Borehole Photograph





CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	BH108

CC GROUND INVESTIGATIONS LTD

ROTARY BOREHOLE LOG

Telephone: 01452 739165 , Fax: 01452 739220 , Email: info@ccground.co.uk

Borehole No. **BH109**

Sheet 1 of 6

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494446 N 99713	Hole Type DS+RC
Location: Bognor Regis		Level: 1.18mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 05/11/2015 End: 05/11/2015	Logged By RS/DM

(m)	Water Levels	Core Run, Samples & Testing: No/Type	Depth (m)	Result	Core Run & Sample	TCR SCR RQD	Install	Description	Depth (m)	Level (mAD)	Legend
		B	0.20					MADE GROUND: Firm friable brown mottled orangish brown and grey slightly sandy slightly gravelly silty CLAY with frequent rootlets. Gravel is sub-angular fine and medium brick.	(0.30)		
								0.20m: 1 No. 120mm x 25mm diameter steel tube.	0.30	0.88	
		B	0.50	H 80				MADE GROUND: Stiff friable orangish brown mottled reddish brown slightly sandy slightly gravelly silty CLAY with occasional rootlets. Gravel is sub-angular fine and medium brick.	(0.40)		
		ES							0.70	0.48	
		H							(0.50)		
1		B	1.00	H 45				Firm orangish brown mottled light grey slightly sandy silty CLAY. (Superficial Deposits)			1
		H							1.20	-0.02	
		ES	1.20	S<1				Very soft orangish brown and light grey silty CLAY. (Superficial Deposits)			
		SPT	1.20 - 1.65						(0.80)		
2		D	1.90	H 32				Very soft grey mottled orangish brown silty CLAY. (Superficial Deposits)	2.00	-0.82	2
		H									
		ES	2.10								
		D	2.50	H 19							
		H									
		SPT	2.70 - 3.15	S 2							
3											3
									(3.10)		
4		D	4.00	H 9							4
		H									
		SPT	4.20 - 4.65	S 2							
5								Very soft grey slightly sandy silty CLAY. (Superficial Deposits)	5.10	-3.92	5
		H	5.35	H 10							
									(0.90)		
		D	5.60								
		SPT	5.70 - 6.15	S 1							
6											6

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REMARKS:

EQUIPMENT: Hand digging tools. Fraste PL multi purpose track mounted rig.
METHOD: Hand dug inspection pit: 0.00-1.20m. Continuous dynamic sampled (128mm diam) 1.20-22.20m. Water flush rotary coring using T6-146 coring barrel: 22.20-35.20m.
GROUNDWATER: None encountered prior to use of water flush to advance casing to 4.20m..
CASING: 160mm diameter casing to 27.50m.
INSTALLATION: Bentonite pellet seal: 3.00-35.20m, 50mm ID HDPE slotted pipe with washed gravel response zone: 1.00-3.00m, plain pipe with bentonite pellet seal: 0.20-1.00m, flush 150mm steel cover set in concrete 0.00-0.20m. Gas valve fitted.

Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)
05/11/2015	5.70	5.70	0.80
06/11/2015	5.70	5.70	2.30

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Borehole No. **BH109**

Sheet 2 of 6

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494446 N 99713	Hole Type DS+RC
Location: Bognor Regis		Level: 1.18mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 05/11/2015 End: 05/11/2015	Logged By RS/DM

(m)	Water Levels	Core Run, Samples & Testing No/Type	Depth (m)	Result	Core Run & Sample	TCR SCR RQD	Install	Description	Depth (m)	Level (mAD)	Legend
								Very soft grey slightly sandy clayey SILT. (Superficial Deposits)	6.00	-4.82	
		H	6.80	H 8							
7		D	7.00								7
		SPT	7.20 - 7.65	S<1					(2.30)		
8		H	8.10	H 10							8
								Very soft grey slightly sandy silty CLAY. (Superficial Deposits)	8.30	-7.12	
		D	8.50								
		SPT	8.70 - 9.15	S<1							
9											9
		H	9.70	H 12							
		D	9.80								
10		SPT	10.20 - 10.65	S 2							10
11		H	11.20	H 14					(6.00)		11
		D	11.50								
		SPT	11.70 - 12.15	S 2							
12											12
		H	12.60	H 16							
13		D	13.00								13

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Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)

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Borehole No. **BH109**

Sheet 3 of 6

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494446 N 99713	Hole Type DS+RC
Location: Bognor Regis		Level: 1.18mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 05/11/2015 End: 05/11/2015	Logged By RS/DM

(m)	Water Levels	Core Run, Samples & Testing: No/Type	Depth (m)	Result	Core Run & Sample	TCR SCR RQD	Install	Description	Depth (m)	Level (mAD)	Legend
		SPT	13.20 - 13.65	S 4				Very soft grey slightly sandy silty CLAY. (Superficial Deposits) *(continued from previous sheet)*			
14		H	14.20	H 16					14.30	-13.12	
		SPT	14.70 - 15.15	S 9				Soft to firm grey slightly sandy silty CLAY with occasional brown and dark brown pseudo-fibrous to fibrous plant remains/rootlets. (Superficial Deposits)	(1.10)		
15		D	15.30						15.40	-14.22	
		D	15.50					Firm plastic dark brown slightly sandy slightly gravelly amorphous PEAT. Gravel is sub-angular to sub-rounded fine to coarse of chalk and flint. (Superficial Deposits)	(0.35)		
								Firm to stiff dark greyish green slightly sandy gravelly silty CLAY with occasional dark brown rootlets. Gravel is sub-angular to rounded fine to coarse of chalk and occasional flint. (Superficial Deposits)	15.75	-14.57	
16		D	16.10						(0.85)		
		SPT	16.20 - 16.65	S 20					16.60	-15.42	
								Structureless CHALK composed of slightly silty slightly sandy to sandy angular to sub-rounded fine to coarse GRAVEL with low cobble content and occasional flints. Clasts are very weak to weak medium to high density white. Matrix is soft to firm white. Flints are dark grey medium to coarse gravel size nodular. (White Chalk Subgroup Grade Dc)			
17		D	17.20								
		SPT	17.70 - 18.15	S 20					(2.30)		
18											
									18.90	-17.72	
19		D	19.10					Extremely weak to very weak low to medium density white CHALK with closely to medium spaced dark brown nodular flints. Discontinuities are sub-horizontal to sub-vertical extremely closely to very closely spaced rough undulating and stepped with comminuted slightly sandy silt infill (<10mm). (White Chalk Subgroup Grade C4/5)			
		SPT	19.20 - 19.65	S 21					(0.75)		
								19.15m: Light grey staining along sub-horizontal discontinuity.	19.65	-18.47	
20								*(continued on next sheet)*			
		D	20.40						(1.05)		

Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)
06/11/2015	14.70	14.70	0.00
09/11/2015	14.70	14.70	0.00

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Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494446 N 99713	Hole Type DS+RC
Location: Bognor Regis		Level: 1.18mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 05/11/2015 End: 05/11/2015	Logged By RS/DM

(m)	Water Levels	Core Run, Samples & Testing: No/Type	Depth (m)	Result	Core Run & Sample	TCR SCR RQD	Install	Description	Depth (m)	Level (mAD)	Legend
21		SPT	20.70 - 21.08	S 21				Very weak to weak medium to high density locally extremely weak low density along discontinuities white CHALK with occasional light grey thin marl laminations and medium spaced dark brown nodular flints. Discontinuities are sub-horizontal very closely to closely spaced rough undulating with partly open to wide open (<60mm) infilled with comminuted slightly sandy gravelly silt with some light brown discolouration. Sub-vertical discontinuities are extremely closely to very closely spaced rough undulating and stepped tight to partly open occasionally with light brown sand smear. Flints are medium to coarse gravel size. (White Chalk Subgroup Grade C3/5) *(continued from previous sheet)*	20.70	-19.52	21
									(1.00)		
22		D	22.00						21.70	-20.52	22
		C	22.20 - 23.70	S 41		100%		Structureless CHALK composed of white slightly gravelly SILT. Gravel is very weak low density white sub-angular fine to coarse with occasional black specks and occasional orangish brown staining. (White Chalk Subgroup Grade Dm Possibly drilling disturbed)	(0.90)		
		SPT	22.20 - 22.58			8% 5%			22.60	-21.42	
23		D	23.20					Structureless CHALK composed of silty sub-angular fine to coarse GRAVEL. Clasts are extremely weak and very weak low and medium density white with occasional black specks. Matrix is white. (White Chalk Subgroup Grade Dc) 22.05-22.10m: Band of sub-angular coarse flint gravel. 22.20-22.30m: Flint cobble. 22.30-22.48m: Band of sub-angular coarse flint gravel. 22.48-22.60m: Flint boulder? (solid core).			23
		C	23.70 - 25.20			80% 5% 0%		Very weak and weak medium density white with occasional orangish brown staining CHALK. Discontinuities are extremely and very closely spaced (10/40/60) infilled with (1/2/5) white comminuted chalk, moderately orangish brown stained. (White Chalk Subgroup Grade C4-5) 23.70-24.35m: Band of sub-angular fine to coarse gravel and cobbles of flint.			
24		B	24.60 - 24.67					24.60-24.67m: Band of medium density grade B3 chalk. 24.75-24.90m: Band of angular and sub-angular fine to coarse flint gravel.			24
25		D	25.00								25
		C	25.20 - 26.70	S*59		77%			(5.40)		
		SPT	25.20 - 25.61			0% 0%					
26		D	26.50					25.65-25.75m: Band of sub-angular coarse flint gravel. 25.82-25.90m: Band of sub-angular coarse flint gravel. 26.12-26.26m: Band of sub-angular coarse flint gravel.			26
		C	26.70 - 28.20			80% 7% 7%		26.70-27.30m: Band of structureless grade Dc chalk. 26.90-27.18m: Band of structureless grade Dc chalk.			
27								27.30-27.70m: Band of flint cobbles.			27

Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)
09/11/2015	20.70	17.70	0.00
10/11/2015	20.70	17.70	0.80
10/11/2015	22.20	21.00	0.90
11/11/2015	22.20	21.00	0.80

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Borehole No. **BH109**

Sheet 5 of 6

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494446 N 99713	Hole Type DS+RC
Location: Bognor Regis		Level: 1.18mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 05/11/2015 End: 05/11/2015	Logged By RS/DM

(m)	Water Levels	Core Run, Samples & Testing: No/Type	Depth (m)	Result	Core Run & Sample	TCR SCR RQD	Install	Description	Depth (m)	Level (mAD)	Legend
28					C			27.85-27.95m: Band of sub-angular fine to coarse gravel and cobbles of flint.	28.00	-26.82	28
		C	28.20 - 29.20			100%		Very weak medium density white CHALK. Discontinuities are closely and medium spaced locally very closely spaced (30/100/300) rarely locally infilled (0/0/1) with white comminuted chalk. (White Chalk Subgroup Grade B2-3)			
		CS	28.20 - 28.45			73% 68%					
					C			28.48-28.56m: Drilling disturbed; Band of sub-angular fine and medium chalk gravel with sub-angular fine to coarse flint gravel.			
29		D	29.00					28.87-29.00m: Sub-vertical undulating rough fracture with greyish brown staining of fracture surface.			29
		C	29.20 - 30.70			77%		29.20-29.50m: No recovery.			
						62% 59%					
		CS	29.60 - 29.83					29.50-29.60m: Band of angular and sub-angular fine to coarse flint gravel.			
		B	29.84 - 30.08		C						
30											30
								30.25-30.30m: Band of sub-angular and sub-rounded fine to coarse gravel and cobbles of flint.			
		D	30.50								
		C	30.70 - 32.20	C*143		100%					
		CPT	30.70 - 30.91			60% 33%					
31								30.89-30.96m: Band of angular and sub-angular fine to coarse flint gravel.			31
		B	31.13 - 31.32					31.12-31.32m: Sub-vertical undulating rough fracture.			
					C			31.35-31.42m: Band of angular and sub-angular fine to coarse flint gravel.			
									(7.35)		
								31.73-31.80m: Band of sub-angular coarse flint gravel.			
32		D	32.00					31.80-32.15m: Non intact zone with parallel very closely spaced sub-vertical stepped rough discontinuities intersecting closely spaced sub-horizontal to 20° undulating rough discontinuities.			32
		C	32.20 - 33.70			83%					
						40% 21%		32.40-32.50m: Flint cobble.			
								32.80-32.84m: Band of angular and sub-angular fine to coarse flint gravel.			
33					C						33
								33.06-33.20m: Drilling disturbed; recovered as silty gravel.			
		D	33.50								
		C	33.70 - 35.20	C*500		100%		33.70-33.75m: Band of sub-angular coarse flint gravel.			
		CPT	33.70 - 33.84			62% 32%					
34								34.05-34.15m: Band of silty sub-angular fine to coarse chalk gravel. Possibly drilling disturbed.			34
					C			34.15-34.25m: 80° undulating smooth brown stained fracture.			
								34.72-34.90m: Non intact zone with parallel very closely spaced sub-vertical stepped rough discontinuities intersecting very closely spaced sub-horizontal			
35		D	34.90								35

Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)
11/11/2015	28.20	25.50	0.80
12/11/2015	28.20	25.50	0.80

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Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494446 N 99713	Hole Type DS+RC
Location: Bognor Regis		Level: 1.18mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 05/11/2015 End: 05/11/2015	Logged By RS/DM

(m)	Water Levels	Core Run, Samples & Testing No/Type	Depth (m)	Result	Core Run & Sample	TCR SCR RQD	Install	Description	Depth (m)	Level (mAD)	Legend
		CPT	35.20 - 35.35	C*375	C			undulating rough discontinuities.			
								Borehole completed at 35.35m	35.35	-34.17	

36 37 38 39 40 41 42

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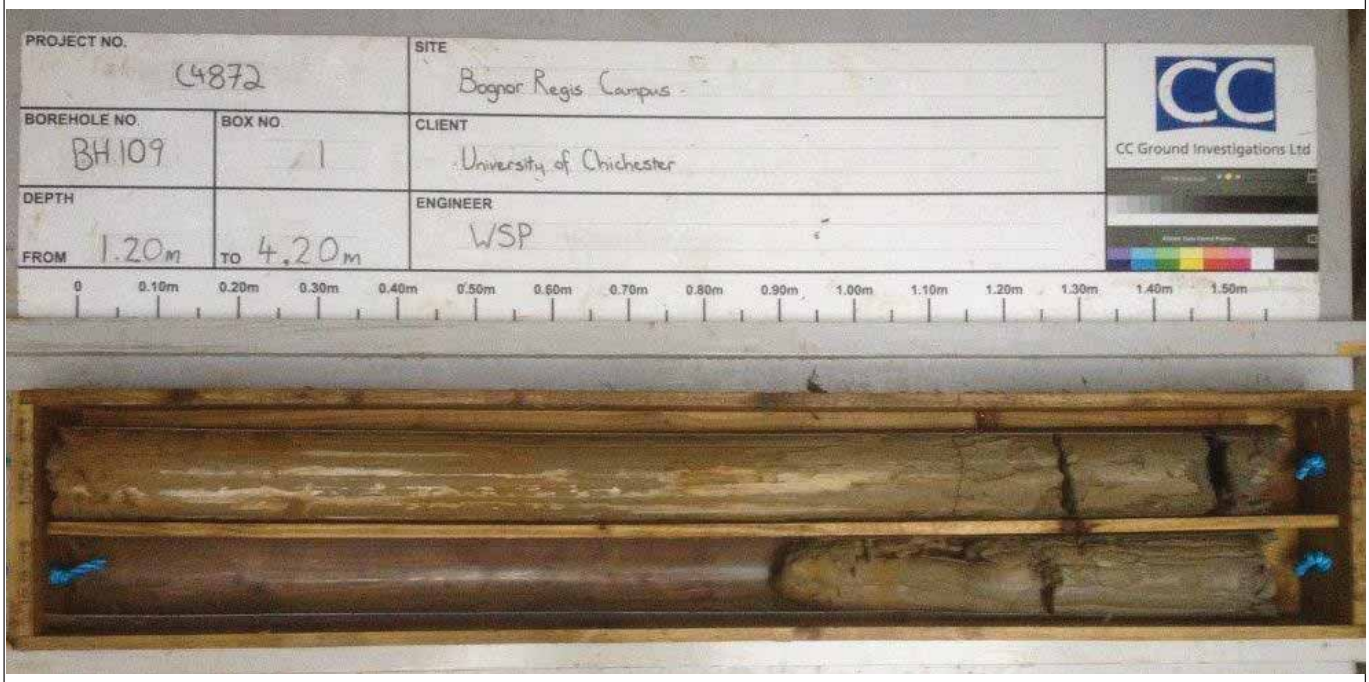
Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)
12/11/2015	35.35	27.50	0.40

Borehole Photograph





Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	BH109

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Borehole Photograph





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Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	BH109

Borehole Photograph



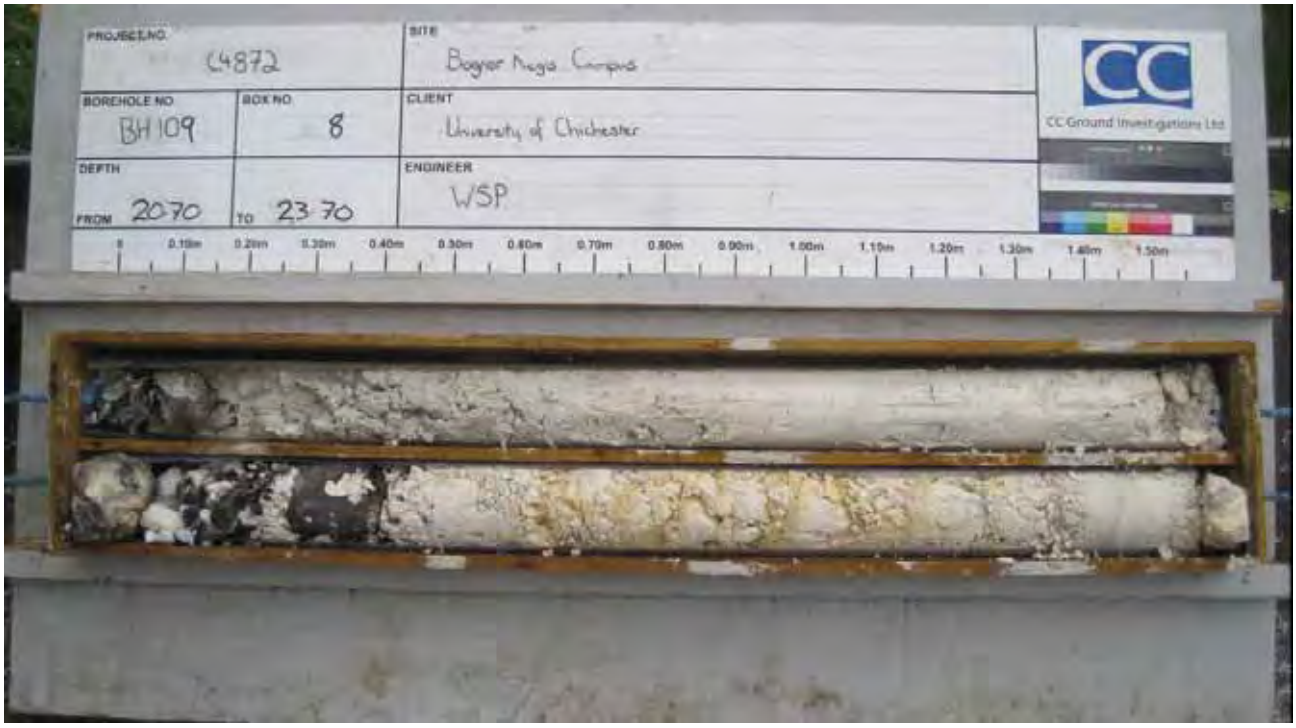


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Contract ID:	C4872
Client:	University of Chichester
Hole ID:	BH109

Borehole Photograph





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Borehole Photograph





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Client:	University of Chichester
Hole ID:	BH109

Borehole Photograph





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Client:	University of Chichester
Hole ID:	BH109

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BOREHOLE LOG

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Borehole No. **BH110**

Sheet 1 of 2

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494365 N 99726	Hole Type DS
Location: Bognor Regis		Level: 1.42mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 03/11/2015 End: 04/11/2015	Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Sample	Install	Description	Depth (m)	Level (mAD)	Legend
		ES	0.20				MADE GROUND: Stiff friable orangish brown mottled dark grey and reddish brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is sub-angular fine to medium brick with rare ash.	0.20	1.22	
		B	0.30							
		B	0.50	H 88			MADE GROUND: Stiff orangish brown mottled reddish brown slightly sandy slightly gravelly CLAY with occasional rootlets. Gravel is sub-angular fine to coarse of brick.	(0.60)		
		H						0.80	0.62	
1							Firm to stiff orangish brown slightly sandy silty CLAY. (Superficial Deposits)	(0.30)		1
		B	1.00	H 77				1.10	0.32	
		ES					Very soft light grey mottled orangish brown silty CLAY. (Superficial Deposits)			
		H	1.20							
		B	1.20 - 1.65							
		UT100						(0.95)		
		D	1.80	H 9						
2		H						2.05	-0.63	2
							Very soft to soft grey mottled orangish brown and black silty CLAY with occasional fine gravel sized partially decomposed organic fragments. (Superficial Deposits) 2.05-2.10m: With occasional fine gravel sized partially decomposed wood fragments.			
		D	2.50	H 17						
		H								
		ES	2.70	S<1						
		SPT	2.70 - 3.15							
3							3.20-3.60m: Orangish brown locally light grey mottled black.			3
								(2.85)		
		H	3.80	H 8						
4		D	4.00							4
		UT100	4.20 - 4.65							
								4.90	-3.48	
5							Very soft grey mottled black silty CLAY with occasional fine gravel sized partially decomposed organic fragments. (Superficial Deposits)			5
		D	5.50	H 7						
		H								
		SPT	5.70 - 6.15	S 7						
6										6

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REMARKS:

EQUIPMENT: Hand digging tools. Fraste PL multi purpose track mounted rig.
METHOD: Hand dug inspection pit: 0.00-1.20m. Continuous dynamic sampled (128mm diam) 1.20-7.20m.
GROUNDWATER: Water strike at 1.00m remained at 1.00m after 20 minutes monitoring period.
CASING: 160mm diam casing to 7.20m.
INSTALLATION: Bentonite pellet seal: 5.00-7.20m. 50mm ID HDPE slotted pipe with washed gravel response zone: 0.50-5.00m. 50mm ID HDPE plain pipe with bentonite pellet seal: 0.20-0.50m. Flush 150mm steel cover set in concrete 0.00-0.20m Gas valve fitted.

Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
03/11/15	1.00	Nil	1.00

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)

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BOREHOLE LOG

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Borehole No. **BH110**

Sheet 2 of 2

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494365 N 99726	Hole Type DS
Location: Bognor Regis		Level: 1.42mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 03/11/2015 End: 04/11/2015	Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Sample	Install	Description	Depth (m)	Level (mAD)	Legend
							Very soft grey mottled black silty CLAY with occasional fine gravel sized partially decomposed organic fragments. (Superficial Deposits) *(continued from previous sheet)*	(2.15)		
7		H	6.80	H 9						
		D	6.90							
		D	7.10					7.05	-5.63	
							Structureless CHALK composed of silty angular to sub-angular fine to coarse GRAVEL. Clasts are very weak, low and medium density white occasionally speckled black. (White Chalk Subgroup Grade Dc)	7.20	-5.78	
							Borehole completed at 7.20m.			
8										
9										
10										
11										
12										
13										

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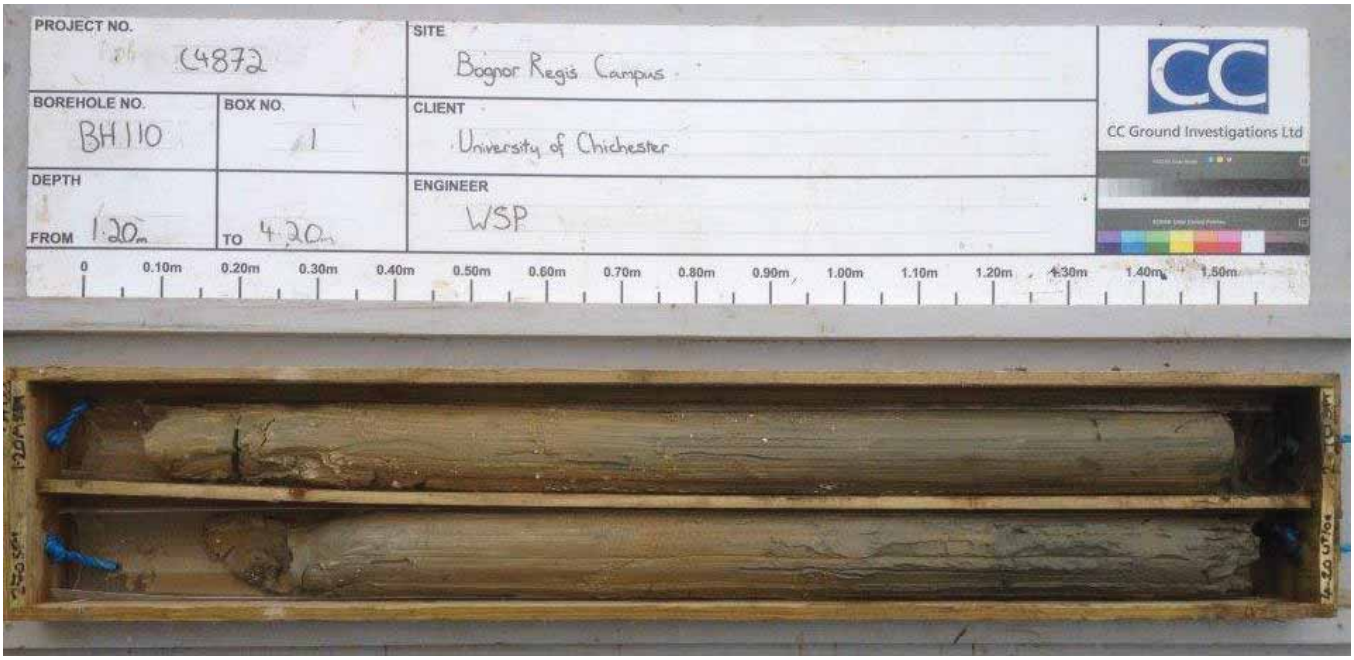
Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)
03/11/2015	7.20	7.20	1.10
04/11/2015	7.20	7.20	0.80
04/11/2015	7.20	7.20	0.80

Borehole Photograph





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Client:	University of Chichester
Hole ID:	BH110

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Borehole No. **BH111**

Sheet 1 of 2

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494371 N 99734	Hole Type DS
Location: Bognor Regis		Level: 1.44mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 02/11/2015 End: 03/11/2015	Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Sample	Install	Description	Depth (m)	Level (mAD)	Legend
							Stiff light brown slightly sandy CLAY with frequent rootlets.			
		B	0.30				Stiff orangish brown mottled light grey slightly sandy silty CLAY. (Superficial Deposits)	0.20	1.24	
		B	0.50	H 96				(0.40)		
		ES						0.60	0.84	
		H					Firm light brown mottled light grey slightly sandy silty CLAY. (Superficial Deposits)	(0.40)		
1		B	1.00	H 49				1.00	0.44	1
	1	H					Very soft light grey mottled orangish brown silty CLAY. (Superficial Deposits)			
		B	1.20	S<1						
	1	SPT	1.20 - 1.65							
		D	1.50					(1.30)		
2		H	2.00	H 20						2
								2.30	-0.86	
		D	2.50	H 17			Very soft grey mottled orangish brown and black silty CLAY with occasional fine gravel sized partially decomposed organic fragments. (Superficial Deposits)			
		H								
		SPT	2.70 - 3.15	S<1						
3										3
								(1.90)		
4		D	4.00							4
		SPT	4.20 - 4.65	S<1			Very soft grey mottled black silty CLAY with occasional fine gravel sized partially decomposed organic fragments. (Superficial Deposits)	4.20	-2.76	
								(1.40)		
5										5
		H	5.30	H 9			5.35-5.55m: With frequent medium to coarse gravel sized partially decomposed wood fragments.			
		D	5.50					5.60	-4.16	
		SPT	5.70 - 6.15	S 8			*(continued on next sheet)*			
6										6

DRAFT

REMARKS:

EQUIPMENT: Hand digging tools. Fraste PL multi purpose track mounted rig.
METHOD: Hand dug inspection pit: 0.00-1.20m. Continuous dynamic sampled (128mm diam) 1.20-11.70m.
GROUNDWATER: Groundwater struck at 1.50m rose to 1.30m after 20 minutes monitoring period.
CASING: SW to 10.20m.
INSTALLATION: 50mm ID HDPE slotted pipe with washed gravel response zone: 7.40-11.70m. 50mm ID HDPE plain pipe with bentonite pellet seal: 0.20-7.40m, and flush 150mm steel cover set in concrete: 0.00-0.20m Gas valve fitted.
REMARKS: Borehole scanned by UXO engineer at surface and at 5.70m.

Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)
02/11/15	1.50	Nil	1.30

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)

CC GROUND INVESTIGATIONS LTD

BOREHOLE LOG

Telephone: 01452 739165 , Fax: 01452 739220 , Email: info@ccground.co.uk

Borehole No. **BH111**

Sheet 2 of 2

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494371 N 99734	Hole Type DS
Location: Bognor Regis		Level: 1.44mAOD	Scale 1 : 37.50
Client: University of Chichester		Dates: Start: 02/11/2015 End: 03/11/2015	Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Sample	Install	Description	Depth (m)	Level (mAD)	Legend
							Structureless CHALK composed of silty angular and sub-angular fine to coarse GRAVEL. Clasts are very weak low and medium density white with occasional black speckling. (White Chalk Subgroup Grade Dc). *(continued from previous sheet)*	(2.50)		
7		D	7.00							7
		SPT	7.20 - 7.65	S 14						
8							Structureless CHALK composed of white gravelly SILT. Gravel is extremely weak and very weak low density white fine to coarse with occasional black speckling. (White Chalk Subgroup Grade Dm).	8.10 (0.40)	-6.66	8
		D	8.50				Structureless CHALK composed of slightly sandy silty sub-angular medium to coarse GRAVEL. Clasts are extremely to very weak, low to medium density white with occasional black speckling. (White Chalk Subgroup Grade Dc)	8.50	-7.06	
		SPT	8.70 - 9.15	S 11				(1.30)		
9							9.73-9.75m: Coarse gravel sized flint.	9.80	-8.36	9
							Very weak low to medium density white occasionally speckled black CHALK. Discontinuities are extremely to very closely spaced (10/20/40), clean and infilled (0/1/2) with off-white comminuted chalk. (White Chalk Subgroup Grade C4-5)	(1.10)		
10		D	10.00							10
		SPT	10.20 - 10.65	S 28						
11							Structureless CHALK composed of slightly sandy silty sub-angular medium to coarse GRAVEL. Clasts are extremely to very weak, low to medium density white occasionally speckled black. (White Chalk Subgroup Grade Dc)	10.90 (0.30) 11.20	-9.46 -9.76	11
		B	11.00				Very weak low to medium density white occasionally speckled black CHALK. Discontinuities are extremely to closely spaced (10/20/40), clean and infilled (0/1/2) with off-white comminuted chalk. (White Chalk Subgroup Grade C4-5)	(0.95)		
		D	11.50							
		SPT	11.70 - 12.15	S 25						
12							Borehole completed at 12.15m	12.15	-10.71	12
13										13

DRAFT

Groundwater:

Date	Strike Depth (m)	Casing Depth (m)	Depth After Observation (m)

Hole Progress:

Date	Hole Depth (m)	Casing Depth (m)	Water Depth (m)
02/11/2015	10.20	10.20	1.50
03/11/2015	10.20	10.20	1.00
03/11/2015	12.15	10.20	0.60

Borehole Photograph





CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	BH111

Borehole Photograph





CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	BH111

CC GROUND INVESTIGATIONS LTD

TRIAL PIT LOG

Telephone: 01452 739165 , Fax: 01452 739220 , Email: info@ccground.co.uk

Pit No **TP101**

Sheet 1 of 1

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494394 N 99578 Level: 2.89mAOD	Date 11/11/2015
Location: Bognor Regis		Dimensions: 2.00m Depth 3.20m 0.45m	Scale 1 : 37.5
Client: University of Chichester			Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Description	Depth (m)	Level (mAD)	Legend
		B	0.10		MADE GROUND: Soft brown mottled orangish brown, grey and white slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is sub-angular fine and medium brick, chalk and clay tile fragments.	0.25	2.64	
		B D	0.40		MADE GROUND: Soft orangish brown locally light grey and brown slightly sandy slightly gravelly CLAY with rare rootlets. Gravel is sub-angular fine clay tile fragments, rare ash and flint.	(1.05)		
1		B D H	1.30	H 47	Firm orangish brown mottled grey slightly sandy slightly gravelly CLAY. Gravel is sub-angular and sub-rounded fine to coarse flint. (Lambeth Group)	1.30	1.59	1
					Firm and stiff light grey mottled orangish brown, reddish brown and dark grey slightly sandy silty CLAY. (Lambeth Group)	1.50	1.39	
2		B D H	2.00	H 72		(1.00)		2
					Stiff locally very stiff light grey mottled orangish brown and reddish brown silty CLAY. (Lambeth Group)	2.50	0.39	
3	Dry	B D H	3.00	H 100		(0.70)		3
					Trial pit completed at 3.20m	3.20	-0.31	
4								4
5								5
6								6

DRAFT

REMARKS:

EQUIPMENT: JCB 3CX.

METHOD: Machine excavated using 0.45m toothless bucket.

GROUNDWATER: Groundwater not encountered.

BACKFILL: On completion, trial pit backfilled with arisings compacted in layers with the machine bucket.

REMARKS: Soakaway test carried out at 1.60m depth. Trial pit refused at 3.20m terminated.

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP101

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP101

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP101

Trial Pit Photograph



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Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP101

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP101

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SOAKAWAY TEST

Telephone: 01452 739165, Fax: 01452 739220, Email: info@ccground.co.uk

Pit No **TP101**

Sheet 1 of 1

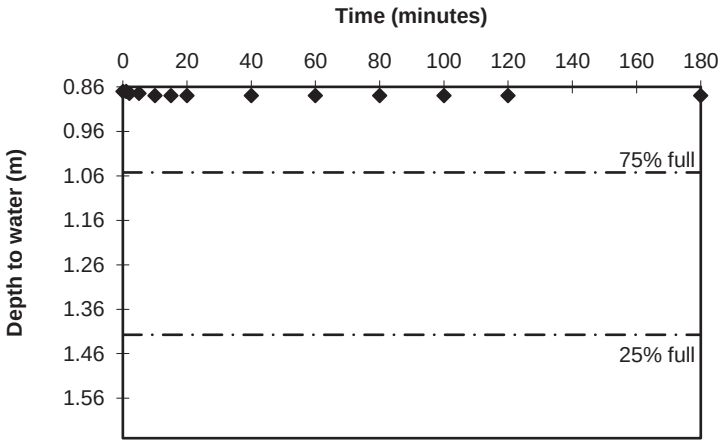
Project Name: University of Chichester Bognor Regis Campus	Project No: C4872	Co-ords: E N Level: mAD	11/11/2015
Location: Bognor Regis			Logged By DM
Client: WSP Remediation			Checked By MA

TEST 1:

LENGTH	1.60	m
BREADTH	0.45	m
DEPTH	1.60	m
WATER LEVEL	Dry	m
FILL LEVEL	0.87	m
v_{p75-25}		m^3
a_{p50}		m^2
t_{p75-25}		min

soil infiltration rate, *f* **ms^{-1}**

Insufficient soakaway to calculate infiltration rate



TEST 3:

LENGTH		m
BREADTH		m
DEPTH		m
WATER LEVEL		m
FILL LEVEL		m
v_{p75-25}		m^3
a_{p50}		m^2
t_{p75-25}		min

soil infiltration rate, *f* **ms^{-1}**

TEST 3:

LENGTH		m
BREADTH		m
DEPTH		m
WATER LEVEL		m
FILL LEVEL		m
v_{p75-25}		m^3
a_{p50}		m^2
t_{p75-25}		min

soil infiltration rate, *f* **ms^{-1}**

REMARKS:

Test carried out in general accordance with BRE 365 (2007).

CC Ground Investigations Ltd

DYNAMIC CONE PENETROMETER TESTING

CLIENT: Univeristy of Chichester

SITE: University of Chichester - Bognor Regis Campus

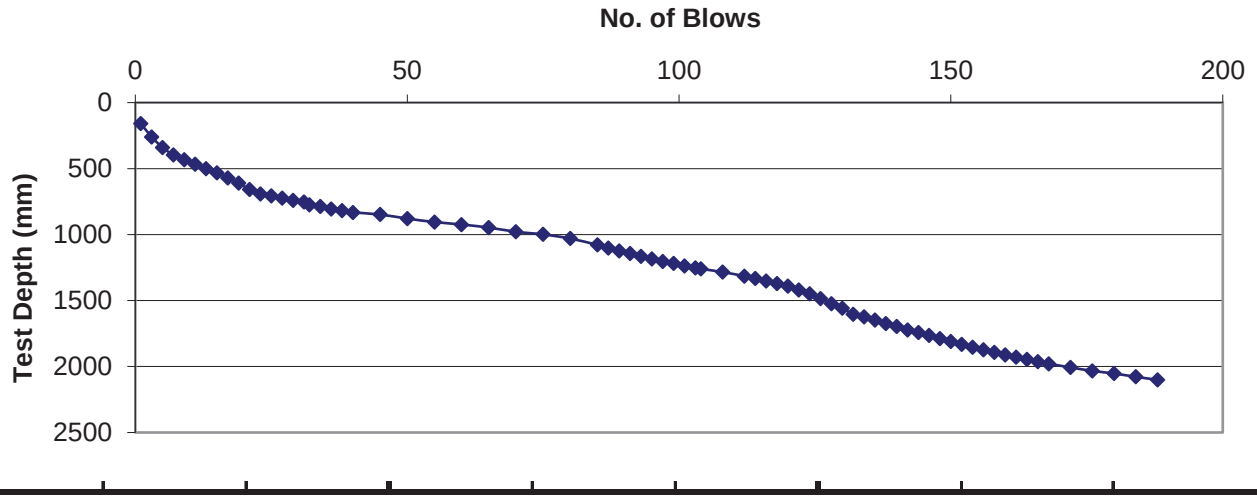
Test No. **DCP - 101**

Date: 18/11/2015

DCP Start Depth: (m) 0.00

DCP Completion Depth: (m) 2.1

No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm
2	1	158	5	75	999	2	138	1674
2	3	260	5	80	1030	2	140	1697
2	5	340	5	85	1079	2	142	1722
2	7	397	2	87	1103	2	144	1743
2	9	433	2	89	1124	2	146	1765
2	11	467	2	91	1144	2	148	1788
2	13	500	2	93	1165	2	150	1810
2	15	533	2	95	1184	2	152	1832
2	17	570	2	97	1203	2	154	1853
2	19	610	2	99	1219	2	156	1873
2	21	658	2	101	1237	2	158	1893
2	23	692	2	103	1253	2	160	1912
2	25	706	1	104	1260	2	162	1930
2	27	725	4	108	1284	2	164	1947
2	29	741	4	112	1315	2	166	1964
2	31	754	2	114	1333	2	168	1979
1	32	774	2	116	1351	4	172	2007
2	34	788	2	118	1371	4	176	2033
2	36	806	2	120	1391	4	180	2053
2	38	819	2	122	1419	4	184	2078
2	40	832	2	124	1450	4	188	2101
5	45	848	2	126	1485			
5	50	879	2	128	1523			
5	55	905	2	130	1558			
5	60	924	2	132	1603			
5	65	947	2	134	1623			
5	70	979	2	136	1648			



Remarks:

Instrument used : Transport Research Laboratory Dynamic Cone Penetrometer (TRL-DCP)

CONTRACT
C4872

CC GROUND INVESTIGATIONS LIMITED

DYNAMIC CONE PENETROMETER TESTING

CLIENT Univeristy of Chichester

SITE University of Chichester - Bognor Regis Campus

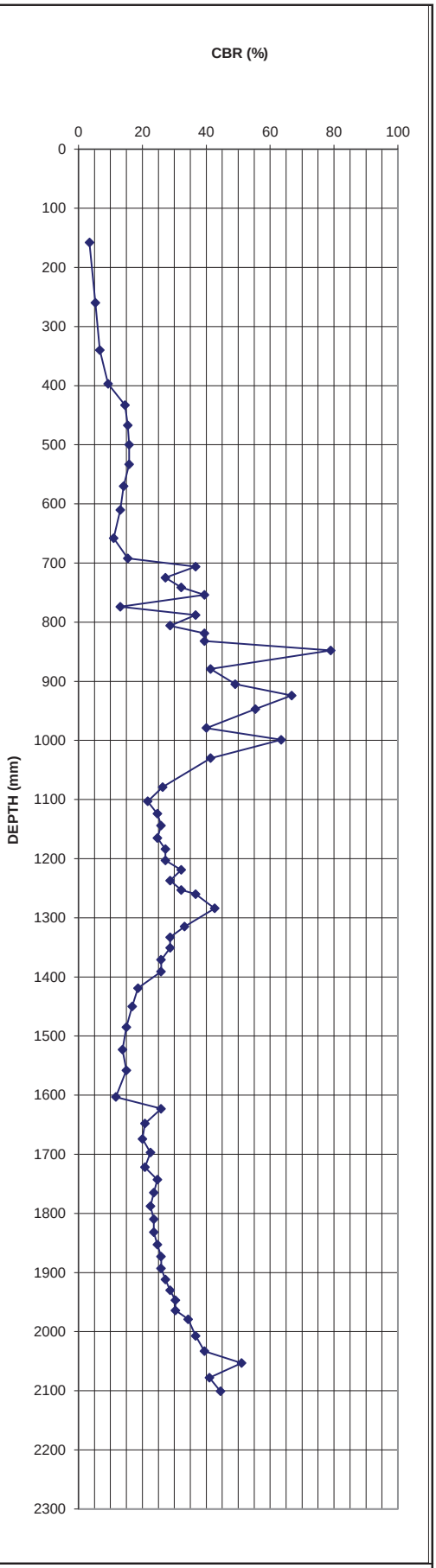
Test No. **DCP - 101**

Date: 18/11/2015

Initial scale reading (mm) 60

Datum - below ground level (bgl) (mm) 0

no. of Blows	scale reading (mm)	penetration - bgl (mm)	DCP (mm/blow)	CBR (%)
2	218	158	79	3.4
2	320	260	51	5.2
2	400	340	40	6.6
2	457	397	29	9.3
2	493	433	18	14.5
2	527	467	17	15.4
2	560	500	17	15.8
2	593	533	17	15.8
2	630	570	19	14.2
2	670	610	20	13.1
2	718	658	24	11.0
2	752	692	17	15.4
2	766	706	7	36.7
2	785	725	10	27.2
2	801	741	8	32.2
2	814	754	7	39.4
1	834	774	20	13.1
2	848	788	7	36.7
2	866	806	9	28.7
2	879	819	7	39.4
2	892	832	7	39.4
5	908	848	3	79.0
5	939	879	6	41.3
5	965	905	5	49.1
5	984	924	4	66.8
5	1007	947	5	55.4
5	1039	979	6	40.1
5	1059	999	4	63.5
5	1090	1030	6	41.3
5	1139	1079	10	26.4
2	1163	1103	12	21.6
2	1184	1124	11	24.7
2	1204	1144	10	25.9
2	1225	1165	11	24.7
2	1244	1184	10	27.2
2	1263	1203	10	27.2
2	1279	1219	8	32.2
2	1297	1237	9	28.7
2	1313	1253	8	32.2
1	1320	1260	7	36.7
4	1344	1284	6	42.7
4	1375	1315	8	33.2
2	1393	1333	9	28.7
2	1411	1351	9	28.7
2	1431	1371	10	25.9
2	1451	1391	10	25.9
2	1479	1419	14	18.6
2	1510	1450	16	16.8
2	1545	1485	18	14.9
2	1583	1523	19	13.8
2	1618	1558	18	14.9
2	1663	1603	23	11.7
2	1683	1623	10	25.9
2	1708	1648	13	20.8
2	1734	1674	13	20.0
2	1757	1697	12	22.6
2	1782	1722	13	20.8
2	1803	1743	11	24.7
2	1825	1765	11	23.6
2	1848	1788	12	22.6
2	1870	1810	11	23.6
2	1892	1832	11	23.6
2	1913	1853	11	24.7
2	1933	1873	10	25.9
2	1953	1893	10	25.9
2	1972	1912	10	27.2
2	1990	1930	9	28.7
2	2007	1947	9	30.3
2	2024	1964	9	30.3
2	2039	1979	8	34.3
4	2067	2007	7	36.7
4	2093	2033	7	39.4
4	2113	2053	5	51.0
4	2138	2078	6	41.0
4	2161	2101	6	44.5



REMARKS: CBR correlation based on correlation from Figure 4 of TRL Report TRL587 (2003) CBR = $247DCP^{-0.98}$

CONTRACT

C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

CC GROUND INVESTIGATIONS LTD

TRIAL PIT LOG

Telephone: 01452 739165 , Fax: 01452 739220 , Email: info@ccground.co.uk

Pit No **TP102**

Sheet 1 of 1

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494436 N 99611 Level: 1.93mAOD	Date 11/11/2015
Location: Bognor Regis		Dimensions: 2.00m Depth 3.50m, 0.45m	Scale 1 : 37.5
Client: University of Chichester			Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Description	Depth (m)	Level (mAD)	Legend
					Soft light grey mottled orangish brown silty CLAY with frequent rootlets. (Topsoil)	(0.30)		
		B	0.40		Grey mottled orangish brown slightly sandy very clayey GRAVEL. Gravel is sub-angular and sub-rounded fine and medium flint. (Superficial Deposits)	0.30	1.63	
		B D H	0.70	H 58	Firm orangish brown and light grey slightly sandy slightly gravelly silty CLAY. Gravel is sub-angular and sub-rounded fine to coarse flint. (Superficial Deposits)	0.50	1.43	
1					1.00-1.50m: Stiff.	(1.00)		1
		B D	1.70		Soft light grey and orangish brown slightly sandy gravelly CLAY with rare 2mm thick sand lenses. Gravel is sub-angular and sub-rounded fine to coarse flint. Medium cobble content of flint. (Superficial Deposits)	1.50	0.43	
2						(0.70)		2
		B D H	2.50	H 90	Stiff light grey mottled orangish brown and reddish brown slightly sandy silty CLAY with occasional 2mm thick sand lenses. (Superficial Deposits)	2.20	-0.27	
	Seepage					(0.60)		
3		B D H	3.00	H 60	Firm light grey silty CLAY with occasional vertical decomposed organic fragments up to 50mm long x 2mm diameter (Superficial Deposits)	2.80	-0.87	3
						(0.70)		
		D	3.50		Trial pit completed at 3.50m	3.50	-1.57	
4								4
5								5
6								6

DRAFT

REMARKS:

EQUIPMENT: JCB 3CX.

METHOD: Machine excavated using 0.45m toothless bucket.

GROUNDWATER: Seepage noted at 2.80m.

BACKFILL: On completion, trial pit backfilled with arisings compacted in layers with the machine bucket.

REMARKS: Trial pit terminated at 3.50m.

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP102

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP102

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP102

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP102

Trial Pit Photograph



Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP102

CC Ground Investigations Ltd

CC Ground Investigations Ltd

DCP - TRL Probe

CLIENT: Univeristy of Chichester

SITE: University of Chichester - Bognor Regis Campus

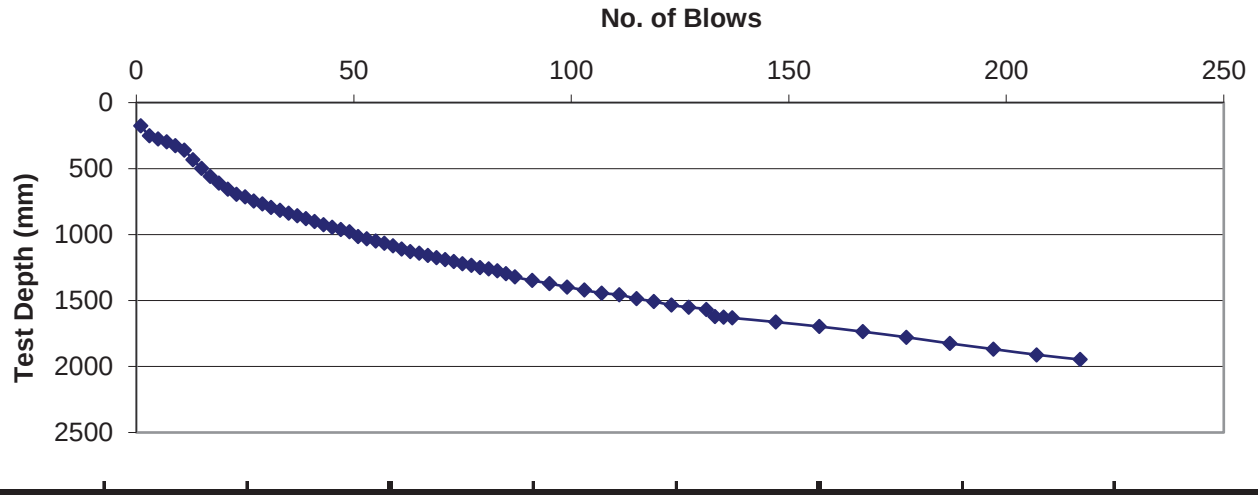
Test No. **DCP - 102**

Date: 18/11/2015

DCP Start Depth: (m) 0.00

DCP Completion Depth: (m) 0

No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm
2	1	175	2	55	1050	4	131	1568
2	3	250	2	57	1067	2	133	1621
2	5	275	2	59	1085	2	135	1627
2	7	298	2	61	1109	2	137	1632
2	9	325	2	63	1128	10	147	1663
2	11	360	2	65	1141	10	157	1697
2	13	432	2	67	1158	10	167	1736
2	15	499	2	69	1174	10	177	1778
2	17	559	2	71	1190	10	187	1825
2	19	609	2	73	1205	10	197	1868
2	21	655	2	75	1220	10	207	1911
2	23	695	2	77	1234	10	217	1947
2	25	715	2	79	1249			
2	27	745	2	81	1261			
2	29	767	2	83	1275			
2	31	794	2	85	1295			
2	33	815	2	87	1321			
2	35	837	4	91	1348			
2	37	858	4	95	1371			
2	39	880	4	99	1397			
2	41	901	4	103	1421			
2	43	925	4	107	1444			
2	45	944	4	111	1456			
2	47	962	4	115	1486			
2	49	979	4	119	1507			
2	51	1014	4	123	1535			
2	53	1031	4	127	1551			



Remarks:

Instrument used : Transport Research Laboratory Dynamic Cone Penetrometer (TRL-DCP)

CONTRACT
C4872

CC GROUND INVESTIGATIONS LIMITED

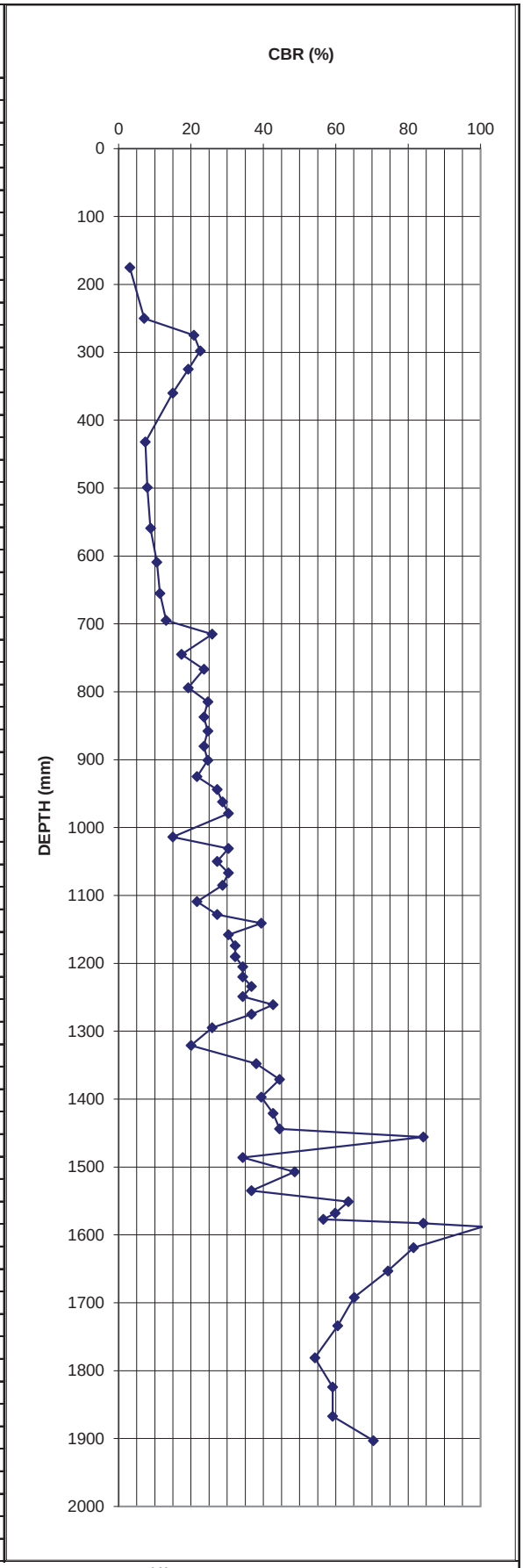
DYNAMIC CONE PENETROMETER TESTING

CLIENT Univeristy of Chichester **Test No.** **DCP - 102**

SITE University of Chichester - Bognor Regis Campus **Date:** 18/11/2015

Initial scale reading (mm) 155 Datum - below ground level (bgl) (mm) 0

no. of Blows	scale reading (mm)	penetration - bgl (mm)	DCP (mm/blow)	CBR (%)
2	330	175	88	3.1
2	405	250	38	7.1
2	430	275	13	20.8
2	453	298	12	22.6
2	480	325	14	19.3
2	515	360	18	14.9
2	587	432	36	7.4
2	654	499	34	7.9
2	714	559	30	8.8
2	764	609	25	10.5
2	810	655	23	11.4
2	850	695	20	13.1
2	870	715	10	25.9
2	900	745	15	17.4
2	922	767	11	23.6
2	949	794	14	19.3
2	970	815	11	24.7
2	992	837	11	23.6
2	1013	858	11	24.7
2	1035	880	11	23.6
2	1056	901	11	24.7
2	1080	925	12	21.6
2	1099	944	10	27.2
2	1117	962	9	28.7
2	1134	979	9	30.3
2	1169	1014	18	14.9
2	1186	1031	9	30.3
2	1205	1050	10	27.2
2	1222	1067	9	30.3
2	1240	1085	9	28.7
2	1264	1109	12	21.6
2	1283	1128	10	27.2
2	1296	1141	7	39.4
2	1313	1158	9	30.3
2	1329	1174	8	32.2
2	1345	1190	8	32.2
2	1360	1205	8	34.3
2	1375	1220	8	34.3
2	1389	1234	7	36.7
2	1404	1249	8	34.3
2	1416	1261	6	42.7
2	1430	1275	7	36.7
2	1450	1295	10	25.9
2	1476	1321	13	20.0
4	1503	1348	7	38.0
4	1526	1371	6	44.5
4	1552	1397	7	39.4
4	1576	1421	6	42.7
4	1599	1444	6	44.5
4	1611	1456	3	84.2
4	1641	1486	8	34.3
4	1662	1507	5	48.6
4	1690	1535	7	36.7
4	1706	1551	4	63.5
4	1723	1568	4	59.8
2	1732	1577	5	56.6
2	1738	1583	3	84.2
2	1743	1588	3	100.6
10	1774	1619	3	81.5
10	1808	1653	3	74.4
10	1847	1692	4	65.1
10	1889	1734	4	60.5
10	1936	1781	5	54.2
10	1979	1824	4	59.1
10	2022	1867	4	59.1
10	2058	1903	4	70.4



REMARKS: CBR correlation based on correlation from Figure 4 of TRL Report TRL587 (2003) $CBR = 247DCP^{-0.98}$

CONTRACT

C4872

CC GROUND INVESTIGATIONS LTD

TRIAL PIT LOG

Telephone: 01452 739165 , Fax: 01452 739220 , Email: info@ccground.co.uk

Pit No **TP103**

Sheet 1 of 1

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494411 N 99653 Level: 1.41mAOD	Date 10/11/2015
Location: Bognor Regis		Dimensions: 2.00m Depth 4.00m, 0.45m	Scale 1 : 37.5
Client: University of Chichester			Logged By RS

(m)	Water Levels	Samples & In Situ Testing: No/Type	Depth (m)	Result	Description	Depth (m)	Level (mAD)
		ES	0.05		MADE GROUND: Soft dark brown slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is sub-angular fine clay tile fragments.	0.20	1.21
		B D ES	0.30		Stiff orangish brown mottled light grey slightly sandy silty CLAY with occasional rootlets. (Superficial Deposits)	(0.30) 0.50	0.91
		B D H	0.70	H 10	Firm and stiff orangish brown and light grey silty CLAY. (Superficial Deposits)	(0.30) 0.80	0.61
1		B D H	1.00	H 14	Soft light grey mottled orangish brown silty CLAY. (Superficial Deposits)	(0.60)	
		B D ES H	1.50	H 61	Very soft light grey mottled orangish brown silty CLAY. (Superficial Deposits) Firm grey mottled orangish brown silty CLAY. (Superficial Deposits)	1.40 1.55 (0.65)	0.01 -0.14
2		B D H	2.00	H 10	Very soft grey mottled black slightly sandy silty CLAY with occasional decomposed organic fragments. (Superficial Deposits)	2.20	-0.79
3		B D H	3.00	H 15		(1.80)	
4	Dry	H	4.00	H 15	Trial pit completed at 4.00m	4.00	-2.59
5							
6							

DRAFT

REMARKS:

EQUIPMENT: JCB 3CX.

