

16	238.0	E	544440, 260970	Licence No: 6/33/33/*G/0030 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole S Of Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date:
17	245.0	E	544540, 261280	Licence No: 6/33/33/*G/0030 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole S Of Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date:
18	326.0	E	544600, 261160	Licence No: 6/33/33/*G/0030 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole S Of Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date:
19	327.0	E	544620, 261260	Licence No: 6/33/33/*G/0030 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole S Of Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date:
20	339.0	E	544540, 260950	Licence No: 6/33/33/*G/0030 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole S Of Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date:
21	398.0	E	544670, 261140	Licence No: 6/33/33/*G/0030 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole S Of Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date:
22	400.0	E	544600, 260930	Licence No: 6/33/33/*G/0030 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole S Of Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date:
23	417.0	E	544710, 261250	Licence No: 6/33/33/*G/0030 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole S Of Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date:
24	472.0	E	544670, 260910	Licence No: 6/33/33/*G/0030 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole S Of Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/3/1966 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1966 Version End Date:
Not shown	843.0	NE	544900, 262100	Licence No: 6/33/33/*G/0068 Details: Spray Irrigation - Direct Direct Source: Ground Water Source Of Supply Point: Cawcutts Reservoir, Impington Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 1/9/1994 Expiry Date: 31/10/2004 Issue No: 100 Version Start Date: 1/9/1994 Version End Date:

Not shown	843.0	NE	544900, 262100	Licence No: 6/33/33/*G/0076 Details: Spray Irrigation - Direct Direct Source: Ground Water Source Of Supply Point: Cawcutts Reservoir, Impington Data Type: Point	Annual Volume (m³): 22725 Max Daily Volume (m³): 324 Original Application No: CN3276 Original Start Date: 10/1/2005 Expiry Date: 31/3/2015 Issue No: 1 Version Start Date: 10/1/2005 Version End Date:
Not shown	1084.0	NW		Licence No: 6/33/35/*G/0285 Details: Spray Irrigation - Direct Direct Source: Ground Water Source Of Supply Point: Borehole No.3 At Cambridge Data Type: Point	Annual Volume (m³): 45440 Max Daily Volume (m³): 616.8 Original Application No: - Original Start Date: 1/4/1998 Expiry Date: 31/12/2007 Issue No: 100 Version Start Date: 1/4/1998 Version End Date:
Not shown	1084.0	NW		Licence No: 6/33/35/*G/0285 Details: Spray Irrigation - Storage Direct Source: Ground Water Source Of Supply Point: Borehole No.3 At Cambridge Data Type: Point	Annual Volume (m³): 45440 Max Daily Volume (m³): 616.8 Original Application No: - Original Start Date: 1/4/1998 Expiry Date: 31/12/2007 Issue No: 100 Version Start Date: 1/4/1998 Version End Date:
Not shown	1498.0	E		Licence No: 6/33/33/*G/0065 Details: Make-Up or Top Up Water Direct Source: Ground Water Source Of Supply Point: Borehole - Impington Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 1/5/1993 Expiry Date: - Issue No: 100 Version Start Date: 1/5/1993 Version End Date:
30	1514.0	NW		Licence No: 6/33/35/*G/0261 Details: General Farming & Domestic Direct Source: Ground Water Source Of Supply Point: Borehole At Girton Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 1/7/1993 Expiry Date: - Issue No: 100 Version Start Date: 1/7/1993 Version End Date:
Not shown	1516.0	SE		Licence No: 6/33/33/*G/0062 Details: Large Garden Watering Direct Source: Ground Water Source Of Supply Point: Well -arundel Ho.hotel-cambrdg Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 1/10/1991 Expiry Date: - Issue No: 100 Version Start Date: 1/10/1991 Version End Date:
Not shown	1675.0	NW		Licence No: 6/33/35/*G/0285 Details: Spray Irrigation - Direct Direct Source: Ground Water Source Of Supply Point: Borehole No.2 At Cambridge Data Type: Point	Annual Volume (m³): 45440 Max Daily Volume (m³): 616.8 Original Application No: - Original Start Date: 1/4/1998 Expiry Date: 31/12/2007 Issue No: 100 Version Start Date: 1/4/1998 Version End Date:
Not shown	1675.0	NW		Licence No: 6/33/35/*G/0285 Details: Spray Irrigation - Storage Direct Source: Ground Water Source Of Supply Point: Borehole No.2 At Cambridge Data Type: Point	Annual Volume (m³): 45440 Max Daily Volume (m³): 616.8 Original Application No: - Original Start Date: 1/4/1998 Expiry Date: 31/12/2007 Issue No: 100 Version Start Date: 1/4/1998 Version End Date:
Not shown	1675.0	NW		Licence No: 6/33/35/*G/0312 Details: Spray Irrigation - Direct Direct Source: Ground Water Source Of Supply Point: Borehole No.2 At Cambridge Data Type: Point	Annual Volume (m³): 45440 Max Daily Volume (m³): 357.6 Original Application No: CN 3854 Original Start Date: 13/3/2008 Expiry Date: 31/3/2015 Issue No: 1 Version Start Date: 13/3/2008 Version End Date:
Not shown	1675.0	NW		Licence No: 6/33/35/*G/0312 Details: Spray Irrigation - Storage Direct Source: Ground Water Source Of Supply Point: Borehole No.2 At Cambridge Data Type: Point	Annual Volume (m³): 45440 Max Daily Volume (m³): 357.6 Original Application No: CN 3854 Original Start Date: 13/3/2008 Expiry Date: 31/3/2015 Issue No: 1 Version Start Date: 13/3/2008 Version End Date:

5.4 Surface Water Abstraction Licences

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

Yes

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

ID	Distance	Direction	NGR	Details	
Not shown	1812.0	SE	544500, 258500	Licence No: 6/33/33/*S/0063 Details: General Farming & Domestic Direct Source: Surface Water Source Of Supply Point: River Cam At Cambridge Data Type: Point	Annual Volume (m ³): - Max Daily Volume (m ³): - Application No: - Original Start Date: 1/3/1992 Expiry Date: - Issue No: 100 Version Start Date: 1/3/1992 Version End Date:

5.5 Potable Water Abstraction Licences

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

No

Database searched and no data found.

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 River Quality

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

No

Biological Quality:

Database searched and no data found.

Chemical Quality:

Database searched and no data found.

5.8 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 (5d):

ID	Distance	Direction	Details	
1	8.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
2	174.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
3	174.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
4	224.0	N	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: YES Main River Status: Currently Undefined
5	225.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
6	228.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: YES Main River Status: Currently Undefined
7	309.0	N	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: YES Main River Status: Currently Undefined
8A	324.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
9A	328.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
10	366.0	W	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
11	381.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: YES Main River Status: Currently Undefined
12	384.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: YES Main River Status: Currently Undefined
13	386.0	W	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
14	427.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
15	430.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
16	436.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
17	471.0	NW	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
18	473.0	NW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined

5.9 Surface Water Features

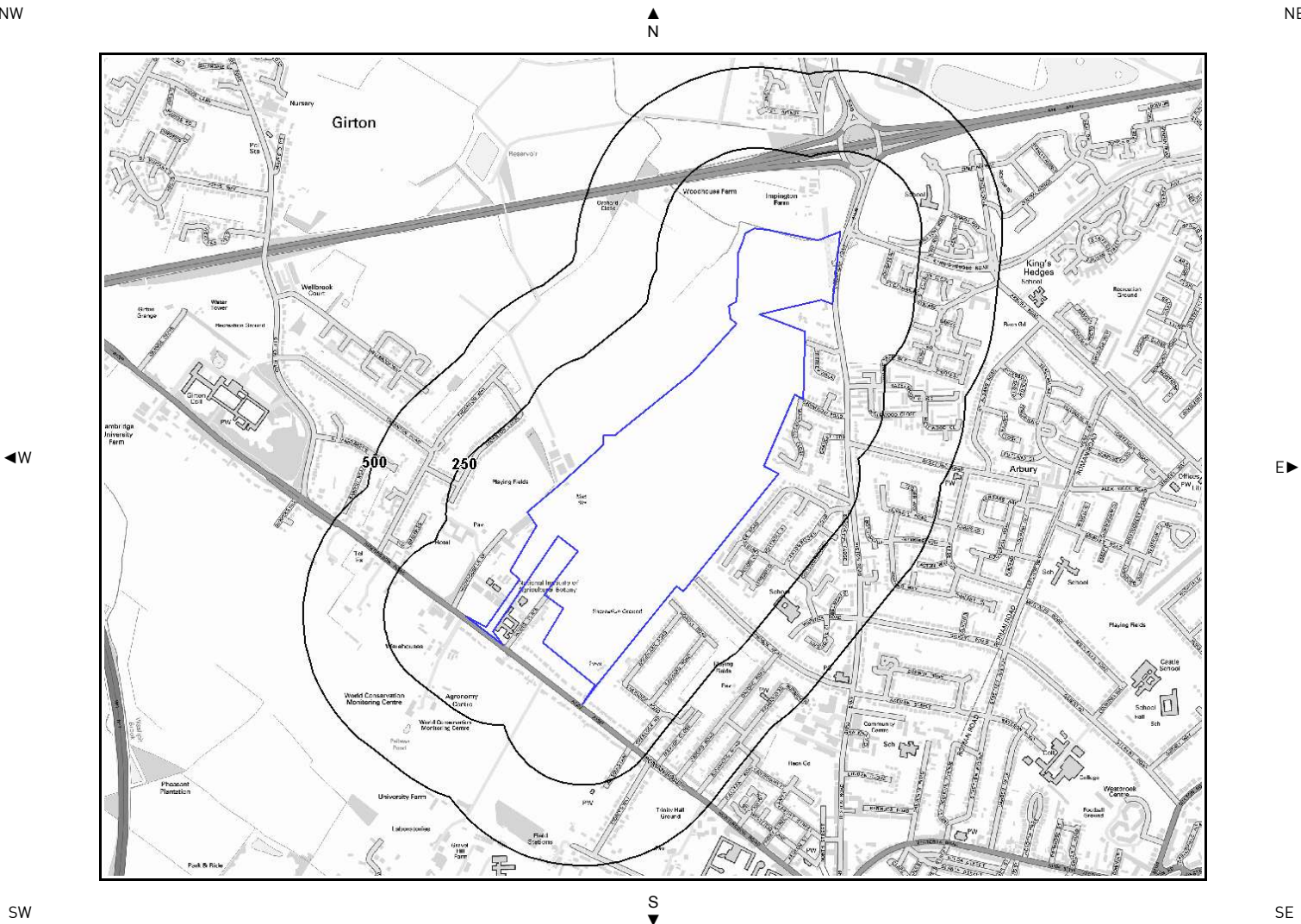
Are there any surface water features within 250m of the study site?

