



Appendix 1, Plan 16 – Proposed Side / East Elevation



Appendix 1, Plan 17 – Proposed Rear / North Elevation



Appendix 1, Plan 18 – Proposed Side / West Elevation



Planning issue

B 170517 Minor amendments

A 030417 Minor amendments

rev.	date
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These drawings should be approved by local Authority

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client **Emsdale Residential Limited**

project 46A - 47 Pier Road
Littlehampton, 3N17 5LW

drawing Proposed side elevation

scale	1:100@A3	date	July 2016
		drawn	MOONCIE

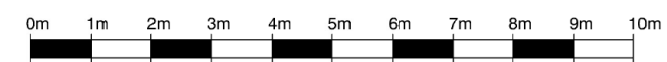
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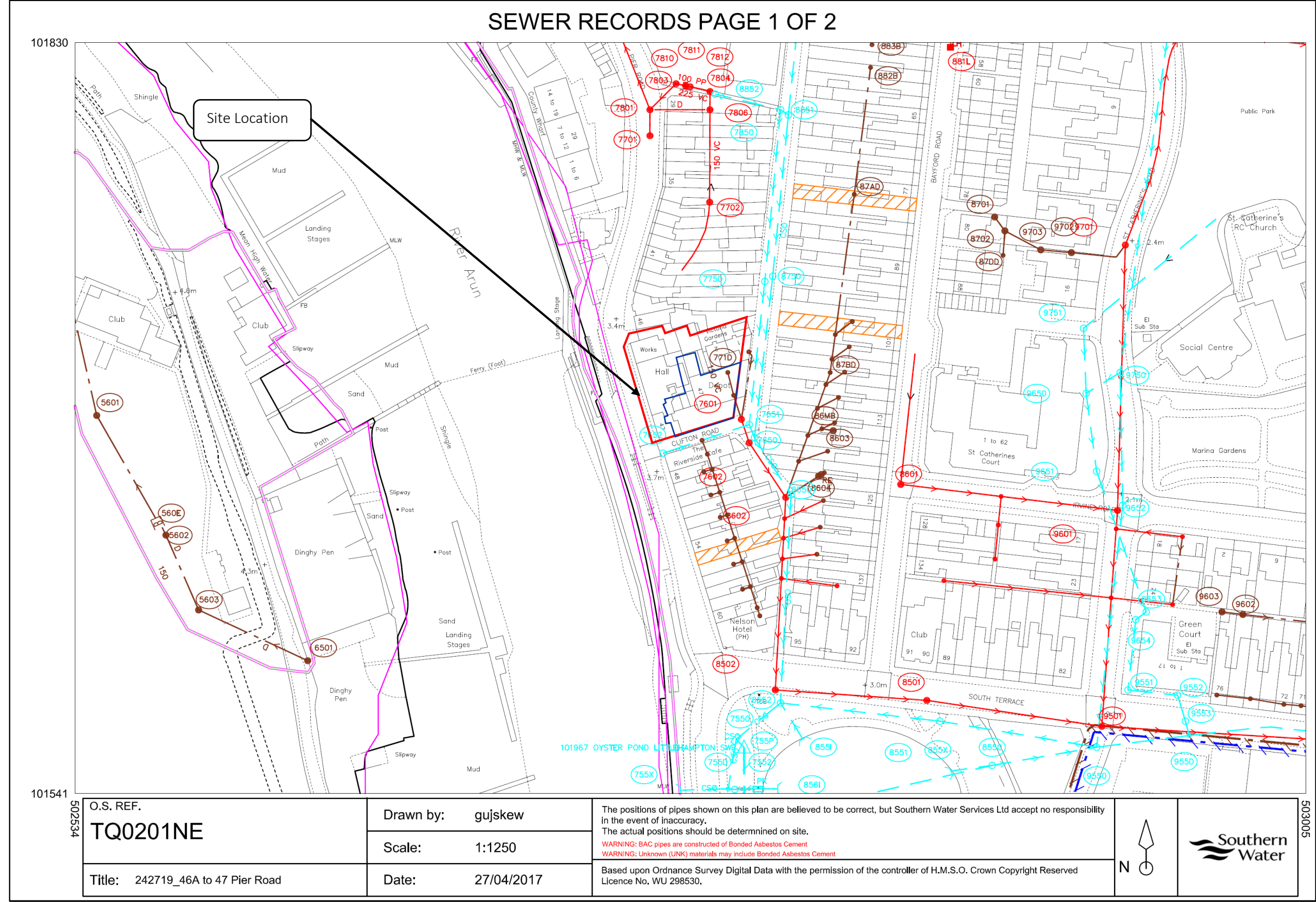
Turner Associates
Architects and Planning Consultants

