APPENDIX C

ESG Factual Report

FONTMELL CLOSE AND BRIDLE CLOSE, ST. ALBANS

FACTUAL REPORT ON GROUND INVESTIGATION

Report No. G5519-15

March 2016

Carried out for:
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Pegs Lane,
Hertford
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Report No G5519-15

March 2016

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		SIGNATURE	SIGNATURE	SIGNATURE

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Whilst every effort has been made to ensure the accuracy of the data supplied and any analysis interpretation derived from it, the possibility exists of variations in the ground and groundwater conditions around and between the exploratory positions. No liability can be accepted for any such variations in these conditions. Furthermore, any recommendations are specific to the development as detailed in this Report and no liability will be accepted should they be used for the design of alternative schemes without prior consultant with ESGL

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1 INTRODUCTION

In December 2015 ESG was commissioned by Hertfordshire County Council to carry out a ground investigation at Fontmell Close and Bridle Close in St. Albans, Hertfordshire. Opus International Consultants (Opus) were appointed as ground investigation engineers to the project. The investigation was required to obtain geotechnical information on the ground conditions in areas where subsidence or potential underground cavities may be located.

The scope of the investigation was specified by Opus and comprised concrete coring to enable dynamic probing holes, lined window sampling boreholes, cable percussive and rotary boreholes and in situ testing. The investigation was performed in accordance with the general requirements of BS 5930 (2015), BS EN 1997-2 (2007), BS EN ISO 22475-1 (2006) and other relevant related standards identified below. The fieldwork took place from 14 December 2015 to 02 February 2016.

This report presents the factual records of the fieldwork.

2 SITE SETTING

2.1 Location and Description

The site is located approximately 1.5km north east of St. Albans town centre, comprising the highway of Fontmell Close (excluding the area outside of property numbers 8, 9, 10 and 11) and all of Bridle Close in a triangular shaped residential area located north west of Sandridge Road and south east of Seymour Road, at National Grid reference TL 154084, see Site Location Plan in Appendix A.

The site comprises two cul de sac roads with mainly detached houses on either side of each close. Bridle Close is 75m long and is located north east to south west, with vehicular access from the north east. The Close slopes down gently towards the south west. Temporary vehicular access has also been created from the south western corner of the close across a playing field (Ariston Fields).

Fontmell Close is ‘L’ shaped, 250m in length and generally level. Bridle Close joins this Close on the southern side approximately half way along its length. Vehicular access to Fontmell Close is

from Seymour Road however, due to the recent (01/10/15) sinkhole collapse in the centre of Fontmell Close, most vehicles are utilising the temporary road created from Bridle Close.

It is understood from local knowledge that the site may have formed part of a larger Victorian clay pit that had been backfilled.

2.2 Published Geology

The published geological map for the area, BGS Sheet 239 (1978) shows the site to be underlain by drift deposits of Glacial Gravel. Underlying solid geological deposits are indicated to be Reading Beds and the Upper Chalk. The Reading Beds are now known as part of the Lambeth Group Formation and the Upper Chalk is now commonly known as the White Chalk Sub Group.

The BGS Geology of Britain Viewer (2015) confirms the solid geological deposits to be Lambeth Group over Lewes Nodular Chalk Formation and Seaford chalk Formation (Undifferentiated) but the overlying drift deposits are called the Kesgrave Catchment Subgroup comprising sand and gravel. For the purposes of this investigation, the geology nomenclature from BGS Sheet 239 has been utilised.

3 FIELDWORK

The fieldwork was carried out in general accordance with BS 5930 (2015), BS EN 1997-2 (2007) and BS EN ISO 22475-1 (2006).

The exploratory hole and in situ test locations were selected by Opus and set out from local features. A geophysical survey of the area, undertaken by Geotechnology Ltd (report reference 1531r1vd1015), was utilised by Opus to identify areas of potential geological interest. All exploratory hole positions were located in the road and were required to be cored out beforehand. The final locations were surveyed to National Grid and Ordnance Datum by James Doran Surveying on behalf of ESG. The exploratory hole and in situ test locations are shown on the Site Plan in Appendix A.

In addition, periodic monitoring of the ground levels in the vicinity of the drilling rigs was carried out during fieldwork. The results of this monitoring has been issued separately.

3.1 Exploratory Holes

The exploratory holes are listed in the following table.

TABLE 1 : SUMMARY OF EXPLORATORY HOLES

TYPE	QUANTITY	MAXIMUM DEPTH (m)	REMARKS
Window Sampling	5	10.00	
Dynamic Probing	16	25.00	
Cable Percussion Boring	6	30.00	
Rotary Open Holing, Dynamic Sampling & Coring	14	50.00	

The exploratory hole logs are presented in Appendix B. These provide information including the equipment and methods used, samples taken, tests carried out, water observations and descriptions of the strata encountered. Explanation of the terms and abbreviations used on the logs is given in the Key to Exploratory Hole Records in Appendix B, together with other explanatory information. The logging of soil is in accordance with BS EN ISO 14688-1+A1 (2013) for soils and as amplified by BS 5930 (2015).

Standard penetration tests (SPT) in the boreholes were carried out in accordance with BS EN ISO 22476-3+A1 (2011) and the SPT hammer energy ratio certificates are included in Appendix B. The SPT results are presented on the logs as uncorrected N values.

On completion of the fieldwork, geotechnical samples were transported to the ESG Maidstone office for temporary retention, with those required for testing being transferred to the ESG laboratory.

3.2 In Situ Testing

In situ testing was carried out in accordance with the relevant standards as tabulated below. The testing is summarised in the following table and the results are presented in Appendix C unless noted otherwise. Calibration certificates where appropriate are included with the results in the appendix.

TABLE 2: SUMMARY OF IN SITU TESTING

TYPE	QUANTITY	REMARKS
Standard Penetration Test	120	BS EN ISO 22476-3 (2011). Results and calibration certificates presented on logs in Enclosure B
Dynamic Probing	16	BS EN ISO 22476-2 (2011)

4 GEOTECHNICAL LABORATORY TESTING

Geotechnical laboratory testing was scheduled by Opus. The geotechnical laboratory testing report will be issued as an addendum report.

REFERENCES

BGS England and Wales Sheet 239 : 1978 : Hertford. 1:50000 geological map (solid and drift). British Geological Survey.

BGS Geology of Britain Viewer : 2015. www.bgs.ac.uk. British Geological Survey.

BS 5930 : 2015 : Code of practice for ground investigations. British Standards Institution.

BS EN 1997-2 : 2007 : Eurocode 7 - Geotechnical design - Part 2 Ground investigation and testing. British Standards Institution.

BS EN ISO 14688-1:2002+A1 : 2013 : Geotechnical investigation and testing - Identification and classification of soil - Part 1 Identification and description. British Standards Institution.

BS EN ISO 14688-2:2004+A1 : 2013 : Geotechnical investigation and testing - Identification and classification of soil - Part 2 Principles for a classification. British Standards Institution.

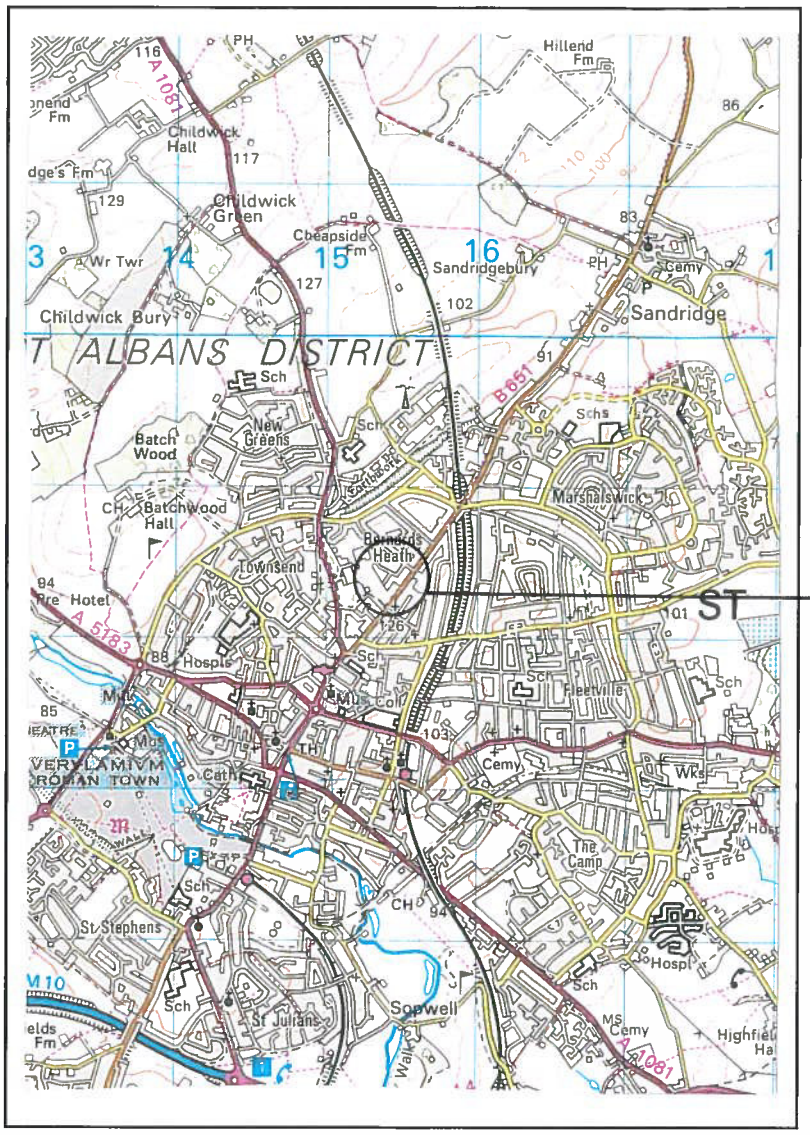
BS EN ISO 22476-2:2005+A1 : 2011 : Geotechnical investigation and testing - Field testing - Part 2 Dynamic probing. British Standards Institution.

APPENDIX A

FIGURES AND DRAWINGS

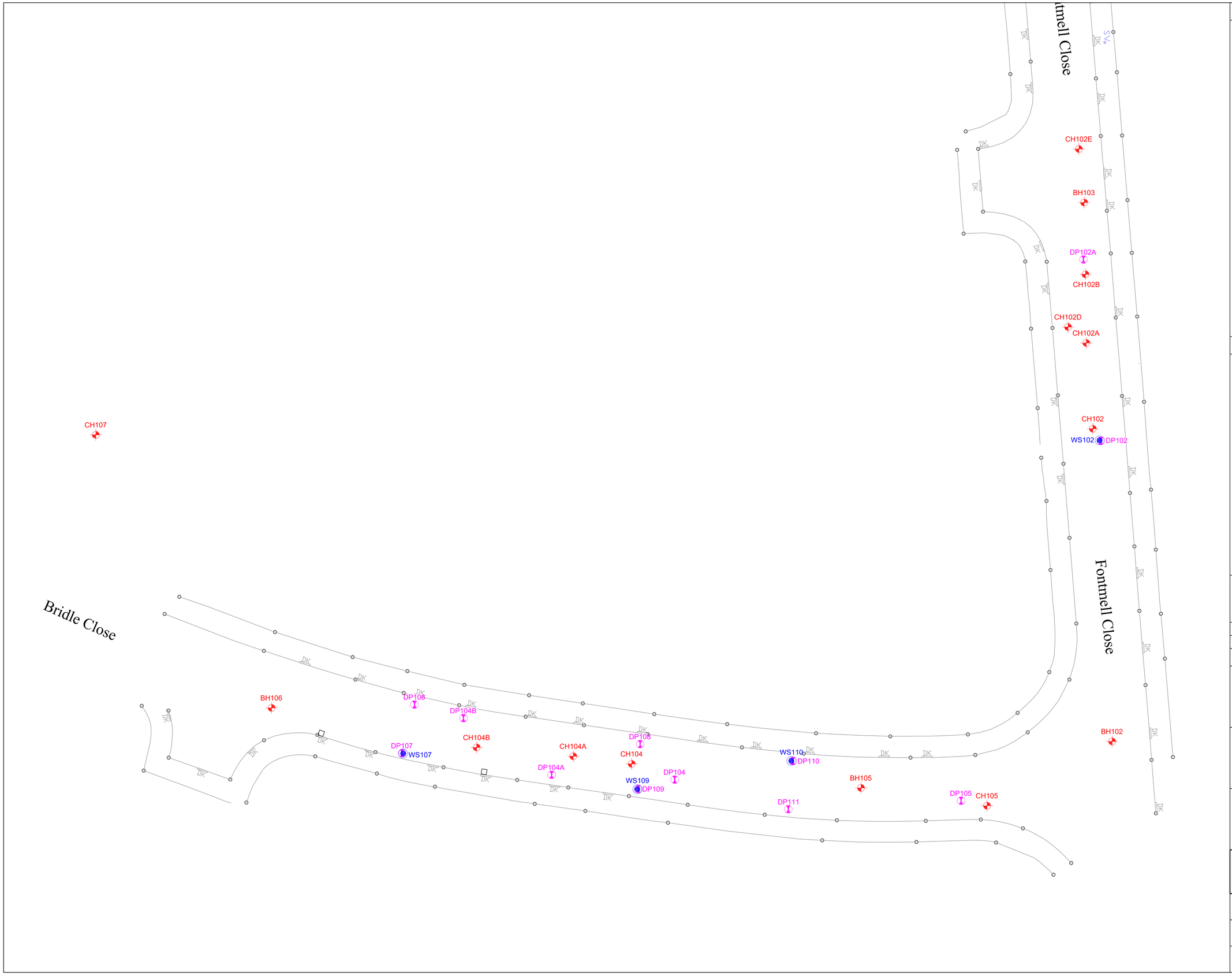
Site Location Plan	A1
Site Plans	A2/1 & A2/2

Site Location Plan



Reproduced from the 1990 Ordnance Survey 1:50 000 scale Landranger map No 166 by permission of Ordnance Survey on behalf of The Controller of Her Majesty's Stationery Office, © Crown copyright, Environmental Services Group Limited. All rights reserved. Licence Number 100006060

Notes: Scale 1:50 000	Project Project No. Carried out for	Bridle Close and Fontmell Close, St Albans G5519-15 Hertfordshire County Council	Figure A1



GENERAL NOTES

1. Reproduced from James Doran Surveying Services Drawing No. J211–DWG001 & J211–DWG002.

LEGEND TO SYMBOLS

- Borehole Location
- Window Sample Location
- Dynamic Probe Location

Scale: 1:150

0 1.5m 3 6 9 12

Rev	Drawn	Date	Approv.	Date	Modification Details
x	x	x	x	x	x

AMENDMENTS

Title

SITE PLAN

Project

BRIDLE CLOSE AND FONTMELL CLOSE, ST ALBANS

Client

HERTFORDSHIRE COUNTY COUNCIL

ESG

Date	Drawn By	Approv. By
09/03/2016	BS	RS

Sheet Size	Scale	Project No
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Drawing No	Rev
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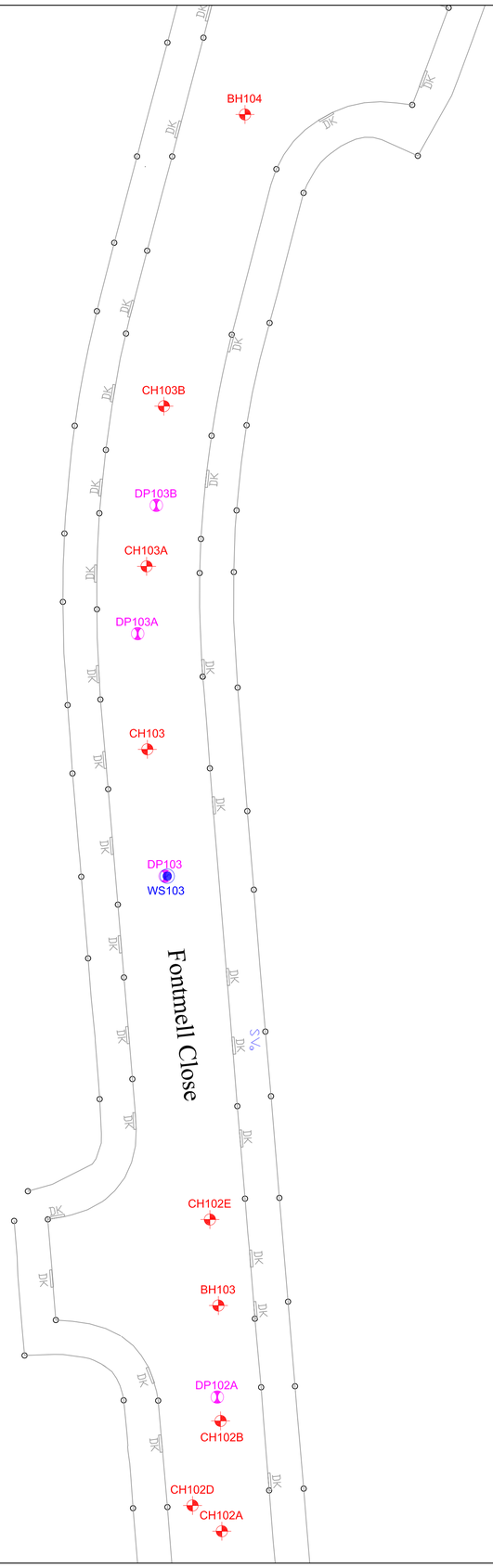

GENERAL NOTES

1. Reproduced from
James Doran Surveying Services
Drawing No. J211–DWG001 & J211–DWG002.

LEGEND TO SYMBOLS

- Borehole Location
- Window Sample Location
- Dynamic Probe Location

Scale: 1:150

0 1.5m 3 6 9 12

Rev	Drawn	Date	Approv.	Date	Modification Details
x	x	x	x	x	x

AMENDMENTS

Title

SITE PLAN

Project

BRIDLE CLOSE AND FONTMELL CLOSE, ST ALBANS

Client

HERTFORDSHIRE COUNTY COUNCIL

ESG

Date	Drawn By	Approv. By
09/03/2016	BS	RS

Sheet Size	Scale	Project No
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Drawing No	Rev
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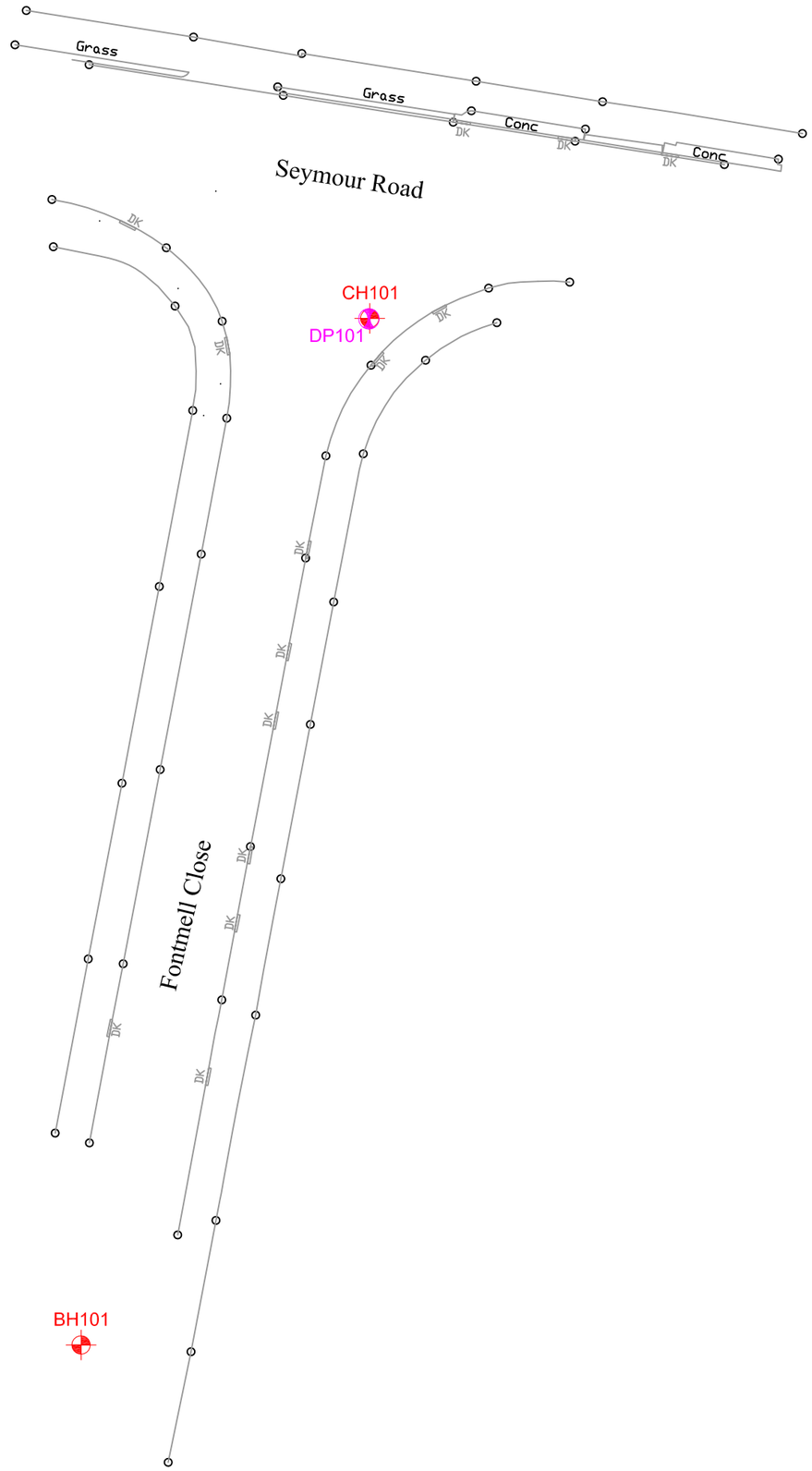


GENERAL NOTES

1. Reproduced from
James Doran Surveying Services
Drawing No. J211–DWG003.

LEGEND TO SYMBOLS

Borehole Location

Dynamic Probe Location

Scale: 1:300

0 3m 6 9 12 15

Rev	Drawn	Date	Approv.	Date	Modification Details
x	x	x	x	x	x

AMENDMENTS

Title

SITE PLAN

Project

BRIDLE CLOSE AND
FONTMELL CLOSE, ST ALBANS

Client

HERTFORDSHIRE
COUNTY COUNCIL

ESG

Date	Drawn By	Approv. By
09/03/2016	BS	RS

Sheet Size	Scale	Project No
A3	1:300	G5519-15

Drawing No	Rev
A2-2	0

APPENDIX B

EXPLORATORY HOLE RECORDS

Key to Exploratory Hole Records	Key
SPT Hammer Energy Ratio Reports	SPT Hammer References Dart105, GC01, AR013, SI012, BS1
Window Sampler Hole Logs	WS102, WS103B, WS107, WS109, WS110
Cable Percussive Borehole Logs	BH101 to BH106
Rotary Borehole Logs	CH101 to CH105, CH102A to CH102E, CH13A, CH103B, CH104A, CH104B

Key to Exploratory Hole Records

SAMPLES

Undisturbed

U	Driven tube sample
UT	Driven thin wall tube sample
TW	Pushed thin wall tube sample
P	Pushed piston sample

} nominally 100 mm diameter and full recovery unless otherwise stated

L	Liner sample (from Windowless or similar sampler), full recovery unless otherwise stated
CBR	CBR mould sample
BLK	Block sample
CS	Core sample (from rotary core) taken for laboratory testing
AMAL	Amalgamated sample

Disturbed

D	Small sample
B	Bulk sample

Other

W	Water sample
G	Gas sample
	Environmental chemistry samples (in more than one container where appropriate)
ES	Soil sample
EW	Water sample

Comments

Sample reference numbers are assigned to every sample taken. A sample reference of 'NR' indicates that attempt was made to take a tube sample, however, there was no recovery.

Monitoring samples taken after completion of hole construction are not shown on the exploratory hole logs.

TESTS

SPT S or SPT C — Standard Penetration Test, open shoe (S) or solid cone (C)

The Standard Penetration Test is defined in BS EN ISO 22476-3:2005+A1:2011. The incremental blow counts are given in the Field Records column; each increment is 75 mm unless stated otherwise and any penetration under self weight in mm (SW) is noted. Where the full 300 mm test drive is achieved the total number of blows for the test drive is presented as N = ** in the Test column. Where the test drive blows reach 50 the total blow count beyond the seating drive is given (without the N = prefix).

IV	*in situ* Vane shear strength, peak (p) and remoulded (r)
HV	Hand vane shear strength, peak (p) and remoulded (r)
PP	Pocket penetrometer test, converted to shear strength
KFH, KRH, KPI	Permeability tests (KFH = falling head, KRH = rising head; KPI = packer inflow); results provided in Field Records column (one value per stage for packer tests)

DRILLING RECORDS

The mechanical indices (TCR/SCR/RQD & If) are defined in BS 5930:2015

TCR	Total Core Recovery, %
SCR	Solid Core Recovery, %
RQD	Rock Quality Designation, %
If	Fracture spacing, mm. Minimum, typical and maximum spacings are presented. The term non-intact (NI) is used where the core is fragmented.

Flush returns, estimated percentage with colour where relevant, are given in the Records column

CRF	Core recovered (length in m) in the following run
AZCL	Assessed zone of core loss
NR	Not recovered

GROUNDWATER

▼	Groundwater strike
▽	Groundwater level after standing period

Notes:
See report text for full references of standards

Project	**Fontmell Close and Bridle Close, St. Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Key

Key to Exploratory Hole Records

INSTALLATION

Standpipe/ piezometer

Details of standpipe/piezometer installations are given on the Record. Legend column shows installed instrument depths including slotted pipe section or tip depth, response zone filter material type and layers of backfill.

The type of instrument installed is indicated by a code in the Legend column at the depth of the response zone:

SP	Standpipe
SPIE	Standpipe piezometer
PPIE	Pneumatic piezometer
EPIE	Electronic piezometer

Inclinometer or Slip Indicator

The installation of vertical profiling instruments is indicated on the Record. The base of tubing is shown in the Legend column.

The type of instrument installed is indicated by a code in the Legend column at the base of the tubing:

ICE	Biaxial inclinometer
ICM	Inclinometer tubing for use with probe
SLIP	Slip indicator

Settlement Points or Pressure Cells

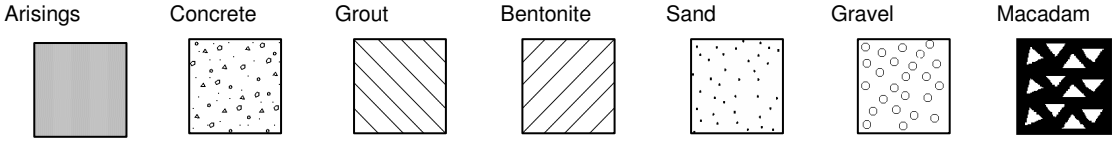
The installation of single point instruments is indicated on the Record. The location of the measuring device is shown in the Legend column.

