voids Ratio:	1.052	165	265	0.079	6.228	Nominal temperature	
Degree of saturation:	98.5	265	365	0.067	2.769	during test ' C:	20
Height (mm):	19.95	365	65	0.031	3.279	Remarks:	
Diameter (mm)	75.053	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



Land East of Hemel Hempstead GI

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C6515

ONE DIMENSIONAL CONSOLIDATION TEST

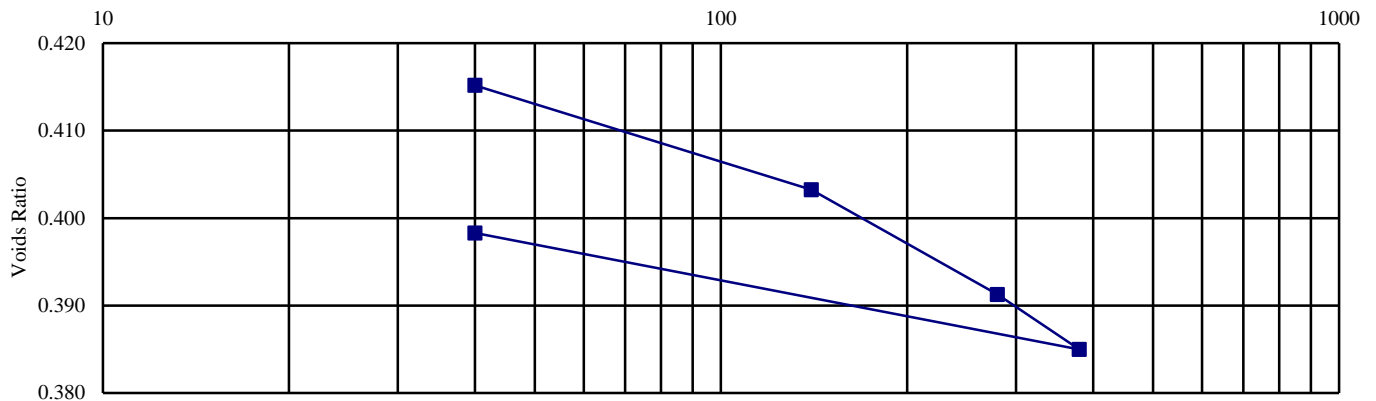
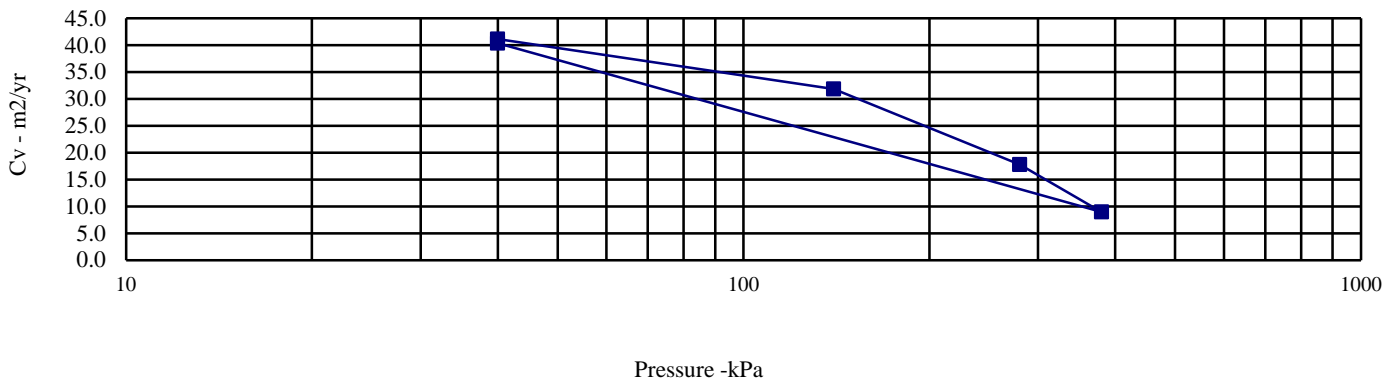
BS 1377: Part 5: 1990: Clause 3

Hole Number: CPBH1021 Top Depth (m): 2.00

Sample Number: Base Depth (m) : 2.45

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	17	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	2.17	0	40	0.131	41.109	Method used to	
Dry Density (Mg/m3):	1.86	40	140	0.085	31.831	determine CV:	T90
Voids Ratio:	0.423	140	280	0.061	17.782	Nominal temperature	
Degree of saturation:	103.5	280	380	0.045	8.968	during test ' C:	20
Height (mm):	19.856	380	40	0.028	40.381	Remarks:	
Diameter (mm)	74.97	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



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ONE DIMENSIONAL CONSOLIDATION TEST

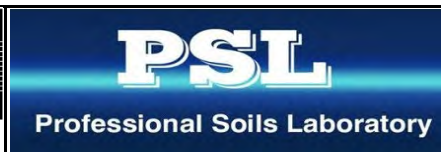
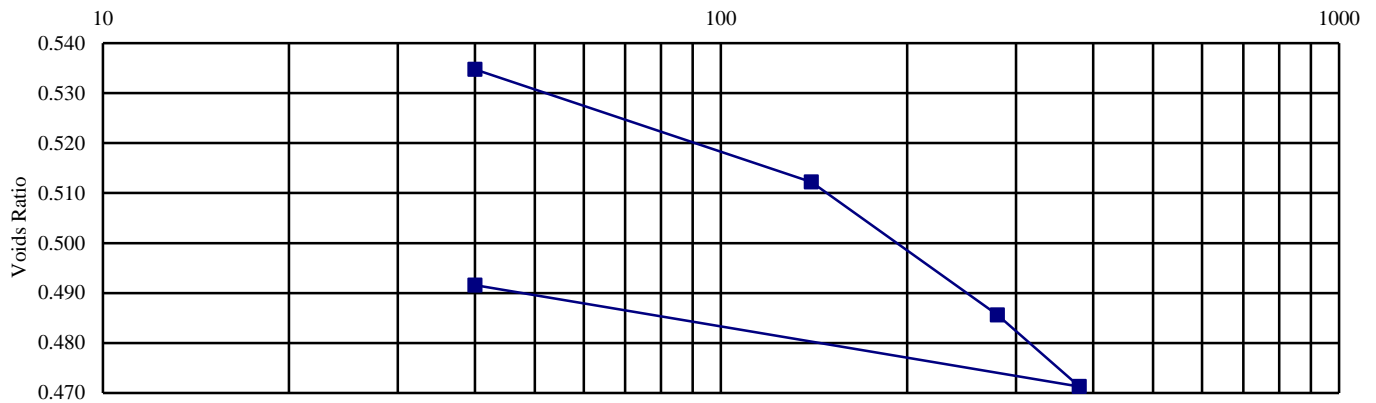
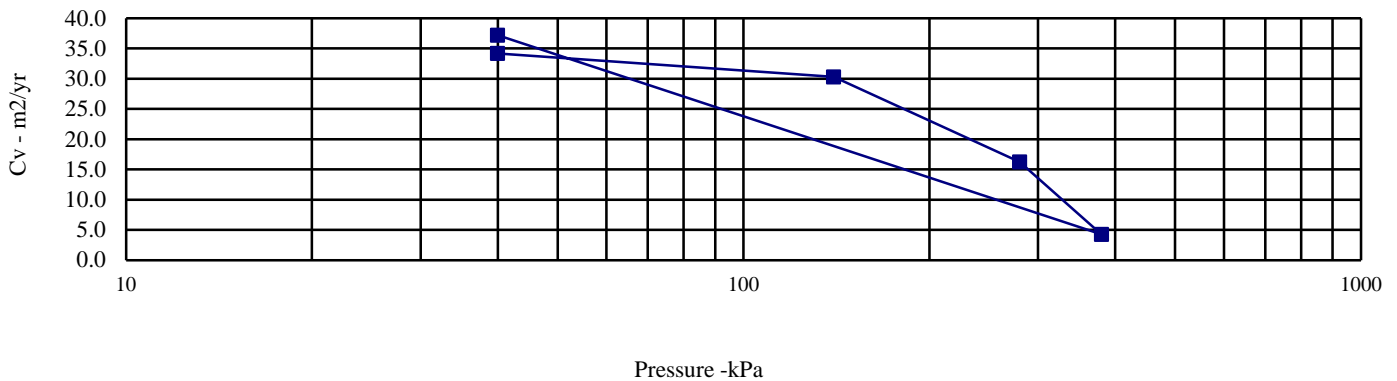
BS 1377: Part 5: 1990: Clause 3

Hole Number: CPBH1022 Top Depth (m): 2.00

Sample Number: Base Depth (m) : 2.45

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	19	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	2.04	0	40	0.143	34.178	Method used to	
Dry Density (Mg/m3):	1.72	40	140	0.147	30.286	determine CV:	T90
Voids Ratio:	0.544	140	280	0.126	16.226	Nominal temperature	
Degree of saturation:	91.6	280	380	0.097	4.248	during test ' C:	20
Height (mm):	19.894	380	40	0.041	37.191	Remarks:	
Diameter (mm)	75.118	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



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ONE DIMENSIONAL CONSOLIDATION TEST

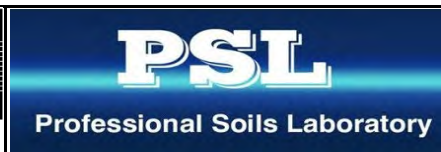
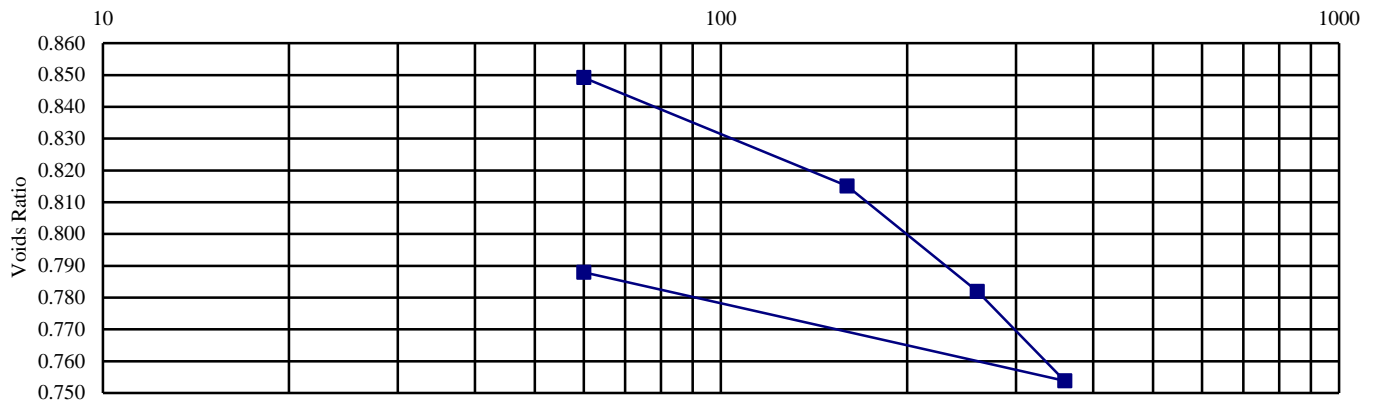
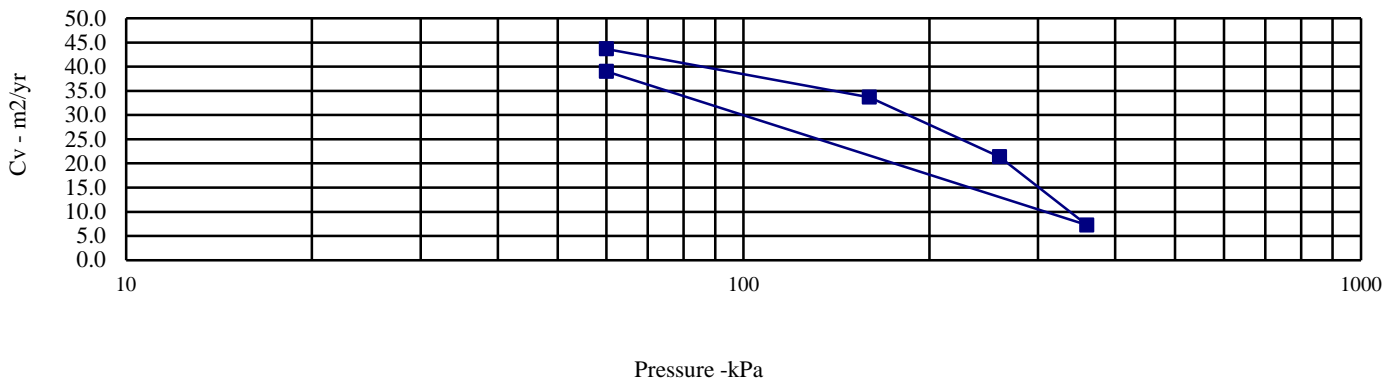
BS 1377: Part 5: 1990: Clause 3

Hole Number: CPBH1024 Top Depth (m): 3.00

Sample Number: Base Depth (m) : 3.45

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	28	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.82	0	60	0.180	43.653	Method used to	
Dry Density (Mg/m3):	1.42	60	160	0.184	33.680	determine CV:	T90
Voids Ratio:	0.869	160	260	0.183	21.378	Nominal temperature	
Degree of saturation:	85.8	260	360	0.158	7.237	during test ' C:	20
Height (mm):	20.226	360	60	0.065	38.992	Remarks:	
Diameter (mm)	75.01	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



Land East of Hemel Hempstead GI

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C6515

ONE DIMENSIONAL CONSOLIDATION TEST

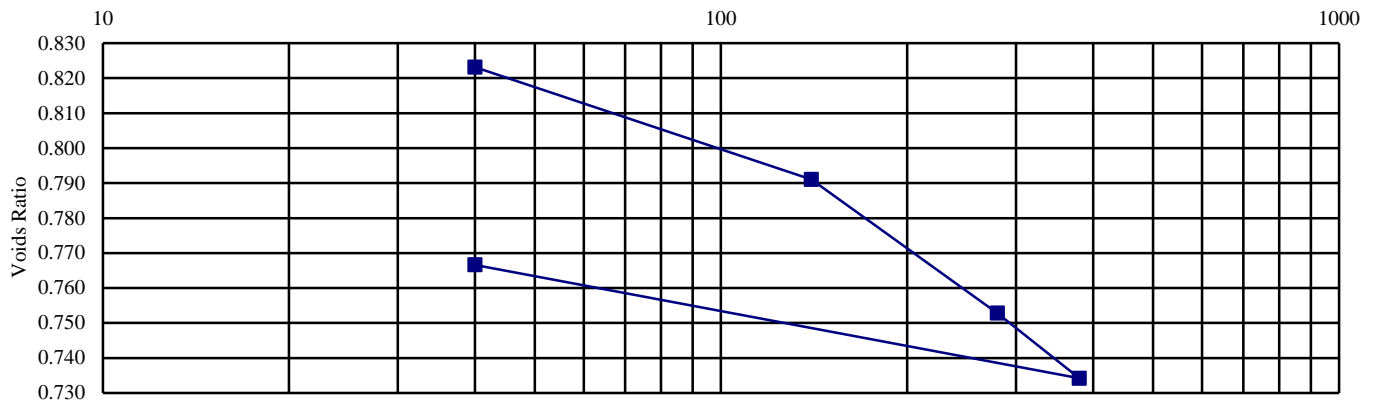
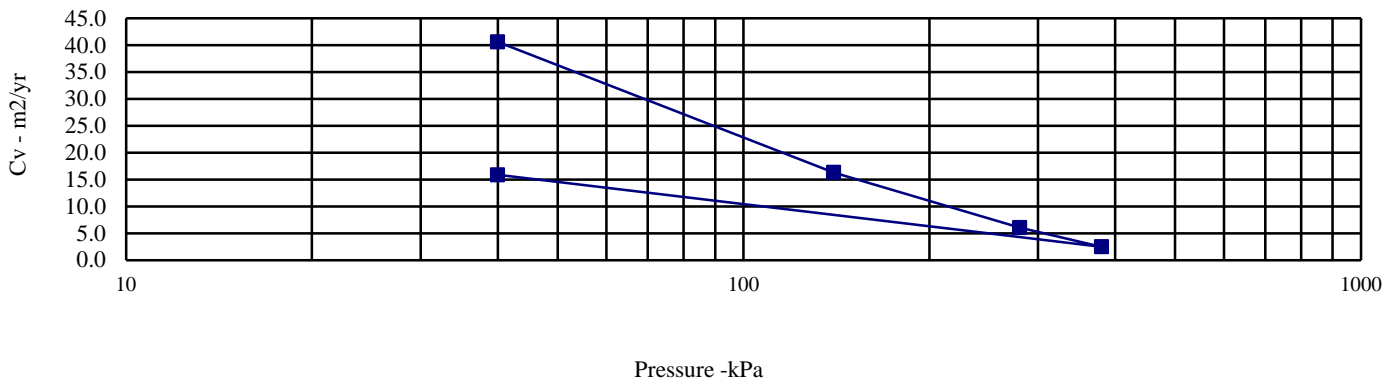
BS 1377: Part 5: 1990: Clause 3

Hole Number: CPBH1029 Top Depth (m): 2.00

Sample Number: Base Depth (m) : 2.45

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	33	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.92	0	40	0.153	40.571	Method used to	
Dry Density (Mg/m3):	1.44	40	140	0.176	16.321	determine CV:	T90
Voids Ratio:	0.834	140	280	0.152	6.036	Nominal temperature	
Degree of saturation:	103.8	280	380	0.106	2.507	during test ' C:	20
Height (mm):	19.92	380	40	0.055	15.858	Remarks:	
Diameter (mm)	75.1	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



Land East of Hemel Hempstead GI

Contract No:
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C6515

ONE DIMENSIONAL CONSOLIDATION TEST

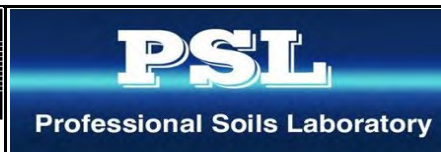
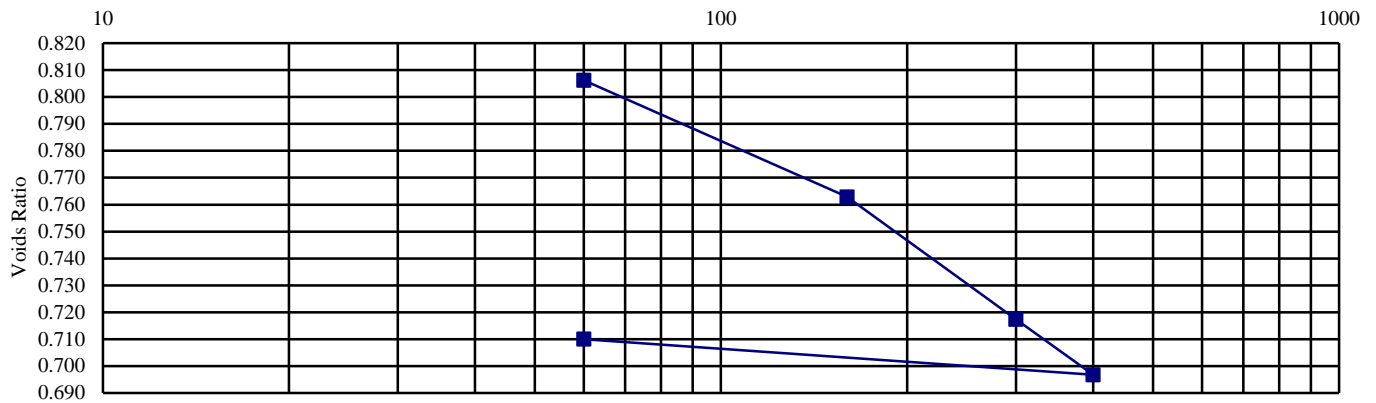
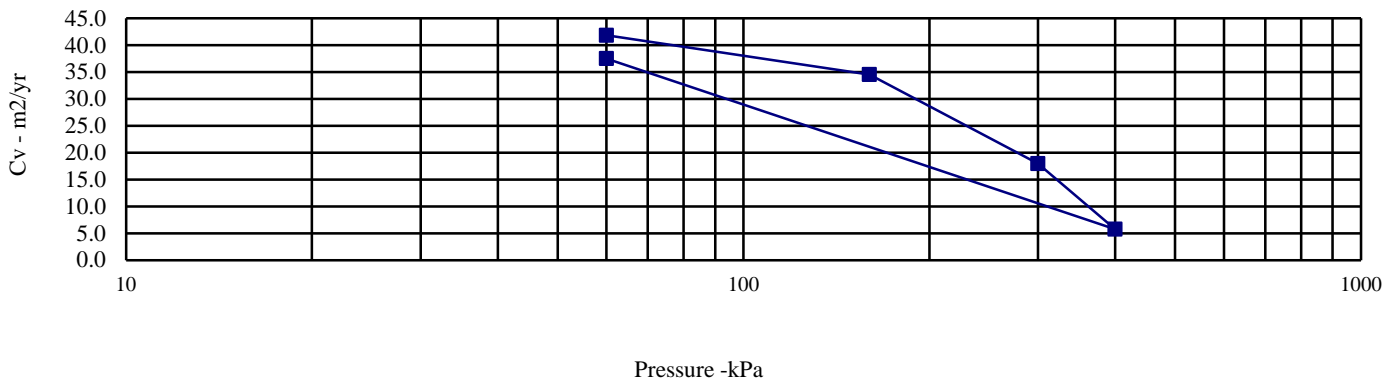
BS 1377: Part 5: 1990: Clause 3

Hole Number: CPBH1040 Top Depth (m): 3.00

Sample Number: Base Depth (m) : 3.45

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	32	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.90	0	60	0.294	41.820	Method used to	
Dry Density (Mg/m3):	1.44	60	160	0.240	34.525	determine CV:	T90
Voids Ratio:	0.839	160	300	0.184	17.961	Nominal temperature	
Degree of saturation:	100.1	300	400	0.120	5.776	during test ' C:	20
Height (mm):	20.152	400	60	0.023	37.489	Remarks:	
Diameter (mm)	75.068	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							




Land East of Hemel Hempstead GI

Contract No:
PSL19/7109
Client Ref:
C6515

Effective Stress Triaxial Compression

Consolidated Undrained

Summary Report

<p>Sample Details</p>  <p style="font-size: small; text-align: center;"><i>sketch showing specimen location in original sample</i></p>	<p>Depth 4.00-4.45m UT100</p> <p>Description Brown slightly gravelly sandy CLAY.</p> <p>Type Undisturbed, Vertical orientation.</p>	
	<p>Initial Sample Length L₀ (mm) 200.0</p> <p>Initial Sample Diameter D₀ (mm) 102.9</p> <p>Initial Sample Weight W₀ (gr) 3524.8</p> <p>Initial Bulk Density ρ₀ (Mg/m³) 2.12</p> <p>Particle Density ρ_s (Mg/m³) 2.65</p>	


Initial Conditions		Stage 1	2	3
Initial Cell Pressure	σ _{3i} (kPa)	830	910	1070
Initial Back Pressure	U _{bi} (kPa)	750	750	750
Membrane Thickness	m _b (mm)	0.600		
Displacement Input	L _{IP} (mm)	CH 2		
Load Input	N _{IP} (N)	CH 1		
Pore Water Pressure Input	U _{pwp} (kPa)	CH 3		
Sample Volume	V (cc)	CH 2		
Initial Moisture	ω _i (%)	19		
Initial Dry Density	ρ _{di} (Mg/m ³)	1.78		
Initial Voids Ratio	e _i	0.486		
Initial Degree of Saturation	S _i (%)	100		
B Value	B	0.98		

Final Conditions		Stage 1	2	3
Final Moisture	ω _f (%)	19		
Final Dry Density	ρ _{df} (Mg/m ³)	1.85		
Final Voids Ratio	e _f	0.434		
Final Degree of Saturation	S _f (%)	100.0		
Failure Criteria		Max. Dev. Stress	Max. Dev. Stress	Max. Dev. Stress
Strain At Failure	ε _f (%)	1.95	4.56	5.50
Stress At Failure	(σ ₁ - σ ₃) (kPa)	90.3	159.4	267.5
Minor Stress At Failure	σ ₃ ' (kPa)	35.0	87.0	173.0
Major Stress At Failure	σ ₁ ' (kPa)	125.3	246.4	440.5
Principal Stress At Failure	σ ₁ ' / σ ₃ '	3.580	2.832	2.546

Notes



Compound

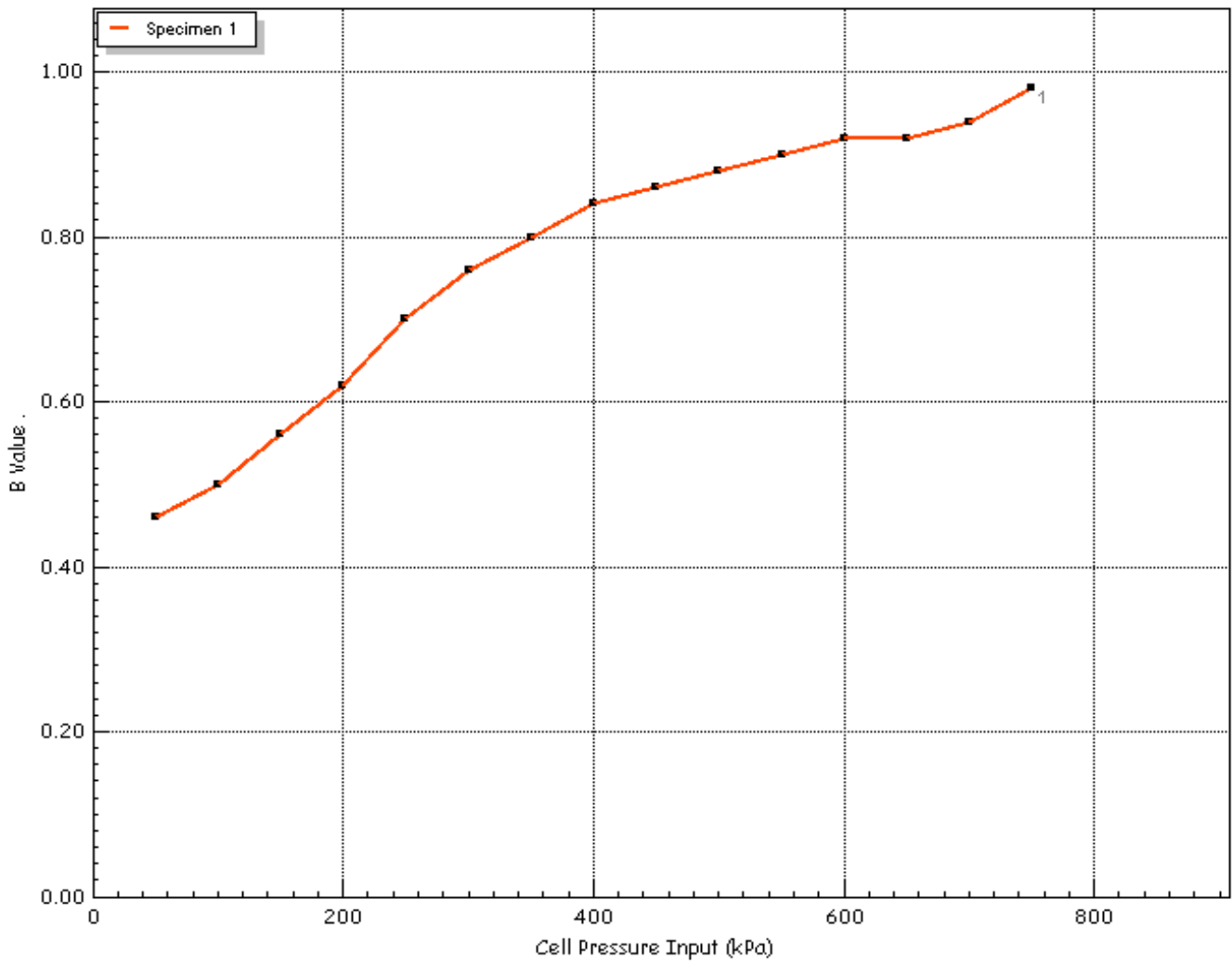
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			Test Date	03/12/2019
	Jobfile	Land East of Hemel Hempstead GI	Borehole	CPBH1006
	Client	CC Ground Investigations Ltd	Sample	4.00-4.45m UT100
			Depth	4.00-4.45m UT100

Effective Stress Triaxial Compression

Consolidated Undrained

Saturation Plots

Saturation Method			Stepped
Cell Pressure Input	σ	(kPa)	750
Pore Water Pressure Input	u_{pwp}	(kPa)	737
B Value	B	.	0.98



Test Method	BS1377-8 : 1990 : Clause 7	Test Name	CPBH1006 4.00-4.45m UT100
		Test Date	03/12/2019
Jobfile	Land East of Hemel Hampstead GI	Borehole	CPBH1006
Client	CC Ground Investigations Ltd	Sample	4.00-4.45m UT100
		Depth	4.00-4.45m UT100



Effective Stress Triaxial Compression

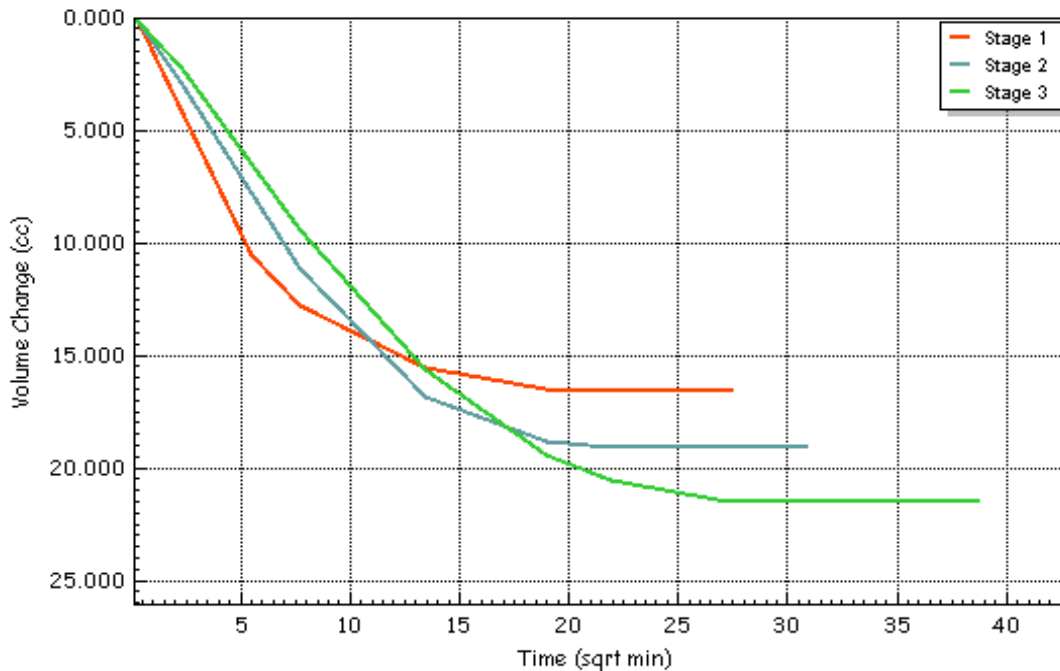
Consolidated Undrained


Consolidation Plots

Initial Conditions			Stage 1	2	3
Initial Cell Pressure	σ_3	(kPa)	830	910	1070
Initial Back Pressure	u_{bi}	(kPa)	750	750	750
Pore Water Pressure Input	u_{pwp}	(kPa)	813	863	963
Drainage Method			Radial+One End		

Final Conditions			Stage 1	2	3
PWP Dissipation %	U%	(%)	96.83	95.58	95.77
Volumetric Strain	ϵ_v	(%)	1.00	2.15	3.44
Corrected Length	L_c	(mm)	199.3	193.8	186.6
Corrected Area	A_c	(cm ²)	82.61	83.16	84.18
Corrected Volume	V_c	(cc)	1646.661	1627.529	1606.019
T100 Time to Failure	t_{100}	(min)	71.77	71.77	71.77
Consolidation	c_v	(m ² /year)	3.189	3.189	3.189
Compressibility	m_v	(m ² /MN)	0.163	0.199	0.169
Test Time	t_F	(h:m:s)	02:09:11	02:09:11	02:09:11
Estimated Strain to Failure	ϵ	(%)	5.0	5.0	5.0
Shear Machine Speed	d_r	(mm/min)	0.07715	0.07499	0.07224

Notes



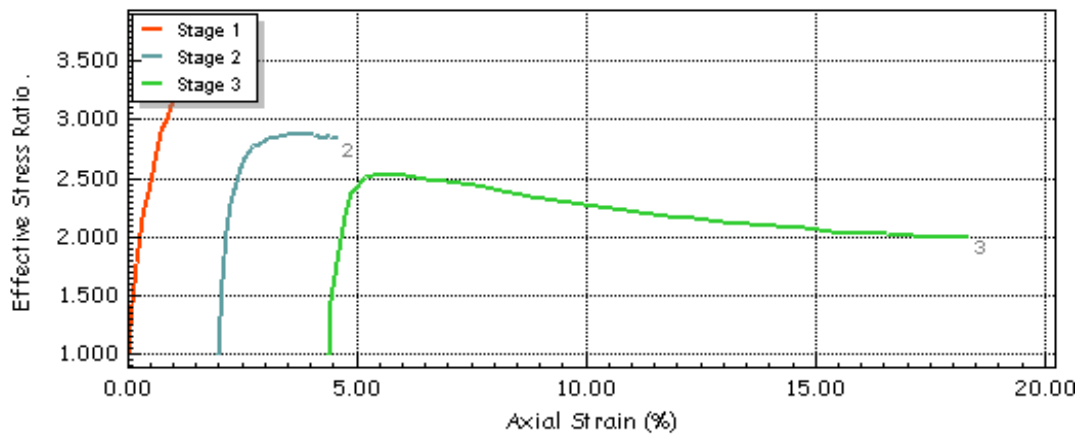
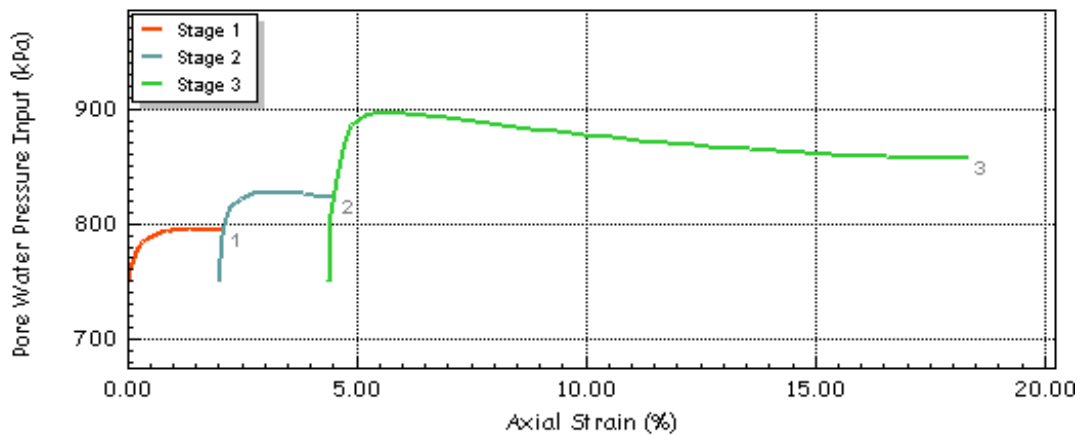
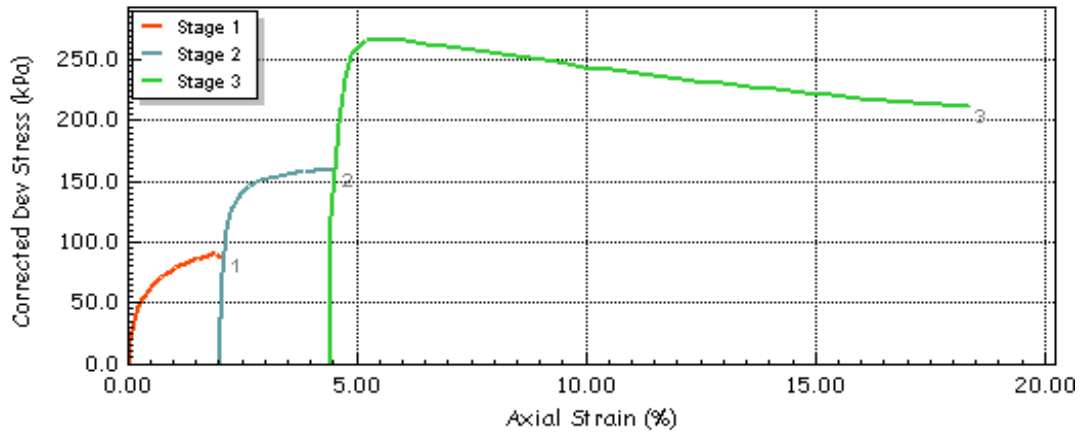
	Test Method	BS1377-8 : 1990 : Clause 7	Test Name	CPBH1006 4.00-4.45m UT100
	Jobfile	Land East of Hemel Hempstead GI	Test Date	03/12/2019
Client	CC Ground Investigations Ltd	Borehole	CPBH1006	
		Sample	4.00-4.45m UT100	
		Depth	4.00-4.45m UT100	



Effective Stress Triaxial Compression

Consolidated Undrained

Shear Stage Plots



Test Method	BS1377-8 : 1990 : Clause 7	Test Name	CPBH1006 4.00-4.45m UT100
		Test Date	03/12/2019
Jobfile	Land East of Hemel Hampstead GI	Borehole	CPBH1006
Client	CC Ground Investigations Ltd	Sample	4.00-4.45m UT100
		Depth	4.00-4.45m UT100

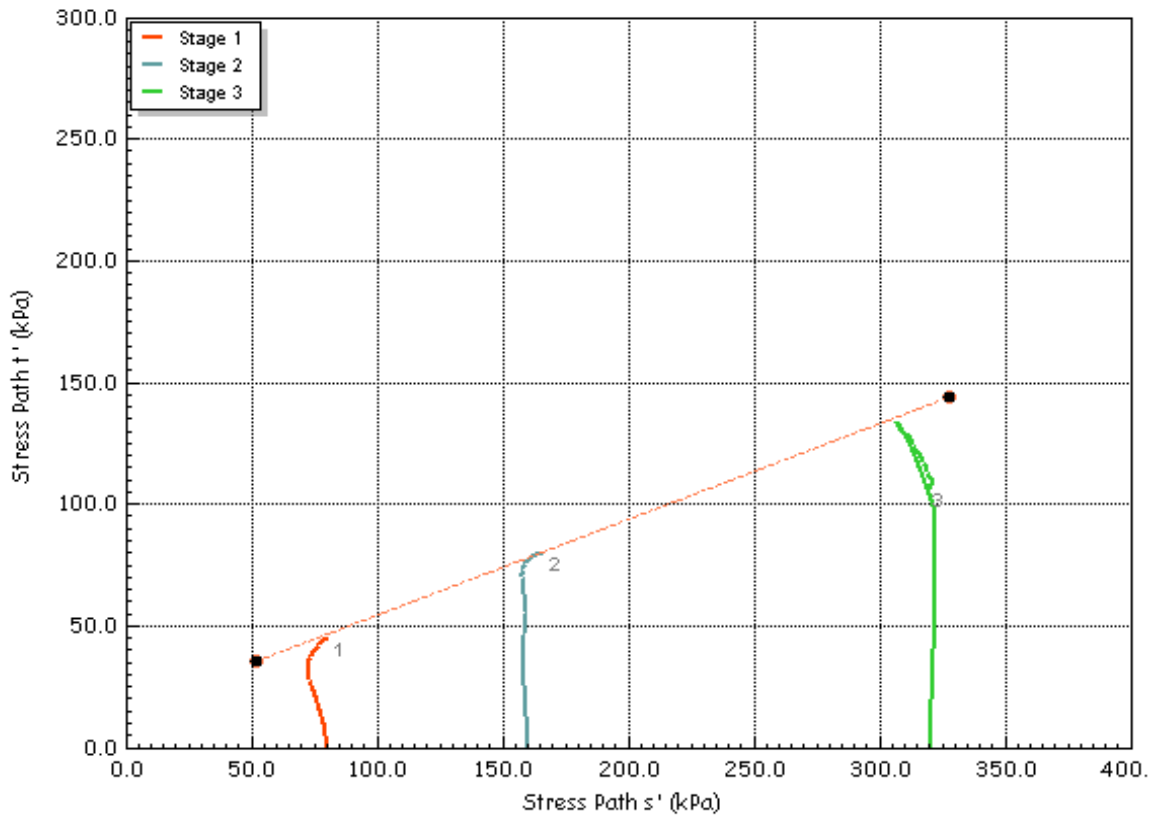
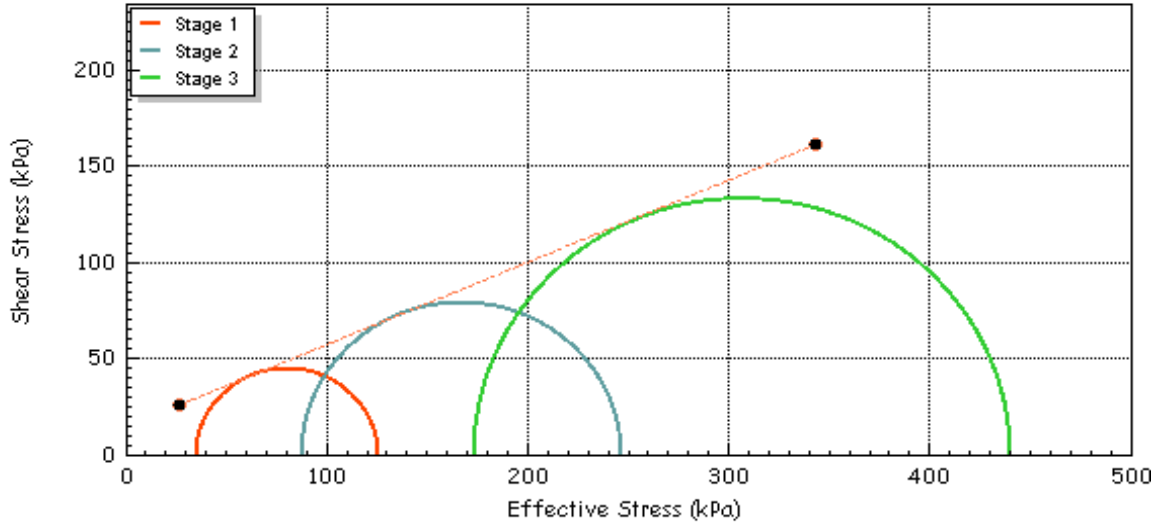


Effective Stress Triaxial Compression

Consolidated Undrained

Shear Stage Plots

Effective	c'	(kPa)	14.26	Effective Cohesion c'	(kPa)	14.26
Effective Friction	ϕ'	(deg)	23.2	Effective Friction ϕ'	(deg)	23.2



Test Method BS1377-8 : 1990 : Clause 7

Jobfile Land East of Hemel Hempstead GI

Client CC Ground Investigations Ltd

Test Name CPBH1006 4.00-4.45m UT100

Test Date 03/12/2019

Borehole CPBH1006

Sample 4.00-4.45m UT100

Depth 4.00-4.45m UT100





LABORATORY REPORT



4043

Contract Number: PSL19/7112

Report Date: 07 January 2020
Client's Reference: C6515
Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Richard Tucker

Contract Title: Land East of Hemel Hempstead GI
Date Received: 20/11/2019
Date Commenced: 20/11/2019
Date Completed: 7/1/2020

Notes: Opinions and Interpretations are outside the UKAS Accreditation

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
MP1001		B	1.20	1.90	Brown sandy clayey GRAVEL with cobbles.
MP1001		D	5.50		White CHALK.
MP1001		D	6.50		White CHALK.
MP1001		CS	16.90	17.05	White CHALK.
MP1002		B	0.50	1.20	Brown slightly gravelly CLAY.
MP1002		B	2.00		Brown gravelly slightly sandy CLAY.
MP1002		B	4.20	4.65	Brown slightly gravelly slightly sandy CLAY.
MP1002		B	5.20	5.65	Brown slightly gravelly slightly sandy CLAY.
MP1002		B	6.70	7.15	White CHALK.
MP1003		UT100	2.20	2.65	Stiff brown slightly gravelly CLAY.
MP1003		B	3.20	3.65	Brown slightly gravelly slightly sandy CLAY.
MP1003		B	4.20	4.65	White CHALK.
MP1003		D	7.00		White CHALK.
MP1003		D	8.00		White CHALK.
MP1004		B	0.50		Reddish brown very gravelly slightly sandy CLAY.
MP1004		D	3.80		Brown slightly gravelly CLAY.
MP1004		B	4.00	4.45	Brown very gravelly slightly sandy CLAY.
MP1004		CS	8.30	8.55	White CHALK.
MP1004		CS	10.65	10.85	White CHALK.



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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
MP1005		B	0.50	1.00	Brown slightly gravelly sandy CLAY.
MP1005		UT100	2.00	2.45	Brown slightly gravelly sandy CLAY.
MP1005		B	11.00	11.45	White CHALK.
MP1006		UT100	2.00	2.45	Stiff brown sandy CLAY.
MP1006		B	5.00	5.45	Brown very gravelly slightly sandy CLAY.
MP1006		CS	10.20	10.31	White CHALK.
MP1006		D	15.00		White CHALK.
MP1006		D	16.55		White CHALK.
MP1006		D	17.40		White CHALK.
MP1006		D	18.40		White CHALK.
MP1006		D	19.10		White CHALK.
MP1007		B	1.00		Brown slightly gravelly slightly sandy CLAY.
MP1007		UT100	1.20	1.65	Stiff brown slightly sandy CLAY.
MP1007		B	6.20	6.65	Brown slightly sandy CLAY.
MP1007		D	12.30		White CHALK.
MP1007		D	13.30		White CHALK.
MP1007		D	13.80		White CHALK.
MP1007		D	14.70		White CHALK.
MP1008		B	2.00	2.45	Brown mottled grey slightly sandy CLAY.



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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
MP1008		D	9.40		White CHALK.
MP1008		D	10.40		White CHALK.
MP1008		D	16.40		White CHALK.
MP1008		D	17.40		White CHALK.
MP1009		B	3.00	3.45	Brown and dark grey slightly gravelly slightly sandy CLAY.
MP1009		CS	10.55	10.72	White CHALK.
MP1009		CS	11.50	11.60	White CHALK.
MP1009		CS	19.84	20.00	White CHALK.
MP1010		UT100	2.00	2.45	Stiff brown slightly sandy CLAY.
MP1010		B	3.00	3.45	Brown slightly sandy CLAY.
MP1010		D	3.70		White CHALK.
MP1010		D	4.70		White CHALK.
MP1010		D	18.60		White CHALK.
MP1010		CS	18.75	18.93	White CHALK.
MP1010		D	19.60		White CHALK.
MP1011		D	16.80		White CHALK.
MP1011		D	17.50		White CHALK.
MP1012		B	1.00		Brown slightly sandy CLAY.
MP1012		UT100	1.20	1.65	Brown slightly sandy CLAY.



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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
MP1012		D	6.50		White CHALK.
MP1013		B	1.20	1.65	Reddish brown mottled grey slightly gravelly slightly sandy CLAY.
MP1013		B	4.00	4.45	Brown gravelly CLAY.
MP1013		B	6.50	6.95	Brown slightly gravelly slightly sandy CLAY.
MP1013		CS	15.50	15.65	White CHALK.
MP1013		CS	19.00	19.20	White CHALK.
MP1014		B	1.00		Reddish brown slightly gravelly slightly sandy CLAY.
MP1014		UT100	1.20	1.65	Stiff brown slightly gravelly slightly sandy CLAY.
MP1014		B	8.20	8.65	White CHALK.
MP1014		CS	17.80	18.00	White CHALK.
MP1015		UT100	1.20	1.65	Brown slightly gravelly slightly sandy CLAY.
MP1015		D	1.65	1.75	Brown mottled grey sandy CLAY.
MP1015		B	8.50	8.95	White CHALK.
MP1016		B	0.50	0.70	Brown sandy very clayey GRAVEL.
MP1016		UT100	1.20	1.65	Brown slightly gravelly slightly sandy CLAY.
MP1016		UT100	3.20	3.65	Brown slightly gravelly sandy CLAY.
MP1016		D	6.90		Brown slightly sandy CLAY.
MP1016		B	9.40	9.85	Brown slightly gravelly sandy CLAY.
MP1016		B	10.91	11.35	Brown mottled grey gravelly slightly sandy CLAY.



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Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
MP1016		D	11.70		White CHALK.
MP1016		CS	16.60	16.75	White CHALK.
MP1017		B	1.20	1.60	Brown mottled grey slightly sandy CLAY.
MP1017		UT100	1.20	1.65	Brown mottled grey slightly sandy CLAY.
MP1017		D	13.80		White CHALK.
MP1017		D	14.80		White CHALK.
MP1018		B	2.00	2.45	Brown very gravelly slightly sandy CLAY.
MP1018		UT100	3.00	3.35	Brown slightly gravelly slightly sandy CLAY.
MP1018		B	6.50	6.95	White CHALK.
MP1018		B	8.00	8.45	White CHALK.
MP1019		B	0.50		Brown slightly gravelly CLAY.
MP1019		UT100	1.20	1.65	Brown slightly sandy CLAY.
MP1019		B	9.50	9.95	White CHALK.
MP1019		B	19.00	19.45	White CHALK.
MP1020		B	2.00	2.45	Brown mottled grey slightly sandy CLAY.
MP1020		B	9.50	9.95	White CHALK.
MP1021		B	1.00		Brown gravelly slightly sandy CLAY.
MP1021		B	5.00	5.45	White CHALK.
MP1022		B	0.50	1.20	Brown slightly sandy very clayey GRAVEL.



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Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
MP1022		SPT	1.20	1.65	Brown slightly gravelly CLAY.
MP1022		B	5.00	5.45	Brown very gravelly very sandy CLAY.
MP1022		CS	12.06	12.20	White CHALK.
MP1022		D	18.65		White CHALK.
MP1023		B	3.20	3.65	Brown very gravelly slightly sandy CLAY.
MP1023		CS	19.85	19.94	White CHALK.
MP1024		B	0.50	1.20	Brown very gravelly slightly sandy CLAY.
MP1024		D	15.10		White CHALK.
MP1024		D	15.40		White CHALK.
MP1024		D	18.20		White CHALK.
MP1024		D	19.20		White CHALK.
MP1024		CS	19.30	19.42	White CHALK.
MP1025		B	4.20	4.65	Brown gravelly slightly sandy CLAY.
MP1025		B	6.70	7.15	Brown very gravelly slightly sandy CLAY.
MP1025		D	8.80		White CHALK.
MP1025		D	9.90		White CHALK.
MP1025		B	11.20	11.65	Brown very gravelly slightly sandy CLAY.
MP1025		D	14.80		White CHALK.
MP1025		D	15.60		White CHALK.



