

### **Soils in RBKC - example boreholes**

#### **Introduction**

This report includes boreholes from across RBKC.

They have all been taken in front or rear gardens.

An effort was made to find a borehole showing a thick layer of natural soil but none could be found.

#### **Conclusion**

This report conclusions are that the data suggests that:

1. The thickness of good quality top soil across the borough is very thin, generally not being present at all.
2. Made ground (man made sand / brick / rubble fill) makes up the upper level of ground in most cases.
3. In all cases identified replacement of the existing upper one metre of ground with imported top soil will be an improvement in terms of a medium to support plant growth.

**Boreholes**

1. Lennox Gardens Mews

Comments		Samples		Field Test	Strata		Strata Description	Legend
		Type	Depth[m]		Depth[m]	Level[mOD]		
Borehole constructed 4 July 2012					0.00	0	MADE GROUND: Cobble paving (70mm) over light grey concrete.	0
150mm casing to 11.70m depth		D	0.50		0.50		MADE GROUND: Soft dark grey slightly gravelly very sandy clay fill. Gravel is fine to medium of brick, flint and ash. Rare bone fragments.	1
		D	1.00			1		
		C/D	1.80	4				
		D	2.00		2.00	2	Soft to firm dark grey and dark brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse of flint.	2
		C/D	2.80	40				
		D	3.00		3.00	3	Dense orange brown slightly sandy fine to coarse flint GRAVEL. ...becoming sandy fine to medium gravel between 3.50m and 4.0m	3
		C/D	3.80	37				
		D	4.00			4	...locally very dense between 4.50m and 6.50m	4
		C/D	4.75	90*				
		D	5.25			5		5
		C/D	6.25	100*				
		D	6.75			6	...becoming sand and gravel between 6.0m and 6.75m	6
						7		7
		C/D	7.80	43				
		D	8.25			8	...locally very gravelly sand at 7.50m	8
		C/D	9.30	14				
						9	...becoming medium dense below 9.0m	9
						10		10

Constructed using cable percussive techniques

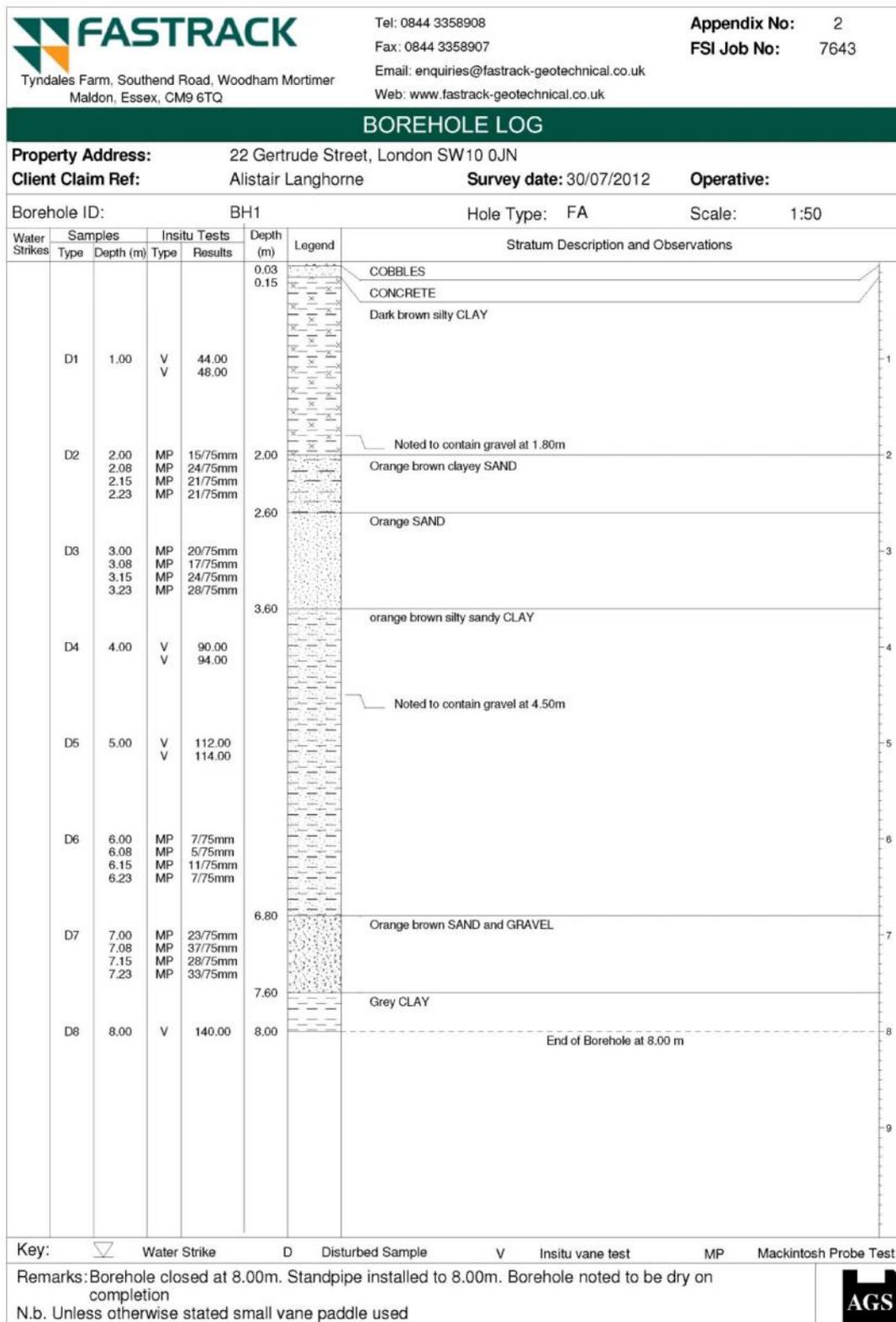
Key: U = Undisturbed B = Bulk D = Small disturbed W = Water S = SPT 'N' [split spoon sampler] C = SPT 'N' [solid cone] HV = Hand Vane [kPa] PP = Pocket Penetrometer [kg/cm<sup>2</sup>]

