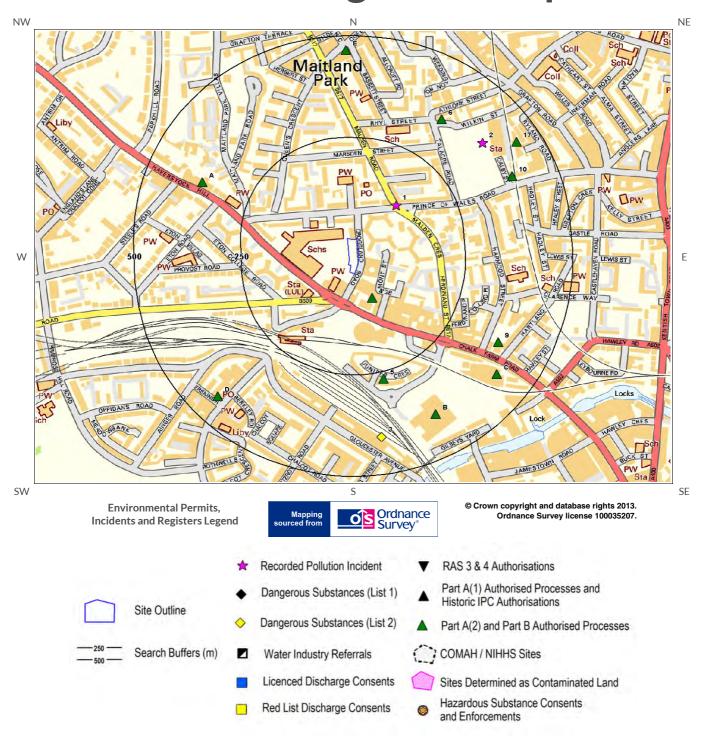
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## 1. Environmental Permits, Incidents and Registers Map









# 1. Environmental Permits, Incidents and Registers

1.1 Industrial Sites Holding Licences and/or Authorisations

Searches	of information	provided b	by the	Environment	Agency	and	Local	Authorities	reveal	the	following
information	on·										

Searches of information provided by the Environment Agency and Local Authorities reveal the follow information:	ving
1.1.1 Records of historic IPC Authorisations within 500m of the study site:	0
Database searched and no data found.	
1.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:	0
Database searched and no data found.	
1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m the study site:	
Database searched and no data found.	0
1.1.4 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:	0
Database searched and no data found.	
1.1.5 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:	0
Database searched and no data found.	





1.1.6 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

1

The following List 2 Dangerous Substance Inventory Site records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR		Details
3	408.0	S	528295 184059	Name: Todd-ao Uk, 13 Hawley Crescent, London Status: Not Active Receiving Water: -	Authorised Substances: Silver

1.1.7 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

16

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details			
4	75.0	SE	528273 184399	Address: Texaco, 81 - 85 Chalk Farm Road, London, NW1 8AR Process: Petrol Station Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified		
5	270.0	S	528300 184200	Address: Lex Volvo-regents Pk Bodyshop, Dumpton Place, Gloucester Ave, NW1 8JD Process: Vehicle Re-spray Process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified		
6	353.0	NE	528435 184840	Address: L G Coachworks, 65 Wilkin Street Mews, Kentish Town, London, NW5 3NN Process: Vehicle Respraying Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified		
7A	367.0	W	527876 184685	Address: The Dry Cleaners of Hampstead, 80 Haverstock Hill, NW3 2BE Process: Dry Cleaner Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified		
8A	367.0	W	527876 184685	Address: The Dry Cleaners of Hampstead, 80 Haverstock Hill, NW3 2BE Process: Dry Cleaner Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified		
9	376.0	SE	528568 184291	Address: Esso 29, Chalk Farm Road, London, NW1 8AG Process: Petrol station Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified		
10	393.0	NE	528600 184700	Address: Jt Coachwks, Prince Of Wales Rd, London, NW5 3LR Process: Vehicle Re-spray Process Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified		
11B	396.0	SE	528421 184113	Address: Wm Morrisons Supermarkets plc, Chalk Farm Road, NW1 8AA Process: Dry Cleaner Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified		





ID	Distance	Direction	NGR	Der	Details				
12B	396.0	SE	528421 184113	Address: Wm Morrisons Supermarkets Plc, Chalk Farm Road, NW1 8AA Process: Dry Cleaner Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified				
13C	415.0	SE	528564 184212	Address: Wm Morrisons Esso, 29 Chalk Farm Road, London, NW1 8AG Process: Petrol Station Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified				
14C	415.0	SE	528564 184212	Address: Esso Chalk Farm Service Station, 29 Chalk Farm Road, London, NW1 8AG Process: Petrol Station Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified				
15D	436.0	SW	527913 184157	Address: Primrose Valet, 91a Regents Park Road, NW1 8UR Process: Dry Cleaner Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified				
16D	436.0	SW	527913 184157	Address: Primrose Valet, 91a Regents Park Road, NW1 8UR Process: Dry Cleaner Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified				
17	441.0	NE	528610 184784	Address: D P Enamellers, Imperial Works, Perren Street, London NW5 3ED Process: Metal Coating Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified				
18E	462.0	N	528212 185010	Address: Moderna Dry Cleaners, 70 Queens Crescent, NW5 4EE Process: Dry Cleaner Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified				
19E	462.0	N	528212 185010	Address: Moderna Dry Cleaners, 70 Queens Crescent, NW5 4EE Process: Dry Cleaner Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified				

1.1.8 Records of Category	<sup>7</sup> 3 or 4 Radioactive Substances Authorisations:
---------------------------	--

0

Database searched and no data found.

1.1.9 Records of Licensed Discharge Consents within 500m of the study site:

0

Database searched and no data found.





1.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:

0

Database searched and no data found.

## 1.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

0

Database searched and no data found.

## 1.3 Environment Agency Recorded Pollution Incidents

1.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

2

The following NIRS List 2 records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details		
1	123.0	NE	528329 184630	Incident Date: 30/05/2002 Incident Identification: 82130 Pollutant: Organic Chemicals/Products Pollutant Description: Other Organic Chemical or Product	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)	
2	376.0	NE	528530 184784	Incident Date: 13/12/2001 Incident Identification: 48132 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)	

1.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.





## 1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

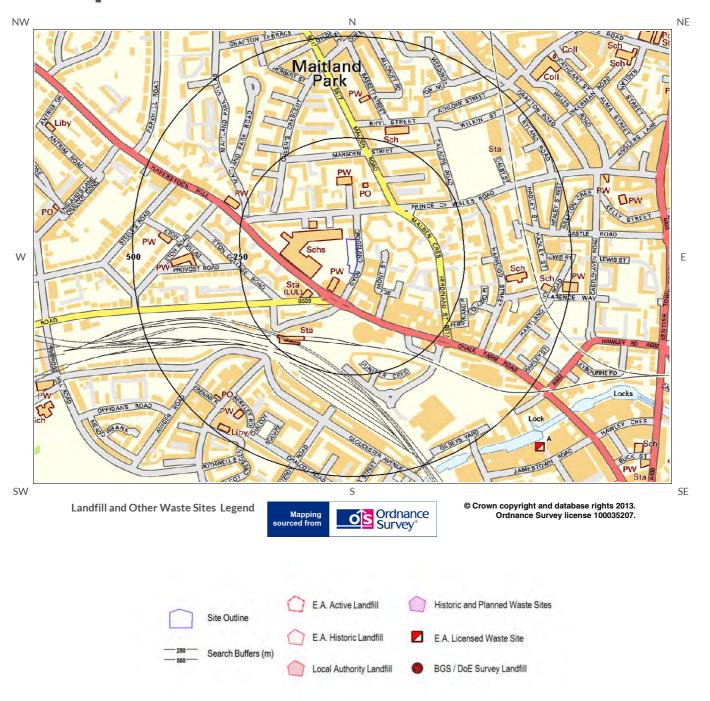
0

Database searched and no data found.





## 2. Landfill and Other Waste Sites Map









## 2. Landfill and Other Waste Sites

## 2.1 Landfill Sites 2.1.1 Records from Environment Agency landfill data within 1000m of the study site: 0 Database searched and no data found. 2.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site: 0 Database searched and no data found. 2.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site: 0 Database searched and no data found. 2.1.4 Records of Local Authority landfill sites within 1500m of the study site: 0 Database searched and no data found. 2.2 Other Waste Sites 2.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site: 0 Database searched and no data found.