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Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
MP1026		B	0.50	1.20	Brown very gravelly sandy CLAY.
MP1026		B	3.20	3.65	Brown slightly sandy silty CLAY.
MP1026		D	7.10		White CHALK.
MP1026		D	8.10		White CHALK.
MP1027		B	4.00	4.45	Brown slightly gravelly slightly sandy very silty CLAY.
MP1027		B	4.90	5.35	Brown slightly gravelly sandy CLAY.
MP1028		CS	17.90	18.08	White CHALK.
MP1029		B	1.20	1.65	Brown mottled grey slightly gravelly sandy very silty CLAY.
MP1029		UT100	2.20	2.65	Stiff brown slightly gravelly sandy CLAY.
MP1029		UT100	4.20	4.65	Brown slightly gravelly sandy CLAY.
MP1029		D	13.60		White CHALK.
MP1029		D	14.80		White CHALK.
MP1030		B	2.00	2.45	Brown mottled grey slightly gravelly sandy CLAY.
MP1030		B	5.00	5.45	Brown gravelly sandy CLAY.
MP1030		B	6.50	6.95	Brown slightly gravelly slightly sandy CLAY.
MP1030		D	15.40		White CHALK.
MP1030		D	15.70		White CHALK.
MP1031		B	1.20	1.65	Brown mottled grey slightly sandy CLAY.
MP1031		UT100	2.20	2.65	Brown mottled grey slightly sandy CLAY.



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Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
MP1031		D	2.65	2.70	Brown slightly sandy CLAY.
MP1031		UT100	4.20	4.65	Stiff brown slightly sandy CLAY.
MP1031		B	6.20	6.70	Brown slightly sandy very clayey GRAVEL.
MP1031		B	6.70	7.15	Brown slightly sandy slightly clayey GRAVEL.
MP1031		D	10.90		White CHALK.
MP1031		D	11.90		White CHALK.
MP1031		CS	19.50	19.62	White CHALK.
MP1032		B	2.20	2.65	Brown very gravelly slightly sandy CLAY.
MP1032		B	3.20	3.65	Brown slightly gravelly slightly sandy CLAY.
MP1032		D	6.00		White CHALK.
MP1032		B	6.70	7.15	White CHALK.
MP1032		D	9.10		White CHALK.
MP1032		D	10.10		White CHALK.
MP1032		CS	11.83	11.97	White CHALK.
MP1033		B	5.00	5.45	Brown slightly gravelly slightly sandy CLAY.
MP1033		D	7.00		White CHALK.
MP1033		D	7.90		White CHALK.
MP1034		UT100	2.20	2.65	Brown slightly gravelly sandy CLAY.
MP1034		B	4.85	5.30	Brown gravelly sandy CLAY.



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Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
MP1034		B	8.50	8.95	White CHALK.
MP1034		CS	19.80	19.90	White CHALK.
MP1035		UT100	2.20	2.65	Stiff brown slightly sandy CLAY.
MP1035		B	6.20	6.65	White CHALK.
MP1036		B	1.20	1.65	Brown slightly sandy CLAY.
MP1036		D	2.00		Brown very gravelly CLAY gravel is chalk.
MP1036		B	2.20	2.65	White CHALK.
MP1036		D	5.30		White CHALK.
MP1036		CS	13.40	13.53	White CHALK.
MP1036		CS	14.85	14.97	White CHALK.
MP1037		UT100	1.20	1.65	Brown slightly gravelly slightly sandy CLAY.
MP1037		UT100	3.20	3.65	Brown slightly gravelly slightly sandy CLAY.
MP1037		UT100	5.20	5.65	Brown slightly gravelly slightly sandy CLAY.
MP1037		D	11.60		White CHALK.
MP1037		D	12.60		White CHALK.
MP1038		B	1.20	1.65	Brown mottled grey slightly gravelly slightly sandy CLAY.
MP1038		UT100	2.20	2.65	Brown slightly gravelly slightly sandy CLAY.
MP1038		B	3.20	3.65	Brown slightly gravelly slightly sandy CLAY.
MP1038		UT100	4.20	4.65	Brown slightly gravelly slightly sandy CLAY.



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SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
MP1002		B	0.50	1.20	33			72	29	43	98	Very high plasticity CV.
MP1002		B	4.20	4.65	28			76	30	46	99	Very high plasticity CV.
MP1004		D	3.80		44			87	33	54	95	Very high plasticity CV.
MP1005		B	0.50	1.00	19			48	22	26	92	Intermediate plasticity CI.
MP1007		B	6.20	6.65	20			52	23	29	100	High plasticity CH.
MP1010		B	3.00	3.45	26			64	25	39	100	High plasticity CH.
MP1013		B	4.00	4.45	44			75	29	46	81	Very high plasticity CV.
MP1015		D	1.65	1.75	20			41	20	21	100	Intermediate plasticity CI.
MP1016		D	6.90		30			73	29	44	100	Very high plasticity CV.
MP1016		B	9.40	9.85	25			43	21	22	91	Intermediate plasticity CI.
MP1016		B	10.91	11.35	37			67	28	39	78	High plasticity CH.
MP1016		D	11.70		26			31	24	7	68	Low plasticity ML.
MP1019		B	0.50		23			74	30	44	91	Very high plasticity CV.
MP1022		SPT	1.20	1.65	25			80	31	49	94	Very high plasticity CV.
MP1022		B	5.00	5.45	18			34	18	16	44	Low plasticity CL.
MP1025		B	4.20	4.65	26			71	29	42	86	Very high plasticity CV.
MP1025		B	11.20	11.65	36			60	25	35	37	High plasticity CH.
MP1026		B	0.50	1.20	17			46	22	24	60	Intermediate plasticity CI.
MP1027		B	4.00	4.45	20			37	21	16	95	Intermediate plasticity CI.

SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.



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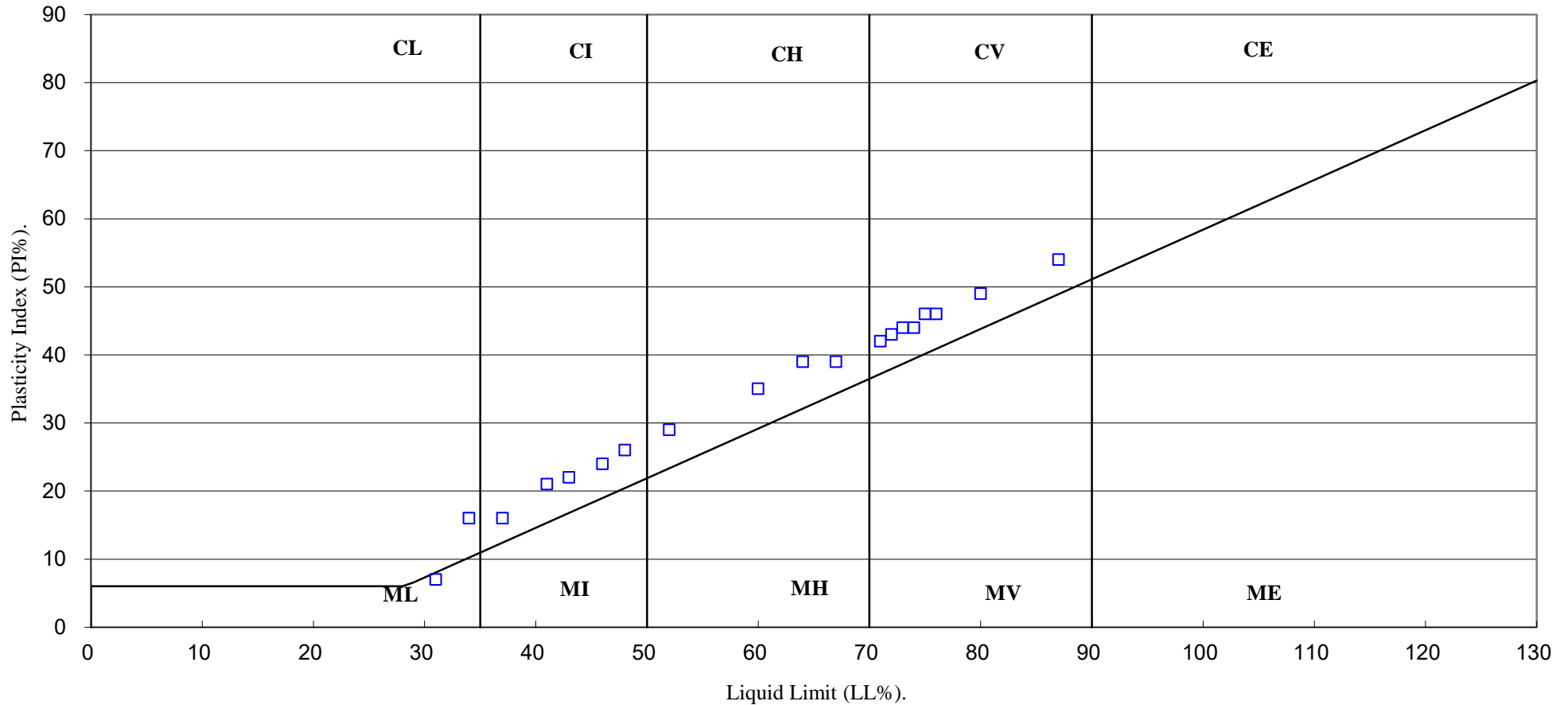
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PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



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SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
MP1030		B	2.00	2.45	22			40	19	21	97	Intermediate plasticity CI.
MP1030		B	5.00	5.45	20			41	20	21	86	Intermediate plasticity CI.
MP1031		D	2.65	2.70	31			61	26	35	100	High plasticity CH.
MP1031		B	6.70	7.15	2.7				NP			
MP1032		B	3.20	3.65	31			58	24	34	96	High plasticity CH.
MP1032		D	6.00		31			36	25	11	51	Intermediate plasticity MI.
MP1033		B	5.00	5.45	38			71	29	42	96	Very high plasticity CV.
MP1034		B	4.85	5.30	27			44	21	23	82	Intermediate plasticity CI.
MP1036		B	1.20	1.65	41			81	32	49	100	Very high plasticity CV.
MP1036		D	2.00		32			78	31	47	70	Very high plasticity CV.
MP1036		D	5.30		27				NP			
MP1038		B	5.20	5.65	40			68	28	40	80	High plasticity CH.

SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.



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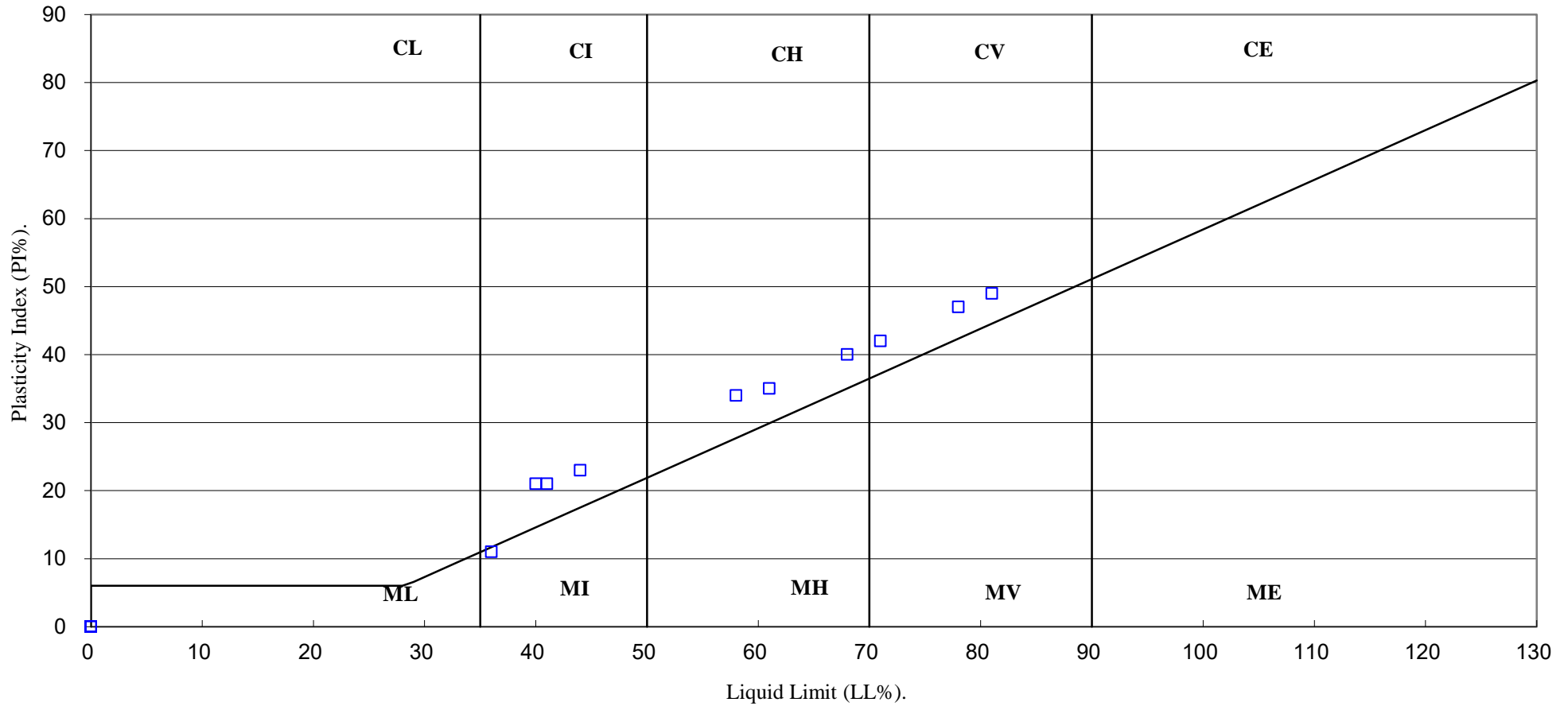
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PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



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SUMMARY OF CHALK TESTS

(BS1377 : PART 2 & 4 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Saturated MC %	Dry Density Mg/m ³	Passing 10mm Sieve %	Chalk Crushing Value CCV	Remarks
MP1001		D	5.50		32	31	1.47			
MP1001		D	6.50		33	29	1.50			
MP1001		CS	16.90	17.05	25	27	1.57			
MP1002		B	6.70	7.15	17	28	1.54			
MP1003		B	4.20	4.65	21	28	1.54			
MP1003		D	7.00		34	28	1.54			
MP1003		D	8.00		35	31	1.46			
MP1004		CS	8.30	8.55	24			26	4.41	
MP1004		CS	10.65	10.85	29	30	1.48			
MP1005		B	11.00	11.45	22	32	1.46			
MP1006		CS	10.20	10.31	29			51	4.12	
MP1006		D	15.00		30			57	4.28	
MP1006		D	16.55		23	27	1.56			
MP1006		D	17.40		29	29	1.53			
MP1006		D	18.40		28	30	1.48			
MP1006		D	19.10		34	29	1.51			
MP1007		D	12.30		21	29	1.51			
MP1007		D	13.30		36	30	1.49			
MP1007		D	13.80		30	31	1.47			

* CCV testing is not UKAS accredited



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SUMMARY OF CHALK TESTS

(BS1377 : PART 2 & 4 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Saturated MC %	Dry Density Mg/m ³	Passing 10mm Sieve %	Chalk Crushing Value CCV	Remarks
MP1007		D	14.70		31	28	1.53			
MP1008		D	9.40		29	30	1.48			
MP1008		D	10.40		28	28	1.55			
MP1008		D	16.40		23	25	1.61			
MP1008		D	17.40		21	25	1.62			
MP1009		CS	10.55	10.72	32	26	1.58			
MP1009		CS	11.50	11.60	29			61	4.32	
MP1009		CS	19.84	20.00	23	25	1.60			
MP1010		D	3.70		31	27	1.56			
MP1010		D	4.70		34	30	1.49			
MP1010		D	18.60		22	25	1.61			
MP1010		CS	18.75	18.93	24			25	4.10	
MP1010		D	19.60		27	29	1.51			
MP1011		D	16.80		24	25	1.61			
MP1011		D	17.50		18	25	1.60			
MP1012		D	6.50		29			50	4.08	
MP1013		CS	15.50	15.65	22			27	4.22	
MP1013		CS	19.00	19.20	22	27	1.57			
MP1014		B	8.20	8.65	32	29	1.53			

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SUMMARY OF CHALK TESTS

(BS1377 : PART 2 & 4 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Saturated MC %	Dry Density Mg/m ³	Passing 10mm Sieve %	Chalk Crushing Value CCV	Remarks
MP1014		CS	17.80	18.00	25			21	4.53	
MP1015		B	8.50	8.95	32	29	1.52			
MP1016		D	11.70		26					
MP1016		CS	16.60	16.75	30	27	1.56			
MP1017		D	13.80		25	29	1.51			
MP1017		D	14.80		31	30	1.49			
MP1018		B	6.50	6.95	24	27	1.56	48	4.41	
MP1018		B	8.00	8.45	25	30	1.49	54	4.20	
MP1019		B	9.50	9.95	33	28	1.53			
MP1019		B	19.00	19.45	30	29	1.51			
MP1020		B	9.50	9.95	43	29	1.52			
MP1021		B	5.00	5.45	29	26	1.58			
MP1022		CS	12.06	12.20	29			24	4.04	
MP1022		D	18.65		27			34	4.32	
MP1023		CS	19.85	19.94	28			37	4.13	
MP1024		D	15.10		22	27	1.57			
MP1024		D	15.40		23	27	1.56			
MP1024		D	18.20		29	29	1.51			
MP1024		D	19.20		24	28	1.54			

* CCV testing is not UKAS accredited

 	Land East of Hemel Hempstead GI	Contract No:
		PSL19/7112
		Client Ref:
		C6515

SUMMARY OF CHALK TESTS

(BS1377 : PART 2 & 4 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Saturated MC %	Dry Density Mg/m ³	Passing 10mm Sieve %	Chalk Crushing Value CCV	Remarks
MP1024		CS	19.30	19.42	26			25	4.02	
MP1025		D	8.80		25	28	1.54			
MP1025		D	9.90		28	28	1.53			
MP1025		D	14.80		31	31	1.48			
MP1025		D	15.60		30	32	1.44			
MP1026		D	7.10		26	29	1.51			
MP1026		D	8.10		24	27	1.57			
MP1028		CS	17.90	18.08	27			21	4.17	
MP1029		D	13.60		24	29	1.52			
MP1029		D	14.80		34	28	1.55			
MP1030		D	15.40		24	29	1.51			
MP1030		D	15.70		27	27	1.56			
MP1031		D	10.90		24	26	1.58			
MP1031		D	11.90		23	26	1.59			
MP1031		CS	19.50	19.62	25	28	1.55			
MP1032		D	6.00		31					
MP1032		B	6.70	7.15	24	28	1.54			
MP1032		D	9.10		28	31	1.46			
MP1032		D	10.10		24	26	1.59			

* CCV testing is not UKAS accredited



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SUMMARY OF CHALK TESTS

(BS1377 : PART 2 & 4 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content %	Saturated MC %	Dry Density Mg/m ³	Passing 10mm Sieve %	Chalk Crushing Value CCV	Remarks
MP1032		CS	11.83	11.97	22			27	4.02	
MP1033		D	7.00		24	30	1.50			
MP1033		D	7.90		25	29	1.52			
MP1034		B	8.50	8.95	27	29	1.51			
MP1034		CS	19.80	19.90	29			45	4.38	
MP1035		B	6.20	6.65	28	26	1.59			
MP1036		D	2.00		29					
MP1036		B	2.20	2.65	28	30	1.49			
MP1036		D	5.30		27					
MP1036		CS	13.40	13.53	28	29	1.51			
MP1036		CS	14.85	14.97	26			25	3.82	
MP1037		D	11.60		30	28	1.54			
MP1037		D	12.60		25	30	1.49			
MP1038		B	6.70	7.15	35	26	1.58			
MP1038		CS	16.45		26	29	1.52			

* CCV testing is not UKAS accredited

 4043		Land East of Hemel Hempstead GI	Contract No: PSL19/7112
			Client Ref: C6515

PARTICLE SIZE DISTRIBUTION TEST

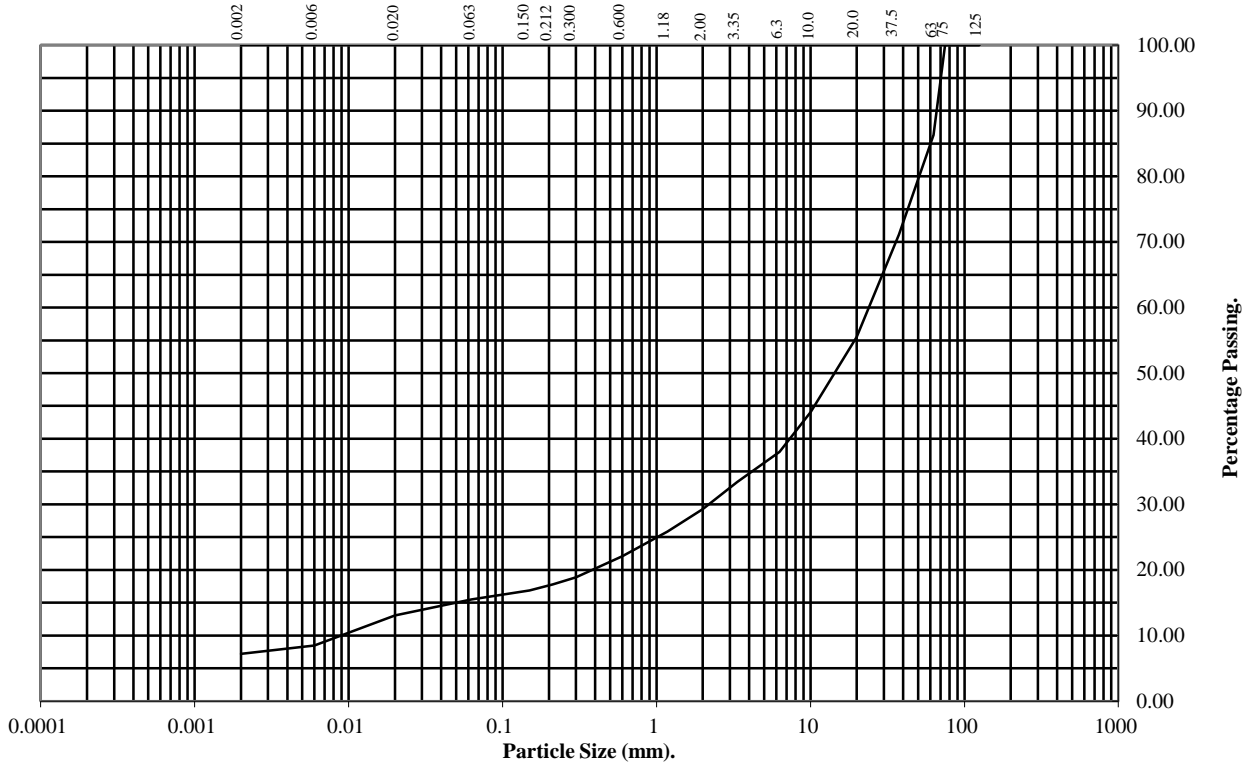
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1001** Top Depth (m): **1.20**

Sample Number: Base Depth(m): **1.90**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	86
37.5	71
20	56
10	44
6.3	38
3.35	33
2	29
1.18	26
0.6	22
0.3	19
0.212	18
0.15	17
0.063	15

Particle Diameter	Percentage Passing
0.02	13
0.006	8
0.002	7

Soil Fraction	Total Percentage
Cobbles	14
Gravel	57
Sand	14
Silt	8
Clay	7

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

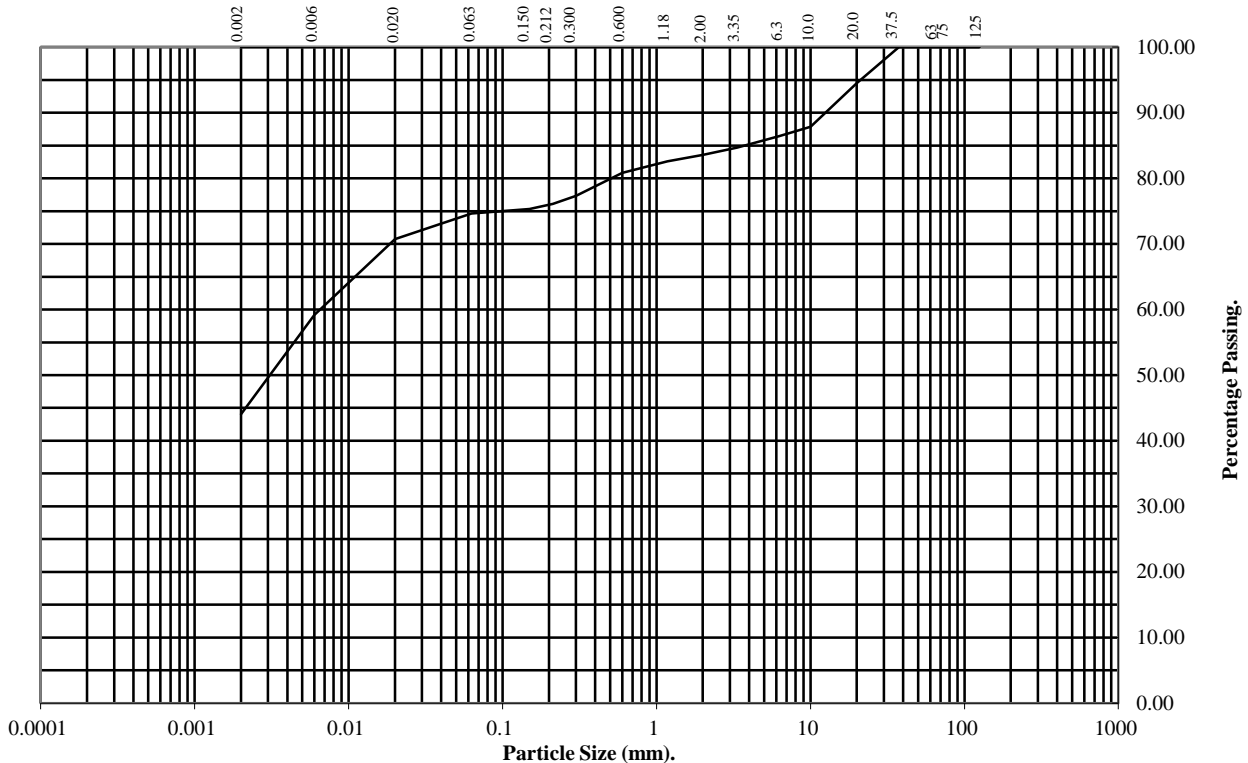
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1002** **Top Depth (m):** **2.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	94
10	88
6.3	86
3.35	85
2	84
1.18	83
0.6	81
0.3	77
0.212	76
0.15	75
0.063	75

Particle Diameter	Percentage Passing
0.02	71
0.006	59
0.002	44

Soil Fraction	Total Percentage
Cobbles	0
Gravel	16
Sand	9
Silt	31
Clay	44

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

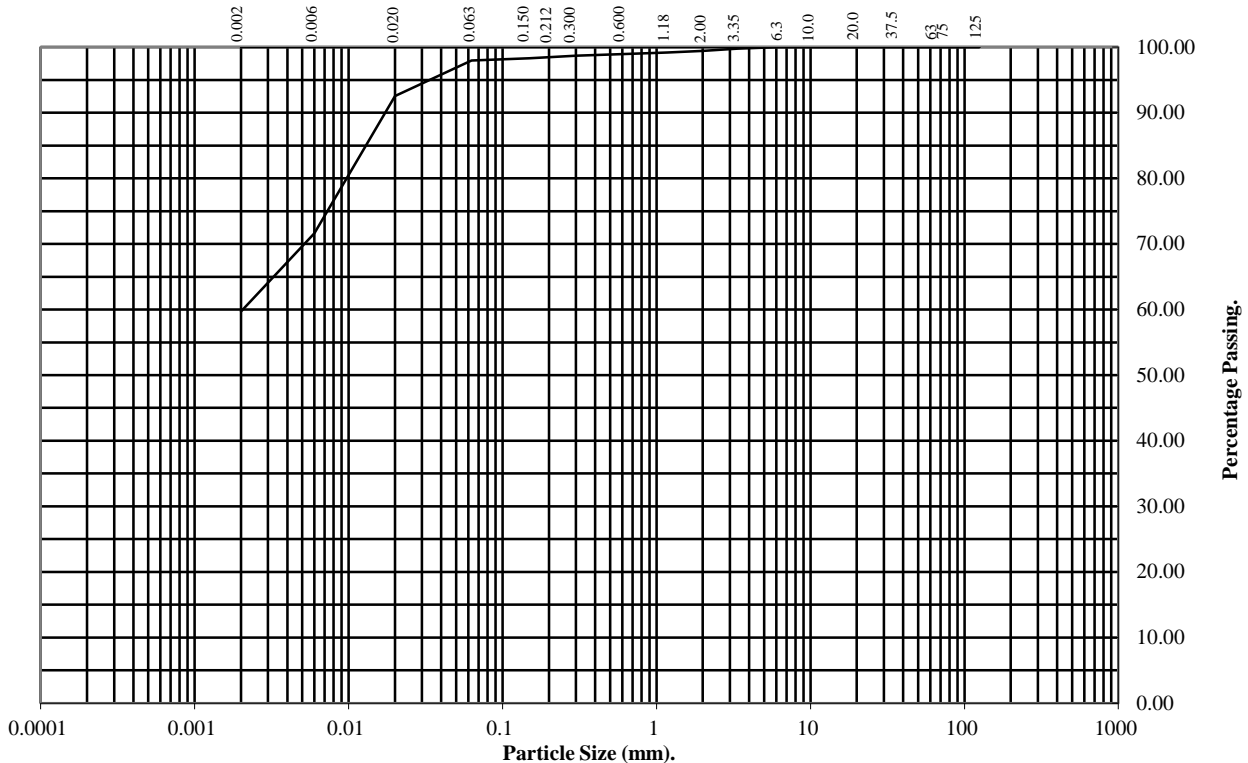
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: MP1002 **Top Depth (m):** 4.20

Sample Number: **Base Depth(m):** 4.65

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	99
1.18	99
0.6	99
0.3	99
0.212	99
0.15	98
0.063	98

Particle Diameter	Percentage Passing
0.02	93
0.006	72
0.002	60

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	1
Silt	38
Clay	60

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

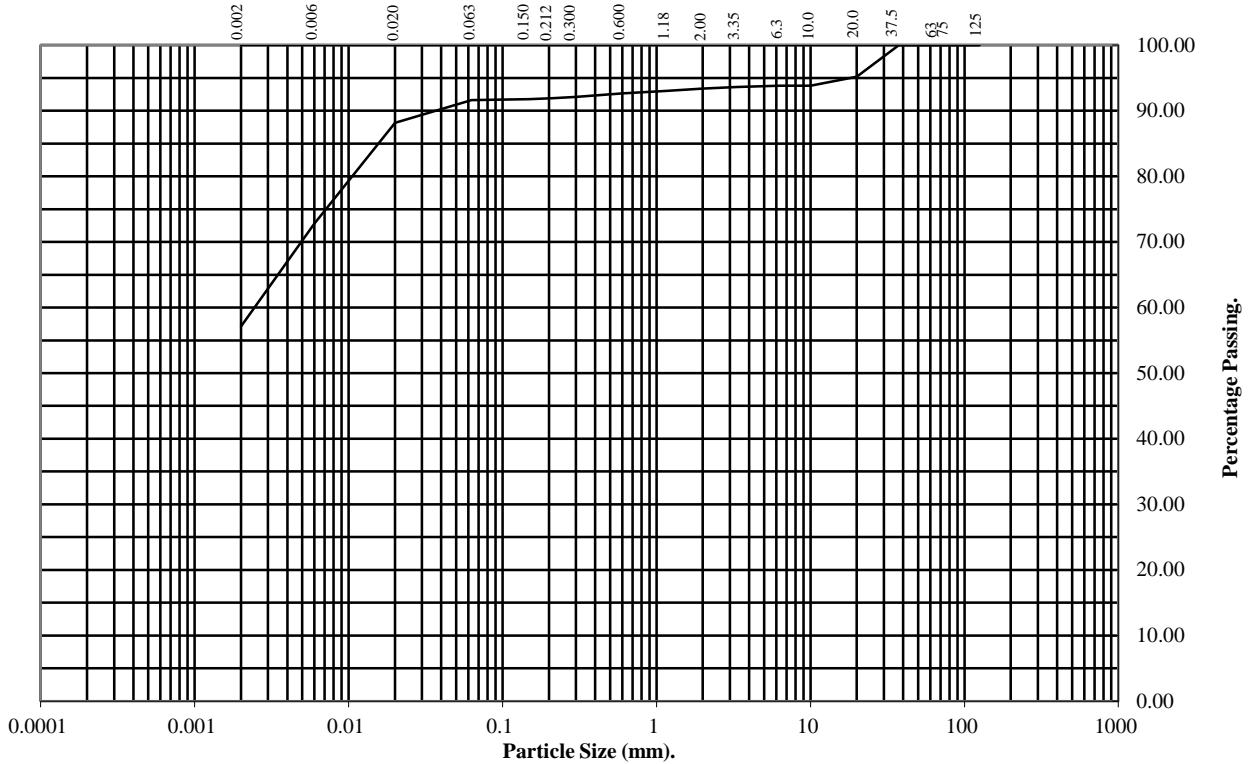
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1002** **Top Depth (m):** **5.20**

Sample Number: **Base Depth(m):** **5.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	95
10	94
6.3	94
3.35	94
2	93
1.18	93
0.6	93
0.3	92
0.212	92
0.15	92
0.063	92

Particle Diameter	Percentage Passing
0.02	88
0.006	73
0.002	57

Soil Fraction	Total Percentage
Cobbles	0
Gravel	7
Sand	1
Silt	35
Clay	57

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

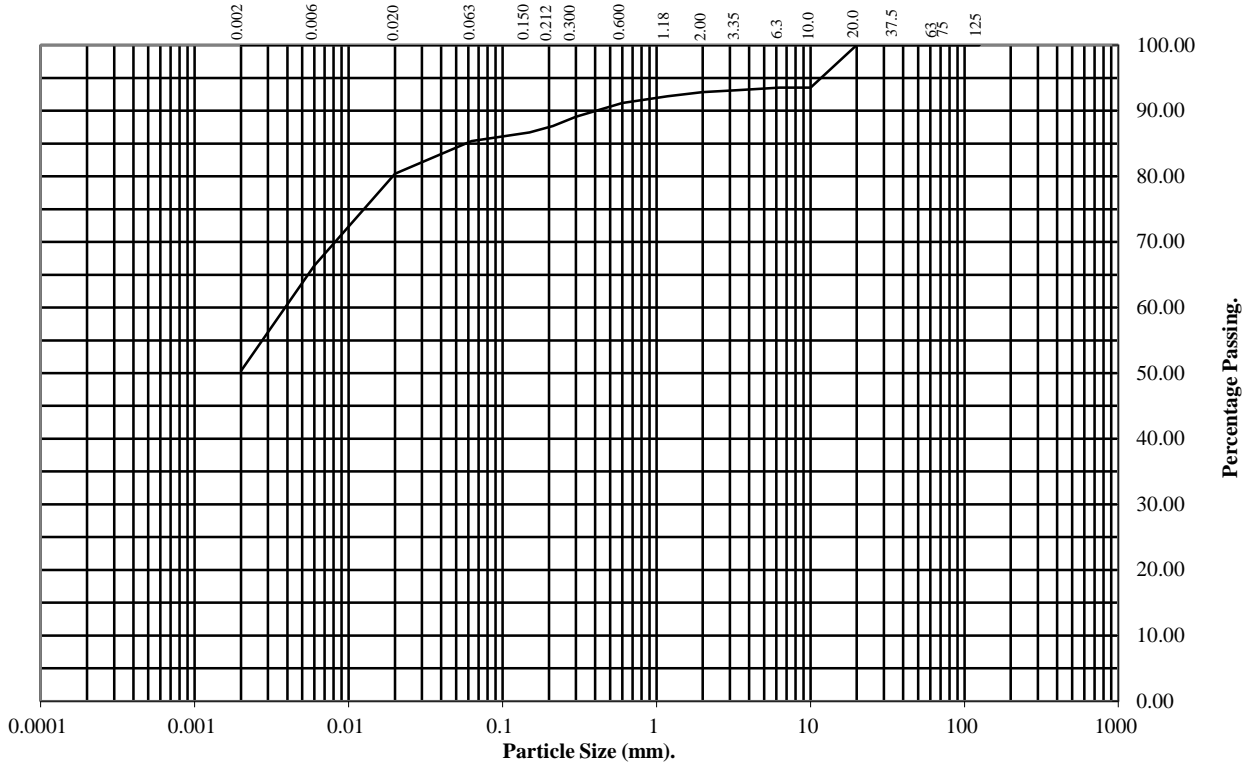
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1003** **Top Depth (m):** **3.20**

Sample Number: **Base Depth(m):** **3.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	94
6.3	94
3.35	93
2	93
1.18	92
0.6	91
0.3	89
0.212	88
0.15	87
0.063	85

Particle Diameter	Percentage Passing
0.02	80
0.006	66
0.002	50

Soil Fraction	Total Percentage
Cobbles	0
Gravel	7
Sand	8
Silt	35
Clay	50

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

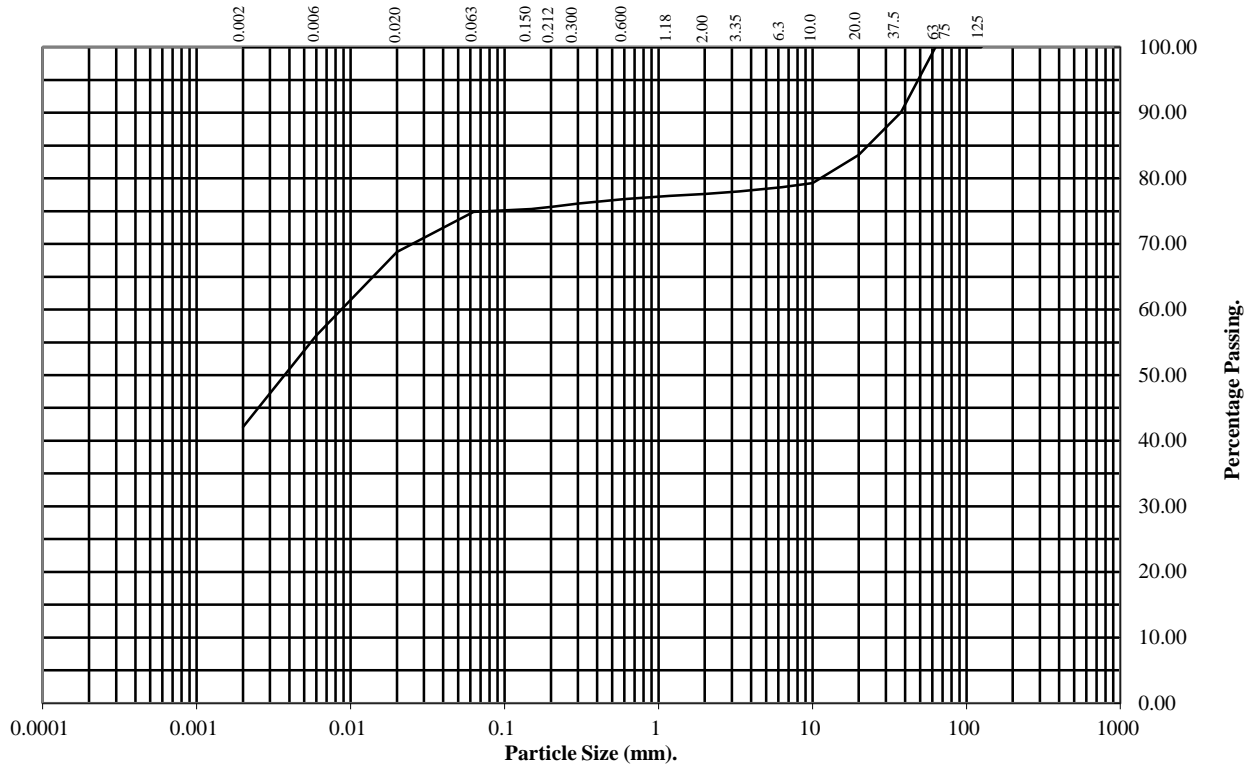
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: MP1004 **Top Depth (m):** 0.50

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	90
20	84
10	79
6.3	79
3.35	78
2	78
1.18	77
0.6	77
0.3	76
0.212	76
0.15	75
0.063	75

Particle Diameter	Percentage Passing
0.02	69
0.006	56
0.002	42

Soil Fraction	Total Percentage
Cobbles	0
Gravel	22
Sand	3
Silt	33
Clay	42

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

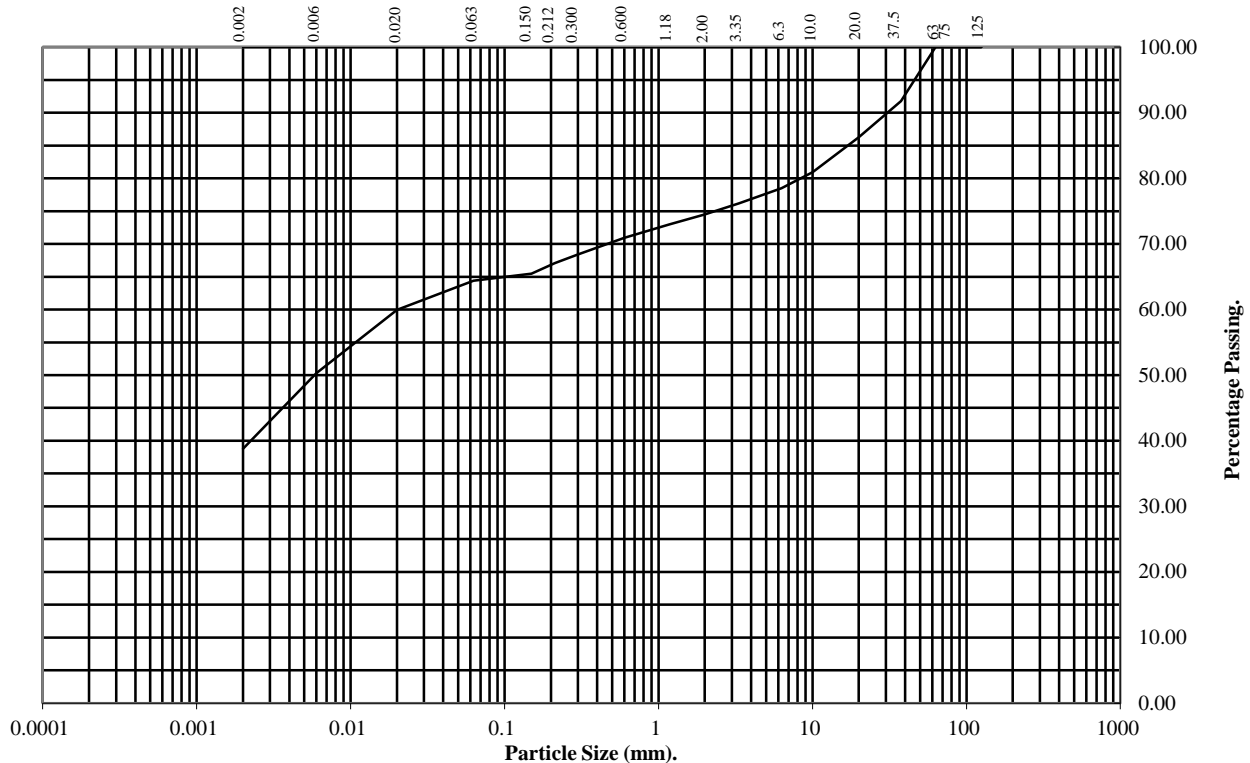
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: MP1004 **Top Depth (m):** 4.00

Sample Number: **Base Depth(m):** 4.45

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	92
20	86
10	81
6.3	79
3.35	76
2	74
1.18	73
0.6	71
0.3	68
0.212	67
0.15	65
0.063	64

Particle Diameter	Percentage Passing
0.02	60
0.006	50
0.002	39

Soil Fraction	Total Percentage
Cobbles	0
Gravel	26
Sand	10
Silt	25
Clay	39

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

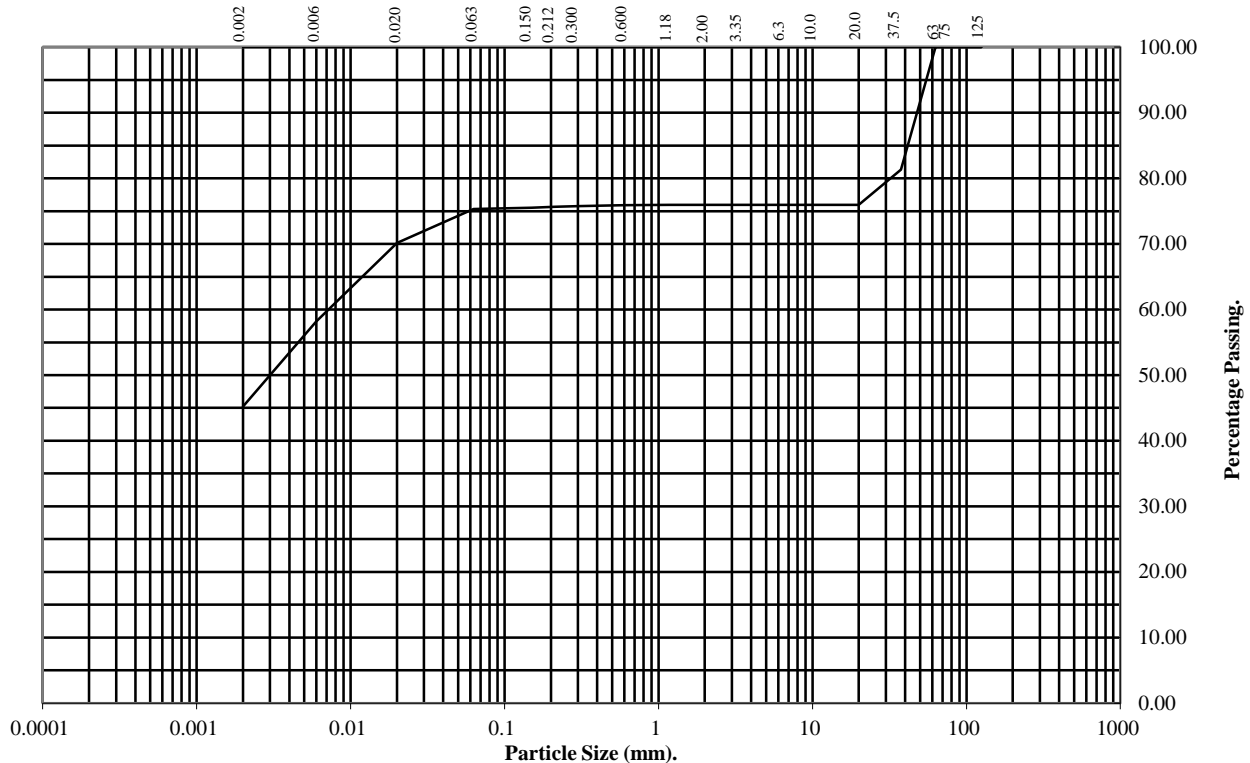
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: MP1006 **Top Depth (m):** 5.00

Sample Number: **Base Depth(m):** 5.45

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	81
20	76
10	76
6.3	76
3.35	76
2	76
1.18	76
0.6	76
0.3	76
0.212	76
0.15	76
0.063	75

Particle Diameter	Percentage Passing
0.02	70
0.006	58
0.002	45

Soil Fraction	Total Percentage
Cobbles	0
Gravel	24
Sand	1
Silt	30
Clay	45

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

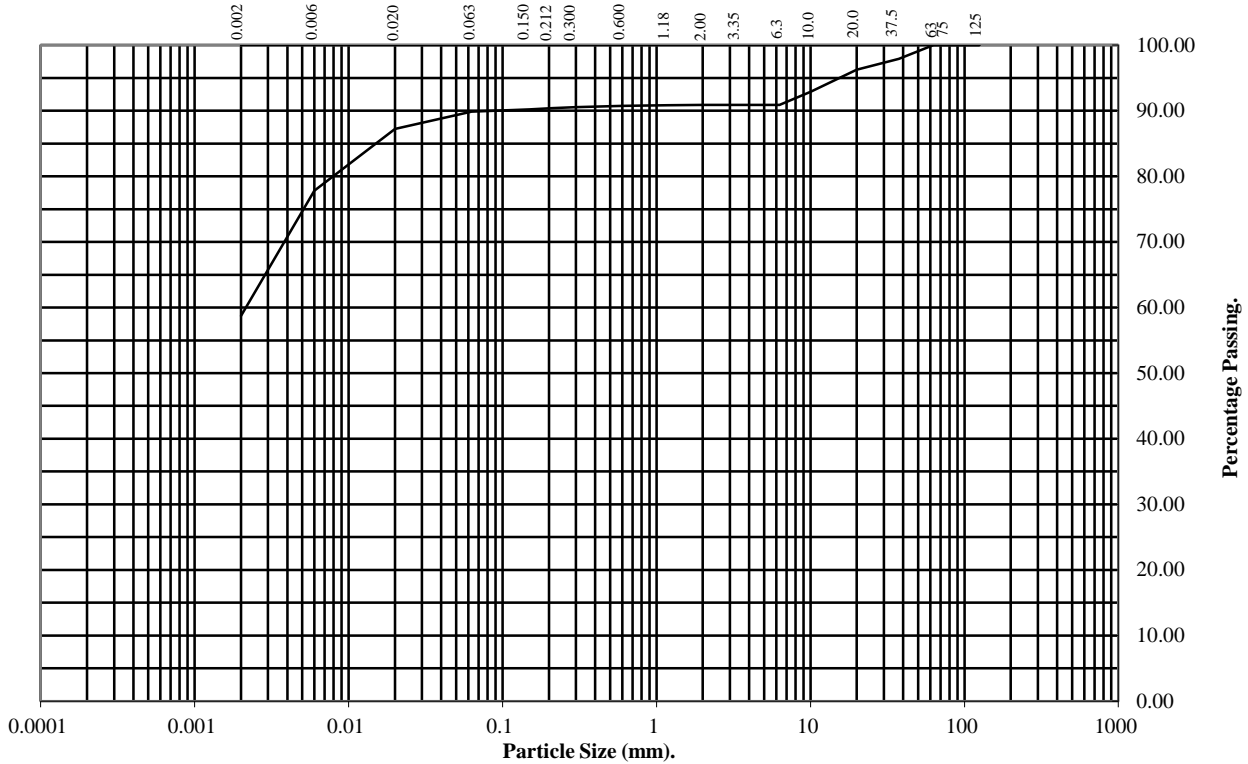
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1007** Top Depth (m): **1.00**

Sample Number: Base Depth(m):

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	98
20	96
10	93
6.3	91
3.35	91
2	91
1.18	91
0.6	91
0.3	91
0.212	90
0.15	90
0.063	90

