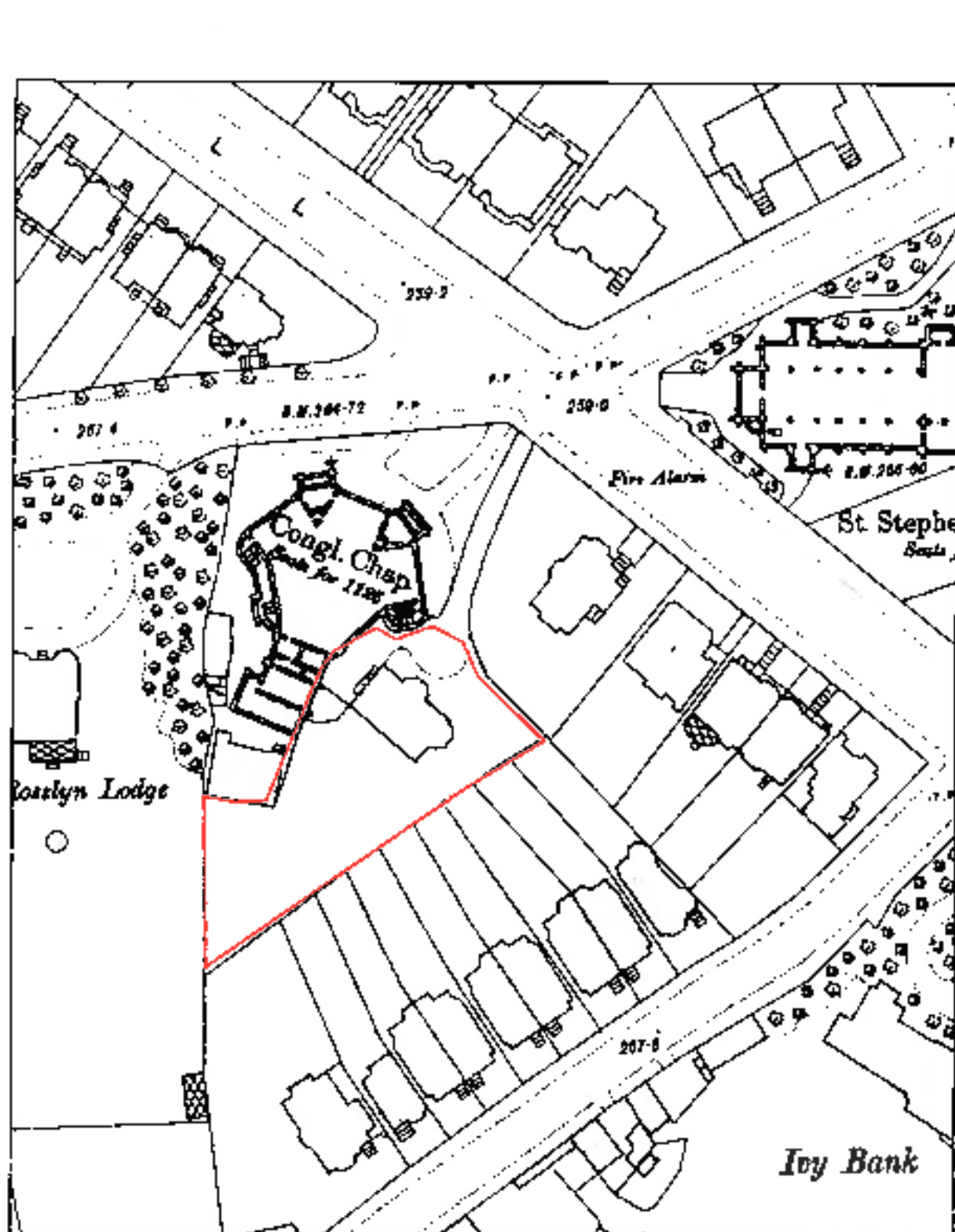


Site History

Figure C

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Client : Andrew & Elizabeth Jeffreys

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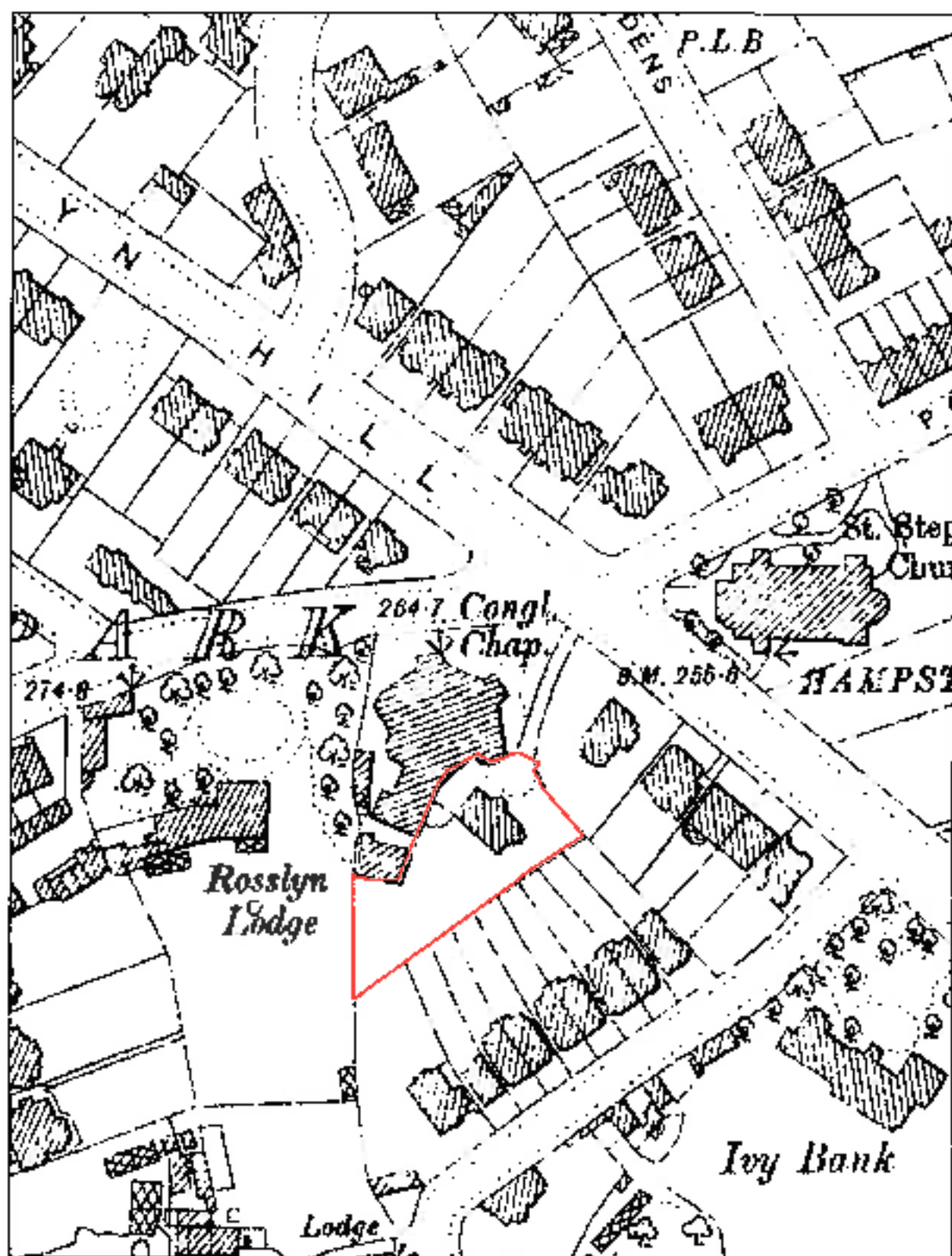
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Figure D

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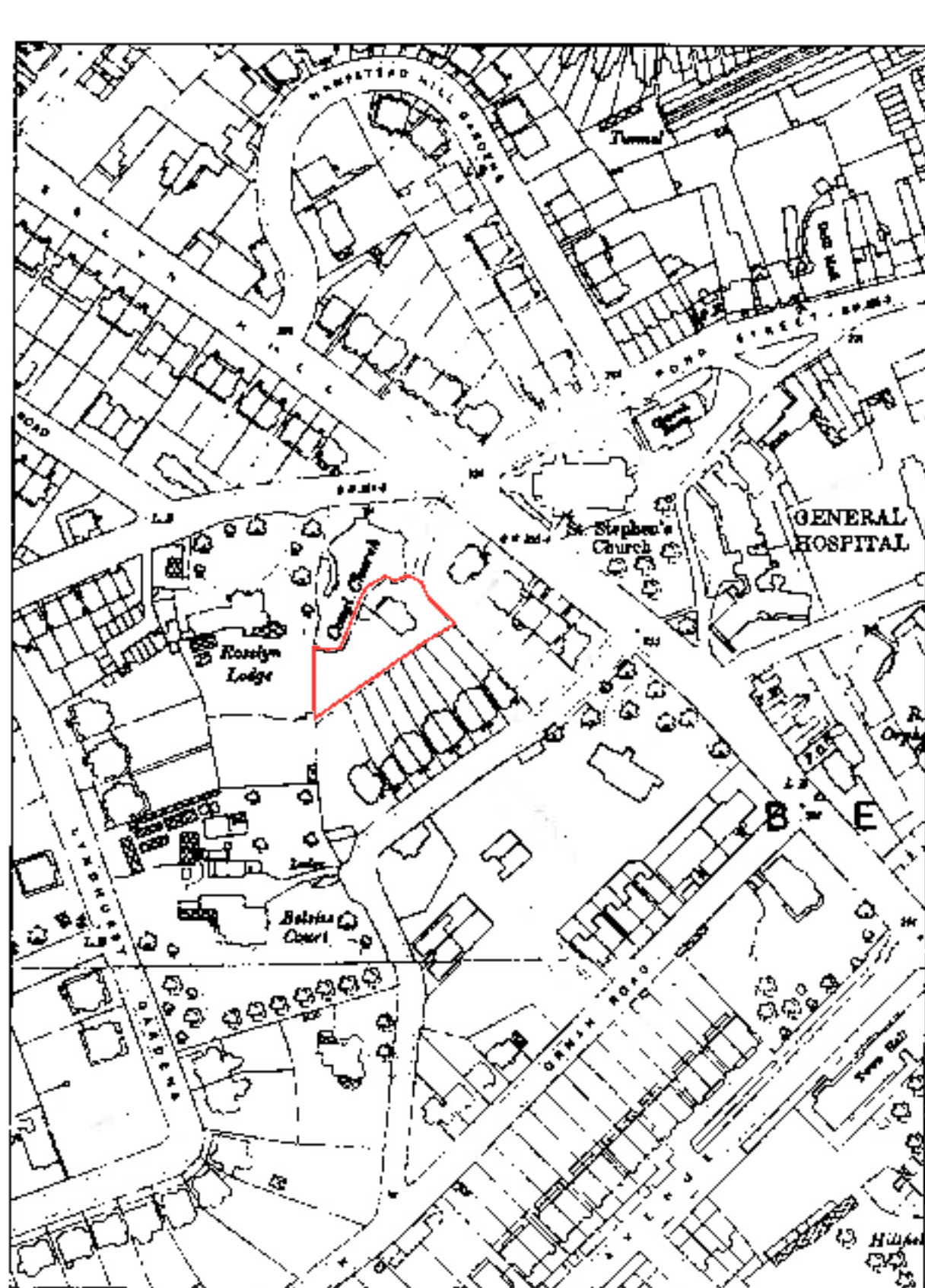
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Figure E

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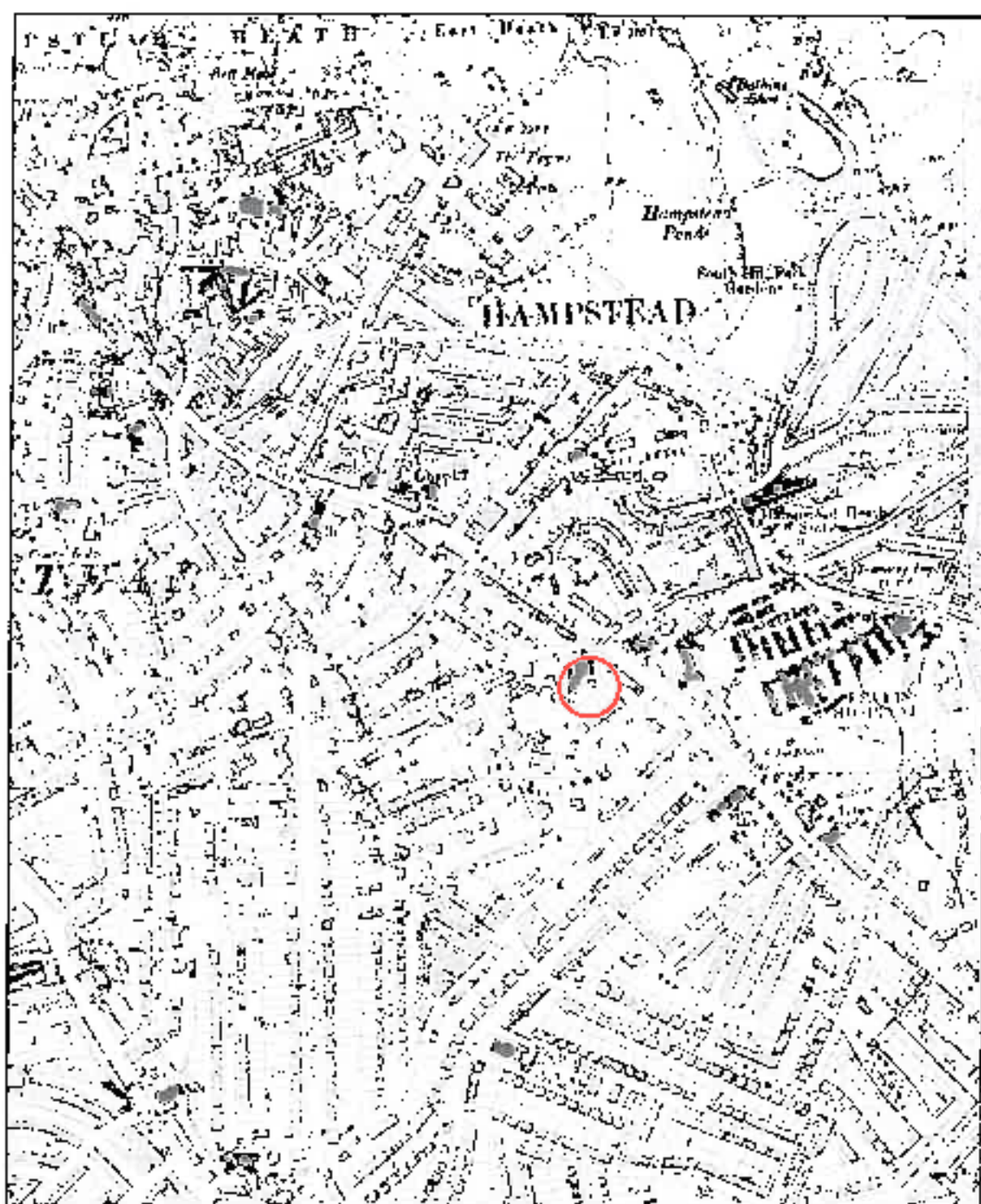
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Figure F

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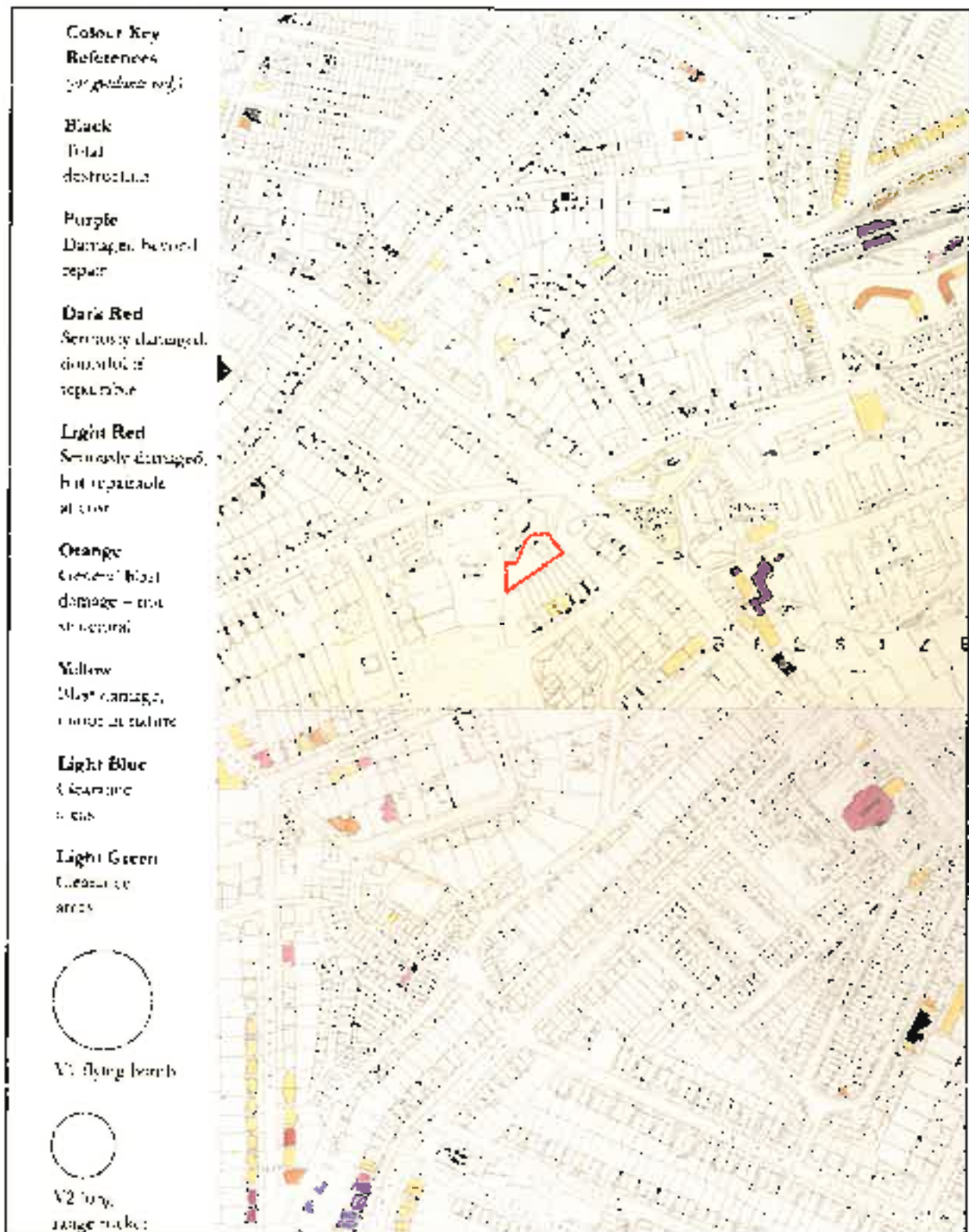
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Site History

Figure G

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Figure H

1940s Aerial Photograph



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Figure I

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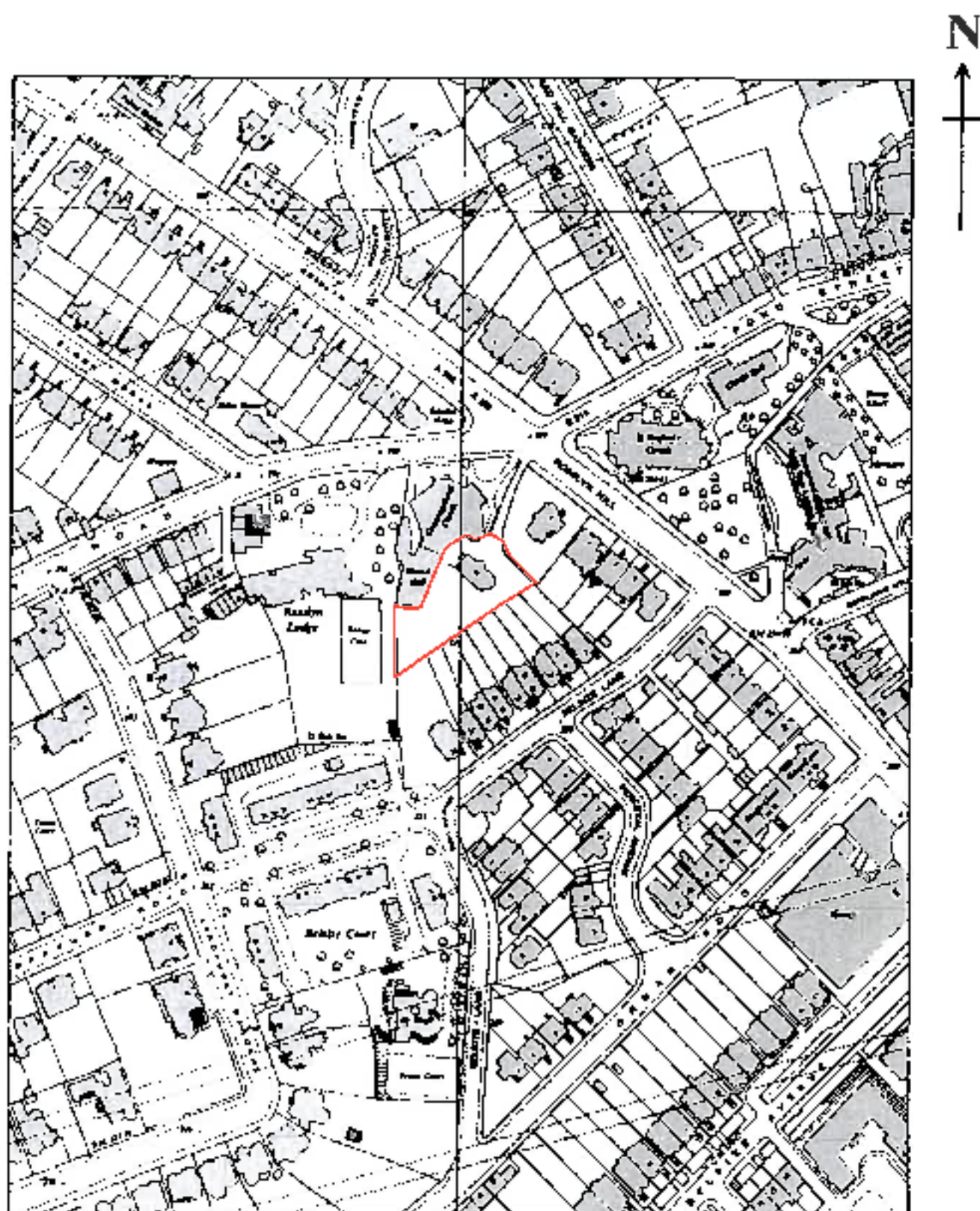
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Figure J