2.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

4

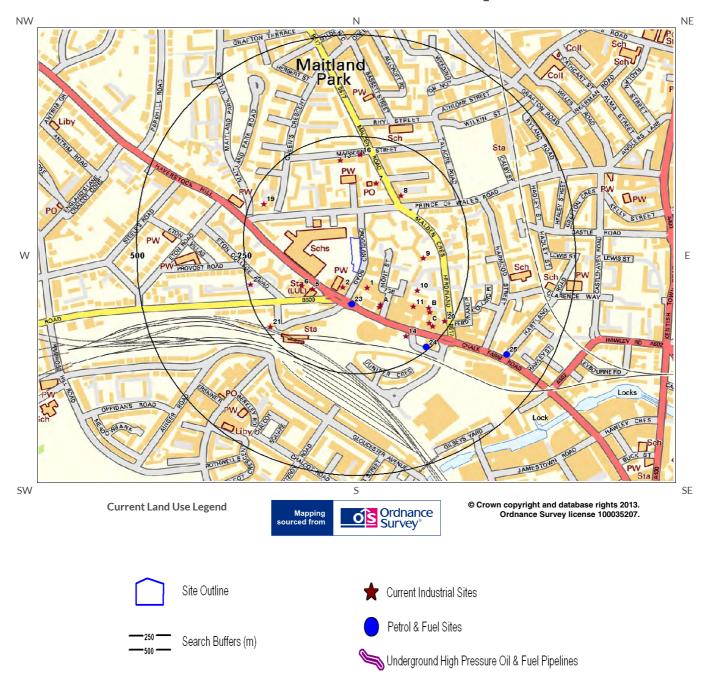
The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details			
1A	609.0	SE	528667 184035	Site Address: - Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAM003 EPR reference: EA/EPR/UP3697NB/S002 Operator: Camden London Borough Council Waste Management licence No: 80482 Annual Tonnage: 20000.0	Issue Date: 15/10/1994 Effective Date: - Modified: - Surrendered Date: 25/07/1997 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Jamestown Road CA Site Correspondence Address: -, -		
2A	609.0	SE	528667 184035	Site Address: - Type: Household Waste Amenity Site Size: Unknown Environmental Permitting Regulations (Waste) Licence Number: CAM003 EPR reference: - Operator: Camden London Borough Council Waste Management licence No: 80482 Annual Tonnage: 0.0	Issue Date: 15/10/1994 Effective Date: - Modified: - Surrendered Date: 25/07/1997 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Jamestown Road Ca Site Correspondence Address: Camden LB Council, Town Hall Extension, Argyle Street, London, WC1H 8EQ		
Not shown	775.0	NE	528740 185138	Site Address: Camden London Borough Council, Recycling Centre, Regis Road, Kentish Town, London, NW5 3EP Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LWL001 EPR reference: EA/EPR/GB3230DW/T001 Operator: Londonwaste Limited Waste Management licence No: 80349 Annual Tonnage: 7793.0	Issue Date: 10/12/1996 Effective Date: 11/05/2012 Modified: 25/01/2002 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Regis Road Recycling Centre Correspondence Address: -, -		
Not shown	775.0	NE	528740 185138	Site Address: Camden London Borough Council, Recycling Centre, Regis Road, Kentish Town, London, NW5 3EP Type: Household Waste Amenity Site Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: CAM001 EPR reference: EA/EPR/DP3091NK/V003 Operator: Camden London Borough Council Waste Management licence No: 80349 Annual Tonnage: 7793.0	Issue Date: 10/12/1996 Effective Date: - Modified: 25/01/2002 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Regis Road Recycling Centre Correspondence Address: -, -		

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## 3. Current Land Use Map









## 3. Current Land Uses

## 3.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

22

The following records are represented as points on the Current Land Uses map.

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	43.0	SE	W & F Fish Products Ltd	528254 184424	56-64, Crogsland Road, London, NW1 8AU	Fish, Meat and Poultry Products	Foodstuffs
2	46.0	SW	Marine Ices Ltd	528197 184425	8, Haverstock Hill, London, NW3 2BL	Dairy Products	Foodstuffs
3A	95.0	SE	Lazer Motorcycles	528285 184382	1, Belmont Street, London, NW1 8HJ	New Vehicles	Motoring
4A	99.0	SE	Chalk Farm Motorcycles Ltd	528283 184377	1a, Belmont Street, London, NW18HJ	New Vehicles	Motoring
5	105.0	SW	Chalk Farm	528126 184421	Chalk Farm Station, Haverstock Hill, London, NW3 2BP	Underground Network Stations	Public Transport, Stations and Infrastructure
6	126.0	W	Depot	528101 184429	NW3	Container and Storage	Transport, Storage and Delivery
7	140.0	N	Local Tool Hire Ltd	528275 184682	5, Malden Road, London, NW5 3HS	Construction and Tool Hire	Hire Services
8	142.0	NE	Megaone Distributors	528333 184652	6, Malden Road, London, NW5 3HR	Distribution and Haulage	Transport, Storage and Delivery
9	143.0	Е	Citystore Self Storage	528385 184497	Malden Crescent, London, NW1 8BS	Container and Storage	Transport, Storage and Delivery
10	146.0	Е	Electricity Sub Station	528372 184418	NW1	Electrical Features	Infrastructure and Facilities
11	154.0	SE	Works	528362 184378	NW1	Unspecified Works Or Factories	Industrial Features
12B	187.0	SE	Works	528398 184375	NW1	Unspecified Works Or Factories	Industrial Features
13	192.0	N	VPA Entertainme nts	528191 184738	Flat 3 Burmarsh 71, Marsden Street, London, NW5 3JA	Hobby, Sports and Pastime Products	Consumer Products
14	193.0	SE	Electricity Sub Station	528345 184305	NW1	Electrical Features	Infrastructure and Facilities
15B	194.0	SE	Works	528401 184364	NW1	Unspecified Works Or Factories	Industrial Features
16	205.0	Ν	Electricity Sub Station	528238 184752	NW5	Electrical Features	Infrastructure and Facilities
17C	208.0	SE	Works	528399 184337	NW1	Unspecified Works Or Factories	Industrial Features
18C	219.0	SE	Reject Pot Shop	528407 184329	56, Chalk Farm Road, London, NW1 8AN	Food and Beverage Industry Machinery	Industrial Products
19	219.0	W	Electricity Sub Station	528013 184631	NW3	Electrical Features	Infrastructure and Facilities
20	235.0	SE	Works	528435 184342	NW1	Unspecified Works Or Factories	Industrial Features





ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
21	237.0	SW	First Aid Cover Ltd	528028 184328	2, Bridge Approach, London, NW1 8BD	Medical Equipment, Supplies and Pharmaceuticals	Industrial Products
22	241.0	W	Electricity Sub Station	527982 184433	NW3	Electrical Features	Infrastructure and Facilities

## 3.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

3

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
23	79.0	S	528219 184384	Texaco	Star Chalk Farm, 81-85, Chalk Farm Road, Chalk Farm Road, Chalk Farm, London, Greater London, NW1 8AR	Not Applicable	Obsolete
24	243.0	SE	528392 184278	Morrisons	Morrisons Camden, Chalk Farm Road, Chalk Farm Road, Chalk Farm, London, Greater London, NW1 8AA	No	Open
25	402.0	SE	528580 184260	Esso	Chalk Farm Service Station, 29-33, Chalk Farm Road, Chalk Farm Road, Chalk Farm, London, Greater London, NW1 8AJ	Not Applicable	Obsolete

## 3.3 Underground High Pressure Oil and Gas Pipelines

Records of high pressure underground pipelines within 500m of the study site:

(

Database searched and no data found.







## 4. Geology

## 4.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

## 4.2 Superficial Ground and Drift Geology

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

## 4.3 Bedrock and Solid Geology

The database has been searched on site, including a 50m buffer.

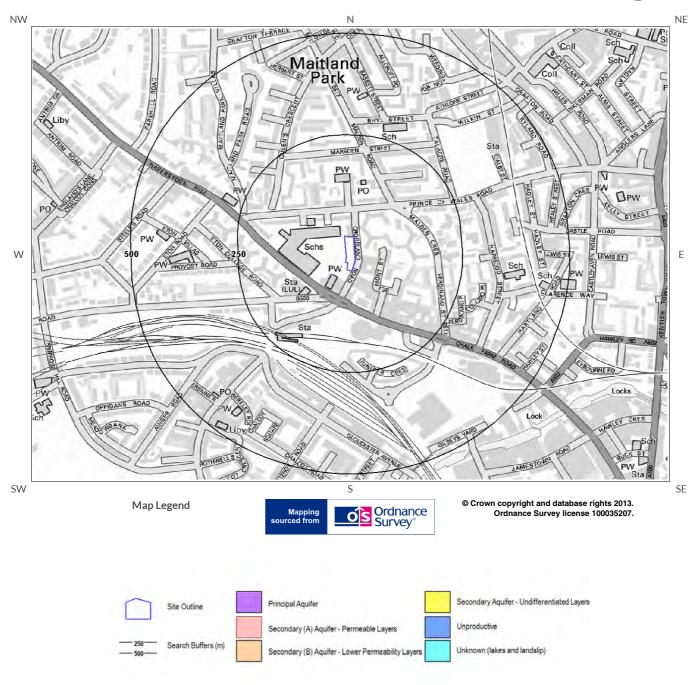
Lex Code	Description	Rock Type
LC-CLSS	LONDON CLAY FORMATION	CLAY, SILT AND SAND

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)