METHOD: Machine excavated using 0.45m toothless bucket.

GROUNDWATER: Groundwater not encountered.

BACKFILL: On completion, trial pit backfilled with arisings compacted in layers with the machine bucket.

REMARKS: Soakaway test carried out at 1.55m depth. Trial pit terminated at 4.00m.

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP103

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP103

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP103

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP103

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP103

CC GROUND INVESTIGATIONS LTD

SOAKAWAY TEST

Telephone: 01452 739165, Fax: 01452 739220, Email: info@ccground.co.uk

Pit No **TP103**

Sheet 1 of 1

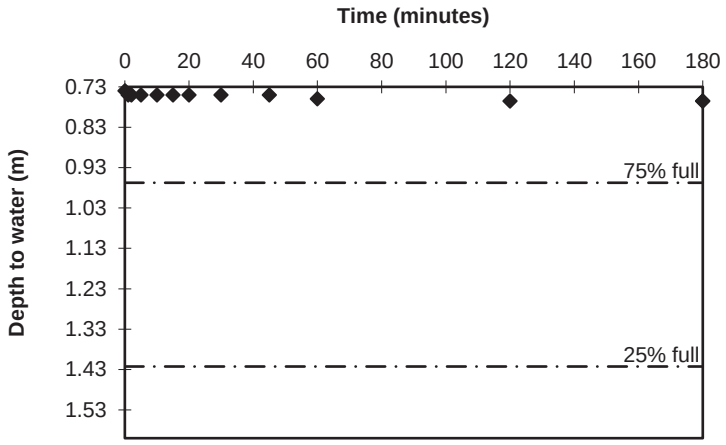
Project Name: University of Chichester Bognor Regis Campus	Project No: C4872	Co-ords: E N Level: mAD	11/11/2015
Location: Bognor Regis			Logged By DM
Client: WSP Remediation			Checked By MA

TEST 1:

LENGTH	1.60	m
BREADTH	0.45	m
DEPTH	1.65	m
WATER LEVEL	Dry	m
FILL LEVEL	0.74	m
v_{p75-25}		m^3
a_{p50}		m^2
t_{p75-25}		min

soil infiltration rate, *f* **ms^{-1}**

Insufficient soakaway to calculate infiltration rate



TEST 2:

LENGTH		m
BREADTH		m
DEPTH		m
WATER LEVEL		m
FILL LEVEL		m
v_{p75-25}		m^3
a_{p50}		m^2
t_{p75-25}		min

soil infiltration rate, *f* **ms^{-1}**

TEST 3:

LENGTH		m
BREADTH		m
DEPTH		m
WATER LEVEL		m
FILL LEVEL		m
v_{p75-25}		m^3
a_{p50}		m^2
t_{p75-25}		min

soil infiltration rate, *f* **ms^{-1}**

REMARKS:

Test carried out in general accordance with BRE 365 (2007).

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TRIAL PIT LOG

Telephone: 01452 739165 , Fax: 01452 739220 , Email: info@ccground.co.uk

Pit No **TP104**

Sheet 1 of 1

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494398 N 99676 Level: 1.36mAOD	Date 10/11/2015
Location: Bognor Regis		Dimensions: 2.00m Depth 4.00m 0.45m	Scale 1 : 37.5
Client: University of Chichester			Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Description	Depth (m)	Level (mAD)	Legend
					MADE GROUND: Firm friable brown slightly sandy CLAY with frequent rootlets and rare gravel sized blue and white porcelain fragments.	(0.30)		
					Firm orangish brown mottled light grey silty CLAY. (Superficial Deposits)	0.30	1.06	
		B D H	0.50	H 60		(0.50)		
					Soft light grey mottled orangish brown silty CLAY. (Superficial Deposits)	0.80	0.56	
1		B D H	1.00	H 28		(0.50)		1
					Very soft grey mottled orangish brown and black silty CLAY. (Superficial Deposits)	1.30	0.06	
		B D H	1.50	H 16		(1.20)		
2								2
					Very soft grey mottled black silty CLAY. (Superficial Deposits)	2.50	-1.14	
3		B D H	3.00	H 12		(1.50)		3
4	Dry				Trial pit completed at 4.00m	4.00	-2.64	4
5								5
6								6

DRAFT

REMARKS:

EQUIPMENT: JCB 3CX.

METHOD: Machine excavated using 0.45m toothless bucket.

GROUNDWATER: Groundwater not encountered.

BACKFILL: On completion, trial pit backfilled with arisings compacted in layers with the machine bucket.

REMARKS: Trial pit terminated at 4.00m.

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP104

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP104

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP104

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP104

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP104

CC Ground Investigations Ltd

DYNAMIC CONE PENETROMETER TESTING

CLIENT: Univeristy of Chichester

SITE: University of Chichester - Bognor Regis Campus

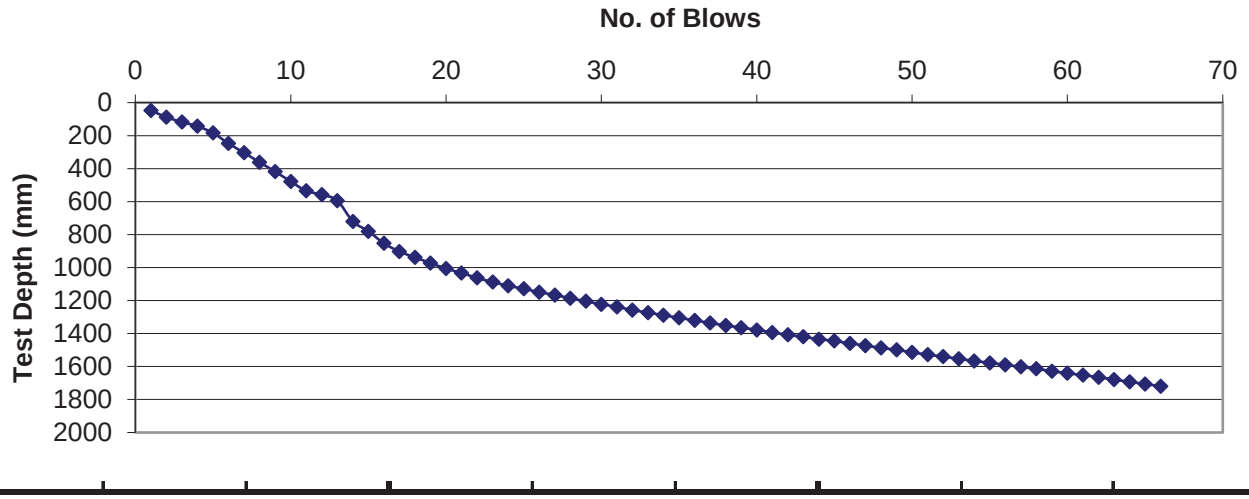
Test No. **DCP - 104**

Date: 18/11/2015

DCP Start Depth: (m) 0.00

DCP Completion Depth: (m) 1.87

No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm
1	1	48	1	28	1186	1	55	1578
1	2	88	1	29	1204	1	56	1590
1	3	118	1	30	1223	1	57	1602
1	4	143	1	31	1238	1	58	1614
1	5	184	1	32	1258	1	59	1628
1	6	248	1	33	1273	1	60	1641
1	7	304	1	34	1289	1	61	1652
1	8	362	1	35	1305	1	62	1665
1	9	418	1	36	1320	1	63	1679
1	10	478	1	37	1336	1	64	1693
1	11	535	1	38	1351	1	65	1706
1	12	558	1	39	1364	1	66	1720
1	13	594	1	40	1378	1	67	1734
1	14	720	1	41	1393	1	68	1748
1	15	780	1	42	1408	1	69	1762
1	16	853	1	43	1420	1	70	1776
1	17	903	1	44	1434	2	72	1804
1	18	938	1	45	1445	2	74	1833
1	19	973	1	46	1460	2	76	1859
1	20	1006	1	47	1473	2	78	1888
1	21	1033	1	48	1487	2	80	1927
1	22	1063	1	49	1499	2	82	1951
1	23	1088	1	50	1514	2	84	1974
1	24	1110	1	51	1528	2	86	1997
1	25	1129	1	52	1540	2	88	2019
1	26	1149	1	53	1553	2	90	2041
1	27	1166	1	54	1566	2	92	2065



Remarks:

Instrument used : Transport Research Laboratory Dynamic Cone Penetrometer (TRL-DCP)

CONTRACT
C4872

CC GROUND INVESTIGATIONS LIMITED

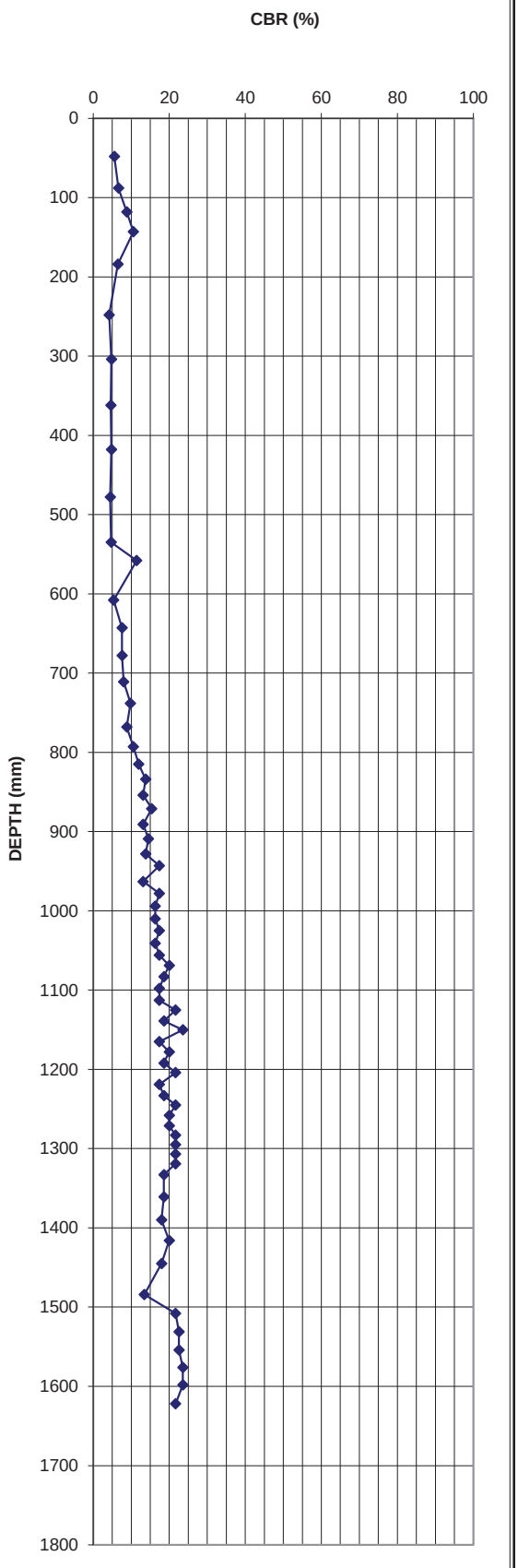
DYNAMIC CONE PENETROMETER TESTING

CLIENT Univeristy of Chichester **Test No.** **DCP - 104**

SITE University of Chichester - Bognor Regis Campus **Date:** 18/11/2015

Initial scale reading (mm) 2 Datum - below ground level (bgl) (mm) 0

no. of Blows	scale reading (mm)	penetration - bgl (mm)	DCP (mm/blow)	CBR (%)
1	50	48	48	5.6
1	90	88	40	6.6
1	120	118	30	8.8
1	145	143	25	10.5
1	186	184	41	6.5
1	250	248	64	4.2
1	306	304	56	4.8
1	364	362	58	4.6
1	420	418	56	4.8
1	480	478	60	4.5
1	537	535	57	4.7
1	560	558	23	11.4
1	610	608	50	5.3
1	645	643	35	7.6
1	680	678	35	7.6
1	713	711	33	8.0
1	740	738	27	9.8
1	770	768	30	8.8
1	795	793	25	10.5
1	817	815	22	11.9
1	836	834	19	13.8
1	856	854	20	13.1
1	873	871	17	15.4
1	893	891	20	13.1
1	911	909	18	14.5
1	930	928	19	13.8
1	945	943	15	17.4
1	965	963	20	13.1
1	980	978	15	17.4
1	996	994	16	16.3
1	1012	1010	16	16.3
1	1027	1025	15	17.4
1	1043	1041	16	16.3
1	1058	1056	15	17.4
1	1071	1069	13	20.0
1	1085	1083	14	18.6
1	1100	1098	15	17.4
1	1115	1113	15	17.4
1	1127	1125	12	21.6
1	1141	1139	14	18.6
1	1152	1150	11	23.6
1	1167	1165	15	17.4
1	1180	1178	13	20.0
1	1194	1192	14	18.6
1	1206	1204	12	21.6
1	1221	1219	15	17.4
1	1235	1233	14	18.6
1	1247	1245	12	21.6
1	1260	1258	13	20.0
1	1273	1271	13	20.0
1	1285	1283	12	21.6
1	1297	1295	12	21.6
1	1309	1307	12	21.6
1	1321	1319	12	21.6
1	1335	1333	14	18.6
2	1363	1361	14	18.6
2	1392	1390	15	18.0
2	1418	1416	13	20.0
2	1447	1445	15	18.0
2	1486	1484	20	13.4
2	1510	1508	12	21.6
2	1533	1531	12	22.6
2	1556	1554	12	22.6
2	1578	1576	11	23.6
2	1600	1598	11	23.6
2	1624	1622	12	21.6



REMARKS: CBR correlation based on correlation from Figure 4 of TRL Report TRL587 (2003) CBR = $247DCP^{-0.98}$

CONTRACT

C4872

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TRIAL PIT LOG

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Pit No **TP105**

Sheet 1 of 1

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494375 N 99720 Level: 1.40mAOD	Date 11/11/2015
Location: Bognor Regis		Dimensions: 1.90m Depth 3.70m 0.45m	Scale 1 : 37.5
Client: University of Chichester			Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Description	Depth (m)	Level (mAD)	Legend
					MADE GROUND: Firm friable brown mottled reddish brown and grey slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is sub-angular fine brick and flint.	(0.30)		
					Firm light grey mottled orangish brown silty CLAY. (Superficial Deposits)	0.30	1.10	
		B D H	0.50	H 52		(0.90)		
1	Seepage							1
					Very soft light grey mottled orangish brown silty CLAY. (Superficial Deposits)	1.20	0.20	
		B D H	1.50	H 16		(0.90)		
2								2
					Very soft grey mottled black slightly sandy silty CLAY with occasional decomposed organic fragments. (Superficial Deposits)	2.10	-0.70	
	Seepage	B D H	2.50	H 14		(1.60)		
3								3
		B D H	3.50	H 13				
					Trial pit completed at 3.70m	3.70	-2.30	
4								4
5								5
6								6

DRAFT

REMARKS:

EQUIPMENT: JCB 3CX.

METHOD: Machine excavated using 0.45m toothless bucket.

GROUNDWATER: Seepage noted at 1.00m and 2.50m.

BACKFILL: On completion, trial pit backfilled with arisings compacted in layers with the machine bucket.

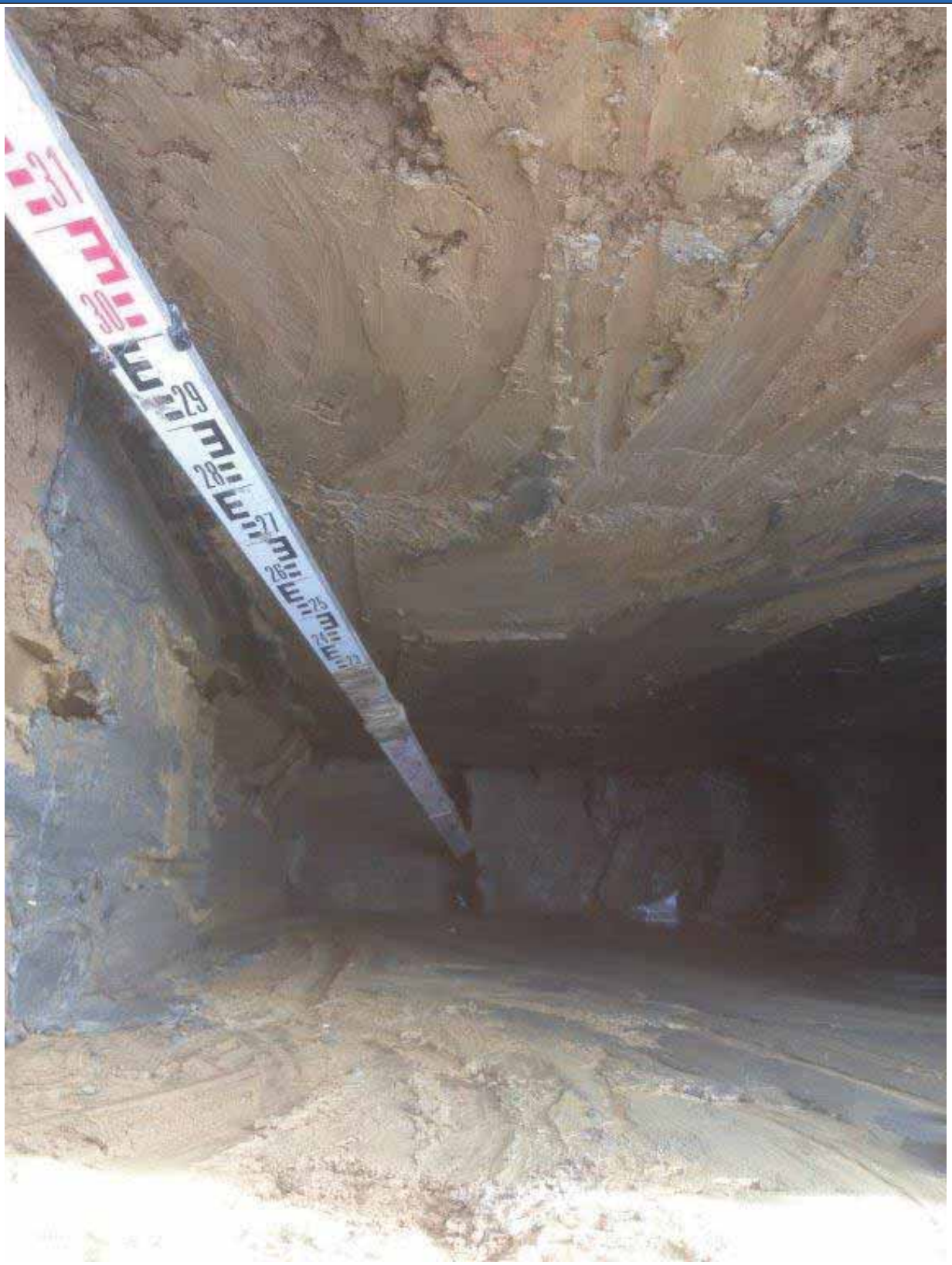
REMARKS: Trial pit terminated at 3.70m.

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP105

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP105

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP105

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP105

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP105

CC Ground Investigations Ltd

DYNAMIC CONE PENETROMETER TESTING

CLIENT: Univeristy of Chichester

SITE: University of Chichester - Bognor Regis Campus

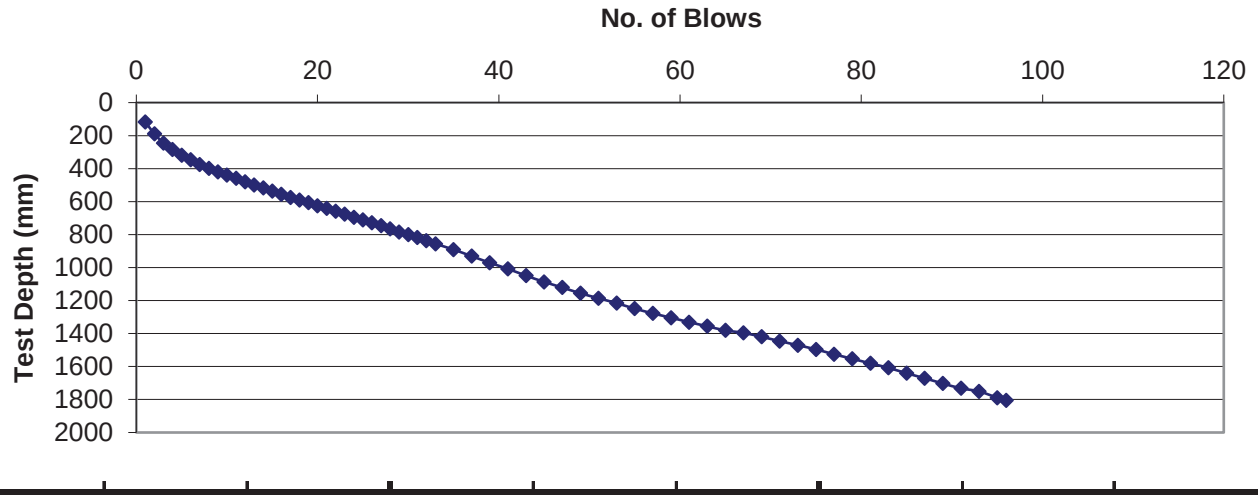
Test No. **DCP - 105**

Date: 18/11/2015

DCP Start Depth: (m) 0.00

DCP Completion Depth: (m) 1.81

No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm
1	1	117	1	28	765	2	77	1526
1	2	190	1	29	785	2	79	1553
1	3	245	1	30	800	2	81	1581
1	4	285	1	31	817	2	83	1608
1	5	320	1	32	837	2	85	1641
1	6	347	1	33	856	2	87	1671
1	7	375	2	35	891	2	89	1703
1	8	398	2	37	931	2	91	1732
1	9	420	2	39	971	2	93	1751
1	10	440	2	41	1008	2	95	1789
1	11	459	2	43	1049	1	96	1806
1	12	480	2	45	1087			
1	13	500	2	47	1121			
1	14	517	2	49	1156			
1	15	536	2	51	1186			
1	16	555	2	53	1216			
1	17	575	2	55	1249			
1	18	591	2	57	1278			
1	19	607	2	59	1304			
1	20	625	2	61	1331			
1	21	642	2	63	1356			
1	22	659	2	65	1381			
1	23	676	2	67	1396			
1	24	695	2	69	1420			
1	25	712	2	71	1446			
1	26	729	2	73	1471			
1	27	745	2	75	1496			



Remarks:

Instrument used : Transport Research Laboratory Dynamic Cone Penetrometer (TRL-DCP)

CONTRACT
C4872

CC GROUND INVESTIGATIONS LIMITED

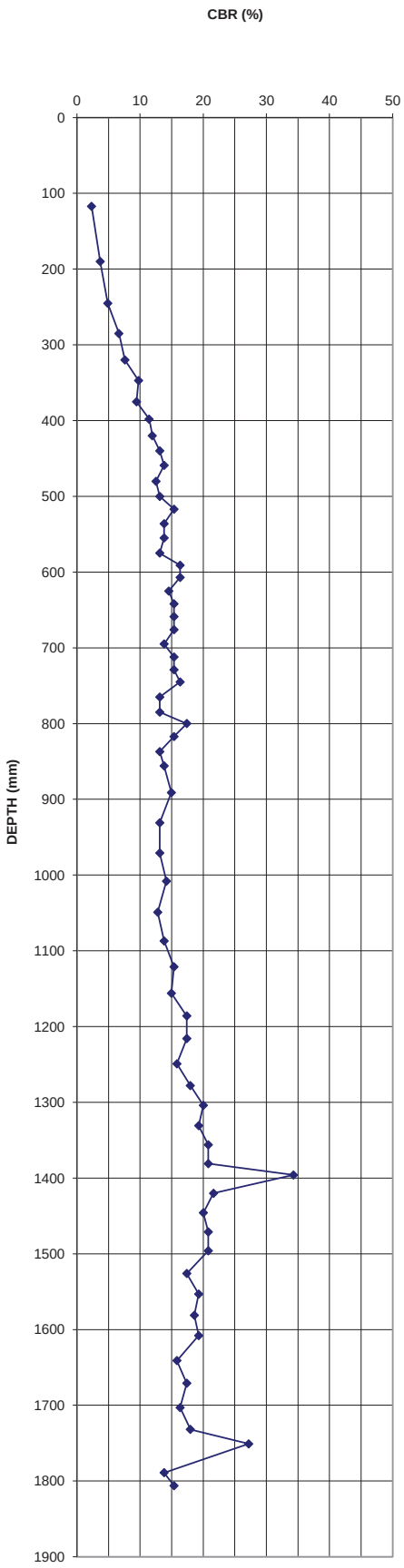
DYNAMIC CONE PENETROMETER TESTING

CLIENT Univeristy of Chichester **Test No.** **DCP - 105**

SITE University of Chichester - Bognor Regis Campus **Date:** 18/11/2015

Initial scale reading (mm) 5 Datum - below ground level (bgl) (mm) 0

no. of Blows	scale reading (mm)	penetration - bgl (mm)	DCP (mm/blow)	CBR (%)
1	122	117	117	2.3
1	195	190	73	3.7
1	250	245	55	4.9
1	290	285	40	6.6
1	325	320	35	7.6
1	352	347	27	9.8
1	380	375	28	9.4
1	403	398	23	11.4
1	425	420	22	11.9
1	445	440	20	13.1
1	464	459	19	13.8
1	485	480	21	12.5
1	505	500	20	13.1
1	522	517	17	15.4
1	541	536	19	13.8
1	560	555	19	13.8
1	580	575	20	13.1
1	596	591	16	16.3
1	612	607	16	16.3
1	630	625	18	14.5
1	647	642	17	15.4
1	664	659	17	15.4
1	681	676	17	15.4
1	700	695	19	13.8
1	717	712	17	15.4
1	734	729	17	15.4
1	750	745	16	16.3
1	770	765	20	13.1
1	790	785	20	13.1
1	805	800	15	17.4
1	822	817	17	15.4
1	842	837	20	13.1
1	861	856	19	13.8
2	896	891	18	14.9
2	936	931	20	13.1
2	976	971	20	13.1
2	1013	1008	19	14.2
2	1054	1049	21	12.8
2	1092	1087	19	13.8
2	1126	1121	17	15.4
2	1161	1156	18	14.9
2	1191	1186	15	17.4
2	1221	1216	15	17.4
2	1254	1249	17	15.8
2	1283	1278	15	18.0
2	1309	1304	13	20.0
2	1336	1331	14	19.3
2	1361	1356	13	20.8
2	1386	1381	13	20.8
2	1401	1396	8	34.3
2	1425	1420	12	21.6
2	1451	1446	13	20.0
2	1476	1471	13	20.8
2	1501	1496	13	20.8
2	1531	1526	15	17.4
2	1558	1553	14	19.3
2	1586	1581	14	18.6
2	1613	1608	14	19.3
2	1646	1641	17	15.8
2	1676	1671	15	17.4
2	1708	1703	16	16.3
2	1737	1732	15	18.0
2	1756	1751	10	27.2
2	1794	1789	19	13.8
1	1811	1806	17	15.4



REMARKS: CBR correlation based on correlation from Figure 4 of TRL Report TRL587 (2003) CBR = $247DCP^{-0.98}$

CONTRACT
C4872

CC GROUND INVESTIGATIONS LTD

TRIAL PIT LOG

Telephone: 01452 739165 , Fax: 01452 739220 , Email: info@ccground.co.uk

Pit No **TP106**

Sheet 1 of 1

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494419 N 99699 Level: 1.28mAOD	Date 10/11/2015
Location: Bognor Regis		Dimensions: 2.00m Depth 3.60m, 0.45m	Scale 1 : 37.5
Client: University of Chichester			Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Description	Depth (m)	Level (mAD)	Legend
		ES	0.10		MADE GROUND: Stiff friable brown mottled light grey slightly sandy slightly gravelly CLAY. Gravel is sub-angular fine and medium flint.	(0.40)		
		B D ES	0.50		Stiff light grey and orangish brown slightly sandy silty CLAY with occasional rootlets. (Superficial Deposits)	0.40 (0.30)	0.88	
1		B D H	1.00	H 50	Firm orangish brown and light grey silty CLAY. (Superficial Deposits)	0.70 (0.50)	0.58	1
		B D H	1.50	H 32	Soft light grey mottled orangish brown silty CLAY. (Superficial Deposits)	1.20 (0.60)	0.08	
2	Seepage	B D H ES	2.00 2.30	H 15	Very soft light grey mottled orangish brown slightly sandy silty CLAY. (Superficial Deposits)	1.80 (0.40)	-0.52	2
		B D H	2.50	H 17	Very soft dark grey slightly sandy silty CLAY. (Superficial Deposits)	2.20 (1.40)	-0.92	
3		B D H	3.50	H 11	Trial pit completed at 3.60m	3.60	-2.32	3
4								4
5								5
6								6

DRAFT

REMARKS:

EQUIPMENT: JCB 3CX.

METHOD: Machine excavated using 0.45m toothless bucket.

GROUNDWATER: Groundwater seepage noted at 2.00m.

BACKFILL: On completion, trial pit backfilled with arisings compacted in layers with the machine bucket.

REMARKS: Trial pit terminated at 3.60m.

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP106

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP106

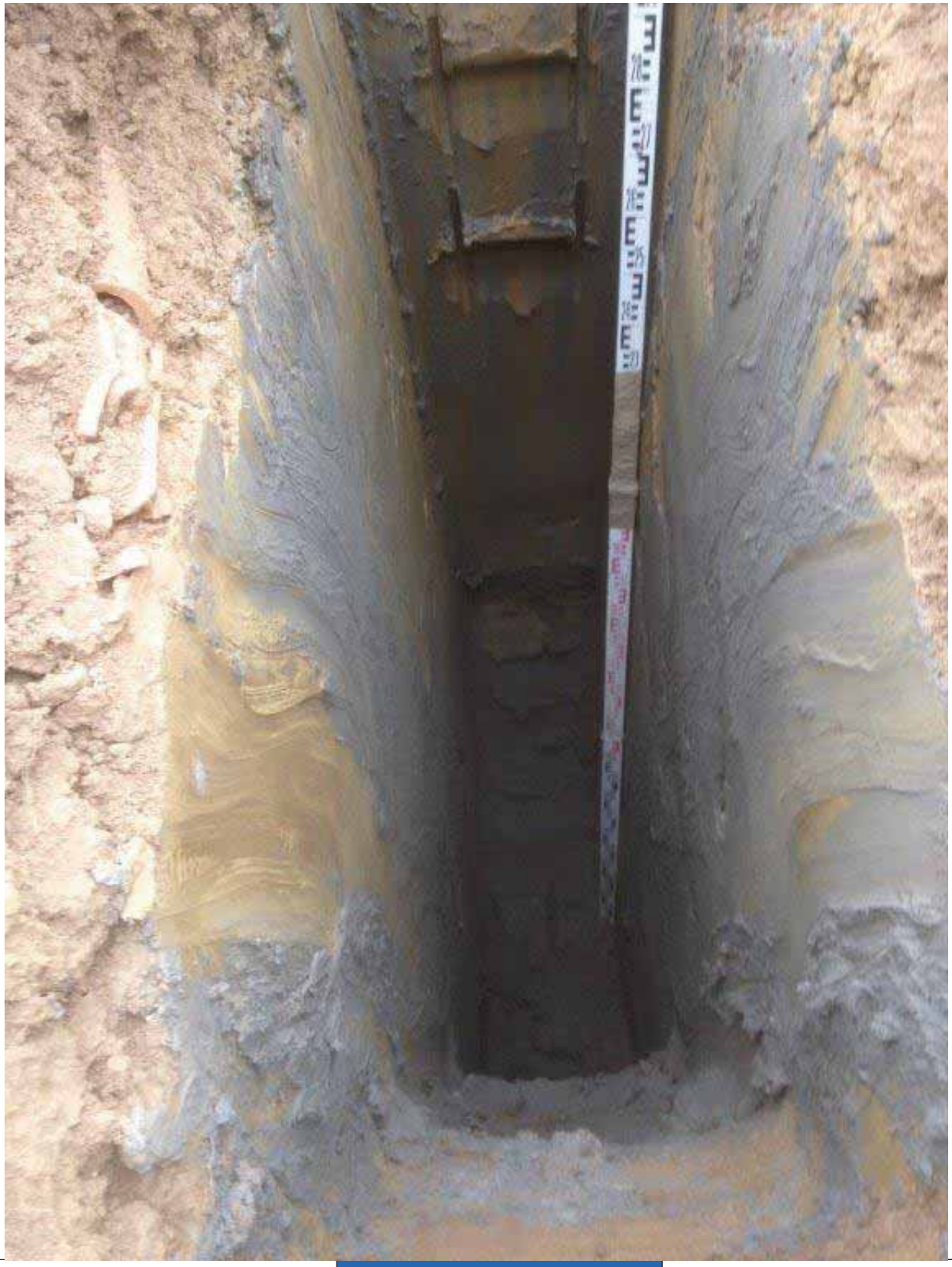
Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP106

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP106

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP106

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP106

CC Ground Investigations Ltd

DYNAMIC CONE PENETROMETER TESTING

CLIENT: Univeristy of Chichester

SITE: University of Chichester - Bognor Regis Campus

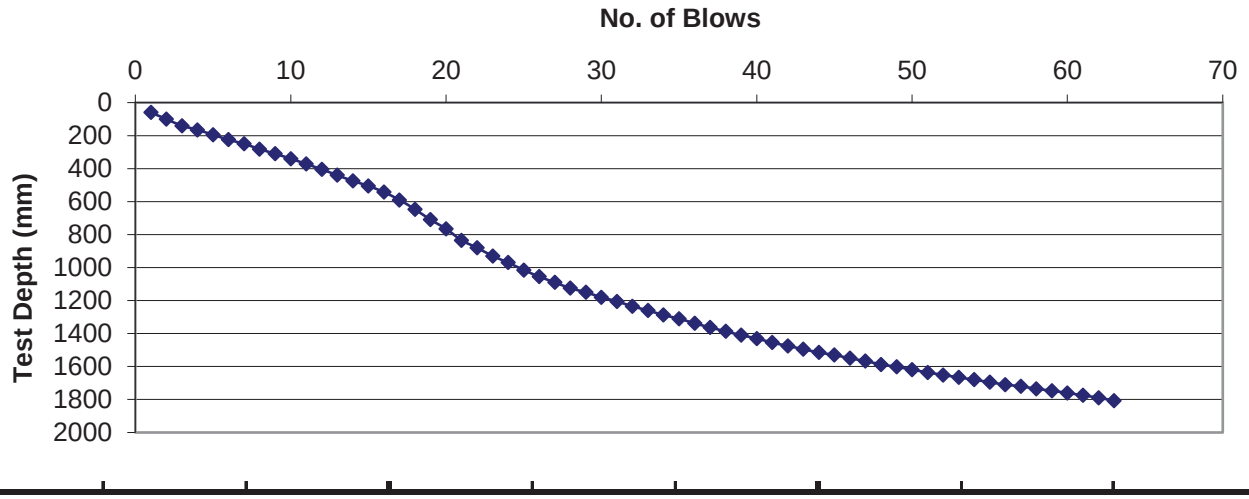
Test No. **DCP - 106**

Date: 18/11/2015

DCP Start Depth: (m) 0.00

DCP Completion Depth: (m) 1.81

No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm
1	1	60	1	28	1125	1	55	1695
1	2	100	1	29	1150	1	56	1710
1	3	140	1	30	1180	1	57	1720
1	4	165	1	31	1205	1	58	1735
1	5	195	1	32	1235	1	59	1747
1	6	225	1	33	1260	1	60	1760
1	7	250	1	34	1288	1	61	1775
1	8	282	1	35	1310	1	62	1789
1	9	310	1	36	1338	1	63	1807
1	10	340	1	37	1363			
1	11	372	1	38	1387			
1	12	405	1	39	1410			
1	13	440	1	40	1430			
1	14	475	1	41	1455			
1	15	505	1	42	1475			
1	16	543	1	43	1495			
1	17	590	1	44	1515			
1	18	647	1	45	1530			
1	19	710	1	46	1550			
1	20	765	1	47	1567			
1	21	835	1	48	1587			
1	22	880	1	49	1602			
1	23	930	1	50	1619			
1	24	970	1	51	1636			
1	25	1015	1	52	1651			
1	26	1055	1	53	1666			
1	27	1090	1	54	1680			



Remarks:

Instrument used : Transport Research Laboratory Dynamic Cone Penetrometer (TRL-DCP)

CONTRACT
C4872

CC GROUND INVESTIGATIONS LIMITED

DYNAMIC CONE PENETROMETER TESTING

CLIENT Univeristy of Chichester

SITE University of Chichester - Bognor Regis Campus

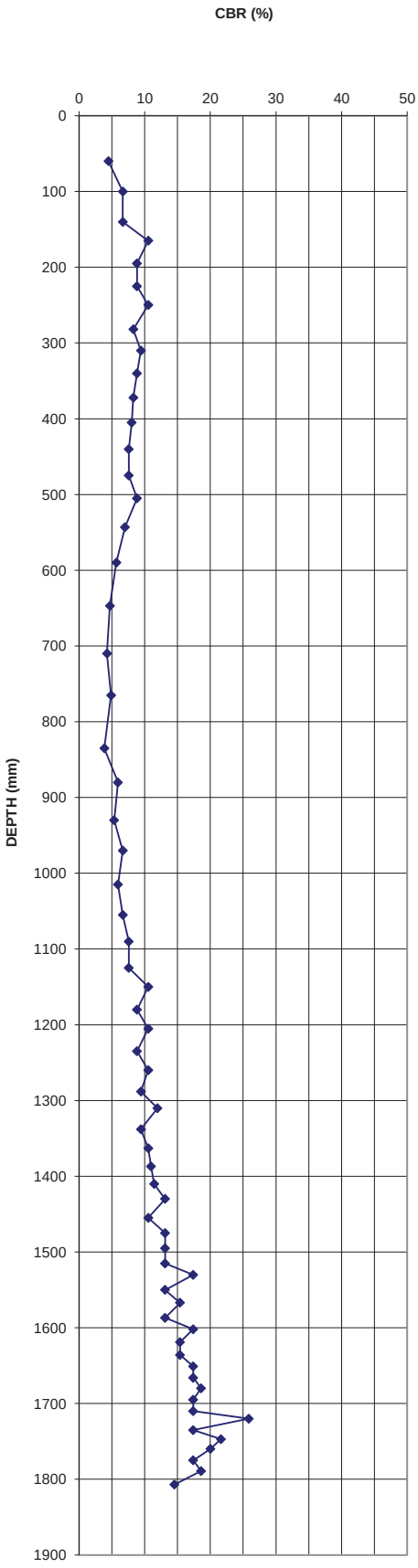
Test No. **DCP - 106**

Date: 18/11/2015

Initial scale reading (mm) 10

Datum - below ground level (bgl) (mm) 0

no. of Blows	scale reading (mm)	penetration - bgl (mm)	DCP (mm/blow)	CBR (%)
1	70	60	60	4.5
1	110	100	40	6.6
1	150	140	40	6.6
1	175	165	25	10.5
1	205	195	30	8.8
1	235	225	30	8.8
1	260	250	25	10.5
1	292	282	32	8.3
1	320	310	28	9.4
1	350	340	30	8.8
1	382	372	32	8.3
1	415	405	33	8.0
1	450	440	35	7.6
1	485	475	35	7.6
1	515	505	30	8.8
1	553	543	38	7.0
1	600	590	47	5.7
1	657	647	57	4.7
1	720	710	63	4.3
1	775	765	55	4.9
1	845	835	70	3.8
1	890	880	45	5.9
1	940	930	50	5.3
1	980	970	40	6.6
1	1025	1015	45	5.9
1	1065	1055	40	6.6
1	1100	1090	35	7.6
1	1135	1125	35	7.6
1	1160	1150	25	10.5
1	1190	1180	30	8.8
1	1215	1205	25	10.5
1	1245	1235	30	8.8
1	1270	1260	25	10.5
1	1298	1288	28	9.4
1	1320	1310	22	11.9
1	1348	1338	28	9.4
1	1373	1363	25	10.5
1	1397	1387	24	11.0
1	1420	1410	23	11.4
1	1440	1430	20	13.1
1	1465	1455	25	10.5
1	1485	1475	20	13.1
1	1505	1495	20	13.1
1	1525	1515	20	13.1
1	1540	1530	15	17.4
1	1560	1550	20	13.1
1	1577	1567	17	15.4
1	1597	1587	20	13.1
1	1612	1602	15	17.4
1	1629	1619	17	15.4
1	1646	1636	17	15.4
1	1661	1651	15	17.4
1	1676	1666	15	17.4
1	1690	1680	14	18.6
1	1705	1695	15	17.4
1	1720	1710	15	17.4
1	1730	1720	10	25.9
1	1745	1735	15	17.4
1	1757	1747	12	21.6
1	1770	1760	13	20.0
1	1785	1775	15	17.4
1	1799	1789	14	18.6
1	1817	1807	18	14.5



REMARKS: CBR correlation based on correlation from Figure 4 of TRL Report TRL587 (2003) CBR = $247DCP^{-0.98}$

CONTRACT

C4872

CC GROUND INVESTIGATIONS LTD

TRIAL PIT LOG

Telephone: 01452 739165 , Fax: 01452 739220 , Email: info@ccground.co.uk

Pit No **TP107**

Sheet 1 of 1

Project Name: University of Chichester	Project No: **C4872**	Co-ords: E 494445 N 99727 Level: 1.31mAOD	Date 10/11/2015
Location: Bognor Regis		Dimensions: 2.00m Depth 3.60m 0.45m	Scale 1 : 37.5
Client: University of Chichester			Logged By RS

(m)	Water Levels	Samples & In Situ Testing No/Type	Depth (m)	Result	Description	Depth (m)	Level (mAD)	Legend
					MADE GROUND: Firm friable brown locally mottled reddish brown and white slightly sandy slightly gravelly CLAY with frequent rootlets. Gravel is sub-angular fine clay pipe fragments and chalk.	(0.40)		
		B D	0.50		Firm orangish brown mottled light grey slightly sandy silty CLAY with rare rootlets. (Superficial Deposits)	0.40	0.91	
						(0.40)		
					Firm light grey mottled orangish brown slightly sandy silty CLAY. (Superficial Deposits)	0.80	0.51	
1		B D H	1.00	H 65		(0.40)		1
					Soft light grey mottled orangish brown slightly sandy silty CLAY. (Superficial Deposits)	1.20	0.11	
		B D H	1.50	H 25		(0.80)		
2					Very soft grey mottled orangish brown silty CLAY. (Superficial Deposits)	2.00	-0.69	2
		B D H	2.50	H 13		(1.00)		
3					Very soft grey mottled black silty CLAY. (Superficial Deposits)	3.00	-1.69	3
						(0.60)		
	Dry	B D H	3.50	H 17	Trial pit completed at 3.60m	3.60	-2.29	
4								4
5								5
6								6

DRAFT

REMARKS:

EQUIPMENT: JCB 3CX.

METHOD: Machine excavated using 0.45m toothless bucket.

GROUNDWATER: Groundwater not encountered.

BACKFILL: On completion, trial pit backfilled with arisings compacted in layers with the machine bucket.

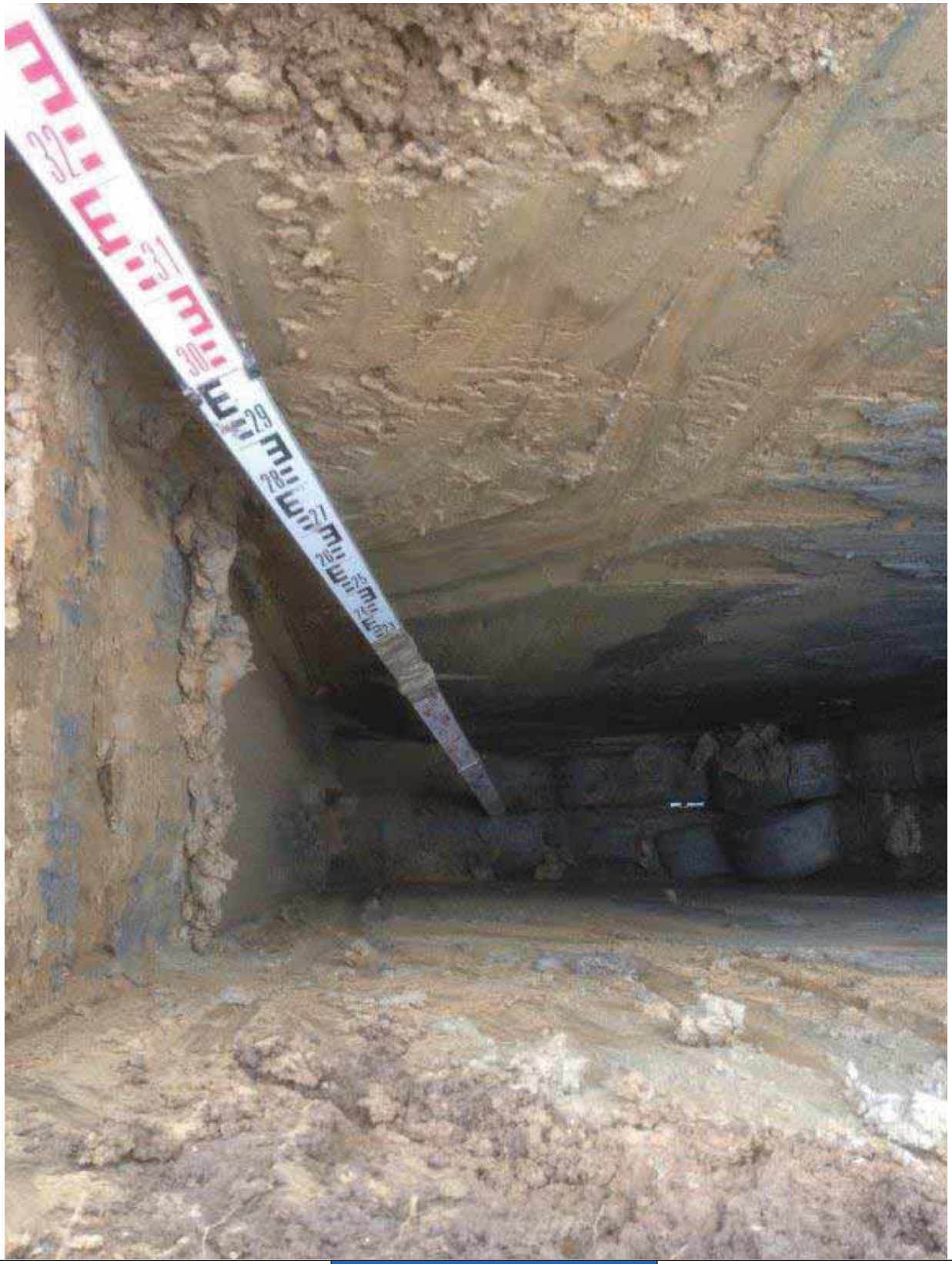
REMARKS: Trial pit terminated at 3.60m.

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP107

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP107

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP107

Trial Pit Photograph



CC Ground Investigations Ltd

Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP107

Trial Pit Photograph



CC Ground Investigations Ltd	
Contract Name:	University of Chichester
Contract ID:	C4872
Client:	University of Chichester
Hole ID:	TP107

CC Ground Investigations Ltd

DYNAMIC CONE PENETROMETER TESTING

CLIENT: Univeristy of Chichester

SITE: University of Chichester - Bognor Regis Campus

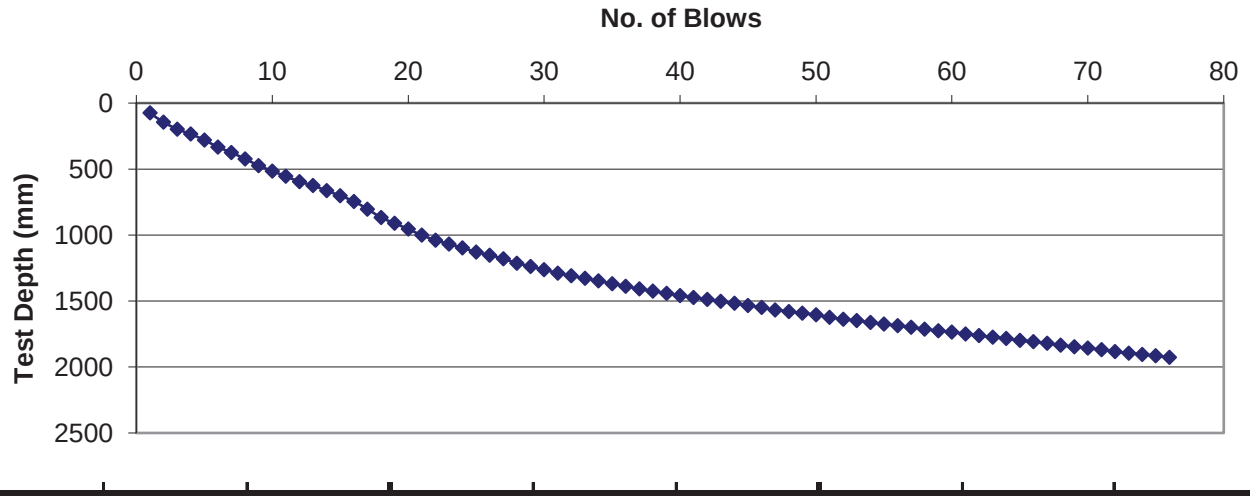
Test No. **DCP - 107**

Date: 18/11/2015

DCP Start Depth: (m) 0.00

DCP Completion Depth: (m) 1.96

No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm	No Blows	Total Blows	Reading mm
1	1	75	1	28	1213	1	55	1674
1	2	145	1	29	1239	1	56	1687
1	3	197	1	30	1263	1	57	1698
1	4	235	1	31	1288	1	58	1713
1	5	280	1	32	1309	1	59	1725
1	6	333	1	33	1328	1	60	1734
1	7	375	1	34	1348	1	61	1750
1	8	423	1	35	1369	1	62	1762
1	9	473	1	36	1388	1	63	1773
1	10	515	1	37	1408	1	64	1784
1	11	555	1	38	1425	1	65	1798
1	12	595	1	39	1442	1	66	1809
1	13	625	1	40	1459	1	67	1820
1	14	664	1	41	1474	1	68	1835
1	15	702	1	42	1488	1	69	1847
1	16	745	1	43	1503	1	70	1857
1	17	803	1	44	1517	1	71	1869
1	18	867	1	45	1533	1	72	1882
1	19	910	1	46	1549	1	73	1895
1	20	955	1	47	1567	1	74	1904
1	21	1001	1	48	1579	1	75	1915
1	22	1038	1	49	1593	1	76	1927
1	23	1068	1	50	1605	1	77	1938
1	24	1098	1	51	1623	1	78	1948
1	25	1128	1	52	1637	1	79	1962
1	26	1153	1	53	1648			
1	27	1180	1	54	1663			



Instrument used : Transport Research Laboratory Dynamic Cone Penetrometer (TRL-DCP)

Instrument used : TRL Probe

CONTRACT
C4872

CC GROUND INVESTIGATIONS LIMITED

DYNAMIC CONE PENETROMETER TESTING

CLIENT Univeristy of Chichester

SITE University of Chichester - Bognor Regis Campus

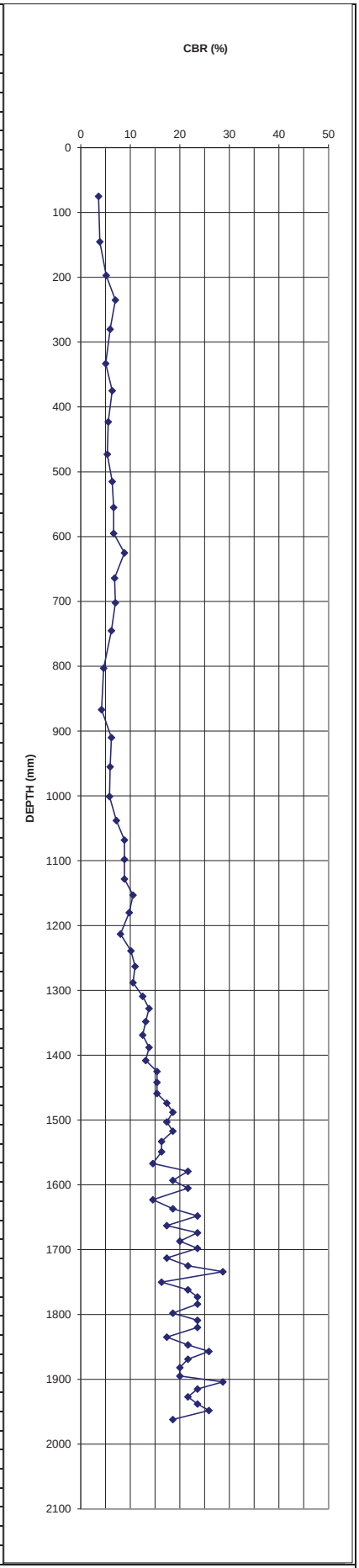
Test No. **DCP - 107**

Date: 18/11/2015

Initial scale reading (mm) 70

Datum - below ground level (bgl) (mm) 0

no. of Blows	scale reading (mm)	penetration - bgl (mm)	DCP (mm/blow)	CBR (%)
1	145	75	75	3.6
1	215	145	70	3.8
1	267	197	52	5.1
1	305	235	38	7.0
1	350	280	45	5.9
1	403	333	53	5.0
1	445	375	42	6.3
1	493	423	48	5.6
1	543	473	50	5.3
1	585	515	42	6.3
1	625	555	40	6.6
1	665	595	40	6.6
1	695	625	30	8.8
1	734	664	39	6.8
1	772	702	38	7.0
1	815	745	43	6.2
1	873	803	58	4.6
1	937	867	64	4.2
1	980	910	43	6.2
1	1025	955	45	5.9
1	1071	1001	46	5.8
1	1108	1038	37	7.2
1	1138	1068	30	8.8
1	1168	1098	30	8.8
1	1198	1128	30	8.8
1	1223	1153	25	10.5
1	1250	1180	27	9.8
1	1283	1213	33	8.0
1	1309	1239	26	10.1
1	1333	1263	24	11.0
1	1358	1288	25	10.5
1	1379	1309	21	12.5
1	1398	1328	19	13.8
1	1418	1348	20	13.1
1	1439	1369	21	12.5
1	1458	1388	19	13.8
1	1478	1408	20	13.1
1	1495	1425	17	15.4
1	1512	1442	17	15.4
1	1529	1459	17	15.4
1	1544	1474	15	17.4
1	1558	1488	14	18.6
1	1573	1503	15	17.4
1	1587	1517	14	18.6
1	1603	1533	16	16.3
1	1619	1549	16	16.3
1	1637	1567	18	14.5
1	1649	1579	12	21.6
1	1663	1593	14	18.6
1	1675	1605	12	21.6
1	1693	1623	18	14.5
1	1707	1637	14	18.6
1	1718	1648	11	23.6
1	1733	1663	15	17.4
1	1744	1674	11	23.6
1	1757	1687	13	20.0
1	1768	1698	11	23.6
1	1783	1713	15	17.4
1	1795	1725	12	21.6
1	1804	1734	9	28.7
1	1820	1750	16	16.3
1	1832	1762	12	21.6
1	1843	1773	11	23.6
1	1854	1784	11	23.6
1	1868	1798	14	18.6
1	1879	1809	11	23.6
1	1890	1820	11	23.6
1	1905	1835	15	17.4
1	1917	1847	12	21.6
1	1927	1857	10	25.9
1	1939	1869	12	21.6
1	1952	1882	13	20.0
1	1965	1895	13	20.0
1	1974	1904	9	28.7
1	1985	1915	11	23.6
1	1997	1927	12	21.6
1	2008	1938	11	23.6
1	2018	1948	10	25.9
1	2032	1962	14	18.6



REMARKS: CBR correlation based on correlation from Figure 4 of TRL Report TRL587 (2003) CBR = $247DCP^{-0.98}$

CONTRACT

C4872

APPENDIX C

Appendix C – Laboratory Test Results

APPENDIX D

Appendix D – SPT Calibration Data

SPT Calibration Report

www.equipegroup.com

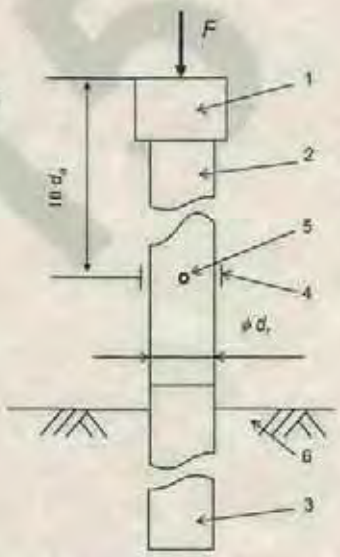
Hammer Energy Measurement Report

Type of Hammer	SPT HAMMER
Client	C C GROUND INVESTIGATIONS
Test No	EQU1271
Test Depth (m)	11.11
Date of Test	01 May 2015
Valid until	30 April 2016
Hammer ID	RO2

Mass of the hammer	m =	63.5kg
Falling height	h =	0.76m
E_{theor} =	$m \times g \times h$ =	473J

Characteristics of the instrumented rod

Diameter	d_r =	0.052 m
Length of the instrumented rod		0.558 m
Area	A =	11.61 cm^2
Modulus	E_a =	206843 MPa

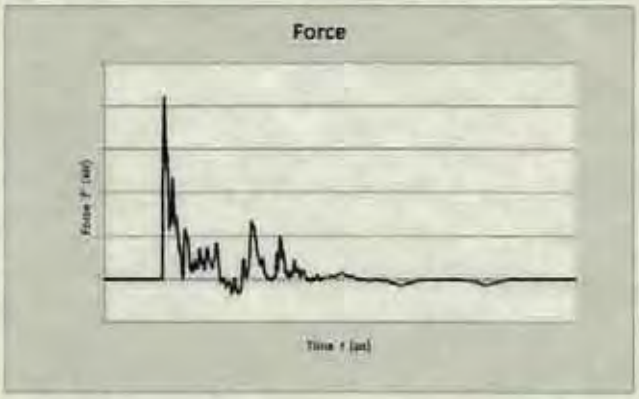


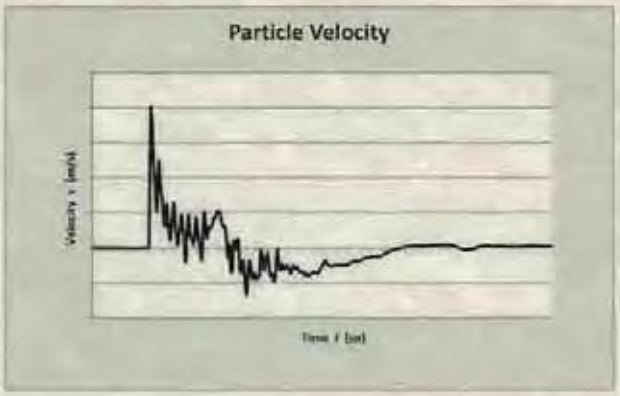
Key

1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

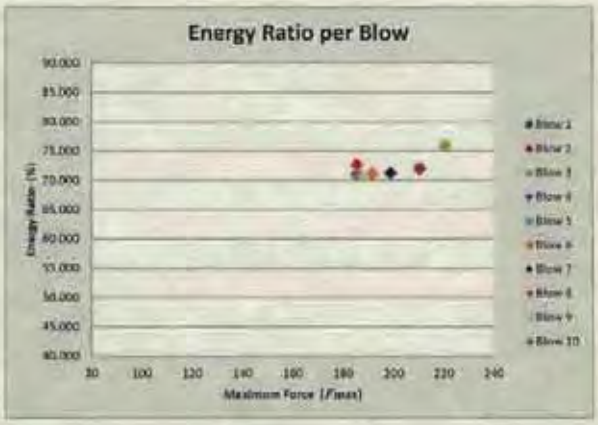
F Force
d_r Diameter of rod

Fig. B.1 and B.2 BS EN ISO 22476-3 : 2005 + A1 : 2011









Observations:
1

E_{meas} = **0.340** kN-m

E_{theor} = **0.473** kN-m

Energy Ratio (E_r) = $\frac{E_{meas}}{E_{theor}}$ = **71.85%**

Equipe SPT Analyzer Operators: JML

Prepared by: **Checked by:** **Date** 12/05/2015

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Tel: 01295 670990 Fax: 01295 678232 Email: info@equipegroup.com

SPT Calibration Report

www.equipegroup.com

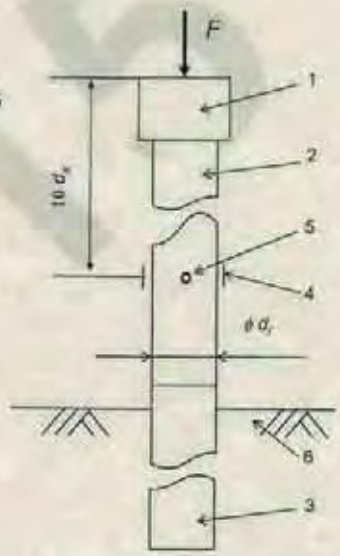
Hammer Energy Measurement Report

Type of Hammer	SPT HAMMER
Client	C C GROUND INVESTIGATIONS
Test No	EQU1270
Test Depth (m)	11.08
Date of Test	01 May 2015
Valid until	30 April 2016
Hammer ID	RO7

Mass of the hammer	m =	63.5kg
Falling height	h =	0.76m
E_{theor} =	$m \times g \times h$ =	473J

Characteristics of the instrumented rod

Diameter	d_r =	0.052 m
Length of the instrumented rod		0.558 m
Area	A =	11.61 cm^2
Modulus	E_A =	206843 MPa

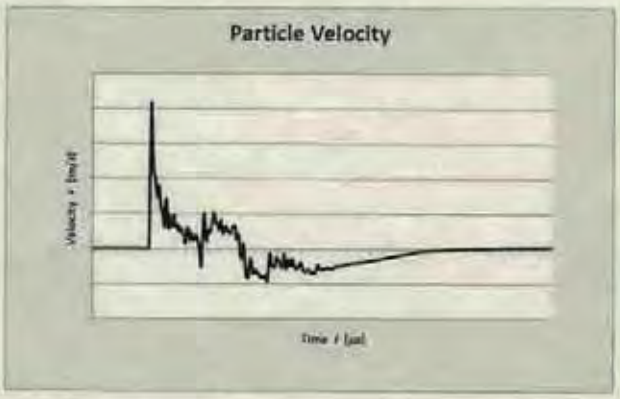


Key
1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

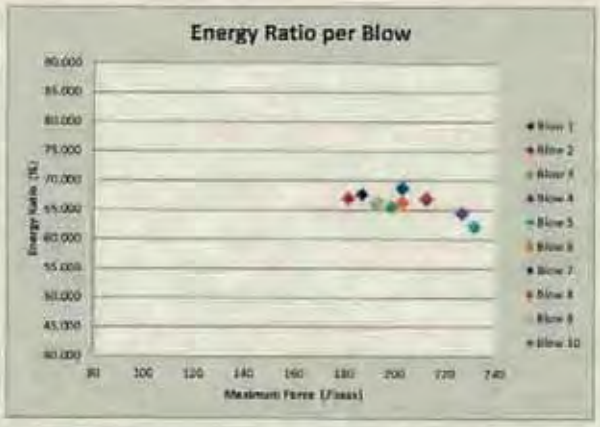
F Force
d_r Diameter of rod

Fig. B.1 and B.2 BS EN ISO 22476-3 : 2005 + A1 : 2011









Observations:
1.