TA 948 / 23 REV. B

Proposed side / west elevation Scale 1:100 @A3



Appendix 1, Plan 19 – Proposed Side / West Elevation



Appendix 1, Plan 20A – Southern Waters Sewer Records Plan

SEWER RECORDS PAGE 2 OF 2																	
Node	Cover	Invert	Size	Material	Shape	Node	Cover	Invert	Size	Material	Shape	Node	Cover	Invert	Size	Material	Shape
050DX			150	UNK	CIRC	86CBX			UNK	UNK	UNK	Node	Cover	Invert	Size	Material	Shape
5601X			150	UNK	CIRC	86DBX			UNK	UNK	CIRC						
7550Y	2.68		600	CP	CIRC	86EBX			UNK	UNK	UNK						
7550X	2.68	-0.56	675	CI	CIRC	86FBX			UNK	UNK	UNK						
7551X	3.36		600	CP	CIRC	86GBX			UNK	UNK	UNK						
7552X			600	CP	CIRC	86HBX			UNK	UNK	UNK						
755DX			600	CP	CIRC	86IBX			300	VC	CIRC						
7601X	2.37	1.02	300	VC	CIRC	86K BX			225	VC	CIRC						
7602X	2.29	0.97	300	VC	CIRC	86MBX			UNK	UNK	UNK						
760BX			UNK	UNK	UNK	8701X			UNK	UNK	CIRC						
760DX			150	VC	CIRC	8702X			UNK	UNK	CIRC						
761BX			UNK	UNK	UNK	870DX			UNK	UNK	UNK						
761DX			UNK	UNK	UNK	871DX			UNK	UNK	UNK						
762BX			UNK	UNK	UNK	872DX			UNK	UNK	UNK						
762DX			UNK	UNK	UNK	873DX			225	VC	CIRC						
763BX			UNK	UNK	UNK	874DX			225	VC	CIRC						
764BX			UNK	UNK	UNK	8750X	2.02	-0.07	525	BAC	CIRC						
764DX			UNK	UNK	UNK	87ADX	2.2		225	VC	CIRC						
7650X	2.3	-0.31	525	BAC	CIRC	87BDX	1.98	1.1	225	VC	CIRC						
7651X	2.34	0.74	225	VC	CIRC	87DDX			UNK	UNK	CIRC						
7652X	3.6		225	UNK	CIRC	881LX	2.01	1.02	225	VC	CIRC						
76ABX			UNK	UNK	UNK	882BX	2.06		150	VC	CIRC						
76BBX			UNK	UNK	UNK	883BX	1.98		100	VC	CIRC						
76CBX			UNK	UNK	UNK	8851X	1.96	0.1	525	BAC	CIRC						
76DBX			UNK	UNK	UNK	8852Y	1.98	1.01	225	VC	CIRC					*	
76EBX			UNK	UNK	UNK	8852X	1.98	1.01	225	VC	CIRC					*	
76FBX			UNK	UNK	UNK	9501X	2.02	0.29	300	VC	CIRC						
76GBX			UNK	UNK	UNK	950DX			150	UNK	CIRC						
7701X	3.15	0.96	225	VC	CIRC	951DX			150	UNK	CIRC						
7702X			150	VC	CIRC	952DX			150	UNK	CIRC						
770DX			UNK	UNK	UNK	9550X	1.88	-0.22	525	BAC	CIRC						
7750X	1.97	0.83	225	VC	CIRC	9551X	2.02	0.02	225	VC	CIRC						
7801X	3.2	0.9	225	VC	CIRC	9552X	2.06	-0.09	225	VC	CIRC						
7803X	1.93	0.95	225	VC	CIRC	9553X	2.24		225	VC	CIRC						
7804X	1.81		225	VC	CIRC	955DX			300	VC	CIRC						
7806X			UNK	UNK	CIRC	9601X	2.13	0.74	225	VC	CIRC						
7811X	1.926		225	VC	CIRC	9602X	1.73	0.82	150	VC	CIRC						
7812X	1.926	1.051	100	PP	CIRC	9603X	1.73	0.88	150	VC	CIRC						
7850X	1.85	1.05	225	VC	CIRC	960DX			225	VC	CIRC						
8501X	2.61	0.54	300	VC	CIRC	961DX			225	VC	CIRC						
8502X	3.16	0.67	300	VC	CIRC	962DY			UNK	UNK	UNK					*	
8550Y	3.31		300	CI	CIRC	962DX			UNK	UNK	UNK					*	
8550Y	3.31		225	VC	CIRC	963DX			UNK	UNK	UNK						
8550X	3.31		300	CI	CIRC	9650X	2.29	0.45	225	VC	CIRC						
8551X	2.37	-0.38	525	BAC	CIRC	9651X	2.18	0.32	225	VC	CIRC						
8552X	2.58	-0.5	750	CP	CIRC	9652X	2.14	0.47	225	VC	CIRC						
855IX		1.28	150	VC	CIRC	9653X	1.79	0.16	225	VC	CIRC						
856IX			600	CP	CIRC	9654X	1.91	0.12	225	VC	CIRC						*
8601X	2.27	1.08	225	VC	CIRC	9701X	2.53	1.29	225	VC	CIRC					*	
8602X	2.59		300	VC	CIRC	9701Y	2.53	1.31	225	VC	CIRC					*	
8603X			UNK	UNK	CIRC	9702X			UNK	UNK	CIRC						
8604X			UNK	UNK	UNK	9703X			UNK	UNK	CIRC						
860BX			300	VC	CIRC	9750Y	2.25	0.81	150	VC	CIRC					*	
860DX			UNK	UNK	UNK	9750X	2.25	0.81	150	VC	CIRC					*	
861BX			UNK	UNK	UNK	9751X	2.23	0.55	225	VC	CIRC						
861DX			300	VC	CIRC												
862BX			UNK	UNK	UNK												
862DX			UNK	UNK	UNK												
863BX			225	VC	CIRC												
863DX			300	VC	CIRC												
864BX			225	VC	CIRC												
864DX			UNK	UNK	UNK												
8650X	2.59	-0.46	525	BAC	CIRC												
86ABX			225	VC	CIRC												
86BBX			225	VC	CIRC												