Yes

The following surface water records are not represented on mapping:

Distance to Surface Water (m)	on-site	0-50	51-250
Surface water features within 250m of the study site	Yes	Yes	Yes

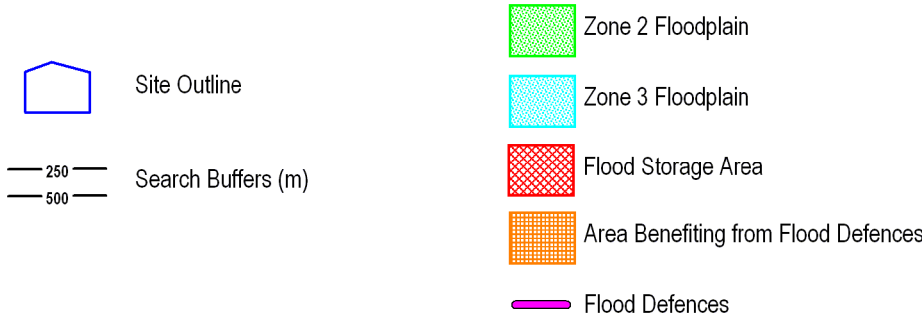
6. Environment Agency Flood Map



Environment Agency Flood Legend



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6. Flooding

6.1 Zone 2 Flooding

Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 2 floodplain?

No

Database searched and no data found.

6.2 Zone 3 Flooding

Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative 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

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 used for Flood Storage

Are there any areas used for Flood Storage within 250m of the study site?

No

6.6 Groundwater Flooding Susceptibility Areas

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

Yes

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

Very High

6.7 Groundwater Flooding Confidence Areas

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

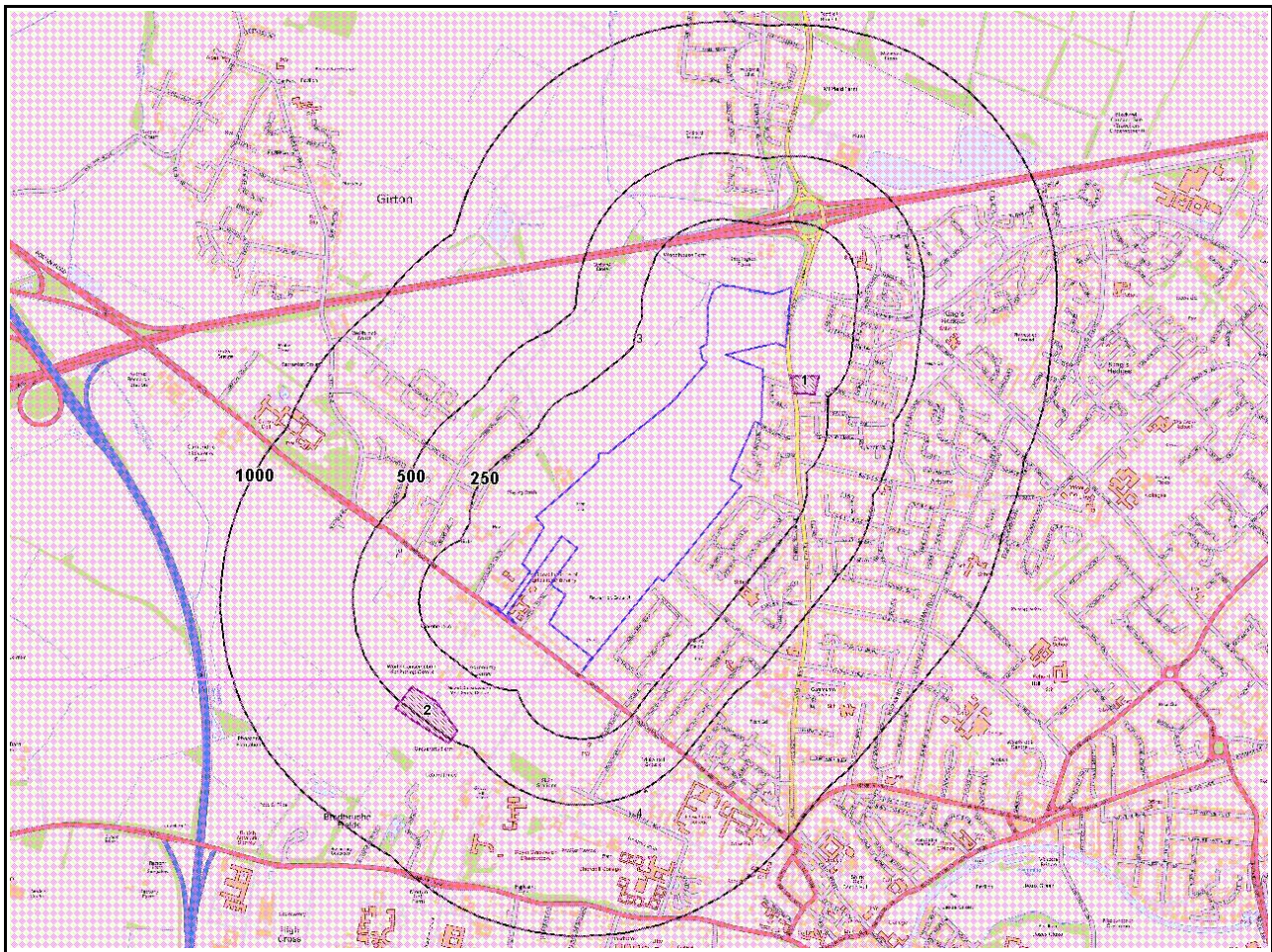
Moderate

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 Legend

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7. Designated Environmentally Sensitive Sites

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

Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site: **2**

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Countryside Council for Wales and Scottish Natural Heritage are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	SSSI Name	Data Source
1	108.0	E	Histon Road	Natural England
2	415.0	SW	Traveller's Rest Pit	Natural England

Records of National Nature Reserves (NNR) within 2000m of the study site: **0**

Database searched and no data found.

Records of Special Areas of Conservation (SAC) within 2000m of the study site: **0**

Database searched and no data found.

Records of Special Protection Areas (SPA) within 2000m of the study site: **0**

Database searched and no data found.

Records of Ramsar sites within 2000m of the study site: **0**

Database searched and no data found.

Records of Local Nature Reserves (LNR) within 2000m of the study site: **0**

Database searched and no data found.

Records of World Heritage Sites within 2000m of the study site: **0**

Database searched and no data found.

Records of Environmentally Sensitive Areas within 2000m of the study site: **0**

Database searched and no data found.

Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site: **0**

Database searched and no data found.

Records of National Parks (NP) within 2000m of the study site: 0

Database searched and no data found.

Records of Nitrate Sensitive Areas within 2000m of the study site: 0

Database searched and no data found.

Records of Nitrate Vulnerable Zones within 2000m of the study site: 2

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	NVZ Type	Data Source
3	0.0	On Site	NVZ Area	DEFRA
4	26.0	S	NVZ Area	DEFRA

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

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

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

8.1.2 Landslides

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

Very Low

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

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

8.1.3 Soluble Rocks

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

Null - Negligible

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

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 rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

* This indicates an automatically generated 50m buffer and site.

9. Mining

9.1 Coal Mining

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

No

Database searched and no data found.

9.2 Shallow Mining

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

Negligible

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

9.3 Brine Affected Areas

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

No

Database searched and no data found.

10. Contacts

EmapSite

Telephone: 0118 9736883
sales@emapsite.com



British Geological Survey (England & Wales)

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143. Fax: 0115 936 3276. Email:
enquiries@bgs.ac.uk
Web: www.bgs.ac.uk
BGS Geological Hazards Reports and general geological
enquiries



Environment Agency

National Customer Contact Centre
PO Box 544
Rotherham
S60 1BY
Tel: 08708 506 506
Web: www.environment-agency.gov.uk
Email: enquiries@environment-agency.gov.uk



Health Protection Agency

Chilton, Didcot, Oxon, OX11 0RQ
Tel: 01235 822622 www.hpa.org.uk/radiation
Radon measures and general radon information and
guidance



The Coal Authority

200 Lichfield Lane, Mansfield, Notts NG18 4RG
Tel: 0845 762 6848
DX 716176 Mansfield 5
Web: www.groundstability.com



Ordnance Survey

Romsey Road
Southampton SO16 4GU
Tel: 08456 050505



Local Authority

Authority: Cambridge City Council
Phone: 01223 457000
Web: www.cambridge.gov.uk
Address: The Guidhall, Cambridge, CB2 3QJ

Get Mapping PLC

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



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Standard Terms and Conditions

1 Definitions

In these conditions unless the context otherwise requires:

"Beneficiary" means the Client or the customer of the Client for whom the Client has procured the Services.