The type of instrument installed is indicated by a code in the Legend column:

ESET	Electronic settlement cell/gauge
ETM	Magnetic extensometer settlement point
EPCE	Electronic embedment pressure cell
PPCE	Electronic push in pressure cell

INSTALLATION LEGENDS

A legend describing the installation is shown in the rightmost column. Legends used to describe the backfill materials as indicated below.



NOTES

1 Soils and rocks are described in accordance with BS EN ISO 14688-1:2002+A1:2013 and 14689-1:2003 respectively as amplified by BS 5930:2015.

2 For fine soils, consistency determined during description is reported for those strata where undisturbed samples are available. Where the logger considers that the sample may not be representative of the condition in situ, for whatever reason, the reported consistency is given in brackets. The reliability of the sample is indicated by Probably or Possibly as appropriate. Hence (Probably firm) indicates the logger is reasonably confident of the assessment, but (Possibly firm) means less certainty. Where the samples available are too disturbed to allow a reasonable assessment of the in situ condition, no consistency is given.

3 Evidence of the occurrence of very coarse particles (cobbles and boulders) is presented on the logs, however, because of their size in relation to the exploratory hole these records may not be fully representative of their size and frequency in the ground mass.

4 The declination of bedding and joints is given with respect to the normal to the core axis. Thus in a vertical borehole this will be the dip.

5 The assessment of SCR, RQD and Fracture Spacing excludes artificial fractures

6 Water level observations of discernible entries during the advancing of the exploratory hole are given at the foot of the log and in the Legend column. The term "none observed" is used where no discrete entries are identified although this does not necessarily indicate that the hole has not been advanced below groundwater level. Under certain conditions groundwater cannot be observed, for instance, drilling with water flush or overwater, or boring at a rate much faster than water can make its way into the borehole In addition, where appropriate, water levels in the hole at the time of recovering individual samples or carrying out in situ tests and at shift changes are given in the Records column.

7 The borehole logs present the results of Standard Penetration Tests recorded in the field without correction or interpretation. However, in certain ground conditions (eg high hydraulic head or where very coarse particles are present) some judgement may be necessary in considering whether the results are representative of in situ mass conditions.

Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Testconsult Limited
Ruby House
40A Hardwick Grange
Warrington
Cheshire
WA1 4RF

Hammer Ref:	Dart105
Test Date:	26/01/2015
Report Date:	28/01/2015
File Name:	105.spt
Test Operator:	TS

UKAS TESTING 0955

Instrumented Rod Data

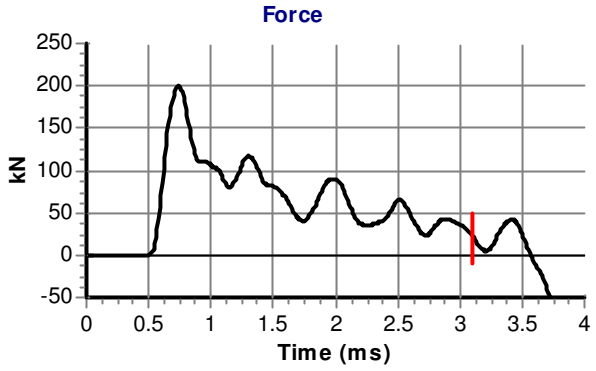
Diameter d_r (mm):	54
Wall Thickness t_r (mm):	6.8
Assumed Modulus E_a (GPa):	208
Accelerometer No.1:	8965
Accelerometer No.2:	8966

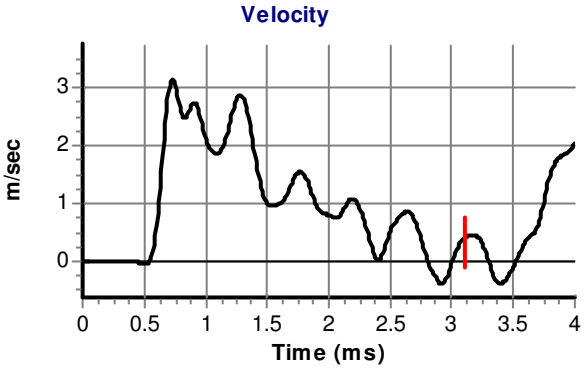
Hammer Information

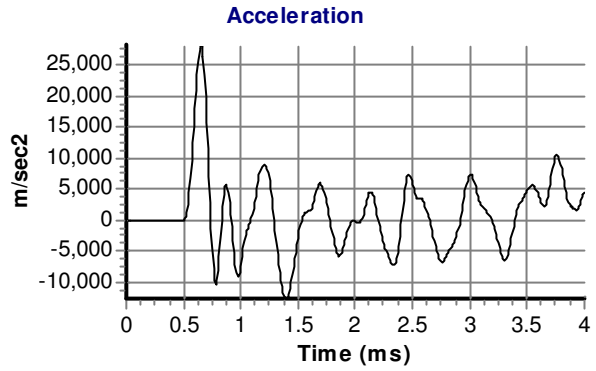
Hammer Mass m (kg):	63.5
Falling Height h (mm):	760
String Length L (m):	10.0

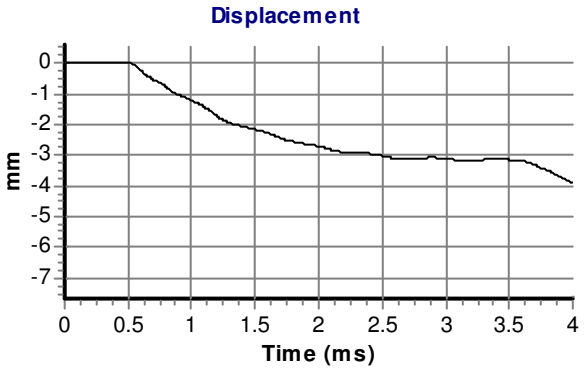
Comments / Location

Dart Window Sampler - ESG Maidstone









Calculations

Area of Rod A (mm2):	1008
Theoretical Energy E_{theor} (J):	473
Measured Energy E_{meas} (J):	318

Energy Ratio E_r (%): **67**

Signed: Huw Williams
Title: Director

The recommended calibration interval is 12 months

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Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

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

Hammer Ref:	GC01
Test Date:	17/05/2015
Report Date:	
File Name:	GC01.spt
Test Operator:	TP

Instrumented Rod Data

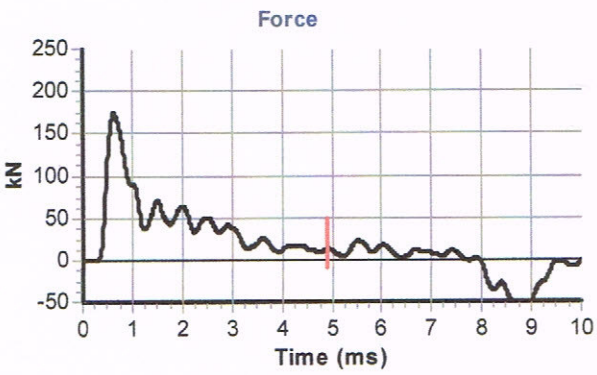
Diameter d_r (mm):	54
Wall Thickness t_r (mm):	6.9
Assumed Modulus E_a (GPa):	208
Accelerometer No.1:	6455
Accelerometer No.2:	6457

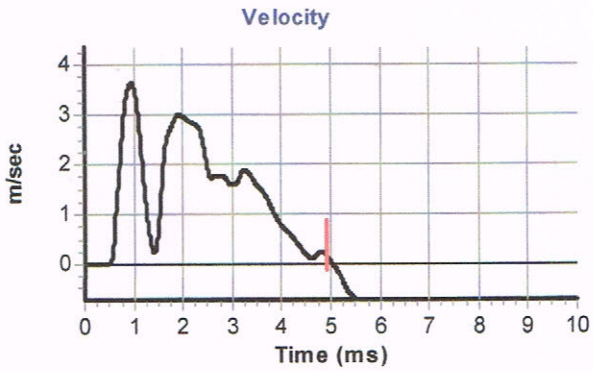
Hammer Information

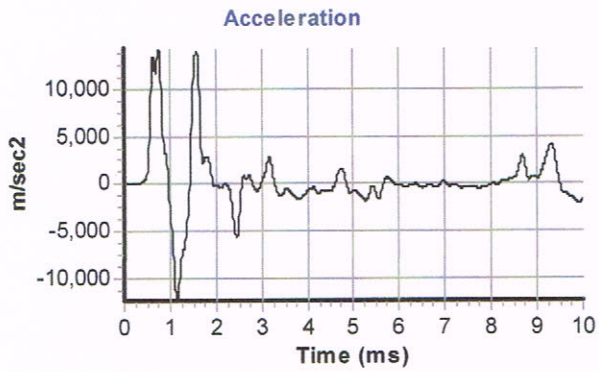
Hammer Mass m (kg):	63.5
Falling Height h (mm):	760
String Length L (m):	15.0

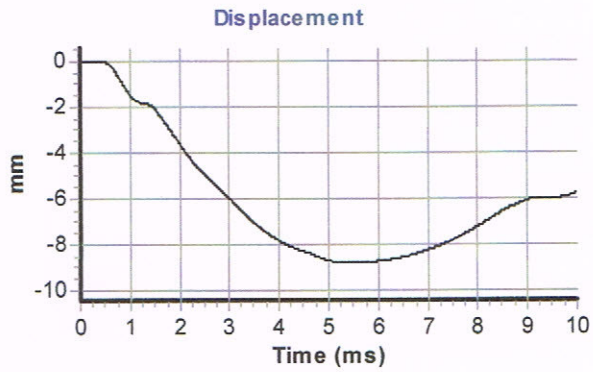
Comments / Location

Hammer tested at Dynamic samplings yard.









Calculations

Area of Rod A (mm2):	1021
Theoretical Energy E_{theor} (J):	473
Measured Energy E_{meas} (J):	369

Energy Ratio E_r (%): **78**

Signed: A.parker
Title: Manager

The recommended calibration interval is 12 months

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testconsult
Specialist Testing Services

Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Testconsult Limited
Ruby House
40A Hardwick Grange
Warrington
Cheshire
WA1 4RF

Hammer Ref:	AR013
Test Date:	26/01/2015
Report Date:	28/01/2015
File Name:	AR13TRIP.spt
Test Operator:	HTW

UKAS TESTING 0955

Instrumented Rod Data

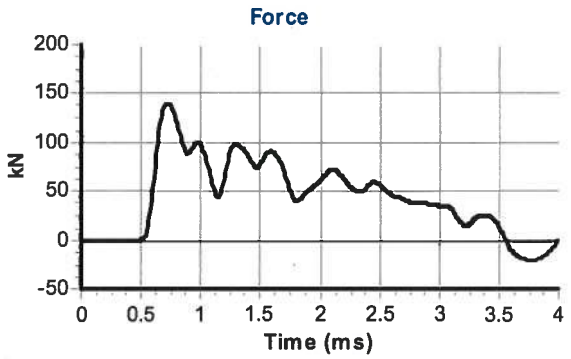
Diameter d_r (mm):	54
Wall Thickness t_r (mm):	6.8
Assumed Modulus E_a (GPa):	208
Accelerometer No.1:	8965
Accelerometer No.2:	8966

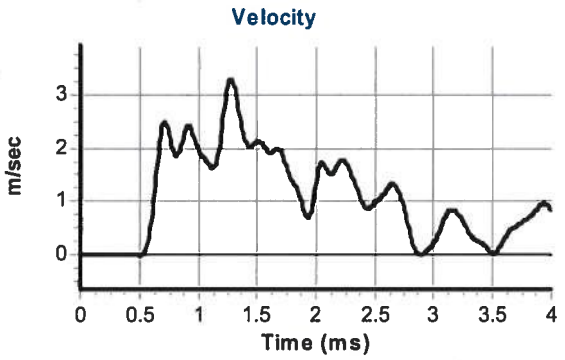
Hammer Information

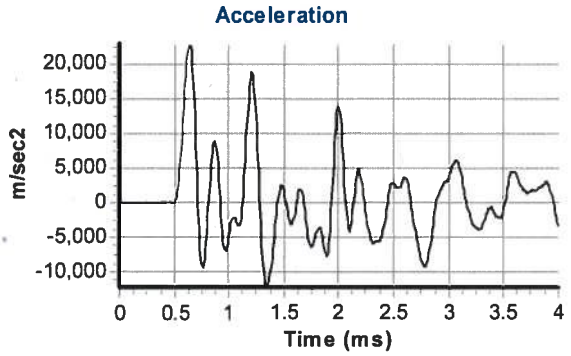
Hammer Mass m (kg):	63.5
Falling Height h (mm):	760
String Length L (m):	10.0

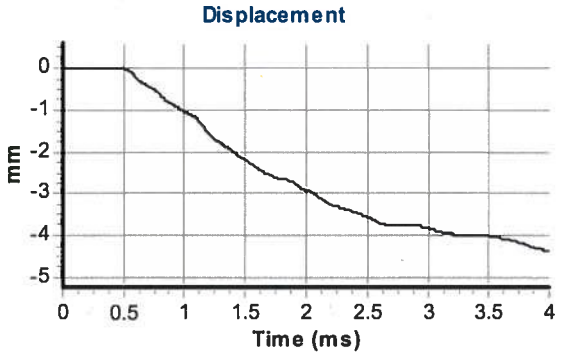
Comments / Location

Trip Hammer - ESG Maidstone









Calculations

Area of Rod A (mm2):	1008
Theoretical Energy E_{theor} (J):	473
Measured Energy E_{meas} (J):	304

Energy Ratio E_r (%): 64

Signed: Huw Williams
Title: Director

TESTCONSULT LIMITED TESTING SERVICE

The recommended calibration interval is 12 months

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

SPT Calibration Report

www.equipegroup.com

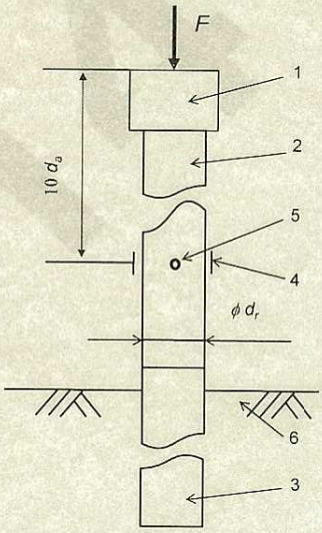
Hammer Energy Measurement Report

Type of Hammer	SPT HAMMER
Client	SI DRILLING
Test No	EQU1130
Test Depth (m)	6.50
Date of Test	20 December 2014
Valid until	20 December 2015
Hammer ID	SI012

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

Characteristics of the instrumented rod

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

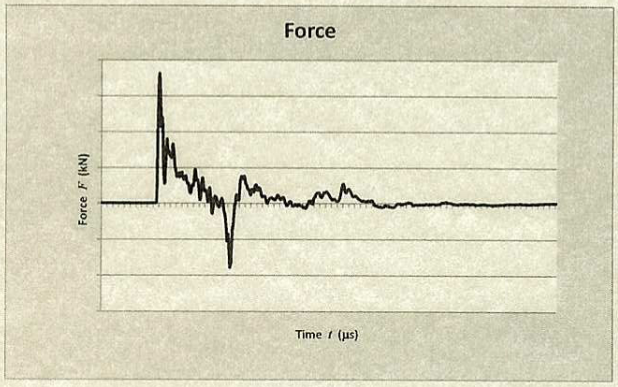


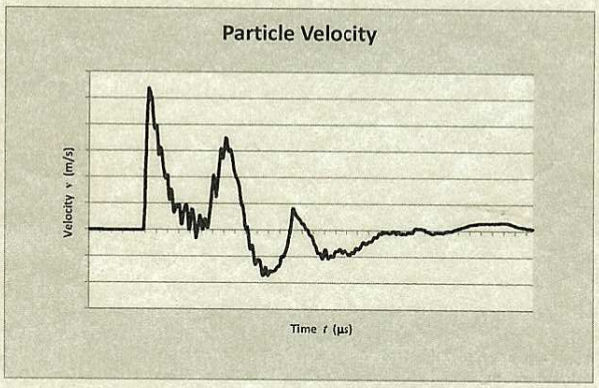
Key

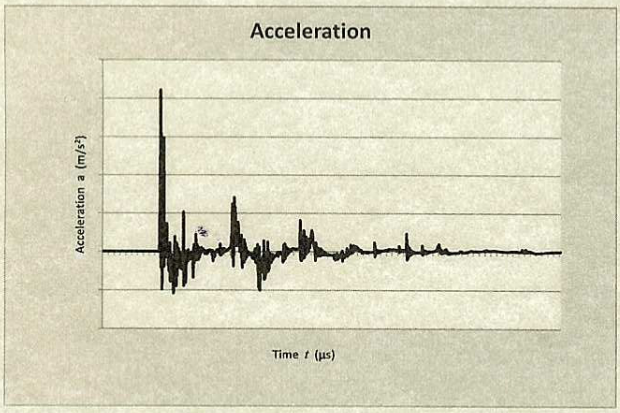
1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

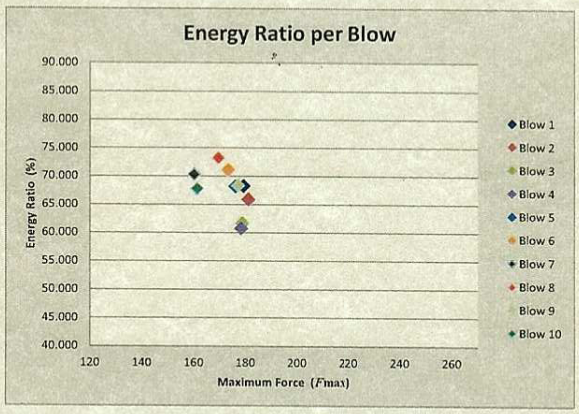
F Force
d_r Diameter of rod

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









Observations:
1.

E_{meas} = **0.318** kN-m

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

Energy Ratio (E_r) = $\frac{E_{meas}}{E_{theor}}$ = 67.24%

Equipe SPT Analyzer Operators: KS

Prepared by: **Checked by:** **Date** 06/01/2015

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Equipe Group, The Paddocks, Home Farm Offices, The Upton Estate, Banbury, Oxfordshire, OX15 6HU
Tel: 01295 670990 Fax: 01295 678232 Email: info@equipegroup.com

Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

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

Hammer Ref:	BS1
Test Date:	21/12/2015
Report Date:	
File Name:	BS1.spt
Test Operator:	TP

Instrumented Rod Data

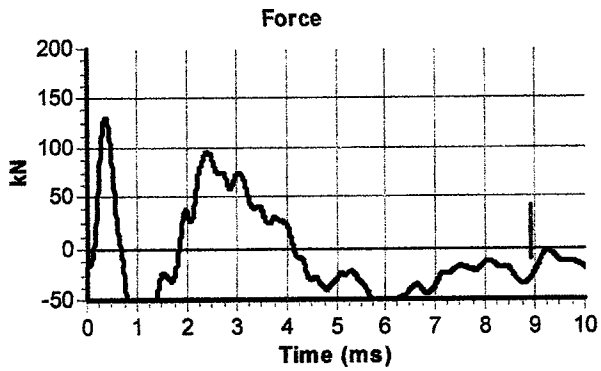
Diameter d_r (mm):	54
Wall Thickness t_r (mm):	6.9
Assumed Modulus E_a (GPa):	208
Accelerometer No.1:	6455
Accelerometer No.2:	6457

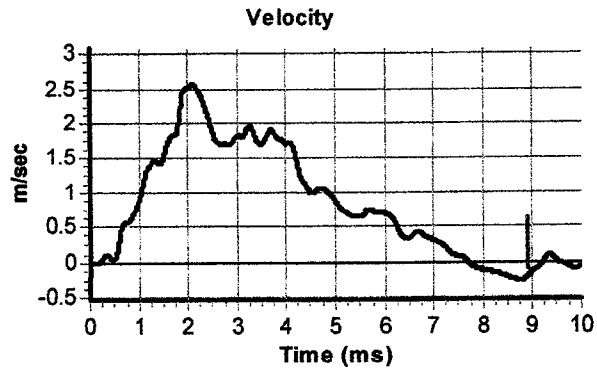
Hammer Information

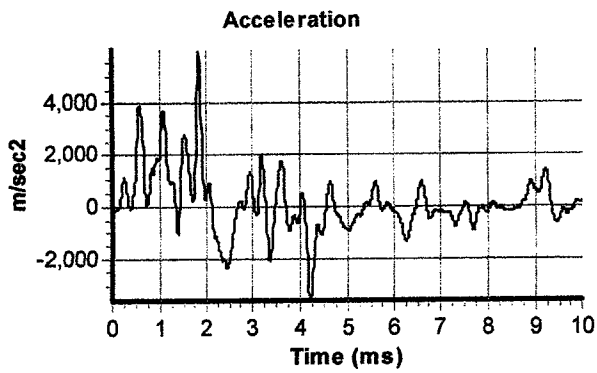
Hammer Mass m (kg):	63.5
Falling Height h (mm):	760
String Length L (m):	15.0

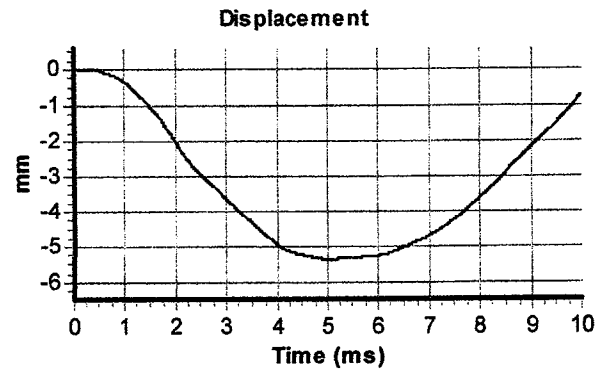
Comments / Location

Borehole solutions hammer tested at Dynamic samplings yard.









Calculations

Area of Rod A (mm2):	1021
Theoretical Energy E_{theor} (J):	473
Measured Energy E_{meas} (J):	216

Energy Ratio E_r (%): **46**

Signed: A.parker
Title: Manager

The recommended calibration interval is 12 months

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Borehole Log

Drilled	DR/TT	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.39 mOD
Logged	SW	16/12/2015	Dart C130	1.20	2.00	87		**Coordinates (m)**	E 515398.36
Checked	LWB	**End**	Inspection pit to 1.20m then lined window sampling to 5.00m.	2.00	3.00	77		**National Grid**	N 208459.12
Approved	RJS	16/12/2015		3.00	4.00	67			
				4.00	5.00	57			

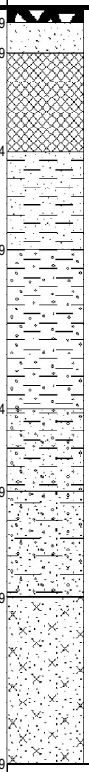
Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
1.50	D 1			
2.00	D 2			
2.50	D 3			
3.00	D 4			
3.50	D 5			
4.00	D 6			
4.50	D 7			
5.00	D 8			

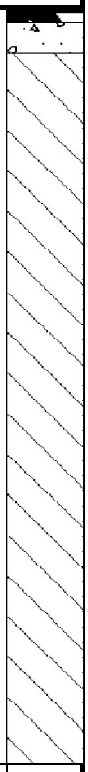
Strata Description

Main	Detail	Depth, Level (Thickness)	
Macadam.		0.10 (0.10)	+122.29
Concrete.		0.30 (0.20)	+122.09
Dark grey/black sandy clayey GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete, brick and flint. (MADE GROUND)		0.95 (0.65)	+121.44
Soft orangish brown mottled light bluish grey slightly sandy CLAY with occasional rootlets. Sand is fine. (GLACIAL GRAVEL)		1.60 (0.65)	+120.79
Soft light orangish brown mottled light bluish grey very gravelly CLAY. Gravel is subangular to rounded fine to medium of flint. (GLACIAL GRAVEL)	2.10-2.65 Slightly gravelly	2.65 (1.05)	+119.74
Soft to firm orangish brown sandy very gravelly CLAY. Sand is fine to coarse, gravel is angular to subrounded fine to medium of flint. (GLACIAL GRAVEL)		3.20 (0.55)	+119.19
Orangish brown gravelly clayey medium to coarse SAND. Gravel is angular to subrounded fine to medium of flint. (GLACIAL GRAVEL)	3.60-3.90 Very gravelly	3.90 (0.70)	+118.49
Orangish brown and light grey slightly silty fine to medium SAND. (READING BEDS)		5.00 (1.10)	+117.39
END OF EXPLORATORY HOLE			

Legend



Backfill



Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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11/03/2016 15:03:51

Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

WS102

Borehole Log

Drilled	DR/TT	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.56 mOD
Logged	SW	16/12/2015	Dart C130	1.20	2.00	87		**Coordinates (m)**	E 515362.70
Checked	LWB	**End**	Inspection pit to 1.20m then lined window sampling to 5.00m.	2.00	3.00	77		**National Grid**	N 208484.00
Approved	RJS	16/12/2015		3.00	4.00	67			
				4.00	5.00	57			

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
1.50	D 1			
2.00	D 2			
2.50	D 3			
3.00	D 4			
3.50	D 5			
4.00	D 6			
4.50	D 7			
5.00	D 8			

Strata Description

Main	Detail	Depth, Level (Thickness)
Macadam.		0.10 (0.10) +122.46
Concrete.		(0.25)
Dark grey sandy slightly clayey GRAVEL with high cobble content. Gravel is angular to subangular fine to coarse of brick, concrete and flint. Cobbles are angular to subangular of concrete and brick. (MADE GROUND)		0.35 +122.21 (0.55) 0.90 +121.66
Soft dark grey slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of brick and flint. (MADE GROUND)		(0.30) 1.20 +121.36 (0.20)
Soft orangish brown sandy gravelly CLAY. Sand is fine to medium, gravel is angular to subangular fine to medium of flint and rare subrounded to rounded fine to medium of chalk. (MADE GROUND)		1.40 +121.16 (0.30) 1.70 +120.86
Soft orangish brown gravelly very sandy CLAY. Sand is fine to coarse, gravel is angular to subangular fine to medium of flint. (GLACIAL GRAVEL)		(0.40) 2.10 +120.46
Orangish brown slightly clayey gravelly fine to medium SAND. Gravel is angular to subangular fine to medium of flint. (GLACIAL GRAVEL)		(0.50) 2.60 +119.96
Orangish brown medium to coarse SAND. (GLACIAL GRAVEL)	3.05-3.40 Becomes very sandy	
Soft to firm orangish brown sandy very gravelly CLAY. Sand is fine to coarse, gravel is angular to subrounded fine to coarse of flint. (GLACIAL GRAVEL)		(1.30) 3.90 +118.66
Orangish brown gravelly fine to coarse SAND. Gravel is angular to subangular fine to medium of flint. (GLACIAL GRAVEL)		(1.10) 5.00 +117.56
END OF EXPLORATORY HOLE		

Legend: 1 ⊠

Backfill

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)
1	4.00	Seepage	

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

WS103B

Borehole Log

Drilled	DR/TT	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.29 mOD
Logged	SW	14/12/2015	Dart C130	1.20	2.00	100		**Coordinates (m)**	E 515380.26
Checked	LWB	**End**	Inspection pit to 1.20m then lined window sampling to 5.00m.	2.00	3.00	87		**National Grid**	N 208396.21
Approved	RJS	14/12/2015	SPT hammer Dart105	3.00	4.00	77			
				4.00	5.00	67			

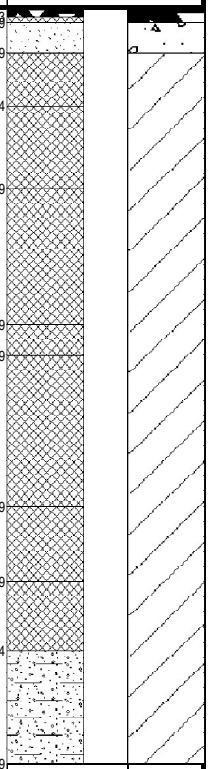
Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
1.00 - 1.45	SPTS	N=7 (1,1/2,1,2,2)		
1.00 - 1.45	D 1			
1.50	D 2			
2.00 - 2.45	SPTS	N=5 (2,2/1,2,1,1)		
2.00	D 3			
2.00 - 2.45	D 4			
2.20	D 5			
2.50	D 6			
3.00 - 3.45	SPTS	N=4 (2,1/1,1,1,1)		
3.00	D 7			
3.50	D 8			
4.00 - 4.45	SPTS	N=11 (2,2/3,2,3,3)		
4.00	D 9			
4.00 - 4.45	D 10			
4.50	D 11			
5.00	D 12			

Strata Description

Main	Detail	Depth, Level (Thickness)
MACADAM.		0.06 (0.06) +122.23
Black sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of macadam. (MADE GROUND)		0.10 (0.04) +122.19
Strong light brown CONCRETE. 60% aggregate of subangular fine to coarse flint. 5% small voids.		0.30 (0.20) +121.99
Dark grey sandy clayey GRAVEL. Sand is medium to coarse, gravel is angular to subrounded fine to coarse of brick concrete, flint and rare macadam. (MADE GROUND)		0.65 (0.35) +121.64
Dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of flint, brick and concrete. (MADE GROUND)		1.20 (0.55) +121.09
Soft black slightly gravelly sandy CLAY. Sand is fine to coarse, gravel is angular to subangular fine to coarse of brick and flint. Organic odour noted. (MADE GROUND)		2.10 (0.90) +120.19
Light grey sandy very gravelly CLAY with decayed root fragments. Sand is fine to coarse, gravel is angular to rounded fine to medium of brick and flint. (MADE GROUND)		2.30 (0.20) +119.99
Soft orangish brown gravelly CLAY. Gravel is subrounded to rounded fine to medium of flint and angular to subangular fine to medium of brick and charcoal. (MADE GROUND)	3.00 SPT - no recovery 3.00-4.00 40% recovery; stratum boundaries tentative.	3.30 (1.00) +118.99
Soft dark grey sandy gravelly CLAY with frequent decayed rootlets and organic odour. Gravel is angular to subangular fine to medium of flint and brick. (MADE GROUND)		3.80 (0.50) +118.49
Soft orangish brown slightly sandy gravelly CLAY. Sand is fine to medium, gravel is subrounded to rounded fine to medium of flint and rare angular medium metal. (MADE GROUND)		4.25 (0.45) +118.04
Orangish brown gravelly slightly clayey medium to coarse SAND. Gravel is subrounded to rounded fine to medium of flint. (GLACIAL GRAVEL)		5.00 (0.75) +117.29
END OF EXPLORATORY HOLE	5.00 No SPT - collapsed hole.	