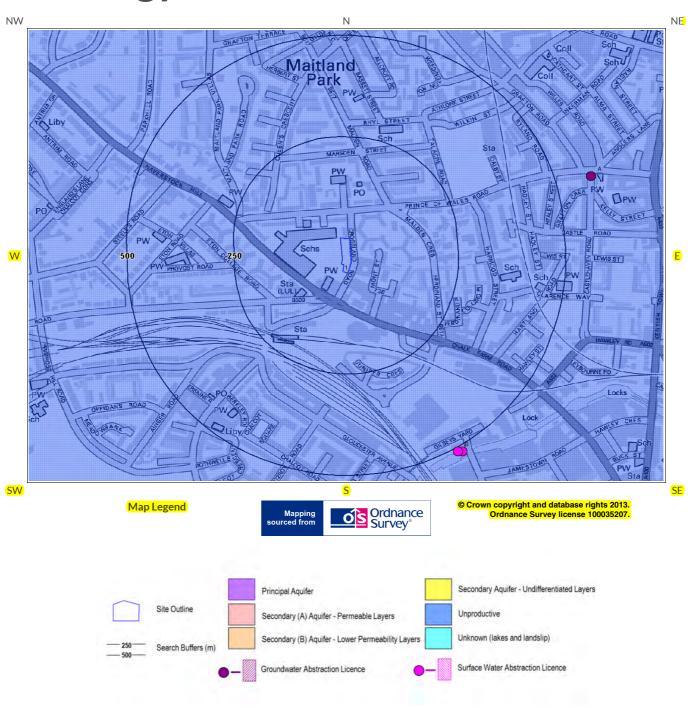
# 5. Hydrogeology and Hydrology5a. Aquifer Within Superficial Geology







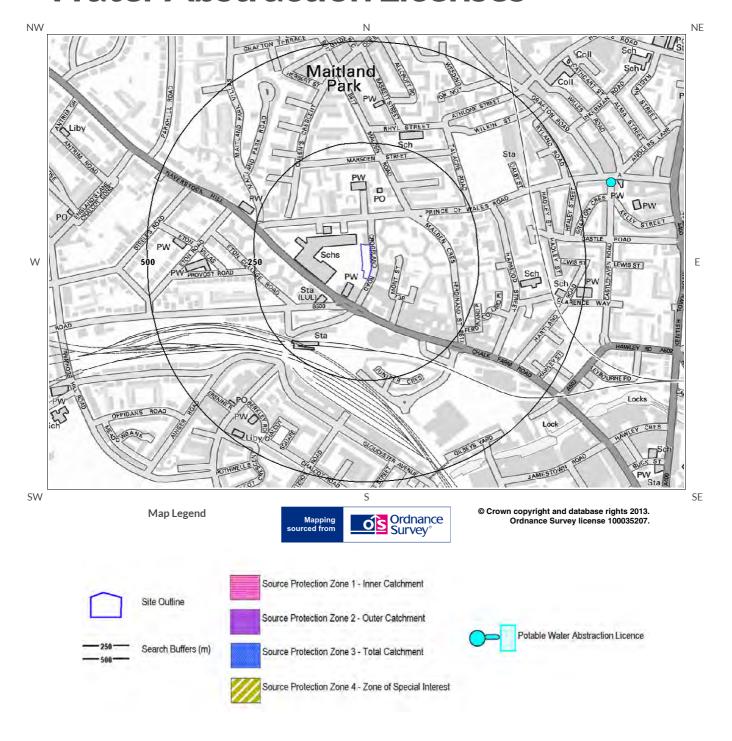
## 5b. Aquifer Within Bedrock Geology and Abstraction Licenses







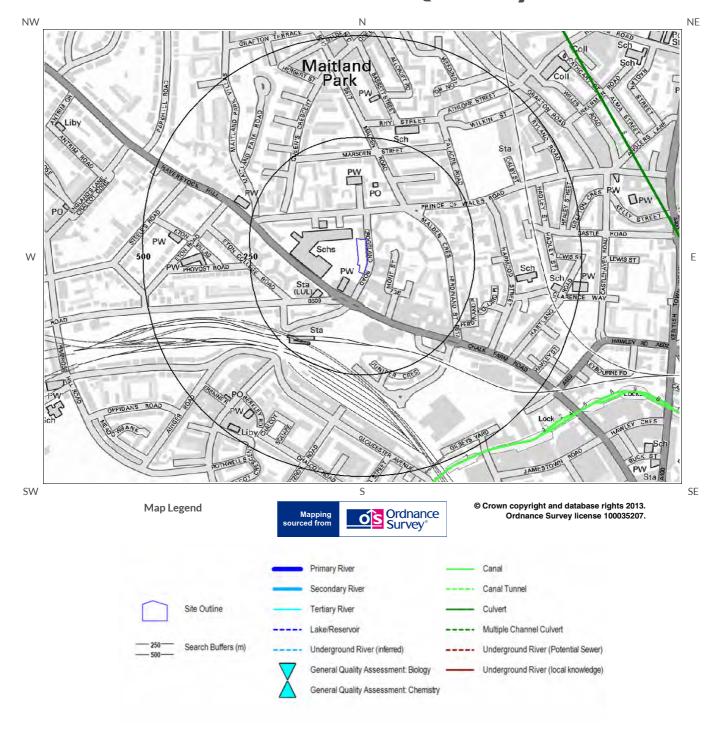
## 5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



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## 5d. Hydrology – Detailed River Network and River Quality









## 5.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property?

## Database searched and no data found.

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

## 5.2 Aguifer within Bedrock Deposits

Are there records of strata classification within the bedrock geology at or in proximity to the property? Yes

From 1 April 2010, the Environment Agency's Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	Designation	Description
1	0.0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
2	452.0	Ν	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow





## 5.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	NGR	Details				
ЗА	582.0	E	528800 184700	Licence No: 28/39/39/0091 Details: Process Water Direct Source: Thames Groundwater Point: Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m³): 17997 Max Daily Volume (m³): 604.6 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 25/5/2012 Version End Date:			
4A	582.0	E	528800 184700	Licence No: 28/39/39/0091 Details: Process Water Direct Source: Thames Groundwater Point: Two Bores At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m³): 94506 Max Daily Volume (m³): 1813.8 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 5/4/2012 Version End Date:			
5A	582.0	E	528800 184700	Licence No: 28/39/39/0091  Details: Laundry Use  Direct Source: Thames Groundwater  Point: Two Bores At Kentish Town Sports Centre,  Prince Of Wales St  Data Type: Point	Annual Volume (m³): 94506 Max Daily Volume (m³): 1813.8 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 5/4/2012 Version End Date:			
6A	582.0	E	528800 184700	Licence No: 28/39/39/0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m³): 17997 Max Daily Volume (m³): 604.6 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 25/5/2012 Version End Date:			
7A	582.0	E	528800 184700	Licence No: 28/39/39/0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Two Bores At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m³): 94506 Max Daily Volume (m³): 1813.8 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 5/4/2012 Version End Date:			
Not shown	966.0	SW	527636 183697	Licence No: TH/039/0039/058 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Barrow Hill Data Type: Point	Annual Volume (m³): 631000 Max Daily Volume (m³): 2000 Original Application No: NPS/WR/009229 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 1/4/2013 Version End Date:			
Not shown	969.0	SW	527640 183690	Licence No: 28/39/39/0202 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barrow Hill Pumping Station - Borehole Data Type: Point	Annual Volume (m³): 631000 Max Daily Volume (m³): 2000 Original Application No: WRA/2/2(24) Original Start Date: 26/9/2002 Expiry Date: 31/3/2007 Issue No: 1 Version Start Date: 26/9/2002 Version End Date:			





ID	Distance (m)	Direction	NGR	Details			
Not shown	969.0	SW	527640 183690	Licence No: 28/39/39/0231 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barrow Hill Pumping Station - Borehole Data Type: Point	Annual Volume (m³): 631000  Max Daily Volume (m³): 2000  Original Application No: WRA/R/1026  Original Start Date: 1/4/2007  Expiry Date: 31/3/2013  Issue No: 1  Version Start Date: 1/4/2007  Version End Date:		
Not shown	1087.0	S	528000 183400	Licence No: 28/39/39/0035 Details: Animal Watering & General Use in non Farming situations Direct Source: Thames Groundwater Point: Borehole At Regent's Park, London Nw1 Data Type: Point	Annual Volume (m³): 681.9 Max Daily Volume (m³): 59 Original Application No: - Original Start Date: 4/4/1966 Expiry Date: - Issue No: 100 Version Start Date: 4/4/1966 Version End Date:		
Not shown	1432.0	W	526800 184280	Licence No: 28/39/39/0219 Details: Spray Irrigation - Direct Direct Source: Thames Groundwater Point: Swiss Cottage Open Space- Borehole Data Type: Point	Annual Volume (m³): 10512 Max Daily Volume (m³): 28.8 Original Application No: WRA/N/1407 Original Start Date: 12/8/2005 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 1/4/2008 Version End Date:		
Not shown	1485.0	W	526750 184261	Licence No: TH/039/0039/087 Details: Spray Irrigation - Direct Direct Source: Thames Groundwater Point: Swiss Cottage Open Space- Borehole Data Type: Point	Annual Volume (m³): 10512 Max Daily Volume (m³): 28.8 Original Application No: NPS/WR/014567 Original Start Date: 5/12/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 5/12/2013 Version End Date:		
Not shown	1485.0	W	526750 184261	Licence No: TH/039/0039/087 Details: General Washing/Process Washing Direct Source: Thames Groundwater Point: Swiss Cottage Open Space- Borehole Data Type: Point	Annual Volume (m³): 10512 Max Daily Volume (m³): 28.8 Original Application No: NPS/WR/014567 Original Start Date: 5/12/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 5/12/2013 Version End Date:		
Not shown	1485.0	W	526750 184261	Licence No: TH/039/0039/087 Details: Lake & Pond Throughflow Direct Source: Thames Groundwater Point: Swiss Cottage Open Space- Borehole Data Type: Point	Annual Volume (m³): 10512 Max Daily Volume (m³): 28.8 Original Application No: NPS/WR/014567 Original Start Date: 5/12/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: 5/12/2013 Version End Date:		
Not shown	1737.0	E	529920 184040	Licence No: TH/039/0039/027 Details: General Use Relating To Secondary Category (High Loss) Direct Source: Thames Groundwater Point: Kings Cross Concrete Plant-borehole Data Type: Point	Annual Volume (m³): 33400 Max Daily Volume (m³): 200 Original Application No: NPS/WR/011609 Original Start Date: 21/4/2010 Expiry Date: 31/3/2019 Issue No: 2 Version Start Date: 13/8/2012 Version End Date:		
Not shown	1737.0	E	529920 184040	Licence No: 28/39/39/0222 Details: General Use Relating To Secondary Category (High Loss) Direct Source: Thames Groundwater Point: Kings Cross Concrete Plant-borehole Data Type: Point	Annual Volume (m³): 55200 Max Daily Volume (m³): 200 Original Application No: GEN/39/ Original Start Date: 31/8/2006 Expiry Date: 31/3/2010 Issue No: 1 Version Start Date: 31/8/2006 Version End Date:		