LINE STYLES / COLOURS

Black

Foul

Foul Syphon Sewer

Foul Vacuum Main

Foul Rising Main

Combined

Combined Syphon Sewer

Combined Rising Main

Lateral Drain

Orange

Building Over Agreement Area

Dark Blue

Treated Effluent

Purple

Sewer Catchment

Section 104 Area

Light Blue

Surface Water

Yellow

Pithead

Green

Access Shaft

Decommissioned

MATERIALS

AK Alkathene

BAC Bonded Asbestos Cement

BSC Brick (Common)

BSE Brick (Engineering)

CC Concrete Box Culvert

CI Cast Iron

CO Concrete (In-situ)

CP Concrete (Pre-cast)

CSP Concrete Segments (bedded)

CSU Concrete Segments (unbedded)

DI Ductile Iron

GRC Glass Reinforced Concrete

GRP Glass Reinforced Plastic

MAG Masonry In regular Courses

MMP Masonry In random Courses

PE Polyethylene

PF Pitch Fibre

PVC Polyvinyl Chloride

RPM Reinforced Plastic Matix

SI Spun Iron

ST Steel

VC Vitreous Clay

XXX Other

ZZZ Unknown

LEGEND - SEWERS

Manhole (SW)

Manhole (F&C)

Lamp hole (F&C)

Pumping Station (SW)

Pumping Station (F&C)

Slide entry manhole (SW)

Slide entry Manhole (F&C)

Blind shaft (SW)

Ejector station (SW)

Waterlight door (SW)

Waterlight door (F&C)

Flushing ch. Mse (SW)

Flushing ch. Mse (F&C)

Flushing ch. Now (SW)

Flushing ch. Now (F&C)

Demarcation Chamber

Washout (SW)

Washout (F&C)

Rodding Eye (SW)

Rodding Eye (F&C)

Gauging point (SW)

Gauging point (F&C)

Intercept chamber (SW)

Intercept chamber (F&C)

Storm Tank (SW)

Storm Tank (F&C)

Vortex chamber (SW)

Vortex chamber (F&C)

Label above

Dummy/S24 manhole

Penstock chamber

Damboards

Storm Overflow

Backdrop manhole

Other (s)

Change In sewer (s)

Reflex valve

Flap valve

Anode

Valve

Closed Valve

Air Valve

Hatch box (SW)

Hatch box (F&C)

Direction arrow

Emptying valve

Catchpit

Soakaway

Islet

Balancing Pond

Wastewater treatment works

Marine treatment works

Outfall headworks

Vent

Vent column

Tidal storage tank

Blank end

Head of Public Sewer

Micro Pumping Station

SHAPES (S)