Legend / **Backfill**



Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

WS107

Borehole Log

Drilled	DR/TT	**Start**	14/12/2015
Logged	SW		
Checked	LWB	**End**	
Approved	RJS		14/12/2015

Equipment, Methods and Remarks

Dart C130
Inspection pit to 1.20m then lined window sampling to 10.00m.

Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)
1.20	2.00	100	
2.00	3.00	87	
3.00	4.00	77	
4.00	6.00	67	
6.00	10.00	57	

Ground Level	122.29 mOD
Coordinates (m)	E 515395.57
National Grid	N 208409.56

Samples and Tests

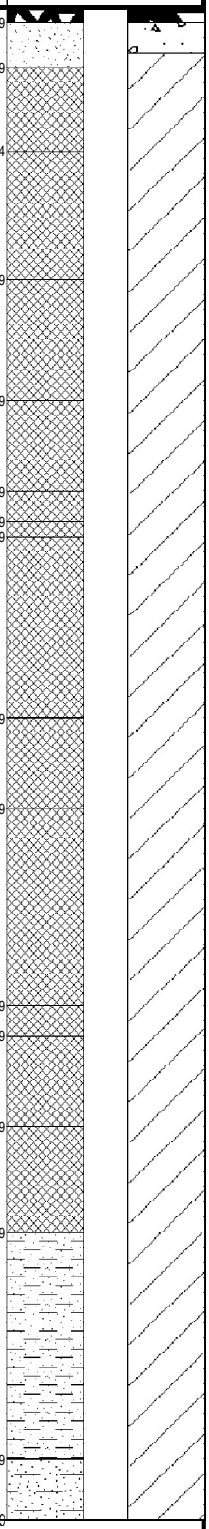
Depth	Type & No	Records	Date / Time Casing	Water
1.50	D 1			
2.00	D 2			
2.50	D 3			
3.00	D 4			
3.50	D 5			
4.00	D 6			
4.50	D 7			
5.00	D 8			
5.50	D 9			
6.00	D 10			
6.50	D 11			
7.00	D 12			
7.50	D 13			
8.00	D 14			
8.50	D 15			
9.00	D 16			
9.50	D 17			

Strata Description

Main	Detail	Depth, Level (Thickness)
Macadam		0.10 (0.10) +122.19
Concrete.		(0.30)
Dark grey slightly sandy clayey GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint, concrete and brick. (MADE GROUND)		0.40 +121.89 (0.55)
Soft dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of flint, concrete, brick and rare metal. (MADE GROUND)		0.95 +121.34 (0.85)
Light brown sandy clayey GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete, brick and flint. (MADE GROUND)		1.80 +120.49 (0.80)
Soft light brown sandy gravelly CLAY. Sand is fine to medium, gravel is subrounded to rounded of flint. (MADE GROUND)		2.60 +119.69 (0.60)
Light brown gravelly clayey fine to coarse SAND. Gravel is angular to subangular fine and medium of flint, brick and concrete. (MADE GROUND)		3.20 +119.09 (0.20) 3.40 +118.89 (0.10) 3.50 +118.79
Soft light brown sandy CLAY. Sand is fine to coarse. (MADE GROUND)		
Soft dark grey gravelly CLAY. Gravel is angular to subangular fine to medium of flint, brick, chalk and rare glass. (MADE GROUND)		(1.20)
Soft dark grey to black gravelly CLAY. Gravel is angular to subangular fine to medium of charcoal, brick, pottery and rare decayed rootlets. (MADE GROUND)		4.70 +117.59 (0.60)
Very soft light brown mottled light grey slightly sandy gravelly CLAY. Sand is fine, gravel is angular to subrounded fine to medium of brick, flint, chalk and rare charcoal. (MADE GROUND)		5.30 +116.99 (1.30)
Very soft dark grey gravelly CLAY. Gravel is subangular to subrounded of chalk, flint and brick. (MADE GROUND)		6.60 +115.69 (0.20) 6.80 +115.49
Very soft light brown mottled grey gravelly CLAY. Gravel is subangular to rounded fine to medium of flint. (MADE GROUND)		(0.60)
Dark greenish grey gravelly CLAY. Gravel is angular to subangular fine to medium of brick and charcoal and subrounded to rounded fine to medium of chalk. Slight organic odour. (MADE GROUND)		7.40 +114.89 (0.70)
Soft orangish brown very sandy CLAY. Sand is fine to medium. (GLACIAL GRAVEL)		8.10 +114.19 (1.50)
Orangish brown clayey fine to coarse SAND. (GLACIAL GRAVEL)		9.60 +112.69 (0.40)
		10.00 +112.29

Hole continues on next sheet

Legend **Backfill**



Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

WS109

Borehole Log

Drilled	DR/TT	**Start**	14/12/2015
Logged	SW	**End**	14/12/2015
Checked	LWB		
Approved	RJS		

Equipment, Methods and Remarks

Dart C130
Inspection pit to 1.20m then lined window sampling to 10.00m.

Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)
1.20	2.00	100	
2.00	3.00	87	
3.00	4.00	77	
4.00	6.00	67	
6.00	10.00	57	

Ground Level	122.29 mOD
Coordinates (m)	E 515395.57
National Grid	N 208409.56

Samples and Tests / Strata Description

Depth	Type & No	Records	Date / Time Casing / Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
10.00	18			END OF EXPLORATORY HOLE				

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

WS109

Borehole Log

Drilled	DR/TT	**Start**	15/12/2015
Logged	SW	**End**	15/12/2015
Checked	LWB		
Approved	RJS		

Equipment, Methods and Remarks

Dart C130
Inspection pit to 1.20m then lined window sampling to 6.00m.

Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)
1.20	2.00	87	
2.00	3.00	77	
3.00	5.00	67	

Ground Level	122.33 mOD
Coordinates (m)	E 515395.57
National Grid	N 208409.56

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
1.50	D 1			
2.00	D 2			
2.50	D 3			
3.00	D 4			
3.50	D 5			
4.00	D 6			
4.50	D 7			
5.00	D 8			
5.50	D 9			
6.00	D 10			

Strata Description

Main	Detail	Depth, Level (Thickness)
Macadam.		0.10 (0.10) +122.23
Concrete.		(0.25)
Light grey sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete. (MADE GROUND)		0.35 (0.15) +121.98 0.50 +121.83
Concrete.		(0.30)
Soft dark grey to black gravelly CLAY with low cobble content. Gravel is angular to subangular fine to coarse of concrete, brick and flint. Cobbles are angular to subangular of concrete. (MADE GROUND)		0.80 +121.53 (0.30) 1.10 +121.23
Soft light to dark brown slightly sandy gravelly CLAY. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete, brick, flint, chalk, charcoal and rare glass. (MADE GROUND)		(1.20) 2.30 +120.03
Soft orangish brown mottled dark brownish light grey sandy gravelly CLAY. Sand is fine to coarse, gravel is subangular to rounded fine to medium of flint and rare brick. (MADE GROUND)		(0.95) 3.25 +119.08
Soft orangish brown gravelly CLAY with frequent thick laminae of white silt. Gravel is subangular to subrounded fine to medium of flint. Frequent decayed rootlets. (GLACIAL GRAVEL)		(0.55) 3.80 +118.53
Soft to firm light orangish brown mottled grey sandy gravelly CLAY. Sand is fine to coarse, gravel is subrounded to rounded fine to medium of flint. (GLACIAL GRAVEL)		(1.10) 4.90 +117.43
Soft light brown slightly gravelly CLAY. Gravel is subrounded to rounded fine to medium of flint. GLACIAL GRAVEL)		(0.50) 5.40 +116.93
Soft light bluish grey slightly sandy slightly gravelly CLAY. Sand is fine to medium, gravel is subrounded to rounded fine to medium of flint. Organic odour. (GLACIAL GRAVEL)		(0.60) 6.00 +116.33
END OF EXPLORATORY HOLE		

Legend

Backfill

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

WS110

Borehole Log

Drilled	JH/DF	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	121.86 mOD
Logged	SW	01/02/2016	Pilcon Concrete broken out previously by small excavator. Inspection pit to 1.20m then cable percussive boring to 18.95m. SPT hammer BS1	0.00	18.00	150	13.00	Coordinates (m)	E 515474.42
Checked	LWB	End						National Grid	N 208438.49
Approved	RJS	01/02/2016							

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
0.70	D 1			
1.20 - 1.65 1.20	SPTS D 2	N=7 (2,2/1,2,2,2)	0.00	Dry
2.00 - 2.45 2.00	SPTS D 3	N=6 (2,2/1,2,2,1)	1.50	Dry
2.50 - 3.00	B 4			
3.00 - 3.45 3.00	SPTS D 5	N=5 (1,1/1,1,2,1)	1.50	Dry
3.50 - 4.00	B 6			
4.00 - 4.45 4.00	SPTS D 7	N=17 (3,3/4,5,4,4)	3.00	Dry
5.00 - 5.45 5.00	SPTS D 8	N=35 (5,7/7,8,10,10)	4.50	Dry
5.50 5.50 - 6.00	D 10 B 9			
6.00 - 6.45 6.00	SPTS D 11	N=41 (7,8/7,10,12,12)	6.00	Dry
6.50 - 7.00	B 12			
7.50	D 13			
8.00 - 8.45 8.00	SPTS D 14	N=46 (7,8/10,10,10,16)	6.00	Dry
8.50 - 9.00	B 15			
9.00 9.00 - 9.50	D 16 B 17			
9.50 - 9.95 9.50 9.50 - 10.00	SPTS D 18 B 19	N=53 (5,7/10,10,16,17)	9.00	Dry

Strata Description

Main	Detail	Depth, Level (Thickness)
MACADAM.		0.05 (0.05) +121.81
Concrete recovered non intact as light greyish brown sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete and flint.		(0.25) 0.30 +121.56
Soft to firm dark brown sandy gravelly CLAY with low cobble content. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint, brick and concrete. Cobbles are angular to subangular of brick and concrete. (MADE GROUND)		(0.70) 1.00 +120.86
Soft light brown sandy gravelly CLAY. Sand is fine to medium, gravel is angular to subangular fine to coarse of brick and subrounded to rounded fine to coarse of flint (MADE GROUND)		(1.20) 2.20 +119.66
Soft dark brown gravelly CLAY. Gravel is subrounded to rounded fine to medium of flint and angular to subangular fine to medium of brick. (MADE GROUND)		(1.30) 3.50 +118.36
Soft dark grey, light brown and black gravelly CLAY with low cobble content. Gravel is subangular to rounded fine to medium of flint and angular to subangular fine to coarse of brick. Cobbles are angular of brick. (MADE GROUND)		(1.50) 5.00 +116.86
Soft to firm light orangish brown and greyish brown sandy gravelly CLAY. Sand is fine to medium, gravel is angular to subangular fine to coarse of brick and subrounded to rounded fine to medium of flint. (MADE GROUND)		(1.00) 6.00 +115.86
Soft to firm orangish brown sandy gravelly CLAY. Sand is fine to coarse, gravel is subangular to rounded fine to coarse of flint. (GLACIAL GRAVEL)		(3.00) 9.00 +112.86
Very dense light brown gravelly slightly clayey fine to medium SAND. Gravel is subrounded to rounded fine to coarse of flint. (GLACIAL GRAVEL)		

Legend | Backfill

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 18.95	Wet grout backfill

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

BH101

Borehole Log

Drilled	JH/DF	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	121.86 mOD
Logged	SW	01/02/2016	Pilcon Concrete broken out previously by small excavator. Inspection pit to 1.20m then cable percussive boring to 18.95m. SPT hammer BS1	0.00	18.00	150	13.00	Coordinates (m)	E 515474.42
Checked	LWB	End						National Grid	N 208438.49
Approved	RJS	01/02/2016							

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
10.50	D 20			
11.00 - 11.38 11.00	SPTS D 21	50 (8,11/16,16,18 for 75mm)	10.50	Dry
11.50 - 12.00	B 22			
11.80	D 23			
12.50 - 12.90 12.50	SPTS D 24	50 (5,9/11,13,18,8 for 25mm)	12.00	Dry
13.50 - 14.00	B 25			
13.70	D 26			
14.00 - 14.45 14.00	SPTS D 27	N=27 (3,4/6,6,6,9)	13.00	Dry
14.50 - 15.00	B 28			
15.00	D 29			
15.50 - 15.95 15.50	SPTS D 30	N=27 (5,5/4,5,7,11)	13.00	Dry
16.50	D 31			
17.00 - 17.45 17.00	SPTS D 32	N=24 (6,8/8,5,5,6)	13.00	Dry
18.00 18.00 - 18.50	D 33 B 34			
18.50 - 18.95 18.50	SPTS D 35	N=33 (4,4/5,9,9,10)	13.00	Dry

Strata Description

Main	Detail	Depth, Level (Thickness)
		(2.50)
Light brown fine to medium SAND. (READING BEDS?)		11.50 +110.36
	11.80-12.00 Mottled light brown and black silty clay pockets	(0.50)
Very dense light grey and orangish brown fine to medium SAND. (READING BEDS)		12.00 +109.86
		(1.70)
Low to medium density white CHALK recovered as white gravelly SILT. Gravel is angular to subangular fine to medium of chalk and occasional subangular to subrounded fine to medium flint. (UPPER CHALK).		13.70 +108.16
		(5.25)
END OF EXPLORATORY HOLE		18.95 +102.91

Legend

Backfill

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

BH101

Borehole Log

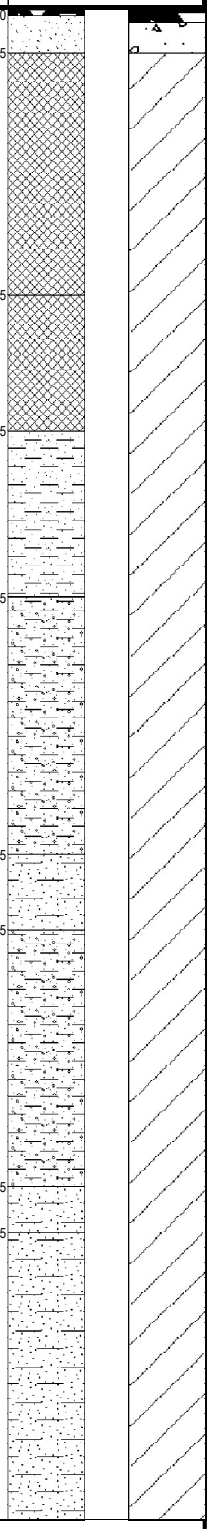
Drilled	MP/CS	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.25 mOD
Logged	BN	21/12/2015	Dando 2000 Concrete coring, then inspection pit to 1.20m. Cable percussion borin gto 15.45m. SPT Hammer AR013	0.00	15.00	150	2.50	Coordinates (m)	E 515418.75
Checked	LWB	End						National Grid	N 208443.28
Approved	RJS	22/12/2015							

Samples and Tests

Depth	Type & No	Records	Date / Casing	Time / Water
			21/12/15	1300
			0.00	Dry
1.00	D 1			
1.20 - 1.65	SPTS	N=4 (1,0/1,1,1,1)	0.00	Dry
1.20 - 1.65	D 2			
2.00 - 2.45	SPTS	N=6 (1,1/1,2,2,1)	1.50	Dry
2.00	D 3			
2.00 - 2.45	D 4			
			21/12/15	1620
			1.50	Dry
3.00 - 3.45	SPTS	N=8 (1,1/2,2,2,2)		
3.00	D 5		22/12/15	0800
3.00 - 3.45	D 6		1.50	Dry
4.00 - 4.45	SPTS	N=15 (3,2/3,4,4,4)	2.50	Dry
4.00	D 7			
4.00 - 4.45	D 8			
5.00 - 5.45	SPTS	N=23 (3,4/5,6,6,6)	2.50	Dry
5.00	D 9			
5.00 - 5.45	D 10			
6.00 - 6.45	SPTS	N=18 (4,5/4,5,4,5)	2.50	Dry
6.00	D 11			
6.00 - 6.45	D 12			
7.00	D 13			
7.50 - 7.95	SPTS	N=38 (8,12/9,8,9,12)	2.50	Dry
7.50 - 7.95	D 14			
8.00	D 15			
9.00 - 9.45	SPTS	N=38 (3,6/6,9,10,13)	2.50	Dry
9.00	D 16			
9.00 - 9.45	D 17			

Strata Description

Main	Detail	Depth, Level (Thickness)
MACADAM.		0.05 (0.05) +122.20
CONCRETE.		(0.25)
Very loose to loose orangish brown slightly sandy clayey GRAVEL. Sand is fine to coarse, gravel is angular to subrounded fine to coarse of flint and rare brick. (MADE GROUND)		0.30 +121.95 (1.60)
Firm brown slightly sandy slightly gravelly CLAY. Sand is fine, gravel is angular to subrounded fine to coarse of flint. (MADE GROUND)		1.90 +120.35 (0.90)
Firm orangish brown slightly fine sandy CLAY. (GLACIAL GRAVEL)		2.80 +119.45 (1.10)
Firm orangish brown slightly sandy gravelly CLAY. Sand is fine to coarse, gravel is subangular fine to coarse of flint. (GLACIAL GRAVEL)		3.90 +118.35 (1.70)
Orangish brown clayey fine SAND. (GLACIAL GRAVEL)		5.60 +116.65 (0.50)
Dense orangish brown and dark grey slightly sandy gravelly CLAY. Sand is fine, gravel is angular to subrounded fine to coarse of flint. (GLACIAL GRAVEL)		6.10 +116.15 (1.70)
Orangish brown clayey fine SAND with dark grey laminations at top of stratum. (READING BEDS)		7.80 +114.45 (0.30)
Dense to very dense yellowish brown slightly clayey fine SAND. (READING BEDS)		8.10 +114.15



Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 15.45	Bentonite cement pellet backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

BH102

Borehole Log

Drilled	MP/CS	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.25 mOD
Logged	BN	21/12/2015	Dando 2000	0.00	15.00	150	2.50	**Coordinates (m)**	E 515418.75
Checked	LWB	**End**	Concrete coring, then inspection pit to 1.20m. Cable percussion borin gto 15.45m. SPT Hammer AR013					**National Grid**	N 208443.28
Approved	RJS	22/12/2015							

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
10.00	D 18			
10.50 - 10.95	SPTS	N=55 (3,6/10,13,16,16)	2.50	Dry
10.50 - 10.95	D 19			
11.00	D 20			
12.00 - 12.45	SPTS	N=41 (4,7/8,10,11,12)	2.50	Dry
12.00	D 21			
12.00 - 12.45	D 22			
13.00	D 23			
13.50 - 13.95	SPTS	N=31 (4,6/6,8,8,9)	2.50	Dry
13.50 - 13.95	D 24			
14.00	D 25			
15.00 - 15.45	SPTS	N=43 (13,12/11,9,11,12)		
15.00	D 26			
15.00 - 15.45	D 27		22/12/15	1600
			2.50	Dry

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(7.35)		
	13.75 Gravelly			
END OF EXPLORATORY HOLE		15.45 +106.80		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

BH102

Borehole Log

Drilled	MATT	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.56 mOD
Logged	SW	05/01/2016	Dando 2000	0.00	30.00	150	7.50	Coordinates (m)	E 515381.95
Checked	LWB	End	Concrete coring then inspection pit to 1.20m. Cable percussive boring to 30.00m.					National Grid	N 208471.28
Approved	RJS	06/01/2016	SPT Hammer SI012						

Samples and Tests / Strata Description

Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
					MACADAM (0.08)		0.08 +122.48		
					Medium strong light greyish brown CONCRETE. 50 to 60% aggregate of angular to rounded fine to coarse flint, quartzite and chalk. 2 to 5% small voids. No reinforcement. (0.18)		0.26 +122.30		
							0.34 (0.08) +122.22		
							0.42 (0.08) +122.14		
0.60	D 1						(0.18) 0.60 +121.96		
0.60 - 1.00	B 2				Dark brown sandy GRAVEL with high cobble content. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint and brick. Cobbles are angular of brick and concrete. (MADE GROUND)				
1.00	D 3								
					Weak light brown CONCRETE. 40 to 50% aggregate of angular to rounded fine to coarse flint and chalk. 2 to 5% small honeycombing voids. No reinforcement.		(1.40)		
1.50 - 1.95	U NR	36 blows No Recovery							
					Soft dark grey gravelly CLAY. Gravel is angular to subangular fine to medium of brick and concrete and subrounded to rounded fine to coarse of flint. (MADE GROUND)				
2.00	D 5						2.00 +120.56		
					Soft orangish brown gravelly CLAY. Gravel is subrounded to rounded of flint. (GLACIAL GRAVEL)				
2.50 - 2.95	SPTC	N=19 (2,3/4,5,5,5)		dry					
					Firm to stiff orangish brown sandy gravelly CLAY. Sand is fine to coarse, gravel is subrounded to rounded fine to medium of flint. (GLACIAL GRAVEL)				
3.00	D 6								
3.50 - 3.95	SPTC	N=47 (5,6/11,14,13,9)		dry					
3.50 - 4.00	B 7						(3.20)		
4.00	D 8					4.00 Very sandy gravelly clay			
4.50 - 4.95	SPTC	N=49 (6,9/10,13,14,12)		dry					
4.50 - 5.00	B 9								
5.20	D 10				Dense yellowish brown clayey fine to medium SAND. (READING BEDS)		5.20 +117.36		
5.50 - 5.95	SPTS	N=36 (6,9/9,9,9,9)		dry					
5.50 - 5.95	D 11								
							(1.80)		
6.50 - 7.00	B 12								
7.00 - 7.45	SPTC	N=14 (7,7/4,3,3,4)	6.00	dry	Dark grey GRAVEL. Gravel is angular to subangular fine to coarse of flint. (READING BEDS)		7.00 +115.56		
7.00	D 13						(0.30) 7.30 +115.26		
					Extremely weak low density white CHALK recovered as SILT. (UPPER CHALK)		(0.20) 7.50 +115.06		
					Driller reports possible void				
							(1.50)		
9.00 - 9.45	SPTS	N=4 (1,1/1,1,1,1)	7.50	dry	Extremely weak low density white CHALK recovered as slightly gravelly SILT. Gravel is angular to subrounded fine to medium of chalk. (UPPER CHALK)		9.00 +113.56		
9.00 - 9.45	D 14								
9.50 - 10.00	B 15					9.50 Brown staining	(1.00)		
							10.00 +112.56		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)
1	0.00	No groundwater strikes whilst drilling.	