E_{meas} = **0.312** kN-m

E_{theor} = **0.473** kN-m

Energy Ratio (E_r) = $\frac{E_{meas}}{E_{theor}}$ = **65.88%**

Equipe SPT Analyzer Operators: JML

Prepared by: **Checked by:** **Date** 12/05/2015

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Equipe Group, The Paddocks, Home Farm Offices, The Upton Estate, Banbury, Oxfordshire, OX15 6HU
Tel: 01295 870990 Fax: 01295 676232 Email: info@equipegroup.com

ARUN DISTRICT COUNCIL BR/311/18/PL

Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005



Dynamic sampling uk ltd
6-8 victory parkway
victory road
Derby
DE24 8ZF

Hammer Ref:	DW27
Test Date:	09/04/2015
Report Date:	
File Name:	DW27.spt
Test Operator:	TP

DATE ISSUED 10.4.15
JOB NUMBER 11515

CC 5264

Instrumented Rod Data

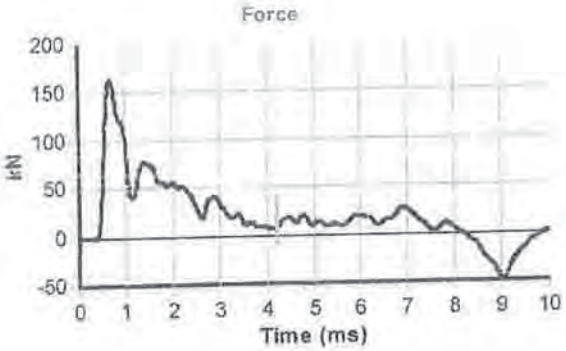
Diameter d_r (mm):	54
Wall Thickness t_r (mm):	6.9
Assumed Modulus E_a (GPa):	208
Accelerometer No.1:	6455
Accelerometer No.2:	6457

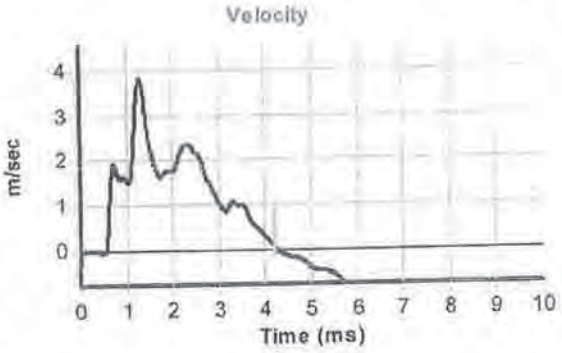
Hammer Information

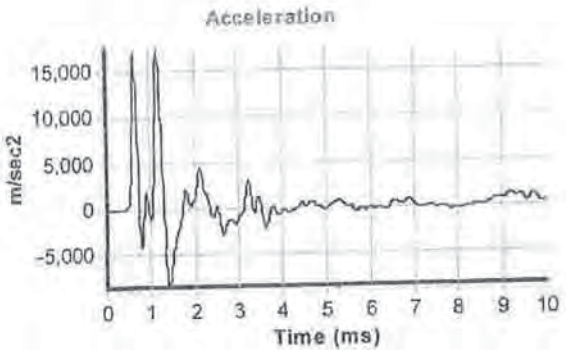
Hammer Mass m (kg):	63.5
Falling Height h (mm):	760
String Length L (m):	15.0

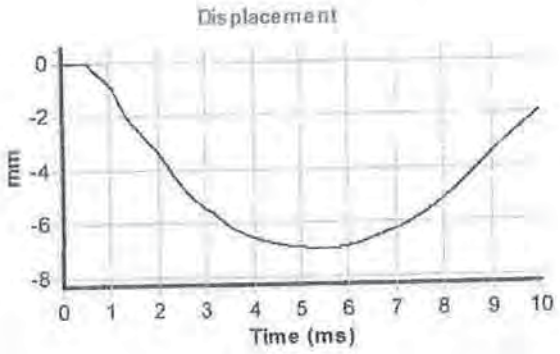
Comments / Location

Hammer tested at Dynamic samplings yard.









Calculations

Area of Rod A (mm2):	1021
Theoretical Energy E_{theor} (J):	473
Measured Energy E_{meas} (J):	358

Energy Ratio E_r (%): **76**

Signed: A.parker
Title: Manager

The recommended calibration interval is 12 months

SPTMAN ver.Hammer Energy ver. 1.93 All rights reserved, Testconsult ©2010

ARUN DISTRICT COUNCIL BR/311/18/PL

Appendix D

GAS MONITORING RESULTS

ARUN DISTRICT COUNCIL BR/311/18/PL

Groundwater and Ground Gas Monitoring Form

VISIT 1

Site Name	UOC Bognor Teck Park
Client	University of Chichester
Job No.	7001364-300
Date	02/12/2015
Start Time	07.50 am
End Time	09.42 am

Operator	F. Siemers
Pressure at Start mB	1024
Pressure at End mB	1024
Weather Conditions	Scattered clouds / light rain showers
Temperature oC	12

Equipment	Serial No.	Calibrated
Gas Analyser	GA5000	Yes
Dipmeter		Yes
Interface Probe		
PID	Phocheck Tiger	Yes

	Borehole	Response Zone (m)		Gas Flow (l/hr)		Borehole Pressure	Methane (% v/v)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Other Gasses (ppmV)			Depth to Water	Depth to Base	Thickness of product	Sampled?
		Top	Bottom	Initial	Steady	(mB)	Initial	Steady	Initial	Steady	Initial	Steady	PID	H2S	CO	(m)	(m)	(mm)	(Y/N)
1	BH111	7.5	11.7	-1.5	0.5	1024	0.0	0.0	0.6	0.1	20.9	20.9	-	0	-	0.77	11.57	-	No
2	BH110	0.5	5.0	0.1	5.1	1024	0.0	0.0	0.5	0.5	21.0	20.8	-	0	-	0.78	5.31	-	No
3	BH104	9.0	12.0	-9.9	-7.4	1023	0.0	0.0	0.3	0.3	20.1	21.3	-	0	-	0.93	11.10	-	No
4	BH108	10.0	34.4	1.8	6.9	1024	0.0	0.0	0.3	0.4	20.6	19.8	-	3	-	0.78	34.22	-	No
5	BH107	6.7	34.5	2.9	6.4	1024	0.0	0.0	0.1	0.2	20.9	20.8	-	0	-	1.34	34.50	-	No
6	BH106	0.6	1.6	-16.1	-12.6	1024	0.0	0.0	2.6	2.7	19.7	17.2	-	0	-	1.6	1.66	-	No
7	BH102	10.5	33.5	-2.0	5.9	1024	0.0	0.0	0.4	0.4	20.6	20.2	-	0	-	1.78	31.01	-	No
8	BH101	2.0	7.0	5.5	18.0	1024	0.0	0.0	0.4	0.4	20.8	20.3	-	0	-	1.73	7.00	-	No
9	BH103	13.0	30.0	0.0	4.0	1024	0.0	0.0	0.2	0.2	20.8	20.7	-	0	-	2.54	27.42	-	No
10	BH109	1.0	3.0	-12.5	-7.8	1023	0.1	0.0	2.5	2.7	19.2	12.0	-	0	-	1.43	3.12	-	No
11	BH105	13.2	14.7	-13.6	-11.4	1024	0.0	0.0	0.3	0.4	20.6	20.5	-	0	-	0.88	14.45	-	No
12																			
13																			
14																			
15																			
16																			

COMMENTS & GROUND CONDITIONS:

ARUN DISTRICT COUNCIL BR/311/18/PL

Groundwater and Ground Gas Monitoring Form

VISIT 2

Site Name	UoC Bognor Tech Park
Client	University of Chichester
Job No.	7001364-300
Date	07/12/2015
Start Time	12:00:00
End Time	14:20:00

Operator	F. Siemers
Pressure at Start mB	1023
Pressure at End mB	1024
Weather Conditions	Partly cloudy
Temperature oC	12

Equipment	Serial No.	Calibrated
Gas Analyser	GA5000	Yes
Dipmeter		Yes
Interface Probe		N/A
PID	Phocheck Tiger	Yes

	Borehole	Response Zone (m)		Gas Flow (l/hr)		Borehole Pressure	Methane (% v/v)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Other Gasses (ppmV)			Depth to Water	Depth to Base	Thickness of product	Sampled?
		Top	Bottom	Initial	Steady	(mB)	Initial	Steady	Initial	Steady	Initial	Steady	PID	H2S	CO	(m)	(m)	(mm)	(Y/N)
1	BH111	7.5	11.7	2.0	5.5	1023	0.0	0.0	1.9	1.5	20.6	20.0	-	0	-	0.79	11.57	-	No
2	BH110	0.5	5.0	0.1	6.4	1025	0.0	0.0	1.9	1.9	20.2	19.6	0.2	0	-	0.78	5.31	-	No
3	BH104	9.0	12.0	-0.1	5.8	1024	0.0	0.0	1.0	1.1	20.4	20.0	0.2	0	-	0.93	11.10	-	No
4	BH107	6.7	34.5	0.1	6.5	1024	0.0	0.0	1.0	1.1	19.7	18.2	0.5	0	-	1.35	34.50	-	No
5	BH106	0.6	1.6	2.0	9.3	1024	0.0	0.0	3.2	3.2	18.0	15.9	0.1	1	-	1.485	1.66	-	No
6	BH101	2.0	7.0	0.1	0.3	1025	0.0	0.0	0.5	0.3	20.7	20.7	0.3	0	-	2.12	7.00	-	No
7	BH102	10.5	33.5	-0.1	2.7	1024	0.0	0.0	0.4	0.4	20.8	20.7	0.6	0	-	1.72	31.01	-	No
8	BH103	13.0	30.0	-0.2	5.1	1025	0.0	0.0	0.4	0.4	20.9	20.9	0.7	0	-	2.375	27.42	-	No
9	BH108	10.0	34.4	-0.3	4.9	1024	0.0	0.0	1.3	1.4	19.7	19.0	0.4	7	-	0.8	34.22	-	No
10	BH109	1.0	3.0	-	-	-	-	-	-	-	-	-	-	-	-	1.16	3.12	-	No
11	BH105	13.2	14.7	2.2	6.6	1024	0.3	0.2	1.2	1.1	20.0	19.6	0.0	0	-	0.9	14.45	-	No
12																			
13																			
14																			
15																			
16																			

COMMENTS & GROUND CONDITIONS: Area around BH109 flooded. BH bung submerged. GW reading not accurate, as limited water went down hole. BH111 bung too large for PID.

ARUN DISTRICT COUNCIL BR/311/18/PL

Groundwater and Ground Gas Monitoring Form

VISIT 3

Site Name	UoC Bognor Tech Park
Client	University of Chichester
Job No.	7001364-300
Date	14/12/2015
Start Time	11:20:00
End Time	13:15:00

Operator	F. Siemers
Pressure at Start mB	1015
Pressure at End mB	1015
Weather Conditions	Partly cloudy
Temperature oC	9

Equipment	Serial No.	Calibrated
Gas Analyser	GA5000	Yes
Dipmeter		N/A
Interface Probe		Yes
PID	Phocheck Tiger	Yes

	Borehole	Response Zone (m)		Gas Flow (l/hr)		Borehole Pressure	Methane (% v/v)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Other Gasses (ppmV)			Depth to Water	Depth to Base	Thickness of product	Sampled?
		Top	Bottom	Initial	Steady	(mB)	Initial	Steady	Initial	Steady	Initial	Steady	PID	H2S	CO	(m)	(m)	(mm)	(Y/N)
1	BH111	7.5	11.7	0.0	0.3	1015	0.0	0.0	1.8	0.2	20.0	20.8	-	0	-	0.71	11.57	-	No
2	BH110	0.5	5.0	3.2	7.0	1015	0.0	0.0	2.4	2.5	19.4	19.2	0.3	0	-	0.62	5.31	-	No
3	BH104	9.0	12.0	0.1	0.2	1015	0.0	0.0	0.6	0.1	20.7	20.9	0.5	0	-	0.81	11.10	-	No
4	BH107	6.7	34.5	-6.8	-4.7	1015	0.0	0.0	0.5	0.5	20.4	20.2	0.2	0	-	1.01	34.50	-	No
5	BH106	0.6	1.6	-12.5	-9.7	1015	0.0	0.0	3.7	3.7	15.6	15.3	0.1	0	-	1.435	1.66	-	No
6	BH101	2.0	7.0	0.2	0.3	1014	0.0	0.0	0.5	0.4	20.8	20.8	0.2	0	-	1.75	7.00	-	No
7	BH102	10.5	33.5	-4.2	-3.3	1015	0.0	0.0	0.3	0.4	20.8	20.7	0.6	0	-	1.31	31.01	-	No
8	BH103	13.0	30.0	-4.2	-2.9	1015	0.0	0.0	0.8	0.8	20.7	20.5	0.2	0	-	1.96	27.42	-	No
9	BH108	10.0	34.4	-0.3	1.8	1015	0.0	0.0	1.8	1.8	18.6	18.0	0.8	1	-	0.55	34.22	-	No
10	BH109	1.0	3.0	-	-	-	-	-	-	-	-	-	-	0	-	0.69	3.12	-	No
11	BH105	13.2	14.7	-0.2	5.8	1015	0.5	0.5	1.6	1.7	19.2	18.5	0.2	0	-	0.75	14.45	-	No
12																			
13																			
14																			
15																			
16																			

COMMENTS & GROUND CONDITIONS: Area around BH109 flooded. BH bung submerged. GW reading not accurate, as limited water went down hole. GW dips double checked on BH111 and BH110. BH111 bung too large for PID.

Appendix E

LABORATORY RESULTS

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

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 in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
S Royle (Senior Technician)

5 – 7 Hexthorpe Road, Hexthorpe,
Doncaster DN4 0AR
tel: +44 (0)844 815 6641
fax: +44 (0)844 815 6642
e-mail: rgunson@prosoils.co.uk
awatkins@prosoils.co.uk

ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH101		D	2.40		Reddish brown mottled grey slightly sandy CLAY.
BH101		D	5.20		Reddish brown mottled grey slightly sandy CLAY.
BH101		D	7.20		Brown very gravelly very sandy CLAY.
BH101		D	8.30		CHALK.
BH101		CS	12.70	13.00	CHALK.
BH101		D	17.00		CHALK.
BH101		CS	21.15	21.40	CHALK.
BH101		D	23.20		CHALK.
BH101		CS	27.80	28.00	CHALK.
BH101		CS	31.00	31.30	CHALK.
BH101		CS	32.80	33.10	CHALK.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

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
BH101		D	2.40		28			59	25	34	100	High plasticity CH.
BH101		D	5.20		26			57	24	33	100	High plasticity CH.
BH101		D	7.20		12			26	14	12	76	Low plasticity CL.

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

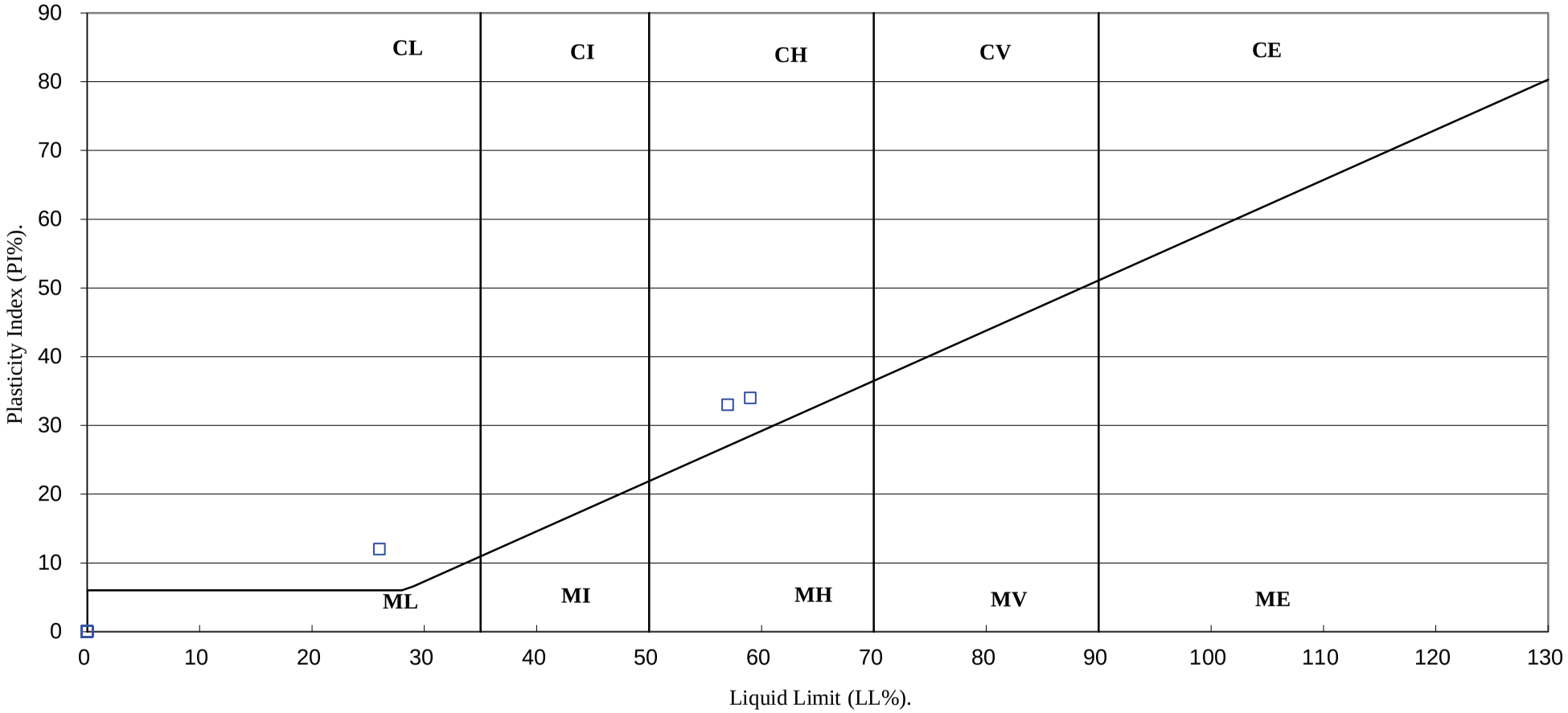
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 / PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH101		D	8.30		24	24	1.64			
BH101		CS	12.70	13.00	24	25	1.62			
BH101		D	17.00		19	21	1.71			
BH101		CS	21.15	21.40	23	23	1.65			
BH101		D	23.20		20	22	1.68			
BH101		CS	27.80	28.00	26	26	1.59			
BH101		CS	31.00	31.30	23	23	1.68			
BH101		CS	32.80	33.10	25	26	1.59			

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH101	12.70		A	Par	116	47	2209	6941.70	83.32	0.650	0.87	0.125	1.258	**0.16**	Valid	
BH101	17.00		I	Par	80	48	2304	4889.24	69.92	0.620	0.83	0.169	1.163	**0.20**	Valid	
BH101	21.15		A	Par	116	45	2025	6646.31	81.52	0.920	1.23	0.185	1.246	**0.23**	Valid	
BH101	23.20		I	Par	92	49	2401	5739.76	75.76	0.580	0.77	0.135	1.206	**0.16**	Valid	
BH101	27.80		A	Par	116	35	1225	5169.35	71.90	0.510	0.68	0.132	1.178	**0.16**	Valid	
BH101	32.80		A	Par	116	53	2809	7827.88	88.48	0.930	1.24	0.159	1.293	**0.21**	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		D_e^2	D_e	Failure Load		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	L	D		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH101	12.70		D	Perp		116	13456	116.00	0.500	0.67	0.050	1.460	**0.07**	Valid	
BH101	21.15		D	Perp		116	13456	116.00	0.660	0.88	0.065	1.460	**0.10**	Valid	
BH101	27.80		D	Perp		116	13456	116.00	0.280	0.37	0.028	1.460	**0.04**	Valid	
BH101	32.80		D	Perp		116	13456	116.00	0.620	0.83	0.062	1.460	**0.09**	Valid	

Note All testing carried out on samples at as received water content Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

DETERMINATION OF UNCONFINED COMPRESSIVE STRENGTH

ISRM Suggested Methods, pp 111 –116, 1981.

Hole Number	Sample Number	Sample Type	Top Depth (m)	Base Depth (m)	Sample Diameter (mm)	Sample Length (mm)	Height Ratio	Initial Mass (g)	Bulk Density (Mg/m)	Moisture Content (%)	Dry Density (Mg/m)	Load Failure	UCS (MPa)	Failure Mode	Date Tested	Remarks
BH101		C	12.70	13.00	116	202	1.7	4074	1.91	24	1.54	34.4	3.3	Brittle	22/12/16	
BH101		C	21.15	21.40	116	195	1.7	4176	2.03	25	1.62	24.7	2.3	Brittle	22/12/16	
BH101		C	27.80	28.00	116	196	1.7	4193	2.02	26	1.61	17.3	1.6	Brittle	22/12/16	
BH101		C	31.00	31.30	116	202	1.7	4246	1.99	23	1.62	26.0	2.5	Brittle	22/12/16	
BH101		C	32.80	33.10	116	203	1.8	4314	2.01	26	1.60	21.1	2.0	Brittle	22/12/16	

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

Notes: Opinions and Interpretations are outside the UKAS Accreditation

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Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
S Royle (Senior Technician)

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awatkins@prosoils.co.uk

ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH102		D	3.50		Reddish brown mottled grey slightly sandy CLAY.
BH102		D	5.00		Reddish brown mottled grey slightly gravelly slightly sandy CLAY.
BH102		D	5.90		Reddish brown mottled grey slightly sandy CLAY.
BH102		D	8.00		Brown very gravelly sandy CLAY.
BH102		D	11.40		CHALK.
BH102		D	14.90		CHALK.
BH102		D	20.40		CHALK.
BH102		CS	21.40	21.77	CHALK.
BH102		D	24.90		CHALK.
BH102		CS	29.80	30.15	CHALK.

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No:
		University of Chichester - Bognor Regis Campus		PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH102		D	3.50		25			54	24	30	100	High plasticity CH.
BH102		D	5.00		23			58	25	33	98	High plasticity CH.
BH102		D	5.90		30			62	27	35	100	High plasticity CH.
BH102		D	8.00		11			39	19	20	74	Intermediate plasticity CI.

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

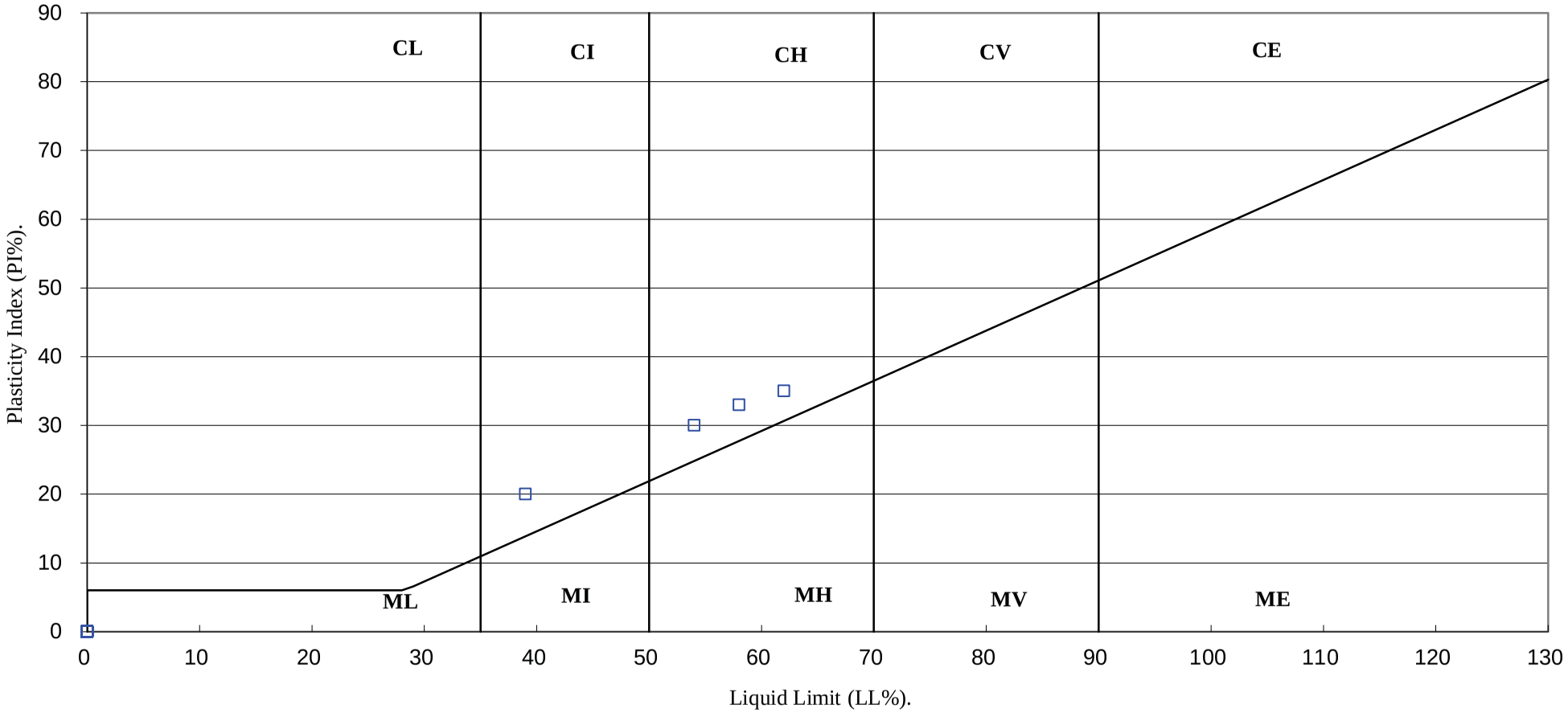
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked /Approved**	**Date** 08/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

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
BH102		D	11.40		22	22	1.70	23	3.6	
BH102		D	14.90		25	24	1.64			
BH102		D	20.40		22	22	1.69			
BH102		CS	21.40	21.77	25			81	3.7	
BH102		D	24.90		27	20	1.56			
BH102		CS	29.80	30.15	27	21	1.72			

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PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
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				Client Ref:
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ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH102	16.75		A	Par	116	55	3025	8123.27	90.13	1.060	1.42	0.174	1.304	**0.23**	Valid	
BH102	21.40		A	Par	116	39	1521	5760.14	75.90	0.840	1.12	0.195	1.207	**0.23**	Valid	
BH102	26.90		A	Par	116	69	4761	10191.01	100.95	0.960	1.28	0.126	1.372	**0.17**	Valid	
BH102	32.75		A	Par	116	73	5329	10781.79	103.84	1.330	1.78	0.165	1.389	**0.23**	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		D_e^2	D_e	Failure Load		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	L	D		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH102	16.75		D	Perp		116	13456	116.00	0.640	0.85	0.063	1.460	**0.09**	Valid	
BH102	21.40		D	Perp		116	13456	116.00	0.620	0.83	0.062	1.460	**0.09**	Valid	
BH102	26.90		D	Perp		116	13456	116.00	0.810	1.08	0.080	1.460	**0.12**	Valid	
BH102	32.75		D	Perp		116	13456	116.00	1.040	1.39	0.103	1.460	**0.15**	Valid	

Note All testing carried out on samples at as received water content Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

DETERMINATION OF UNCONFINED COMPRESSIVE STRENGTH

ISRM Suggested Methods, pp 111 –116, 1981.

Hole Number	Sample Number	Sample Type	Top Depth (m)	Base Depth (m)	Sample Diameter (mm)	Sample Length (mm)	Height Ratio	Initial Mass (g)	Bulk Density (Mg/m)	Moisture Content (%)	Dry Density (Mg/m)	Load Failure	UCS (MPa)	Failure Mode	Date Tested	Remarks
BH102		C	16.75	17.15	116	196	1.7	4306	2.08	25	1.66	27.4	2.6	Brittle	22/12/16	

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

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 in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
S Royle (Senior Technician)

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH103		B	0.50		Brown gravelly sandy CLAY.
BH103		B	1.00		Brown very gravelly sandy CLAY.
BH103		D	4.70		Reddish brown mottled grey sandy CLAY.
BH103		D	6.90		Reddish brown mottled grey slightly sandy CLAY.
BH103		D	7.80		Reddish brown mottled grey slightly sandy CLAY.
BH103		D	9.00	9.35	Brown very gravelly very sandy CLAY.
BH103		B	9.35	9.70	Grey clayey silty SAND & GRAVEL with cobbles.
BH103		B	10.70		CHALK.
BH103		D	11.00		CHALK.
BH103		B	12.20		CHALK.
BH103		CS	13.08	13.31	CHALK.
BH103		B	15.10		CHALK.
BH103		CS	18.40	18.65	CHALK.
BH103		CS	21.80	22.10	CHALK.
BH103		CS	24.68	25.00	CHALK.
BH103		B	30.50		CHALK.
BH103		CS	33.30	33.65	CHALK.

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No:
		University of Chichester - Bognor Regis Campus		PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH103		B	0.50		22			48	23	25	82	Intermediate plasticity CI.
BH103		B	1.00		16							
BH103		D	4.70		18			43	21	22	100	Intermediate plasticity CI.
BH103		D	6.90		22			54	24	30	100	High plasticity CH.
BH103		D	7.80		26			64	27	37	100	High plasticity CH.
BH103		D	9.00	9.35	11			34	18	16	68	Low plasticity CL.
BH103		B	9.35	9.70	7.9							
BH103		B	10.70		9.9							
BH103		D	11.00		15							

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

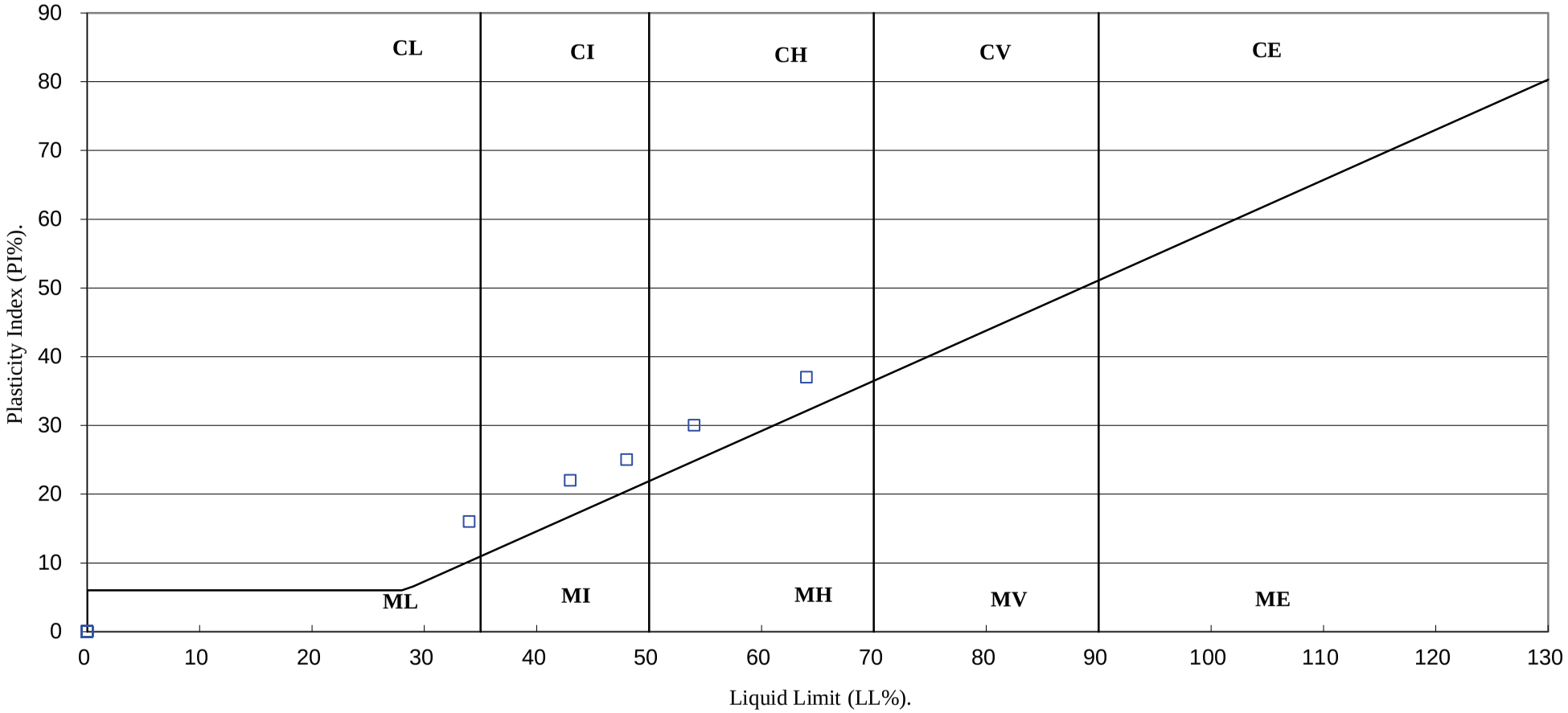
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
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PARTICLE SIZE DISTRIBUTION TEST

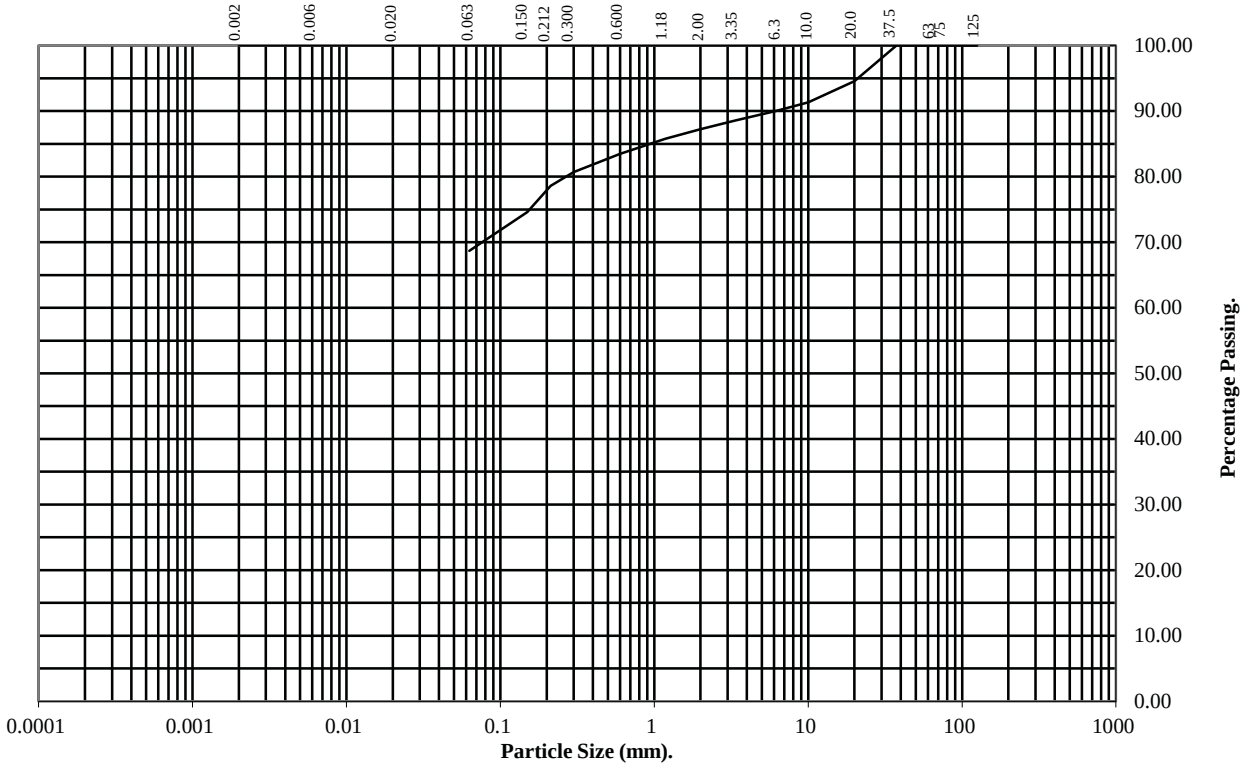
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH103** **Top Depth (m):** **0.50**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	95
10	91
6.3	90
3.35	89
2	87
1.18	86
0.6	83
0.3	81
0.212	79
0.15	75
0.063	69

Soil Fraction	Total Percentage
Cobbles	0
Gravel	13
Sand	18
Silt/Clay	69

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

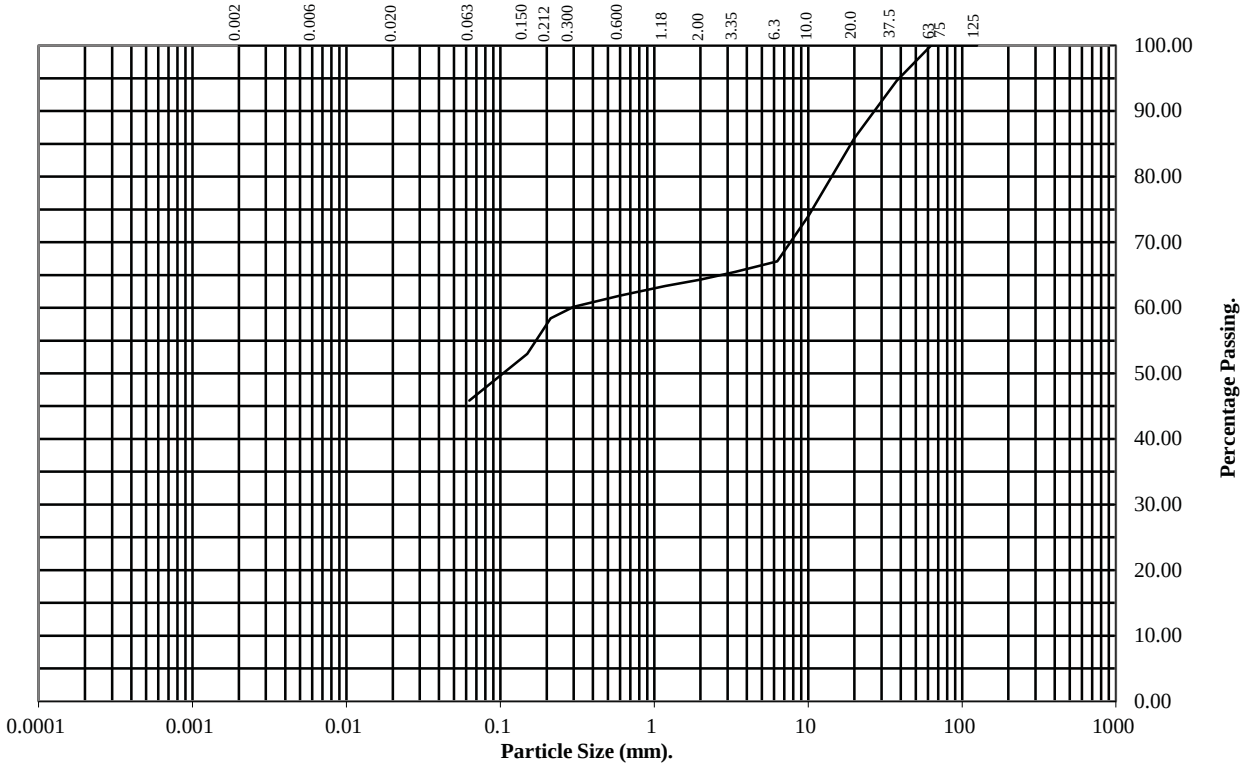
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH103** **Top Depth (m):** **1.00**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	95
20	86
10	74
6.3	67
3.35	65
2	64
1.18	63
0.6	62
0.3	60
0.212	58
0.15	53
0.063	46

Soil Fraction	Total Percentage
Cobbles	0
Gravel	36
Sand	18
Silt/Clay	46

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

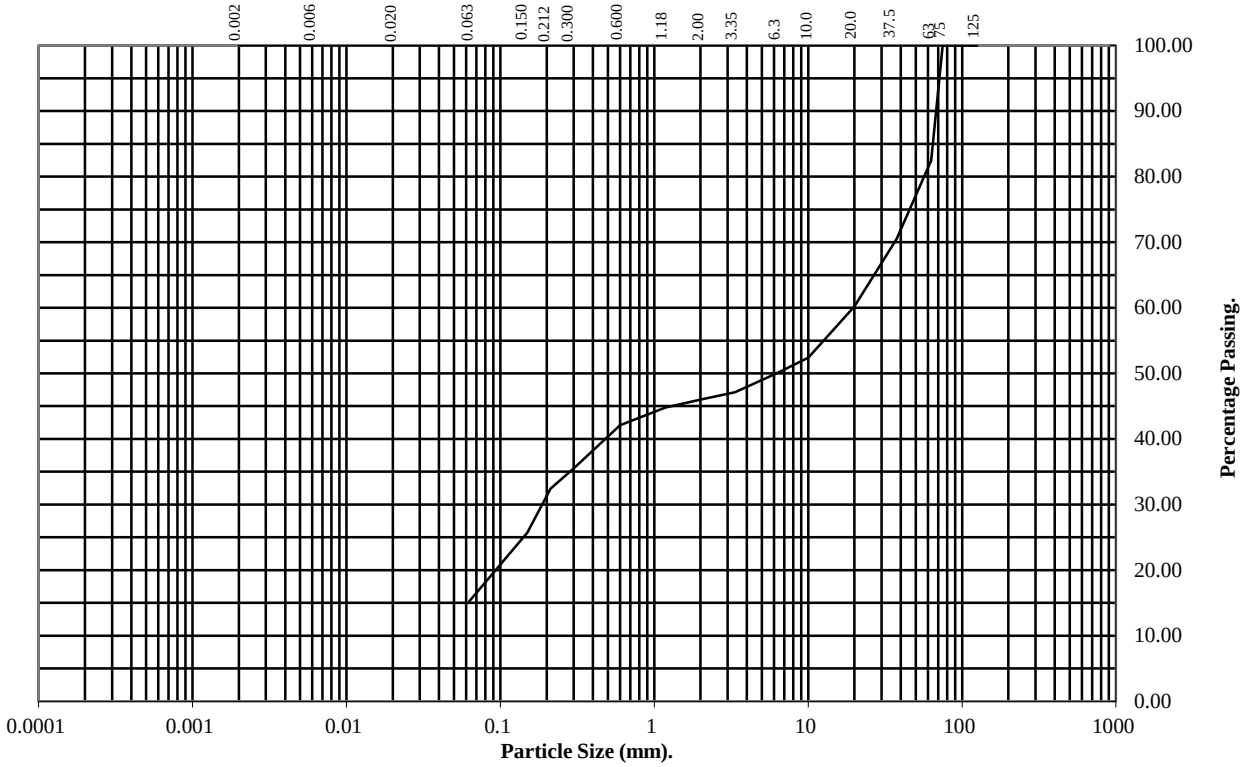
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH103** **Top Depth (m):** **9.35**

Sample Number: **Base Depth(m):** **9.70**

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	82
37.5	71
20	60
10	52
6.3	50
3.35	47
2	46
1.18	45
0.6	42
0.3	35
0.212	32
0.15	26
0.063	15

Soil Fraction	Total Percentage
Cobbles	18
Gravel	36
Sand	31
Silt/Clay	15

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

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
BH103		B	12.20		23	22	1.69	55	3.9	
BH103		CS	13.08	13.31	21	21	1.72			
BH103		B	15.10		23	23	1.67	24	4.1	
BH103		CS	18.40	18.65	25	25	1.60			
BH103		CS	21.80	22.10	23	24	1.65			
BH103		CS	24.68	25.00	23	23	1.67			
BH103		B	30.50		24	24	1.63			
BH103		CS	33.30	33.65	26	25	1.60			

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH103	13.08		A	Par	116	47	2209	6941.70	83.32	0.650	0.87	0.125	1.258	**0.16**	Valid	
BH103	18.40		A	Par	116	44	1936	6498.61	80.61	0.950	1.27	0.195	1.240	**0.24**	Valid	
BH103	24.68		A	Par	116	39	1521	5760.14	75.90	0.800	1.07	0.185	1.207	**0.22**	Valid	
BH103	33.30		A	Par	116	45	2025	6646.31	81.52	0.700	0.93	0.141	1.246	**0.18**	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		D_e^2	D_e	Failure Load		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	L	D		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH103	13.08		D	Perp		116	13456	116.00	0.390	0.52	0.039	1.460	**0.06**	Valid	
BH103	18.40		D	Perp		116	13456	116.00	0.620	0.83	0.062	1.460	**0.09**	Valid	
BH103	24.68		D	Perp		116	13456	116.00	0.760	1.01	0.075	1.460	**0.11**	Valid	
BH103	33.30		D	Perp		116	13456	116.00	0.840	1.12	0.083	1.460	**0.12**	Valid	

Note All testing carried out on samples at as received water content Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

DETERMINATION OF UNCONFINED COMPRESSIVE STRENGTH

ISRM Suggested Methods, pp 111 –116, 1981.

Hole Number	Sample Number	Sample Type	Top Depth (m)	Base Depth (m)	Sample Diameter (mm)	Sample Length (mm)	Height Ratio	Initial Mass (g)	Bulk Density (Mg/m)	Moisture Content (%)	Dry Density (Mg/m)	Load Failure	UCS (MPa)	Failure Mode	Date Tested	Remarks
BH103		C	13.08	13.31	116	197	1.7	4280	2.06	23	1.67	31.2	3.0	Brittle	22/12/16	

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

Notes: Opinions and Interpretations are outside the UKAS Accreditation

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Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
S Royle (Senior Technician)

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ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH104		D	3.70		Brown CLAY.
BH104		D	6.90		Grey very gravelly slightly sandy CLAY.
BH104		D	8.40		CHALK.
BH104		D	10.70		CHALK.
BH104		D	11.95		CHALK.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH104		D	3.70		58			71	29	42	100	Very high plasticity CV.
BH104		D	6.90		31			60	26	34	41	High plasticity CH.

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

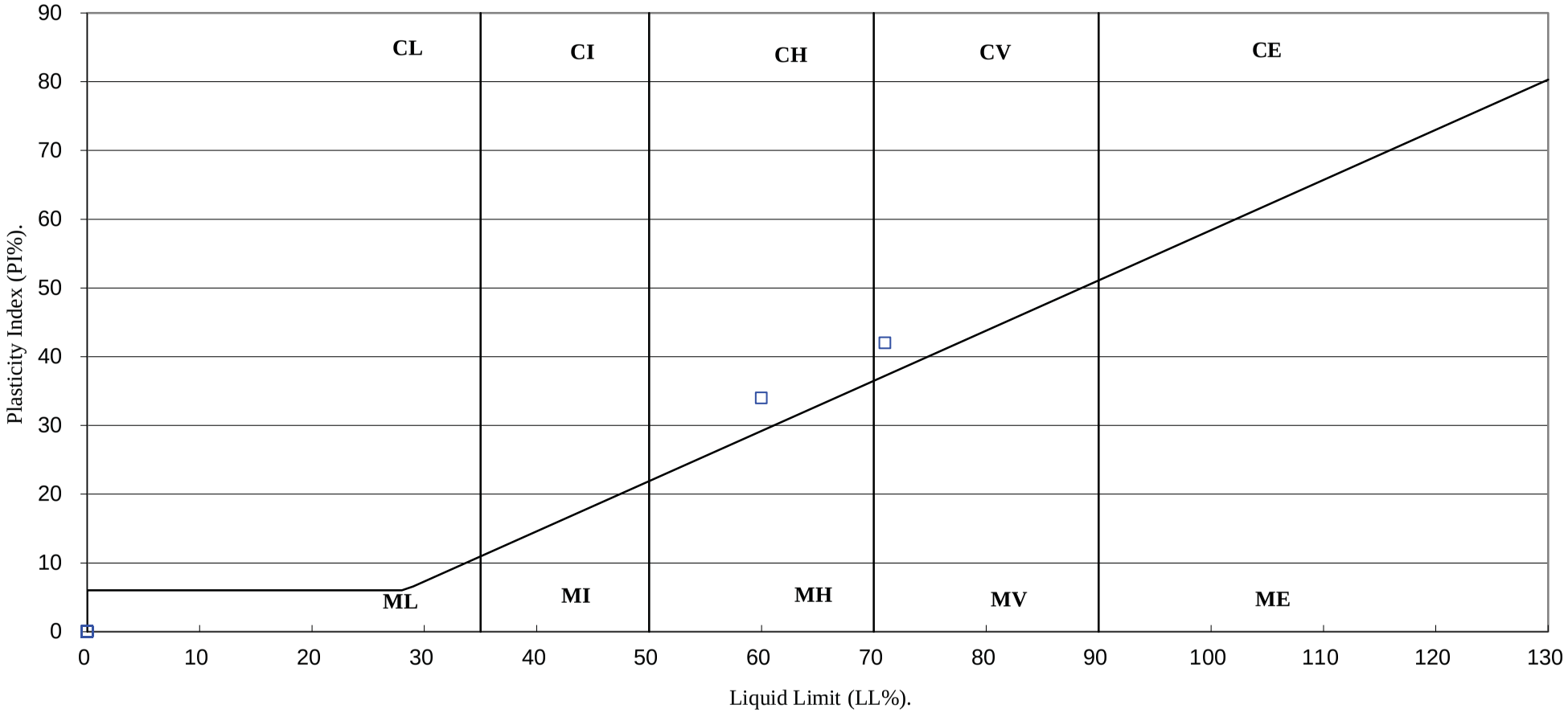
PSL Professional Soils Laboratory

Checked / Approved		**Date**	08/01/16	**Contract No:**
University of Chichester - Bognor Regis Campus				**PSL15/5863**
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

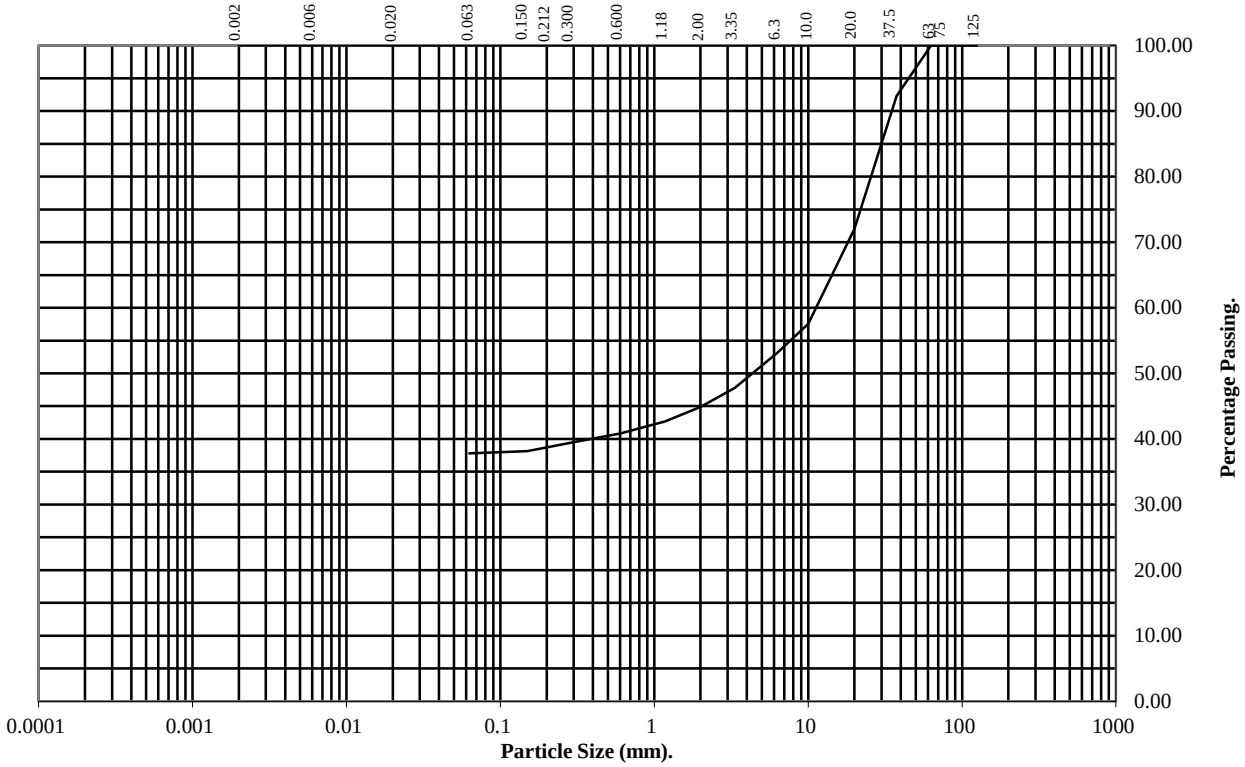
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH104** **Top Depth (m):** **6.90**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	92
20	72
10	58
6.3	53
3.35	48
2	45
1.18	43
0.6	41
0.3	40
0.212	39
0.15	38
0.063	38

Soil Fraction	Total Percentage
Cobbles	0
Gravel	55
Sand	7
Silt/Clay	38

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

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
BH104		D	8.40		26	26	1.58			
BH104		D	10.70	13.31	24	24	1.64			
BH104		D	11.95		26	25	1.61			

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved		Date 08/01/16	Contract No:
		University of Chichester - Bognor Regis Campus			PSL15/5863
					Client Ref:
					C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

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Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
S Royle (Senior Technician)

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ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH105		D	4.00		Grey mottled brown CLAY.
BH105		D	7.00		Grey mottled brown slightly sandy CLAY.
BH105		D	10.00		Grey mottled brown slightly sandy CLAY.
BH105		D	13.00		CHALK.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH105		D	4.00		66			79	31	48	100	Very high plasticity CV.
BH105		D	7.00		46			59	26	33	100	High plasticity CH.
BH105		D	10.00		59			65	27	38	100	High plasticity CH.