## 5.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?

Yes

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

ID	Distance (m)	Direction	NGR	Details	
18B	511.0	SE	528490 184020	Licence No: 28/39/39/0173 Details: Non-Evaporative Cooling Direct Source: Thames Surface Water - Non Tidal Point: Oval Road, Camden - Grand Union Regents Canal Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: 8/12/1994 Expiry Date: - Issue No: 100 Version Start Date: 8/12/1994 Version End Date:
19B	516.0	SE	528500 184020	Licence No: 28/39/39/0164 Details: Non-Evaporative Cooling Direct Source: Thames Surface Water - Non Tidal Point: Southampton Bridge, London, Nw8 - Regents Canal Data Type: Point	Annual Volume (m³): 7010000  Max Daily Volume (m³): 19520  Application No: - Original Start Date: 18/7/1980  Expiry Date: - Issue No: 101  Version Start Date: 17/12/2007  Version End Date:
Not shown	1745.0	SE	529750 183600	Licence No: 28/39/39/0172 Details: Make-Up or Top Up Water Direct Source: Thames Surface Water - Non Tidal Point: Camley Street Nature Park, London Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 18/9/1991 Version End Date:
Not shown	1745.0	SE	529750 183600	Licence No: 28/39/39/0172 Details: Make-Up or Top Up Water Direct Source: Thames Surface Water - Non Tidal Point: Grand Union Canal At Camley Street Nature Park, London Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: 18/9/1991 Expiry Date: - Issue No: 100 Version Start Date: 18/9/1991 Version End Date:





## 5.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

Yes

The following Potable Water Abstraction Licences records are represented as points, lines and regions on the SPZ and Potable Water Abstraction Licences Map (5c):

ID	Distance (m)	Direction	NGR	De	etails
1A	582.0	E	528800 184700	Licence No: 28/39/39/0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m³): 17997 Max Daily Volume (m³): 604.6 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:
2A	582.0	E	528800 184700	Licence No: 28/39/39/0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Two Bores At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point	Annual Volume (m³): 94506 Max Daily Volume (m³): 1813.8 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:
Not shown	966.0	SW	527636 183697	Licence No: TH/039/0039/058 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Barrow Hill Data Type: Point	Annual Volume (m³): 631000 Max Daily Volume (m³): 2000 Original Application No: NPS/WR/009229 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: Version End Date:
Not shown	969.0	SW	527640 183690	Licence No: 28/39/39/0231 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barrow Hill Pumping Station - Borehole Data Type: Point	Annual Volume (m³): 631000 Max Daily Volume (m³): 2000 Original Application No: WRA/R/1026 Original Start Date: 1/4/2007 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:
Not shown	969.0	SW	527640 183690	Licence No: 28/39/39/0202 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Barrow Hill Pumping Station - Borehole Data Type: Point	Annual Volume (m³): 631000 Max Daily Volume (m³): 2000 Original Application No: WRA/2/2(24) Original Start Date: 26/9/2002 Expiry Date: 31/3/2007 Issue No: 1 Version Start Date: Version End Date:

## 5.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.





## 5.7 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site?

Database searched and no data found. Is there any Environment Agency information on river quality within 1500m of the study site? Yes

## 5.8.1 Biological Quality:

5.8 River Quality

Biological Quality data describes water quality in terms of 83 groups of macroinvertebrates, some of which are pollution sensitive. The results are graded from A ('Very Good') to F ('Bad').

The following Biological Quality records are shown on the Hydrology Map (5d):

ID	Distance	Direction	NGR	River Quality Grade —	Biological Quality Grade				
טו	(m)				2005	2006	2007	2008	2009
Not shown	986.0	E	529150 184100	River Name: Grand Union Canal (paddington Arm) Reach: Canal Feeder - Camden Road End/Start of Stretch: End of Stretch NGR	F	F	F	F	E

## 5.8.2 Chemical Quality:

Database searched and no data found.

## 5.9 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

No

Database searched and no data found.





## 5.10 Surface Water Features

Are there any surface water features within 250m of the study site?	

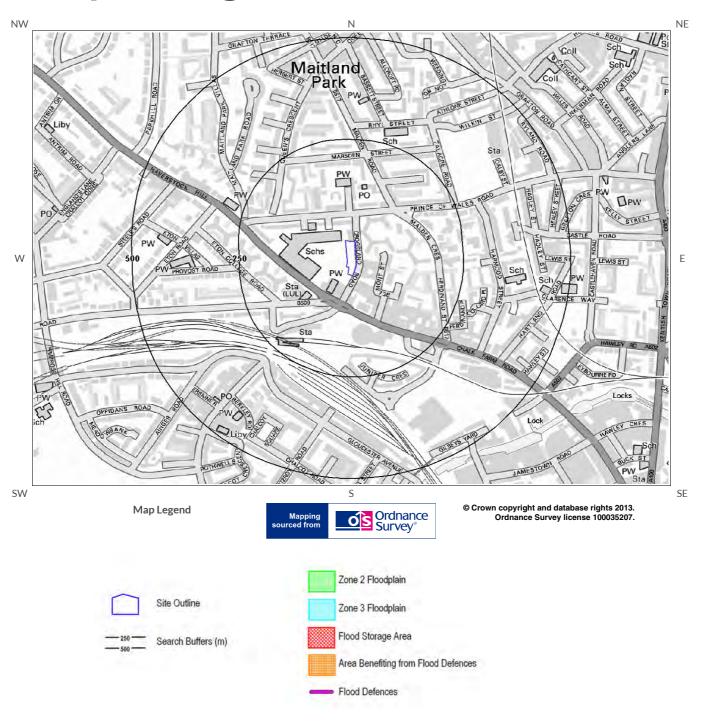
No

Database searched and no data found.





## 6. Environment Agency Flood Map for planning (from rivers and the sea)









## 6.1 Zone 2 Flooding

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning:

Is the site within 250m of an Environment Agency Zone 2 floodplain?				
Database searched and no data found.				
6.2 Zone 3 Flooding				
Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on N 1 – Environment Agency Flood Map for Planning.				
Is the site within 250m of an Environment Agency Zone 3 floodplain?	No			
Database searched and no data found.				
6.3 Flood Defences				
Are there any Flood Defences within 250m of the study site?	No			
Database searched and no data found.				
6.4 Areas benefiting from Flood Defences				
Are there any areas benefiting from Flood Defences within 250m of the study site?	No			
6.5 Areas benefiting from Flood Storage				
Are there any areas used for Flood Storage within 250m of the study site?	No			





## 6.6 Groundwater Flooding Susceptibility Areas

6.6.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site?

No

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

6.6.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Not Prone

The area is not considered to be prone to groundwater flooding based on rock type.

## 6.7 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?

Not Applicable

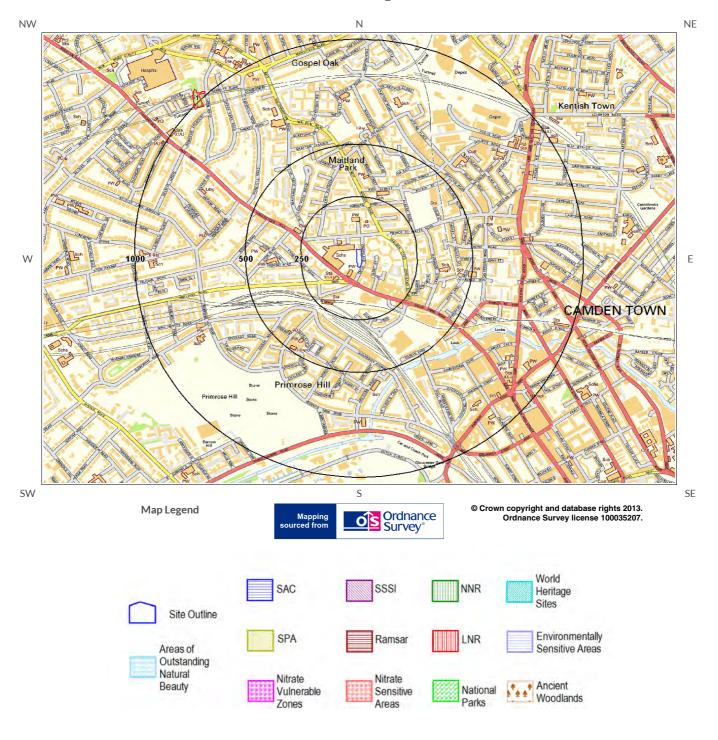
Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.