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 30.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole **BH103**

Borehole Log

Drilled	MATT	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.56 mOD
Logged	SW	05/01/2016	Dando 2000	0.00	30.00	150	7.50	**Coordinates (m)**	E 515381.95
Checked	LWB	**End**	Concrete coring then inspection pit to 1.20m. Cable percussive boring to 30.00m. SPT Hammer SI012					**National Grid**	N 208471.28
Approved	RJS	06/01/2016							

Samples and Tests / Strata Description

Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
10.00 - 10.45 10.00 - 10.45	SPTS D 16	N=8 (1,1/2,1,2,3)	7.50	dry	Very weak to weak low density brownish white CHALK recovered as gravelly SILT. Gravel is angular fine to medium of chalk and rare angular to subrounded fine to coarse flint. (UPPER CHALK)				
11.50 - 11.95 11.50 - 11.95	SPTS D 17	N=9 (1,2/1,2,3,3)	7.50	dry					
						12.50-15.00 Black speckling			
13.00 - 13.45 13.00 - 13.45	SPTS D 18	N=6 (2,2/1,1,2,2)	7.50	dry					
14.50 - 14.95 14.50 - 14.95 14.50 - 15.00	SPTS D 19 B 20	N=10 (1,2/3,2,2,3)	7.50	dry					
15.50	D 21						(11.00)		
16.00 - 16.45 16.00 - 16.45	SPTS D 22	N=9 (2,2/2,2,2,3)	7.50	dry		16.00-17.00 Light brown with fine sand lenses			
17.00 - 17.40	B 23								
						17.20-20.00 Gravel is extremely weak low density			
17.50 - 17.95 17.50 - 17.95	SPTS D 24	N=15 (2,2/2,5,4,4)	7.50	dry					
18.50	D 25								
19.00 - 19.45 19.00 - 19.45	SPTS D 26	N=16 (2,3/2,4,6,4)	7.50	dry					

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

BH103

Borehole Log

Drilled	MATT	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.56 mOD
Logged	SW	05/01/2016	Dando 2000 Concrete coring then inspection pit to 1.20m. Cable percussive boring to 30.00m.	0.00	30.00	150	7.50	Coordinates (m)	E 515381.95
Checked	LWB	End	SPT Hammer SI012					National Grid	N 208471.28
Approved	RJS	06/01/2016							

Samples and Tests / Strata Description

Depth	Type & No	Records	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
20.00 - 20.40	B 27								
20.50 - 20.95 20.50 - 20.95	SPTS D 28	N=12 (2,3/3,2,3,4)	7.50	dry					
					Weak to medium strong low to medium density yellowish brown CHALK recovered as silty GRAVEL. Gravel is angular fine to medium of chalk. (UPPER CHALK)		21.00 +101.56		
21.50 - 21.72 21.50 - 21.72	SPTS D 29	50 (25 for 75mm/30,20 for 70mm)	7.50	dry			(2.00)		
23.00 - 23.21 23.00 - 23.21 23.00 - 23.50	SPTS D 30 B 31	50 (11,14/50 for 60mm)	7.50	dry	Weak low density white CHALK recovered as gravelly SILT. Gravel is angular to subangular fine to coarse of chalk. Frequent orangish brown staining. (UPPER CHALK)		23.00 +99.56		
24.50 - 24.95 24.50 - 24.95	SPTS D 32	N=42 (3,4/4,6,8,24)	7.50	dry		24.50-27.00 Gravel is angular to subangular			
26.00 - 26.45 26.00 - 27.95	SPTS D 33	N=42 (4,5/6,8,10,18)	7.50	dry			(7.00)		
						27.00 White gravelly silt.			
27.50 - 27.95 27.50 - 27.95 27.50 - 27.95	SPTS D 35 B 34	N=43 (4,4/5,8,10,20)	7.50	dry					
29.00 - 29.45 29.00 - 29.45 29.00 - 29.50	SPTS D 36 B 37	N=34 (4,5/6,7,8,13)	7.50	dry					
					Hole continues on next sheet		30.00 +92.56		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

BH103

Borehole Log

Drilled	MATT	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.56 mOD
Logged	SW	05/01/2016	Dando 2000	0.00	30.00	150	7.50	**Coordinates (m)**	E 515381.95
Checked	LWB	**End**	Concrete coring then inspection pit to 1.20m. Cable percussive boring to 30.00m.					**National Grid**	N 208471.28
Approved	RJS	06/01/2016	SPT Hammer SI012						

Samples and Tests / Strata Description

Depth	Type & No	Records	Date / Time / Casing / Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
30.00	D 38			END OF EXPLORATORY HOLE				

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

BH103

Borehole Log

Drilled	MJ	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.32 mOD
Logged	SW	07/01/2016	Dando 2000 Concrete coring then inspection pit to 1.20m. Cable percussive boring to 18.00m.	0.00	18.00	150	1.50	Coordinates (m)	E 515334.37
Checked	LWB	End	SPT Hammer SI012					National Grid	N 208513.41
Approved	RJS	08/01/2016							

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
0.50	D 1			
1.00	D 2			
1.40	D 3			
1.50 - 1.95	SPTC	N=14 (2,2/3,3,4,4)		dry
1.50 - 1.90	B 4			
2.00	D 5			
2.50 - 2.95	SPTC	N=17 (2,3/4,4,5,4)		dry
3.00	D 6			
3.50 - 3.95	U 7	50 blows		
4.00	D 8			
4.50 - 4.95	SPTS	N=29 (3,4/5,7,8,9)	1.50	dry
4.50 - 4.95	D 9			
5.50 - 5.95	U 10	60 blows		
6.00	D 11			
7.00 - 7.45	SPTS	N=26 (2,4/4,6,8,8)	1.50	dry
7.00 - 7.45	D 12			
7.50 - 8.00	B 13			
8.50 - 8.95	U 14	68 blows		
9.00	D 15			

Strata Description

Main	Detail	Depth, Level (Thickness)	
MACADAM.		(0.14)	0.14 +122.18
Strong light greyish brown CONCRETE. 50 to 60% aggregate of angular to rounded fine to coarse flint, quartzite and chalk. 2% small voids. No reinforcement.		(0.21)	0.35 +121.97
Dark grey silty sandy GRAVEL with low cobble content. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of brick, flint and concrete. Cobbles are angular to subangular of brick and concrete. (MADE GROUND)		(0.45)	0.80 +121.52
Very soft dark grey gravelly CLAY. Gravel is angular to subangular fine and medium of brick concrete and flint. (MADE GROUND)		(0.30)	1.10 +121.22
Soft to firm orangish brown slightly sandy gravelly CLAY. Sand is fine and medium. Gravel is angular to subangular fine to coarse of flint. (GLACIAL GRAVEL)		(1.60)	2.70 +119.62
Stiff to very stiff orangish brown mottled red and light grey slightly sandy CLAY. (GLACIAL GRAVEL)	3.50-4.50 Becoming slightly gravelly CLAY. Gravel is subangular to rounded fine and medium of flint.	(3.30)	6.00 +116.32
Stiff to very stiff orangish brown mottled light grey sandy slightly gravelly CLAY. Sand is fine and medium. Gravel is subrounded to rounded fine to coarse of flint. (GLACIAL GRAVEL)		(1.50)	7.50 +114.82
Stiff orangish brown mottled red and light grey CLAY. (GLACIAL GRAVEL)		(1.60)	9.10 +113.22
Stiff orangish brown sandy slightly gravelly CLAY. Sand is fine to medium, gravel is fine to medium subangular to rounded of flint. (GLACIAL GRAVEL)			

Hole continues on next sheet

Legend

Backfill

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)
1	0.00	No groundwater strikes whilst drilling.	

Depth Related Remarks

Depths (m)	Remarks
0.40 - 18.00	Wet grout backfill

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

BH104

Borehole Log

Drilled	MJ	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.32 mOD
Logged	SW	07/01/2016	Dando 2000	0.00	18.00	150	1.50	**Coordinates (m)**	E 515334.37
Checked	LWB	**End**	Concrete coring then inspection pit to 1.20m. Cable percussive boring to 18.00m. SPT Hammer SI012					**National Grid**	N 208513.41
Approved	RJS	08/01/2016							

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
10.00 - 10.45 10.00 - 10.45	SPTS D 16	N=21 (2,3/5,4,5,7)	1.50	dry
11.50 - 11.95	U 17	100 blows		
12.00	D 18			
13.00 - 13.44 13.00	SPTC B 19	50 (6,9/10,12,16,12 for 60mm)	1.50	dry
14.00	D 20			
14.50 - 14.88 14.50	SPTC B 21	50 (8,9/14,16,20 for 75mm)	1.50	dry
16.00 - 16.39 16.00	SPTC D 22	50 (8,10/13,14,17,6 for 15mm)	1.50	dry
17.00	D 23			
17.50 - 17.86 17.50	SPTC B 24	50 (15,10 for 60mm/15,15,20 for 70mm)	1.50	dry

Strata Description

Main	Detail	Depth, Level (Thickness)	
			(3.90)
	12.00-13.00 Becoming very gravelly CLAY.		
Stiff to very stiff orangish brown very sandy gravelly CLAY. Sand is medium to coarse, gravel is subrounded to rounded fine to coarse of flint. (GLACIAL GRAVEL)		13.00	+109.32
			(1.70)
Orangish brown gravelly slightly clayey medium to coarse SAND. Gravel is subrounded to rounded fine to coarse of flint. (GLACIAL GRAVEL)		14.70	+107.62
			(1.30)
Stiff to very stiff orangish brown sandy gravelly CLAY. Sand is fine to coarse, gravel is subrounded to rounded fine to medium of flint. (GLACIAL GRAVEL)		16.00	+106.32
			(0.80)
Orangish brown gravelly very clayey fine to coarse SAND. Gravel is subrounded to rounded fine to coarse of flint. (GLACIAL GRAVEL)		16.80	+105.52
			(0.70)
Stiff to very stiff orangish brown very sandy gravelly CLAY. Sand is medium to coarse, gravel is subrounded to rounded fine to coarse of flint. (GLACIAL GRAVEL)		17.50	+104.82
			(0.50)
END OF EXPLORATORY HOLE	~~10.00 Borehole~~ abandoned at 18.00m on Engineers instruction due to slow drilling/lack of progress.	18.00	+104.32

Legend | Backfill

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

BH104

Borehole Log

Drilled	MP/CS	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.38 mOD
Logged	KW	18/12/2015	Dando 2000 Inspection pit to 1.20m then cable percussion boring to 18.00m.	0.00	18.00	150	18.00	Coordinates (m)	E 515407.88
Checked	LWB	End	SPT hammer AR013					National Grid	N 208424.27
Approved	RJS	21/12/2015							

Samples and Tests

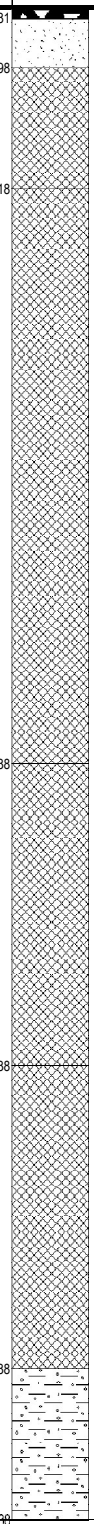
Depth	Type & No	Records	Date Casing	Time Water
			18/12/15	0800
			0.00	Dry
1.00	D 1			
1.20 - 1.65 1.20 - 1.65	SPTS D 2	N=6 (1,0/1,2,1,2)	0.00	Dry
2.00 - 2.45 2.00 2.00 - 2.45	SPTS D 3 D 4	N=4 (1,1/1,1,1,1)	1.50	Dry
3.00 - 3.45 3.00 3.00 - 3.45	SPTS D 5 D 6	N=5 (1,0/1,1,1,2)	1.50	Dry
4.00 - 4.45 4.00 4.00 - 4.45	SPTS D 7 D 8	N=5 (1,0/1,1,2,1)	3.00	Dry
5.00 - 5.45 5.00 5.00 - 5.45	SPTS D 9 D 10	N=7 (2,2/3,1,1,2)	4.50	Dry
6.00 - 6.45 6.00 6.00 - 6.45	SPTS D 11 D 12	N=7 (1,1/1,2,2,2)	6.00	Dry
7.00	D 13			
7.50 - 7.95 7.50 - 7.95	SPTS D 14	N=6 (1,1/1,1,2,2)	6.00	Dry
8.00	D 15			
9.00 - 9.45 9.00 9.00 - 9.45	SPTS D 16 D 17	N=5 (1,1/1,1,2,1)	7.50	Dry

Strata Description

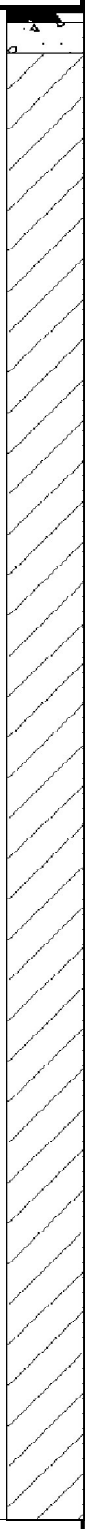
Main	Detail	Depth, Level (Thickness)
MACADAM. CONCRETE.		0.07 (0.07) +122.31 (0.33)
Soft brown mottled red slightly sandy slightly gravelly CLAY. Sand is mainly coarse., gravel is angular fine to coarse of brick, clinker and flint. (MADE GROUND)		0.40 +121.98 (0.80)
Soft light grey mottled orangish brown slightly gravelly silty CLAY with frequent fine sand lenses. Gravel is subangular fine to medium of brick and clinker and subangular to subrounded fine to coarse of flint. (MADE GROUND)		1.20 +121.18 (3.80)
Soft dark brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse, gravel is angular fine to coarse of brick, clinker, timber and chalk. (MADE GROUND)	6.00-6.50 Frequent coarse gravel sized pockets of chalk.	5.00 +117.38 (2.00)
Soft brown slightly gravelly CLAY with frequent lenses of fine to coarse sand. Gravel is subangular to rounded fine to coarse of chalk, brick and flint. (MADE GROUND)		7.00 +115.38 (2.00)
Soft brownish grey mottled brown slightly gravelly CLAY. Gravel is subangular fine to coarse of flint. (GLACIAL GRAVEL)		9.00 +113.38 (1.00) 10.00 +112.38

Hole continues on next sheet

Legend



Backfill



Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 18.00	Bentonite cement pellet backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

BH105

Borehole Log

Drilled	MP/CS	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.38 mOD
Logged	KW	18/12/2015	Dando 2000	0.00	18.00	150	18.00	**Coordinates (m)**	E 515407.88
Checked	LWB	**End**	Inspection pit to 1.20m then cable percussion boring to 18.00m. SPT hammer AR013					**National Grid**	N 208424.27
Approved	RJS	21/12/2015							

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
10.00	D 18			
10.50 - 10.95	SPTS	N=17 (1,3/3,4,5,5)	10.50	Dry
10.50 - 10.95	D 19			
11.00	D 20			
12.00	D 21	68 blows U100		
12.00 - 12.45	U 22			
12.50	D 23			
13.00	D 24			
13.50 - 13.80	SPTC	50 (9,16/35,15 for 75mm)	13.50	Dry
13.50 - 14.00	B 25			
14.00	D 26			
			18/12/15	1600
			15.00	Dry
15.00 - 15.30	SPTC	58 (12,13/24,34 for 75mm)		
15.00	D 27		21/12/15	0800
15.00 - 15.50	B 28		15.00	Dry
16.00	D 29			
16.50 - 16.80	SPTC	50 (11,14/22,28 for 75mm)	16.50	Dry
16.50 - 17.00	D 30			
17.00	D 31			
			21/12/15	1300
			18.00	Dry
18.00 - 18.30	SPTC	50 (15,10/20,30 for 75mm)		
18.00	D 32			

Strata Description

Main	Detail	Depth, Level (Thickness)	
Firm locally soft orangish brown silty CLAY with occasional black organic pockets and fine and medium sand. (GLACIAL GRAVEL)		(2.00)	
Stiff orangish brown slightly gravelly CLAY. Gravel is angular fine to coarse of flint and quartzite. (GLACIAL GRAVEL)		12.00 (0.50)	+110.38
Firm orangish brown occasionally mottled black slightly sandy slightly gravelly CLAY. Sand is fine to coarse, gravel is angular to rounded fine to coarse of flint and quartzite. (GLACIAL GRAVEL)		12.50 (0.50)	+109.88
Very dense orangish brown sandy GRAVEL with occasional pockets of firm clay. Sand is medium to coarse, gravel is subangular to rounded fine to coarse of flint and quartzite. (GLACIAL GRAVEL)		13.00 (5.00)	+109.38
END OF EXPLORATORY HOLE		18.00	+104.38

Legend

Backfill

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

BH105

Borehole Log

Drilled	MP/CS	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.17 mOD
Logged	KW	14/12/2015	Dando 2000	0.00	30.00	150	19.50	**Coordinates (m)**	E 515370.00
Checked	LWB	**End**	Concrete coring to 0.30m then inspection pit to 1.20m. Cable percussive boring to 30.00m.					**National Grid**	N 208390.12
Approved	RJS	17/12/2015	SPT hammer AR013						

Samples and Tests

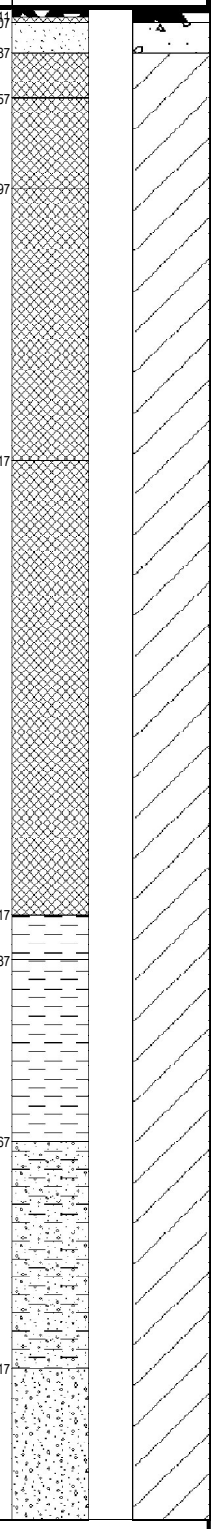
Depth	Type & No	Records	Date / Casing	Time / Water
			14/12/15 0.00	1200 Dry
			14/12/15 0.00	1615 Dry
			15/12/15 0.00	0800 Dry
1.00	D 1			
1.20 - 1.65	SPTS	N=5 (1,1/1,1,1,2)	0.00	Dry
1.20 - 1.65	D 2			
2.00 - 2.45	SPTS	N=15 (3,3/5,4,3,3)	1.50	Dry
2.00	D 3			
2.00 - 2.45	D 4			
3.00 - 3.45	SPTS	N=22 (11,6/4,4,5,9)	1.50	Dry
3.00	D 5			
3.00 - 3.45	D 6			
4.00 - 4.45	SPTS	N=8 (1,2/2,2,2,2)	3.00	Dry
4.00	D 7			
4.00 - 4.45	D 8			
5.00 - 5.45	SPTS	N=15 (2,2/8,3,2,2)	3.00	Dry
5.00	D 9			
5.00 - 5.45	D 10			
6.00 - 6.45	SPTS	N=7 (1,1/1,2,2,2)	4.50	Dry
6.00	D 11			
6.00 - 6.45	D 12			
6.30	D 13			
7.00	D 14	20 blows U100		
7.00 - 7.45	U 15			
7.50 - 7.95	SPTS	N=23 (2,3/5,6,6,6)	6.00	Dry
7.50	D 16			
7.50 - 7.95	D 17			
8.00	D 18			
9.00 - 9.45	SPTS	N=46 (4,8/11,13,11,11)	6.00	Dry
9.00	D 20			
9.00 - 9.45	D 21			
9.00 - 9.50	B 19			

Strata Description

Main	Detail	Depth, Level (Thickness)
MACADAM. (0.06)		0.06 +122.11
Black sandy GRAVEL. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of macadam. (MADE GROUND) (0.04)		0.10 +122.07
CONCRETE. (0.20)		0.30 +121.87
Dark grey sandy clayey GRAVEL with low cobble content. Sand is medium to coarse, gravel is angular to subrounded fine to coarse of brick, concrete, flint and rare macadam. Cobbles are angular to subangular of concrete. (MADE GROUND) (0.30)		0.60 +121.57
Dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of flint, brick and concrete. (MADE GROUND) (0.60)	1.20-2.50 Angular coarse gravel of red brick and concrete.	1.20 +120.97
Soft black to dark brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse, gravel is angular fine to coarse of brick, clinker and flint. (MADE GROUND) (1.80)		
Soft black and dark brown mottled brown slightly sandy slightly gravelly CLAY with, at 5.00m, low cobble content. Sand is fine to coarse, gravel is angular to subrounded fine to coarse of flint, concrete and occasional brick. Cobbles are subrounded of flint. (MADE GROUND) (3.00)	3.00 Rare angular coarse sand sized shell fragments and angular coarse gravel of clinker.	3.00 +119.17
Soft dark grey mottled brown CLAY with rare subangular fine flint gravel and rare rootlets. (GLACIAL GRAVEL?) (0.30)	6.00 Angular cobble of concrete.	6.00 +116.17
Soft dark grey CLAY becoming firm 'mottled brown and bluish grey with depth'. (GLACIAL GRAVEL?) (1.20)		6.30 +115.87
Soft brown slightly sandy slightly gravelly CLAY. Sand is mainly medium to coarse, gravel is angular fine to coarse of flint. (GLACIAL GRAVEL) (1.50)		7.50 +114.67
Dense orangish brown very clayey SAND and GRAVEL. Sand is mainly medium to coarse, gravel is angular to rounded fine to coarse of flint and quartzite. (GLACIAL GRAVEL)		9.00 +113.17

Hole continues on next sheet

Legend / **Backfill**



Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.40 - 30.00	Bentonite cement pellet backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

BH106

Borehole Log

Drilled	MP/CS	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.17 mOD
Logged	KW	14/12/2015	Dando 2000 Concrete coring to 0.30m then inspection pit to 1.20m. Cable percussive boring to 30.00m. SPT hammer AR013	0.00	30.00	150	19.50	Coordinates (m)	E 515370.00
Checked	LWB	End						National Grid	N 208390.12
Approved	RJS	17/12/2015							

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
10.00	D 22			
10.50 - 10.95	SPTS	N=45 (8,10/10,10,13,12)	6.00	Dry
10.50 - 10.95	D 24			
10.50 - 11.00	B 23			
11.00	D 25			
12.00 - 12.45	SPTS	N=50 (4,6/10,12,14,14)	6.00	Dry
12.00	D 27			
12.00 - 12.45	D 28			
12.00 - 12.50	B 26			
			15/12/15	1600
			6.00	Dry
13.00	D 29			
			16/12/15	0800
			6.00	Dry
13.50 - 13.95	SPTS	N=53 (8,16/16,15,11,11)	13.50	Dry
13.50 - 13.95	D 31			
13.50 - 14.00	B 30			
14.00	D 32			
15.00 - 15.45	SPTS	N=58 (6,11/11,12,14,21)	15.00	Dry
15.00	D 34			
15.00 - 15.45	D 35			
15.00 - 15.50	B 33			
16.00	D 36			
16.50 - 16.80	SPTS	45 (6,16/21,24 for 75mm)	16.50	Dry
16.50 - 16.80	D 38			
16.50 - 17.00	B 37			
17.00	D 39			
18.00 - 18.30	SPTS	50 (9,16/30,20 for 75mm)	18.00	Dry
18.00	D 41			
18.00 - 18.30	D 42			
18.00 - 18.50	B 40			
19.00	D 43			
19.30	D 44			
19.50 - 19.88	SPTS	48 (8,15/15,14,19 for 75mm)	19.50	Dry
19.50 - 19.90	D 45			
			16/12/15	1600
			19.50	Dry

Strata Description

Main	Detail	Depth, Level (Thickness)	
		(5.00)	
Very dense orangish brown sandy slightly clayey GRAVEL. Sand is medium to coarse, gravel is subangular to rounded fine to coarse of flint and quartzite. (GLACIAL GRAVEL)		14.00	+108.17
		(4.00)	
Very dense orangish brown slightly sandy GRAVEL. Sand is fine to coarse, gravel is subangular coarse of flint. (GLACIAL GRAVEL)		18.00	+104.17
		(1.30)	
Stiff brownish grey slightly sandy CLAY. Sand is fine. (GLACIAL GRAVEL)		19.30	+102.87
		(0.35)	
Firm light brown mottled grey slightly sandy silty CLAY. Sand is fine. (GLACIAL GRAVEL)		19.65 (0.70)	+102.52
		(0.50)	
		20.00	+102.17

Hole continues on next sheet

Legend | Backfill

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

BH106

Borehole Log

Drilled	MP/CS	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.17 mOD
Logged	KW	14/12/2015	Dando 2000 Concrete coring to 0.30m then inspection pit to 1.20m. Cable percussive boring to 30.00m. SPT hammer AR013	0.00	30.00	150	19.50	Coordinates (m)	E 515370.00
Checked	LWB	End						National Grid	N 208390.12
Approved	RJS	17/12/2015							

Samples and Tests

Depth	Type & No	Records	Date Casing	Time Water
20.00	D 46		17/12/15 19.50	0800 Dry
21.00 - 21.45 21.00 21.00 - 21.45	SPTS D 47 D 48	N=28 (2,6/6,7,7,8)	19.50	Dry
22.00	D 49			
22.50 - 22.95 22.50 - 22.95	SPTS D 50	N=18 (3,5/3,3,6,6)	19.50	Dry
23.00	D 51			
24.00 - 24.45 24.00 24.00 - 24.45	SPTS D 52 D 53	N=35 (10,14/11,11,8,5)	19.50	Dry
25.00	D 54			
25.50 - 25.95 25.50 - 25.95	SPTS D 55	N=56 (6,8/10,10,16,20)	19.50	Dry
26.00	D 56			
27.00 - 27.45 27.00 27.00 - 27.45	SPTS D 57 D 58	N=37 (6,5/6,9,10,12)	19.50	Dry
28.00	D 59			
29.00	D 60			
			17/12/15 19.50	1615 Dry

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports dense brown silty sandy with pebbles. (GLACIAL GRAVEL) Medium dense yellowish brown very clayey very gravelly silty SAND. Sand is generally fine to medium, gravel is angular medium and coarse of flint. Becoming stiff yellowish brown slightly sandy slightly gravelly CLAY with depth. (GLACIAL GRAVEL)	23.00 Pocket of firm to stiff clay. 24.00 Subrounded medium gravel of quartzite.	(4.50)		
Stiff yellowish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium, gravel is angular medium to coarse of flint. (GLACIAL GRAVEL)		24.50 +97.67 (1.50)		
Firm orangish brown mottled yellowish brown slightly sandy slightly gravelly CLAY. Sand is fine to medium, gravel is subangular to subrounded medium to coarse of flint. (GLACIAL GRAVEL)		26.00 +96.17 (4.00)		
Hole continues on next sheet		30.00 +92.17		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

BH106

Borehole Log

Drilled	MP/CS	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.17 mOD
Logged	KW	14/12/2015	Dando 2000	0.00	30.00	150	19.50	**Coordinates (m)**	E 515370.00
Checked	LWB	**End**	Concrete coring to 0.30m then inspection pit to 1.20m. Cable percussive boring to 30.00m.					**National Grid**	N 208390.12
Approved	RJS	17/12/2015	SPT hammer AR013						

Samples and Tests / Strata Description

Depth	Type & No	Records	Date / Time / Casing / Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
30.00	D 61			END OF EXPLORATORY HOLE				