Particle Diameter	Percentage Passing
0.02	87
0.006	78
0.002	59

Soil Fraction	Total Percentage
Cobbles	0
Gravel	9
Sand	1
Silt	31
Clay	59

Remarks:
See Summary of Soil Descriptions



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Client Ref:
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PARTICLE SIZE DISTRIBUTION TEST

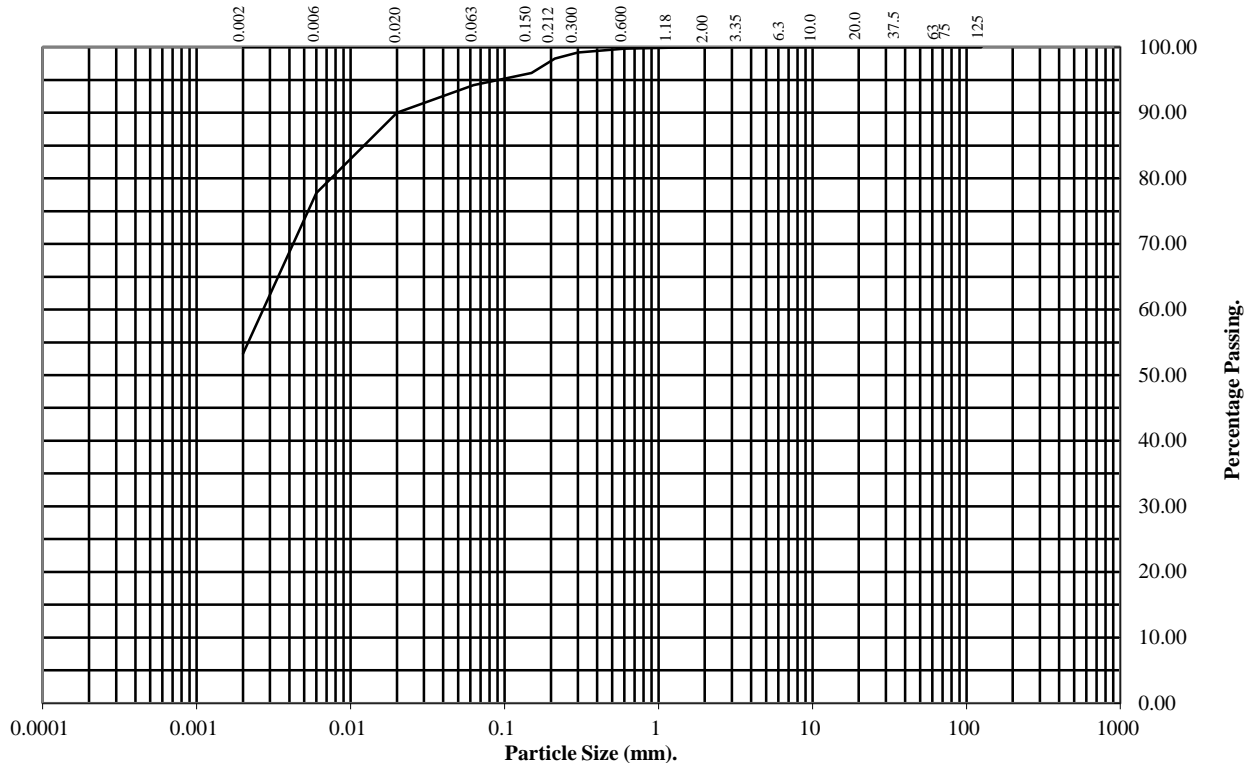
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1007** **Top Depth (m):** **6.20**

Sample Number: **Base Depth(m):** **6.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	99
0.212	98
0.15	96
0.063	94

Particle Diameter	Percentage Passing
0.02	90
0.006	78
0.002	53

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	6
Silt	41
Clay	53

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

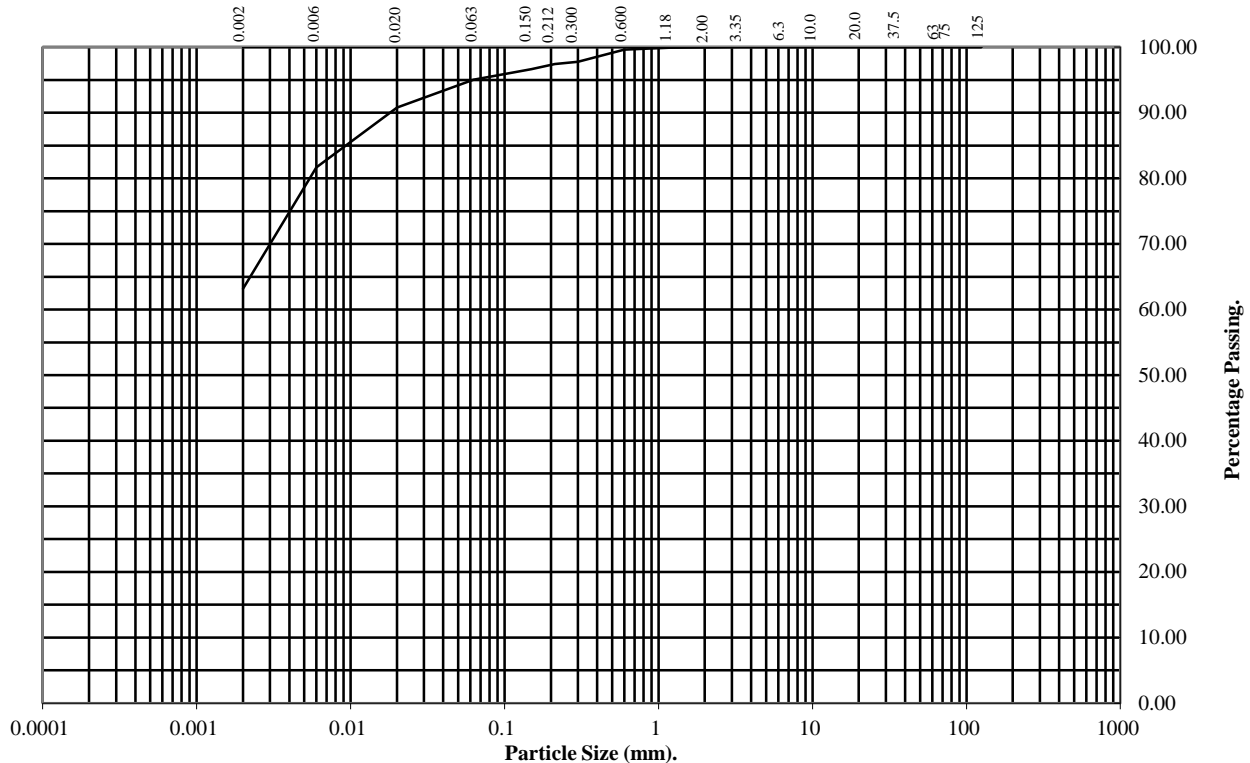
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1008** **Top Depth (m):** **2.00**

Sample Number: **Base Depth(m):** **2.45**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	98
0.212	97
0.15	97
0.063	95

Particle Diameter	Percentage Passing
0.02	91
0.006	82
0.002	63

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	5
Silt	32
Clay	63

Remarks:
See Summary of Soil Descriptions



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Client Ref:
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PARTICLE SIZE DISTRIBUTION TEST

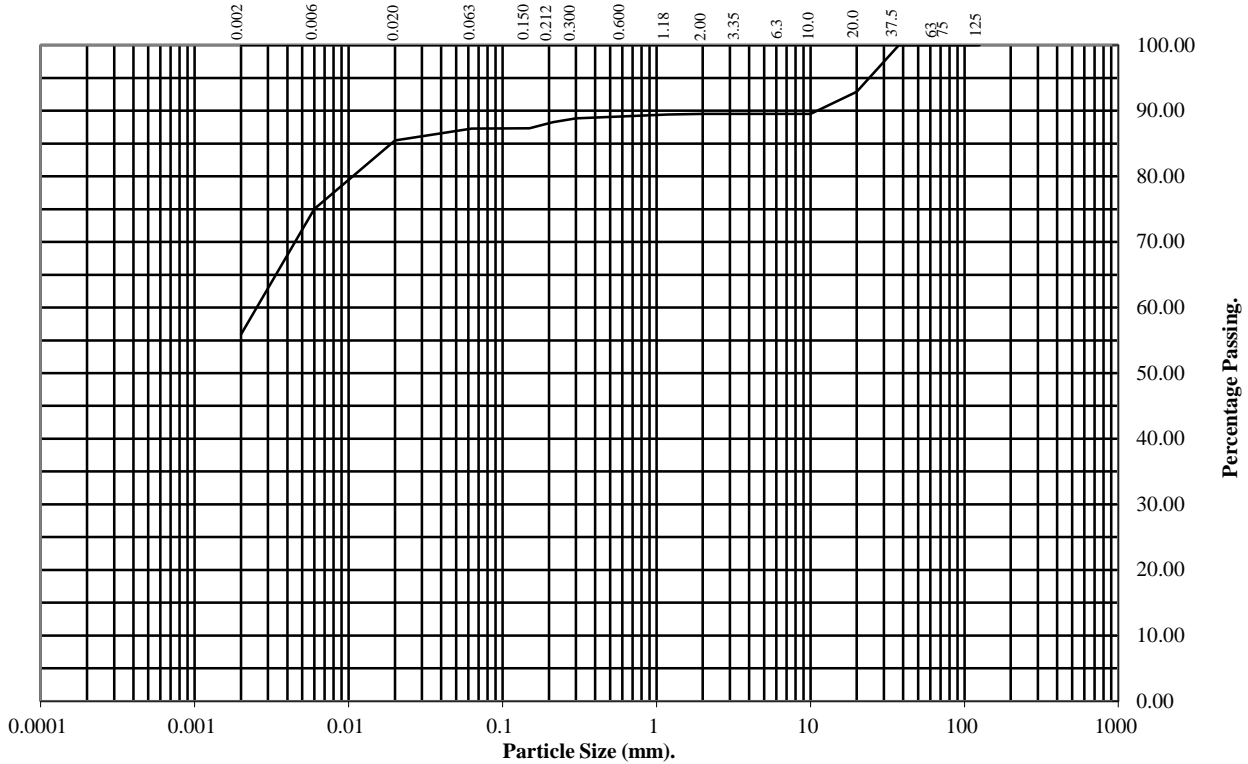
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1009** Top Depth (m): **3.00**

Sample Number: Base Depth(m): **3.45**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	93
10	90
6.3	90
3.35	90
2	90
1.18	89
0.6	89
0.3	89
0.212	88
0.15	87
0.063	87

Particle Diameter	Percentage Passing
0.02	85
0.006	75
0.002	56

Soil Fraction	Total Percentage
Cobbles	0
Gravel	10
Sand	3
Silt	31
Clay	56

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

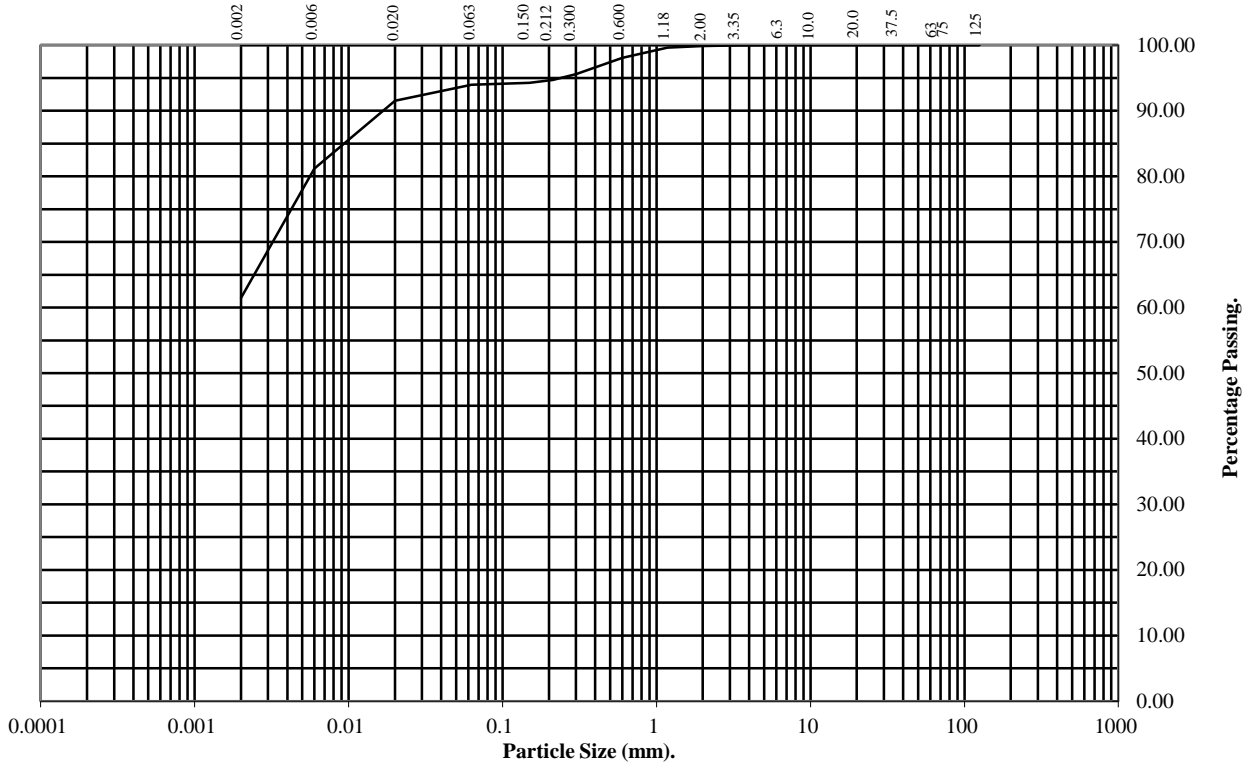
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1010** Top Depth (m): **3.00**

Sample Number: Base Depth(m): **3.45**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	98
0.3	96
0.212	95
0.15	94
0.063	94

Particle Diameter	Percentage Passing
0.02	92
0.006	81
0.002	61

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	6
Silt	33
Clay	61

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

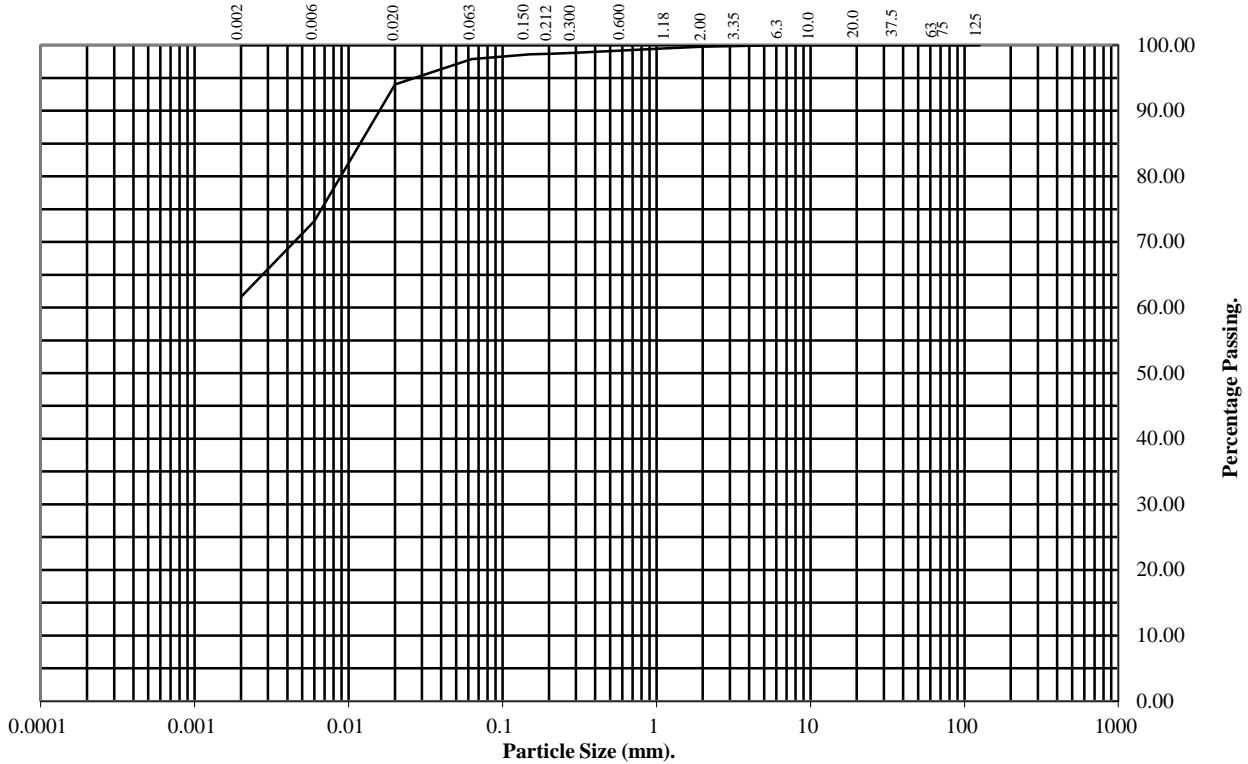
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1012** Top Depth (m): **1.00**

Sample Number: Base Depth(m):

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	99
0.3	99
0.212	99
0.15	99
0.063	98

Particle Diameter	Percentage Passing
0.02	94
0.006	73
0.002	62

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	2
Silt	36
Clay	62

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

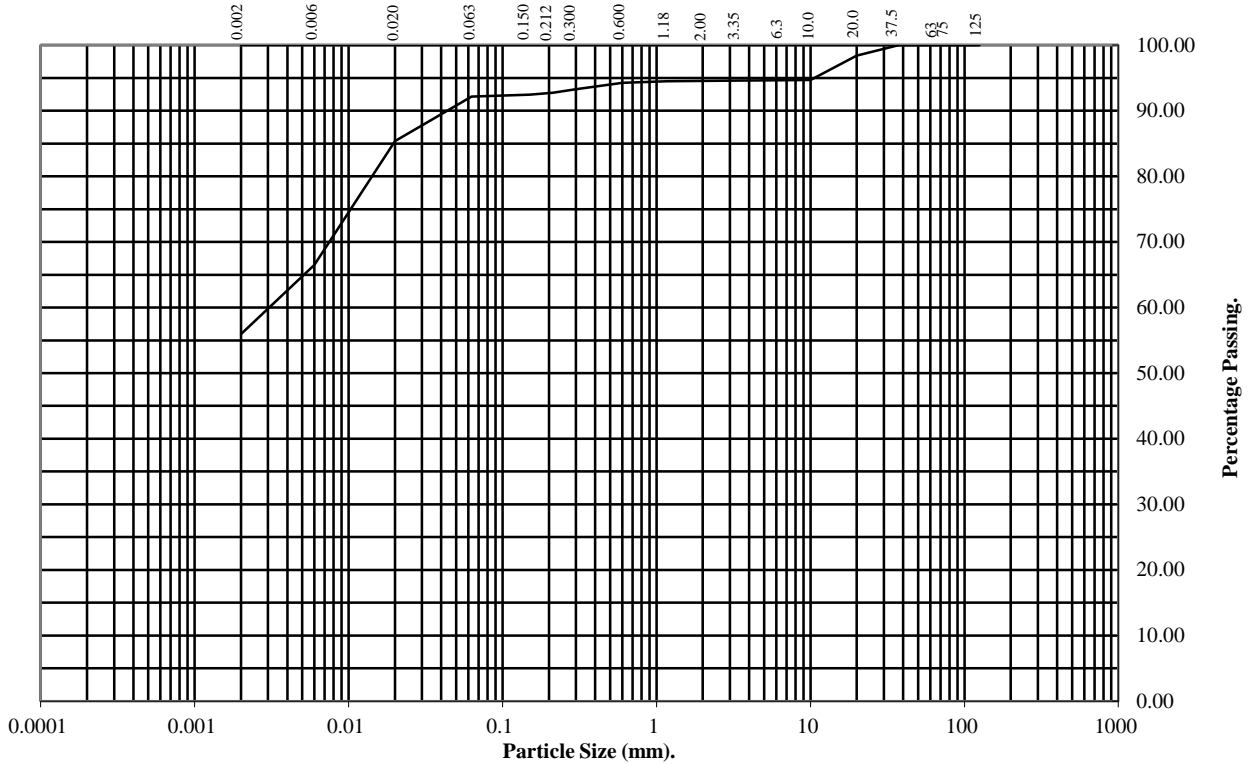
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1013** Top Depth (m): **1.20**

Sample Number: Base Depth(m): **1.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	95
6.3	95
3.35	95
2	95
1.18	95
0.6	94
0.3	93
0.212	93
0.15	92
0.063	92

Particle Diameter	Percentage Passing
0.02	85
0.006	66
0.002	56

Soil Fraction	Total Percentage
Cobbles	0
Gravel	5
Sand	3
Silt	36
Clay	56

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

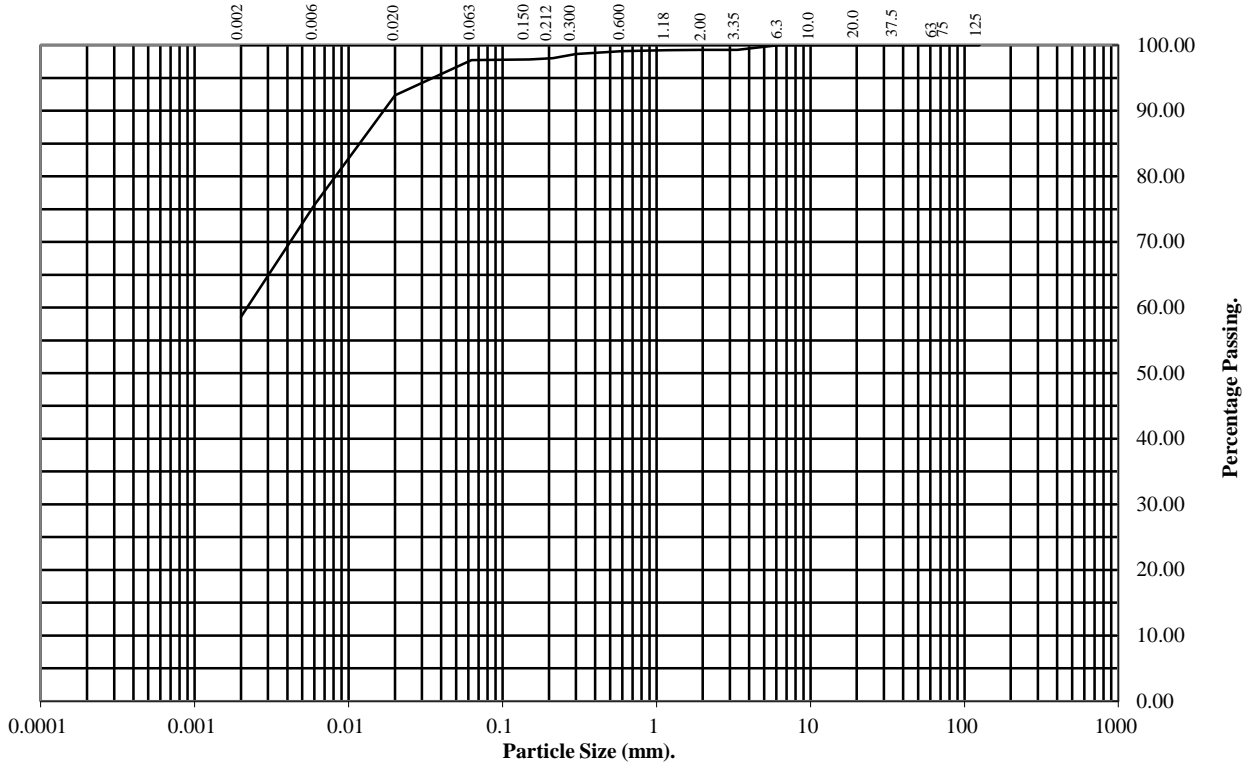
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1013** Top Depth (m): **6.50**

Sample Number: Base Depth(m): **6.95**

Sample Type: **B**

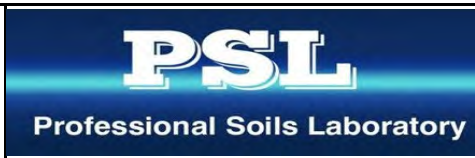


BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	99
2	99
1.18	99
0.6	99
0.3	99
0.212	98
0.15	98
0.063	98

Particle Diameter	Percentage Passing
0.02	92
0.006	76
0.002	59

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	1
Silt	39
Clay	59

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

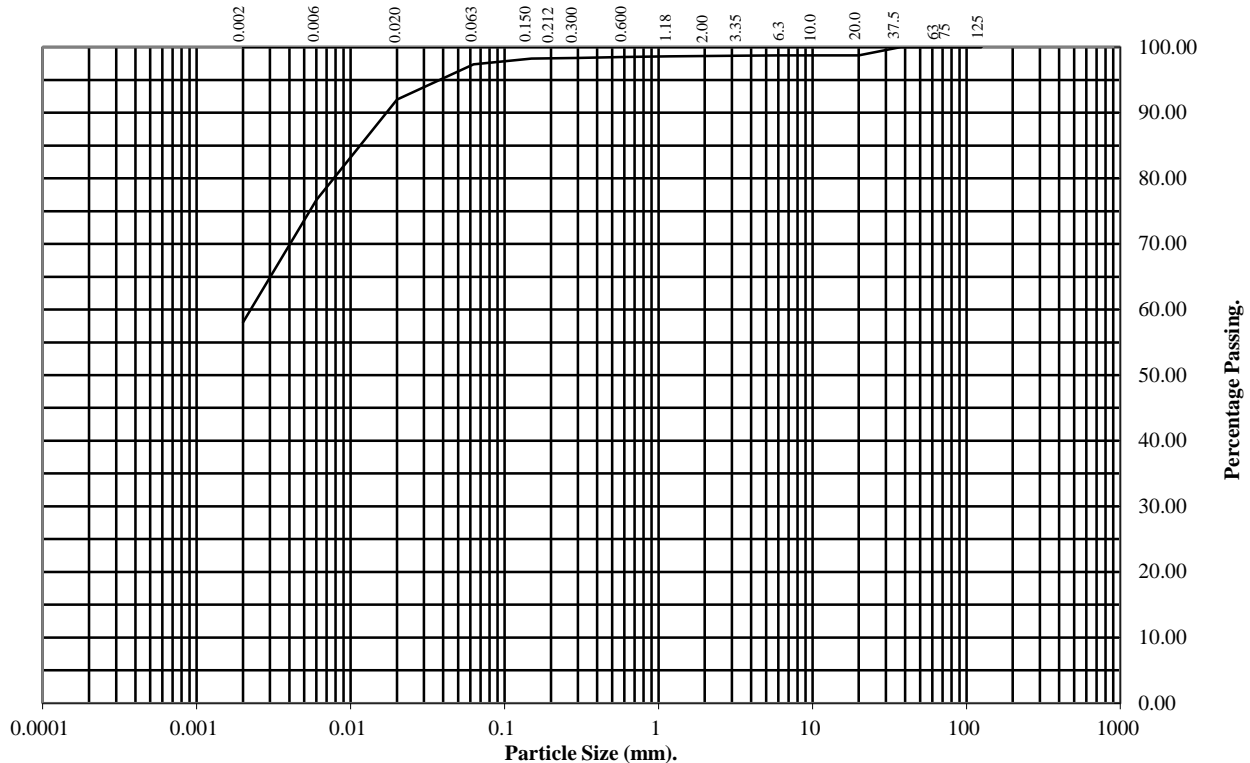
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1014** **Top Depth (m):** **1.00**

Sample Number: **Base Depth(m):**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	99
6.3	99
3.35	99
2	99
1.18	99
0.6	99
0.3	98
0.212	98
0.15	98
0.063	97

Particle Diameter	Percentage Passing
0.02	92
0.006	77
0.002	58

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	2
Silt	39
Clay	58

Remarks:
See Summary of Soil Descriptions



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Contract No:
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Client Ref:
C6515

PARTICLE SIZE DISTRIBUTION TEST

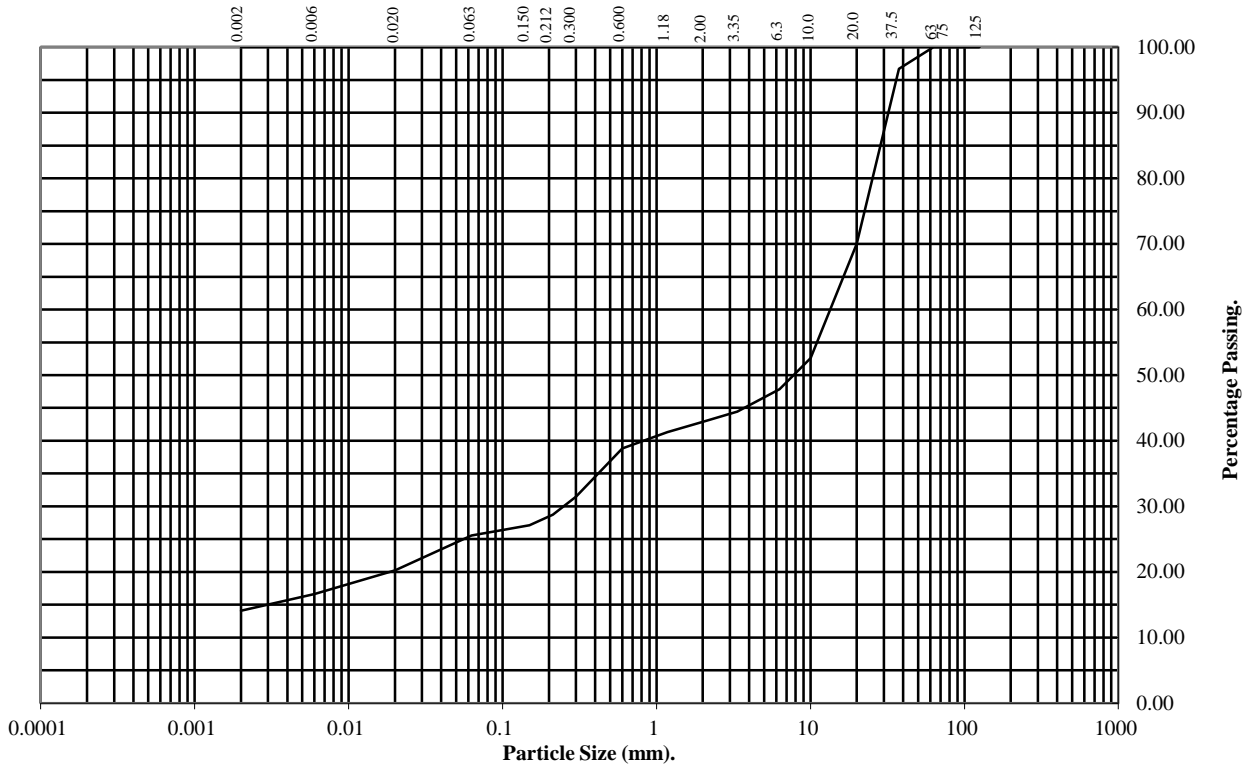
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1016** **Top Depth (m):** **0.50**

Sample Number: **Base Depth(m):** **0.70**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	97
20	70
10	53
6.3	48
3.35	44
2	43
1.18	41
0.6	39
0.3	31
0.212	29
0.15	27
0.063	26

Particle Diameter	Percentage Passing
0.02	20
0.006	17
0.002	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	57
Sand	17
Silt	12
Clay	14

Remarks:
See Summary of Soil Descriptions



Land East of Hemel Hempstead GI

Contract No:
PSL19/7112
Client Ref:
C6515

PARTICLE SIZE DISTRIBUTION TEST

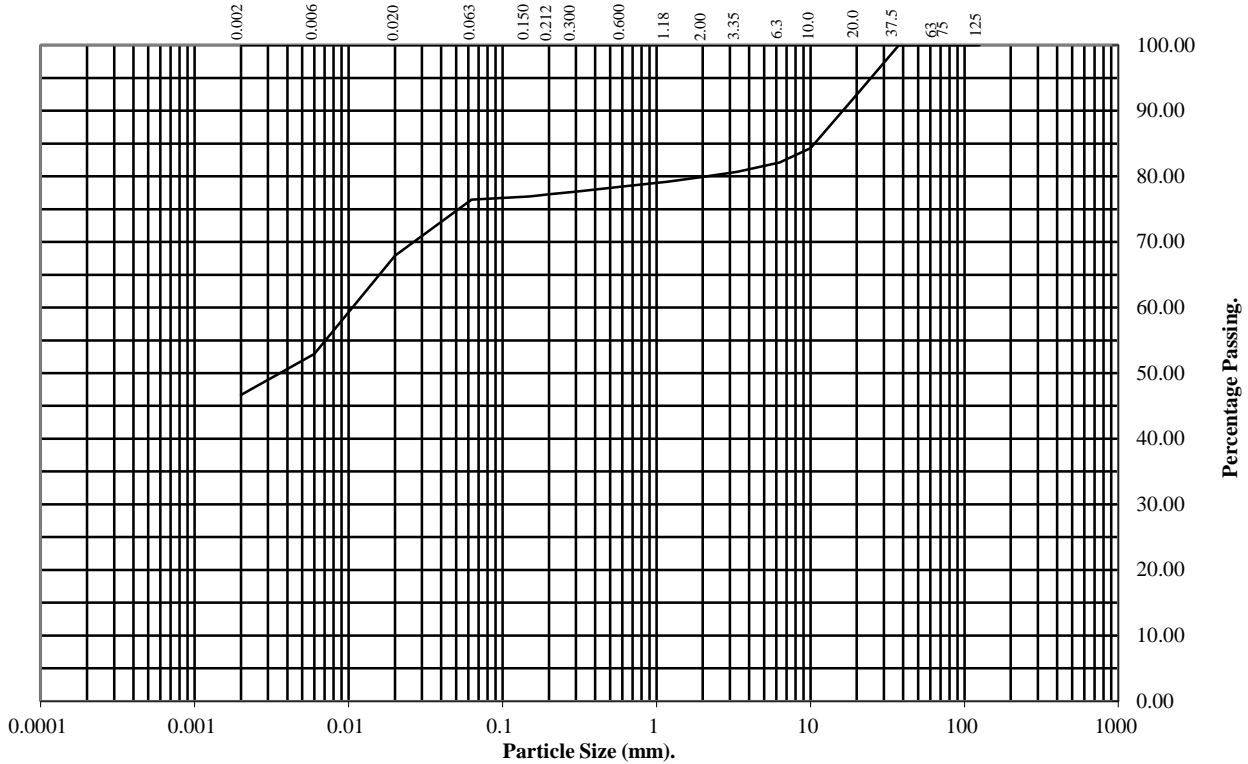
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1016** Top Depth (m): **10.91**

Sample Number: Base Depth(m): **11.35**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	92
10	84
6.3	82
3.35	81
2	80
1.18	79
0.6	78
0.3	78
0.212	77
0.15	77
0.063	76

Particle Diameter	Percentage Passing
0.02	68
0.006	53
0.002	47

Soil Fraction	Total Percentage
Cobbles	0
Gravel	20
Sand	4
Silt	29
Clay	47

Remarks:
See Summary of Soil Descriptions



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Client Ref:
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PARTICLE SIZE DISTRIBUTION TEST

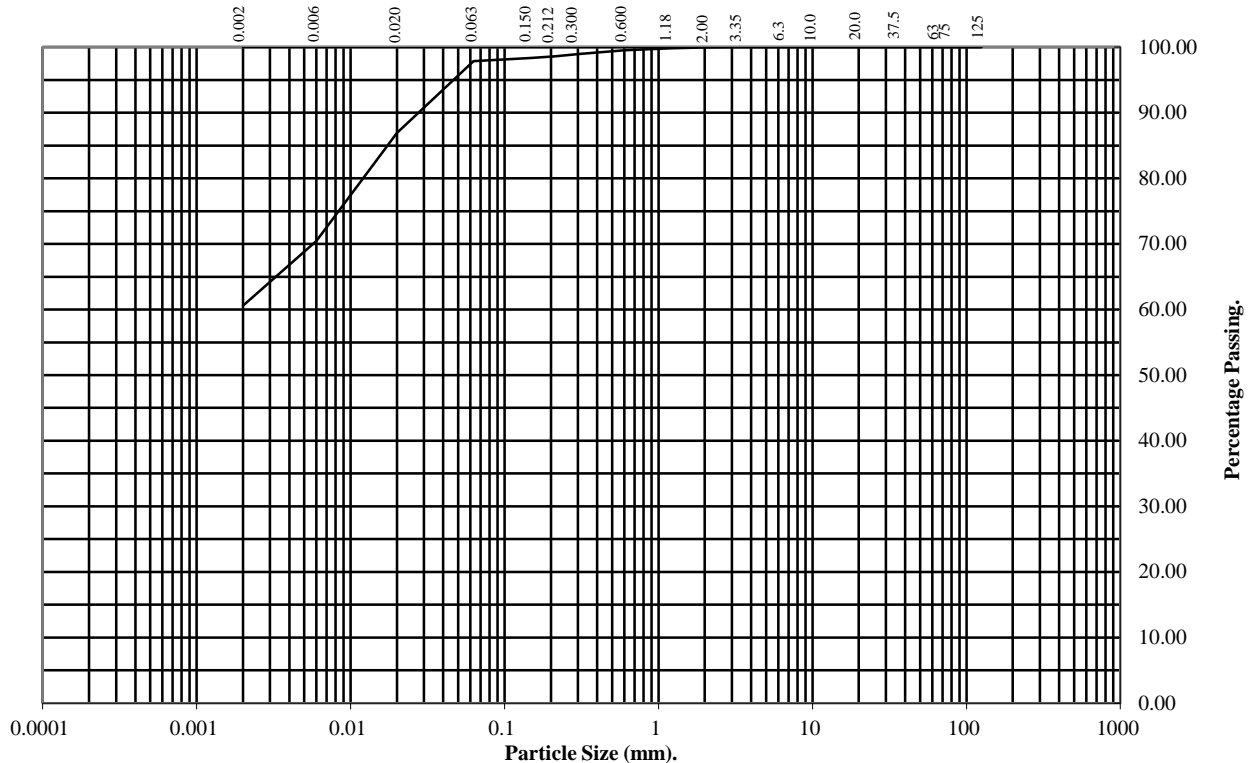
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1017** **Top Depth (m):** **1.20**

Sample Number: **Base Depth(m):** **1.60**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	99
0.212	99
0.15	98
0.063	98

Particle Diameter	Percentage Passing
0.02	87
0.006	70
0.002	61

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	2
Silt	37
Clay	61

Remarks:
See Summary of Soil Descriptions



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Client Ref:
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PARTICLE SIZE DISTRIBUTION TEST

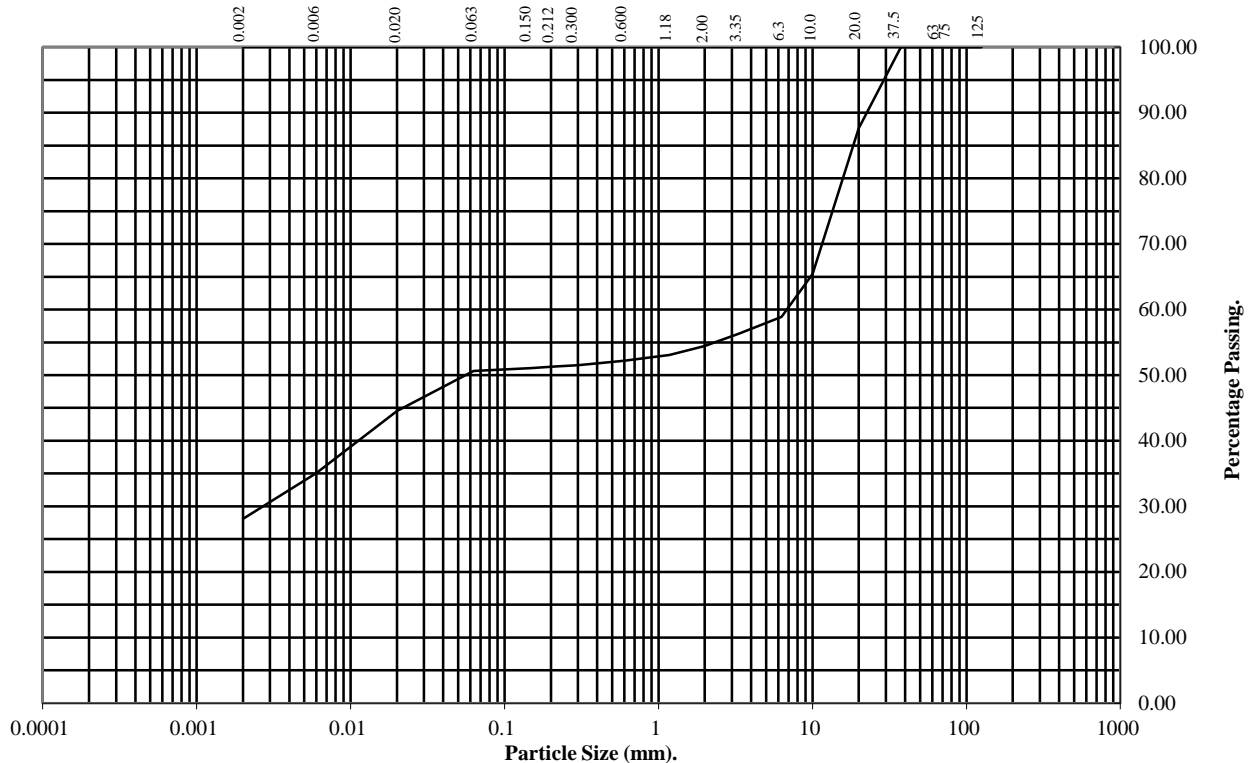
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1018** **Top Depth (m):** **2.00**

Sample Number: **Base Depth(m):** **2.45**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	88
10	65
6.3	59
3.35	56
2	54
1.18	53
0.6	52
0.3	52
0.212	51
0.15	51
0.063	51

Particle Diameter	Percentage Passing
0.02	45
0.006	35
0.002	28

Soil Fraction	Total Percentage
Cobbles	0
Gravel	46
Sand	3
Silt	23
Clay	28

Remarks:
See Summary of Soil Descriptions



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Contract No:
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Client Ref:
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PARTICLE SIZE DISTRIBUTION TEST

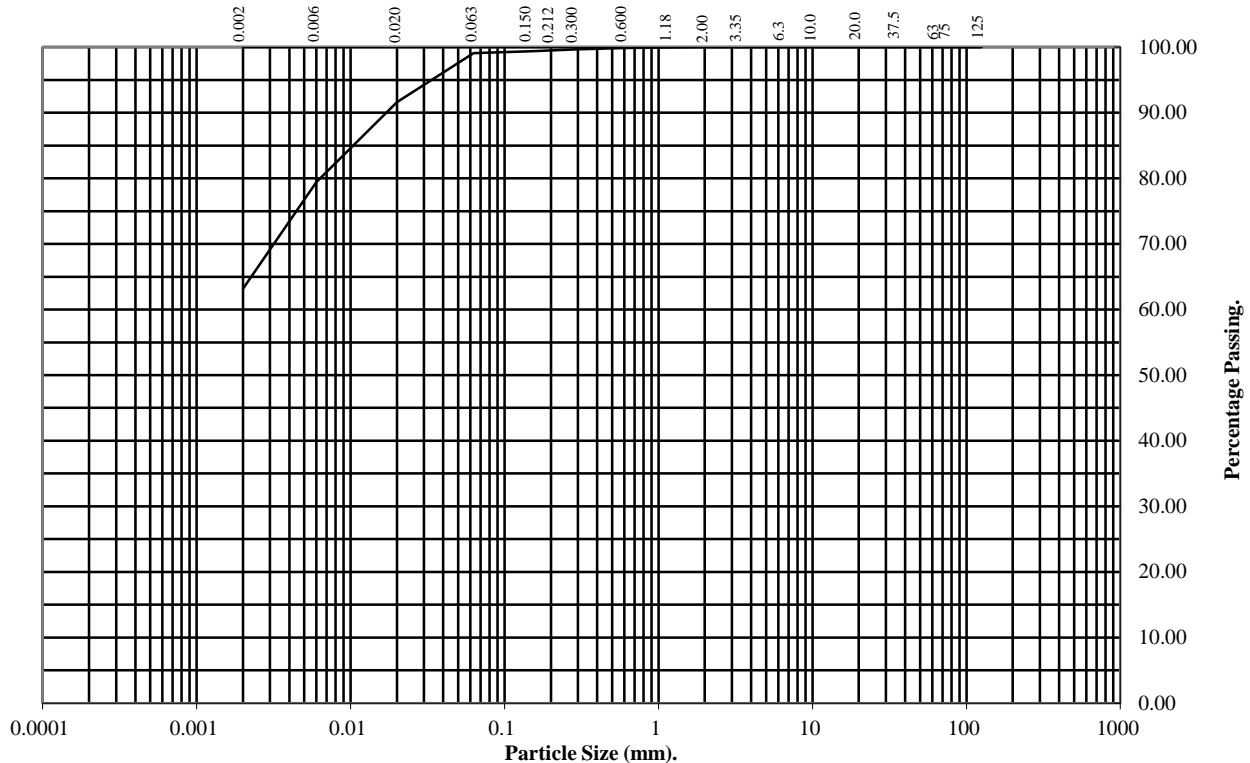
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: MP1020 **Top Depth (m):** 2.00

Sample Number: **Base Depth(m):** 2.45

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	100
0.212	100
0.15	99
0.063	99

Particle Diameter	Percentage Passing
0.02	92
0.006	79
0.002	63

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	1
Silt	36
Clay	63

Remarks:
See Summary of Soil Descriptions



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Client Ref:
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PARTICLE SIZE DISTRIBUTION TEST

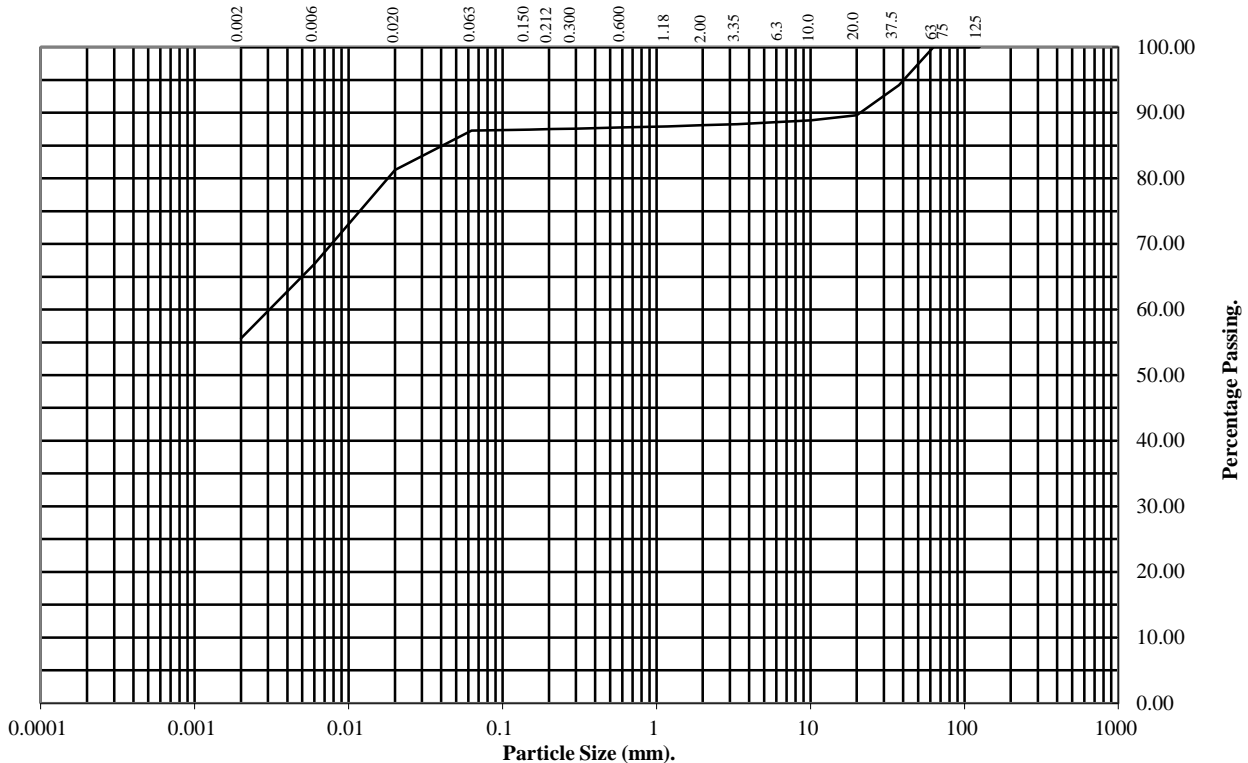
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: MP1021 **Top Depth (m):** 1.00

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	94
20	90
10	89
6.3	89
3.35	88
2	88
1.18	88
0.6	88
0.3	88
0.212	88
0.15	87
0.063	87

Particle Diameter	Percentage Passing
0.02	81
0.006	67
0.002	56

Soil Fraction	Total Percentage
Cobbles	0
Gravel	12
Sand	1
Silt	31
Clay	56

Remarks:
See Summary of Soil Descriptions



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Contract No:
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Client Ref:
C6515

PARTICLE SIZE DISTRIBUTION TEST

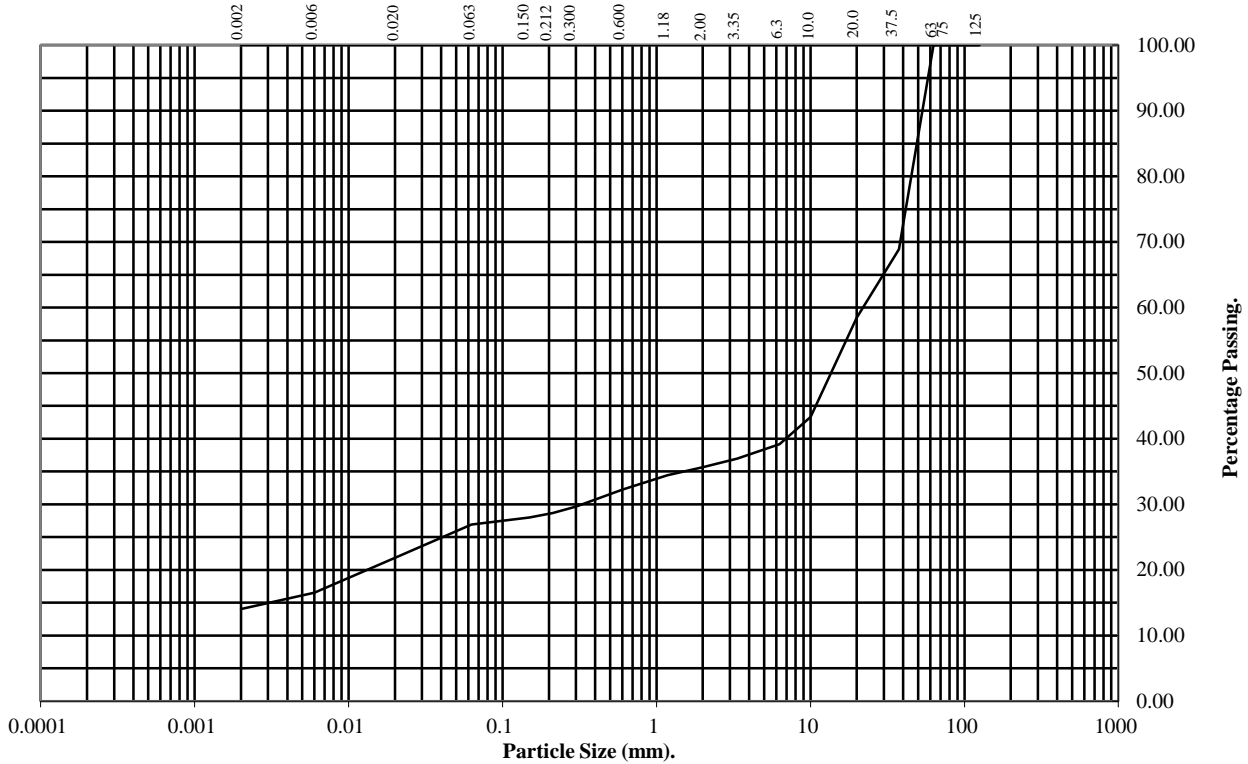
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1022** **Top Depth (m):** **0.50**