"Commercial" means any building which is not Residential.

"Commission" means an order for Consultancy Services submitted by a Client.

"Consultancy Services" mean consultancy services provided by GroundSure including, without limitation, carrying out interpretation of third party and in-house environmental data, provision of environmental consultancy advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the performance of the Services which arises upon GroundSure's acceptance of an Order or Commission and which shall incorporate these conditions, the relevant GroundSure User Guide, proposal by GroundSure and the content of any subsequent report, and any agreed amendments in accordance with clause 11.

"Client" means the party that submits an Order or Commission.

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

"Data Report" means reports comprising factual data with no professional interpretation in respect of the level of likely risk and/or liability available from GroundSure.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028 and whose registered office is at Greater London House, Hampstead Road, London NW1 7EJ.

"GroundSure Materials" means all materials prepared by GroundSure as a result of the provision of the Services, including but not limited to Data Reports, Mapping and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, service marks, moral rights, data protection rights, know-how, trade mark or any other intellectual property rights.

"Mapping" an historical map or a combination of historical maps of various ages, time periods and scales available from GroundSure.

"Order" means an order form submitted by the Client requiring Services from GroundSure in respect of a specified Site.

"Order Website" means online platform via which Orders may be placed.

"Report" means a Risk Screening Report or Data Report for commercial or residential property available from GroundSure relating to the Site prepared in accordance with the specifications set out in the relevant User Guide.

"Residential" means any building used as or suitable for use as an individual dwelling.

"Risk Screening Report" means one of GroundSure's risk screening reports, comprising factual data with interpretation in respect of the level of likely risk and/or liability, excluding **"Consultancy Services"**.

"Services" means the provision of any Report, Mapping or Consultancy Services which GroundSure has agreed to carry out for the Client/Beneficiary on these terms and conditions in respect of the Site.

"Site" means the landsite in respect of which GroundSure provides the Services.

"Third Party Content" means any data, database or other information contained in a Report or Mapping which is provided to GroundSure by a Data Provider.

"User Guide" means the relevant current version of the user guide, available upon request from GroundSure.

2 Scope of Services

2.1 GroundSure agrees to carry out the Services in accordance with the Contract and to the extent set out therein.

2.2 GroundSure shall exercise all the reasonable skill, care and diligence to be expected of experienced environmental consultants in the performance of the Services.

2.3 The Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in the Contract.

2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other representatives or any terms implied by custom, practice or course of dealing shall be of no effect and these terms and conditions shall prevail over all others.

2.5 If a Client/Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to procure such insurance, but makes no warranty that such insurance shall be available from insurers or offered on reasonable terms. GroundSure does not endorse or recommend any particular insurance product, policy or insurer. Any insurance purchased shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. The Client/Beneficiary should take independent advice to ensure that the insurance policy requested and/or offered is suitable for its requirements.

2.6 GroundSure's quotations/proposals are valid for a period of 30 days only. GroundSure reserves the right to withdraw any quotation at any time before GroundSure accepts an Order or Commission. GroundSure's acceptance of an Order or Commission shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website.

3 The Client's obligations

3.1 The Client shall ensure the Beneficiary complies with and is bound by the terms and conditions set out in the Contract and shall provide that GroundSure may in its own right enforce such terms and conditions against the Beneficiary pursuant to the Contracts (Rights of Third Parties) Act 1999. The Client shall be liable for all breaches of the Contract by the Beneficiary as if they were breaches by the Client. The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the Beneficiary's needs.

3.2 The Client shall (or shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including any specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the Contract).

3.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.

3.4 The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report, Mapping or GroundSure's findings available to a third party who is considering acquiring the whole or part of the Site, or providing funding in relation to the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity that occurs under such account and password.

4 Reliance

4.1 Upon full payment of all relevant fees and subject to the provisions of these terms and conditions, the Client and Beneficiary are granted an irrevocable royalty-free licence to access the information contained in a Report, Mapping or in a report prepared by GroundSure in respect of or arising out of Consultancy Services. The Services may only be used for the benefit of the Client and those persons listed in clauses 4.2 and 4.3.

4.2 In relation to Data Reports, Mapping and Risk Screening Reports, the Client shall be entitled to make Reports available to (i) the Beneficiary, (ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate), (iv) the first purchaser or first tenant of the Site (v) the professional advisers and lenders of the first purchaser or tenant of the Site. Accordingly GroundSure shall have the same duties and obligations to those persons in respect of the Services as it has to the Client and those persons shall have the benefit of any of the Client's rights under the Contract as if those persons were parties to the Contract. For the avoidance of doubt, the limitations of GroundSure's liability as set out in clauses 7 and 11.6 shall apply.

4.3 In relation to Consultancy Services, reliance shall be limited to the Client, Beneficiary and named parties on the Report.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise agreed in writing with GroundSure, any other party considering the information supplied by GroundSure as part of the Services, including (but not limited to) insurance underwriters, does so at their own risk and GroundSure has no legal obligations to such party unless otherwise agreed in writing.

4.5 The Client shall not and shall not knowingly permit any person (including the Beneficiary) who is provided with a copy of any Report, (except as permitted herein or by separate agreement with GroundSure) to: (a) remove, suppress or modify any trade mark, copyright or other proprietary marking from the Report or Mapping; (b) create any product which is derived directly or indirectly from the data contained in the Report or Mapping; (c) combine the Report or Mapping with, or incorporate the Report or Mapping into any other information data or service; or (d) re-format or otherwise change (whether by modification, addition or enhancement) data or images contained in the Report or Mapping.

4.6 Notwithstanding clause 4.5, if the Client acts in a professional capacity, it may make reasonable use of a Report and/or findings made as a result of Consultancy Services to advise Beneficiaries. However, GroundSure shall have no liability in respect of any opinion or report given to such Beneficiaries by the Client or a third party.

5 Fees and Disbursements

5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order acknowledgement form. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services.

5.2 Unless GroundSure requires prepayment, the Client shall promptly pay all fees disbursements and other monies due to GroundSure in full without deduction, counterclaim or set off together with such value added tax or other tax as may be required within 30 days from the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("**Payment Date**"). GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date until the date of payment (whether before or after judgment) at the rate of five per cent per annum above the Bank of England base rate from time to time.

5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in dispute. In default of such notification the Client shall be deemed to have agreed the amount thereof. As soon as reasonably practicable following receipt of a notification in respect of any disputed invoice, a member of the management team at GroundSure shall contact the Client and the parties shall use all reasonable endeavours to resolve the dispute.

6 Intellectual Property and Confidentiality

6.1 Subject to the provisions of clause 4.1, the Client and the Beneficiary hereby acknowledge that all Intellectual Property in the Services and Content are and shall remain owned by either GroundSure or the Data Providers and nothing in these terms purports to transfer or assign any rights to the Client or the Beneficiary in respect of the Intellectual Property.

6.2 The Client shall acknowledge the ownership of the **Third Party Content** where such **Third Party Content** is incorporated or used in the Client's own documents, reports, systems or services whether or not these are supplied to a third party.

6.3 Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client acknowledges that the proprietary rights subsisting in copyright, database rights and any other intellectual property rights in respect of any data and information contained in any Report are and shall remain (subject to clause 11.1) the property of GroundSure and/or any third party that has supplied data or information used to create a Report, and that these conditions do not purport to grant, assign or transfer any such rights in respect thereof to a Client and/or a Beneficiary.

6.5 The Client shall (and shall procure that any recipients of the Report as permitted under clause 4.2 shall):

(i) not remove, suppress or modify any trademark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;

(ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;

Report Reference: EMS-176835_260485

- (iii) not create any product or report which is derived directly or indirectly from the data contained in the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
 - (iv) not combine the Services with or incorporate such Services into any other information data or service; and
 - (v) not reformat or otherwise change (whether by modification, addition or enhancement), data contained in the Services (save that those acting in a professional capacity to the Beneficiary shall not be in breach of this clause 6.5(v) where such reformatting is in the normal course of providing advice based upon the Services), in each case of parts (iii) to (v) inclusive, whether or not such product or report is produced for commercial profit or not.
- 6.6 The Client and/or Beneficiary shall and shall procure that any party to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.
- 6.8 Save as otherwise set out in these terms and conditions, any information provided by one party ("**Disclosing Party**") to the other party ("**Receiving Party**") shall be treated as confidential and only used for the purposes of these terms and conditions, except in so far as the Receiving Party is authorised by the Disclosing Party to provide such information in whole or in part to a third party.