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

BH106

Borehole Log

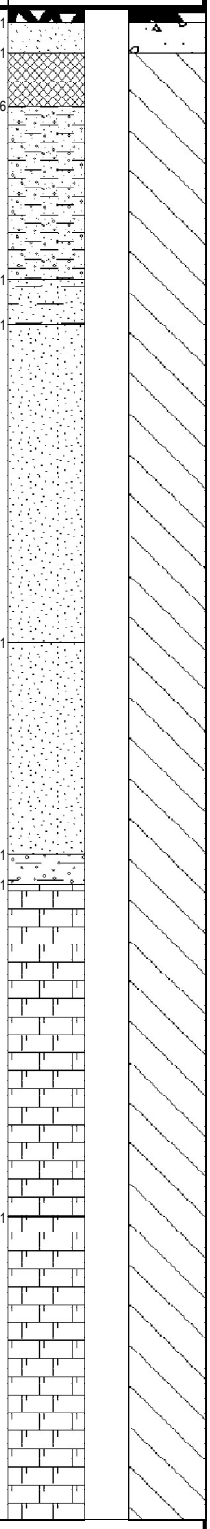
Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.11 mOD
Logged	SW	29/01/2016	Commacchio 205	0.00	35.00	121	19.50	**Coordinates (m)**	E 515513.11
Checked	LWB	**End**	Inspection pit to 1.20m, then dynamic sampling to 16.30m (refusal), followed by rotary open holing to 35.00m.					**National Grid**	N 208479.60
Approved	RJS	02/02/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
1.00	D 1				
2.00	D 2				
3.00	D 3				
4.00	D 4				
5.00	D 5				
5.70	D 6				
6.00 - 6.45	SPTS		N=12 (4,4/4,3,3,2)	3.00	
6.00	D 7				
6.00 - 6.45	SPTLS 8				
6.50	D 9				
7.00 - 7.45	SPTS		N=16 (3,3/4,4,4,4)	6.00	
7.00 - 7.45	SPTLS 10				
7.50	D 11				
8.00 - 8.45	SPTS		N=27 (4,4/6,7,7,7)	6.00	
8.00 - 8.45	SPTLS 12				
8.50	D 13				
				29/01/16 9.00	1600 dry
9.00 - 9.45	SPTS		N=18 (4,5/4,5,3,6)	~~9.00~~	
9.00 - 9.45	SPTLS 14				
9.50	D 15				

Strata Description

Main	Detail	Depth, Level (Thickness)
Macadam recovered as angular coarse gravel (0.10)		0.10 +122.01
Concrete recovered as sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete and flint. (0.20)		0.30 +121.81
Soft light grey sandy gravelly CLAY. Sand is fine to medium. Gravel is angular to subangular fine to coarse of brick, concrete and flint (MADE GROUND). (0.35)		0.65 +121.46
Soft to firm light orangish brown sandy gravelly CLAY. Sand is fine to medium. Gravel is subrounded to rounded fine to course of flint (GLACIAL GRAVEL). (1.15)	1.20-1.60 becomes very gravelly.	1.80 +120.31
Light orangish brown slightly clayey fine to medium SAND (READING BEDS) (0.30)		2.10 +120.01
Light orangish brown and light grey banded fine to medium SAND (READING BEDS) (2.10)		4.20 +117.91
Light greenish grey mottled reddish brown fine to medium SAND (READING BEDS) (1.40)		5.60 +116.51
Dark brown and black clayey GRAVEL. Gravel is angular to subangular medium to course of flint (READING BEDS). (0.20)		5.80 +116.31
Medium strong low to medium density white CHALK recovered as slightly silty GRAVEL. Gravel is angular to subangular fine to medium of speckled black chalk and rare angular to subangular fine to coarse flint. (UPPER CHALK). (2.20)	6.10-6.80 yellowish brown staining.	8.00 +114.11
Weak to medium strong low to medium density white CHALK recovered as gravelly SILT. Gravel is angular to subangular fine to medium of speckled black chalk and occasional angular to subangular fine to medium flint. (UPPER CHALK)		



Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 35.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH101

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.11 mOD
Logged	SW	29/01/2016	Commacchio 205	0.00	35.00	121	19.50	**Coordinates (m)**	E 515513.11
Checked	LWB	**End**	Inspection pit to 1.20m, then dynamic sampling to 16.30m (refusal), followed by rotary open holing to 35.00m.					**National Grid**	N 208479.60
Approved	RJS	02/02/2016	SPT hammer GC01						

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
10.00 - 10.45 10.00 - 10.45	SPTS SPTLS 16		N=22 (6,4/5,6,5,6)							
10.50	D 17						10.50 cobble of flint			
11.00 - 11.45 11.00 - 11.45	SPTS SPTLS 18		N=30 (8,6/6,8,7,9)							
11.50	D 19						11.60-12.30 yellow staining.			
12.00 - 12.45 12.00 - 12.45	SPTS SPTLS 20		N=34 (2,4/3,8,13,10)							
12.50	D 21									
13.00 - 13.45 13.00 - 13.45	SPTS SPTLS 22		N=25 (5,5/4,6,7,8)				13.20-14.40 light brown staining.			
13.50	D 23									
14.00 - 14.45 14.00 - 14.45	SPTS SPTLS 24		N=19 (2,3/4,4,5,6)							
14.50	D 25							(13.35)		
15.00 - 15.45 15.00 - 15.45	SPTS SPTLS 26		N=22 (2,3/5,5,6,6)				15.20 cobble of flint.			
15.50 15.60 - 16.05 15.60 - 16.05	D 27 SPTS SPTLS 28		N=24 (8,7/4,6,6,8)							
18.00 - 18.45 18.00 - 18.45	SPTS SPTLS 29		N=27 (5,8/7,6,6,8)							
19.50 - 19.94 19.50 - 19.88	SPTS SPTLS 30		50 (2,2/5,9,15,21 for 70mm)							

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH101

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.11 mOD
Logged	SW	29/01/2016	Commacchio 205	0.00	35.00	121	19.50	**Coordinates (m)**	E 515513.11
Checked	LWB	**End**	Inspection pit to 1.20m, then dynamic sampling to 16.30m (refusal), followed by rotary open holing to 35.00m.					**National Grid**	N 208479.60
Approved	RJS	02/02/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				01/02/16 19.50	1600 dry
21.00 - 21.25	SPTS		50 (3,7/18,32 for 25mm)		
21.00 - 21.35	SPTLS 31				

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports CHALK.		21.35 +100.76		
		(13.65)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH101

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.11 mOD
Logged	SW	29/01/2016	Commacchio 205	0.00	35.00	121	19.50	**Coordinates (m)**	E 515513.11
Checked	LWB	**End**	Inspection pit to 1.20m, then dynamic sampling to 16.30m (refusal), followed by rotary open holing to 35.00m.					**National Grid**	N 208479.60
Approved	RJS	02/02/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				02/02/16 19.50	1600 dry

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
END OF EXPLORATORY HOLE		35.00 +87.11		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH101

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.42 mOD
Logged	SW	08/01/2016	Commacchio 205	0.00	40.00	121	15.00	**Coordinates (m)**	E 515397.23
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 40.00m.					**National Grid**	N 208459.33
Approved	RJS	08/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
MACADAM.		0.08 (0.08) +122.34		
Weak to medium strong light brown CONCRETE. 60 to 70% aggregate of subangular to rounded medium to coarse gravel of flint, chalk and rare quartzite. <5% small voids. No reinforcement.		0.30 (0.22) +122.12		
Driller reports brick, clay, fill.		(5.20)		
Driller reports soft brown sandy CLAY.		5.50 +116.92		
		(7.30)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 40.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102

Borehole Log

Drilled	G&S	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.42 mOD
Logged	SW	08/01/2016	Commacchio 205 Inspection pit to 1.20m then rotary open holing to 40.00m.	0.00	40.00	121	15.00	Coordinates (m)	E 515397.23
Checked	LWB	End						National Grid	N 208459.33
Approved	RJS	08/01/2016							

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
						Driller reports soft putty chalk.		12.80 +109.62		
								(1.50)		
						Driller reports weak chalk with small bands of flints.		14.30 +108.12		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

CH102

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.42 mOD
Logged	SW	08/01/2016	Commacchio 205	0.00	40.00	121	15.00	**Coordinates (m)**	E 515397.23
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 40.00m.					**National Grid**	N 208459.33
Approved	RJS	08/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(25.70)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole

CH102

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.42 mOD
Logged	SW	08/01/2016	Commacchio 205 Inspection pit to 1.20m then rotary open holing to 40.00m.	0.00	40.00	121	15.00	**Coordinates (m)**	E 515397.23
Checked	LWB	**End**						**National Grid**	N 208459.33
Approved	RJS	08/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
END OF EXPLORATORY HOLE		40.00 (82.42)		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.49 mOD
Logged	SW	11/01/2016	Commacchio 205	0.00	33.50	121	19.50	**Coordinates (m)**	E 515391.26
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 3.50m (refusal), 12.00 - 14.80m (refusal), 21.00 - 22.70m and 25.00 - 25.60m refusal. Rotary open holing from 3.50m to 12.00m, 14.80 to 25.00m and 25.60 to 33.50m.					**National Grid**	N 208463.65
Approved	RJS	14/01/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
1.50	D 1				
2.20	D 2				
2.50	D 3				
3.50	D 4				

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Macadam. (0.10)		0.10 +122.39		
Weak to medium strong light brown CONCRETE. 60 to 70% aggregate of subangular to rounded medium to coarse flint, chalk and rare quartzite. No reinforcement. (0.20)		0.30 +122.19		
Light brown sandy GRAVEL. Sand is fine to coarse., gravel is angular to subangular fine to coarse of flint and concrete. (MADE GROUND) (0.45)		0.75 +121.74		
Dark brown sandy GRAVEL with low cobble content. Sand is fine to coarse., gravel is angular to subangular fine to coarse of flint, brick and concrete. Cobbles are angular to subangular of brick. (MADE GROUND) (0.55)		1.30 +121.19		
Soft to firm orangish brown mottled red and light grey gravelly CLAY. Gravel is subangular to rounded fine to coarse of flint. (GLACIAL GRAVEL) (0.75)	1.80-2.05 Becomes very gravelly CLAY	2.05 +120.44		
Soft to firm orangish brown sandy gravelly CLAY. Sand is fine to coarse, gravel is subrounded to rounded fine to coarse of flint. (GLACIAL GRAVEL) (0.25)		2.30 +120.19		
Firm to stiff light orangish brown very gravelly CLAY. Gravel is subrounded to rounded fine and medium of flint. (GLACIAL GRAVEL) (1.20)		3.50 +118.99		
Driller reports very dense flint gravels. Rotary open holing (8.50)				

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 13.90	Bentonite cement pellet backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102A

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.49 mOD
Logged	SW	11/01/2016	Commacchio 205	0.00	33.50	121	19.50	**Coordinates (m)**	E 515391.26
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 3.50m (refusal), 12.00 - 14.80m (refusal), 21.00 - 22.70m and 25.00 - 25.60m refusal. Rotary open holing from 3.50m to 12.00m, 14.80 to 25.00m and 25.60 to 33.50m.					**National Grid**	N 208463.65
Approved	RJS	14/01/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
12.50	D 5				
13.40	D 6				
13.90	D 7				
14.50	D 8				
				11/01/16 16.50	0000 dry

Strata Description

Main	Detail	Depth, Level (Thickness)
Orangish brown mottled light grey and greenish brown slightly clayey fine to medium SAND. (READING BEDS)		12.00 +110.49 (1.10)
Light brown speckled black gravelly fine to medium SAND. Gravel is angular to subrounded fine to coarse of flint. (READING BEDS)		13.10 +109.39 (0.50)
Firm to stiff orangish brown and black gravelly very sandy CLAY. Sand is fine to medium, gravel is angular to subrounded fine to coarse of flint. Frequent black bands of mudstone/siltstone. (READING BEDS)		13.60 +108.89 (0.80)
Dark brown and light brown gravelly clayey fine to medium SAND. Gravel is angular to subangular fine to coarse of flint. (READING BEDS)		14.40 +108.09 (0.40)
Driller reports very dense flint gravels. Rotary open holing		14.80 +107.69 (1.70)
Driller reports void in chalk.	16.50-18.20 Stopped sampling at 14.8m due to refusal - casing dropped down to 18.2m where void may be present	16.50 +105.99 (1.70)
Driller reports casing pushed through chalk to 21.00m.		18.20 +104.29 (0.90)
Casing pushed through potential void.		19.10 +103.39

Legend | Backfill

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
13.90 - 33.50	Wet grout backfill.
17.00 - 21.00	Potential void - casing pushed down; did not bottom out from 19.1 to 21.2m.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102A

Borehole Log

Drilled	G&S	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.49 mOD
Logged	SW	11/01/2016	Commacchio 205	0.00	33.50	121	19.50	Coordinates (m)	E 515391.26
Checked	LWB	End	Inspection pit to 1.20m then dynamic sampling to 3.50m (refusal), 12.00 - 14.80m (refusal), 21.00 - 22.70m and 25.00 - 25.60m refusal. Rotary open holing from 3.50m to 12.00m, 14.80 to 25.00m and 25.60 to 33.50m.					National Grid	N 208463.65
Approved	RJS	14/01/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				13/01/16 19.50	0000 dry
22.10 - 22.50	D 10				
22.10 - 22.50	(Clay) D 9 (Chalk)				
22.70 - 23.15	SPTC		N=10 (2,1/3,3,2,2)		
22.70	D 11				
23.50	D 12				
24.00 - 24.45	SPTC		N=5 (1,0/0,1,2,2)		
24.00	D 13				
24.30	D 14				
24.80	D 15				
25.00 - 25.45	SPTC		N=9 (1,1/2,1,1,5)		
25.00	D 16				
25.50	D 17				
25.60 - 26.05	SPTS		N=44 (6,8/11,8,11,14)		
25.60 - 26.05	D 18				
27.00 - 27.45	SPTS		N=47 (9,9/11,11,11,14)		
27.00 - 27.45	D 19				
28.50 - 28.83	SPTS		50 (7,10/11,24,15 for 30mm)		
28.50 - 28.83	D 20				

Strata Description

Main	Detail	Depth, Level (Thickness)	
		(2.10)	
	21.00-22.70 Length of run 1.70; 0.94m recovery.	21.20	+101.29
Weak to medium strong low to medium density CHALK recovered as white speckled black and stained yellow gravelly SILT. Gravel is angular to subangular fine to coarse of chalk. At 22.05 - 22.70m half diameter of run comprised soft orangish brown mottled black, yellowish brown and green sandy gravelly CLAY. Sand is fine to medium, gravel is angular to subangular fine to coarse of flint. Other half comprised chalk. (UPPER CHALK)			
	22.70-24.00 Length of run 1.30m; 0.55m recovery	(3.40)	
	24.00-25.00 Length of run and recovery = 1.00m		
		24.60	+97.89
Weak to medium strong low to medium density white CHALK recovered as silty GRAVEL. Gravel is angular to subangular fine to coarse. (UPPER CHALK)		(0.40)	
	25.00-25.60 Length of run 0.60m, 0.60m recovery	25.00	+97.49
Weak low to medium density white CHALK recovered as gravelly SILT. Gravel is angular to subangular fine to medium. of chalk and, from 27.00m, flint. At 25.40 - 25.60m cobble sized pocket of soft clay. (UPPER CHALK)			
		(3.50)	
		28.50	+93.99
Weak to medium strong low to medium density white CHALK recovered as silty GRAVEL. Gravel is angular to subangular fine to coarse of chalk and flint. (UPPER CHLAK)			
		(1.94)	

Hole continues on next sheet

Legend

Backfill

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

CH102A

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.49 mOD
Logged	SW	11/01/2016	Commacchio 205	0.00	33.50	121	19.50	**Coordinates (m)**	E 515391.26
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 3.50m (refusal), 12.00 - 14.80m (refusal), 21.00 - 22.70m and 25.00 - 25.60m refusal. Rotary open holing from 3.50m to 12.00m, 14.80 to 25.00m and 25.60 to 33.50m.					**National Grid**	N 208463.65
Approved	RJS	14/01/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
30.00 - 30.44	SPTS		50 (10,11/10,11,14,15 for 60mm)		
30.00 - 30.44	D 21				
				14/01/16	0000
				33.50	dry

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports chalk.		30.44 +92.05 (3.06)		
END OF EXPLORATORY HOLE		33.50 +88.99		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102A

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.53 mOD
Logged	SW	12/01/2016	Comacchio 205	0.00	9.00	121	7.00	**Coordinates (m)**	E 515384.72
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 9.00m. Refusal on flint bands at 9.00m, unable to progress. Reset up on old WS hole renamed as CH102C.					**National Grid**	N 208467.39
Approved	RJS	12/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Macadam.		0.08 (0.08) +122.45		
Concrete recovered as light brown sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint and concrete. (MADE GROUND)		0.27 (0.19) +122.26		
Dark brown sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of macadam, flint and concrete. (MADE GROUND)		0.45 (0.18) +122.08		
Soft dark brown gravelly CLAY with low cobble content. Gravel is angular to subangular fine to coarse of brick, flint and concrete. Cobbles are angular of brick. (MADE GROUND)		1.20 (0.75) +121.33		
Driller reports stiff brown flinty clay.		4.60 (3.40) +117.93		
Driller reports dense sands		7.00 (2.40) +115.53		
Driller reports flint bands		7.30 (0.30) +115.23		
Driller reports dense sands		9.00 (1.70) +113.53		
END OF EXPLORATORY HOLE				

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 9.00	Wet grout backfill.
9.00 - 9.00	Unable to progress through gravels. Set up on CH102

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102B

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.53 mOD
Logged	SW	18/01/2016	Commacchio 205	0.00	35.00	121	7.50	**Coordinates (m)**	E 515385.64
Checked	LWB	**End**	Rotary open holing to 35.00m on old window sampling borehole.					**National Grid**	N 208468.08
Approved	RJS	18/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Macadam.		0.10 (0.10) +122.43		
Concrete recovered as light greyish brown sandy GRAVEL. Sand is medium to coarse, gravel is angular to subangular fine to coarse of flint and concrete. (MADE GROUND)		0.30 (0.20) +122.23		
Soft dark brown slightly gravelly CLAY with low cobble content. Gravel is angular to subangular fine to coarse of brick, flint and concrete. Cobbles are angular of brick. (MADE GROUND)		(0.90)		
Driller reports stiff brown sandy gravelly clays.		1.20 +121.33		
		(4.30)		
Driller reports dense sands.		5.50 +117.03		
		(1.60)		
Driller reports CHALK.		7.10 +115.43		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 35.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102C

Borehole Log

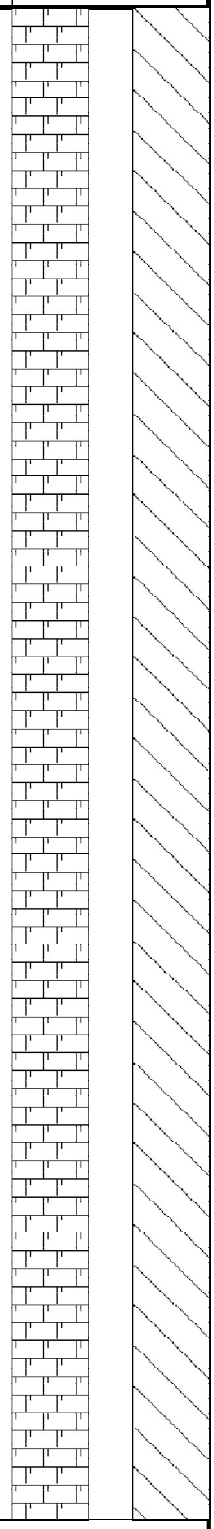
Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.53 mOD
Logged	SW	18/01/2016	Commacchio 205	0.00	35.00	121	7.50	**Coordinates (m)**	E 515385.64
Checked	LWB	**End**	Rotary open holing to 35.00m on old window sampling borehole.					**National Grid**	N 208468.08
Approved	RJS	18/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill



Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102C

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.53 mOD
Logged	SW	18/01/2016	Commacchio 205	0.00	35.00	121	7.50	**Coordinates (m)**	E 515385.64
Checked	LWB	**End**	Rotary open holing to 35.00m on old window sampling borehole.					**National Grid**	N 208468.08
Approved	RJS	18/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(27.90)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102C

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.53 mOD
Logged	SW	18/01/2016	Commacchio 205	0.00	35.00	121	7.50	**Coordinates (m)**	E 515385.64
Checked	LWB	**End**	Rotary open holing to 35.00m on old window sampling borehole.					**National Grid**	N 208468.08
Approved	RJS	18/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
END OF EXPLORATORY HOLE		35.00 +87.53		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH102C

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.48 mOD
Logged	SW	19/01/2016	Commacchio 205	0.00	35.00	100	18.00	**Coordinates (m)**	E 515389.20
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 16.00m. Sampling to 18.10m then open holing to 35.00m.					**National Grid**	N 208463.34
Approved	RJS	20/01/2016							

Samples and Tests

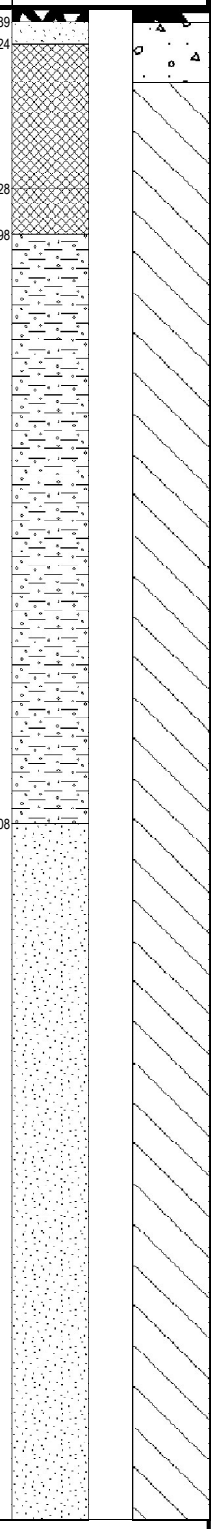
Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)
Macadam. (0.09)		0.09 +122.39
Concrete recovered as dark brown sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint and concrete. (MADE GROUND) (0.15)		0.24 +122.24
Soft dark brown and black sandy gravelly CLAY with low cobble content. Sand is fine to medium, gravel is angular to subangular fine to coarse of flint, brick and concrete. Cobbles are angular to subangular of brick. (MADE GROUND) (0.96)		1.20 +121.28
Driller reports brick concrete fill. (0.30)		1.50 +120.98
Driller reports stiff brown gravelly clays. (3.90)		5.40 +117.08
Driller reports dense sands. (6.70)		
Hole continues on next sheet		

Legend

Backfill



Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 35.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH102D

Borehole Log

Drilled	G&S	Start	Equipment, Methods and Remarks	Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)	Ground Level	122.48 mOD
Logged	SW	19/01/2016	Commacchio 205	0.00	35.00	100	18.00	Coordinates (m)	E 515389.20
Checked	LWB	End	Inspection pit to 1.20m then rotary open holing to 16.00m. Sampling to 18.10m then open holing to 35.00m.					National Grid	N 208463.34
Approved	RJS	20/01/2016							

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
						Driller reports chalk.		12.10 +110.38		
								(3.90)		
						Weak low to medium density white CHALK recovered as very gravelly SILT. Gravel is angular to subangular fine to medium of chalk and occasional subangular to subrounded fine to coarse flint. (UPPER CHALK)		16.00 +106.48		
				19/01/16 16.50	0000 dry					
16.50	D 1						16.60-16.90 Yellow staining	(1.60)		
							17.10-17.30 Yellow staining			
17.50	D 2					Weak to medium strong medium density white CHALK recovered as white silty GRAVEL. Gravel is angular to subangular medium to coarse. (UPPER CHALK)		17.60 +104.88		
17.90	D 3							(0.50)		
						Driller reports chalk. Rotary open holing from refusal at 18.10m.		18.10 +104.38		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	Bridle Close & Fontmell Close, St Albans
Project No.	G5519-15
Carried out for	Hertfordshire County Council

Borehole

CH102D

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.48 mOD
Logged	SW	19/01/2016	Commacchio 205	0.00	35.00	100	18.00	**Coordinates (m)**	E 515389.20
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 16.00m. Sampling to 18.10m then open holing to 35.00m.					**National Grid**	N 208463.34
Approved	RJS	20/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(16.90)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole

CH102D

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.48 mOD
Logged	SW	19/01/2016	Commacchio 205 Inspection pit to 1.20m then rotary open holing to 16.00m. Sampling to 18.10m then open holing to 35.00m.	0.00	35.00	100	18.00	**Coordinates (m)**	E 515389.20
Checked	LWB	**End**						**National Grid**	N 208463.34
Approved	RJS	20/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				20/01/16 18.00	0000 dry

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
END OF EXPLORATORY HOLE		35.00 +87.48		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole

CH102D

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.62 mOD
Logged	SW	20/01/2016	Commacchio 205	0.00	35.00	100	15.00	**Coordinates (m)**	E 515378.16
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 35.00m.					**National Grid**	N 208473.90
Approved	RJS	22/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Macadam.		0.09 (0.09) +122.53		
Concrete recovered as light brown sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint and concrete. (MADE GROUND)		0.26 (0.17) +122.36		
Soft dark brown and black sandy gravelly CLAY with a low cobble content. Sand is fine to medium. Gravel is angular to subangular fine to course of brick, flint and concrete. Cobbles are angular to subangular of brick and concrete (MADE GROUND).		1.20 (0.94) +121.42		
Driller reports brick concrete fill.		3.40 (2.20) +119.22		
Driller reports gravels.		4.00 (0.60) +118.62		
Driller reports dense sands.		4.70 (0.70) +117.92		
Driller reports dense flint gravels.		(9.10)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 35.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102E

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.62 mOD
Logged	SW	20/01/2016	Commacchio 205	0.00	35.00	100	15.00	**Coordinates (m)**	E 515378.16
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 35.00m.					**National Grid**	N 208473.90
Approved	RJS	22/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports chalk.		13.80 +108.82		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102E

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.62 mOD
Logged	SW	20/01/2016	Commacchio 205	0.00	35.00	100	15.00	**Coordinates (m)**	E 515378.16
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 35.00m.					**National Grid**	N 208473.90
Approved	RJS	22/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(21.20)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102E

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.62 mOD
Logged	SW	20/01/2016	Commacchio 205	0.00	35.00	100	15.00	**Coordinates (m)**	E 515378.16
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 35.00m.					**National Grid**	N 208473.90
Approved	RJS	22/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
END OF EXPLORATORY HOLE		35.00 +87.62		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH102E

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.73 mOD
Logged	SW	22/01/2016	Commacchio 205	0.00	35.00	100	28.00	**Coordinates (m)**	E 515356.86
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 35.00m.					**National Grid**	N 208487.56
Approved	RJS	22/01/2016							

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
0.00 - 0.30	C 1					Macadam comprising 80% aggregate of subangular medium to coarse limestone, metamorphic and igneous stone. up to 10% medium voids and occasional honeycombing.	0.17 Mainly coarse aggregate 0.21 Occasional large voids 0.27 Cobble sized brick aggregate	0.07 (0.07) +122.66		
						Strong light greyish brown CONCRETE. 50-60% aggregate of subangular to subrounded mainly medium to coarse flint, rare chalk and quartzite. <5% small voids. Vertical grooves around circumference of core.		0.30 (0.23) +122.43		
						Dark grey sandy clayey GRAVEL. Sand is fine to medium, gravel is angular to subangular fine to coarse of flint, concrete, macadam and brick. (MADE GROUND)		0.84 (0.54) +121.89		
						Dark brown and black sandy slightly clayey GRAVEL with high cobble content. Sand is fine to coarse, gravel is angular to subangular fine to coarse of brick, macadam and flint. Cobbles are angular to subangular of brick. (MADE GROUND)		1.20 (0.36) +121.53		
						Driller reports stiff sandy gravelly clays.		5.10 (3.90) +117.63		
						Driller reports dense flint gravels.				