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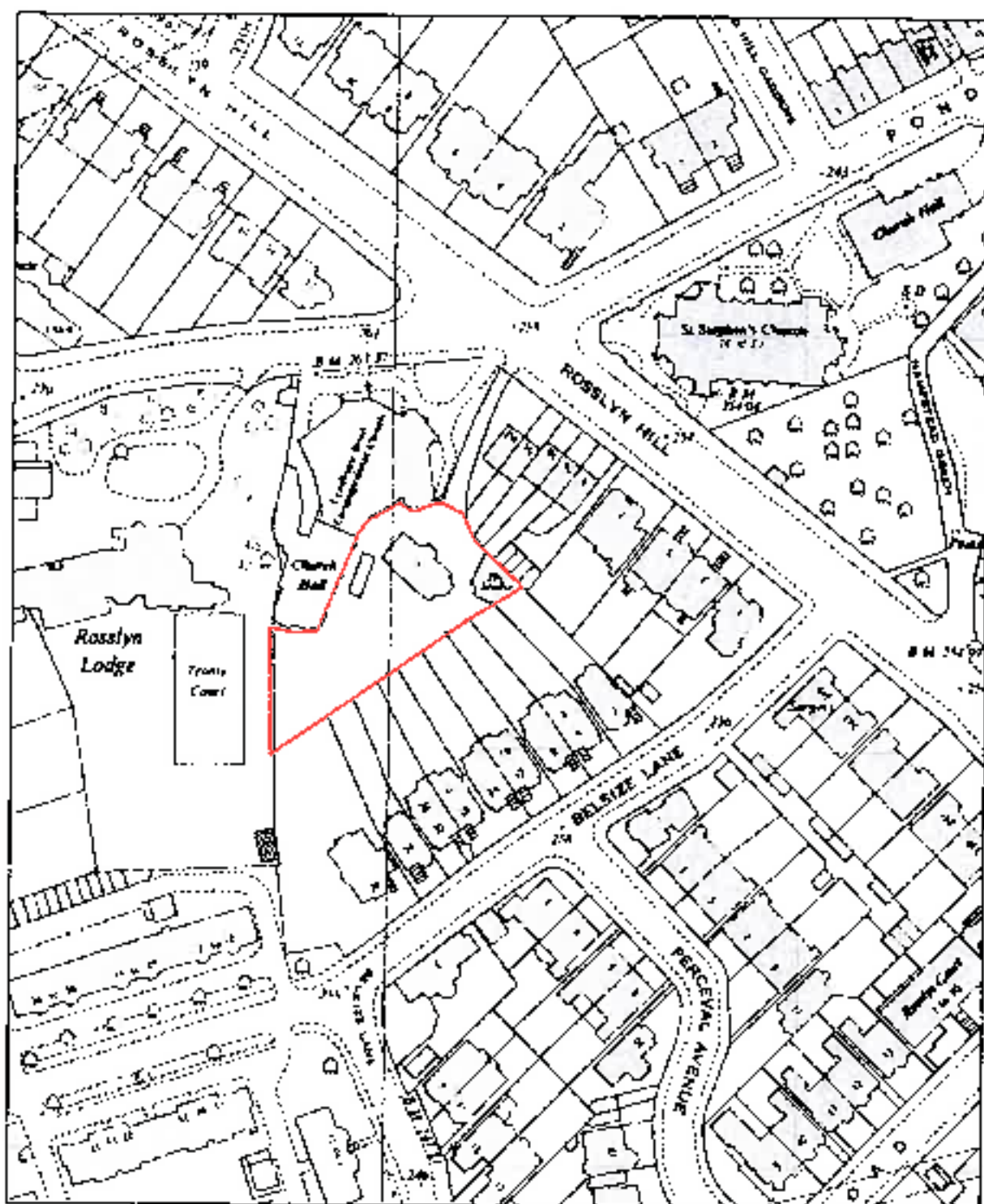
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Figure K

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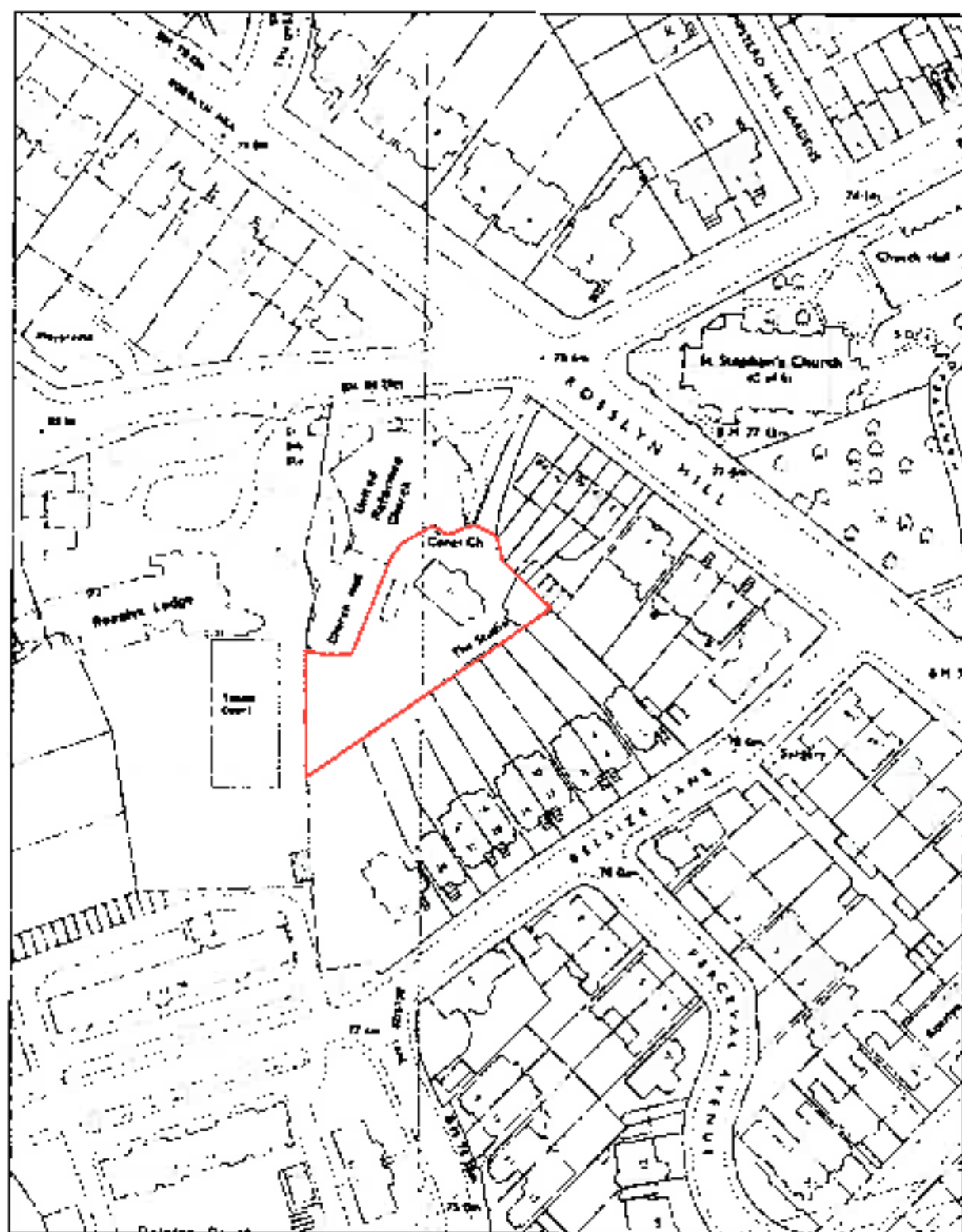
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Site History

Figure L

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Figure M

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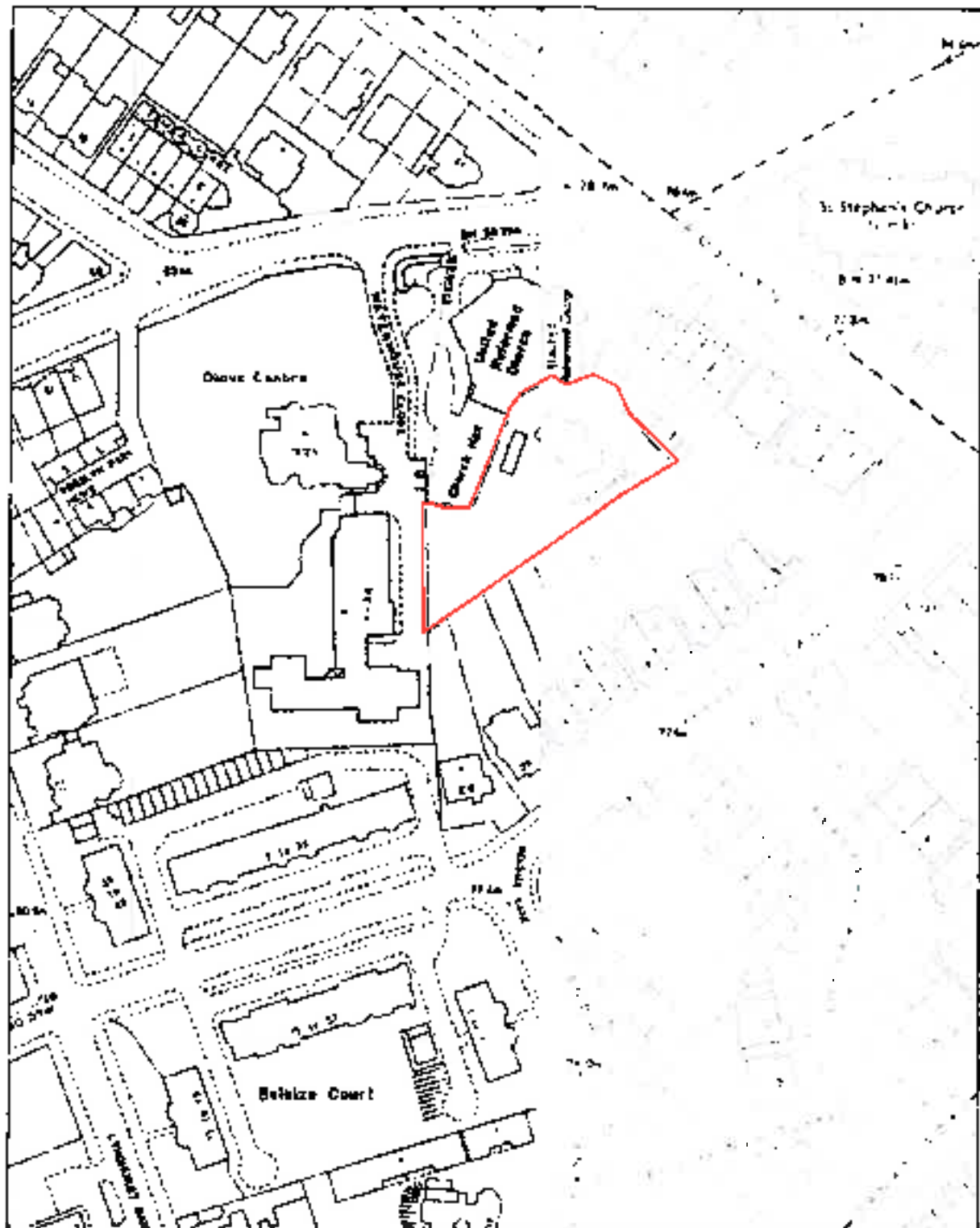
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Figure N

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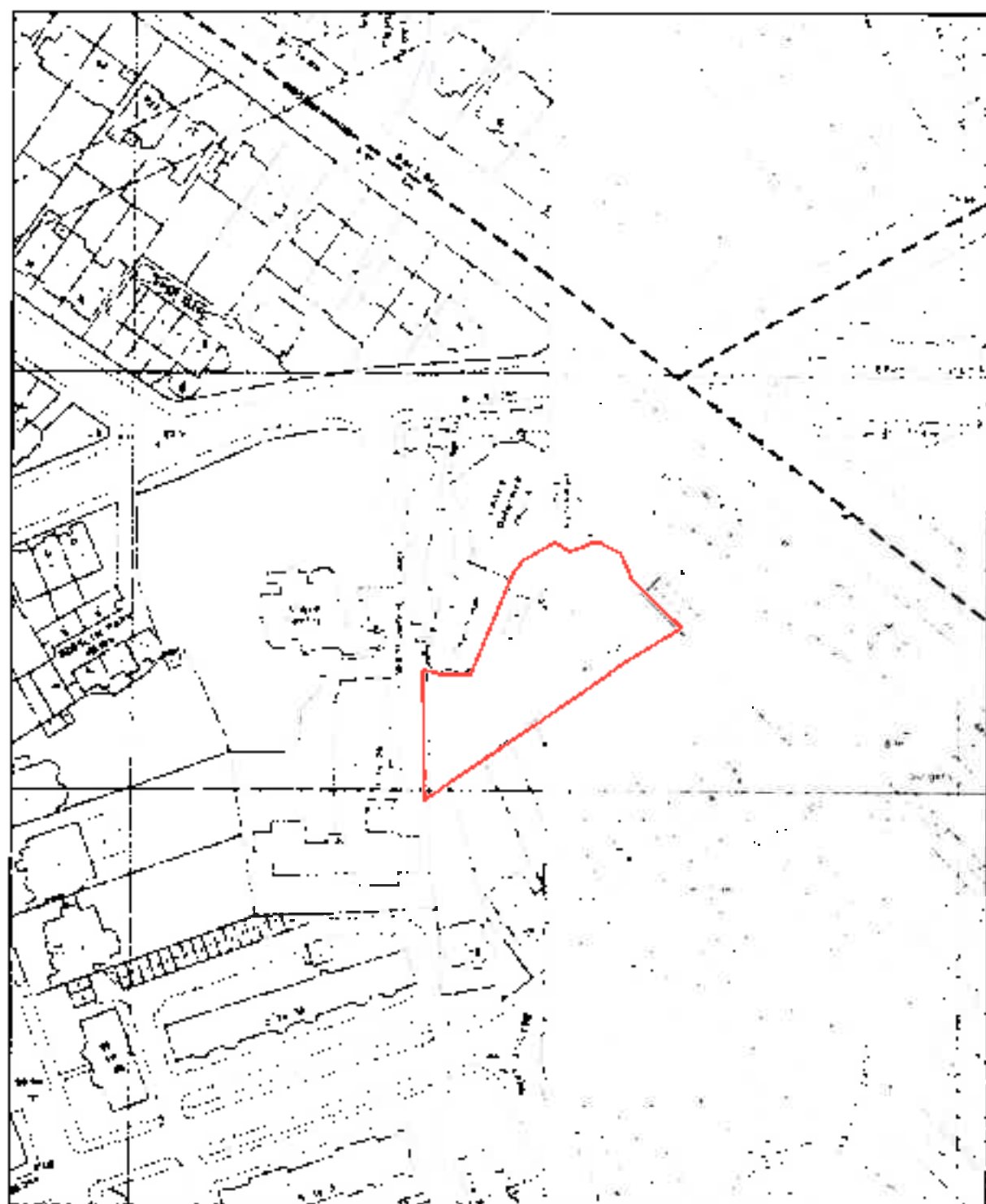
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Site History

Figure O

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Figure P

Reproduced from the 2002 edition Ordnance Survey street Raster Map at 1:10,000 scale with the permission of the Controller of Her Majesty's Stationery Office. © Crown Copyright. All rights reserved. Licence number AL10005523



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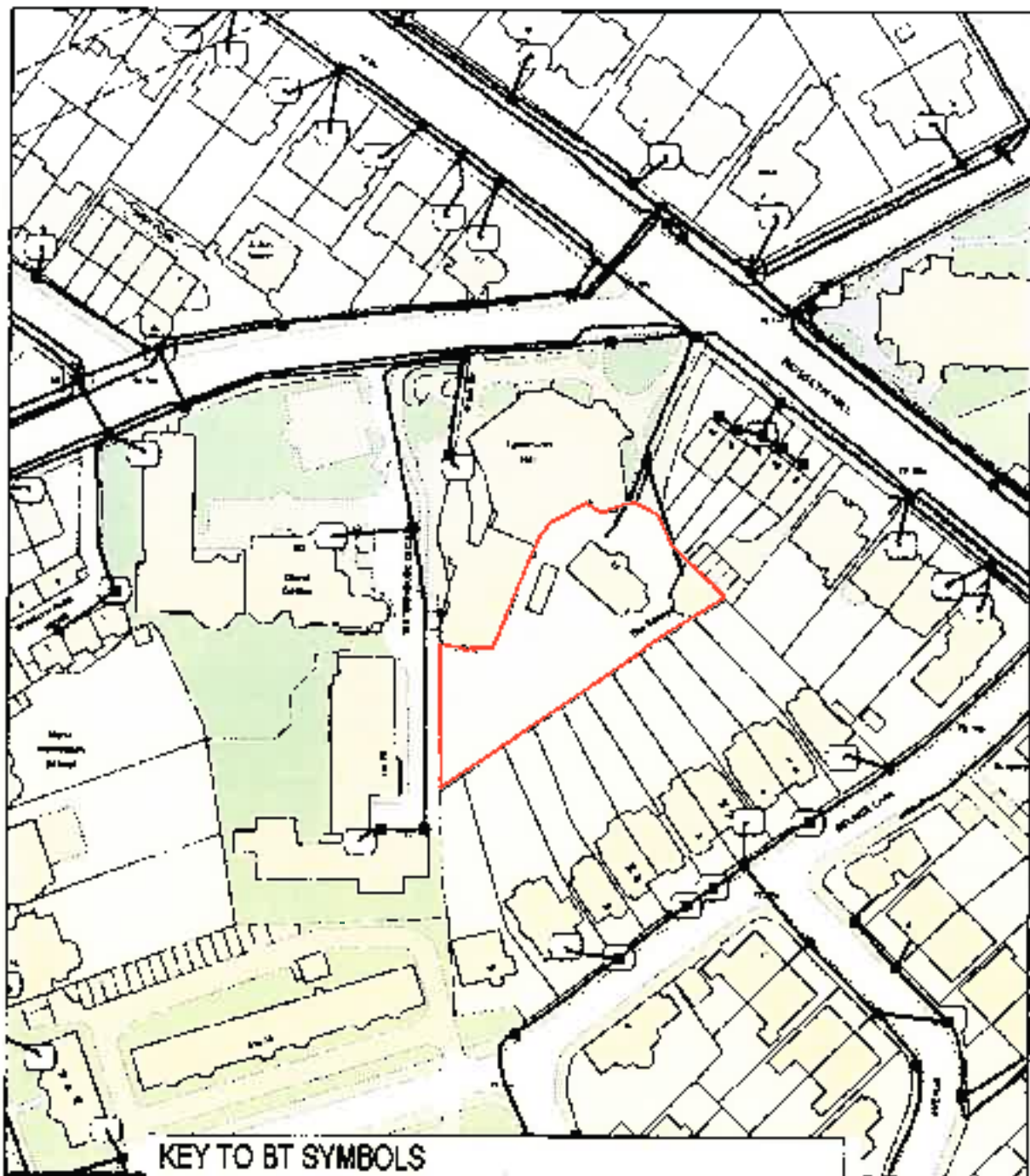
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Figure Q

December 2014. BT Plan at 1:1250 scale with the permission of the Controller of Her Majesty's Stationery Office. © Crown Copyright
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KEY TO BT SYMBOLS

	UNDERGROUND PLANT		POLE
	OVERHEAD PLANT		CABINET
	JOINT BOX		BURIED JOINT
	DISTRIBUTION POINT		JOINTING POST
	MANHOLE		PROPOSED U/G
	DP BOUNDARY		PROPOSED O/H
	OTHER BT BOUNDARY		PROPOSED BOX

Other proposed plant is shown using dashed lines. BT symbols not listed above may be disregarded. Existing BT plant may not be recorded. Information valid at the time of preparation.