7 Liability

THE CLIENT'S ATTENTION IS DRAWN TO THIS PROVISION

- 7.1 Subject to the provisions of this clause 7, GroundSure shall be liable to the Beneficiary only in relation to any direct losses or damages caused by any negligent act or omission of GroundSure in preparing the GroundSure Materials and provided that the Beneficiary has used all reasonable endeavours to mitigate any such losses.
- 7.2 GroundSure shall not be liable for any other losses or damages incurred by the Beneficiary, including but not limited to:
- (i) loss of profit, revenue, business or goodwill, losses relating to business interruption, loss of anticipated savings, loss of or corruption to data or for any special, indirect or consequential loss or damage which arise out of or in connection with the GroundSure Materials or otherwise in relation to a Contract;
 - (ii) any losses or damages that arise as a result of the use of all or part of the GroundSure Materials in breach of these terms and conditions or contrary to the terms of the relevant User Guide;
 - (iii) any losses or damages that arise as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such part is based on any Third Party Content or any reasonable interpretation of Third Party Content. The Client accepts, and shall procure that any other Beneficiary shall accept, that it has no claim or recourse to any Data Provider in relation to Third Party Content; and/or
 - (iv) any loss or damage to a Client's computer, software, modem, telephone or other property caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.3 GroundSure's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation, restitution or otherwise, arising in connection with the GroundSure Materials or otherwise in relation to the Contract shall be limited to £10 million in total (i) for any one claim or (ii) for a series of connected claims brought by one or more parties.
- 7.4 For the duration of the liability periods set out in clauses 7.5 and 7.6 below, GroundSure shall maintain professional indemnity insurance in respect of its liability under these terms and conditions provided such insurance is readily available at commercially viable rates. GroundSure shall produce evidence of such insurance if reasonably requested by the Client. A level of cover greater than GroundSure's current level of cover may be available upon request and agreement with the Client.
- 7.5 Any claim under the Contract in relation to Data Reports, Mapping and Risk Screening Reports, must be brought within six years from the date when the Beneficiary became aware that it may have a claim and in no event may a claim be brought twelve years or more after completion of such a Contract. For the avoidance of doubt, any claim in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause 7.5 shall survive the expiry of those time periods provided the claim is actually commenced within six months of notification.
- 7.6 Any claim under the Contract in relation to Consultancy Services, must be brought within six years from the date the Consultancy Services were completed.
- 7.7 The Client accepts and shall procure that any other Beneficiary shall accept that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of any Data Provider and/or any Third Party Content provided by a Data Provider.
- 7.8 Nothing in these terms and conditions:
- (i) excludes or limits the liability of GroundSure for death or personal injury caused by GroundSure's negligence, or for fraudulent misrepresentation; or
 - (ii) shall affect the statutory rights of a consumer under the applicable legislation.

8 GroundSure right to suspend or terminate

- 8.1 In the event that GroundSure reasonably believes that the Client or Beneficiary as applicable has not provided the information or assistance required to enable the proper performance of the Services, GroundSure shall be entitled on fourteen days written notice to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:
- (i) the Client shall fail to pay any sum due to GroundSure within 28 days of the Payment Date; or
 - (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an Administration Order made against it or if a Receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
 - (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
 - (iv) the Client or the Beneficiary breaches any material term of the Contract (including, but not limited to, the obligations in clause 4) incapable of remedy or if remediable, is not remedied within 14 days of notice of the breach.

9 Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.
- 9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights.

10 Consequences of Withdrawal, Termination or Suspension

- 10.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client/Beneficiary any property of the Client/ Beneficiary in GroundSure's possession or control.
- 10.2 In the event of termination/suspension of the Contract under clauses 8 or 9, the Client shall pay to GroundSure all and any fees payable in respect of the performance of the Services up to the date of termination/suspension. In respect of any Consultancy Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract.

11 General

- 11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.
- 11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure.
- 11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and conditions shall operate as a waiver thereof.
- 11.4 Save as expressly provided in clauses 4.2, 4.3, 6.3 and 11.5, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey may enforce breach of clause 6.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 11.6 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information;
 - (ii) fire, storm, flood, tempest or epidemic;
 - (iii) Acts of God or the public enemy;
 - (iv) riot, civil commotion or war;
 - (v) strikes, labour disputes or industrial action;
 - (vi) acts or regulations of any governmental or other agency;
 - (vii) suspension or delay of services at public registries by Data Providers; or
 - (viii) changes in law.
- 11.7 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.
- 11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.
- 11.10 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.
- 11.12 If the Client or Beneficiary has a complaint about the Services, notice can be given in any format eg writing, phone, email to the Compliance Officer at GroundSure who will respond in a timely manner.

© GroundSure Limited January 2012

Site Details:

NIAB 1, Huntingdon Road, Cambridge, CB3 0LE

Client Ref: EMS_176835_260483

Report Ref: EMS-176835_260483

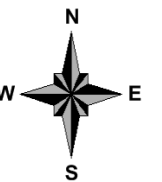
Grid Ref: 543770, 260766

Map Name: National Grid

Map date: 2012

Scale: 1:10,000

Printed at: 1:10,000



2012



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GroundSure Environmental Insight
www.groundsure.com

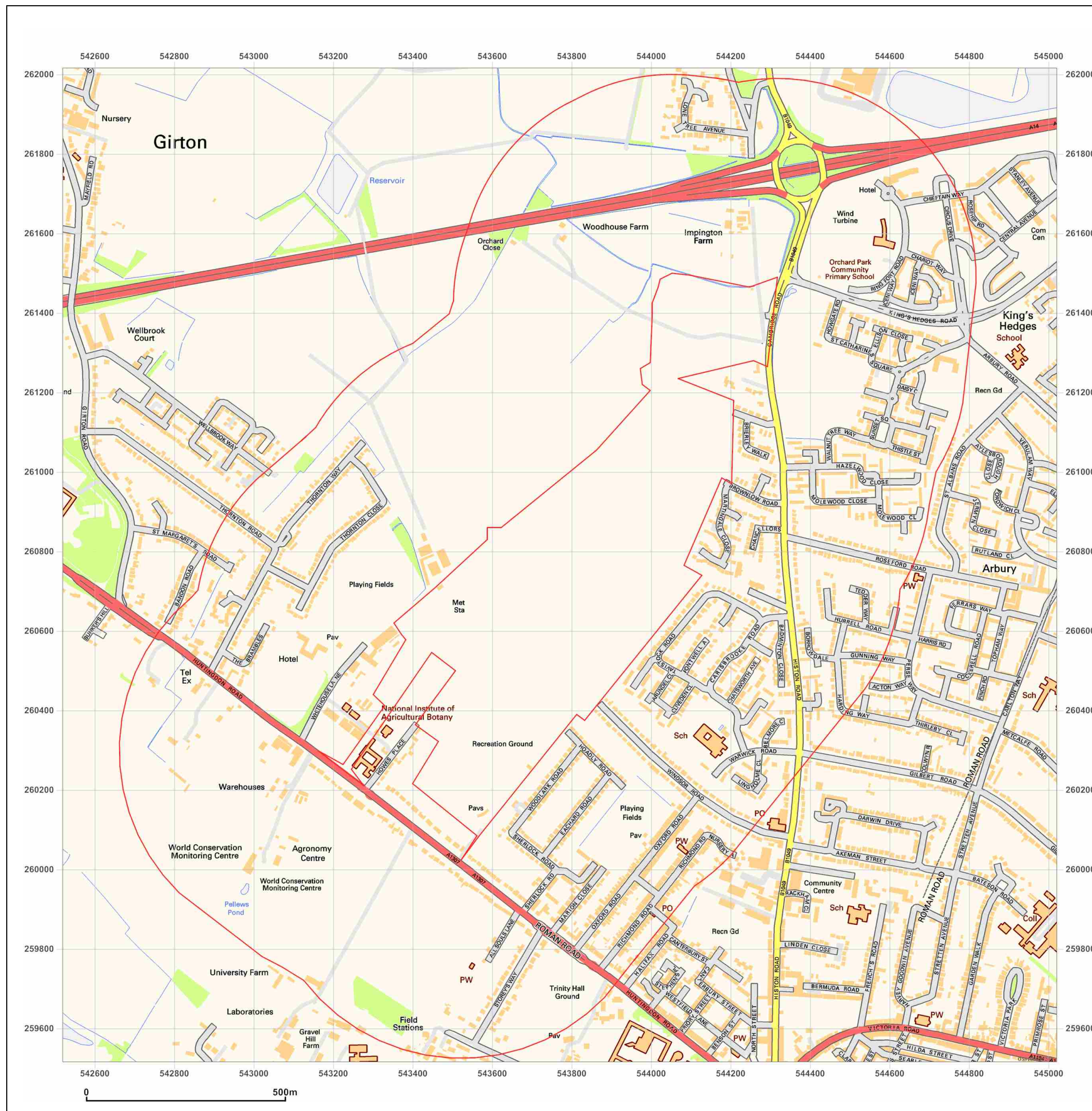


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Production date: 23 August 2012

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Site Details:

NIAB 1, Huntingdon
Road, Cambridge, CB3 0LE

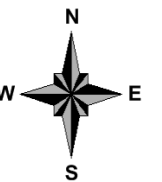
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Report Ref: EMS-176835_260483
Grid Ref: 543770, 260766

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



2002



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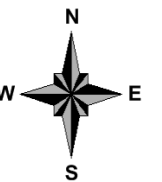
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Report Ref: EMS-176835_260483
Grid Ref: 543770, 260766

Map Name: National Grid

Map date: 1980-1984

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1981
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1972
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1977
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1983
Revised 1984
Edition N/A
Copyright N/A
Levelled N/A