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 35.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH103

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.73 mOD
Logged	SW	22/01/2016	Commacchio 205	0.00	35.00	100	28.00	**Coordinates (m)**	E 515356.86
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 35.00m.					**National Grid**	N 208487.56
Approved	RJS	22/01/2016							

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
								(10.90)		
						Driller reports dense brown sands.		16.00 +106.73		
								(6.70)		
						Hole continues on next sheet				

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH103

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.73 mOD
Logged	SW	22/01/2016	Commacchio 205	0.00	35.00	100	28.00	**Coordinates (m)**	E 515356.86
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 35.00m.					**National Grid**	N 208487.56
Approved	RJS	22/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	
Driller reports dense flint gravels.		22.70	+100.03
		(4.30)	
Driller reports dense brown sands.		27.00	+95.73
		(1.10)	
Driller reports chalk.		28.10	+94.63

Legend

Backfill

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH103

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.73 mOD
Logged	SW	22/01/2016	Commacchio 205	0.00	35.00	100	28.00	**Coordinates (m)**	E 515356.86
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 35.00m.					**National Grid**	N 208487.56
Approved	RJS	22/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(6.90)		
END OF EXPLORATORY HOLE		35.00 +87.73		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH103

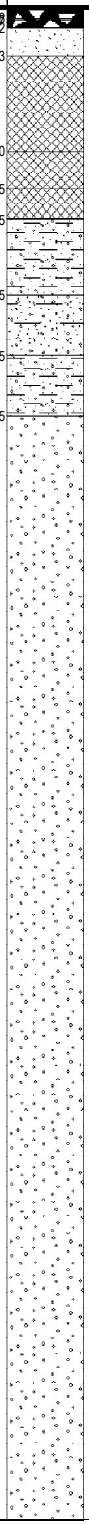
Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.65 mOD
Logged	SW	25/01/2016	Commacchio 205 Inspection pit to 1.20m then dynamic sampling to 2.70m then rotary open holing to 18.00m. Sampling and open holing to 35.00m. SPT hammer GC01	0.00	35.00	121	19.00	**Coordinates (m)**	E 515349.38
Checked	LWB	**End**						**National Grid**	N 208493.83
Approved	RJS	26/01/2016							

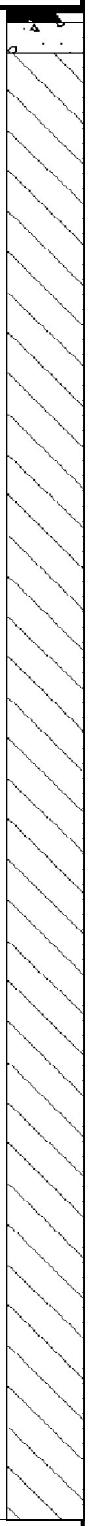
Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)
0.00 - 0.32	C 1					Macadam comprising 90% aggregate of angular fine to medium limestone and metamorphic stone. 30 - 40% small voids.		0.08 (0.08) +122.58 0.13 (0.05) +122.52 (0.19) 0.32 +122.33
						Macadam comprising 80% aggregate of coarse sand and fine gravel sized limestone. No obvious voids.		(0.63)
						Macadam comprising 80 - 90% aggregate of angular coarse limestone, quartzite and chalk. Up to 50% large voids.		0.95 +121.70 (0.25)
1.10	D 1					Concrete - 60% aggregate of mainly subangular medium to coarse flint and occasional chalk and quartzite. No reinforcing.<5% small voids. Vertical grooves irregularly spaced throughout circumference of core.		1.20 +121.45 (0.20) 1.40 +121.25
1.30	D 2							
1.50	D 3							(0.50)
						Light brown sandy GRAVEL with low cobble content. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete, flint and brick. Cobbles are angular of brick. (MADE GROUND)		1.90 +120.75
2.00	D 4							(0.40) 2.30 +120.35
2.50	D 5					Soft dark grey and black gravelly CLAY. Gravel is subrounded to rounded fine to coarse of flint. Organic odour noted. (MADE GROUND)		(0.40) 2.70 +119.95
						Soft dark greyish brown sandy gravelly CLAY. Sand is fine to medium,gravel is angular to subrounded fine to medium of flint and medium to coarse chalk. (MADE GROUND)		
						Soft to firm reddish orange mottled light grey and black slightly sandy gravelly CLAY. Sand is fine to medium, gravel is subangular to rounded fine to medium of flint. (GLACIAL GRAVEL)		
						Reddish brown mottled light grey gravelly clayey fine to medium SAND. Gravel is subangular to rounded fine to coarse of flint. (GLACIAL GRAVEL)		
						Stiff reddish brown mottled light grey sandy very gravelly CLAY/clayey GRAVEL. Sand is fine to coarse, gravel is subrounded to rounded fine to coarse of flint. (READING BEDS)		
						Driller reports dense flint gravels. Rotary open holing		(12.50)

Legend



Backfill



Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 35.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH103A

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.65 mOD
Logged	SW	25/01/2016	Commacchio 205	0.00	35.00	121	19.00	**Coordinates (m)**	E 515349.38
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 2.70m then rotary open holing to 18.00m. Sampling and open holing to 35.00m.					**National Grid**	N 208493.83
Approved	RJS	26/01/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
18.30	D 6				
18.80	D 7			25/01/16	0000
19.00 - 19.45	SPTS		N=33 (3,4/10,7,8,8)	19.00	dry
19.00 - 19.45	D 8			19.00	
19.50	D 9				

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports possible void.		15.20 +107.45		
		(2.50)		
Driller reports chalk.		17.70 +104.95		
		(0.30)		
Weak low to medium density white stained yellow CHALK recovered as slightly gravelly SILT. Gravel is angular to subangular fine to medium of chalk and rare angular to subangular fine to coarse flint. (UPPER CHALK)		18.00 +104.65		
		(0.60)		
Weak low to medium density white CHALK recovered as silty GRAVEL. Gravel is angular to subangular fine to coarse of speckled black chalk. (UPPER CHALK)	19.40-19.80 Yellow staining	18.60 +104.05		
		(2.00)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH103A

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.65 mOD
Logged	SW	25/01/2016	Commacchio 205	0.00	35.00	121	19.00	**Coordinates (m)**	E 515349.38
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 2.70m then rotary open holing to 18.00m. Sampling and open holing to 35.00m.					**National Grid**	N 208493.83
Approved	RJS	26/01/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
20.00 - 20.42 20.00	SPTS D 10		50 (8,9/7,8,16,19 for 45mm)	19.00	
20.50	D 11				
21.00 - 21.45 21.00	SPTS D 12		N=18 (3,3/3,4,5,6)	19.00	
21.50	D 13				
22.00 - 22.44 22.00 22.00	SPTS D 15 D 14		55 (4,5/5,8,13,29 for 70mm) Failed core run	19.00	
23.50 - 23.76 23.50	SPTS D 16		50 (9,16 for 65mm/32,18 for 40mm)	19.00	

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
	20.30-20.45 Becomes brown sandy gravelly CLAY. Sand is fine to medium, gravel is angular to subangular fine to medium of flint. 21.00-22.00 Dynamically sampled	20.60 +102.05		
Driller reports flint cobble. Rotary open holing		(0.40)		
Weak low to medium density white CHALK recovered as a gravelly SILT. Gravel is angular to subangular fine to medium. (UPPER CHALK)		21.00 +101.65		
		(0.40)		
Weak to medium strong low to medium density white CHALK recovered as silty GRAVEL. Gravel is angular to subangular fine to coarse and rare angular to subangular fine to medium flint. (UPPER CHALK)	21.80-22.00 Stained yellow 22.00-23.50 Rotary coring, no recovery except for angular coarse flint gravel	21.40 +101.25		
		(2.10)		
Driller reports chalk		23.50 +99.15		
		(11.50)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH103A

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.65 mOD
Logged	SW	25/01/2016	Commacchio 205	0.00	35.00	121	19.00	**Coordinates (m)**	E 515349.38
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 2.70m then rotary open holing to 18.00m. Sampling and open holing to 35.00m.					**National Grid**	N 208493.83
Approved	RJS	26/01/2016	SPT hammer GC01						

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				26/01/16 19.00	0000 dry

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
END OF EXPLORATORY HOLE		35.00 +87.65		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH103A

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.56 mOD
Logged	SW	27/01/2016	Commacchio 205	0.00	35.00	121	19.00	**Coordinates (m)**	E 515343.46
Checked	LWB	**End**	Inspection pit then rotary open holing to 35.00m.					**National Grid**	N 208500.06
Approved	RJS	28/01/2016							

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
0.00 - 0.36	C 1					Macadam comprising 90% aggregate of angular fine to medium limestone and metamorphic stone. 30 - 40% small voids.		0.07 (0.07) +122.49		
								0.14 (0.07) +122.42		
						Macadam comprising 80 - 90% aggregate of angular to subangular mainly coarse limestone and metamorphic stone. 40 - 50% large voids.		(0.22)		
								0.36 +122.20		
						Strong light brown CONCRETE. 40 - 50% aggregate of subrounded fine, coarse and rare medium flint. Rare quartzite aggregate. No obvious voids.		(0.84)		
								1.20 +121.36		
						Soft dark brown to black slightly sandy slightly gravelly CLAY. Sand is fine to coarse, gravel is subangular fine to coarse of brick, clinker and concrete. (MADE GROUND)				
						Driller reports brick clay fill.		(1.60)		
								2.80 +119.76		
						Driller reports stiff brown sandy gravelly clays.		(1.80)		
								4.60 +117.96		
						Driller reports dense flint gravels.		(10.60)		
						Hole continues on next sheet				

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 3.00	Bentonite cement pellet backfill.
3.00 - 35.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH103B

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.56 mOD
Logged	SW	27/01/2016	Commacchio 205	0.00	35.00	121	19.00	**Coordinates (m)**	E 515343.46
Checked	LWB	**End**	Inspection pit then rotary open holing to 35.00m.					**National Grid**	N 208500.06
Approved	RJS	28/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports chalk.		15.20 +107.36		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH103B

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.56 mOD
Logged	SW	27/01/2016	Commacchio 205	0.00	35.00	121	19.00	**Coordinates (m)**	E 515343.46
Checked	LWB	**End**	Inspection pit then rotary open holing to 35.00m.					**National Grid**	N 208500.06
Approved	RJS	28/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(19.80)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH103B

Borehole Log

Drilled	G&S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.56 mOD
Logged	SW	27/01/2016	Commacchio 205	0.00	35.00	121	19.00	**Coordinates (m)**	E 515343.46
Checked	LWB	**End**	Inspection pit then rotary open holing to 35.00m.					**National Grid**	N 208500.06
Approved	RJS	28/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
END OF EXPLORATORY HOLE		35.00 +87.56		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)
	31.00	Hole dry on completion	

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH103B

Borehole Log

Drilled	G/S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.38 mOD
Logged	SW	16/12/2015	Commacchio 205	0.00	31.00	121	21.00	**Coordinates (m)**	E 515393.60
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 45.00m.	31.00	45.00	100	28.50	**National Grid**	N 208410.59
Approved	RJS	05/01/2016							

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
						MACADAM		0.10 (0.10) +122.28		
						CONCRETE.		(0.20)		
						Dark brown sandy clayey GRAVEL with low cobble content. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint, brick and concrete. Cobbles are angular to subangular of brick. (MADE GROUND)		0.30 +122.08		
								(0.90)		
				17/12/16	0000 dry	Driller reports fill.		1.20 +121.18		
								(0.80)		
						Driller reports very dense flint gravels.		2.00 +120.38		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 2.30	Bentonite cement pellet backfill.
2.30 - 45.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH104

Borehole Log

Drilled	G/S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.38 mOD
Logged	SW	16/12/2015	Commacchio 205	0.00	31.00	121	21.00	**Coordinates (m)**	E 515393.60
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 45.00m.	31.00	45.00	100	28.50	**National Grid**	N 208410.59
Approved	RJS	05/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				04/01/16 18.00	0000 dry

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(25.20)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH104

Borehole Log

Drilled	G/S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.38 mOD
Logged	SW	16/12/2015	Commacchio 205	0.00	31.00	121	21.00	**Coordinates (m)**	E 515393.60
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 45.00m.	31.00	45.00	100	28.50	**National Grid**	N 208410.59
Approved	RJS	05/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports grey sandy clays.		27.20 +95.18		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH104

Borehole Log

Drilled	G/S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.38 mOD
Logged	SW	16/12/2015	Commacchio 205	0.00	31.00	121	21.00	**Coordinates (m)**	E 515393.60
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 45.00m.	31.00	45.00	100	28.50	**National Grid**	N 208410.59
Approved	RJS	05/01/2016							

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(7.10)		
Driller reports chalk.		34.30 +88.08		
		(10.70)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH104

Borehole Log

Drilled	G/S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.38 mOD
Logged	SW	16/12/2015	Commacchio 205	0.00	31.00	121	21.00	**Coordinates (m)**	E 515393.60
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 45.00m.	31.00	45.00	100	28.50	**National Grid**	N 208410.59
Approved	RJS	05/01/2016							

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
				05/01/16 28.50	0000 dry					
						END OF EXPLORATORY HOLE		45.00 +77.38		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH104

Borehole Log

Drilled	GS	**Start**	**Equipment, Methods and Remarks**	**Ground Level**	122.49 mOD
Logged	KW	18/12/2015	Comacchio 205 Inspection pit to 1.20m then dynamic sampling to 14.00m. Rotary open holing to 50.00m. SPT hammer GC01	**Coordinates (m)**	E 515389.87
Checked	LWB	**End**		**National Grid**	N 208407.19
Approved	RJS	22/12/2015			

Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)
0.00	0.25	300	14.00
0.25	1.20	250	50.00
1.20	14.00	112	
14.00	50.00	72	

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)	Legend	Backfill
				23/12/15 0.00	0000	MACADAM CONCRETE.		0.10 (0.10) +122.39		
						Red GRAVEL and COBBLES. Gravel is angular fine to coarse of brick and concrete, cobbles are angular of brick. (MADE GROUND)		0.40 (0.30) +122.09		
1.20 - 2.00	L 13		100% rec					(1.70)		
2.00 - 3.00	L 14		100% rec			Soft brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse, gravel is angular to subrounded fine to coarse of brick, flint and metal. (MADE GROUND)		2.00 (1.40) +120.49		
2.50	D 1									
3.00 - 4.00	L 15		100% rec							
3.50	D 2					Soft dark brown mottled orangish brown slightly sandy gravelly CLAY. Sand is mainly medium to coarse, gravel is subangular fine to coarse of flint and rare brick. (MADE GROUND)		3.40 (0.60) +119.09		
4.00 4.00 - 5.00	D 3 L 16		100% rec			Black and dark brown clayey ashy very gravelly SAND. Sand is fine to coarse, gravel is angular fine to coarse of glass, oyster shell, pottery, clinker, coal/charcoal, brick and copper. (MADE GROUND)	4.50 Angular cobbles of red brick	4.00 (2.80) +118.49		
4.90 5.00 - 6.00	D 4 L 17		100% rec							
6.00 - 7.00	L 18		100% rec				6.20 Old leather shoe and clay pot.			
6.90 7.00 - 8.00	D 5 L 19		100% rec			Soft dark grey rapidly becoming orangish brown silty CLAY. From 7.0m frequent cobble sized pockets of light grey mottling and subrounded medium quartzite gravel from 7.0-9.0m. (MADE GROUND?)		6.80 (5.30) +115.69		
7.50	D 6						7.50 Pocket of orange silt; frequent black organic mottling.			
8.00 - 9.00	L 20		100% rec							
8.50	D 7									
9.00 - 10.00	L 21		100% rec							
9.50	D 8						9.50 Pocket of orange silt 9.60 Becoming firm, locally soft.			

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 50.00	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH104A

Borehole Log

Drilled	GS	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.49 mOD
Logged	KW	18/12/2015	Comacchio 205	0.00	0.25	300	14.00	**Coordinates (m)**	E 515389.87
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 14.00m. Rotary open holing to 50.00m.	0.25	1.20	250	50.00	**National Grid**	N 208407.19
Approved	RJS	22/12/2015	SPT hammer GC01	1.20	14.00	112			
				14.00	50.00	72			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
10.00 - 11.00	L 22		100% rec		
10.50	D 9				
11.00 - 12.00	L 23		100% rec		
11.50	D 10				
12.00 - 13.00	L 24		100% rec		
12.50	D 11				
13.00 - 14.00	L 25		100% rec		
13.50	D 12				

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
	11.40 20mm wide vein of black organic silt.			
Soft light brown mottled orangish brown extremely closely spaced laminated sandy CLAY. Laminae are thin of yellow silt and light grey fine sand. Becoming indistinct with depth. (GLACIAL GRAVEL)		12.10 +110.39 (1.15)		
Firm to stiff orangish brown mottled black slightly sandy silty CLAY. Sand is fine. (GLACIAL GRAVEL)	13.50 Indistinct fissures heavily iron stained	13.25 +109.24 (0.75)		
Driller reports dense flint gravel.		14.00 +108.49 (10.50)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH104A

Borehole Log

Drilled	GS	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.49 mOD
Logged	KW	18/12/2015	Comacchio 205	0.00	0.25	300	14.00	**Coordinates (m)**	E 515389.87
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 14.00m. Rotary open holing to 50.00m.	0.25	1.20	250	50.00	**National Grid**	N 208407.19
Approved	RJS	22/12/2015	SPT hammer GC01	1.20	14.00	112			
				14.00	50.00	72			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				18/12/15 24.50	0000

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports very dense flint gravels.		24.50 +97.99		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH104A

Borehole Log

Drilled	GS	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.49 mOD
Logged	KW	18/12/2015	Comacchio 205	0.00	0.25	300	14.00	**Coordinates (m)**	E 515389.87
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 14.00m. Rotary open holing to 50.00m.	0.25	1.20	250	50.00	**National Grid**	N 208407.19
Approved	RJS	22/12/2015	SPT hammer GC01	1.20	14.00	112			
				14.00	50.00	72			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				21/12/15 39.00	0000

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(19.50)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH104A

Borehole Log

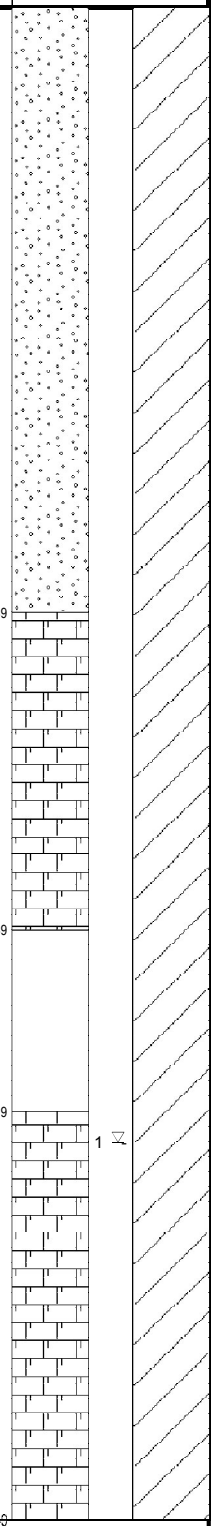
Drilled	GS	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.49 mOD
Logged	KW	18/12/2015	Comacchio 205	0.00	0.25	300	14.00	**Coordinates (m)**	E 515389.87
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 14.00m. Rotary open holing to 50.00m.	0.25	1.20	250	50.00	**National Grid**	N 208407.19
Approved	RJS	22/12/2015	SPT hammer GC01	1.20	14.00	112			
				14.00	50.00	72			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
44.00 - 44.44	SPTS		50 (6,10/11,11,13,15 for 70mm)	42.50	
46.00 - 46.34	SPTS		50 (5,7/14,16,20 for 40mm)	42.50	
				22/12/15 46.00	0000

Strata Description

Main	Detail	Depth, Level (Thickness)	
	42.70-44.00 Large flint cobbles with bands of chalk		
Driller reports chalk with small bands of flints.		44.00	+78.49
		(2.10)	
Driller reports possible workings/void.	46.00 SPT bouncing	46.10	+76.39
		(1.20)	
Driller reports chalk with small bands of flints.		47.30	+75.19
		(2.70)	
END OF EXPLORATORY HOLE		50.00	+72.49



Legend | Backfill

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)
1	47.50		

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH104A

Borehole Log

Drilled	GH/STU	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.53 mOD
Logged	KW	16/12/2015	Comacchio 205	0.00	0.40	300	16.50	**Coordinates (m)**	E 515383.95
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 34.50m.	0.40	1.20	250		**National Grid**	N 208401.35
Approved	RJS	17/12/2015		1.20	34.50	146			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Macadam Concrete.		0.10 (0.10) +122.43 (0.30)		
Dark brown to black sandy very clayey GRAVEL. Sand is fine to coarse, gravel is subangular to subrounded fine to coarse of flint, concrete, brick and rare clinker. (MADE GROUND)		0.40 +122.13 (0.80)		
Driller reports dense flint gravels with clay bands.		1.20 +121.33 (12.30)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 16.50	Cement bentonite pellet backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH104B

Borehole Log

Drilled	GH/STU	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.53 mOD
Logged	KW	16/12/2015	Comacchio 205	0.00	0.40	300	16.50	**Coordinates (m)**	E 515383.95
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 34.50m.	0.40	1.20	250		**National Grid**	N 208401.35
Approved	RJS	17/12/2015		1.20	34.50	146			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports dense flint gravels with sand bands		13.50 +109.03		
		(3.00)		
Driller reports weak chalk with large flint bands.		16.50 +106.03		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
16.50 - 34.50	Borehole collapsed.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole

CH104B

Borehole Log

Drilled	GH/STU	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.53 mOD
Logged	KW	16/12/2015	Comacchio 205	0.00	0.40	300	16.50	**Coordinates (m)**	E 515383.95
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 34.50m.	0.40	1.20	250		**National Grid**	N 208401.35
Approved	RJS	17/12/2015		1.20	34.50	146			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(18.00)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole

CH104B

Borehole Log

Drilled	GH/STU	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.53 mOD
Logged	KW	16/12/2015	Comacchio 205	0.00	0.40	300	16.50	**Coordinates (m)**	E 515383.95
Checked	LWB	**End**	Inspection pit to 1.20m then rotary open holing to 34.50m.	0.40	1.20	250		**National Grid**	N 208401.35
Approved	RJS	17/12/2015		1.20	34.50	146			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
END OF EXPLORATORY HOLE		34.50 +88.03		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH104B

Borehole Log

Drilled	G/S	**Start**	06/01/2016
Logged	KW		
Checked	LWB	**End**	07/01/2016
Approved	RJS		

Equipment, Methods and Remarks

Comacchio 205
Inspection pit to 1.20m then dynamic sampling to 9.00m then rotary open holing to 45.00m.
SPT hammer GC01

Depth from (m)	to (m)	Diameter (mm)	Casing Depth (m)
0.00	0.40	300	19.50
0.40	1.20	250	44.00
1.20	9.50	146	
9.50	45.00	121	

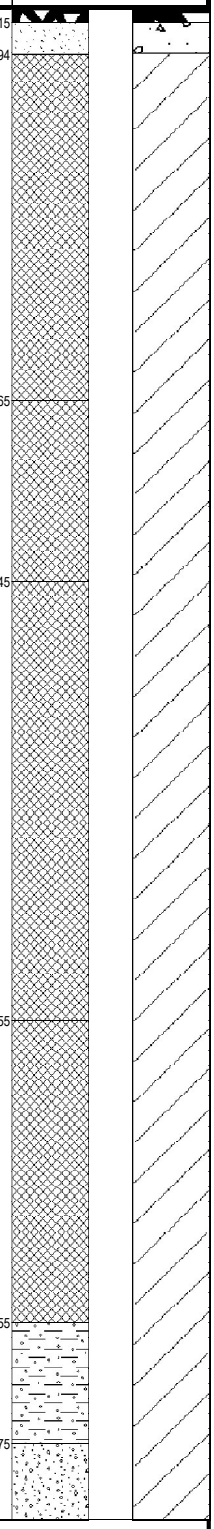
Ground Level	122.25 mOD
Coordinates (m)	E 515416.02
National Grid	N 208431.53

Samples and Tests / Strata Description

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water	Main	Detail	Depth, Level (Thickness)
						MACADAM.		0.10 (0.10) +122.15
						Medium strong light brown CONCRETE. 50 to 60% aggregate of angular to subrounded fine to coarse flint and rare quartzite. <5% small voids. No reinforcement. Fracture through the centre of the core.		0.31 (0.21) +121.94
						Soft light brown and brown slightly sandy slightly gravelly CLAY. Sand is fine to coarse, gravel is angular to rounded fine to coarse of flint, brick, slate, clinker and metal. (MADE GROUND)		(2.29)
							2.00-2.30 Orangish brown	
2.30	D 1						2.30 Angular fine to medium gravel of clinker	2.60 +119.65
						Soft orangish brown becoming greyish brown with depth slightly sandy slightly gravelly CLAY. Sand is fine to coarse, gravel is angular fine to coarse of crayon, clinker, metal, plastic and brick. (MADE GROUND)		(1.20)
3.30	D 2						3.30-3.50 Bright green staining	3.80 +118.45
						Soft, locally very soft, orangish brown slightly sandy slightly gravelly CLAY. Sand is fine, gravel is angular to subangular fine to coarse of flint, brick, chalk and quartzite. (MADE GROUND)		
4.30	D 3							
							5.10 Subangular coarse gravel of mortar	(2.90)
5.30	D 4							
							5.70 Cream angular fine to coarse gravel of chalk	
							6.20 Subangular coarse gravel of mortar	
6.30	D 5						6.50 Gravel of rubber	
						Soft greyish brown slightly sandy slightly gravelly CLAY. Sand is fine, gravel is subangular fine to medium of flint, quartzite and occasional brick, chalk, glass, foam rubber and clinker. (MADE GROUND)	6.70 Lens of angular fine clinker gravel	6.70 +115.55
7.30	D 6							(2.00)
						Soft to firm grey mottled black slightly gravelly CLAY with frequent organic pockets. Gravel is subrounded fine of quartzite and rare snail shell. (GLACIAL GRAVEL?)		8.70 +113.55
8.80	D 7							(0.80)
						Driller reports sand and gravel		9.50 +112.75

Hole continues on next sheet

Legend / Backfill



Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks
0.30 - 45.60	Wet grout backfill.

