

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com									
Project: Hillingdon				Project No: 14-0724.01		Hole ID: CP05			
CABLE PERCUSSION BOREHOLE LOG				Date From / To: 07/04/2015 - 08/04/2015		Client: Spenn Hill			

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	REDUCED LEVEL/ DEPTH (Thickness)	Sample Details			Test Results	Backfill Details
					TYPE	REF	Depth		
MADE GROUND: Tarmac overlying brown, very sandy, fine to coarse, sub-rounded to sub-angular brick, limestone and concrete GRAVEL.	[Pattern]			34.39 0.20					
MADE GROUND: Reddish brown, fine to coarse, sub-angular to sub-rounded brick, concrete and limestone GRAVEL. Occasional brick cobbles.	[Pattern]			33.94 0.65	ES	1	0.40		
					D	2	0.50		
					ES	3	0.70		
					D	4	1.00		
Firm becoming stiff orangeish brown slightly gravelly CLAY. Gravel is fine to medium, sub-rounded to sub-angular flint, limestone and sandstone. Rare flint cobbles. (POSSIBLE WEATHERED LONDON CLAY)	[Pattern]			(1.65)			1.50 - 1.95	SPT N=10 1,1/2,2,3,3	
					D	5	2.00		
Firm becoming stiff, friable, bedded, thinly laminated brown mottled grey and orange CLAY. (POSSIBLE WEATHERED LONDON CLAY)	[Pattern]			32.29 2.30					
				(0.70)	D	6	2.50	U=20/mm	
					U	7	2.50 -		
				31.59 3.00	D	8	3.00		
Firm becoming stiff, brown mottled grey and pink friable, bedded, thinly laminated CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(1.00)					
					D	9	3.50	SPT N=18 2,2/4,4,4,6	
							3.50 - 3.95		
				30.59 4.00	D	10	4.00		
Stiff becoming very stiff brown mottled pink and greyish green friable, bedded, thinly laminated CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)	[Pattern]								
					D	11	4.50	U=41/mm	
					U	12	4.50 -		
					D	13	5.00		
							6.00 - 6.45	SPT N=25 3,4/5,5,7,8	
					D	14	7.00		
					U	15	7.50 -	U=52/mm	
					D	16	8.00		
				(9.00)					
							9.00 - 9.45	SPT N=31 4,6/6,8,9,8	
					D	17	10.00		

REMARKS : 1. Engineer verified logged in general accordance to BS 5930:2010. 2. Area CAT scanned prior to excavation. 3. Groundwater encountered at 13.70 m bgl. 4. Installed with a 50 mm HDPE standpipe to 20.00 m bgl.				CHISELLING			WATER LEVEL OBSERVATIONS					
				Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth	
				NO CHISELLING UNDERTAKEN:			NO WATER ENCOUNTERED:					
BOREHOLE DIAMETER			CASING DIAMETER			DEPTH SEALED						
			20.00m									

All measurements in metres unless otherwise stated		10m/page Scale: 1:62.50	Coordinates to National Grid Ground Level to Ordnance Datum		Page 1 of 3
Plant Used: Pilcon Wayfarer	Coordinates / Level (mAOD): E: 507863.222 N: 184924.368 Level: 34.592		Logged By: CB	Checked By: CB	Approved By: SS

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com									
Project: Hillingdon				Project No: 14-0724.01		Hole ID: CP05			
CABLE PERCUSSION BOREHOLE LOG				Date From / To: 07/04/2015 - 08/04/2015		Client: Spenn Hill			

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	REDUCED LEVEL / DEPTH (Thickness)	Sample Details			Test Results	Backfill Details
					TYPE	REF	Depth	SPT N Value/Drive mm	
Stiff becoming very stiff brown mottled pink and greyish green friable, bedded, thinly laminated CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)(BH Continued)	[Pattern]				D	18	10.50	U=59/mm	[Pattern]
					U	19	10.50 -		
					D	20	11.00		
Firm to hard brown, very sandy CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]				D	21	12.00 12.00 - 12.45	SPT N=45/225mm (5,7/10,11,24)	[Pattern]
Brown, slightly clayey fine to medium SAND. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]							SPT N=50/150mm (6,10/20,30)	[Pattern]
Very stiff brown CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]				D	24	15.00 15.50 - 15.95	SPT N=37/150mm (7,9/15,22)	[Pattern]
	[Pattern]				D	25	16.50	SPT N=45 5,6/10,10,11,14	[Pattern]
	[Pattern]				D	26	17.00 17.00 - 17.45	SPT N=47 6,7/9,10,12,16	[Pattern]
	[Pattern]				D	27	18.00 18.50 - 18.95	SPT N=50/255mm (5,6/9,9,16,16/30mm)	[Pattern]
			20.00	14.59	20.00				

REMARKS :

- Engineer verified logged in general accordance to BS 5930:2010.
- Area CAT scanned prior to excavation.
- Groundwater encountered at 13.70 m bgl.
- Installed with a 50 mm HDPE standpipe to 20.00 m bgl.

CHISELLING			WATER LEVEL OBSERVATIONS					
Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth	
NO CHISELLING UNDERTAKEN:			NO WATER ENCOUNTERED:					
BOREHOLE DIAMETER			CASING DIAMETER		DEPTH SEALED			
			20.00m					

All measurements in metres unless otherwise stated	10m/page Scale: 1:62.50	Coordinates to National Grid Ground Level to Ordnance Datum	Page 2 of 3
Plant Used: Pilson Wayfarer	Coordinates / Level (mAOD): E: 507863.222 N: 184924.368 Level: 34.592	Logged By: CB	Checked By: CB Approved By: SS

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com



Project: **Hillingdon** Project No: **14-0724.01** Hole ID: **CP05**

CABLE PERCUSSION BOREHOLE LOG

Date From / To:
 07/04/2015 - 08/04/2015

Client:
Spenn Hill

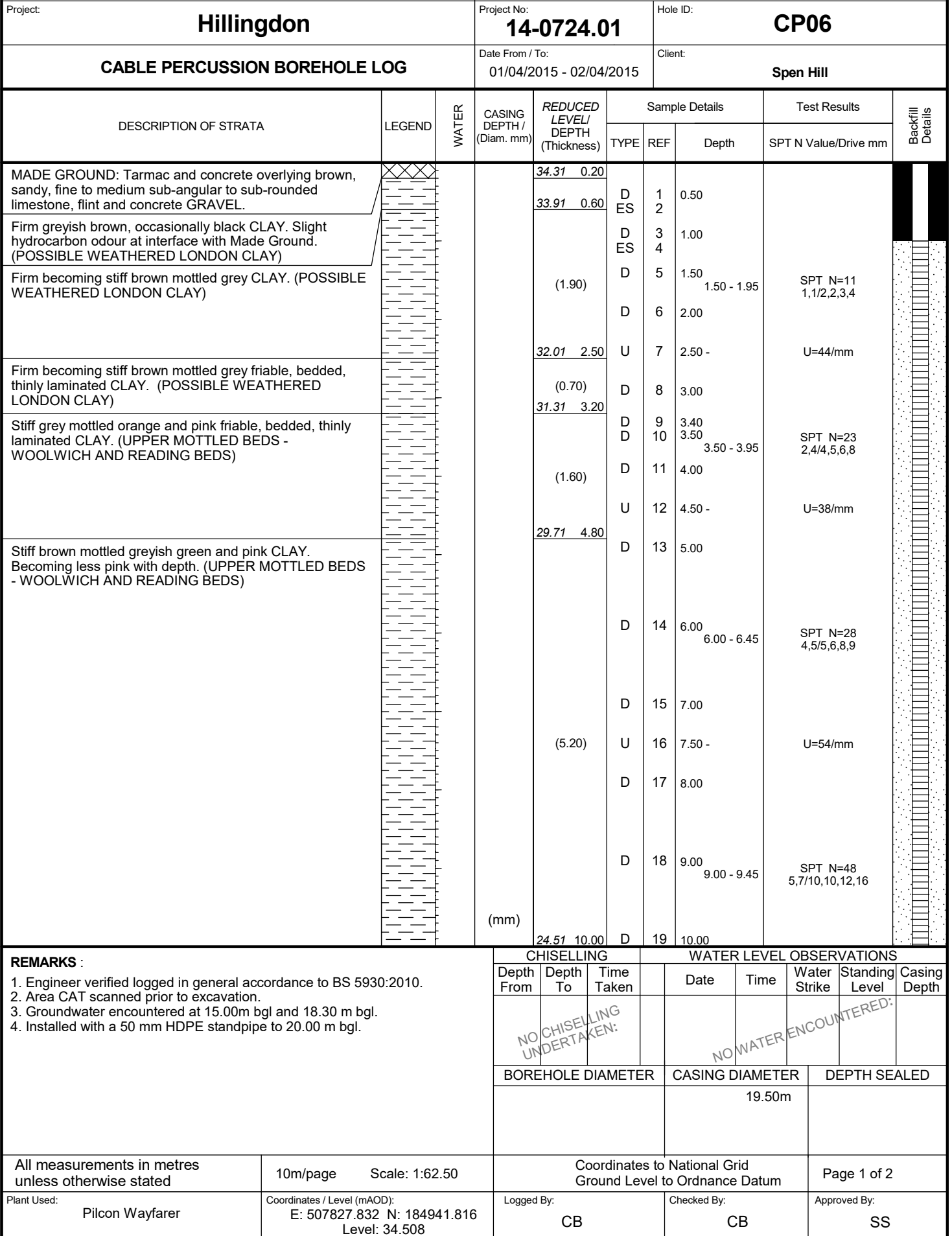
DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	REDUCED LEVEL/ DEPTH (Thickness)	Sample Details			Test Results		Backfill Details
					TYPE	REF	Depth	SPT N Value/Drive mm		
Borehole completed at 20.00m bgl.										

REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Groundwater encountered at 13.70 m bgl.
4. Installed with a 50 mm HDPE standpipe to 20.00 m bgl.

CHISELLING			WATER LEVEL OBSERVATIONS						
Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth		
NO CHISELLING UNDERTAKEN:					NO WATER ENCOUNTERED:				
BOREHOLE DIAMETER			CASING DIAMETER			DEPTH SEALED			
			20.00m						

All measurements in metres unless otherwise stated	10m/page Scale: 1:62.50	Coordinates to National Grid Ground Level to Ordnance Datum			Page 3 of 3	
Plant Used: Pilcon Wayfarer	Coordinates / Level (mAOD): E: 507863.222 N: 184924.368 Level: 34.592	Logged By: CB		Checked By: CB		Approved By: SS



Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com									
Project: Hillingdon				Project No: 14-0724.01		Hole ID: CP06			
CABLE PERCUSSION BOREHOLE LOG				Date From / To: 01/04/2015 - 02/04/2015		Client: Spenn Hill			

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	REDUCED LEVEL/ DEPTH (Thickness)	Sample Details			Test Results	Backfill Details
					TYPE	REF	Depth	SPT N Value/Drive mm	
Stiff becoming very stiff reddish brown mottled grey CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(5.00)	U	20	10.50 -	U=62/mm	[Pattern]
					D	21	11.00		
					D	22	12.00 12.00 - 12.45	SPT N=50/200mm (6,8/11,15,24/50mm)	
					D	23	13.00		
					U	24	13.50 -	U=64/mm	
					D	25	14.00		
Brown, slightly clayey fine to medium SAND. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(1.90)	D	26	15.00 15.00 - 15.45	SPT N=50/180mm (6,10/12,25,13/30mm)	[Pattern]
					D	27	16.00		
					D	28	16.20		
Very stiff reddish brown mottled grey CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(1.40)	D	29	16.50 16.50 - 16.95	SPT N=50/135mm (8,9/23,27/60mm)	[Pattern]
					D	30	17.50		
					D	31	18.00 18.00 - 18.45		
Brown, slightly clayey fine to medium SAND. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(0.60)	D	32	19.00		[Pattern]
					D	33	19.50 19.50 - 19.95		
Very stiff grey very sandy CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(0.60)					[Pattern]
Borehole completed at 19.50m bgl.									[Pattern]

REMARKS : 1. Engineer verified logged in general accordance to BS 5930:2010. 2. Area CAT scanned prior to excavation. 3. Groundwater encountered at 15.00m bgl and 18.30 m bgl. 4. Installed with a 50 mm HDPE standpipe to 20.00 m bgl.	CHISELLING			WATER LEVEL OBSERVATIONS				
	Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth
	NO CHISELLING UNDERTAKEN:			NO WATER ENCOUNTERED:				
	BOREHOLE DIAMETER			CASING DIAMETER		DEPTH SEALED		
	19.50m			19.50m				

All measurements in metres unless otherwise stated	10m/page Scale: 1:62.50	Coordinates to National Grid Ground Level to Ordnance Datum	Page 2 of 2
Plant Used: Pilcon Wayfarer	Coordinates / Level (mAOD): E: 507827.832 N: 184941.816 Level: 34.508	Logged By: CB	Checked By: CB Approved By: SS

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com									
Project: Hillingdon				Project No: 14-0724.01		Hole ID: CP07			
CABLE PERCUSSION BOREHOLE LOG				Date From / To: 30/03/2015 - 31/03/2015		Client: Spenn Hill			

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	REDUCED LEVEL/ DEPTH (Thickness)	Sample Details			Test Results	Backfill Details
					TYPE	REF	Depth	SPT N Value/Drive mm	
MADE GROUND: Grass overlying brown slightly sandy, slightly gravelly CLAY. Gravel is fine to medium, sub-rounded to sub-angular flint.				34.68 0.30	B	1	0.20		
				(0.80)	ES	2			
Soft becoming stiff brown mottled orange slightly gravelly CLAY. Gravel is fine to medium, sub-rounded to sub-angular flint. (POSSIBLE WEATHERED LONDON CLAY)				33.88 1.10	B	3	1.20	SPT N=5 1,0/1,1,1,2	
							1.20 - 1.65		
Soft becoming stiff brown mottled orange silty CLAY. (POSSIBLE WEATHERED LONDON CLAY)				(1.80)	ES	4	1.80		
					D	5	2.00	U=24/mm	
					U	6	2.00 -		
					D	7	2.60		
				32.08 2.90	B	8	3.00	SPT N=26 3,5/6,6,7,7	
Stiff brown mottled grey and orange friable, bedded, thinly laminated CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)					D	9	3.00 - 3.45		
				(2.10)	D	10	4.00	U=62/mm	
					U	11	4.00 -		
					D	12	4.50		
				29.98 5.00	B	13	5.00	SPT N=20 1,1/4,4,6,6	
							5.00 - 5.45		
Stiff becoming very stiff brown mottled greenish grey and pink CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)					D	14	5.50		
					U	15	6.40 -	U=78/mm	
					D	16	6.50		
					D	17	7.00		
				(6.00)	B	18	8.00	SPT N=42 6,6/5,11,12,14	
					D	19	8.00 - 8.45		
					D	20	9.00		
					D	21	9.50	U=120/mm	
					U	22	9.50 -		

REMARKS : 1. Engineer verified logged in general accordance to BS 5930:2010. 2. Area CAT scanned prior to excavation. 3. Borehole remained dry upon completion. 4. Installed with a HDPE standpipe to 14.30m bgl	CHISELLING			WATER LEVEL OBSERVATIONS				
	Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth
	NO CHISELLING UNDERTAKEN:			NO WATER ENCOUNTERED:				
	BOREHOLE DIAMETER			CASING DIAMETER		DEPTH SEALED		
			14.30m					

All measurements in metres unless otherwise stated	10m/page Scale: 1:62.50	Coordinates to National Grid Ground Level to Ordnance Datum	Page 1 of 2
Plant Used: Dando 2000	Coordinates / Level (mAOD): E: 507776.095 N: 184983.701 Level: 34.979	Logged By: CB	Checked By: CB Approved By: SS



Project:

Hillingdon

Project No:

14-0724.01

Hole ID:

CP07

CABLE PERCUSSION BOREHOLE LOG

Date From / To:

30/03/2015 - 31/03/2015

Client:

Spen Hill

REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Borehole remained dry upon completion.
4. Installed with a HDPE standpipe to 14.30m bgl

All measurements in metres
unless otherwise stated

10m/page Scale: 1:62.50

Coordinates to National Grid
Ground Level to Ordnance Datum

Page 2 of 2

Plant Used:

Dando 2000

Coordinates / Level (mAOD):

E: 507776.095 N: 184983.701
Level: 34.979

Logged By:

CB

Checked By:	
-------------	--

CB

Approved By:	
--------------	--

SS

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com									
Project: Hillingdon				Project No: 14-0724.01		Hole ID: CP08			
CABLE PERCUSSION BOREHOLE LOG				Date From / To: 09/04/2015 - 10/04/2015		Client: Spenn Hill			

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	REDUCED LEVEL / DEPTH (Thickness)	Sample Details			Test Results	Backfill Details
					TYPE	REF	Depth	SPT N Value/Drive mm	
MADE GROUND: Tarmac overlying a brick layer, overlying brown, sandy, fine to medium sub-angular to sub-rounded limestone, flint and concrete GRAVEL.				34.12 0.40	ES	1	0.50		
Firm brown mottled orange CLAY. (POSSIBLE WEATHERED LONDON CLAY)				(0.70) 33.42 1.10	D	3	1.00		
Firm becoming stiff brown mottled orange silty CLAY. (POSSIBLE WEATHERED LONDON CLAY)				(0.85) 32.57 1.95	ES	4	1.50	SPT N=10 1,2/1,2,3,4	
Firm becoming stiff brown mottled grey and pink, friable, bedded, thinly laminated CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)				(2.55)	D	5	2.00		
					U	6	2.50 -	U=20/mm	
					D	7	3.00		
							3.50 - 3.95		
					D	8	4.00	SPT N=16 1,2/3,3,4,6	
				30.02 4.50	U	9	4.50 -	U=45/mm	
Stiff, brown mottled greenish grey friable, bedded, thinly laminated CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)				(2.50)	D	10	5.00		
							6.00 - 6.45	SPT N=33 3,6/6,7,9,11	
				27.52 7.00	D	11	7.00		
Stiff becoming very stiff, reddish brown mottled greenish grey CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)				(4.90)	U	12	7.50 -	U=48/mm	
					D	13	8.00		
							9.00 - 9.45	SPT N=48 5,7/9,11,12,16	
			(mm)		D	14	10.00		

REMARKS : 1. Engineer verified logged in general accordance to BS 5930:2010. 2. Area CAT scanned prior to excavation. 3. Groundwater encountered at 11.90 m bgl. 4. Installed with a HDPE standpipe to 20.00 m bgl.				CHISELLING			WATER LEVEL OBSERVATIONS				
				Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth
				NO CHISELLING UNDERTAKEN:							
				BOREHOLE DIAMETER			CASING DIAMETER		DEPTH SEALED		
							20.00m				

All measurements in metres unless otherwise stated		10m/page Scale: 1:62.50	Coordinates to National Grid Ground Level to Ordnance Datum		Page 1 of 3
Plant Used: Pilcon Wayfarer	Coordinates / Level (mAOD): E: 507742.364 N: 184946.174 Level: 34.522		Logged By: CB	Checked By: CB	Approved By: SS

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com									
Project: Hillingdon				Project No: 14-0724.01		Hole ID: CP08			
CABLE PERCUSSION BOREHOLE LOG				Date From / To: 09/04/2015 - 10/04/2015		Client: Spenn Hill			

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	REDUCED LEVEL / DEPTH (Thickness)	Sample Details			Test Results	Backfill Details
					TYPE	REF	Depth	SPT N Value/Drive mm	
Stiff becoming very stiff, reddish brown mottled greenish grey CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)(BH Continued)	[Pattern]				D	15 16	10.50		[Pattern]
					D	17	11.00		
Very stiff becoming hard, slightly clayey fine to medium SAND. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			22.62 11.90			12.00 - 12.45	SPT N=100 6,10/12,20,18,50	[Pattern]
Very stiff becoming hard, reddish brown mottled greenish grey CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			22.22 12.30					
					D	18	13.00		
				(2.10)	U	19	13.50 -	U=68/mm	
					D	20	14.00		
				20.12 14.40					
Very dense brown, slightly clayey fine to medium SAND. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]						15.00 - 15.45	SPT N=115/225mm (8,11/29,31,55)	[Pattern]
				(2.60)	D	21	16.00		
							16.50 - 16.95	SPT N=85 7,10/19,19,12,35	
				17.52 17.00					
Very stiff, brown mottled grey, very sandy CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(0.50) 17.02 17.50	D	22 23	17.50		
Very stiff becoming hard brown CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]						18.00 - 18.45	SPT N=100/225mm (5,10/22,28,50)	
				(2.00)	D	24	19.00		
				15.02 19.50			19.50 - 19.95	SPT N=90/225mm (8,11/15,35,40)	[Pattern]
Very dense, brown, slightly clayey fine to medium SAND. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(0.50) 20.00 14.52 20.00					

REMARKS : 1. Engineer verified logged in general accordance to BS 5930:2010. 2. Area CAT scanned prior to excavation. 3. Groundwater encountered at 11.90 m bgl. 4. Installed with a HDPE standpipe to 20.00 m bgl.	CHISELLING			WATER LEVEL OBSERVATIONS				
	Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth
	NO CHISELLING UNDERTAKEN:			NO WATER ENCOUNTERED:				
	BOREHOLE DIAMETER			CASING DIAMETER		DEPTH SEALED		
			20.00m					

All measurements in metres unless otherwise stated	10m/page Scale: 1:62.50	Coordinates to National Grid Ground Level to Ordnance Datum	Page 2 of 3
Plant Used: Pilson Wayfarer	Coordinates / Level (mAOD): E: 507742.364 N: 184946.174 Level: 34.522	Logged By: CB	Checked By: CB Approved By: SS

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com






Project: **Hillingdon** Project No: **14-0724.01** Hole ID: **CP09**

CABLE PERCUSSION BOREHOLE LOG

Date: **30/03/2015**

Client: **Spenn Hill**

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	REDUCED LEVEL/ DEPTH (Thickness)	Sample Details			Test Results	Backfill Details
					TYPE	REF	Depth	SPT N Value/Drive mm	
MADE GROUND: Tarmac overlying brown, very sandy, fine to coarse, sub-rounded to sub-angular brick, limestone and concrete GRAVEL.				(0.50) 34.49 0.50	D	1	0.50	U=17/mm	
Borehole completed at 0.50m bgl.				D	2	1.00			
				D	3	2.00			
				U	4	2.50 -			
				D	5	3.00			
				D	6	4.00			
				U	7	4.50 -			
				D	8	6.00			
				U	9	6.50 -			
				D	10	7.00			
				D	11	9.00			
				U	12	9.50 -			
				D	13	10.00			
							U=33/mm		
							U=41/mm		
							U=52/mm		

REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Groundwater encountered at 18.40 m bgl.
4. Installed with a HDPE standpipe to 20.00 m bgl.

CHISELLING			WATER LEVEL OBSERVATIONS						
Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth		
NO CHISELLING UNDERTAKEN:									
BOREHOLE DIAMETER			CASING DIAMETER			DEPTH SEALED			

All measurements in metres unless otherwise stated	10m/page Scale: 1:62.50	Coordinates to National Grid Ground Level to Ordnance Datum			Page 1 of 2	
Plant Used: Pilcon Wayfarer	Coordinates / Level (mAOD): E: 507727.136 N: 184890.369 Level: 34.991	Logged By: CB		Checked By: CB		Approved By: SS

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com



Project: **Hillingdon** Project No: **14-0724.01** Hole ID: **CP09**

CABLE PERCUSSION BOREHOLE LOG

Date: **30/03/2015**

Client: **Spenn Hill**

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	REDUCED LEVEL/ DEPTH (Thickness)	Sample Details			Test Results	Backfill Details	
					TYPE	REF	Depth	SPT N Value/Drive mm		
					D	14	12.00	U=60/mm		
					U	15	12.50 -			
					D	16	13.00			
					D	17	15.00	U=71/mm		
					U	18	15.50 -			
					D	19	16.00			
					D	20	18.00			

REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Groundwater encountered at 18.40 m bgl.
4. Installed with a HDPE standpipe to 20.00 m bgl.

CHISELLING			WATER LEVEL OBSERVATIONS						
Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth		
NO CHISELLING UNDERTAKEN:									
BOREHOLE DIAMETER			CASING DIAMETER			DEPTH SEALED			

All measurements in metres unless otherwise stated

10m/page Scale: 1:62.50

Coordinates to National Grid
Ground Level to Ordnance Datum

Page 2 of 2

Plant Used: **Pilcon Wayfarer**

Coordinates / Level (mAOD):
E: 507727.136 N: 184890.369
Level: 34.991

Logged By:
CB

Checked By:
CB

Approved By:
SS

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com									
Project: Hillingdon				Project No: 14-0724.01		Hole ID: CP09(A)			
CABLE PERCUSSION BOREHOLE LOG				Date From / To: 08/04/2015 - 09/04/2015		Client: Spenn Hill			

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	DEPTH (Thickness)	Sample Details			Test Results	Backfill Details
					TYPE	REF	Depth	SPT N Value/Drive mm	
MADE GROUND: Tarmac overlying brown, very sandy, fine to coarse, sub-rounded to sub-angular brick, limestone and concrete GRAVEL.				(0.50)	ES	1	0.30		
0.50				ES	2	0.70			
MADE GROUND: Soft to firm, brown gravelly CLAY. Gravel is fine to medium, sub-angular to angular brick.				(0.80)	D	3	1.50	SPT N=11 1,2/2,2,3,4	
1.30				1.50 - 1.95					
Firm brown mottled orange, gravelly CLAY. Gravel is fine to medium, sub-angular to sub-rounded flint. Occasional flint cobbles. (POSSIBLE WEATHERED LONDON CLAY)				1.70					
Firm, brown mottled orange silty CLAY. (POSSIBLE WEATHERED LONDON CLAY)				(1.60)					
Firm becoming stiff brown mottled grey and pink friable, bedded, thinly laminated CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)				3.30	D	4	3.50	SPT N=14 3,3/4,4,3,3	
				(4.70)			5.00 - 5.45	SPT N=24 3,4/4,5,6,9	
				8.00			8.00 - 8.45	SPT N=49 5,8/11,12,12,14	
Stiff becoming very stiff reddish brown mottled grey CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)					D	5	8.50		

REMARKS : 1. Engineer verified logged in general accordance to BS 5930:2010. 2. Area CAT scanned prior to excavation. 3. Borehole remained dry on completion. 4. Backfilled with arisings.				CHISELLING			WATER LEVEL OBSERVATIONS				
				Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth
				NO CHISELLING UNDERTAKEN:			NO WATER ENCOUNTERED:				
				BOREHOLE DIAMETER			CASING DIAMETER		DEPTH SEALED		
							20.00m				

All measurements in metres unless otherwise stated		10m/page Scale: 1:62.50	No Coordinate Data Available No Datum Information Available		Page 1 of 3
Plant Used: Dando 2000	Coordinates / Level (mAOD):		Logged By: CB	Checked By: CB	Approved By: SS

Delta-Simons 3 Henley Office Park, Doddington Road, Lincoln, LN6 3QR Tel: +44 (0) 870 0400 012 Fax: +44 (0) 1522 698393 Email: info@deltasimons.com											
Project: Hillingdon				Project No: 14-0724.01		Hole ID: CP09(A)					
CABLE PERCUSSION BOREHOLE LOG				Date From / To: 08/04/2015 - 09/04/2015		Client: Spenn Hill					
DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	DEPTH (Thickness)	Sample Details			Test Results	Backfill Details		
					TYPE	REF	Depth	SPT N Value/Drive mm			
Stiff becoming very stiff reddish brown mottled grey CLAY. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)(BH Continued)	[Pattern]			(5.70)			11.00 - 11.45	SPT N=38 5,7/8,8,10,12	[Pattern]		
Very stiff brown mottled grey friable, bedded, thinly laminated silty CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			13.70 (0.80) 14.50	D	6	14.00 14.00 - 14.45	SPT N=70 6,10/10,15,25,20	[Pattern]		
Very stiff reddish brown mottled grey CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(2.50)					[Pattern]		
Very stiff grey sandy CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			17.00 (1.40)			17.50 - 17.95	SPT N=88 8,9/13,22,13,40	[Pattern]		
Dense brown, slightly clayey fine to medium SAND. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			18.40 18.70			18.50 - 18.95	SPT N=50+/150mm (9,50)	[Pattern]		
Very stiff grey CLAY. (LAMINATED BEDS - WOOLWICH AND READING BEDS)	[Pattern]			(1.30)	D	7	19.00 19.50 - 19.95	SPT N=37 5,7/7,8,9,13	[Pattern]		
			20.00	20.00							
REMARKS : 1. Engineer verified logged in general accordance to BS 5930:2010. 2. Area CAT scanned prior to excavation. 3. Borehole remained dry on completion. 4. Backfilled with arisings.			CHISELLING			WATER LEVEL OBSERVATIONS					
			Depth From	Depth To	Time Taken	Date	Time	Water Strike	Standing Level	Casing Depth	
			NO CHISELLING UNDERTAKEN:			NO WATER ENCOUNTERED:					
			BOREHOLE DIAMETER			CASING DIAMETER		DEPTH SEALED			
						20.00m					
All measurements in metres unless otherwise stated		10m/page	Scale: 1:62.50		No Coordinate Data Available No Datum Information Available				Page 2 of 3		
Plant Used: Dando 2000		Coordinates / Level (mAOD):		Logged By: CB		Checked By: CB		Approved By: SS			

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com



Project: **Hillingdon** Project No: **14-0724.01** Hole ID: **CP09(A)**

CABLE PERCUSSION BOREHOLE LOG

Date From / To:
08/04/2015 - 09/04/2015

Client:
Spenn Hill

DESCRIPTION OF STRATA	LEGEND	WATER	CASING DEPTH / (Diam. mm)	DEPTH (Thickness)	Sample Details			Test Results	Backfill Details
					TYPE	REF	Depth	SPT N Value/Drive mm	
Borehole completed at 20.00m bgl.									

REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Borehole remained dry on completion.
4. Backfilled with arisings.

CHISELLING			WATER LEVEL OBSERVATIONS					
Depth From	Depth To	Time Taken		Date	Time	Water Strike	Standing Level	Casing Depth
NO CHISELLING UNDERTAKEN:						NO WATER ENCOUNTERED:		
BOREHOLE DIAMETER			CASING DIAMETER			DEPTH SEALED		
			20.00m					

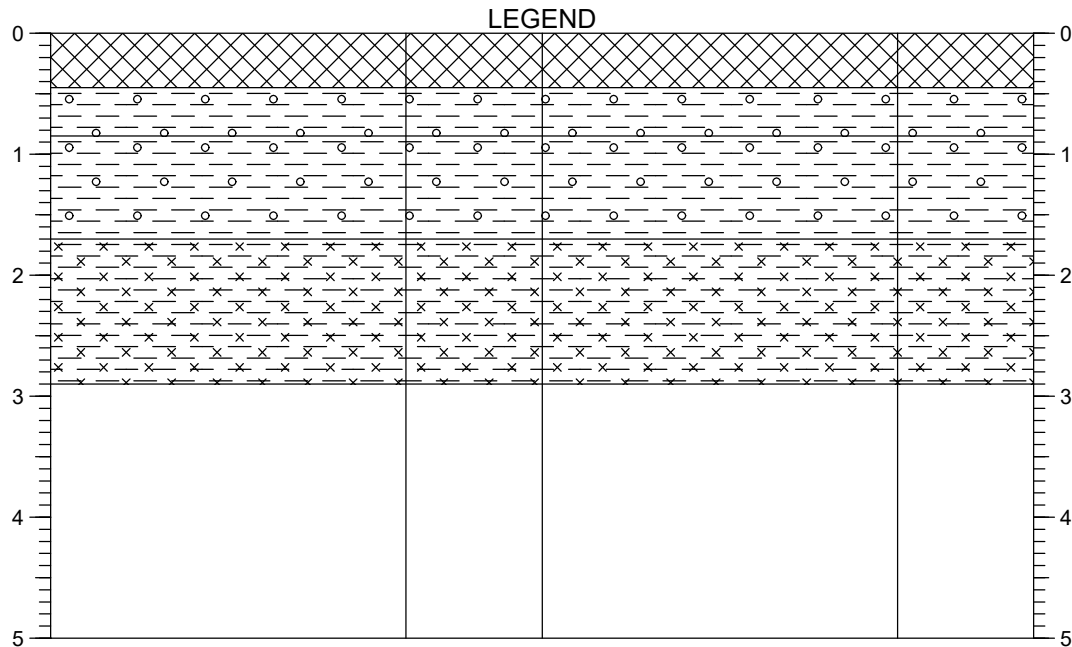
All measurements in metres unless otherwise stated	10m/page Scale: 1:62.50	No Coordinate Data Available No Datum Information Available			Page 3 of 3
Plant Used: Dando 2000	Coordinates / Level (mAOD):	Logged By: CB	Checked By: CB	Approved By: SS	



Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

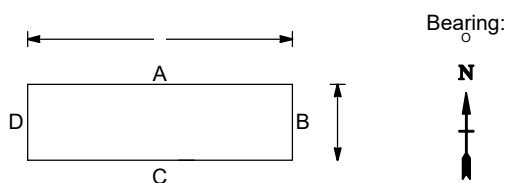


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP01
	TRIAL PIT LOG	Date:	25/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
34.294	0.45	MADE GROUND: Grass overlying soft to firm brown, slightly sandy, gravelly CLAY. Gravel is fine to coarse, sub-angular to sub-rounded flint, brick and limestone. Occasional rootlets and brick cobbles.	0.20	ES		
33.894	0.85		0.50	ES		
(0.85)		Firm grey friable, thinly laminated, slightly gravelly CLAY. Gravel is fine to medium, sub-angular flint. (POSSIBLE WEATHERED LONDON CLAY)	1.00	D		
33.044		1.70	Firm brown, mottled orange, gravelly CLAY. Gravel is fine to medium, sub-angular flint. Tree root identified at 1.50 m bgl. (POSSIBLE WEATHERED LONDON CLAY)			
(1.20)			Firm greyish brown, laminated, thinly bedded silty CLAY. Occasional shell / relic shell. Initially coarse gravel and rounded pebbles / angular concretions from 1.20 to 1.40 m bgl. (POSSIBLE WEATHERED LONDON CLAY).	2.00		
31.844	2.90	-----				
		Trial pit completed at 2.9m bgl.				

Shoring/Support:
Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
unless otherwise stated

5m/page Scale: 1:62.5

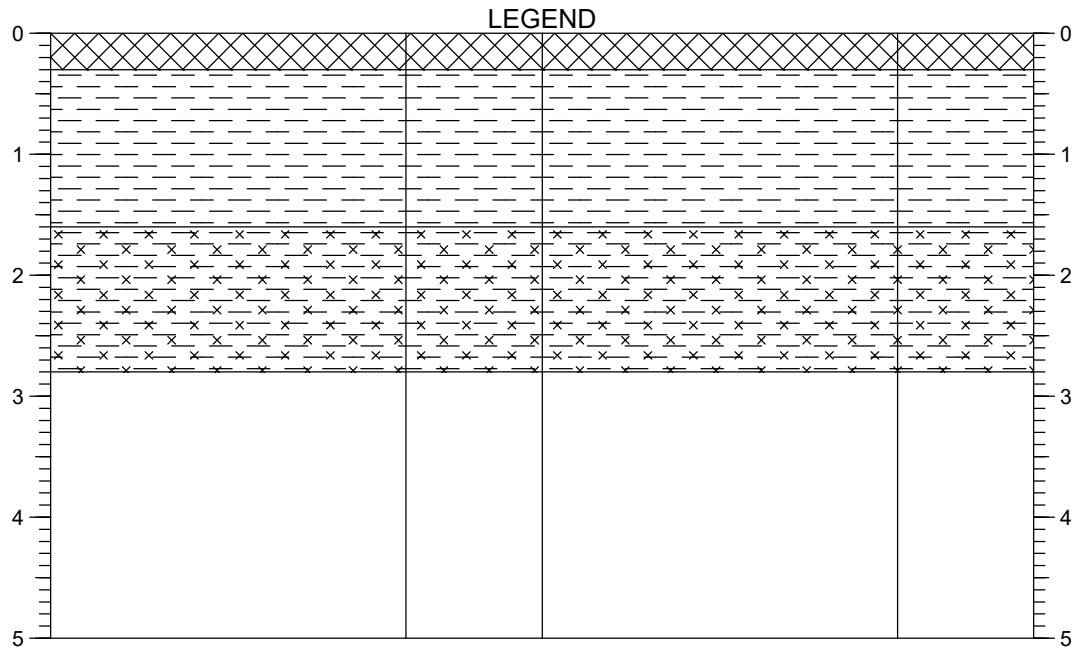
Coordinates to National Grid
Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507740.895 N: 184867.862 Level: 34.744	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	--	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

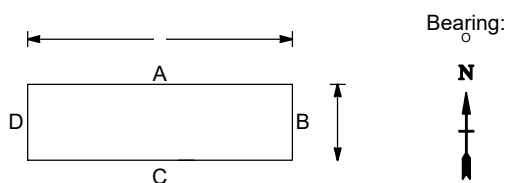


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP02
	TRIAL PIT LOG	Date:	25/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
34.275	0.30	MADE GROUND: Grass overlying soft to firm brown, slightly sandy, gravelly CLAY. Gravel is fine to coarse, sub-angular to sub-rounded flint, brick and limestone. Steel bar removed at 0.10 m bgl. Steel bar at 0.1 m bgl. Firm grey, mottled orange, friable CLAY. (POSSIBLE WEATHERED LONDON CLAY)	0.20	ES		
(1.30)			1.00	D		
32.975	1.60					
(1.20)		Firm brown mottled orange, laminated, thinly bedded silty CLAY. High cream coloured mineral content. Occasional root relics. (POSSIBLE WEATHERED LONDON CLAY).	1.80 2.00	D B		
31.775	2.80	-----				
		Trial pit completed at 2.8m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

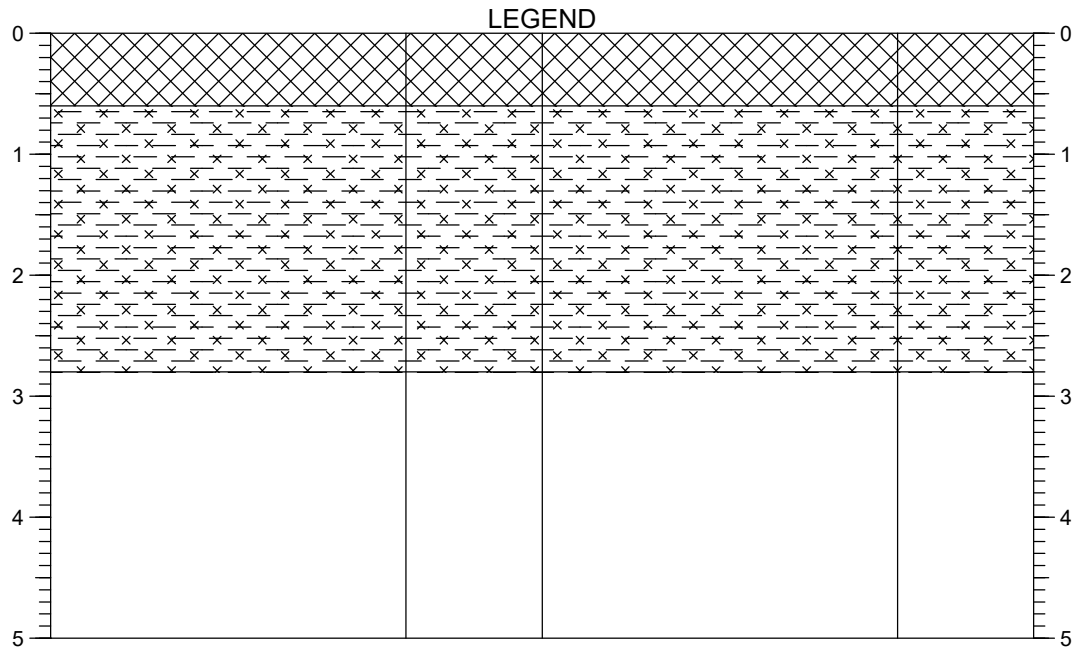
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507765.892 N: 184840.01 Level: 34.575	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	---	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

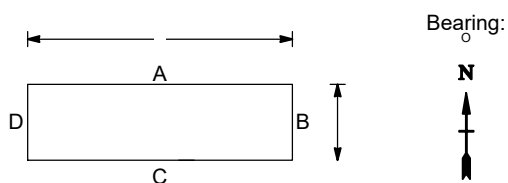


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP03
	TRIAL PIT LOG	Date:	25/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
(0.60) 34.119 0.60		MADE GROUND: Grass overlying soft to firm brown, slightly sandy, gravelly CLAY. Gravel is fine to coarse, sub-angular to sub-rounded flint, brick and limestone. Rare tarmac fragments.	0.50 1.00 2.50	ES ES D		
(2.20) 31.919 2.80		Firm brown mottled orange, laminated, thinly bedded silty CLAY. Becoming less friable with depth. (POSSIBLE WEATHERED LONDON CLAY)				
		Trial pit completed at 2.8m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

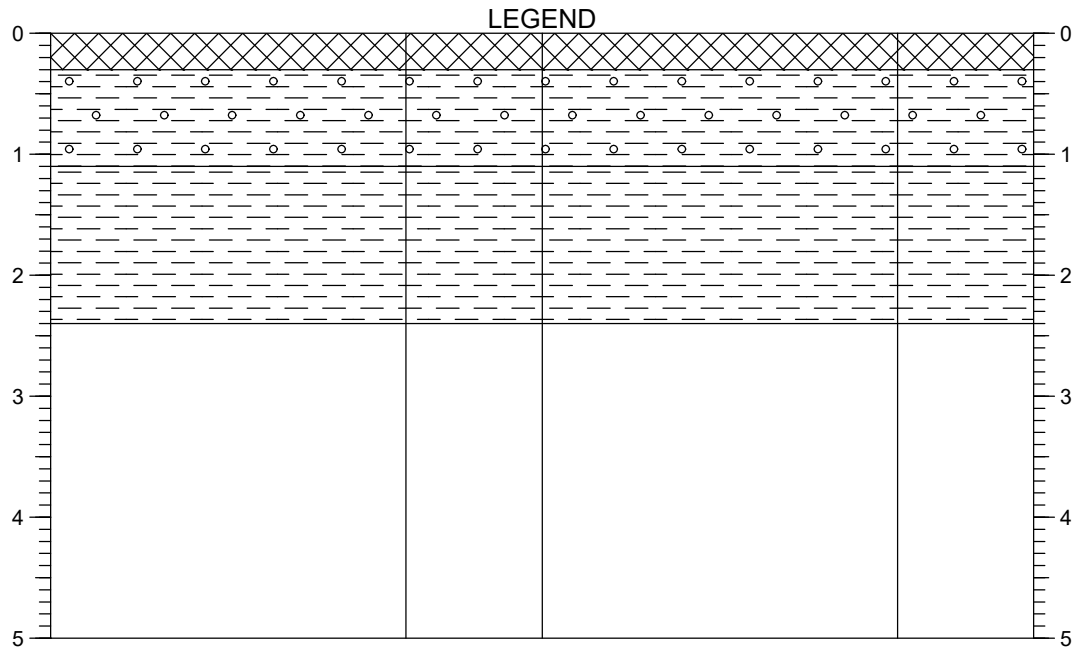
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507816.978 N: 184823.685 Level: 34.719	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	--	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

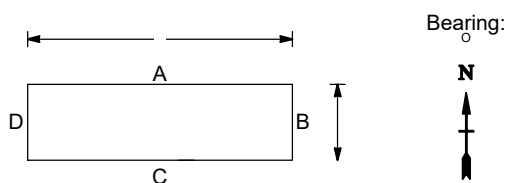


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP04
	TRIAL PIT LOG	Date:	25/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
34.324	0.30	MADE GROUND: Grass overlying soft to firm brown, slightly sandy, gravelly CLAY. Gravel is fine to coarse, sub-angular to sub-rounded flint, brick and limestone. Firm brown mottled orange, slightly gravelly CLAY. Gravel is fine to medium, sub-angular to sub-rounded flint. Black organic material at 0.35 to 0.40 m. (POSSIBLE WEATHERED LONDON CLAY)	0.20	ES		
(0.80)			0.35	ES		
33.524	1.10		0.70	ES		
(1.30)		Firm, greyish brown mottled orange, friable, thinly laminated CLAY. High cream coloured mineral content. (POSSIBLE WEATHERED LONDON CLAY)	2.00	D		
32.224	2.40					
		Trial pit completed at 2.4m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

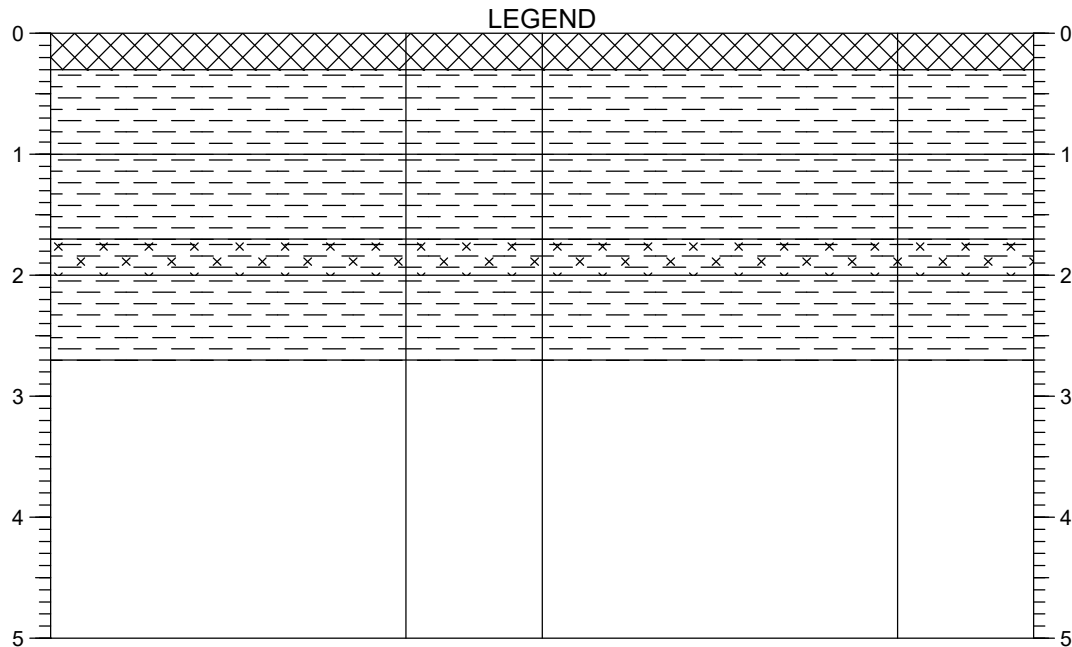
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507800.309 N: 184845.694 Level: 34.624	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	--	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

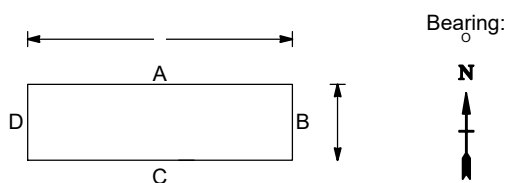


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP05
	TRIAL PIT LOG	Date:	25/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
34.219	0.30	MADE GROUND: Grass overlying soft to firm brown, slightly sandy, gravelly CLAY. Gravel is fine to coarse, sub-angular to sub-rounded flint, brick and limestone. Occasional brick cobbles.	0.20	ES		
(0.70)						
33.519	1.00	Firm brown mottled orange, friable, thinly laminated CLAY. (POSSIBLE WEATHERED LONDON CLAY)	1.00	ES		
(0.70)		Firm, greyish brown mottled orange, friable, thinly laminated CLAY. High cream coloured mineral content. (POSSIBLE WEATHERED LONDON CLAY)				
32.819	1.70					
32.519	2.00	Firm greyish brown, laminated, thinly bedded silty CLAY. (POSSIBLE WEATHERED LONDON CLAY).	2.30	D		
(0.70)		'Firm, greyish brown mottled orange, friable, thinly laminated CLAY. High cream coloured mineral content. (POSSIBLE WEATHERED LONDON CLAY)				
31.819	2.70					
		Trial pit completed at 2.7m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

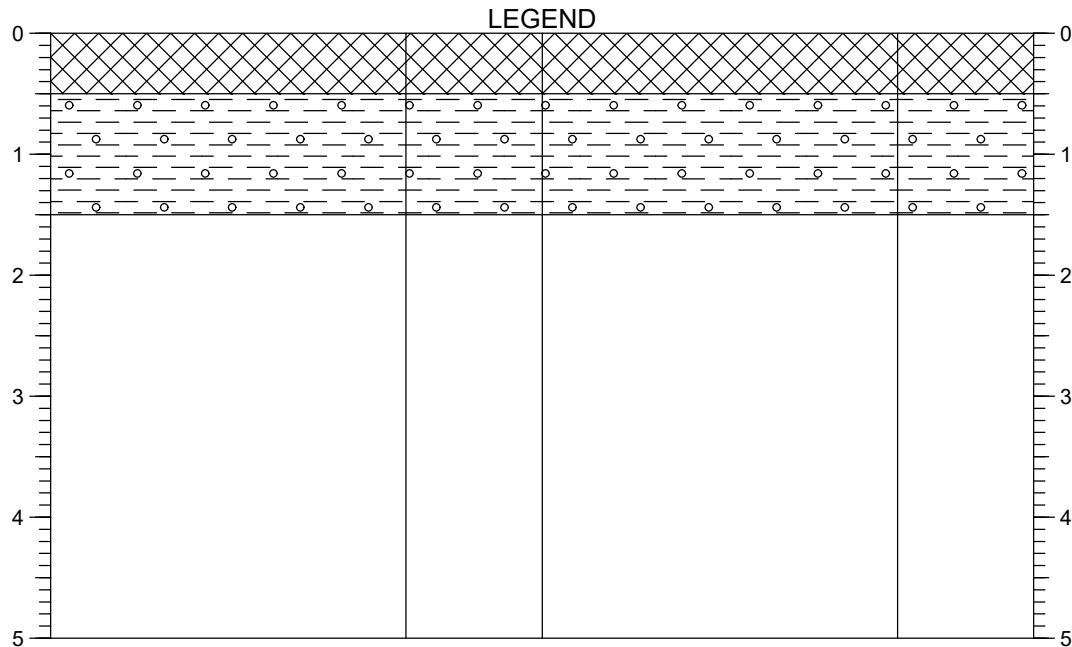
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507766.436 N: 184863.521 Level: 34.519	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	--	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

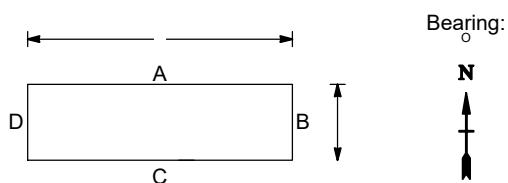


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP06
	TRIAL PIT LOG	Date:	25/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
(0.50) 34.054 0.50		MADE GROUND: Brown, very sandy, fine to coarse, sub-rounded to sub-angular brick, limestone and concrete GRAVEL. Rare wires. Brick wall from ground level to 0.30 m bgl on western side of Trial Pit.	0.20	ES		
(1.00) 33.054 1.50		Firm brown, mottled orange, gravelly CLAY. Gravel is fine to medium, sub-angular flint. Multicoloured, medium, rounded to sub-rounded gravel surrounding disused clay pipe at 0.70 m bgl. Foundations encountered at 0.30 m bgl to 0.90 m bgl. (POSSIBLE WEATHERED LONDON CLAY)				
		Trial pit completed at 1.5m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

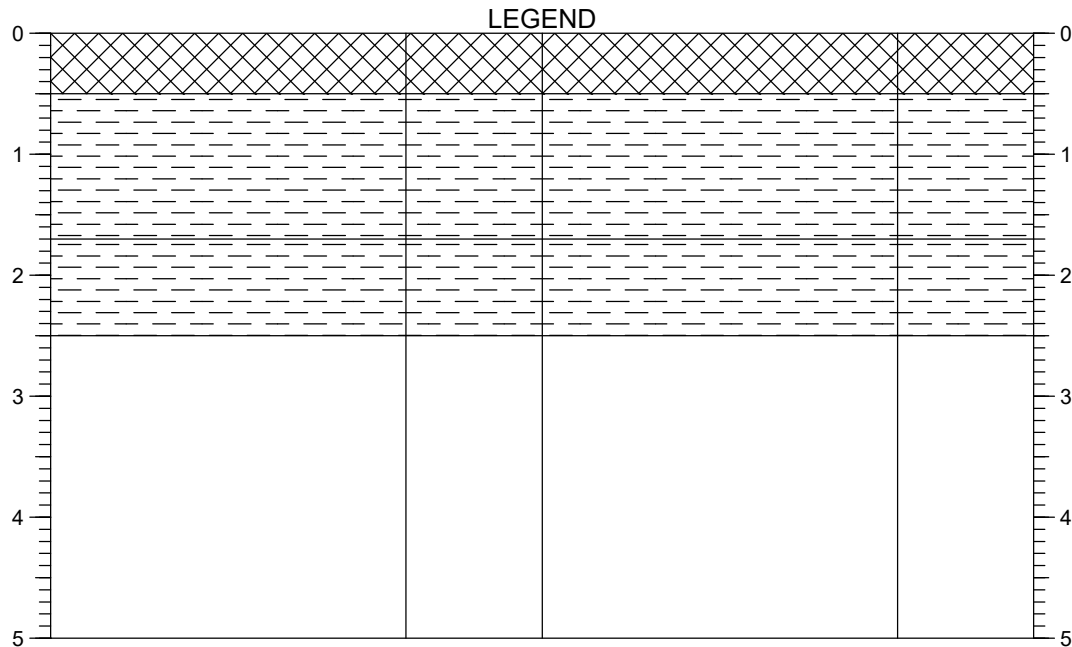
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507843.594 N: 184868.807 Level: 34.554	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	--	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

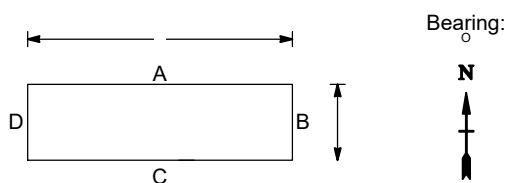


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP07
	TRIAL PIT LOG	Date:	25/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
(0.50) 33.75	0.50	MADE GROUND: Grass overlying soft to firm brown, slightly sandy, gravelly CLAY. Gravel is fine to coarse, sub-angular to sub-rounded flint, brick and limestone.	0.20	ES		
(1.20) 32.55	1.70	Firm to stiff orangeish brown CLAY. (POSSIBLE WEATHERED LONDON CLAY)	1.00	ES		
(0.80) 31.75	2.50	Firm to stiff grey mottled orange laminated, thinly bedded, friable CLAY, becoming occasionally pink with depth. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)	2.30	D		
		Trial pit completed at 2.5m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

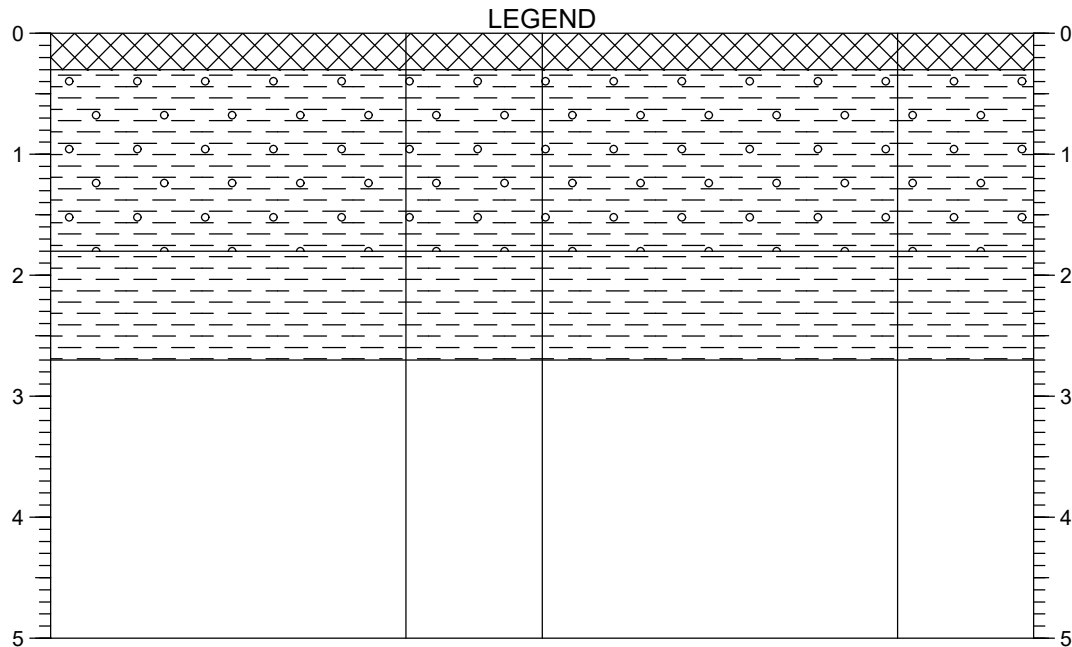
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507863.338 N: 184898.926 Level: 34.25	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	---	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