Sample Number: **Base Depth(m):** **1.20**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	69
20	58
10	43
6.3	39
3.35	37
2	36
1.18	34
0.6	32
0.3	30
0.212	29
0.15	28
0.063	27

Particle Diameter	Percentage Passing
0.02	22
0.006	17
0.002	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	64
Sand	9
Silt	13
Clay	14

Remarks:
See Summary of Soil Descriptions



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Client Ref:
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PARTICLE SIZE DISTRIBUTION TEST

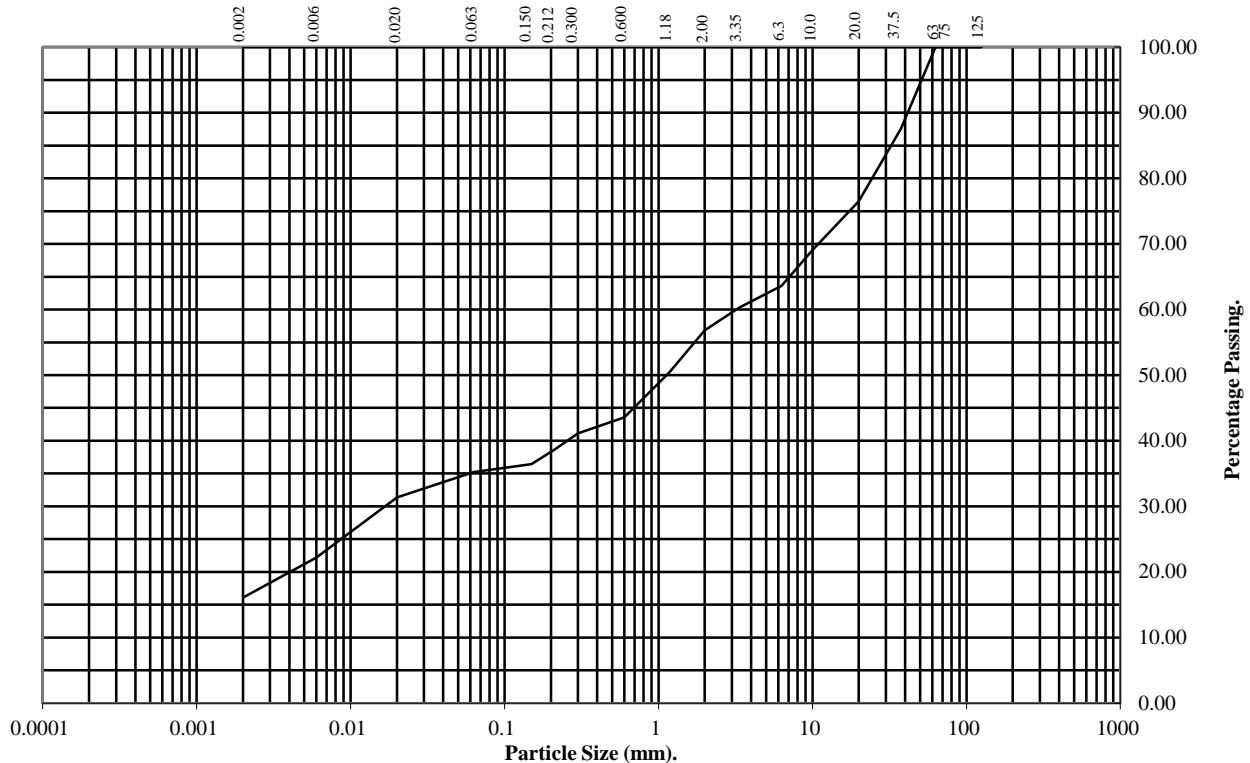
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1022** **Top Depth (m):** **5.00**

Sample Number: **Base Depth(m):** **5.45**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	88
20	77
10	69
6.3	64
3.35	60
2	57
1.18	50
0.6	44
0.3	41
0.212	39
0.15	36
0.063	35

Particle Diameter	Percentage Passing
0.02	31
0.006	22
0.002	16

Soil Fraction	Total Percentage
Cobbles	0
Gravel	43
Sand	22
Silt	19
Clay	16

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

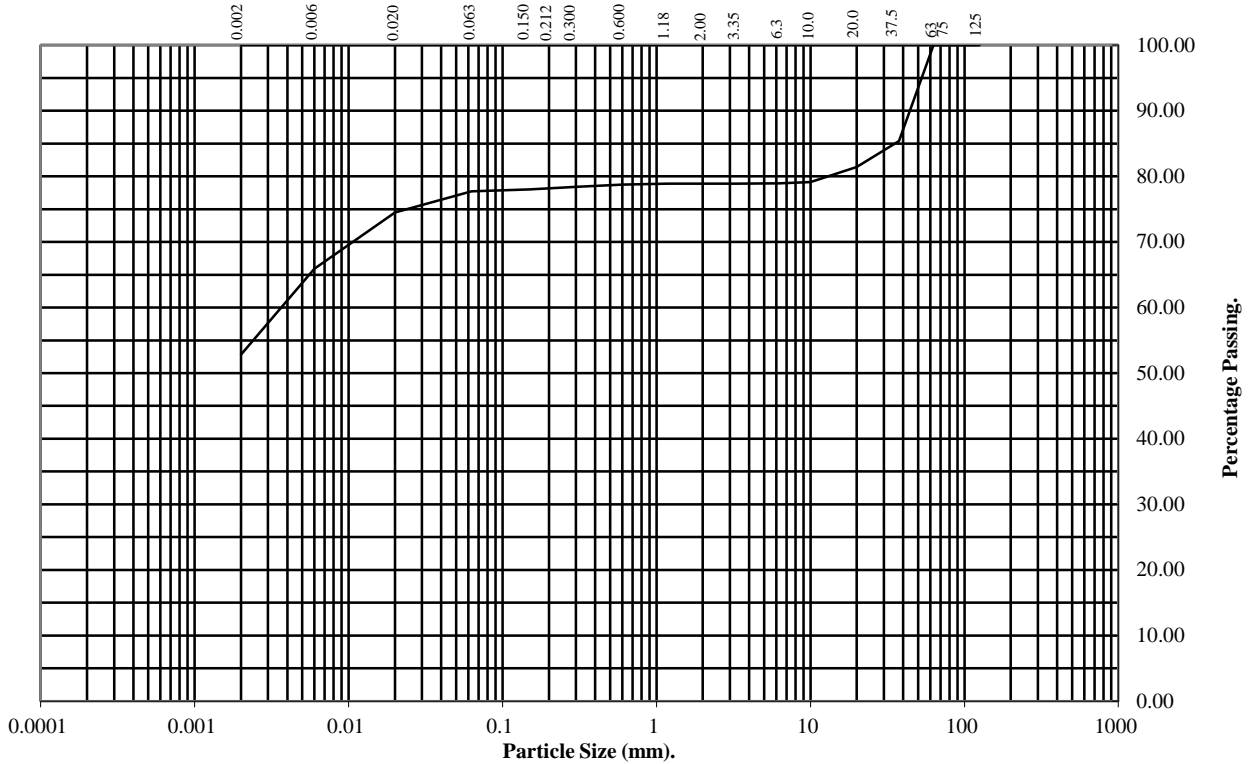
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1023** Top Depth (m): **3.20**

Sample Number: Base Depth(m): **3.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	85
20	81
10	79
6.3	79
3.35	79
2	79
1.18	79
0.6	79
0.3	78
0.212	78
0.15	78
0.063	78

Particle Diameter	Percentage Passing
0.02	74
0.006	66
0.002	53

Soil Fraction	Total Percentage
Cobbles	0
Gravel	21
Sand	1
Silt	25
Clay	53

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

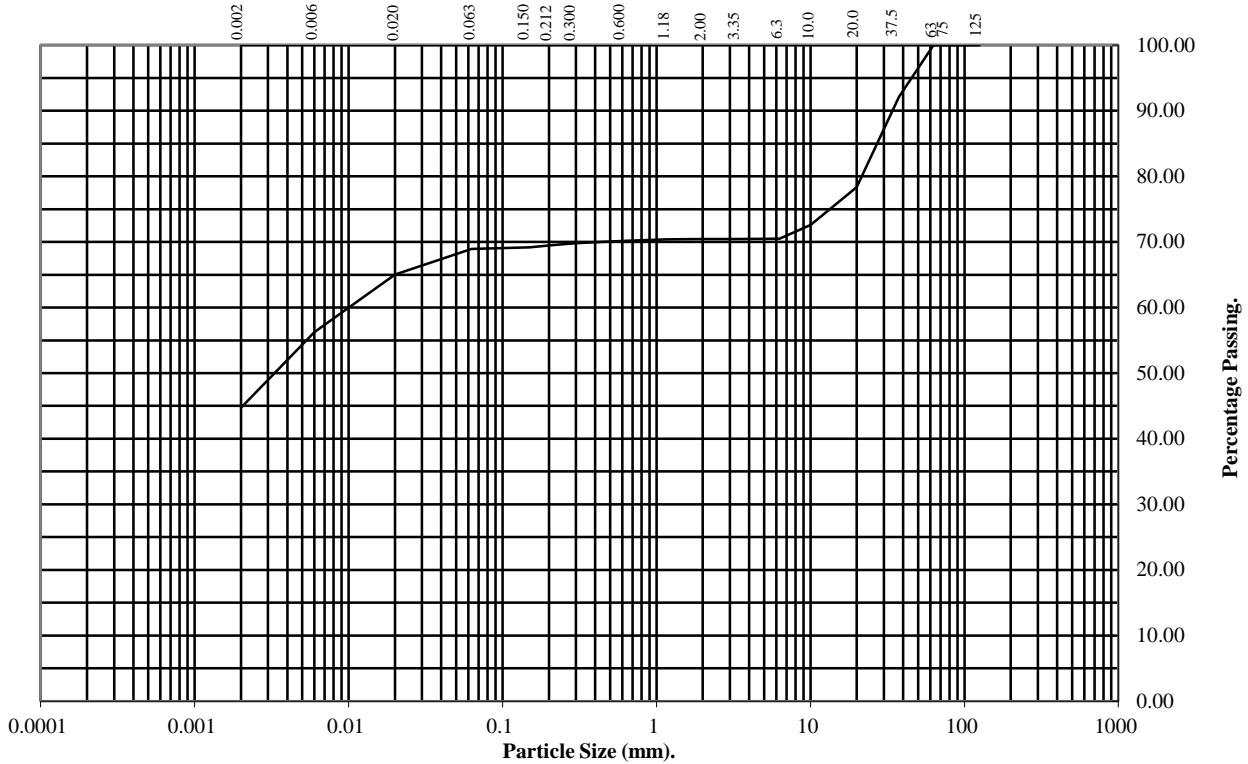
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1024** **Top Depth (m):** **0.50**

Sample Number: **Base Depth(m):** **1.20**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	92
20	78
10	73
6.3	70
3.35	70
2	70
1.18	70
0.6	70
0.3	70
0.212	70
0.15	69
0.063	69

Particle Diameter	Percentage Passing
0.02	65
0.006	56
0.002	45

Soil Fraction	Total Percentage
Cobbles	0
Gravel	30
Sand	1
Silt	24
Clay	45

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

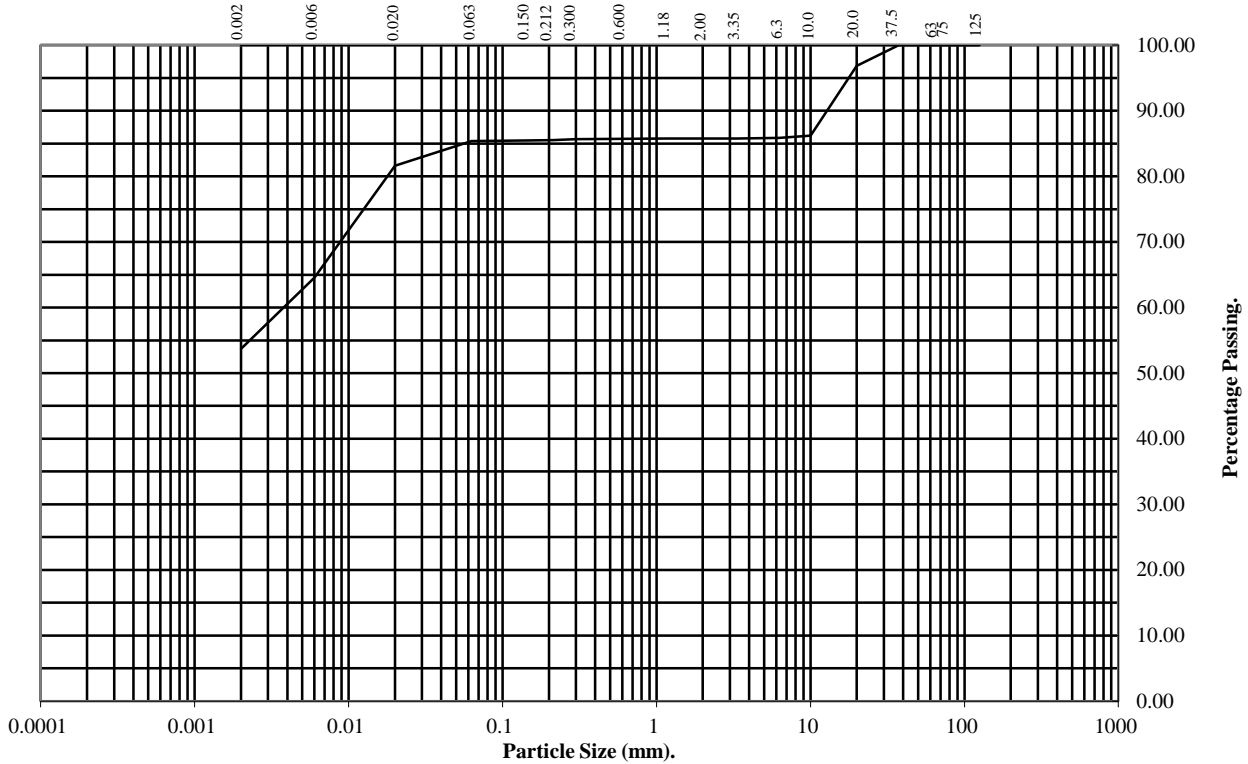
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: MP1025 **Top Depth (m):** 4.20

Sample Number: **Base Depth(m):** 4.65

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	97
10	86
6.3	86
3.35	86
2	86
1.18	86
0.6	86
0.3	86
0.212	86
0.15	85
0.063	85

Particle Diameter	Percentage Passing
0.02	82
0.006	65
0.002	54

Soil Fraction	Total Percentage
Cobbles	0
Gravel	14
Sand	1
Silt	31
Clay	54

Remarks:
See Summary of Soil Descriptions



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Client Ref:
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PARTICLE SIZE DISTRIBUTION TEST

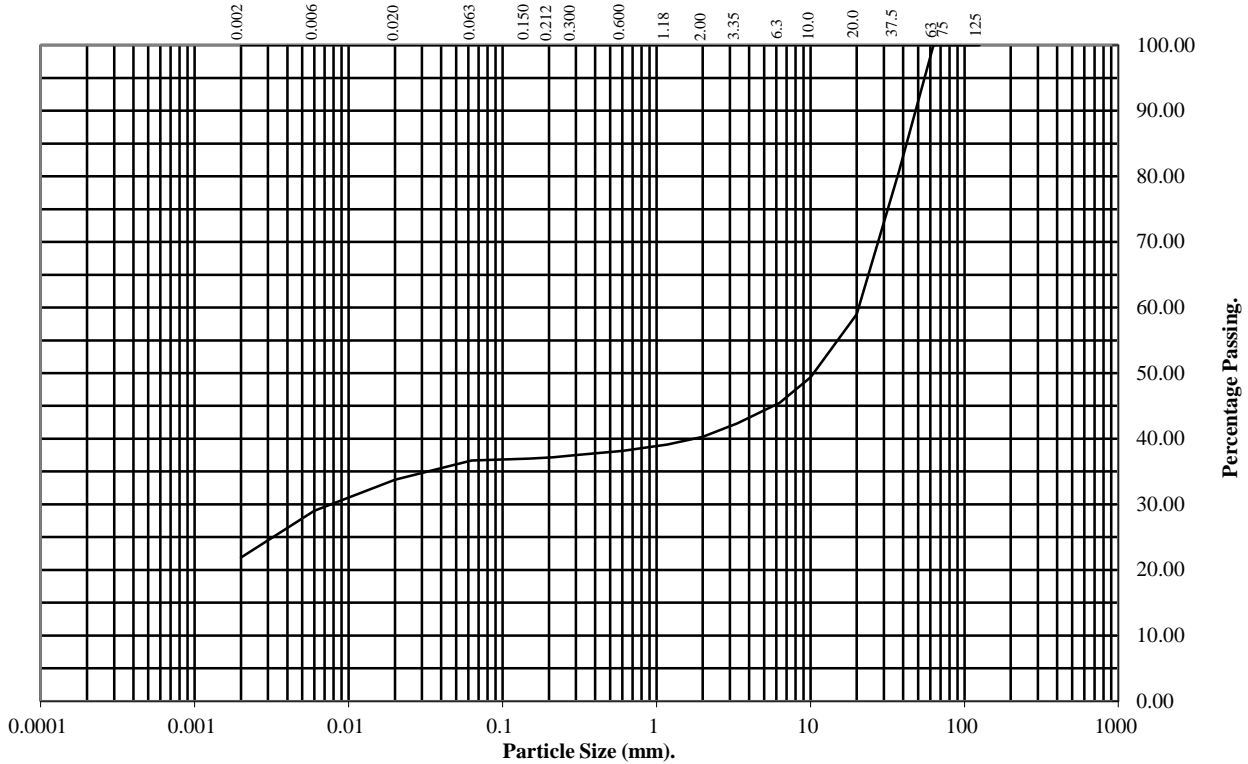
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1025** Top Depth (m): **11.20**

Sample Number: Base Depth(m): **11.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	81
20	59
10	49
6.3	45
3.35	42
2	40
1.18	39
0.6	38
0.3	37
0.212	37
0.15	37
0.063	37

Particle Diameter	Percentage Passing
0.02	34
0.006	29
0.002	22

Soil Fraction	Total Percentage
Cobbles	0
Gravel	60
Sand	3
Silt	15
Clay	22

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

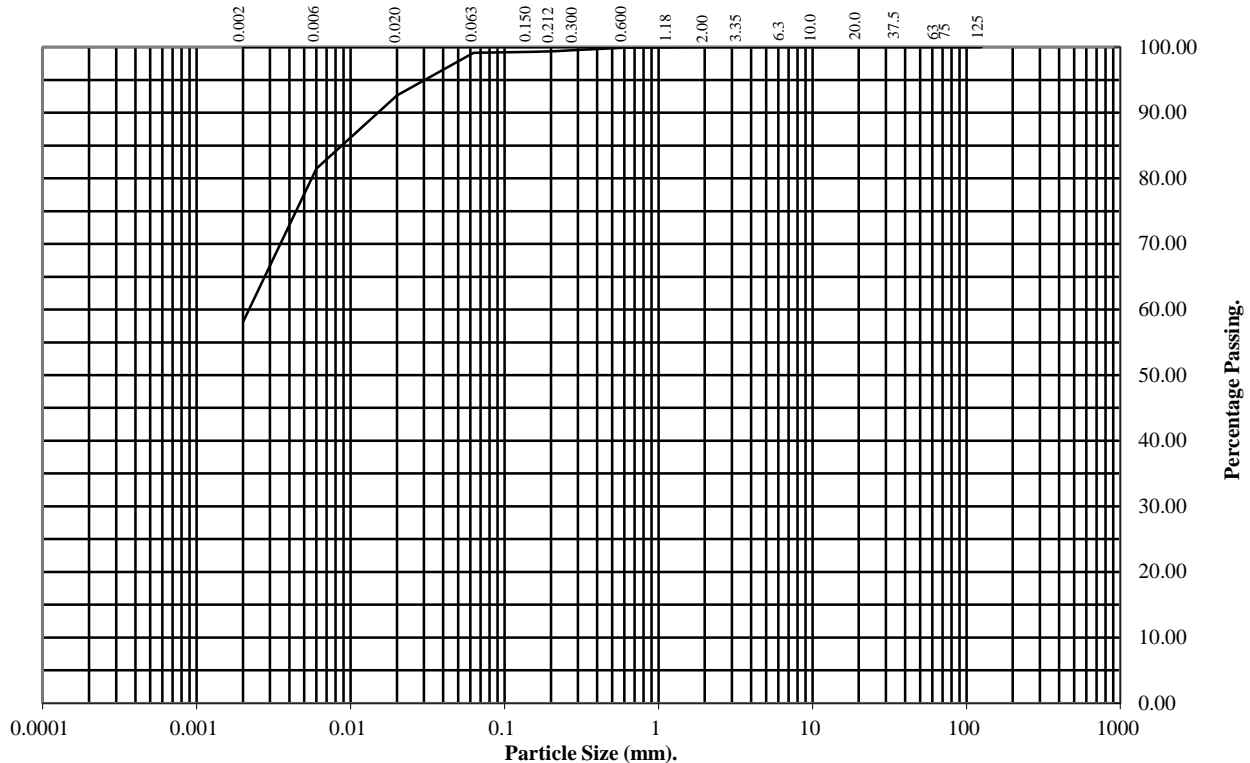
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: MP1026 **Top Depth (m):** 3.20

Sample Number: **Base Depth(m):** 3.65

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	100
0.212	99
0.15	99
0.063	99

Particle Diameter	Percentage Passing
0.02	93
0.006	81
0.002	58

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	1
Silt	41
Clay	58

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

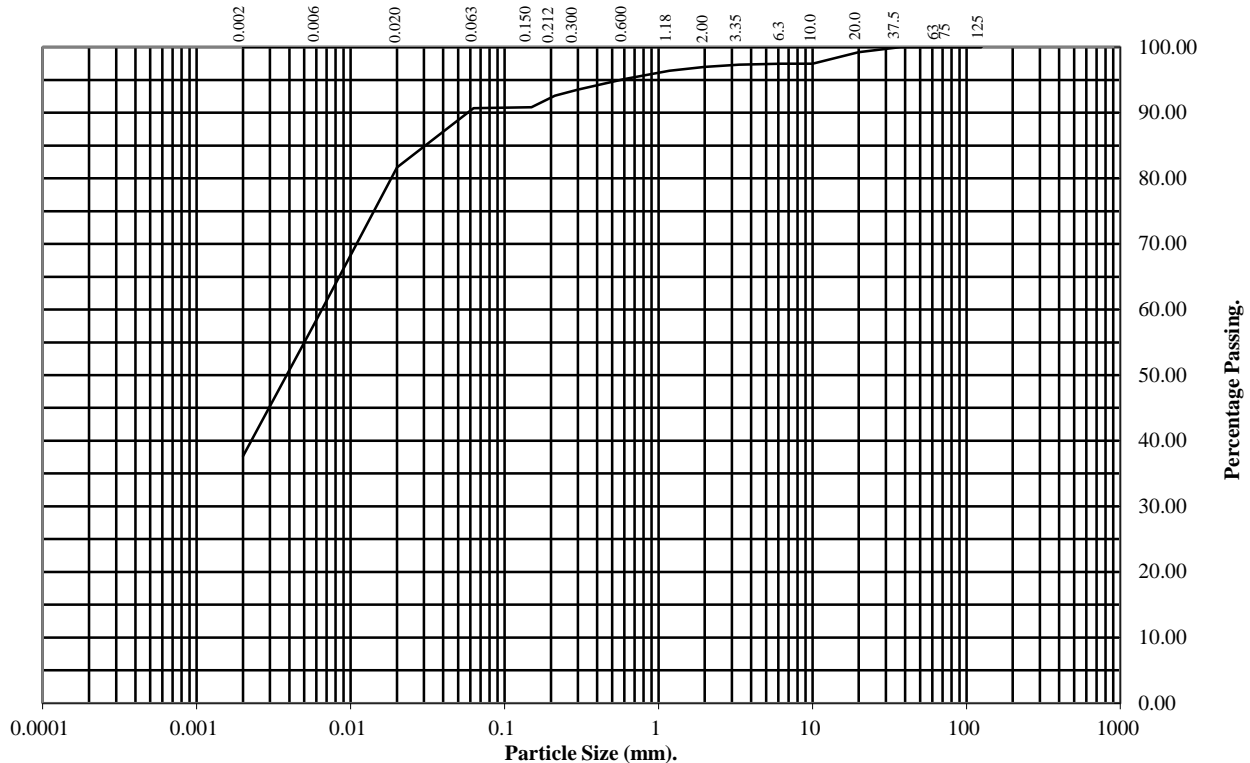
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1027** Top Depth (m): **4.00**

Sample Number: Base Depth(m): **4.45**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	97
6.3	97
3.35	97
2	97
1.18	96
0.6	95
0.3	94
0.212	93
0.15	91
0.063	91

Particle Diameter	Percentage Passing
0.02	82
0.006	58
0.002	38

Soil Fraction	Total Percentage
Cobbles	0
Gravel	3
Sand	6
Silt	53
Clay	38

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

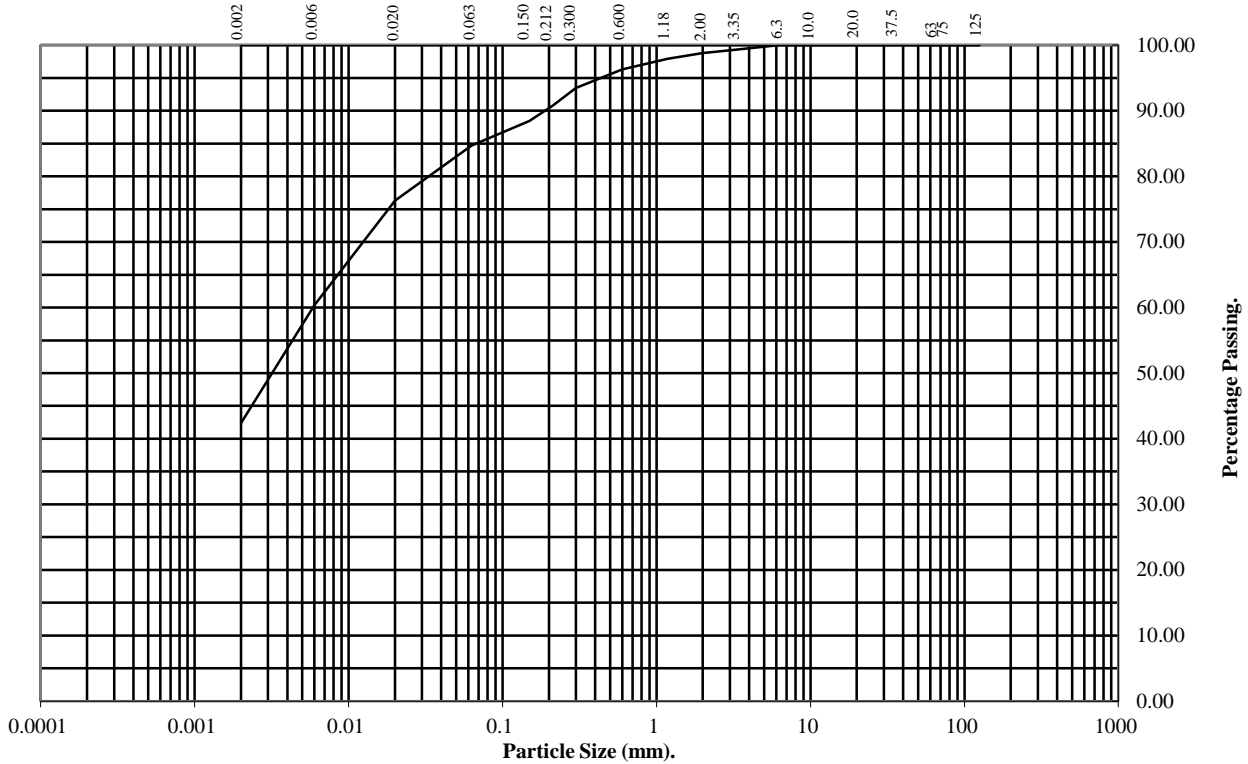
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1027** Top Depth (m): **4.90**

Sample Number: Base Depth(m): **5.35**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	99
2	99
1.18	98
0.6	96
0.3	93
0.212	91
0.15	88
0.063	85

Particle Diameter	Percentage Passing
0.02	76
0.006	60
0.002	42

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	14
Silt	43
Clay	42

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

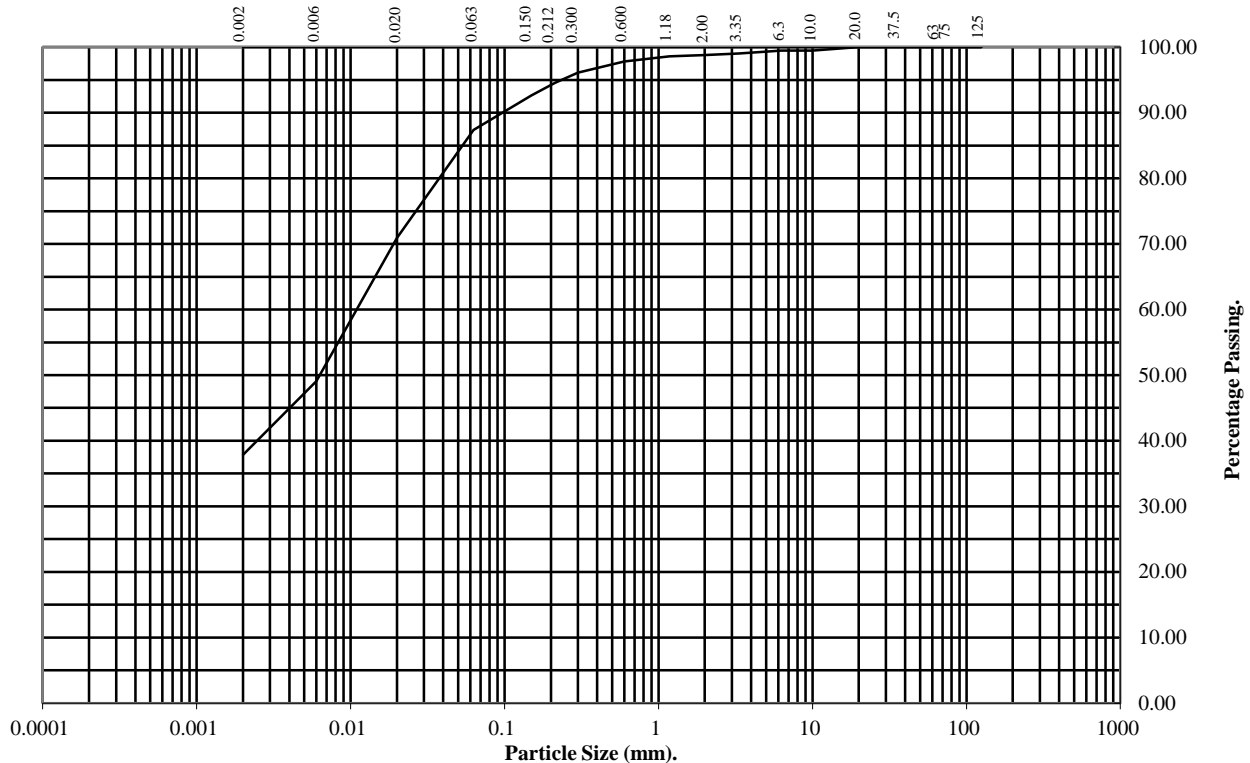
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1029** **Top Depth (m):** **1.20**

Sample Number: **Base Depth(m):** **1.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	99
2	99
1.18	99
0.6	98
0.3	96
0.212	95
0.15	93
0.063	87

Particle Diameter	Percentage Passing
0.02	71
0.006	49
0.002	38

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	12
Silt	49
Clay	38

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

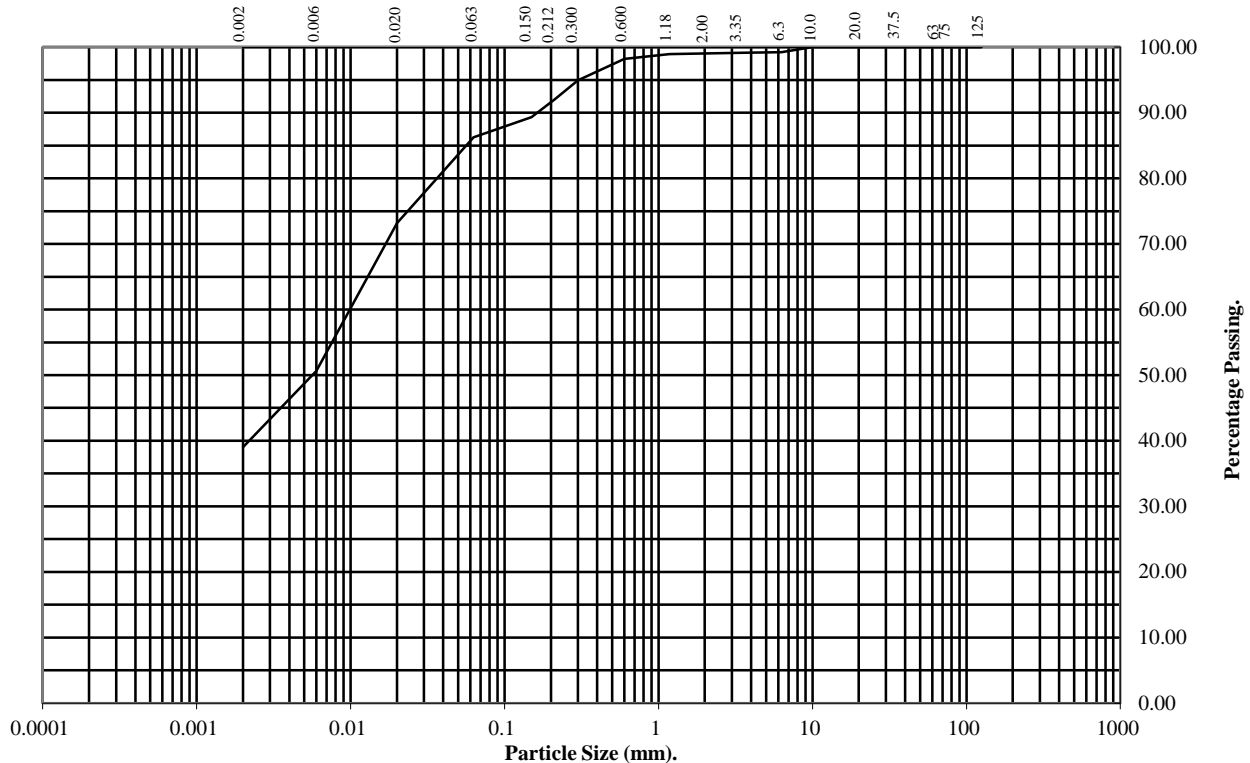
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1030** Top Depth (m): **2.00**

Sample Number: Base Depth(m): **2.45**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	99
3.35	99
2	99
1.18	99
0.6	98
0.3	95
0.212	92
0.15	89
0.063	86

Particle Diameter	Percentage Passing
0.02	73
0.006	51
0.002	39

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	13
Silt	47
Clay	39

Remarks:
See Summary of Soil Descriptions



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Contract No:
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Client Ref:
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PARTICLE SIZE DISTRIBUTION TEST

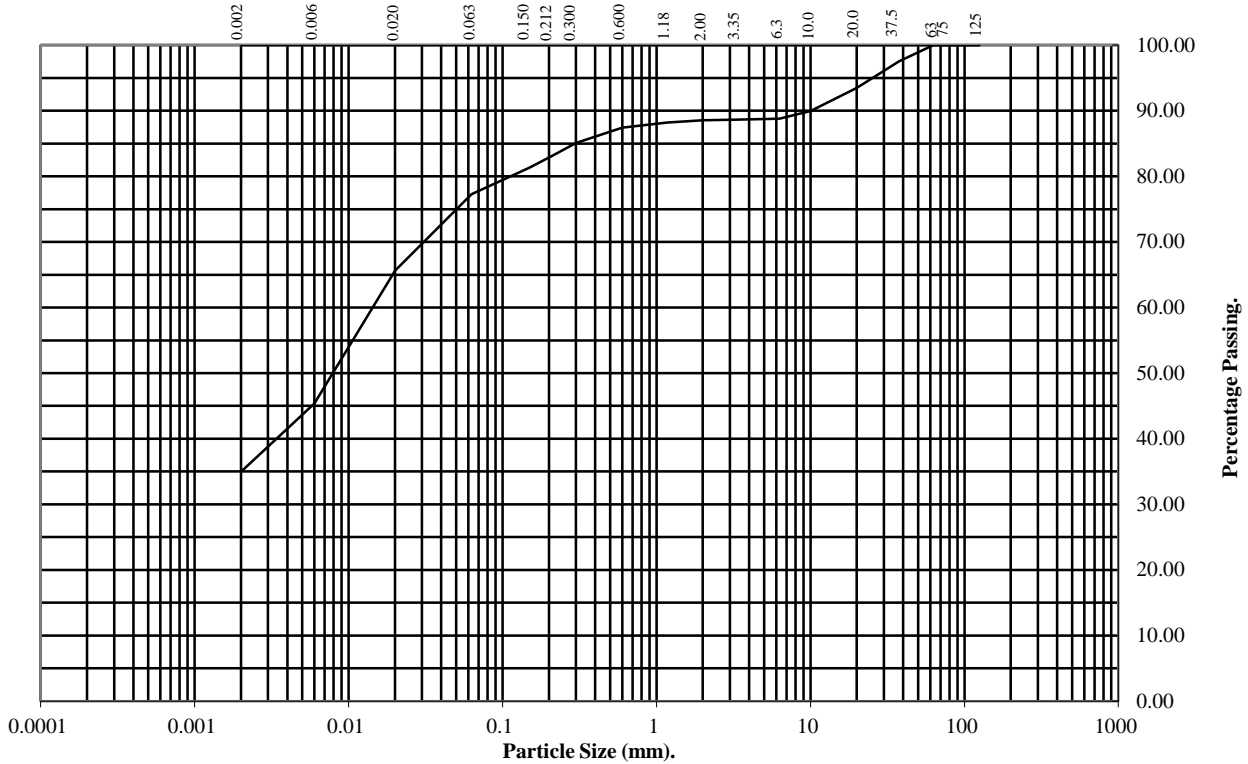
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1030** Top Depth (m): **5.00**

Sample Number: Base Depth(m): **5.45**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	98
20	93
10	90
6.3	89
3.35	89
2	89
1.18	88
0.6	87
0.3	85
0.212	83
0.15	81
0.063	77

Particle Diameter	Percentage Passing
0.02	66
0.006	45
0.002	35

Soil Fraction	Total Percentage
Cobbles	0
Gravel	11
Sand	12
Silt	42
Clay	35

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

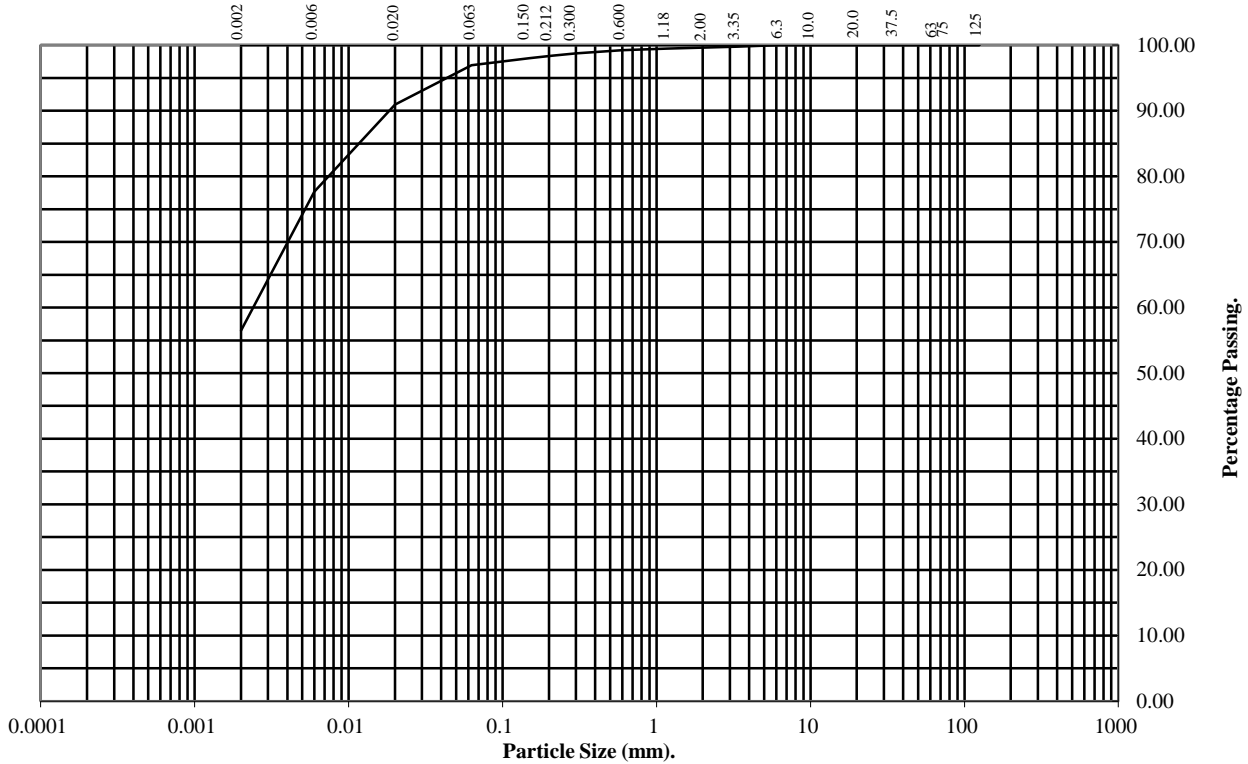
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1031** Top Depth (m): **1.20**

Sample Number: Base Depth(m): **1.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	99
0.6	99
0.3	99
0.212	98
0.15	98
0.063	97

Particle Diameter	Percentage Passing
0.02	91
0.006	78
0.002	56

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	3
Silt	41
Clay	56

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

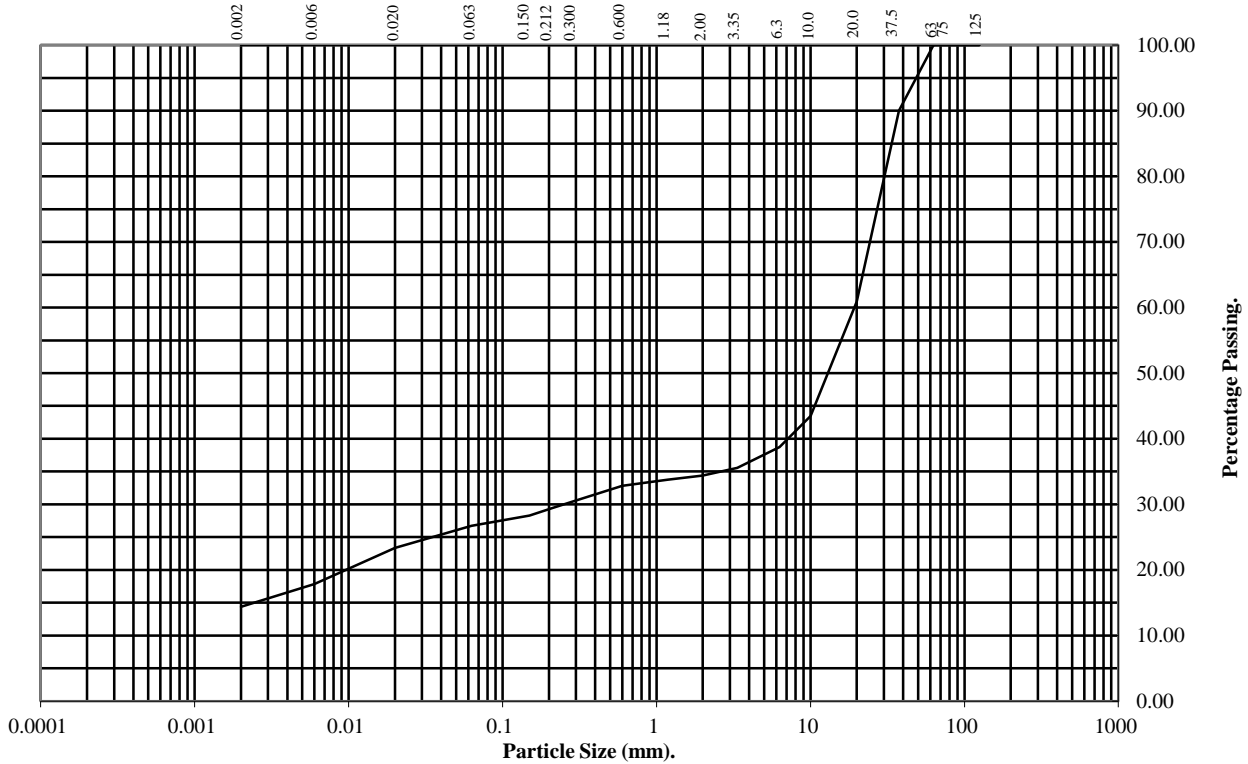
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1031** **Top Depth (m):** **6.20**

Sample Number: **Base Depth(m):** **6.70**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	90
20	61
10	43
6.3	39
3.35	36
2	34
1.18	34
0.6	33
0.3	31
0.212	29
0.15	28
0.063	27

Particle Diameter	Percentage Passing
0.02	23
0.006	18
0.002	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	66
Sand	7
Silt	13
Clay	14

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

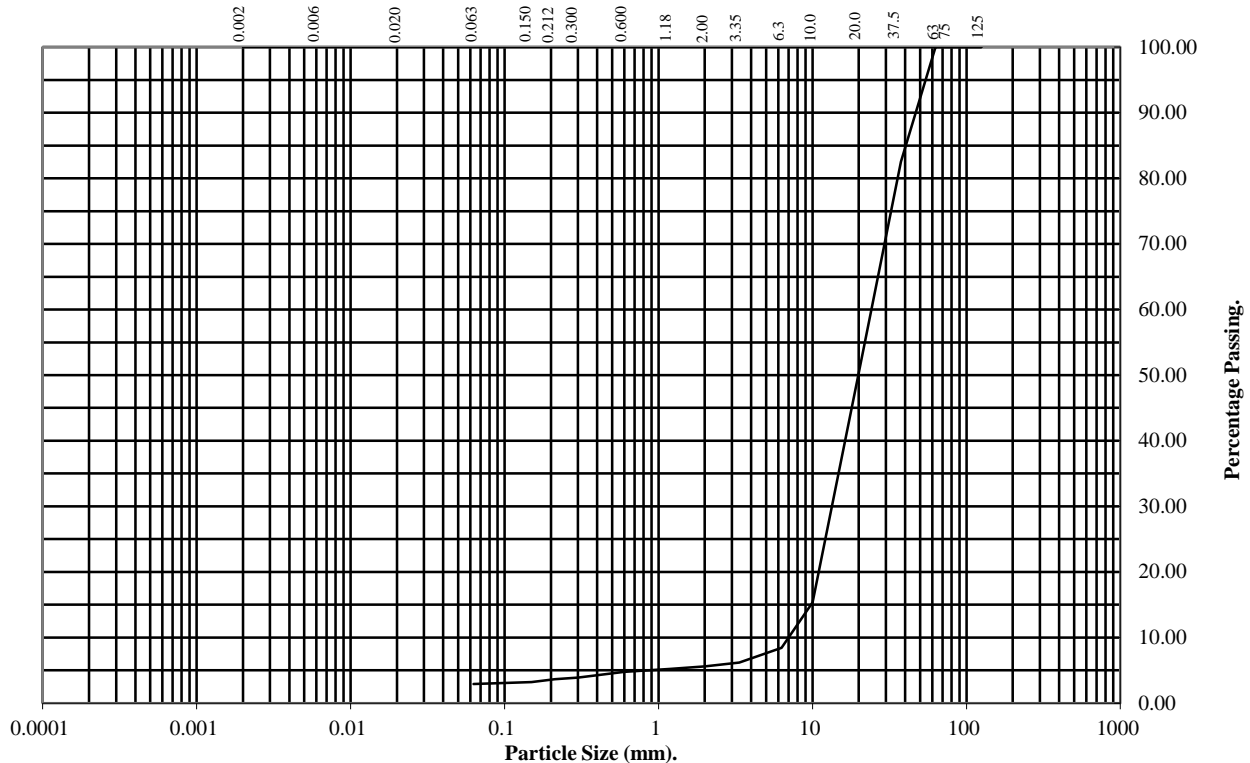
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: MP1031 **Top Depth (m):** 6.70

Sample Number: **Base Depth(m):** 7.15

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	83
20	50
10	15
6.3	8
3.35	6
2	6
1.18	5
0.6	5
0.3	4
0.212	4
0.15	3
0.063	3

Soil Fraction	Total Percentage
Cobbles	0
Gravel	94
Sand	3
Silt/Clay	3

Remarks:
See Summary of Soil Descriptions



Land East of Hemel Hempstead GI

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PARTICLE SIZE DISTRIBUTION TEST