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Appendix 3

Environmental Searches Report



GroundSure Envirolnsight

Address: 11, ROSSLYN HILL, LONDON, NW3 5UL

Date: 7 Jan 2015

Reference: GS-1835771

Client: Ground Engineering Limited



Aerial Photograph Capture date: 20-Apr-2013
Grid Reference: 526998.185329
Site Size: 0.17ha

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Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Environmental Permits, Incidents and Registers		On site	0-50m	51-250	251-500	
1.1 Industrial Sites Holding Environmental Permits and/or Authorisations						
1.1.1	Records of historic IPC Authorisations	0	0	0	0	
1.1.2	Records of Part A(1) and IPPC Authorised Activities	0	0	0	0	
1.1.3	Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0	0	0	0	
1.1.4	Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0	0	0	0	
1.1.5	Records of List 1 Dangerous Substances Inventory sites	0	0	0	0	
1.1.6	Records of List 2 Dangerous Substances Inventory sites	0	0	0	0	
1.1.7	Records of Part A(2) and Part B Activities and Enforcements	0	0	2	8	
1.1.8	Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	35	
1.1.9	Records of Licensed Discharge Consents	0	0	0	0	
1.1.10	Records of Planning Hazardous Substance Consents and Enforcements	0	0	0	0	
1.2	Records at COMAH and NIS sites	0	0	0	0	
1.3 Environment Agency Recorded Pollution Incidents						
1.3.1	National Incidents Recording System, List 2	0	0	1	0	
1.3.2	National Incidents Recording System, List 1	0	0	0	0	
1.4	Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0	

Section 2: Landfill and Other Waste Sites		On site	0-50m	51-250	251-500	501-1000	1000-5000
2.1 Landfill Sites							
2.1.1	Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
2.1.2	Environment Agency Historic Landfill Sites	0	0	0	0	0	1
2.1.3	BGS-DoE Landfill Site Survey	0	0	0	0	0	0
2.1.4	GroundSure Local Authority Landfill Sites Data	0	0	0	0	0	0
2.2 Landfill and Other Waste Sites Findings							
2.2.1	Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	4	Not searched	Not searched
2.2.2	Environment Agency Licensed Waste Sites	0	0	0	0	0	0

Section 3: Current Land Use	On site	0-50m	51-250	251-500
3.1 Current Industrial Sites Data	0	2	0	Not searched
3.2 Records of Petrol and Fuel Sites	0	0	1	0
3.3 Underground High Pressure Oil and Gas Pipelines	0	0	0	0

Section 4: Geology	
4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	No
4.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 5: Hydrogeology and Hydrology	0-500m
5.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?	No
5.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes

	On-site	0-50m	51-250	251-500	501-1000	1000-1500
5.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	12
5.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	2
5.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	5
5.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
5.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
5.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	0	1	0	0	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000-1500
5.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	No	No
5.10 Detailed River Network entries within 500m of the site	0	0	1	0	Not searched	Not searched
5.11 Surface water features within 250m of the study site	No	No	No	Not searched	Not searched	Not searched

Section 6: Flooding

6.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	No
6.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site?	No
6.3 Are there any Flood Defences within 250m of the study site?	No
6.4 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
6.5 Are there any areas used for Flood Storage within 250m of the study site?	No
6.6 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Lowest protection
6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Low

Section 7: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	1
7.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
7.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
7.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
7.5 Records of Ramsar Sites	0	0	0	0	0	0
7.6 Records of Ancient Woodlands	0	0	0	0	4	2
7.7 Records of Local Nature Reserves (LNR)	0	0	0	1	0	0
7.8 Records of World Heritage Sites	0	0	0	0	0	0
7.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
7.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
7.11 Records of National Parks	0	0	0	0	0	0
7.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
7.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0

Section 8: Natural Hazards

8.1 What is the maximum risk of natural ground subsidence?	Modest risk
8.1.1 What is the maximum Shrink / Swell hazard rating identified on the study site?	Modest risk
8.1.2 What is the maximum Lands /ides hazard rating identified on the study site?	Very Low
8.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
8.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Negligible
8.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
8.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Very Low

Section 9: Mining

9.1 Are there any coal mining areas within 75m of the study site?	No
9.2 What is the risk of subsidence relating to shut down mining within 150m of the study site?	Negligible
9.3 Are there any brine affected areas within 75m of the study site?	No

Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between GroundSure and the Client. The document contains the following sections:

1. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii of up to 500m.

2. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii of up to 1500m.

3. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure underground oil and gas pipelines.

4. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

5. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

6. Flooding

Provides information on surface water flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

7. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

8. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence.

9. Mining

Provides information on areas of coal and shallow mining.

10. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, GroundSure provide a free Technical Helpline (08444 159000) for further information and guidance.

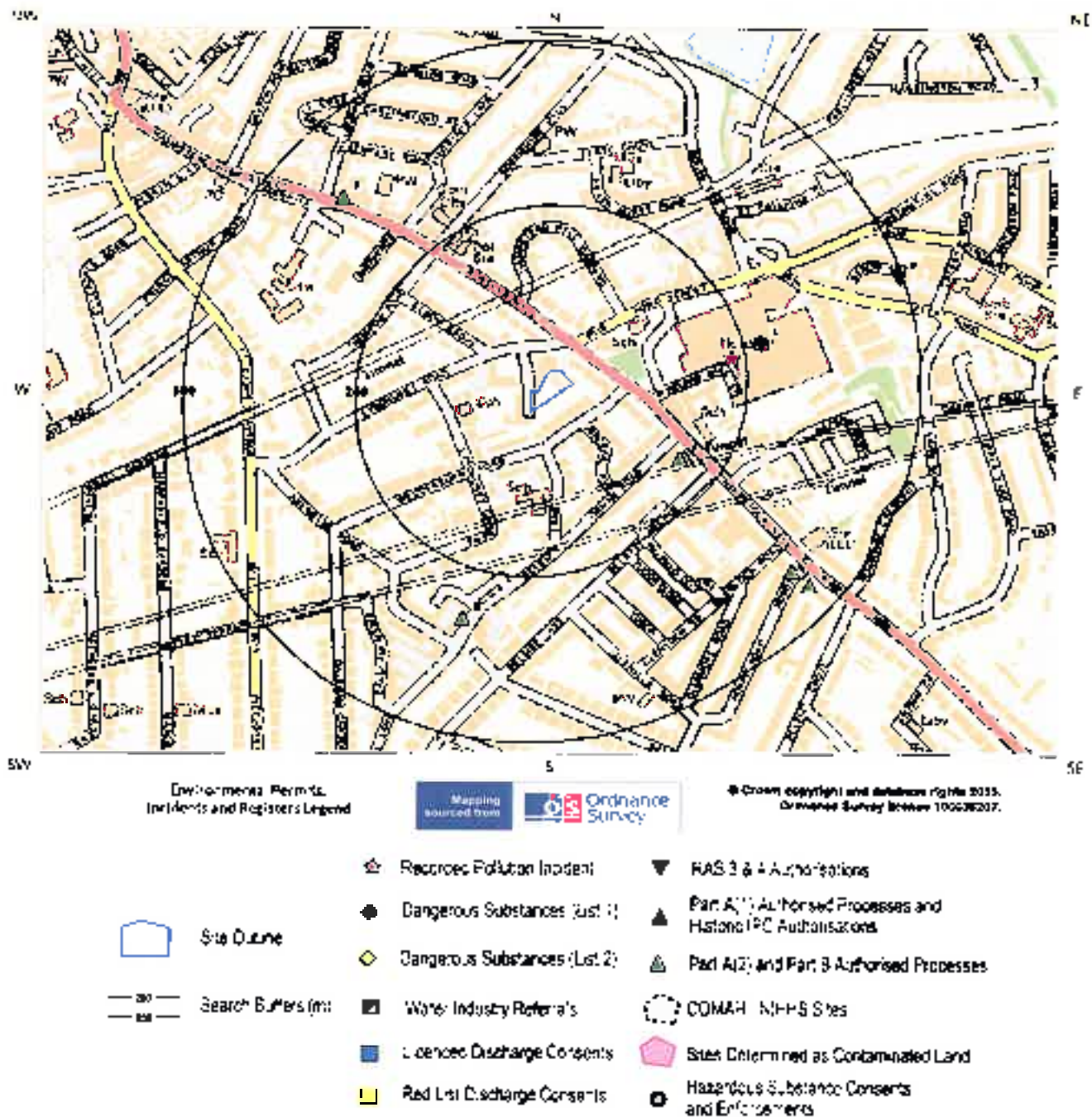
Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format: Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features, (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 12A in the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N, North, E, East, NE, North East from the nearest point of the study site boundary.

1. Environmental Permits, Incidents and Registers Map



Report Reference: GS-1647-1
Client Reference: SW-C10466



1. Environmental Permits, Incidents and Registers

1.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

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 PPC 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 of the study site:

0

Database searched and no data found.

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:

0

Database searched and no data found.

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

10

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
2A	192.0	SE	527186 185224	Address: Belsize Park Service Station, 215 Haverstock Hill, London, NW3 4QE Process: Petrol Station Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
3A	196.0	SE	527192 185226	Address: Hanson Cement/Former Castle Cement, British Rail Goods Yard Wharf Road off York Way, NW3 6AU Process: Cement Batching Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
4B	215.0	E	527300 185400	Address: Royal Free Hospital, Pond St, Gospelwood, NW3 2QG Process: Incineration & Furnace Process Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
5B	330.0	S	526875 184983	Address: Pyramid Cleaners, 52 Belsize Lane, Belsize Park, NW3 5AR Process: Dry Cleaner Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
6B	330.0	S	526875 184983	Address: Pyramid Cleaners, 52 Belsize Lane, NW3 5AR Process: Dry Cleaner Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
7	355.0	NW	526700 185619	Address: Heath Dry Cleaners, 66 Rosslyn Hill, NW3 1ND Process: Dry Cleaner Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
8C	422.0	SE	527345 185056	Address: Perkins Dry Cleaners, 171 Haverstock Hill, NW3 4QS Process: Dry Cleaner Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
9C	422.0	SE	527345 185056	Address: Perkins Dry Cleaners, 171 Haverstock Hill, NW3 4QS Process: Dry Cleaner Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
10C	457.0	SE	527372 185034	Address: Swan Dry Cleaners, 163 Haverstock Hill, NW3 4QT Process: Dry Cleaner Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Distance	Direction	NGR	Address	Details
11D	457.0	SE	527572 185034	Address: Swan Dry Cleaners, 163 Hamstead Hill, NW3 4QT Process: Dry Cleaning Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Compliance: No Enforcement Notified

1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations:

35

The following RAS Licence (3 or 4) records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	Address	Operator	Type	Permission Number	Dates	Status
47E	275.0	E	527300 185400	Royal Free Hampstead NHS Trust, Royal Free Hospital Pond Street, Hampstead, London NW3 2QG	Royal Free Hampstead NHS Trust	Keeping And Use Of Radioactive Materials (was RAS60 Section 11)	AB8658	Date of Approval: 11/7/1995 Effective from: 11/7/1995 Last date of update: 2014-10-01	Superseded By Variation
48L	275.0	E	527300 185400	Royal Free Hampstead NHS Trust, Royal Free Hospital Pond Street, Hampstead, London NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was RAS60 Section 6)	AB4095	Date of Approval: 6/12/2004 Effective from: 6/12/2004 Last date of update: 2014-10-01	Superseded By Variation
49E	275.0	E	527300 185400	Royal Free Hampstead NHS Trust, Royal Free Hospital Pond Street, Hampstead, London NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was RAS60 Section 6)	AB4095	Date of Approval: 10/7/2009 Effective from: 10/7/2009 Last date of update: 2014-10-01	Effective
50F	275.0	E	527300 185400	Royal Free Hampstead NHS Trust, Royal Free Hospital Pond Street, Hampstead, London NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was RAS60 Section 6)	AB4095	Date of Approval: 12/7/1995 Effective from: 9/8/1995 Last date of update: 2014-10-01	Superseded By Variation
51E	275.0	E	527300 185400	Royal Free Hampstead NHS Trust, Royal Free Hospital Pond Street, Hampstead, London NW3 2QG	Royal Free Hampstead NHS Trust	Keeping And Use Of Radioactive Materials (was RAS60 Section 11)	AB8658	Date of Approval: 11/7/1995 Effective from: 11/7/1995 Last date of update: 2014-10-01	Effective

ID	Distance	Direction	NGR	Address	Operator	Type	Permission Number	Dates	Status
52E	275.0	F	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Radio Section 6)	AB4095	Date of Approval: 31/2 /1991 Effective from: 31/3/1991 Last date of update: 2014-10-01	Superseded By Variation
53E	275.0	E	5273 00 1854 00	Anthony Nolan Trust (antl), Noel Road, London, NW5 2QR	Anthony Nolan Trust (antl)	Keeping And Use Of Radioactive Materials (was Radio Section 1)	B46292	Date of Approval: 14/7 /2005 Effective from: 14/7/2005 Last date of update: 2014-10-01	Superseded By Variation
54E	275.0	F	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Radio Section 6)	AB19587	Date of Approval: 21/6 /1994 Effective from: 21/6/1994 Last date of update: 2014-10-01	Superseded By Variation
55E	275.0	E	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Radio Section 6)	AB4095	Date of Approval: 9/12 /2005 Effective from: 9/12/2005 Last date of update: 2014-10-01	Superseded By Variation
56E	275.0	E	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Radio Section 6)	AB4095	Date of Approval: 25/1 0/1996 Effective from: 28/10/1996 Last date of update: 2014-10-01	Superseded By Variation
57E	275.0	L	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Keeping And Use Of Radioactive Materials (was Radio Section 1)	AEH458	Date of Approval: 29/4 /2002 Effective from: 29/4/2002 Last date of update: 2014-10-01	Superseded By Variation
58E	275.0	E	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Radio Section 6)	AH9567	Date of Approval: 20/7 /2007 Effective from: 17/5/2007 Last date of update: 2014-10-01	Revoked/Cancelled

ID	Distance	Direction	NGR	Address	Operator	Type	Permission Number	Dates	Status
59E	275.0	L	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Road Section 6)	AH0962	Date of Approval: 13/4/2005 Effective from: 1.1.2006 Last date of update: 2014-10-01	Superseded By Variation
60E	275.0	E	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Road Section 6)	AB4095	Date of Approval: 9-9-2005 Effective from: 5-9-2006 Last date of update: 2014-10-01	Superseded By Variation
61E	275.0	E	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Keeping And Use Of Radioactive Materials (was Road Section 4)	AG0658	Date of Approval: 25-7-2002 Effective from: 25-7-2002 Last date of update: 2014-10-01	Superseded By Variation
62E	275.0	F	5273 00 1854 00	Royal Free And University College Medical School Of University College London, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free And University College Medical School Of University College London	Disposal Of Radioactive Waste (was Road Section 6)	Q25694	Date of Approval: 14-2-2003 Effective from: 12-2-2003 Last date of update: 2014-10-01	Superseded By Variation
63E	275.0	F	5273 00 1854 00	Anthony Holten Trust (aht), Fleet Road, London, NW3 2QR	Anthony Holten Trust (aht)	Keeping And Use Of Radioactive Materials (was Road Section 6)	QR6362	Date of Approval: 2-10-2007 Effective from: 2-10-2007 Last date of update: 2014-10-01	Effective
64E	275.0	L	5273 00 1854 00	Royal Free Hampstead NHS Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Road Section 6)	AB4095	Date of Approval: 1-12-2005 Effective from: 1-1-2006 Last date of update: 2014-10-01	Superseded By Variation

ID	Distance	Direction	NGR	Address	Operator	Type	Permission Number	Dates	Status
67E	275.0	E	5273 00 1854 00	Royal Free And University College Medical School Of University College London, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free And University College Medical School Of University College London	Disposal Of Radioactive Waste (was Radio Section 6)	A1569A	Date of Approval: 1/12/2003 Effective From: 1/1/2004 Last date of update: 2014-10-01	Superseded By Variation
68E	275.0	E	5273 00 1854 00	Royal Free And University College Medical School Of University College London, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free And University College Medical School Of University College London	Keeping And Use Of Radioactive Materials (was Radio Section 11)	A16403	Date of Approval: 3/10/2005 Effective From: 3/10/2005 Last date of update: 2014-10-01	Effective
67E	275.0	E	5273 00 1854 00	Royal Free And University College Medical School Of University College London, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free And University College Medical School Of University College London	Disposal Of Radioactive Waste (was Radio Section 6)	B1569A	Date of Approval: 1/12/2003 Effective From: 1/1/2004 Last date of update: 2014-10-01	Superseded By Variation
68E	275.0	E	5273 00 1854 00	Royal Free Hampstead Nhs Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead Nhs Trust	Disposal Of Radioactive Waste (was Radio Section 6)	A149887	Date of Approval: 12/5/2003 Effective From: 9/1/2003 Last date of update: 2014-10-01	Superseded By Variation
69E	275.0	E	5273 00 1854 00	Royal Free And University College Medical School Of University College London, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free And University College Medical School Of University College London	Disposal Of Radioactive Waste (was Radio Section 6)	B1569A	Date of Approval: 5/1/2006 Effective From: 5/1/2006 Last date of update: 2014-10-01	Effective
70E	275.0	E	5273 00 1854 00	Royal Free Hampstead Nhs Trust, Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Royal Free Hampstead Nhs Trust	Disposal Of Radioactive Waste (was Radio Section 6)	A149887	Date of Approval: 11/3/1997 Effective From: 1/9/1997 Last date of update: 2014-10-01	Superseded By Variation

ID	Distance	Direction	QCR	Address	Operator	Type	Permission Number	Dates	Status
71E	275.0	E	5273 00 1854 00	Anthony Nolan Trust (and) Royal Free Hospital, Pond Street Hampstead, London NW3 2QG	Anthony Nolan Trust (and)	Disposal Of Radioactive Waste (was Ras60 Section A)	B15716	Date of Approval 14/2 2001 Effective from 12/3/200 1 Last date of update 2014- 10-01	Superseded By Variation
72E	275.0	E	5273 00 1854 00	Raymond Pharmaceuticals 1112 Road Free Hospital Pond Street, Hampstead, London NW3 2QG	Raymond Pharmaceuticals 1112 Rd	Disposal Of Radioactive Waste (was Ras60 Section A)	B35678	Date of Approval 14/2 2001 Effective from 12/3/200 1 Last date of update 2014- 10-01	Revoked/Cancelled
73E	275.0	E	5273 00 1854 00	Anthony Nolan Trust (and) Royal Free Hospital Pond Street, Hampstead London NW3 2QG	Anthony Nolan Trust (and)	Disposal Of Radioactive Waste (was Ras60 Section A)	B15716	Date of Approval 1/12 2002 Effective from 1/1/2004 Last date of update 2014- 10-01	Superseded By Variation
74E	275.0	E	5273 00 1854 00	Royal Free And University College Medical School Of University College London, Royal Free Hospital Pond Street Hampste ad London NW3 2QG	Royal Free And University College Medical School Of University College London	Keeping And Use Of Radioactive Materials (was Ras60 Section A)	AR0463	Date of Approval 27/1 0/1998 Effective from 27/10/19 98 Last date of update 2014- 10-01	Superseded By Variation
75E	275.0	E	5273 00 1854 00	Royal Free Hampstead NHS Trust Royal Free Hospital, Pond Street, Hampstead, London NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Ras60 Section A)	AB4095	Date of Approval 17/1 0/1998 Effective from 18/1/199 8 Last date of update 2014- 10-01	Superseded By Variation
76E	275.0	E	5273 00 1854 00	Anthony Nolan Trust (and) Herb Road, London NW3 2QR	Anthony Nolan Trust (and)	Keeping And Use Of Radioactive Materials (was Ras60 Section A)	AR6352	Date of Approval 29/4 2002 Effective from 29/4/200 2 Last date of update 2014- 10-01	Superseded By Variation
77E	275.0	E	5273 00 1854 00	Royal Free Hampstead NHS Trust Royal Free Hospital Pond Street, Hampstead, London NW3 2QG	Royal Free Hampstead NHS Trust	Disposal Of Radioactive Waste (was Ras60 Section A)	AB4095	Date of Approval 14/2 2001 Effective from 12/3/200 1 Last date of update 2014- 10-01	Superseded By Variation

ID	Distance	Direction	NGR	Address	Operator	Type	Permission Number	Dates	Status
70E	275.0	F	5272 00 1854 00	Anthony Nolan Trust (ant) Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Anthony Nolan Trust (ant)	Disposal Of Radioactive Waste (was Radio Section 6)	BJS716	Date of Approval:14/7/2005 Effective from 11/3/2005 Last date of update:2014-10-01	Superseded By Variation
79E	275.0	F	5273 00 1854 00	Anthony Nolan Trust (ant) Royal Free Hospital, Pond Street, Hampstead, London, NW3 2QG	Anthony Nolan Trust (ant)	Disposal Of Radioactive Waste (was Radio Section 6)	BJS716	Date of Approval: 2/10/2007 Effective from 30/10/2007 Last date of update:2014-10-01	Effective
80E	275.0	E	5273 00 1854 00	Royal Free And University College Medical School Of University College London, Royal Free Hospital, Pond Street, Hampstead, London NW3 2QG	Royal Free And University College Medical School Of University College London	Keeping And Use Of Radioactive Materials (was Radio Section 6)	AR0403	Date of Approval:28/11/2001 Effective from:28/11/2001 Last date of update:2014-10-01	Superseded By Variation
91F	495.0	E	5275 00 1856 00	Polymark Pharmaceuticals Plc, Anthony Nolan Building, Royal Free Hospital Site, Fleet Road, Hampstead, London, NW3 2FZ	Polymark Pharmaceuticals Plc	Keeping And Use Of Radioactive Materials (was Radio Section 6)	AU4924	Date of Approval:20/2/1996 Effective from:20/2/1996 Last date of update:2014-10-01	Revoked/Withdrawn

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 & NHHSS 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:

1

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

ID	Distance	Direction	NGR	Details
1	230.0	E	577256 185379	Incident Date: 13/08/2001 Incident Identification: 53010 Pollutant: Specific Waste Materials Pollutant Description: Metal Wastes Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) 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.