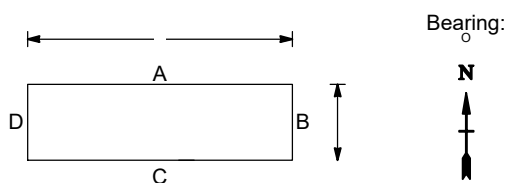


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP08
	TRIAL PIT LOG	Date:	25/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
34.056	0.30	MADE GROUND: Grass overlying soft to firm brown, slightly sandy, gravelly CLAY. Gravel is fine to coarse, sub-angular to sub-rounded flint, brick and limestone.	0.20	ES		
(1.50)		Firm, brown mottled orange, laminated, thinly bedded, gravelly CLAY. Gravel is fine to medium sub-angular to sub-rounded flint. (POSSIBLE WEATHERED LONDON CLAY)				
32.556	1.80		1.50	D		
(0.90)		Firm, grey mottled orange, friable, thinly laminated CLAY, becoming occasionally pink with depth. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)	2.00	ES		
31.656	2.70	Trial pit completed at 2.7m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

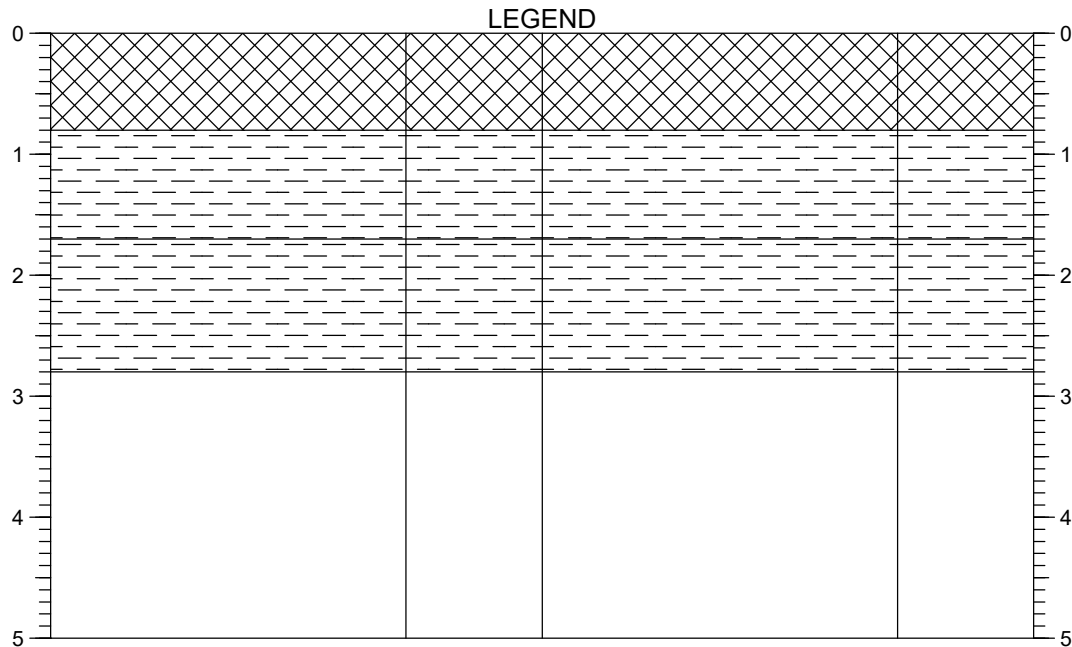
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507881.842 N: 184936.229 Level: 34.356	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	--	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

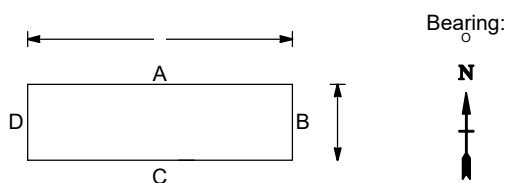


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP09
	TRIAL PIT LOG	Date:	26/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
(0.80) 33.78 0.80		MADE GROUND: Tarmac and concrete overlying brown, very sandy, fine to coarse, sub-rounded to sub-angular brick, limestone and concrete GRAVEL.	0.20	ES		
(0.90) 32.88 1.70		Firm becoming stiff, brown mottled orange CLAY. (POSSIBLE WEATHERED LONDON CLAY)	1.20	D		
(1.10) 31.78 2.80		Firm brown mottled orange and grey friable, bedded, thinly laminated CLAY. (POSSIBLE WEATHERED LONDON CLAY)				
		Trial pit completed at 2.8m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

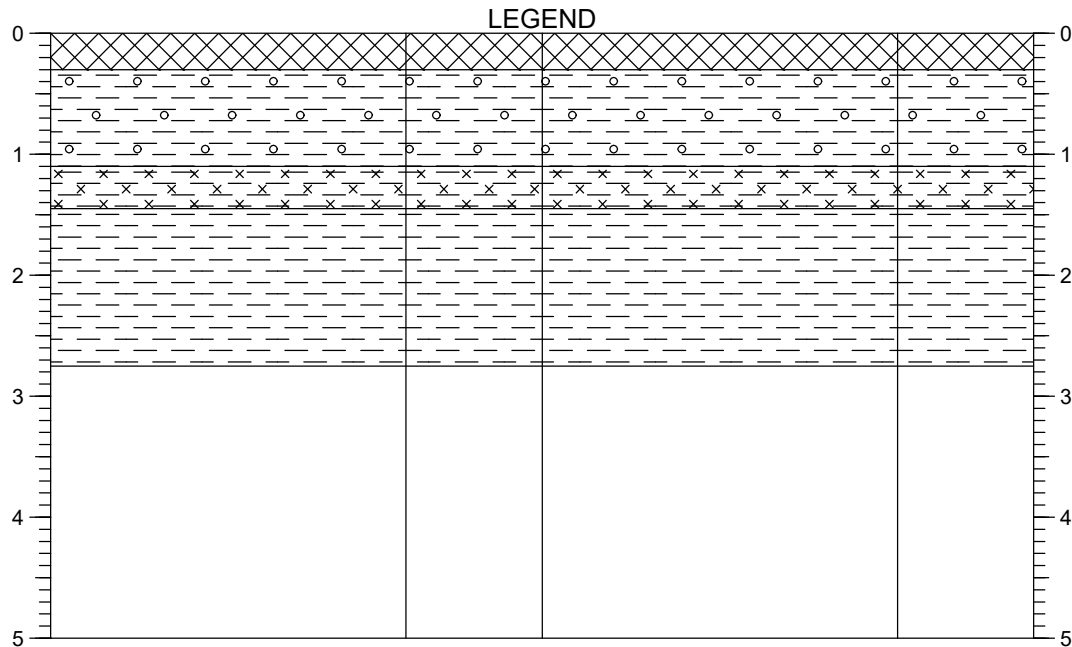
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507846.611 N: 184920.937 Level: 34.58	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	---	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

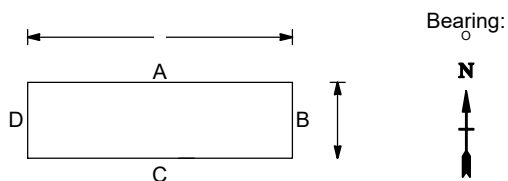


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP10
	TRIAL PIT LOG	Date:	26/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
34.222	0.30	MADE GROUND: Grass overlying soft brown, slightly sandy, gravelly CLAY. Gravel is fine to medium, sub-angular to sub-rounded, brick, flint and limestone. Concrete removed at 0.05 m bgl. Tree roots at 0.10 m bgl.	0.20	ES		
(0.80)		Firm, brown mottled orange, laminated, thinly bedded, gravelly CLAY. Gravel is fine to medium sub-angular to sub-rounded flint. Occasional roots. Becoming slightly gravelly with depth. Gravel is fine to medium, sub-angular to sub-rounded flint. Occasional flint pebbles. (POSSIBLE WEATHERED LONDON CLAY)	1.20	ES		
33.422	1.10					
33.072	1.45	Soft becoming firm, light brown, silty CLAY. (POSSIBLE WEATHERED LONDON CLAY)				
(1.30)		Firm becoming stiff greyish brown mottled orange laminated, thinly bedded, friable CLAY. (POSSIBLE WEATHERED LONDON CLAY)				
31.772	2.75					
		Trial pit completed at 2.75m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

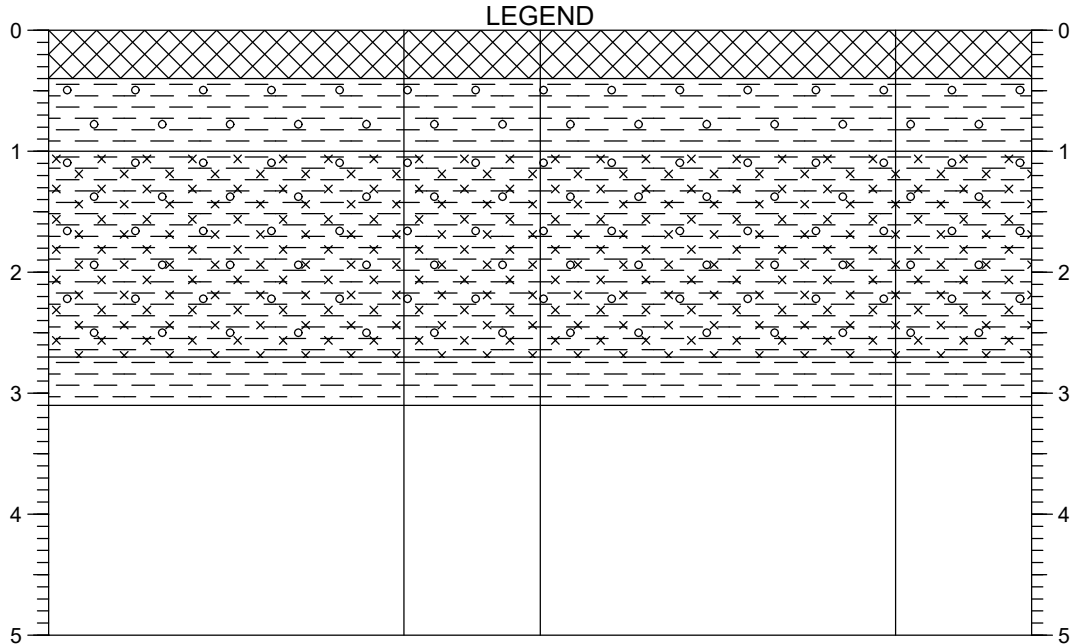
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507856.966 N: 184937.02 Level: 34.522	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	---	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

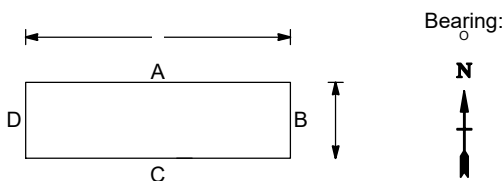


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP11
	TRIAL PIT LOG	Date:	26/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
34.366	0.40	MADE GROUND: Tarmac overlying brown, very sandy, fine to coarse, sub-rounded to sub-angular brick, limestone and concrete GRAVEL.				
(0.60)		Firm becoming stiff brown mottled orange, slightly gravelly CLAY. Gravel is fine to medium, sub-angular to sub-rounded flint and limestone. (POSSIBLE WEATHERED LONDON CLAY)	0.50	ES		
33.766	1.00					
(1.70)		Firm, light brown mottled orange, gravelly, silty CLAY. Gravel is fine to medium, sub-angular to sub-rounded flint and limestone. (POSSIBLE WEATHERED LONDON CLAY)	1.10	ES		
32.066	2.70					
31.666	3.10	Firm becoming stiff, grey mottled orange, friable, thinly laminated CLAY. High cream coloured mineral content. (POSSIBLE WEATHERED LONDON CLAY)				
		Trial pit completed at 3.1m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

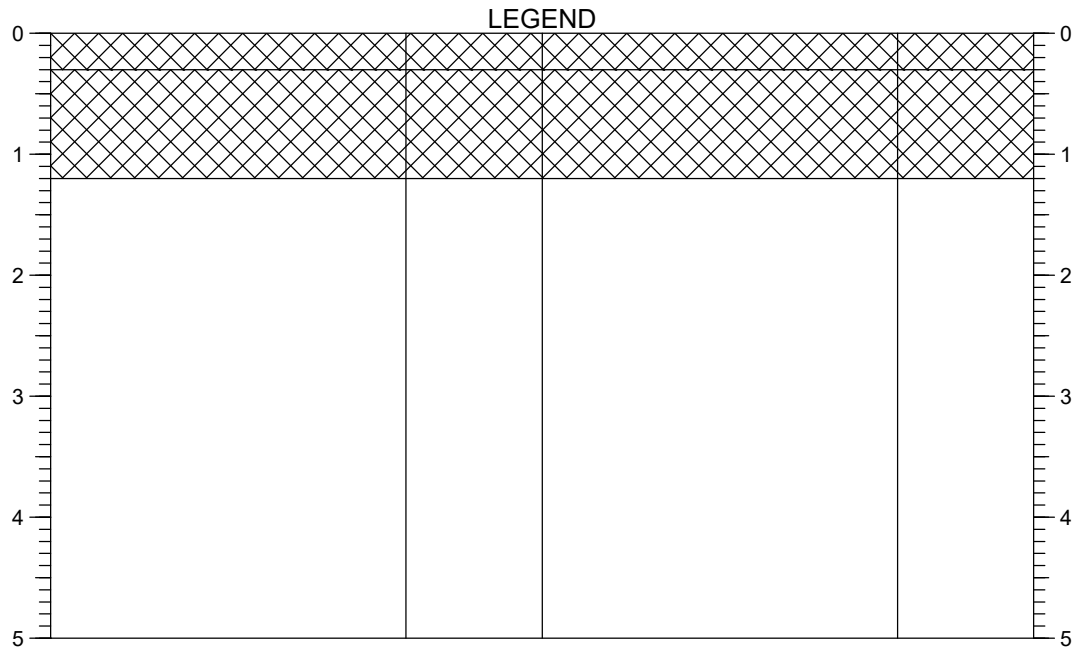
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507756.974 N: 184975.395 Level: 34.766	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	--	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

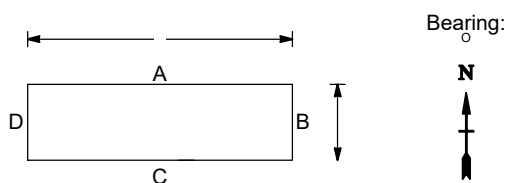


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP12
	TRIAL PIT LOG	Date:	26/03/2015	Client:	Spenn Hill



STRATA				SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results	
34.194	0.30	MADE GROUND: Grass overlying soft to firm brown, slightly sandy, gravelly CLAY. Gravel is fine to coarse, sub-angular to sub-rounded flint, brick and limestone.	0.20	ES			
(0.90)		MADE GROUND: Firm brown mottled orange friable, thinly laminated clay. Brick layer from ground level to 0.45 m bgl. Disused clay pipe at 1.00 m bgl.					
33.294	1.20	Trial pit completed at 1.2m bgl.					

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

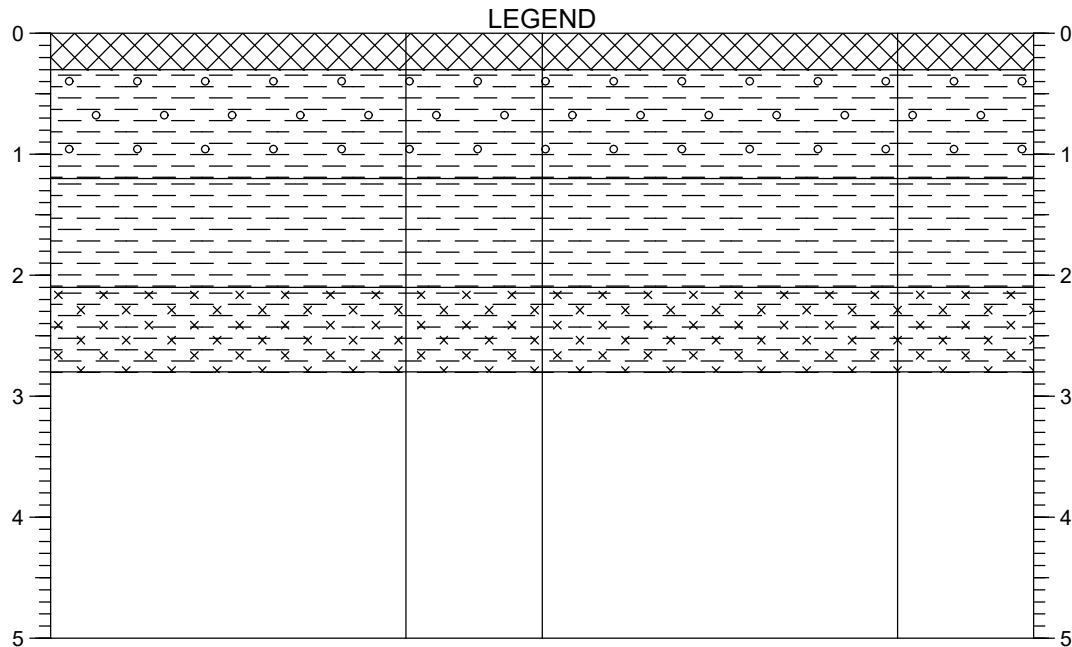
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507795.217 N: 184930.36 Level: 34.494	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	---	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

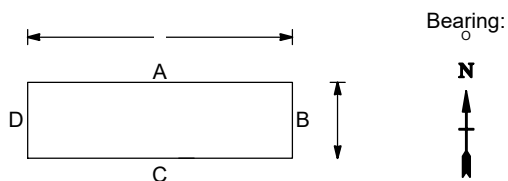


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP13
	TRIAL PIT LOG	Date:	26/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
34.273	0.30	MADE GROUND: Tarmac overlying brown, very sandy, fine to coarse, sub-rounded to sub-angular brick, limestone and concrete GRAVEL. Firm brown mottled orange, slightly gravelly CLAY. Gravel is fine to medium, sub-angular to sub-rounded flint. (POSSIBLE WEATHERED LONDON CLAY)	0.20	ES		
(0.90)			0.50	ES		
33.373	1.20	Firm orangeish brown, friable, bedded, thinly laminated CLAY. (POSSIBLE WEATHERED LONDON CLAY)	2.50	D		
(0.90)						
32.473	2.10	Firm brown mottled orange friable, silty CLAY. (POSSIBLE WEATHERED LONDON CLAY).				
(0.70)						
31.773	2.80	-----				
		Trial pit completed at 2.8m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

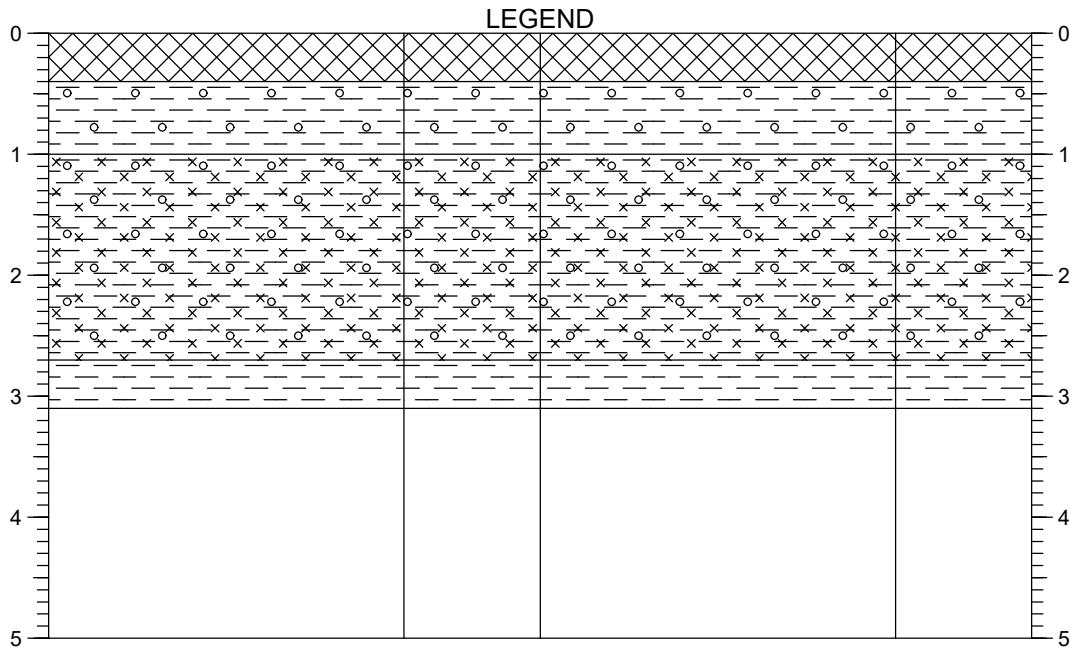
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507761.639 N: 184928.166 Level: 34.573	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	--	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

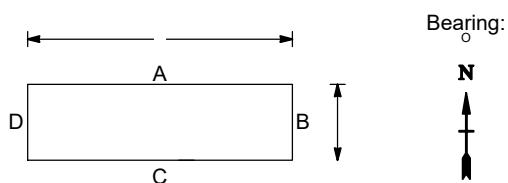


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP14
	TRIAL PIT LOG	Date:	26/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
34.141	0.40	MADE GROUND: Tarmac overlying brown, very sandy, fine to coarse, sub-rounded to sub-angular brick, limestone and concrete GRAVEL.				
(0.60)		Firm orangeish brown slightly gravelly CLAY. Gravel is fine to medium, sub-rounded to sub-angular flint, limestone and sandstone. Rare flint cobbles. (POSSIBLE WEATHERED LONDON CLAY)	0.50	ES		
33.541	1.00					
(1.70)		Firm light brown, slightly gravelly silty CLAY. Gravel is fine to medium, sub-rounded to sub-angular flint and limestone. Shell relic and white/cream mineral present. (POSSIBLE WEATHERED LONDON CLAY)	1.20	B		
31.841	2.70					
31.441	3.10	Firm friable grey mottled orange CLAY, becoming mottled pink with depth. (UPPER MOTTLED BEDS - WOOLWICH AND READING BEDS)	2.80	D		
		Trial pit completed at 3.1m bgl.				

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
2. Area CAT scanned prior to excavation.
3. Trial Pit remained dry on completion.
4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

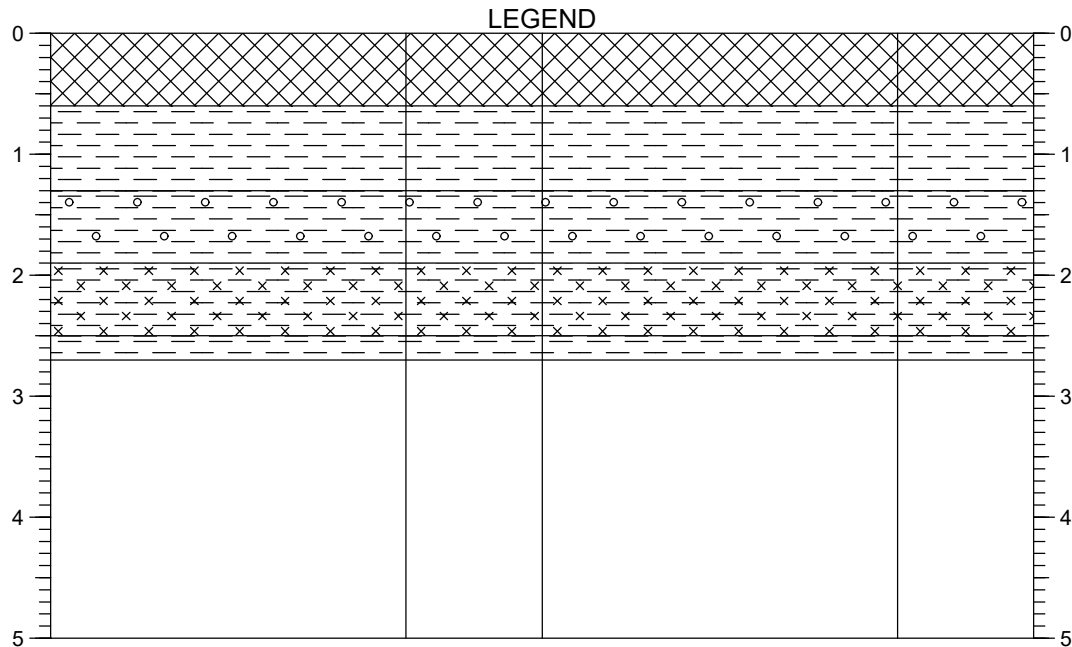
Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used:	JCB 3X	Coordinates / Level (mAOD):	E: 507736.462 N: 184910.035 Level: 34.541	Logged By:	CB	Checked By:	CB	Approved By:	SS
-------------	--------	-----------------------------	--	------------	----	-------------	----	--------------	----

Delta-Simons
3 Henley Office Park, Doddington Road,
Lincoln, LN6 3QR
Tel: +44 (0) 870 0400 012
Fax: +44 (0) 1522 698393
Email: info@deltasimons.com

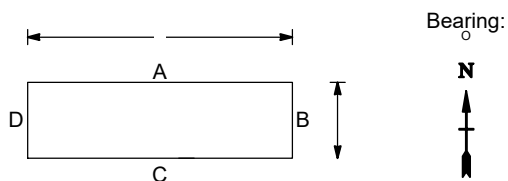


Project:	Hillingdon	Project No:	14-0724.01	Hole ID:	TP15
	TRIAL PIT LOG	Date:	26/03/2015	Client:	Spenn Hill



STRATA			SAMPLES		TESTS	
Depth	No	DESCRIPTION	Depth	No	Depth	Results
(0.60) 34.583 0.60		MADE GROUND: Concrete with re-bar, overlying brown, very sandy, fine to coarse, sub-rounded to sub-angular brick, limestone and concrete GRAVEL. Black geo-textile membrane at 0.28 m bgl. Brick layer at base of strata.	0.35	ES		
(0.70) 33.883 1.30		Firm becoming stiff greyish brown mottled orange laminated, thinly bedded, friable CLAY. Small area of black clay 0.80 m to 1.0 m in west of trial pit only. Slight organic odour. (POSSIBLE WEATHERED LONDON CLAY)	0.85	ES		
(0.60) 33.283 1.90		Firm orangeish brown, friable, bedded, thinly laminated gravelly CLAY. Gravel is fine to coarse, sub-angular to sub-rounded flint and limestone. (POSSIBLE WEATHERED LONDON CLAY)				
(0.60) 32.683 2.50		Firm, orangeish brown friable, bedded, thinly laminated silty CLAY. Shells and relic shells present and high mineral content. (POSSIBLE WEATHERED LONDON CLAY)	2.00	ES		
32.483 2.70		Firm becoming stiff, light brown mottled orange and grey, friable, bedded, thinly laminated CLAY. High mineral content. (POSSIBLE WEATHERED LONDON CLAY) Trial pit completed at 2.7m bgl.	2.55	D		

Shoring/Support:
 Stability:



REMARKS :

1. Engineer verified logged in general accordance to BS 5930:2010.
 2. Area CAT scanned prior to excavation. 3. Trial Pit remained dry on completion. 4. Backfilled with arisings.