## 7. Designated Environmentally Sensitive Sites Map









## 7. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site?	No
7.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:	_ 0
Database searched and no data found.	
7.2 Records of National Nature Reserves (NNR) within 2000m of the study site:	0
Database searched and no data found.	
7.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:	0
Database searched and no data found.	
7.4 Records of Special Protection Areas (SPA) within 2000m of the study site:	0
Database searched and no data found.	
7.5 Records of Ramsar sites within 2000m of the study site:	_ 0
Database searched and no data found.	
7.6 Records of Ancient Woodland within 2000m of the study site:	<del>-</del> 0
Database searched and no data found.	





7.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:

3

The following Local Nature Reserve (LNR) records provided by Natural England/Countryside Council for Wales and Scottish Natural Heritage are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
1	969.0	NW	Belsize Wood	Natural England
Not shown	1808.0	SW	St John's Wood Church Grounds	Natural England
Not shown	1913.0	SE	Camley Street Nature Park	Natural England

wn	_
7.8 Records of World Heritage Sites within 2000m of the study site:	
	0
Database searched and no data found.	
7.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	
	0
Database searched and no data found.	
7.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	
	0
Database searched and no data found.	
7.11 Records of National Parks (NP) within 2000m of the study site:	
	0
Database searched and no data found.	
7.12 Records of Nitrate Sensitive Areas within 2000m of the study site:	
	0
Database searched and no data found.	





7.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:

Database searched and no data found.







## 8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **GroundSure GeoInsight**, available from **our website**. The following information has been found:

## 8.1.1 Shrink Swell

What is the maximum Shrink-Swell\* hazard rating identified on the study site?

Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

### Hazard

Ground conditions predominantly high plasticity. Do not plant or remove trees or shrubs near to buildings without expert advice about their effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) and the Building Research Establishment (BRE). There is a probable increase in construction cost to reduce potential shrink-swell problems. For existing property, there is a probable increase in insurance risk during droughts or where vegetation with high moisture demands is present.

### 8.1.2 Landslides

What is the maximum Landslide\* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

## Hazard

Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

## 8.1.3 Soluble Rocks

What is the maximum Soluble Rocks\* hazard rating identified on the study site?

Null - Negligible

Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

<sup>\*</sup> This indicates an automatically generated 50m buffer and site.





## 8.1.4 Compressible Ground

What is the maximum Compressible Ground\* hazard rating identified on the study site?

Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

### Hazard

No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

## 8.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks\* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

### Hazard

Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

## 8.1.6 Running Sand

What is the maximum Running Sand\*\* hazard rating identified on the study site?

Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

## Hazard

No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

<sup>\*</sup> This indicates an automatically generated 50m buffer and site.







## 9. Mining

## 9.1 Coal Mining

Are there any coal mining areas within 75m of the study site?

No

Database searched and no data found.

## 9.2 Shallow Mining

What is the subsidence hazard relating to shallow mining on-site\*?

Negligible

\*Please note this data is searched with a 150m buffer.

## 9.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site?

No

 $\label{eq:Guidance Required} Guidance\ Required.$ 





## **Contact Details**

EmapSite
Telephone: 0118 9736883
sales@emapsite.com



**British Geological Survey Enquiries** 

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276. Email: enquiries@bgs.ac.uk Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries



### **Environment Agency**

National Customer Contact Centre, PO Box 544 Rotherham, S60 1BY Tel: 08708 506 506

Web:www.environment-agency.gov.uk Email:enquiries@environment-agency.gov.uk



Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

https://www.gov.uk/government/organisations/public-healthengland

Email:enquiries@phe.gov.uk Main switchboard: 020 7654 8000

The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk

Ordnance Survey

Adanac Drive, Southampton SO16 0AS Tel: 08456 050505

Local Authority
Authority: Camden London Borough Council
Phone: 020 7278 4444
Web: www.camden.gov.uk
Address: Camden Town Hall, Judd Street, Camden, London, WC1H 9JE

**Gemapping PLC** 

Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW Tel: 01252 845444



British

Geological Survey

NATURAL ENVIRONMENT RESEARCH COUNCIL











Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, English Nature who retain the Copyright and Intellectual Property Rights for the data. PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

### **Standard Terms and Conditions**

### 1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with GroundSure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

- (i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and
- (ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by GroundSure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

**"Third Party Data Provider"** means any third party providing Third Party Content to GroundSure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028.

"GroundSure Materials" means all materials prepared by GroundSure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from GroundSure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by GroundSure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by GroundSure.

**"Services"** means any Report, Mapping and/or Support Services which GroundSure has agreed to provide by accepting an Order pursuant to clause 2.6.

 $\hbox{\tt "Site"}$  means the area of land in respect of which the Client has requested GroundSure to provide the Services.

**"Third Party Content"** means data, database information or other information which is provided to GroundSure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from GroundSure and on the website (www.GroundSure.com) and forming part of this Contract.

## 2 Scope of Services, terms and conditions, requests for insurance and quotations

- 2.1 GroundSure agrees to provide the Services in accordance with the Contract.
- 2.2 GroundSure shall exercise reasonable skill and care in the provision of the Services
- 2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.
- 2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions

implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. In addition you acknowledge and agree that GroundSure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 GroundSure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by GroundSure. GroundSure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by GroundSure. GroundSure's acceptance of an Order shall be binding only when made in writing and signed by GroundSure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

- (i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and
- (ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.
- 3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.
- 3.3 The Client shall supply to GroundSure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as GroundSure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.
- 3.4 Where the Client's approval or decision is required to enable GroundSure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the GroundSure Materials, or use the GroundSure Materials in a manner for which they were not intended. The Client may make the GroundSure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that GroundSure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

### 4 Reliance

4.1The Client acknowledges that the Services provided by GroundSure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by GroundSure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

 $\mbox{(v)}$  the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by GroundSure. Any party considering such Reports and Services does so at their own risk.

### 5 Fees and Disbursements

5.1GroundSure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by GroundSure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

- 5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.
- 5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

#### 6 Intellectual Property and Confidentiality

#### 6.1 Subject to

- (i) full payment of all relevant Fees and
- (ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.
- 6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.
- 6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
- $6.4\ \mbox{The Client shall,}$  and shall procure that any recipients of the GroundSure Materials shall:
- (i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services:
- (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;
- (iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
- (v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- (vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- (vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,
- 6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the GroundSure Materials in order to advise the Beneficiary in a professional capacity. However, GroundSure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
- 6.6 The Client shall procure that any person to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

#### 7. Liability: Particular Attention Should Be Paid To This Clause

- 7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:
  - (i) any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents or subcontractors:
  - (ii) any use made of the Reports, Services, Materials or any part of them; and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.
- 7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
- 7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death

or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 GroundSure shall not be liable for

- (i) loss of profits;
- (ii) loss of business;
- (iii) depletion of goodwill and/or similar losses;
- (iv) loss of anticipated savings;
- (v) loss of goods;
- (vi) loss of contract;
- (vii) loss of use;
- (viii) loss or corruption of data or information;
- (ix) business interruption;
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- (xi) loss or damage that arise as a result of the use of all or part of the GroundSure Materials in breach of the Contract;
- (xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- $\mbox{(xiii)} \mbox{ loss or damage to a computer, software, modem, telephone or other property; and }$
- (xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
- 7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

#### 8 GroundSure's right to suspend or terminate

- 8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:
- (i) the Client fails to pay any sum due to GroundSure within 30 days of the Payment Date; or
- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

#### 9. Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
- 9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:
- (i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and
  - (ii) the Reports and/or Mapping provided under this Contract are
    - (a) supplied to the Client's specification(s) and in any event
    - (b) by their nature cannot be returned.

#### 10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in

GroundSure's possession or control; and

(ii) the Client shall pay to GroundSure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination or suspension of the Contract.

#### 11 Anti-Bribery

11.1 The Client warrants that it shall:

- (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;
- (ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and
- (iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.
- 11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

#### 12 General

- 12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
- 12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure.
- 12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.
- 12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
- 12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information:
  - (ii) fire, storm, flood, tempest or epidemic;
  - (iii) Acts of God or the public enemy;
  - (iv) riot, civil commotion or war;
  - (v) strikes, labour disputes or industrial action;
  - (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
  - (viii) changes in law; or
  - (ix) any other reason beyond GroundSure's reasonable control.

In the event that GroundSure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then GroundSure shall be entitled to terminate this Contract immediately on written notice to the Client.

- 12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.
- $12.10\,\mathrm{The}$  Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.
- 12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 12.12 This Contract shall be governed by and construed in accordance with English

law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

- 12.13 GroundSure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.
- 12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at GroundSure who will respond in a timely manner.
- 12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law. © GroundSure Limited June 2013



 $\mbox{\bf APPENDIX 3}$  - Letter report dated 15-Jan-18, Ref. KO/47707, by RJL (Richard Jackson Limited) Engineering consultants.