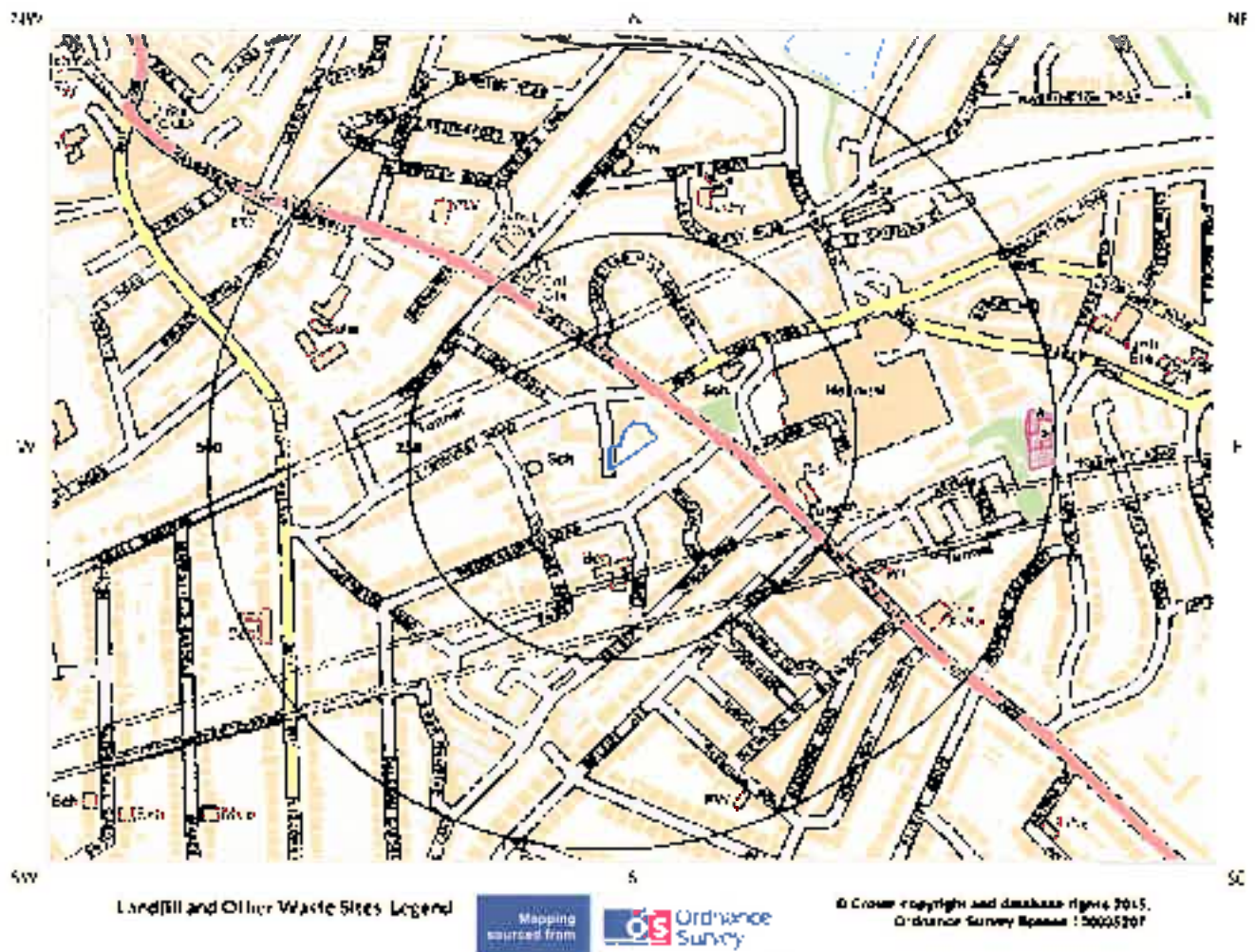
1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

How many records of sites determined as contaminated land under Section 78B 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:

1

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details	
NA1515001	1022.0	SW	506000 184800	Site Address: Canfield Place, London NW6 Waste Location: Site Reference: D04605 Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered Licence Hold Address: - Operator: -

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:

4

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

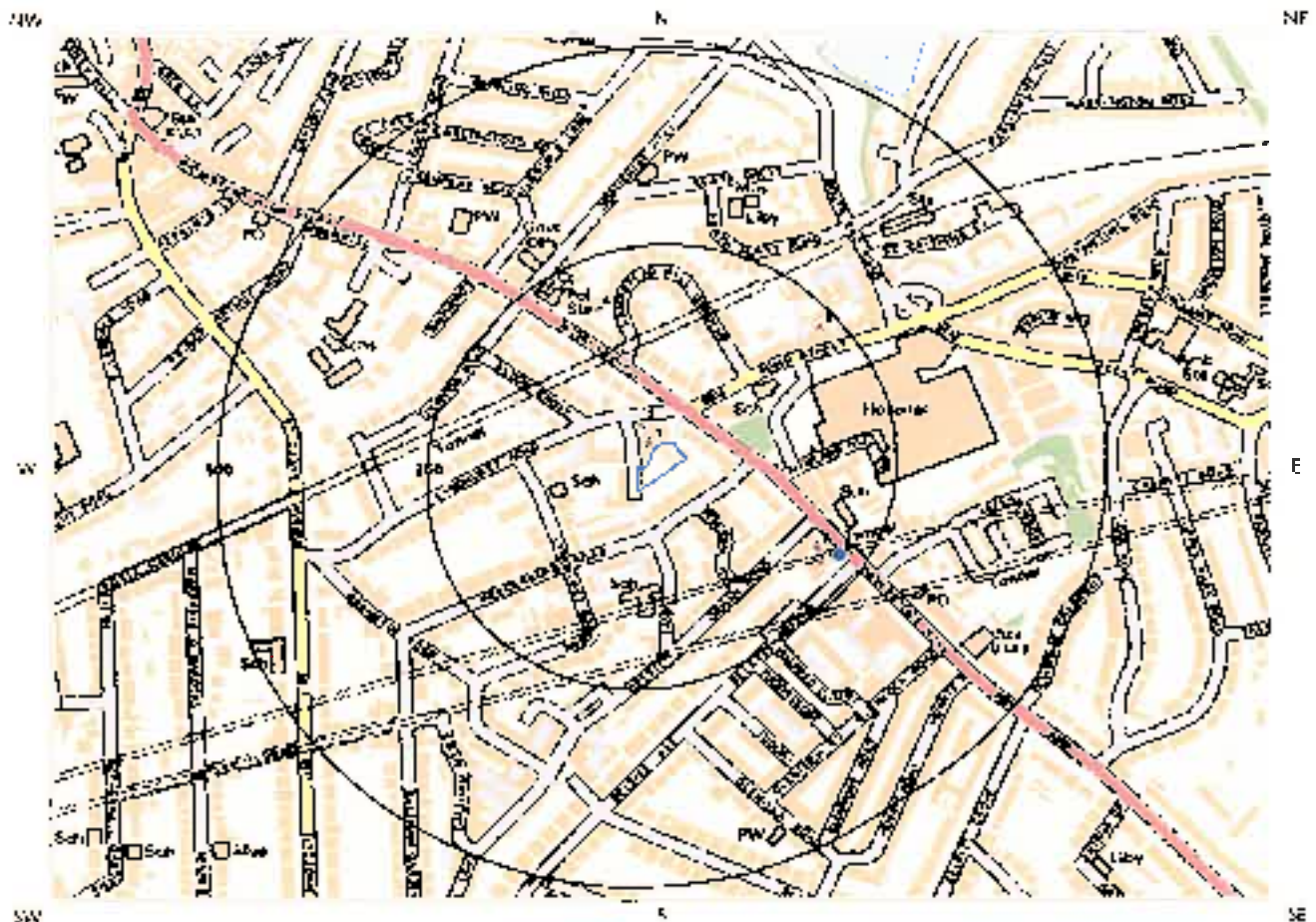
ID	Distance (m)	Direction	NGR	Details		
1A	443.0	E	527504 185361	Type of Site: Waste Rag Works Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
2A	464.0	E	527697 185350	Type of Site: Waste Rag Works Site Address: N/A	Planning Application Reference: N/A Date: 1953	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
3	468.0	E	527516 185338	Type of Site: Waste Rag Works Site Address: N/A	Planning Application Reference: N/A Date: 1952	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
4A	488.0	L	527505 185350	Type of Site: Waste Rag Works Site Address: N/A	Planning Application Reference: N/A Date: 1952	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon

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

0

Database searched and no data found.

3. Current Land Use Map



Current Land Use Legend

Mapping
 sourced from

OS Ordnance
 Survey

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Site Outline



Search Buffers (m)



Current Industrial Sites



Petrol & Fuel Sites



Underground High Pressure Oil & Fuel Pipelines



3. Current Land Uses

3.1 Current Industrial Data

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

9

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	9.0	NW	Art Studios Lyndhurst Hall	526986 185360	Lyndhurst Hall, Lyndhurst Road, London, NW3 5YG	Recording Studios and Record Companies	IT, Advertising, Marketing and Media Services
2	23.0	NW	Electricity Sub Station	526977 185380	NW3	Electrical Features	Infrastructure and Facilities
3	104.0	E	Electricity Sub Station	527170 185337	NW3	Electrical Features	Infrastructure and Facilities
4	166.0	NW	Electricity Sub Station	526924 185528	NW3	Electrical Features	Infrastructure and Facilities
5A	191.0	SE	Belsize Park Self Service	527187 185227	Belsize Park Service Station 215, Haverstock Hill, London, NW3 4QT	Petrol and Fuel Stations	Road and Rail
6A	192.0	SE	BP Service Station	527187 185227	Belsize Park Service Station 215, Haverstock Hill, London, NW3 4QT	Petrol and Fuel Stations	Road and Rail
7	207.0	SE	BP Connect Car Wash	527192 185208	215b, Haverstock Hill, Belsize Park, London, NW3 4RB	Vehicle Cleaning Services	Personal, Consumer and Other Services
9	228.0	NE	Orilluz	527190 185507	NW3	Armed Services	Central and Local Government

3.2 Petrol and Fuel Sites

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

1

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
5	217.0	SE	527214 185217	BP	Belsize Park Service Station, 215, Haverstock Hill, Haverstock Hill, Belsize Park, London, Greater London, NW3 4QS	No	Open

3.3 Underground High Pressure: Oil and Gas Pipelines

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

0

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

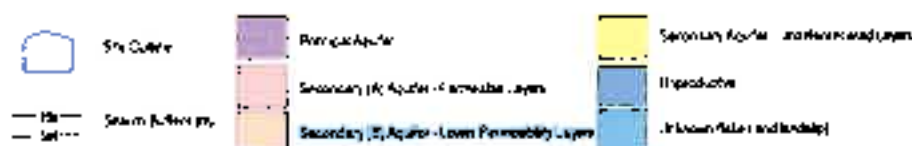
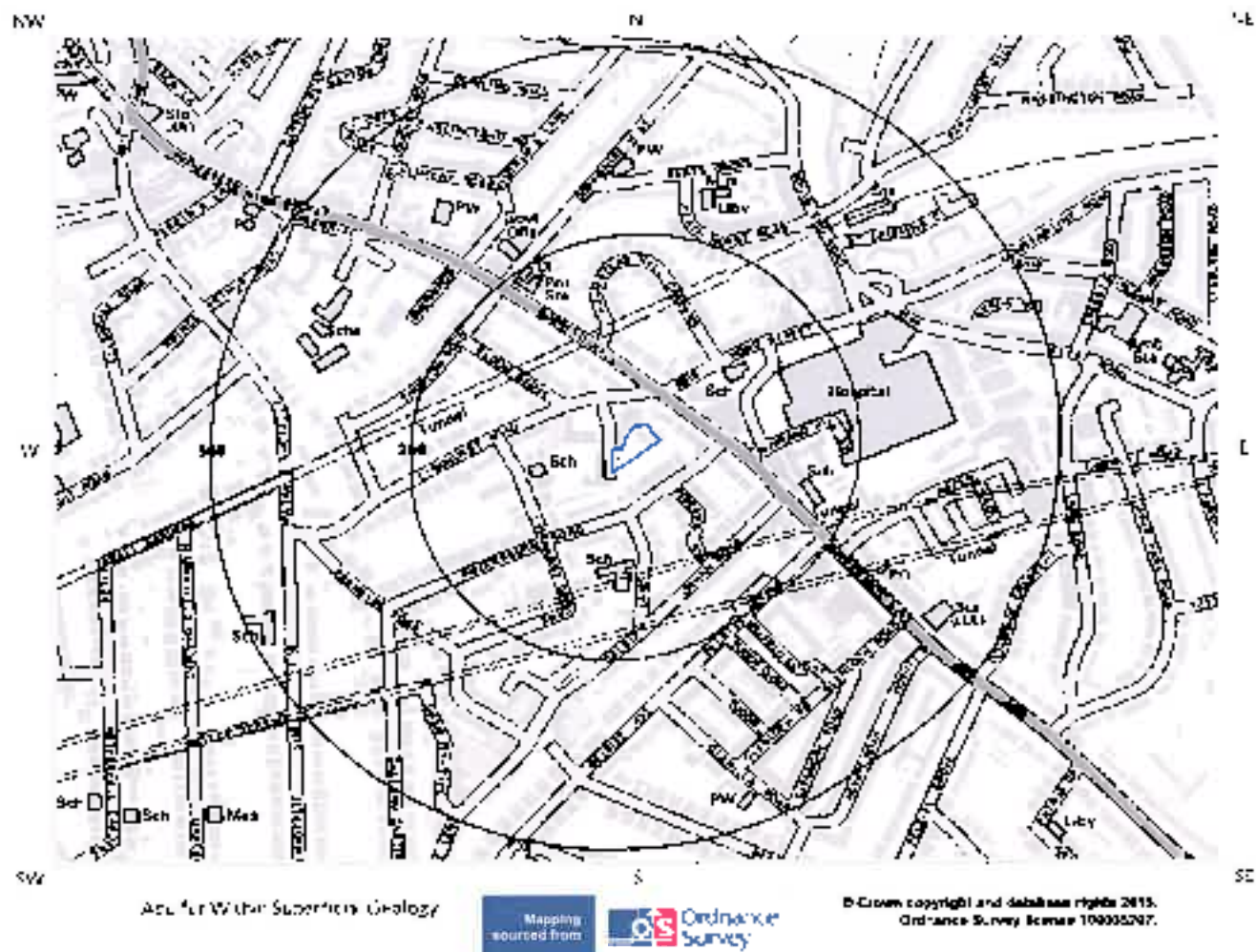
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
EEGB-CLSS	CLAYGATE MEMBER	CLAY SILT AND SAND
LC-C-SS	LONDON CLAY FORMATION	CLAY SILT AND SAND

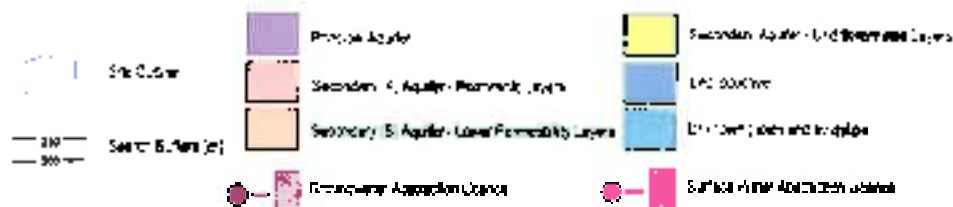
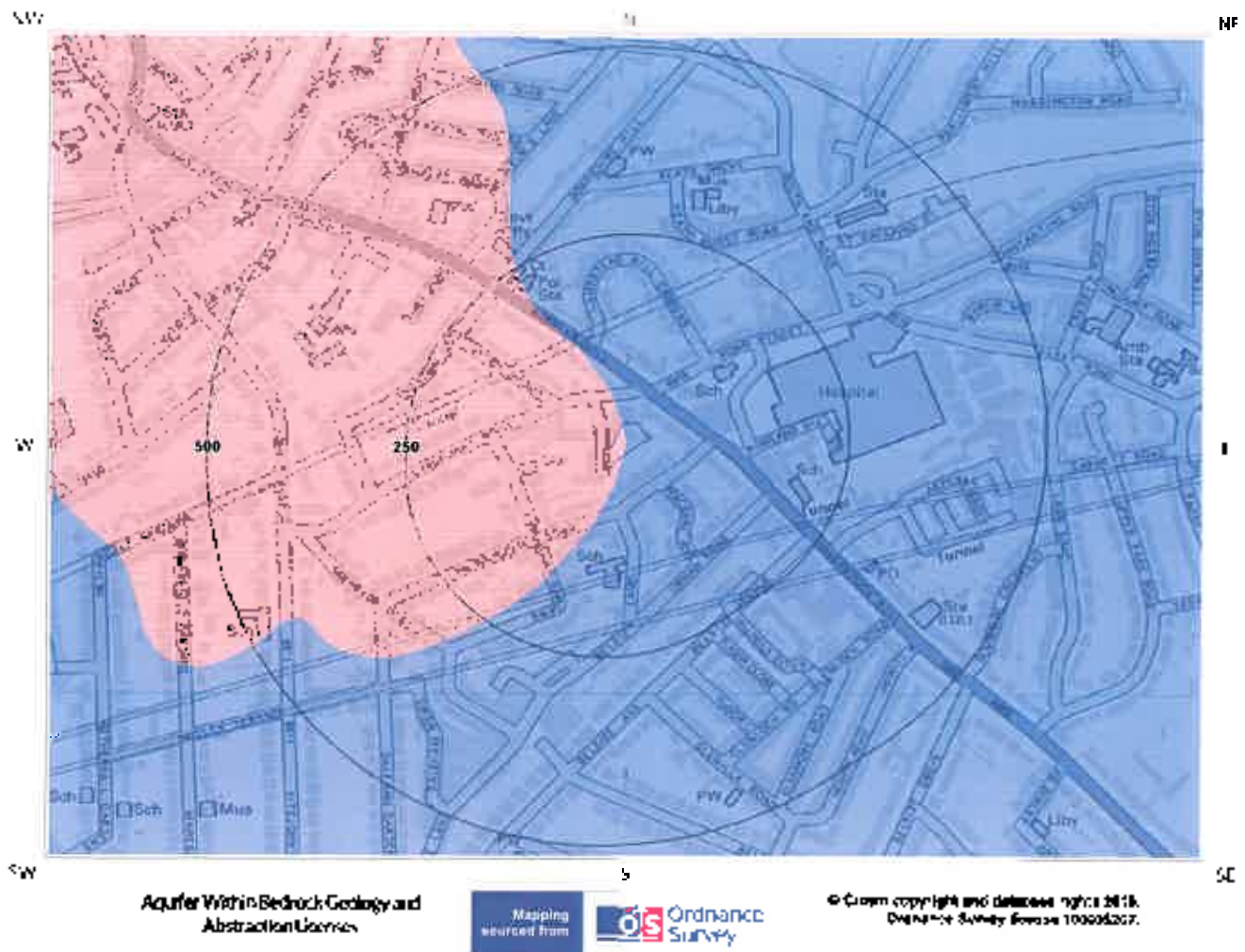
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