All measurements in metres
 unless otherwise stated

5m/page Scale: 1:62.5

Coordinates to National Grid
 Ground Level to Ordnance Datum

Plant Used: JCB 3X	Coordinates / Level (mAOD): E: 507709.473 N: 184899.754 Level: 35.183	Logged By: CB	Checked By: CB	Approved By: SS
-----------------------	---	------------------	-------------------	--------------------





GROUNDWATER AND GROUND GAS MONITORING RECORD SHEET

Sheet:

1 of 1

Project Name: Hillingdon

Weather Conditions: Overcast, warm (16.8 degrees celsius)

Date:

Project Number: 14-0724.01

Gas Kit Model: GFM435

13/04/2015

Personnel: CB

Gas Kit Serial No:

LOCATION	Flow Peak	Flow Steady	CH ₄ Peak	CH ₄ Steady	CO ₂ Peak	CO ₂ Steady	O ₂ Min.	O ₂ Steady	Atmospheric Pressure	PID	Well I.D.	Depth to Product (DTP)	Product Thickness	Depth to Water (DTW)	Depth to Base (DTB)	Height of Water Column	NOTES
	(L/hr)	(L/hr)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(mb)	(ppm)	(mm)	(m)	(m)	(m)	(m)	(m)	
CP01	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	15.8	15.8	1026					1.770	15.440	13.670	
CP02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.4	20.4	1026					1.070	9.760	8.690	
CP03	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A					N/A	N/A	N/A	Borehole was not completed at time of monitoring
CP04	120.0	120.0	<0.1	<0.1	1.0	1.0	18.9	18.9	1026					0.900	12.290	11.390	Newly installed borehole - to be checked on next mo
CP05	<0.1	<0.1	<0.1	<0.1	0.1	0.1	19.9	19.9	1026					1.900	18.130	16.230	
CP06	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.2	20.2	1026					1.540	14.450	12.910	
CP07	<0.1	<0.1	<0.1	<0.1	0.9	0.9	17.0	17.0	1026					2.050	14.340	12.290	
CP08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.1	20.1	1026					1.230	14.000	12.770	
CP09(A)	<0.1	<0.1	<0.1	<0.1	0.3	0.3	19.5	19.5	1026					2.360	14.430	12.070	

GUIDE TO PURGING VOLUMES

To calculate the number of litres to be purged from a well with a different diameter, use the formula $3\pi r^2 h$ (where r = radius of the well and h = height of the water column). Use the formula $\pi r^2 h$ to calculate the volume of a bailer. Please note that the standard bailers Delta-Simons use are typically 0.95 m in length.

Diameter of Casing (mm)	19	35	50	50	75	100
Diameter of Bailer (mm)	18	19	19	38	38	38
No. bails per m	4	12	22	6	13	23

Document No. C101 Version: 4.0 Issue Date: 13/01/12 Author: C Ramsbottom Authorised By: R Griffiths

© Delta-Simons Environmental Consultants Limited. No part of this document may be reproduced unless prior written permission has been granted.



GROUNDWATER AND GROUND GAS MONITORING RECORD SHEET

Sheet:

1 of 1

Project Name:	Hillingdon	Weather Conditions:	Sunny, warm (15 degrees celsius)	Date:
Project Number:	14-0724.01	Gas Kit Model:	GFM435	21/04/2015
Personnel:	CB	Gas Kit Serial No:		

LOCATION	Flow Peak	Flow Steady	CH ₄ Peak	CH ₄ Steady	CO ₂ Peak	CO ₂ Steady	O ₂ Min.	O ₂ Steady	Atmospheric Pressure	PID	Well I.D.	Depth to Product (DTP)	Product Thickness	Depth to Water (DTW)	Depth to Base (DTB)	Height of Water Column	NOTES
	(L/hr)	(L/hr)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(mb)	(ppm)	(mm)	(m)	(m)	(m)	(m)	(m)	
CP01	<0.1	<0.1	<0.1	<0.1	0.3	0.3	16.6	16.6	1028					1.880	14.870	12.990	
CP02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	19.8	19.8	1028					1.280	9.460	8.180	
CP03	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.3	20.3	1028					0.320	14.000	N/A	
CP04	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.2	20.2	1028					0.980	12.350	11.370	
CP05	<0.1	<0.1	<0.1	<0.1	0.1	0.1	20.4	20.4	1028					1.920	17.960	16.040	
CP06	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.3	20.3	1028					1.570	14.500	12.930	
CP07	<0.1	<0.1	<0.1	<0.1	0.9	0.9	18.4	18.4	1028					2.190	14.400	12.210	
CP08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	18.9	18.9	1028					1.550	13.760	12.210	
CP09A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.0	20.0	1028					2.360	14.150	11.790	

GUIDE TO PURGING VOLUMES

To calculate the number of litres to be purged from a well with a different diameter, use the formula $3\pi r^2 h$ (where r = radius of the well and h = height of the water column). Use the formula $\pi r^2 h$ to calculate the volume of a bailer. Please note that the standard bailers Delta-Simons use are typically 0.95 m in length.	Diameter of Casing (mm)	19	35	50	50	75	100
	Diameter of Bailer (mm)	18	19	19	38	38	38
	No. bails per m	4	12	22	6	13	23

Document No. C101 | Version: 4.0 | Issue Date: 13/01/12 | Author: C Ramsbottom | Authorised By: R Griffiths

© Delta-Simons Environmental Consultants Limited. No part of this document may be reproduced unless prior written permission has been granted.



GROUNDWATER AND GROUND GAS MONITORING RECORD SHEET

Sheet:

1 of 1

Project Name:	Hillingdon	Weather Conditions:	Sunny, warm (13 degrees celsius)	Date:
Project Number:	14-0724.01	Gas Kit Model:	GFM435	07/05/2015
Personnel:	RM	Gas Kit Serial No:		

LOCATION	Flow Peak	Flow Steady	CH ₄ Peak	CH ₄ Steady	CO ₂ Peak	CO ₂ Steady	O ₂ Min.	O ₂ Steady	Atmospheric Pressure	PID	Well I.D.	Depth to Product (DTP)	Product Thickness	Depth to Water (DTW)	Depth to Base (DTB)	Height of Water Column	NOTES
	(L/hr)	(L/hr)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(mb)	(ppm)	(mm)	(m)	(m)	(m)	(m)	(m)	
CP01	<0.1	<0.1	<0.1	<0.1	0.3	0.2	18.6	18.6	1009					1.640	14.870	13.230	
CP02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.1	20.1	1009					1.100	9.460	8.360	
CP03	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.0	20.0	1009					0.740	14.000	N/A	
CP04	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	19.9	19.9	1009					0.790	12.350	11.560	
CP05	<0.1	<0.1	<0.1	<0.1	0.1	0.1	20.2	20.2	1009					1.530	17.960	16.430	
CP06	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.1	20.1	1009					1.310	14.500	13.190	
CP07	<0.1	<0.1	<0.1	<0.1	0.9	0.6	18.6	18.6	1009					2.110	14.400	12.290	
CP08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	19.1	19.1	1009					1.380	13.760	12.380	
CP09A	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.1	20.1	1009					2.330	14.150	11.820	

GUIDE TO PURGING VOLUMES

To calculate the number of litres to be purged from a well with a different diameter, use the formula $3\pi r^2 h$ (where r = radius of the well and h = height of the water column). Use the formula $\pi r^2 h$ to calculate the volume of a bailer. Please note that the standard bailers Delta-Simons use are typically 0.95 m in length.	Diameter of Casing (mm)	19	35	50	50	75	100
	Diameter of Bailer (mm)	18	19	19	38	38	38
	No. bails per m	4	12	22	6	13	23

Document No. C101 | Version: 4.0 | Issue Date: 13/01/12 | Author: C Ramsbottom | Authorised By: R Griffiths

© Delta-Simons Environmental Consultants Limited. No part of this document may be reproduced unless prior written permission has been granted.



GROUNDWATER AND GROUND GAS MONITORING RECORD SHEET

Sheet:

1 of 1

Project Name: Hillingdon

Weather Conditions: Cloudy, wind at 1.8 m/s

Project Number: 14-0724.01

Gas Kit Model: GFM4

Personnel: AC

Gas Kit Serial No:

Date:

29/04/2015

LOCATION	Flow Peak	Flow Steady	CH ₄ Peak	CH ₄ Steady	CO ₂ Peak	CO ₂ Steady	O ₂ Min.	O ₂ Steady	Atmospheric Pressure	PID	Well I.D.	Depth to Product (DTP)	Product Thickness	Depth to Water (DTW)	Depth to Base (DTB)	Height of Water Column	NOTES
	(L/hr)	(L/hr)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(mb)	(ppm)	(mm)	(m)	(m)	(m)	(m)	(m)	
CP01	<0.1	<0.1	<0.1	<0.1	0.5	0.5	17.2	19.0	1006					1.76	14.79	13.03	
CP02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.2	20.2	1006					1.14	9.47	8.33	
CP03	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.2	20.2	1006					0.76	13.60	12.84	
CP04	<0.1	<0.1	<0.1	<0.1	0.6	0.6	19.9	19.9	1006					0.83	12.40	11.58	
CP05	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.3	20.3	1006					1.62	17.61	15.99	
CP06	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.4	20.4	1006					1.34	14.36	13.02	
CP07	<0.1	<0.1	<0.1	<0.1	1.0	1.0	18.3	18.3	1006					2.12	14.20	12.08	
CP08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	18.9	18.9	1006					1.42	13.65	12.23	
CP09(A)	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.2	20.2	1006					2.23	14.09	11.86	

GUIDE TO PURGING VOLUMES

To calculate the number of litres to be purged from a well with a different diameter, use the formula $3\pi r^2 h$ (where r = radius of the well and h = height of the water column). Use the formula $\pi r^2 h$ to calculate the volume of a bailer. Please note that the standard bailers Delta-Simons use are typically 0.95 m in length.

Diameter of Casing (mm)	19	35	50	50	75	100
Diameter of Bailer (mm)	18	19	19	38	38	38
No. bails per m	4	12	22	6	13	23

Document No. C101 Version: 4.0 Issue Date: 13/01/12 Author: C Ramsbottom Authorised By: R Griffiths

© Delta-Simons Environmental Consultants Limited. No part of this document may be reproduced unless prior written permission has been granted.



GROUNDWATER AND GROUND GAS MONITORING RECORD SHEET

Sheet:

1 of 1

Project Name: Hillingdon

Weather Conditions: Cloudy + Sunny

Date:

Project Number: 14-0724.01

Gas Kit Model: GFM4

12/03/2015

Personnel: JC

Gas Kit Serial No:

LOCATION	Flow Peak	Flow Steady	CH ₄ Peak	CH ₄ Steady	CO ₂ Peak	CO ₂ Steady	O ₂ Min.	O ₂ Steady	Atmospheric Pressure	PID	Well I.D.	Depth to Product (DTP)	Product Thickness	Depth to Water (DTW)	Depth to Base (DTB)	Height of Water Column	NOTES
	(L/hr)	(L/hr)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(mb)	(ppm)	(mm)	(m)	(m)	(m)	(m)	(m)	
CP01	<0.1	<0.1	<0.1	<0.1	0.5	0.2	14.5	16.5	1013					1.88	14.79	12.91	
CP02	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	19.3	20.3	1012					1.30	9.39	8.09	
CP03	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.3	20.3	1013					1.24	13.57	12.33	
CP04	<0.1	<0.1	<0.1	<0.1	0.2	0.2	20.0	20.0	1013					1.05	12.27	11.22	
CP05	<0.1	<0.1	<0.1	<0.1	0.3	0.3	19.9	19.9	1013					1.91	17.85	15.94	
CP06	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.5	20.5	1013					1.52	14.47	12.95	
CP07	<0.1	<0.1	<0.1	<0.1	0.9	0.9	18.4	18.4	1013					2.25	14.23	11.98	
CP08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	19.2	19.2	1013					1.47	13.87	12.40	
CP09a	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.3	20.3	1013					2.33	14.24	11.91	

GUIDE TO PURGING VOLUMES

To calculate the number of litres to be purged from a well with a different diameter, use the formula $3\pi r^2 h$ (where r = radius of the well and h = height of the water column). Use the formula $\pi r^2 h$ to calculate the volume of a bailer. Please note that the standard bailers Delta-Simons use are typically 0.95 m in length.

Diameter of Casing (mm)	19	35	50	50	75	100
Diameter of Bailer (mm)	18	19	19	38	38	38
No. bails per m	4	12	22	6	13	23

Document No. C101 Version: 4.0 Issue Date: 13/01/12 Author: C Ramsbottom Authorised By: R Griffiths

© Delta-Simons Environmental Consultants Limited. No part of this document may be reproduced unless prior written permission has been granted.



GROUNDWATER AND GROUND GAS MONITORING RECORD SHEET

Sheet:

1 of 1

Project Name: Hillingdon

Weather Conditions: Rainy, cloudy and windy.

Date:

Project Number: 14-0724.01

Gas Kit Model: GFM4

18/05/2015

Personnel: JC

Gas Kit Serial No:

LOCATION	Flow Peak	Flow Steady	CH ₄ Peak	CH ₄ Steady	CO ₂ Peak	CO ₂ Steady	O ₂ Min.	O ₂ Steady	Atmospheric Pressure	PID	Well I.D.	Depth to Product (DTP)	Product Thickness	Depth to Water (DTW)	Depth to Base (DTB)	Height of Water Column	NOTES
	(L/hr)	(L/hr)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(%v/v)	(mb)	(ppm)	(mm)	(m)	(m)	(m)	(m)	(m)	
CP01	<0.1	<0.1	<0.1	<0.1	0.5	0.5	15.4	15.9	997					1.88	14.79	12.91	
CP02	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	19.5	20.0	997					1.22	9.39	8.17	
CP03	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.0	20.0	997					1.27	13.57	12.30	
CP04	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	20.2	20.2	997					1.02	12.27	11.25	
CP05	<0.1	<0.1	<0.1	<0.1	0.4	0.4	19.5	19.5	997					1.90	17.85	15.95	
CP06	<0.1	<0.1	<0.1	<0.1	0.4	<0.1	19.6	20.1	997					1.54	14.47	12.93	
CP07	<0.1	<0.1	<0.1	<0.1	0.7	0.7	18.9	18.9	997					2.27	14.23	11.96	
CP08	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	18.9	18.9	997					1.40	13.87	12.47	
CP09a	<0.1	<0.1	<0.1	<0.1	0.1	0.1	19.9	19.9	997					2.35	14.24	11.89	

GUIDE TO PURGING VOLUMES

To calculate the number of litres to be purged from a well with a different diameter, use the formula $3\pi r^2 h$ (where r = radius of the well and h = height of the water column). Use the formula $\pi r^2 h$ to calculate the volume of a bailer. Please note that the standard bailers Delta-Simons use are typically 0.95 m in length.

Diameter of Casing (mm)	19	35	50	50	75	100
Diameter of Bailer (mm)	18	19	19	38	38	38
No. bails per m	4	12	22	6	13	23

Document No. C101

Version: 4.0

Issue Date: 13/01/12

Author: C Ramsbottom

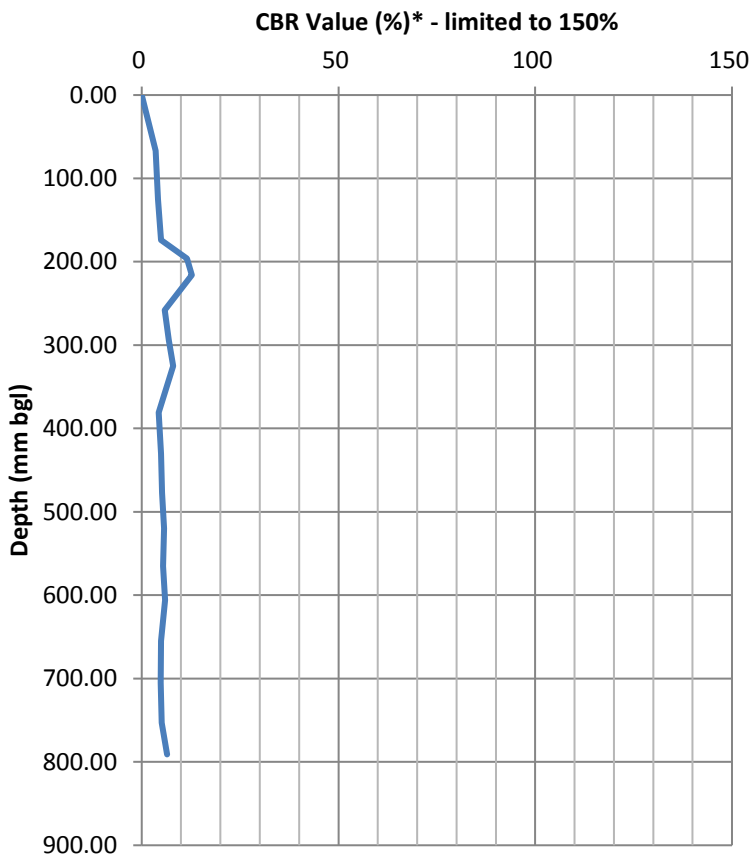
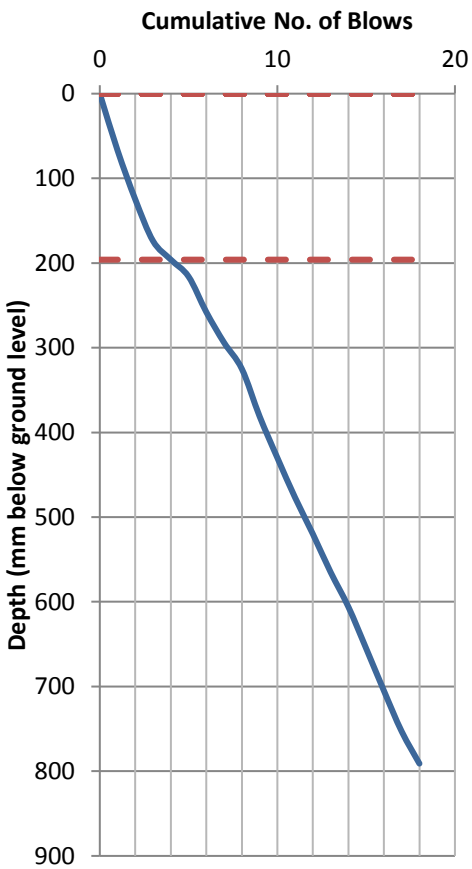
Authorised By: R Griffiths

© Delta-Simons Environmental Consultants Limited. No part of this document may be reproduced unless prior written permission has been granted.



TRL Dynamic Cone Penetrometer - Determination of CBR Value (%)*

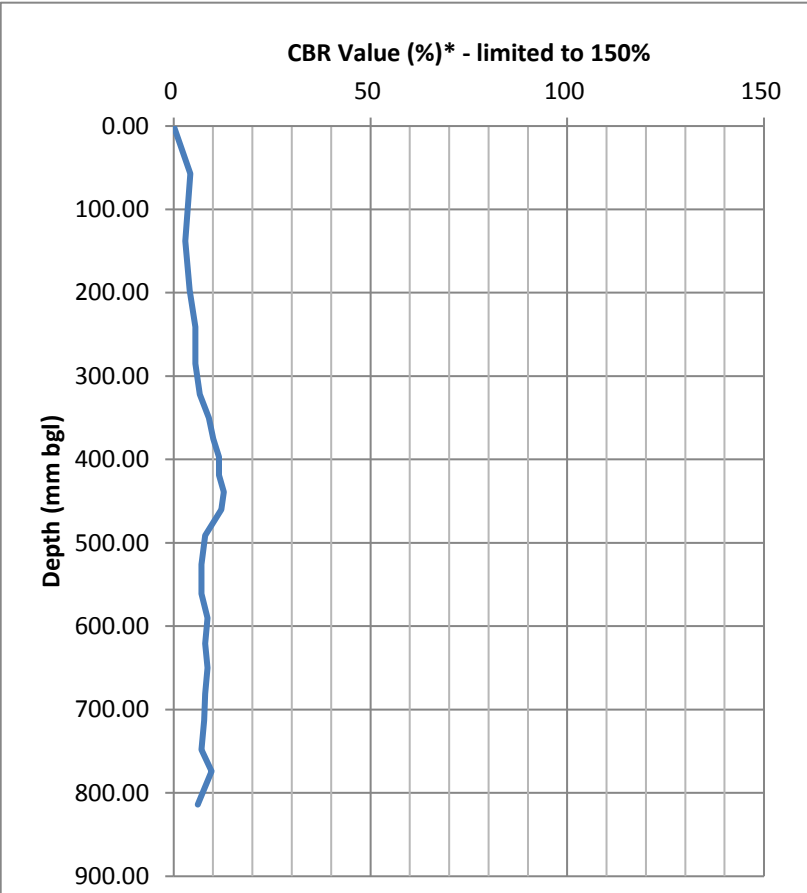
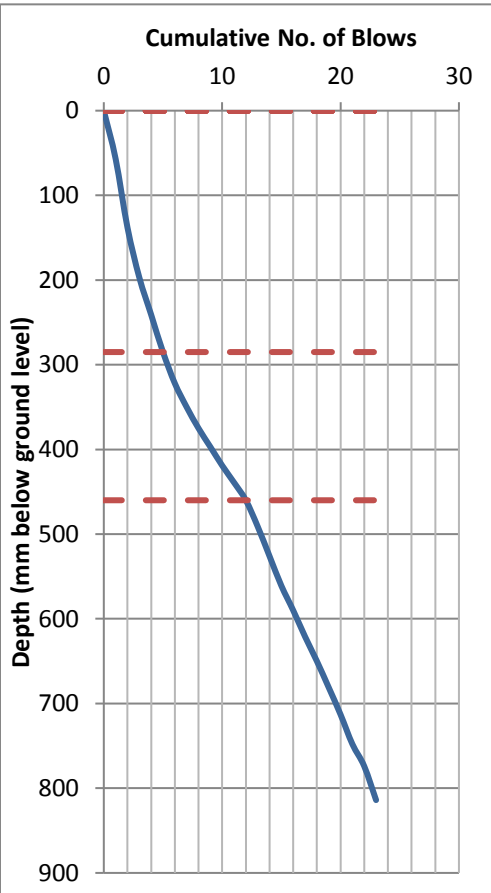
Site Name	Hillingdon	Starting Depth (mm bgl)	0.00
Job Number	14-0724.01	Surface Level (m AOD)	34.744
Test No.	DCP01	Easting	507740.895
Date of Test	25-Mar-15	Northing	184867.862

[illegible]

* CBR Interpretation based on the TRRL Road Note 8 equation: $\text{Log}_{10}(\text{CBR}) = 2.48 - [1.057 \times \text{Log}_{10}(\text{mm/blow})]$

TRL Dynamic Cone Penetrometer - Determination of CBR Value (%)*

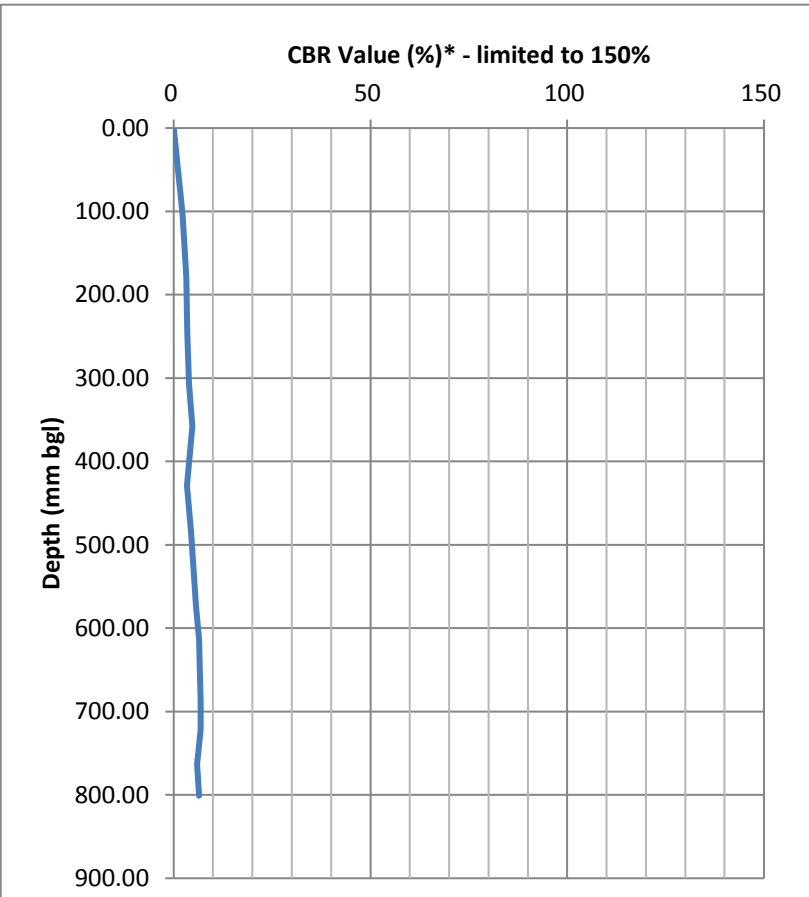
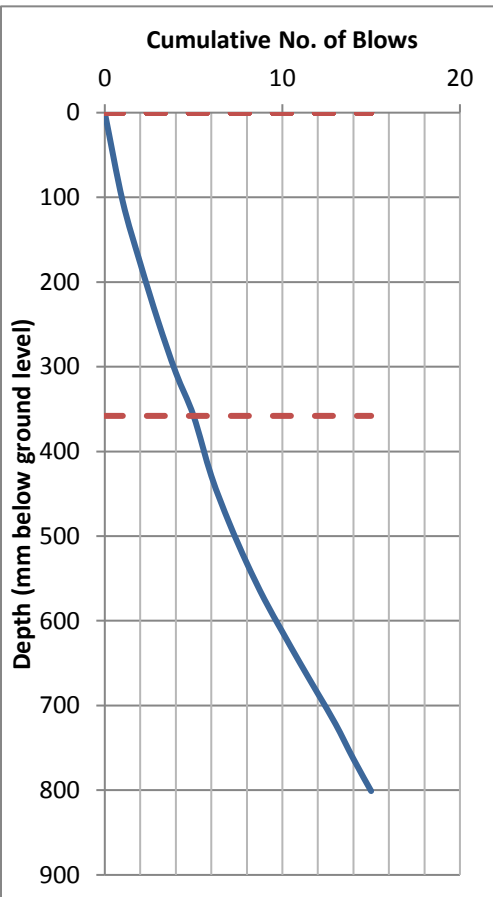
Site Name	Hillingdon	Starting Depth (mm bgl)	0.00
Job Number	14-0724.01	Surface Level (m AOD)	34.719
Test No.	DCP03	Easting	507816.978
Date of Test	25-Mar-15	Northing	184823.685

[illegible]

* CBR Interpretation based on the TRRL Road Note 8 equation: $\text{Log}_{10}(\text{CBR}) = 2.48 - [1.057 \times \text{Log}_{10}(\text{mm/blow})]$