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH105

Borehole Log

Drilled	G/S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.25 mOD
Logged	KW	06/01/2016	Comacchio 205	0.00	0.40	300	19.50	**Coordinates (m)**	E 515416.02
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 9.00m then rotary open holing to 45.00m.	0.40	1.20	250	44.00	**National Grid**	N 208431.53
Approved	RJS	07/01/2016	SPT hammer GC01	1.20	9.50	146			
				9.50	45.00	121			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole

CH105

Borehole Log

Drilled	G/S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.25 mOD
Logged	KW	06/01/2016	Comacchio 205	0.00	0.40	300	19.50	**Coordinates (m)**	E 515416.02
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 9.00m then rotary open holing to 45.00m.	0.40	1.20	250	44.00	**National Grid**	N 208431.53
Approved	RJS	07/01/2016	SPT hammer GC01	1.20	9.50	146			
				9.50	45.00	121			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(30.10)		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH105

Borehole Log

Drilled	G/S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.25 mOD
Logged	KW	06/01/2016	Comacchio 205	0.00	0.40	300	19.50	**Coordinates (m)**	E 515416.02
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 9.00m then rotary open holing to 45.00m.	0.40	1.20	250	44.00	**National Grid**	N 208431.53
Approved	RJS	07/01/2016	SPT hammer GC01	1.20	9.50	146			
				9.50	45.00	121			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				06/01/16 9.00	0000

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
Driller reports CHALK.		39.60 +82.65		

Hole continues on next sheet

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

CH105

Borehole Log

Drilled	G/S	**Start**	**Equipment, Methods and Remarks**	**Depth from (m)**	**to (m)**	**Diameter (mm)**	**Casing Depth (m)**	**Ground Level**	122.25 mOD
Logged	KW	06/01/2016	Comacchio 205	0.00	0.40	300	19.50	**Coordinates (m)**	E 515416.02
Checked	LWB	**End**	Inspection pit to 1.20m then dynamic sampling to 9.00m then rotary open holing to 45.00m.	0.40	1.20	250	44.00	**National Grid**	N 208431.53
Approved	RJS	07/01/2016	SPT hammer GC01	1.20	9.50	146			
				9.50	45.00	121			

Samples and Tests

Depth	TCR SCR RQD	If	Records/Samples	Date Casing	Time Water
				07/01/16 44.00	0000

Strata Description

Main	Detail	Depth, Level (Thickness)	Legend	Backfill
		(6.00)		
END OF EXPLORATORY HOLE		45.60 +76.65		

Groundwater Entries

No.	Depth Strike (m)	Remarks	Depth Sealed (m)

Depth Related Remarks

Depths (m)	Remarks

Hard Boring

Depths (m)	Duration (mins)	Tools used

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres. Stratum thickness given in brackets in depth column.

Scale 1:50

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Project Bridle Close & Fontmell Close, St Albans

Project No. G5519-15

Carried out for Hertfordshire County Council

Borehole CH105

APPENDIX C

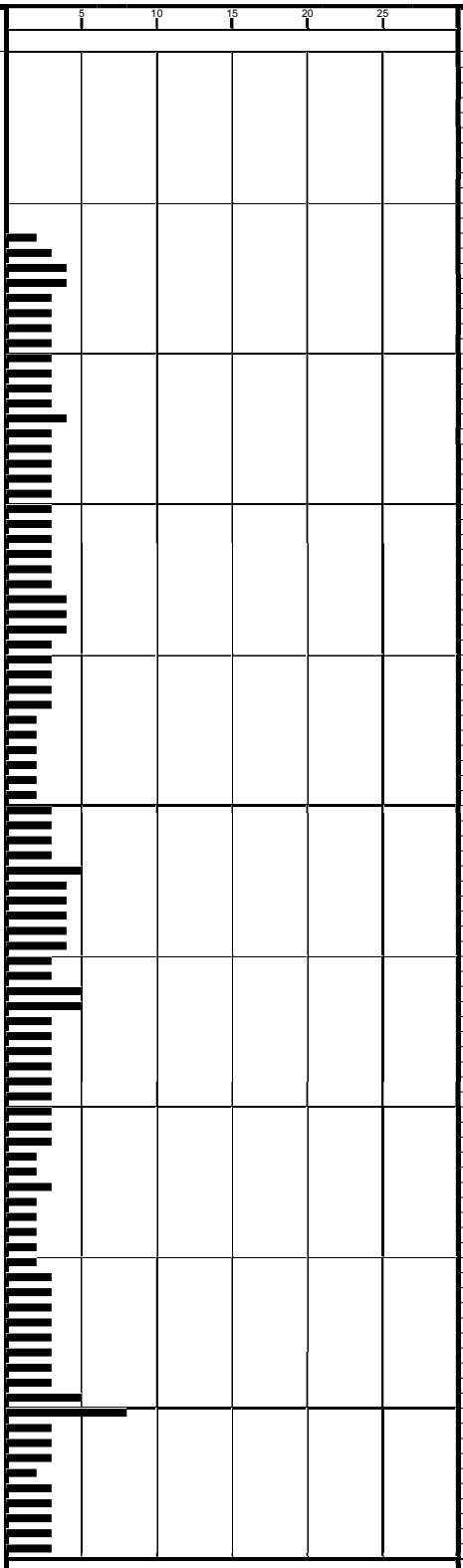
IN SITU TESTING

Dynamic Probe Log Records	DP101 to DP111, DP102A, DP103A, DP103B, DP104A, DP104B

Dynamic Probing Log

Operator	AP/CS	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	23.50	**Ground Level**	122.10 mOD
Logged by	AP	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515513.06
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	21/01/2016	**National Grid**	N 208479.59
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm
+120.60	1.50	4 3 3 3 4
+120.10	2.00	3 3 3 3 3
+119.60	2.50	3 3 3 3 4
+119.10	3.00	3 3 3 3 3
+118.60	3.50	3 4 4 4 3
+118.10	4.00	3 3 3 3 2
+117.60	4.50	2 2 2 2 2
+117.10	5.00	3 3 3 3 5
+116.60	5.50	4 4 4 4 4
+116.10	6.00	3 3 5 5 3
+115.60	6.50	3 3 3 3 3
+115.10	7.00	3 3 3 2 2
+114.60	7.50	3 2 2 2 2
+114.10	8.00	2 3 3 3 3
+113.60	8.50	3 3 3 3 5
+113.10	9.00	8 3 3 3 2
+112.60	9.50	3 3 3 3



Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
0	0.10	Macadam. Recovered as angular coarse gravel. Approx 80% aggregate of igneous material.		
0	0.32	Concrete core recovered non intact as grey sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete, macadam (from overlying stratum) and flint from concrete mix.		
10	0.85	Dark brown sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint and rare flint. (MADE GROUND)		
20	1.20	Soft light brown sandy gravelly CLAY. Sand is fine to medium., gravel is subrounded to rounded fine to coarse of flint. (GLACIAL GRAVEL)		
30				
30				
30				
30				
30				
40				

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dando Terrier
Inspection pit to 1.20m then dynamic probing to 23.40m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

DP101

Dynamic Probing Log

Operator	AP/CS	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	23.50	**Ground Level**	122.10 mOD
Logged by	AP	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515513.06
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	21/01/2016	**National Grid**	N 208479.59
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+112.10	10.00	3 3 3 3 3					
+111.60	10.50	3 2 2 2 2					
+111.10	11.00	2 2 2 2 2	40				
+110.60	11.50	3 3 3 3 3					
+110.10	12.00	3 3 3 3 3	40				
+109.60	12.50	3 3 4 4 14					
+109.10	13.00	9 9 6 4 3	40				
+108.60	13.50	3 3 2 2 2					
+108.10	14.00	3 2 2 2 2	40				
+107.60	14.50	2 4 3 4 4					
+107.10	15.00	4 3 3 3 3	40				
+106.60	15.50	3 3 3 3 3					
+106.10	16.00	4 2 2 2 2	50				
+105.60	16.50	2 3 3 3 3					
+105.10	17.00	5 5 5 5 5	50				
+104.60	17.50	5 5 5 5 5					
+104.10	18.00	5 5 5 5 5	50				
+103.60	18.50	4 4 4 4 4					
+103.10	19.00	2 2 2 2 2	50				
+102.60	19.50	2 2 2 2 2					
			50		Continued on next sheet		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dando Terrier
Inspection pit to 1.20m then dynamic probing to 23.40m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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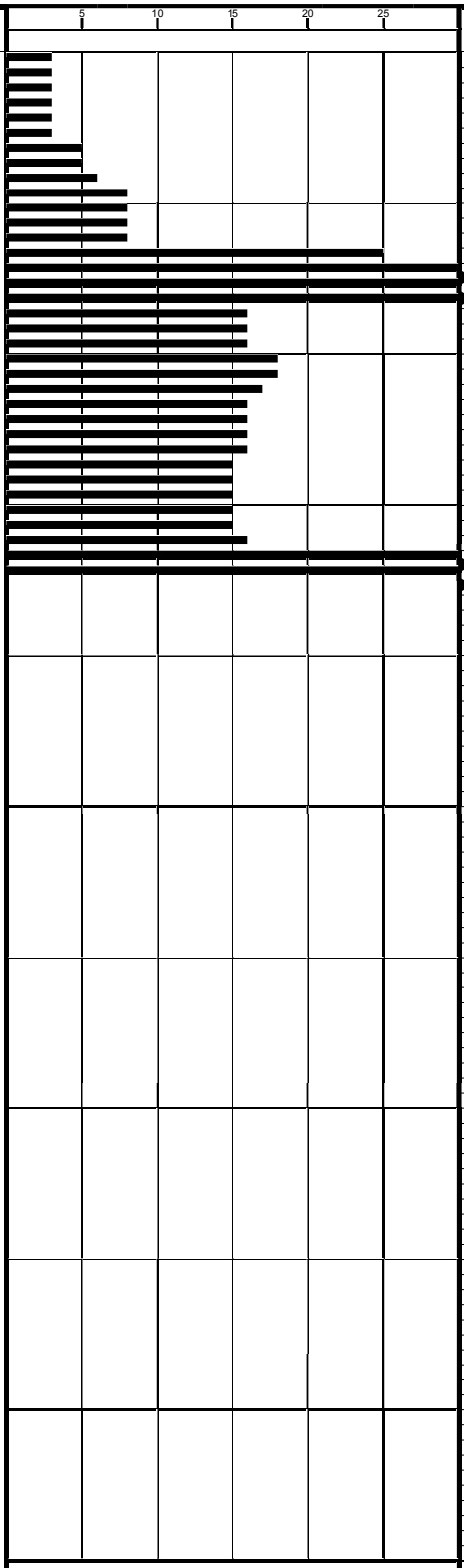
Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP101**
Carried out for	**Hertfordshire County Council**	Sheet 2 of 3

Dynamic Probing Log

Operator	**AP/CS**	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	23.50	**Ground Level**	122.10 mOD
Logged by	**AP**	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515513.06
Checked by	**LWB**	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	21/01/2016	**National Grid**	N 208479.59
Approved	**RJS**	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+102.10	20.00	3 3 3 3 2					
+101.60	20.50	3 5 5 6 3					
+101.10	21.00	8 8 8 25 8	50				
+100.60	21.50	44 30 16 16 41					
+100.10	22.00	18 18 17 16 16	50				
+99.60	22.50	16 16 15 15 16					
+99.10	23.00	15 15 16 49 15	50				
		100		23.50	END OF PROBING HOLE		



Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dando Terrier
Inspection pit to 1.20m then dynamic probing to 23.40m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP101**
Carried out for	**Hertfordshire County Council**	Sheet 3 of 3

Dynamic Probing Log

Operator	DR/TT	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	25.00	**Ground Level**	122.37 mOD
Logged by	DR/TT	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515398.45
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208459.19
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam		
				0.30	Concrete		
				0.95	Dark grey to black sandy clayey GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete, brick and flint. (MADE GROUND)		
				1.20	Soft orangish brown mottled light bluish grey slightly sandy CLAY with occasional rootlets. Sand is fine. (GLACIAL GRAVEL)		
+120.87	1.50	4 2 2 1 2	2				
+120.37	2.00	3 3 2 2 3					
+119.87	2.50	3 3 3 3 3	10				
+119.37	3.00	5 5 4 4 4					
+118.87	3.50	4 6 7 6 4	10				
+118.37	4.00	6 7 5 5 6					
+117.87	4.50	4 3 3 3 4	13				
+117.37	5.00	3 4 4 3 3					
+116.87	5.50	2 3 2 2 3	18				
+116.37	6.00	3 4 4 4 2					
+115.87	6.50	3 3 3 3 3	21				
+115.37	7.00	2 5 3 2 2					
+114.87	7.50	5 5 2 2 4	21				
+114.37	8.00	2 3 2 2 2					
+113.87	8.50	1 2 2 2 1	21				
+113.37	9.00	2 3 4 4 2					
+112.87	9.50	4 3 3 3 4	21				

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dart C130
Inspection pit to 1.20m then dynamic probing to 25.00m.
SPT hammer DART105

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP102**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 3

Dynamic Probing Log

Operator	DR/TT	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	25.00	**Ground Level**	122.37 mOD
Logged by	DR/TT	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515398.45
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208459.19
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+112.37	10.00	5 5 5 6 6					
+111.87	10.50	6 6 5 5 5					
+111.37	11.00	5 6 5 5 5	21				
+110.87	11.50	5 4 4 4 4					
+110.37	12.00	4 6 4 7 4					
+109.87	12.50	4 4 3 3 4	21				
+109.37	13.00	3 5 6 4 4					
+108.87	13.50	3 3 3 3 3	21				
+108.37	14.00	3 5 4 4 4					
+107.87	14.50	3 4 6 8 7	21				
+107.37	15.00	8 7 6 5 5					
+106.87	15.50	5 4 3 3 4	21				
+106.37	16.00	4 6 6 13 6					
+105.87	16.50	6 7 6 6 6	21				
+105.37	17.00	6 7 7 7 8					
+104.87	17.50	7 8 7 6 6	21				
+104.37	18.00	7 8 6 5 6					
+103.87	18.50	6 6 10 6 6	21				
+103.37	19.00	6 8 4 5 4					
+102.87	19.50	4 4 5 5	21				

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dart C130
Inspection pit to 1.20m then dynamic probing to 25.00m.
SPT hammer DART105

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

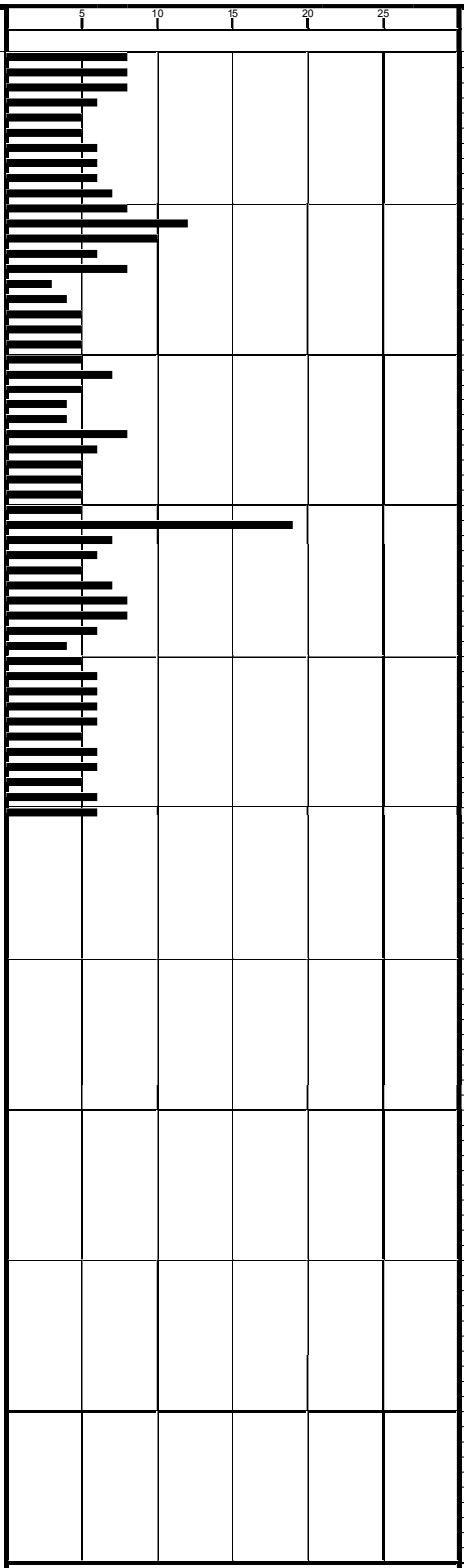
Borehole

DP102

Dynamic Probing Log

Operator	DR/TT	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	25.00	**Ground Level**	122.37 mOD
Logged by	DR/TT	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515398.45
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208459.19
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+102.37	20.00	8 8 8 6 8					
+101.87	20.50	5 6 6 6 5	21				
+101.37	21.00	8 12 10 6 7					
+100.87	21.50	3 4 5 5 8	21				
+100.37	22.00	5 7 5 4 5					
+99.87	22.50	8 6 5 5 4	21				
+99.37	23.00	5 19 7 6 5					
+98.87	23.50	7 8 8 6 5	21				
+98.37	24.00	5 6 6 6 4					
+97.87	24.50	5 6 6 5 6	21				
+97.37	25.00	6		25.00	END OF PROBING HOLE		



Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dart C130
Inspection pit to 1.20m then dynamic probing to 25.00m.
SPT hammer DART105

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP102**
Carried out for	**Hertfordshire County Council**	Sheet 3 of 3

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	7.00	**Ground Level**	122.53 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515398.00
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	16/12/2015	**National Grid**	N 208459.00
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam.		
					Concrete.		
				0.35	Dark grey to black very clayey GRAVEL with low cobble content. Gravel is angular to subrounded fine to coarse of brick, concrete and flint. Cobbles are angular of concrete. (MADE GROUND)		
				1.20			
+121.03	1.50	2 2 6 6 6					
+120.53	2.00	6 4 5 5 5	0				
+120.03	2.50	5 6 6 6 6					
+119.53	3.00	6 5 5 5 3	0				
+119.03	3.50	3 3 4 4 4					
+118.53	4.00	4 3 3 3 3	10				
+118.03	4.50	3 3 2 2 2					
+117.53	5.00	4 3 5 12 15	10				
+117.03	5.50	17 18 18 21 23					
+116.53	6.00	27 24 26 25 25	10				
+116.03	6.50	25 23 24 23 25					
+115.53	7.00	25	10	7.00	END OF PROBING HOLE		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 7.00m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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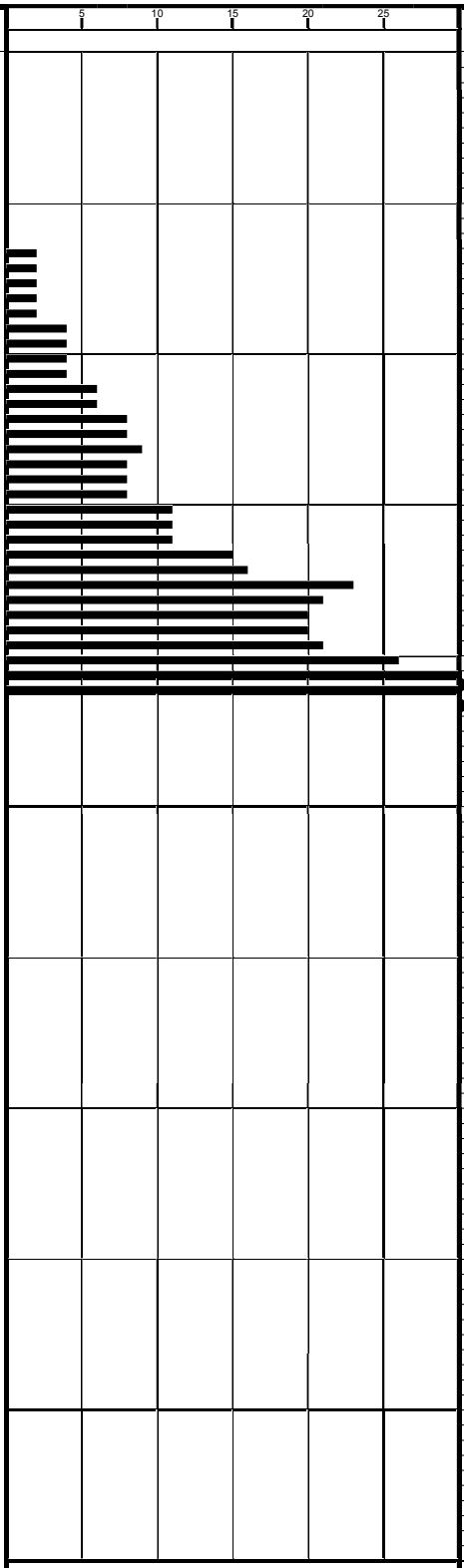
Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP102A**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 1

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	4.20	**Ground Level**	122.74 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515362.63
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	16/12/2015	**National Grid**	N 208483.91
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam.		
				0.20	Concrete.		
				0.65	Light grey sandy GRAVEL with low cobble content. Sand is fine to coarse, gravel is angular to subangular fine to coarse of brick and concrete and subangular to rounded fine to medium of flint. Cobbles are angular of concrete. (MADE GROUND)		
				1.20	Soft black sandy very gravelly CLAY. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of brick, concrete and flint. (MADE GROUND)		
+121.24	1.50	2 2 2 2 2					
+120.74	2.00	4 4 4 4 4	0				
+120.24	2.50	8 9 8 8 8					
+119.74	3.00	11 11 11 15 16	0				
+119.24	3.50	23 21 20 20 21					
+118.74	4.00	26 44 56	10	4.20	END OF PROBING HOLE		



Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pi to 1.20m then dynamic probing to 4.20m

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

DP103

Sheet 1 of 1

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	15.40	**Ground Level**	122.68 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515351.81
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	16/12/2015	**National Grid**	N 208491.15
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam.		
				0.30	Concrete.		
				0.60	Light grey sandy GRAVEL with low cobble content. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint, concrete and brick. Cobbles are angular of concrete. (MADE GROUND)		
				1.20	Soft dark grey slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of brick and flint fragments. (MADE GROUND)		
+121.18	1.50	1 1 1 1 1 2					
+120.68	2.00	2 2 2 4 4 4	0				
+120.18	2.50	6 11 10 10 10 10					
+119.68	3.00	10 10 10 10 10 9	0				
+119.18	3.50	12 15 18 11 11 12					
+118.68	4.00	9 9 9 10 16 14	10				
+118.18	4.50	14 13 14 9 6 7					
+117.68	5.00	7 7 7 7 7 7	10				
+117.18	5.50	7 7 7 7 7 7					
+116.68	6.00	7 7 7 7 6 7	20				
+116.18	6.50	9 9 9 9 9 6					
+115.68	7.00	5 4 7 6 6 5	30				
+115.18	7.50	4 4 4 5 5 7					
+114.68	8.00	5 4 9 9 9 8	30				
+114.18	8.50	9 9 7 7 7 7					
+113.68	9.00	7 9 9 9 9 8	50				
+113.18	9.50	9 9 9	50				

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit excavated & logged prior to probing.
At 15.4m - Probe refused

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP103A**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 2

Dynamic Probing Log

Operator	**AP/BI**	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	15.40	**Ground Level**	122.68 mOD
Logged by	**AP/BI**	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515351.81
Checked by	**LWB**	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	16/12/2015	**National Grid**	N 208491.15
Approved	**RJS**	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+112.68	10.00	15 12 12 9 9					
+112.18	10.50	7 7 8 8 6					
+111.68	11.00	6 6 6 11 14	50				
+111.18	11.50	8 8 8 5 8					
+110.68	12.00	11 11 5 4 5	50				
+110.18	12.50	4 5 6 6 4					
+109.68	13.00	7 7 6 7 27	50				
+109.18	13.50	4 4 4 4 6					
+108.68	14.00	5 7 7 6 4	50				
+108.18	14.50	6 7 7 11 6					
+107.68	15.00	11 11 19 66 17	50				
				15.40	END OF PROBING HOLE		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit excavated & logged prior to probing.
At 15.4m - Probe refused

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP103A**
Carried out for	**Hertfordshire County Council**	Sheet 2 of 2

Dynamic Probing Log

Operator	DR/TT	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	8.00	**Ground Level**	122.61 mOD
Logged by	DR/TT	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515349.23
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	16/12/2015	**National Grid**	N 208496.33
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam.		
					Concrete.		
				0.35	Dark grey slightly clayey sandy GRAVEL with a high cobble content. Gravel is angular to subangular fine to coarse of brick, concrete and flint. Cobbles are angular to subangular of concrete and brick. (MADE GROUND)		
				0.90			
				1.20	Soft dark grey slightly gravelly CLAY. Gravel is angular to subangular fine to coarse of brick and flint fragments. (MADE GROUND)		
+121.11	1.50	2 2 3 3 2	3				
+120.61	2.00	4 6 4 3 4					
+120.11	2.50	7 8 8 9 13	5				
+119.61	3.00	12 19 15 14 15					
+119.11	3.50	14 14 13 14 13	11				
+118.61	4.00	13 13 11 8 5					
+118.11	4.50	6 7 6 7 8	21				
+117.61	5.00	7 11 7 6 5					
+117.11	5.50	6 8 8 7 7	21				
+116.61	6.00	7 9 11 13 11					
+116.11	6.50	11 12 13 13 12	21				
+115.61	7.00	13 15 14 13 12					
+115.11	7.50	11 12 18 16 15	21				
+114.61	8.00	16		8.00	END OF PROBING HOLE		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dart C130
Inspection pit excavated & logged prior to probing.
SPT hammer Dart105

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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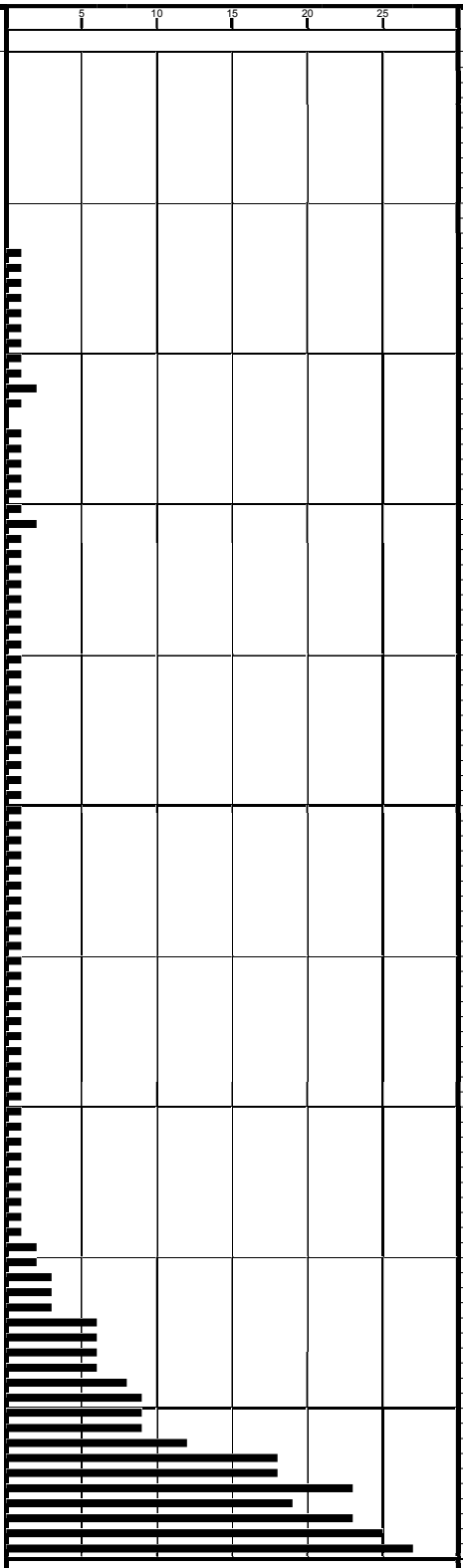
Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP103B**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 1