5. Hydrogeology and Hydrology

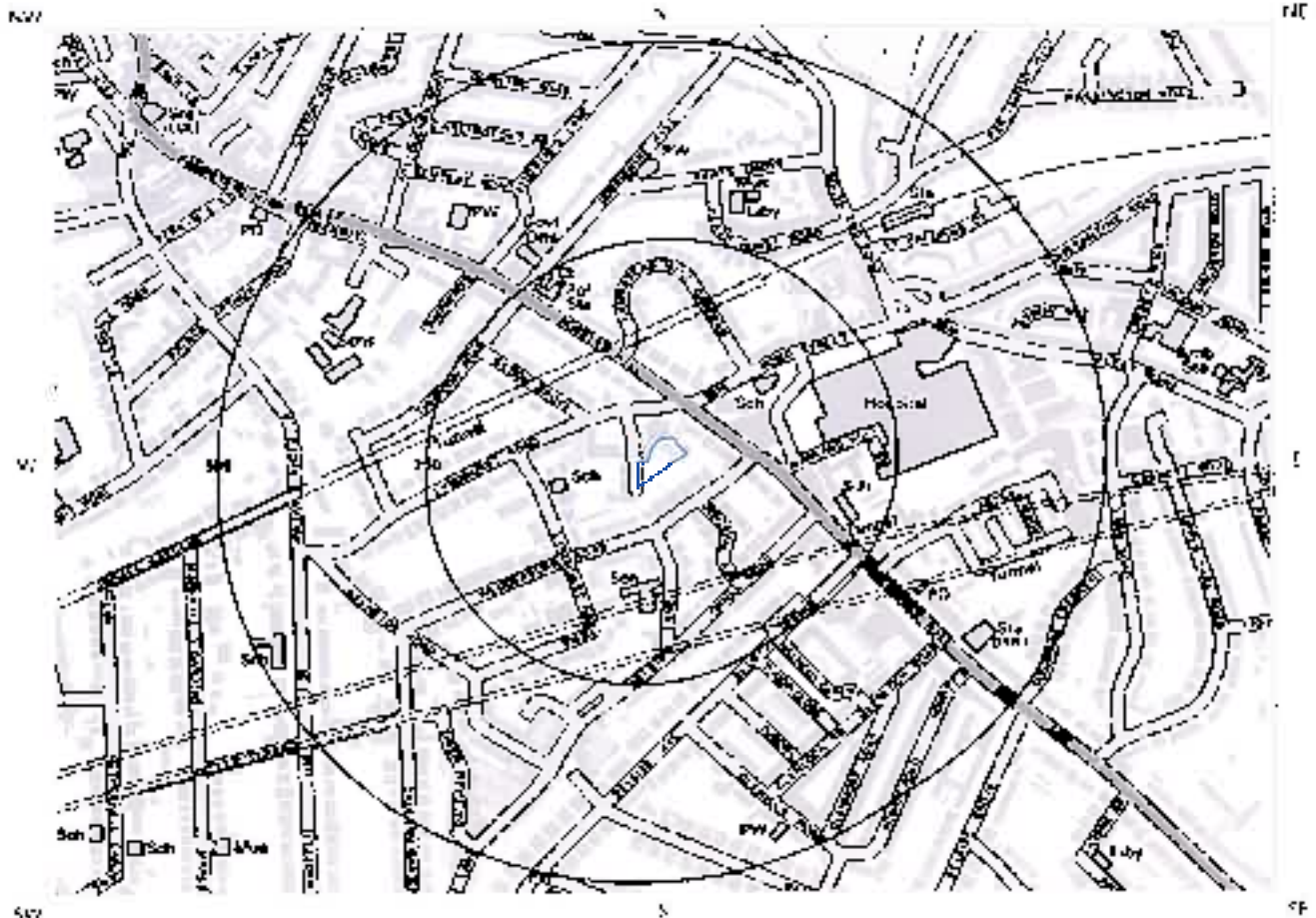
5a. Aquifer Within Superficial Geology



5b. Aquifer Within Bedrock Geology and Abstraction Licences



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



Map Legend Source Protection Zones and Potable Water Abstraction Licenses

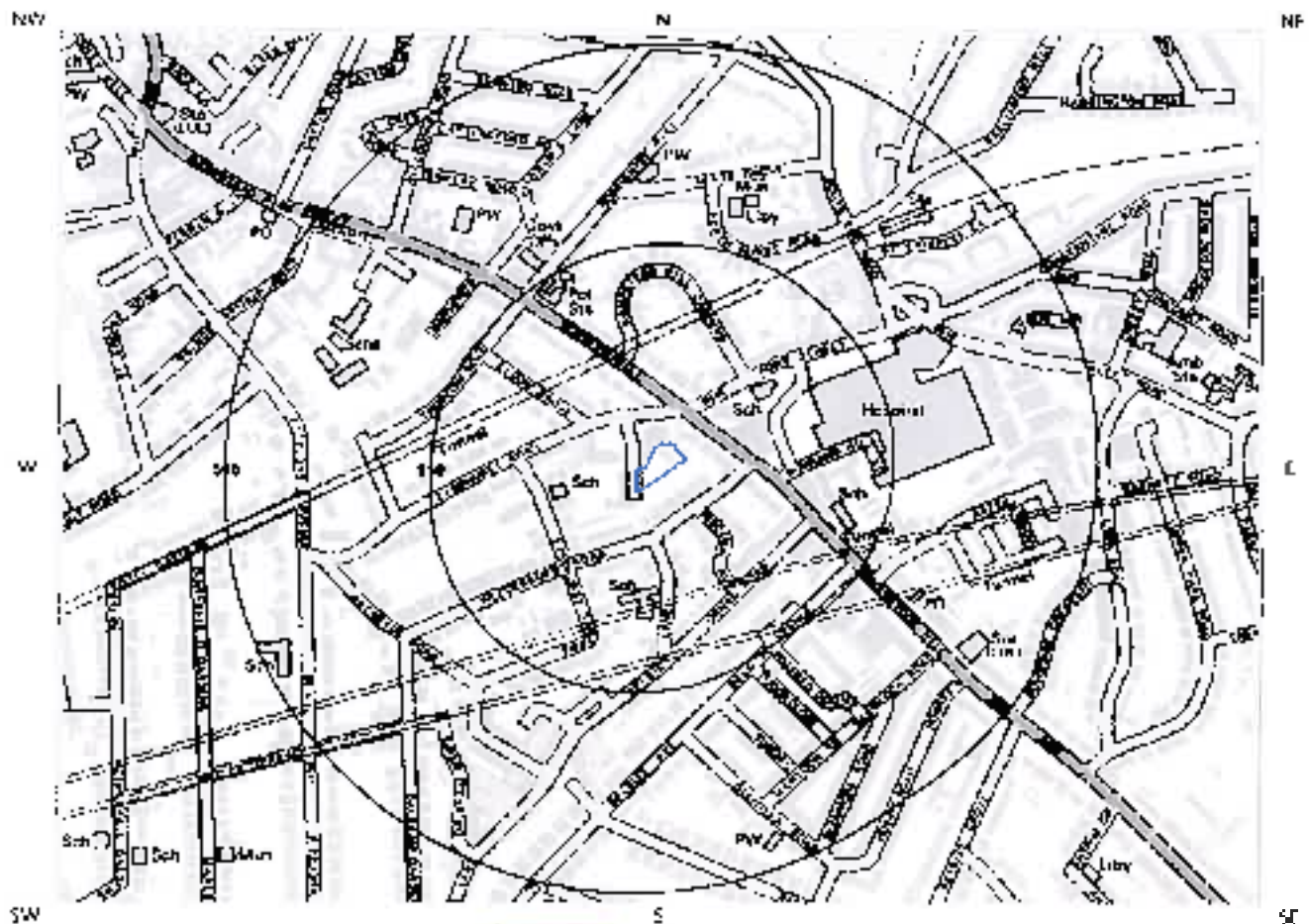
Mapping sourced from



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5d. Hydrology Source Protection Zones within confined aquifer



Hydrology Source Protection Zones

Mapping
sourced from



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Site Outline



Search Buffering (m)



Source Protection Zone 1C - Inner Catchment within Confined Aquifer



Source Protection Zone 2C - Outer Catchment within Confined Aquifer

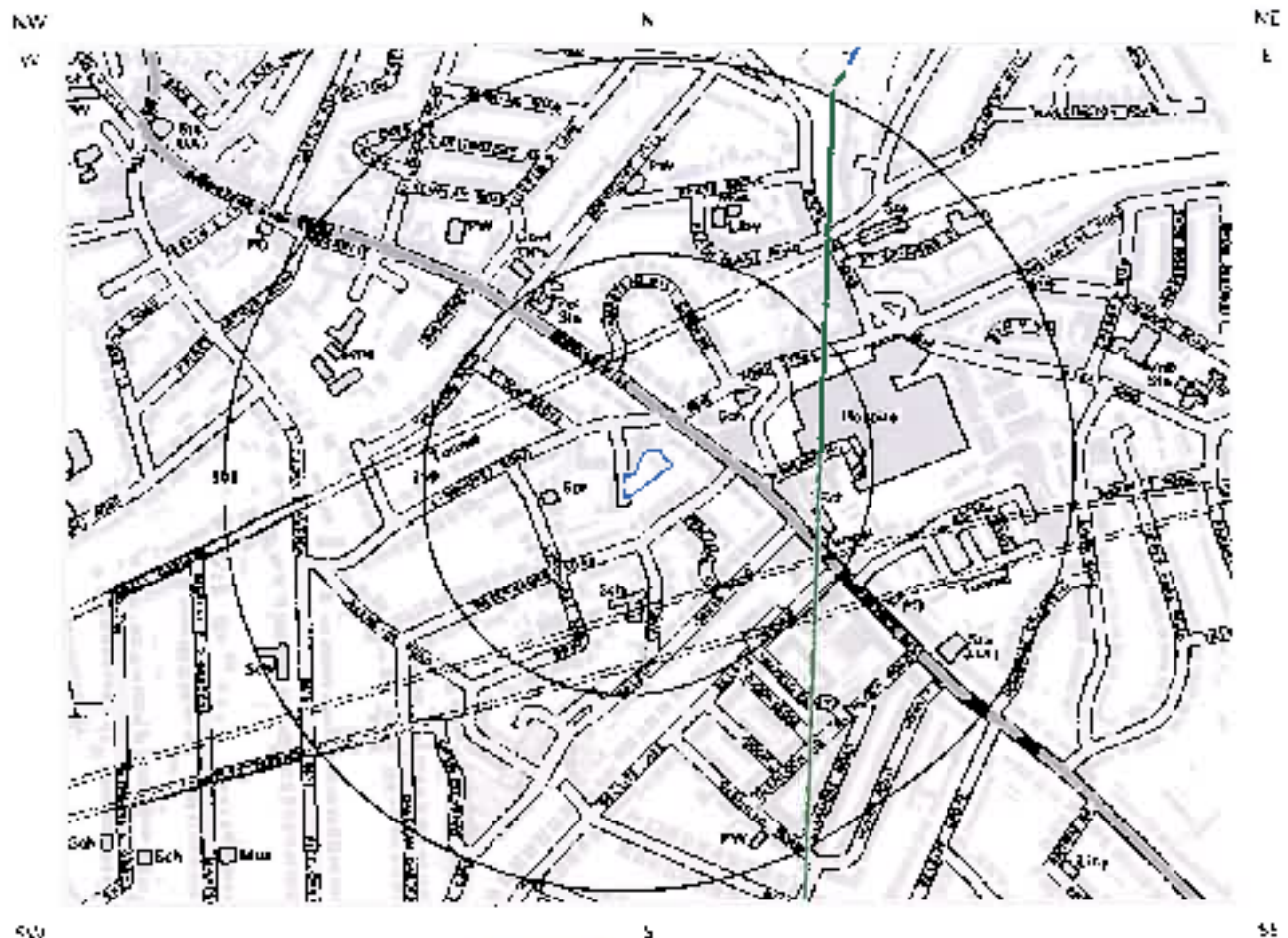


Source Protection Zone 3C - Total Catchment within Confined Aquifer



Potable Water Abstraction Licence

5 e. Hydrology – Detailed River Network and River Quality

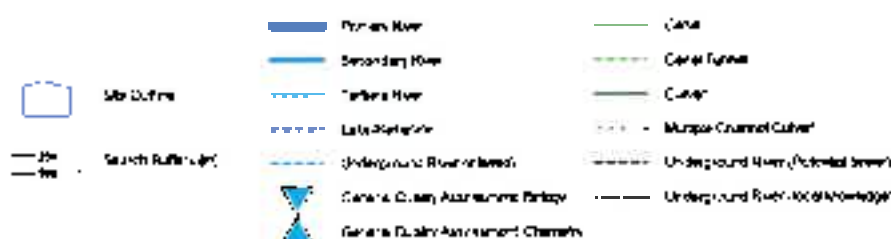


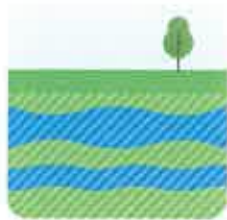
Hydrology – Detailed River Network and River Quality

Mapping
 sourced from

Ordnance Survey

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5. Hydrogeology and Hydrology

5.1 Aquifer within Superficial Deposits

Are there records of strata classification within the superficial geology at or in proximity to the property? **No**

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 Aquifer 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 (Sh):

ID	Distance (m)	Direction	Designation	Description
1	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as main aquifers.
2	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.
3	376.0	S	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
Not shown	1032.0	S	526650 184260	Licence No: TH039/0039/087 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: WRA/01407 Original Start Date: 12/12/2005 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 1-4-2008 Version End Date:
Not shown	1061.0	S	526750 184261	Licence No: TH039/0039/087 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	1061.0	S	526750 184261	Licence No: TH039/0039/087 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	1061.0	S	526750 184261	Licence No: TH039/0039/087 Details: Lake & Pond Inflow/Flow 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	1733.0	SE	527636 183697	Licence No: TH039/0039/058 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Borehole At Burroughs Data Type: Point Annual Volume (m³): 631000 Max Daily Volume (m³): 2000 Original Application No: NPS/WR/200229 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	1741.0	SE	527640 183690	Licence No: TH039/0039/058 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Burroughs Hill Pumping Station - Borehole Data Type: Point Annual Volume (m³): 631000 Max Daily Volume (m³): 2000 Original Application No: WRA/012041 Original Start Date: 26/9/2007 Expiry Date: 31/3/2007 Issue No: 1 Version Start Date: 24/9/2002 Version End Date:
Not shown	1741.0	SE	527640 183690	Licence No: TH039/0039/058 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Burroughs Hill Pumping Station - Borehole Data Type: Point Annual Volume (m³): 631000 Max Daily Volume (m³): 2000 Original Application No: WRA/01026 Original Start Date: 1/4/2007 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: 1-4-2007 Version End Date:

ID	Distance (m)	Direction	NGR	Details
Not shown	1680.0	E	528800 184700	Licence No: 28/09/09/0091 Details: Laundry Use Direct Source: Thames Groundwater Point: Two Bore At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point Annual Volume (m³): 94506 Max Daily Volume (m³): 18138 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 3/4/2012 Version End Date: -
Not shown	1880.0	E	528800 184700	Licence No: 28/09/09/0091 Details: Drinking, Cooking, Sanitary, Washing (Small Garden) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Two Bore At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point Annual Volume (m³): 17997 Max Daily Volume (m³): 18138 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 3/4/2012 Version End Date: -
Not shown	1880.0	E	528800 184700	Licence No: 28/09/09/0091 Details: Process Water Direct Source: Thames Groundwater Point: Two Bore At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point Annual Volume (m³): 94506 Max Daily Volume (m³): 18138 Original Application No: NPS/WR/010565 Original Start Date: 13/6/1966 Expiry Date: - Issue No: 101 Version Start Date: 3/4/2012 Version End Date: -
Not shown	1880.0	E	528800 184700	Licence No: 28/09/09/0091 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): 6046 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: -
Not shown	1880.0	E	528800 184700	Licence No: 28/09/09/0091 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): 6046 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: -

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 (5h).

ID	Distance (m)	Direction	NGR	Details
Not shown	1946.0	SE	528640 184020	Licence No: 28/35/35/0173 Details: Non-Fragrative Cooling Direct Source: Thames Surface Water - Non Tidal Point: Over Road, Camden - Grand Union Regent Canal Data Type: Point Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: 30/12/1994 Expiry Date: - Issue No: 100 Version Start Date: 30/12/1994 Version End Date: -

ID	Distance (m)	Direction	NGR	Details
Not shown	1974.0	SE	528500 184670	Licence No: 28/39/39-0164 Details: Non-Food/Water Use Cooling Direct Source: Thames Surface Water - Non-Tidal Point: Southampton Bridge, London, New Reg. in Canal Data Type: Point Annual Volume (m³): 5010000 Max Daily Volume (m³): 19500 Application No.: Original Start Date: 11/1/1980 Expiry Date: Issue No: 101 Version Start Date: 1/1/2007 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	Details
Not shown	1733.0	SE	527636 183697	Licence No: 11/03/0009-058 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Boreham At Burrow Hill Data Type: Point Annual Volume (m³): 631000 Max Daily Volume (m³): 2500 Original Application No: NPS/WR/005229 Original Start Date: 1/4/2013 Expiry Date: 31/3/2025 Issue No: 1 Version Start Date: Version End Date:
Not shown	1741.0	SE	527640 183690	Licence No: 28/39/39-0731 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Burrow Hill Pumping Station - Epsom Data Type: Point Annual Volume (m³): 631000 Max Daily Volume (m³): 2500 Original Application No: WRA/P/1021 Original Start Date: 1/4/2007 Expiry Date: 31/3/2013 Issue No: 1 Version Start Date: Version End Date:
Not shown	1741.0	SE	527640 183690	Licence No: 28/39/39-0202 Details: Potable Water Supply - Direct Direct Source: Thames Groundwater Point: Burrow Hill Pumping Station - Boreham Data Type: Point Annual Volume (m³): 631000 Max Daily Volume (m³): 2500 Original Application No: WRA/P/1021 Original Start Date: 24/9/2002 Expiry Date: 31/3/2007 Issue No: 1 Version Start Date: Version End Date:
Not shown	1980.0	E	528800 184700	Licence No: 28/39/39-0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Gardens) - 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): 6346 Original Application No: NPS/WR/0105a5 Original Start Date: 13/6/1986 Expiry Date: Issue No: 101 Version Start Date: Version End Date:
Not shown	1980.0	E	528800 184700	Licence No: 28/39/39-0091 Details: Drinking, Cooking, Sanitary, Washing, (Small Gardens) - Commercial/Industrial/Public Services Direct Source: Thames Groundwater Point: Two lanes At Kentish Town Sports Centre, Prince Of Wales St Data Type: Point Annual Volume (m³): 84506 Max Daily Volume (m³): 18138 Original Application No: NPS/WR/0105a5 Original Start Date: 13/6/1986 Expiry Date: Issue No: 101 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 Source Protection Zones within Confined Aquifer

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

No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

5.8 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?

Yes

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
43	W	Minor Aquifer High Leaching Potential	HU	Soil information for urban areas and restricted land use workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.

5.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site?

No

5.9.1 Biological Quality:

Database searched and no data found.

5.9.2 Chemical Quality:

Database searched and no data found.

5.10 Detailed River Network

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

Yes

The following Detailed River Network records are represented on the Hydrology Map (5c):

ID	Distance (m)	Direction	Details	
			River Name: Wish River Name: Alternative Name: -	River Type: Culvert Main River Status: Currently Under test
1	184.0	E		

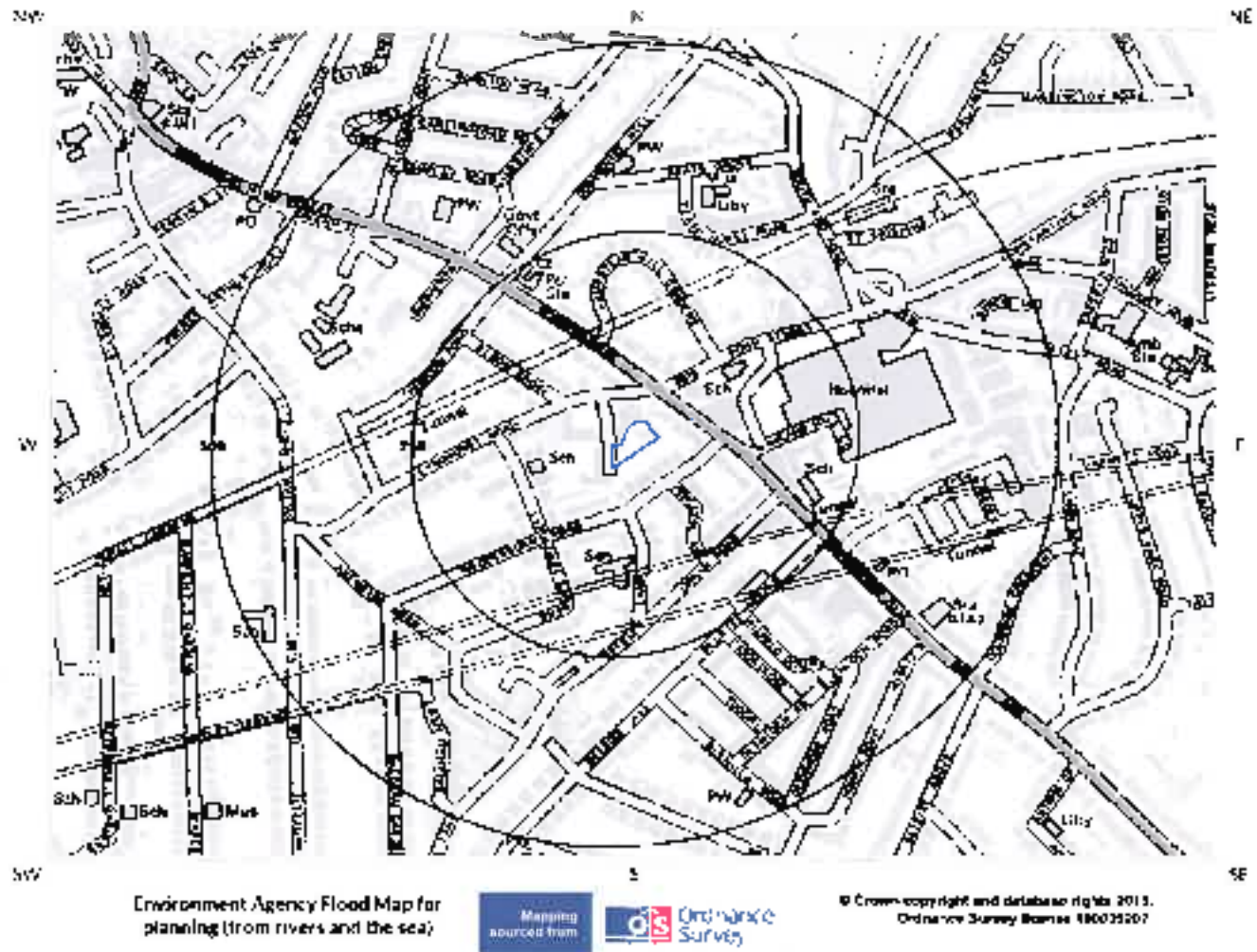
5.11 Surface Water Features

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. Flooding

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? No

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 sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 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?

Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding?

Clearwater Flooding

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?

Limited potential.

Where limited potential for groundwater flooding to occur is indicated, this means that although given the geological conditions there may be a groundwater flooding hazard, unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area, you need take no further action in relation to groundwater flooding hazard.

6.7 Groundwater Flooding Confidence Areas

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

Low

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



Designated Environmentally Sensitive Sites Map

Mapping sourced from:



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7. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? Yes

7.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:

1

The following Site of Special Scientific Interest (SSSI) records provided by Natural Eng and/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	SSSI Name	Data Source
Not shown	140611	N	Hampstead Heath Woods	Natural England

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 Wood and within 2000m of the study site:

2

The following records of Designated Ancient Woodland provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
Not shown	1420.0	SW	UNKNOWN	Ancient and Semi-Natural Woodland
Not shown	1414.0	N	UNKNOWN	Ancient and Semi-Natural Woodland

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

1

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
3	408.0	E	Boxe Wood	Natural England

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:

0

Database searched and no data found.



8. Natural Hazards Findings

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

5

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

Hazard

Groundwater is predominantly **high** pluri-tilly. Do not plant or remove trees or shrubs near to buildings without expert advice about the effect and management. For new build, consideration should be given to advice published by the National House Building Council (NHBC) on the Building Rule with Establishment (BRE). There is a probable increase in contrast on cut to reduce potential shrink swell problems. For existing property there is a probable increase in maintenance 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

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

* This is data automatically generated by our software.

8.1.3 Soluble Rocks

What is the maximum Soluble Rocks* 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

Soluble rocks are present but unlikely to cause problems except under exceptional conditions. 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.

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?

Very Low

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

Hazard

Very low potential for running sand problems if water table is set up of sandy strata and exposed to water. No special actions required to avoid problems due to running sand. No special ground investigation required, engineering and construction routes and raised financial risks are unlikely due to potential problems with running sand.

* This includes clay, generally by no more than 50m buffer and size



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

Guidance: No Guidance Required.