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

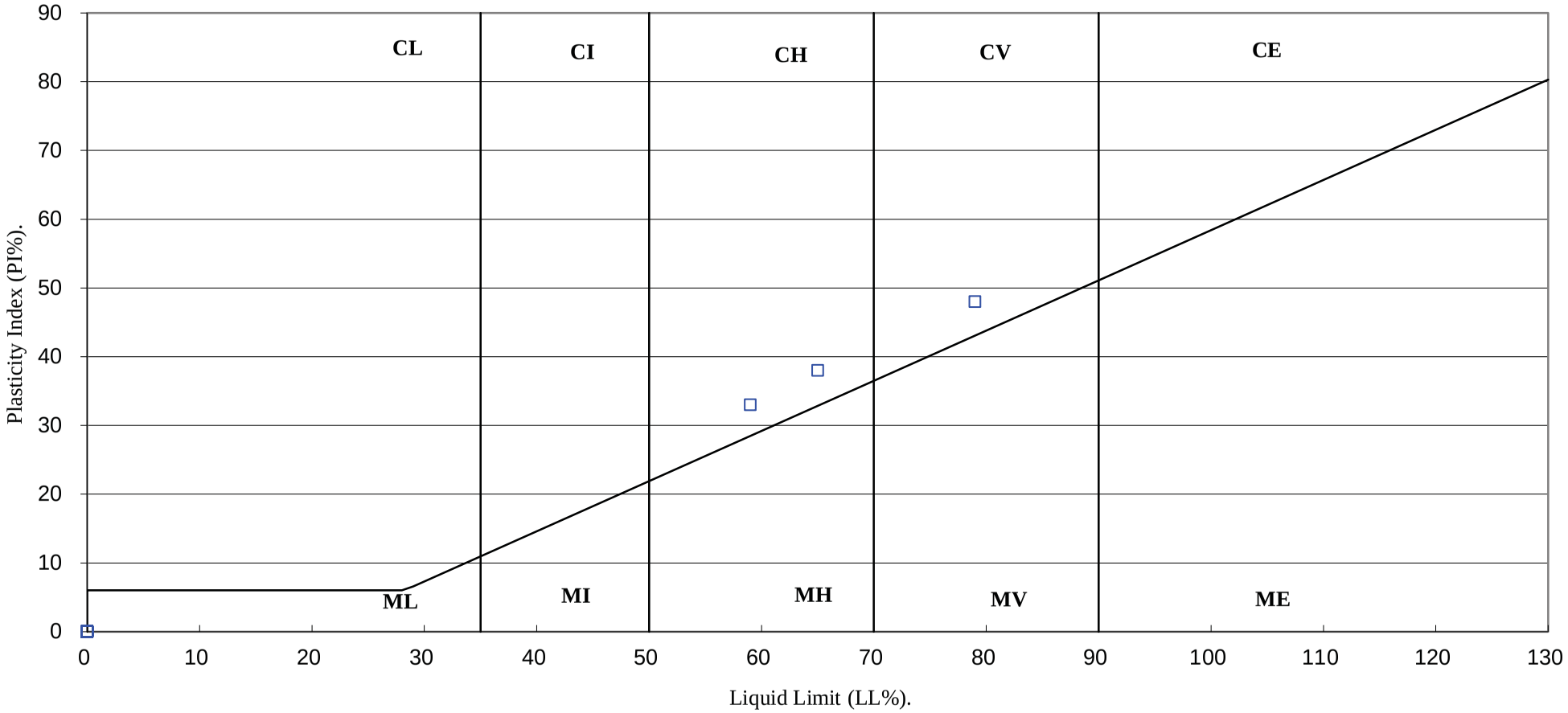
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

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
BH105		**D**	**13.00**		**25**	**23**	**1.67**			

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
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For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
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awatkins@prosoils.co.uk

ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH106		B	0.20		Brown slightly gravelly slightly sandy CLAY.
BH106		B	0.50		Brown slightly gravelly slightly sandy CLAY.
BH106		D	2.10		Reddish brown mottled grey slightly sandy CLAY.
BH106		D	3.50		Reddish brown mottled grey slightly sandy CLAY.
BH106		D	4.50		Reddish brown mottled grey slightly sandy CLAY.
BH106		SPT	6.00	6.08	Brown mottled grey gravelly sandy CLAY.
BH106		D	8.80		White structureless CHALK.
BH106		CS	9.95	10.25	CHALK.
BH106		D	15.00		CHALK.
BH106		CS	18.40	18.64	CHALK.
BH106		D	19.50		CHALK.
BH106		CS	21.35	21.70	CHALK.
BH106		D	24.40		CHALK.
BH106		CS	27.40	27.60	CHALK.
BH106		D	28.60		CHALK.
BH106		D	30.10		CHALK.
BH106		D	31.60		CHALK.
BH106		CS	32.00	32.25	CHALK.
BH106		D	34.60		CHALK.

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No: PSL15/5863
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ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH106		B	0.20		33			55	25	30	92	High plasticity CH.
BH106		B	0.50		24			51	23	28	90	High plasticity CH.
BH106		D	2.10		26			54	24	30	100	High plasticity CH.
BH106		D	4.50		27			62	27	35	100	High plasticity CH.
BH106		SPT	6.00	6.28	19			44	21	23	81	Intermediate plasticity CI.
BH106		D	8.80		25							
BH106		D	19.50		25							
BH106		D	30.10		24							

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

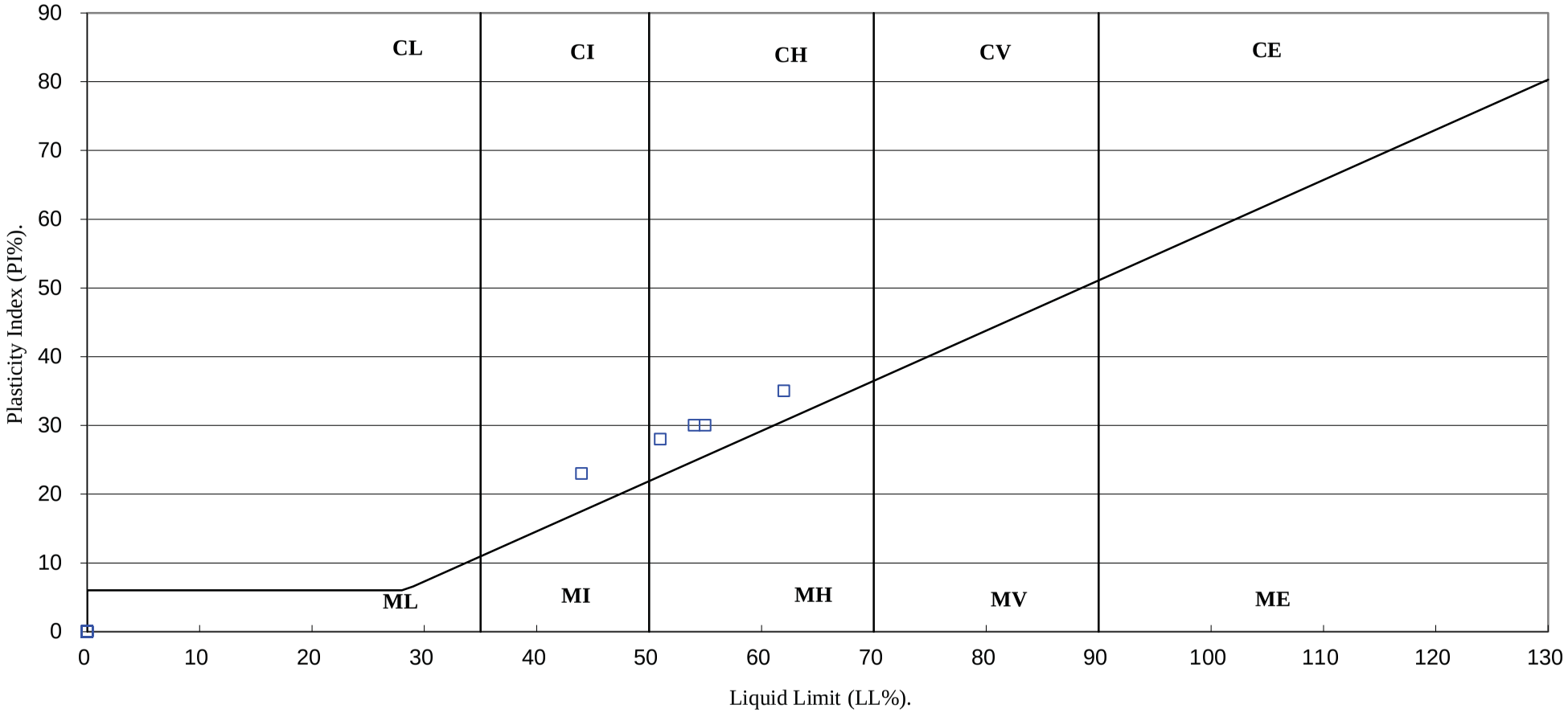
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Checked / Approved		Date	08/01/16	Contract No:
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ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 / PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
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PARTICLE SIZE DISTRIBUTION TEST

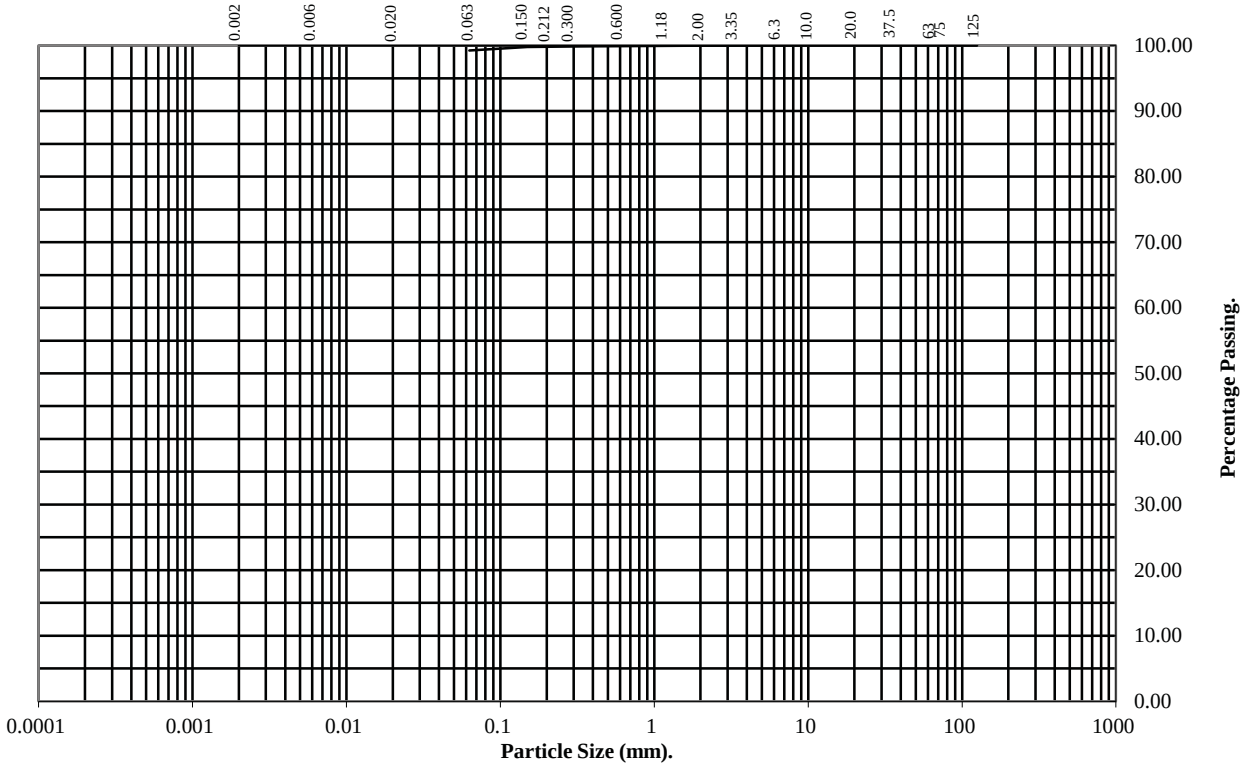
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH106** **Top Depth (m):** **3.50**

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

Sample Type: **B**



BS Test Sieve	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	100
0.063	99

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	1
Silt/Clay	99

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

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
BH106		CS	9.95	10.25	24	24	1.65			
BH106		D	15.00		27	26	1.58			
BH106		CS	18.40	18.64	22	22	1.69	18	3.7	
BH106		CS	21.35	21.70	26	26	1.60			
BH106		D	24.40		25	24	1.65	14	3.8	
BH106		CS	27.40	27.60	24	24	1.63			
BH106		D	28.60		27	27	1.56			
BH106		D	31.60		26	25	1.60			
BH106		CS	32.00	32.25	16	20	1.75			
BH106		D	34.60		22	22	1.70			

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PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
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				C4872

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SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH106	9.95		A	Par	116	56	3136	8270.96	90.94	0.460	0.61	0.074	1.309	**0.10**	Valid	
BH106	22.05		A	Par	116	56	3136	8270.96	90.94	1.920	2.56	0.310	1.309	**0.41**	Valid	
BH106	27.40		A	Par	116	45	2025	6646.31	81.52	1.080	1.44	0.217	1.246	**0.27**	Valid	
BH106	32.00		A	Par	116	40	1600	5907.83	76.86	0.530	0.71	0.120	1.213	**0.15**	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		D_e^2	D_e	Failure Load		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	L	D		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH106	9.95		D	Perp		116	13456	116.00	0.760	1.01	0.075	1.460	**0.11**	Valid	
BH106	22.05		D	Perp		116	13456	116.00	1.480	1.98	0.147	1.460	**0.21**	Valid	
BH106	27.40		D	Perp		116	13456	116.00	0.660	0.88	0.065	1.460	**0.10**	Valid	
BH106	32.00		D	Perp		116	13456	116.00	0.640	0.85	0.063	1.460	**0.09**	Valid	

Note All testing carried out on samples at as received water content Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
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ARUN DISTRICT COUNCIL BR/311/18/PL

DETERMINATION OF UNCONFINED COMPRESSIVE STRENGTH

ISRM Suggested Methods, pp 111 –116, 1981.

Hole Number	Sample Number	Sample Type	Top Depth (m)	Base Depth (m)	Sample Diameter (mm)	Sample Length (mm)	Height Ratio	Initial Mass (g)	Bulk Density (Mg/m)	Moisture Content (%)	Dry Density (Mg/m)	Load Failure	UCS (MPa)	Failure Mode	Date Tested	Remarks
BH106		C	9.95	10.25	116	197	1.7	4268	2.05	24	1.65	20.3	1.9	Brittle	22/12/16	
BH106		C	18.40	18.64	116	190	1.6	4199	2.09	23	1.70	27.1	2.6	Brittle	22/12/16	
BH106		C	21.35	21.70	116	181	1.6	3845	2.01	26	1.60	22.3	2.1	Brittle	22/12/16	
BH106		C	30.55	30.85	116	175	1.5	3688	1.99	25	1.60	22.3	2.1	Brittle	22/12/16	

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
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For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
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ARUN DISTRICT COUNCIL BR/311/18/PL

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH107		B	0.50		Brown gravelly sandy CLAY.
BH107		B	1.00		Grey sandy clayey silty GRAVEL.
BH107		B	2.20	2.50	Brown gravelly clayey silty SAND.
BH107		B	3.00	3.50	Brown sandy clayey GRAVEL.
BH107		D	3.55	3.60	Brown very gravelly very sandy CLAY.
BH107		B	3.60	3.90	Brown very sandy clayey GRAVEL.
BH107		D	5.00	5.15	Brown gravelly very sandy CLAY.
BH107		D	7.00		CHALK.
BH107		D	8.40		CHALK.
BH107		D	9.70		CHALK.
BH107		D	12.60		CHALK.
BH107		D	14.00		CHALK.
BH107		CS	16.40	16.59	CHALK.
BH107		CS	17.70	17.90	CHALK.
BH107		CS	18.97	19.14	CHALK.
BH107		CS	21.80	22.10	CHALK.
BH107		CS	23.10	23.30	CHALK.
BH107		CS	26.40	26.71	CHALK.
BH107		CS	29.75	30.10	CHALK.

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No: PSL15/5863
		University of Chichester - Bognor Regis Campus		Client Ref: C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH107		CS	31.30	31.56	CHALK.
BH107		CS	32.97	33.15	CHALK.
BH107		B	33.18		CHALK.
BH107		B	34.67		CHALK.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH107		B	0.50		21			45	21	24	81	Intermediate plasticity CI.
BH107		B	2.20	2.50	16							
BH107		B	3.00	3.50	6.7							
BH107		D	3.55	3.60	16			29	16	13	72	Low plasticity CL.
BH107		B	3.60	3.90	10							
BH107		D	5.00	5.15	16			34	18	16	79	Low plasticity CL.
BH107		D	14.00		28							
BH107		CS	17.70	17.90	23							
BH107		CS	18.97	19.14	26							
BH107		CS	23.10	23.30	24							
BH107		CS	31.30	31.56	26							

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

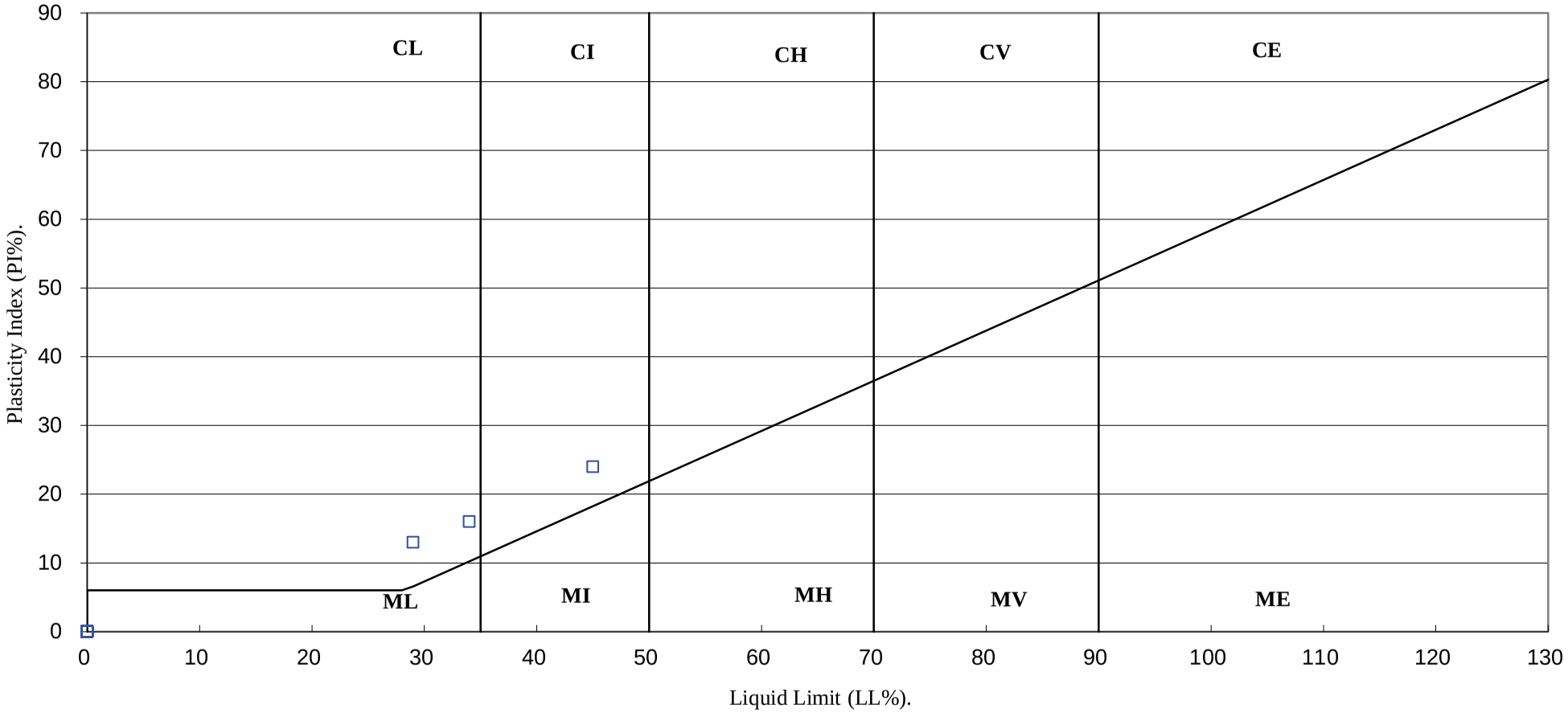
PSL Professional Soils Laboratory

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University of Chichester - Bognor Regis Campus				PSL15/5863
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ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

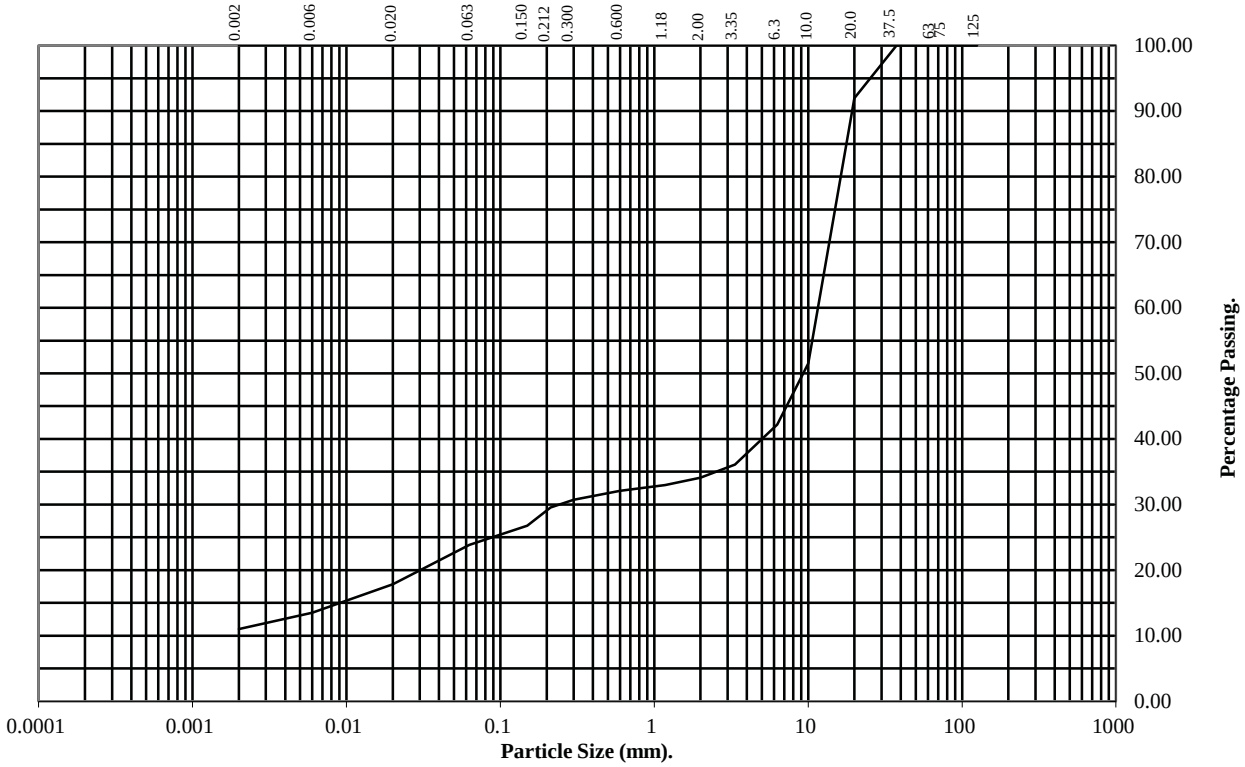
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH107** **Top Depth (m):** **1.00**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	92
10	52
6.3	42
3.35	36
2	34
1.18	33
0.6	32
0.3	31
0.212	30
0.15	27
0.063	24

Particle Diameter	Percentage Passing
0.02	18
0.006	13
0.002	11

Soil Fraction	Total Percentage
Cobbles	0
Gravel	66
Sand	10
Silt	13
Clay	11

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
	University of Chichester - Bognor Regis Campus			**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

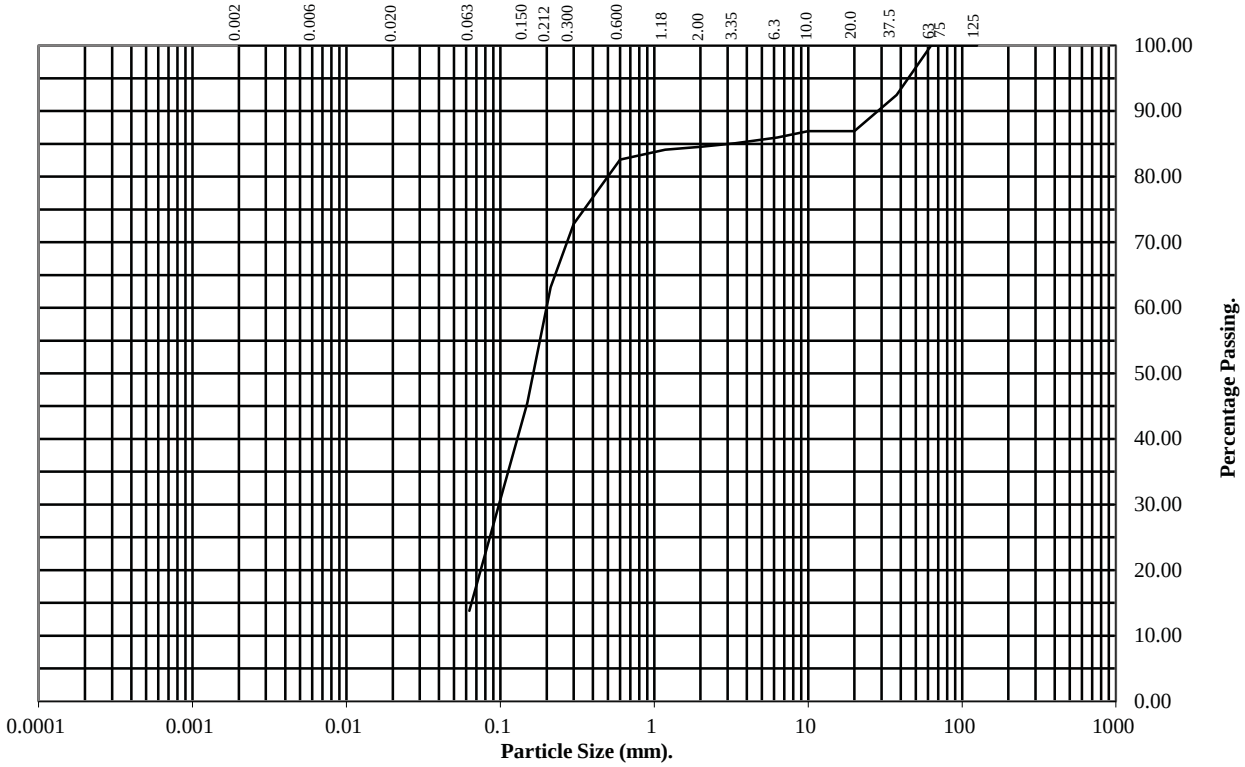
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH107** **Top Depth (m):** **2.20**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	92
20	87
10	87
6.3	86
3.35	85
2	85
1.18	84
0.6	83
0.3	73
0.212	63
0.15	45
0.063	14

Soil Fraction	Total Percentage
Cobbles	0
Gravel	15
Sand	71
Silt/Clay	14

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

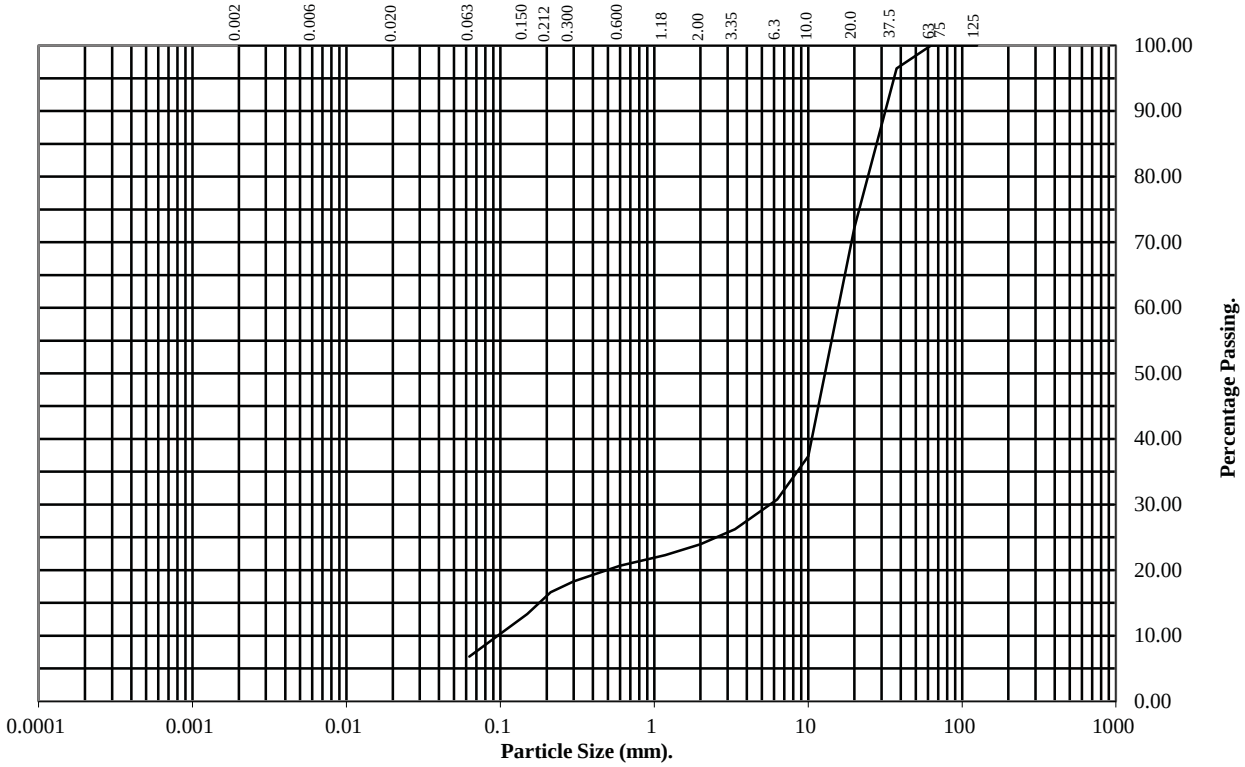
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH107** **Top Depth (m):** **3.00**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	97
20	72
10	37
6.3	31
3.35	26
2	24
1.18	22
0.6	21
0.3	18
0.212	17
0.15	13
0.063	7

Soil Fraction	Total Percentage
Cobbles	0
Gravel	76
Sand	17
Silt/Clay	7

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

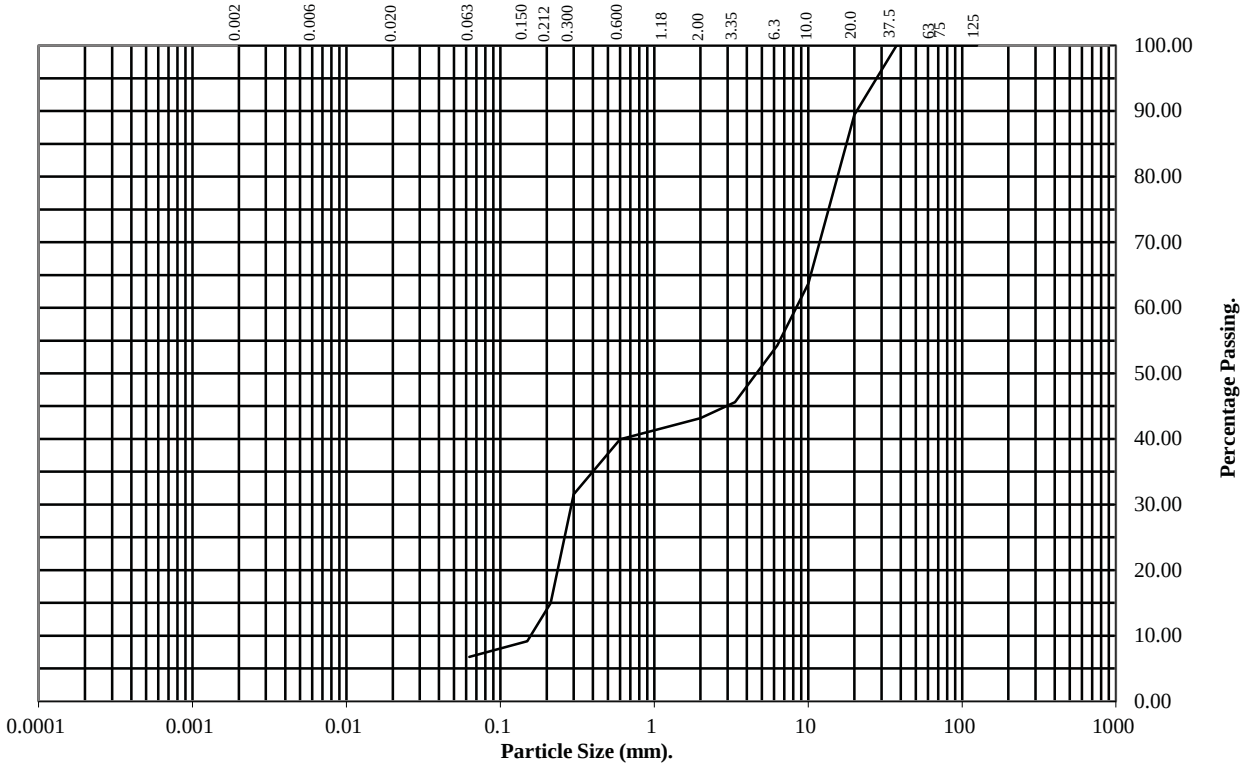
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH107** **Top Depth (m):** **3.60**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	89
10	64
6.3	54
3.35	46
2	43
1.18	42
0.6	40
0.3	32
0.212	15
0.15	9
0.063	7

Soil Fraction	Total Percentage
Cobbles	0
Gravel	57
Sand	36
Silt/Clay	7

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

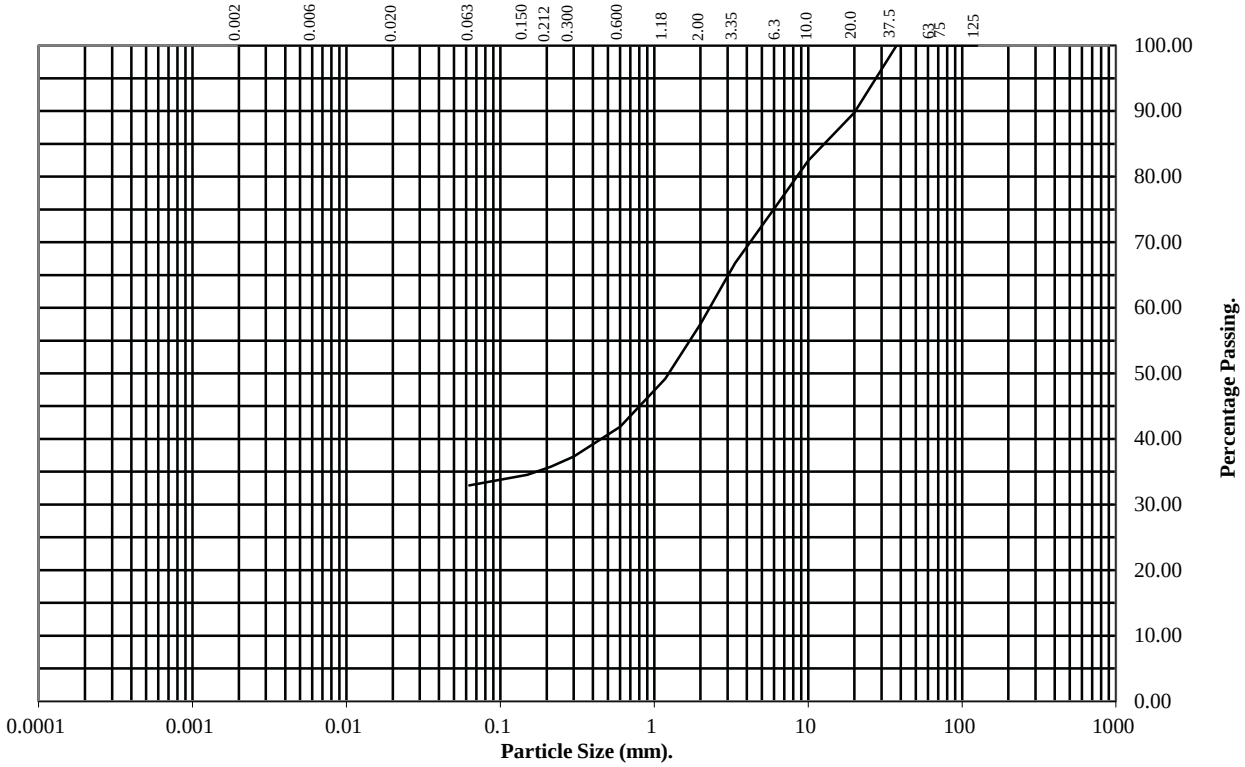
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH107** **Top Depth (m):** **7.00**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	90
10	82
6.3	76
3.35	67
2	58
1.18	49
0.6	42
0.3	37
0.212	36
0.15	35
0.063	33

Soil Fraction	Total Percentage
Cobbles	0
Gravel	42
Sand	25
Silt/Clay	33

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

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
BH107		D	7.00		26	26	1.58			
BH107		D	8.40		29	29	1.52			
BH107		D	9.70		24	24	1.68	17	3.5	
BH107		D	12.60		25	24	1.65	14	3.6	
BH107		CS	16.40	16.59	24	24	1.68			
BH107		CS	18.97	19.14	26	26	1.58	50	3.7	
BH107		CS	21.80	22.10	22	22	1.70			
BH107		CS	23.10	23.30	25	25	1.62	43	3.8	
BH107		CS	26.40	26.71	26	26	1.58			
BH107		CS	29.75	30.10	24	24	1.63			
BH107		CS	31.30	31.56	23	24	1.64	50	3.8	
BH107		CS	32.97	33.15	23	23	1.67			
BH107		B	33.18		26			68	4.0	
BH107		B	34.67		27	28	1.55			

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SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH107	17.70		A	Par	116	44	1936	6498.61	80.61	0.980	1.31	0.201	1.240	**0.25**	Valid	
BH107	18.97		A	Par	116	33	1089	4873.96	69.81	0.370	0.49	0.101	1.162	**0.12**	Valid	
BH107	21.80		A	Par	116	53	2809	7827.88	88.48	1.280	1.71	0.218	1.293	**0.28**	Valid	
BH107	23.10		A	Par	116	41	1681	6055.53	77.82	0.760	1.01	0.168	1.220	**0.20**	Valid	
BH107	26.40		A	Par	116	55	3025	8123.27	90.13	0.810	1.08	0.133	1.304	**0.17**	Valid	
BH107	31.30		A	Par	116	42	1764	6203.22	78.76	0.760	1.01	0.164	1.227	**0.20**	Valid	
BH107	34.20		A	Par	116	53	2809	7827.88	88.48	1.020	1.36	0.174	1.293	**0.22**	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		D_e^2	D_e	Failure Load		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	L	D		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH107	17.70		D	Perp		116	13456	116.00	0.520	0.69	0.052	1.460	**0.08**	Valid	
BH107	18.97		D	Perp		116	13456	116.00	0.220	0.29	0.022	1.460	**0.03**	Valid	
BH107	21.80		D	Perp		116	13456	116.00	0.370	0.49	0.037	1.460	**0.05**	Valid	
BH107	23.10		D	Perp		116	13456	116.00	0.580	0.77	0.058	1.460	**0.08**	Valid	
BH107	26.40		D	Perp		116	13456	116.00	0.540	0.72	0.054	1.460	**0.08**	Valid	
BH107	31.30		D	Perp		116	13456	116.00	0.640	0.85	0.063	1.460	**0.09**	Valid	
BH107	34.20		D	Perp		116	13456	116.00	0.770	1.03	0.076	1.460	**0.11**	Valid	

Note All testing carried out on samples at as received water content Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
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				Client Ref:
				C4872

DETERMINATION OF UNCONFINED COMPRESSIVE STRENGTH

ISRM Suggested Methods, pp 111 –116, 1981.

Hole Number	Sample Number	Sample Type	Top Depth (m)	Base Depth (m)	Sample Diameter (mm)	Sample Length (mm)	Height Ratio	Initial Mass (g)	Bulk Density (Mg/m)	Moisture Content (%)	Dry Density (Mg/m)	Load Failure	UCS (MPa)	Failure Mode	Date Tested	Remarks
BH107		C	16.40	16.59	116	202	1.7	4341	2.03	24	1.64	20.5	1.9	Brittle	22/12/16	
BH107		C	21.80	22.10	116	198	1.7	4234	2.02	23	1.64	28.3	2.7	Brittle	22/12/16	
BH107		C	29.75	30.10	116	202	1.7	4304	2.02	24	1.63	28.0	2.6	Brittle	22/12/16	

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:**
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				Client Ref:
				C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

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 in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH108		B	0.20		Brown slightly gravelly slightly sandy CLAY.
BH108		B	0.50		Brown slightly sandy CLAY.
BH108		UT100	1.20	1.65	Soft brown CLAY.
BH108		D	1.65	1.75	Brown CLAY.
BH108		UT100	4.00	4.45	Very soft brown CLAY.
BH108		D	5.00		Grey slightly sandy CLAY.
BH108		D	8.00		Grey slightly gravelly slightly sandy CLAY.
BH108		D	9.50		CHALK.
BH108		B	12.60	13.00	CHALK.
BH108		CS	17.10	17.35	CHALK.
BH108		CS	20.82	21.00	CHALK.
BH108		CS	23.85	24.10	CHALK.
BH108		CS	25.30	25.50	CHALK.
BH108		D	27.80		CHALK.
BH108		CS	28.80	29.20	CHALK.
BH108		CS	32.70	33.00	CHALK.
BH108		D	34.20		CHALK.

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	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 % 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
BH108		B	0.20		30			67	28	39	96	High plasticity CH.
BH108		B	0.50		40			64	27	37	100	High plasticity CH.
BH108		UT100	1.20	1.65	46			72	30	42	100	Very high plasticity CV.
BH108		UT100	4.00	4.45	59			77	31	46	100	Very high plasticity CV.
BH108		D	5.00		39			53	24	29	100	High plasticity CH.
BH108		D	8.00		45			57	25	32	95	High plasticity CH.
BH108		D	9.50		27			36	25	11	77	Intermediate plasticity MI.
BH108		D	27.80		27							

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

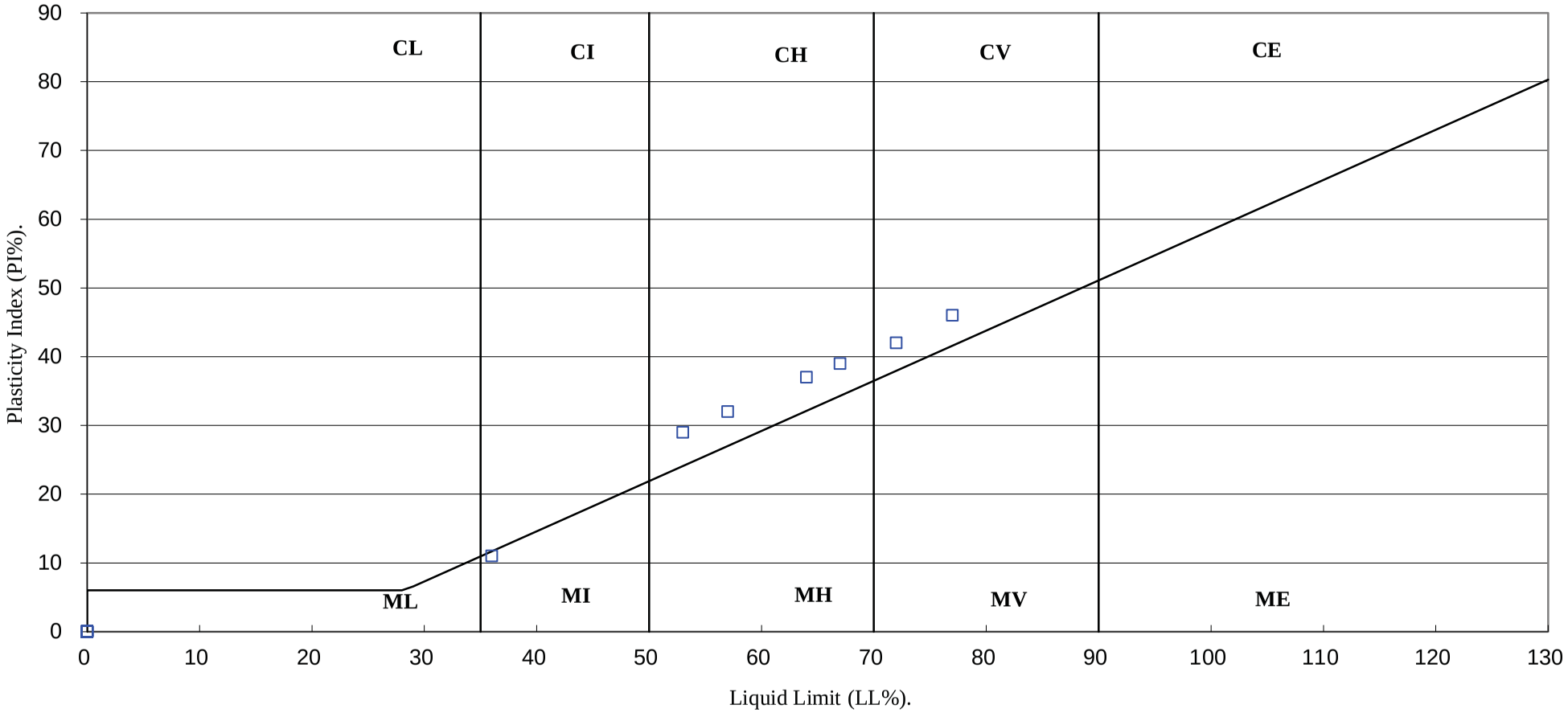
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
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				Client Ref:
				C4872

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PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
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				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

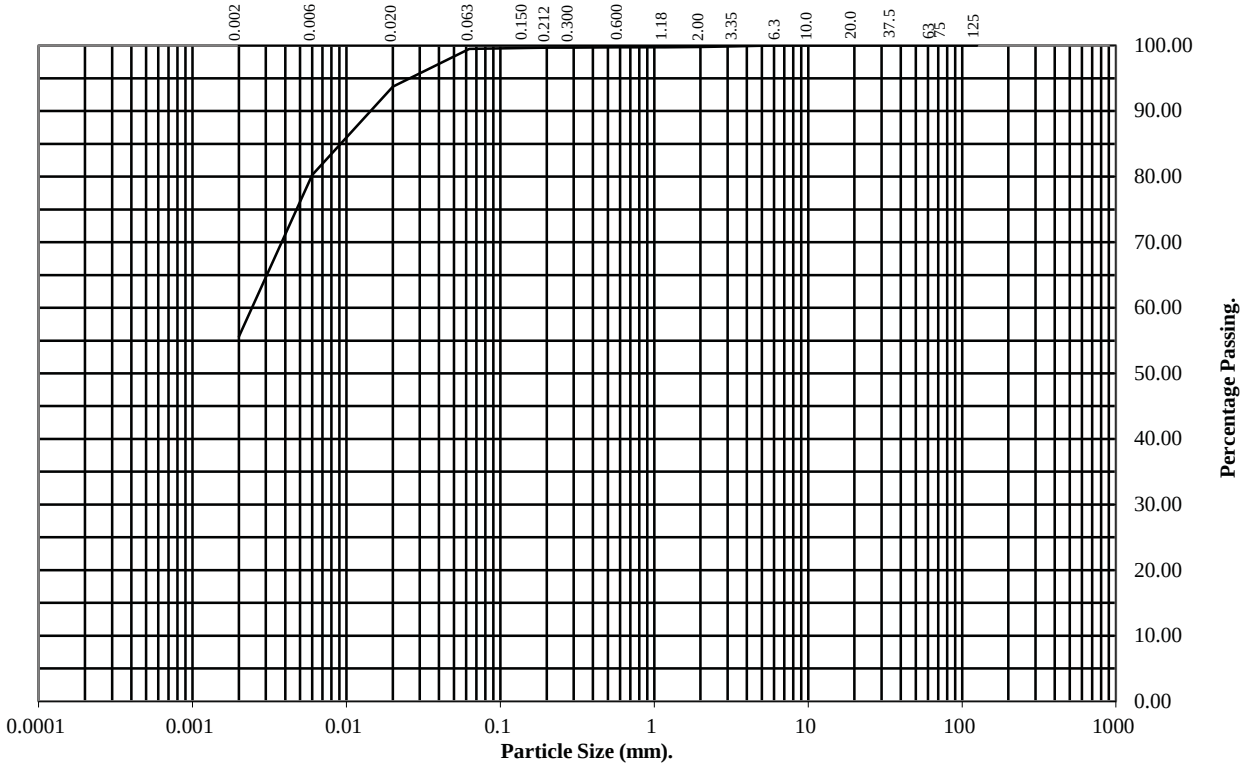
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH108** **Top Depth (m):** **1.65**

Sample Number: **Base Depth(m):** **1.75**

Sample Type: **B**



BS Test Sieve	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	100
0.063	100

Particle Diameter	Percentage Passing
0.02	94
0.006	80
0.002	56

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	0
Silt	44
Clay	56

Remarks:
See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

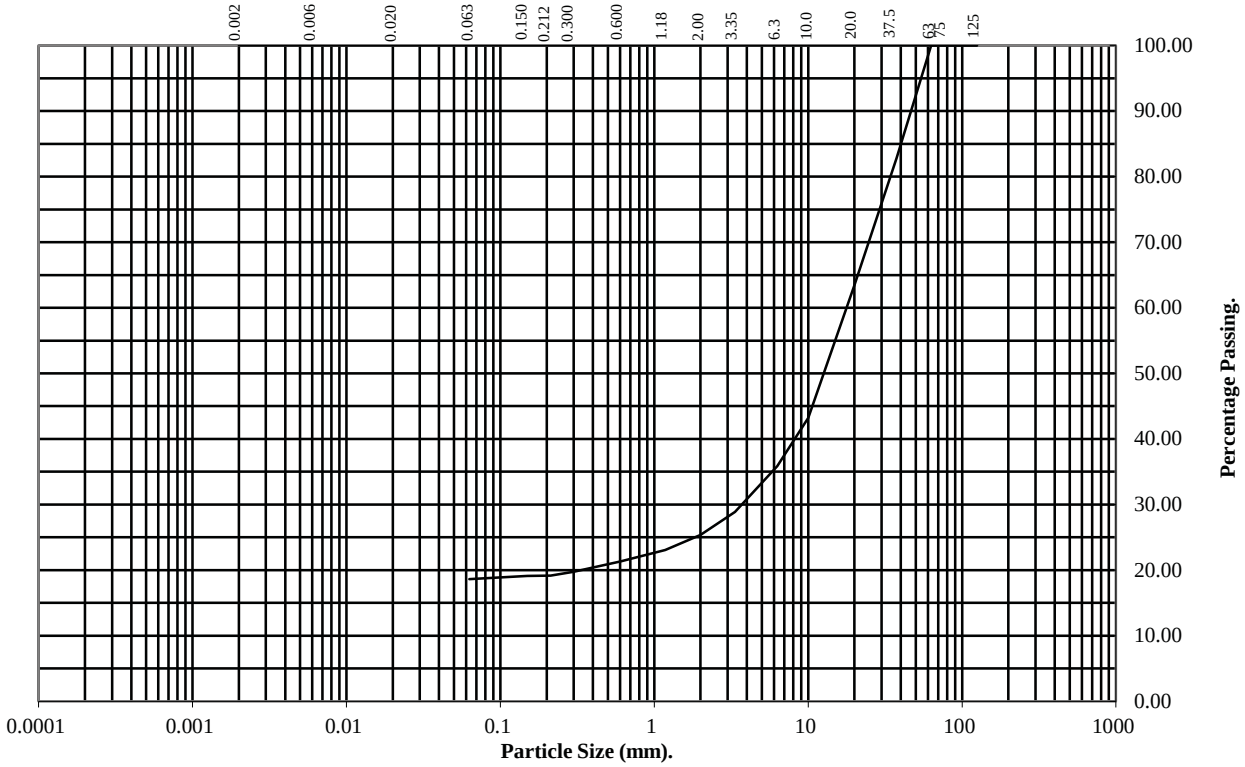
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH108** **Top Depth (m):** **9.50**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	83
20	63
10	43
6.3	36
3.35	29
2	25
1.18	23
0.6	21
0.3	20
0.212	19
0.15	19
0.063	19

Soil Fraction	Total Percentage
Cobbles	0
Gravel	75
Sand	6
Silt/Clay	19

Remarks:

See summary of soil descriptions.