A Arched

B Barrel

C Circular

E Elliptical

F Flap

H Horseshoe

Other

Rectangular

S Square

T Trapezoidal

U U Shape

Node Referencing System

1st digit: hundred metres easting coordinate

2nd digit: hundred metres northing coordinate

3rd digit: water type identifier

4th digit: Out = Foul Combined

5th digit: Surface Water

6th digit: next sequential node

Drawn by: gujskew

Title: 242719_46A to 47 Pier Road

Date: 27/04/2017



Appendix 1, Figure 20B – Southern Waters Sewer Records Data Table

ambiental

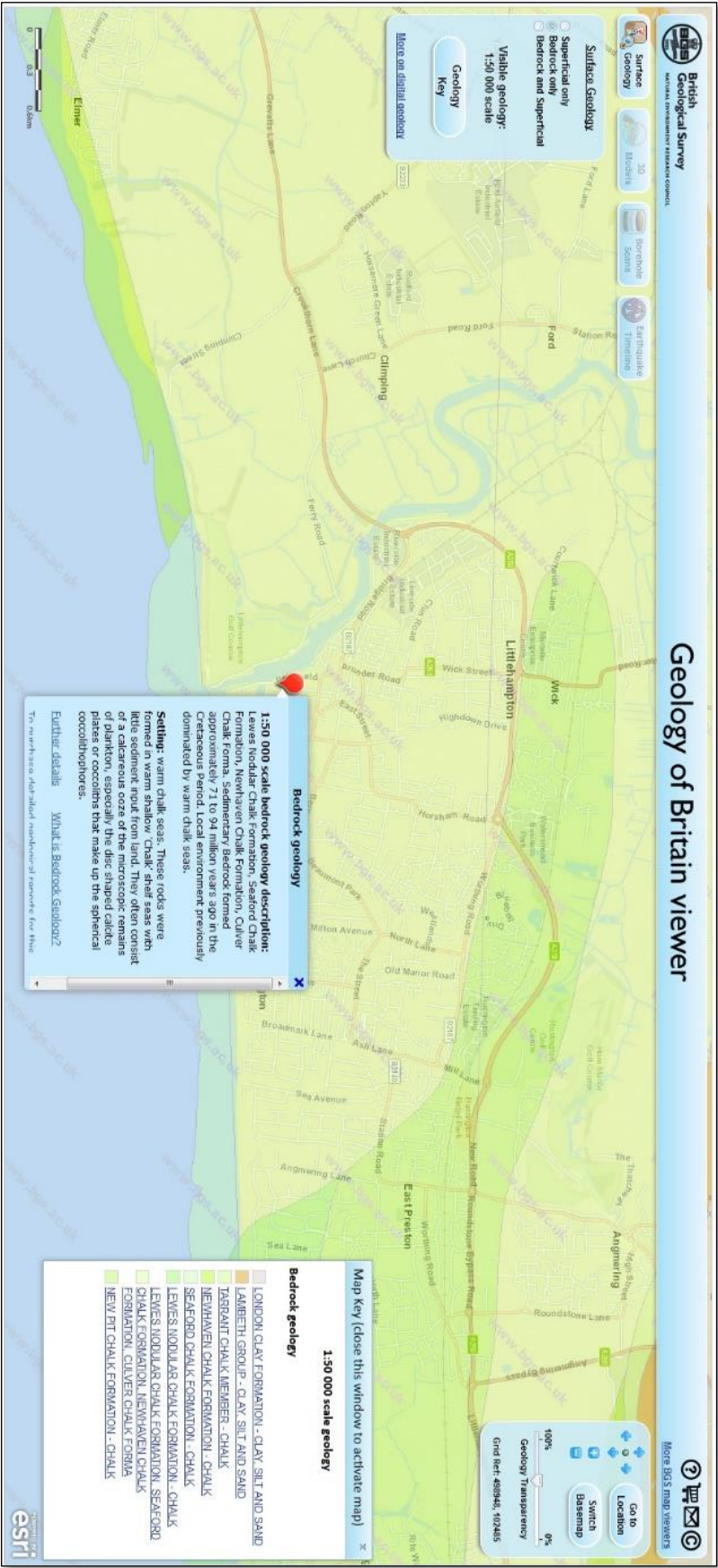
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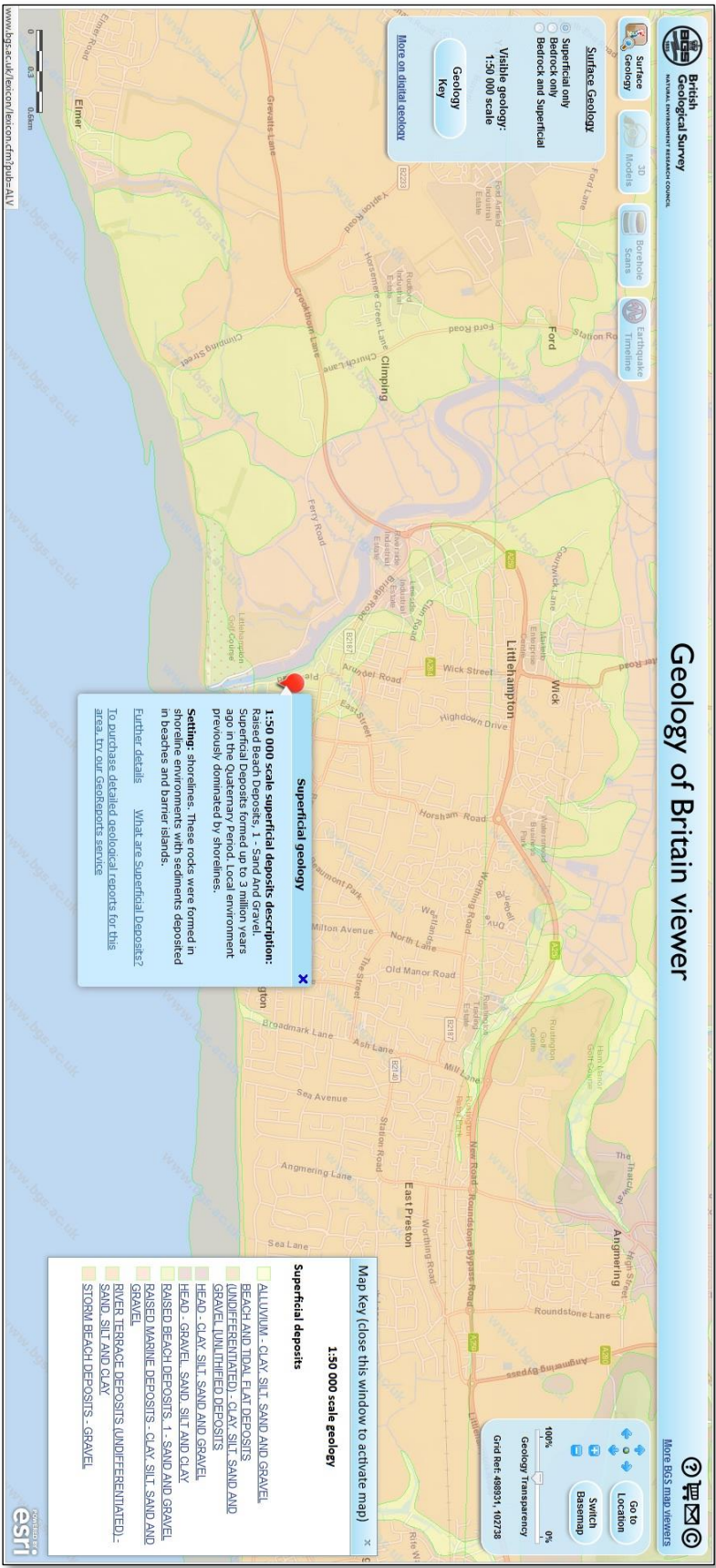
ARUN DISTRICT COUNCIL LU/287/17/PL