Remarks :- 35mm standpipe installed at 11.70m; details presented separately

[\* = extrapolated SPT 'N' value]



2. Gertrude Street



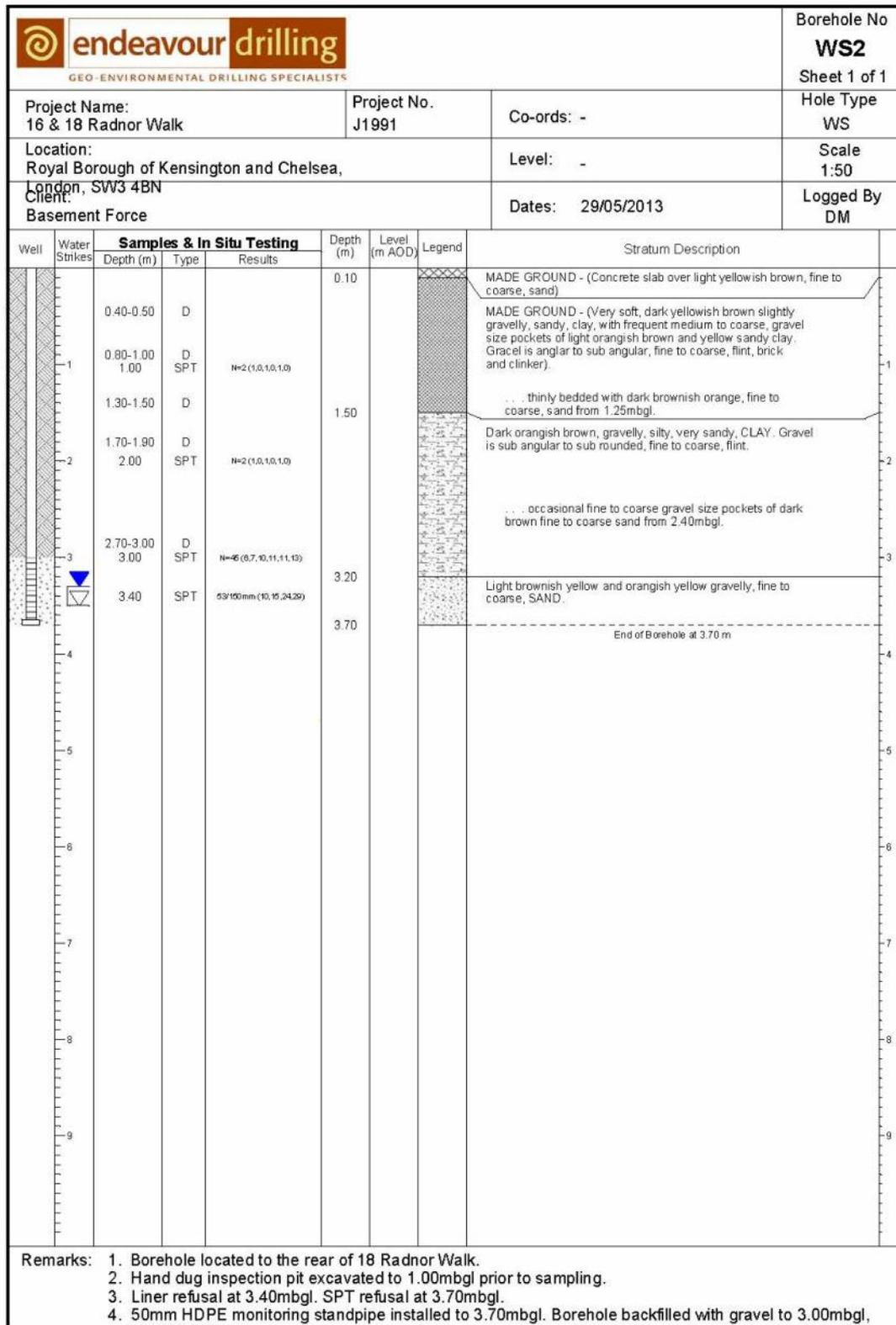
3. Chelsea Park Gardens

discovery drilling GEO-ENVIRONMENTAL DRILLING SPECIALISTS		Discovery Drilling Ltd			Borehole No <b>BH1</b> Sheet 1 of 1		
Project Name 32 Chelsea Park Gardens (Re-visit)		Project No. DD-5822	Co-ords: -		Hole Type WS		
Location: 32 Chelsea Park Gardens, London, SW3 6			Level: -		Scale 1:50		
Client: Basement Force			Dates: 07/01/2010		Logged By DS		
Well	Water Strikes	Samples & In Situ Testing		Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type				
				0.30			MADE GROUND - Black slightly clayey gravelly silt. Gravel is angular fine to medium of flint and brick. Occasional fine rootlets.
1		1.00	SPT	1.00			MADE GROUND - Light brown slightly clayey gravelly sand. Gravel is fine to medium of flint and brick.
2		2.00 2.00	SPT D				Loose brown slightly clayey fine to coarse SAND with occasional angular to subrounded fine to medium gravel.
3		3.00 3.00	SPT D	2.95			Loose becoming dense orange brown slightly gravelly fine to coarse SAND. Gravel is angular to subrounded fine to medium of flint.
4		4.00 4.00	SPT D	4.45			End of Borehole at 4.45 m
5							
6							
7							
8							
9							

Remarks: 1. Inspection pit to 1.20mbgl.  
2. SPT tests at 1.00mbgl and 2.00mbgl Self Weight Penetrated (SWP).  
3. Backfilled with arisings.