TRL Dynamic Cone Penetrometer - Determination of CBR Value (%)*

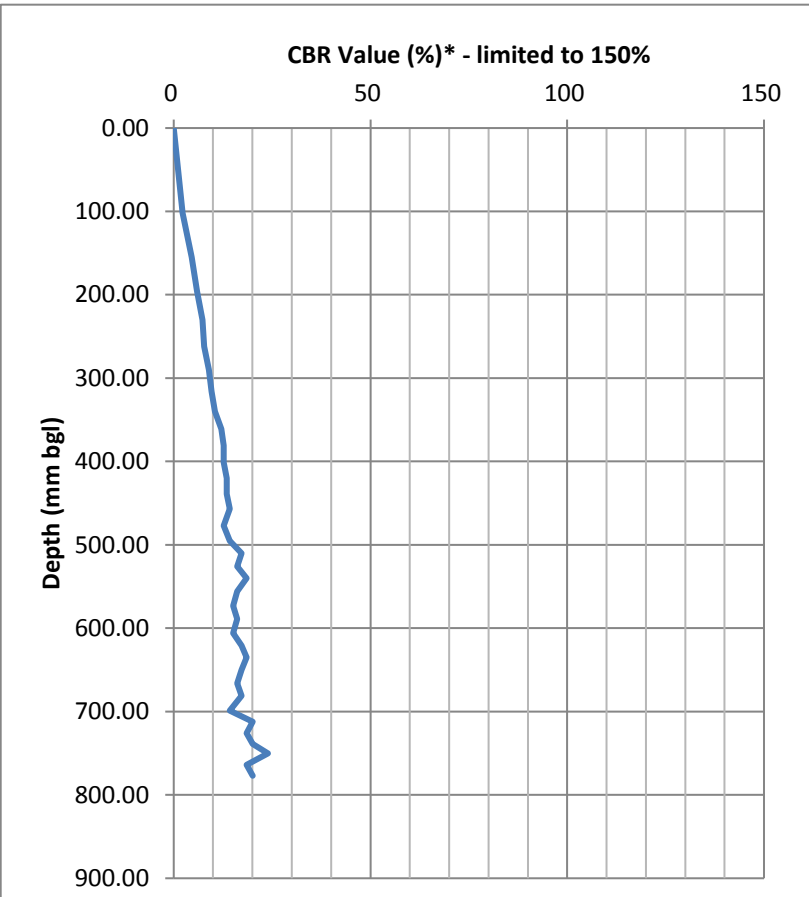
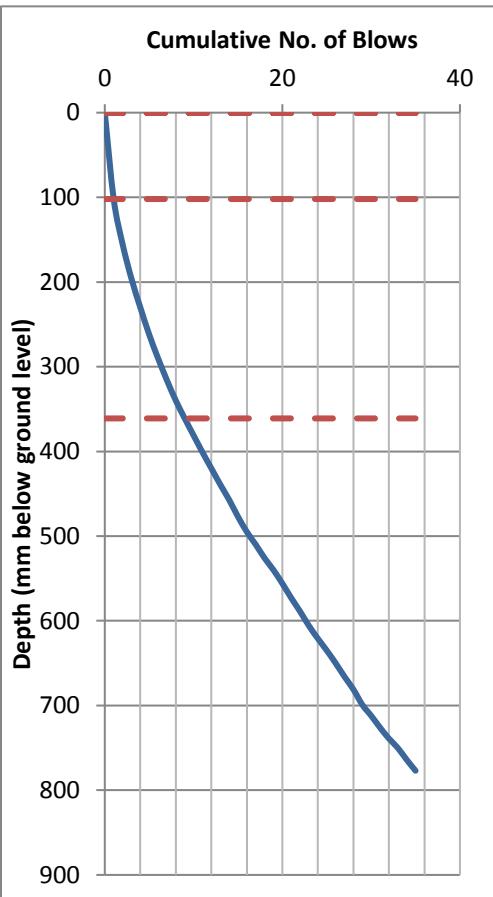
Site Name	Hillingdon	Starting Depth (mm bgl)	0.00
Job Number	14-0724.01	Surface Level (m AOD)	34.624
Test No.	DCP04	Easting	507800.309
Date of Test	25-Mar-15	Northing	184845.694

[illegible]

* CBR Interpretation based on the TRRL Road Note 8 equation: $\text{Log}_{10}(\text{CBR}) = 2.48 - [1.057 \times \text{Log}_{10}(\text{mm/blow})]$

TRL Dynamic Cone Penetrometer - Determination of CBR Value (%)*

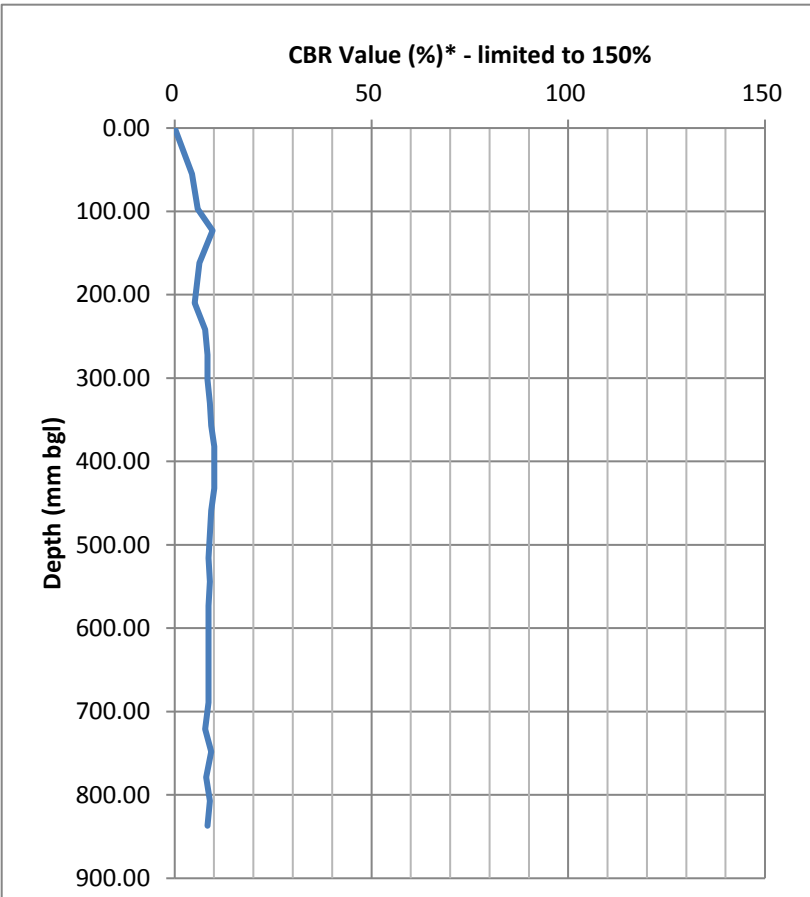
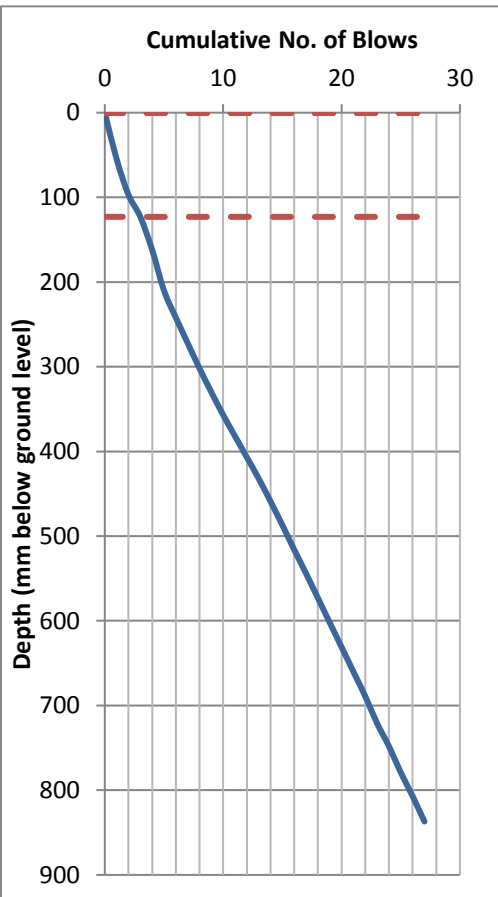
Site Name	Hillingdon	Starting Depth (mm bgl)	0.00
Job Number	14-0724.01	Surface Level (m AOD)	34.25
Test No.	DCP07	Easting	507863.338
Date of Test	25-Mar-15	Northing	184898.926

[illegible]

* CBR Interpretation based on the TRRL Road Note 8 equation: $\text{Log}_{10}(\text{CBR}) = 2.48 - [1.057 \times \text{Log}_{10}(\text{mm/blow})]$

TRL Dynamic Cone Penetrometer - Determination of CBR Value (%)*

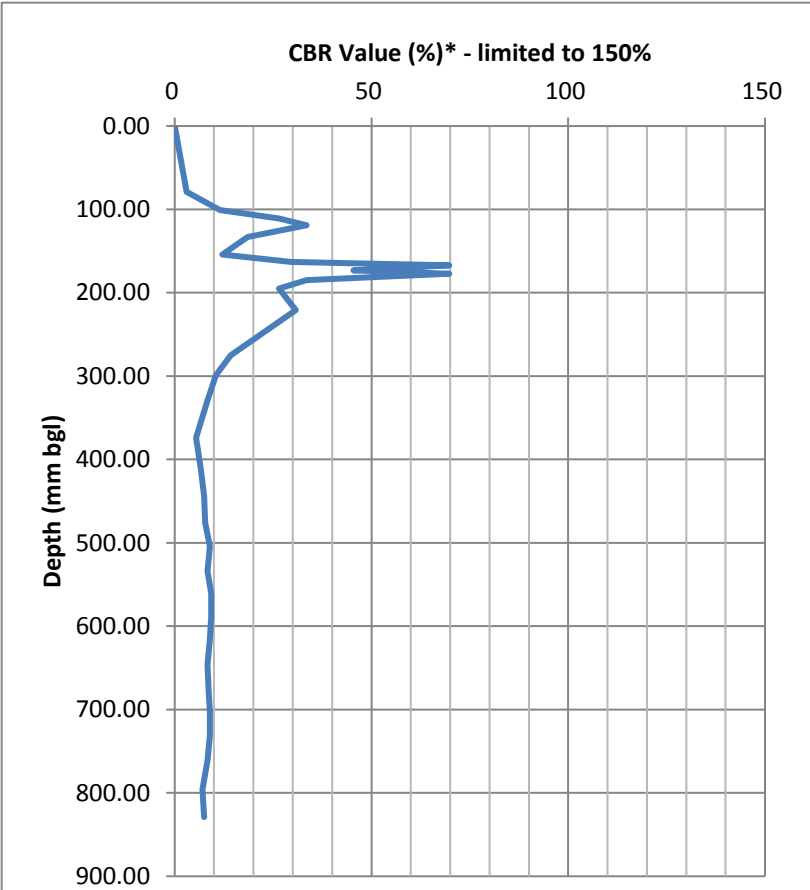
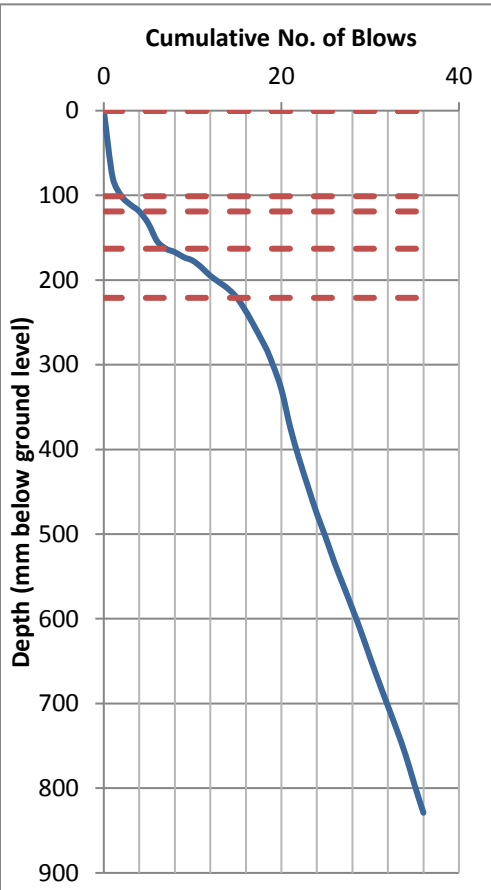
Site Name	Hillingdon	Starting Depth (mm bgl)	0.00
Job Number	14-0724.01	Surface Level (m AOD)	34.522
Test No.	DCP10	Easting	507856.966
Date of Test	25-Mar-15	Northing	184937.02

[illegible]

* CBR Interpretation based on the TRRL Road Note 8 equation: $\text{Log}_{10}(\text{CBR}) = 2.48 - [1.057 \times \text{Log}_{10}(\text{mm/blow})]$

TRL Dynamic Cone Penetrometer - Determination of CBR Value (%)*

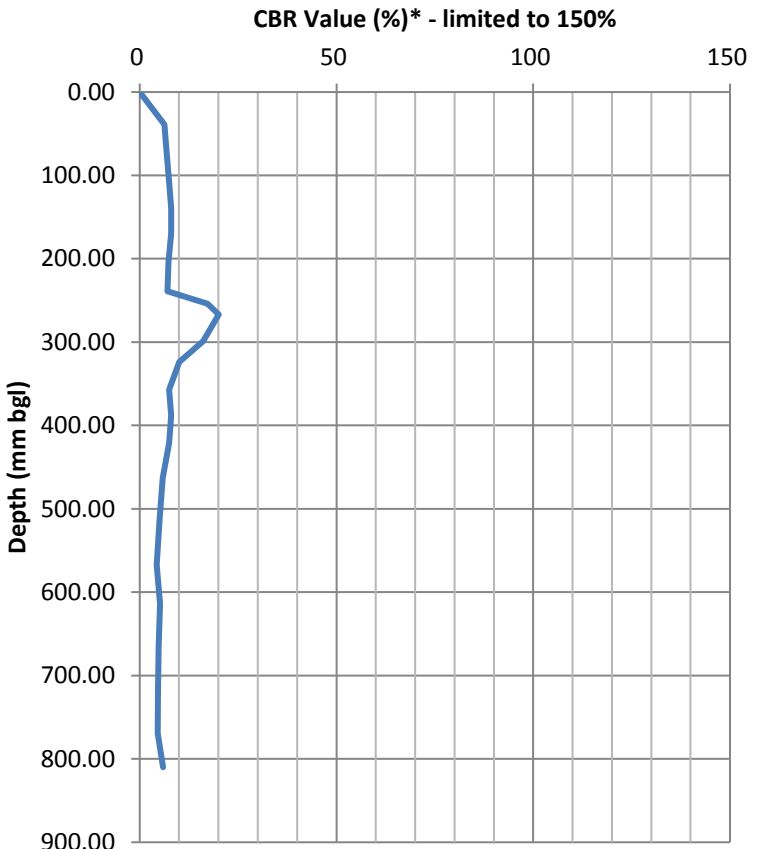
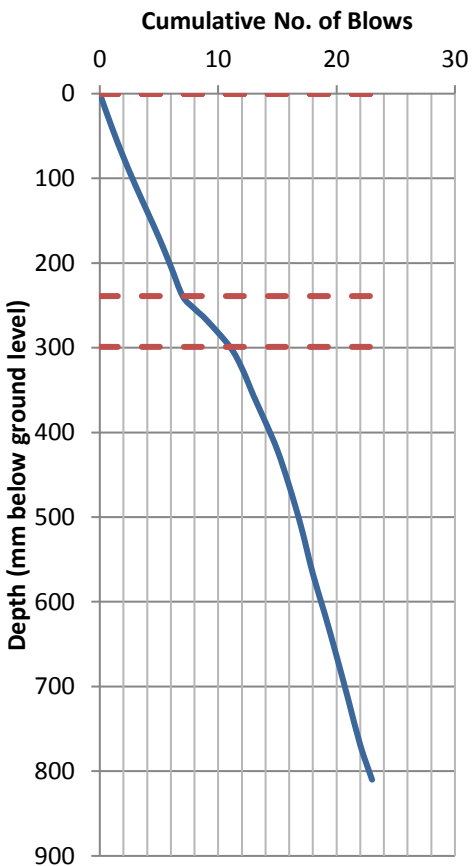
Site Name	Hillingdon	Starting Depth (mm bgl)	0.00
Job Number	14-0724.01	Surface Level (m AOD)	34.766
Test No.	DCP11	Easting	507756.974
Date of Test	25-Mar-15	Northing	184975.395

[illegible]

* CBR Interpretation based on the TRRL Road Note 8 equation: $\text{Log}_{10}(\text{CBR}) = 2.48 - [1.057 \times \text{Log}_{10}(\text{mm/blow})]$

TRL Dynamic Cone Penetrometer - Determination of CBR Value (%)*

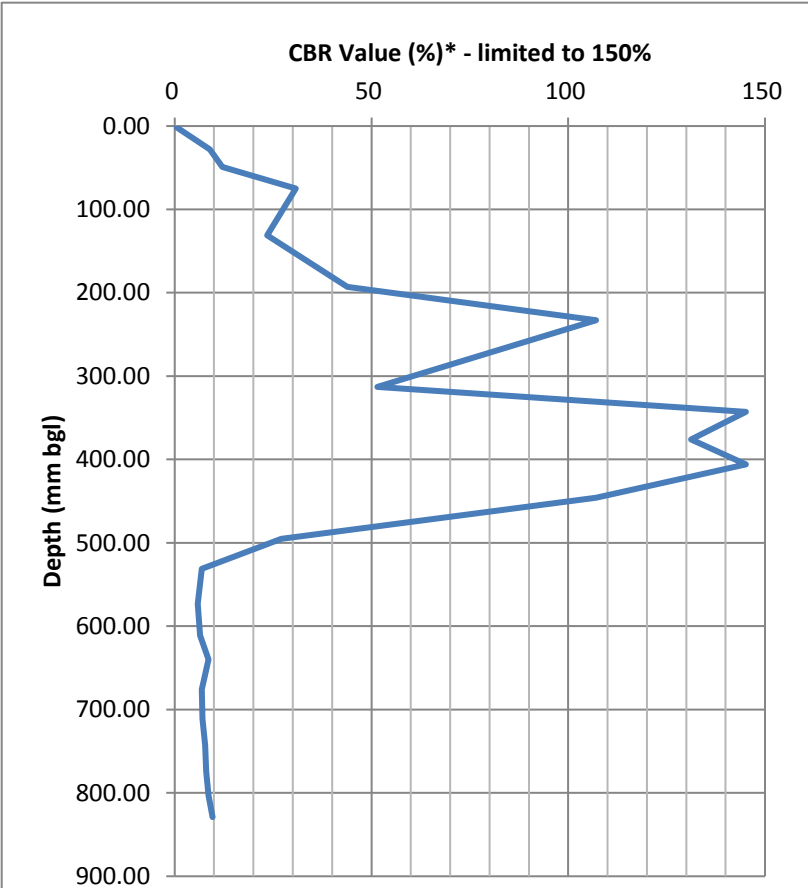
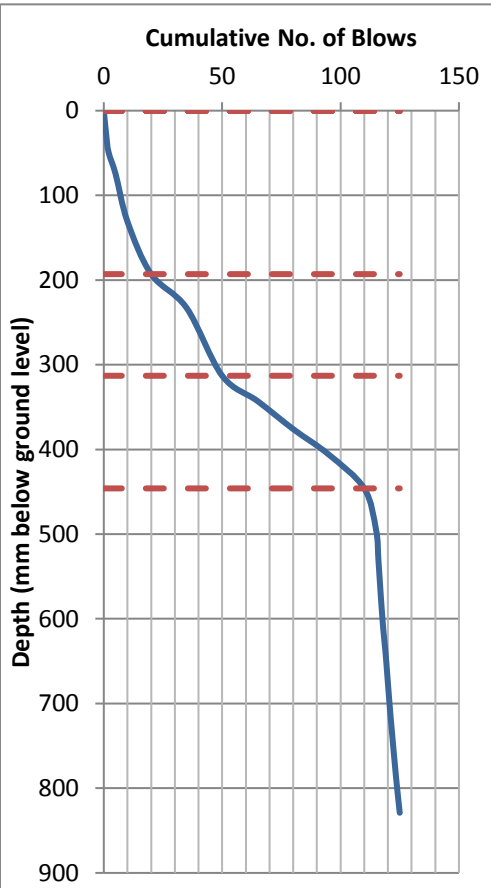
Site Name	Hillingdon	Starting Depth (mm bgl)	0.00
Job Number	14-0724.01	Surface Level (m AOD)	34.494
Test No.	DCP12	Easting	507795.217
Date of Test	25-Mar-15	Northing	184930.36

[illegible]

* CBR Interpretation based on the TRRL Road Note 8 equation: $\text{Log}_{10}(\text{CBR}) = 2.48 - [1.057 \times \text{Log}_{10}(\text{mm/blow})]$

TRL Dynamic Cone Penetrometer - Determination of CBR Value (%)*

Site Name	Hillingdon	Starting Depth (mm bgl)	0.00
Job Number	14-0724.01	Surface Level (m AOD)	35.183
Test No.	DCP15	Easting	507709.473
Date of Test	25-Mar-15	Northing	184899.754

[illegible]

* CBR Interpretation based on the TRRL Road Note 8 equation: $\text{Log}_{10}(\text{CBR}) = 2.48 - [1.057 \times \text{Log}_{10}(\text{mm/blow})]$





LABORATORY REPORT



4043

Contract Number: PSL15/1987

Client's Reference:

Report Date: 12 May 2015

Client Name: Delta Simons
3 Henley Office Park
Doddington Road
Lincoln
LN6 3QR

For the attention of: Simon Steele/Cerys Baldwin

Contract Title: Hillingdon

Date Received: 21/4/2015

Date Commenced: 21/4/2015

Date Completed: 12/5/2015

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

Page 1 of

SUMMARY OF LABORATORY SOIL DESCRIPTIONS




Hole Number	Sample Number	Sample Type	Depth m	Description of Sample
TP02			2.00	Brown slightly gravelly sandy silty CLAY.
TP08			2.50	Reddish brown CLAY.
TP09			1.20	Reddish brown CLAY.
TP13			2.50	Brown sandy CLAY.
TP15			2.55	Brown sandy CLAY.
CP01			2.50	Very stiff brown mottled grey very sandy CLAY.
CP01			4.50	Stiff brown sandy CLAY.
CP01			5.50	Brown very silty CLAY.
CP01			8.50	Brown mottled grey slightly sandy CLAY.
CP02			6.00	Very stiff brown mottled grey CLAY.
CP02			16.50	Brown slightly sandy CLAY.
CP02			18.00	Brown mottled grey sandy very silty CLAY.
CP03			2.50	Brown sandy CLAY.
CP04			2.25	Firm brown slightly gravelly slightly sandy CLAY.
CP04			4.00	Brown mottled grey CLAY.
CP04			9.00	Brown mottled grey slightly sandy CLAY.
CP05			3.50	Brown mottled red CLAY.
CP05			10.50	Stiff brown sandy very silty CLAY.
CP05			18.50	Brown very sandy CLAY.

 Professional Soils Laboratory	Compiled by	Date	Checked by	Date	Approved by	Date
		12/05/15		08/05/15		08/05/15
	HILLINGDON.				Contract No:	PSL15/1987
					Client Ref:	

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

[illegible]

Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
	12/05/15		08/05/15		08/05/15
HILLINGDON.				Contract No: PSL15/1987	
				Client Ref:	





SUMMARY OF SOIL CLASSIFICATION TESTS

(B.S. 1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Depth m	Moisture Content % Clause 3.2	Bulk Density Mg/m ³ Clause 7.2	Dry Density Mg/m ³ Clause 7.2	Particle Density Mg/m ³ Clause 8.2	Liquid Limit % Clause 4.3/4.4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	% Passing .425mm	Remarks
TP08			2.50	26				78	29	49	100	Very high plasticity CV.
TP09			1.20	24				80	32	48	100	Very high plasticity CV.
TP13			2.50	25				40	22	18	100	Intermediate plasticity CI.
TP15			2.55	24				56	25	31	100	High plasticity CH.
CP01			5.50	24				82	33	49	100	Very high plasticity CV.
CP01			8.50	25				52	24	28	100	High plasticity CH.
CP02			16.50	25				59	26	33	100	High plasticity CH.
CP02			18.00	26				56	27	29	100	High plasticity CH.
CP03			2.50	25				43	20	23	100	Intermediate plasticity CI.
CP04			4.00	27				78	32	46	100	Very high plasticity CV.
CP04			9.00	19				52	25	27	100	High plasticity CH.
CP05			3.50	26				68	27	41	100	High plasticity CH.
CP05			18.50	21				33	21	12	100	Low plasticity CL.
CP06			17.50	24				54	27	27	98	High plasticity CH.
CP07			7.00	21				58	25	33	100	High plasticity CH.
CP07			14.50	28				67	26	41	100	High plasticity CH.
CP09A			15.00	16				50	22	28	100	High plasticity CH.
CP09A			18.50	19				38	19	19	100	Intermediate plasticity CI.

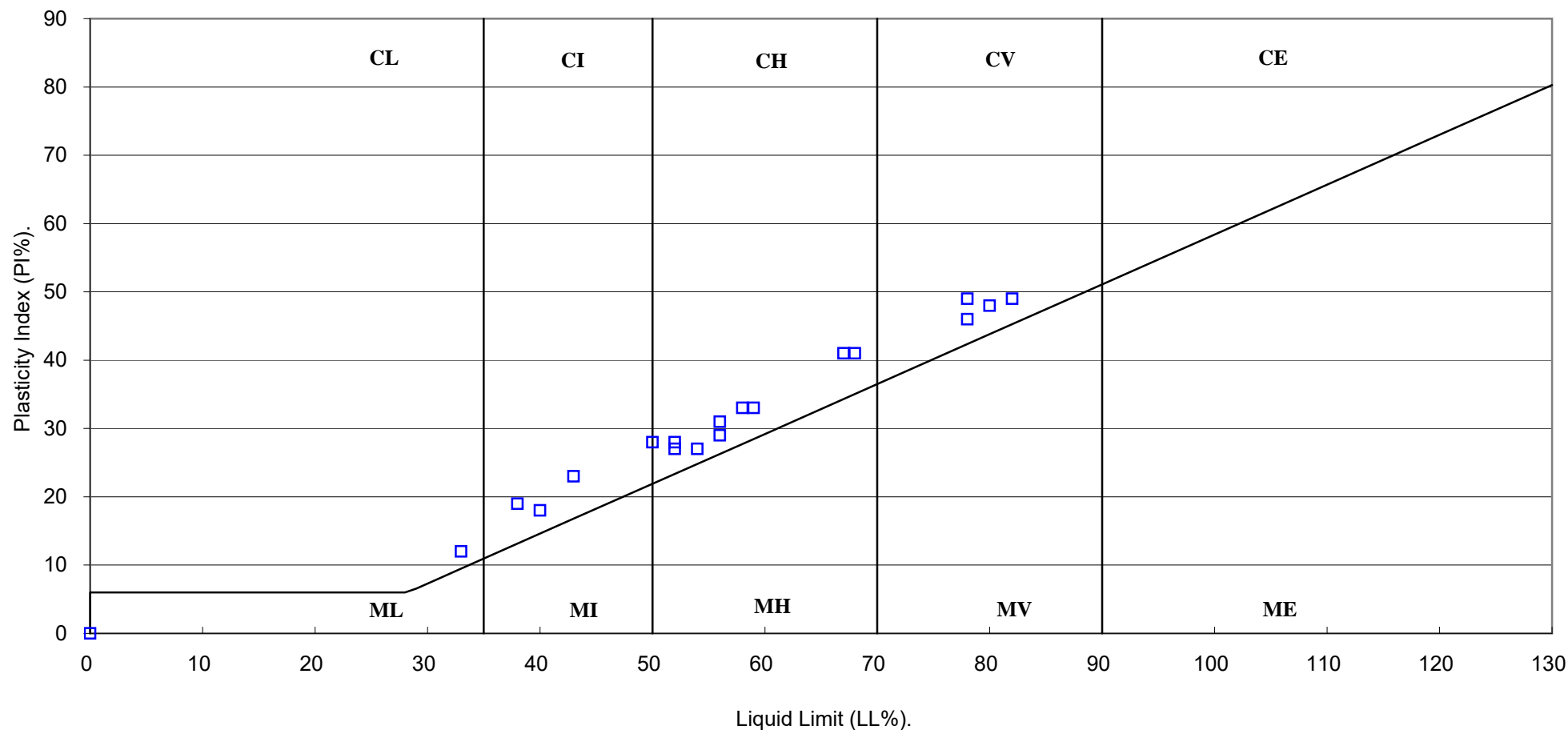
SYMBOLS : NP : Non Plastic

* : Liquid Limit and Plastic Limit Wet Sieved.

 Professional Soils Laboratory	Compiled by	Date	Checked by	Date	Approved by	Date
		08/05/15		08/05/15		08/05/15
	HILLINGDON.					Contract No: PSL15/1987
						Client Ref:

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.

(B.S.5930 : 1999)



PSL

Professional Soils Laboratory

Compiled by

[Signature]

Date

08/05/15

Checked by

[Signature]

Date

08/05/15

Approved by

[Signature]

Date

08/05/15

HILLINGDON.