Appendix 2 – Site Geology Maps

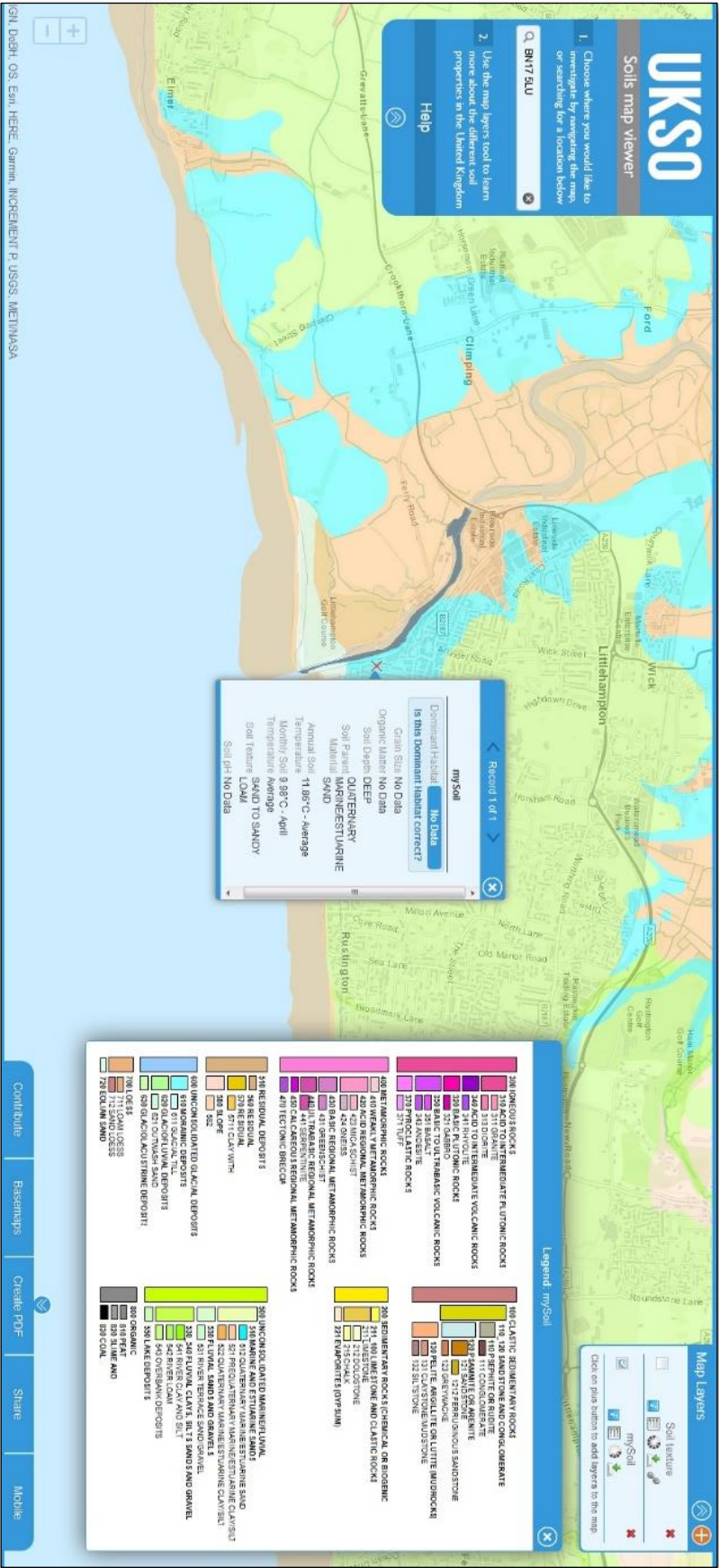
- *Figure 1 – Bedrock Geology*
- *Figure 2 – Superficial Deposits*
- *Figure 3 – Soil Parental Material*
- *Figure 4 – Soil Texture*
- *Figure 5.1 – BGS Boreholes Map*
- *Figure 5.2 – Borehole 19952384, Page 1 of 8*
- *Figure 5.3 – Borehole 19952384, Page 2 of 8*
- *Figure 5.4 – Borehole 19952384, Page 3 of 8*
- *Figure 5.5 – Borehole 19952384, Page 4 of 8*
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- *Figure 5.7 – Borehole 19952384, Page 6 of 8*
- *Figure 5.8 – Borehole 19952384, Page 7 of 8*
- *Figure 5.9 – Borehole 19952384, Page 8 of 8*
- *Figure 6 – Hydrogeology*
- *Figure 7 – Groundwater Source Protection Zones*
- *Figure 8 – Groundwater Vulnerability Zones*