GroundSure RadonCheck

Address: 11, ROSSLYN HILL, LONDON, NW3 5UL

Date: 7 Jan 2015

GroundSure Reference: GS-1835720

Your Reference: SW-C13469

Grid Reference: 526998,185329

Client: Ground Engineering Limited



Brought to you by GroundSure



Report Reference: GS-1835720

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If you would like any further assistance regarding this report then please contact
GroundSure on (T) 08444 159 000, email: info@groundsure.com

Page

1. Residential Radon Potential Result

1.1 Is the property in a Radon Affected Area?

The information in this section provides an answer to one of the standard legal enquiries on house purchase in England and Wales, known as *CON29 standard Enquiry of Local Authority; 3.13 Radon Gas: Location of the Property in a Radon Affected Area.*

Question: Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

Answer: The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

1.2 Are Radon Protective Measures required?

The information in this section will detail the level of protection required for new dwellings under as described in the latest Building Research Establishment guidance on radon protective measures for new dwellings. This may include extensions to the property.

Question: Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?

Answer: No Radon Protective Measures are necessary.

1.3 Combined Radon Guidance

Radon is a colourless, odourless radioactive gas which is present in all areas of the United Kingdom, usually at levels that pose a negligible risk to homebuyers. However, in some areas levels of radon are much higher than in others, and in these cases it can pose a health risk. The data supplied by the Health Protection Agency (HPA) and the British Geological Survey (BGS) is not able to determine exact Radon levels, as this information can only be obtained through site-specific, in-situ testing. As less than 1% of properties in the area may be radon affected, the HPA do not consider that further action is necessary.

The responses given on the level of Radon Protective Measures required are based on a joint radon potential dataset from the Health Protection Agency (HPA) and the British Geological Survey (BGS). No Radon Protective Measures are required for new builds or extensions.

1.4 Further details on Radon

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Page 1

Radon is a naturally occurring radioactive gas, which enters buildings from the ground. Outdoors, it is diluted to very low levels. However, in some cases the radon level indoors can build up to high concentrations. In such cases, it does pose a serious risk to health. Exposure to high concentrations increases the risk of lung cancer. The Health Protection Agency recommends that radon levels should be reduced in homes where the annual average is at or above 200 becquerels per cubic metre (200 Bq m⁻³). This is termed the Action Level. The Health Protection Agency defines Radon Affected Areas as those with 1% chance or more of a house having a radon concentration at or above the Action Level of 200 Bq m⁻³.

The joint HPA-BGS digital Radon Potential Dataset used in this report provides the current definitive map of Radon Affected Areas in England and Wales.

Indoor radon levels can usually be substantially reduced at a cost comparable to many home improvements, such as replacing carpets. Details of methods of reducing radon levels are given on the Building Research Establishment Website. <http://www.bre.co.uk/radon/index.html>

2. Contact Details

GroundSure Helpline
 Telephone: 08444 159 000
info@groundsure.com



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

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



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Appendix 4

Exploratory Hole Records

Monitoring Results

GROUND ENGINEERING

L I M I T E D
No. 017/200000
Geotechnical Engineering No. 4

Site 11 ROSSLYN HILL, HAMPSTEAD, LONDON NW3

BOREHOLE
BH2

Date 06/01/15

Hole Size: 150mm dia to 18.00m

Ground
Level

Samples and Tests			(Date) Casing	m	Description of Strata	Legend	Depth m	O.D. Level m
Depth -	Type	Class						
0.00 0.30-1.10	01 B1				MADE GROUND - Brown medium GRAVEL of angular to rounded flint, quartz and quartzite. (PEA SHINGLE) - MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash.		0.00	
1.20-1.70 1.20 1.35-1.65	B2 B2 C	B6					1.70	
1.70	V	(58)						
2.00-2.50 2.30 2.15-2.45	B3 B3 C	M42	1.40		Stiff, fissured, locally closely fissured to firm, brown CLAY with occasional grey stained fissure planes, orange brown silt partings and calcite crystals. ...Concretionary limestone nodule at 1.90m depth.			
3.00-3.50	U1	SC	2.40					
3.50 3.50 2.50	D4 V2 V3	(94) (132)						
4.00-4.50	L2	60	2.40					
4.50 4.50	B5 V4	(305)						
5.00-5.40	U3	60	2.40		(WEATHERED LONDON CLAY)			
5.40	D6							
6.00 6.00	D7 V5	(98)						
6.30-6.90	U4	60	2.40					
6.90	D8				Stiff, fissured, brown grey CLAY with occasional grey silt partings.		6.70	
7.50	D9							
8.00-8.50	U5	65	2.40		(LONDON CLAY)			
8.50 8.50	D10 V6	(153)						
9.00	D11							
9.50-10.00	U6	65	2.40					
10.00	D12						10.00	

- REMARKS
1. Excavating a pit from 0.00m to 1.20m for 1 hour
 2. Live roots observed to 1.0m depth
 3. Borehole cased to 2.00m depth
 4. Chiselling from 17.00m to 17.40m for 0.25 hours
 5. Gas monitoring standpipe installed to 2.00m depth

Project No
13669

Scale 1:50
Page 1/2

KFY
D - Disturbed Sample
B - Bulk Sample
U - Undisturbed Sample
W - Water Sample
S/C - SPT Spoon Core
W/S - Water Sample
W/R - Water Rise

R - SPT Blows for 30m
A - Allow for quoted penetration
V - Vane Shear Test
C - Cone Penetration
L - Level on completion
C - Level casing withdrawn
S - Standpipe Level

Groundwater Sinks					Groundwater Observations			
Depth in					Depth in			
No. Suck	Rose to	Rate	Cased	Swired	Date	Hole	Casing	Water
1	17.00	16.90	5.0m	2.00	06/01/15	18.00	2.00	17.93
					06/01/15	18.00	0.00	any
					13/01/15	7.00		2.50
					21/01/15	7.00		2.61
					03/02/15	7.00		2.65

L M I T E D
TIN CANTONMENT
www.military.com

BORCHOLT
BH2

Hole Size: 15.0mm dia to 18.0mm

Grading
100%

REMARKS	Prj. no. 1 13569	
	Scale 1:50	Page 2/2

[illegible]

GROUND ENGINEERING			Site 11 ROSSLYN HILL, HAMPSHIRE, LONDON NW3			BOREHOLE BH3		
G E I M I T E E Tel: 01323 61885 www.geimitee.co.uk			Date: 05/01/15		Hole Size: 150mm dia to 20.00m		Ground Level	
Samples and Test Results			(Date)	Inst.	Description of Strata	Legend	Depth m	O.C. Test m
Depth m	Type	Blows	Coring					
0.10	D1				MADE GROUND - Brown, medium GRAVEL of angular to rounded flint, quartz and granite. (PEA SHINGLE); MADE GROUND - Red brown, silty, sandy GRAVEL with occasional cobbles of brick. Gravel of angular brick, concrete and flint. MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, mortar, flint and ash.		0.05	
0.20	D2						0.40	
0.40-1.20	B1							
1.20-1.70	B2				Firm, brown and grey mottled, silty CLAY with occasional orange brown silt partings and rare gravel size calcareous concretions. (WEATHERED LONDON CLAY)		1.30	
1.20	D5							
1.35-1.65	S	N10						
1.70	V1	(90)						
1.90-2.40	L1	40	1.50				2.40	
2.40	D4				Stiff, fissured, locally closely fissured to firm, brown CLAY with occasional grey stained fissure planes, orange brown silt partings and selenite crystals.			
2.40	V2	(94)						
3.00-3.50	V2	40	2.50					
3.50	D5							
4.00-4.50	U3	50	2.50					
4.50	D6				(WEATHERED LONDON CLAY)			
4.50	V3	(105)						
4.50-5.40	L4	50	2.50					
5.40	D7							
5.40	V4	(138)						
6.00	D8							
6.00	V5	(116)						
6.50-7.00	U5	65	2.50				6.80	
7.00	D9				Stiff, fissured, brown grey CLAY with occasional grey silt partings. (LONDON CLAY)			
7.00	V6	(122)						
7.60	D10							
7.60	V7	(130)						
8.00-8.50	U6	65	2.50					
8.50	D11							
9.00	D12							
9.50-10.00	U7	65	2.50					
10.00	D13						10.00	
REMARKS: 1. Excavating a pit from 0.00m to 1.20m for 1 hour. 2. Live roots observed to 0.40m depth. 3. Borehole cased to 2.50m depth. 4. Gas monitoring standpipe installed to 7.00m depth.						Project No: 1369		
						Scale: Page 1:50 1/2		
KFY: D - Disturbed Sample B - Bulk Sample U - Undisturbed Sample W - Water Sample S.C. - SPT Spoon Core W - Water Strike W - Water Rise			N: SPT Blows for 0.3m - Blows for quoted penetration - Vane Shear Test Cohesion (kPa) Level on completion Level casing withdrawn Standpipe level			Groundwater Strikes Depth m No. Struck, Rate, Cased, Sealed 1, 4.00, slow, 2.00		
						Groundwater Observations Date, Hole, Depth m, Casing, Water 05/01/15, 20.00, 2.50, dry 05/01/15, 20.00, 0.00, dry 13/01/15, 7.00, 7.10, 2.1 27/01/15, 7.00, 2.1 03/02/15, 7.00, 2.15		

L I M I T E D
 7701 1st Avenue
 Waco, Texas 76798-0001

Date 05/01/15

Hole Size: 13mm dia to 20.00mm

Ground
Level

REMARKS	Sorehole completed at 20.00' depth	Project No. 13469	
		Scale 1:50	Page 2/2

[illegible]

GROUND ENGINEERING			Site 11 ROSSLYN HILL, HAMPSTEAD, LONDON NW3		WINDOW SAMPLE WS1			
L I M I T E D Tel: 01753 665555 www.limitedground.co.uk			Date 06/01/15	Hole Size: 87mm dia to 2.00m 77mm dia to 3.00m 57mm dia to 5.00m		Ground Level		
Samples and in situ Tests			Date	Description of Strata		Legend		
Depth m	Type	Result	Water			Depth m		
0.30	01			MADE GROUND - Soft, friable, dark brown, slightly gravelly, sandy CLAY. Gravel of angular to rounded brick, flint, quartz, quartzite, coal and ash.		0.40		
0.60	02			MADE GROUND - Fine, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, flint, mortar, flint and ash.		0.80		
0.90	03			Firm, brown and grey mottled, silty CLAY with occasional orange brown silt partings and rare gravel size calcareous concretions.		1.20		
1.20	04			(WEATHERED LONDON CLAY)				
1.30	01	(68)		Stiff, fissured, locally closely fissured to firm, brown CLAY with occasional grey stained fissure planes, orange brown silt partings and calcite crystals.				
1.50	02	(72)						
1.50	01A							
1.80	010							
1.90	03	(70)						
2.10	02A							
2.20	04	(80)						
2.40	02B							
2.50	05	(93)						
2.70	02C							
2.90	06	(95)		(WEATHERED LONDON CLAY)				
3.10	03A							
3.20	07	(102)						
3.40	03B							
3.50	08	(100)						
3.70	03C							
3.80	09	(100)						
4.00	04A							
4.20	010	(115)						
4.50	04B							
4.50	011	(120)						
4.80	012	(118)						
				hole completed at 5.00m depth		5.00		
REMARKS 1. Starter pit excavated from GL to 1.20m depth 2. Live roots observed to 1.20m depth						Project No 13469		
						Scale 1:50		
						Page 1/1		
KEY			Groundwater Strikes			Groundwater Observations		
D - Disturbed Sample B - Bulk Sample U - Undisturbed Sample W - Water Sample S - Water Strike D - Depth to Water on completion			J - Jet Sample M - Mackintosh Probe V - Vane Shear Test G - Gones on 1 kPa P - Hard Penetrometer G - Gones on 1 kPa S - Standard Level			Depth m No Strike Rise to Rate Cased Sealed Date Hole Casing Water		
						05/01/15 5.00 dry		

GROUND ENGINEERING L I M I T E D Tel: 01753 554506 www.groundengineering.co.uk			Site 11 ROSSLYN HILL, HAMPSTEAD, LONDON NW3				WINDOW SAMPLE WS2	
Date 06/01/15			Hole Sizes: 87mm dia to 2.00m 77mm dia to 3.00m 57mm dia to 5.00m				Ground Level	
Sample and Test Results			Date Water	Description of Strata	Legend	Depth m	O.D. Level m	
Depth m	Type	Result						
0.30	D1		X	MADE GROUND - Soft, friable, dark brown, slightly gravelly, sandy CLAY. Gravel of angular to rounded brick, flint, quartz, quartzite, cgs. and ash.		0.30		
0.60	D2			MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash.				
0.90	D3							
1.20	D4							
1.20	U1	(40)						
1.50	U1A							
1.50	U2	(50)						
1.80	U1B							
1.80	U3	(45)						
2.10	U2A							
2.20	U4	(90)				1.60		
2.40	U2B							
2.50	U5	(86)						
2.70	U2C							
2.80	U6	(92)						
3.00	U3A							
3.20	U7	(100)						
3.40	U3B							
3.50	U8	(94)						
3.70	U3C							
3.80	U9	(98)				2.00		
4.00	U2A							
4.20	U10	(120)						
4.50	U4B							
4.80	U10	(138)						
						5.00		

MADE GROUND - Soft, friable, dark brown, slightly gravelly, sandy CLAY. Gravel of angular to rounded brick, flint, quartz, quartzite, cgs. and ash.

MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash.

Firm, brown and grey mottled, silty CLAY with occasional orange brown silt partings and rare gravel size calcareous concretions.

(WEATHERED LONDON CLAY)

Hole completed at 5.00m depth

REMARKS
1. Starter pit excavated from GL to 1.20m depth
2. Live roots observed to 3.00m depth

Project No
13469
Scale
1:50
Page
1/1

KEY
D - Disturbed Sample
B - Bulk Sample
U - Undisturbed Sample
W - Water Sample
S - Water Sample
D - Depth to Water on completion
J - Jar Sample
M - Mackintosh Probe
V - Vane Shear Test
C - Cohesion (kPa)
P - Hand Penetrometer
S - Cone(s) (kPa)
L - Standpipe Level

Groundwater Strikes

No	Strike	Depth m	Rate	Cloud	Season
1	1.20	seepage			

Groundwater Observations

Date	Time	Depth m	Casing	Water
06/01/15	5.00			1.95

GROUND ENGINEERING			Site 11 ROSSLYN HILL, HAMPSTEAD, LONDON NW3		WINDOW SAMPLE WS3			
Date 06/01/15			Bore Size: 87mm dia to 2.00m 77mm dia to 5.00m 57mm dia to 5.00m		Ground Level			
Samples and Tests			(Date) Water		Description of Soils			
Depth m	Type	Result	Legend	Depth m	D.R. Level m			
0.30	D1				0.40			
0.60	D2				3.60			
0.90	D3							
1.20	D4				1.20			
1.20	V1	(55)						
1.50	V2	(65)						
1.50	V2	(65)						
1.80	U13							
1.80	V3	(68)						
2.10	U24							
2.10	V4	(92)						
2.40	U28							
2.50	V5	(90)						
2.70	U20							
2.80	V6	(105)						
3.00	U34							
3.70	V7	(102)						
3.40	U38							
3.50	V8	(104)						
3.70	U30							
3.80	V9	(55)						
4.00	U44							
4.20	V10	(100)						
4.50	V11	(94)						
4.50	U48							
4.80	V12	(92)			5.00			
			Pole Completed at 5.00m depth					
REMARKS 1. Starter pit excavated from GL to 1.20m depth 2. Live roots observed to 2.00m depth								
					Project No 13469			
					Scale 1:50 Page 1/1			
A/D D - Disturbed Sample B - Bulk Sample J - Undisturbed Sample W - Water Sample S - Water Sample S - Depth to Water on completion			Groundwater Strikes Depth m No/Strike (Rose to)			Groundwater Observations Date Date Date Date		
- Jar Sample M - Unconfined Mohe V - Vane Shear Test C - Cohesion (kPa) S - Hand Penetrometer C - Cohesion (kPa) S - Sandpile Test			Cased Sealed Date Date Date Date			Date Date Date Date		
			06/01/15			5.00		
						dry		

GROUND ENGINEERING L I M I T E D Tel: 01723 865555 www.goundengineering.co.uk			Site 11 ROSSLYN HILL, HAMPSTEAD, LONDON NW3				WINDOW SAMPLE WS4																				
			Date 06/01/15		Hole Size: 87mm dia to 2.00m 77mm dia to 3.00m 57mm dia to 5.00m				Ground Level																		
Samples and in situ Tests			(Date) Water	Description of Strata				Legend	Depth m	G.D. Level m																	
Depth m	Type	Result																									
0.30	D1			MADE GROUND - Soft, friable, dark brown, slightly gravelly, sandy CLAY. Gravel of angular to rounded brick, flint, quartz, quartzite, coal and ash. HALF GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash. MADE GROUND - Firm, brown, orange brown and dark brown mottled, slightly sandy, slightly gravelly CLAY. Gravel of brick, charcoal, flint, rare bone and ash.					3.40	1.00																	
0.60	D2																										
0.90	D3																										
1.20	D4																										
1.20-2.30	U1																										
1.20	V1	(63)																									
1.50	V2	(55)																									
1.80	V3	(62)																									
2.00-3.00	U2																										
2.20	V4	(42)																									
2.50	V5	(52)																									
2.80	V6	(48)																									
3.20	V7	(50)																									
3.40	U3A																										
3.50	V8	(72)																									
3.70	U3B																										
3.80	V9	(58)																									
4.00	U4A																										
4.20	V10	(120)																									
4.50	V11	(100)																									
4.50	U4B																										
4.80	V12	(130)																									
				Hole completed at 5.00m depth					5.00																		
REMARKS 1. Starter pit excavated from G.L. to 1.20m depth 2. Live roots observed to 3.00m depth																											
										Project No 13469																	
										Scale 1:50 Page 1/1																	
KEY D - Described Sample B - Bulk Sample U - Undisturbed Sample W - Water Sample  Water Shrink  Depth to Water or completion J - Jar Sample M - Mackintosh Probe V - Vane Shear Test C - Cohesion 1 kPa R - Rane Penetration C - Cohesion 1 kPa  Standard Load			Groundwater Striken				Groundwater Observations																				
			Depth m <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>No.</td> <td>Struck</td> <td>Rose to</td> <td>Rate</td> <td>Cases</td> <td>Sealer</td> </tr> <tr> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> <td> </td> </tr> </table>				No.	Struck	Rose to	Rate	Cases	Sealer							Depth m <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td>Date</td> <td>Hole</td> <td>Casing</td> <td>Water</td> </tr> <tr> <td>07/01/15</td> <td>5.00</td> <td> </td> <td>dry</td> </tr> </table>				Date	Hole	Casing	Water	07/01/15
No.	Struck	Rose to	Rate	Cases	Sealer																						
Date	Hole	Casing	Water																								
07/01/15	5.00		dry																								

GROUND ENGINEERING

L M I I E D
Tel: 01323 445555
www.groundengineering.co.uk

Site 11 ROSSLYN HILL, HAMPSHIRE, LONDON NW3

WINDOW SAMPLE
WS5

Date 07/01/15

Hole Size: 87mm dia to 2.30m
77mm dia to 3.00m
57mm dia to 5.00m

Ground
Level

Samples and in situ Tests			Date: Water	Description of Strata	Log No.	Depth m	O.C. Level m
Depth m	Type	Result					
0.30	D1		11	MADE GROUND - Soft, friable, dark brown, slightly gravelly, sandy CLAY. Gravel of angular to rounded brick, flint, quartz, quartzite, coal and ash.		0.40	
0.60	D2						
0.80	W1						
0.90	D3			MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash.			
1.20	D4						
1.20-2.30	J1						
1.50	W1	(52)					
1.50	W2	(46)					
1.90	V3	(45)					
2.00-3.00	D2						
2.30	V4	(30)	12			2.50	
2.60	V5	(69)					
2.90	L24			MADE GROUND - Soft, brown and dark grey mottled, slightly gravelly, silty CLAY with occasional black organic patches, dead root fragments and faint organic odour. Gravel of angular to rounded flint, rare brick and lime mortar fragments.		2.90	
2.90	W6	(52)		Stiff, closely fissured to firm, brown CLAY with occasional grey stained fissure planes, orange brown silt partings and calcite crystals. (WEATHERED LONDON CLAY)		3.00	
				NO RECOVERY.			
				Hole completed at 5.00m depth		5.00	

REMARKS 1. Starter pit excavated from EL to 1.20m depth
2. Live roots observed to 3.00m depth
3. No recovery below 3.00m depth due to groundwater strike

Project No
13469

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KEY

D - Disturbed Sample J - Jar Sample
B - Bulk Sample M - Mackintosh Probe
J1 - Undisturbed Sample V - Vane Shear Test
W - Water Sample C - Cohesion (kPa)
W1 - Water Sample R - Hard Penetration
W2 - Depth to Water Cohesion (kPa)
on completion W3 - Standpipe Level

Groundwater Strikes

Depth m		Date			Casing		Sealing	
No	Struck	How to	Rate					
1	3.00	fast						

Groundwater Observations

Depth m		Date		Casing		Water	
No	Struck	How to	Rate				
1	3.00	fast					

GROUND ENGINEERING - I M I T E D Tel: 01793 616601 www.groundengineering.co.uk			Site 11 ROSSLYN HILL, HAMPSHIRE, LONDON NW3			WINDOW SAMPLE WS6		
Date 07/01/15			Bore Size: 87mm dia to 2.00m 77mm dia to 3.00m 57mm dia to 5.00m			Ground Level		
Samples and Test Results			(Date) Water	Description of Strata	Legend	Depth m	O.B. Level m	
Depth m	Type	Result						
0.30	D1		Water	MADE GROUND - Soft, dark brown and black, slightly gravelly, sandy CLAY. Gravel of angular brick, flint, wood fragments and abundant ash.		0.40		
0.60	D2							
0.90	D3							
1.20	D4							
1.20	U1							
1.20	V1	(42)						
1.50	V2	(42)						
1.80	V3	(64)						
2.20	V4	(62)						
2.50	V5	(30)		Water		MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash.		
2.90	V6	(82)						
2.95	U2A							
3.20	V7	(75)						
3.30	U3A							
3.50	V8	(68)						
3.60	U3B							
3.80	V9	(75)						
3.90	U3C							
4.20	V10	(78)	Water		(WEATHERED LONDON CLAY)		5.00	
4.40	U4B							
4.50	V11	(75)						
4.50	V12	(80)						
				Have completed at 5.00m depth				