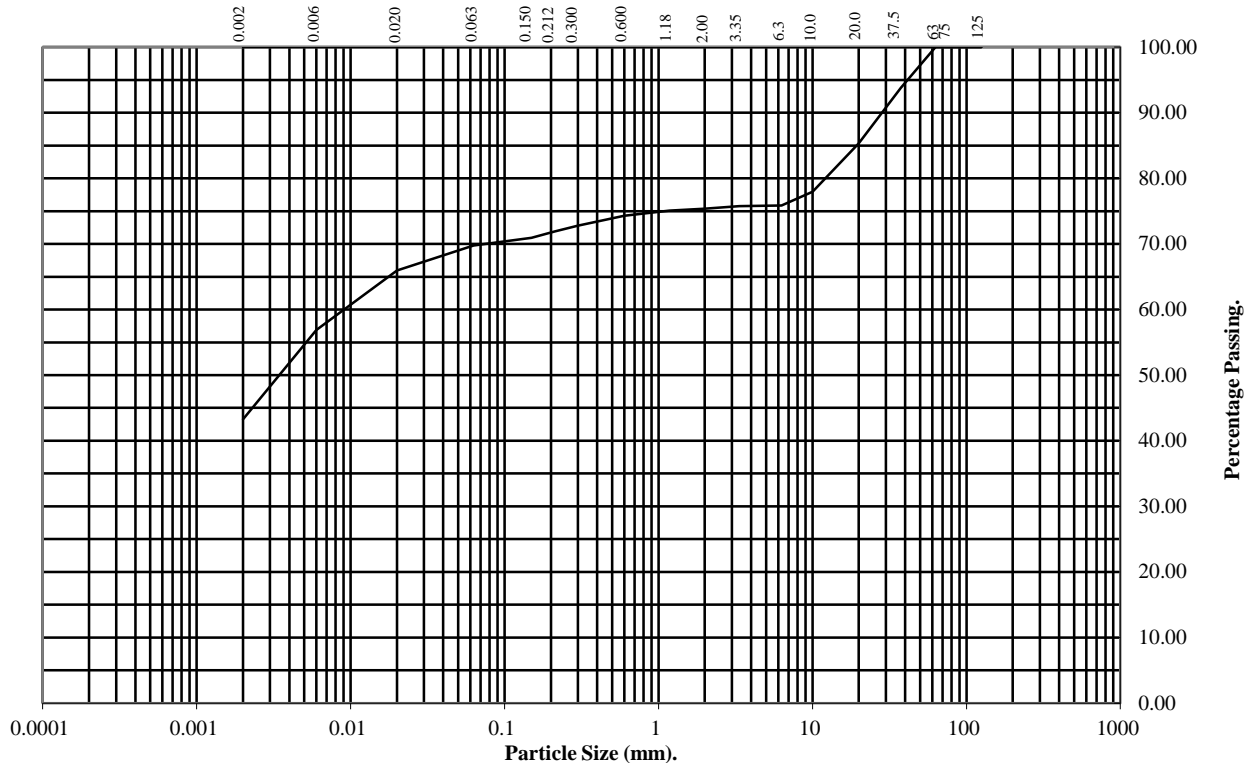
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1032** **Top Depth (m):** **2.20**

Sample Number: **Base Depth(m):** **2.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	94
20	85
10	78
6.3	76
3.35	76
2	75
1.18	75
0.6	74
0.3	73
0.212	72
0.15	71
0.063	70

Particle Diameter	Percentage Passing
0.02	66
0.006	57
0.002	43

Soil Fraction	Total Percentage
Cobbles	0
Gravel	25
Sand	5
Silt	27
Clay	43

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

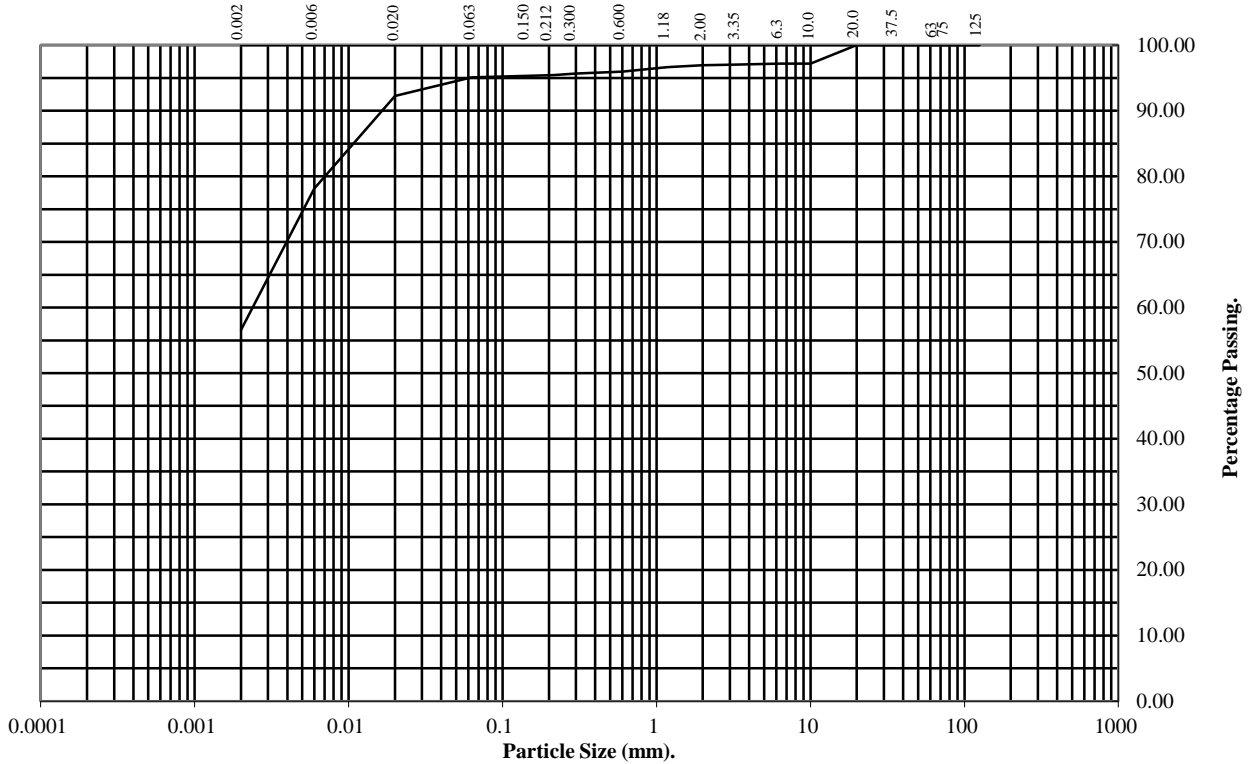
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1032** **Top Depth (m):** **3.20**

Sample Number: **Base Depth(m):** **3.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	97
6.3	97
3.35	97
2	97
1.18	97
0.6	96
0.3	96
0.212	95
0.15	95
0.063	95

Particle Diameter	Percentage Passing
0.02	92
0.006	78
0.002	57

Soil Fraction	Total Percentage
Cobbles	0
Gravel	3
Sand	2
Silt	38
Clay	57

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

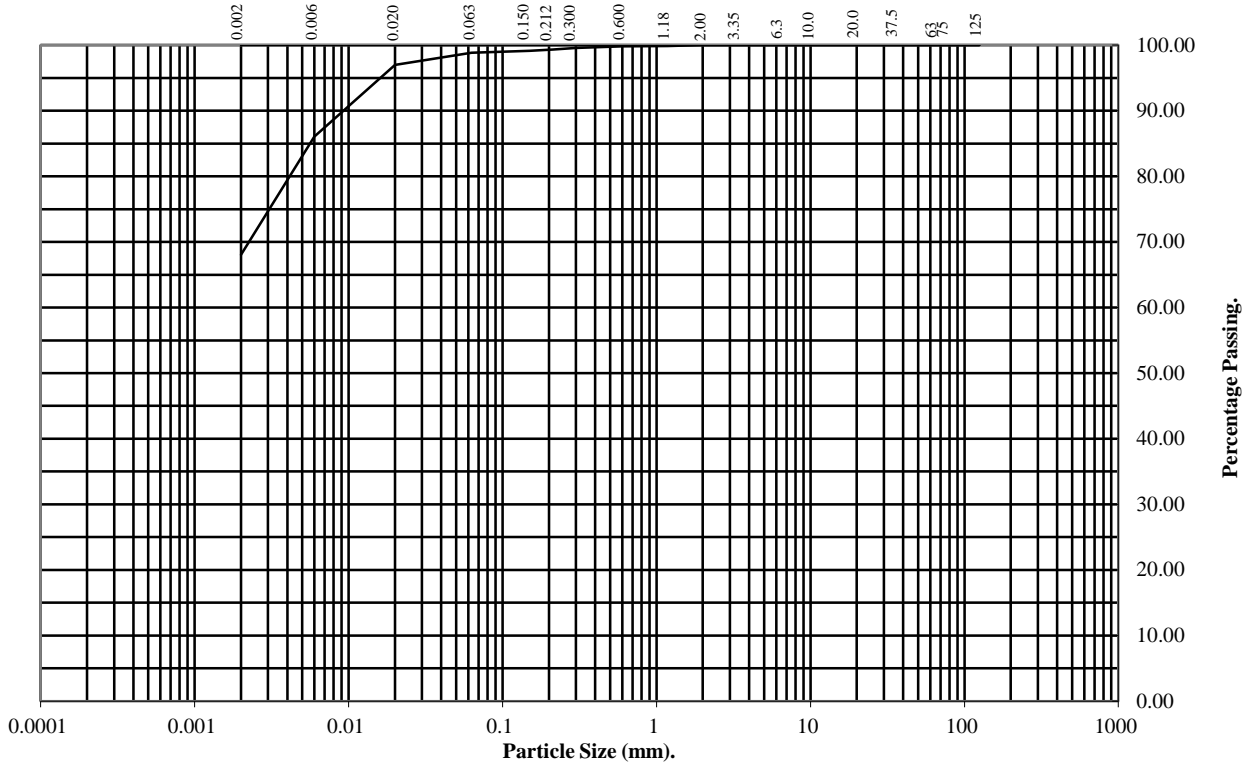
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: MP1036 **Top Depth (m):** 1.20

Sample Number: **Base Depth(m):** 1.65

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	100
1.18	100
0.6	100
0.3	100
0.212	99
0.15	99
0.063	99

Particle Diameter	Percentage Passing
0.02	97
0.006	86
0.002	68

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	1
Silt	31
Clay	68

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

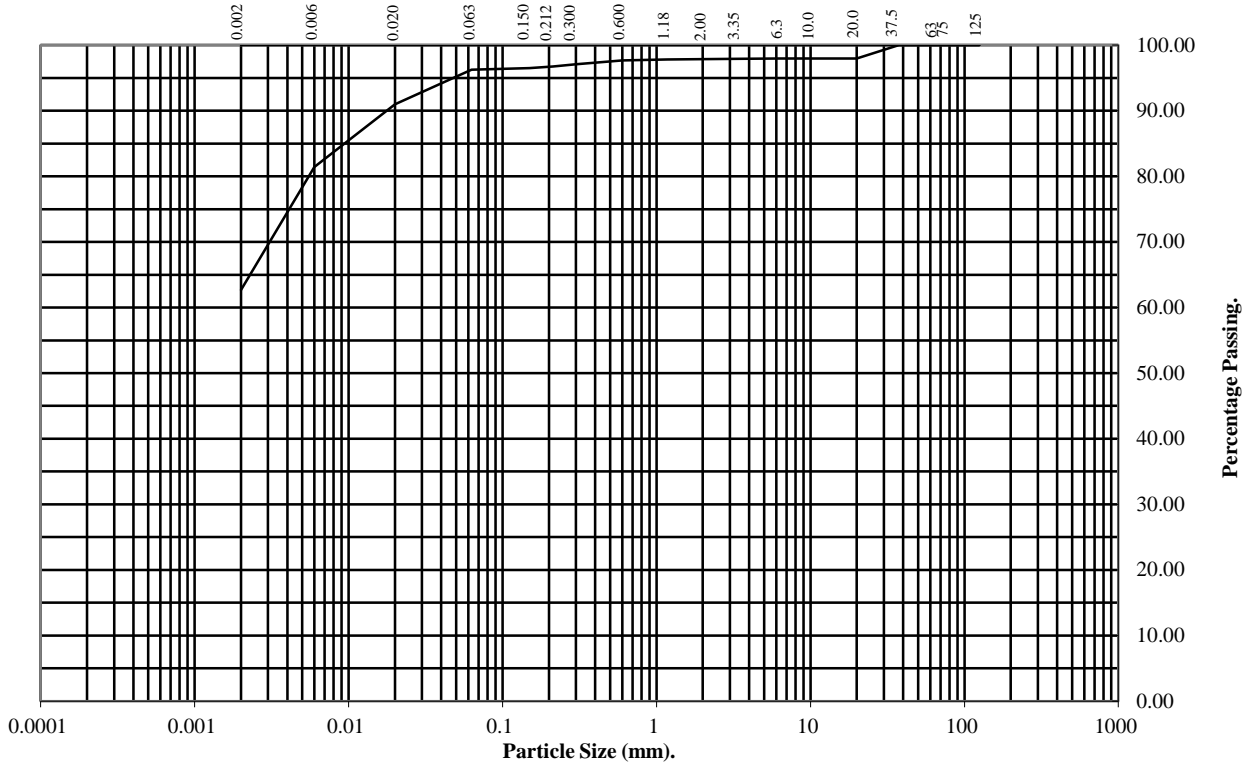
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1038** Top Depth (m): **1.20**

Sample Number: Base Depth(m): **1.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	98
10	98
6.3	98
3.35	98
2	98
1.18	98
0.6	98
0.3	97
0.212	97
0.15	96
0.063	96

Particle Diameter	Percentage Passing
0.02	91
0.006	81
0.002	63

Soil Fraction	Total Percentage
Cobbles	0
Gravel	2
Sand	2
Silt	33
Clay	63

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

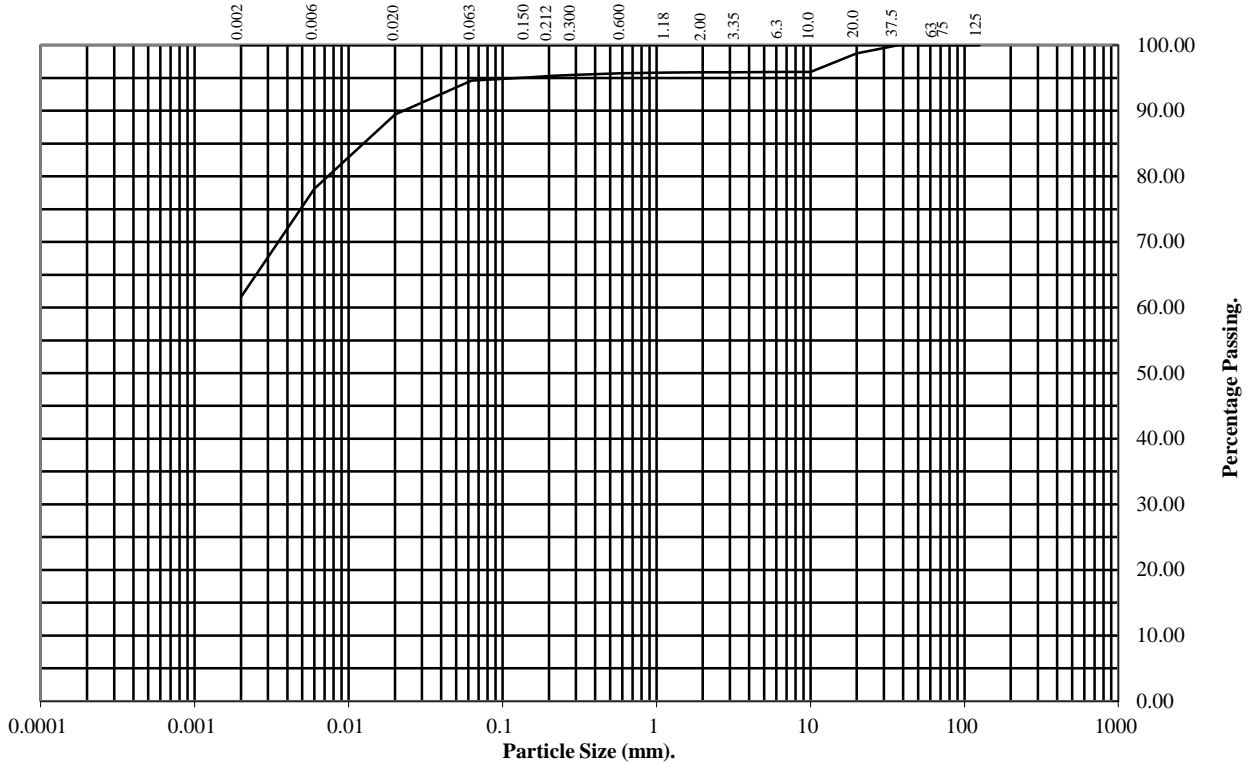
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1038** Top Depth (m): **3.20**

Sample Number: Base Depth(m): **3.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	99
10	96
6.3	96
3.35	96
2	96
1.18	96
0.6	96
0.3	95
0.212	95
0.15	95
0.063	95

Particle Diameter	Percentage Passing
0.02	89
0.006	78
0.002	62

Soil Fraction	Total Percentage
Cobbles	0
Gravel	4
Sand	1
Silt	33
Clay	62

Remarks:
See Summary of Soil Descriptions



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PARTICLE SIZE DISTRIBUTION TEST

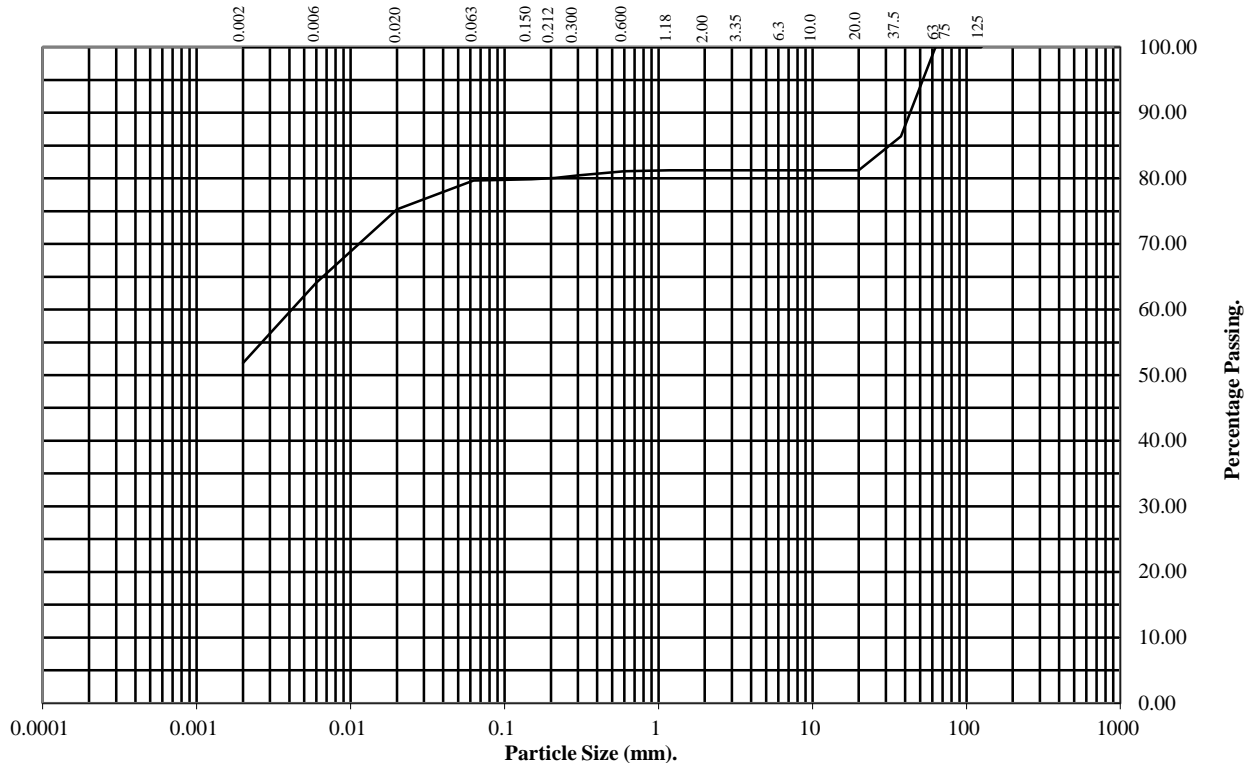
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **MP1038** **Top Depth (m):** **5.20**

Sample Number: **Base Depth(m):** **4.65**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	86
20	81
10	81
6.3	81
3.35	81
2	81
1.18	81
0.6	81
0.3	80
0.212	80
0.15	80
0.063	80

Particle Diameter	Percentage Passing
0.02	75
0.006	64
0.002	52

Soil Fraction	Total Percentage
Cobbles	0
Gravel	19
Sand	1
Silt	28
Clay	52

Remarks:
See Summary of Soil Descriptions



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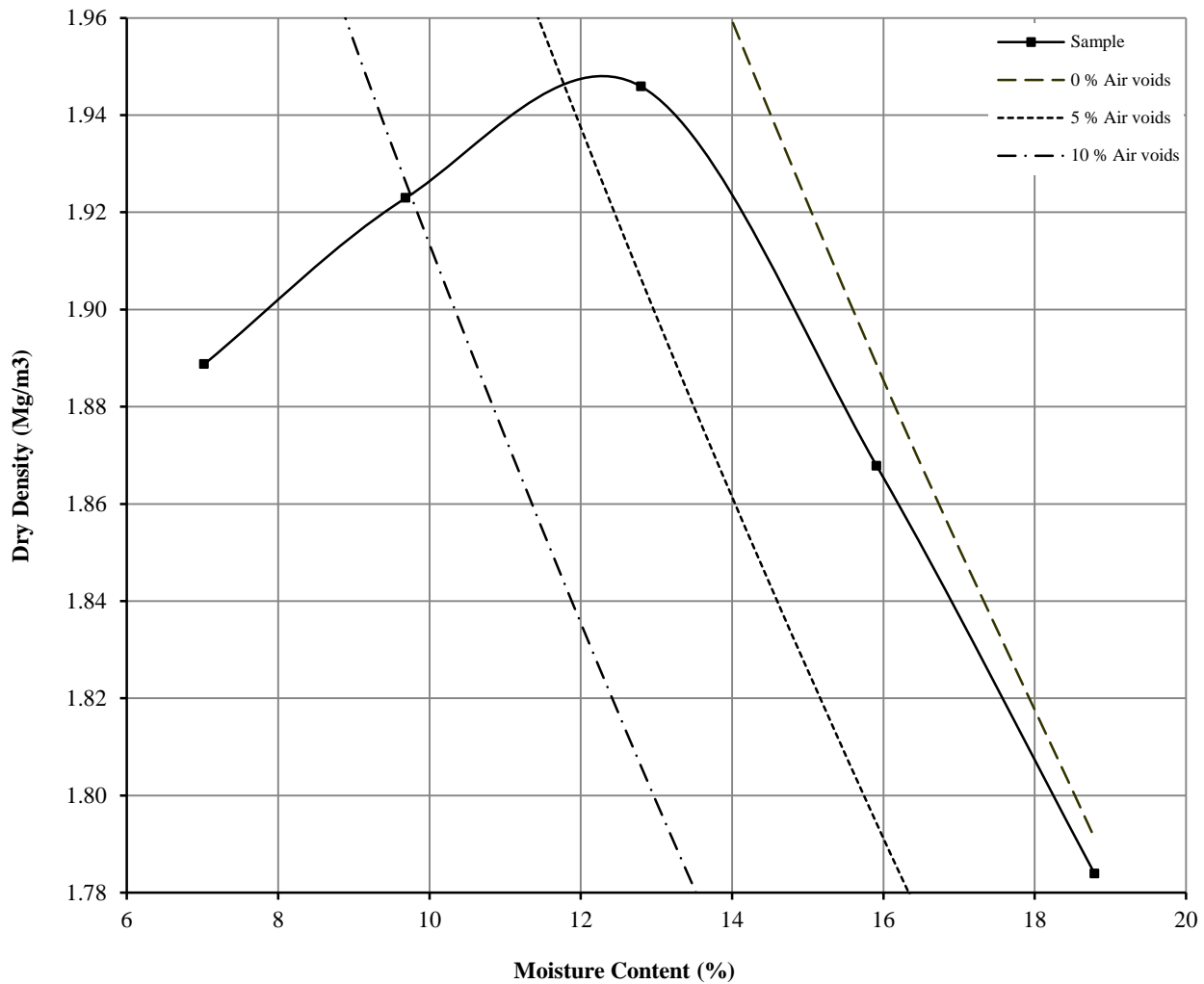
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number: **MP1001** Top Depth (m) : **1.20**

Sample Number: Base Depth (m) : **1.90**

Sample Type: **B**



Initial Moisture Content:	13	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.70	Assumed	Material Retained on 37.5 mm Test Sieve (%):	29
Maximum Dry Density (Mg/m ³):	1.95	Material Retained on 20.0 mm Test Sieve (%):	15	
Optimum Moisture Content (%):	13			
Remarks See summary of soil descriptions.				



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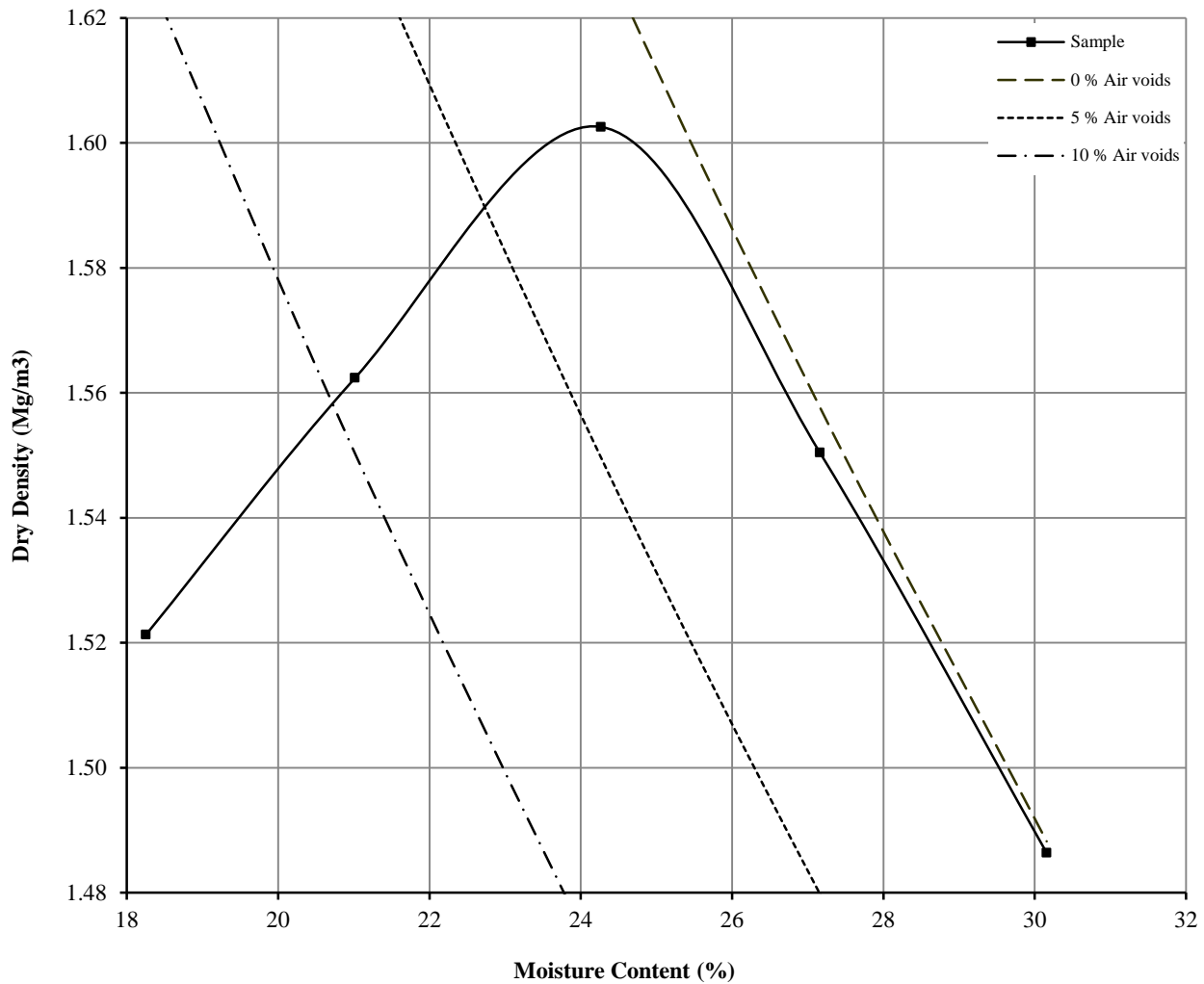
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: **MP1002** Top Depth (m) : **5.20**

Sample Number: Base Depth (m) : **5.65**

Sample Type: **B**



Initial Moisture Content:	39	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.7	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.60	Material Retained on 20.0 mm Test Sieve (%):	5	
Optimum Moisture Content (%):	24			
Remarks				
See summary of soil descriptions.				



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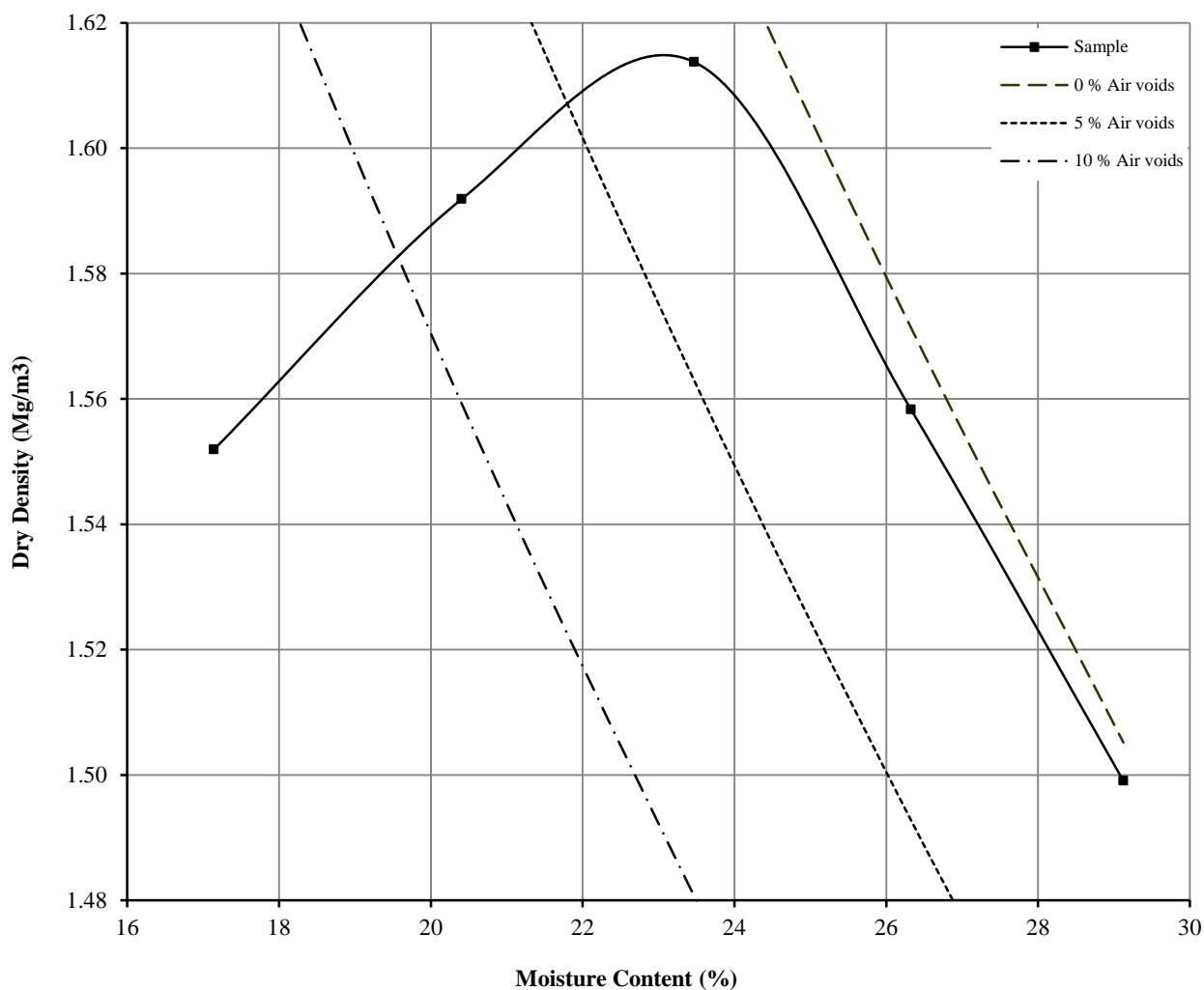
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number: **MP1004** Top Depth (m) : **0.50**

Sample Number: Base Depth (m) :

Sample Type: **B**



Initial Moisture Content:	20	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.68	Assumed	Material Retained on 37.5 mm Test Sieve (%):	10
Maximum Dry Density (Mg/m ³):	1.61	Material Retained on 20.0 mm Test Sieve (%):	6	
Optimum Moisture Content (%):	23			
Remarks See summary of soil descriptions.				



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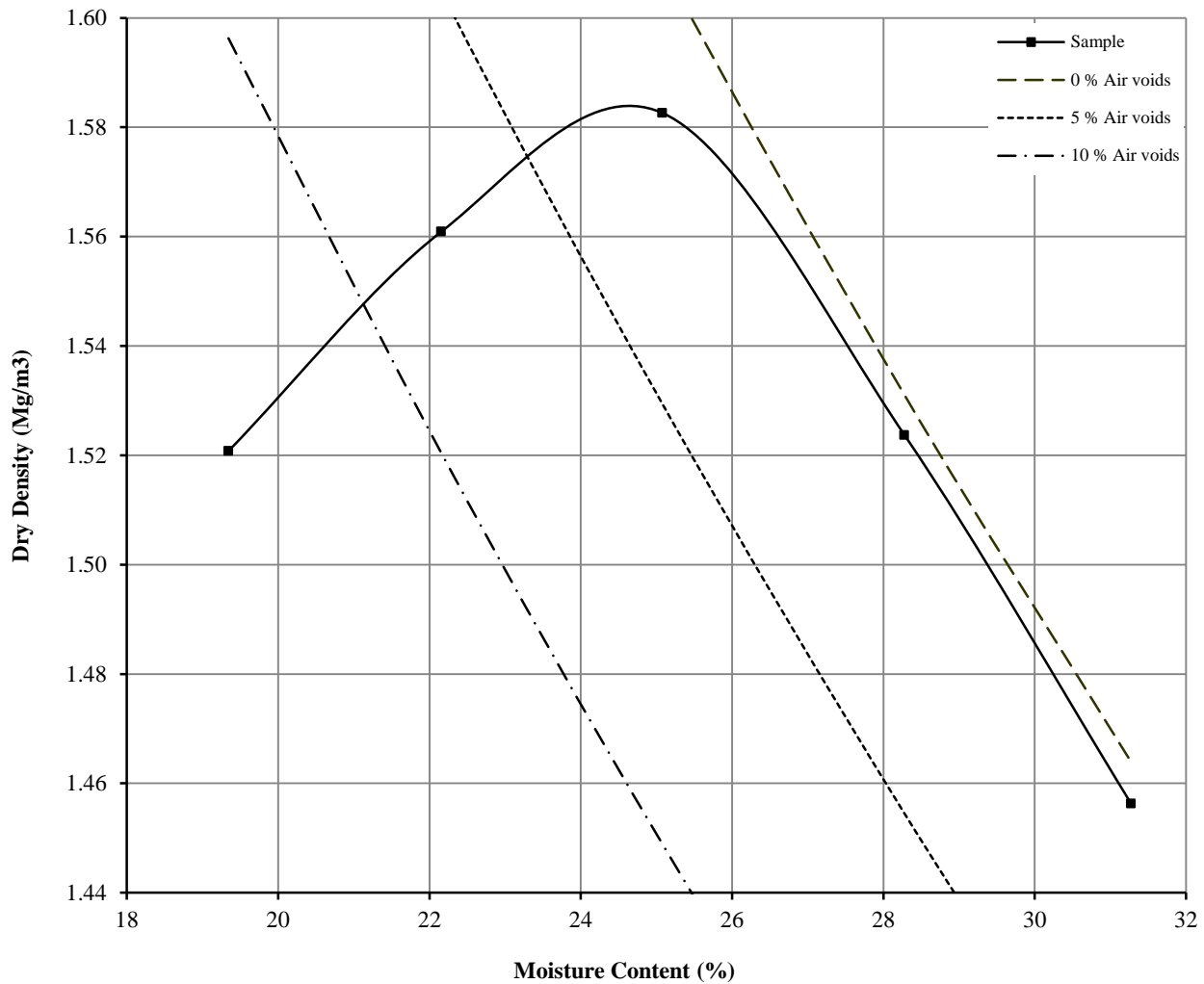
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number: **MP1004** Top Depth (m) : **4.00**

Sample Number: Base Depth (m) : **4.45**

Sample Type: **B**



Initial Moisture Content:	38	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.70	Assumed	Material Retained on 37.5 mm Test Sieve (%):	8
Maximum Dry Density (Mg/m ³):	1.58		Material Retained on 20.0 mm Test Sieve (%):	6
Optimum Moisture Content (%):	25			
Remarks				
See summary of soil descriptions.				



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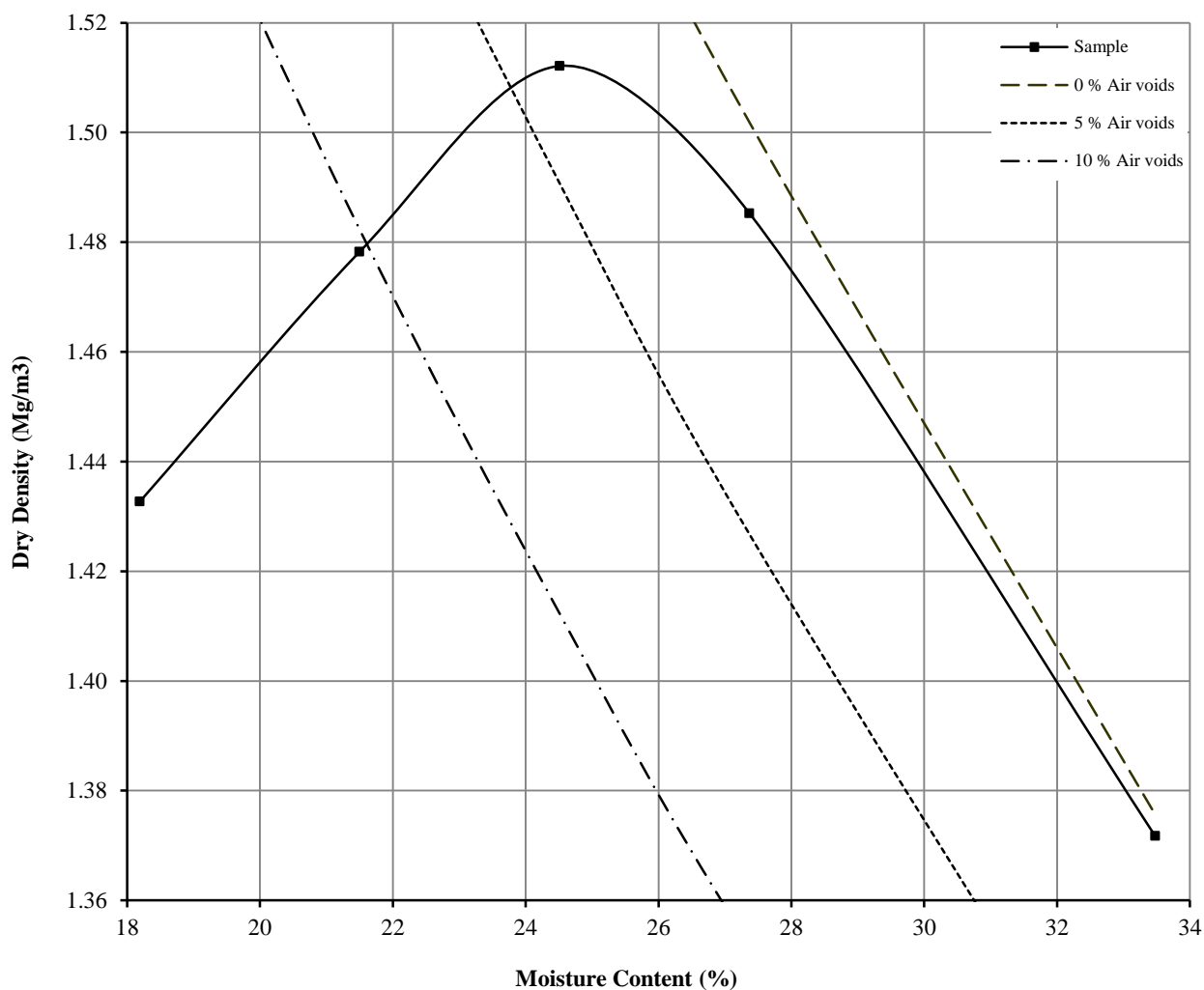
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number: **MP1006** Top Depth (m) : **5.00**

Sample Number: Base Depth (m) : **5.45**

Sample Type: **B**



Initial Moisture Content:	33	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.55	Measured	Material Retained on 37.5 mm Test Sieve (%):	19
Maximum Dry Density (Mg/m ³):	1.51	Material Retained on 20.0 mm Test Sieve (%):	5	
Optimum Moisture Content (%):	25			
Remarks				
See summary of soil descriptions.				



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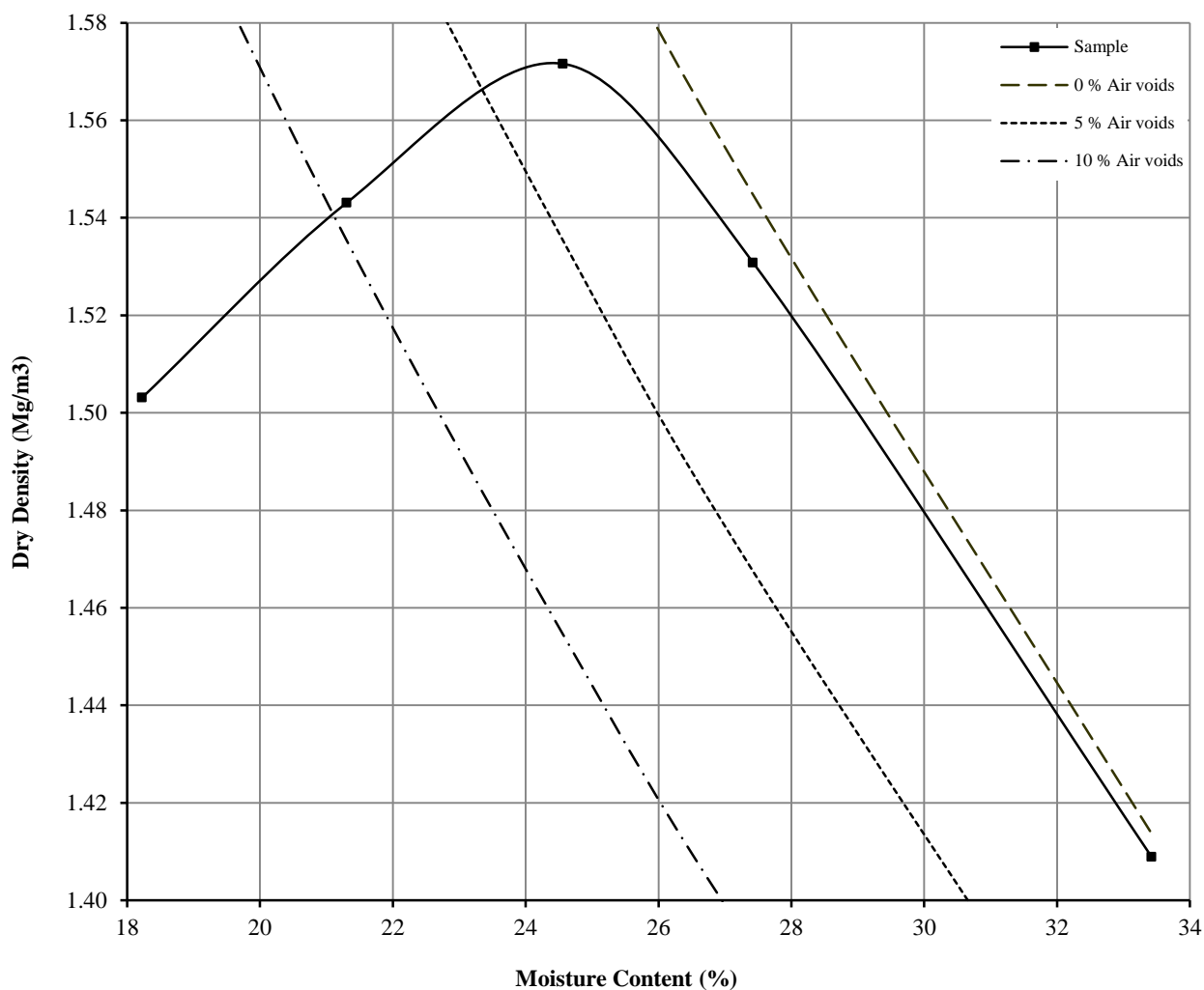
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

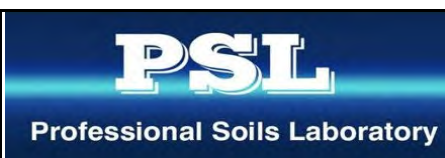
Hole Number: **MP1009** Top Depth (m) : **3.00**

Sample Number: Base Depth (m) : **3.45**

Sample Type: **B**



Initial Moisture Content:	33	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.68	Measured	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.57		Material Retained on 20.0 mm Test Sieve (%):	7
Optimum Moisture Content (%):	25			
Remarks				
See summary of soil descriptions.				



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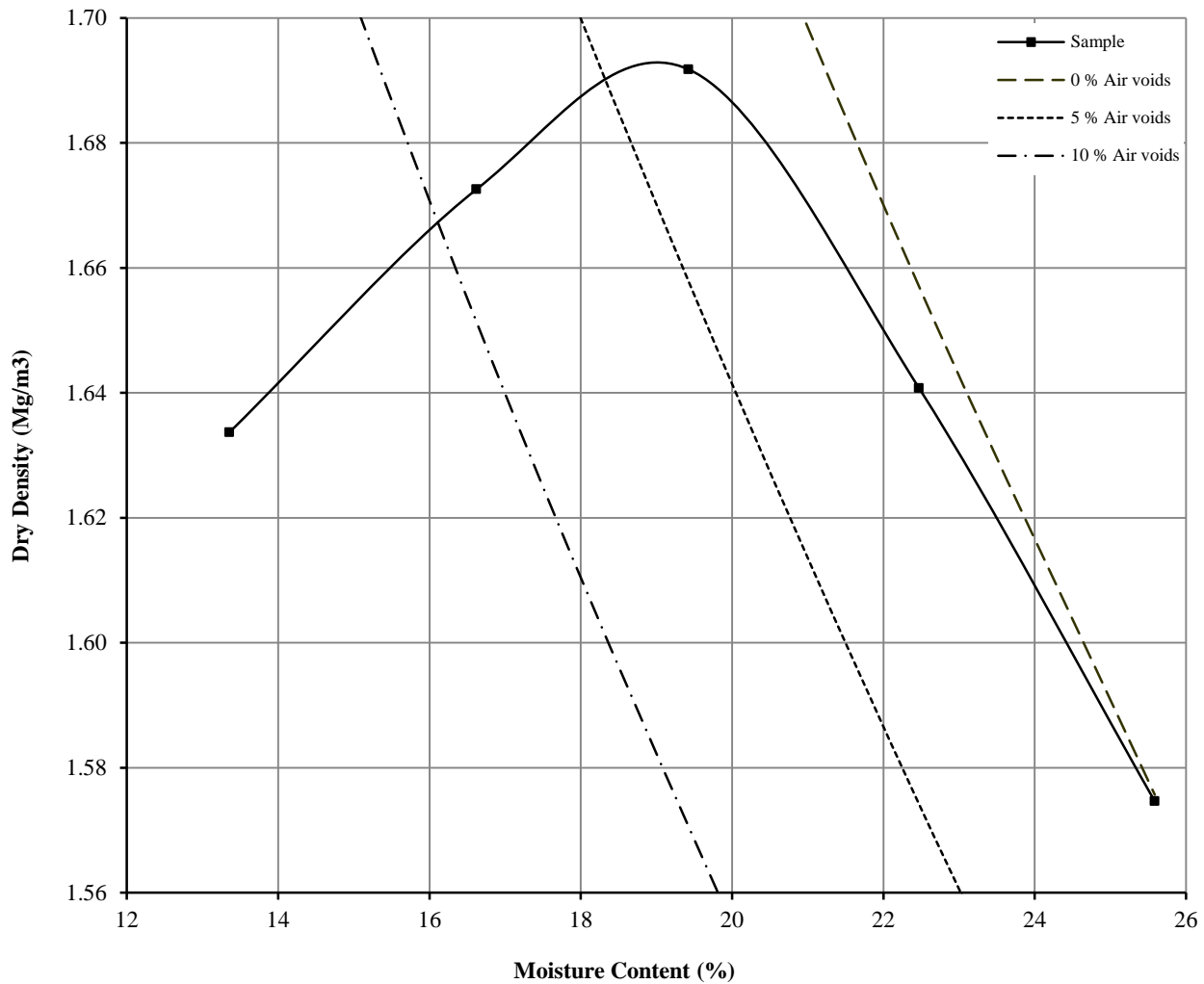
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: **MP1010** Top Depth (m) : **3.00**

Sample Number: Base Depth (m) : **3.45**

Sample Type: **B**



Initial Moisture Content:	26	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.64	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.69		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	19			
Remarks See summary of soil descriptions.				