3<sup>rd</sup> October 2018 8



Our Ref: KO/47707

Your Ref:

14 August 2018

Nick Pearce Galliford Try Partnerships South East Broadway Chambers 2 Broadway Stratford London E15 4QS

**BY POST & EMAIL TO:** 

nick.pearce@gallifordtry.co.uk

Dear Nick

## Re: Charlie Ratchford Extra Care, Crogsland Road, London Borough of Camden

As you are aware we recently attended the above site to undertake intrusive ground investigation works. The findings of this investigation are detailed in this letter report, which shall be read in conjunction with the enclosed limitations of investigation.

### 1.0 Introduction & Project Understanding

Richard Jackson Ltd received an instruction to undertake intrusive ground investigation works on land to the west of Crogsland Road, London Borough of Camden in connection with the proposed development of the Charlie Ratchford Extra Care site. A site location plan (Figure 1) is enclosed.

The proposed development scheme is to comprise the construction of a 6-storey structure which will house an extra care facility to include communal amenities at ground floor level together with residential accommodation above.

The works were instructed by the Client, Galliford Try Partnerships South East and were undertaken in accordance with our fee proposal of 7<sup>th</sup> September 2017, reference KO/47707/Geo.

Intrusive investigations have previously been undertaken at the site as detailed in a factual site investigation report prepared by Ground Technology Services (GTS), reference GTS-14-459, dated October 2014. The GTS investigation comprised the formation of 2no. light cable percussion (LCP) boreholes together with the mechanical excavation of 8no. trial pits. This report has been reviewed in the preparation of this letter report.

Peter Brett Associates (PBA) have also previously prepared a Phase 1 and Phase 2 ground condition assessment for the site, on the basis of the GTS investigation, project reference 31103/3501, document: R001/Rev0, dated October 2014. This report has also been reviewed in the preparation of this letter report.

Cont'd.../



847 The Crescent, Colchester, Essex CO4 9YQ

Telephone: 01206 228800 www.rj.uk.com The intrusive investigation, on which this report is based, comprised the formation of a single LCP borehole. In-situ testing and soil sampling were also undertaken and a semi-permanent monitoring standpipe was installed in the borehole and ground gas monitoring is ongoing.

This letter report summarises the findings of the investigation, taking into consideration previously undertaken works. Borehole records, data plots and laboratory analytical results are enclosed.

#### 2.0 Factual Ground Investigation Information

#### 2.1 Fieldwork

The fieldwork on which this letter report is based was undertaken between 19<sup>th</sup> and 20<sup>th</sup> December 2017 and comprised the formation of a single 20m deep borehole (BH1), which was formed using LCP techniques.

The borehole was positioned centrally on site, between the two LCP boreholes previously formed by GTS (BH101 and BH102). An exploratory hole location plan is presented as drawing no. 47707/G/Fig02 and is enclosed.

The borehole log is also enclosed and provides descriptions and depths of strata encountered, together with details of samples taken, in-situ tests, well installations and other relevant information.

Soil samples were recovered from throughout the depth of the borehole for geotechnical testing and record keeping purposes.

In-situ standard penetration tests (SPTs) were undertaken throughout the depth of the borehole to provide an indication of the in-situ soil stiffness. The number of blows required to advance a standard split spoon over the final 300mm of a 450mm total drive was recorded as the 'N' value and is presented on the enclosed borehole enclosed.

Where cohesive soils were encountered, both a hand shear vane and pocket penetrometer were used to assess the undrained shear strength of the encountered soils. The results of these tests are recorded as the 'IVN' and 'PP' values respectively and are presented on the enclosed borehole log.

Upon completion of the LCP borehole, a semi-permanent 50mm HDPE gas and groundwater monitoring standpipe was installed to 6.00m below ground level (bgl).

Where applicable, investigative techniques, sampling, logging of soils and in-situ testing complied with the requirements of British Standard BS5930:2015- 'Code of Practice for Ground Investigations'.

#### 2.2 Gas Monitoring

The installed monitoring standpipe has been monitored on a single occasion since installation for the presence of methane, carbon-dioxide and oxygen using an infra-red portable gas analyser. Gas flow, atmospheric pressure, and ground water level (SWL) were also monitored during the visit.

During the monitoring visit, an attempt to locate the GTS boreholes was made in order that they may be monitored. Unfortunately, the previously formed GTS boreholes could not be located.

A photo-ionisation detector (PID) was used during the visit to assess the installation for the presence of volatile organic compounds (VOCs).

A measurement to the base of the standpipe was also made to confirm the depth of the installation.

## 2.3 Laboratory Testing

### 2.3.1 Geotechnical Testing

Disturbed soil samples recovered from the exploratory hole were sent to a UKAS accredited soil testing laboratory, Soil Property Testing (SPT) Ltd. The following tests were carried out in accordance with BS EN ISO: 17892-1 2014 and BS1377:1990:

- 9no. natural moisture content (NMC) determinations;
- 3no. Atterberg limit tests (four-point cone method);
- 6no. pH value and sulphate content determinations (2:1 water soil extract);
- 4no. BRE Pyrites suite analyses.

## 2.4 Ground Conditions

The British Geological Survey (BGS) online mapping of the area indicates the site to be underlain by the London Clay Formation. The deposits encountered in this investigation comprised the following sequence:

- Made Ground
- · London Clay Formation

It should be noted that the encountered sequence of geology is consistent with that encountered during the 2014 GTS investigation.

#### 2.4.1 Made Ground

Made ground was encountered from ground level in BH1 and extended to a depth of 2.00m bgl. The made ground was recorded to comprise a gravelly sand with the gravel comprising brick, concrete and flint, to 1.70m bgl overlying a slightly gravelly clay with the gravel comprising brick and concrete to 2.00m bgl.

Made ground was recorded to a maximum proven depth of 2.10m bgl (BH101) during the 2014 GTS investigation.

#### 2.4.2 London Clay Formation

Soils interpreted to represent the London Clay Formation were encountered beneath the made ground, to the base of the borehole at 20m bgl. The London Clay Formation was encountered as a clay with occasional siltstone, becoming fissured with depth.

Siltstone was recovered as fine to coarse gravel in the clay from 2.00m to 2.80m and as a fine to coarse gravel from 15.40m bgl to 17.10m bgl.

SPTs were undertaken throughout the depth of the London Clay Formation. The results of these tests ranged from N=7 (2.00m bgl) to N=51 (19.4m bgl). The comparatively low 'N' Value at 2.00m bgl may be indicative of London Clay which has become softened in the presence of groundwater, which was detected during a subsequent gas monitoring visit. Full results are provided on the LCP borehole log and are summarised on the 'N' value -vs- depth plot, enclosed.

Hand shear vane and pocket penetrometer tests were also undertaken throughout the depth of the London Clay Formation. The results of these tests ranged from 75kPa (2.60m bgl) to 212kPa (19.4m bgl). Full results are provided on the LCP borehole log.

In addition to the undrained shear strength values determined by in-situ hand vane tests and pocket penetrometer tests, values of undrained shear strength have also been inferred from established empirical correlations with SPT  $\N'$  Values (Stroud & Butler, 1985) on the basis of an  $\N_c$  value of 4.5, in accordance with the methodology used in the above referenced PBA report.

The inferred undrained shear strength (c<sub>u</sub>) together with hand shear vane and pocket penetrometer tests values are presented on an undrained shear strength-vs- depth plot, enclosed.

NMC determinations were undertaken on 9no. samples of the London Clay Formation, full results of which are enclosed. NMC in the London Clay Formation were recorded to range from 26.9% (15.30m bgl) to 34.3% (3.70m bgl).

Atterberg limit tests were also undertaken on 3no. samples of the London Clay Formation, full results of which are enclosed. Plasticity indices were recorded to range from 49% (17.10m bgl) to 52% (3.70m bgl).

Six samples of the London Clay Formation also underwent pH value and sulphate content determinations, with 4no. of these samples being tested for the BRE Pyrites suite due to the presence of selenite crystals in the London Clay Formation. Results of this testing are enclosed, Chemtest Ltd Report no. 17-34240-1.

#### 2.4.3 Groundwater

Groundwater was not encountered during the formation of BH1, however, during a ground gas monitoring visit on 10<sup>th</sup> January 2018, a standing water level (SWL) was recorded to be 2.30m bgl.

Groundwater was struck at 26.40m bgl in BH201 formed by GTS in 2014.

#### 2.4.4 Ground Gases

Table 1, provides a summary of the gas monitoring results from the single monitoring visit undertaken on  $10^{\rm th}$  January 2018 to date. Calibration certificates for the gas analyser and PID used at the site are enclosed.

Table 1: Summary of Gas Monitoring Results

Borehole	Peak CH <sub>4</sub> (% v/v)	Peak CO <sub>2</sub> (% v/v)	O <sub>2</sub> (% v/v)	Peak VOCs (ppm)	Peak Flow Rate (I/hr)
BH1	0.0	0.4	19.9	0.0	0.0

The results of the remaining 5no. monitoring visits will be presented as an addendum letter report following completion of the monitoring programme.

#### 3.0 General

The ground conditions at the site were recorded to be made ground to 2.0m bgl overlying stiff grey clay, with fissuring and siltstone bands with depth, to the base of the borehole at 20.0m bgl. The findings of this investigation are broadly consistent with the ground conditions encountered during the GTS investigation as outlined and discussed in the PBA Phase 2 report.

To that end, the assumptions and conclusions made in Section 8.0 of the PBA Phase 2 report, in terms of piling technique, floor slab & pavement design and aggressiveness of the ground are considered reasonable for the ground conditions encountered.