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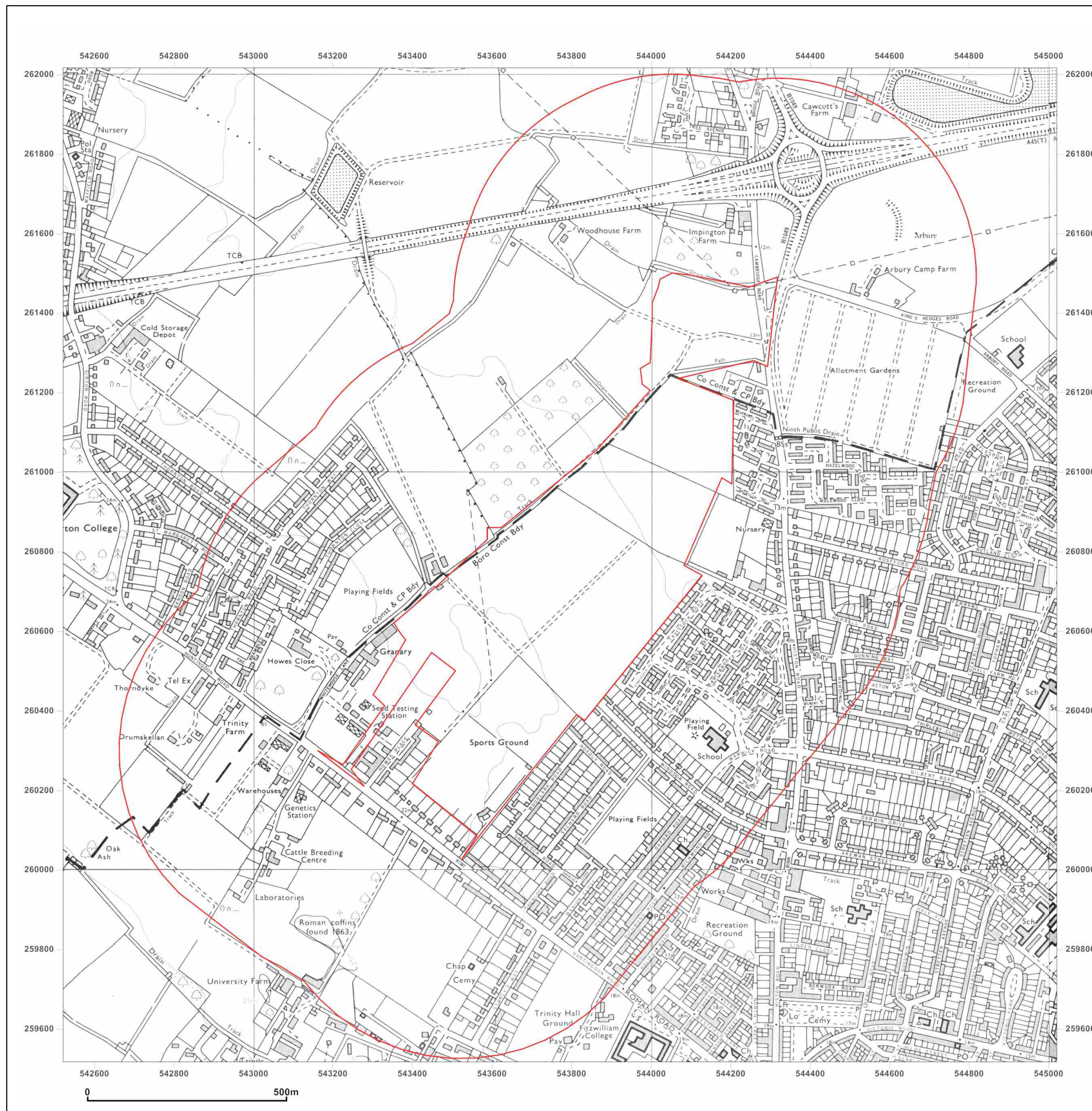


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Site Details:

NIAB 1, Huntingdon
Road, Cambridge, CB3 0LE

Client Ref: EMS_176835_260483

Report Ref: EMS-176835_260483

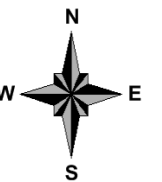
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Map Name: National Grid

Map date: 1971-1974

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1973
Revised 1973
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1974
Revised 1974
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1971
Revised 1971
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1973
Revised 1973
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Site Details:

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Client Ref: EMS_176835_260483
Report Ref: EMS-176835_260483
Grid Ref: 543770, 260766

Map Name: Provisional

Map date: 1965-1966

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1950
Revised 1950
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1950
Revised 1950
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1950
Revised 1950
Edition N/A
Copyright N/A
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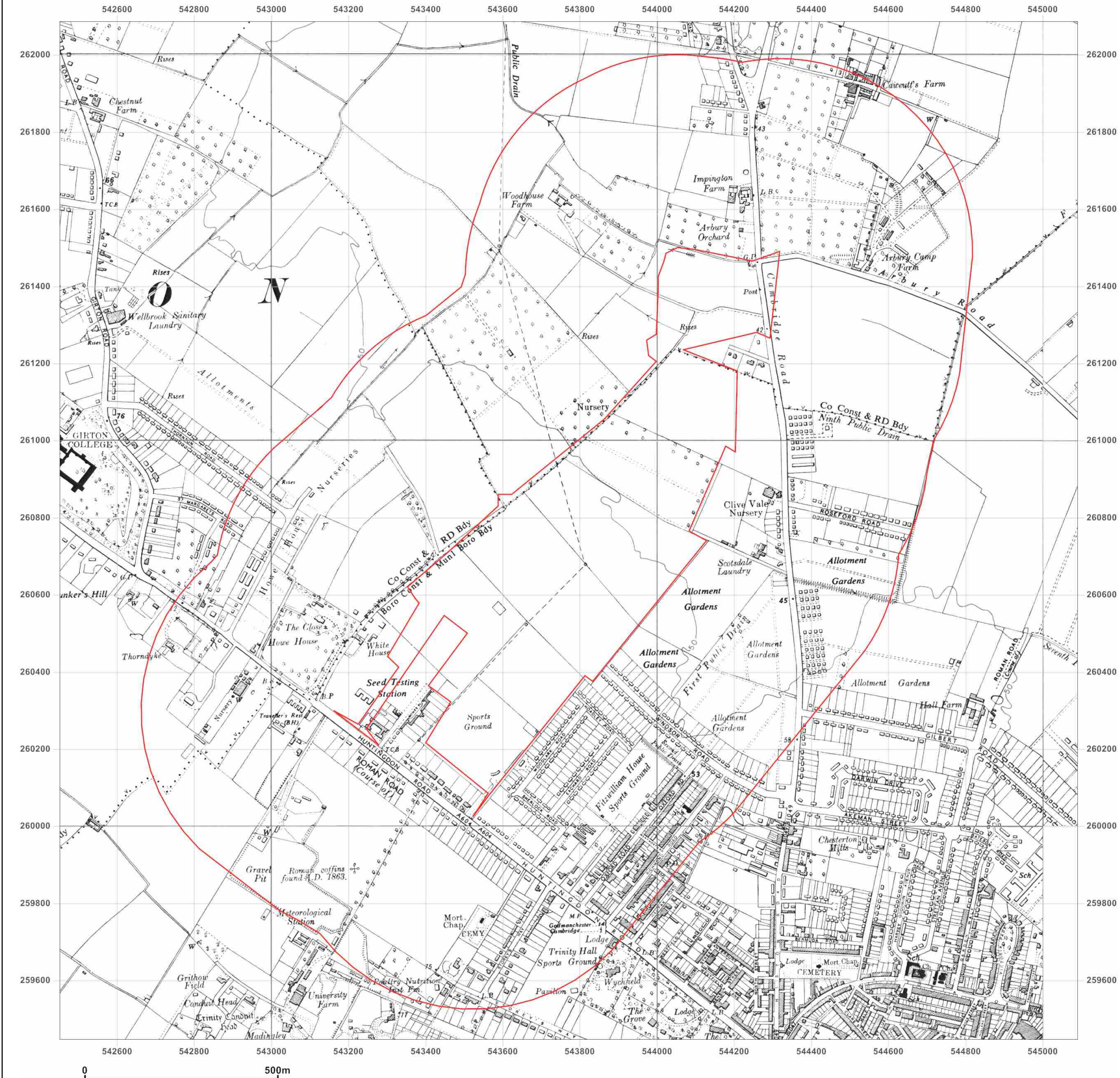


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Site Details:

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Client Ref: EMS_176835_260483

Report Ref: EMS-176835_260483

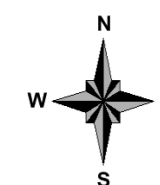
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Map Name: Provisional

Map date: 1957-1959

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1950
Revised 1950
Edition N/A
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Levelled N/A