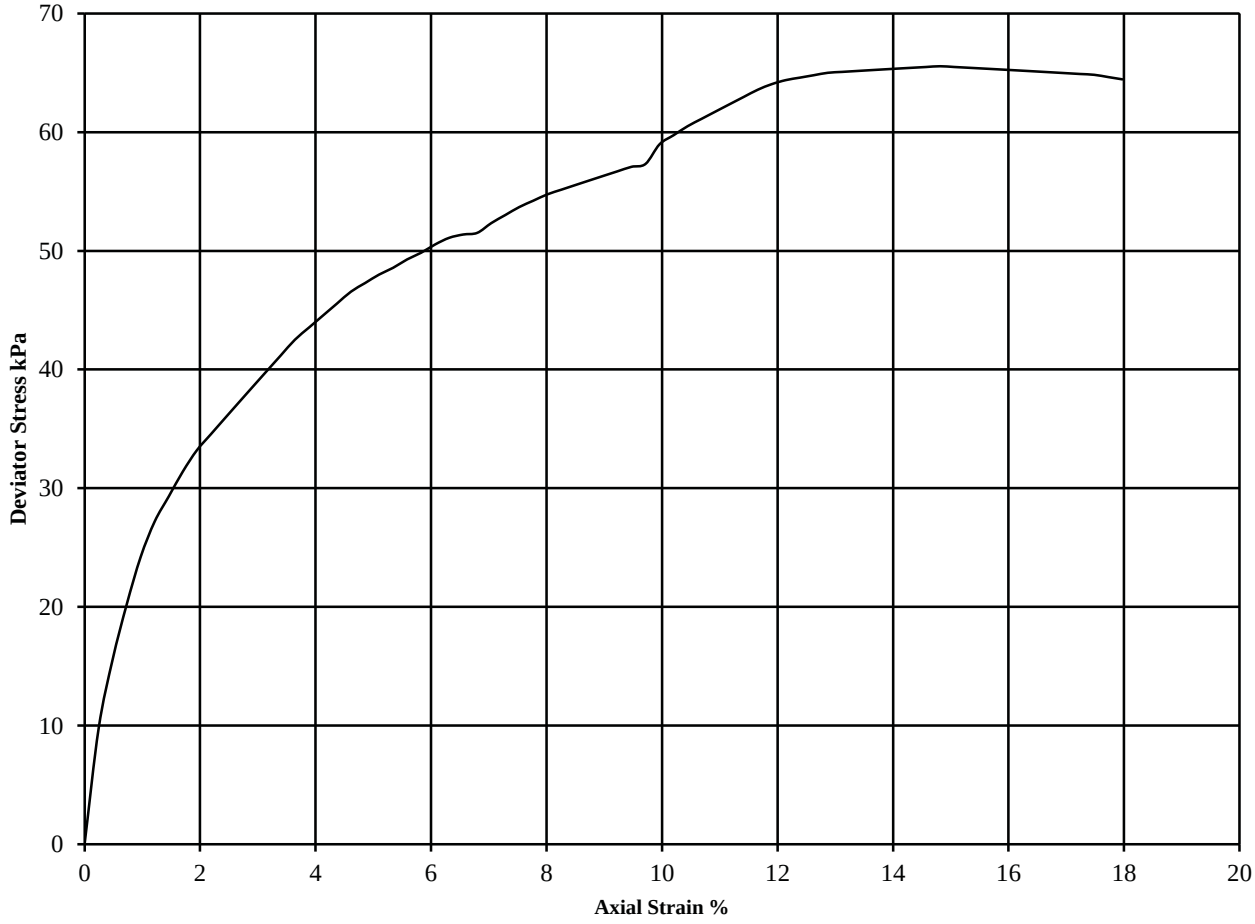
UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 9

Hole Number:	**BH108**	**Top Depth (m):**	**1.20**
Sample Number:		**Base Depth (m):**	**1.65**
Sample Type	**U**		



Diameter (mm):		102	Height (mm):		210	Test:	UU Multistage		Remarks
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick Membrane Correction applied (kPa) 0.36 0.35 0.34
1	46	1.66	1.14	17	52	26	6.8		See summary of soil descriptions
				35	57	29	9.7		
				70	66	33	14.8	Plastic	

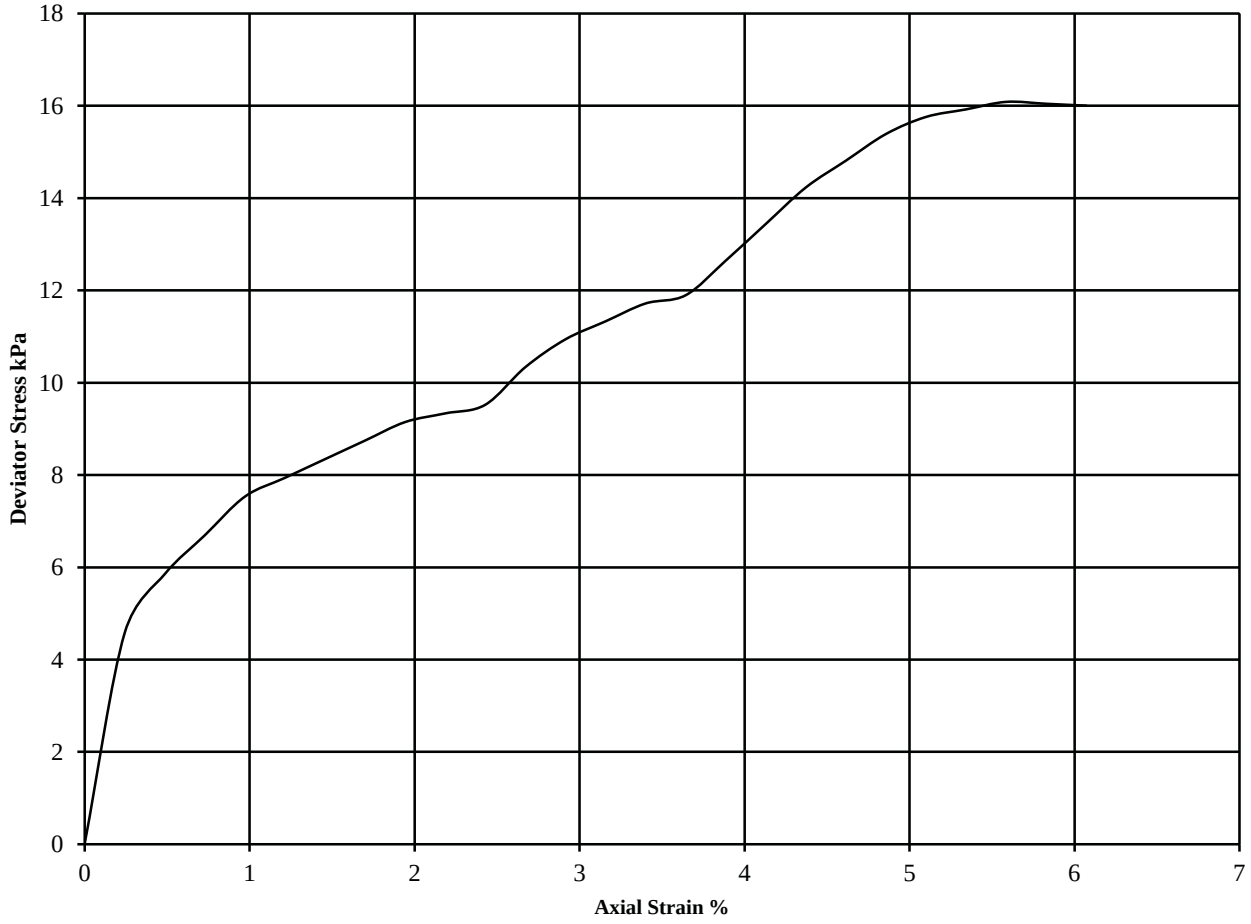
UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:**	
		University of Chichester - Bognor Regis Campus		**PSL15/5863**	
				Client Ref:	
				C4872	

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 9

Hole Number:	**BH108**	**Top Depth (m):**	**4.00**
Sample Number:		**Base Depth (m):**	**4.45**
Sample Type	**U**		



Diameter (mm):		102	Height (mm):		210	Test:	UU Multistage		Remarks
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick Membrane Correction applied (kPa) 0.37 0.37 0.36
1	59	1.64	1.03	45	9	5	2.2		See summary of soil descriptions
				90	12	6	3.6		
				180	16	8	5.6	Plastic	

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:**	
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				Client Ref:	
				C4872	

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
BH108		B	12.60	13.00	25	26	1.58	60	3.6	
BH108		CS	17.10	17.35	26	25	1.60			
BH108		CS	20.82	21.00	26	26	1.59			
BH108		CS	23.85	24.10	25			74	3.7	
BH108		CS	25.30	25.50	25	25	1.61			
BH108		CS	28.80	29.20	23	24	1.64			
BH108		CS	32.70	33.00	23	23	1.68			
BH108		D	34.20		22	23	1.67	52	4.1	

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH108	12.60		I	Par	50	45	2025	2864.79	53.52	0.450	0.60	0.210	1.031	**0.22**	Valid	
BH108	17.10		A	Par	116	58	3364	8566.36	92.55	0.520	0.69	0.081	1.319	**0.11**	Valid	
BH108	20.82		A	Par	116	44	1936	6498.61	80.61	0.540	0.72	0.111	1.240	**0.14**	Valid	
BH108	25.30		A	Par	116	40	1600	5907.83	76.86	0.800	1.07	0.181	1.213	**0.22**	Valid	
BH108	32.70		A	Par	116	38	1444	5612.44	74.92	0.820	1.09	0.195	1.200	**0.23**	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		D_e^2	D_e	Failure Load		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	L	D		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH108	17.10		D	Perp		116	13456	116.00	0.680	0.91	0.067	1.460	**0.10**	Valid	
BH108	20.82		D	Perp		116	13456	116.00	0.360	0.48	0.036	1.460	**0.05**	Valid	
BH108	25.30		D	Perp		116	13456	116.00	0.500	0.67	0.050	1.460	**0.07**	Valid	
BH108	32.70		D	Perp		116	13456	116.00	0.710	0.95	0.070	1.460	**0.10**	Valid	

Note All testing carried out on samples at as received water content Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref:
				C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

Notes: Opinions and Interpretations are outside the UKAS Accreditation

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Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
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ARUN DISTRICT COUNCIL BR/311/18/PL

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH109		B	0.50		Brown slightly gravelly slightly sandy CLAY.
BH109		B	1.00		Brown slightly sandy CLAY.
BH109		D	2.50		Brown mottled grey slightly sandy CLAY.
BH109		D	5.60		Grey mottled brown sandy CLAY.
BH109		D	7.00		Grey mottled brown sandy CLAY.
BH109		D	9.80		Dark grey slightly sandy very silty CLAY with some organic material.
BH109		D	13.00		Dark grey slightly sandy very silty CLAY with some organic material.
BH109		D	15.30		Dark grey slightly sandy very silty CLAY with some organic material.
BH109		D	15.50		Grey gravelly slightly sandy silty CLAY.
BH109		D	16.10		Brown slightly gravelly slightly sandy CLAY.
BH109		D	17.20		CHALK.
BH109		D	20.40		CHALK.
BH109		B	24.60	24.67	CHALK.
BH109		CS	28.20	28.45	CHALK.
BH109		CS	29.60	29.83	CHALK.
BH109		B	31.13	31.32	CHALK.
BH109		D	34.90		CHALK.

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved		Date	08/01/16
		University of Chichester - Bognor Regis Campus			Contract No: PSL15/5863 Client Ref: C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH109		B	0.50		28			59	26	33	96	High plasticity CH.
BH109		B	1.00		38			64	27	37	100	High plasticity CH.
BH109		D	2.50		37			55	25	30	100	High plasticity CH.
BH109		D	5.60		32			45	22	23	100	Intermediate plasticity CI.
BH109		D	7.00		34			46	23	23	100	Intermediate plasticity CI.
BH109		D	9.80		48			79	31	48	100	Very high plasticity CV.
BH109		D	13.00		68			82	32	50	100	Very high plasticity CV.
BH109		D	15.30		69			87	34	53	100	Very high plasticity CV.
BH109		D	15.50		36			67	29	38	81	High plasticity CH.
BH109		D	16.10		34			53	24	29	90	High plasticity CH.
BH109		D	17.20		29							

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

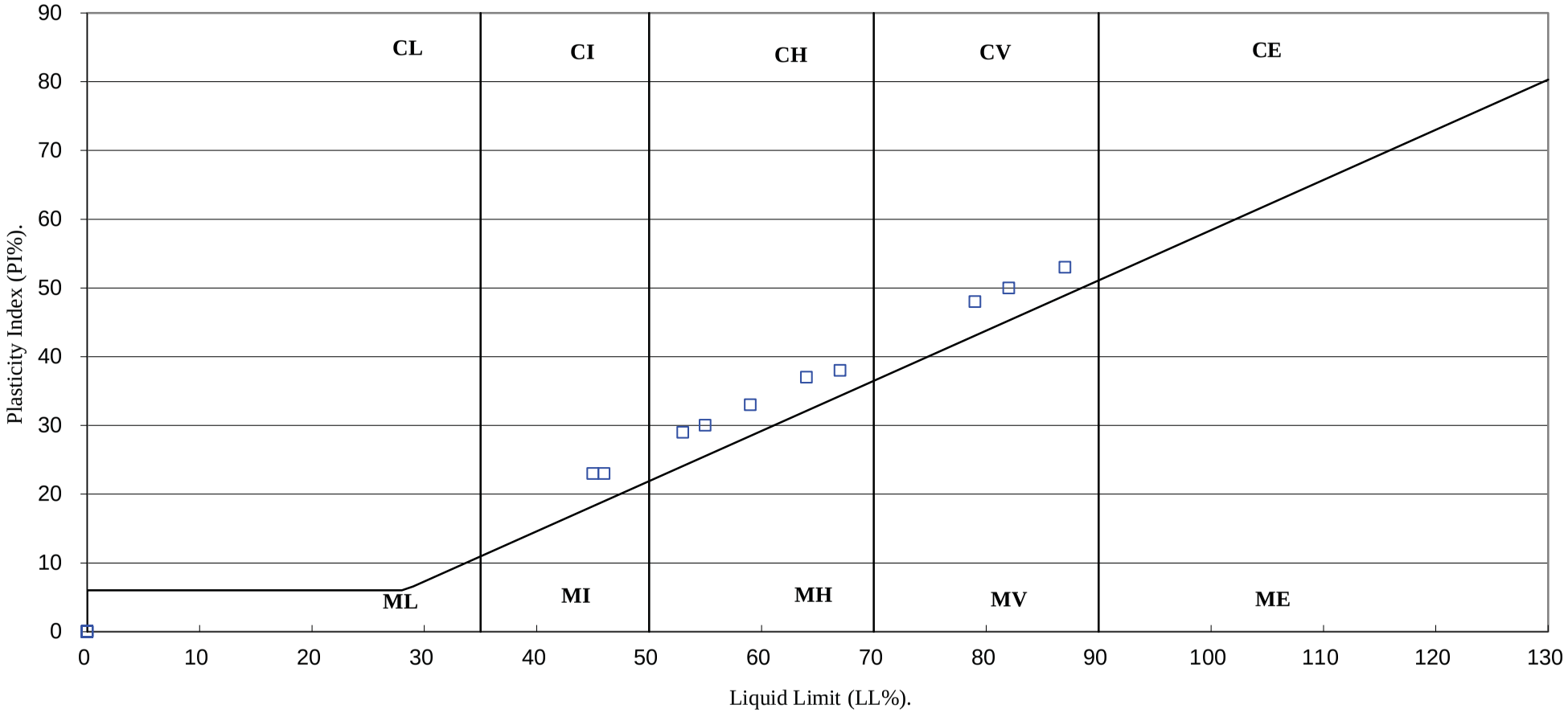
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
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				C4872

PARTICLE SIZE DISTRIBUTION TEST

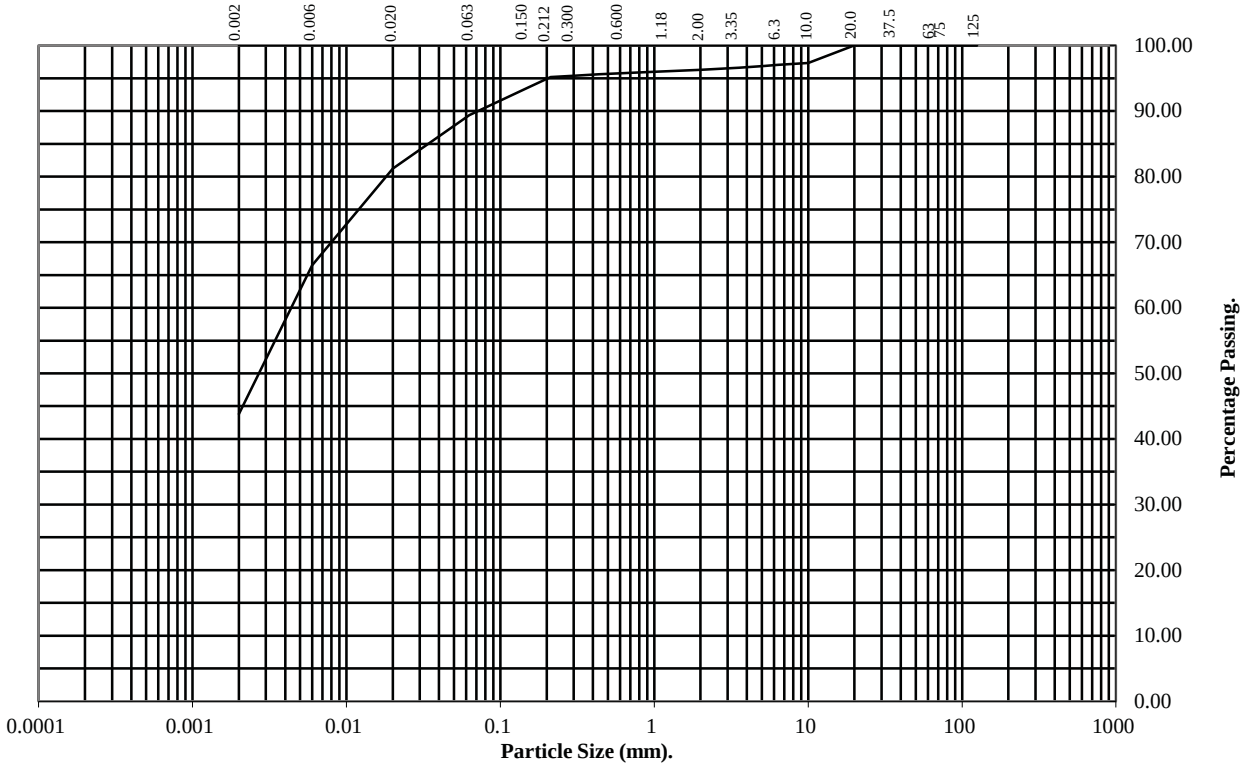
BS1377 : Part 2 : 1990

Wet Sieve & Pipette Analysis, Clause 9.2 & 9.4

Hole Number: **BH109** **Top Depth (m):** **0.50**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	97
6.3	97
3.35	97
2	96
1.18	96
0.6	96
0.3	95
0.212	95
0.15	94
0.063	89

Particle Diameter	Percentage Passing
0.02	81
0.006	66
0.002	44

Soil Fraction	Total Percentage
Cobbles	0
Gravel	4
Sand	7
Silt	45
Clay	44

Remarks:

See summary of soil descriptions.

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PARTICLE SIZE DISTRIBUTION TEST

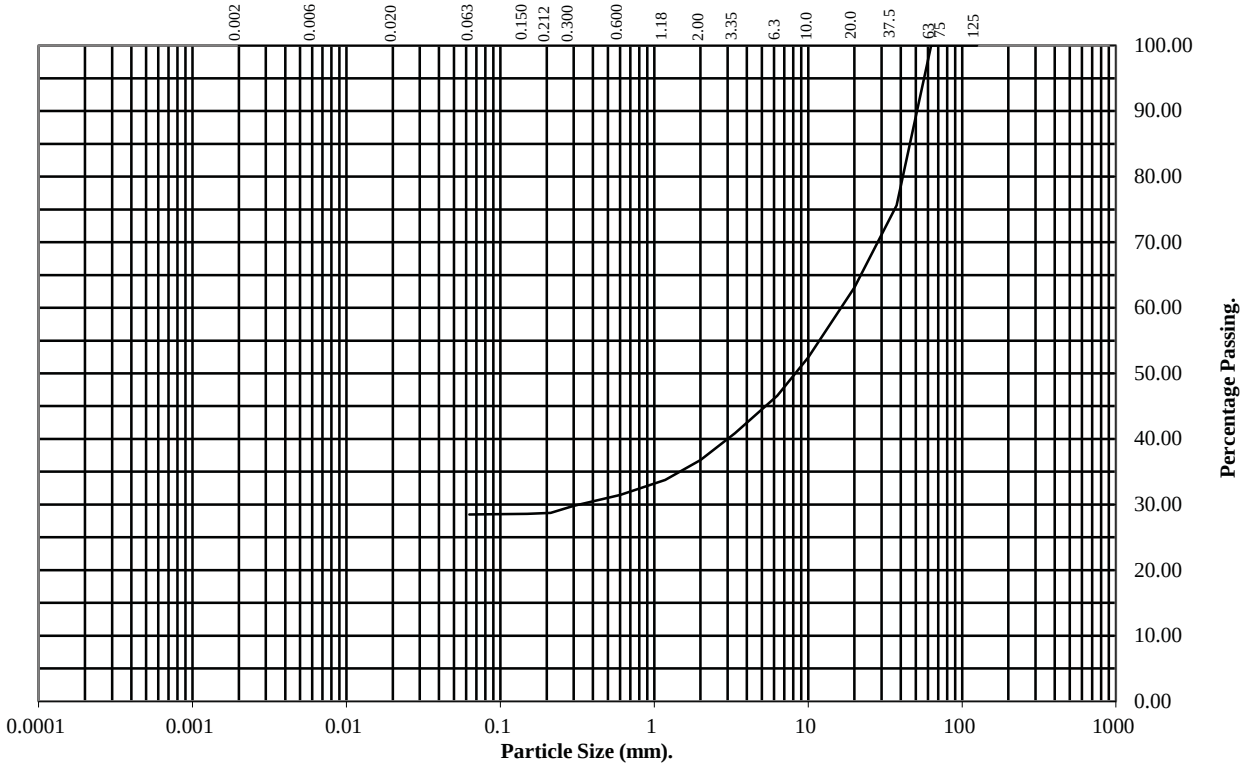
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **BH109** **Top Depth (m):** **17.20**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	76
20	63
10	52
6.3	47
3.35	41
2	37
1.18	34
0.6	31
0.3	30
0.212	29
0.15	29
0.063	28

Soil Fraction	Total Percentage
Cobbles	0
Gravel	63
Sand	9
Silt/Clay	28

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

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
BH109		D	20.40		28	28	1.53			
BH109		B	24.60	24.67	11	17	1.84	50	3.8	
BH109		CS	28.20	28.45	26	25	1.60			
BH109		CS	29.60	29.83	25	26	1.59			
BH109		B	31.13	31.32	25	25	1.60	24	3.9	
BH109		D	34.90		28	28	1.55			

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

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SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH109	28.20		A	Par	116	67	4489	9895.62	99.48	1.000	1.34	0.135	1.363	**0.18**	Valid	
BH109	29.60		A	Par	116	87	7569	12849.53	113.36	1.090	1.46	0.113	1.445	**0.16**	Valid	
BH109	31.13		A	Par	116	41	1681	6055.53	77.82	0.600	0.80	0.132	1.220	**0.16**	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
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				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		D_e^2	D_e	Failure Load		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	L	D		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH109	28.20		D	Perp		116	13456	116.00	0.930	1.24	0.092	1.460	**0.13**	Valid	
BH109	29.60		D	Perp		116	13456	116.00	0.740	0.99	0.073	1.460	**0.11**	Valid	
BH109	31.13		D	Perp		116	13456	116.00	0.520	0.69	0.052	1.460	**0.08**	Valid	

Note All testing carried out on samples at as received water content Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
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ARUN DISTRICT COUNCIL BR/311/18/PL

DETERMINATION OF UNCONFINED COMPRESSIVE STRENGTH

ISRM Suggested Methods, pp 111 –116, 1981.

Hole Number	Sample Number	Sample Type	Top Depth (m)	Base Depth (m)	Sample Diameter (mm)	Sample Length (mm)	Height Ratio	Initial Mass (g)	Bulk Density (Mg/m)	Moisture Content (%)	Dry Density (Mg/m)	Load Failure	UCS (MPa)	Failure Mode	Date Tested	Remarks
BH109		C	28.20	28.45	116	198	1.7	4225	2.02	25	1.62	16.0	1.5	Brittle	22/12/16	
BH109		C	29.60	29.83	116	195	1.7	4092	1.99	26	1.58	18.3	1.7	Brittle	22/12/16	

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

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A Watkins (Director)
M Beastall (Laboratory Manager)

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S Royle (Senior Technician)

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ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH110		UT100	1.20	1.65	Soft brown slightly sandy CLAY.
BH110		D	2.50		Grey slightly sandy CLAY.
BH110		D	6.90		Grey slightly sandy CLAY.
BH110		D	7.10		CHALK.

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ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH110		UT100	1.20	1.65	36			60	26	34	100	High plasticity CH.
BH110		D	2.50		48			63	27	36	100	High plasticity CH.
BH110		D	6.90		45			58	25	33	100	High plasticity CH.

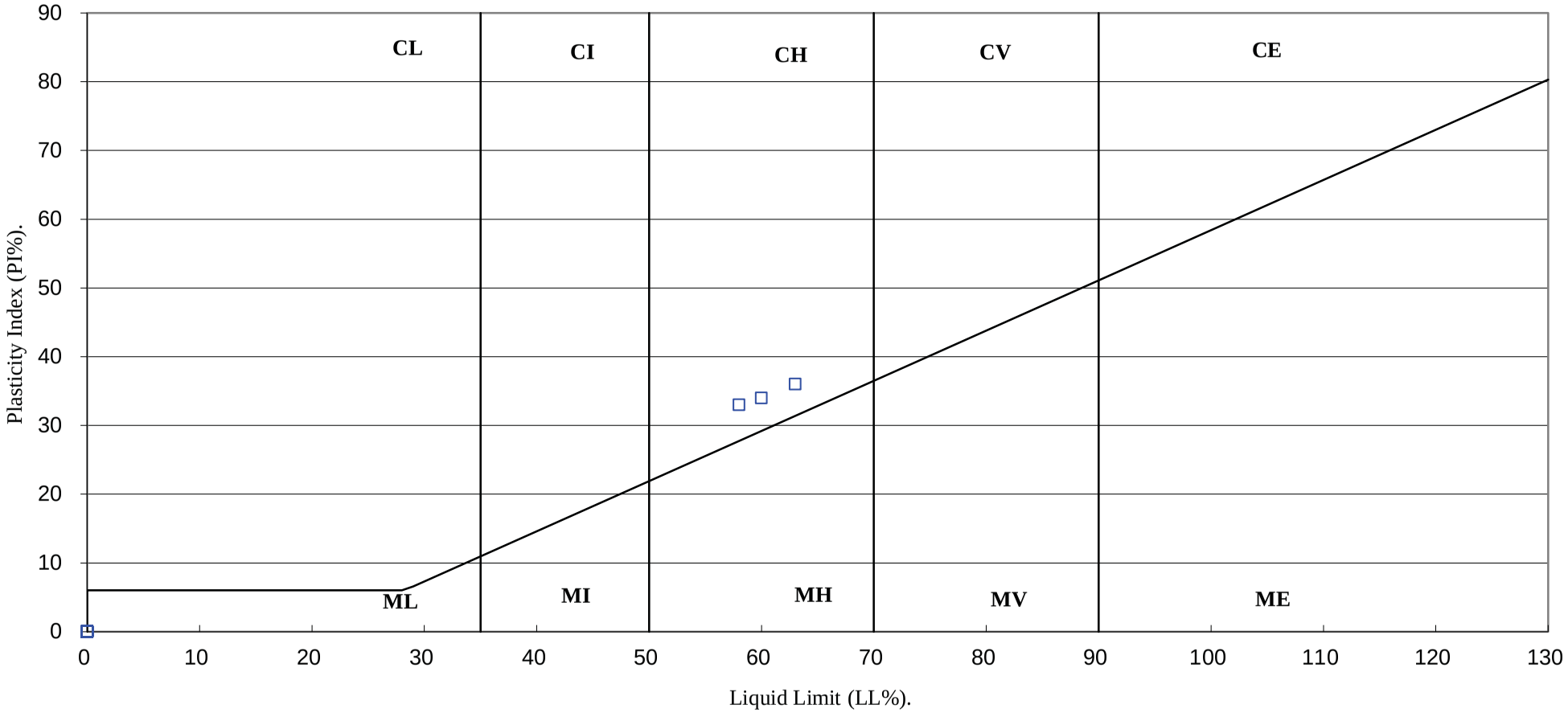
SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

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ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



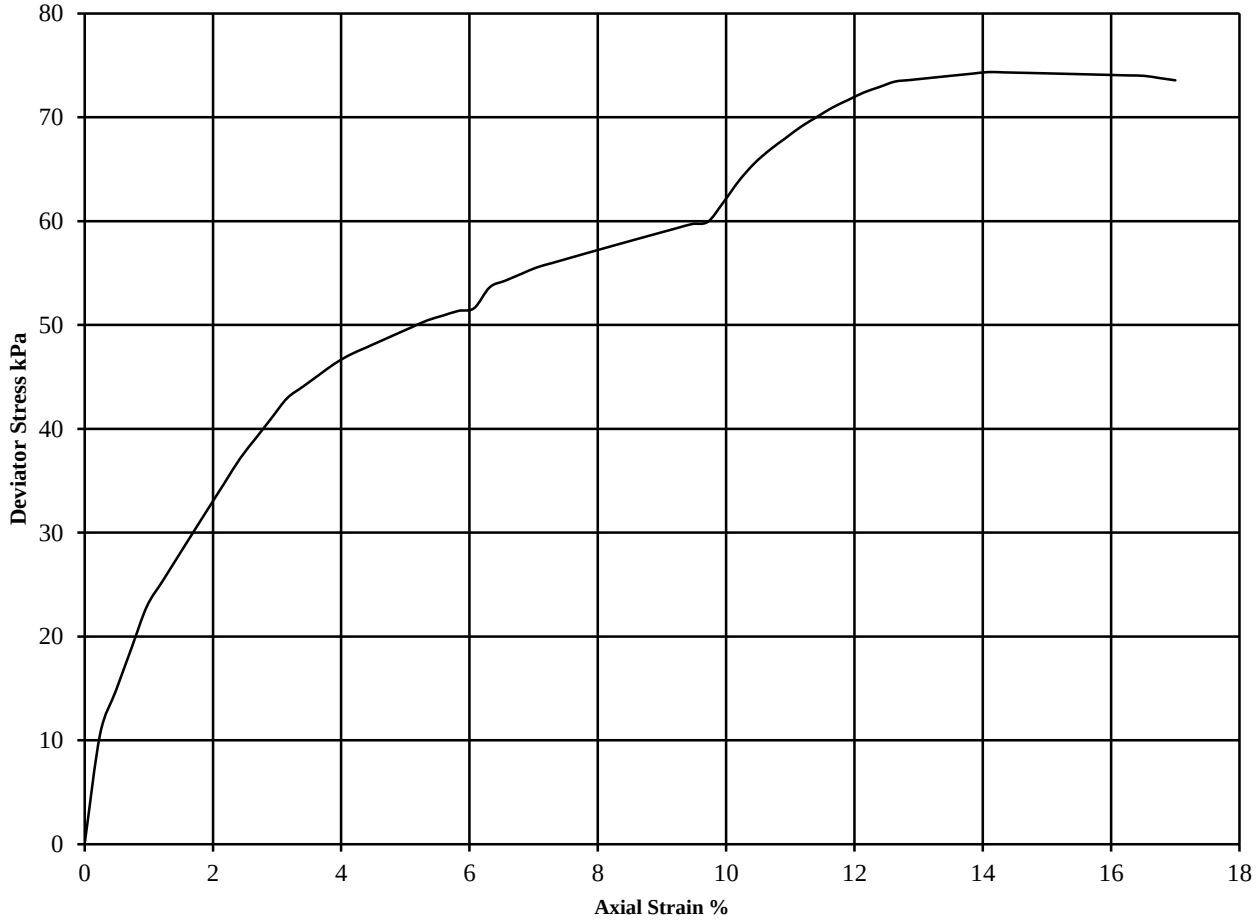
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				Client Ref:
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UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 9

Hole Number:	**BH110**	**Top Depth (m):**	**1.20**
Sample Number:		**Base Depth (m):**	**1.65**
Sample Type	**U**		



Diameter (mm):		102	Height (mm):		210	Test:	UU Multistage		Remarks
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick Membrane Correction applied (kPa) 0.36 0.35 0.35
1	36	1.79	1.32	17	52	26	6.1		See summary of soil descriptions
				35	60	30	9.7		
				70	74	37	14.1	Plastic	

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:**	
		University of Chichester - Bognor Regis Campus		**PSL15/5863**	
				Client Ref:	
				C4872	

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
BH110		D	7.10		27	26	1.59			

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
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PSL
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LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

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Unit A2 Innsworth Technology Park.
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For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
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awatkins@prosoils.co.uk

ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
BH111		B	1.00		Brown slightly sandy CLAY.
BH111		D	2.50		Grey mottled brown slightly sandy CLAY.
BH111		D	5.50		Grey slightly gravelly slightly sandy CLAY.
BH111		D	7.00		CHALK.
BH111		D	10.00		CHALK.
BH111		D	11.50		CHALK.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
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ARUN DISTRICT COUNCIL BR/311/18/PL

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
BH111		B	1.00		45			59	25	34	100	High plasticity CH.
BH111		D	2.50		50			67	29	38	100	High plasticity CH.
BH111		D	5.50		47			61	26	35	93	High plasticity CH.

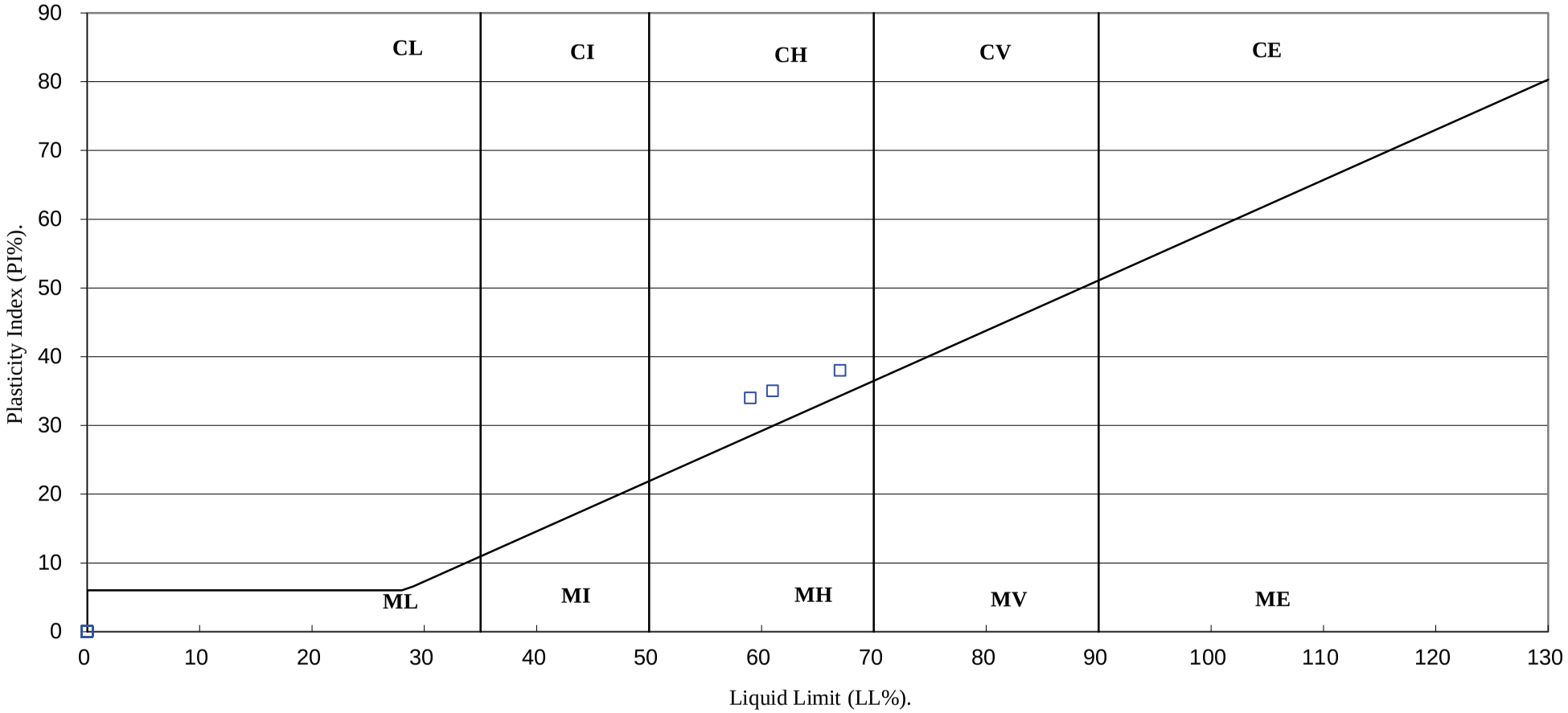
SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No:
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ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
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				Client Ref:
				C4872

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
BH111		D	7.00		27	26	1.57			
BH111		D	10.00		26	26	1.58			
BH111		D	11.50		24	23	1.68			

UKAS TESTING 4043

PSL Professional Soils Laboratory

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ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
BH111	11.50		I	Par	49	48	2304	2994.66	54.72	0.390	0.52	0.174	1.041	**0.18**	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 06/01/16	**Contract No:**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
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LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

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ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP101		B	1.30		Brown gravelly slightly sandy CLAY.
TP101		D	1.30		Brown gravelly slightly sandy CLAY.
TP101		B	3.00		Reddish brown mottled grey CLAY.
TP101		D	3.00		Reddish brown mottled grey CLAY.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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
TP101		D	1.30		24			53	24	29	80	High plasticity CH.
TP101		D	3.00		28			68	28	40	100	High plasticity CH.

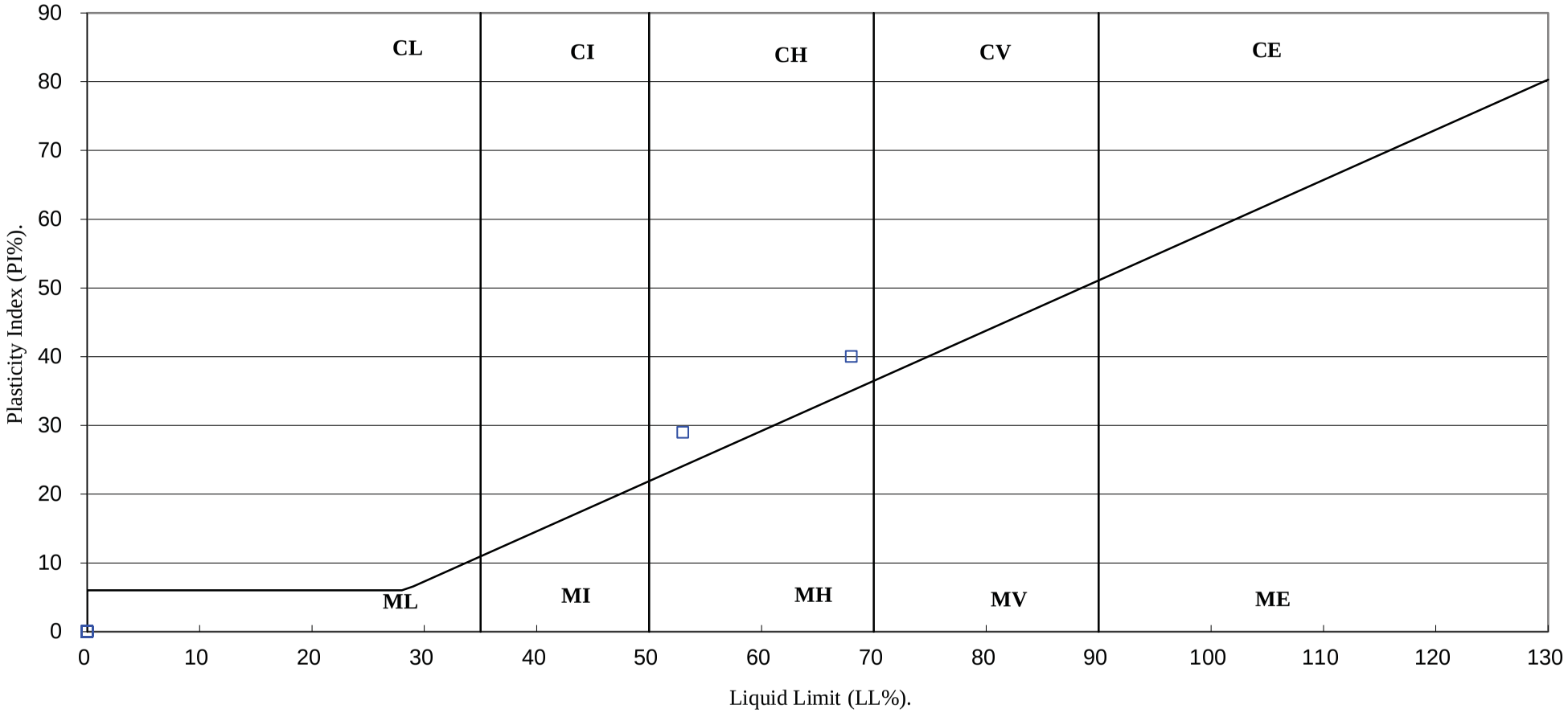
SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No:
		University of Chichester - Bognor Regis Campus		PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

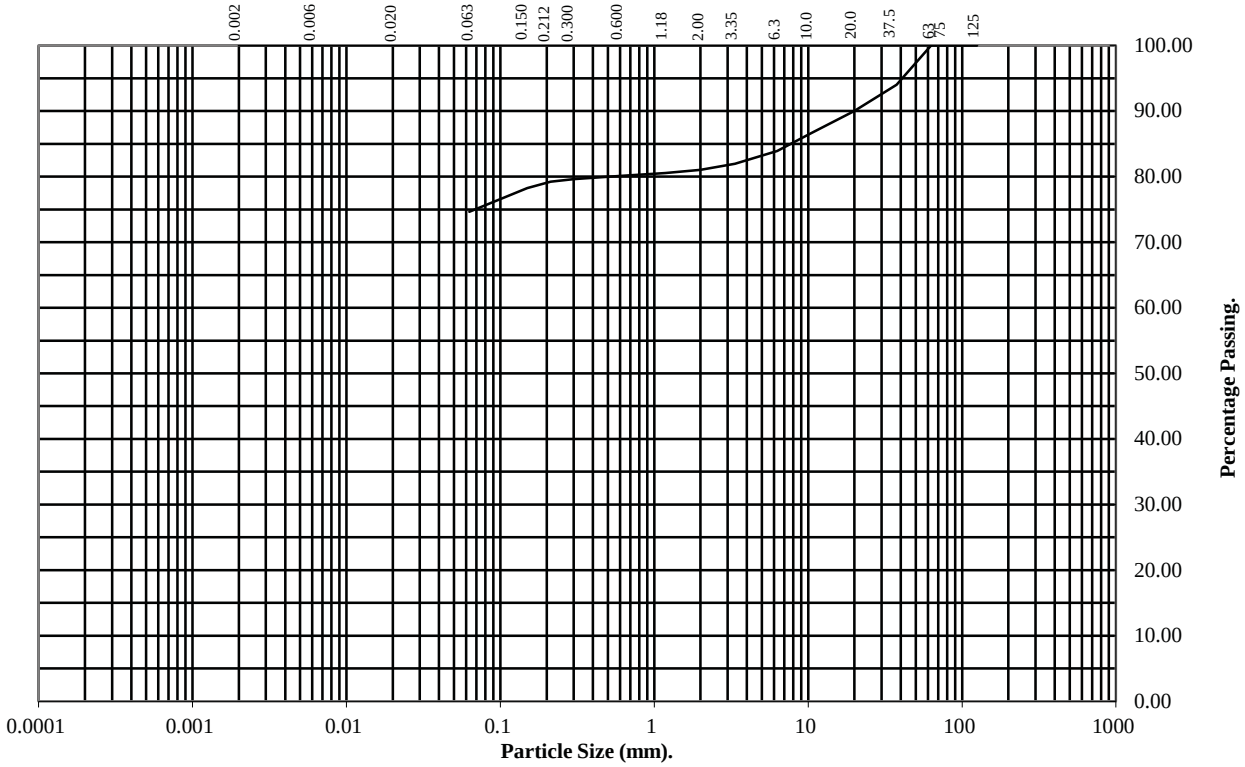
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP101** **Top Depth (m):** **1.30**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	94
20	90
10	86
6.3	84
3.35	82
2	81
1.18	81
0.6	80
0.3	80
0.212	79
0.15	78
0.063	75

Soil Fraction	Total Percentage
Cobbles	0
Gravel	19
Sand	6
Silt/Clay	75

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

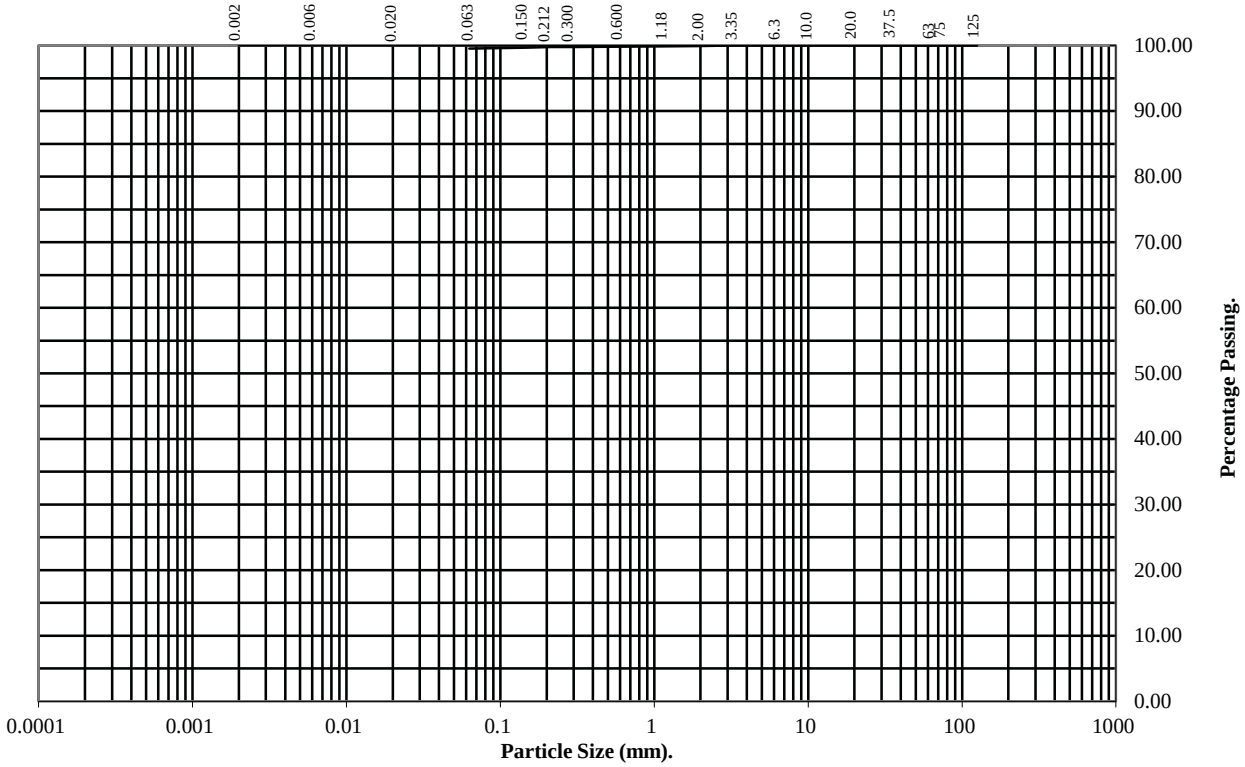
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP101** **Top Depth (m):** **3.00**

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

Sample Type: **B**



BS Test Sieve	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	100
0.063	100

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	0
Silt/Clay	100

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

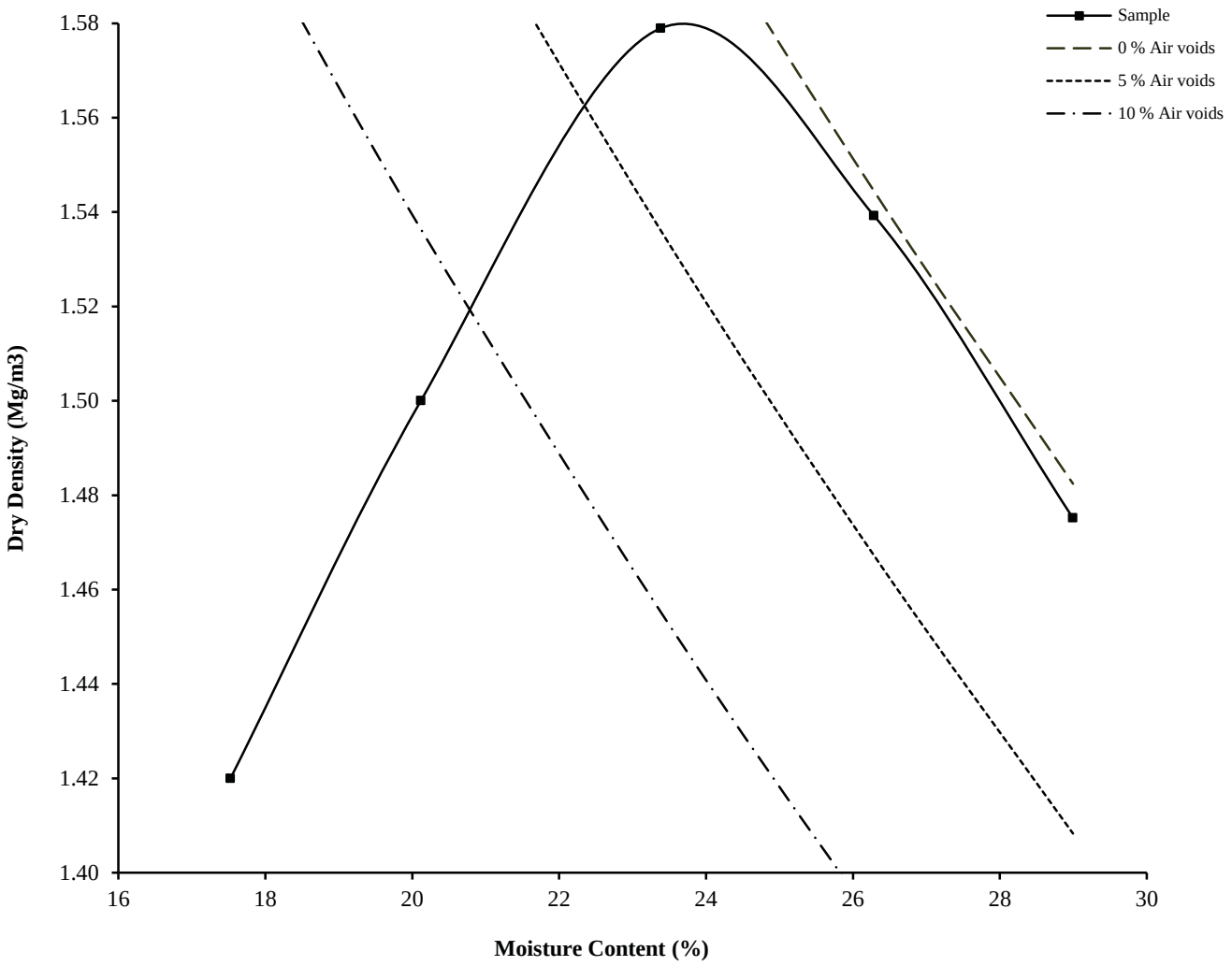
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : 1990

Hole Number: TP101 **Top Depth (m) :** 1.30

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

Sample Type: B



Initial Moisture Content:		26	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.60	Assumed	Material Retained on 37.5 mm Test Sieve (%):		6
Maximum Dry Density (Mg/m3):		1.58	Material Retained on 20.0 mm Test Sieve (%):		4
Optimum Moisture Content (%):		24			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No. PSL15/5863
		University of Chichester - Bognor Regis Campus		Client Ref C4872

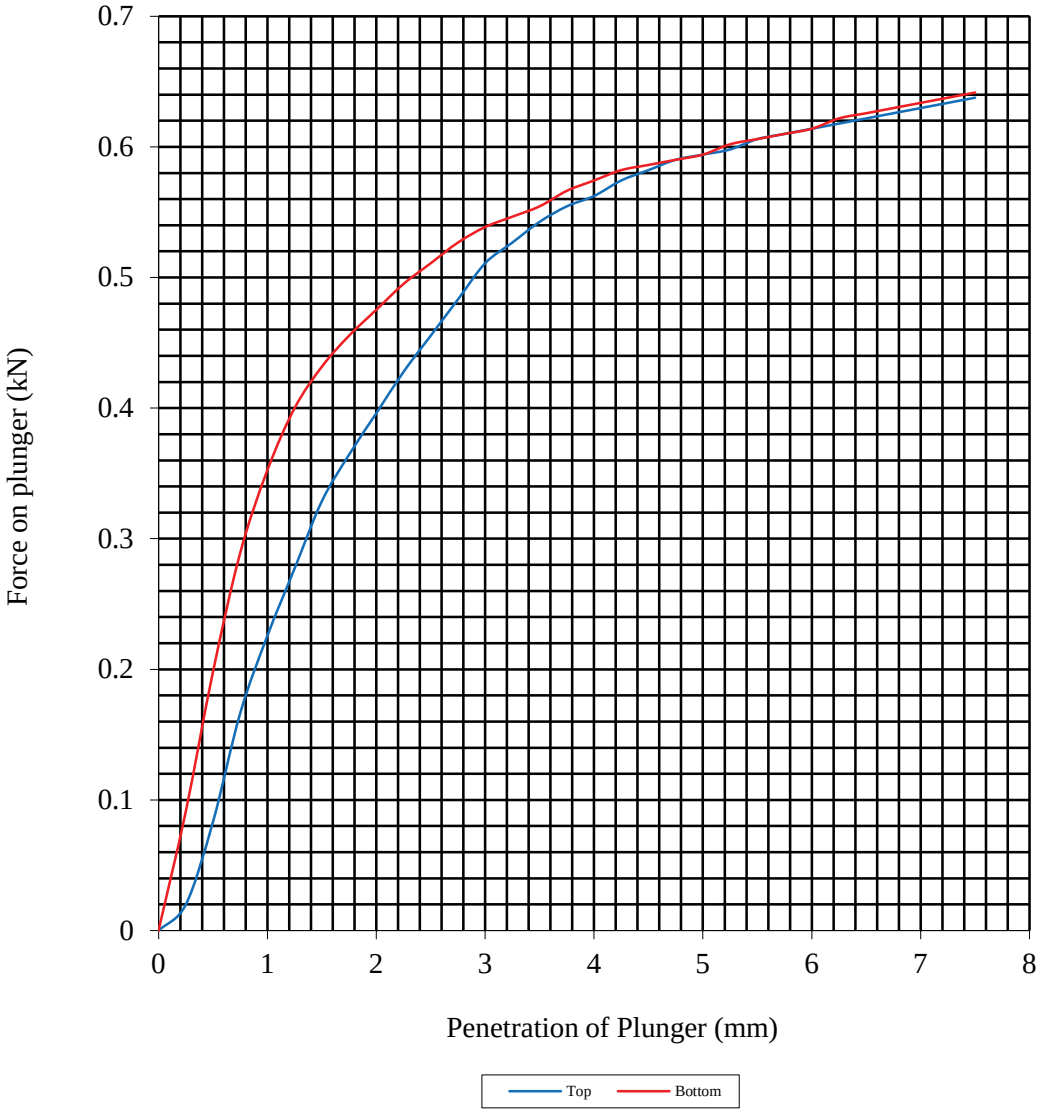
CALIFORNIA BEARING RATIO TEST

BS 1377 : Part 4 : 1990

Hole Number: TP101 **Top Depth (m):** 1.30

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

Sample Type: B



Initial Sample Conditions		Sample Preparation		Final Moisture Content %		C.B.R. Value %	
Moisture Content:	26	Surcharge Kg:	4.20	Sample Top	26	Sample Top	3.5
Bulk Density Mg/m3:	1.93	Soaking Time hrs	0	Sample Bottom	26	Sample Bottom	3.9
Dry Density Mg/m3:	1.53	Swelling mm:	0	Remarks: See summary of soil descriptions.			
Percentage retained on 20mm BS test sieve:			10				
Compaction Conditions		2.5kg hammer					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No: PSL15/5863
		University of Chichester - Bognor Regis Campus		Client Ref: C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

Notes: Opinions and Interpretations are outside the UKAS Accreditation

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Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
S Royle (Senior Technician)

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ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP102		D	0.70		Brown mottled grey very gravelly very sandy CLAY.
TP102		B	1.70		Brown very sandy clayey GRAVEL with cobbles.
TP102		B	3.00		Brown slightly sandy CLAY.
TP102		D	3.50		Brown slightly gravelly slightly sandy CLAY.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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
TP102		D	0.70		17			30	16	14	68	Intermediate plasticity CI.
TP102		D	3.50		30			58	25	33	91	High plasticity CH.

