

Appendix D

Norwest Holst Soil Engineering Ltd.

Borehole No.

71

Contract No. F6220

BOREHOLE LOG SN709W 112

Sheet 1 of 3

Location A4067 Glais to Pontardawe

Client West Glamorgan County Council

Co-ordinates E12410.00 N03693.00

Method of Boring Percussion

Ground Level 31.86 m.A.O.D.

Diameter of Borehole 250mm to 9.00m 200mm to 18.50m, 105mm to 23.50m

Date 4-6/2/85 //19/2/85

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.O.D.%	Daily Progress
MADE GROUND: Black sand and gravel of ash, clinker and sandstone, with occasional cobbles		1.40	30.26		1.00 3/3-2-2-3 c 1.45	10	
Soft dark grey sandy SILT		1.90	29.76				
Soft brown clayey sandy SILT with a little gravel		3.00	28.66		2.00 (25) 2.50		
Dense brown coarse SAND and fine, medium and coarse rounded GRAVEL with cobbles and occasional boulders		7.20	24.46		3.00 16/12-20- c3.4526-22 80 4.00 19/16-20- c4.4521-28 80 5.00 32/10-18- c5.4514-21 63 6.00 15/14-12- c6.4510-11 47		4th
Loose grey brown fine sandy SILT clayey in places. (Boulder pushed from 6.90 to 7.80m)				250mm to 9.00m	7.50 c 70 for N.P.	(70 for N.P.)	
					9.00 (25) 9.50		

Type of Sample	Remarks (Observations of Ground Water etc.)
Is S.P.T. Undisturbed	() Seating blows. N.P. No penetration () U100 blows
Ic. C.P.T. Vane	4/2/85 Water struck at 3.00m, casing at 2.80m, seepage Water struck at 5.50m, casing at 5.50m Rose to 3.00m in 20 min
O Jar Water	5/2/85 Water standing at 3.00m casing at 6.70m at start of day
● Bulk Piezometer	6/2/85 Water standing at 6.00m casing at 18.00m at start of day

Norwest Holst Soil Engineering Ltd.

Borehole No.

71

Contract No. F6220

BOREHOLE LOG SN 70SW 112

Location A4067 Glais to Pontardawe

Sheet 2 of 3

Client West Glamorgan County Council

Co-ordinates E72410.00 N03693.00

Method of Boring Percussion

Ground Level 31.66 m.A.O.D.

Diameter of Borehole 250mm to 900mm 200mm to 18.50m, 105mm to Date 4-6/2/85 19/2/85

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.O.D.%	Daily Progress
Loose grey brown fine sandy SILT clayey in places					10.50 2/2-1-2-2 s 10.95	7	
					12.00 (30) 12.50		
					13.50 2/2-2-3-2 s 13.95	9	
					15.00 [25] NR 15.50 [30] NR 16.00		
					2/1-2-1-2 s 16.45	6	
		17.50	14.16				
Dark grey, laminated to thinly bedded SILTSTONE moderately weak				200mm to 18.50m	17.50 c107 for 138mm	(107 for 138mm)	5th
		18.50	13.16				6th
Grey, medium grained, medium bedded, with occasional carbonaceous lamination, fresh SANDSTONE strong					18.50 100% 19.00	28%	
18.50 to 18.90 vertical fractures					100%	30%	

Type of Sample	Remarks (Observations of Ground Water etc.)
Is S.P.T. Undisturbed Ic. C.P.T. Vane O Jar Water ● Bulk Piezometer	Remarks (Observations of Ground Water etc.) [] U100 blows () Seating blows NR No Recovery Slow progress 1½ hrs from 3.50m to 4.00m Chiseling 1½ hrs pushing boulder from 6.90m to 7.50m Chiseling 1 hr from 17.50 to 18.00m Chiseling 2 hrs from 18.00 to 18.50m

Norwest Holst Soil Engineering Ltd.

Borehole N°

71

Contract No. F6220

BOREHOLE LOG

Sheet 3 of 3

Location A4067 Glais to Pontardawe

Client West Glamorgan County Council

Co-ordinates E72410.00 N08693.00

Method of Boring Percussion

Ground Level 31.56 m.A.O.D.