We trust that the above and enclosed are clear and acceptable, however, should you have any questions or queries please do not hesitate to contact us.

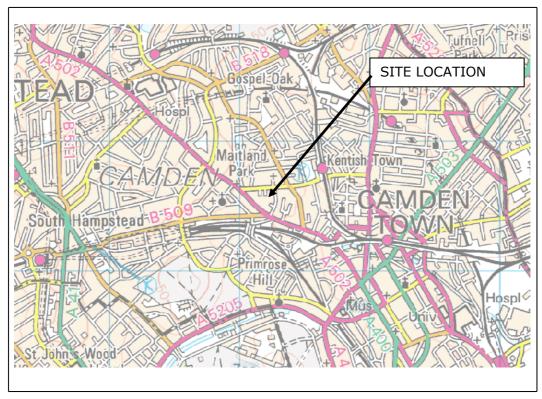
Yours sincerely

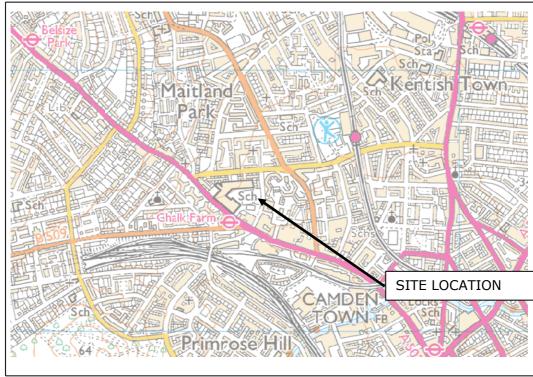
Kay O'Reilly MSci, FGS Geotechnical Engineer

on behalf of Richard Jackson Limited

Cc. Paul Fisher (Galliford Try Partnerships South East) – By Email Only
Michael Hodgson (Galliford Try Partnerships South East) – By Email Only
Ilyas Munshi (Galliford Try Partnerships South East) – By Email Only
Antonios Paraskeva, Arnie Shih, David Wall & Basil Fagg (Richard Jackson
Ltd) – By Email Only

Enc. Figure 1 – Site Location Plan
Drawing no. 47707/G/Fig02 – Exploratory Hole Location Plan
Borehole Log – BH1
SPT 'N' Value -vs- Depth Data Plot
Undrained Shear Strength -vs-Depth Data Plot
Test Report no. S32347
Chemtest Report no. 17-34240-1
Gas Analyser Calibration Certificate
PID Calibration Certificate
Limitations of Investigation





REPRODUCED FROM ORDNANCE SURVEY MAP WITH THE PERMISSION OF THE CONTROLLER OF HER MAJESTY'S STATIONARY OFFICE, © CROWN COPYRIGHT RICHARD JACKSON LTD – ACC No. 100002572



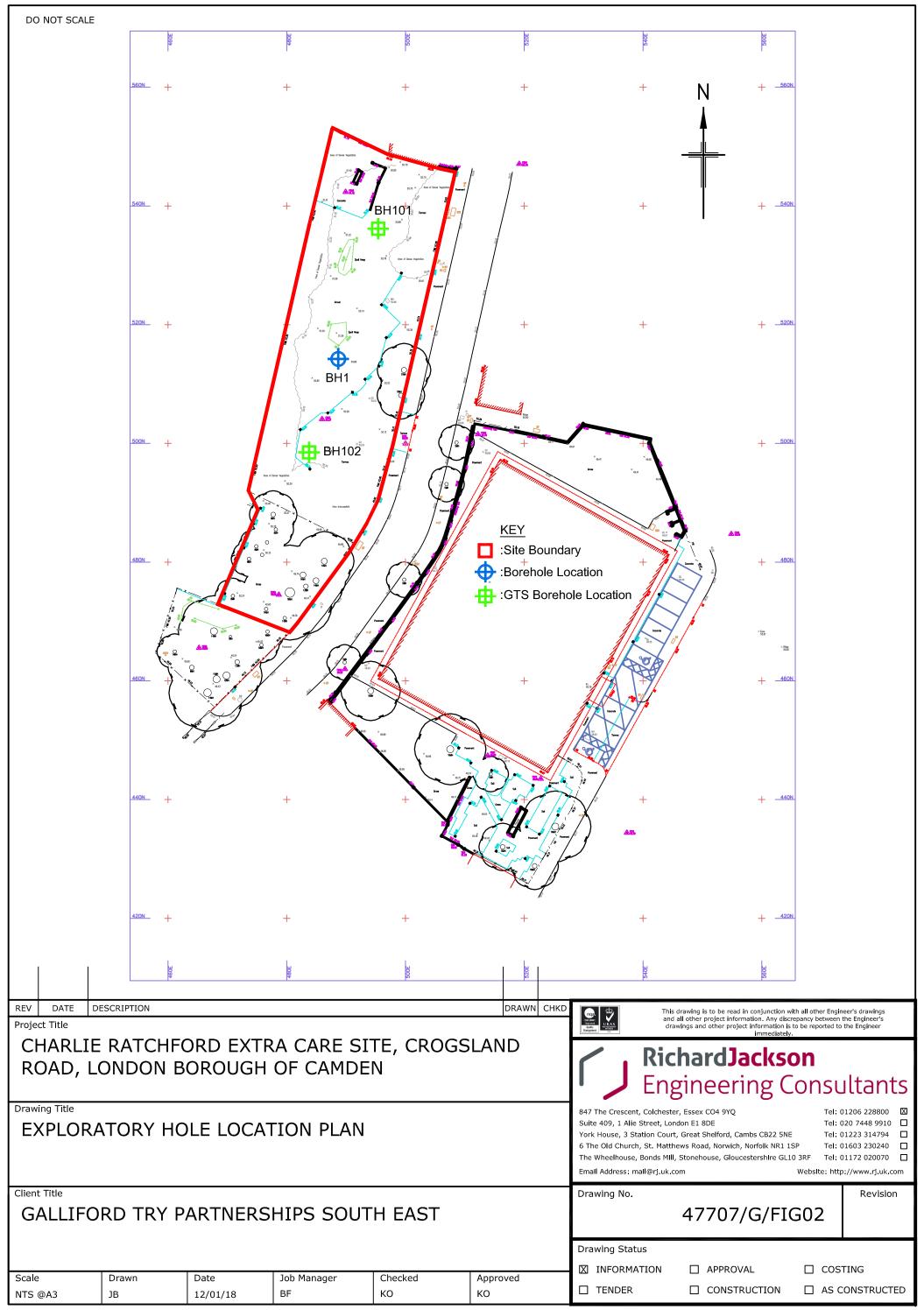
consulting civil & structural engineers 847 The Crescent, Colchester, CO4 9YQ Tel: 01206 228 800 Charlie Ratchford Extra Care Site, Crogsland Road, London Borough of Camden

**SITE LOCATION PLAN** 

FIGURE 1

SCALE: N.T.S.

JOB NO: 47707



#### RichardJackson 847 The Crescent Colchester **Engineering Consultants** Essex CO4 9YQ Level (m): Charlie Ratchford Extra Care Centre Project Name:

BH1 Sheet 1 of 2 Project no. Hole Type

Borehole No.

47707 СР Co-ordinates: Scale Location: Crogsland Road, Camden, NW1 8AY

1:50

Dates: Logged By Client: Galliford Try Partnerships South East 19/01/2018 - 20/01/2018 ΚВ