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

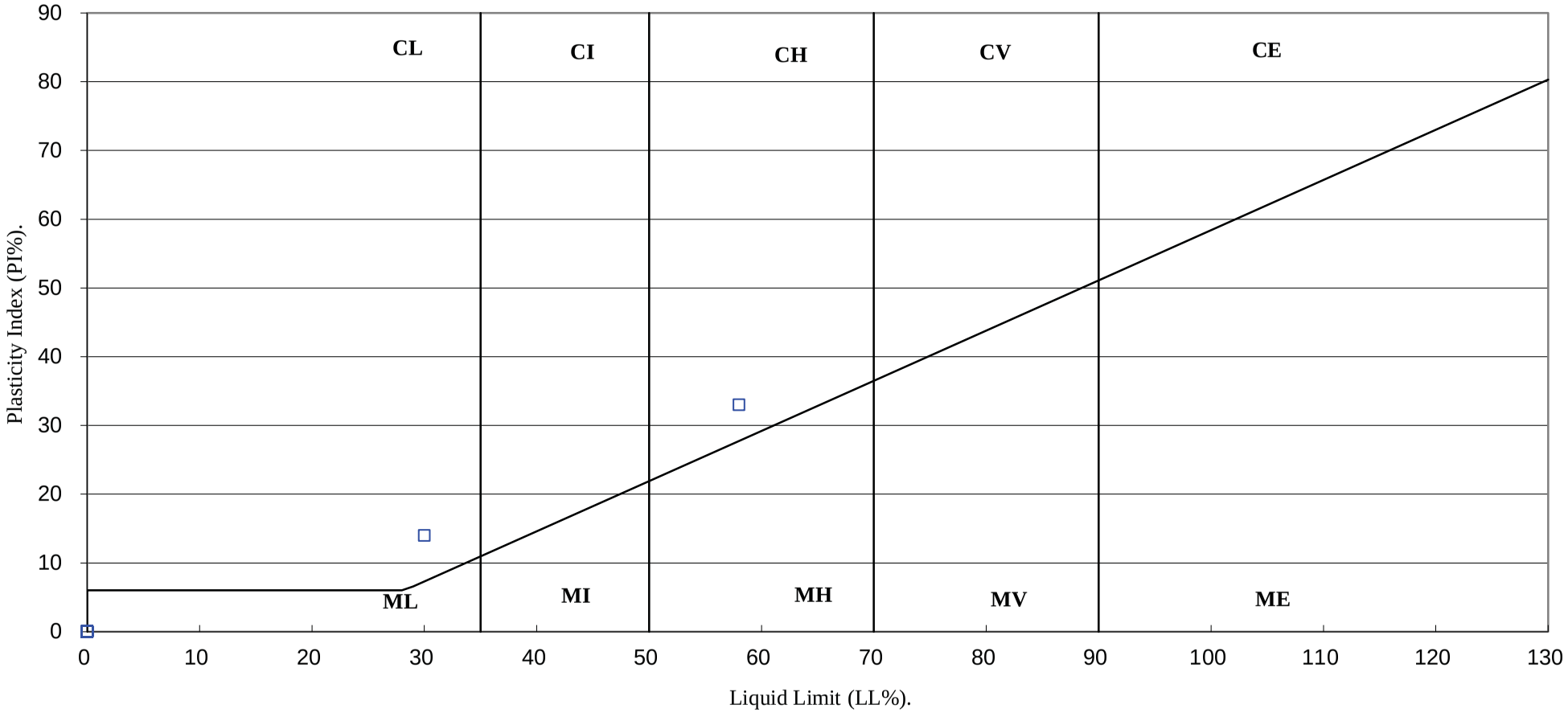
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

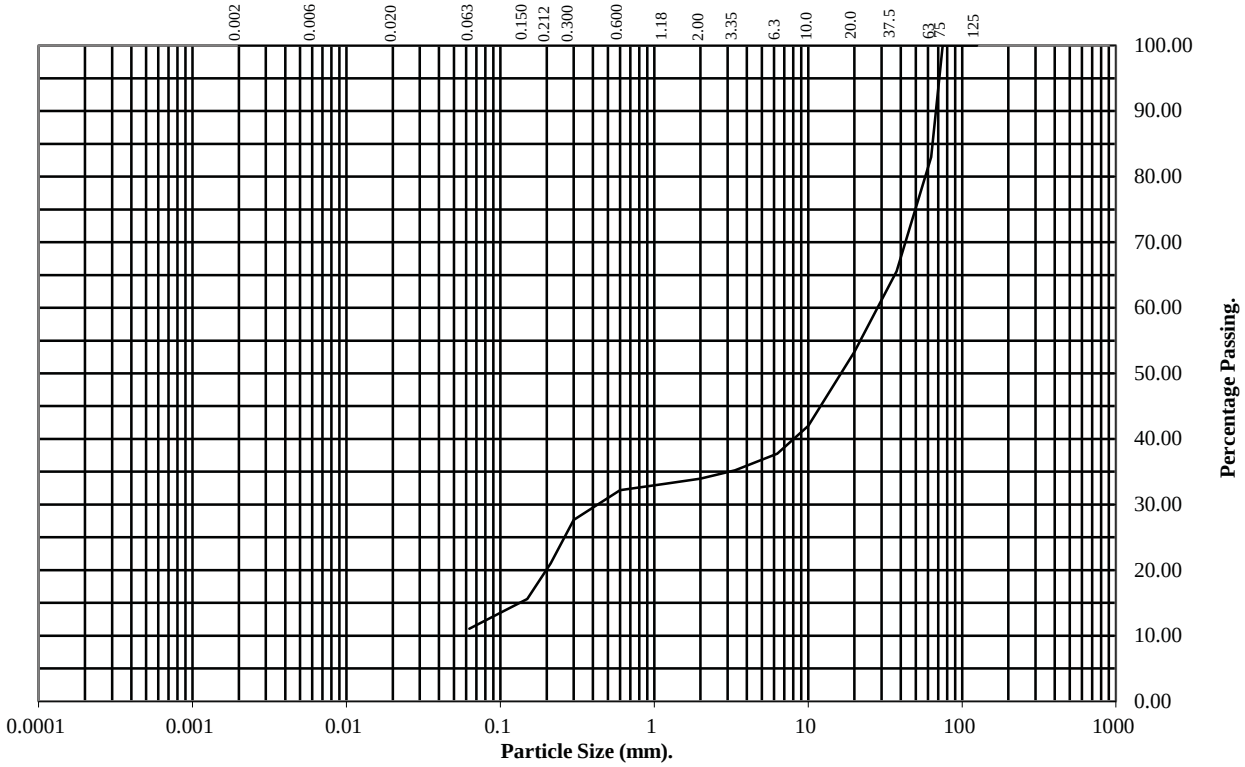
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP102** **Top Depth (m):** **1.70**

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

Sample Type: **B**



BS Test Sieve	Percentage Passing
125	100
75	100
63	83
37.5	66
20	53
10	42
6.3	38
3.35	35
2	34
1.18	33
0.6	32
0.3	28
0.212	21
0.15	16
0.063	11

Soil Fraction	Total Percentage
Cobbles	17
Gravel	49
Sand	23
Silt/Clay	11

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

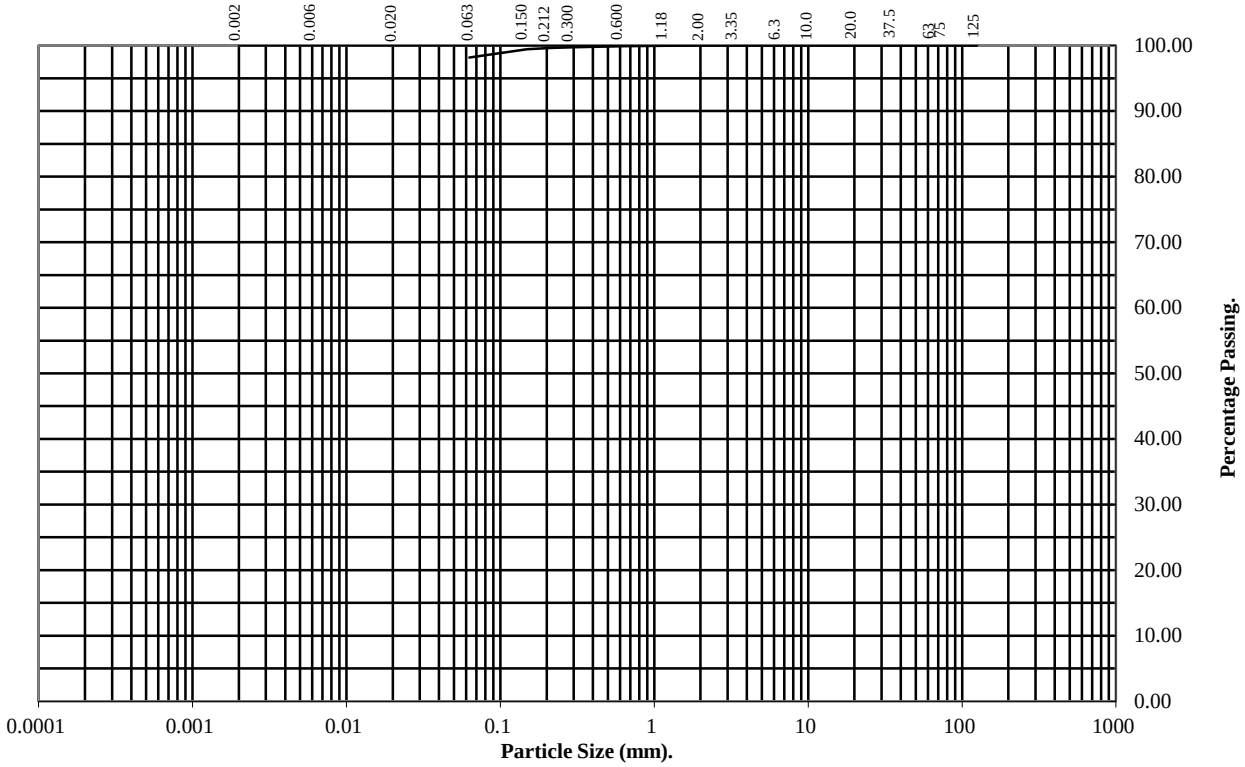
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP102** **Top Depth (m):** **3.00**

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

Sample Type: **B**



BS Test Sieve	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	98

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	2
Silt/Clay	98

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

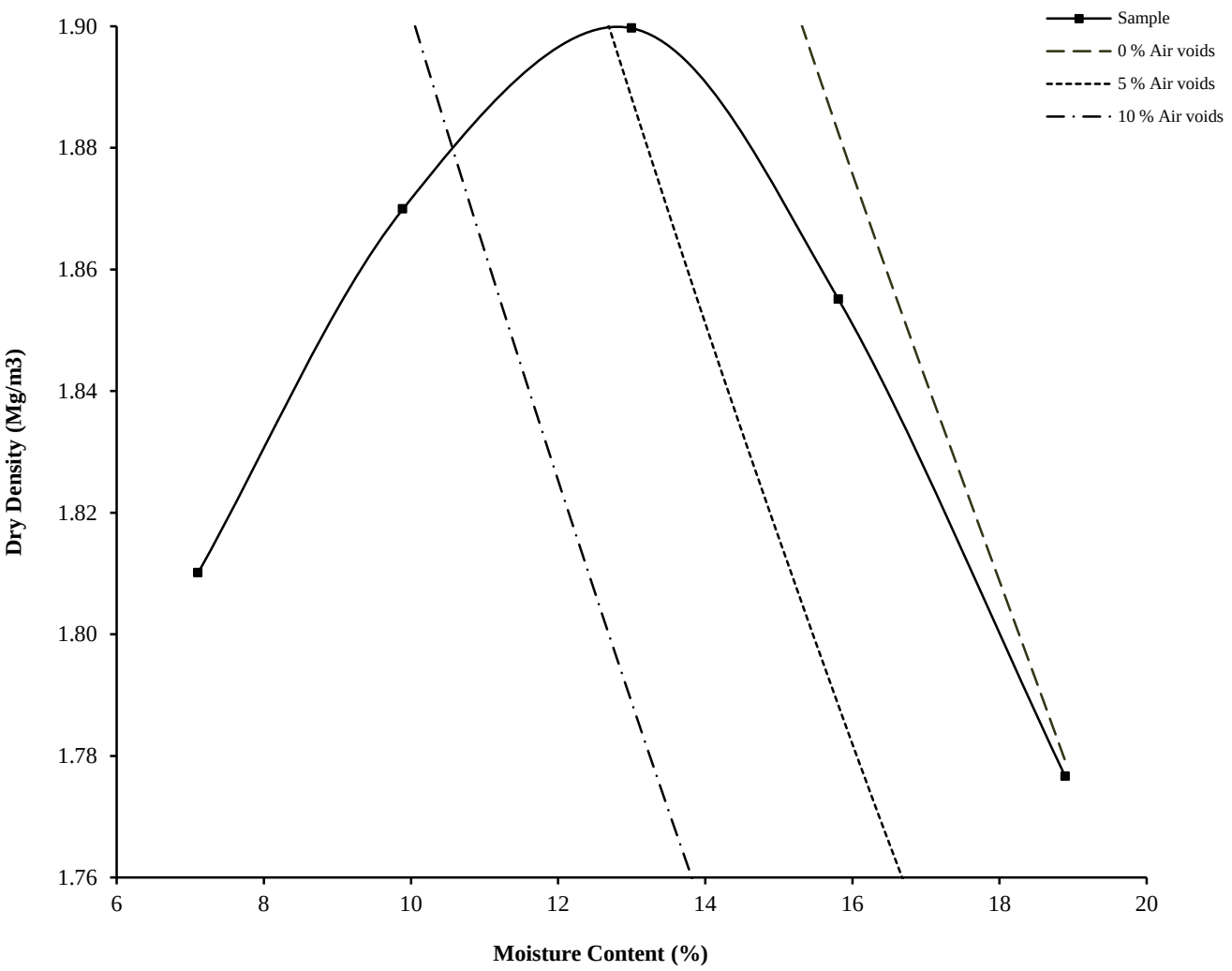
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : 1990

Hole Number: TP102 **Top Depth (m) :** 1.70

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

Sample Type: B



Initial Moisture Content:		16	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.68	Assumed	Material Retained on 37.5 mm Test Sieve (%):		34
Maximum Dry Density (Mg/m3):		1.90	Material Retained on 20.0 mm Test Sieve (%):		13
Optimum Moisture Content (%):		13			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No.
		University of Chichester - Bognor Regis Campus		PSL15/5863
				Client Ref
				C4872

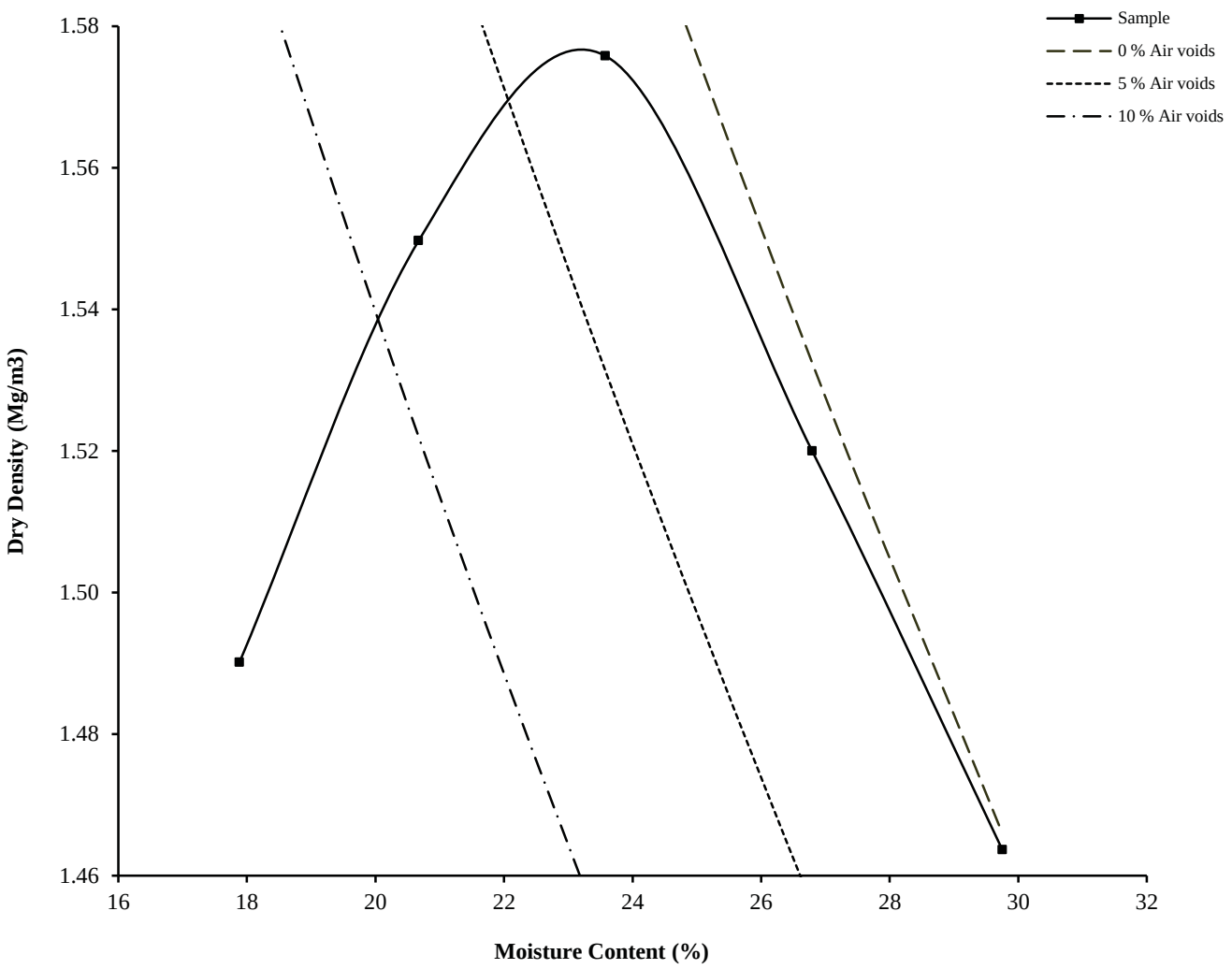
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : 1990

Hole Number: TP102 **Top Depth (m) :** 3.00

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

Sample Type: B



Initial Moisture Content:		30	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.60	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.58	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		23			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No.**
		University of Chichester - Bognor Regis Campus		**PSL15/5863**
				Client Ref
				C4872

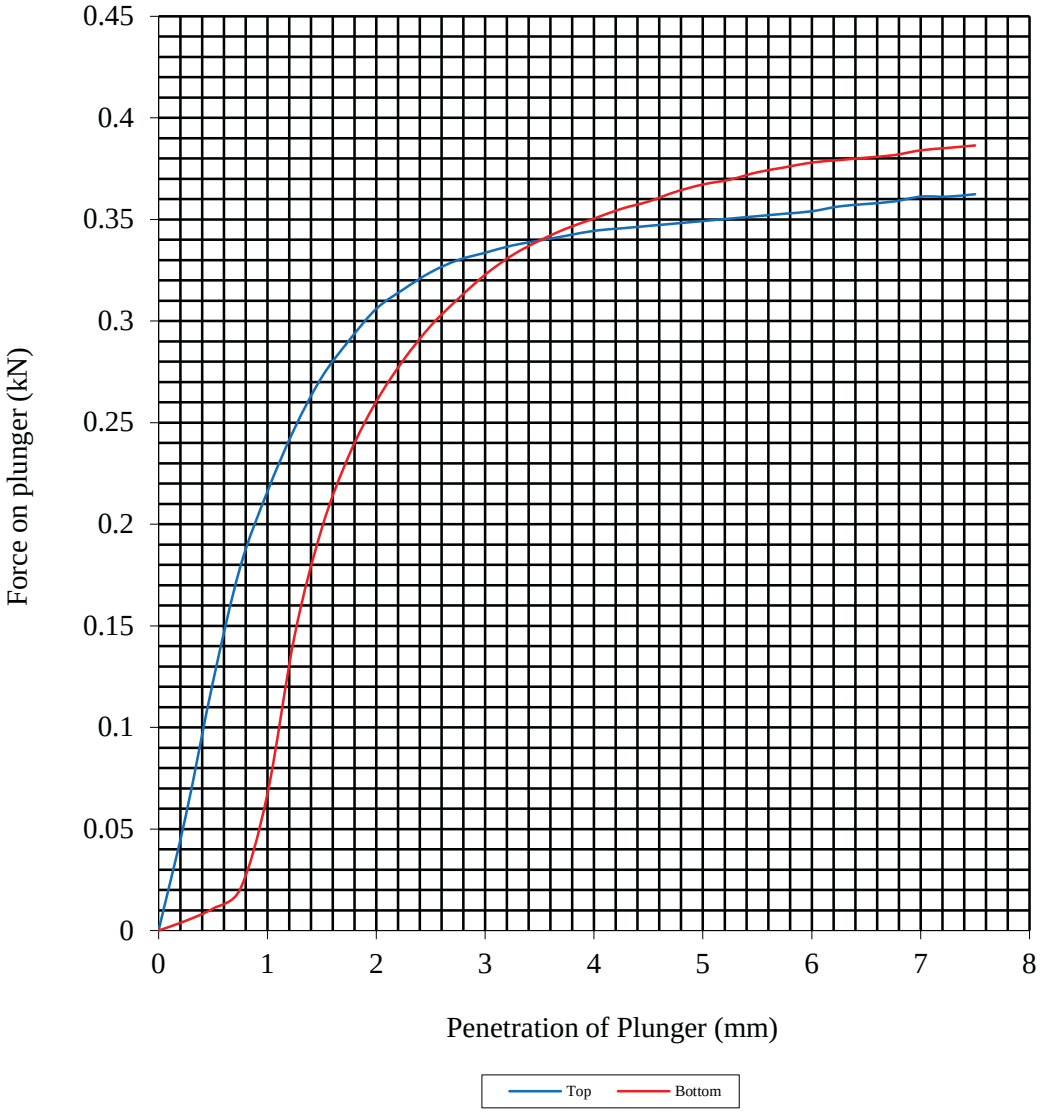
CALIFORNIA BEARING RATIO TEST

BS 1377 : Part 4 : 1990

Hole Number: TP102 **Top Depth (m):** 3.00

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

Sample Type: B



Initial Sample Conditions		Sample Preparation		Final Moisture Content %		C.B.R. Value %	
Moisture Content:	30	Surcharge Kg:	4.20	Sample Top	30	Sample Top	2.5
Bulk Density Mg/m3:	1.90	Soaking Time hrs	0	Sample Bottom	30	Sample Bottom	2.3
Dry Density Mg/m3:	1.46	Swelling mm:	0	Remarks: See summary of soil descriptions.			
Percentage retained on 20mm BS test sieve:			0				
Compaction Conditions		2.5kg hammer					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No: PSL15/5863
		University of Chichester - Bognor Regis Campus		Client Ref: C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

Notes: Opinions and Interpretations are outside the UKAS Accreditation

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Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
S Royle (Senior Technician)

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ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP103		D	0.70		Brown slightly sandy CLAY.
TP103		D	1.50		Grey slightly sandy CLAY with some organic material.
TP103		B	2.00		Grey slightly sandy CLAY with some organic material.
TP103		B	3.00		Brown mottled grey slightly sandy CLAY.
TP103		D	3.00		Brown mottled grey slightly sandy CLAY.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

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
TP103		D	0.70		25			58	25	33	100	High plasticity CH.
TP103		D	1.50		61			75	31	44	100	Very high plasticity CV.
TP103		D	3.00		45			62	26	36	100	High plasticity CH.

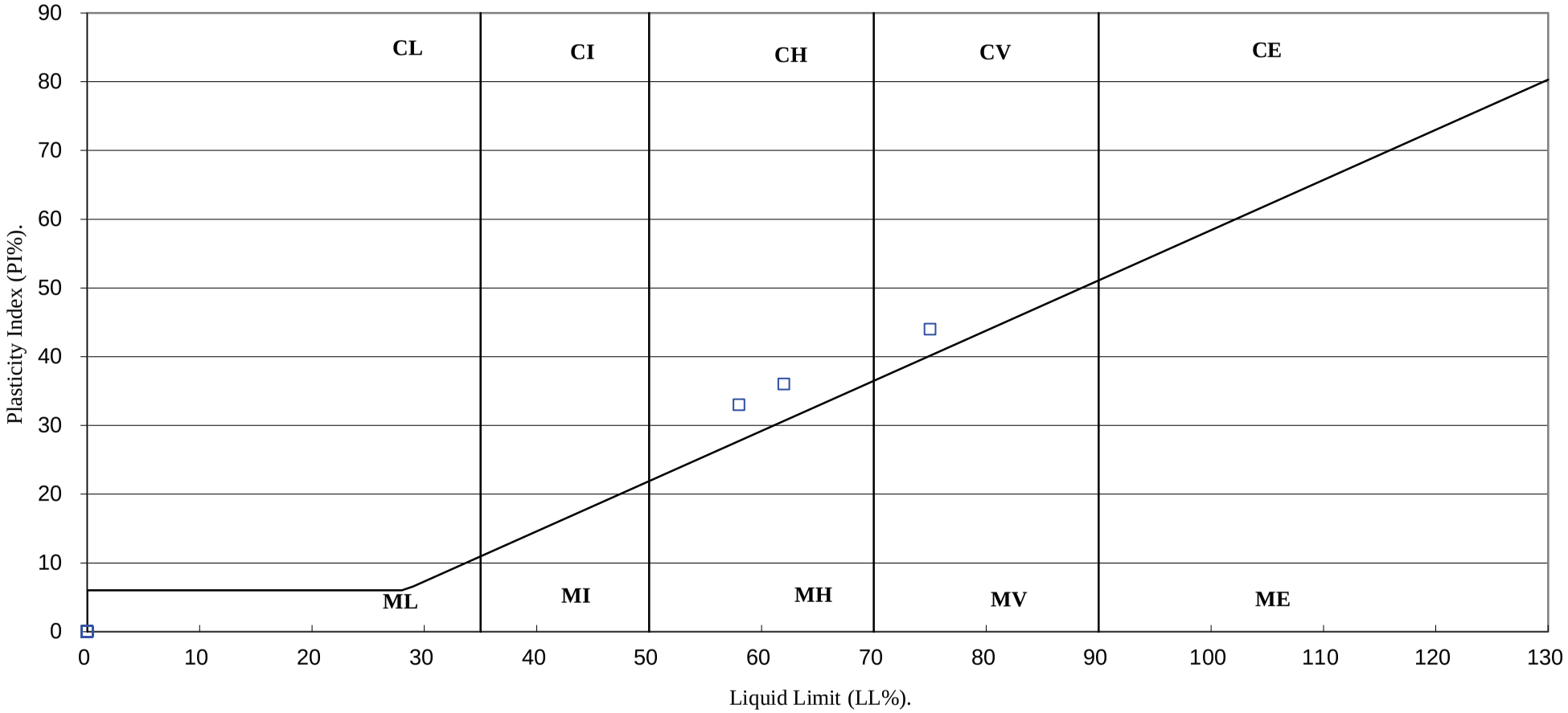
SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No:
		University of Chichester - Bognor Regis Campus		PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

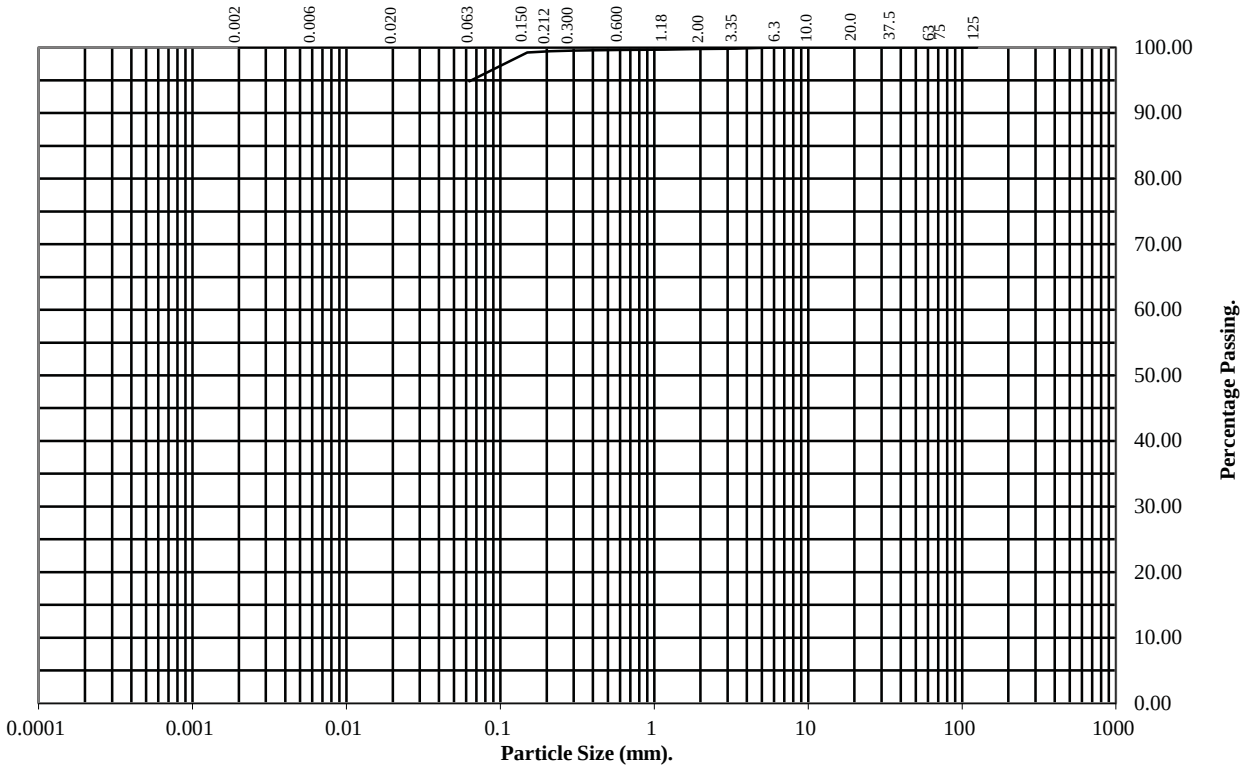
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP103** **Top Depth (m):** **3.00**

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

Sample Type: **B**



BS Test Sieve	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	95

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	5
Silt/Clay	95

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

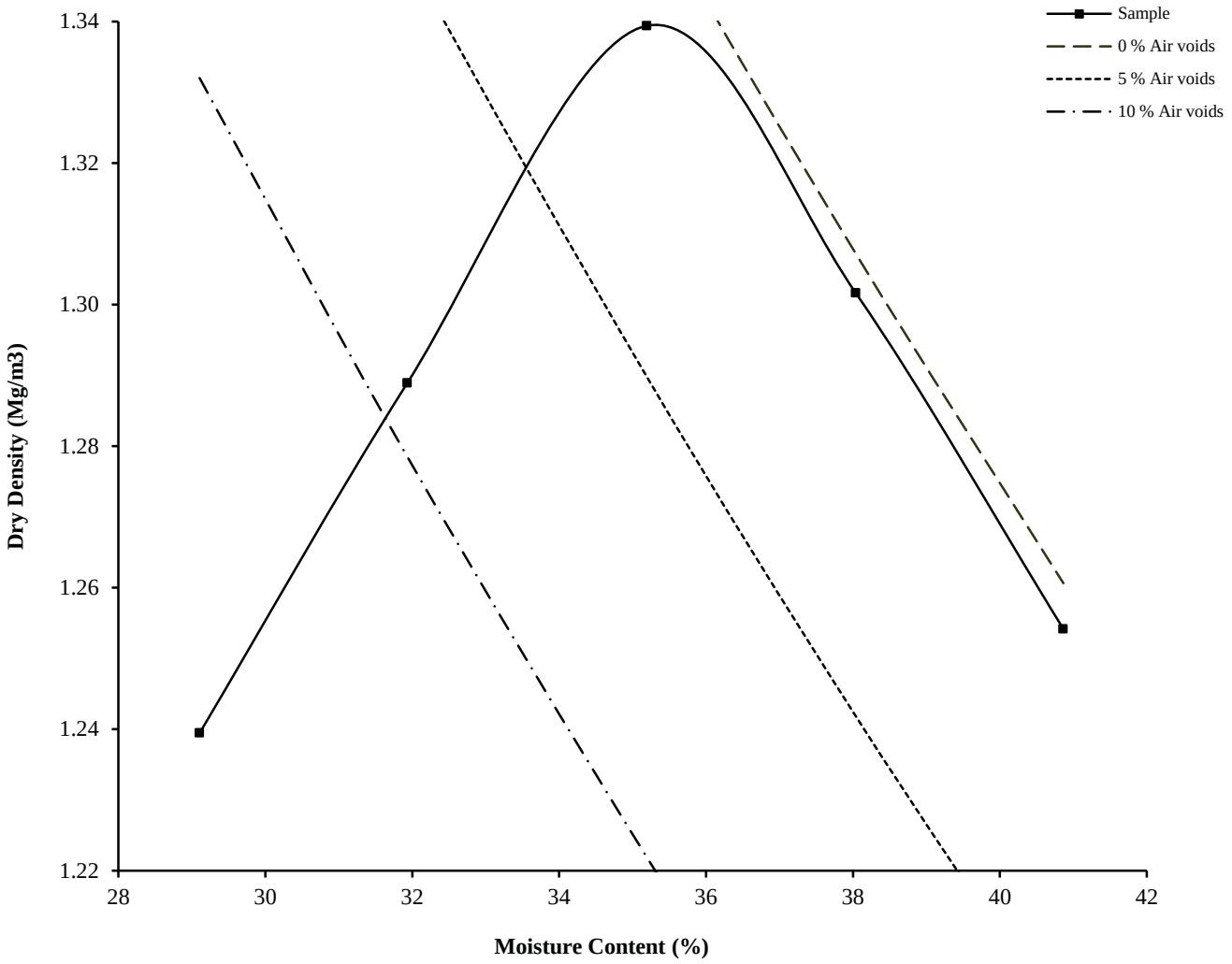
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : 1990

Hole Number: TP103 **Top Depth (m) :** 2.00

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

Sample Type: B



Initial Moisture Content:		66	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.6	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.34	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		35			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No.
		University of Chichester - Bognor Regis Campus		PSL15/5863
				Client Ref
				C4872

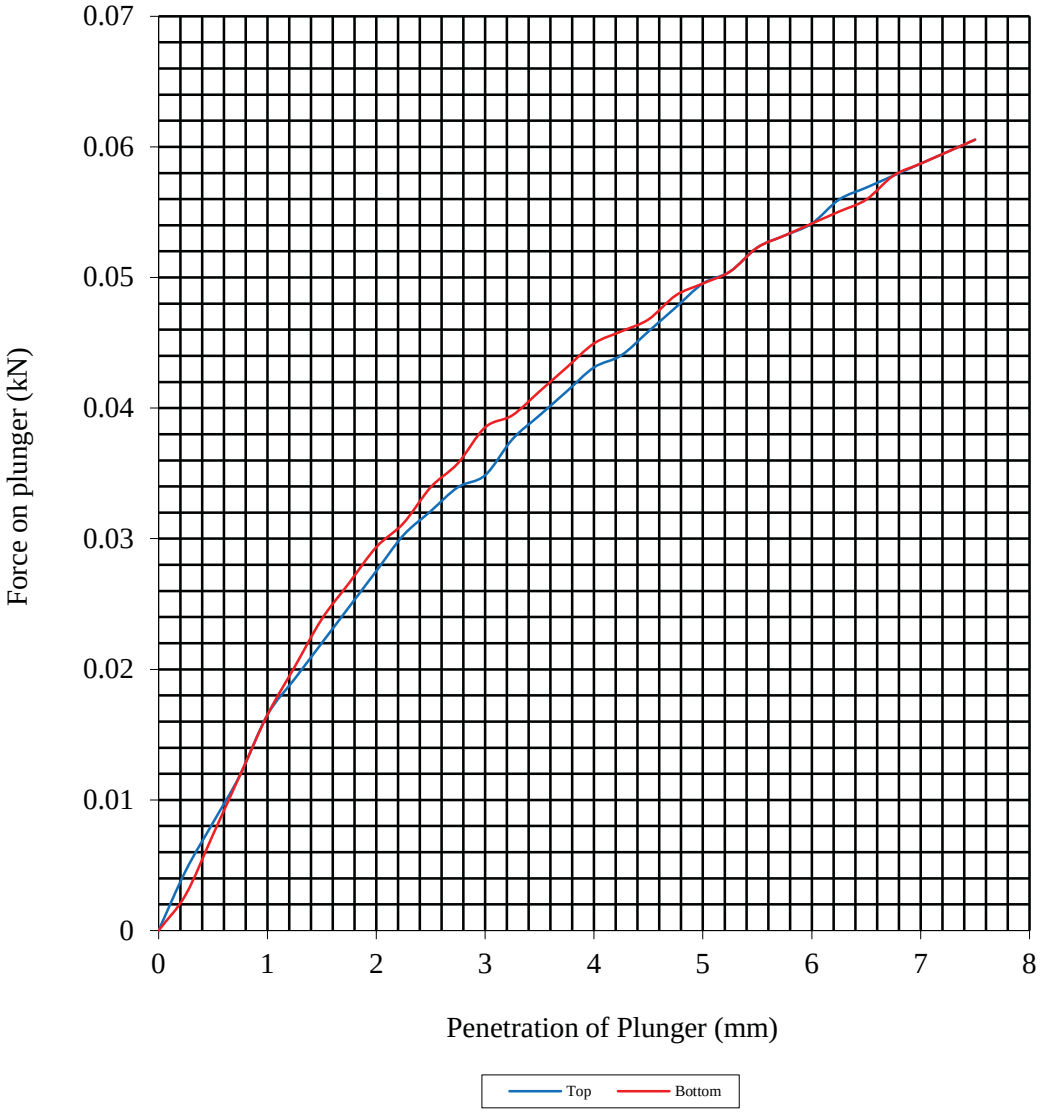
CALIFORNIA BEARING RATIO TEST

BS 1377 : Part 4 : 1990

Hole Number: TP103 **Top Depth (m):** 2.00

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

Sample Type: B



Initial Sample Conditions		Sample Preparation		Final Moisture Content %		C.B.R. Value %	
Moisture Content:	66	Surcharge Kg:	4.20	Sample Top	66	Sample Top	0.2
Bulk Density Mg/m3:	1.54	Soaking Time hrs	0	Sample Bottom	66	Sample Bottom	0.3
Dry Density Mg/m3:	0.93	Swelling mm:	0	Remarks: See summary of soil descriptions.			
Percentage retained on 20mm BS test sieve:			0				
Compaction Conditions		2.5kg hammer					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No: PSL15/5863
		University of Chichester - Bognor Regis Campus		Client Ref: C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

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Checked and Approved Signatories:

R Gunson (Director)
A Watkins (Director)
M Beastall (Laboratory Manager)

D Lambe (Senior Technician)
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ARUN DISTRICT COUNCIL BR/311/18/PL

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP104		D	0.50		Brown slightly gravelly slightly sandy CLAY.
TP104		B	1.00		Brown slightly sandy CLAY.
TP104		B	1.50		Brown slightly gravelly slightly sandy CLAY.
TP104		D	1.50		Brown slightly gravelly slightly sandy CLAY.
TP104		B	3.00		Grey slightly sandy very silty CLAY with some organic material.
TP104		D	3.00		Grey slightly sandy very silty CLAY with some organic material.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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	Bulk Density Mg/m3 Clause 7.2	Dry Density Mg/m3 Clause 7.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP104		D	0.50		31			63	26	37	98	High plasticity CH.
TP104		B	1.50		43	1.78	1.25					
TP104		D	1.50		41			61	25	36	97	High plasticity CH.
TP104		D	3.00		65			84	34	50	100	Very high plasticity CV.

SYMBOLS : NP : Non Plastic *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

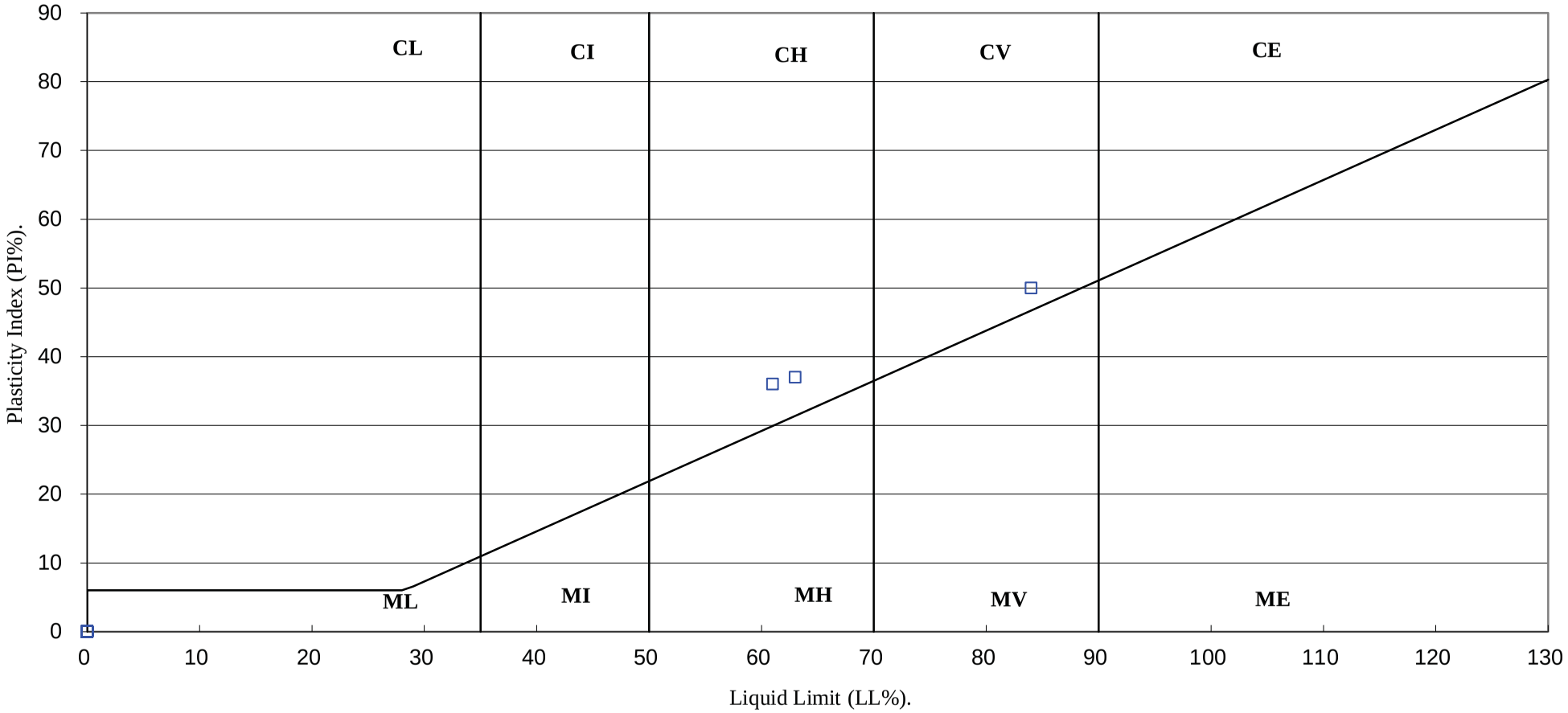
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

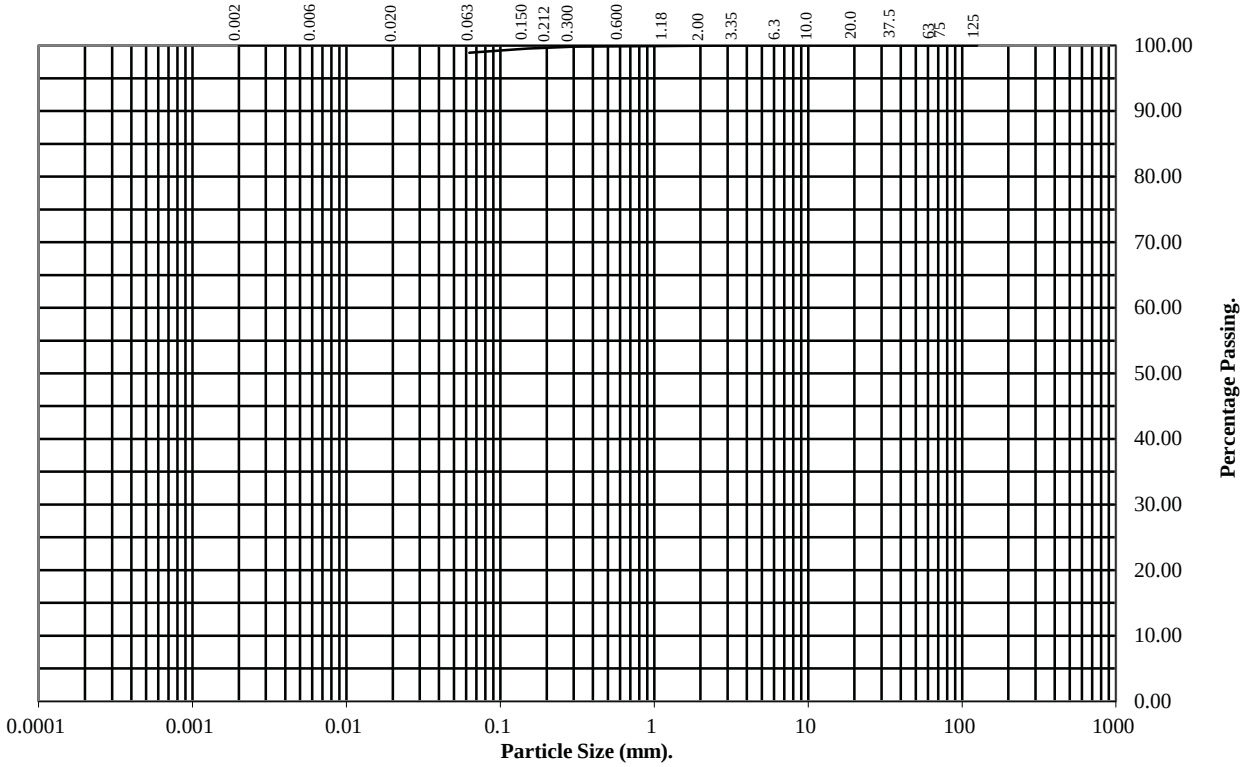
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP104** **Top Depth (m):** **1.00**

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

Sample Type: **B**



BS Test Sieve	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	100
0.063	99

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	1
Silt/Clay	99

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

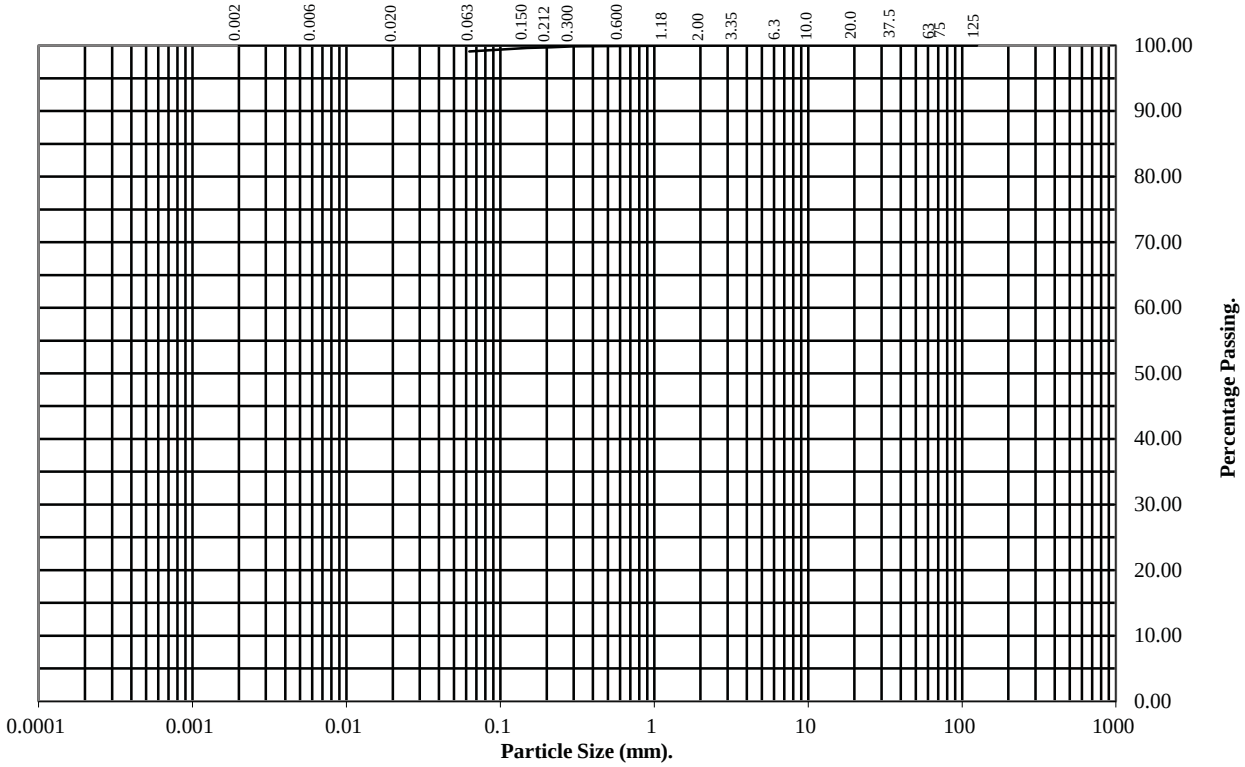
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP104** **Top Depth (m):** **3.00**

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

Sample Type: **B**



BS Test Sieve	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	100
0.063	99

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	1
Silt/Clay	99

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

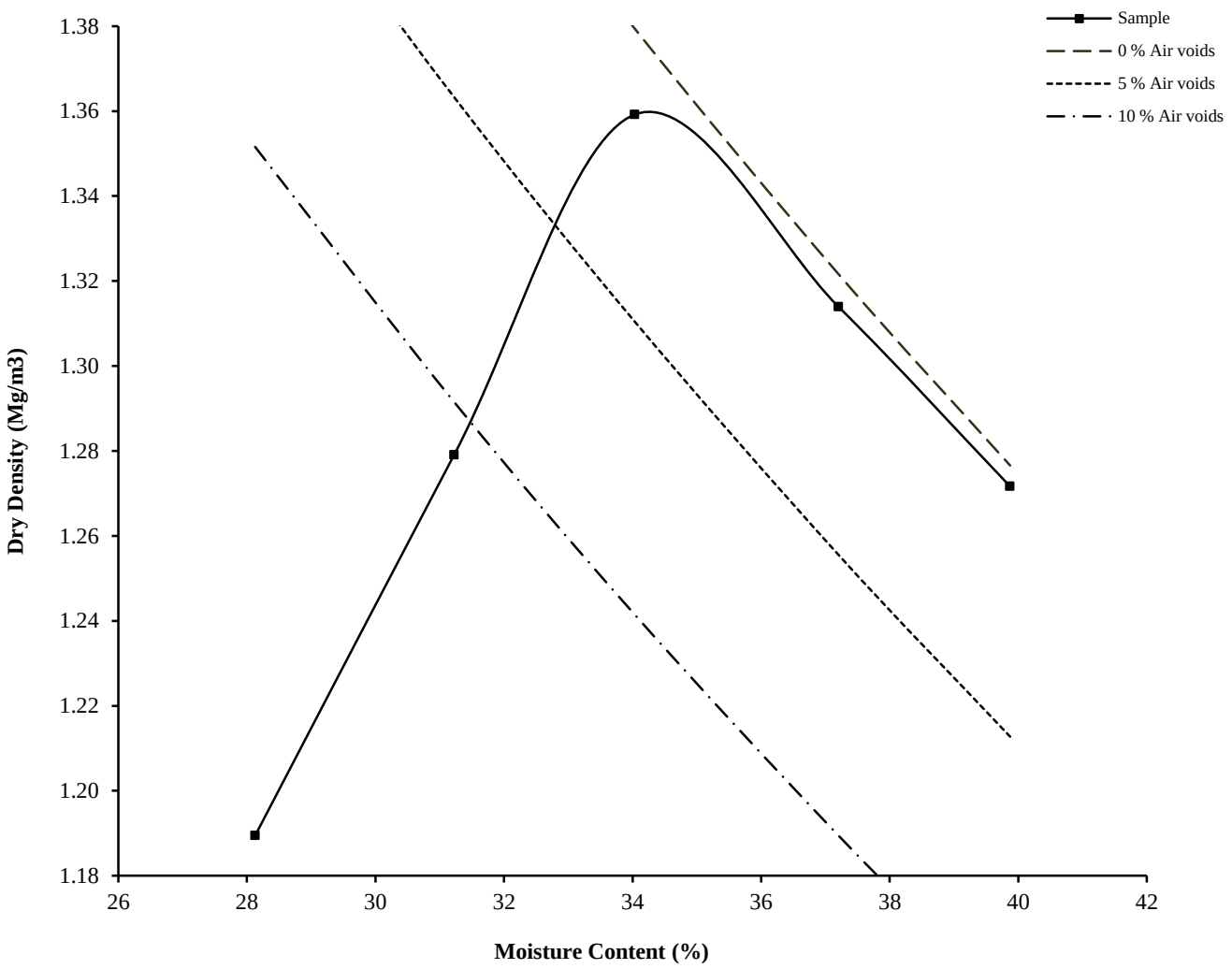
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : 1990

Hole Number: TP104 **Top Depth (m) :** 3.00

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

Sample Type: B



Initial Moisture Content:		68	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.60	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.36	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		34			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No. PSL15/5863
		University of Chichester - Bognor Regis Campus		Client Ref C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
Date Completed: 8/1/2016

Notes: Opinions and Interpretations are outside the UKAS Accreditation

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awatkins@prosoils.co.uk

ARUN DISTRICT COUNCIL BR/311/18/PL

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SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP105		D	0.50		Brown slightly gravelly slightly sandy CLAY.
TP105		B	1.50		Brown slightly sandy CLAY.
TP105		D	1.50		Brown slightly sandy CLAY.
TP105		D	2.50		Brown CLAY.
TP105		D	3.50		Grey slightly sandy very silty CLAY.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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	Bulk Density Mg/m^3 Clause 7.2	Dry Density Mg/m^3 Clause 7.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP105		D	0.50		43			68	28	40	93	High plasticity CH.
TP105		D	1.50		44	1.71	1.19					
TP105		D	2.50		50			70	29	41	100	Very high plasticity CV.
TP105		D	3.50		52			64	28	36	100	High plasticity CH.