Diameter of Borehole 250mm to 9.00m 200mm to 18.50m 105mm to 23.50m

Date 4-6/2/85 // 19.2.85

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/ R.Q.D. %	Daily Progress
Grey, medium grained, medium bedded, with occasional carbonaceous laminations, fresh, SANDSTONE strong.					20.20		
20.00 to 20.20 vertical fracture							
21.40 to 21.70 vertical fracture					100%	57%	
22.20 to 22.40 numerous carbonaceous laminations.							
22.40 to 23.00 vertical fracture					23.00		
23.10 to 23.30 vertical fracture					100%	40%	
		23.50	8.16		23.50		19th

Type of Sample

- ☒ S.P.T. ☒ Undisturbed
- ☒ C.P.T. ☒ Vane
- ☒ Jar ☒ Water
- ☒ Bulk ☒ Piezometer

Remarks (Observations of Ground Water etc.)

Soil Mechanics

BOREHOLE No. 3

Sheet 1 of 2

Equipment & Methods
Rotary drilling, Edw 40 Stratadrill with water flush to 3.07m. Core drilling with PE core barrel to produce 86mm diameter core to base.

Location No. 8356

Location

A4067 SHANSEA VALLEY ROAD, PONTARDAME

SN70SW 233

Carried out for
Shepherd Hill & Co. Ltd

Ground Level

28.32 m A.O.D.

Coordinates

7240 0368

Date

21.11.87
to 24.11.87

Description		Reduced Level	Legend	Depth (Thick)	Drilling Records		Mechanical core log					Field Records and Test Results
Main	Detail				Depth	N	TCR	SCR	RQD	IF		
Sand and Gravel (Foreman driller's description)		28.32		(6.20)								Open hole drilling
					3.07 - 4.07		50	-	-			
					4.07 - 5.07		0	-	-			
					5.07 - 5.90		0	-	-			
					5.90 - 6.30		55	0	0			
	Recovered as subrounded coarse gravel and cobbles of assorted siltstones and sandstones.	22.12		(5.05)	6.30 - 7.46		91	91	91		250 300 500	
Grey fine and medium grained thinly to thickly bedded slightly weathered slightly micaceous SANDSTONE, strong and very strong. Some generally thin beds of dark grey siltstone, occasionally included as angular fragments within the sandstone.		7.46 - 8.03				89	39	39				
		8.03 - 9.00				100	65	65		N1 150 250		
		9.00 - 9.45				31	13	0				
		9.45 - 9.55				100	0	0				
	Closely, occasionally up to widely spaced, 30 degree joints, rough irregular generally clean occasionally with traces of silt. Moderately widely spaced 80 degree joints, rough planar with occasional yellow brown staining and traces of clay and calcite.				9.55 - 10.35		100	69	62			

Remarks

Logged by
DRW/DHB

Scale
1:50

Fig.

4

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Fig. 1. All depths and reduced levels in metres. Thicknesses given in brackets in depth column.

(c) Soil Mechanics



Soil Mechanics

BOREHOLE No. 3

Sheet 2 of 2

Equipment & Methods

As sheet 1

Location No. 8356

Location

A4067 SWANSEA VALLEY ROAD, PONTARDawe

SN70SW 233

Carried out for

Shephard Hill & Co. Ltd

Ground Level

Coordinates

Date

As sheet 1

Description

Reduced Level

Legend

Depth (Thick)

Drilling Records

Mechanical core log

Field Records and Test Results

Main

Detail

Depth

N

TCR

SCR

RQD

lf

Grey slightly weathered SANDSTONE, strong.
(As Sheet 1)

BOREHOLE ENDS AT 11.25 m.

17.07

(5.05
pen)

11.25

9.55 - 10.35

10.35 - 10.75

10.75 - 11.25

100

69

62

100

75

25

100

46

46

N1
150
250

Remarks

Notes:

Materials are described in accordance with Appendices. For explanation of symbols and abbreviations see Fig. 1.
All depths and reduced levels in metres. Thicknesses given in brackets in depth column.

(c) Soil Mechanics

Logged by
DRN/DNB

Scale
1:50

Fig.

4