Surveyed 1950
Revised 1950
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1950
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Edition N/A
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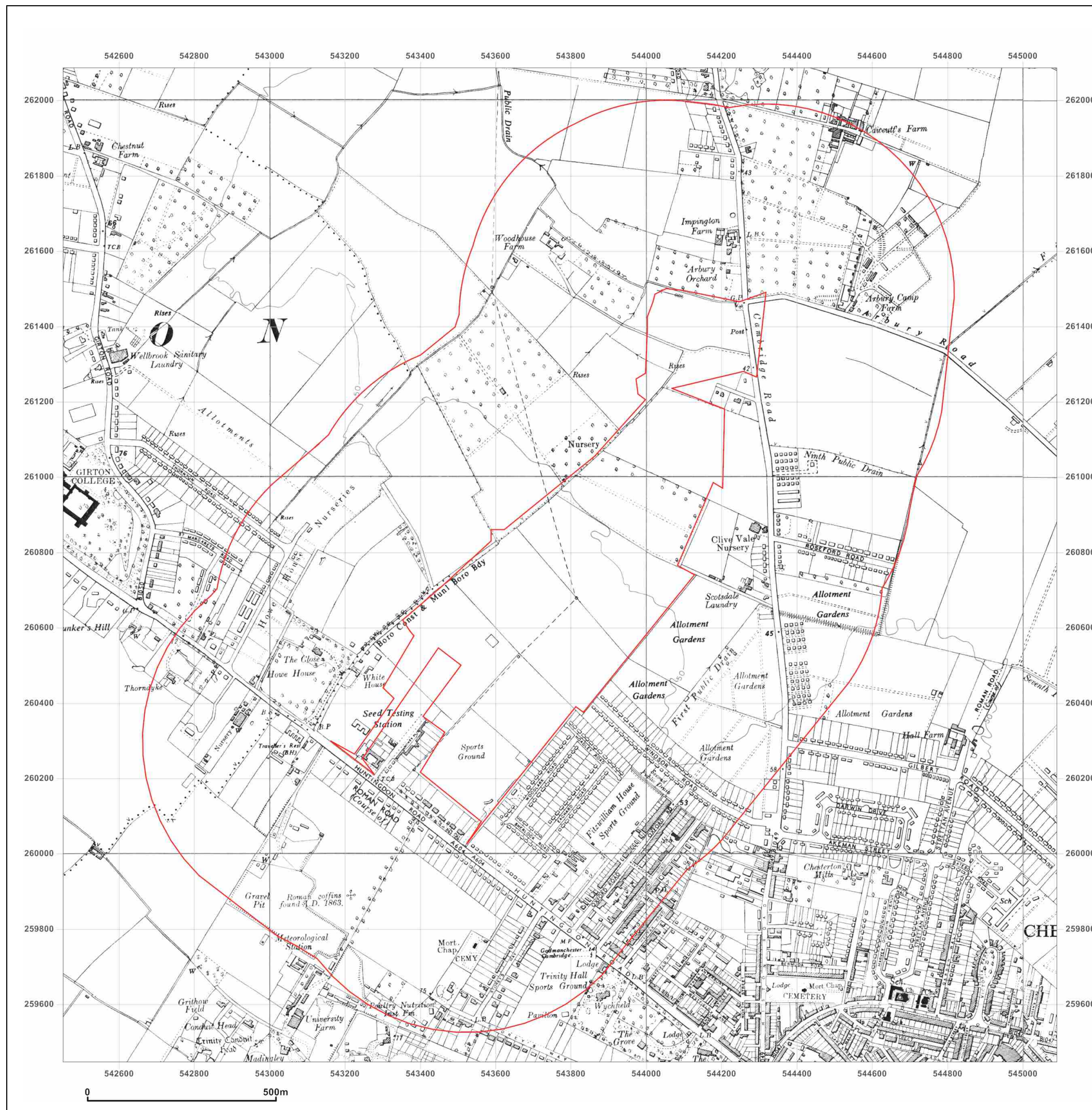


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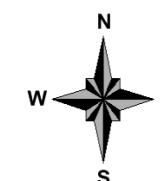
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Report Ref: EMS-176835_260483
Grid Ref: 543770, 260766

Map Name: County Series

Map date: 1901

Scale: 1:10,560

Printed at: 1:10,560



Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A



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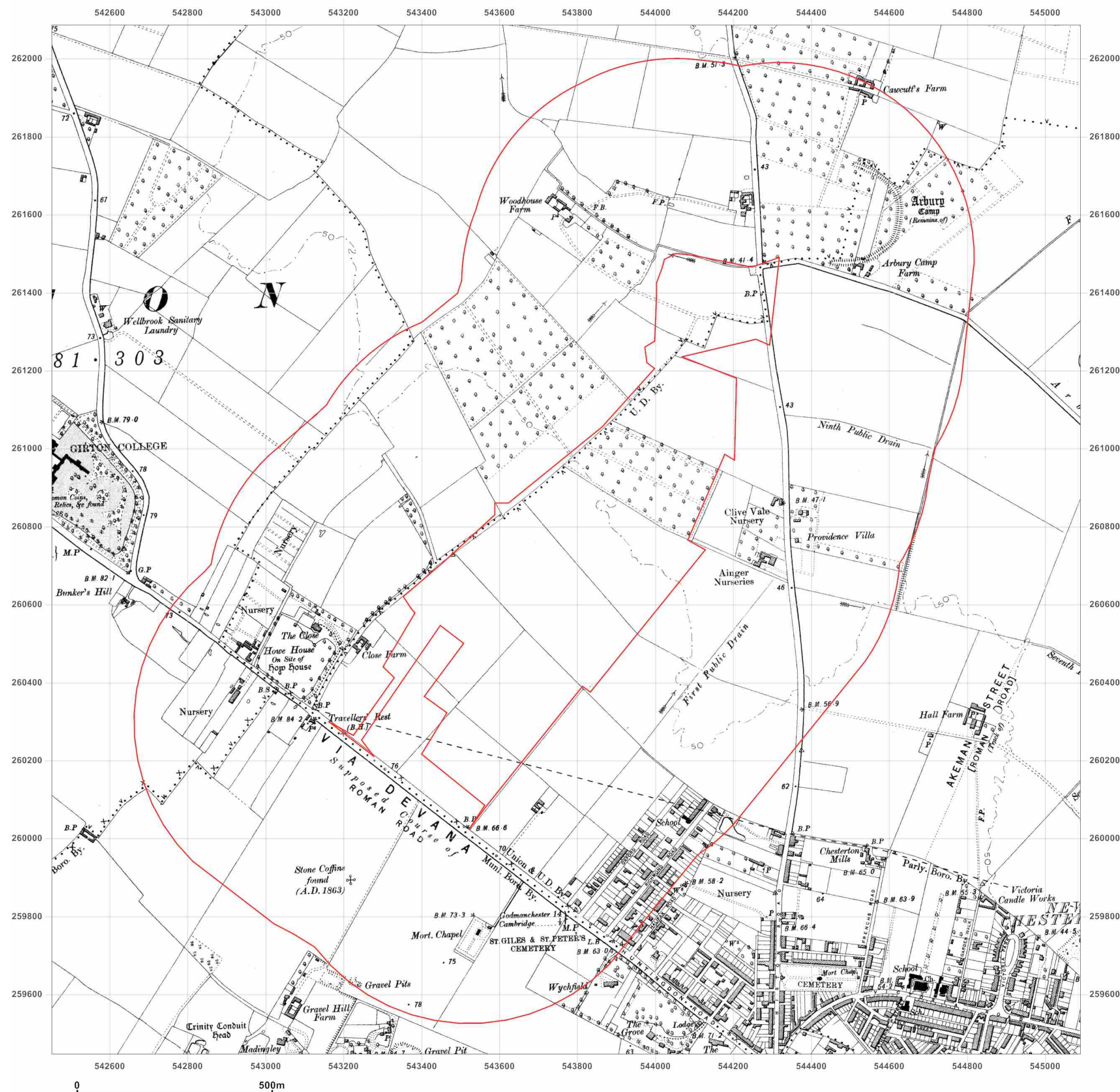


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APPENDIX F

BGS BOREHOLE RECORDS



[Report an issue with this borehole](#)

- <<
- < **Prev**
- Page 1 of 1
- **Next** >
- >>

TL 46 SW 144

4364 6053

White House, Histon

Surface level +19.4 m
 Water struck at +17.4 m
 152 mm percussion
 January 1977

Block D

Overburden 0.6 m
 Mineral 1.9 m
 Bedrock 3.0 m +

LOG

Geological classification	Lithology	Thickness m	Depth m
River Terrace Deposits (Fourth Terrace)	Soil, greyish brown stony, silty clay loam 'Clayey' sandy gravel, clayey between 0.6 m and 1.6 m. High chalk content below 1.6 m Gravel: mainly fine, angular to subangular, black and brown flint and rounded to well-rounded chalk, with some quartz and ironstone Sand: medium with fine, becoming coarser with depth, subangular to rounded quartz with angular to well-rounded chalk and angular flint and some rounded ironstone; dark yellowish brown, becoming olive-yellow with depth	0.6 1.9	0.6 2.5
Gault	Clay, firm grey	3.0 +	5.5

GRADING

Mean for deposit percentages			Depth below surface (m)	percentages					
Fines	Sand	Gravel		Fines	Sand			Gravel	
				-1 ϕ	+1 ϕ - $\frac{1}{2}$	+ $\frac{1}{2}$ -1	+1-4	+4-16	+16-64
13	49	38	0.6-1.6	21	10	29	7	22	11
			1.6-2.5	4	6	21	26	33	10
			Mean	13	8	25	16	27	11

COMPOSITION

Depth below surface (m)	Percentages by weight in the 4-16 mm size range						
	Flint	Quartz	Sandstone and quartzite	Limestone and phosphate	Chalk	Ironstone	Others
0.6-1.6	88	5	2	-	2	3	-
1.6-2.5	63	2	8	-	25	2	-
Mean	74	3	6	-	15	2	-



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

[Report an issue with this borehole](#)

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- [Next >](#)
- [>>](#)

British Geological Survey

British Geological Survey

British Geological Survey

**188/329 National Institute of Agricultural Botany, Huntingdon Road,
Cambridge**

TL 46/24

Surface +60. Lining tubes: 86 x 10 in; 120 x 8 in; 26 x 6 in (perforated).
 LGS -46. Water struck at -46 to -59 and -60 to -80. Pettifer, Nov. 1960.
 R.W.L. +22. P.W.L. +10. Recovered to +22 in 3 min. Suction +5. Yield 2,000
 g.p.h. (48 h. test). Jan. R.W.L. +28. P.W.L. +12. Yield 1,700 g.p.h. Electric
 pump. Oct. 1961. R.W.L. +40. P.W.L. +38. Yield 1,500 g.p.h. Oct. 1963.
 Hardness: NC. 200, C. 260. Anal. July 1964.