REMARKS		Project No
1. Starter pit excavated from GL to 1.20m depth 2. Live roots observed to 2.80m depth		13069
		Scale Page
		1:50 1/1

KEY		Groundwater Strikes				Groundwater Observations			
D - Disturbed Sample	J - Jet Sample	Depth m				Date		Depth m	
U - Undisturbed Sample	M - Mackintosh Probe	No. of Struck	Close to	None	Cased	Sounded		None	Ground
V - Vane Shear Test	V - Vane Shear Test	1	3.00	keepage				07/01/15	5.00
W - Water Sample	C - Cone Penetration Test								4.50
W - Water Sample	P - Hard Penetration Test								
W - Water Sample	C - Cone Penetration Test								
W - Water Sample	S - Standpipe Level								

GROUND ENGINEERING I I M I T I D T: 01753 655555 www.groundsengineering.co.uk			Site 11 ROSSLYN HILL, RAMPSTEAD, LONDON NW3		WINDOW SAMPLE WS7			
Date 09/01/15			Hole Sizes: 87mm dia to 2.00m 11mm dia to 3.00m 67mm dia to 4.00m		Ground Level			
Samples and in situ Tests			(Date)	Description of Strata	Legend	Depth m		
Depth m	Type	Result	Water					
0.20	01			MADE GROUND - Soft, friable, dark brown, slightly gravelly, sandy CLAY. Gravel of angular to rounded brick, flint, quartz, quartzite, coal and ash. MADE GROUND - Firm, locally soft, brown, orange brown and light brown mortared, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash.		0.30		
0.60	02							
0.90	03							
1.20	04							
1.20-2.60	01							
1.20	01	(76)						
1.50	02	(75)				1.60		
1.80	03	(76)		Stiff, fissured, locally closely fissured to firm, brown CLAY with occasional grey stained fissure planes, orange brown silt partings and selenate crystals.				
2.10	02a							
2.20	04	(75)						
2.40	02B							
2.50	05	(92)						
2.70	02C							
2.80	06	(94)						
3.00	03A			(WET-OLD LONDON CLAY)				
3.20	07	(94)						
3.30	03B							
3.60	08	(90)						
3.60	03C							
3.90	09	(82)				4.00		
				Hole completed at 4.00m depth				
REMARKS						Project No 13465		
1. Starter pit excavated from GL to 1.20m depth 2. Live roots observed to 0.60m depth						Scale 1:50		
						Page 1/1		
KEY			Groundwater Strikes			Groundwater Observations		
D - Disturbed Sample B - Bulk Sample U - Undisturbed Sample W - Water Sample W - Water Strike D - Depth to Water or completion			J - Jar Sample M - Mackintosh Probe V - Vane Shear Test C - Cohesion (kPa) R - Hand Penetrometer C - Cohesion (kPa) S - Standpipe Level			Depth m No. Struts, Rose to, Face, Case, Sealed Date, Hole, Casing, Water		
						09/01/15 4.00 dry		

GROUND ENGINEERING			Site: 11 ROSSLYN HILL, HAMPSHIRE, LONDON NW3		WINDOW SAMPLE WS8			
Date: 09/01/15			Hole Size: 87mm dia to 2.00m 77mm dia to 3.00m 57mm dia to 4.00m		Ground Line			
Samples and In-situ Tests			Date:	Inc:	Description of Strata	Logene	Depth m	O.D. Level m
Depth m	Type	Result	Water					
0.30	D1				MADE GROUND - Soft, friable, dark brown, slightly gravelly, sandy CLAY. Gravel of angular to rounded brick, flint, quartz, quartzite, coal and ash.		0.40	
0.50	U2							
0.90	U3				MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash.			
1.20	U4							
1.20-2.00	U1							
1.20	V1	(44)						
1.50	V2	(38)						
1.80	V3	(35)						
2.00-3.00	U2							
2.20	V4	(41)						
2.50	V5	(40)						
2.80	V6	(48)						
3.20	V7	(75)			MADE GROUND - Soft, locally firm, brown and dark grey mottled, slightly gravelly, silty CLAY with occasional black organic patches, dead root fragments and faint organic odour. Gravel of angular to rounded flint, brick, lime mortar and ash.		2.55	
3.50	V8	(98)						
3.60	V9	(95)			Stiff, fissured, locally closely fissured to firm, brown CLAY with occasional grey stained fissure planes, orange brown silt pinnings and calcite crystals.		3.20	
3.80	V10	(95)						
3.90	V11	(95)			WEATHERED LONDON CLAY Hole completed at 4.00m depth		4.00	

REMARKS		Project No 13469	
1. Starter pit excavated from GL to 1.20m depth 2. Live roots observed to 3.20m depth 3. Gas monitoring standpipe installed to 4.00m depth		Scale 1:50	Page 1/1

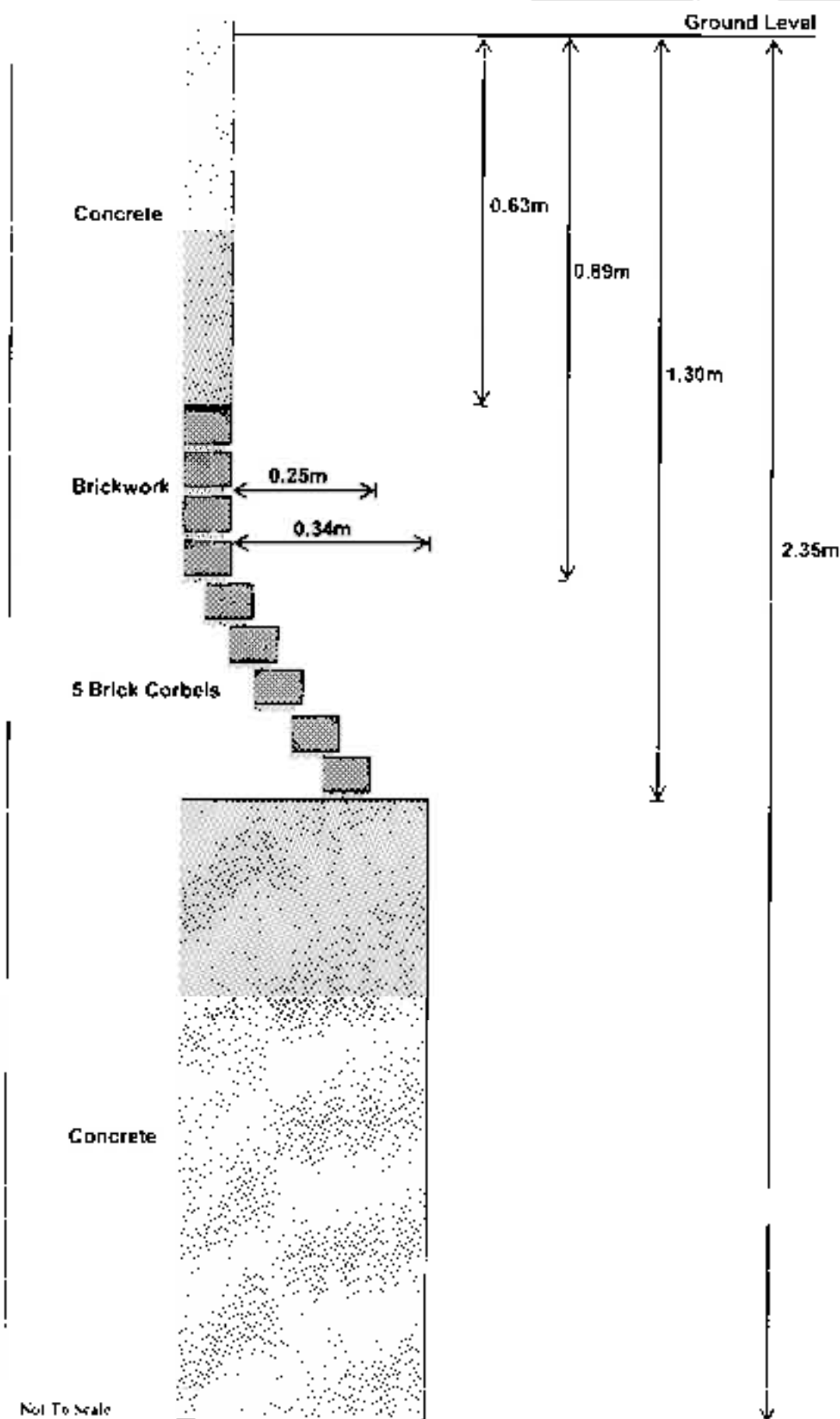
KFY		Groundwater Sinks					Groundwater Observations			
D - Disturbed Sample	J - Jar Sample	Depth m					Depth m			
B - Bulk Sample	M - Mock In-situ Probe	No Struck	Rose to	Rate	Cased	Sealed	Date	MXE	Easing	Water
L - Undisturbed Sample	V - Vane Shear Test									
W - Water Sample	C - Cohesion (kPa)						09/01/15	4.00		d-v
W - Water Sample	H - Hard Penetration						15/01/15	4.00		1.09
W - Water Sample	C - Cohesion (kPa)						21/01/15	4.00		1.72
W - Water Sample	C - Cohesion (kPa)						03/02/15	4.00		1.76
W - Water Sample	C - Cohesion (kPa)						23/02/15	4.00		1.64

GROUND ENGINEERING 11 MILL LANE, FORD, MIDDLESEX, M20 9BQ 020 8996 8888 www.groundengineering.co.uk			Site: 11 ROSSLYN HILL, KAMPSTEAD, LONDON NW3				WINDOW SAMPLE WS9	
			Date: 09/01/15		Hole Size: 87mm dia to 2.00m 77mm dia to 3.00m		Ground Level	
Samples and In situ Tests			(Data) Water	Description of Strata	Legend	Depth m	D.O. Level m	
Depth m	Type	Notes						
0.30	D1		1 2	MADE GROUND - Soft, friable, dark brown, slightly gravelly, sandy CLAY. Gravel of angular to rounded bricks, flint, quartz, quartzite, coal and ash.		0.40		
0.60	D2							
0.90	D3			MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular bricks, mortar, flint and ash.		1.40		
1.20	D4	(58)						
1.20	V1							
1.50	U1A							
1.50	V2	(75)			2.00			
1.80	V3	(75)						
1.80	U1B							
2.00-3.00	U1							
2.10	U2A				3.00			
2.20	V4	(78)						
2.40	U2B							
2.50	V5	(85)						
2.70	U2C							
2.80	V6	(96)						
				Hole completed at 3.00m depth				
REMARKS: 1. Starter pit excavated from SL to 1.20m depth 2. Live roots observed to 2.50m depth								
						Project No 13669		
						Scale 1:50	Page 1/1	
KEY U - Disturbed Sample J - Jar Sample B - Bulk Sample M - Moisture Probe U - Undisturbed Sample V - Vane Shear Test W - Water Sample C - Cohesion (kPa) W - Water Strike R - Hand Penetrometer W - Depth to Water C - Cohesion (kPa) on completion S - Standpipe Level			Groundwater Strikes			Groundwater Observations		
			Depth m			Depth m		Date
			No Struck	Rose to	Rate	Cased	Sealed	
			1	1.20	seepage			
					Date		Hole	
					09/01/15		3.00	
					Water		dry	

GROUND ENGINEERING L I M I T E D 70/07/11/000000 www.groundengineering.co.uk			Site 11 ROSSLYN HILL, HAMPSHIRE, LONDON NW3		TRIAL PIT TP1		
Date 05/01/15			PIT SIZE: 1.60m L x 0.90m W x 2.50m D.		Ground Level		
Samples and Test Results			Local Water	Description of Strata	Legend	Depth m	O.R. Level m
Depth m	Type	Result					
0.10	B1		V	MADE GROUND - Soft, friable, dark brown, slightly sandy, slightly gravelly clay. Gravel of angular to sub-rounded flint, brick and ash.		0.25	
0.30	B2			MADE GROUND - Firm, brown and grey brown mottled, slightly gravelly CLAY with occasional cobbles of brick, gravel of angular to sub-rounded brick, flint, coal and ash.			
0.60	B3						
0.90	B4						
1.20	B5					1.40	
1.50	B6			Stiff, fissured, locally closely fissured to firm, brown CLAY with occasional grey stained fissure planes, orange brown silt partings and calcite crystals.			
1.80	B7			WEATHERED LONDON CLAY			
2.10	B8						
2.40	B9				2.50		
2.40	W1						
2.50	B10						
2.50	V1	(V1)		Pit completed at 2.50m depth			

KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed Sample R - Root Sample W - Water Sample J - Jar Sample S - Water Strive R - Water Rise L - Level on completion MP - Mackintosh Probe R - Hand Penetrometer C - Cohesion (kPa) V - Vane Shear Test C - Cohesion (kPa)	REMARKS 1. Live roots observed to 1.60m depth 2. Groundwater seepage at 1.35m depth 3. Pit sides stable	Project No 13469
		Scale 1:25 Page 1/1

Trial Pit TP1 Cross Section



Project : 11 Rossllyn Hill, Hampstead, London
NW3

Client : Andrew & Elizabeth Jeffreys

**GROUND
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LIMITED**

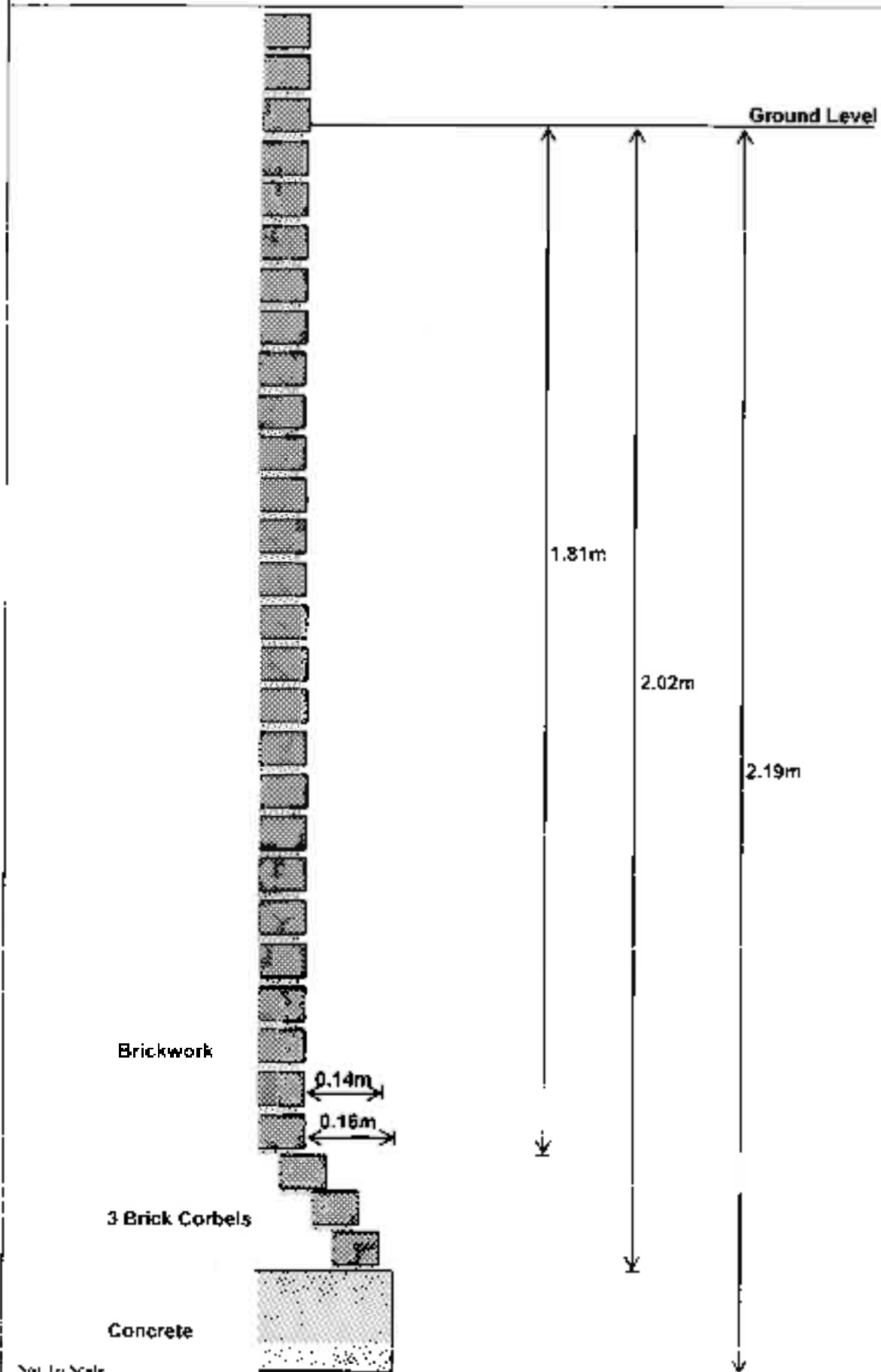
Architect

11 Rossllyn Hill, NW3

Project No.
C13469

GROUND ENGINEERING L I M I T E D Tel: 01223 566585 www.groundengineering.co.uk			Site 11 ROSSLYN HILL, HAMPSTEAD, LONDON NW3		TRIAL PIT TP3		
Date 05/01/15			Pit Size: 1.60m L x 0.84m W x 2.30m D. Hole Size: 10mm dia to 2.50m		Ground Level		
Samples and Test Results			(Date)	Description of Strata	Legend	Depth m	O.C. Level m
Depth m	Type	Ref. 1	Vials				
				MADE GROUND - Brown, medium GRAVEL of angular to rounded flint, quartz and quartzite. (FEA SHINGLE)		0.02	
				MADE GROUND - CONCRETE with layer of stone paving slab at 0.06m to 0.11m depth.		0.16	
				MADE GROUND - BRICK paving.		0.30	
0.50	D1			MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash.			
0.80	D2						
1.10	D3						
1.40	D4						
1.70	D5						
2.00	D6						
2.37	V1 (124)		2	stiff, fissured, brown CLAY with occasional grey stained fissure planes, orange brown silt particles and calcite crystals. (MFA HERFD LONDON CLAY)		2.30	
2.50	D7					2.50	
				Pit completed at 2.50m depth			
KEY D - Disturbed Sample B - Bulk Sample U - Undisturbed Sample R - Root Sample W - Water Sample J - Jar Sample □ - Water Strike ⊠ - Water Rise ⊞ - Live on comparison MP - Mackintosh Probe P. 1 - Hard Penetration Cone: 1 : 1 kPa V - Vane Shear Test Cone: 1 : 1 kPa			REMARKS 1. Live roots observed to 2.10m depth 2. Groundwater seepage at 2.35m depth 3. Pit sides stable				
			Project No 13469 Scale 1:25 Page 1/1				

Trial Pit TP3 Cross Section



Project : 11 Rosslyn Hill, Hampstead, London
NW3

Client : Andrew & Elizabeth Jeffreys

**GROUND
ENGINEERING
LIMITED**

Plot 10, Broomfield

100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

Project No.
C13469

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Date 12/01/15

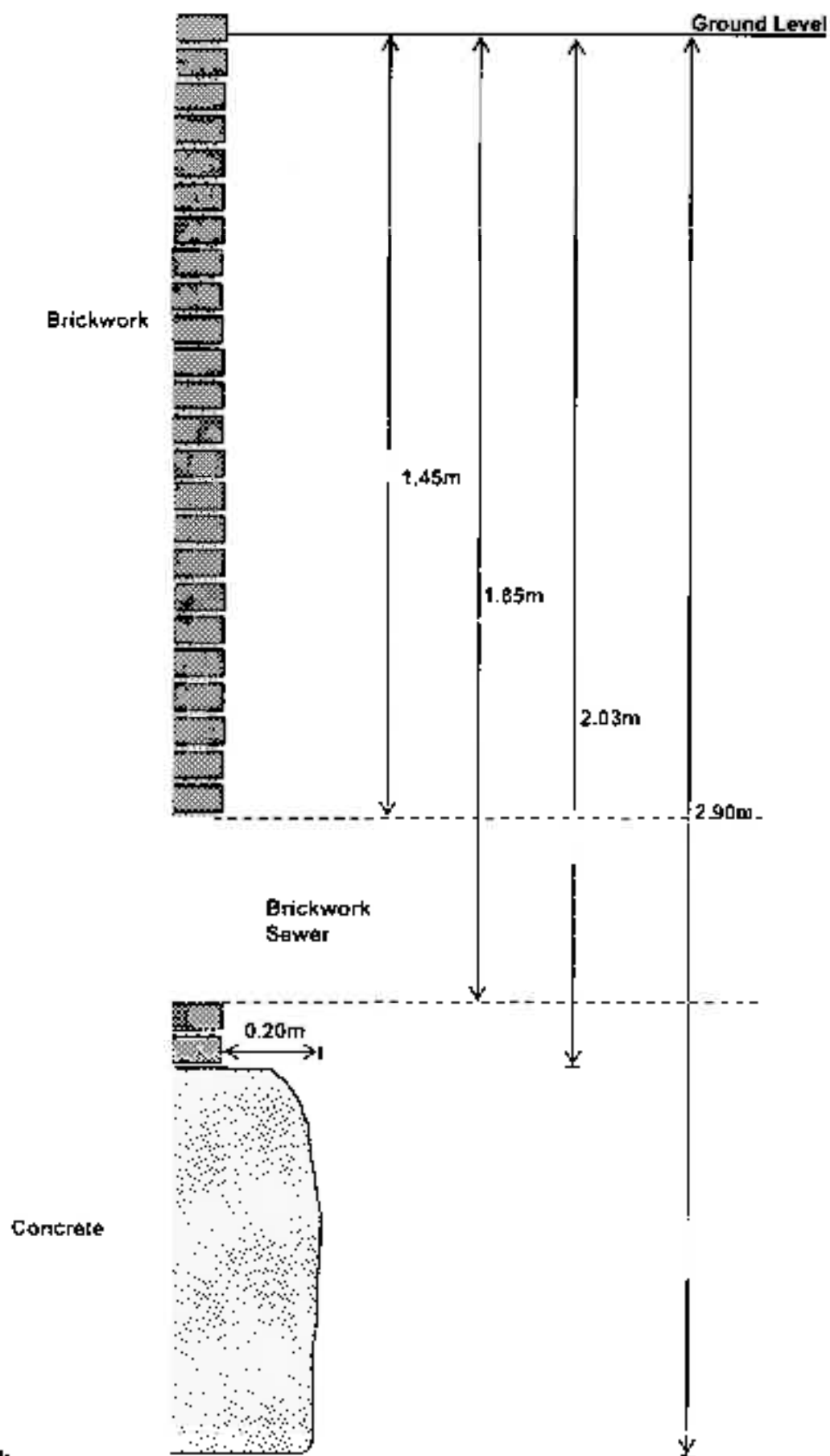
Part Size: 1.30m x 0.75m x 3.30m

Ground level

KEY U - Undisturbed Sample B - Bulk Sample U - Undisturbed Sample R - Root Sample W - Water Sample J - Jar Sample W - Water Shrink W - Water Rise IC - Level on completion MP - Mock Moist Probe R - Hand Penetrometer C - Cohesion / ϕ (Pa) V - vane Shear Test C - Cohesion / ϕ (Pa)	REMARKS 1. Live roots observed to 1.90m depth 2. Pit dry 3. Pit sides stable	Project No 13469
		Scale 1:25
		Page 1/1