Appendix 2, Figure 1 - Bedrock Geology

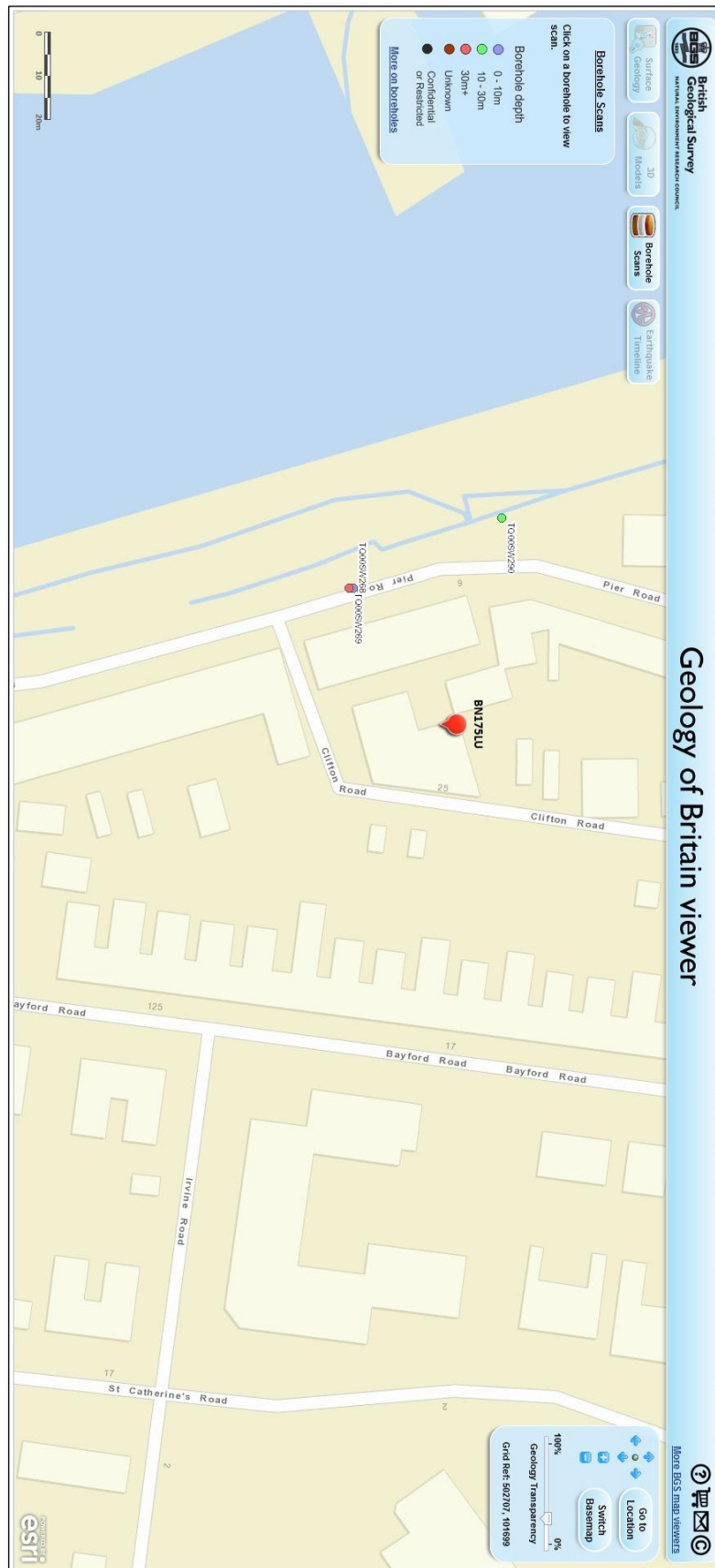


Appendix 2, Figure 2 - Superficial Deposits



Appendix 2, Figure 3 - Soil Parent Material





Appendix 2, Figure 5.1 – BGS Boreholes Map

[illegible]

Appendix 2, Figure 5.2 – Borehole 19952384, Page 1 of 8

Drilling Method Cable Percussion & Rotary				Borehole Diameter 200mm to 8.50m 150mm to 30.30m		Casing Diameter 200mm to 7.40m		BOREHOLE NO. CPRCB9A			
Equipment Dando 2000 Commachio 405A Polymer GS550 S Purvis/R Johnson				Logged by AH 05/10/2012		Compiled by BC 08/10/2012		Approved by 14/11/2012			
British Geological Survey				Coordinates National Grid Ground Level		502747 E 101686 N 3.48 m OD					
Date & Time	Casing Depth (m)	Water Depth (m) Flush Return (%)	Sample/Core Recovery			SPT Blows / m Core Size (mm)	Rough Cor U100 Blow s/ Rec. m or Fracture Index	Description of Strata	Depth (Thickness) (m)	Level	Legend
			From To	Type	No.						
			5.00 5.00-5.50	D B	22 23			British Geological Survey	British Geological Survey (1.40)		
			5.50-6.00	B	24						
			6.00-6.45 6.00 6.00-6.50 6.00-6.45	B D B	25 26 27			British Geological Survey	6.00 -2.52 (0.50)		
	6.00	GL	6.50-7.00	B	28			Probably extremely weak brown white CHALK recovered as silty very angular to subrounded fine to coarse gravel and cobble sized fragments of chalk and flint.	6.50 -3.02		
			7.00	D	29			British Geological Survey	British Geological Survey		
	7.40	GL	7.50-8.00 7.50-7.95	B	30			British Geological Survey	(2.00)		
			8.00-8.50	B	31			British Geological Survey			
04/10	7.40	GL									
05/10	7.40	2.10						AZCL	Extremely weak low density orange white and black speckled CHALK. Fractures are very closely spaced (10/30/100) inclined 40 degrees to 80 degrees planar smooth generally clean surfaces orange stained and black speckled. (B4/A4)	British Geological Survey	
		(0)	8.50-9.30	44	0	0		NI	Between 8.50m and 8.95m: Assumed zone of core loss. Between 9.00m and 9.08m: 3No coarse gravel sized flint nodules.		
	8.50	2.10	9.30-9.75					SI	Between 9.30m and 9.90m: Assumed zone of core loss.		
								AZCL			
		(20)	9.30-10.30	60	0	0			Between 9.90m and 12.10m: Recovered as very angular and subangular medium and coarse gravel sized fragments of chalk and flint.		
Remarks (See notes & keynotes)											
British Geological Survey				British Geological Survey				British Geological Survey			



Project

LITTLEHAMPTON ARUN TIDAL DEFENCES ENVIRONMENT AGENCY

Contact No.

G120043U

Figure No.