Drift (River Gravels)	...	12	12
G	...	94	106
LGS	...	34	140

River gravels 12'	{ Soil	2	2
	{ Coarse sand and gravel	10	12
bank 94'	{ Gault clay	73	85
	{ Dark blue clay	21	106
LGS 34'	{ Very dark sand (containing water)	14	120
	{ Lower green sand.	20	140

SC44
2.3.61

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10/10/2012 14:00:00

APPENDIX G

LOCAL AUTHORITY CORRESPONDENCE

Ashley May

From: Oliver Pengilly
Sent: 14 August 2012 16:23
To: Benjamin Coulston
Subject: FW: NIAB1- Contaminated Land Query

-----Original Message-----

From: Themis Kantara [mailto:Themis.Kantara@cambridge.gov.uk]
Sent: 14 August 2012 15:27
To: Oliver Pengilly
Subject: NIAB1- Contaminated Land Query

Dear Oliver,

Thank you for your email regarding contaminated land on the above site. Following a review of our records I can confirm the following (I will reply to your questions in the order they were originally presented):

1. The site was formerly used for agricultural purposes (including research facilities). The site straddles the boundaries of South Cambs and Cambridge City. An outline application was granted permission for a mixed end use (including student accommodation and retail) and was subsequently conditioned for contaminated land.
2. The site has not been identified as Contaminated Land under Part IIA of the EPA 1990. Any potential contamination issues are regulated via planning (through the contaminated condition). Intrusive investigations undertaken on site so far have not recorded any significant contamination. The following reports so far have been submitted for the site:

-Phase I Environmental Risk Assessment by Millard, March 2006 (ref: 5593/04/CM/03-06/1213) and -Phase II Intrusive Environmental and Geotechnical Site Investigation by Millard, September 2006 (ref: 5593/14/RT/09-06/1371)

We do not hold any electronic copies of the reports. We suggest you contact the author of the reports or the client if you wish to obtain copies.

3. This Council holds no records of any closed licensed or unlicensed landfills within a 250m radius of the site. We suggest you contact the Environment Agency and make enquiries about their records.

4. This Council holds no records of any private water supplies in the area. We suggest you contact the Environment Agency and make enquiries about their records. Our records indicate two water abstractions within 2km of the site located at:

-The NIAB site. The abstraction was used for irrigation purposes and -The Arundel House Hotel, approximately 1.8km to the southeast along Chesterton Road (grid ref: 544900, 259315). The abstraction is used for gardening purposes.

I hope you find the above information useful. Additionally if you have any further queries regarding contaminated land in Cambridge please do not hesitate to contact me on the above address.

Kind Regards

Themis Kantara

>>> <OPengilly@rsk.co.uk> 10 August 2012 14:51 >>>

Dear Themis,

My apologies, I have now attached the site plans. We are currently investigating NIAB 1 (See second attachment) so primarily we need information on that area.

Kind regards

Oliver Pengilly
Graduate Consultant
MSci (Hons)

RSK

18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT, UK

Mobile: +44 (0)7795340720

email: opengilly@rsk.co.uk

<http://www.rsk.co.uk>

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Aberdeenshire, AB10 1FW, UK

Registered number: 115530

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-----Original Message-----

From: Themis Kantara [mailto:Themis.Kantara@cambridge.gov.uk]

Sent: 10 August 2012 14:19

To: Oliver Pengilly

Subject: Land to rear of NIAB

Dear Oliver,

Following your enquiry regarding contaminated land on the above site unfortunately the plans were not included in the email I was forwarded.

Can you please email me the plans and so I can follow up your enquiry?

Kind Regards

Themis Kantara

Scientific Officer
Environment&Planning
Cambridge City Council
4 Regent Street Mandela House
Cambridge CB2 1BY

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APPENDIX H

INVESTIGATION RECORDS

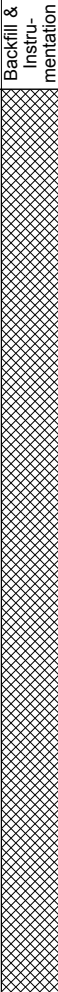
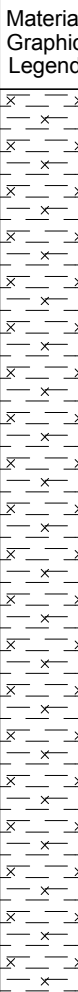
H1 – EXPLORATORY HOLE LOGS

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Borehole: BH1
Contract Ref: 25459	Start: 28.08.12 End: 28.08.12	Ground Level (m AOD): 19.13	National Grid Co-ordinate: E:543567.0 N:260278.0		Sheet: 1 of 2

Samples and In-situ Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.40	1	B				TOPSOIL: Brown slightly silty sandy CLAY. (TOPSOIL)	0.40	
0.50	1	D				Brown slightly gravelly slightly sandy CLAY. Gravels are subangular to subrounded fine to medium flint and chalk. (GAULT FORMATION)	(1.00)	
0.70-1.30	2	B					1.40	
1.40	2	D				Firm fissured dark grey mottled yellow-brown silty CLAY with occasional gravels of subrounded fine to medium flint and with inclusions of fine chalk clasts and putty chalk along fissures. (GAULT FORMATION)	(0.70)	
1.50-1.95	1	SPT	N=40				2.10	
2.10	3	D				Firm to stiff fissured dark grey occasionally mottled yellow-brown silty CLAY. (GAULT FORMATION)	(0.90)	
2.40	4	D					3.00	
2.50	1	U ₍₁₀₀₎	45 blows 100% recovery			Firm to stiff fissured slightly fissured dark grey silty CLAY with occasional inclusions of decomposed organic matter. (GAULT FORMATION)	(2.10)	
3.00	5	D					5.10	
3.40	6	D				Stiff fissured dark grey silty CLAY with rare to occasional subrounded fine to medium gravels of flint. (GAULT FORMATION)	(2.30)	
3.50-3.95	2	SPT	N=13				7.40	
4.50	7	D				Hard fissured dark grey silty CLAY. (GAULT FORMATION)		
4.60	2	U ₍₁₀₀₎	50 blows 100% recovery					
5.10	8	D						
5.90	9	D						
6.00-6.45	3	SPT	N=19					
7.40	10	D						
7.50	3	U ₍₁₀₀₎	60 blows 100% recovery					
8.00	11	D						

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
									1. Slow water seepage encountered - water level at 2.8m when hole left for 12 hours at 3.0m bgl. 2. Borehole cased to 1.6m bgl 3. Installation to 4.5m bgl.
Method Used: Cable percussion						Plant Used: Cable tool rig			All dimensions in metres
Drilled By: SH						Logged By: OPengilly			Scale: 1:50
						Checked By:			



Samples and In-situ Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend	
Depth	No	Type	Results						
8.90 9.00-9.45	12 4	D SPT	N=31			Hard fissured dark grey silty CLAY. (GAULT FORMATION) <i>(stratum text copied from layer at 7.40m depth from previous sheet)</i>	(7.60)		
10.40 10.50	13 4	D U ₍₁₀₀₎	80 blows 100% recovery						
11.00	14	D							
11.90 12.00-12.45	15 5	D SPT	N=42						
13.40 13.50	16 5	D U ₍₁₀₀₎	100 blows 100% recovery						... @ 13.4 Increase in fissuring.
14.00	17	D							
14.30 14.40-14.85	18 6	D SPT	N=47						
15.00	19	D							

GINT LIBRARY_v8_04.GLBilLog CABLE PERCUSSION LOG : 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:05 | OP:
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Borehole: BH2
Contract Ref: 25459	Start: 28.08.12 End: 28.08.12	Ground Level (m AOD): 16.33	National Grid Co-ordinate: E:543821.0 N:260691.0		Sheet: 1 of 2

Samples and In-situ Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.50	1	B				TOPSOIL: Grass over brown organic gravelly clayey SAND. Gravels are angular to subangular fine to coarse flints.	0.40	
0.80	1	D				firm orangey-brown to grey mottled orangey brown slightly sandy CLAY with some angular to subangular fine to medium flint and occasional subrounded fine to medium chalk. (RIVER TERRACE DEPOSITS)	(1.30)	
1.20-1.65	1	SPT	N=15				1.70	
1.80	2	D				Medium dense slightly gravelly clayey fine to coarse predominantly fine SAND. Gravels are angular fine to medium flint and some fine gravels/coarse sand sized clasts of chert. (RIVER TERRACE DEPOSITS)	(0.60)	
2.00-2.45	2	SPT(c)	N=13				2.30	
2.00-2.50	2	B				Firm to stiff fissured dark grey mottled pale grey/yellow/orange silty CLAY with subangular to subrounded fine calcareous nodules. (GAULT FORMATION)		
2.80	3	D						
3.00	1	U ₍₁₀₀₎	40 blows 100% recovery					
3.50	4	D						
3.80	5	D						
4.00-4.45	3	SPT	N=16					
4.80	6	D				... @ 4.8m Mottling becomes paler grey.		
5.00	2	U ₍₁₀₀₎	50 blows 100% recovery					
5.50	7	D				... @ 5.5m Inclusions of siltstone. Reduction in silt content.		
6.00	8	D						
6.50-6.95	4	SPT	N=20					
7.50	9	D						
8.00	3	U ₍₁₀₀₎	50 blows 100% recovery					
8.50	10	D				... @ 8.5m Onset of stiff to very stiff CLAY. Mottling and calcareous nodules are absent to bottom of borehole.	(12.70)	