Scale	Page
1:25	1/1

Trial Pit TP3A Cross Section



Not To Scale

**Project : 11 Rossllyn Hill, Hampstead, London
NW3**
Client : Andrew & Elizabeth Jeffreys

**GROUND
ENGINEERING
LIMITED**

Partborough Tel: 01753 696500

**Project No.
C13469**

L I M I T E D
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Date 05/01/15

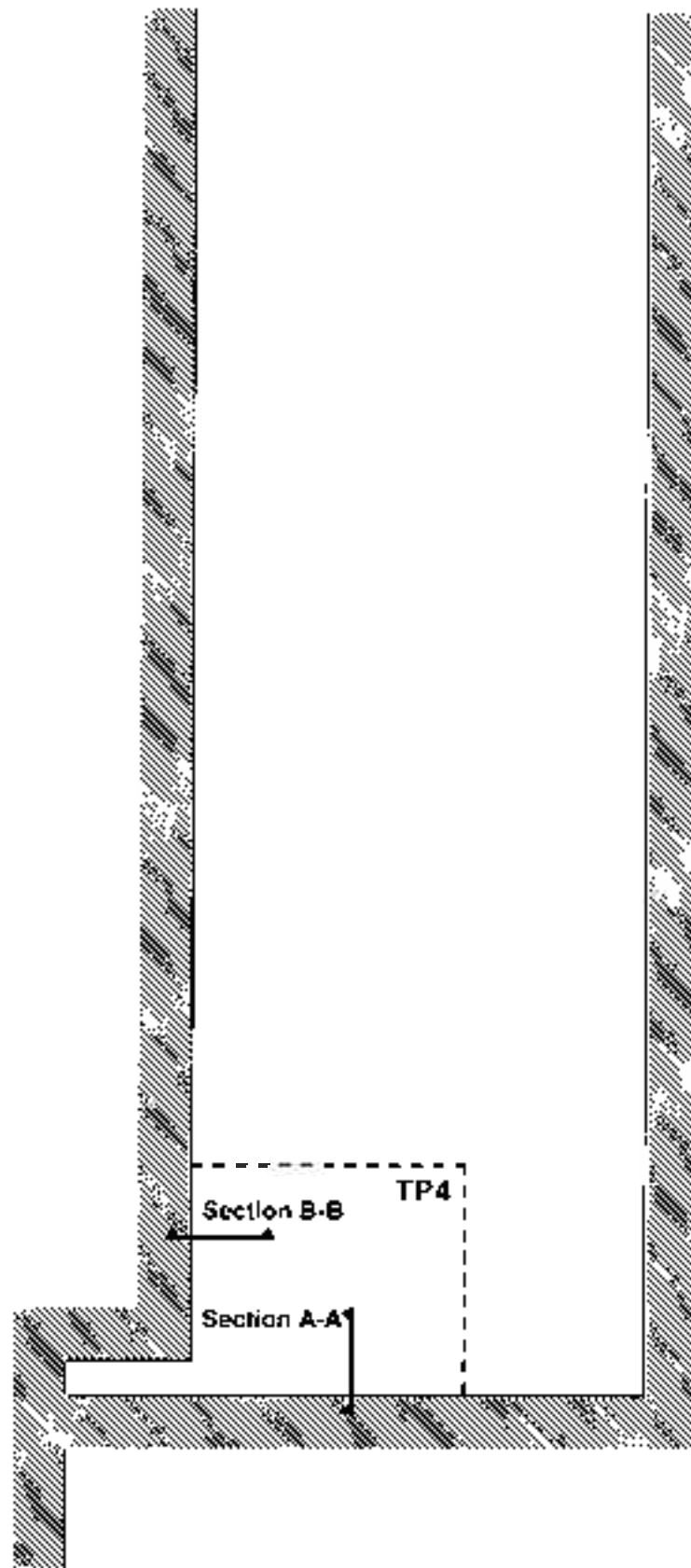
PDF Size: 0.96cm x 0.75cm x 1.20cm

Ground
Leaf

KEY	- D - Disturbed Sample - R - Run Sample - U - Undisturbed Sample - H - Root Sample - W - Water Sample - J - Jar Sample - W - Water Sample - W - Water Rise - W - Level on completion - M - Mark, Push Probe - R - Hand Penetrometer - C - Cone / 1 kPa - V - Vane Shear Test - C - Cone / 1 kPa	OBSERVATIONS 1. Live roots observed to 0.70m depth 2. Groundwater seepage not at 0.95m depth 3. Pit sides stable 4. Pit undertaken in base of light well, approximately 1.60m below ground level	Project No 13469 Scale 1:25	Page 1/1
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Scale	Range
1-25	1/1

Trial Pit TP4 Plan



Not To Scale

Project : 11 Rosslyn Hill, Hampstead, London
NW3

Client : Andrew & Elizabeth Jeffreys

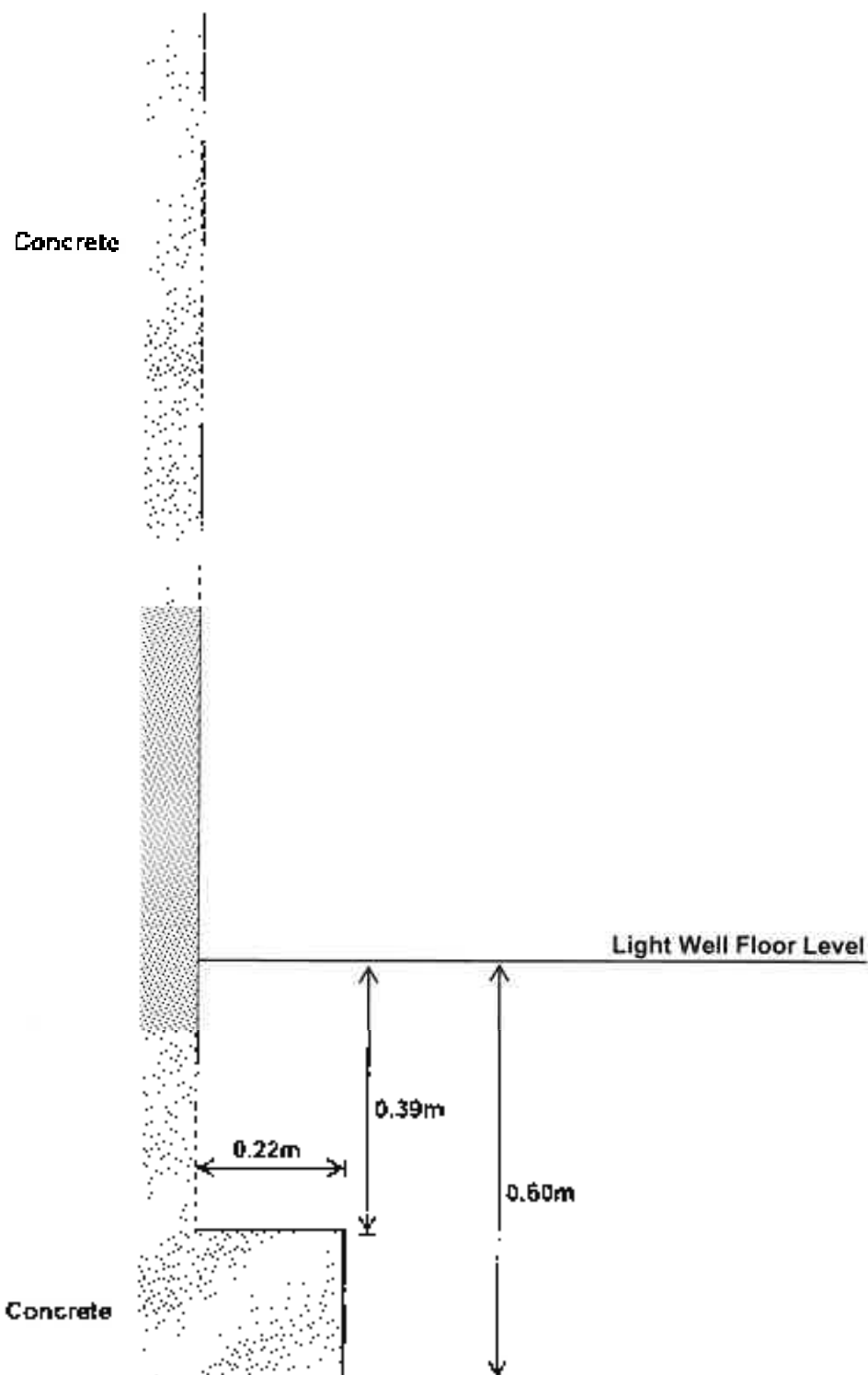
**GROUND
ENGINEERING
LIMITED**

London: 020 7353 4567

Tel: 01753 546546

Project No.
C13469

Trial Pit TP4 **Cross Section A-A**



Not To Scale

Project : 11 Rossllyn Hill, Hampstead, London
NW3

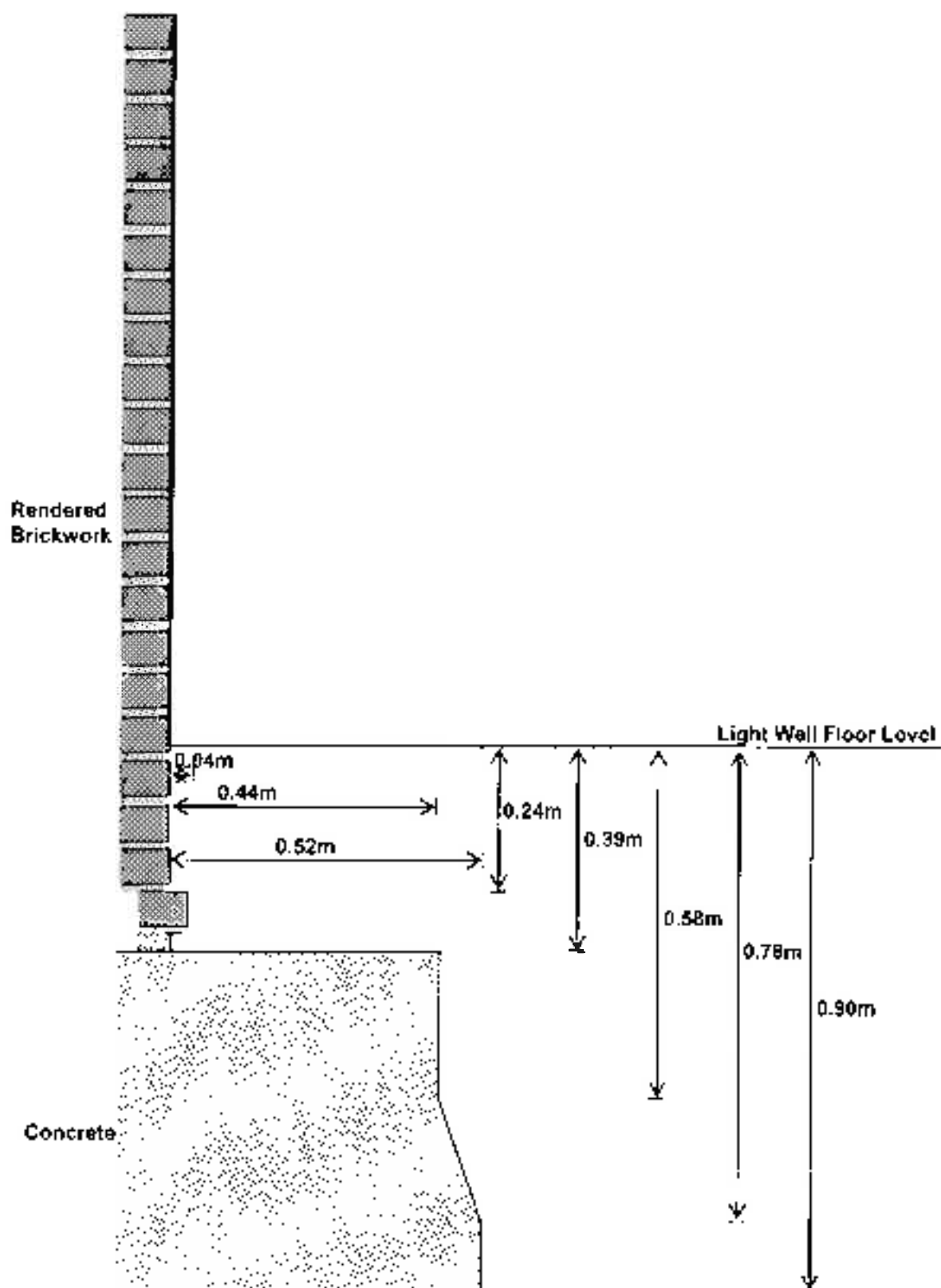
Client : Andrew & Elizabeth Jaffreys

**GROUND
ENGINEERING
LIMITED**

Perth Branch Tel: 01753 666766

Project No.
C13469

Trial Pit TP4 **Cross Section B-B**



Not To Scale

Project : 11 Rossllyn Hill, Hampstead, London
NW3

Client : Andrew & Elizabeth Jeffreys

**GROUND
ENGINEERING
LIMITED**

Parsons, 20 Tel: 011 33 666666

Project No.
C13469

GROUND ENGINEERING

1000 M I T E D
1000 1000 1000
1000 1000 1000

Site 11 ROSSLYN HILL, HAMPTSTEAD, LONDON NW3

TRIAL PIT
TP5

Date 05/01/15

Pit Size: 0.60m L x 0.60m W x 1.20m D.

Ground
Level

Samples and Test Results			Date, Water	Description of Strata	Legend	Depth m	G.L. Level m
Depth m	Type	Result					
0.30	D1			MADE GROUND - Soft, friable, dark brown, slightly gravelly, sandy CLAY. Gravel of angular to rounded brick, flint, quartz, quartzite, coal and ash.			
0.60	D2						
0.90	D3			MADE GROUND - Firm, locally soft, brown, orange brown and light brown mottled, slightly gravelly, sandy CLAY. Gravel of angular brick, lime mortar, flint and ash.		0.80	
1.20	D4					1.20	
1.20	W1	(74)		Pit completed at 1.20m depth			

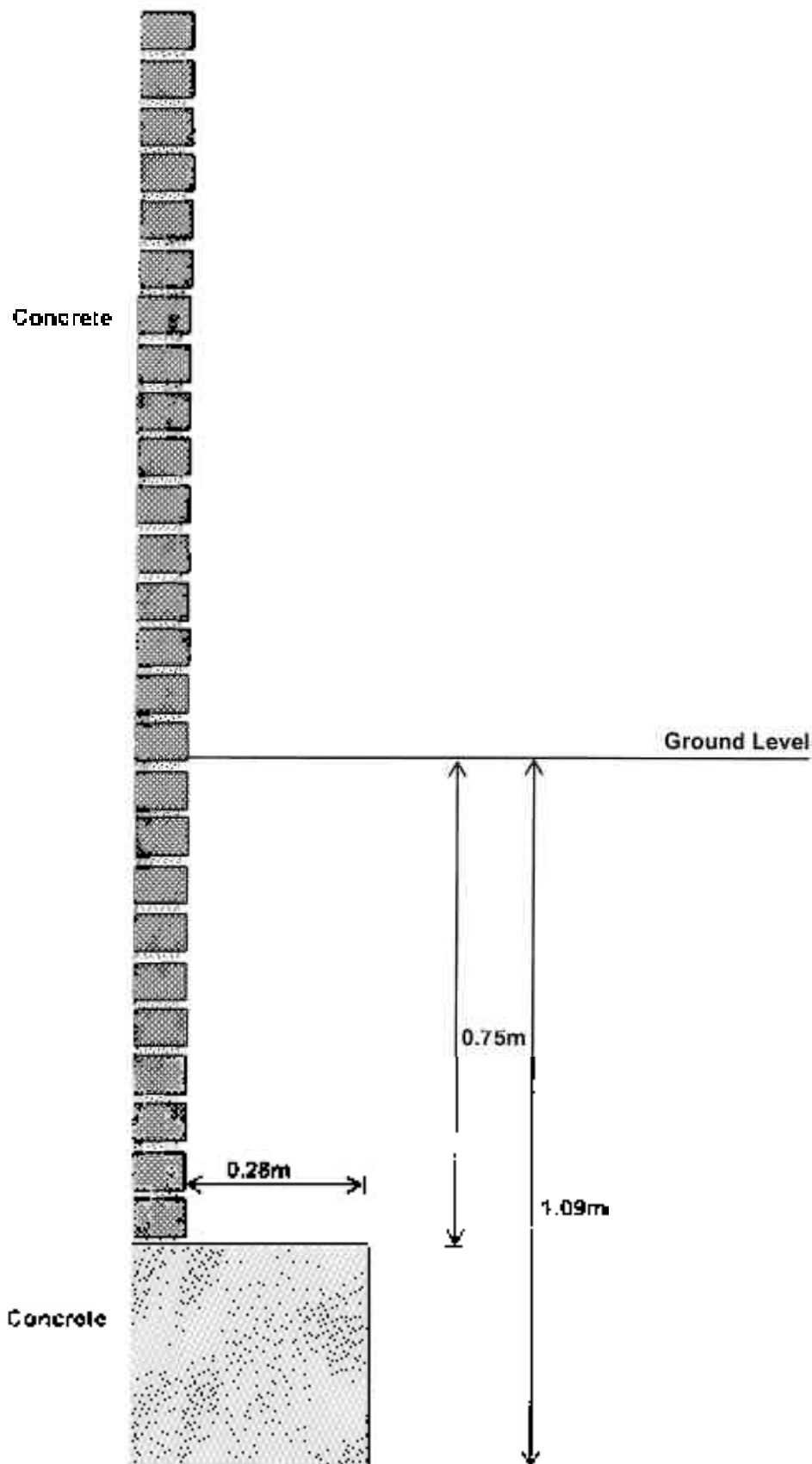
KEY
D - Disturbed Sample
B - Bulk Sample
J - Undisturbed Sample
R - Root Sample
W - Water Sample
V - Van Shear Test
C - Compaction
S - Water Strike
R - Water Rise
C - Level or compaction
MP - Maximum Probe
P - Hand Penetrometer
Cohesion (kPa)
V - Van Shear Test
Cohesion (kPa)

REMARKS
1. Live roots observed to 0.50m depth
2. Pit dry
3. Pit sides stable

Project No
13469

Scale Page
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Trial Pit TP5 Cross Section



Not To Scale

Project : 11 Rossllyn Hill, Hampstead, London
NW3

Client : Andrew & Elizabeth Jeffreys

**GROUND
ENGINEERING
LIMITED**

Peckham, Tel: 020 7706066

Project No.
C13469

Groundwater/Gas Monitoring Records

Site: 11 Rosslyn Hill, Hampstead, London NW3

Report Ref: C13469

Date	Borehole	Methane (% v/v)		Methane LEL (%)		Carbon Dioxide (% v/v)		Oxygen (% v/v)		Flow Rate (l/hr)	Atmosph. Pressure (mb)	Depth of well (mbgl)	Depth to Groundwater (mbgl)
		Peak	Steady	Peak	Steady	Peak	Steady	Min.	Max.				
13/01/15	BH1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	18.8	18.8	1.0	991	4.94	0.90
	BH2	<0.1	<0.1	<0.1	<0.1	0.4	0.4	20.1	20.1	<0.1	991	7.14	2.50
	BH3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	19.1	19.3	<0.1	989	7.15	2.10
	WS8	<0.1	<0.1	<0.1	<0.1	0.1	0.1	18.6	18.9	<0.1	990	3.92	1.09
21/01/15	BH1												0.84
	BH2												2.91
	BH3												2.11
	WS8												1.72
03/02/15	BH1												0.65
	BH2												2.95
	BH3												2.15
	WS8												1.78
20/02/15	BH1												0.69
	BH2												2.95
	BH3												1.98
	WS8												1.64
02/03/15	BH1												0.50
	BH2												2.85
	BH3												2.12
	WS8												0.70

LEL = Lower Explosive Limit

Equipment: GasData GFM 430 30m tape diameter

GROUND ENGINEERING LIMITED