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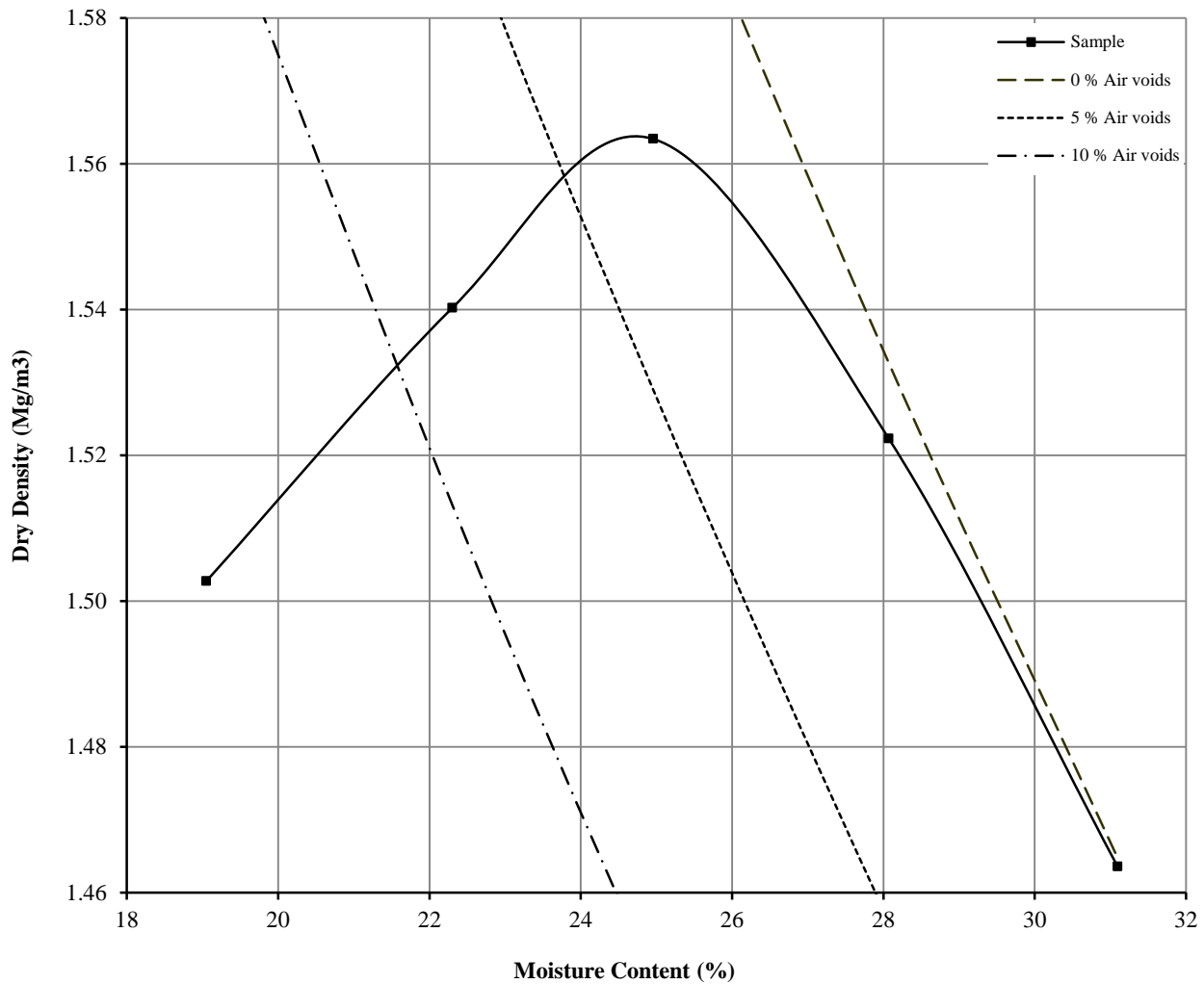
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: **MP1013** Top Depth (m) : **1.20**

Sample Number: Base Depth (m) : **1.65**

Sample Type: **B**



Initial Moisture Content:	37	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.69	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.56		Material Retained on 20.0 mm Test Sieve (%):	2
Optimum Moisture Content (%):	25			
Remarks See summary of soil descriptions.				



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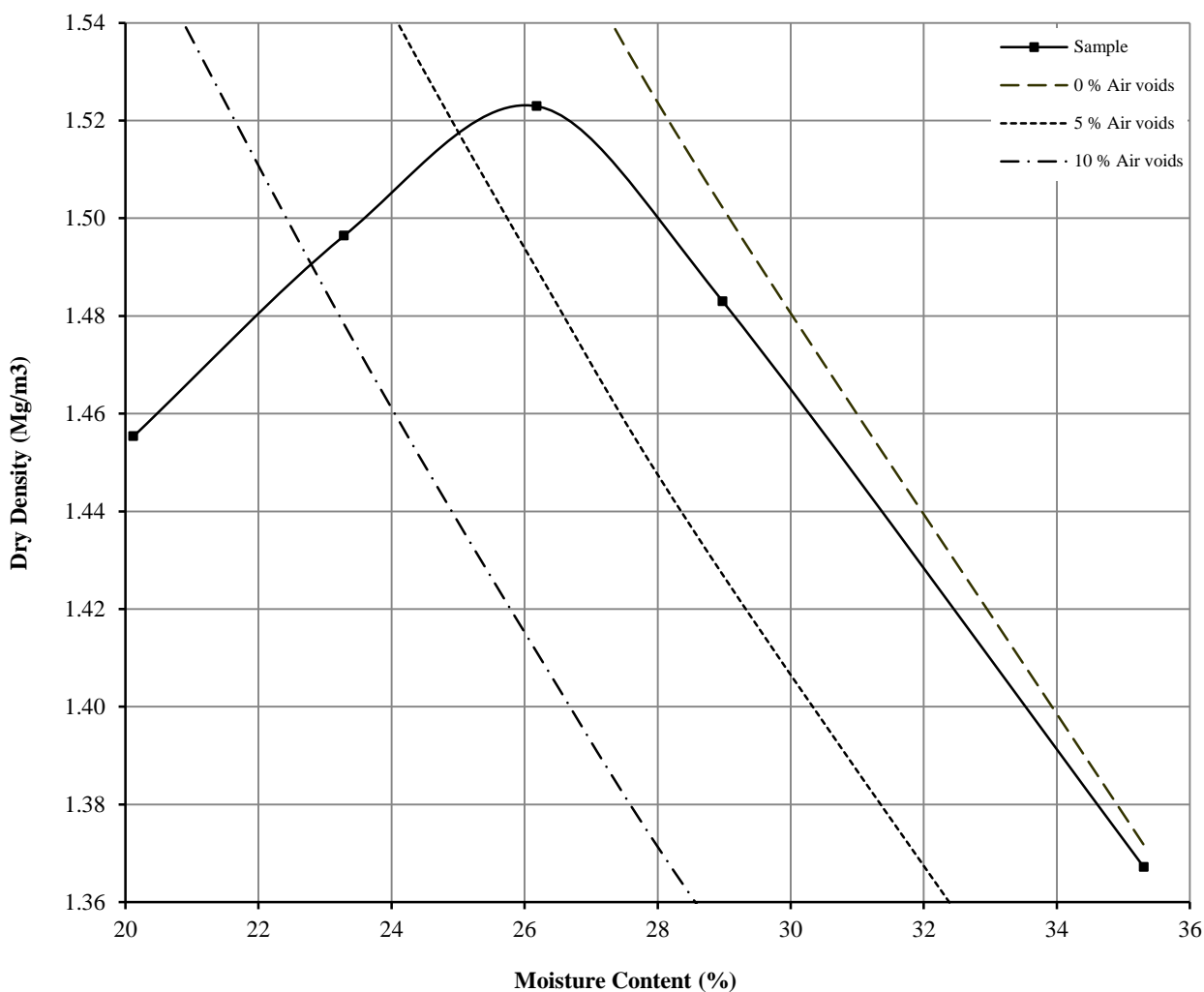
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: **MP1013** Top Depth (m) : **6.50**

Sample Number: Base Depth (m) : **6.95**

Sample Type: **B**



Initial Moisture Content:	35	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.66	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.52		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	26			
Remarks				
See summary of soil descriptions.				



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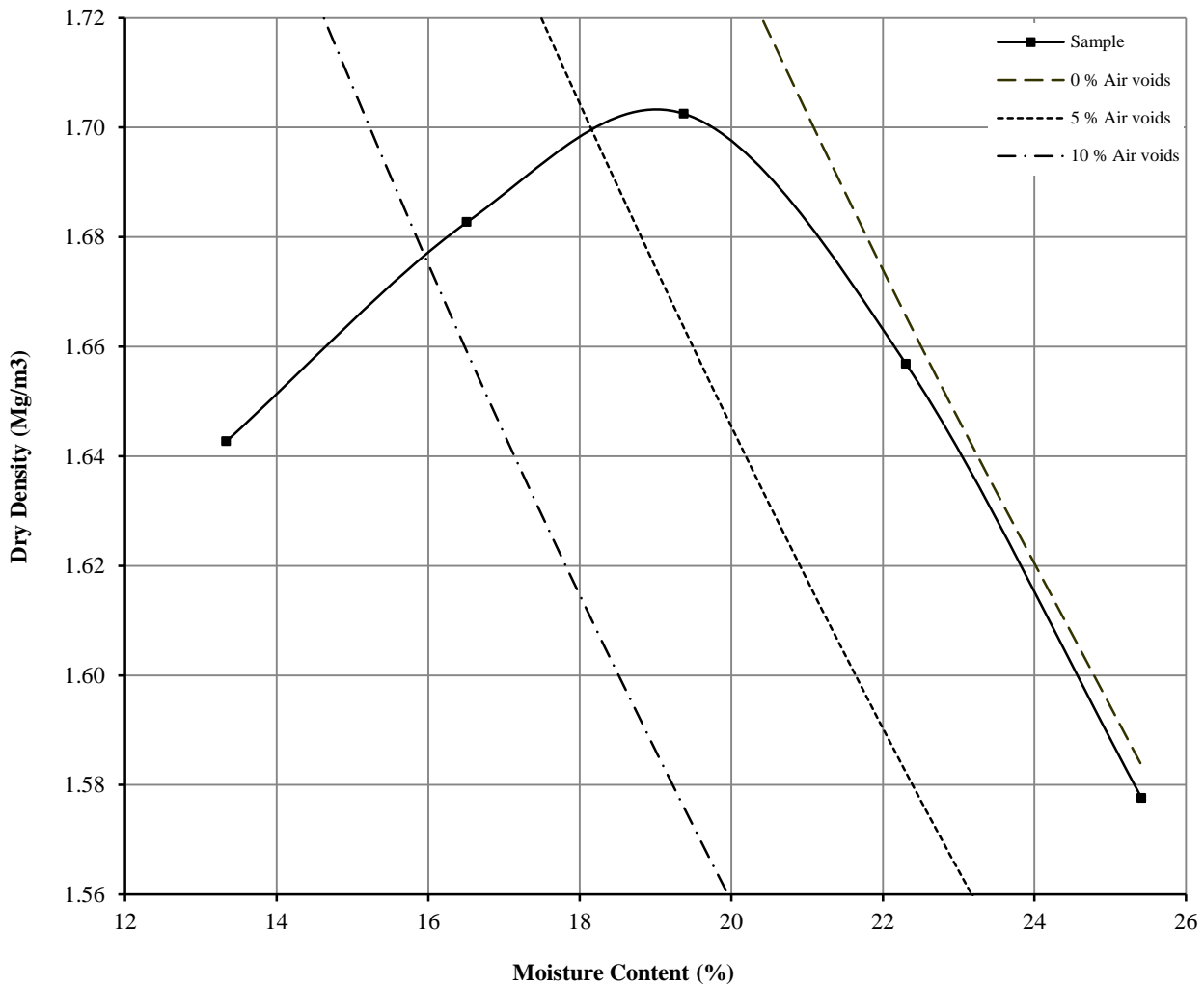
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: **MP1014** Top Depth (m) : **1.00**

Sample Number: Base Depth (m) :

Sample Type: **B**



Initial Moisture Content:	25	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.70	Material Retained on 20.0 mm Test Sieve (%):	1	
Optimum Moisture Content (%):	19			
Remarks				
See summary of soil descriptions.				



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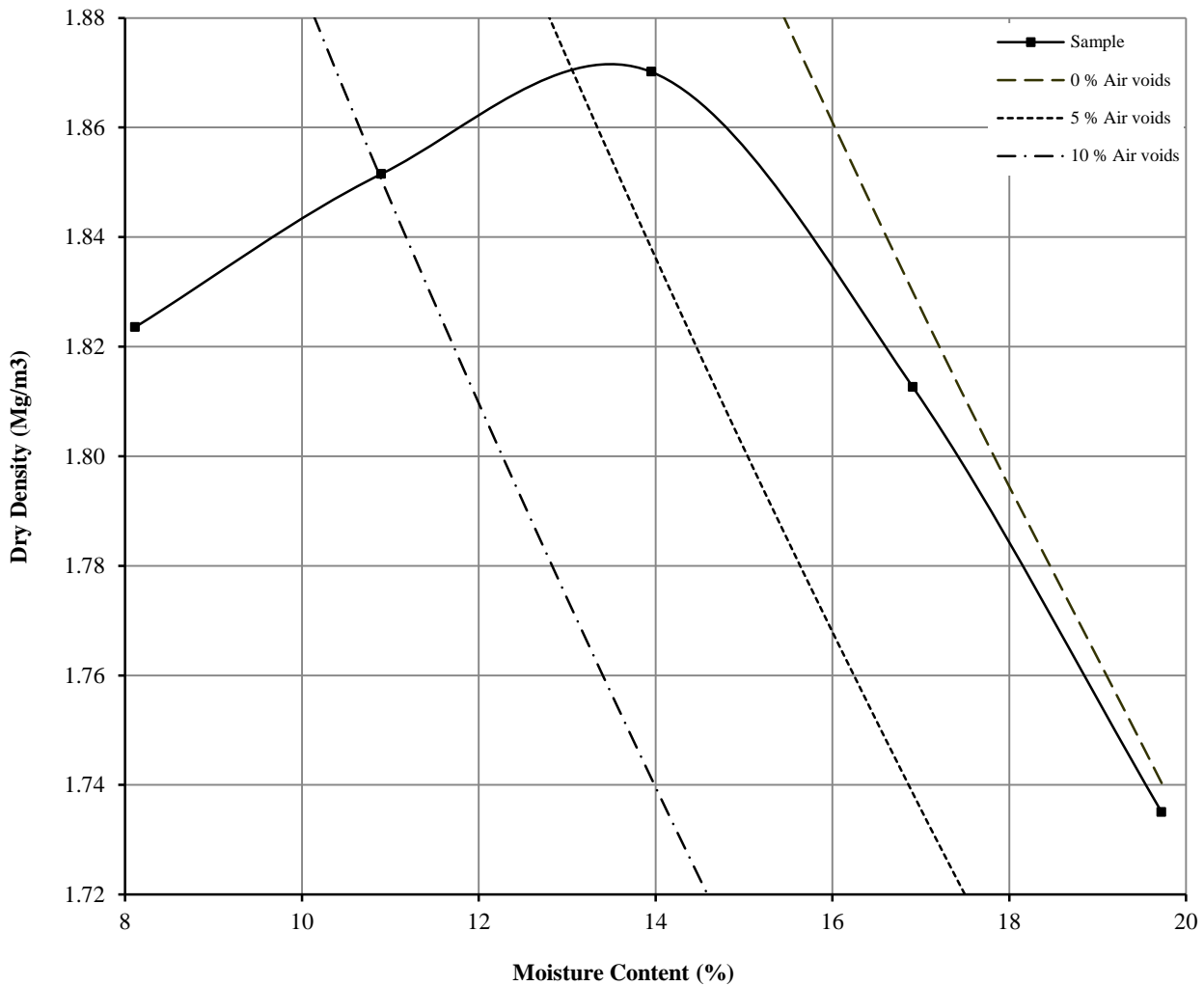
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number: MP1016 Top Depth (m) : 0.50

Sample Number: Base Depth (m) : 0.70

Sample Type: B



Initial Moisture Content:	14	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	3
Maximum Dry Density (Mg/m ³):	1.87		Material Retained on 20.0 mm Test Sieve (%):	27
Optimum Moisture Content (%):	14			
Remarks				
See summary of soil descriptions.				



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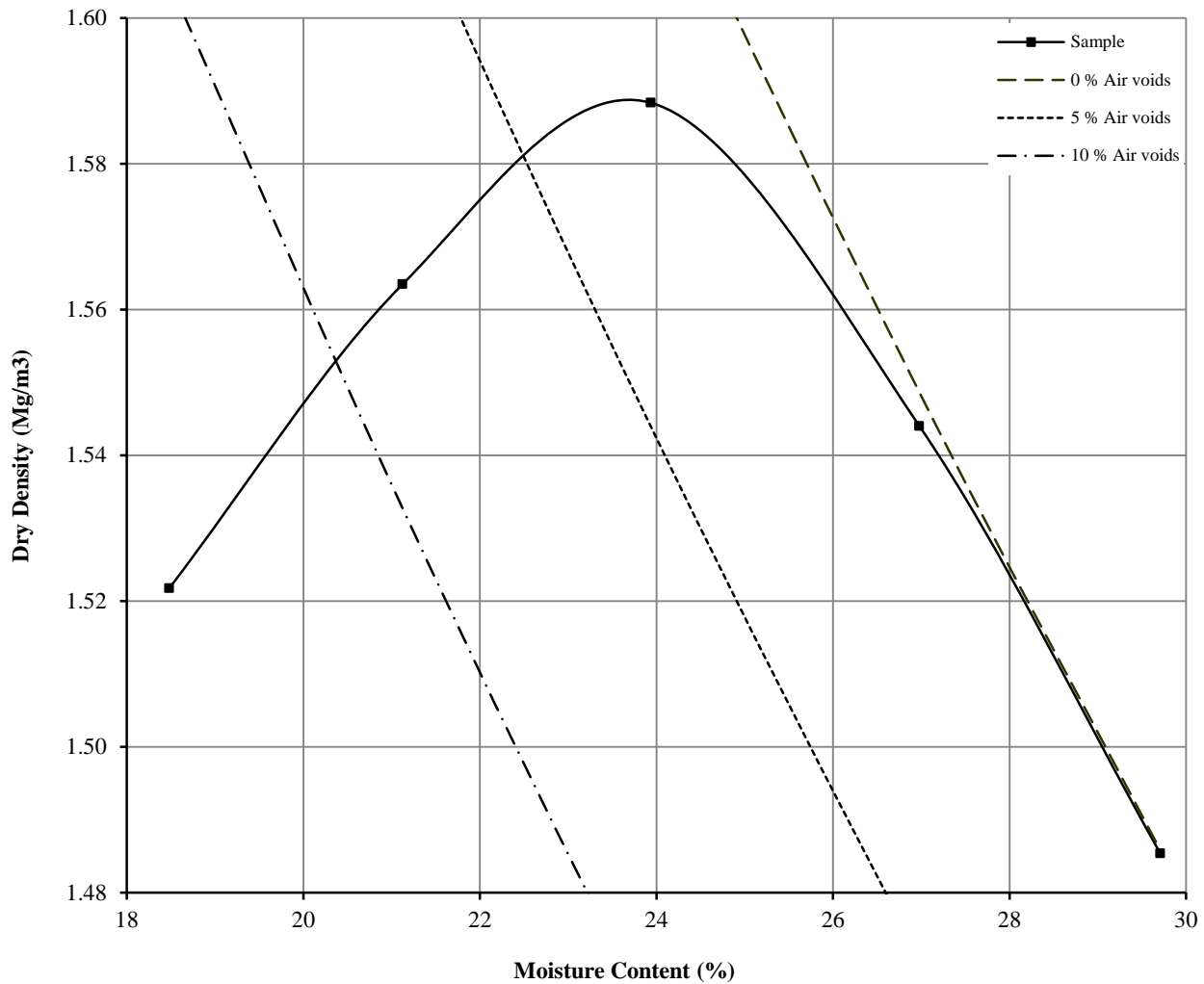
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number: **MP1018** Top Depth (m) : **2.00**

Sample Number: Base Depth (m) : **2.45**

Sample Type: **B**



Initial Moisture Content:	30	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.66	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.59	Material Retained on 20.0 mm Test Sieve (%):	12	
Optimum Moisture Content (%):	24			
Remarks				
See summary of soil descriptions.				



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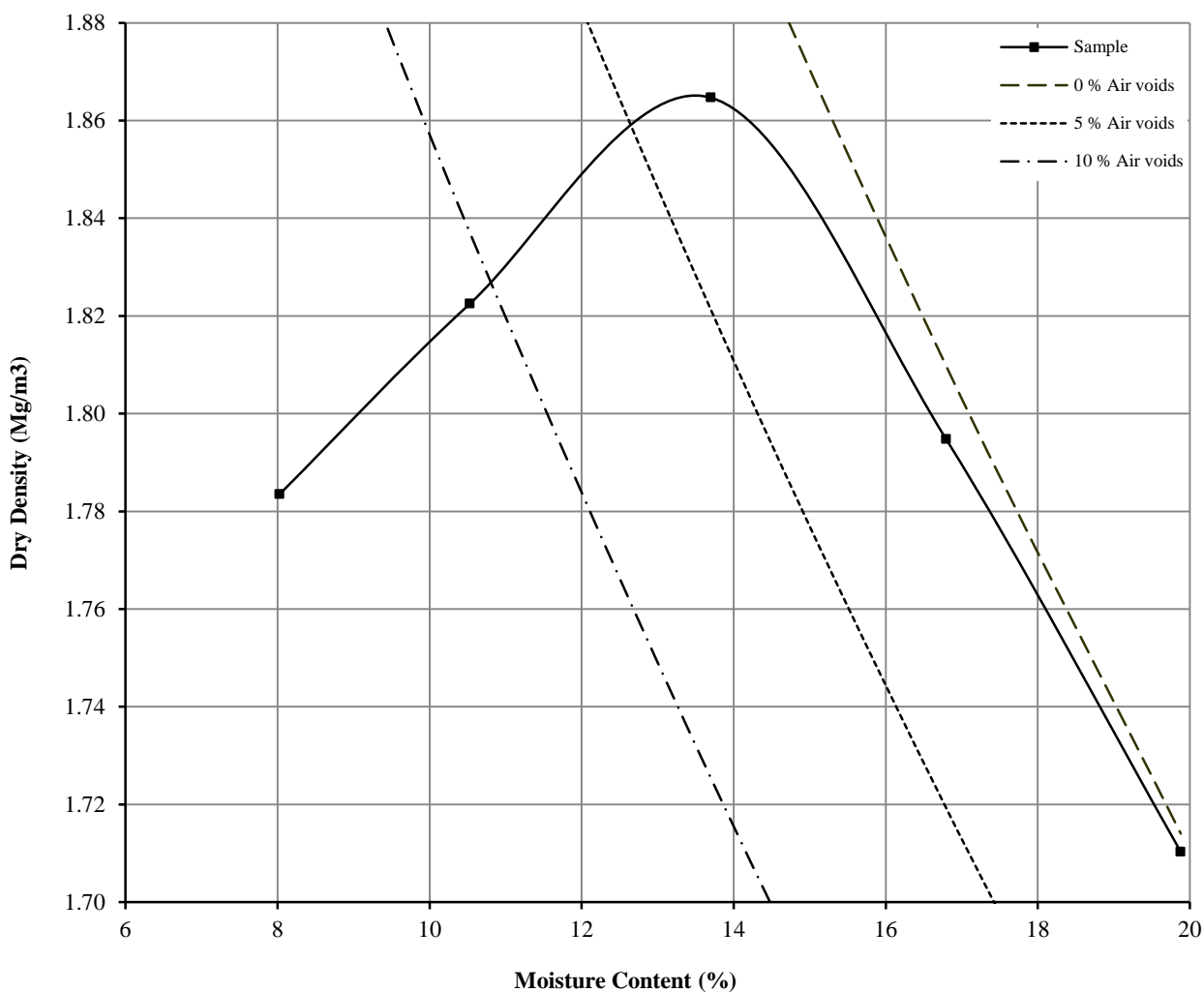
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

Non compliance with BS 1377 : Part 4 : Clause 3.6 : 1990

Hole Number: **MP1022** Top Depth (m) : **0.50**

Sample Number: Base Depth (m) : **1.20**

Sample Type: **B**



Initial Moisture Content:	17	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.60	Assumed	Material Retained on 37.5 mm Test Sieve (%):	31
Maximum Dry Density (Mg/m ³):	1.86	Material Retained on 20.0 mm Test Sieve (%):	11	
Optimum Moisture Content (%):	14			
Remarks See summary of soil descriptions.				



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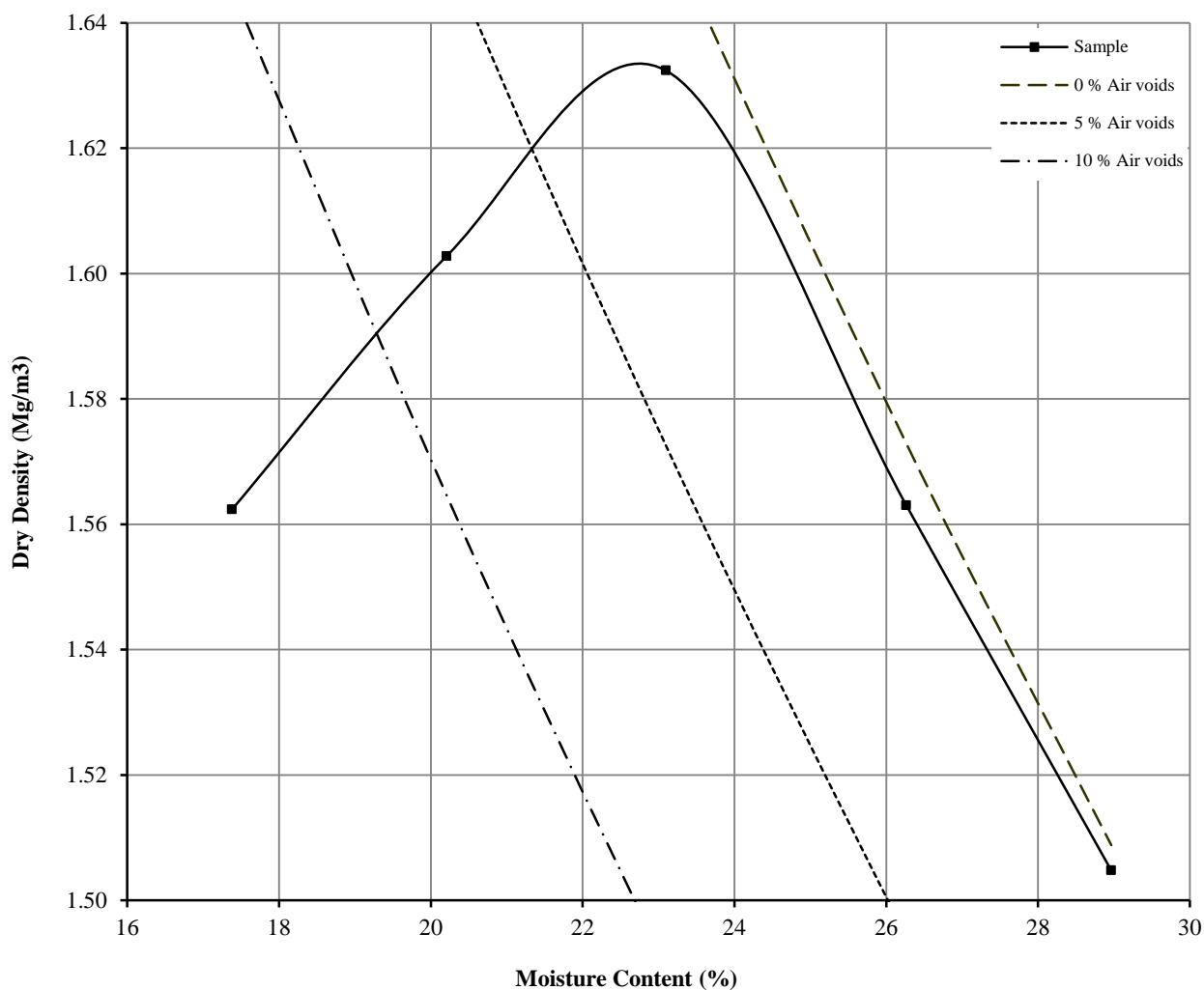
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

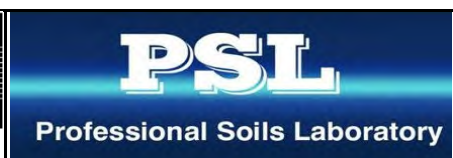
Hole Number: **MP1025** Top Depth (m) : **6.70**

Sample Number: Base Depth (m) : **7.15**

Sample Type: **B**



Initial Moisture Content:	35	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.68	Assumed	Material Retained on 37.5 mm Test Sieve (%):	6
Maximum Dry Density (Mg/m ³):	1.63		Material Retained on 20.0 mm Test Sieve (%):	15
Optimum Moisture Content (%):	23			
Remarks See summary of soil descriptions.				



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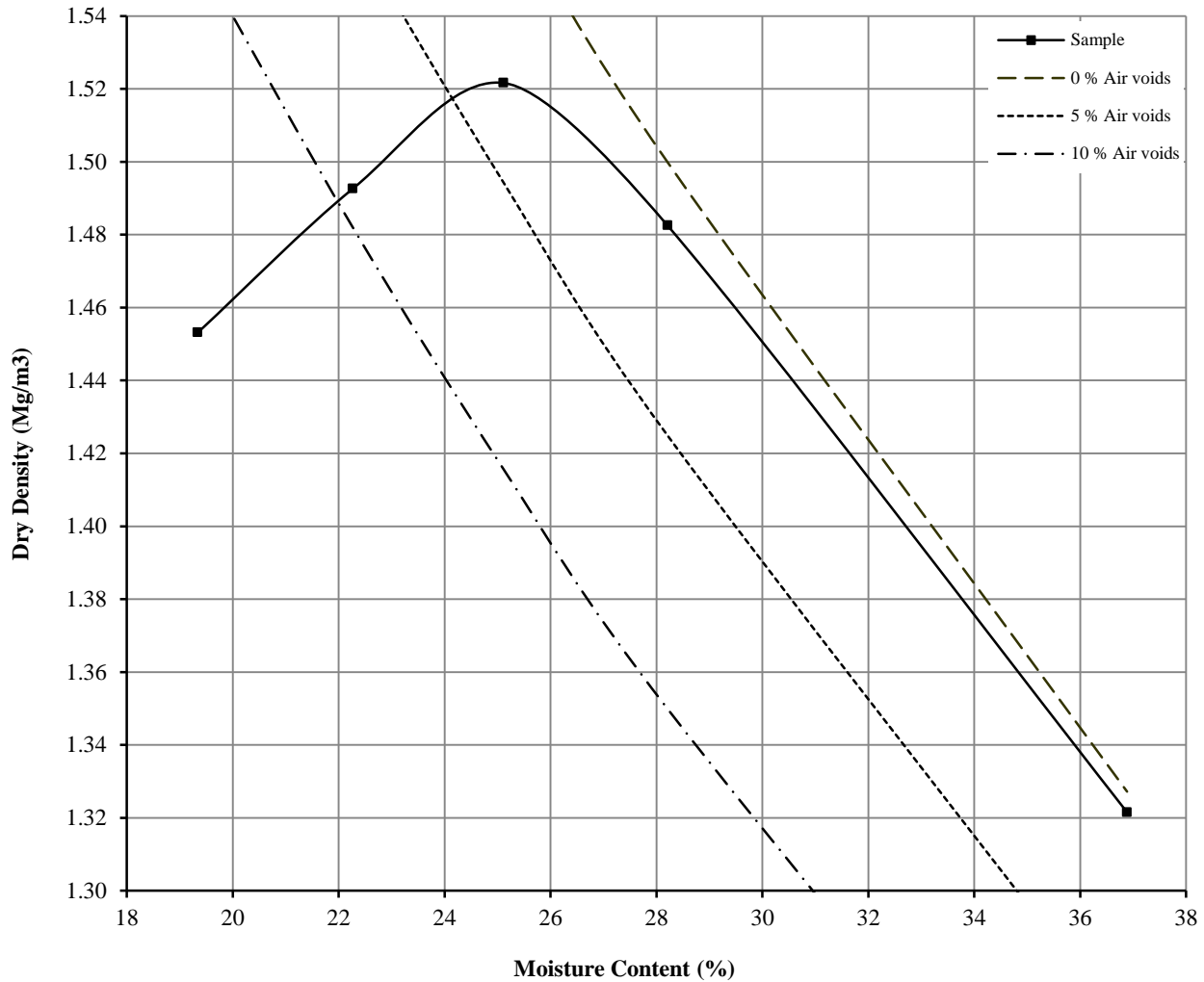
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: MP1026 Top Depth (m) : 3.20

Sample Number: Base Depth (m) : 3.65

Sample Type: B



Initial Moisture Content:	37	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.6	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.52		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	25			
Remarks				
See summary of soil descriptions.				



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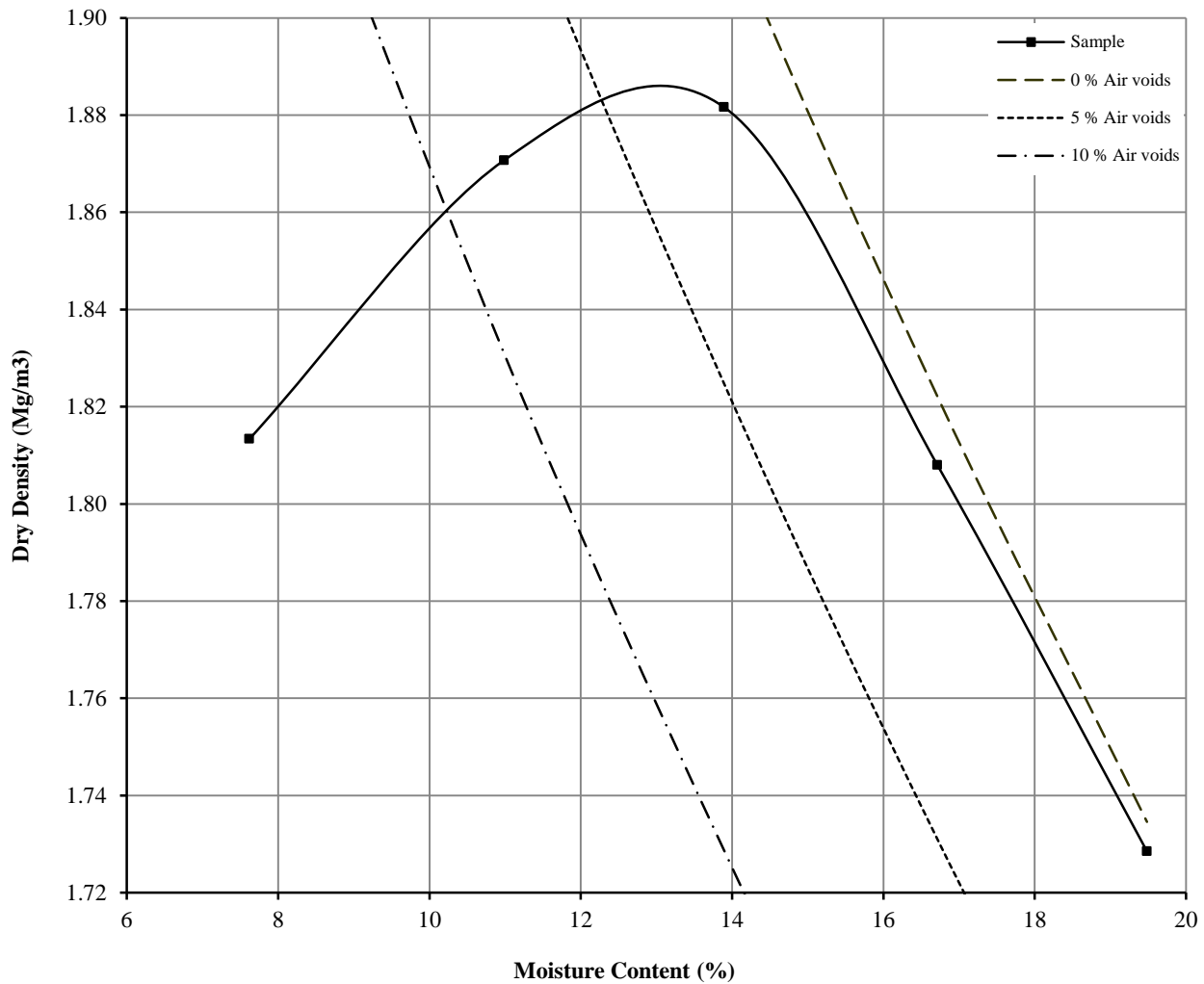
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: **MP1027** Top Depth (m) : **4.90**

Sample Number: Base Depth (m) : **5.35**

Sample Type: **B**



Initial Moisture Content:	19	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.62	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.88		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	14			
Remarks				
See summary of soil descriptions.				



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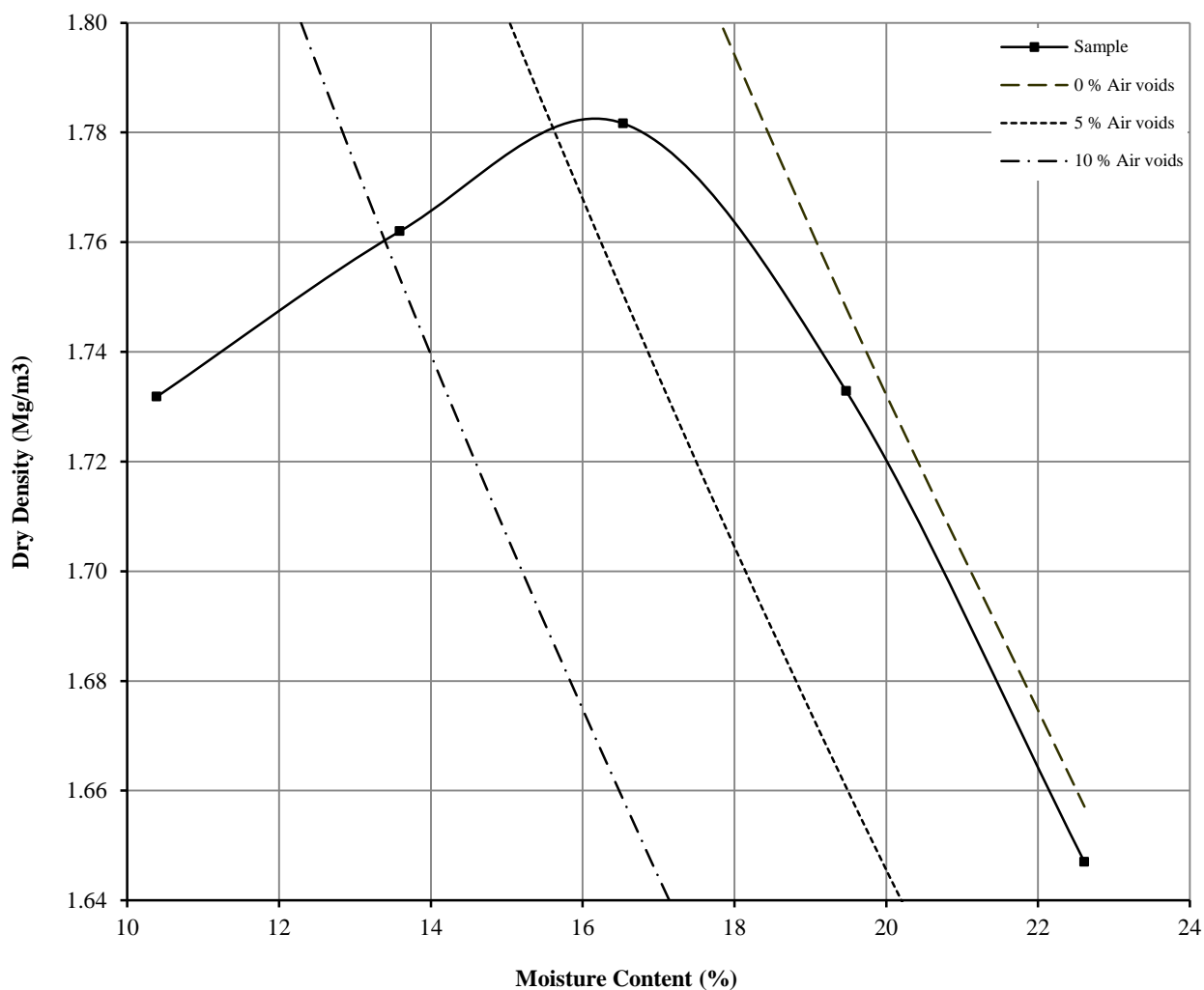
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

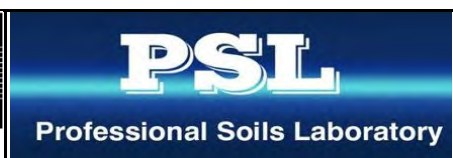
Hole Number: **MP1029** Top Depth (m) : **1.20**

Sample Number: Base Depth (m) : **1.65**

Sample Type: **B**



Initial Moisture Content:	23	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.78		Material Retained on 20.0 mm Test Sieve (%):	0
Optimum Moisture Content (%):	17			
Remarks				
See summary of soil descriptions.				



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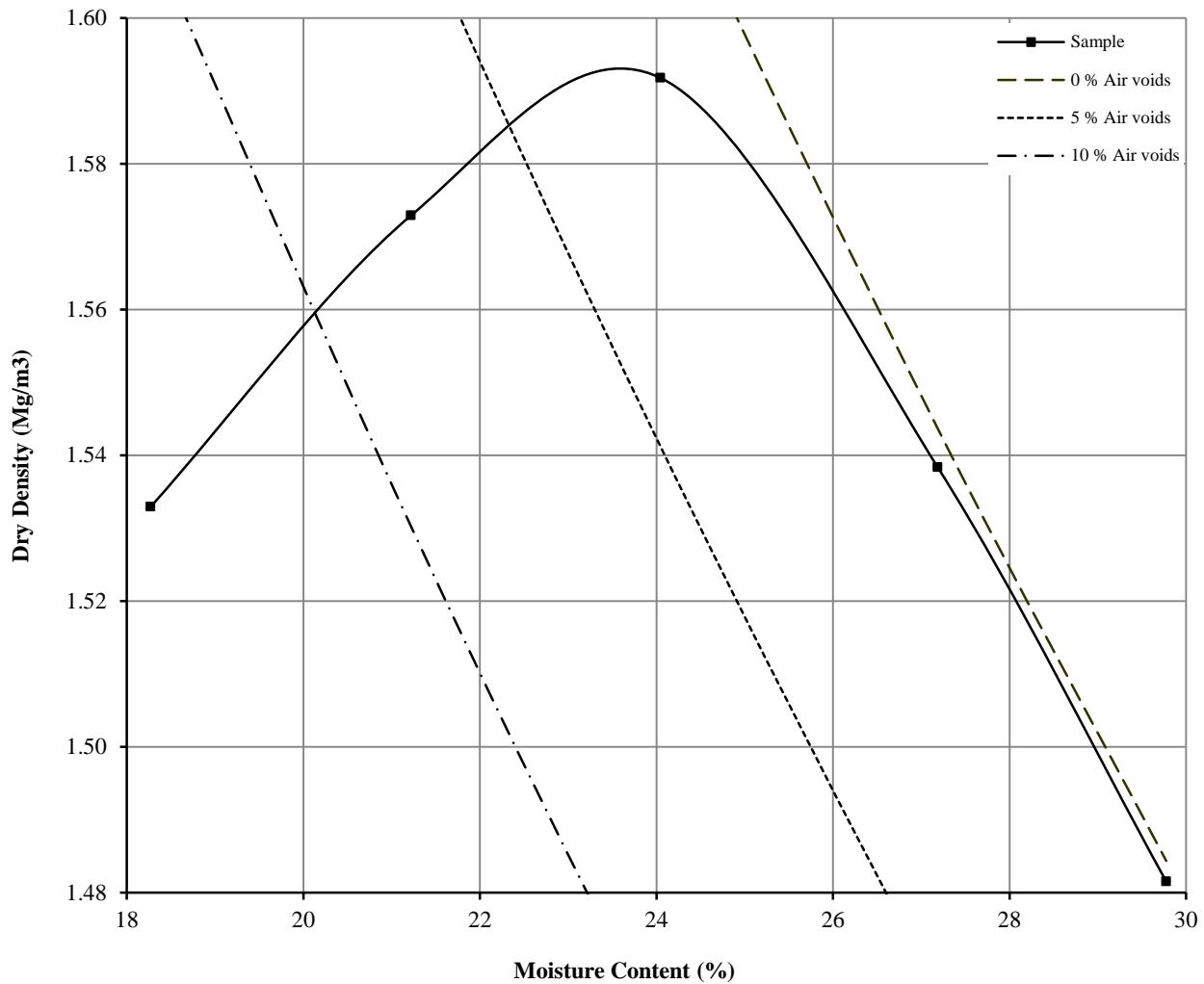
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: **MP1030** Top Depth (m) : **6.50**

Sample Number: Base Depth (m) : **6.95**

Sample Type: **B**



Initial Moisture Content:	27	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.66	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.59	Material Retained on 20.0 mm Test Sieve (%):	0	
Optimum Moisture Content (%):	24			
Remarks				
See summary of soil descriptions.				



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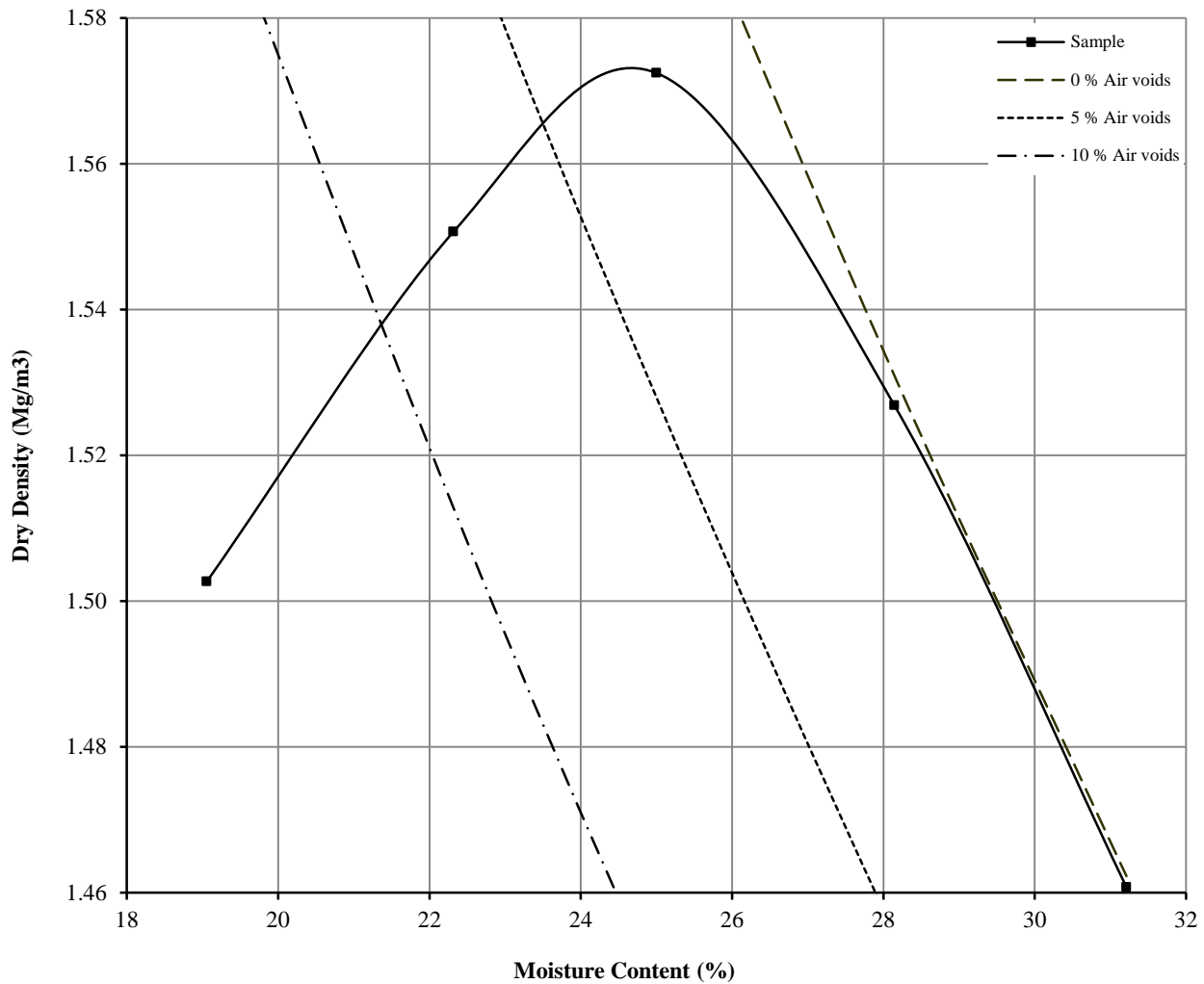
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.6 : 1990

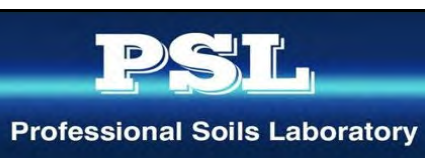
Hole Number: **MP1032** Top Depth (m) : **2.20**

Sample Number: Base Depth (m) : **2.65**

Sample Type: **B**



Initial Moisture Content:	19	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.69	Assumed	Material Retained on 37.5 mm Test Sieve (%):	6
Maximum Dry Density (Mg/m ³):	1.57		Material Retained on 20.0 mm Test Sieve (%):	9
Optimum Moisture Content (%):	25			
Remarks See summary of soil descriptions.				



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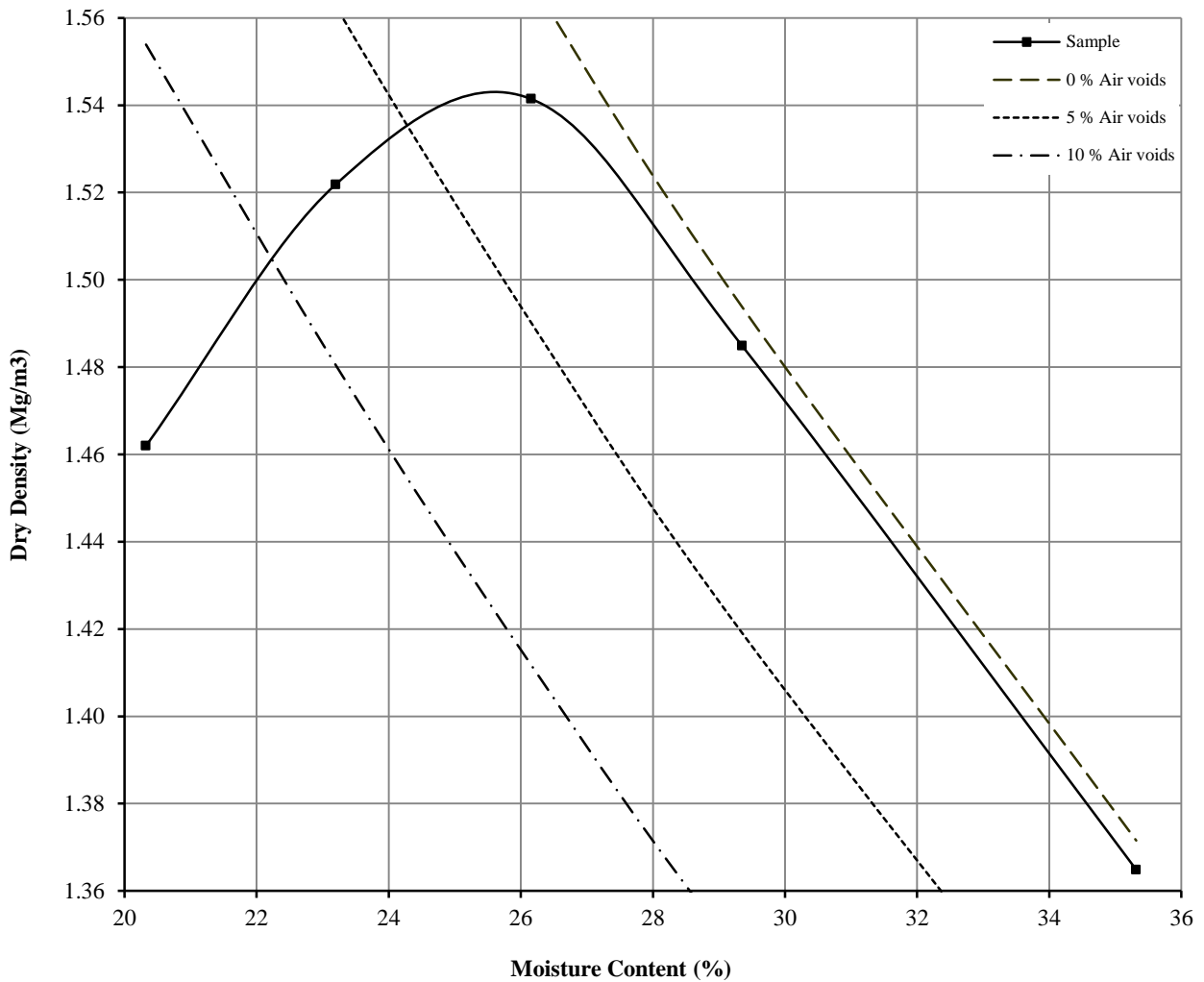
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: **MP1038** Top Depth (m) : **1.20**

Sample Number: Base Depth (m) : **1.65**

Sample Type: **B**



Initial Moisture Content:	35	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.66	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.54		Material Retained on 20.0 mm Test Sieve (%):	2
Optimum Moisture Content (%):	26			
Remarks				
See summary of soil descriptions.				