5. Radnor Walk

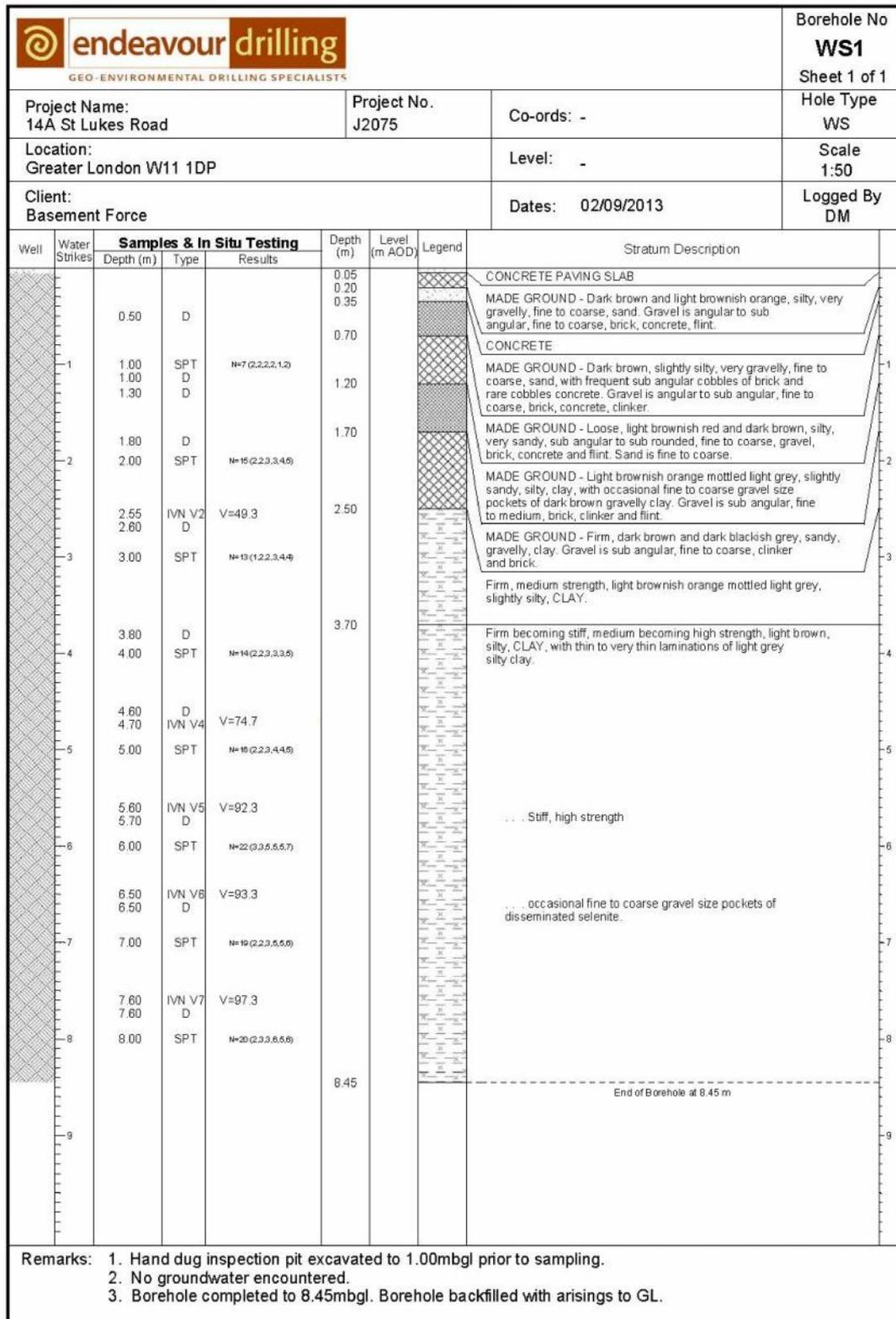


6. Abbotsbury Close

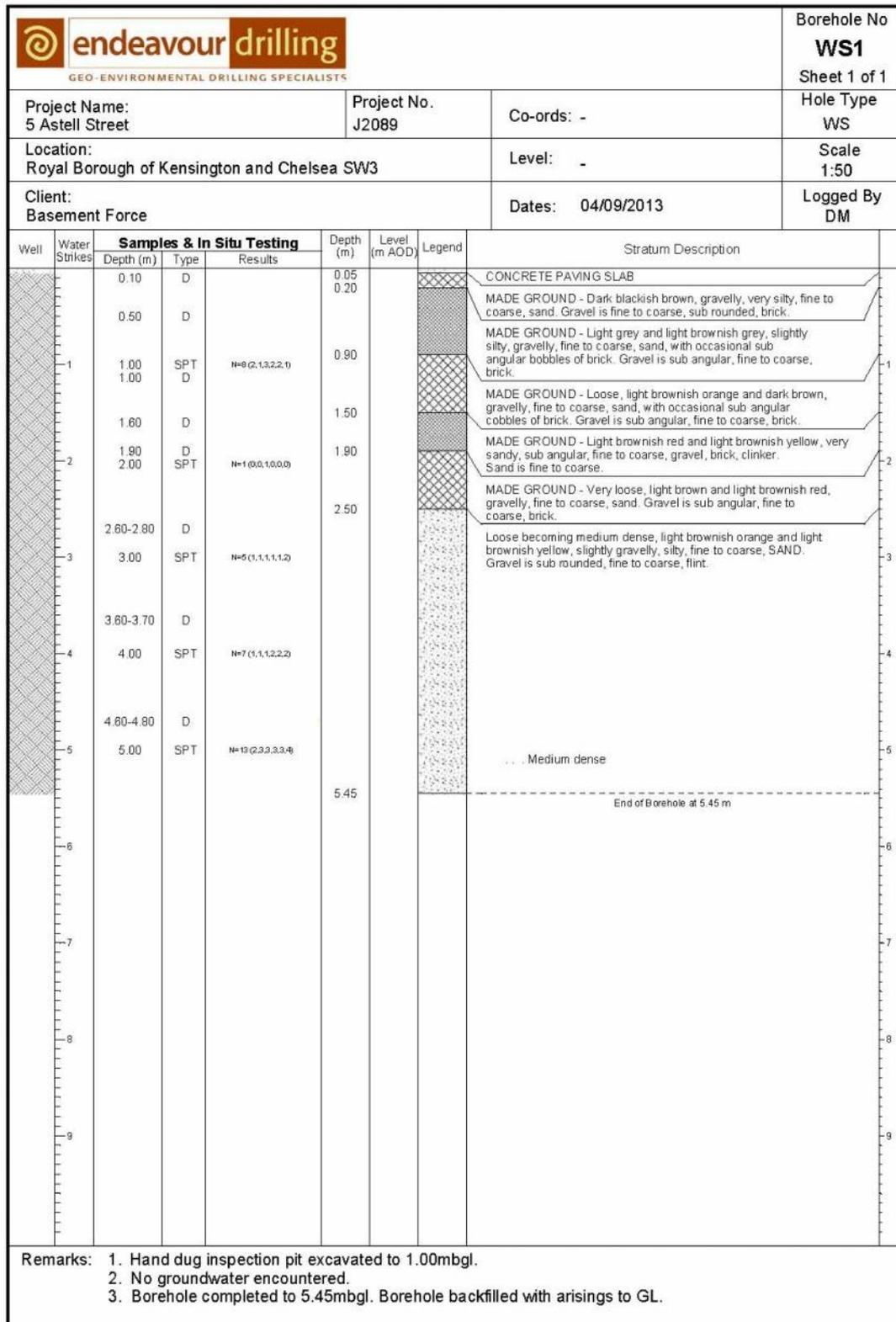
						Borehole No <b>BH1</b> Sheet 1 of 1		
Project Name: Basement Ground Investigation				Project No. J2064		Co-ords: -		
Location: 35 Abbotsbury Close, London, W14 8EQ						Level: -		
Client: Basement Force						Dates: 09/08/2013		
Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
1		0.40	ES		0.55			MADE GROUND - Firm dark brownish grey silty sandy gravelly desiccated clay. Gravel is subangular to subrounded, fine to coarse flint, brick and concrete.
		0.60	D					
1		1.00	SPT	N=22 (5.4,4.5,0.7)	1.70			Firm, dark orangish brown, sandy gravelly CLAY. Gravel is fine to coarse, subangular to sub rounded flint. with occasional dark brown root traces from 1m
		1.00	ES					
2		1.80	D		2.35			Medium dense, light orange brown, clayey gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse flint.
		2.00	SPT	N=16 (6.7,6.4,3.3)				
3		2.50	D		3.50			Firm, light brown, very sandy, gravelly CLAY. Gravel is subangular to subrounded, fine to coarse flint.
		3.00	SPT	N=12 (4.2,3.3,3.3)				
4		3.50	D		4.00			Firm, light brown, sandy slightly gravelly CLAY, with thinly laminated brown clayey sand. Gravel is subangular to subrounded fine to coarse flint.
		4.00	SPT	N=35 (2.7, 10.9, 8.8)				
5		4.00	D		6.25			Dense becoming very dense, dark orange brown, clayey very gravelly fine to coarse SAND. Gravel is subangular to subrounded fine to coarse flint.
		5.00	SPT	N=26 (6.0, 7.6, 7.8)				
6		5.80	SPT	N=53 (11, 12, 94, 14, 14, 11)	6.25			End of Borehole at 6.25 m
		6.00	D					

Remarks: 1. Borehole cased to 2mbgl  
2. Window sampler refusal at 6.25m  
2. No groundwater encountered whilst drilling.