Contract No:

PSL15/1987

Client Ref:

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

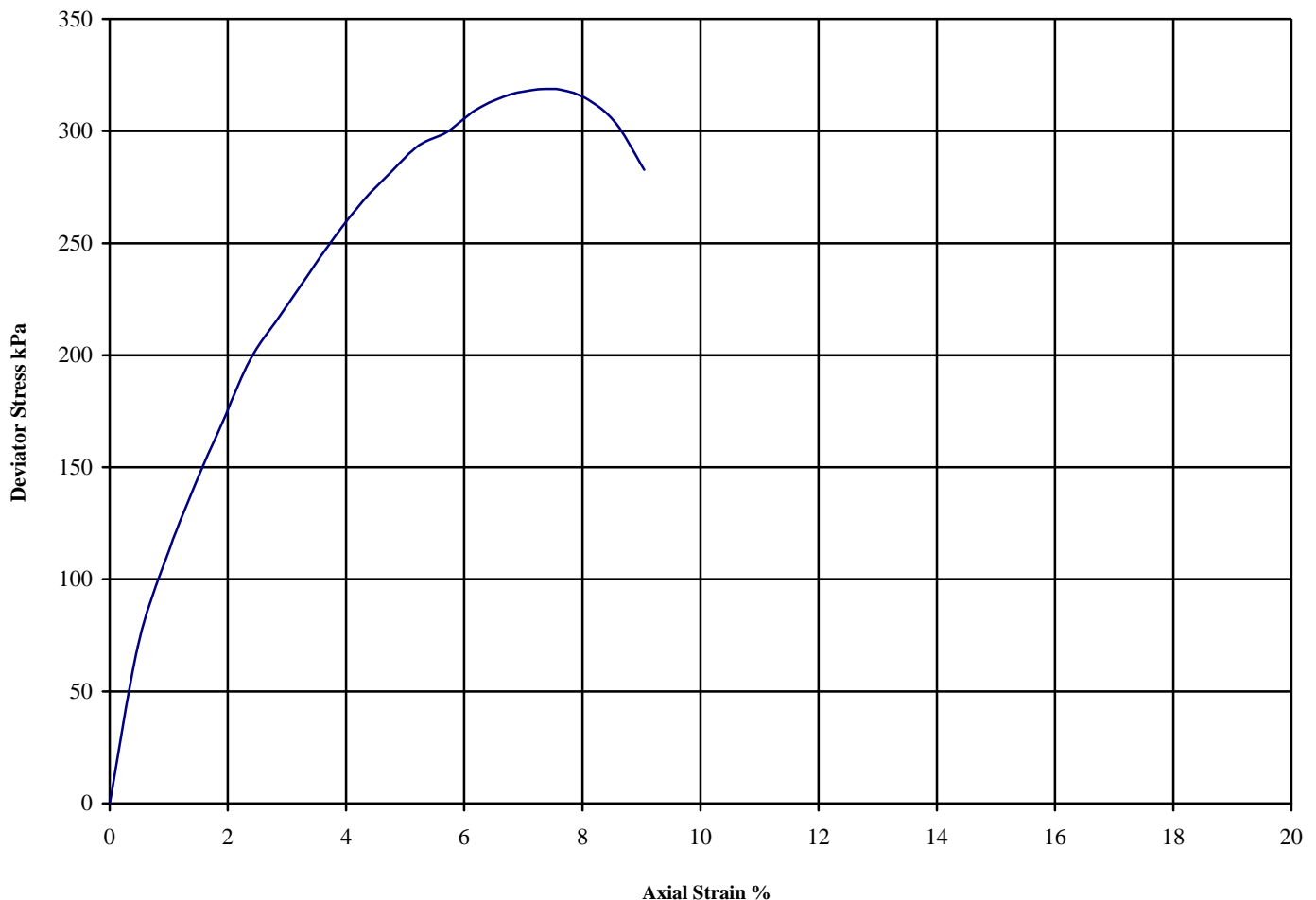
B.S. 1377 : Part 7 : Clause 8 : 1990



Hole Number: CP01

Depth (m): 2.50

Sample Number:

Sample Type: U



Diameter (mm):		102.0	Height (mm):		210.0	Test:	100 mm Single Stage.		Undisturbed			
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max.	Shear	Failure Strain (%)	Mode of Failure	Remarks			
					Deviator Stress (kPa)	Cu (kPa)			Sample taken from top of tube			
									Rate of strain = 1.4 %/min			
									Latex Membrane used 0.2 mm thickness,			
A	18	2.08	1.76	50	$(\theta_1-\theta_3)_f$	$\frac{1}{2}(\theta_1-\theta_3)_f$			Correction applied 0.36 kPa			
									See summary of soil descriptions.			
									Checked	Date	Approved	Date
										12/05/15		12/05/15
<div>PSL</div> <div>Professional Soils Laboratory</div>				HILLINGDON.					Contract No: PSL15/1987			

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

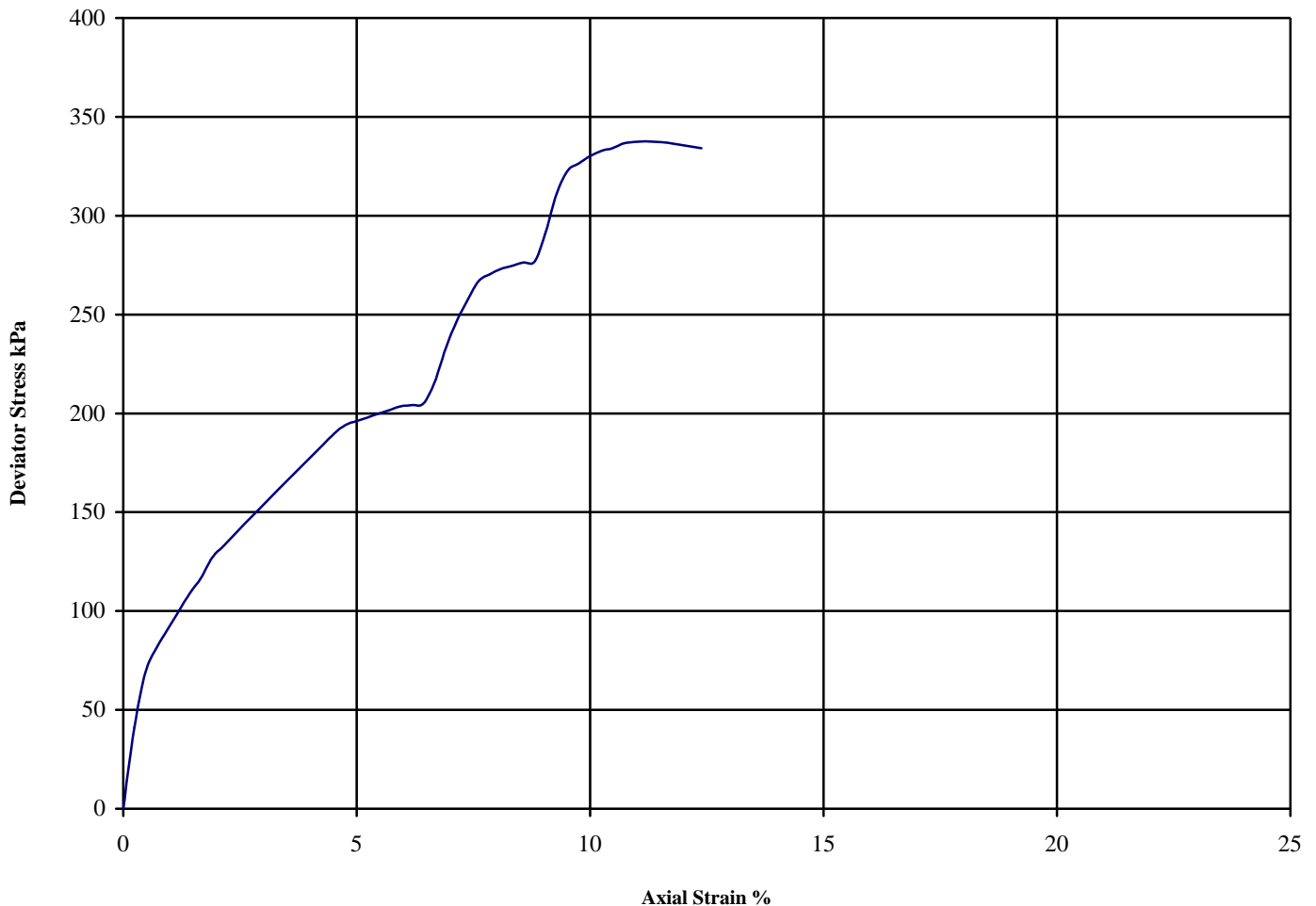
B.S. 1377 : Part 7 : Clause 9 : 1990



Hole Number: CP01

Depth (m): 4.50

Sample Number:

Sample Type: U



Diameter (mm):		102	Height (mm):		210	Test:	100mm Multistage						
Specimen	Moisture	Bulk	Dry	Cell	Corr. Max.	Shear	Failure	Mode	Remarks				
	Content	Density	Density	Pressure	Deviator	Strength	Strain	of	Sample taken from top of tube				
	(%)	(Mg/m3)	(Mg/m3)	(kPa)	Stress	Cu	(%)	Failure	Rate of strain = 1.4 %/min				
					(kPa)	(kPa)			Latex Membrane used 0.2 mm thickness				
				θ_3	$(\theta_1-\theta_3)_f$	$\frac{1}{2}(\theta_1-\theta_3)_f$			Membrane Correction applied (kPa)				
A	20	1.97	1.65	90	205	102	6.4		0.36 0.36 0.35				
				180	277	138	8.8		See summary of soil descriptions.				
				270	338	169	11.2	Brittle	Checked	Date	Approved	Date	
										08/05/15		08/05/15	



HILLINGDON.

Contract No:
PSL15/1987

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

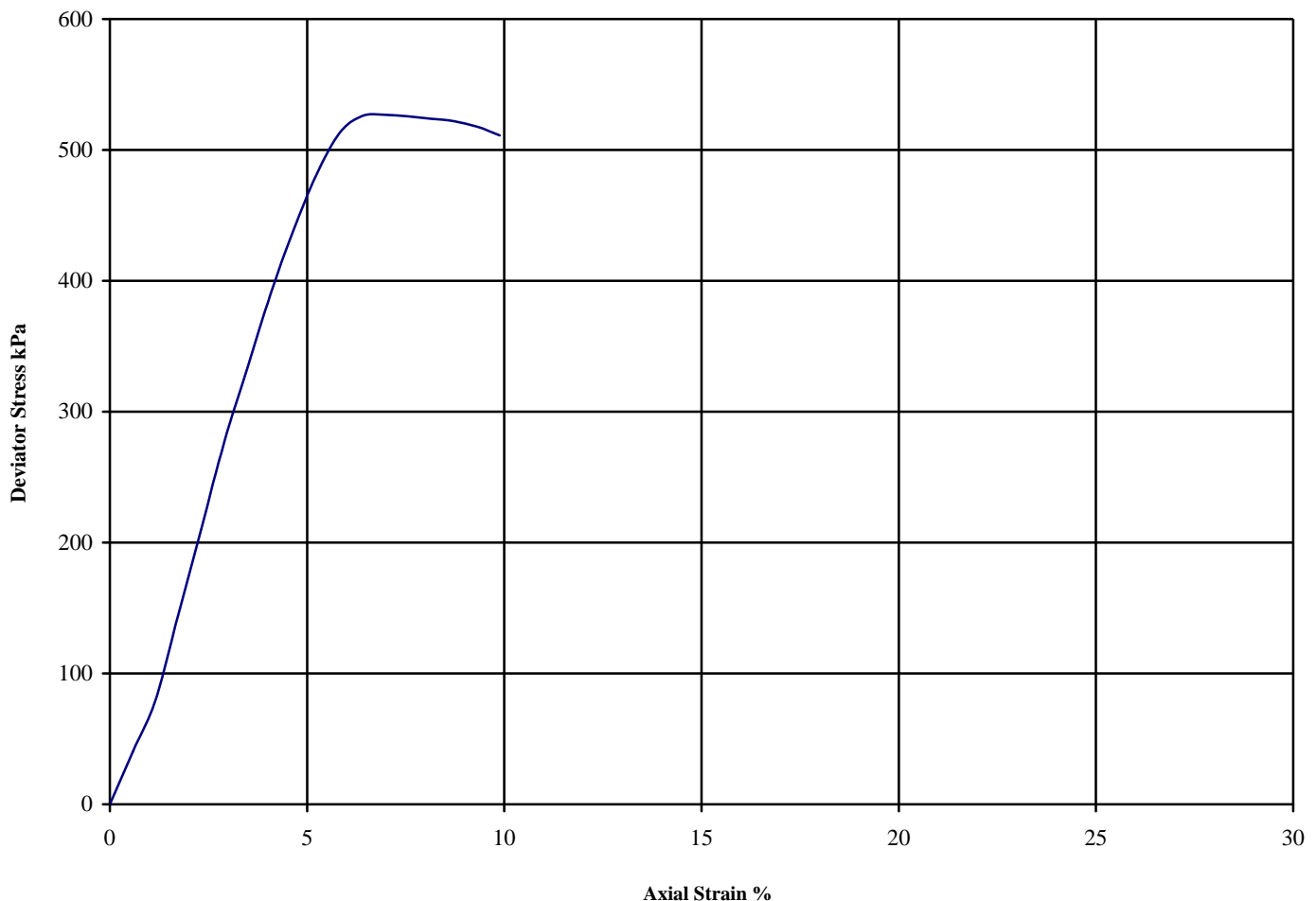
B.S. 1377 : Part 7 : Clause 8 : 1990



Hole Number: CP02

Depth (m): 6.00

Sample Number:

Sample Type: U



Diameter (mm):		102.0	Height (mm):		172.0	Test:	100 mm Single Stage.		Undisturbed			
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Remarks			
									Sample taken from top of tube			
									Rate of strain = 1.7 %/min			
									Latex Membrane used 0.2 mm thickness,			
									Correction applied 0.36 kPa			
A	16	2.14	1.85	120	527	263	7.0	Brittle	See summary of soil descriptions			
									Checked	Date	Approved	Date
										08/05/15		08/05/15
<div>PSL</div> <div>Professional Soils Laboratory</div>				HILLINGDON.					Contract No: PSL15/1987			

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

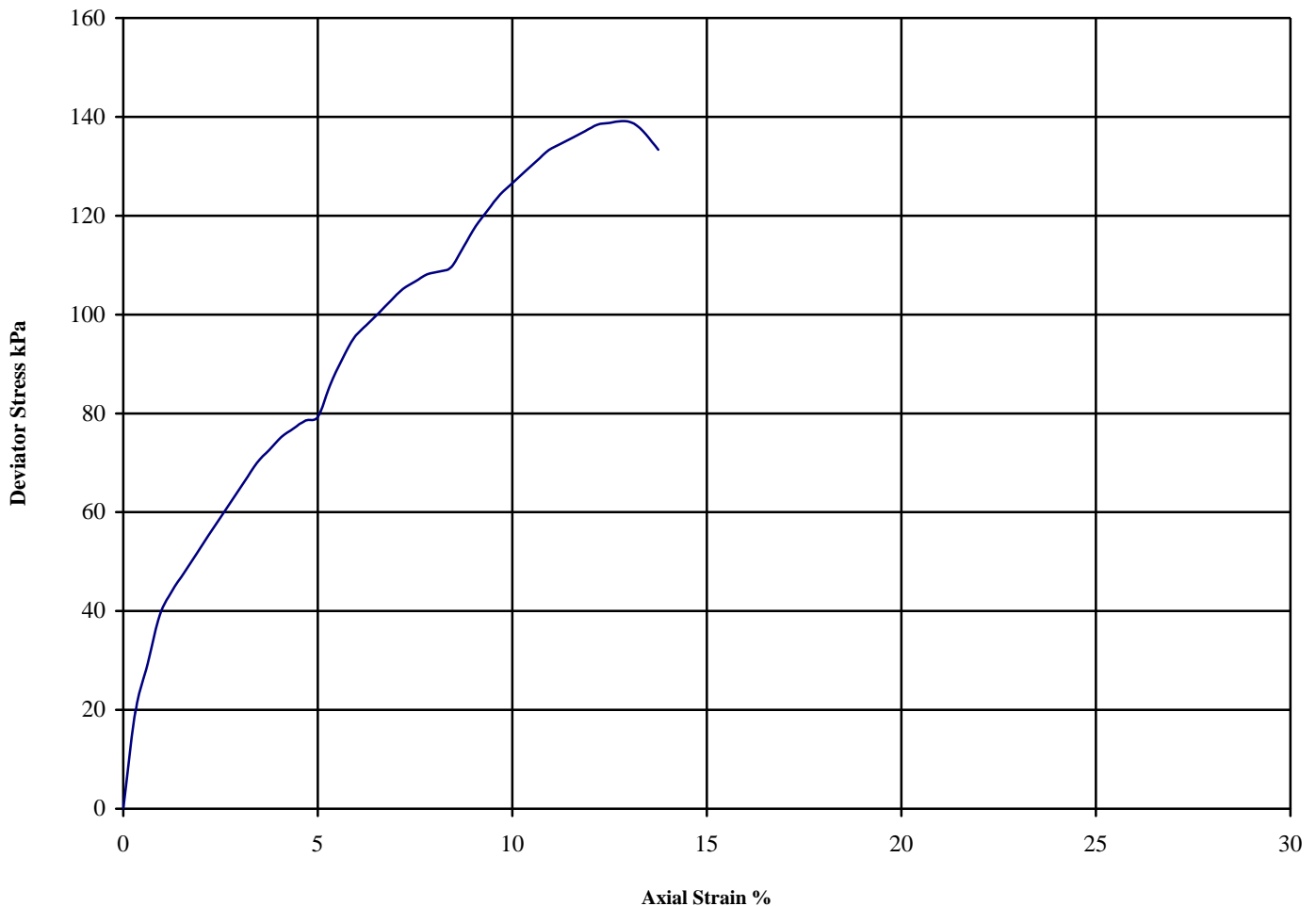
B.S. 1377 : Part 7 : Clause 9 : 1990



Hole Number: CP04

Depth (m): 2.25

Sample Number:

Sample Type: U



Diameter (mm):		102	Height (mm):		160	Test:	100mm Multistage						
Specimen	Moisture	Bulk	Dry	Cell	Corr. Max.	Shear	Failure	Mode	Remarks				
	Content	Density	Density	Pressure	Deviator	Strength	Strain	of	Sample taken from top of tube				
	(%)	(Mg/m3)	(Mg/m3)	(kPa)	Stress	Cu	(%)	Failure	Rate of strain = 1.8 %/min				
					(kPa)	(kPa)			Latex Membrane used 0.2 mm thickness				
				θ_3	$(\theta_1-\theta_3)_f$	$\frac{1}{2}(\theta_1-\theta_3)_f$			Membrane Correction applied (kPa)				
A	28	1.90	1.48	90	79	40	5.0		0.36 0.36 0.35				
				180	109	54	8.1		See summary of soil descriptions.				
				270	139	70	12.8	Plastic	Checked	Date	Approved	Date	
										08/05/15		08/05/15	



HILLINGDON.

Contract No:
PSL15/1987

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

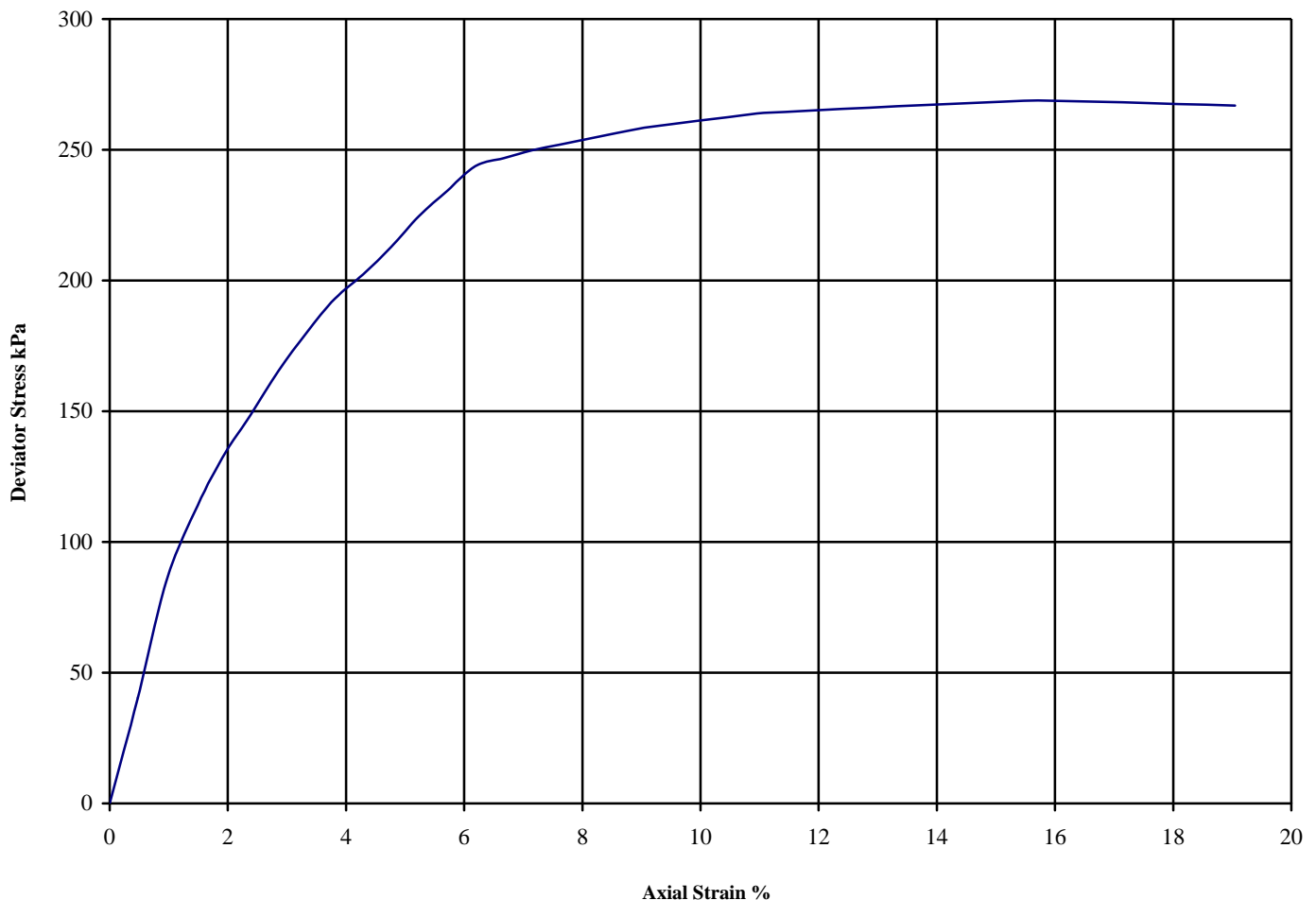
B.S. 1377 : Part7 : Clause 8 : 1990

Hole Number: CP05

Depth (m): 10.50

Sample Number:

Sample Type: U



Diameter (mm):		102.0	Height (mm):		210.0	Test:	100 mm Single Stage.		Undisturbed			
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Remarks			
									Sample taken from top of tube			
									Rate of strain = 1.9 %/min			
									Latex Membrane used 0.2 mm thickness, Correction applied 0.34 kPa			
A	24	2.16	1.75	210	269	134	15.7	Plastic	See summary of soil descriptions.			
									Checked	Date	Approved	Date
									<i>M. S.</i>	12/05/15	<i>M. S.</i>	12/05/15
<div>PSL Professional Soils Laboratory</div>				<div>HILLINGDON.</div>					<div>Contract No: PSL15/1987</div>			

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

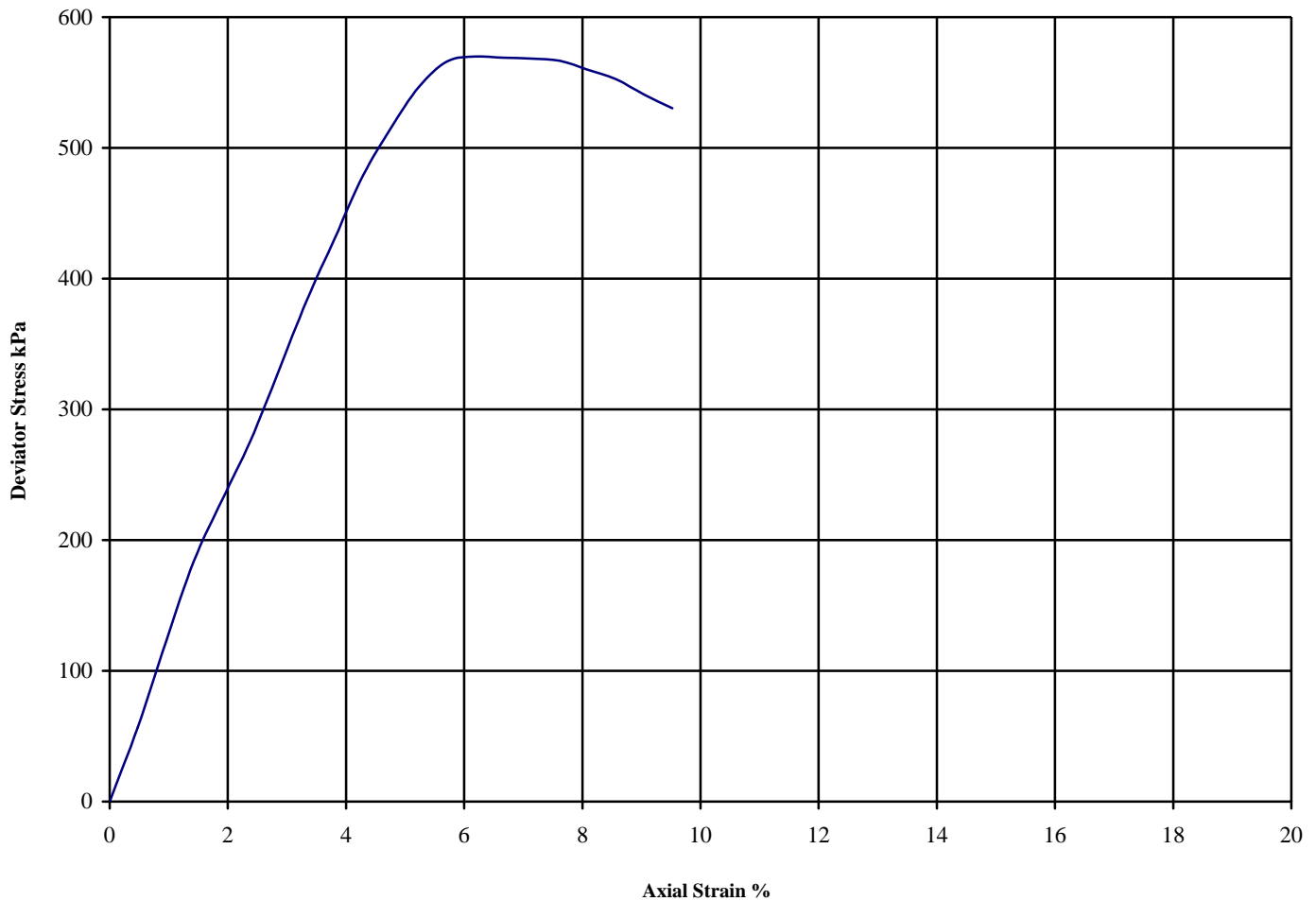
B.S. 1377 : Part7 : Clause 8 : 1990



Hole Number: CP06

Depth (m): 13.50

Sample Number:

Sample Type: U



Diameter (mm):		102.0	Height (mm):		210.0	Test:	100 mm Single Stage.		Undisturbed			
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max.	Shear	Failure Strain (%)	Mode of Failure	Remarks			
					Deviator Stress (kPa)	Cu (kPa)			Sample taken from top of tube			
									Rate of strain = 1.9 %/min			
					θ_3	$(\theta_1-\theta_3)_f$			$\frac{1}{2}(\theta_1-\theta_3)_f$	Latex Membrane used 0.2 mm thickness, Correction applied 0.36 kPa		
A	21	2.10	1.73	270	570	285	6.2	Brittle	See summary of soil descriptions.			
									Checked	Date	Approved	Date
										12/05/15		12/05/15
<div>PSL Professional Soils Laboratory</div>				HILLINGDON.					Contract No: PSL15/1987			