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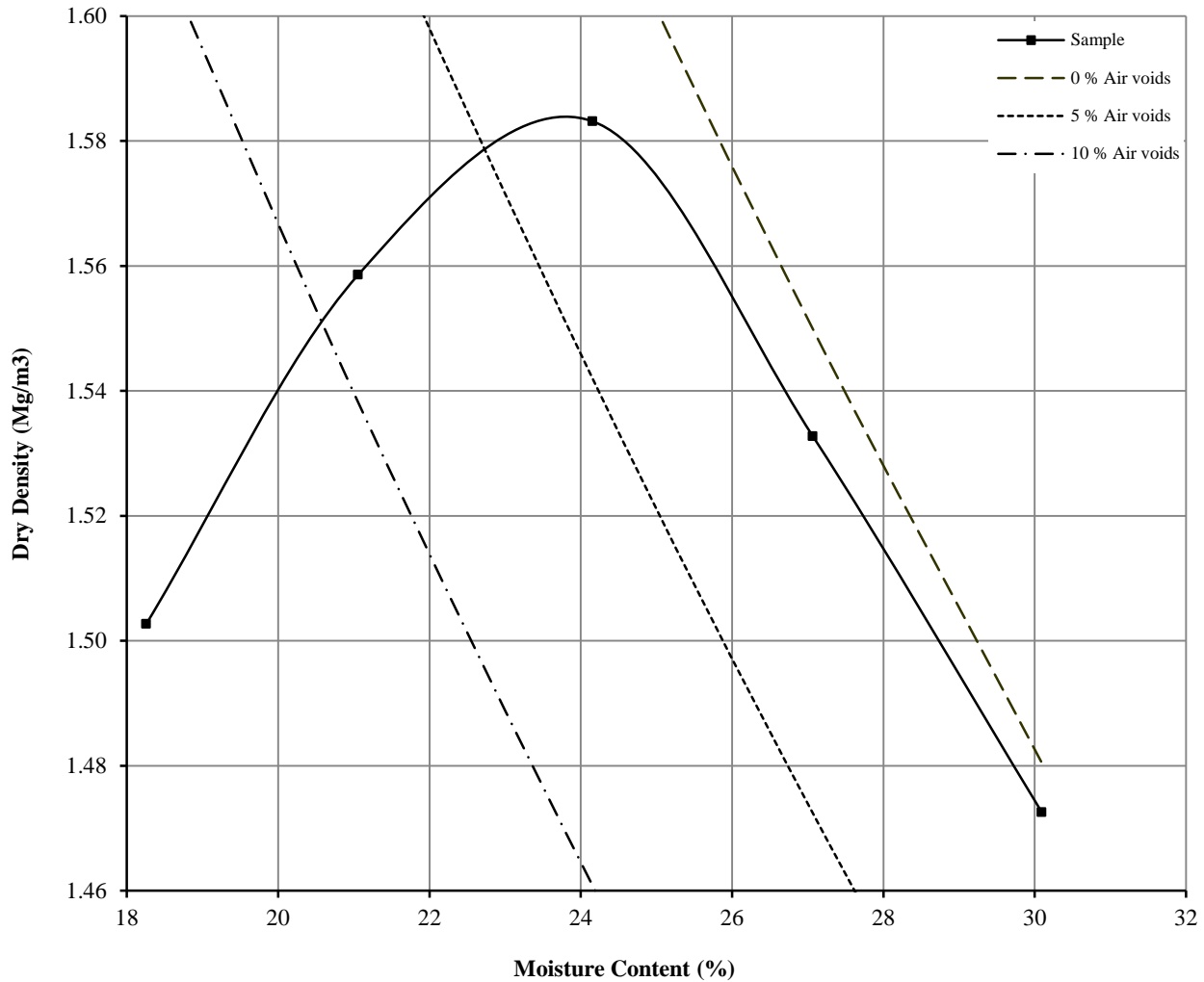
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : Clause 3.5 : 1990

Hole Number: **MP1038** Top Depth (m) : **3.20**

Sample Number: Base Depth (m) : **3.65**

Sample Type: **B**



Initial Moisture Content:	39	Method of Compaction:	4.5kg	Separate Samples
Particle Density (Mg/m ³):	2.67	Assumed	Material Retained on 37.5 mm Test Sieve (%):	0
Maximum Dry Density (Mg/m ³):	1.58		Material Retained on 20.0 mm Test Sieve (%):	1
Optimum Moisture Content (%):	24			
Remarks				
See summary of soil descriptions.				



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

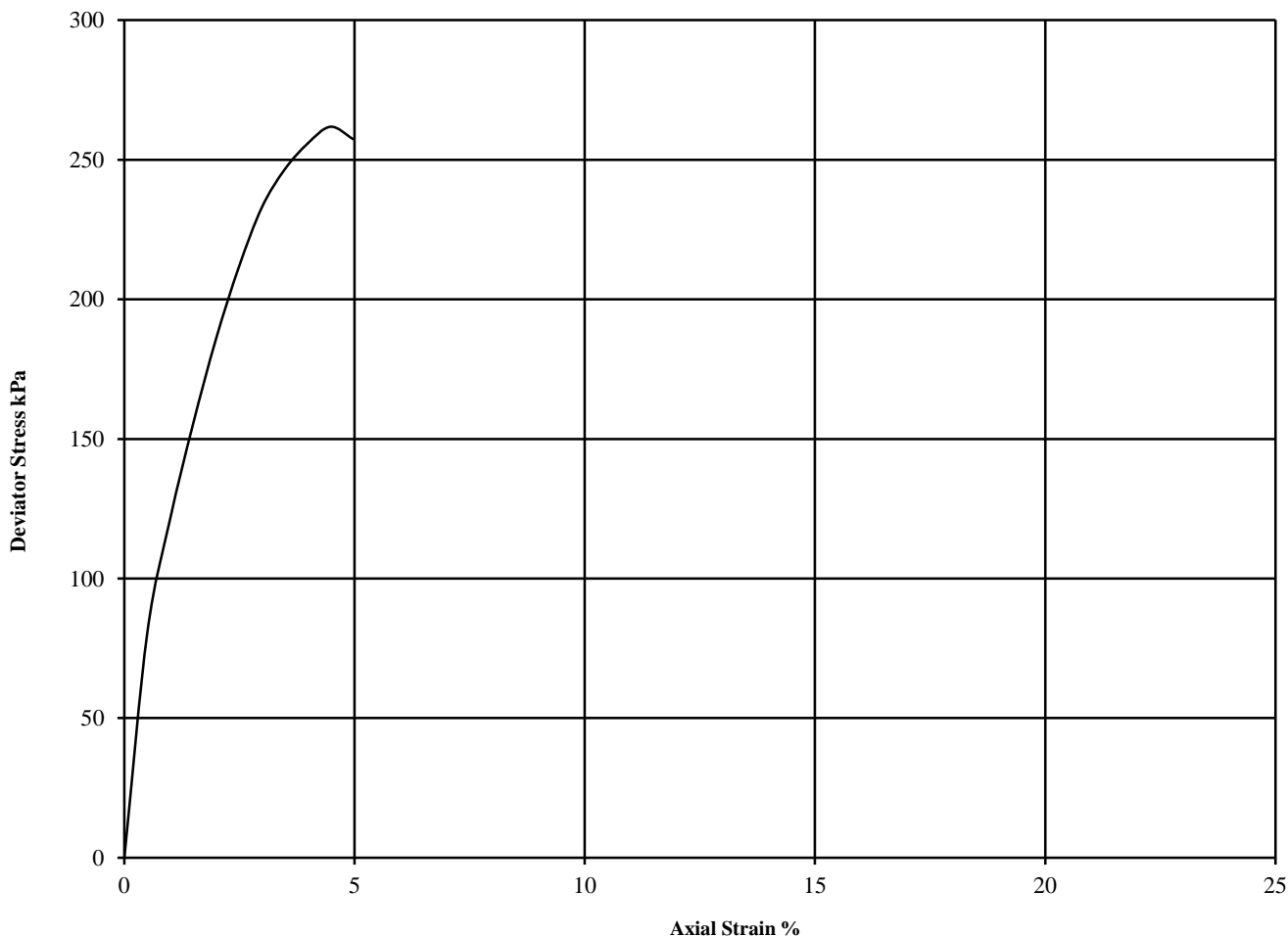
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: MP1003 **Top Depth (m):** 2.20

Sample Number: **Base Depth (m):** 2.65

Sample Type UT100



Diameter (mm):		103		Height (mm):		207		Test:		UU Single Stage		Remarks:	
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure					
1	32	1.81	1.36	45	262	131	4.5	Brittle					Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions

* Single stage test due to brittle failure



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

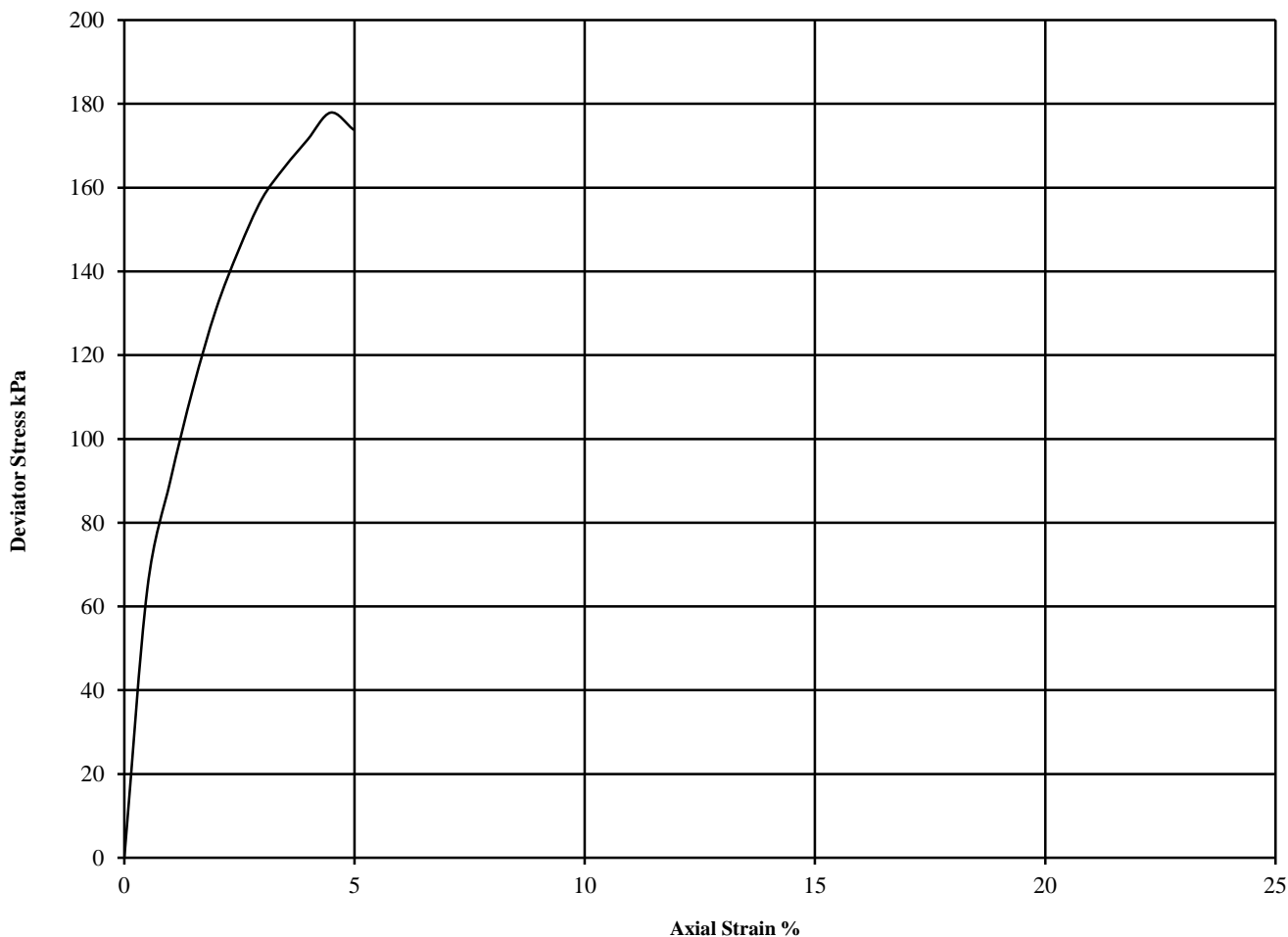
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **MP1006** Top Depth (m): **2.00**

Sample Number: Base Depth (m): **2.45**

Sample Type **UT100**



Diameter (mm):		103		Height (mm):		207		Test:		UU Single Stage		Remarks:	
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure					
1	16	2.15	1.85	40	178	89	4.5	Brittle					Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions

* Single stage test due to brittle failure



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

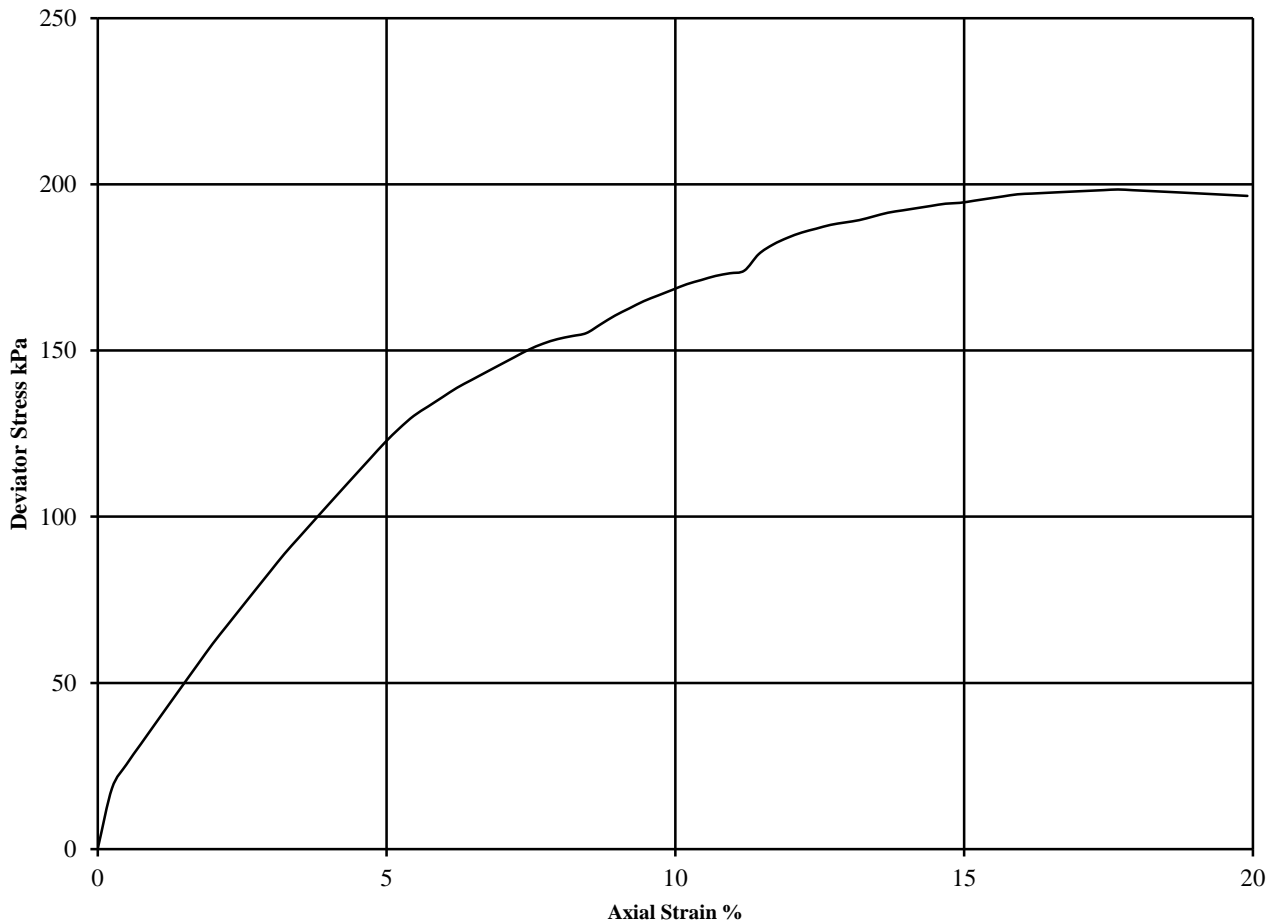
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 9

Hole Number: MP1007 Top Depth (m): 1.20

Sample Number: Base Depth (m): 1.65

Sample Type UT100



Diameter (mm):		103		Height (mm):		207		Test:		UU Multistage		Remarks		
Specimen	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick Membrane Correction applied (kPa) 0.35 0.35 0.33 See summary of soil descriptions					
				θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$								
	1	24	1.99	1.60	25	155	78	8.5						
					50	174	87	11.2						
				100	198	99	17.7	Plastic						



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

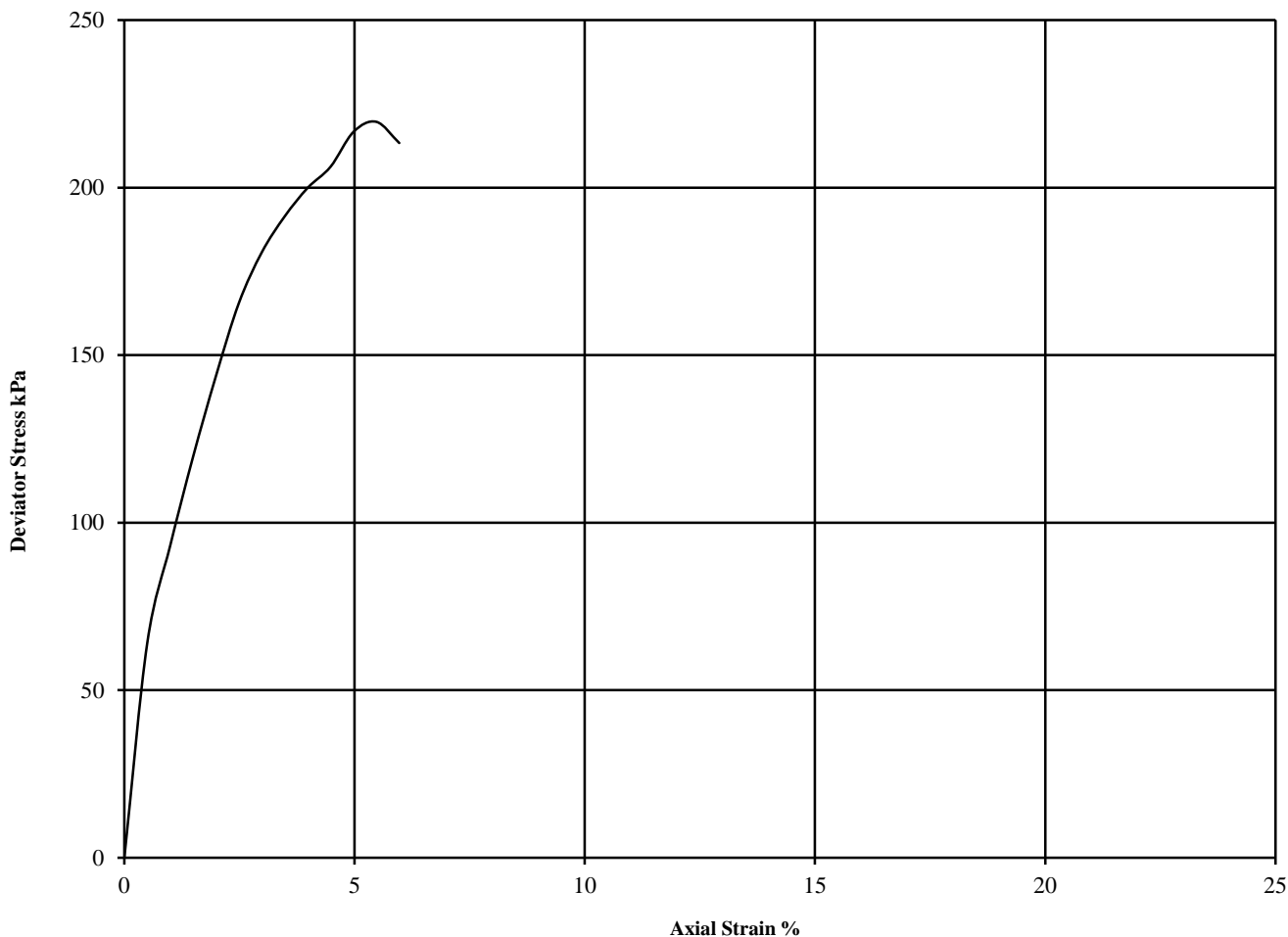
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: MP1010 **Top Depth (m):** 2.00

Sample Number: **Base Depth (m):** 2.45

Sample Type UT100



Diameter (mm):		103	Height (mm):			207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions	
			θ_3		$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$				
1	18	2.05	1.73	40	220	110	5.5	Brittle		

* Single stage test due to brittle failure



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

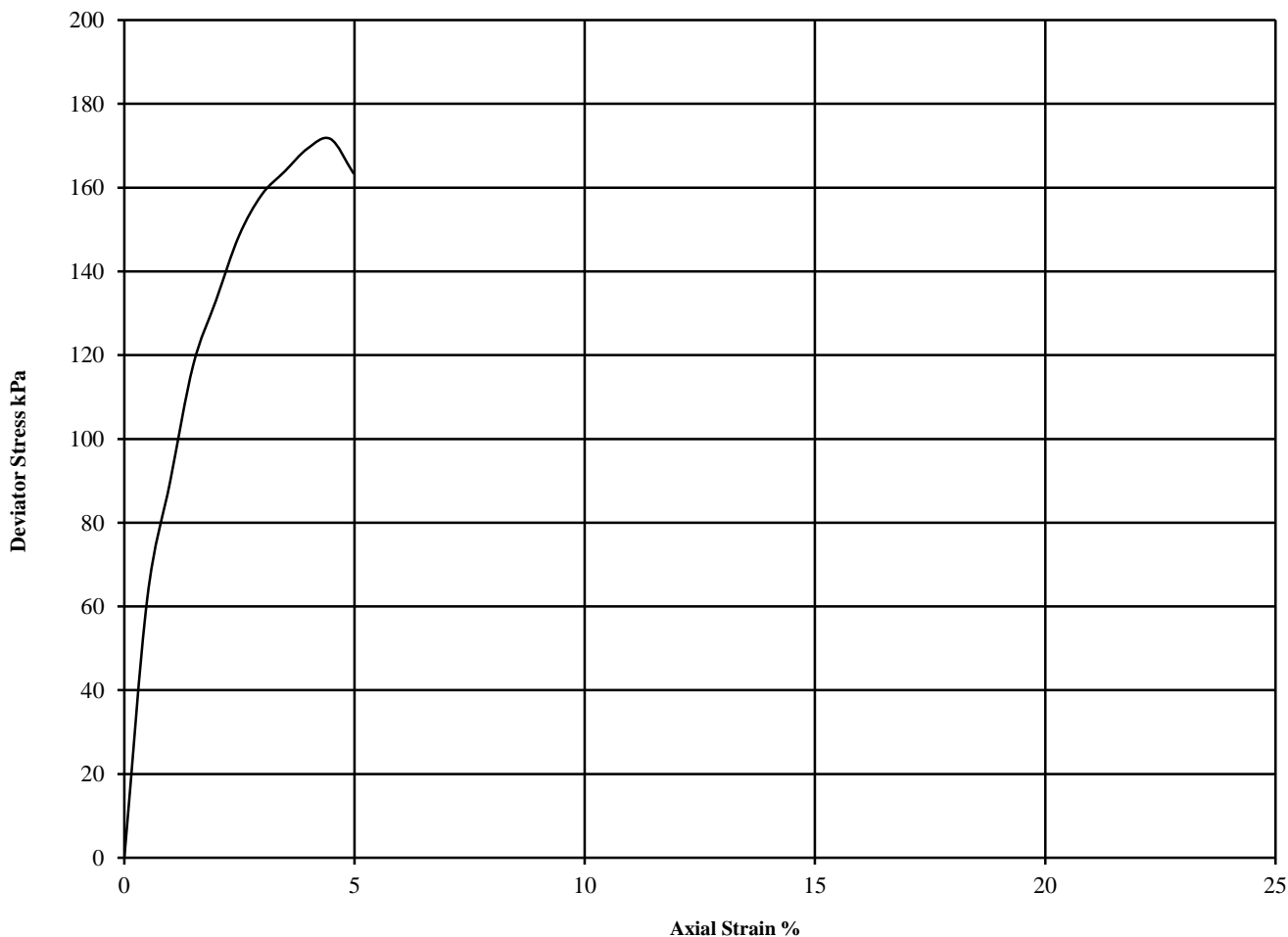
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **MP1014** Top Depth (m): **1.20**

Sample Number: Base Depth (m): **1.65**

Sample Type **UT100**



Diameter (mm):		103		Height (mm):		207		Test:		UU Single Stage		Remarks:	
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions				
			θ_3	$(\theta_1 - \theta_3)_f$	$1/2(\theta_1 - \theta_3)_f$								
1	21	1.96	1.62	45	172	86	4.5	Brittle					

* Single stage test due to brittle failure



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

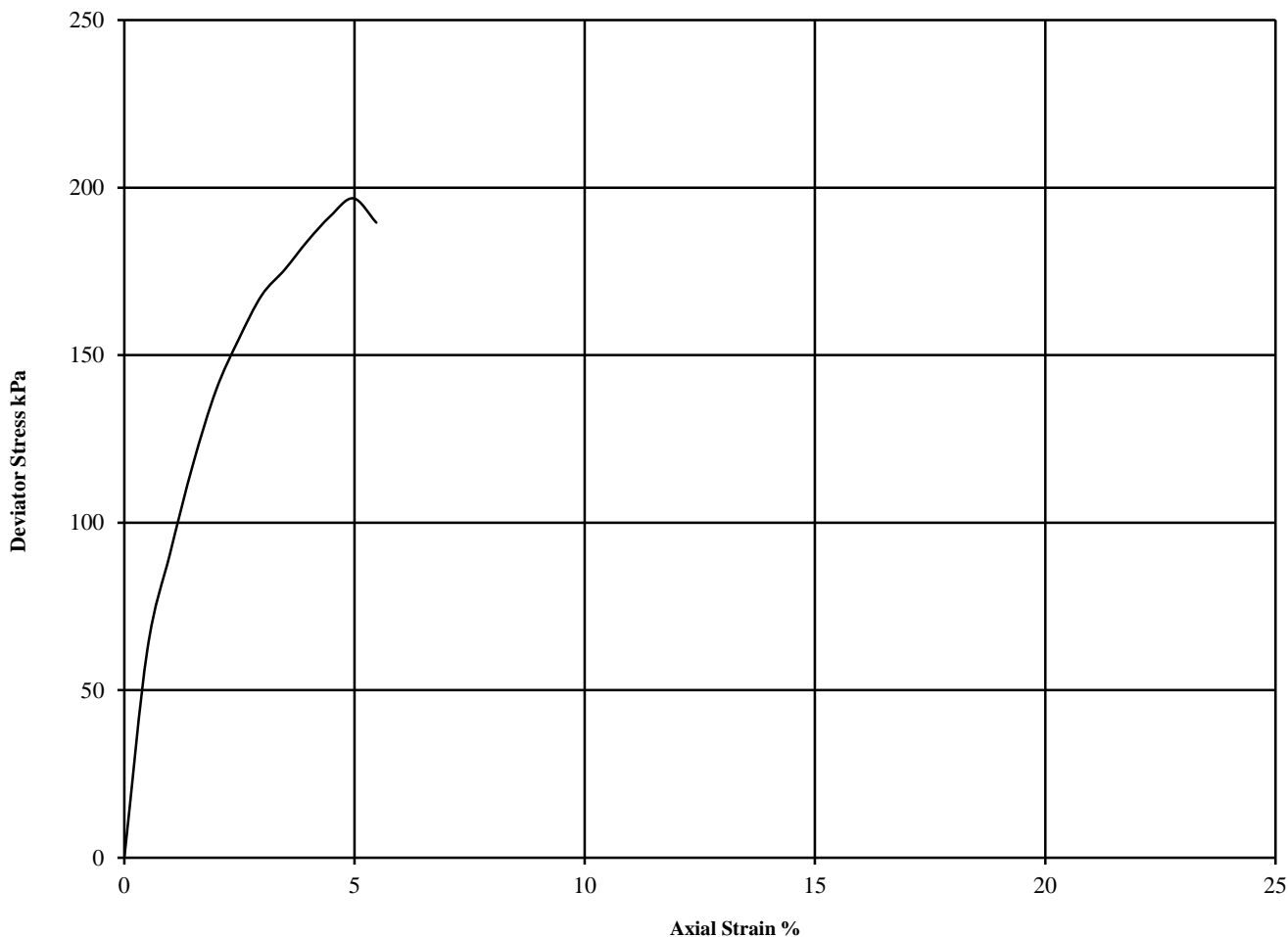
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **MP1029** Top Depth (m): **2.20**

Sample Number: Base Depth (m): **2.65**

Sample Type **UT100**



Diameter (mm):		103	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions
1	18	2.02	1.72	θ_3 45	$(\theta_1 - \theta_3)_f$ 197	$\frac{1}{2}(\theta_1 - \theta_3)_f$ 98	5.0	Brittle	

* Single stage test due to brittle failure



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

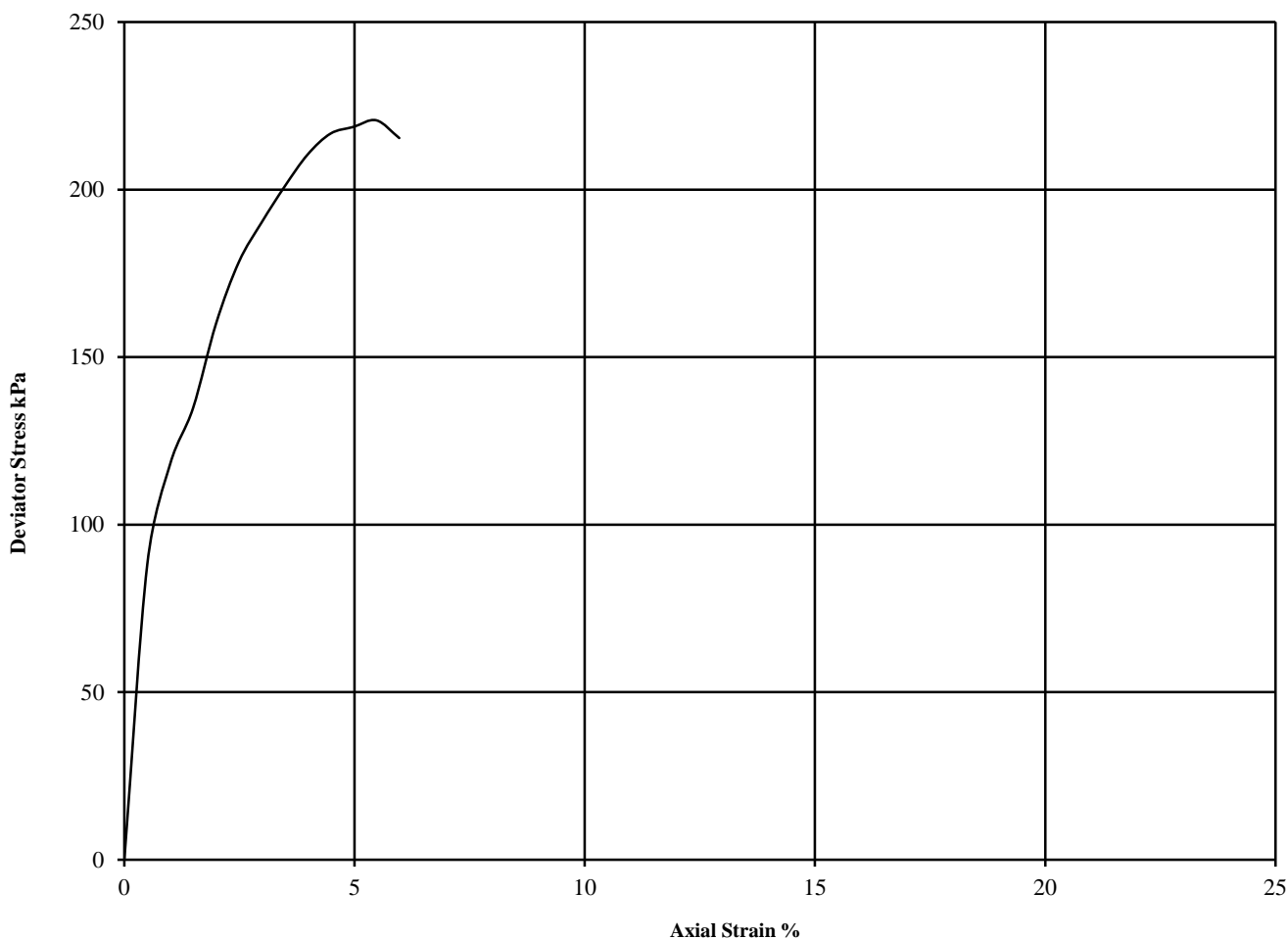
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **MP1031** Top Depth (m): **4.20**

Sample Number: Base Depth (m): **4.65**

Sample Type **UT100**



Diameter (mm):		103		Height (mm):		207		Test:		UU Single Stage		Remarks:	
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions				
			θ_3	$(\theta_1 - \theta_3)_f$	$1/2(\theta_1 - \theta_3)_f$								
1	22	1.97	1.62	85	221	110	5.5	Brittle					

* Single stage test due to brittle failure



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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

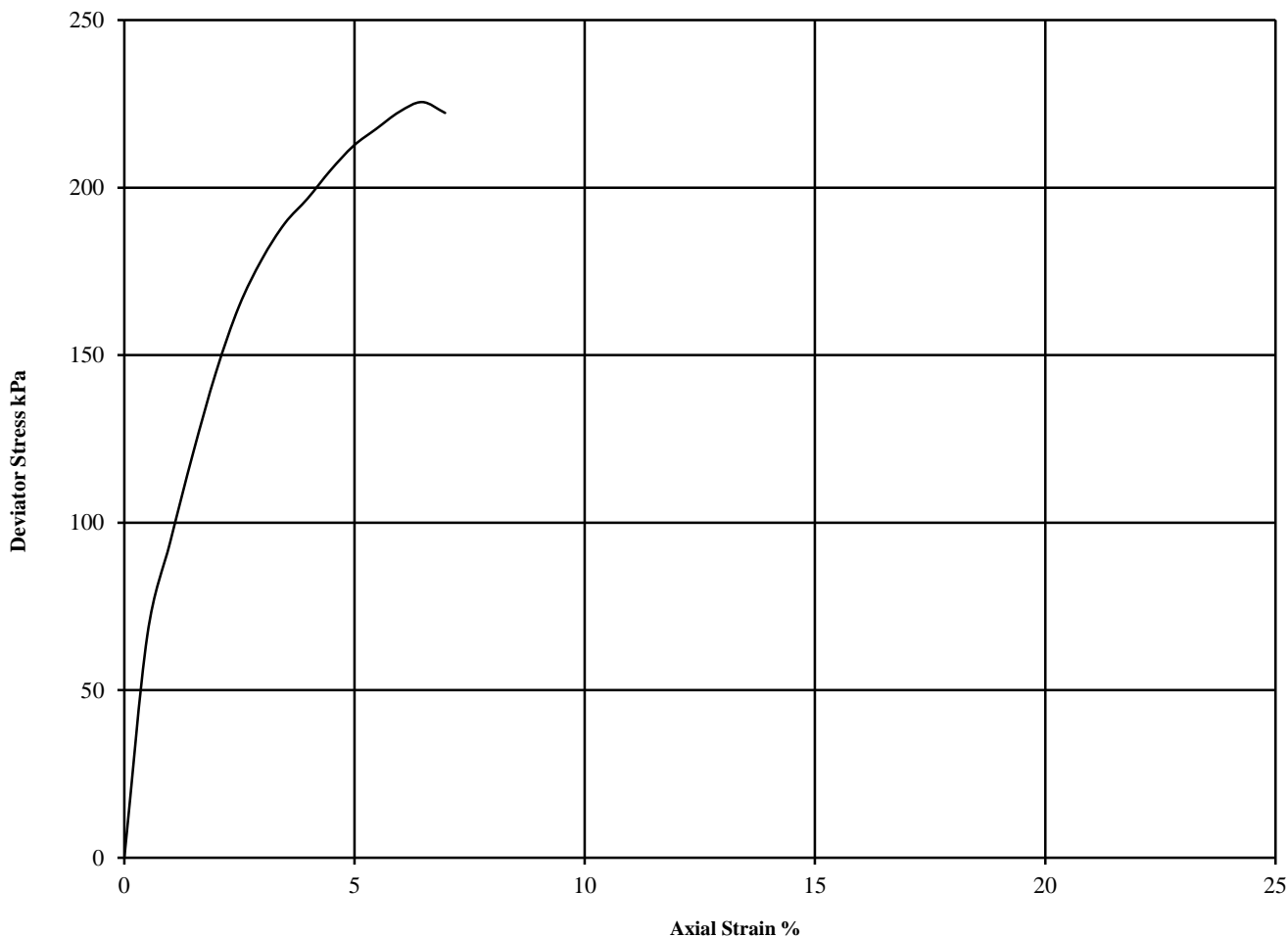
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: **MP1035** Top Depth (m): **2.20**

Sample Number: Base Depth (m): **2.65**

Sample Type **UT100**



Diameter (mm):		103	Height (mm):			207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m ³)	Dry Density (Mg/m ³)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.36 See summary of soil descriptions	
			θ_3	θ_3	$(\theta_1 - \theta_3)_f$	$\frac{1}{2}(\theta_1 - \theta_3)_f$				
1	21	2.05	1.70	45	226	113	6.5	Brittle		

* Single stage test due to brittle failure



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ONE DIMENSIONAL CONSOLIDATION TEST

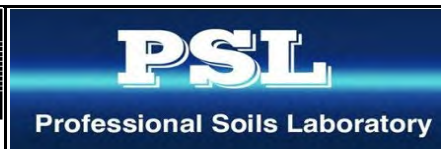
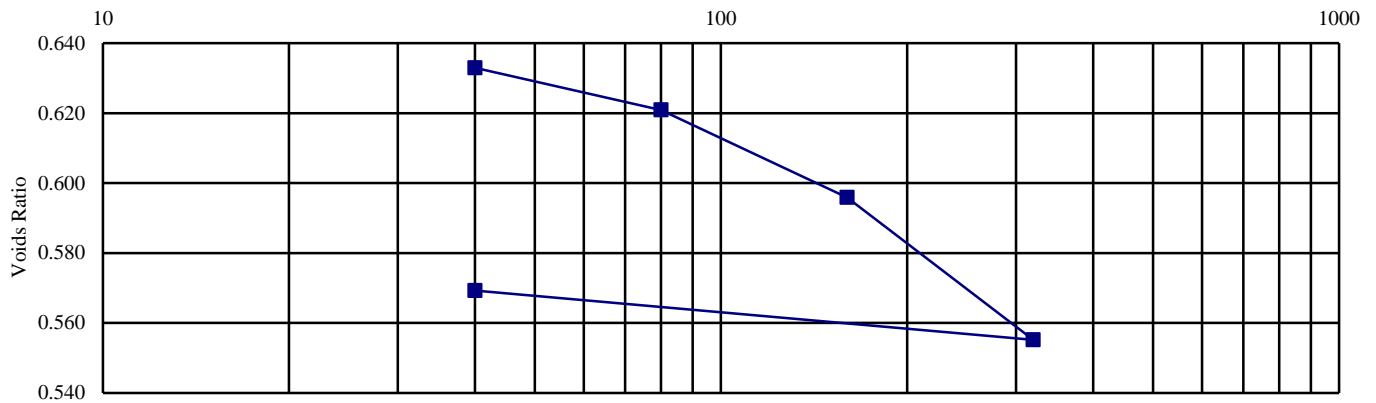
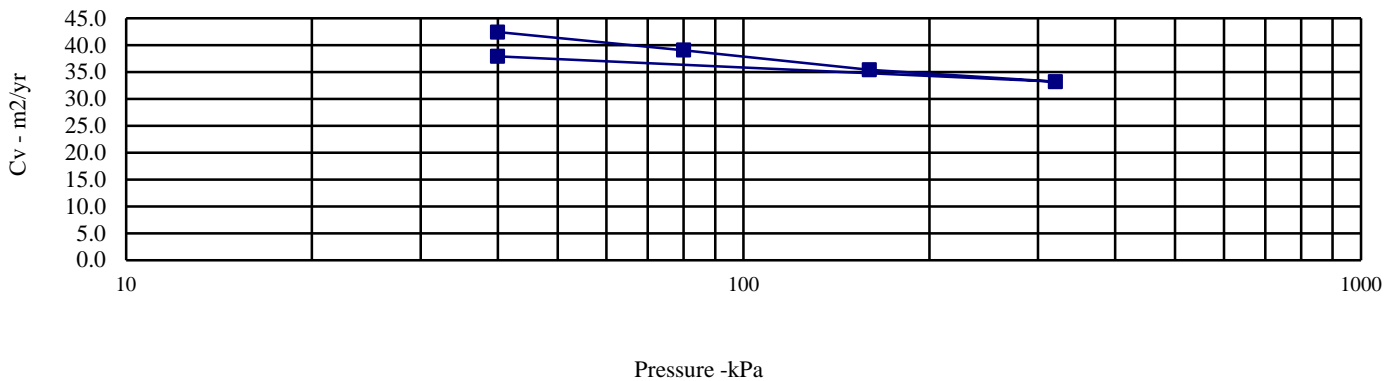
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1005 Top Depth (m): 2.00

Sample Number: Base Depth (m) : 2.45

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	21	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.94	0	40	0.207	42.422	Method used to	
Dry Density (Mg/m3):	1.61	40	80	0.185	39.058	determine CV:	T90
Voids Ratio:	0.647	80	160	0.193	35.400	Nominal temperature	
Degree of saturation:	84.3	160	320	0.159	33.184	during test ' C:	20
Height (mm):	19.894	320	40	0.032	37.911	Remarks:	
Diameter (mm)	75.008	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



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ONE DIMENSIONAL CONSOLIDATION TEST

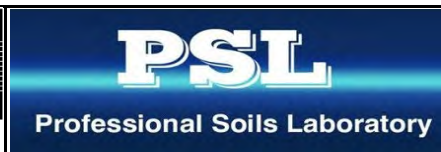
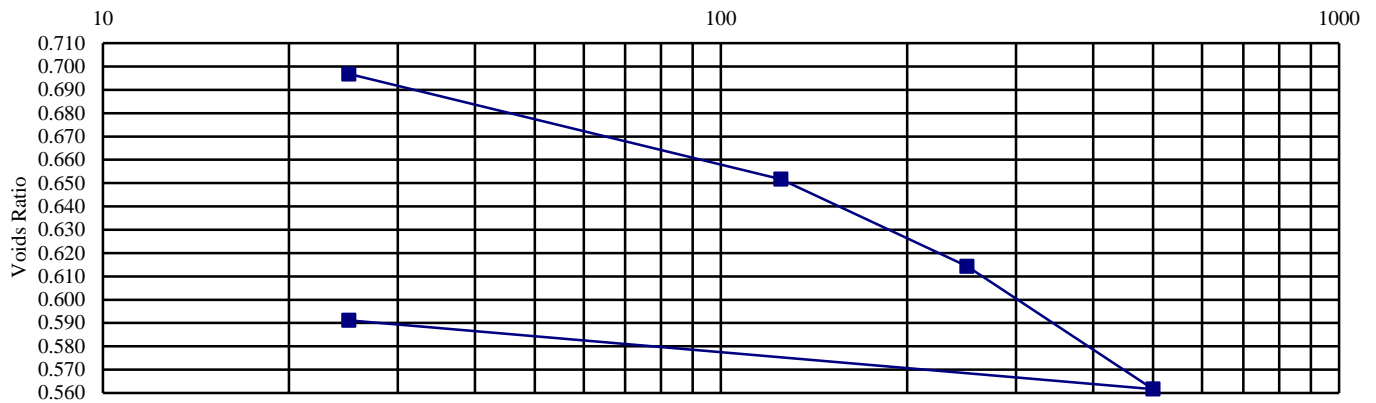
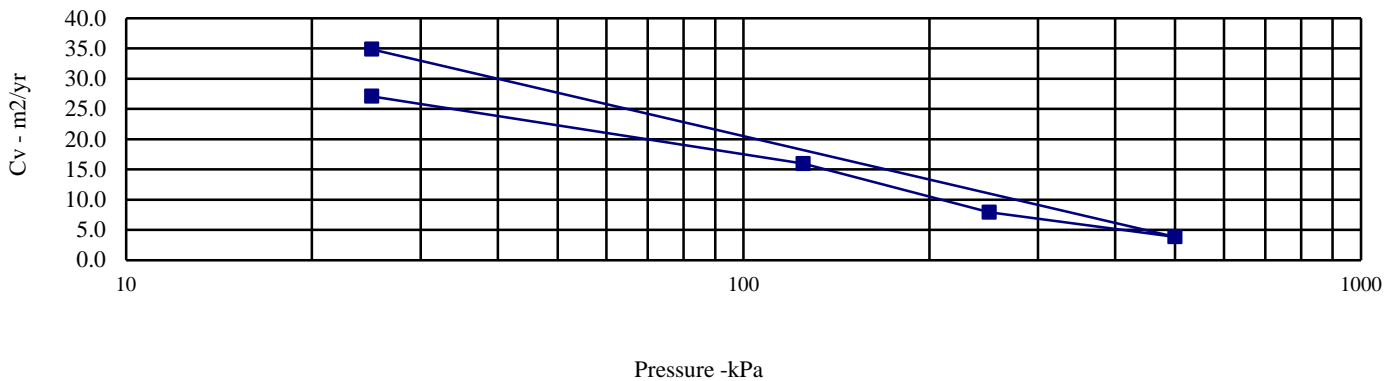
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1012 Top Depth (m): 1.20

Sample Number: Base Depth (m) : 1.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	24	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.92	0	25	0.393	27.086	Method used to	
Dry Density (Mg/m3):	1.55	25	125	0.266	15.975	determine CV:	T90
Voids Ratio:	0.714	125	250	0.181	7.932	Nominal temperature	
Degree of saturation:	88.8	250	500	0.131	3.870	during test ' C:	20
Height (mm):	19.826	500	25	0.040	34.864	Remarks:	
Diameter (mm)	75.015	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



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ONE DIMENSIONAL CONSOLIDATION TEST

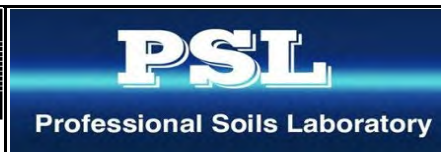
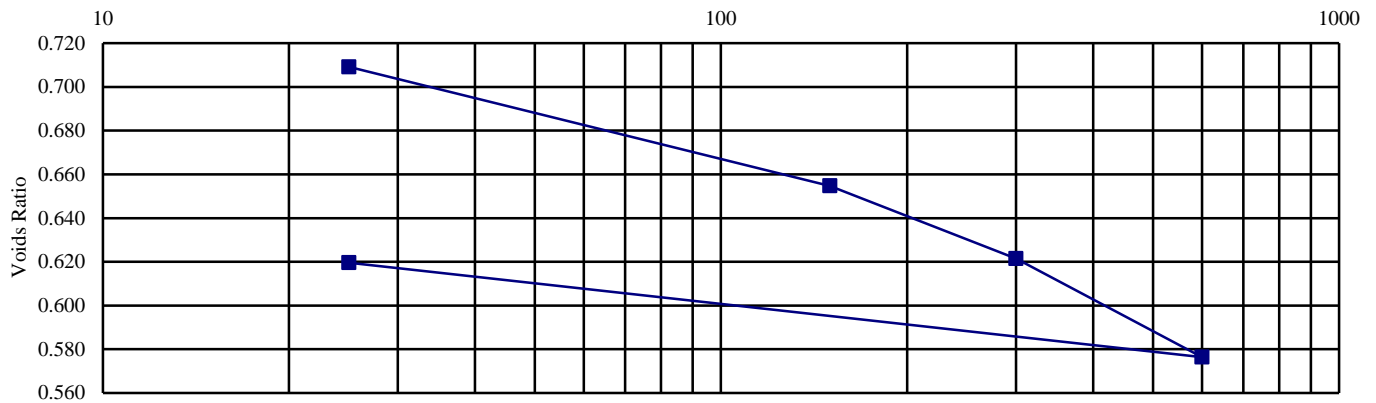
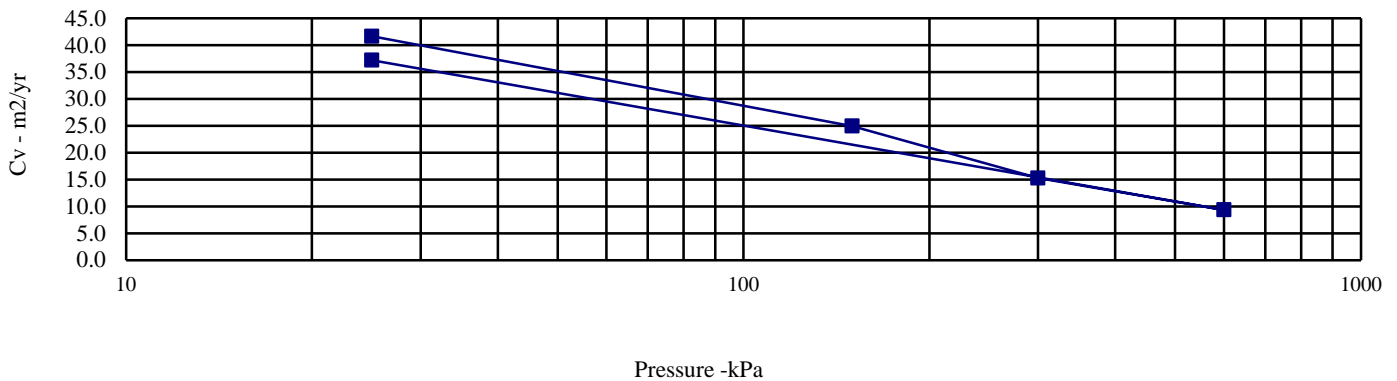
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1015 Top Depth (m): 1.20