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	10.50	**Ground Level**	122.37 mOD
Logged by	AP	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515397.01
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208412.53
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm
+120.87	1.50	1 1 1 1 1
+120.37	2.00	1 1 2 1 0
+119.87	2.50	1 1 1 1 1
+119.37	3.00	1 2 1 1 1
+118.87	3.50	1 1 1 1 1
+118.37	4.00	1 1 1 1 1
+117.87	4.50	1 1 1 1 1
+117.37	5.00	1 1 1 1 1
+116.87	5.50	1 1 1 1 1
+116.37	6.00	1 1 1 1 1
+115.87	6.50	1 1 1 1 1
+115.37	7.00	1 1 1 1 1
+114.87	7.50	1 1 1 1 1
+114.37	8.00	2 3 3 3 2
+113.87	8.50	6 6 6 8 6
+113.37	9.00	9 9 12 18 9
+112.87	9.50	23 19 23 25 18



Torque (Nm)
0
0
10
10
10
20
30
30
20

Depth	Description	Legend	Backfill/ Instrumen
0.10	Macadam		
	Concrete		
0.35	Dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of brick concrete and flint. (MADE GROUND)		
1.20			

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 10.50m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP104**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 2

Dynamic Probing Log

Operator	**AP/BI**	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	10.50	**Ground Level**	122.37 mOD
Logged by	**AP**	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515397.01
Checked by	**LWB**	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208412.53
Approved	**RJS**	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+112.37	10.00	25 28 33 33 27 40 44					
+111.87	10.50			10.50	END OF PROBING HOLE		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 10.50m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP104**
Carried out for	**Hertfordshire County Council**	Sheet 2 of 2

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	13.00	**Ground Level**	122.27 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515389.88
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208404.75
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam.		
				0.35	Concrete.		
				0.65	Dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of brick and concrete. (MADE GROUND)		
				0.80	Concrete.		
				1.20	Dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of brick and concrete. (MADE GROUND)		
+120.77	1.50	2 1 1 1 1 1					
+120.27	2.00	2 1 1 1 1 1	0				
+119.77	2.50	1 1 1 0 1 1					
+119.27	3.00	1 1 1 1 1 1	0				
+118.77	3.50	1 1 1 1 1 1					
+118.27	4.00	1 1 2 2 1 1	10				
+117.77	4.50	1 1 1 1 1 1					
+117.27	5.00	1 1 1 1 1 1	10				
+116.77	5.50	1 0 0 1 1 1					
+116.27	6.00	1 1 1 1 1 1	10				
+115.77	6.50	1 1 1 1 1 1					
+115.27	7.00	0 0 1 1 1 1	10				
+114.77	7.50	1 1 1 0 0 0					
+114.27	8.00	2 2 2 2 2 2	10				
+113.77	8.50	2 2 2 2 2 2					
+113.27	9.00	3 3 3 4 4 4	10				
+112.77	9.50	6 6 6 6	20				

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 13.00m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

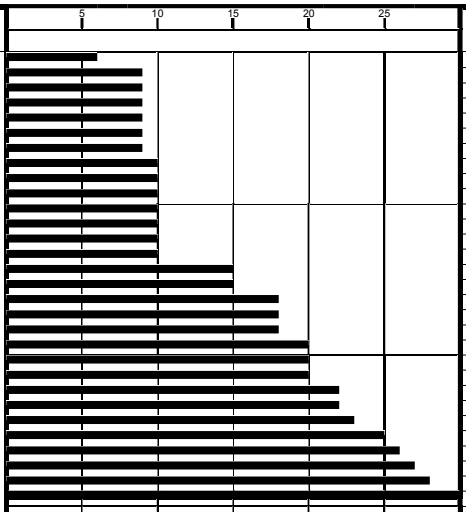
Borehole

DP104A

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	13.00	**Ground Level**	122.27 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515389.88
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208404.75
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+112.27	10.00	6 9 9 9 9					
+111.77	10.50	9 9 10 10 10					
+111.27	11.00	10 10 10 10 15	40				
+110.77	11.50	15 18 18 18 20					
+110.27	12.00	20 20 22 22 23	50				
+109.77	12.50	25 26 27 28 30		13.00	END OF PROBING HOLE		



Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 13.00m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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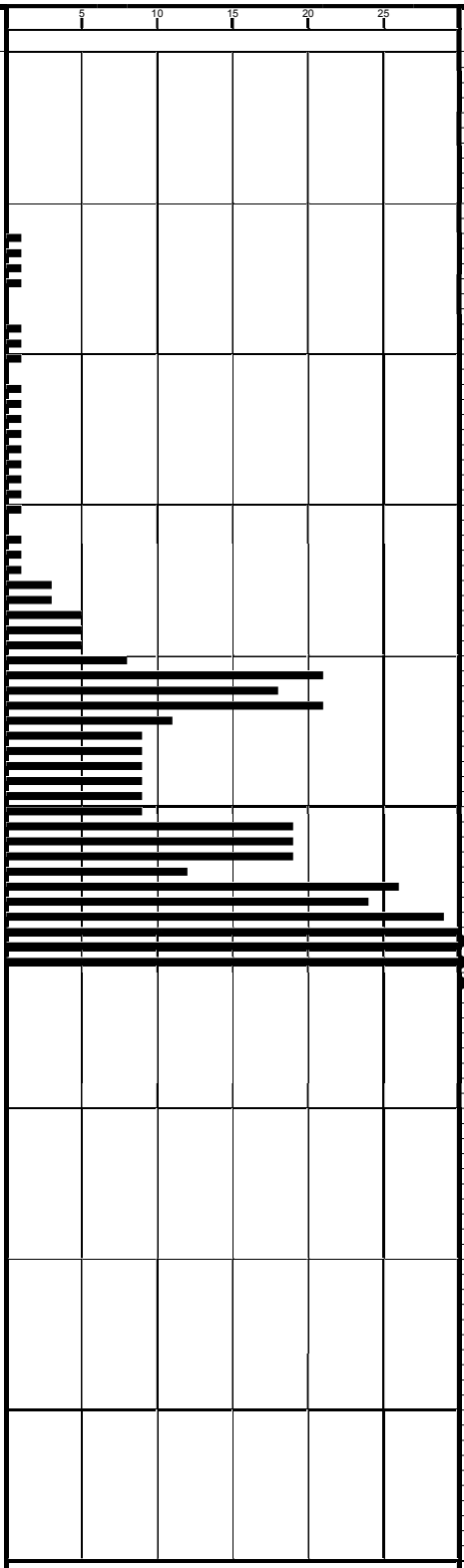
Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP104A**
Carried out for	**Hertfordshire County Council**	Sheet 2 of 2

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	6.10	**Ground Level**	122.31 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515381.29
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	14/12/2015	**National Grid**	N 208402.11
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam.		
				0.40	Orangish brown sandy GRAVEL. Sand is fine to coarse of brick, flint and concrete. (MADE GROUND)		
				1.20	Dark grey sandy clayey GRAVEL. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of brick, concrete and flint. At 0.70 - 0.85m becomes with low cobble content. Cobbles are angular to subangular of concrete and brick. (MADE GROUND)		
+120.81	1.50	1 0 0 1 1					
+120.31	2.00	1 0 1 1 1	0				
+119.81	2.50	1 1 1 1 1					
+119.31	3.00	1 0 1 1 1	0				
+118.81	3.50	3 3 5 5 5					
+118.31	4.00	8 21 18 21 11	0				
+117.81	4.50	9 9 9 9 9					
+117.31	5.00	9 19 19 19 12	0				
+116.81	5.50	26 24 29 33 57					
+116.31	6.00	69	10	6.10	END OF PROBING HOLE		



Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 6.10m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP104B**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 1

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	17.00	**Ground Level**	122.26 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515414.26
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208430.11
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam.		
				0.35	Concrete.		
				0.60	Light grey sandy GRAVEL. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of concrete. (MADE GROUND)		
				0.75	Concrete.		
				1.20	Soft dark grey to black gravelly CLAY with low cobble content. Gravel is angular to subangular fine to coarse of concrete, brick and flint. Cobbles are angular of concrete. (MADE GROUND)		
+120.76	1.50	1 1 1 1 1					
+120.26	2.00	1 0 0 1 0	0				
+119.76	2.50	2 1 1 1 1					
+119.26	3.00	1 1 1 1 1	0				
+118.76	3.50	0 1 1 1 0					
+118.26	4.00	1 0 0 1 1	0				
+117.76	4.50	1 1 1 1 1					
+117.26	5.00	1 1 1 1 1	10				
+116.76	5.50	1 1 2 0 1					
+116.26	6.00	1 0 1 1 1	10				
+115.76	6.50	1 1 1 0 1					
+115.26	7.00	1 1 1 1 1	10				
+114.76	7.50	1 1 1 1 1					
+114.26	8.00	1 1 1 1 1	10				
+113.76	8.50	1 1 1 1 1					
+113.26	9.00	1 1 1 1 1	40				
+112.76	9.50	1 2 2 3	40				

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 17.00m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

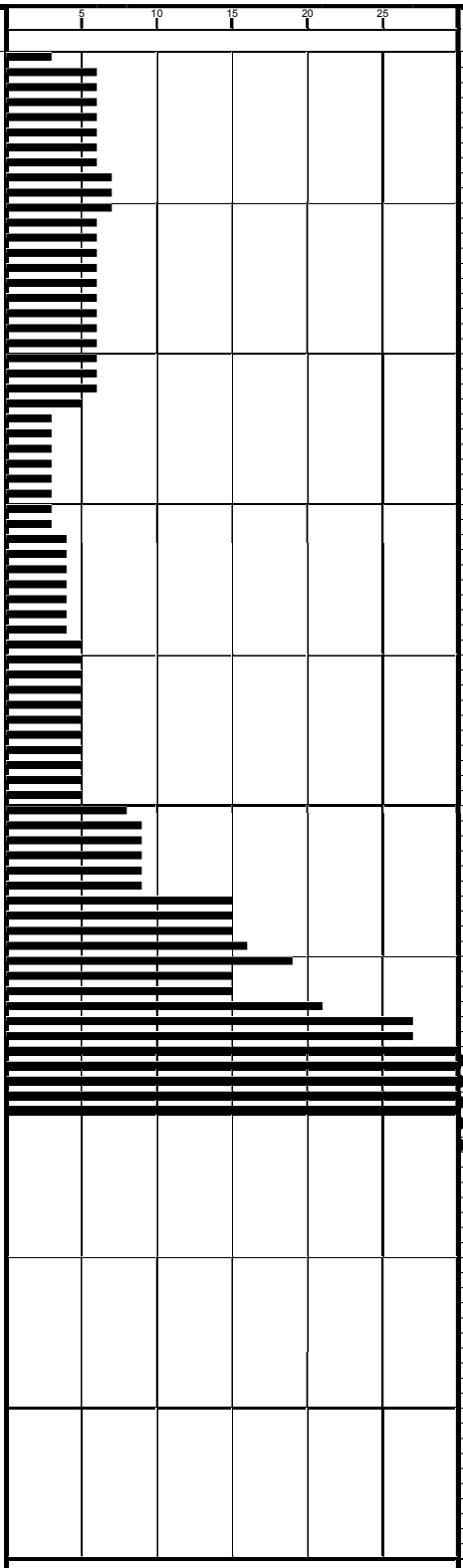
Borehole

DP105

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	17.00	**Ground Level**	122.26 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515414.26
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208430.11
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+112.26	10.00	3 6 6 6 3					
+111.76	10.50	6 6 6 7 6					
+111.26	11.00	7 6 6 6 7	40				
+110.76	11.50	6 6 6 6 6					
+110.26	12.00	6 6 6 6 6	40				
+109.76	12.50	3 3 3 5 3					
+109.26	13.00	3 3 4 3 3	50				
+108.76	13.50	4 4 4 4 4					
+108.26	14.00	5 5 5 4 5	50				
+107.76	14.50	5 5 5 5 5					
+107.26	15.00	8 9 9 9 5	50				
+106.76	15.50	9 15 15 15 9					
+106.26	16.00	19 15 15 21 16	50				
+105.76	16.50	27 35 35 31 27					
+105.26	17.00	44	50	17.00	END OF PROBING HOLE		



Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 17.00m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP105**
Carried out for	**Hertfordshire County Council**	Sheet 2 of 2

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	10.00	**Ground Level**	122.36 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515377.69
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	04/12/2015	**National Grid**	N 20839.66
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)
+120.86	1.50	1 1 3 2 2 2	
+120.36	2.00	2 2 2 2 2 2	0
+119.86	2.50	1 1 1 1 1 1	
+119.36	3.00	1 1 2 3 4 3	0
+118.86	3.50	4 7 7 6 4 4	
+118.36	4.00	4 3 3 3 3 3	10
+117.86	4.50	7 21 11 11 9 18	
+117.36	5.00	10 11 11 11 11 11	10
+116.86	5.50	11 7 15 15 15 15	
+116.36	6.00	9 9 9 9 9 9	10
+115.86	6.50	9 9 9 9 9 9	
+115.36	7.00	9 6 7 7 8 6	10
+114.86	7.50	6 11 12 14 15 15	
+114.36	8.00	15 15 15 15 15 15	20
+113.86	8.50	15 15 15 15 14 14	
+113.36	9.00	14 14 14 14	
+112.86	9.50		

Depth	Description	Legend	Backfill/ Instrumen
0.06	Macadam.		
0.10	Black sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of macadam. (MADE GROUND)		
0.30	Concrete.		
0.60	Dark grey sandy clayey GRAVEL with low cobble content. Sand is medium to coarse, gravel is angular to subrounded fine to coarse of brick, concrete, flint and rare macadam. Cobbles are angular to subangular of concrete. (MADE GROUND)		
1.20	Dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of flint, brick and concrete. (MADE GROUND)		
10.00	Continued on next sheet		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 10.00m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

DP106

Dynamic Probing Log

Operator	**AP/BI**	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	10.00	**Ground Level**	122.36 mOD
Logged by	**AP/BI**	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515377.69
Checked by	**LWB**	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	04/12/2015	**National Grid**	N 20839.66
Approved	**RJS**	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	5 10 15 20 25	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumentation
		14				END OF PROBING HOLE		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 10.00m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP106**
Carried out for	**Hertfordshire County Council**	Sheet 2 of 2

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	6.40	**Ground Level**	122.28 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515380.19
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	14/12/2015	**National Grid**	N 208396.16
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.06	Macadam.		
				0.10	Black sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of macadam. (MADE GROUND)		
				0.30	Concrete.		
				0.65	Dark grey sandy clayey GRAVEL with low cobble content. Sand is medium to coarse, gravel is angular to subrounded fine to coarse of brick, concrete, flint and rare macadam. Cobbles are angular to subangular of concrete. (MADE GROUND)		
				1.20	Dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of flint, brick and concrete. (MADE GROUND)		
+120.78	1.50	2 9 8 6 2					
+120.28	2.00	3 3 3 3 4	0				
+119.78	2.50	2 2 2 2 2					
+119.28	3.00	2 2 2 2 2	0				
+118.78	3.50	2 4 3 4 1					
+118.28	4.00	8 9 9 9 3	10				
+117.78	4.50	11 11 11 11 9					
+117.28	5.00	11 11 11 11 11	20				
+116.78	5.50	11 14 14 15 11					
+116.28	6.00	16 9 45 61 15	30				
				6.40	END OF PROBING HOLE		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 6.40m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP107**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 1

Dynamic Probing Log

Operator	DR/TT	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	10.00	**Ground Level**	122.30 mOD
Logged by	DR/TT	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515397.01
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	14/12/2015	**National Grid**	N 208412.53
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam.		
				0.40	Orangish brown sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of brick, flint and concrete. (MADE GROUND)		
				1.20	Dark grey sandy clayey GRAVEL. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of brick, concrete and flint. At 0.70 - 0.85m becomes with a low cobble content. Cobbles are angular to subangular of concrete and brick. (MADE GROUND)		
+120.80	1.50	1 0 0 1 1	0				
+120.30	2.00	0 1 1 1 0					
+119.80	2.50	0 0 0 0 0					
+119.30	3.00	0 1 2 1 1	2				
+118.80	3.50	1 1 1 1 0					
+118.30	4.00	0 1 0 1 0					
+117.80	4.50	0 1 0 1 0	3				
+117.30	5.00	0 1 0 0 1					
+116.80	5.50	0 1 1 1 1	3				
+116.30	6.00	1 2 2 2 2	5				
+115.80	6.50	2 2 2 3 4					
+115.30	7.00	4 4 13 8 10	9				
+114.80	7.50	11 9 9 10 10					
+114.30	8.00	10 11 10 11 11	13				
+113.80	8.50	10 10 9 9 10					
+113.30	9.00	10 9 8 14 21	15				
+112.80	9.50	23 26 25 21		10.00			

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dart C130
Inspection pit to 1.20m then dynamic probing to 10.00m.
SPT hammer Dart105

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP108**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 2

Dynamic Probing Log

Operator	DR/TT	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	10.00	**Ground Level**	122.30 mOD
Logged by	DR/TT	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515397.01
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	14/12/2015	**National Grid**	N 208412.53
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm		Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumente
+112.30	10.00	18	16			END OF PROBING HOLE		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dart C130
Inspection pit to 1.20m then dynamic probing to 10.00m.
SPT hammer Dart105

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

Borehole

DP108

Dynamic Probing Log

Operator	DR/TT	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	11.00	**Ground Level**	122.29 mOD
Logged by	DR/TT	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515395.62
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208409.62
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)
+120.79	1.50	0 0 1 1 0	1
+120.29	2.00	3 1 1 1 2	
+119.79	2.50	1 0 1 0 1	2
+119.29	3.00	0 1 0 0 0	
+118.79	3.50	1 0 1 1 1	2
+118.29	4.00	0 1 0 0 1	
+117.79	4.50	1 1 1 0 0	3
+117.29	5.00	0 1 1 1 1	
+116.79	5.50	0 1 1 0 0	3
+116.29	6.00	0 1 0 0 1	
+115.79	6.50	0 1 1 1 0	3
+115.29	7.00	1 3 2 1 3	
+114.79	7.50	1 2 2 1 1	4
+114.29	8.00	1 3 2 2 2	
+113.79	8.50	3 3 2 3 4	15
+113.29	9.00	4 7 6 6 6	
+112.79	9.50	6 7 10 9	21

Depth	Description	Legend	Backfill/ Instrumen
0.10	Macadam		
	Concrete		
0.40	Dark grey slightly sandy clayey GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of flint, concrete and brick. (MADE GROUND)		
0.95	Soft dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of flint, concrete and brick. (MADE GROUND)		
1.20			

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dart C130
Inspection pit to 1.20m then dynamic probing to 11.00m.
SPT hammer Dart105

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP109**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 2

Dynamic Probing Log

Operator	DR/TT	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	11.00	**Ground Level**	122.29 mOD
Logged by	DR/TT	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515395.62
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208409.62
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+112.29	10.00	11 16 16 16 10					
+111.79	10.50	13 15 21 23 12	21				
+111.29	11.00	22 21		11.00	END OF PROBING HOLE		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dart C130
Inspection pit to 1.20m then dynamic probing to 11.00m.
SPT hammer Dart105

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP109**
Carried out for	**Hertfordshire County Council**	Sheet 2 of 2

Dynamic Probing Log

Operator	DR/TT	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	9.00	**Ground Level**	122.26 mOD
Logged by	DR/TT	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515402.34
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208421.31
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam Concrete		
				0.35 0.50 0.80	Light grey sandy GRAVEL. Sand is fine to coarse, gravel is angular to subangular fine to coarse of concrete (MADE GROUND) Concrete		
				1.20	Soft dark grey/black gravelly CLAY with low cobble content. Gravel is angular to subangular fine to coarse of concrete, brick and flint. Cobbles are angular to subangular of concrete. (MADE GROUND)		
+120.76	1.50	0 0 0 1 0	1				
+120.26	2.00	0 1 0 1 0					
+119.76	2.50	0 1 0 1 0	2				
+119.26	3.00	0 1 0 1 1					
+118.76	3.50	0 1 0 1 1	2				
+118.26	4.00	1 1 1 0 0					
+117.76	4.50	1 0 1 0 1	4				
+117.26	5.00	0 2 1 1 2					
+116.76	5.50	2 2 3 3 3	11				
+116.26	6.00	3 4 4 4 4					
+115.76	6.50	4 5 5 5 7	21				
+115.26	7.00	6 7 9 11 10					
+114.76	7.50	11 12 10 10 11	21				
+114.26	8.00	13 15 13 12 12					
+113.76	8.50	13 15 13 13 14					
+113.26	9.00	13		9.00	END OF PROBING HOLE		

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Dart C130
Inspection pit to 1.20m then dynamic probing to 9.00m.
SPT hammer Dart105

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP110**
Carried out for	**Hertfordshire County Council**	Sheet 1 of 1

Dynamic Probing Log

Operator	AP/BI	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	12.30	**Ground Level**	122.60 mOD
Logged by	AP/BI	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515405.24
Checked by	LWB	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208418.33
Approved	RJS	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
				0.10	Macadam.		
				0.30	Concrete.		
				0.60	Light greyish brown sandy GRAVEL with low cobble content. Sand is fine to coarse. Gravel is angular to subangular fine to coarse of brick, concrete and flint. Cobbles are angular of concrete. (MADE GROUND)		
				1.20	Concrete.		
+121.10	1.50	1 2 2 1 1	0		Soft dark grey gravelly CLAY. Gravel is angular to subangular fine to coarse of brick, flint, concrete and rare metal. (MADE GROUND)		
+120.60	2.00	1 1 1 1 0	0				
+120.10	2.50	1 1 1 1 1	0				
+119.60	3.00	1 1 1 1 1	0				
+119.10	3.50	1 1 1 1 1	0				
+118.60	4.00	1 1 1 1 1	0				
+118.10	4.50	1 1 1 1 1	0				
+117.60	5.00	1 1 1 0 1	10				
+117.10	5.50	1 2 1 1 1	10				
+116.60	6.00	1 1 1 1 1	10				
+116.10	6.50	1 1 1 1 1	20				
+115.60	7.00	1 1 1 1 1	20				
+115.10	7.50	1 1 1 1 1	20				
+114.60	8.00	1 2 2 2 3	30				
+114.10	8.50	3 3 3 3 3					
+113.60	9.00	6 8 9 9 8					
+113.10	9.50	8 8 8 8					

Continued on next sheet

Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 12.30m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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Project	**Bridle Close & Fontmell Close, St Albans**
Project No.	**G5519-15**
Carried out for	**Hertfordshire County Council**

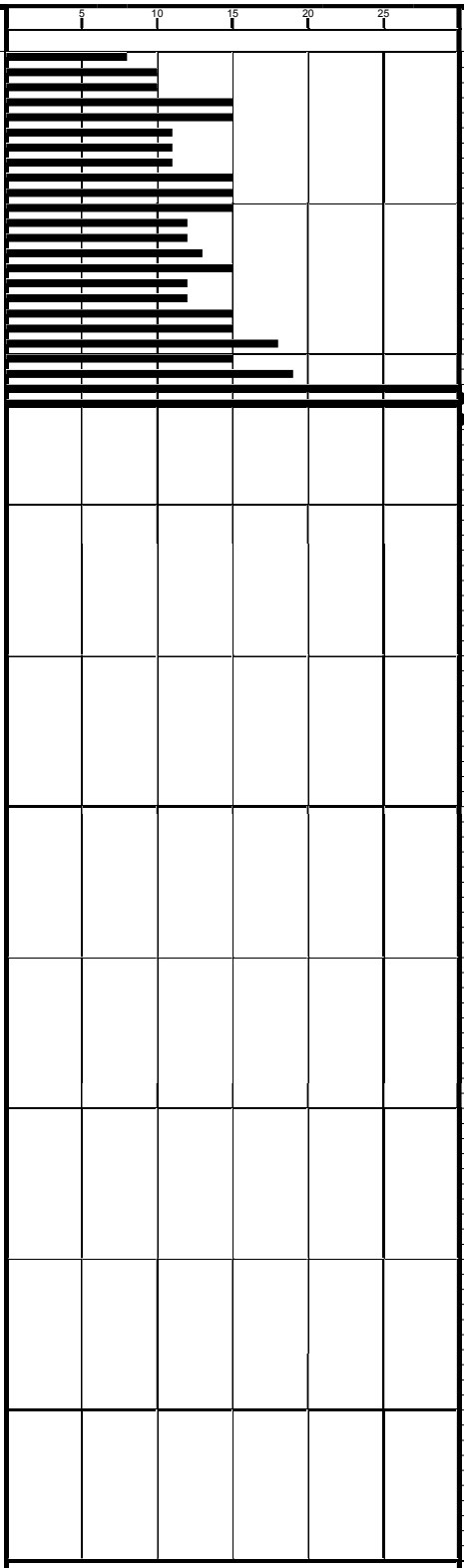
Borehole

DP111

Dynamic Probing Log

Operator	**AP/BI**	**Probe Type**	DPSH-B	**Cone Diameter (mm)**	50	**Cone tip abandoned at (m)**	12.30	**Ground Level**	122.60 mOD
Logged by	**AP/BI**	**Rod Diameter (mm)**	35	**Hammer Mass (kg)**	63.5			**Coordinates (m)**	E 515405.24
Checked by	**LWB**	**Rod Mass (kg/m)**	8.0	**Fall Height (mm)**	750	**Date of Test**	15/12/2015	**National Grid**	N 208418.33
Approved	**RJS**	**Rig Reference**		**Hammer Energy Ratio (%)**					

Level	Depth (m)	Blows per 100mm	Torque (Nm)	Depth	Description	Legend	Backfill/ Instrumen
+112.60	10.00	8 10 10 15 8					
+112.10	10.50	11 11 11 15 15					
+111.60	11.00	15 12 12 13 15	50				
+111.10	11.50	12 12 15 15 18					
+110.60	12.00	15 19 33 59	50				
				12.30	END OF PROBING HOLE		



Remarks

Dynamic Probe (Super Heavy)

Equipment, Methods and Comments

Geotool
Inspection pit to 1.20m then dynamic probing to 12.30m.

Notes: For explanation of symbols and abbreviations see Key to Exploratory Hole Records. All depths and reduced levels in metres.

Scale 1:50

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11/03/2016 16:48:58

Project	**Bridle Close & Fontmell Close, St Albans**	**Borehole**
Project No.	**G5519-15**	**DP111**
Carried out for	**Hertfordshire County Council**	Sheet 2 of 2