FR6 (2 of 8)

39923

Appendix 2, Figure 5.3 – Borehole 19952384, Page 2 of 8

Appendix 2, Figure 5.4 – Borehole 19952384, Page 3 of 8

Drilling Method		Cable Percussion & Rotary		Borehole Diameter		Casing Diameter		BOREHOLE NO.		CPRCB9A	
Equipment		Dando 2000 Commachio 405A Polymer GS550		200mm to 6.50m 150mm to 30.30m		200mm to 7.40m		Coordinates		502747 E 101686 N 3.48 m OD	
Crew/Vessel		S Purvis/R Johnson		Logged by		Compiled by		Approved by			
Dates Drilled		Start 04/10/2012 End 08/10/2012		AH		clm		BC			
Date & Time	Casing Depth (m)	Water Depth (m)	Sample/Corr Recovery	Type	No.	SFT Blows (m)	Result or Fracture Index	Description of Strata	Depth (Thickness) (m)	Level	Legend
05/10	8.50	6.30	15.09-15.23	C	34			British Geological Survey Between 15.25m and 15.30m: Dark brown flint nodule.	15.30	-11.82	
08/10	8.50	2.70	15.30-15.75			S44		Very weak low density locally medium density white and locally orange and black speckled CHALK. Fractures are closely to medium spaced (100/300/500) inclined 60 degrees to 90 degrees planar smooth closed locally grey stained and black speckled. (B4/B3)			
			15.57-15.75	C	35		6	Between 15.30m and 15.34m: Recovered as very angular fine to coarse gravel sized fragments of flint.			
		(60)	15.30-16.80	73	73	73		Between 15.82m and 15.92m: Recovered as very angular fine to coarse gravel sized fragments of flint.			
							AZCL	Between 16.40m and 16.94m: Assumed zone of core loss.			
			16.94-17.21	C	36			British Geological Survey Between 17.31m and 17.34m: Recovered as very angular fine to coarse gravel sized fragments of flint.			
		(50)	16.80-18.30	91	91	91		Between 17.84m and 17.94m: Recovered as very angular fine to coarse gravel sized fragments of flint.			
			18.21-18.30	C	37						
	8.50	2.70	18.30-18.75			S36	3	Between 18.71m and 18.76m: Recovered as very angular coarse gravel sized fragments of brown flint.	(6.10)		
			18.30-19.80	100	100	100		Between 19.18m and 19.25m: Recovered as very angular and subangular fine to coarse gravel sized fragments of brown flint.			
		(50)	19.40-19.58	C	38			Between 19.59m and 19.69m: Recovered as very angular and subangular fine to coarse gravel sized fragments of brown flint and chalk.			
							AZCL				
Remarks (See notes & key/sheet)											
British Geological Survey				British Geological Survey				British Geological Survey			
Scale 1:25				Project LITTLEHAMPTON ARUN TIDAL DEFENCES ENVIRONMENT AGENCY				Contact No. G120043U			
								Figure No. FR6 (4 of 8)			

Appendix 2, Figure 5.5 – Borehole 19952384, Page 4 of 8

Drilling Method Cable Percussion & Rotary				Borehole Diameter 200mm to 8.50m 150mm to 30.30m		Casing Diameter 200mm to 7.40m		BOREHOLE No. CPRCB9A			
Equipment Dando 2000 British Geological Survey Drill Fluid Commachio 405A Polymer GS550 Crew/Vessel S Purvis/R Johnson Dates Drilled Start 04/10/2012 End 08/10/2012				Logged by AH 05/10/2012		Compiled by cim 08/10/2012		Approved by BC 14/11/2012		Coordinates 502747 E National Grid 101686 N Ground Level 3.48 m OD	
Date & Time	Casing Depth (m)	Water Depth (m) (Flash Return)	Sample/Case Recovery			SPT Blow s / m (Core See m.m.)	Result or Fracture Index	Description of Strata	Depth (Thickness) (m)	Level	Legend
			Depth (m) From To	Type	No.						
			20.18-20.45	C	39			British Geological Survey			
	(30)		19.80-21.30	90	90	90	3	Between 20.66m and 20.82m: Cobble sized flint module.			
								Between 21.30m and 21.40m: Assumed zone of core loss.			
	8.50	2.70	21.30-21.75			S32	AZCL	Very weak medium density grey white and locally black speckled CHALK. Fractures are medium to widely spaced (100/500/1000) subhorizontal to inclined 20 degrees planar smooth clean locally stained grey and black speckled. (B3/B2)	21.40	-17.92	
			21.94-22.20	C	40			British Geological Survey			
	(0)		21.30-22.80	93	93	93					
								Between 23.34m and 23.40m: Recovered as very angular and subangular fine to coarse gravel sized fragments of brown black flint.			
			23.43-23.72	C	41			British Geological Survey			
	(20)		22.80-24.30	100	100	91		Between 23.83m and 23.89m: Recovered as very angular and subangular fine to coarse gravel sized fragments of brown flint.			
	8.50	2.70	24.30-24.65			S50/200					
			24.30-24.60	C	42						
Remarks (See notes & keynotes)											
British Geological Survey											
Scale 1:25											
				Project LITTLEHAMPTON ARUN TIDAL DEFENCES ENVIRONMENT AGENCY				Contact No. G120043U			
								Figure No. FR6 (5 of 8)			

Appendix 2, Figure 5.6 – Borehole 19952384, Page 5 of 8

Appendix 2, Figure 5.7 – Borehole 19952384, Page 6 of 8