Sample Number: Base Depth (m) : 1.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	22	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.89	0	25	0.168	41.658	Method used to	
Dry Density (Mg/m3):	1.54	25	150	0.255	24.948	determine CV:	T90
Voids Ratio:	0.716	150	300	0.134	15.282	Nominal temperature	
Degree of saturation:	82.9	300	600	0.093	9.347	during test ' C:	20
Height (mm):	20.006	600	25	0.048	37.205	Remarks:	
Diameter (mm)	75.098	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



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ONE DIMENSIONAL CONSOLIDATION TEST

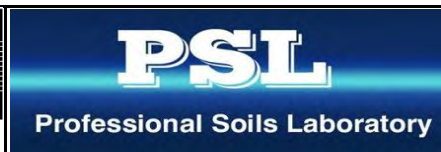
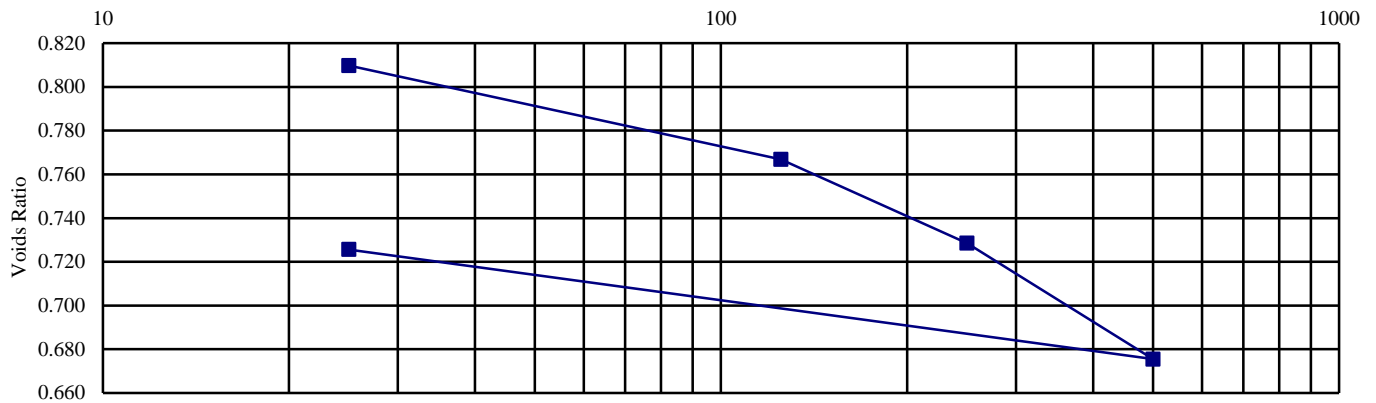
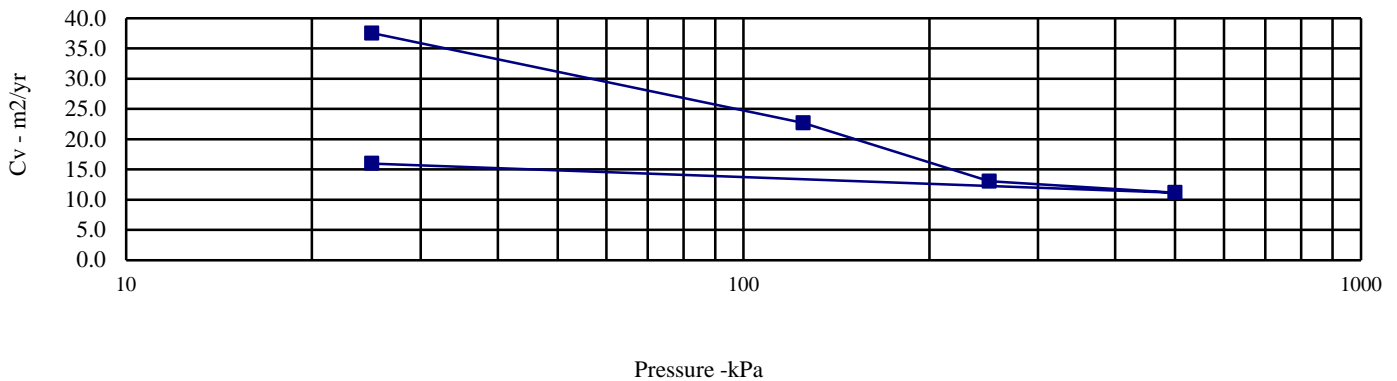
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1016 Top Depth (m): 1.20

Sample Number: Base Depth (m) : 1.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	29	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.88	0	25	0.236	37.544	Method used to	
Dry Density (Mg/m3):	1.46	25	125	0.237	22.679	determine CV:	T90
Voids Ratio:	0.820	125	250	0.174	13.046	Nominal temperature	
Degree of saturation:	94.0	250	500	0.123	11.168	during test ' C:	20
Height (mm):	20.02	500	25	0.063	15.982	Remarks:	
Diameter (mm)	75.155	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



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ONE DIMENSIONAL CONSOLIDATION TEST

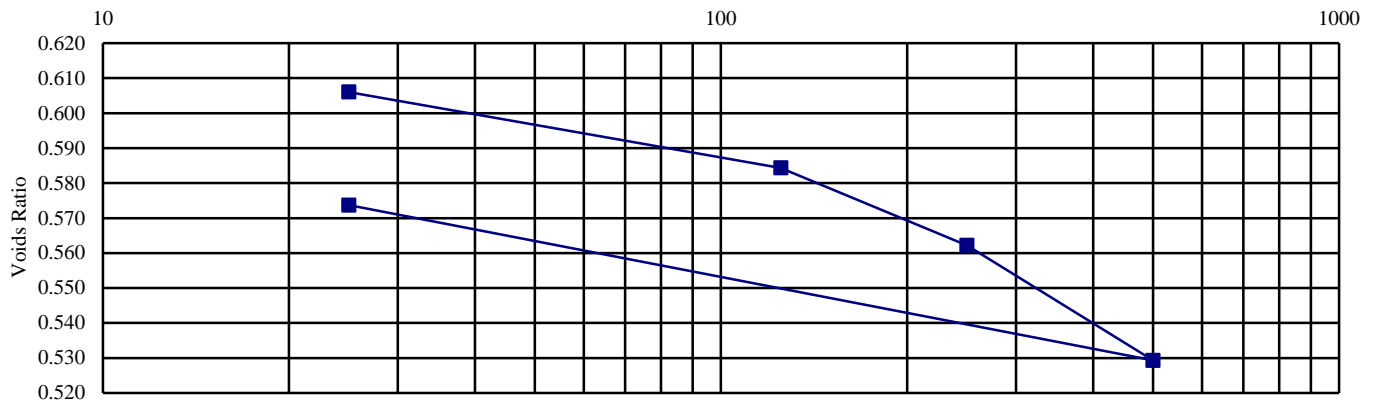
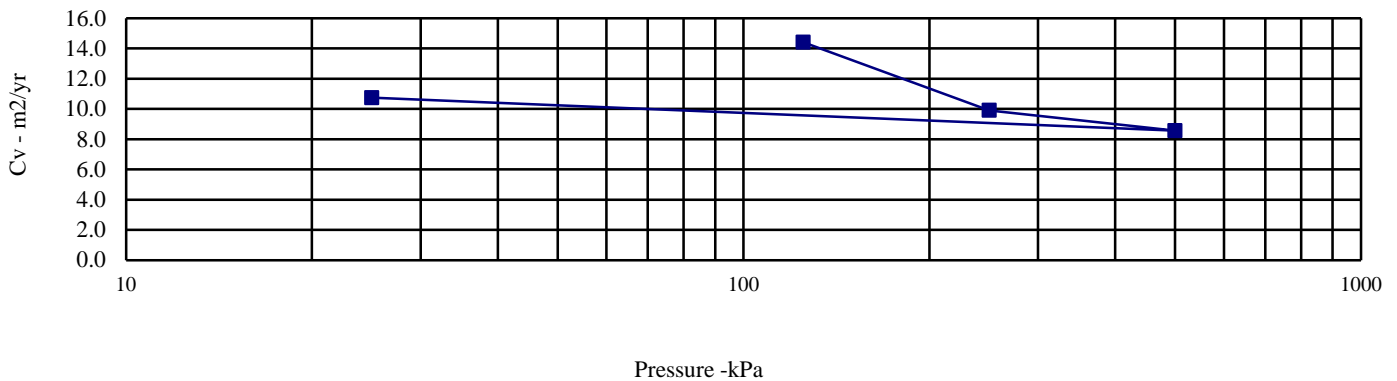
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1017 Top Depth (m): 1.20

Sample Number: Base Depth (m) : 1.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	21	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.99	0	25	Swelling	Swelling	Method used to	
Dry Density (Mg/m3):	1.65	25	125	0.135	14.414	determine CV:	T90
Voids Ratio:	0.606	125	250	0.112	9.901	Nominal temperature	
Degree of saturation:	91.0	250	500	0.084	8.565	during test ' C:	20
Height (mm):	19.822	500	25	0.061	10.742	Remarks:	
Diameter (mm)	75.03	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



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ONE DIMENSIONAL CONSOLIDATION TEST

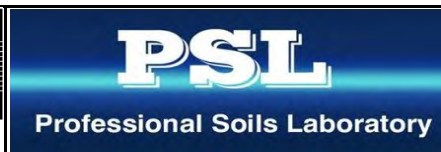
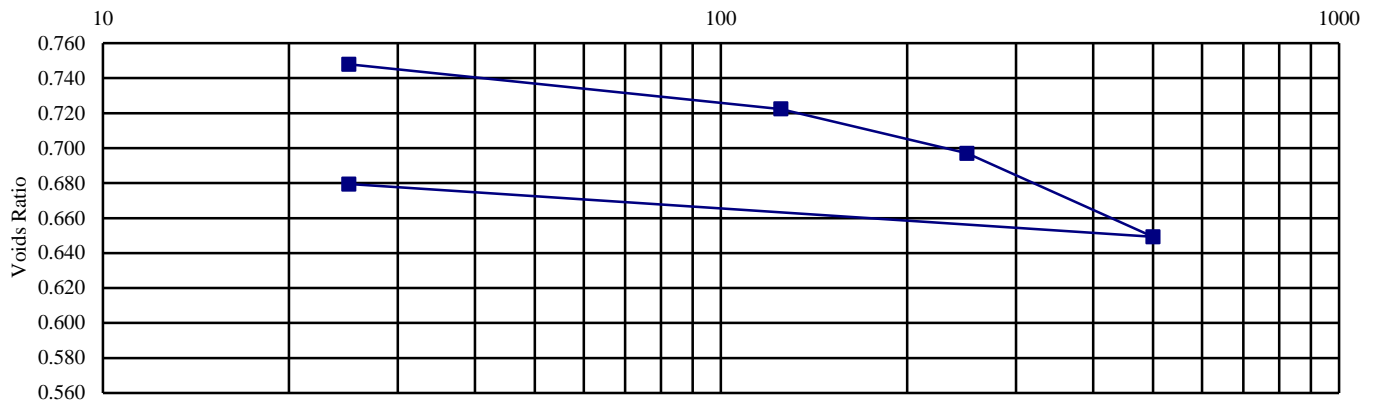
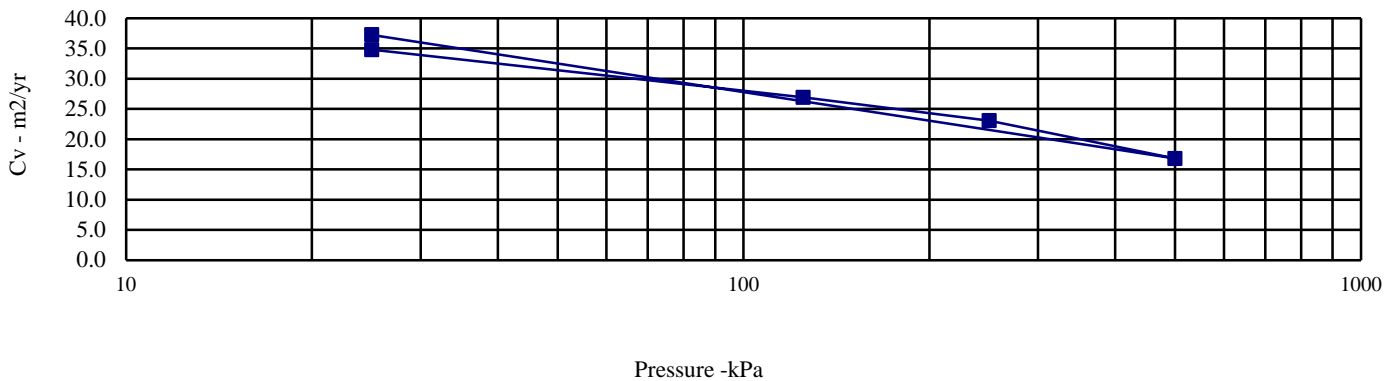
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1019 Top Depth (m): 1.20

Sample Number: Base Depth (m) : 1.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	23	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.87	0	25	0.095	34.796	Method used to	
Dry Density (Mg/m3):	1.51	25	125	0.147	26.916	determine CV:	T90
Voids Ratio:	0.752	125	250	0.118	23.077	Nominal temperature	
Degree of saturation:	82.4	250	500	0.112	16.797	during test ' C:	20
Height (mm):	20.18	500	25	0.038	37.250	Remarks:	
Diameter (mm)	75.095	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



Land East of Hemel Hempstead GI

Contract No:
PSL19/7112
Client Ref:
C6515

ONE DIMENSIONAL CONSOLIDATION TEST

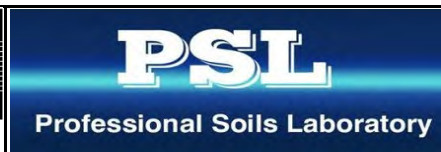
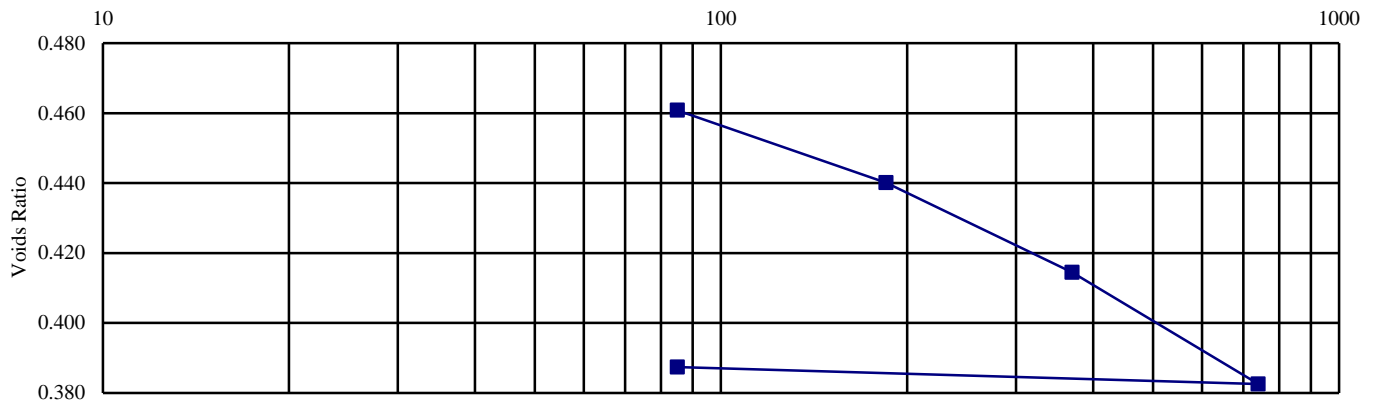
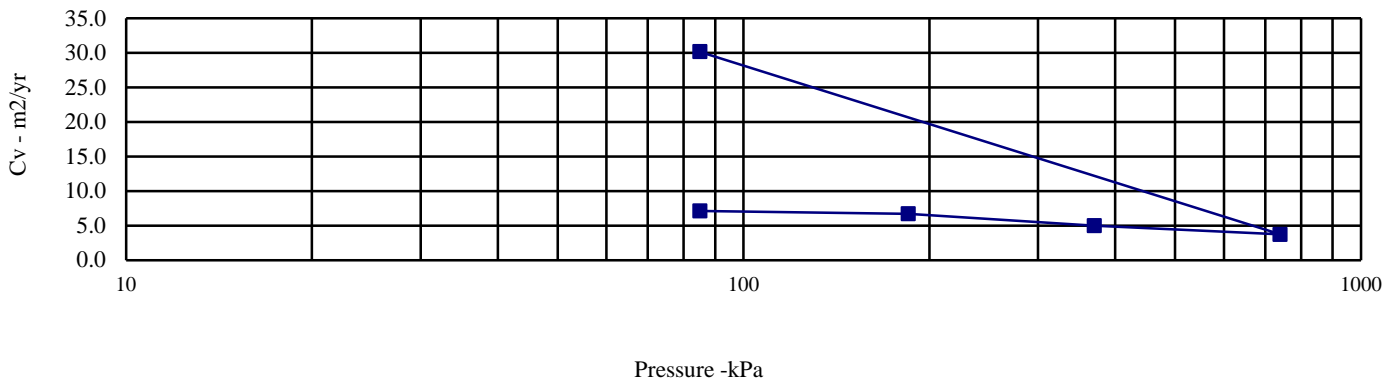
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1029 Top Depth (m): 4.20

Sample Number: Base Depth (m) : 4.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	19	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	2.10	0	85	0.384	7.114	Method used to	
Dry Density (Mg/m3):	1.75	85	185	0.142	6.706	determine CV:	T90
Voids Ratio:	0.510	185	370	0.096	4.969	Nominal temperature	
Degree of saturation:	100.8	370	740	0.061	3.714	during test ' C:	20
Height (mm):	19.772	740	85	0.005	30.138	Remarks:	
Diameter (mm)	74.998	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



Land East of Hemel Hempstead GI

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ONE DIMENSIONAL CONSOLIDATION TEST

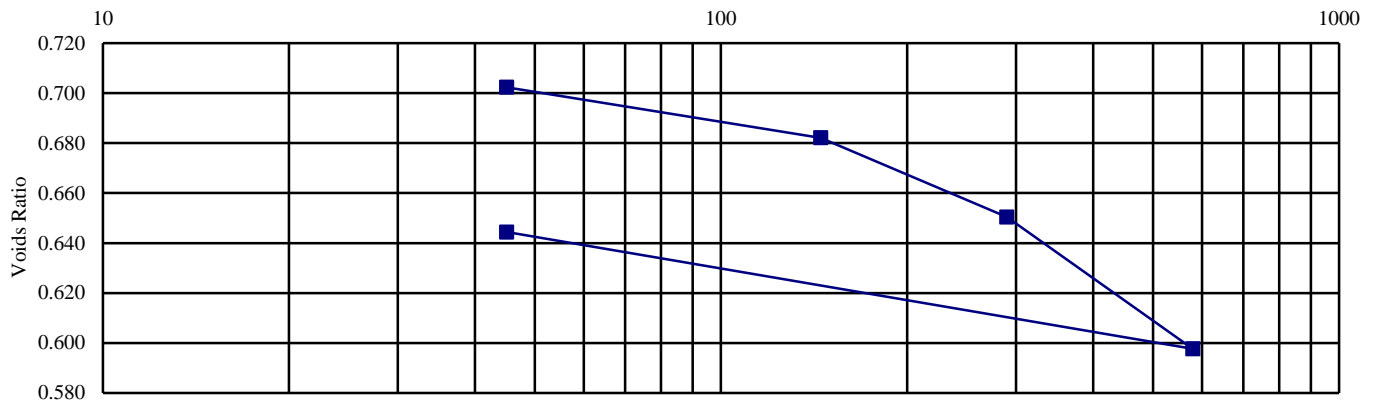
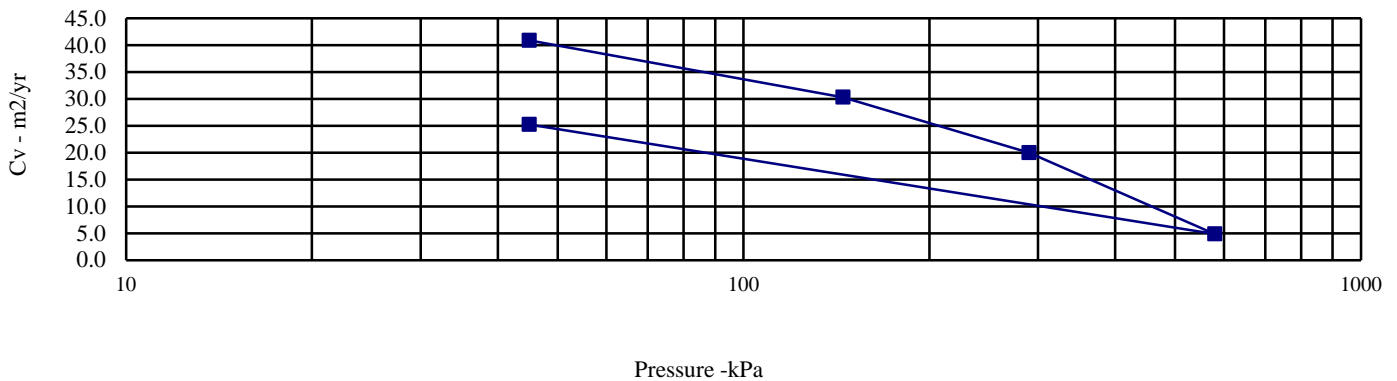
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1031 Top Depth (m): 2.20

Sample Number: Base Depth (m) : 2.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	26	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.96	0	45	0.100	40.885	Method used to	
Dry Density (Mg/m3):	1.55	45	145	0.119	30.288	determine CV:	T90
Voids Ratio:	0.710	145	290	0.130	19.961	Nominal temperature	
Degree of saturation:	98.5	290	580	0.110	4.887	during test ' C:	20
Height (mm):	20.156	580	45	0.055	25.231	Remarks:	
Diameter (mm)	75.005	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



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ONE DIMENSIONAL CONSOLIDATION TEST

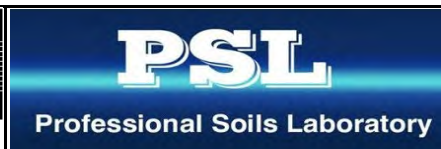
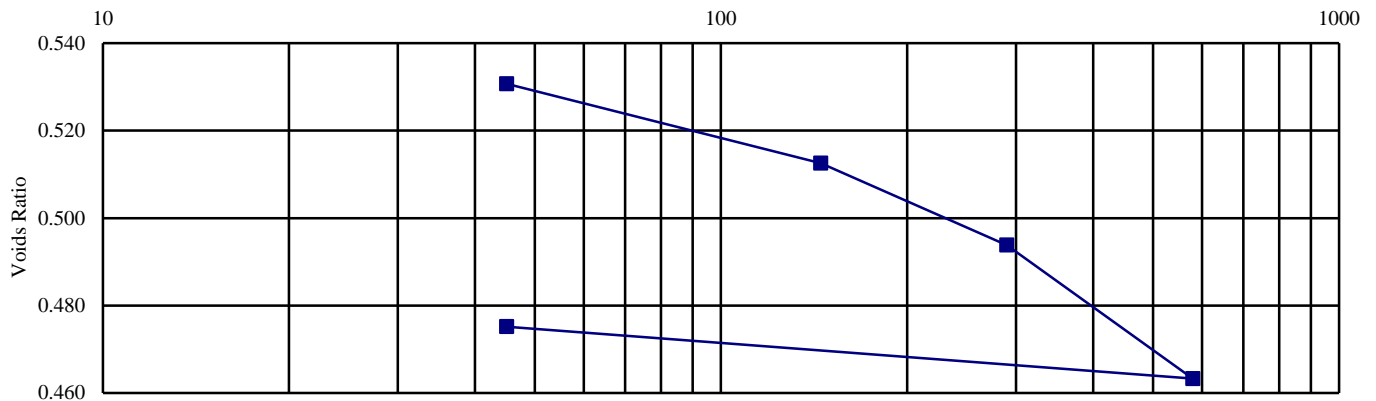
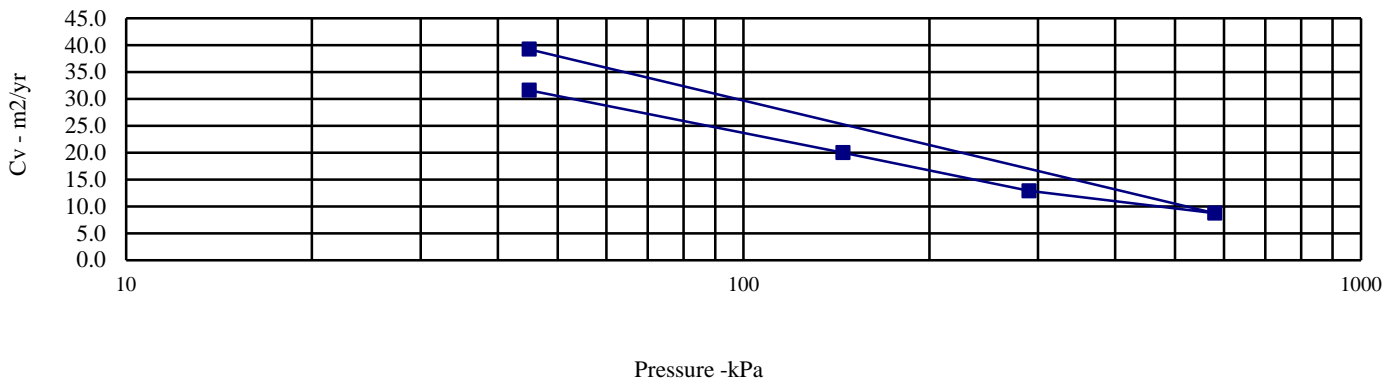
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1034 Top Depth (m): 2.20

Sample Number: Base Depth (m) : 2.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	18	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	2.04	0	45	0.156	31.603	Method used to	
Dry Density (Mg/m3):	1.72	45	145	0.119	19.966	determine CV:	T90
Voids Ratio:	0.542	145	290	0.085	12.896	Nominal temperature	
Degree of saturation:	90.0	290	580	0.070	8.724	during test ' C:	20
Height (mm):	19.992	580	45	0.015	39.240	Remarks:	
Diameter (mm)	74.98	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



Land East of Hemel Hempstead GI

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ONE DIMENSIONAL CONSOLIDATION TEST

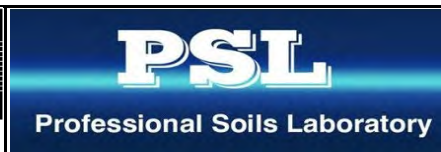
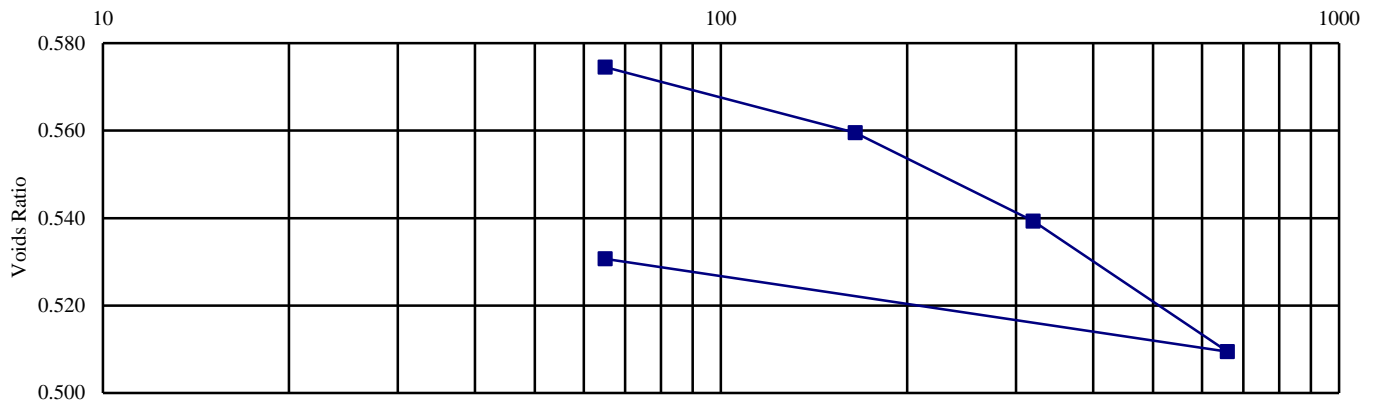
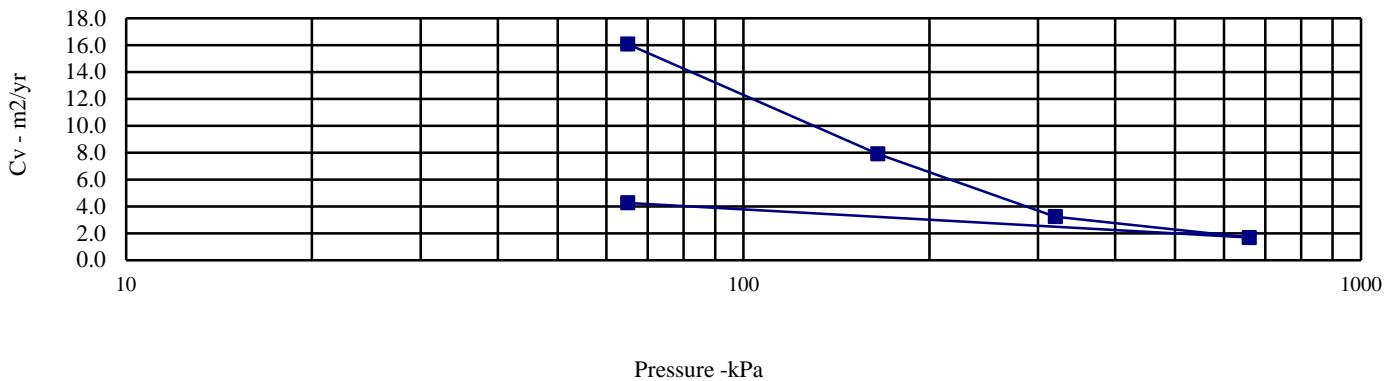
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1037 Top Depth (m): 3.20

Sample Number: Base Depth (m) : 3.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	21	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.98	0	65	0.412	16.070	Method used to	
Dry Density (Mg/m3):	1.64	65	165	0.095	7.907	determine CV:	T90
Voids Ratio:	0.618	165	320	0.084	3.237	Nominal temperature	
Degree of saturation:	90.1	320	660	0.057	1.673	during test ' C:	20
Height (mm):	20.006	660	65	0.024	4.266	Remarks:	
Diameter (mm)	75.015	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



Land East of Hemel Hempstead GI

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ONE DIMENSIONAL CONSOLIDATION TEST

BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1037

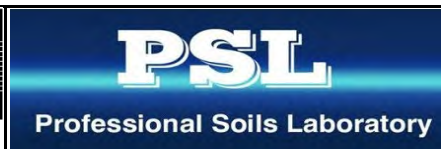
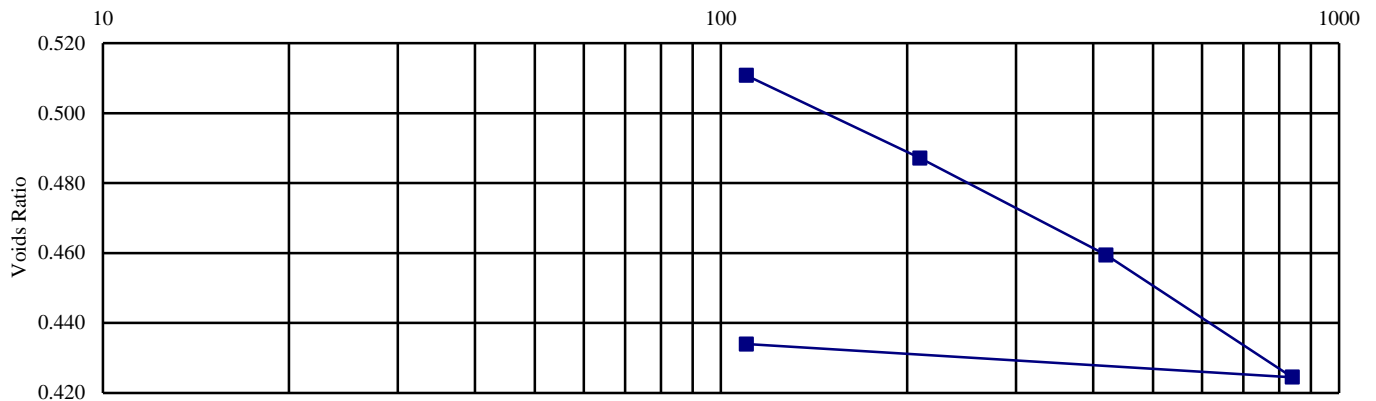
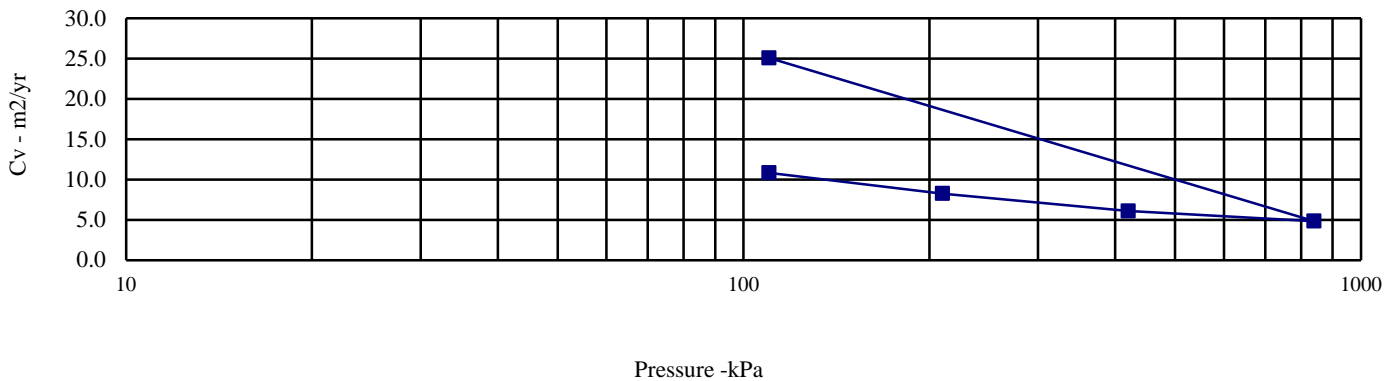
Top Depth (m): 5.20

Sample Number:

Base Depth (m) : 5.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	18	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	2.06	0	110	0.090	10.827	Method used to	
Dry Density (Mg/m3):	1.74	110	210	0.156	8.259	determine CV:	T90
Voids Ratio:	0.526	210	420	0.089	6.092	Nominal temperature	
Degree of saturation:	92.7	420	840	0.057	4.833	during test ' C:	20
Height (mm):	19.686	840	110	0.009	25.076	Remarks:	
Diameter (mm)	75.033	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							



Land East of Hemel Hempstead GI

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ONE DIMENSIONAL CONSOLIDATION TEST

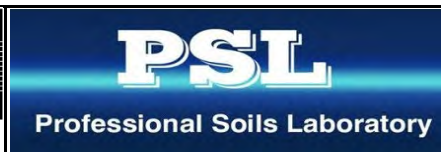
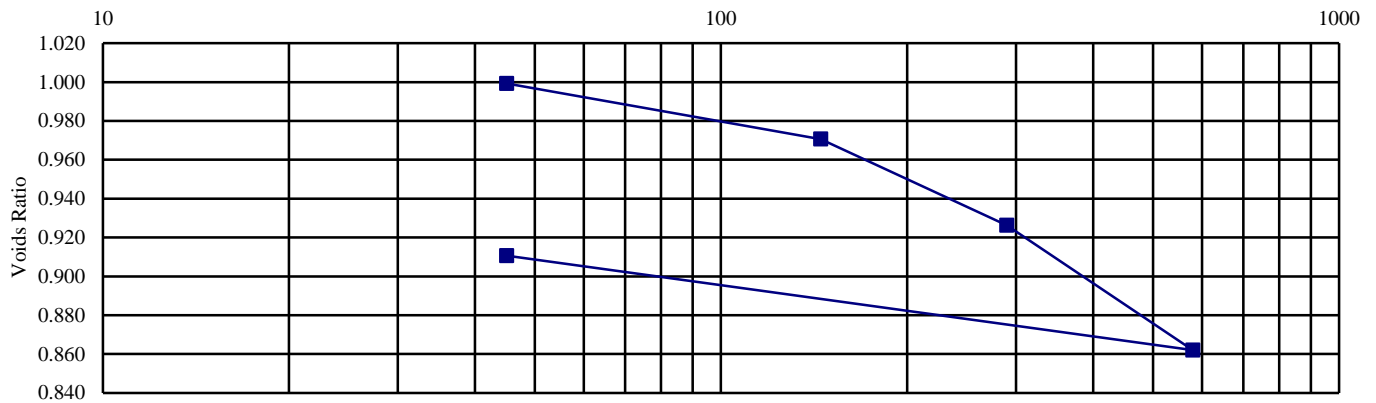
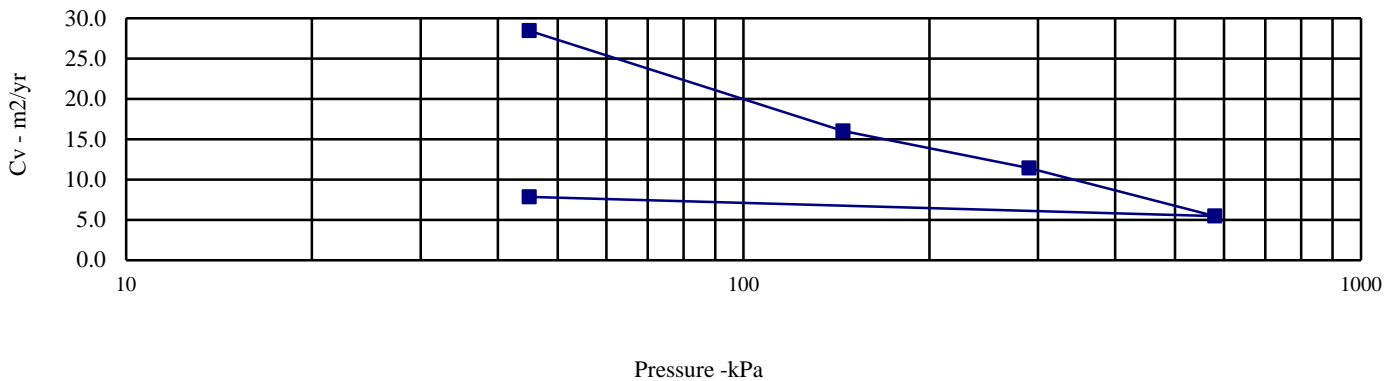
BS 1377: Part 5: 1990: Clause 3

Hole Number: MP1038 Top Depth (m): 2.20

Sample Number: Base Depth (m) : 2.65

Sample Type: UT100

Initial Conditions		Pressure Range		Mv	Cv	Specimen location	
Moisture Content (%):	36	kPa		m2/MN	m2/yr	within tube:	Top
Bulk Density (Mg/m3):	1.78	0	45	0.327	28.440	Method used to	
Dry Density (Mg/m3):	1.31	45	145	0.143	16.014	determine CV:	T90
Voids Ratio:	1.029	150	290	0.161	11.434	Nominal temperature	
Degree of saturation:	93.7	290	580	0.115	5.450	during test ' C:	20
Height (mm):	19.92	580	45	0.049	7.837	Remarks:	
Diameter (mm)	75.033	See summary of soil descriptions					
Particle Density (Mg/m3):	2.65						
Assumed							




Land East of Hemel Hempstead GI

Contract No:
PSL19/7112
Client Ref:
C6515

Effective Stress Triaxial Compression

Consolidated Undrained

Summary Report

<p>Sample Details</p>  <p style="font-size: small; text-align: center;"><i>sketch showing specimen location in original sample</i></p>	<p>Depth 3.20-3.65m UT100</p> <p>Description See summary of soil descriptions</p> <p>Type Undisturbed, Vertical orientation.</p>	
	<p>Initial Sample Length L₀ (mm) 200.0</p> <p>Initial Sample Diameter D₀ (mm) 103.2</p> <p>Initial Sample Weight W₀ (gr) 3616.7</p> <p>Initial Bulk Density ρ₀ (Mg/m³) 2.16</p> <p>Particle Density ρ_s (Mg/m³) 2.65</p>	

Initial Conditions		Stage 1	2	3
Initial Cell Pressure	σ _{3i} (kPa)	915	980	1110
Initial Back Pressure	U _{bi} (kPa)	850	850	850
Membrane Thickness	m _b (mm)	0.600		
Displacement Input	L _{IP} (mm)	CH 2		
Load Input	N _{IP} (N)	CH 4		
Pore Water Pressure Input	U _{pwp} (kPa)	CH 3		
Sample Volume	V (cc)	CH 2		
Initial Moisture	ω _i (%)	17		
Initial Dry Density	ρ _{di} (Mg/m ³)	1.85		
Initial Voids Ratio	e _i	0.433		
Initial Degree of Saturation	S _i (%)	100		
B Value	B	0.98		

Final Conditions		Stage 1	2	3
Final Moisture	ω _f (%)	19		
Final Dry Density	ρ _{df} (Mg/m ³)	1.89		
Final Voids Ratio	e _f	0.405		
Final Degree of Saturation	S _f (%)	100.0		
Failure Criteria		Max. Dev. Stress	Max. Dev. Stress	Max. Dev. Stress
Strain At Failure	ε _f (%)	1.70	2.82	9.83
Stress At Failure	(σ ₁ - σ ₃) (kPa)	195.3	327.9	667.6
Minor Stress At Failure	σ ₃ ' (kPa)	50.0	124.0	335.0
Major Stress At Failure	σ ₁ ' (kPa)	245.3	451.9	1002.6
Principal Stress At Failure	σ ₁ ' / σ ₃ '	4.907	3.644	2.993

Notes



Plastic

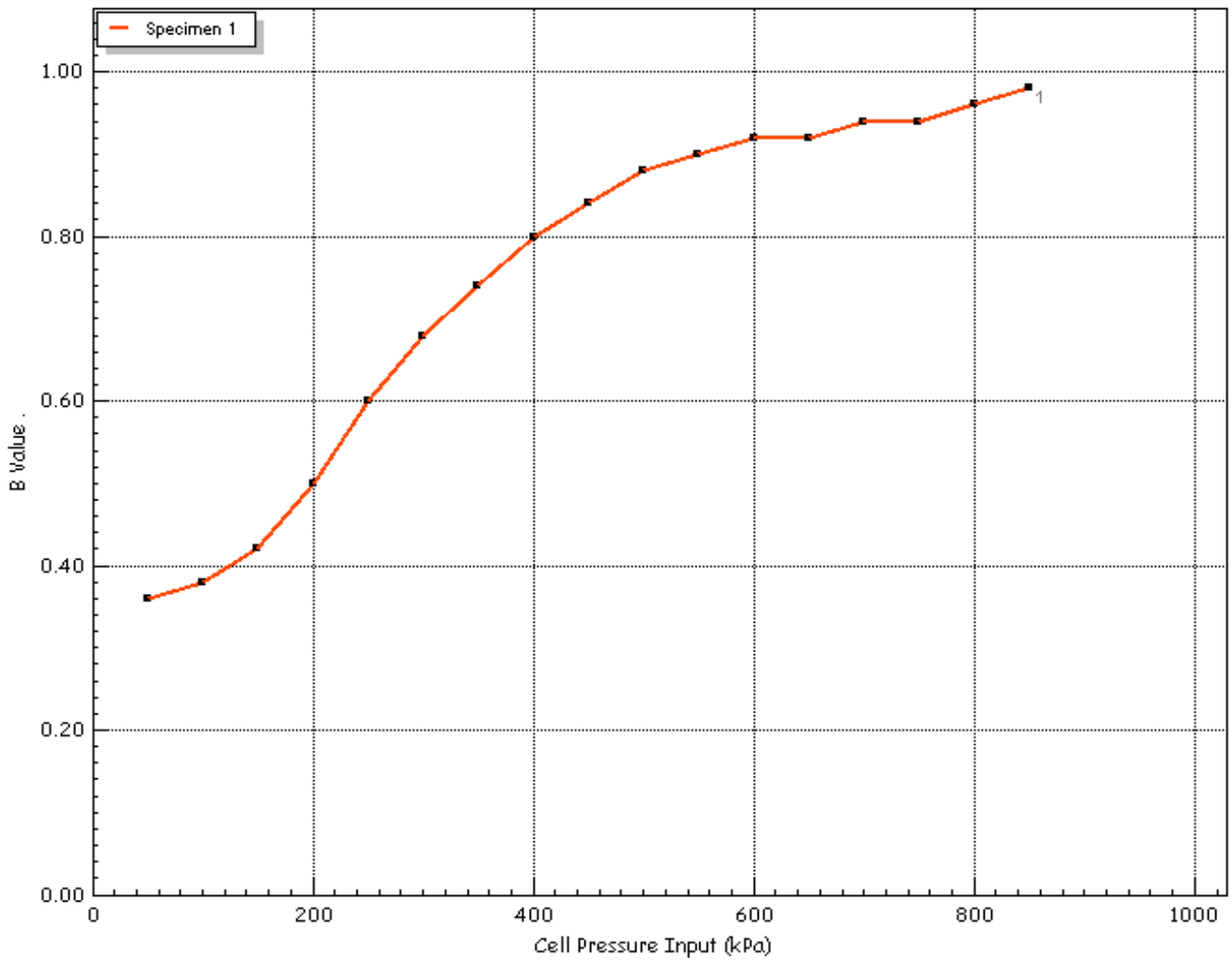
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			Test Date	03/12/2019
	Jobfile	Land East of Hemel Hempstead GI	Borehole	MP1016
	Client	CC Ground Investigations Ltd	Sample	3.20-3.65m UT100
			Depth	3.20-3.65m UT100


Effective Stress Triaxial Compression

Consolidated Undrained

Saturation Plots

Saturation Method		Stepped
Cell Pressure Input	σ (kPa)	850
Pore Water Pressure Input	u_{pwp} (kPa)	833
B Value	B	0.98



	Test Method	BS1377-8 : 1990 : Clause 7	Test Name	MP1016 3.20-3.65m UT100
			Test Date	03/12/2019
	Jobfile	Land East of Hemel Hempstead GI	Borehole	MP1016
	Client	CC Ground Investigations Ltd	Sample	3.20-3.65m UT100
			Depth	3.20-3.65m UT100

Effective Stress Triaxial Compression

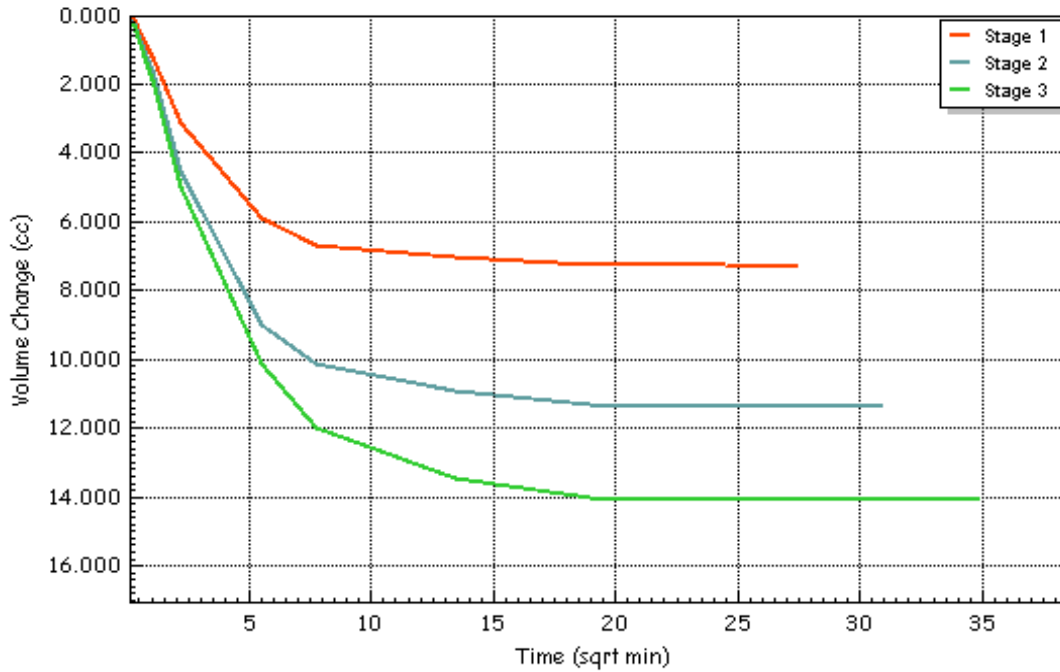
Consolidated Undrained


Consolidation Plots

Initial Conditions			Stage 1	2	3
Initial Cell Pressure	σ_3	(kPa)	915	980	1110
Initial Back Pressure	u_{bi}	(kPa)	850	850	850
Pore Water Pressure Input	u_{pwp}	(kPa)	896	935	1013
Drainage Method	Radial+One End				

Final Conditions			Stage 1	2	3
PWP Dissipation %	$U\%$	(%)	95.65	96.47	95.71
Volumetric Strain	$\epsilon_v\%$	(%)	0.44	1.11	1.96
Corrected Length	L_c	(mm)	199.7	195.6	191.1
Corrected Area	A_c	(cm ²)	83.40	84.22	84.87
Corrected Volume	V_c	(cc)	1665.646	1654.303	1640.223
T100 Time to Failure	t_{100}	(min)	24.52	24.52	24.52
Consolidation	c_v	(m ² /year)	9.431	9.431	9.431
Compressibility	m_v	(m ² /MN)	0.099	0.136	0.125
Test Time	t_F	(h:m:s)	02:00:00	02:00:00	02:00:00
Estimated Strain to Failure	$\epsilon\%$	(%)	5.0	5.0	5.0
Shear Machine Speed	d_r	(mm/min)	0.08321	0.08149	0.07963

Notes



	Test Method	BS1377-8 : 1990 : Clause 7	Test Name	MP1016 3.20-3.65m UT100
	Jobfile	Land East of Hemel Hempstead GI	Test Date	03/12/2019
Client	CC Ground Investigations Ltd	Borehole	MP1016	
		Sample	3.20-3.65m UT100	
		Depth	3.20-3.65m UT100	