7. St Luke's Road



8. Astell Street



9. Abbotsbury Road

 Discovery Drilling Ltd						Borehole No <b>BH1</b> Sheet 1 of 1		
Project Name			Project No.		Co-ords: -		Hole Type	
3 Abbotsbury Road			5181				WS	
Location: London W14					Level: -		Scale	
							1:50	
Client: Basement Force					Dates: 12/11/2007		Logged By	
							K Blanke	
Well	Water Strikes	Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.07		CONCRETE	
					0.65		MADE GROUND. Brown sandy clayey gravelly brick fill. Sand is fine to coarse. Gravel is angular to subrounded, fine to coarse brick, concrete, flint and tiles.	
		1.20	SPT	N=14 (1,2,2,3,4,5)	1.60		Stiff light brown and grey mottled silty slightly sandy CLAY. Sand is fine.	1
		1.20-1.65	D		2.00		Stiff to very stiff light grey and orange brown mottled sandy CLAY with some subangular to rounded fine to coarse flint gravel. Detail: Black to dark brown speckles appear with depth.	2
		2.00	SPT	N=53 (4,4,13,12,13,15)	2.60		Very stiff light grey with dark orange brown mottling sandy very gravelly CLAY. Sand is fine to coarse. Gravel is angular to rounded into coarse flint.	
		2.00	D		3.00		Dense dark orange brown SAND and GRAVELS. Sand is medium to coarse. Gravel is angular to rounded fine to coarse flint.	3
		2.00-2.45	D		3.00-3.45		Sand is damp in places Wet from 4.6m	
		3.00	SPT	N=43 (7,13,14,12,9,8)	4.00			4
		3.00	D		5.00			
		3.00-3.45	D		5.50		Very stiff dark brown, mottled grey CLAY.	5
		4.00	CPT	N=43 (8,10,10,11,12,10)	5.70		Very stiff grey CLAY.	
		4.00	D		6.00		End of Borehole at 6.00 m	6
		5.00	CPT	N=34 (8,8,8,8,8,9)				
		5.00	D					
		5.50-5.75	D					
		5.75-6.00	D					
		6.00	CPT	N=35 (8,8,8,8,8,9)				

Remarks: BH1 Drilled through base to TP1  
Drilled to 6m. Backfilled to 4.5m  
BH Dry on completion.



File: RBKC BH 001 - Standard Borehole Log - 12/11/2007 - BH01

10. Evelyn Gardens

		Discovery Drilling Ltd			Borehole No <b>BH1</b> Sheet 1 of 1		
Project Name 13 Evelyn Gardens		Project No. DD-13EG	Co-ords: -		Hole Type Cable		
Location: 13 Evelyn Gardens, Kensington, London, SW7 3BE.			Level: -		Scale 1:50		
Client: Basement Force			Dates: 14/01/2010-15/01/2010		Logged By RC		
Well	Water Strikes	Samples & In Situ Testing		Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type				
		0.00-2.30	B				MADE GROUND - Soft dark grey slightly sandy very gravelly clay. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of brick and flint.
		2.30	B	2.30			Medium dense brown sandy angular to subangular fine to coarse GRAVEL.
		3.00 3.20	CPT B				Dense to very dense orange brown gravelly SAND. Gravel is angular to subangular fine to coarse.
		4.00	CPT				
		5.00	CPT				
		6.00	CPT				
		6.80	B				
		7.00 7.00-7.45	SPT D		6.80		Stiff to very stiff grey CLAY.
		8.00 8.00-8.45	SPT D				
		9.00 9.00-9.45	SPT D				
							End of Borehole at 10.00 m

Remarks: 1. Inspection pit to 1.20mbgl.  
2. Backfilled with arisings.

11. Guthrie Street

Well		Samples & In Situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.05			0.05		MADE GROUND. Pea Gravel over teram	
		0.50	D		0.60		MADE GROUND. Dark brown slightly gravelly sandy clay. Sand is fine to coarse. Gravel is angular to subangular fine to coarse flint, brick, concrete and ceramic.	
		1.00	D					
		1.20	SPT	N=2 (0,0,0,0,1,1)			MADE GROUND. Soft brown slightly gravelly clayey sand. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse flint, brick and concrete.	
		1.20-1.65	D		1.45		Medium dense brown clayey fine fine to medium SAND becoming very clayey with depth grading to very sandy CLAY.	
		2.00	SPT	N=29 (0,2,3,6,9,11)	2.00			
		2.00	D				Stiff brown slightly gravelly very sandy CLAY. Sand is fine to medium. Gravel is angular to subrounded fine to medium flint.	
		2.00-2.45	D		2.30		Dense becoming very dense light brown medium to coarse SAND with occasional angular to rounded fine to coarse flint gravel becoming slightly gravelly with depth.	
		3.00	SPT	N=63 (3,10,15,17,16,15)				
		3.00	D					
		4.00	SPT	150mm - Abandoned	4.10			
		4.00	D				End of Borehole at 4.10 m	

Remarks: Backfilled with arisings  
Refused at 4.1m



File: RBKC-11-001-Standard Borehole Log 11-11-07-078-Rev02