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

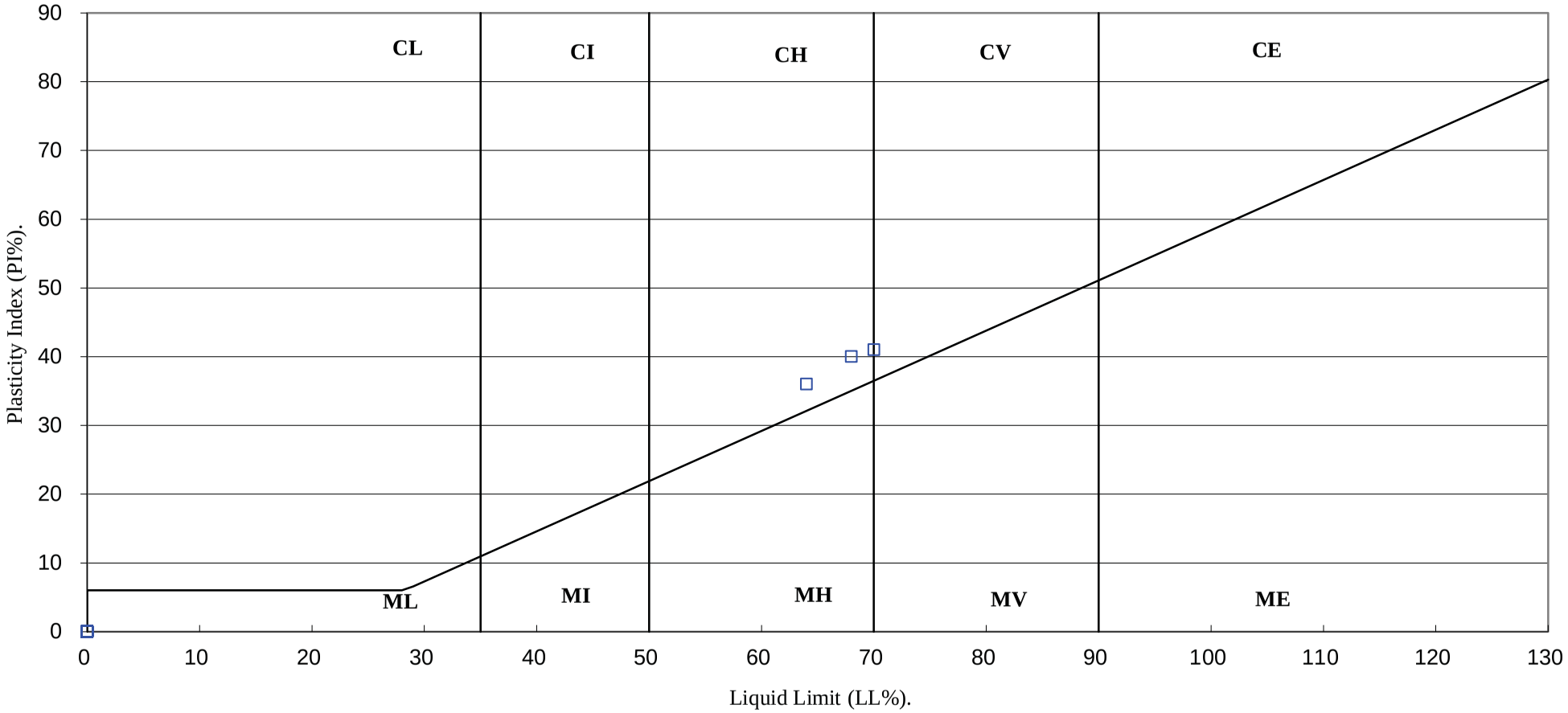
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

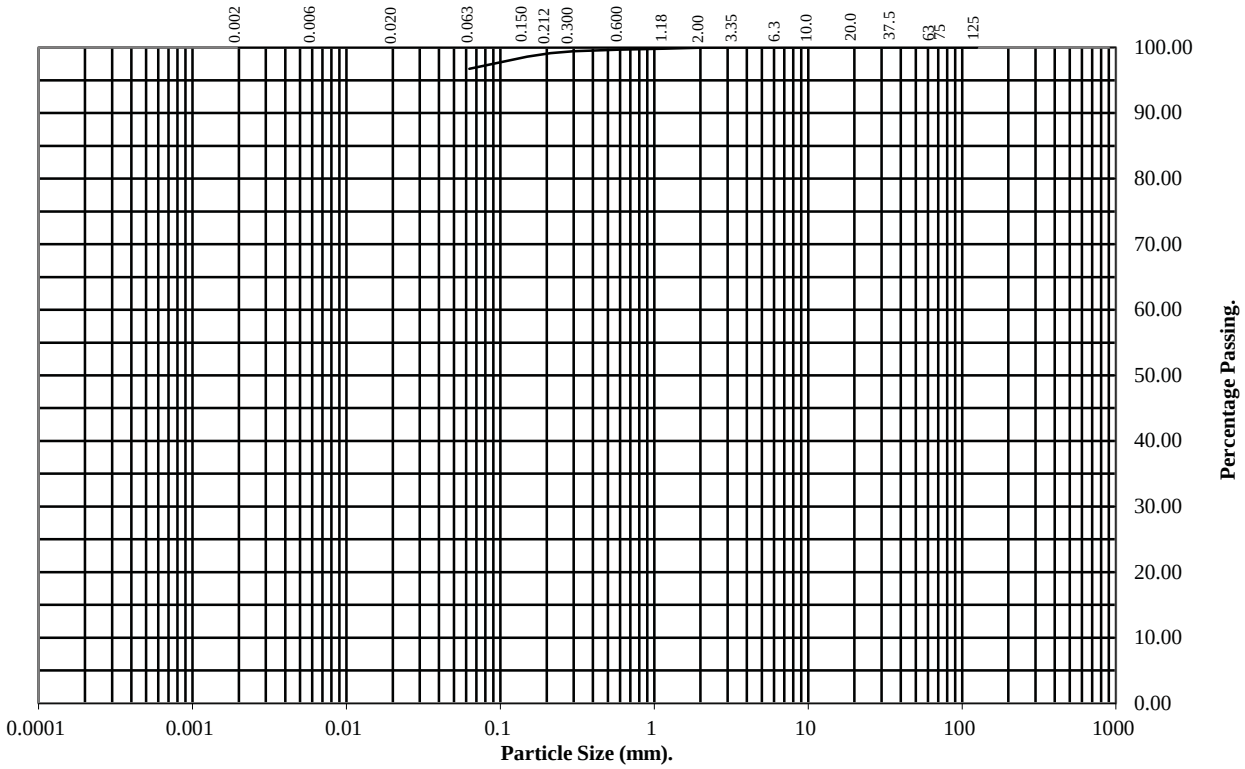
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP105** **Top Depth (m):** **1.50**

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

Sample Type: **B**



BS Test Sieve	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	97

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	3
Silt/Clay	97

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

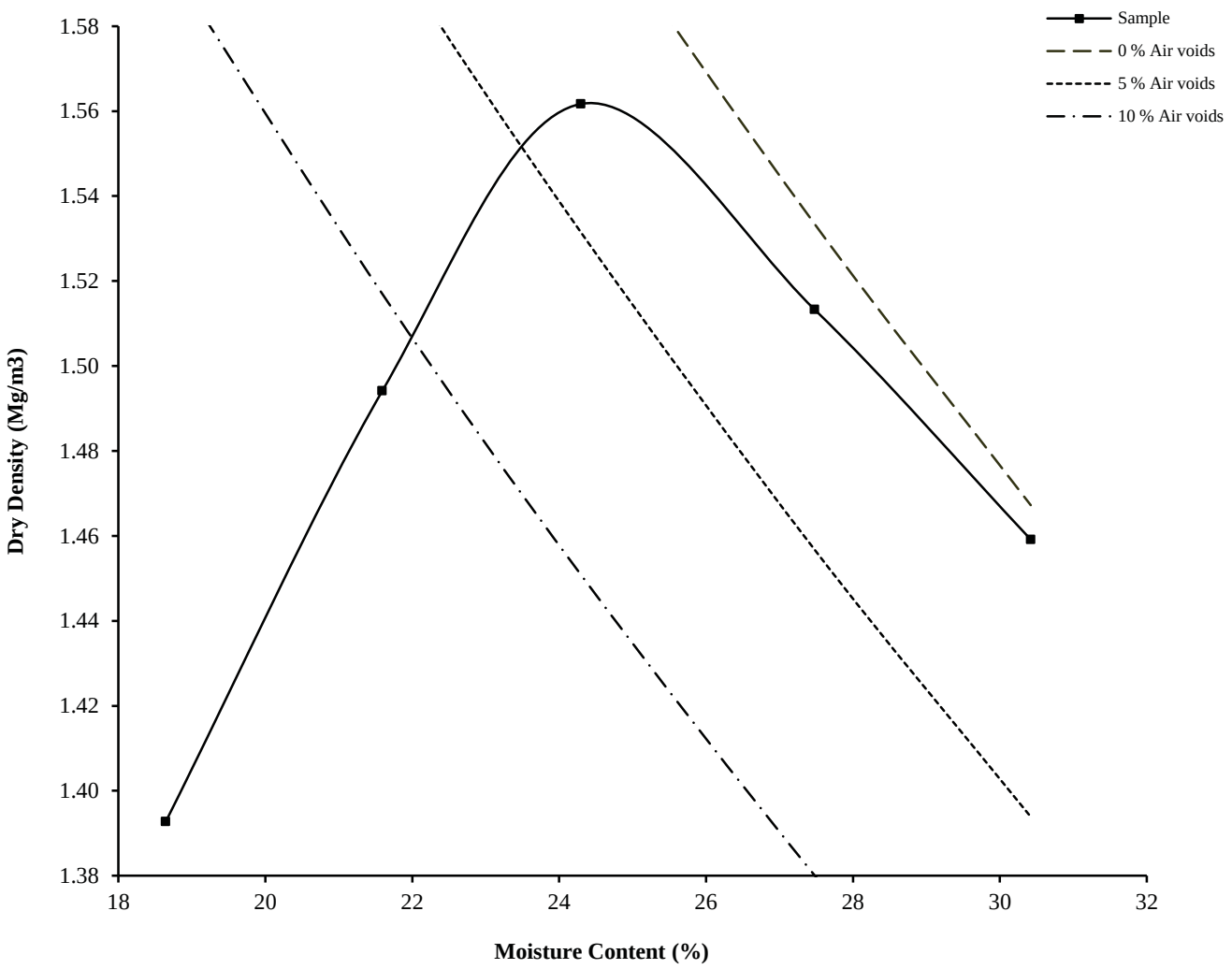
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : 1990

Hole Number: TP105 **Top Depth (m) :** 1.50

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

Sample Type: B



Initial Moisture Content:		44	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.56	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		24			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No.
		University of Chichester - Bognor Regis Campus		PSL15/5863
				Client Ref
				C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

Client Name: CC Ground Investigations Ltd
Unit A2 Innsworth Technology Park.
Innsworth Lane
Gloucester
GL3 1DL

For the attention of: Chris Scrivens

Contract Title: University of Chichester - Bognor Regis Campus

Date Received: 3/12/2015
Date Commenced: 3/12/2015
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Notes: Opinions and Interpretations are outside the UKAS Accreditation

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ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP106		B	1.00		Brown slightly gravelly slightly sandy CLAY.
TP106		D	1.00		Brown slightly gravelly slightly sandy CLAY.
TP106		B	2.00		Brown slightly sandy CLAY.
TP106		D	2.00		Brown slightly sandy CLAY.
TP106		B	3.50		Brown mottled grey sandy very silty CLAY.
TP106		D	3.50		Brown mottled grey sandy very silty CLAY.

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No: PSL15/5863
		University of Chichester - Bognor Regis Campus		Client Ref: C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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	Bulk Density Mg/m^3 Clause 7.2	Dry Density Mg/m^3 Clause 7.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP106		D	1.00		37			62	26	36	98	High plasticity CH.
TP106		B	2.00		40	1.76	1.27					
TP106		D	2.00		38			53	24	29	100	High plasticity CH.
TP106		D	3.50		40			48	24	24	100	Intermediate plasticity CI.

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

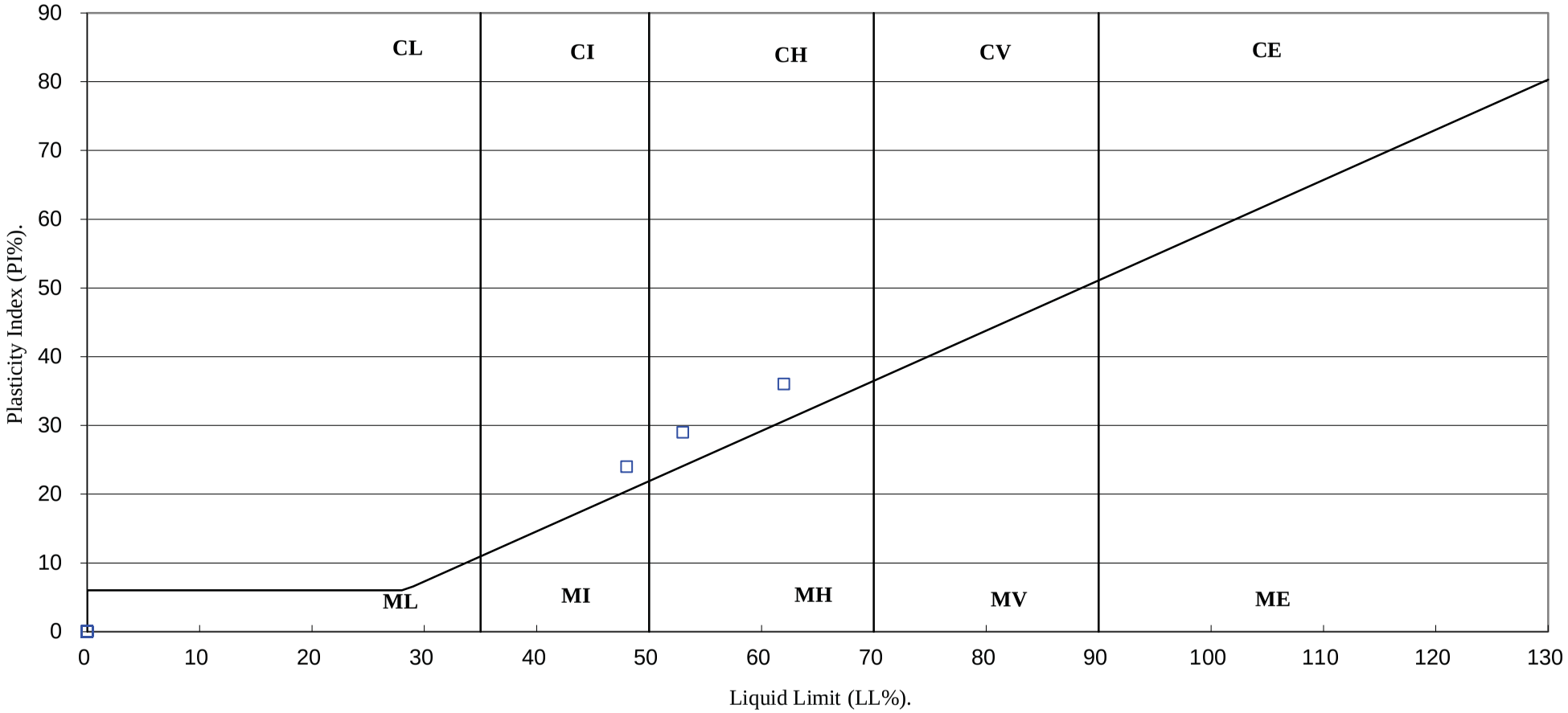
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

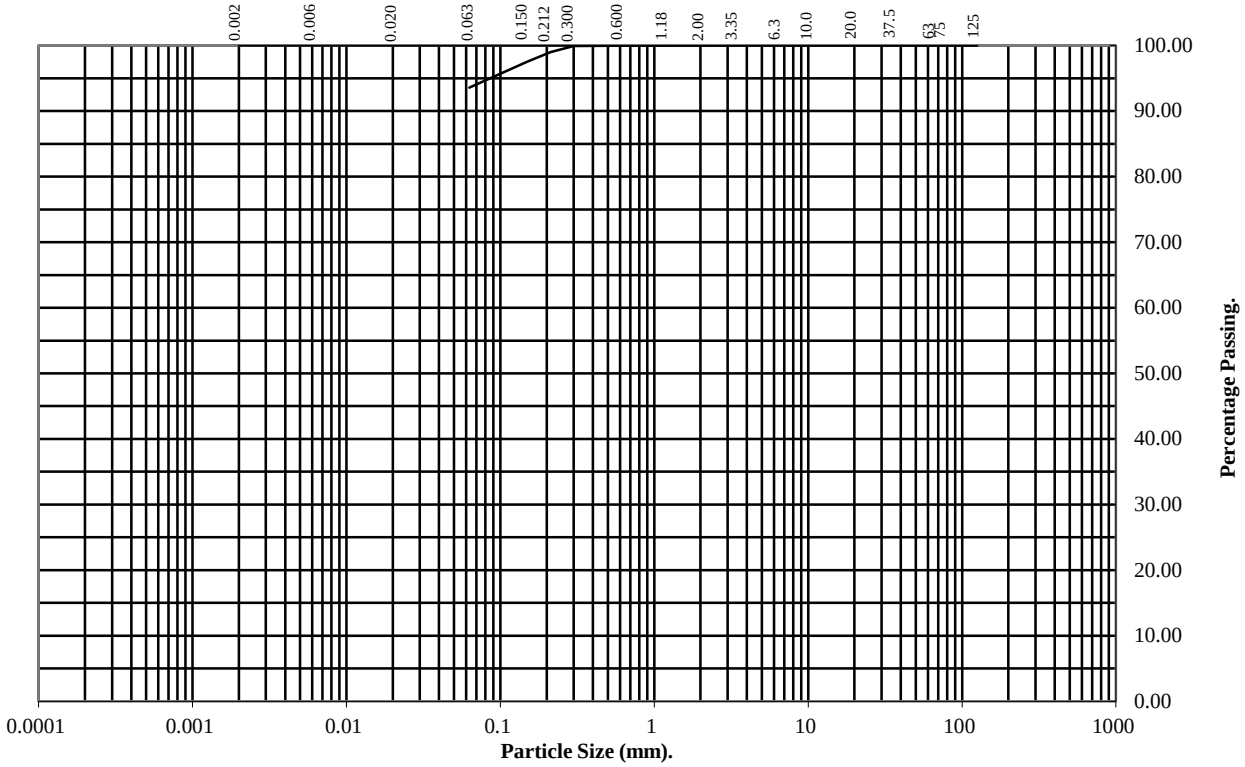
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP106** **Top Depth (m):** **2.00**

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

Sample Type: **B**



BS Test Sieve	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	98
0.063	94

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	6
Silt/Clay	94

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

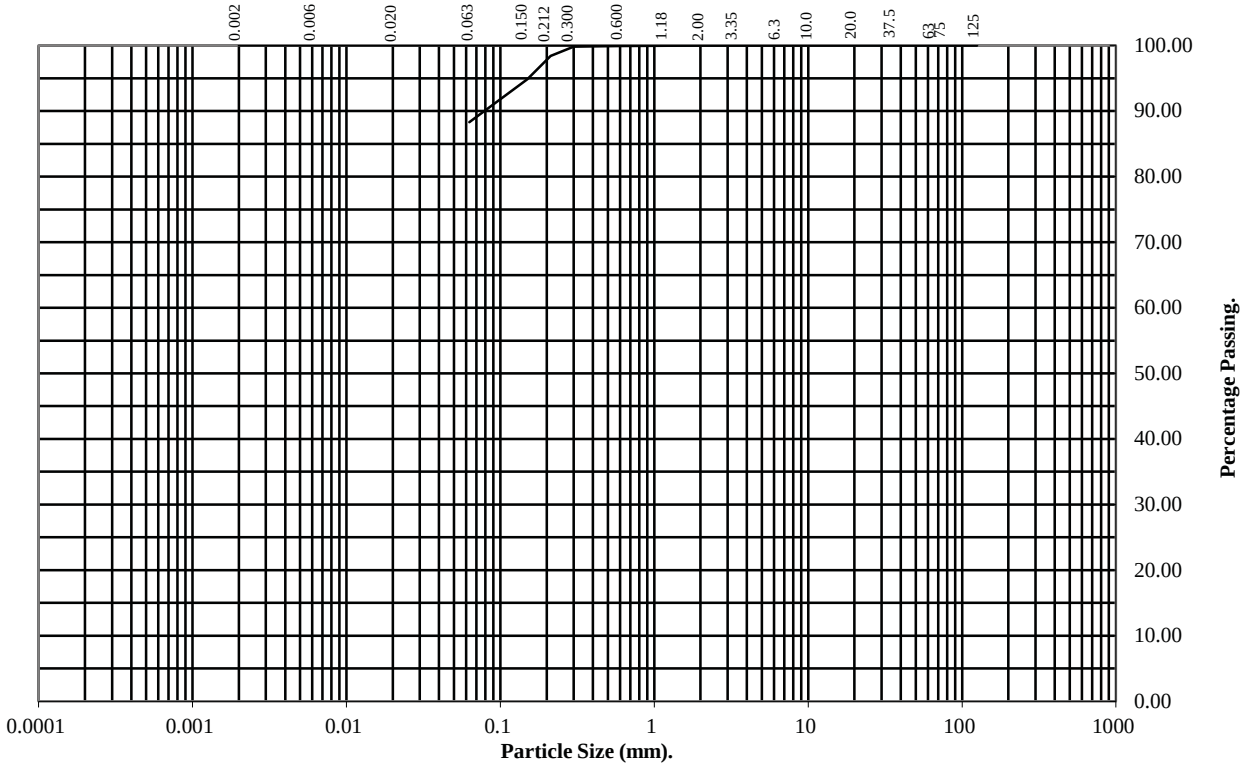
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP106** **Top Depth (m):** **3.50**

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

Sample Type: **B**



BS Test Sieve	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	98
0.15	95
0.063	88

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	12
Silt/Clay	88

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** **PSL15/5863**
		University of Chichester - Bognor Regis Campus		**Client Ref:** **C4872**

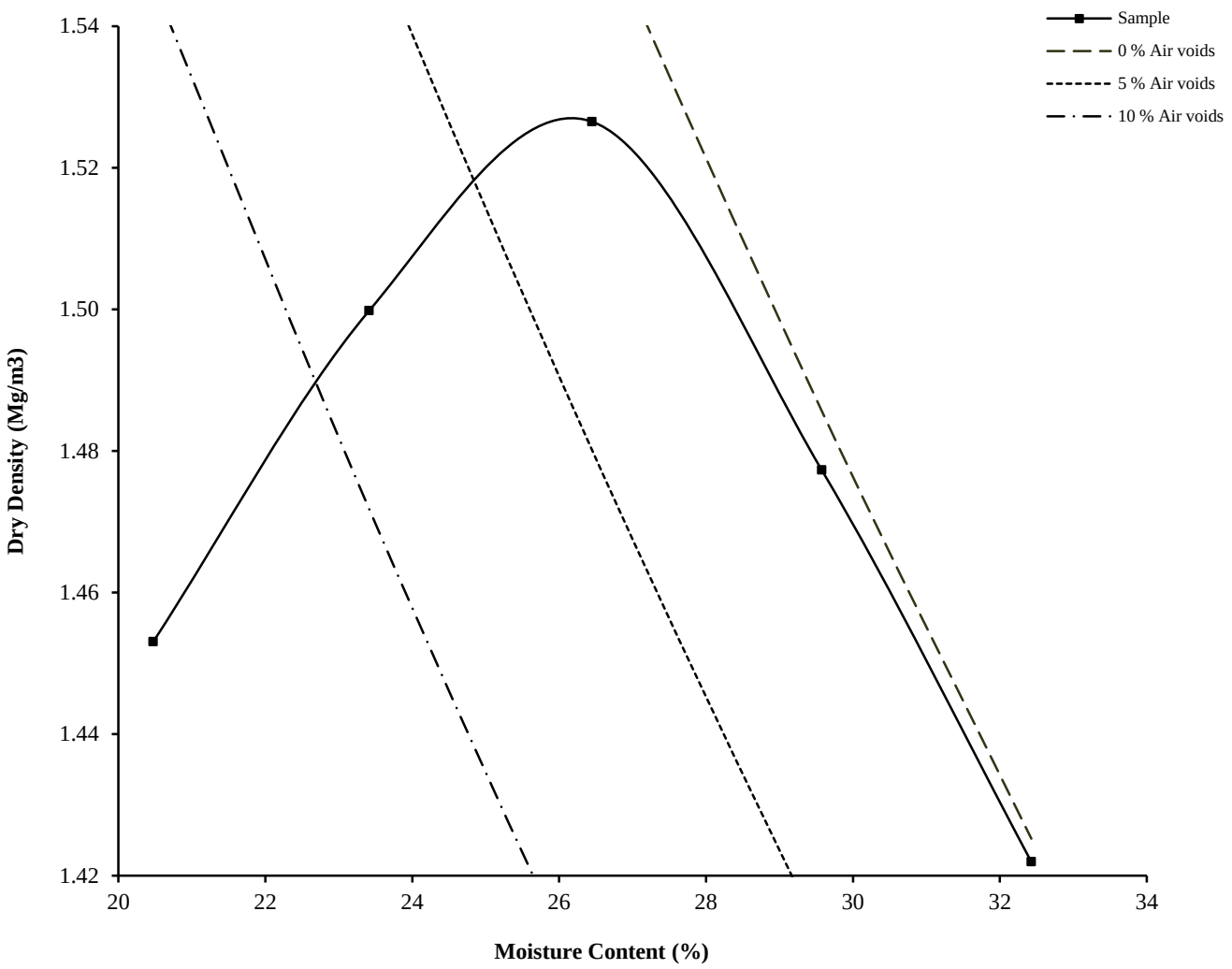
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : 1990

Hole Number: TP106 **Top Depth (m) :** 1.00

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

Sample Type: B



Initial Moisture Content:		35	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.53	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		26			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No.
		University of Chichester - Bognor Regis Campus		PSL15/5863
				Client Ref
				C4872

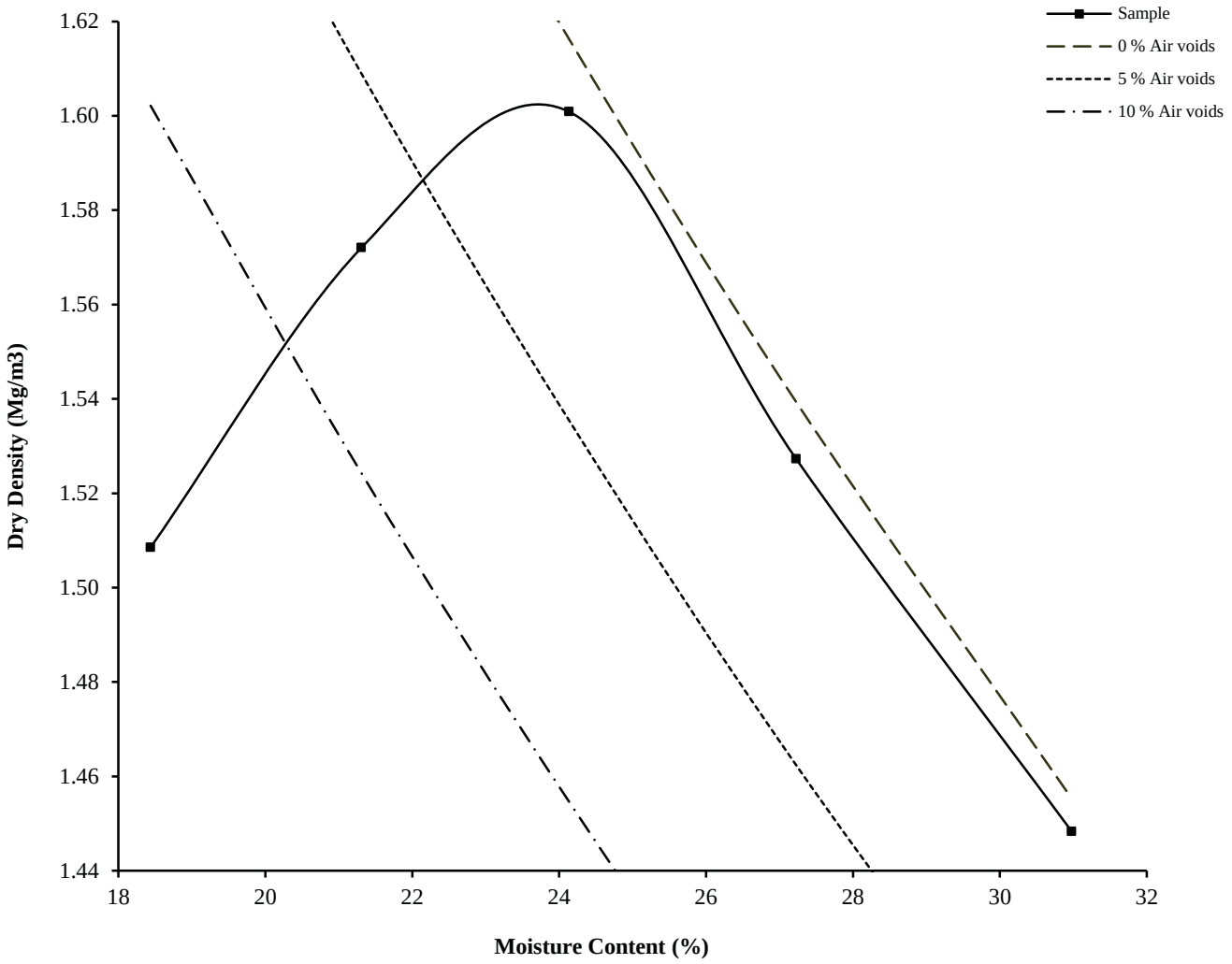
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : 1990

Hole Number: TP106 **Top Depth (m) :** 3.50

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

Sample Type: B



Initial Moisture Content:		40	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.65	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.60	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		24			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No. PSL15/5863
		University of Chichester - Bognor Regis Campus		Client Ref C4872

PSL
Professional Soils Laboratory

LABORATORY REPORT

UKAS TESTING
4043

Contract Number: PSL15/5863

Report Date: 08 January 2016

Client's Reference: C4872

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ARUN DISTRICT COUNCIL BR/311/18/PL

ARUN DISTRICT COUNCIL BR/311/18/PL

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
TP107		B	1.00		Brown slightly sandy CLAY.
TP107		D	1.00		Brown slightly sandy CLAY.
TP107		B	1.50		Brown slightly sandy CLAY.
TP107		B	2.50		Brown mottled grey slightly sandy CLAY.
TP107		D	2.50		Brown mottled grey slightly sandy CLAY.

UKAS TESTING 4043

PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

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	Bulk Density Mg/m^3 Clause 7.2	Dry Density Mg/m^3 Clause 7.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
TP107		D	1.00		28			55	25	30	100	High plasticity CH.
TP107		B	2.50		36	1.85	1.36					
TP107		D	2.50		38			53	24	29	100	High plasticity CH.

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

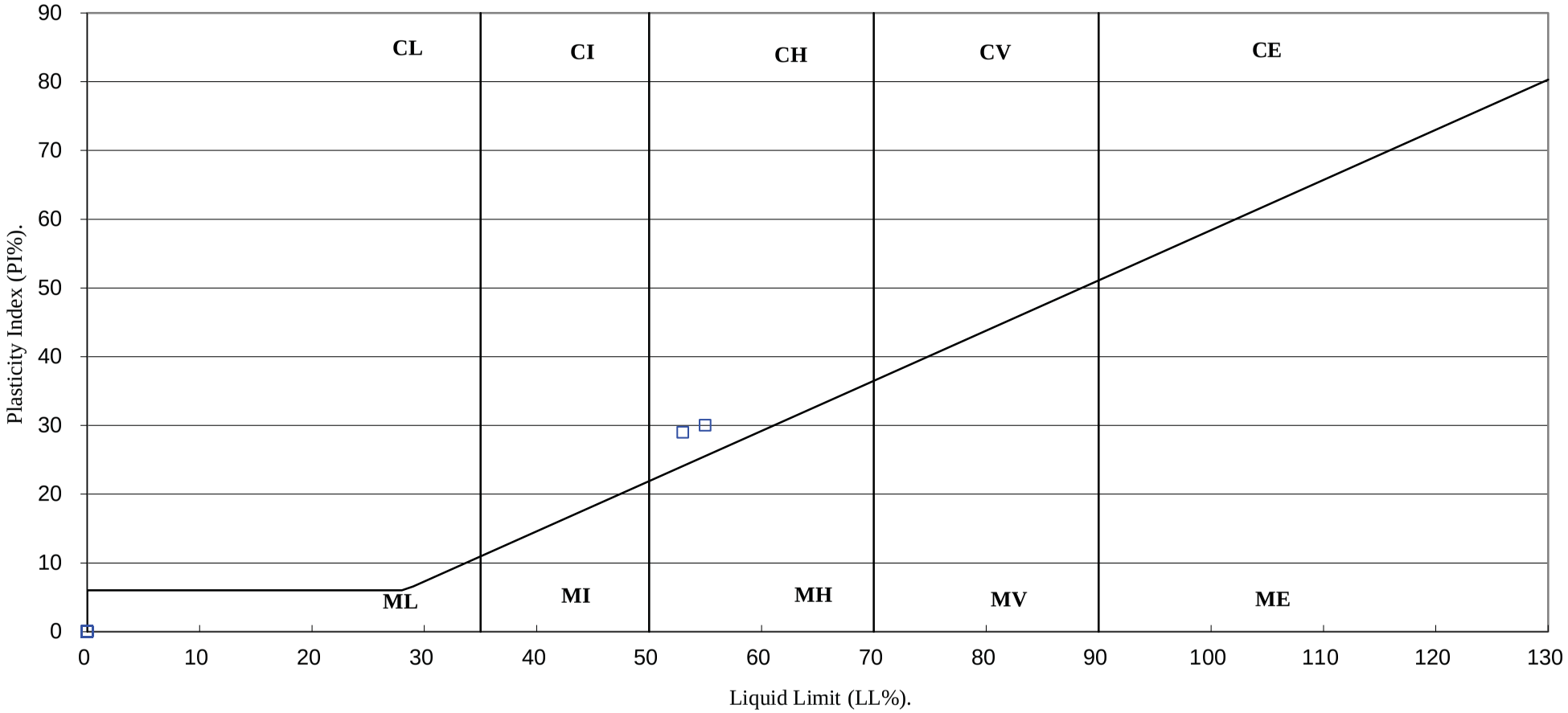
PSL Professional Soils Laboratory

Checked / Approved		Date	08/01/16	Contract No:
University of Chichester - Bognor Regis Campus				PSL15/5863
				Client Ref:
				C4872

ARUN DISTRICT COUNCIL BR/311/18/PL

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(BS5930 :2015)



UKAS TESTING 4043 — PSL Professional Soils Laboratory	**Checked /Approved**		**Date** 08/01/16	**Contract No:**
	University of Chichester - Bognor Regis Campus			**PSL15/5863**
				Client Ref:
				C4872

PARTICLE SIZE DISTRIBUTION TEST

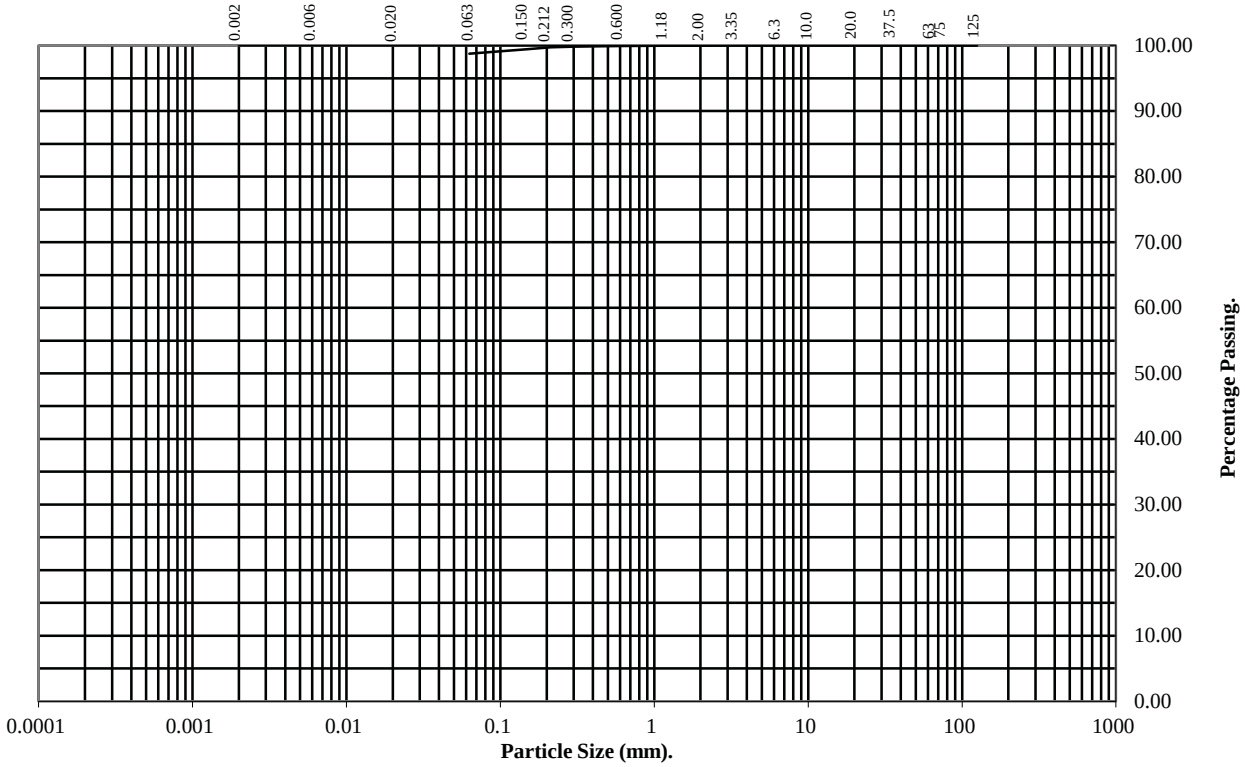
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP107** **Top Depth (m):** **1.00**

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

Sample Type: **B**



BS Test Sieve	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

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	1
Silt/Clay	99

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

PARTICLE SIZE DISTRIBUTION TEST

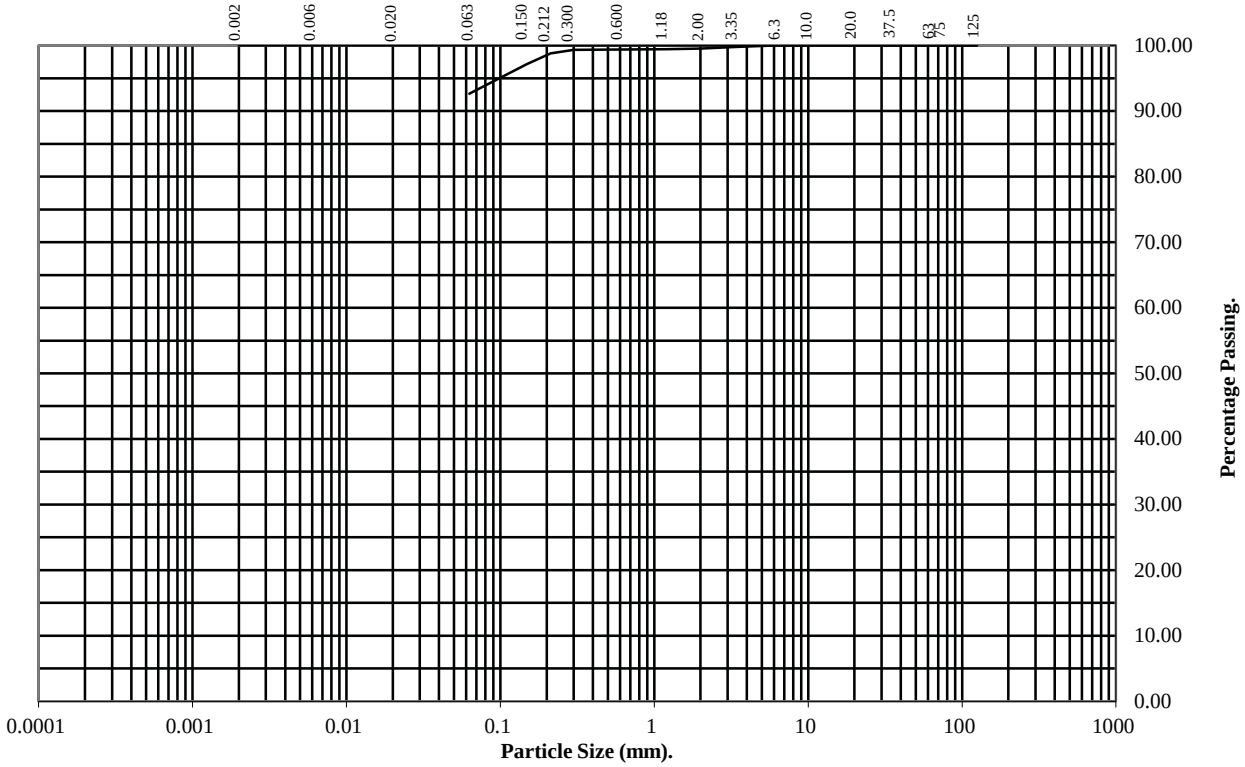
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **TP107** **Top Depth (m):** **1.50**

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

Sample Type: **B**



BS Test Sieve	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	99
0.15	97
0.063	93

Soil Fraction	Total Percentage
Cobbles	0
Gravel	0
Sand	7
Silt/Clay	93

Remarks:

See summary of soil descriptions.

UKAS TESTING 4043	PSL Professional Soils Laboratory	**Checked / Approved**	**Date** 08/01/16	**Contract No:** PSL15/5863
		University of Chichester - Bognor Regis Campus		**Client Ref:** C4872

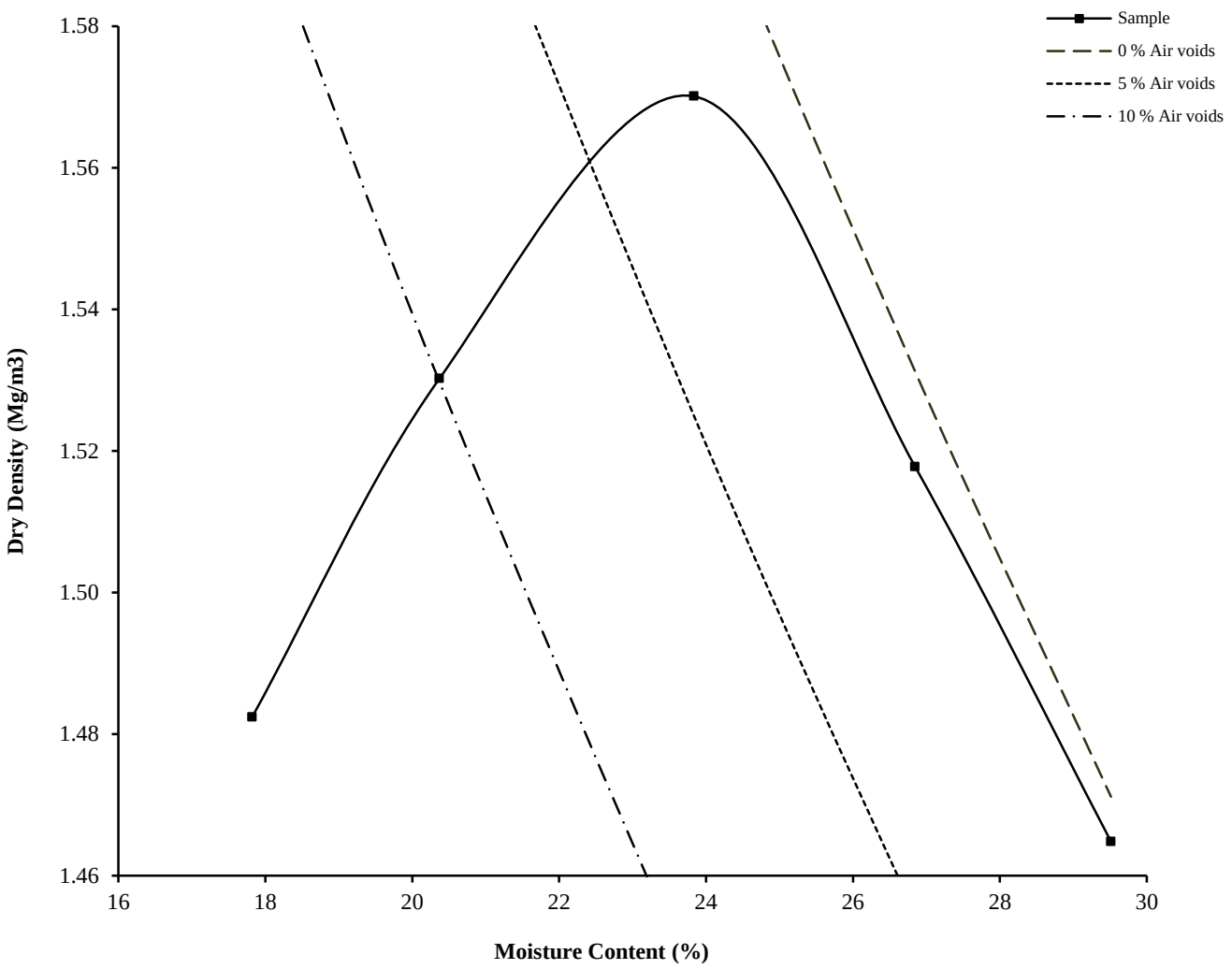
DRY DENSITY / MOISTURE CONTENT RELATIONSHIP

BS 1377 : Part 4 : 1990

Hole Number: TP107 **Top Depth (m) :** 1.00

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

Sample Type: B



Initial Moisture Content:		27	Method of Compaction:	2.5kg	Separate Samples
Particle Density (Mg/m3):	2.60	Assumed	Material Retained on 37.5 mm Test Sieve (%):		0
Maximum Dry Density (Mg/m3):		1.57	Material Retained on 20.0 mm Test Sieve (%):		0
Optimum Moisture Content (%):		24			
Remarks See summary of soil descriptions					

UKAS TESTING 4043	PSL Professional Soils Laboratory	Checked / Approved	Date 08/01/16	Contract No. PSL15/5863
		University of Chichester - Bognor Regis Campus		Client Ref C4872

Certificate of Analysis

Certificate Number 15-53912

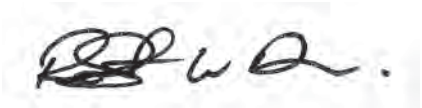
08-Jan-16

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Approved By



Rob Brown
Business Manager

UKAS TESTING
2139

Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918346
Sample ID	BH101
Depth	3.90
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.2
Chloride Aqueous Extract	DETSC 2055	1	mg/l	140
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	1.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	120
Total Sulphur as S	DETSC 2320	0.01	%	0.02
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.03

Key: * -not accredited. # -MCERTS (accreditation only implied if report carries the MCERTS logo). n/s -not supplied.

Certificate of Analysis

Certificate Number 15-53912

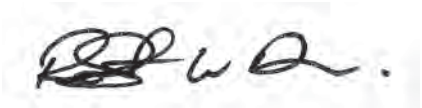
08-Jan-16

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
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Date Completed	08-Jan-16
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Rob Brown
Business Manager

UKAS TESTING
2139

Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918348
Sample ID	BH102
Depth	
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.6
Chloride Aqueous Extract	DETSC 2055	1	mg/l	84
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	40
Total Sulphur as S	DETSC 2320	0.01	%	0.06
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.15

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Certificate Number 15-53912

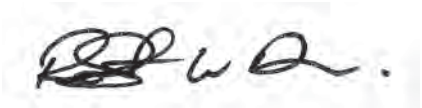
08-Jan-16

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
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Business Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918347
Sample ID	BH102
Depth	1.90
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.8
Chloride Aqueous Extract	DETSC 2055	1	mg/l	320
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	1.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	350
Total Sulphur as S	DETSC 2320	0.01	%	0.04
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.09

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Certificate of Analysis

Certificate Number 15-53912

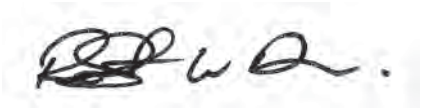
08-Jan-16

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
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Rob Brown
Business Manager

UKAS TESTING
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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918350
Sample ID	BH103
Depth	5.30
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.1
Chloride Aqueous Extract	DETSC 2055	1	mg/l	130
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	83
Total Sulphur as S	DETSC 2320	0.01	%	< 0.01
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.03

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Certificate of Analysis

Certificate Number 15-53912

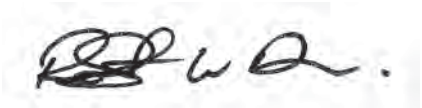
08-Jan-16

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918349
Sample ID	BH103
Depth	1.90
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.3
Chloride Aqueous Extract	DETSC 2055	1	mg/l	24
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	81
Total Sulphur as S	DETSC 2320	0.01	%	0.02
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.04

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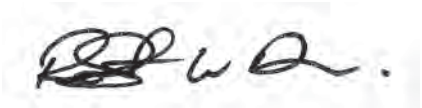
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Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Business Manager

UKAS TESTING
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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918351
Sample ID	BH104
Depth	5.20
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			9.0
Chloride Aqueous Extract	DETSC 2055	1	mg/l	440
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	270
Total Sulphur as S	DETSC 2320	0.01	%	0.21
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.10

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Certificate of Analysis

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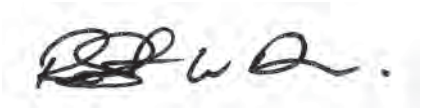
08-Jan-16

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Rob Brown
Business Manager

UKAS TESTING
2139

Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918352
Sample ID	BH106
Depth	3.50
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.3
Chloride Aqueous Extract	DETSC 2055	1	mg/l	140
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	150
Total Sulphur as S	DETSC 2320	0.01	%	0.02
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.06

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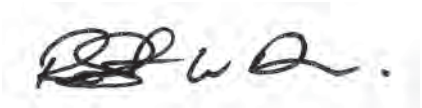
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5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
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Date Completed	08-Jan-16
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Rob Brown
Business Manager

UKAS TESTING
2139

Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918353
Sample ID	BH107
Depth	5.00-5.15
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.8
Chloride Aqueous Extract	DETSC 2055	1	mg/l	130
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	50
Total Sulphur as S	DETSC 2320	0.01	%	0.02
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.04

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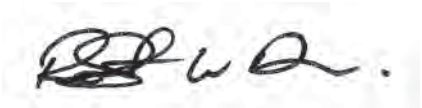
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Hexthorpe
DN4 0AR

Our Reference	15-53912
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Business Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	919314
Sample ID	BH108
Depth	1.65
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	26
Inorganics				
pH	DETSC 2008#			8.3
Chloride Aqueous Extract	DETSC 2055	1	mg/l	1000
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	3.2
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	490
Total Sulphur as S	DETSC 2320	0.01	%	0.39
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.19

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Certificate of Analysis

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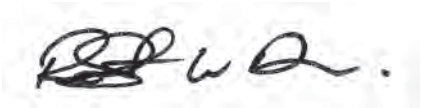
08-Jan-16

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Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
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UKAS TESTING
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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918354
Sample ID	BH108
Depth	6.30
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	28
Inorganics				
pH	DETSC 2008#			8.8
Chloride Aqueous Extract	DETSC 2055	1	mg/l	1100
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	3.5
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	520
Total Sulphur as S	DETSC 2320	0.01	%	0.46
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.17

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Certificate of Analysis

Certificate Number 15-53912

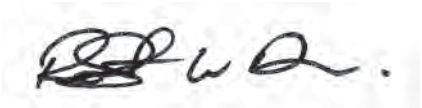
08-Jan-16

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Approved By



Rob Brown
Business Manager

UKAS TESTING
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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918355
Sample ID	BH109
Depth	4.00
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	33
Inorganics				
pH	DETSC 2008#			8.2
Chloride Aqueous Extract	DETSC 2055	1	mg/l	470
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	3.4
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	520
Total Sulphur as S	DETSC 2320	0.01	%	0.64
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.21

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Certificate of Analysis

Certificate Number 15-53912-1

12-Jan-16

Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912-1
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	12-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).
Notes	**This report supersedes 15-53912, extra testing.**

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Rob Brown
Business Manager

UKAS TESTING 2139

Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912-1
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918972
Sample ID	BH109
Depth	15.30
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Inorganics				
Organic Matter Content	DETSC 2002#	0.1	%	15

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Certificate of Analysis

Certificate Number 15-53912-1

12-Jan-16

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5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53912-1
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	12-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).
Notes	**This report supersedes 15-53912, extra testing.**

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Rob Brown
Business Manager

UKAS TESTING 2139

Summary of Chemical Analysis
Soil Samples

Our Ref 15-53912-1
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918356
Sample ID	BH109
Depth	15.50
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	87
Inorganics				
pH	DETSC 2008#			8.0
Organic matter	DETSC 2002#	0.1	%	11
Chloride Aqueous Extract	DETSC 2055	1	mg/l	3600
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	340
Total Sulphur as S	DETSC 2320	0.01	%	1.8
Total Sulphate as SO4	DETSC 2321#	0.01	%	2.2

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Certificate of Analysis

Certificate Number 15-53913

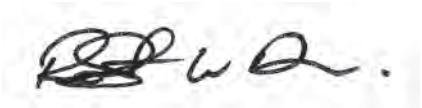
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Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53913
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Rob Brown
Business Manager

UKAS TESTING
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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53913
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918358
Sample ID	TP101
Depth	3.00
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.4
Chloride Aqueous Extract	DETSC 2055	1	mg/l	63
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	1.8
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	120
Total Sulphur as S	DETSC 2320	0.01	%	0.01
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.04

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Certificate of Analysis

Certificate Number 15-53913

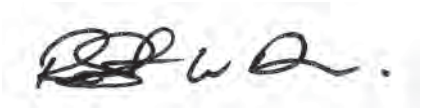
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Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-53913
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Rob Brown
Business Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53913
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918357
Sample ID	TP101
Depth	1.30
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.2
Chloride Aqueous Extract	DETSC 2055	1	mg/l	20
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	32
Total Sulphur as S	DETSC 2320	0.01	%	0.02
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.02

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Certificate of Analysis

Certificate Number 15-54124

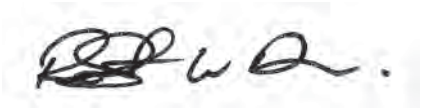
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Client Professional Soils Laboratory Ltd
5/7 Hexthorpe Road
Hexthorpe
DN4 0AR

Our Reference	15-54124
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	22-Dec-15
Date Started	22-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Rob Brown
Business Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 15-54124
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	919663
Sample ID	TP102
Depth	2.50
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			7.3
Chloride Aqueous Extract	DETSC 2055	1	mg/l	61
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	1.6
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	220
Total Sulphur as S	DETSC 2320	0.01	%	0.05
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.10

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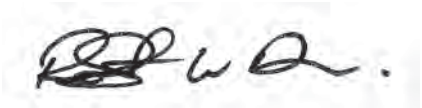
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Hexthorpe
DN4 0AR

Our Reference	15-54124
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	22-Dec-15
Date Started	22-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Summary of Chemical Analysis
Soil Samples

Our Ref 15-54124
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	919664
Sample ID	TP103
Depth	1.00
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			7.4
Chloride Aqueous Extract	DETSC 2055	1	mg/l	20
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	1.1
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	31
Total Sulphur as S	DETSC 2320	0.01	%	< 0.01
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.02

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Certificate of Analysis

Certificate Number 15-53913

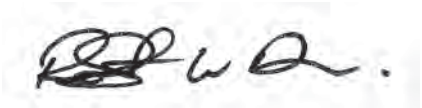
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Hexthorpe
DN4 0AR

Our Reference	15-53913
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Business Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53913
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918359
Sample ID	TP104
Depth	1.50
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.7
Chloride Aqueous Extract	DETSC 2055	1	mg/l	350
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	170
Total Sulphur as S	DETSC 2320	0.01	%	0.08
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.08

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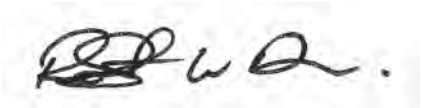
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DN4 0AR

Our Reference	15-53913
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Business Manager

UKAS TESTING
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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53913
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918360
Sample ID	TP106
Depth	2.00
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.5
Chloride Aqueous Extract	DETSC 2055	1	mg/l	400
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	3.7
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	82
Total Sulphur as S	DETSC 2320	0.01	%	0.02
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.04

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Certificate Number 15-53913

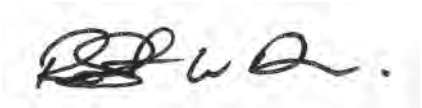
08-Jan-16

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Hexthorpe
DN4 0AR

Our Reference	15-53913
Client Reference	PSL15/5863
Order No	(not supplied)
Contract Title	UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS
Description	One Soil sample.
Date Received	18-Dec-15
Date Started	18-Dec-15
Date Completed	08-Jan-16
Test Procedures	Identified by prefix DETSn (details on request).

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Business Manager

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Summary of Chemical Analysis
Soil Samples

Our Ref 15-53913
Client Ref PSL15/5863
Contract Title UNIVERSITY OF CHICHESTER - BOGNOR REGIS CAMPUS

Lab No	918361
Sample ID	TP107
Depth	1.50
Other ID	
Sample Type	SOIL
Sampling Date	n/s
Sampling Time	n/s

Test	Method	LOD	Units	
Metals				
Magnesium Aqueous Extract	DETSC 2076*	10	mg/l	< 10
Inorganics				
pH	DETSC 2008#			8.2
Chloride Aqueous Extract	DETSC 2055	1	mg/l	85
Nitrate Aqueous Extract as NO3	DETSC 2055	1	mg/l	< 1.0
Sulphate Aqueous Extract as SO4	DETSC 2076#	10	mg/l	32
Total Sulphur as S	DETSC 2320	0.01	%	0.01
Total Sulphate as SO4	DETSC 2321#	0.01	%	0.02

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Chris Scrivens
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Watford,
Herts,
WD18 8YS

t: 01923 225404
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Analytical Report Number : 15-82946

Project / Site name:	University of Chichester -Bognor Regis Campus	**Samples received on:**	19/11/2015
Your job number:	C4872	**Samples instructed on:**	20/11/2015
Your order number:		**Analysis completed by:**	01/12/2015
Report Issue Number:	1	**Report issued on:**	01/12/2015
Samples Analysed:	12 leachate samples - 30 soil samples		

Signed:

Rexona Rahman
Reporting Manager
For & on behalf of i2 Analytical Ltd.

Signed:

Emma Winter
Assistant Reporting Manager
For & on behalf of i2 Analytical Ltd.

Other office located at: ul. Pionierów 39, 41 -711 Ruda Śląska, Poland

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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The results included within the report are representative of the samples submitted for analysis.

Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508949	508950	508951	508952	508953
Sample Reference				BH101	BH101	HP101	HP102	BH102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.60	0.20	0.30	0.10
Date Sampled				16/11/2015	16/11/2015	16/11/2015	16/11/2015	16/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	24	19	18	21	29
Total mass of sample received	kg	0.001	NONE	1.9	1.8	1.7	1.7	1.6
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	Not-detected	Not-detected
General Inorganics								
pH	pH Units	N/A	MCERTS	6.3	8.0	5.6	7.9	6.4
Organic Matter	%	0.1	MCERTS	3.2	0.4	3.0	0.9	5.9
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.8	-	1.7	0.5	3.4
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	0.28
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	0.76
Pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	0.74
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	0.64
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	0.37
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	0.72
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	0.38
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	< 1.60	< 1.60	< 1.60	< 1.60	3.89

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508949	508950	508951	508952	508953
Sample Reference				BH101	BH101	HP101	HP102	BH102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.60	0.20	0.30	0.10
Date Sampled				16/11/2015	16/11/2015	16/11/2015	16/11/2015	16/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	5.6	16	12	11	7.2
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	29	19	26	19
Copper (aqua regia extractable)	mg/kg	1	MCERTS	12	11	7.6	24	20
Lead (aqua regia extractable)	mg/kg	1	MCERTS	51	11	25	24	110
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	10	22	9.5	16	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	34	17	25	34	78
Monoaromatics								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508949	508950	508951	508952	508953
Sample Reference				BH101	BH101	HP101	HP102	BH102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.60	0.20	0.30	0.10
Date Sampled				16/11/2015	16/11/2015	16/11/2015	16/11/2015	16/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Chloroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Tribromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Butylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	< 1.0	< 1.0

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508949	508950	508951	508952	508953
Sample Reference				BH101	BH101	HP101	HP102	BH102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.60	0.20	0.30	0.10
Date Sampled				16/11/2015	16/11/2015	16/11/2015	16/11/2015	16/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	< 0.10
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Fluorene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	< 0.10
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	0.28
Anthracene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	< 0.10
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	< 0.3	< 0.3
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	0.76
Pyrene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	0.74
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	0.64
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	0.37
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	0.72
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	0.38
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	< 0.05	< 0.05

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508949	508950	508951	508952	508953
Sample Reference				BH101	BH101	HP101	HP102	BH102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.60	0.20	0.30	0.10
Date Sampled				16/11/2015	16/11/2015	16/11/2015	16/11/2015	16/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	< 0.01	-	-	-	< 0.01
Simazine	mg/kg	0.01	NONE	< 0.01	-	-	-	< 0.01
Trietazine	mg/kg	0.01	NONE	< 0.01	-	-	-	< 0.01
Environmental Forensics								
Acid Herbicides								
2,4,5-T	ug/kg	20	NONE	< 20	-	-	-	< 20
2,4,5-TP	ug/kg	20	NONE	< 20	-	-	-	< 20
2,4-D	ug/kg	20	NONE	< 20	-	-	-	< 20
2,4-DB	ug/kg	20	NONE	< 20	-	-	-	< 20
Dicamba	ug/kg	20	NONE	< 20	-	-	-	< 20
Dichlorprop	ug/kg	20	NONE	< 20	-	-	-	< 20
Dinoseb	ug/kg	20	NONE	< 20	-	-	-	< 20
MCPA	ug/kg	20	NONE	< 20	-	-	-	< 20
MCPB	ug/kg	20	NONE	< 20	-	-	-	< 20
MCPP (Mecoprop)	ug/kg	20	NONE	< 20	-	-	-	< 20
Picloram	ug/kg	20	NONE	< 20	-	-	-	< 20
Organochlorine Pesticides								
Aldrin	µg/kg	10	NONE	< 10	-	-	-	< 10
Alpha-HCH (Alpha BHC)	µg/kg	10	NONE	< 10	-	-	-	< 10
Beta-HCH (Beta-BHC)	µg/kg	10	NONE	< 10	-	-	-	< 10
Chlordane (sum of cis & trans isomers)	µg/kg	10	NONE	< 10	-	-	-	< 10
Delta-HCH (Delta-BHC)	µg/kg	10	NONE	< 10	-	-	-	< 10
Dieldrin	µg/kg	10	NONE	< 10	-	-	-	< 10
Endosulphan A	µg/kg	10	NONE	< 10	-	-	-	< 10
Endosulphan B	µg/kg	10	NONE	< 10	-	-	-	< 10
Endrin	µg/kg	10	NONE	< 10	-	-	-	< 10
Gamma-HCH (Lindane) (Gamma-BHC)	µg/kg	10	NONE	< 10	-	-	-	< 10
HCB (Hexachlorobenzene)	µg/kg	10	NONE	< 10	-	-	-	< 10
Heptachlor	µg/kg	10	NONE	< 10	-	-	-	< 10
Heptachlor Epoxide	µg/kg	10	NONE	< 10	-	-	-	< 10
Isodrin	µg/kg	10	NONE	< 10	-	-	-	< 10
pp-Methoxychlor	µg/kg	10	NONE	< 10	-	-	-	< 10
o,p-DDE	µg/kg	10	NONE	< 10	-	-	-	< 10
o,p-DDT	µg/kg	10	NONE	< 10	-	-	-	< 10
o,p-TDE (o,p-DDD)	µg/kg	10	NONE	< 10	-	-	-	< 10
p,p-DDE	µg/kg	10	NONE	< 10	-	-	-	< 10
p,p-DDT	µg/kg	10	NONE	< 10	-	-	-	< 10
p,p-TDE (p,p-DDD)	µg/kg	10	NONE	< 10	-	-	-	< 10
Trifluralin	µg/kg	10	NONE	< 10	-	-	-	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508949	508950	508951	508952	508953
Sample Reference				BH101	BH101	HP101	HP102	BH102
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.60	0.20	0.30	0.10
Date Sampled				16/11/2015	16/11/2015	16/11/2015	16/11/2015	16/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organophosphorous pesticides								
Azinphos-methyl	µg/kg	10	NONE	< 10	-	-	-	< 10
Chlorfenvinphos I (cis)	µg/kg	10	NONE	< 10	-	-	-	< 10
Chlorfenvinphos II (trans)	µg/kg	10	NONE	< 10	-	-	-	< 10
Chlorfenvinphos-methyl	µg/kg	10	NONE	< 10	-	-	-	< 10
Diazinon	µg/kg	10	NONE	< 10	-	-	-	< 10
Dichlorvos	µg/kg	10	NONE	< 10	-	-	-	< 10
Dimethoate	µg/kg	10	NONE	< 10	-	-	-	< 10
E-mevinphos	µg/kg	10	NONE	< 10	-	-	-	< 10
Z-mevinphos	µg/kg	10	NONE	< 10	-	-	-	< 10
Fenitrothion	µg/kg	10	NONE	< 10	-	-	-	< 10
Fenthion	µg/kg	10	NONE	< 10	-	-	-	< 10
Malathion	µg/kg	10	NONE	< 10	-	-	-	< 10
Parathion-ethyl	µg/kg	10	NONE	< 10	-	-	-	< 10
Parathion-methyl	µg/kg	10	NONE	< 10	-	-	-	< 10
Phorate	µg/kg	10	NONE	< 10	-	-	-	< 10
Phenylurea herbicides								
Isoproturon	ug/kg	10	NONE	< 10	-	-	-	< 10
Chlortoluron	ug/kg	10	NONE	< 10	-	-	-	< 10
Linuron	ug/kg	10	NONE	< 10	-	-	-	< 10
Diuron	ug/kg	10	NONE	< 10	-	-	-	< 10
Diflubenzuron	ug/kg	10	NONE	< 10	-	-	-	< 10
Flumeturon	ug/kg	10	NONE	< 10	-	-	-	< 10
Siduron	ug/kg	10	NONE	< 10	-	-	-	< 10
Terbuthiuron	ug/kg	10	NONE	< 10	-	-	-	< 10
Thidiazuron	ug/kg	10	NONE	< 10	-	-	-	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508954	508955	508956	508957	508958
Sample Reference				BH102	BH103	BH104	BH105	BH106
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	1.30	0.10	0.10	0.10
Date Sampled				16/11/2015	17/11/2015	09/11/2015	04/11/2015	11/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	16	24	24	23	21
Total mass of sample received	kg	0.001	NONE	1.5	0.95	1.4	1.3	0.43
Asbestos in Soil	Type	N/A	ISO 17025	-	-	Not-detected	Not-detected	Not-detected
General Inorganics								
pH	pH Units	N/A	MCERTS	8.3	8.4	7.0	5.6	5.7
Organic Matter	%	0.1	MCERTS	0.4	< 0.1	3.1	6.7	1.1
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	-	1.8	3.9	0.6
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.74	1.3	< 0.10
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	0.24	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	2.4	2.5	< 0.10
Pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	2.7	2.1	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	2.2	1.8	< 0.10
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	2.2	1.3	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	4.6	2.0	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	2.0	1.0	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	3.2	1.3	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	1.5	0.57	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	1.8	0.63	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	< 1.60	< 1.60	23.4	14.5	< 1.60

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508954	508955	508956	508957	508958
Sample Reference				BH102	BH103	BH104	BH105	BH106
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	1.30	0.10	0.10	0.10
Date Sampled				16/11/2015	17/11/2015	09/11/2015	04/11/2015	11/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	20	1.5	17	9.1	7.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	30	36	30	27	18
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.5	100	18	14	8.7
Lead (aqua regia extractable)	mg/kg	1	MCERTS	14	24	110	70	50
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	15	21	16	11
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	31	22	78	82	29
Monoaromatics								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	3.2	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	18	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	31	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508954	508955	508956	508957	508958
Sample Reference				BH102	BH103	BH104	BH105	BH106
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	1.30	0.10	0.10	0.10
Date Sampled				16/11/2015	17/11/2015	09/11/2015	04/11/2015	11/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Chloroethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Bromomethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Vinyl Chloride	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Trichlorofluoromethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
1,1-Dichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
2,2-Dichloropropane	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
Trichloromethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,1-Dichloropropene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
Benzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Trichloroethene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Dibromomethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Bromodichloromethane	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Tetrachloroethene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Styrene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Tribromomethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
o-Xylene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Isopropylbenzene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
Bromobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
2-Chlorotoluene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
4-Chlorotoluene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
tert-Butylbenzene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
sec-Butylbenzene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Butylbenzene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	-	< 1.0	< 1.0	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	-	< 1.0	< 1.0	< 1.0
Hexachlorobutadiene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-	-	< 1.0	< 1.0	< 1.0

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508954	508955	508956	508957	508958
Sample Reference				BH102	BH103	BH104	BH105	BH106
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	1.30	0.10	0.10	0.10
Date Sampled				16/11/2015	17/11/2015	09/11/2015	04/11/2015	11/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	-	< 0.2	< 0.2	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	-	< 0.2	< 0.2	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	-	< 0.05	< 0.05	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	-	< 0.1	< 0.1	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	-	< 0.1	< 0.1	< 0.1
Acenaphthylene	mg/kg	0.1	MCERTS	-	-	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	-	-	< 0.10	< 0.10	< 0.10
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	-	< 0.3	< 0.3	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
Fluorene	mg/kg	0.1	MCERTS	-	-	< 0.10	< 0.10	< 0.10
Azobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
Phenanthrene	mg/kg	0.1	MCERTS	-	-	0.74	1.3	< 0.10
Anthracene	mg/kg	0.1	MCERTS	-	-	0.24	< 0.10	< 0.10
Carbazole	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	-	< 0.2	< 0.2	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	-	< 0.3	< 0.3	< 0.3
Fluoranthene	mg/kg	0.1	MCERTS	-	-	2.4	2.5	< 0.10
Pyrene	mg/kg	0.1	MCERTS	-	-	2.7	2.1	< 0.10
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	-	< 0.3	< 0.3	< 0.3
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	-	2.2	1.8	< 0.10
Chrysene	mg/kg	0.05	MCERTS	-	-	2.2	1.3	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	-	4.6	2.0	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	-	2.0	1.0	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	-	3.2	1.3	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	-	1.5	0.57	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	-	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	1.8	0.63	< 0.05

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508954	508955	508956	508957	508958
Sample Reference				BH102	BH103	BH104	BH105	BH106
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	1.30	0.10	0.10	0.10
Date Sampled				16/11/2015	17/11/2015	09/11/2015	04/11/2015	11/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	-	-	-	-	-
Simazine	mg/kg	0.01	NONE	-	-	-	-	-
Trietazine	mg/kg	0.01	NONE	-	-	-	-	-
Environmental Forensics								
Acid Herbicides								
2,4,5-T	ug/kg	20	NONE	-	-	-	-	-
2,4,5-TP	ug/kg	20	NONE	-	-	-	-	-
2,4-D	ug/kg	20	NONE	-	-	-	-	-
2,4-DB	ug/kg	20	NONE	-	-	-	-	-
Dicamba	ug/kg	20	NONE	-	-	-	-	-
Dichlorprop	ug/kg	20	NONE	-	-	-	-	-
Dinoseb	ug/kg	20	NONE	-	-	-	-	-
MCPA	ug/kg	20	NONE	-	-	-	-	-
MCPB	ug/kg	20	NONE	-	-	-	-	-
MCPP (Mecoprop)	ug/kg	20	NONE	-	-	-	-	-
Picloram	ug/kg	20	NONE	-	-	-	-	-
Organochlorine Pesticides								
Aldrin	µg/kg	10	NONE	-	-	-	-	-
Alpha-HCH (Alpha BHC)	µg/kg	10	NONE	-	-	-	-	-
Beta-HCH (Beta-BHC)	µg/kg	10	NONE	-	-	-	-	-
Chlordane (sum of cis & trans isomers)	µg/kg	10	NONE	-	-	-	-	-
Delta-HCH (Delta-BHC)	µg/kg	10	NONE	-	-	-	-	-
Dieldrin	µg/kg	10	NONE	-	-	-	-	-
Endosulphan A	µg/kg	10	NONE	-	-	-	-	-
Endosulphan B	µg/kg	10	NONE	-	-	-	-	-
Endrin	µg/kg	10	NONE	-	-	-	-	-
Gamma-HCH (Lindane) (Gamma-BHC)	µg/kg	10	NONE	-	-	-	-	-
HCB (Hexachlorobenzene)	µg/kg	10	NONE	-	-	-	-	-
Heptachlor	µg/kg	10	NONE	-	-	-	-	-
Heptachlor Epoxide	µg/kg	10	NONE	-	-	-	-	-
Isodrin	µg/kg	10	NONE	-	-	-	-	-
pp-Methoxychlor	µg/kg	10	NONE	-	-	-	-	-
o,p-DDE	µg/kg	10	NONE	-	-	-	-	-
o,p-DDT	µg/kg	10	NONE	-	-	-	-	-
o,p-TDE (o,p-DDD)	µg/kg	10	NONE	-	-	-	-	-
p,p-DDE	µg/kg	10	NONE	-	-	-	-	-
p,p-DDT	µg/kg	10	NONE	-	-	-	-	-
p,p-TDE (p,p-DDD)	µg/kg	10	NONE	-	-	-	-	-
Trifluralin	µg/kg	10	NONE	-	-	-	-	-

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508954	508955	508956	508957	508958
Sample Reference				BH102	BH103	BH104	BH105	BH106
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				1.20	1.30	0.10	0.10	0.10
Date Sampled				16/11/2015	17/11/2015	09/11/2015	04/11/2015	11/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organophosphorous pesticides								
Azinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos I (cis)	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos II (trans)	µg/kg	10	NONE	-	-	-	-	-
Chlorfenvinphos-methyl	µg/kg	10	NONE	-	-	-	-	-
Diazinon	µg/kg	10	NONE	-	-	-	-	-
Dichlorvos	µg/kg	10	NONE	-	-	-	-	-
Dimethoate	µg/kg	10	NONE	-	-	-	-	-
E-mevinphos	µg/kg	10	NONE	-	-	-	-	-
Z-mevinphos	µg/kg	10	NONE	-	-	-	-	-
Fenitrothion	µg/kg	10	NONE	-	-	-	-	-
Fenthion	µg/kg	10	NONE	-	-	-	-	-
Malathion	µg/kg	10	NONE	-	-	-	-	-
Parathion-ethyl	µg/kg	10	NONE	-	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	-	-	-	-	-
Phorate	µg/kg	10	NONE	-	-	-	-	-
Phenylurea herbicides								
Isoproturon	ug/kg	10	NONE	-	-	-	-	-
Chlortoluron	ug/kg	10	NONE	-	-	-	-	-
Linuron	ug/kg	10	NONE	-	-	-	-	-
Diuron	ug/kg	10	NONE	-	-	-	-	-
Diflubenzuron	ug/kg	10	NONE	-	-	-	-	-
Flumeturon	ug/kg	10	NONE	-	-	-	-	-
Siduron	ug/kg	10	NONE	-	-	-	-	-
Terbuthiuron	ug/kg	10	NONE	-	-	-	-	-
Thidiazuron	ug/kg	10	NONE	-	-	-	-	-

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508959	508960	508961	508962	508963
Sample Reference				BH106	BH107	BH107	BH107	BH108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.60	1.10	0.40
Date Sampled				11/11/2015	09/11/2015	09/11/2015	09/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	20	27	17	6.3	18
Total mass of sample received	kg	0.001	NONE	0.43	1.5	1.7	1.7	1.6
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	-	Not-detected
General Inorganics								
pH	pH Units	N/A	MCERTS	6.5	5.2	6.1	7.0	7.3
Organic Matter	%	0.1	MCERTS	1.0	5.4	0.3	0.3	0.5
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	3.1	-	-	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	0.26	< 0.10	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	0.58	< 0.10	< 0.10	< 0.10
Pyrene	mg/kg	0.1	MCERTS	< 0.10	0.54	< 0.10	< 0.10	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	< 1.60	< 1.60	< 1.60	< 1.60	< 1.60

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508959	508960	508961	508962	508963
Sample Reference				BH106	BH107	BH107	BH107	BH108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.60	1.10	0.40
Date Sampled				11/11/2015	09/11/2015	09/11/2015	09/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	7.3	7.4	11	< 1.0	24
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	23	24	23	18	32
Copper (aqua regia extractable)	mg/kg	1	MCERTS	3.0	15	5.3	7.4	2.8
Lead (aqua regia extractable)	mg/kg	1	MCERTS	12	91	11	6.3	15
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	10	14	15	18	31
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	17	55	33	14	55
Monoaromatics								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508959	508960	508961	508962	508963
Sample Reference				BH106	BH107	BH107	BH107	BH108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.60	1.10	0.40
Date Sampled				11/11/2015	09/11/2015	09/11/2015	09/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Chloroethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Vinyl Chloride	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Trichlorofluoromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
1,1-Dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
2,2-Dichloropropane	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1-Dichloropropene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Bromodichloromethane	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Tetrachloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Styrene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Tribromomethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Isopropylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
2-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
4-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
tert-Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
sec-Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Hexachlorobutadiene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508959	508960	508961	508962	508963
Sample Reference				BH106	BH107	BH107	BH107	BH108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.60	1.10	0.40
Date Sampled				11/11/2015	09/11/2015	09/11/2015	09/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	-	-
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	-	-
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	-	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	-	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	-
Acenaphthylene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Acenaphthene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Fluorene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Phenanthrene	mg/kg	0.1	MCERTS	-	0.26	-	-	-
Anthracene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	-
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	-	-
Fluoranthene	mg/kg	0.1	MCERTS	-	0.58	-	-	-
Pyrene	mg/kg	0.1	MCERTS	-	0.54	-	-	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	-

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508959	508960	508961	508962	508963
Sample Reference				BH106	BH107	BH107	BH107	BH108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.60	1.10	0.40
Date Sampled				11/11/2015	09/11/2015	09/11/2015	09/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	-	< 0.01	< 0.01	< 0.01	-
Simazine	mg/kg	0.01	NONE	-	< 0.01	< 0.01	< 0.01	-
Trietazine	mg/kg	0.01	NONE	-	< 0.01	< 0.01	< 0.01	-
Environmental Forensics								
Acid Herbicides								
2,4,5-T	ug/kg	20	NONE	-	< 20	< 20	< 20	-
2,4,5-TP	ug/kg	20	NONE	-	< 20	< 20	< 20	-
2,4-D	ug/kg	20	NONE	-	< 20	< 20	< 20	-
2,4-DB	ug/kg	20	NONE	-	< 20	< 20	< 20	-
Dicamba	ug/kg	20	NONE	-	< 20	< 20	< 20	-
Dichlorprop	ug/kg	20	NONE	-	< 20	< 20	< 20	-
Dinoseb	ug/kg	20	NONE	-	< 20	< 20	< 20	-
MCPA	ug/kg	20	NONE	-	< 20	< 20	< 20	-
MCPB	ug/kg	20	NONE	-	< 20	< 20	< 20	-
MCPP (Mecoprop)	ug/kg	20	NONE	-	< 20	< 20	< 20	-
Picloram	ug/kg	20	NONE	-	< 20	< 20	< 20	-
Organochlorine Pesticides								
Aldrin	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Alpha-HCH (Alpha BHC)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Beta-HCH (Beta-BHC)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Chlordane (sum of cis & trans isomers)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Delta-HCH (Delta-BHC)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Dieldrin	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Endosulphan A	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Endosulphan B	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Endrin	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Gamma-HCH (Lindane) (Gamma-BHC)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
HCB (Hexachlorobenzene)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Heptachlor	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Heptachlor Epoxide	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Isodrin	µg/kg	10	NONE	-	< 10	< 10	< 10	-
pp-Methoxychlor	µg/kg	10	NONE	-	< 10	< 10	< 10	-
o,p-DDE	µg/kg	10	NONE	-	< 10	< 10	< 10	-
o,p-DDT	µg/kg	10	NONE	-	< 10	< 10	< 10	-
o,p-TDE (o,p-DDD)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
p,p-DDE	µg/kg	10	NONE	-	< 10	< 10	< 10	-
p,p-DDT	µg/kg	10	NONE	-	< 10	< 10	< 10	-
p,p-TDE (p,p-DDD)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Trifluralin	µg/kg	10	NONE	-	< 10	< 10	< 10	-

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508959	508960	508961	508962	508963
Sample Reference				BH106	BH107	BH107	BH107	BH108
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.20	0.60	1.10	0.40
Date Sampled				11/11/2015	09/11/2015	09/11/2015	09/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organophosphorous pesticides								
Azinphos-methyl	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Chlorfenvinphos I (cis)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Chlorfenvinphos II (trans)	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Chlorfenvinphos-methyl	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Diazinon	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Dichlorvos	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Dimethoate	µg/kg	10	NONE	-	< 10	< 10	< 10	-
E-mevinphos	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Z-mevinphos	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Fenitrothion	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Fenthion	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Malathion	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Parathion-ethyl	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Parathion-methyl	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Phorate	µg/kg	10	NONE	-	< 10	< 10	< 10	-
Phenylurea herbicides								
Isoproturon	ug/kg	10	NONE	-	< 10	< 10	< 10	-
Chlortoluron	ug/kg	10	NONE	-	< 10	< 10	< 10	-
Linuron	ug/kg	10	NONE	-	< 10	< 10	< 10	-
Diuron	ug/kg	10	NONE	-	< 10	< 10	< 10	-
Diflubenzuron	ug/kg	10	NONE	-	< 10	< 10	< 10	-
Flumeturon	ug/kg	10	NONE	-	< 10	< 10	< 10	-
Siduron	ug/kg	10	NONE	-	< 10	< 10	< 10	-
Terbuthiuron	ug/kg	10	NONE	-	< 10	< 10	< 10	-
Thidiazuron	ug/kg	10	NONE	-	< 10	< 10	< 10	-

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508964	508965	508966	508967	508968
Sample Reference				BH109	BH109	BH109	BH110	BH110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	2.10	0.20	1.00
Date Sampled				05/11/2015	06/11/2015	06/11/2015	03/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	19	17	18	18	14
Total mass of sample received	kg	0.001	NONE	1.4	2.0	2.0	2.0	2.0
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	-	Not-detected	-
General Inorganics								
pH	pH Units	N/A	MCERTS	7.8	8.3	8.4	5.9	8.2
Organic Matter	%	0.1	MCERTS	1.8	< 0.1	0.4	4.9	< 0.1
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.1	-	-	2.8	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	0.40	< 0.10	< 0.10	0.36	< 0.10
Pyrene	mg/kg	0.1	MCERTS	0.44	< 0.10	< 0.10	0.36	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	0.53	< 0.10	< 0.10	0.50	< 0.10
Chrysene	mg/kg	0.05	MCERTS	0.16	< 0.05	< 0.05	0.23	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	0.33	< 0.10	< 0.10	0.68	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.18	< 0.10	< 0.10	0.36	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	2.04	< 1.60	< 1.60	2.49	< 1.60

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508964	508965	508966	508967	508968
Sample Reference				BH109	BH109	BH109	BH110	BH110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	2.10	0.20	1.00
Date Sampled				05/11/2015	06/11/2015	06/11/2015	03/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	18	21	9.1	12	25
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	27	31	25	27	32
Copper (aqua regia extractable)	mg/kg	1	MCERTS	8.9	7.0	7.0	13	5.4
Lead (aqua regia extractable)	mg/kg	1	MCERTS	37	12	9.7	62	13
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.4	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	22	16	18	21
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	110	54	43	61	53
Monoaromatics								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508964	508965	508966	508967	508968
Sample Reference				BH109	BH109	BH109	BH110	BH110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	2.10	0.20	1.00
Date Sampled				05/11/2015	06/11/2015	06/11/2015	03/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Chloroethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Vinyl Chloride	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Trichlorofluoromethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
1,1-Dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Benzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Bromodichloromethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Toluene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Tetrachloroethene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Styrene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Tribromomethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Isopropylbenzene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Butylbenzene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	-	< 1.0	-
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	-	< 1.0	-
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	-	-	< 1.0	-

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508964	508965	508966	508967	508968
Sample Reference				BH109	BH109	BH109	BH110	BH110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	2.10	0.20	1.00
Date Sampled				05/11/2015	06/11/2015	06/11/2015	03/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	-	< 0.2	-
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	-	< 0.2	-
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	-	< 0.1	-
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	-	< 0.1	-
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	-
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	-
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Fluorene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	-
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	-
Anthracene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	-
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	-	< 0.2	-
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	-	< 0.3	-
Fluoranthene	mg/kg	0.1	MCERTS	0.40	-	-	0.36	-
Pyrene	mg/kg	0.1	MCERTS	0.44	-	-	0.36	-
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	-	< 0.3	-
Benzo(a)anthracene	mg/kg	0.1	MCERTS	0.53	-	-	0.50	-
Chrysene	mg/kg	0.05	MCERTS	0.16	-	-	0.23	-
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	0.33	-	-	0.68	-
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.18	-	-	0.36	-
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	-
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	-	-	< 0.10	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	< 0.05	-

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508964	508965	508966	508967	508968
Sample Reference				BH109	BH109	BH109	BH110	BH110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	2.10	0.20	1.00
Date Sampled				05/11/2015	06/11/2015	06/11/2015	03/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Simazine	mg/kg	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Trietazine	mg/kg	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Environmental Forensics								
Acid Herbicides								
2,4,5-T	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
2,4,5-TP	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
2,4-D	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
2,4-DB	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
Dicamba	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
Dichlorprop	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
Dinoseb	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
MCPA	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
MCPB	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
MCPP (Mecoprop)	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
Picloram	ug/kg	20	NONE	< 20	< 20	< 20	< 20	< 20
Organochlorine Pesticides								
Aldrin	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Alpha-HCH (Alpha BHC)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Beta-HCH (Beta-BHC)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Chlordane (sum of cis & trans isomers)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Delta-HCH (Delta-BHC)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Dieldrin	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Endosulphan A	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Endosulphan B	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Endrin	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Gamma-HCH (Lindane) (Gamma-BHC)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
HCB (Hexachlorobenzene)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Heptachlor	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Heptachlor Epoxide	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Isodrin	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
pp-Methoxychlor	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
o,p-DDE	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
o,p-DDT	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
o,p-TDE (o,p-DDD)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
p,p-DDE	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
p,p-DDT	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
p,p-TDE (p,p-DDD)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Trifluralin	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508964	508965	508966	508967	508968
Sample Reference				BH109	BH109	BH109	BH110	BH110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	2.10	0.20	1.00
Date Sampled				05/11/2015	06/11/2015	06/11/2015	03/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organophosphorous pesticides								
Azinphos-methyl	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Chlorfenvinphos I (cis)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Chlorfenvinphos II (trans)	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Chlorfenvinphos-methyl	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Diazinon	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Dichlorvos	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Dimethoate	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
E-mevinphos	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Z-mevinphos	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Fenitrothion	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Fenthion	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Malathion	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Parathion-ethyl	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Parathion-methyl	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Phorate	µg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Phenylurea herbicides								
Isoproturon	ug/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Chlortoluron	ug/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Linuron	ug/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Diuron	ug/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Diflubenzuron	ug/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Flumeturon	ug/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Siduron	ug/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Terbuthiuron	ug/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
Thidiazuron	ug/kg	10	NONE	< 10	< 10	< 10	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508969	508970	508971	508972	508973
Sample Reference				TP101	TP101	TP102	TP102	TP104
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	2.40	0.10
Date Sampled				11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	22	18	10	18	24
Total mass of sample received	kg	0.001	NONE	0.46	0.46	0.40	0.44	0.38
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	-	Not-detected	-	Not-detected
General Inorganics								
pH	pH Units	N/A	MCERTS	8.5	8.0	6.2	7.3	6.1
Organic Matter	%	0.1	MCERTS	3.0	< 0.1	1.1	< 0.1	6.8
Total Organic Carbon (TOC)	%	0.1	MCERTS	1.7	-	0.6	-	3.9
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	0.37	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	1.2	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	mg/kg	0.1	MCERTS	1.1	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(a)anthracene	mg/kg	0.1	MCERTS	1.3	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	mg/kg	0.05	MCERTS	0.46	< 0.05	< 0.05	< 0.05	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	1.2	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.50	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	0.33	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.43	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	6.82	< 1.60	< 1.60	< 1.60	< 1.60

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508969	508970	508971	508972	508973
Sample Reference				TP101	TP101	TP102	TP102	TP104
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	2.40	0.10
Date Sampled				11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	11	< 1.0	19	15	10
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	19	27	20	26	29
Copper (aqua regia extractable)	mg/kg	1	MCERTS	31	15	7.0	45	17
Lead (aqua regia extractable)	mg/kg	1	MCERTS	160	7.5	21	21	84
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	13	18	59	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	84	17	29	110	72
Monoaromatics								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	27	< 8.0	23	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	35	< 10	23	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508969	508970	508971	508972	508973
Sample Reference				TP101	TP101	TP102	TP102	TP104
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	2.40	0.10
Date Sampled				11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Chloroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Vinyl Chloride	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Trichlorofluoromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
1,1-Dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
2,2-Dichloropropane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,1-Dichloropropene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
Benzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Bromodichloromethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Tetrachloroethene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Styrene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Tribromomethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Isopropylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
2-Chlorotoluene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
4-Chlorotoluene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
tert-Butylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
sec-Butylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Butylbenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	< 1.0	-	< 1.0	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	< 1.0	-	< 1.0	-	< 1.0
Hexachlorobutadiene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	NONE	< 1.0	-	< 1.0	-	< 1.0

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508969	508970	508971	508972	508973
Sample Reference				TP101	TP101	TP102	TP102	TP104
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	2.40	0.10
Date Sampled				11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	< 0.2	-	< 0.2	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	< 0.2	-	< 0.2	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	< 0.05	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	< 0.1	-	< 0.1	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	< 0.1	-	< 0.1	-	< 0.1
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	-	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	-	< 0.10
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
Fluorene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	-	< 0.10
Azobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Phenanthrene	mg/kg	0.1	MCERTS	0.37	-	< 0.10	-	< 0.10
Anthracene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	-	< 0.10
Carbazole	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	< 0.2	-	< 0.2	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	< 0.3	-	< 0.3	-	< 0.3
Fluoranthene	mg/kg	0.1	MCERTS	1.2	-	< 0.10	-	< 0.10
Pyrene	mg/kg	0.1	MCERTS	1.1	-	< 0.10	-	< 0.10
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	< 0.3	-	< 0.3	-	< 0.3
Benzo(a)anthracene	mg/kg	0.1	MCERTS	1.3	-	< 0.10	-	< 0.10
Chrysene	mg/kg	0.05	MCERTS	0.46	-	< 0.05	-	< 0.05
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	1.2	-	< 0.10	-	< 0.10
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	0.50	-	< 0.10	-	< 0.10
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	-	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	0.33	-	< 0.10	-	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	-	< 0.10	-	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.43	-	< 0.05	-	< 0.05

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508969	508970	508971	508972	508973
Sample Reference				TP101	TP101	TP102	TP102	TP104
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	2.40	0.10
Date Sampled				11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	< 0.01	< 0.01	-	-	< 0.01
Simazine	mg/kg	0.01	NONE	< 0.01	< 0.01	-	-	< 0.01
Trietazine	mg/kg	0.01	NONE	< 0.01	< 0.01	-	-	< 0.01
Environmental Forensics								
Acid Herbicides								
2,4,5-T	ug/kg	20	NONE	< 20	< 20	-	-	< 20
2,4,5-TP	ug/kg	20	NONE	< 20	< 20	-	-	< 20
2,4-D	ug/kg	20	NONE	< 20	< 20	-	-	< 20
2,4-DB	ug/kg	20	NONE	< 20	< 20	-	-	< 20
Dicamba	ug/kg	20	NONE	< 20	< 20	-	-	< 20
Dichlorprop	ug/kg	20	NONE	< 20	< 20	-	-	< 20
Dinoseb	ug/kg	20	NONE	< 20	< 20	-	-	< 20
MCPA	ug/kg	20	NONE	< 20	< 20	-	-	< 20
MCPB	ug/kg	20	NONE	< 20	< 20	-	-	< 20
MCPP (Mecoprop)	ug/kg	20	NONE	< 20	< 20	-	-	< 20
Picloram	ug/kg	20	NONE	< 20	< 20	-	-	< 20
Organochlorine Pesticides								
Aldrin	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Alpha-HCH (Alpha BHC)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Beta-HCH (Beta-BHC)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Chlordane (sum of cis & trans isomers)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Delta-HCH (Delta-BHC)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Dieldrin	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Endosulphan A	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Endosulphan B	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Endrin	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Gamma-HCH (Lindane) (Gamma-BHC)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
HCB (Hexachlorobenzene)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Heptachlor	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Heptachlor Epoxide	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Isodrin	µg/kg	10	NONE	< 10	< 10	-	-	< 10
pp-Methoxychlor	µg/kg	10	NONE	< 10	< 10	-	-	< 10
o,p-DDE	µg/kg	10	NONE	< 10	< 10	-	-	< 10
o,p-DDT	µg/kg	10	NONE	< 10	< 10	-	-	< 10
o,p-TDE (o,p-DDD)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
p,p-DDE	µg/kg	10	NONE	< 10	< 10	-	-	< 10
p,p-DDT	µg/kg	10	NONE	< 10	< 10	-	-	< 10
p,p-TDE (p,p-DDD)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Trifluralin	µg/kg	10	NONE	< 10	< 10	-	-	< 10

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Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508969	508970	508971	508972	508973
Sample Reference				TP101	TP101	TP102	TP102	TP104
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	0.40	2.40	0.10
Date Sampled				11/11/2015	11/11/2015	11/11/2015	11/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organophosphorous pesticides								
Azinphos-methyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Chlorfenvinphos I (cis)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Chlorfenvinphos II (trans)	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Chlorfenvinphos-methyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Diazinon	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Dichlorvos	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Dimethoate	µg/kg	10	NONE	< 10	< 10	-	-	< 10
E-mevinphos	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Z-mevinphos	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Fenitrothion	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Fenthion	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Malathion	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Parathion-ethyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Parathion-methyl	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Phorate	µg/kg	10	NONE	< 10	< 10	-	-	< 10
Phenylurea herbicides								
Isoproturon	ug/kg	10	NONE	< 10	< 10	-	-	< 10
Chlortoluron	ug/kg	10	NONE	< 10	< 10	-	-	< 10
Linuron	ug/kg	10	NONE	< 10	< 10	-	-	< 10
Diuron	ug/kg	10	NONE	< 10	< 10	-	-	< 10
Diflubenzuron	ug/kg	10	NONE	< 10	< 10	-	-	< 10
Flumeturon	ug/kg	10	NONE	< 10	< 10	-	-	< 10
Siduron	ug/kg	10	NONE	< 10	< 10	-	-	< 10
Terbuthiuron	ug/kg	10	NONE	< 10	< 10	-	-	< 10
Thidiazuron	ug/kg	10	NONE	< 10	< 10	-	-	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508974	508975	508976	508977	508978
Sample Reference				TP104	TP106	TP106	TP106	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.10	0.50	2.30	0.20
Date Sampled				10/11/2015	10/11/2015	10/11/2015	10/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	N/A	NONE	23	17	16	26	24
Total mass of sample received	kg	0.001	NONE	0.39	1.4	1.3	2.0	0.39
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	-	-	Not-detected
General Inorganics								
pH	pH Units	N/A	MCERTS	8.2	5.7	8.0	9.1	5.7
Organic Matter	%	0.1	MCERTS	0.4	5.3	1.2	0.6	6.4
Total Organic Carbon (TOC)	%	0.1	MCERTS	-	3.1	-	-	3.7
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	mg/kg	0.1	MCERTS	< 0.10	0.43	< 0.10	< 0.10	0.34
Pyrene	mg/kg	0.1	MCERTS	< 0.10	0.49	< 0.10	< 0.10	0.42
Benzo(a)anthracene	mg/kg	0.1	MCERTS	< 0.10	1.1	< 0.10	< 0.10	0.44
Chrysene	mg/kg	0.05	MCERTS	< 0.05	0.45	< 0.05	< 0.05	0.26
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	1.4	< 0.10	< 0.10	0.50
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	< 0.10	0.63	< 0.10	< 0.10	0.28
Benzo(a)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	1.6	MCERTS	< 1.60	4.52	< 1.60	< 1.60	2.24

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508974	508975	508976	508977	508978
Sample Reference				TP104	TP106	TP106	TP106	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.10	0.50	2.30	0.20
Date Sampled				10/11/2015	10/11/2015	10/11/2015	10/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	15	12	3.3	13
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	4	MCERTS	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	35	31	37	22	27
Copper (aqua regia extractable)	mg/kg	1	MCERTS	5.3	14	3.4	6.4	13
Lead (aqua regia extractable)	mg/kg	1	MCERTS	14	130	15	10	82
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	22	18	21	14	18
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	50	69	56	35	100
Monoaromatics								
Benzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC6 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aliphatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC7 - EC8	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC8 - EC10	mg/kg	0.1	MCERTS	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
TPH-CWG - Aromatic >EC10 - EC12	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (EC5 - EC35)	mg/kg	10	MCERTS	< 10	13	< 10	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508974	508975	508976	508977	508978
Sample Reference				TP104	TP106	TP106	TP106	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.10	0.50	2.30	0.20
Date Sampled				10/11/2015	10/11/2015	10/11/2015	10/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
VOCs								
Chloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Chloroethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Bromomethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Vinyl Chloride	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Trichlorofluoromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
1,1-Dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,2-Trichloro 1,2,2-Trifluoroethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Cis-1,2-dichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
2,2-Dichloropropane	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Trichloromethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,1-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,2-Dichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1-Dichloropropene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Trans-1,2-dichloroethene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Benzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Tetrachloromethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,2-Dichloropropane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Trichloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Dibromomethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Bromodichloromethane	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Cis-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Trans-1,3-dichloropropene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Toluene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,2-Trichloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,3-Dichloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Dibromochloromethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Tetrachloroethene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,2-Dibromoethane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
Chlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,1,2-Tetrachloroethane	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Ethylbenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
p & m-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Styrene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Tribromomethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
o-Xylene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,1,2,2-Tetrachloroethane	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Isopropylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
Bromobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
n-Propylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
2-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
4-Chlorotoluene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,3,5-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
tert-Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,2,4-Trimethylbenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
sec-Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,3-Dichlorobenzene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
p-Isopropyltoluene	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
1,2-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
1,4-Dichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Butylbenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,2-Dibromo-3-chloropropane	µg/kg	1	ISO 17025	-	< 1.0	-	-	< 1.0
1,2,4-Trichlorobenzene	µg/kg	1	MCERTS	-	< 1.0	-	-	< 1.0
Hexachlorobutadiene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0
1,2,3-Trichlorobenzene	µg/kg	1	NONE	-	< 1.0	-	-	< 1.0

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508974	508975	508976	508977	508978
Sample Reference				TP104	TP106	TP106	TP106	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.10	0.50	2.30	0.20
Date Sampled				10/11/2015	10/11/2015	10/11/2015	10/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
SVOCs								
Aniline	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
Phenol	mg/kg	0.2	ISO 17025	-	< 0.2	-	-	< 0.2
2-Chlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
Bis(2-chloroethyl)ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
1,3-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
1,2-Dichlorobenzene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
1,4-Dichlorobenzene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Bis(2-chloroisopropyl)ether	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
2-Methylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Hexachloroethane	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
Nitrobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
4-Methylphenol	mg/kg	0.2	NONE	-	< 0.2	-	-	< 0.2
Isophorone	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
2-Nitrophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
2,4-Dimethylphenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Bis(2-chloroethoxy)methane	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
1,2,4-Trichlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Naphthalene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05
2,4-Dichlorophenol	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
4-Chloroaniline	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
Hexachlorobutadiene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
4-Chloro-3-methylphenol	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
2,4,6-Trichlorophenol	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
2,4,5-Trichlorophenol	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
2-Methylnaphthalene	mg/kg	0.1	NONE	-	< 0.1	-	-	< 0.1
2-Chloronaphthalene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
Dimethylphthalate	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
2,6-Dinitrotoluene	mg/kg	0.1	MCERTS	-	< 0.1	-	-	< 0.1
Acenaphthylene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	< 0.10
Acenaphthene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	< 0.10
2,4-Dinitrotoluene	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Dibenzofuran	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
4-Chlorophenyl phenyl ether	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	< 0.3
Diethyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
4-Nitroaniline	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Fluorene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	< 0.10
Azobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Bromophenyl phenyl ether	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Hexachlorobenzene	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Phenanthrene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	< 0.10
Anthracene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	< 0.10
Carbazole	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Dibutyl phthalate	mg/kg	0.2	MCERTS	-	< 0.2	-	-	< 0.2
Anthraquinone	mg/kg	0.3	MCERTS	-	< 0.3	-	-	< 0.3
Fluoranthene	mg/kg	0.1	MCERTS	-	0.43	-	-	0.34
Pyrene	mg/kg	0.1	MCERTS	-	0.49	-	-	0.42
Butyl benzyl phthalate	mg/kg	0.3	ISO 17025	-	< 0.3	-	-	< 0.3
Benzo(a)anthracene	mg/kg	0.1	MCERTS	-	1.1	-	-	0.44
Chrysene	mg/kg	0.05	MCERTS	-	0.45	-	-	0.26
Benzo(b)fluoranthene	mg/kg	0.1	MCERTS	-	1.4	-	-	0.50
Benzo(k)fluoranthene	mg/kg	0.1	MCERTS	-	0.63	-	-	0.28
Benzo(a)pyrene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	< 0.10
Indeno(1,2,3-cd)pyrene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	< 0.10
Dibenz(a,h)anthracene	mg/kg	0.1	MCERTS	-	< 0.10	-	-	< 0.10
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	< 0.05	-	-	< 0.05

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508974	508975	508976	508977	508978
Sample Reference				TP104	TP106	TP106	TP106	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.10	0.50	2.30	0.20
Date Sampled				10/11/2015	10/11/2015	10/11/2015	10/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organonitrogen Pesticides (ONP)								
Atrazine	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Simazine	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Trietazine	mg/kg	0.01	NONE	< 0.01	-	-	-	-
Environmental Forensics								
Acid Herbicides								
2,4,5-T	ug/kg	20	NONE	< 20	-	-	-	-
2,4,5-TP	ug/kg	20	NONE	< 20	-	-	-	-
2,4-D	ug/kg	20	NONE	< 20	-	-	-	-
2,4-DB	ug/kg	20	NONE	< 20	-	-	-	-
Dicamba	ug/kg	20	NONE	< 20	-	-	-	-
Dichlorprop	ug/kg	20	NONE	< 20	-	-	-	-
Dinoseb	ug/kg	20	NONE	< 20	-	-	-	-
MCPA	ug/kg	20	NONE	< 20	-	-	-	-
MCPB	ug/kg	20	NONE	< 20	-	-	-	-
MCPP (Mecoprop)	ug/kg	20	NONE	< 20	-	-	-	-
Picloram	ug/kg	20	NONE	< 20	-	-	-	-
Organochlorine Pesticides								
Aldrin	µg/kg	10	NONE	< 10	-	-	-	-
Alpha-HCH (Alpha BHC)	µg/kg	10	NONE	< 10	-	-	-	-
Beta-HCH (Beta-BHC)	µg/kg	10	NONE	< 10	-	-	-	-
Chlordane (sum of cis & trans isomers)	µg/kg	10	NONE	< 10	-	-	-	-
Delta-HCH (Delta-BHC)	µg/kg	10	NONE	< 10	-	-	-	-
Dieldrin	µg/kg	10	NONE	< 10	-	-	-	-
Endosulphan A	µg/kg	10	NONE	< 10	-	-	-	-
Endosulphan B	µg/kg	10	NONE	< 10	-	-	-	-
Endrin	µg/kg	10	NONE	< 10	-	-	-	-
Gamma-HCH (Lindane) (Gamma-BHC)	µg/kg	10	NONE	< 10	-	-	-	-
HCB (Hexachlorobenzene)	µg/kg	10	NONE	< 10	-	-	-	-
Heptachlor	µg/kg	10	NONE	< 10	-	-	-	-
Heptachlor Epoxide	µg/kg	10	NONE	< 10	-	-	-	-
Isodrin	µg/kg	10	NONE	< 10	-	-	-	-
pp-Methoxychlor	µg/kg	10	NONE	< 10	-	-	-	-
o,p-DDE	µg/kg	10	NONE	< 10	-	-	-	-
o,p-DDT	µg/kg	10	NONE	< 10	-	-	-	-
o,p-TDE (o,p-DDD)	µg/kg	10	NONE	< 10	-	-	-	-
p,p-DDE	µg/kg	10	NONE	< 10	-	-	-	-
p,p-DDT	µg/kg	10	NONE	< 10	-	-	-	-
p,p-TDE (p,p-DDD)	µg/kg	10	NONE	< 10	-	-	-	-
Trifluralin	µg/kg	10	NONE	< 10	-	-	-	-

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				508974	508975	508976	508977	508978
Sample Reference				TP104	TP106	TP106	TP106	TP107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	0.10	0.50	2.30	0.20
Date Sampled				10/11/2015	10/11/2015	10/11/2015	10/11/2015	10/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Organophosphorous pesticides								
Azinphos-methyl	µg/kg	10	NONE	< 10	-	-	-	-
Chlorfenvinphos I (cis)	µg/kg	10	NONE	< 10	-	-	-	-
Chlorfenvinphos II (trans)	µg/kg	10	NONE	< 10	-	-	-	-
Chlorfenvinphos-methyl	µg/kg	10	NONE	< 10	-	-	-	-
Diazinon	µg/kg	10	NONE	< 10	-	-	-	-
Dichlorvos	µg/kg	10	NONE	< 10	-	-	-	-
Dimethoate	µg/kg	10	NONE	< 10	-	-	-	-
E-mevinphos	µg/kg	10	NONE	< 10	-	-	-	-
Z-mevinphos	µg/kg	10	NONE	< 10	-	-	-	-
Fenitrothion	µg/kg	10	NONE	< 10	-	-	-	-
Fenthion	µg/kg	10	NONE	< 10	-	-	-	-
Malathion	µg/kg	10	NONE	< 10	-	-	-	-
Parathion-ethyl	µg/kg	10	NONE	< 10	-	-	-	-
Parathion-methyl	µg/kg	10	NONE	< 10	-	-	-	-
Phorate	µg/kg	10	NONE	< 10	-	-	-	-
Phenylurea herbicides								
Isoproturon	ug/kg	10	NONE	< 10	-	-	-	-
Chlortoluron	ug/kg	10	NONE	< 10	-	-	-	-
Linuron	ug/kg	10	NONE	< 10	-	-	-	-
Diuron	ug/kg	10	NONE	< 10	-	-	-	-
Diflubenzuron	ug/kg	10	NONE	< 10	-	-	-	-
Flumeturon	ug/kg	10	NONE	< 10	-	-	-	-
Siduron	ug/kg	10	NONE	< 10	-	-	-	-
Terbuthiuron	ug/kg	10	NONE	< 10	-	-	-	-
Thidiazuron	ug/kg	10	NONE	< 10	-	-	-	-

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				509034	509035	509036	509037	509038
Sample Reference				BH101	BH101	BH102	BH102	BH107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.60	0.10	1.30	0.20
Date Sampled				16/11/2015	16/11/2015	16/11/2015	17/11/2015	09/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Speciated PAHs								
Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	0.10	< 0.01
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	0.01	< 0.01
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	0.02	< 0.01
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	1.1	ISO 17025	< 1.1	2.2	< 1.1	< 1.1	< 1.1
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	3.3	0.8	2.9	1.2	3.3
Copper (dissolved)	µg/l	0.7	ISO 17025	4.7	1.7	7.5	2.8	7.1
Lead (dissolved)	µg/l	1	ISO 17025	4.7	< 1.0	10	4.3	9.3
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	3.5	1.2	3.8	1.8	2.5
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	4.6	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	5.8	1.9	13	9.6	9.3

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				509034	509035	509036	509037	509038
Sample Reference				BH101	BH101	BH102	BH102	BH107
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.60	0.10	1.30	0.20
Date Sampled				16/11/2015	16/11/2015	16/11/2015	17/11/2015	09/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				509039	509040	509041	509042	509043
Sample Reference				BH107	BH109	BH109	BH110	BH110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.50	1.20	0.20	1.00
Date Sampled				09/11/2015	05/11/2015	06/11/2015	03/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Speciated PAHs								
Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Total PAH								
Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	1.1	ISO 17025	4.5	< 1.1	< 1.1	< 1.1	< 1.1
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Chromium (dissolved)	µg/l	0.4	ISO 17025	3.0	3.0	0.5	1.9	1.1
Copper (dissolved)	µg/l	0.7	ISO 17025	2.9	4.4	3.7	4.8	2.5
Lead (dissolved)	µg/l	1	ISO 17025	3.0	7.4	5.6	8.5	4.1
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5
Nickel (dissolved)	µg/l	0.3	ISO 17025	3.7	4.1	2.1	3.2	3.0
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0
Zinc (dissolved)	µg/l	0.4	ISO 17025	7.2	15	4.9	18	9.1

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				509039	509040	509041	509042	509043
Sample Reference				BH107	BH109	BH109	BH110	BH110
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.60	0.50	1.20	0.20	1.00
Date Sampled				09/11/2015	05/11/2015	06/11/2015	03/11/2015	03/11/2015
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	NONE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10	< 10	< 10	< 10

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				509044	509045			
Sample Reference				TP104	TP104			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.10	0.50			
Date Sampled				10/11/2015	10/11/2015			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Speciated PAHs								
Naphthalene	µg/l	0.01	NONE	< 0.01	< 0.01			
Acenaphthylene	µg/l	0.01	NONE	< 0.01	< 0.01			
Acenaphthene	µg/l	0.01	NONE	< 0.01	< 0.01			
Fluorene	µg/l	0.01	NONE	< 0.01	< 0.01			
Phenanthrene	µg/l	0.01	NONE	< 0.01	< 0.01			
Anthracene	µg/l	0.01	NONE	< 0.01	< 0.01			
Fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01			
Pyrene	µg/l	0.01	NONE	< 0.01	< 0.01			
Benzo(a)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01			
Chrysene	µg/l	0.01	NONE	< 0.01	< 0.01			
Benzo(b)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01			
Benzo(k)fluoranthene	µg/l	0.01	NONE	< 0.01	< 0.01			
Benzo(a)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01			
Indeno(1,2,3-cd)pyrene	µg/l	0.01	NONE	< 0.01	< 0.01			
Dibenz(a,h)anthracene	µg/l	0.01	NONE	< 0.01	< 0.01			
Benzo(ghi)perylene	µg/l	0.01	NONE	< 0.01	< 0.01			
Total PAH								
Total EPA-16 PAHs	µg/l	0.2	NONE	< 0.2	< 0.2			
Heavy Metals / Metalloids								
Arsenic (dissolved)	µg/l	1.1	ISO 17025	< 1.1	1.9			
Cadmium (dissolved)	µg/l	0.08	ISO 17025	< 0.08	< 0.08			
Chromium (hexavalent)	µg/l	5	NONE	< 5.0	< 5.0			
Chromium (dissolved)	µg/l	0.4	ISO 17025	2.7	2.5			
Copper (dissolved)	µg/l	0.7	ISO 17025	6.1	1.8			
Lead (dissolved)	µg/l	1	ISO 17025	7.1	4.6			
Mercury (dissolved)	µg/l	0.5	ISO 17025	< 0.5	< 0.5			
Nickel (dissolved)	µg/l	0.3	ISO 17025	2.8	3.1			
Selenium (dissolved)	µg/l	4	ISO 17025	< 4.0	< 4.0			
Zinc (dissolved)	µg/l	0.4	ISO 17025	17	17			

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Analytical Report Number: 15-82946

Project / Site name: University of Chichester -Bognor Regis Campus

Lab Sample Number				509044	509045			
Sample Reference				TP104	TP104			
Sample Number				None Supplied	None Supplied			
Depth (m)				0.10	0.50			
Date Sampled				10/11/2015	10/11/2015			
Time Taken				None Supplied	None Supplied			
Analytical Parameter (Leachate Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics								
Benzene	µg/l	1	NONE	< 1.0	< 1.0			
Toluene	µg/l	1	NONE	< 1.0	< 1.0			
Ethylbenzene	µg/l	1	NONE	< 1.0	< 1.0			
p & m-xylene	µg/l	1	NONE	< 1.0	< 1.0			
o-xylene	µg/l	1	NONE	< 1.0	< 1.0			
MTBE (Methyl Tertiary Butyl Ether)	µg/l	10	NONE	< 10	< 10			
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >C5 - C6	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aliphatic >C6 - C8	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aliphatic >C8 - C10	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aliphatic >C10 - C12	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aliphatic >C12 - C16	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aliphatic >C16 - C21	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aliphatic >C21 - C35	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aliphatic (C5 - C35)	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C5 - C7	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C7 - C8	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C8 - C10	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C10 - C12	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C12 - C16	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C16 - C21	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic >C21 - C35	µg/l	10	NONE	< 10	< 10			
TPH-CWG - Aromatic (C5 - C35)	µg/l	10	NONE	< 10	< 10			

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* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
508949	BH101	None Supplied	0.10	Brown clay and loam with gravel and vegetation.
508950	BH101	None Supplied	0.60	Light brown clay and sand.
508951	HP101	None Supplied	0.20	Brown loam and sand with gravel.
508952	HP102	None Supplied	0.30	Light brown clay and sand.
508953	BH102	None Supplied	0.10	Brown clay and loam with vegetation.
508954	BH102	None Supplied	1.20	Light brown clay and sand with gravel.
508955	BH103	None Supplied	1.30	Light grey clay.
508956	BH104	None Supplied	0.10	Brown clay and loam with vegetation.
508957	BH105	None Supplied	0.10	Brown loam and clay with gravel and vegetation.
508958	BH106	None Supplied	0.10	Brown loam and clay with gravel and vegetation.
508959	BH106	None Supplied	0.50	Brown clay and sand.
508960	BH107	None Supplied	0.20	Brown loam and clay with gravel and vegetation.
508961	BH107	None Supplied	0.60	Brown clay and sand.
508962	BH107	None Supplied	1.10	Light grey gravel.**
508963	BH108	None Supplied	0.40	Brown clay and sand.
508964	BH109	None Supplied	0.50	Brown clay and loam with vegetation.
508965	BH109	None Supplied	1.20	Brown clay and sand.
508966	BH109	None Supplied	2.10	Brown clay and sand.
508967	BH110	None Supplied	0.20	Brown loam and sand with gravel and vegetation.
508968	BH110	None Supplied	1.00	Brown clay and sand.
508969	TP101	None Supplied	0.10	Brown clay and loam with gravel.
508970	TP101	None Supplied	0.40	Light brown clay and sand with gravel.
508971	TP102	None Supplied	0.40	Light brown clay and sand with gravel.
508972	TP102	None Supplied	2.40	Light brown clay and sand with gravel.
508973	TP104	None Supplied	0.10	Brown loam and clay with gravel and vegetation.
508974	TP104	None Supplied	0.50	Light brown clay and sand.
508975	TP106	None Supplied	0.10	Brown loam and clay with gravel and vegetation.
508976	TP106	None Supplied	0.50	Light brown clay and sand with gravel.
508977	TP106	None Supplied	2.30	Grey clay.
508978	TP107	None Supplied	0.20	Brown loam and clay with gravel and vegetation.

**Non MCerts matrix

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Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
BTEX and MTBE in leachates	Determination of BTEX and MTBE in leachates by headspace GC-MS.	In-house method based on USEPA8260	L073W-PL	W	NONE
BTEX and MTBE in soil	Determination of BTEX in soil by headspace GC-MS.	In-house method based on USEPA8260	L073S-PL	W	MCERTS
EF - Phenylurea herbicides by LC-MS/MS	Phenylurea herbicides by LC-MS/MS	In-house method		W	NONE
Hexavalent chromium in leachate	Determination of hexavalent chromium in leachate by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	NONE
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS
Metals by ICP-OES in leachate	Determination of metals in leachate by acidification followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Organic matter in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS
Organonitrogen pesticides in soil	Determination of organonitrogen pesticides in soil by GC-MS	In-house method		W	NONE
pH in soil (automated)	Determination of pH in soil by addition of water followed by electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds in soil by extraction in dichloromethane and hexane followed by GC-MS.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Speciated EPA-16 PAHs in leachate	Determination of PAH compounds in leachate by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L070-PL	W	NONE
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
TO - Acid Herbicides by LC-MS/MS	Determination of Acid herbicides in waters by LC-MS/MS	In-house method		W	NONE

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Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
TO - Organochlorine pesticides in soil	Determination of OCPs by extraction with hexane followed by GC-MS.	In-house method		W	NONE
TO - Organophosphorous pesticides in soil	Determination of OPPs by extraction with DCM followed by GC-MS.	In-house method		W	NONE
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS
TPHCWG (Leachates)	Determination of dichloromethane extractable hydrocarbons in leachate by GC-MS.	In-house method	L070-PL	W	NONE
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method	L076-PL	W	MCERTS
Volatile organic compounds in soil	Determination of volatile organic compounds in soil by headspace GC-MS.	In-house method based on USEPA8260	L073S-PL	W	MCERTS

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.
For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

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Appendix F

GROUND MODEL