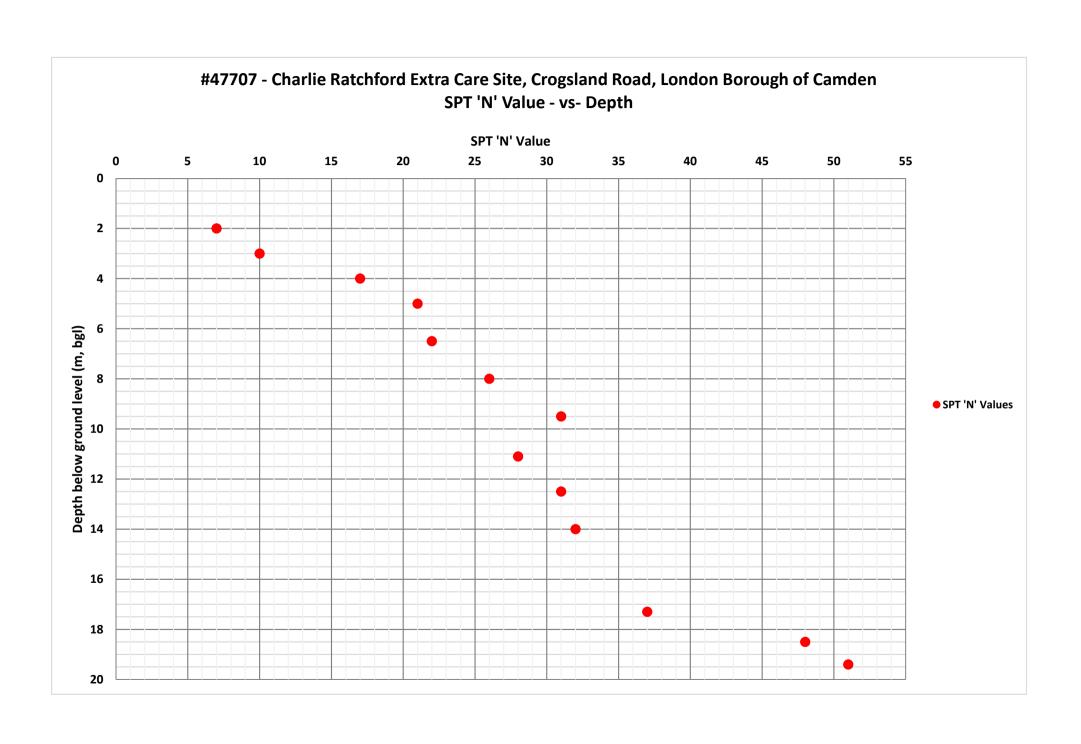
	19/01/2018 - 20/01/2018 <b>KB</b>												
Vell	Wat		Castra		Samples & In-s			Level (m)	Depth (m)	Legend	Stratum Description		
	рерип	Levei	Casing	SWL	Depth	Туре	Results	. ,	, ,		Brown, gravelly, fine to coarse	SAND	
											Gravel of subangular to subro		
					0.40 - 1.70	B1					fine to coarse, brick, concrete		
											MADE GROUND	and mile	
											WINDE GROOM		
* .													1
- 1													
]: <u> </u>													
1:1									1.70				-
-: l			4 70		2.00						Soft brown, slightly gravelly C		
- :-			1.70		2.00	S	N=7		2.00		black staining. Gravel of subar	ngular,	2
					2.00	D1	(1,0/1,1,2,3)				fine red brick and concrete.		/
<u> </u> :					2.40 - 2.80	B2					MADE GROUND		
-:					2.60	PP	75		2.00		Soft to firm brown, slightly gra		
:    :									2.80		CLAY. Gravel is subangular, fin	e to	١
d: 1			1.70		3.00	S	N=10				coarse siltstone.		3
- :-					3.00	D2	(1,0/2,2,3,3)				LONDON CLAY FORMATION		
].											Firm brown mottled greyish o	-	
					3.70	PP	96				CLAY with rare gravel of fine s	iltstone.	
•			4 70		3.70	D3					LONDON CLAY FORMATION		
			1.70		4.00	S	N=17			F_=_	orange sand pocket at 3.70m		4
					4.00	D4	(2,2/3,4,5,5)				selenite crystals from 3.70m becoming stiff at 4.00m		
											becoming sun at 4.00m		
					4.00		100			[ <del>-</del>			
*			4 70		4.80	IVN	108						
•			1.70		4.80	D5	N=21						5
:					5.00	S	(2,3/4,5,6,6)						
					5.00	D6							
					5.70	PP	187				locally fissured with calcareous	•	
÷					5.70	D7					aggregations at 5.70m	Š	
											agg. og an on o at on o.		6
×			1.70		6.50	S	N=22						
					6.50	D8	(3,3/4,6,5,7)						
							` ' ' ' ' '			E			l _
													7
×													
X													
					7.70	IVN	139						
			4 70		7.70	D9	N 26			<u> </u>			
			1.70		8.00	S	N=26						8
					8.00	D10	(3,3/5,6,6,9)						
M					0.00								
M													
					0.00		463			<del></del>			
					9.00	PP	183				locally fissured at 9.00m		9
					9.00	D11					_		
			2.80		9.50	S	N=31						
$\mathbb{X}$					9.50	D12	(4,4/6,7,8,10)			<u> </u>			
M													
44													
$\Box$													$\perp$
							1 6	Pround	water k	/	Sample Type Key Te	st Tyne Key	

		Groun	dwater Key	Sa	imple Type Key	lest Type Key		
Groundwater:	Not encountered.		Groundwater	D	Disturbed	IVN	Hand vane	
Remarks:			Strike	В	Bulk	S/C	SPT / CPT	
	Chiselled from GL to 1.70m and from 15.40m	•	Standing	J	Undisturbed	PP	Pocket penetrometer	
	to 17.10m.		water level	ES	Environmental	PID	PID Reading	

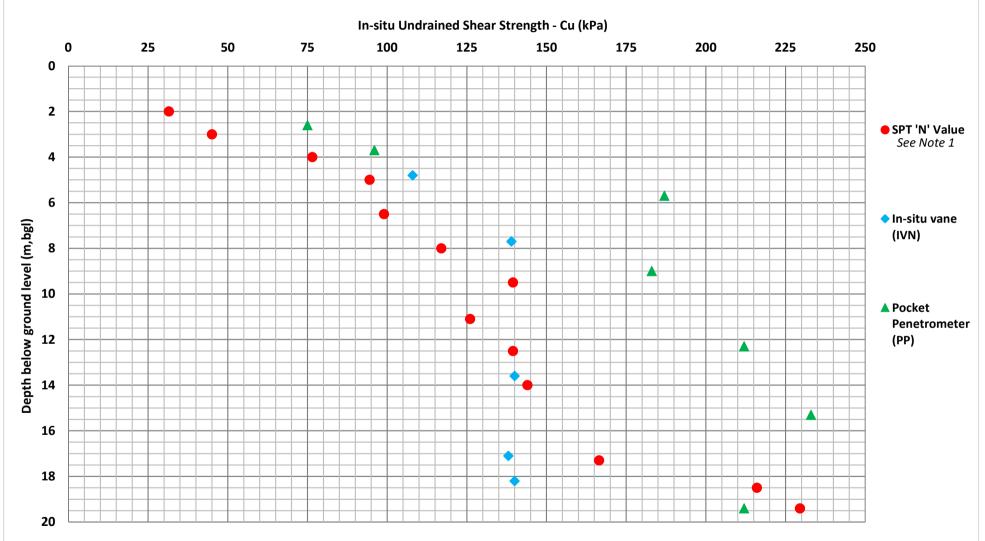
#### RichardJackson 847 The Crescent Borehole No. Colchester BH1 **Engineering Consultants** Essex Sheet 2 of 2 CO4 9YQ Level (m): Project no. Hole Type Charlie Ratchford Extra Care Centre Project Name: 47707 СР Co-ordinates: Scale Location: Crogsland Road, Camden, NW1 8AY 1:50

Client	Client: Galliford Try Partnerships South East						19/01	<b>Dates:</b> /2018 - 20/01/2018	Logged <b>KB</b>	Ву			
Well	Wate	er	Samples & In-situ Tests						l Depth			•	Scale
weii	Depth	Level	Casing	SWL	Depth	Туре	Results	(m)	(m)	Legena	Stratum Description	l	Scal
										<u> </u>			
										<u></u>			
											-		
					10.90	D13				<u> </u>			11 -
			2.80		11.10	S	N=28						
					11.10	D14	(2,3/5,7,7,9)			<u> </u>			
										<u> </u>			
										<u></u>			
										F_=_			12
					12.30	PP	212				dark brownish grey from 12.3	0m	
			2.80		12.30	D15	N=31			<u> </u>			
					12.50	S	(3,4/6,7,8,10)			<u> </u>			
					12.50	D16							13 -
											-		1
					13.60	IVN	140				1	00	
					13.60	D17					rare iron pyrite nodules at 13.	60m	
			2.80		14.00	S	N=32			<u> </u>			14 -
					14.00	D18	(3,3/7,8,7,10)			<u> </u>			
					14.00	510	(3,3,7,0,7,13)						
										F_=_			-
													15 -
										<u> </u>			-3
					15.30	PP	233		15.40				
					15.30	D19				××××××	SILTSTONE recovered as a pa	le grey,	
					15.40	D20				××××××	fine to coarse gravel.		
										××××××	LONDON CLAY FORMATION		16
										×××××× ××××××			-0
										×××××× ××××××			
										××××××			
										×××××× ××××××			
										×××××× ××××××			17 -
					17.10	IVN	138		17.10		Stiff fissured, dark greyish br	own CLAY.	1
			2.80		17.10	D21	N=37				LONDON CLAY FORMATION		
					17.30	S	(4,5/7,10,9,1			<u> </u>			
					17.30	D22	1)			<u> </u>			
													18 -
					18.20	IVN	140			<del></del>	1		-
			2.55		18.20	D23				F_=_			
			2.80		18.50	S	N=48						
					18.50	D24	(9,9/11,11,13			L			
					_0.50		,13)			<u> </u>	-		19 -
										<u> </u>			
			2.80		19.40	S	N=51			<u> </u>	1		
					19.40	PP	(9,9/10,13,13			F_=_			'
					19.40	D25	,15)						
					19.60	D25	212		20.00	<u> </u>	Full #FD==-1-1- # 00 000	ino.	
					15.00	1 520					End of Borehole at 20.000	ITI	
						1	<u> </u>	`	dwater k	·	Sample Type Key T	est Tyne Ke	

		Groun	dwater Key	Sa	ample Type Key	Test Type Key	
Groundwater:	Not encountered.		Groundwater	D	Disturbed	IVN	Hand vane
Remarks:			Strike	В	Bulk	S/C	SPT / CPT
	Chiselled from GL to 1.70m and from 15.40m	•	Standing	U	Undisturbed	PP	Pocket penetrometer
	to 17.10m.		water level	ES	Environmental	PID	PID Reading



# #47707 - Charlie Ratchford Extra Care Site, Crogsland Road, London Borough of Camden In-situ Undrained Shear Strength (Cu) -vs- Depth



Note 1: Undrained shear strength values derived from SPT 'N' values using the empirical correlation (Stroud & Butler, 1985) using an  $N_c$  factor of 4.5