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

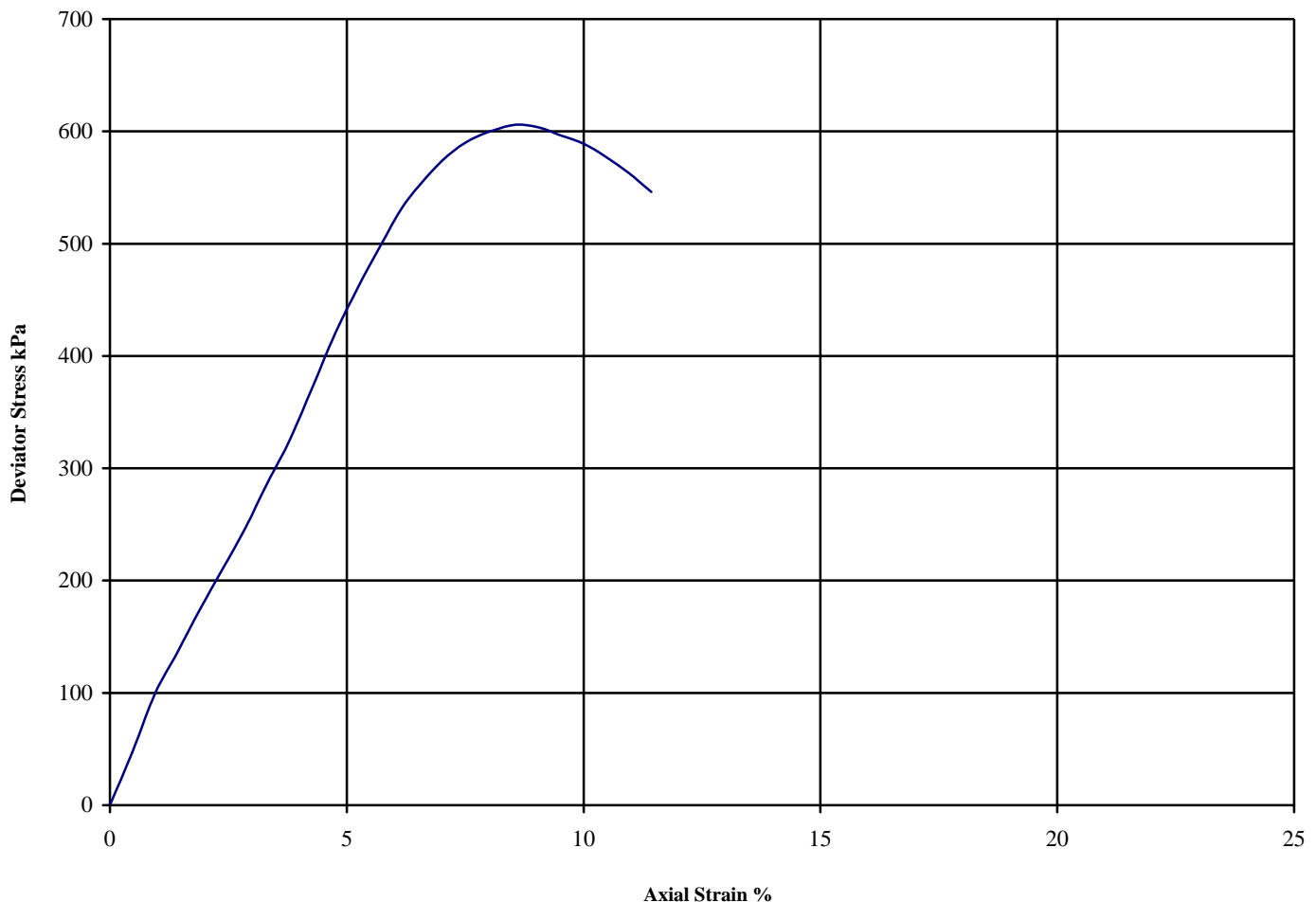
B.S. 1377 : Part7 : Clause 8 : 1990



Hole Number: CP08

Depth (m): 10.50

Sample Number:

Sample Type: U



Diameter (mm):		102.0	Height (mm):		210.0	Test:	100 mm Single Stage.		Undisturbed			
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Remarks			
									Sample taken from top of tube			
									Rate of strain = 1.9 %/min			
									Latex Membrane used 0.2 mm thickness, Correction applied 0.36 kPa			
A	15	2.12	1.84	210	606	303	8.6	Brittle	See summary of soil descriptions.			
									Checked	Date	Approved	Date
										08/05/15		08/05/15
<div>PSL Professional Soils Laboratory</div>				<div>HILLINGDON.</div>					<div>Contract No: PSL15/1987</div>			

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

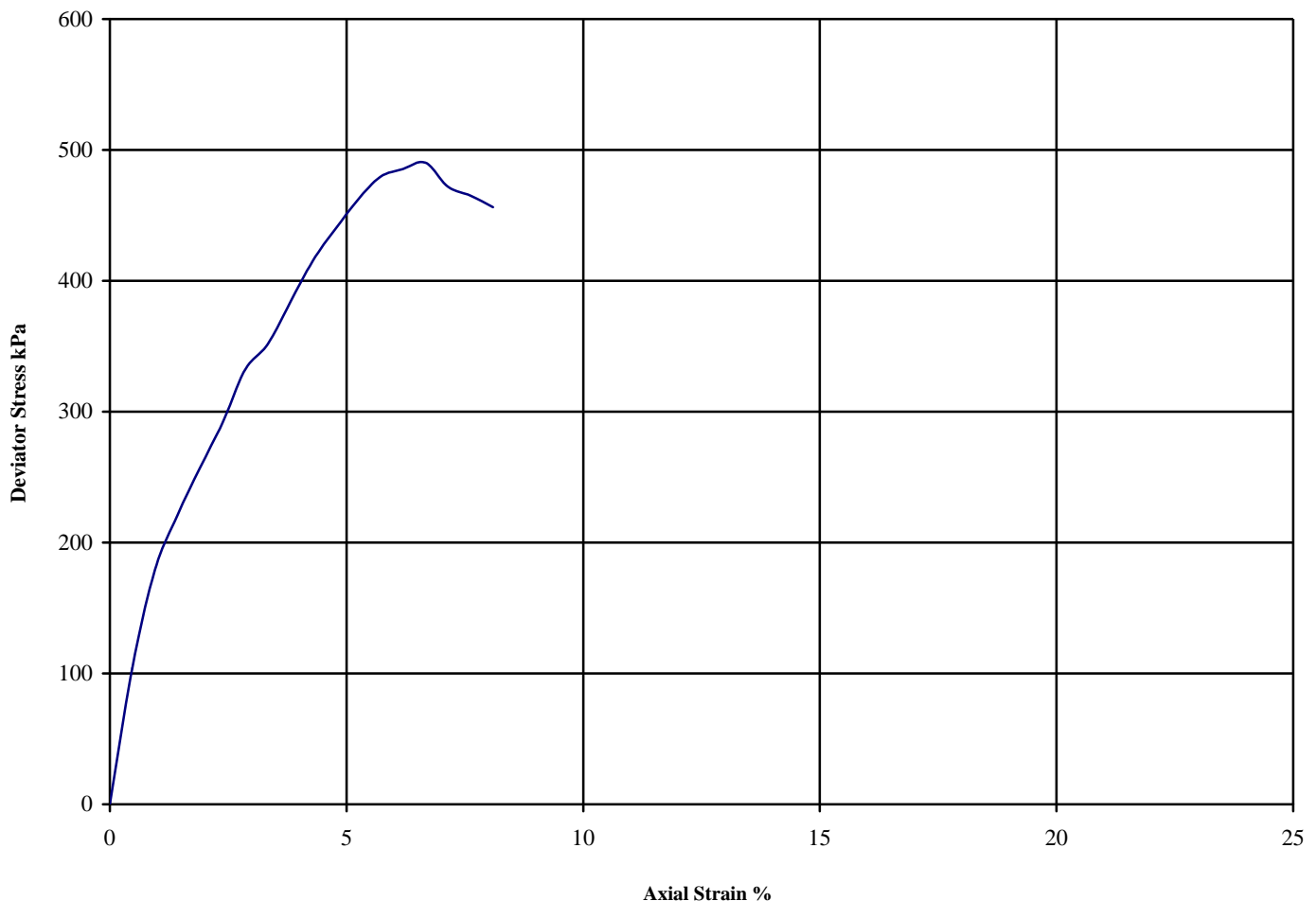
B.S. 1377 : Part 7 : Clause 8 : 1990



Hole Number: CP08

Depth (m): 13.50

Sample Number:

Sample Type: U



Diameter (mm):		102.0	Height (mm):		210.0	Test:	100 mm Single Stage.		Undisturbed			
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max.	Shear	Failure Strain (%)	Mode of Failure	Remarks			
					Deviator Stress (kPa)	Cu (kPa)			Sample taken from top of tube			
					θ_3	$(\theta_1-\theta_3)_f$			$\frac{1}{2}(\theta_1-\theta_3)_f$	Rate of strain = 1.9 %/min		
										Latex Membrane used 0.2 mm thickness, Correction applied 0.36 kPa		
A	17	2.13	1.83	260	490	245	6.7	Brittle	See summary of soil descriptions.			
									Checked	Date	Approved	Date
										08/05/15		08/05/15
<div>PSL Professional Soils Laboratory</div>				HILLINGDON.					Contract No: PSL15/1987			

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

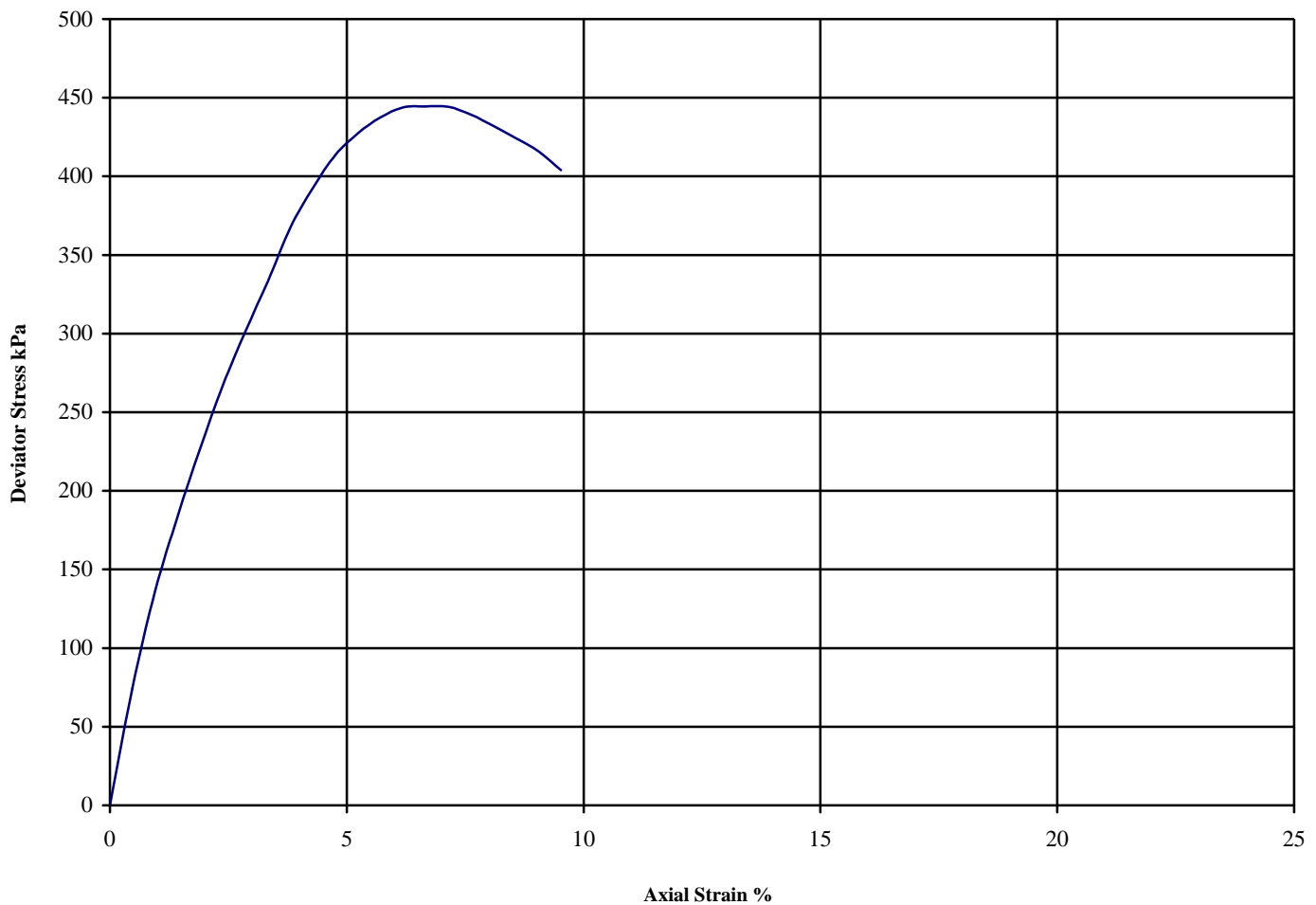
B.S. 1377 : Part 7 : Clause 8 : 1990



Hole Number: CP09A

Depth (m): 12.50

Sample Number:

Sample Type: U



Diameter (mm):		102.0	Height (mm):		210.0	Test:	100 mm Single Stage.		Undisturbed			
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max.	Shear	Failure Strain (%)	Mode of Failure	Remarks			
					Deviator Stress (kPa)	Cu (kPa)			Sample taken from top of tube			
					θ_3	$(\theta_1-\theta_3)_f$			$\frac{1}{2}(\theta_1-\theta_3)_f$	Rate of strain = 1.9 %/min		
										Latex Membrane used 0.2 mm thickness, Correction applied 0.36 kPa		
A	19	2.11	1.77	250	444	222	6.7	Brittle	See summary of soil descriptions.			
									Checked	Date	Approved	Date
										08/05/15		08/05/15
<div>PSL Professional Soils Laboratory</div>				HILLINGDON.					Contract No: PSL15/1987			

Undrained Shear Strength in Triaxial Compression

without measurement of Pore Pressure

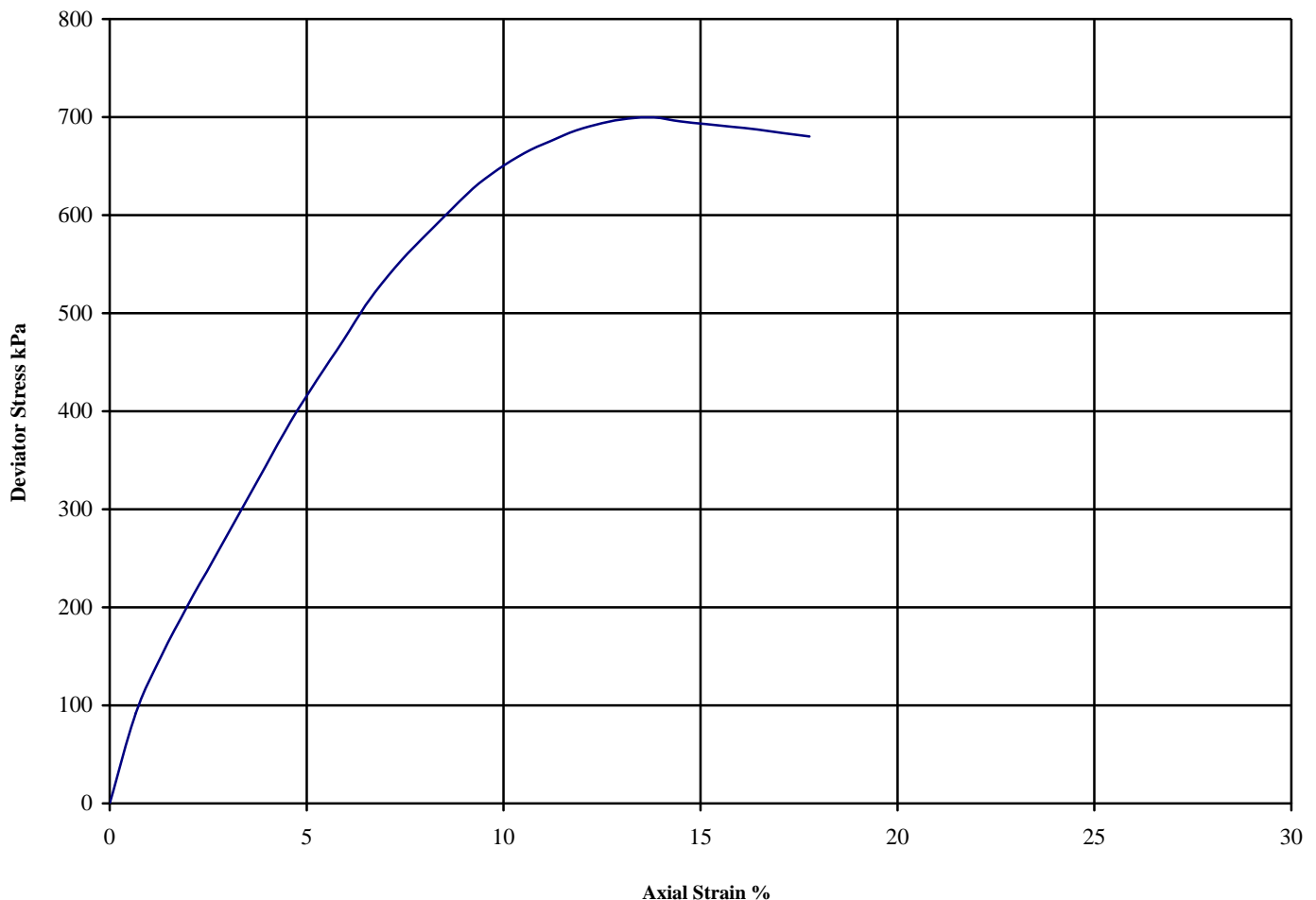
B.S. 1377 : Part 7 : Clause 8 : 1990



Hole Number: CP09A

Depth (m): 15.50

Sample Number:

Sample Type: U






Diameter (mm):		102.0	Height (mm):		152.0	Test:	100 mm Single Stage.		Undisturbed			
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa)	Corr. Max. Deviator Stress (kPa)	Shear Strength Cu (kPa)	Failure Strain (%)	Mode of Failure	Remarks			
									Sample taken from top of tube			
									Rate of strain = 2.6 %/min			
									Latex Membrane used 0.2 mm thickness, Correction applied 0.35 kPa			
A	15	1.97	1.71	310	700	350	13.8	Brittle	See summary of soil descriptions.			
									Checked	Date	Approved	Date
										08/05/15		08/05/15
<div>PSL Professional Soils Laboratory</div>				<div>HILLINGDON.</div>					<div>Contract No: PSL15/1987</div>			

SUMMARY OF LABORATORY HAND VANE TESTS

[illegible]

Professional Soils Laboratory

Compiled by	Date	Checked by	Date	Approved by	Date
	08/05/15		08/05/15		08/05/15
<div style="text-align: center;"> HILLINGDON. </div>					Contract No: PSL15/1987
					Client Ref:





Final Report

Report Number: 15-07419 Issue-1

Initial Date of Issue: 08-Apr-2015

Client: Delta Simons

Client Address: 3 Henley Office Park
Doddington Road
Lincoln
Lincolnshire
LN6 3QR

Contact(s): Cerys Baldwin
Simon Steele

Project: Hillingdon

Quotation No.: **Date Received:** 01-Apr-2015

Order No.: DS24131(T) **Date Instructed:** 31-Mar-2015

No. of Samples: 28

Turnaround: (Wkdays) 5 **Results Due Date:** 08-Apr-2015

Date Approved: 08-Apr-2015

Approved By:

Details: Darrell Hall, Laboratory Director

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:		15-07419	15-07419	15-07419	15-07419	15-07419	15-07419	15-07419	15-07419	15-07419
Quotation No.:	Chemtest Sample ID.:		122892	122893	122894	122895	122896	122897	122898	122899	
Order No.: DS24131(T)	Client Sample Ref.:										
	Client Sample ID.:		TP03	TP07	TP08	TP10	TP11	TP12	TP13	TP15	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.25	1.00	0.20	0.20	1.10	0.20	0.50	0.85	
	Bottom Depth(m):										
	Date Sampled:		25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	
Determinand	Accred.	SOP	Units	LOD							
ACM Type	U	2192			-		-	-		-	
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	
Moisture	N	2030	%	0.02	25	18	23	22	20	21	18
Soil Colour	N				brown	brown	brown	brown	brown	brown	brown
Other Material	N				none	none	roots	stones	none	stones	stones
Soil Texture	N				clay	clay	clay	clay	clay	clay	clay
pH	M	2010			6.5	7.9	6.5	7.6	7.9	7.6	8.1
Boron (Hot Water Soluble)	M	2120	mg/kg	0.4	2.0	0.90	0.94	0.73	< 0.40	0.96	0.72
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.01		0.033			0.20		0.25
Total Sulphur	M	2175	%	0.01		0.030			0.030		0.17
Cyanide (Total)	M	2300	mg/kg	0.5	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Sulphate (Acid Soluble)	M	2430	%	0.01		0.041			0.056		0.15
Arsenic	M	2450	mg/kg	1	12	23	14	19	14	17	15
Cadmium	M	2450	mg/kg	0.1	0.31	0.36	0.24	0.41	< 0.10	0.27	0.20
Chromium	M	2450	mg/kg	1	43	89	42	49	45	52	51
Copper	M	2450	mg/kg	0.5	26	33	26	25	52	32	18
Mercury	M	2450	mg/kg	0.1	0.44	< 0.10	0.21	0.45	< 0.10	0.23	< 0.10
Nickel	M	2450	mg/kg	0.5	18	69	16	20	34	21	41
Lead	M	2450	mg/kg	0.5	97	56	150	90	23	100	55
Selenium	M	2450	mg/kg	0.2	0.51	1.5	0.41	0.33	0.22	0.59	0.36
Zinc	M	2450	mg/kg	0.5	91	86	76	95	61	88	58
Aliphatic TPH >C5-C6	N	2675	mg/kg	0.1	< 0.10		< 0.10	< 0.10			< 0.10
Aliphatic TPH >C6-C8	N	2675	mg/kg	0.1	< 0.10		< 0.10	< 0.10			< 0.10
Aliphatic TPH >C8-C10	M	2675	mg/kg	0.1	< 0.10		< 0.10	< 0.10			< 0.10
Aliphatic TPH >C10-C12	M	2675	mg/kg	1	< 1.0		< 1.0	< 1.0			< 1.0
Aliphatic TPH >C12-C16	M	2675	mg/kg	1	< 1.0		< 1.0	< 1.0			< 1.0
Aliphatic TPH >C16-C21	M	2675	mg/kg	1	< 1.0		< 1.0	< 1.0			< 1.0
Aliphatic TPH >C21-C35	M	2675	mg/kg	1	< 1.0		< 1.0	< 1.0			< 1.0
Aliphatic TPH >C35-C44	M	2675	mg/kg	1	< 1.0		< 1.0	< 1.0			< 1.0
Total Aliphatic Hydrocarbons	M	2675	mg/kg	5	< 5.0		< 5.0	< 5.0			< 5.0
Aromatic TPH >C5-C7	N	2675	mg/kg	0.1	< 0.10		< 0.10	< 0.10			< 0.10
Aromatic TPH >C7-C8	N	2675	mg/kg	0.1	< 0.10		< 0.10	< 0.10			< 0.10

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:		15-07419	15-07419	15-07419	15-07419	15-07419	15-07419	15-07419	15-07419	15-07419
Quotation No.:	Chemtest Sample ID.:		122892	122893	122894	122895	122896	122897	122898	122899	
Order No.: DS24131(T)	Client Sample Ref.:										
	Client Sample ID.:		TP03	TP07	TP08	TP10	TP11	TP12	TP13	TP15	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		0.25	1.00	0.20	0.20	1.10	0.20	0.50	0.85	
	Bottom Depth(m):										
	Date Sampled:		25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	25-Mar-15	
Determinand	Accred.	SOP	Units	LOD							
Aromatic TPH >C8-C10	M	2675	mg/kg	0.1	< 0.10		< 0.10	< 0.10		< 0.10	< 0.10
Aromatic TPH >C10-C12	M	2675	mg/kg	1	< 1.0		< 1.0	< 1.0		< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2675	mg/kg	1	< 1.0		< 1.0	< 1.0		< 1.0	< 1.0
Aromatic TPH >C16-C21	M	2675	mg/kg	1	< 1.0		< 1.0	< 1.0		< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2675	mg/kg	1	< 1.0		< 1.0	< 1.0		< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2675	mg/kg	1	< 1.0		< 1.0	< 1.0		< 1.0	< 1.0
Total Aromatic Hydrocarbons	M	2675	mg/kg	5	< 5.0		< 5.0	< 5.0		< 5.0	< 5.0
Total Petroleum Hydrocarbons	M	2675	mg/kg	10	< 10		< 10	< 10		< 10	< 10
Naphthalene	M	2700	mg/kg	0.1	0.14	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.1	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.16
Acenaphthene	M	2700	mg/kg	0.1	0.16	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.11
Fluorene	M	2700	mg/kg	0.1	0.11	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.16
Phenanthrene	M	2700	mg/kg	0.1	0.67	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	1.4
Anthracene	M	2700	mg/kg	0.1	0.18	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.26
Fluoranthene	M	2700	mg/kg	0.1	1.5	< 0.10	0.44	0.44	< 0.10	0.78	1.5
Pyrene	M	2700	mg/kg	0.1	1.4	< 0.10	0.40	0.30	< 0.10	0.67	1.8
Benzo[a]anthracene	M	2700	mg/kg	0.1	0.55	< 0.10	< 0.10	< 0.10	< 0.10	0.23	0.47
Chrysene	M	2700	mg/kg	0.1	0.89	< 0.10	< 0.10	< 0.10	< 0.10	0.31	0.61
Benzo[b]fluoranthene	M	2700	mg/kg	0.1	1.0	< 0.10	< 0.10	< 0.10	< 0.10	0.46	0.42
Benzo[k]fluoranthene	M	2700	mg/kg	0.1	0.74	< 0.10	< 0.10	< 0.10	< 0.10	0.31	0.16
Benzo[a]pyrene	M	2700	mg/kg	0.1	0.71	< 0.10	< 0.10	< 0.10	< 0.10	0.33	0.45
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.1	0.52	< 0.10	< 0.10	< 0.10	< 0.10	0.23	0.25
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.1	0.68	< 0.10	< 0.10	< 0.10	< 0.10	0.24	0.38
Total Of 16 PAH's	M	2700	mg/kg	2	9.4	< 2.0	< 2.0	< 2.0	< 2.0	3.6	8.1

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVCOs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at our Coventry laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container

Sample Retention and Disposal

All soil samples will be retained for a period of 60 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.co.uk



Final Report

Report Number: 15-07806 Issue-1

Initial Date of Issue: 20-Apr-2015

Client: Delta Simons

Client Address: 3 Henley Office Park
Doddington Road
Lincoln
Lincolnshire
LN6 3QR

Contact(s): Cerys Baldwin
Simon Steele

Project: Hillingdon

Quotation No.: **Date Received:** 08-Apr-2015

Order No.: DS24131(T) **Date Instructed:** 14-Apr-2015

No. of Samples: 33

Turnaround: (Wkdays) 5 **Results Due Date:** 20-Apr-2015

Date Approved: 20-Apr-2015

Approved By:

Details: Keith Jones, Technical Manager

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:		15-07806	15-07806	15-07806	15-07806	15-07806	15-07806	15-07806	15-07806	15-07806	15-07806	15-07806
Quotation No.:	Chemtest Sample ID.:		124768	124770	124774	124776	124779	124781	124782	124786	124790	124792	
Order No.: DS24131(T)	Client Sample Ref.:												
	Client Sample ID.:		CP01	CP01	CP04	CP04	CP07	CP06	CP06	CP06	CP01	CP02	
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):		4.50	18.00	2.40	5.70	5.50	0.50	1.00	19.50	0.50	0.50	
	Bottom Depth(m):												
	Date Sampled:		30-Mar-15	31-Mar-15	01-Apr-15	01-Apr-15	30-Mar-15	01-Apr-15	01-Apr-15	02-Apr-15	30-Mar-15	31-Mar-15	
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192							-	-		-	-
Asbestos Identification	U	2192	%	0.001					No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.02	13	14	19	19	15	20	17	18	13
Soil Colour	N				brown	brown	brown	brown	brown	brown	brown	grey	brown
Other Material	N				none	none	none	none	none	none	none	stones brick	stones
Soil Texture	N				clay	clay	clay	clay	clay	clay	clay	sand	sand
pH	M	2010			9.2	8.9	8.6	8.9	8.9	8.3	8.4	9.1	10.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.4						1.0	1.0		3.4
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.01	0.042	0.015	0.040	0.057	< 0.010		0.074		
Total Sulphur	M	2175	%	0.01	0.030	0.020	0.030	0.21	0.030		0.15		
Cyanide (Total)	M	2300	mg/kg	0.5						< 0.50	< 0.50		< 0.50
Sulphate (Acid Soluble)	M	2430	%	0.01	0.046	< 0.010	0.038	0.020	< 0.010		0.025		
Arsenic	M	2450	mg/kg	1						33	30		22
Cadmium	M	2450	mg/kg	0.1						0.58	0.23		0.45
Chromium	M	2450	mg/kg	1						85	79		51
Copper	M	2450	mg/kg	0.5						39	31		19
Mercury	M	2450	mg/kg	0.1						< 0.10	< 0.10		< 0.10
Nickel	M	2450	mg/kg	0.5						76	51		29
Lead	M	2450	mg/kg	0.5						62	37		580
Selenium	M	2450	mg/kg	0.2						1.0	< 0.20		< 0.20
Zinc	M	2450	mg/kg	0.5						150	100		140
Aliphatic TPH >C5-C6	N	2675	mg/kg	0.1						< 0.10	< 0.10		B < 0.10
Aliphatic TPH >C6-C8	N	2675	mg/kg	0.1						< 0.10	< 0.10		B < 0.10
Aliphatic TPH >C8-C10	M	2675	mg/kg	0.1						< 0.10	< 0.10		B < 0.10
Aliphatic TPH >C10-C12	M	2675	mg/kg	1						< 1.0	< 1.0		B < 1.0
Aliphatic TPH >C12-C16	M	2675	mg/kg	1						< 1.0	< 1.0		B < 1.0
Aliphatic TPH >C16-C21	M	2675	mg/kg	1						< 1.0	< 1.0		B < 1.0
Aliphatic TPH >C21-C35	M	2675	mg/kg	1						< 1.0	< 1.0		B 97
Aliphatic TPH >C35-C44	M	2675	mg/kg	1						< 1.0	< 1.0		B 7.3
Total Aliphatic Hydrocarbons	M	2675	mg/kg	5						< 5.0	< 5.0		B 100
Aromatic TPH >C5-C7	N	2675	mg/kg	0.1						< 0.10	< 0.10		B < 0.10
Aromatic TPH >C7-C8	N	2675	mg/kg	0.1						< 0.10	< 0.10		B < 0.10

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:		15-07806	15-07806	15-07806	15-07806	15-07806	15-07806	15-07806	15-07806	15-07806	15-07806
Quotation No.:	Chemtest Sample ID.:		124768	124770	124774	124776	124779	124781	124782	124786	124790	124792
Order No.: DS24131(T)	Client Sample Ref.:											
	Client Sample ID.:		CP01	CP01	CP04	CP04	CP07	CP06	CP06	CP06	CP01	CP02
	Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):		4.50	18.00	2.40	5.70	5.50	0.50	1.00	19.50	0.50	0.50
	Bottom Depth(m):											
	Date Sampled:		30-Mar-15	31-Mar-15	01-Apr-15	01-Apr-15	30-Mar-15	01-Apr-15	01-Apr-15	02-Apr-15	30-Mar-15	31-Mar-15
Determinand	Accred.	SOP	Units	LOD								
Aromatic TPH >C8-C10	M	2675	mg/kg	0.1					< 0.10	< 0.10	B < 0.10	< 0.10
Aromatic TPH >C10-C12	M	2675	mg/kg	1					< 1.0	< 1.0	B < 1.0	< 1.0
Aromatic TPH >C12-C16	M	2675	mg/kg	1					< 1.0	< 1.0	B < 1.0	< 1.0
Aromatic TPH >C16-C21	M	2675	mg/kg	1					< 1.0	< 1.0	B 2.9	4.0
Aromatic TPH >C21-C35	M	2675	mg/kg	1					< 1.0	< 1.0	B 15	10
Aromatic TPH >C35-C44	N	2675	mg/kg	1					< 1.0	< 1.0	B < 1.0	< 1.0
Total Aromatic Hydrocarbons	M	2675	mg/kg	5					< 5.0	< 5.0	B 18	15
Total Petroleum Hydrocarbons	M	2675	mg/kg	10					< 10	< 10	B 120	61
Naphthalene	M	2700	mg/kg	0.1					< 0.10	< 0.10	0.36	1.6
Acenaphthylene	M	2700	mg/kg	0.1					< 0.10	< 0.10	< 0.10	0.19
Acenaphthene	M	2700	mg/kg	0.1					< 0.10	< 0.10	< 0.10	0.31
Fluorene	M	2700	mg/kg	0.1					< 0.10	< 0.10	< 0.10	0.53
Phenanthrene	M	2700	mg/kg	0.1					< 0.10	< 0.10	0.94	2.6
Anthracene	M	2700	mg/kg	0.1					< 0.10	< 0.10	0.23	0.67
Fluoranthene	M	2700	mg/kg	0.1					< 0.10	< 0.10	1.8	2.7
Pyrene	M	2700	mg/kg	0.1					< 0.10	< 0.10	1.9	2.6
Benzo[a]anthracene	M	2700	mg/kg	0.1					< 0.10	< 0.10	0.49	1.8
Chrysene	M	2700	mg/kg	0.1					< 0.10	< 0.10	0.26	1.9
Benzo[b]fluoranthene	M	2700	mg/kg	0.1					< 0.10	< 0.10	< 0.10	1.3
Benzo[k]fluoranthene	M	2700	mg/kg	0.1					< 0.10	< 0.10	< 0.10	0.57
Benzo[a]pyrene	M	2700	mg/kg	0.1					< 0.10	< 0.10	< 0.10	1.2
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.1					< 0.10	< 0.10	< 0.10	1.0
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.1					< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.1					< 0.10	< 0.10	< 0.10	0.79
Total Of 16 PAH's	M	2700	mg/kg	2					< 2.0	< 2.0	6.0	20

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:				15-07806	15-07806	15-07806
Quotation No.:	Chemtest Sample ID.:				124794	124796	124799
Order No.: DS24131(T)	Client Sample Ref.:						
	Client Sample ID.:				CP04	CP07	CP04
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.25	0.20	0.50
	Bottom Depth(m):						
	Date Sampled:				01-Apr-15	31-Mar-15	01-Apr-15
Determinand	Accred.	SOP	Units	LOD			
ACM Type	U	2192					
Asbestos Identification	U	2192	%	0.001			
Moisture	N	2030	%	0.02	21	19	21
Soil Colour	N				brown	brown	brown
Other Material	N				none	none	none
Soil Texture	N				clay	clay	clay
pH	M	2010			8.1	6.0	8.1
Boron (Hot Water Soluble)	M	2120	mg/kg	0.4	0.59	0.53	0.81
Sulphate (2:1 Water Soluble) as SO ₄	M	2120	g/l	0.01			
Total Sulphur	M	2175	%	0.01			
Cyanide (Total)	M	2300	mg/kg	0.5	< 0.50		
Sulphate (Acid Soluble)	M	2430	%	0.01			
Arsenic	M	2450	mg/kg	1	12	11	29
Cadmium	M	2450	mg/kg	0.1	0.22	< 0.10	0.64
Chromium	M	2450	mg/kg	1	51	40	72
Copper	M	2450	mg/kg	0.5	19	14	31
Mercury	M	2450	mg/kg	0.1	< 0.10	< 0.10	< 0.10
Nickel	M	2450	mg/kg	0.5	19	14	68
Lead	M	2450	mg/kg	0.5	67	44	58
Selenium	M	2450	mg/kg	0.2	0.67	0.56	1.0
Zinc	M	2450	mg/kg	0.5	110	68	130
Aliphatic TPH >C5-C6	N	2675	mg/kg	0.1		< 0.10	
Aliphatic TPH >C6-C8	N	2675	mg/kg	0.1		< 0.10	
Aliphatic TPH >C8-C10	M	2675	mg/kg	0.1		< 0.10	
Aliphatic TPH >C10-C12	M	2675	mg/kg	1		< 1.0	
Aliphatic TPH >C12-C16	M	2675	mg/kg	1		< 1.0	
Aliphatic TPH >C16-C21	M	2675	mg/kg	1		< 1.0	
Aliphatic TPH >C21-C35	M	2675	mg/kg	1		< 1.0	
Aliphatic TPH >C35-C44	M	2675	mg/kg	1		< 1.0	
Total Aliphatic Hydrocarbons	M	2675	mg/kg	5		< 5.0	
Aromatic TPH >C5-C7	N	2675	mg/kg	0.1		< 0.10	
Aromatic TPH >C7-C8	N	2675	mg/kg	0.1		< 0.10	

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:				15-07806	15-07806	15-07806
Quotation No.:	Chemtest Sample ID.:				124794	124796	124799
Order No.: DS24131(T)	Client Sample Ref.:						
	Client Sample ID.:				CP04	CP07	CP04
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.25	0.20	0.50
	Bottom Depth(m):						
	Date Sampled:				01-Apr-15	31-Mar-15	01-Apr-15
Determinand	Accred.	SOP	Units	LOD			
Aromatic TPH >C8-C10	M	2675	mg/kg	0.1		< 0.10	
Aromatic TPH >C10-C12	M	2675	mg/kg	1		< 1.0	
Aromatic TPH >C12-C16	M	2675	mg/kg	1		< 1.0	
Aromatic TPH >C16-C21	M	2675	mg/kg	1		< 1.0	
Aromatic TPH >C21-C35	M	2675	mg/kg	1		< 1.0	
Aromatic TPH >C35-C44	N	2675	mg/kg	1		< 1.0	
Total Aromatic Hydrocarbons	M	2675	mg/kg	5		< 5.0	
Total Petroleum Hydrocarbons	M	2675	mg/kg	10		< 10	
Naphthalene	M	2700	mg/kg	0.1	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.1	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.1	< 0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.1	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.1	< 0.10	< 0.10	< 0.10
Anthracene	M	2700	mg/kg	0.1	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2700	mg/kg	0.1	0.55	0.19	< 0.10
Pyrene	M	2700	mg/kg	0.1	0.47	0.13	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.1	0.22	< 0.10	< 0.10
Chrysene	M	2700	mg/kg	0.1	0.50	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.1	0.38	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.1	0.45	< 0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.1	0.66	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.1	0.19	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.1	0.15	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.1	0.20	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2	3.8	< 2.0	< 2.0

Deviations

In accordance with UKAS Policy on Deviating Samples TPS 63. Chemtest have a procedure to ensure 'upon receipt of each sample a competent laboratory shall assess whether the sample is suitable with regard to the requested test(s)'. This policy and the respective holding times applied, can be supplied upon request. The reason a sample is declared as deviating is detailed below. Where applicable the analysis remains UKAS/MCERTs accredited but the results may be compromised.

Chemtest Sample ID:	Sample Ref:	Sample ID:	Sampled Date:	Containers Received:	Deviation Code(s):
124790		CP01	30-Mar-2015	Amber Glass 250ml	B
124790		CP01	30-Mar-2015	Amber Glass 60ml	B
124790		CP01	30-Mar-2015	Plastic Tub 500g	B

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVCOs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at our Coventry laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container

Sample Retention and Disposal

All soil samples will be retained for a period of 60 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.co.uk



Final Report

Report Number: 15-08536 Issue-1

Initial Date of Issue: 21-Apr-2015

Client: Delta Simons

Client Address: 3 Henley Office Park
Doddington Road
Lincoln
Lincolnshire
LN6 3QR

Contact(s): Cerys Baldwin
Simon Steele

Project: Hillingdon

Quotation No.: **Date Received:** 15-Apr-2015

Order No.: DS24131(T) **Date Instructed:** 17-Apr-2015

No. of Samples: 19

Turnaround: (Wkdays) 3 **Results Due Date:** 21-Apr-2015

Date Approved: 21-Apr-2015

Approved By:

KT Jones

Details: Keith Jones, Technical Manager

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:					15-08536	15-08536	15-08536	15-08536	15-08536	15-08536	15-08536	15-08536	15-08536
Quotation No.:	Chemtest Sample ID.:					128112	128114	128115	128116	128117	128118	128121	128122	128123
Order No.: DS24131(T)	Client Sample Ref.:													
	Client Sample ID.:					CP05	CP05	CP05	CP04	CP05	CP09	CP09	CP09	CP03
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.4	4.50	10.00	16.50	17.00	0.30	8.50	19.00	0.30
	Bottom Depth(m):													
	Date Sampled:					07-Apr-15	07-Apr-15	07-Apr-15	07-Apr-15	07-Apr-15	08-Apr-15	08-Apr-15	09-Apr-15	08-Apr-15
	Date Sampled:					07-Apr-15	07-Apr-15	07-Apr-15	07-Apr-15	07-Apr-15	08-Apr-15	08-Apr-15	09-Apr-15	08-Apr-15
Determinand	Accred.	SOP	Units	LOD										
ACM Type	U	2192			-						-			-
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected						No Asbestos Detected			No Asbestos Detected
Moisture	N	2030	%	0.02	11	14	16	19	19	18	18	16	14	16
Soil Colour	N				brown	brown	brown	brown	brown	brown	brown	brown	brown	brown
Other Material	N				stones	none	none	none	none	stones	none	none	stones	none
Soil Texture	N				sand	clay	clay	clay	sand	clay	clay	clay	clay	clay
pH	M	2010			11.6	9.0	9.0	8.8	9.0	8.4	8.8	8.6	8.9	8.7
Boron (Hot Water Soluble)	M	2120	mg/kg	0.4	0.61					1.3			1.5	
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.01		< 0.010	< 0.010	< 0.010	< 0.010		< 0.010	0.067		< 0.010
Total Sulphur	M	2175	%	0.01		0.050	0.11	0.060	0.050		0.050	0.38		0.050
Cyanide (Total)	M	2300	mg/kg	0.5	< 0.50					< 0.50			< 0.50	
Sulphate (Acid Soluble)	M	2430	%	0.01		< 0.010	< 0.010	< 0.010	< 0.010		0.013	0.055		0.031
Arsenic	M	2450	mg/kg	1	25					9.7			16	
Cadmium	M	2450	mg/kg	0.1	2.1					0.20			0.21	
Chromium	M	2450	mg/kg	1	42					33			43	
Copper	M	2450	mg/kg	0.5	41					24			31	
Mercury	M	2450	mg/kg	0.1	0.11					< 0.10			0.22	
Nickel	M	2450	mg/kg	0.5	20					40			34	
Lead	M	2450	mg/kg	0.5	180					78			870	
Selenium	M	2450	mg/kg	0.2	< 0.20					0.49			< 0.20	
Zinc	M	2450	mg/kg	0.5	260					140			170	
Aliphatic TPH >C5-C6	N	2675	mg/kg	0.1	< 0.10					< 0.10				
Aliphatic TPH >C6-C8	N	2675	mg/kg	0.1	< 0.10					< 0.10				
Aliphatic TPH >C8-C10	M	2675	mg/kg	0.1	< 0.10					< 0.10				
Aliphatic TPH >C10-C12	M	2675	mg/kg	1	< 1.0					< 1.0				
Aliphatic TPH >C12-C16	M	2675	mg/kg	1	66					< 1.0				
Aliphatic TPH >C16-C21	M	2675	mg/kg	1	170					< 1.0				
Aliphatic TPH >C21-C35	M	2675	mg/kg	1	70					< 1.0				
Aliphatic TPH >C35-C44	M	2675	mg/kg	1	6.0					< 1.0				
Total Aliphatic Hydrocarbons	M	2675	mg/kg	5	310					< 5.0				
Aromatic TPH >C5-C7	N	2675	mg/kg	0.1	< 0.10					< 0.10				
Aromatic TPH >C7-C8	N	2675	mg/kg	0.1	< 0.10					< 0.10				

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:				15-08536	15-08536	15-08536	15-08536	15-08536	15-08536	15-08536	15-08536	15-08536	15-08536
Quotation No.:	Chemtest Sample ID.:				128112	128114	128115	128116	128117	128118	128121	128122	128123	128125
Order No.: DS24131(T)	Client Sample Ref.:													
	Client Sample ID.:				CP05	CP05	CP05	CP04	CP05	CP09	CP09	CP09	CP03	CP03
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.4	4.50	10.00	16.50	17.00	0.30	8.50	19.00	0.30	9.00
	Bottom Depth(m):													
	Date Sampled:				07-Apr-15	07-Apr-15	07-Apr-15	07-Apr-15	07-Apr-15	08-Apr-15	08-Apr-15	09-Apr-15	08-Apr-15	09-Apr-15
Determinand	Accred.	SOP	Units	LOD										
Aromatic TPH >C8-C10	M	2675	mg/kg	0.1	< 0.10					< 0.10				
Aromatic TPH >C10-C12	M	2675	mg/kg	1	< 1.0					< 1.0				
Aromatic TPH >C12-C16	M	2675	mg/kg	1	8.7					< 1.0				
Aromatic TPH >C16-C21	M	2675	mg/kg	1	35					10				
Aromatic TPH >C21-C35	M	2675	mg/kg	1	12					7.6				
Aromatic TPH >C35-C44	N	2675	mg/kg	1	< 1.0					< 1.0				
Total Aromatic Hydrocarbons	M	2675	mg/kg	5	56					18				
Total Petroleum Hydrocarbons	M	2675	mg/kg	10	370					18				
Naphthalene	M	2700	mg/kg	0.1	0.11					< 0.10			< 0.10	
Acenaphthylene	M	2700	mg/kg	0.1	0.13					< 0.10			< 0.10	
Acenaphthene	M	2700	mg/kg	0.1	0.17					< 0.10			< 0.10	
Fluorene	M	2700	mg/kg	0.1	0.24					< 0.10			< 0.10	
Phenanthrene	M	2700	mg/kg	0.1	0.80					0.75			1.9	
Anthracene	M	2700	mg/kg	0.1	0.26					0.21			0.52	
Fluoranthene	M	2700	mg/kg	0.1	0.84					1.1			2.2	
Pyrene	M	2700	mg/kg	0.1	0.59					1.0			2.1	
Benzo[a]anthracene	M	2700	mg/kg	0.1	< 0.10					0.40			0.74	
Chrysene	M	2700	mg/kg	0.1	< 0.10					0.78			1.2	
Benzo[b]fluoranthene	M	2700	mg/kg	0.1	< 0.10					0.51			1.0	
Benzo[k]fluoranthene	M	2700	mg/kg	0.1	< 0.10					0.23			0.52	
Benzo[a]pyrene	M	2700	mg/kg	0.1	< 0.10					0.64			0.88	
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.1	< 0.10					0.26			0.58	
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.1	< 0.10					0.18			0.30	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.1	< 0.10					0.52			0.65	
Total Of 16 PAH's	M	2700	mg/kg	2	3.1					6.6			13	

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:				15-08536	15-08536	15-08536
Quotation No.:	Chemtest Sample ID.:				128126	128128	128129
Order No.: DS24131(T)	Client Sample Ref.:						
	Client Sample ID.:				CP08	CP08	CP08
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.50	4.00	9.00
	Bottom Depth(m):						
	Date Sampled:				09-Apr-15	09-Apr-15	10-Apr-15
Determinand	Accred.	SOP	Units	LOD			
ACM Type	U	2192			-		
Asbestos Identification	U	2192	%	0.001	No Asbestos Detected		
Moisture	N	2030	%	0.02	18	17	15
Soil Colour	N				brown	brown	brown
Other Material	N				none	none	none
Soil Texture	N				clay	clay	clay
pH	M	2010			8.2	8.7	8.7
Boron (Hot Water Soluble)	M	2120	mg/kg	0.4	0.64		
Sulphate (2:1 Water Soluble) as SO ₄	M	2120	g/l	0.01		< 0.010	< 0.010
Total Sulphur	M	2175	%	0.01		0.050	0.040
Cyanide (Total)	M	2300	mg/kg	0.5	< 0.50		
Sulphate (Acid Soluble)	M	2430	%	0.01		0.010	< 0.010
Arsenic	M	2450	mg/kg	1	14		
Cadmium	M	2450	mg/kg	0.1	0.13		
Chromium	M	2450	mg/kg	1	53		
Copper	M	2450	mg/kg	0.5	21		
Mercury	M	2450	mg/kg	0.1	< 0.10		
Nickel	M	2450	mg/kg	0.5	52		
Lead	M	2450	mg/kg	0.5	70		
Selenium	M	2450	mg/kg	0.2	< 0.20		
Zinc	M	2450	mg/kg	0.5	90		
Aliphatic TPH >C5-C6	N	2675	mg/kg	0.1			
Aliphatic TPH >C6-C8	N	2675	mg/kg	0.1			
Aliphatic TPH >C8-C10	M	2675	mg/kg	0.1			
Aliphatic TPH >C10-C12	M	2675	mg/kg	1			
Aliphatic TPH >C12-C16	M	2675	mg/kg	1			
Aliphatic TPH >C16-C21	M	2675	mg/kg	1			
Aliphatic TPH >C21-C35	M	2675	mg/kg	1			
Aliphatic TPH >C35-C44	M	2675	mg/kg	1			
Total Aliphatic Hydrocarbons	M	2675	mg/kg	5			
Aromatic TPH >C5-C7	N	2675	mg/kg	0.1			
Aromatic TPH >C7-C8	N	2675	mg/kg	0.1			

Results Summary - Soil

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:				15-08536	15-08536	15-08536
Quotation No.:	Chemtest Sample ID.:				128126	128128	128129
Order No.: DS24131(T)	Client Sample Ref.:						
	Client Sample ID.:				CP08	CP08	CP08
	Sample Type:				SOIL	SOIL	SOIL
	Top Depth (m):				0.50	4.00	9.00
	Bottom Depth(m):						
	Date Sampled:				09-Apr-15	09-Apr-15	10-Apr-15
Determinand	Accred.	SOP	Units	LOD			
Aromatic TPH >C8-C10	M	2675	mg/kg	0.1			
Aromatic TPH >C10-C12	M	2675	mg/kg	1			
Aromatic TPH >C12-C16	M	2675	mg/kg	1			
Aromatic TPH >C16-C21	M	2675	mg/kg	1			
Aromatic TPH >C21-C35	M	2675	mg/kg	1			
Aromatic TPH >C35-C44	N	2675	mg/kg	1			
Total Aromatic Hydrocarbons	M	2675	mg/kg	5			
Total Petroleum Hydrocarbons	M	2675	mg/kg	10			
Naphthalene	M	2700	mg/kg	0.1	< 0.10		
Acenaphthylene	M	2700	mg/kg	0.1	< 0.10		
Acenaphthene	M	2700	mg/kg	0.1	< 0.10		
Fluorene	M	2700	mg/kg	0.1	< 0.10		
Phenanthrene	M	2700	mg/kg	0.1	< 0.10		
Anthracene	M	2700	mg/kg	0.1	< 0.10		
Fluoranthene	M	2700	mg/kg	0.1	0.21		
Pyrene	M	2700	mg/kg	0.1	0.24		
Benzo[a]anthracene	M	2700	mg/kg	0.1	< 0.10		
Chrysene	M	2700	mg/kg	0.1	< 0.10		
Benzo[b]fluoranthene	M	2700	mg/kg	0.1	< 0.10		
Benzo[k]fluoranthene	M	2700	mg/kg	0.1	< 0.10		
Benzo[a]pyrene	M	2700	mg/kg	0.1	< 0.10		
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.1	< 0.10		
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.1	< 0.10		
Benzo[g,h,i]perylene	M	2700	mg/kg	0.1	< 0.10		
Total Of 16 PAH's	M	2700	mg/kg	2	< 2.0		

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVCOs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at our Coventry laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container

Sample Retention and Disposal

All soil samples will be retained for a period of 60 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.co.uk





Final Report

Report Number: 15-08511 Issue-1

Initial Date of Issue: 21-Apr-2015

Client: Delta Simons

Client Address: 3 Henley Office Park
Doddington Road
Lincoln
Lincolnshire
LN6 3QR

Contact(s): Cerys Baldwin
Simon Steele

Project: Hillingdon

Quotation No.: **Date Received:** 15-Apr-2015

Order No.: DS24131(T) **Date Instructed:** 15-Apr-2015

No. of Samples: 8

Turnaround: (Wkdays) 5 **Results Due Date:** 21-Apr-2015

Date Approved: 21-Apr-2015

Approved By:

Details: Darrell Hall, Laboratory Director

Results Summary - Water

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:				15-08511	15-08511	15-08511	15-08511	15-08511	15-08511	15-08511	15-08511
Quotation No.:	Chemtest Sample ID.:				127974	127975	127976	127977	127978	127979	127980	127981
Order No.: DS24131(T)	Client Sample Ref.:											
	Client Sample ID.:				CP01	CP02	CP04	CP05	CP06	CP07	CP08	CP09
	Sample Type:				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	Top Depth (m):											
	Bottom Depth(m):											
	Date Sampled:				13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15
Determinand	Accred.	SOP	Units	LOD								
pH	U	1010			8.2	8.3	8.3	8.2	8.3	8.2	8.2	8.1
Sulphate	U	1220	mg/l	1	480	1200	450	650	120	86	300	420
Arsenic (Dissolved)	U	1450	µg/l	1	16	4.5	1.6	1.5	1.4	1.1	2.2	4.0
Boron (Dissolved)	U	1450	µg/l	20	650	170	160	380	160	170	350	690
Cadmium (Dissolved)	U	1450	µg/l	0.08	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080	< 0.080
Chromium (Dissolved)	U	1450	µg/l	1	3.2	< 1.0	< 1.0	4.4	< 1.0	4.0	3.8	7.8
Copper (Dissolved)	U	1450	µg/l	1	2.5	2.1	1.2	< 1.0	< 1.0	< 1.0	2.7	6.3
Mercury (Dissolved)	U	1450	µg/l	0.5	0.57	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Nickel (Dissolved)	U	1450	µg/l	1	6.5	4.0	3.6	2.3	2.8	4.4	1.4	6.1
Lead (Dissolved)	U	1450	µg/l	1	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Selenium (Dissolved)	U	1450	µg/l	1	7.6	5.4	3.0	20	3.1	4.3	8.7	12
Zinc (Dissolved)	U	1450	µg/l	1	19	24	25	24	13	7.1	8.9	16
Aliphatic TPH >C5-C6	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C6-C8	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C8-C10	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C10-C12	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C12-C16	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C16-C21	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C21-C35	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aliphatic TPH >C35-C44	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aliphatic Hydrocarbons	N	1675	µg/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Aromatic TPH >C5-C7	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C7-C8	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C8-C10	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C10-C12	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C12-C16	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C16-C21	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C21-C35	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Aromatic TPH >C35-C44	N	1675	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Aromatic Hydrocarbons	N	1675	µg/l	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	U	1675	µg/l	10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10

Results Summary - Water

Project: Hillingdon

Client: Delta Simons	Chemtest Job No.:				15-08511	15-08511	15-08511	15-08511	15-08511	15-08511	15-08511	15-08511
Quotation No.:	Chemtest Sample ID.:				127974	127975	127976	127977	127978	127979	127980	127981
Order No.: DS24131(T)	Client Sample Ref.:											
	Client Sample ID.:				CP01	CP02	CP04	CP05	CP06	CP07	CP08	CP09
	Sample Type:				WATER	WATER	WATER	WATER	WATER	WATER	WATER	WATER
	Top Depth (m):											
	Bottom Depth(m):											
	Date Sampled:				13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15	13-Apr-15
Determinand	Accred.	SOP	Units	LOD								
Acenaphthene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Pyrene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]anthracene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1700	µg/l	0.1	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	1700	µg/l	2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0

Report Information

Key

- U UKAS accredited
- M MCERTS and UKAS accredited
- N Unaccredited
- S This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
- SN This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
- T This analysis has been subcontracted to an unaccredited laboratory
- I/S Insufficient Sample
- U/S Unsuitable Sample
- N/E not evaluated
- < "less than"
- > "greater than"

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVCOs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at our Coventry laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container

Sample Retention and Disposal

All soil samples will be retained for a period of 60 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.co.uk