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
									1. No groundwater encountered during drilling 2. Borehole cased to 2.5m bgl 3. Installation to 4.5m depth
Method Used: Cable percussion						Plant Used: Cable tool rig			All dimensions in metres
Drilled By: DH						Logged By: OPengilly			Scale: 1:50
Checked By: AGS									



DRAFT BOREHOLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Borehole: BH2
Contract Ref: 25459	Start: 28.08.12 End: 28.08.12	Ground Level (m AOD): 16.33	National Grid Co-ordinate: E:543821.0 N:260691.0		Sheet: 2 of 2

Samples and In-situ Tests				Water	Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend		
Depth	No	Type	Results							
9.00	11	D	N=28		Firm to stiff fissured dark grey mottled pale grey/yellow/orange silty CLAY with subangular to subrounded fine calcareous nodules. (GAULT FORMATION) <i>(stratum text copied from layer at 2.30m depth from previous sheet)</i>					
9.50-9.95	5	SPT								
10.50	12	D								
11.00	4	U ₍₁₀₀₎								
11.50	13	D	55 blows 100% recovery							
12.00	14	D								
12.50-12.95	6	SPT								
13.50	15	D								
13.50	5	U ₍₁₀₀₎	65 blows 100% recovery							
14.00	16	D								
14.30	17	D								
14.50-14.95	7	SPT								
			N=40							
15.00	18	D							15.00	

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks	
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)		

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Borehole: BH3
Contract Ref: 25459	Start: 29.08.12 End: 30.08.12	Ground Level (m AOD): 12.45	National Grid Co-ordinate: E:544067.0 N:261091.0		Sheet: 1 of 2








Samples and In-situ Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.40	1	B				TOPSOIL: Brown organic slightly silty sandy CLAY.	0.40	
0.50	1	D				Firm brown slightly gravelly slightly sandy CLAY. Gravels are subangular to subrounded fine to medium flints. Sand is fine to coarse, predominantly fine. (RIVER TERRACE DEPOSITS)	(0.60)	
0.60-0.90	2	B					1.00	
1.00	2	D				Firm orangey-brown to grey slightly gravelly sandy CLAY. Gravels are subangular to subrounded fine to coarse flints. Sand is fine to medium predominantly fine. (RIVER TERRACE DEPOSITS)	(0.60)	
1.10-1.40	3	B					1.60	
1.60-2.05	1	SPT(c)	N=8			Medium dense orangey brown gravelly clayey fine SAND. Gravels are angular to subangular fine to medium flint and subrounded fine to medium chalk. (RIVER TERRACE DEPOSITS)	(0.80)	
1.60	3	D					2.40	
1.60-2.10	4	B						
2.40	4	D				Firm orangey brown gravelly very sandy CLAY. Gravels are angular to subangular fine to coarse flint and subrounded fine to medium calcareous nodules. Sand is fine to medium, predominantly fine. (GAULT FORMATION)	(1.00)	
2.50-2.95	2	SPT(c)	N=13				3.40	
2.50-3.00	5	B						
3.40	5	D				Firm fissured grey mottled yellow-orange gravelly silty CLAY. Gravels are angular to subrounded fine to coarse flints and subrounded to rounded fine calcareous nodules. (GAULT FORMATION)	(1.00)	
3.50-3.95	3	SPT	N=13				4.40	
4.40	6	D				Firm fissured medium grey occasionally mottled yellow brown silty CLAY with occasional inclusions of fine grey to black clayey silt. (GAULT FORMATION)	(0.60)	
4.50-4.95	4	SPT	N=17				5.00	
5.40	7	D				Firm to stiff fissured dark grey silty CLAY with some fine to coarse inclusions of grey to black silt and occasional subrounded fine to medium calcareous nodules. (GAULT FORMATION)	(1.90)	
5.50	1	U ₍₁₀₀₎	40 blows 100% recovery				6.90	
6.00	8	D						
6.90	9	D				Firm to stiff light grey silty very sandy CLAY with occasional subrounded gravels of fine calcareous nodules. (GAULT FORMATION)	(2.10)	
7.00-7.45	5	SPT	N=14				9.00	
8.40	10	D						
8.50	2	U ₍₁₀₀₎	60 blows 80% recovery					
8.50-9.00	6	B						


Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
									1. Groundwater strike at 3.0m bgl, rising to 2.5m after 30 minutes 2. Groundwater strike at 9.0m bgl (fast seepage), rising to 3.6m bgl after 30 minutes 3. Borehole cased to 9.6m bgl 4. Installation to 5m depth
Method Used: Cable percussion						Plant Used: Cable tool rig			All dimensions in metres
						Drilled By: SH			Scale: 1:50
						Logged By: OPengilly			Checked By:



DRAFT BOREHOLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Borehole: BH3
Contract Ref: 25459	Start: 29.08.12 End: 30.08.12	Ground Level (m AOD): 12.45	National Grid Co-ordinate: E:544067.0 N:261091.0		Sheet: 2 of 2

Samples and In-situ Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick-ness)	Material Graphic Legend
Depth	No	Type	Results					
9.00-9.45 9.00-9.40	6 7	SPT B	N=13			Medium dense grey sandy clayey GRAVEL. Gravel is angular to subangular fine to coarse flint and subrounded fine to medium calcareous nodules, predominantly flint. Sand is coarse. (GAULT FORMATION) Stiff dark grey slightly silty CLAY. (GAULT FORMATION)	9.40	
9.70 9.90-10.35	11 7	D SPT	N=23					
11.30 11.40	12 3	D U ₍₁₀₀₎	65 blows 100% recovery					
11.90	13	D					(5.60)	
12.90 13.00-13.45	14 8	D SPT	N=35					
14.40 14.50	15 4	D U ₍₁₀₀₎	90 blows 100% recovery					
15.00	16	D					15.00	

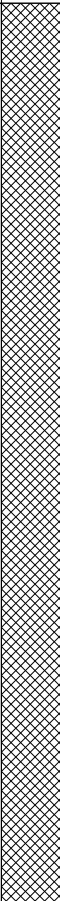
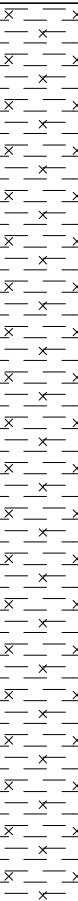
Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
Method Used: Cable percussion						Drilled By: SH			Logged By: OPengilly
Plant Used: Cable tool rig						All dimensions in metres			Scale: 1:50
						Checked By:			

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Borehole: BHG
Contract Ref: 25459	Start: 28.08.12 End: 28.08.12	Ground Level (m AOD): 18.56	National Grid Co-ordinate: E:543545.0 N:260587.0		Sheet: 1 of 2

Samples and In-situ Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.50	1	B				TOPSOIL: Grass over brown organic slightly silty sandy clay with some fine to coarse gravels of angular to subangular flint.	(0.80)	
0.80	1	D				Medium dense dark orangey brown slightly gravelly fine to medium predominantly fine SAND. Gravel is angular to subrounded fine to medium flints. Occasional pockets of clayey sand. (RIVER TERRACE DEPOSITS)	0.80	
1.20-1.65	1	SPT(c)	N=25				(1.20)	
1.20-1.70	2	B					2.00	
1.90	2	D				Medium dense orangey brown SAND and GRAVEL. Gravels are angular to subangular fine to coarse flint. Sand is fine to coarse. (RIVER TERRACE DEPOSITS)	(1.00)	
2.00-2.45	2	SPT(c)	N=26				3.00	
2.00-2.50	3	B					(0.80)	
2.80	3	D				Firm to stiff dark grey occasionally mottled with yellow/brown silty CLAY with occasional subrounded fine calcareous nodules. (GAULT FORMATION)	3.80	
3.00-3.45	3	SPT	N=12					
3.80	4	D				Firm to stiff fissured dark grey silty CLAY with rare gravels of angular to subangular fine to medium flint and occasional subrounded fine to medium calcareous nodules. (GAULT FORMATION)		
4.00-4.45	4	SPT(c)	N=28					
4.00-4.50	4	B						
4.80	5	D						
5.00-5.45	5	SPT	N=19					
6.00	6	D						
6.50	1	U	55 blows					
7.00	7	D						
7.50	8	D				... @ 7.5m Onset of stiff CLAY. Absence of gravels and calcareous nodules below this depth.		
8.00-8.45	6	SPT	N=23					

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
									1. Groundwater strike at 3.3m bgl, rising to 3.1m bgl after 30 minutes 2. Borehole cased to 4.8m bgl 3. Installation to 4.5m depth
Method Used: Cable percussion						Plant Used: Cable tool rig			All dimensions in metres Scale: 1:50
Drilled By: DH						Logged By: OPengilly			Checked By:



Samples and In-situ Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend					
Depth	No	Type	Results										
9.00	9	D	60 blows			Firm to stiff fissured dark grey silty CLAY with rare gravels of angular to subangular fine to medium flint and occasional subrounded fine to medium calcareous nodules. (GAULT FORMATION) <i>(stratum text copied from layer at 3.80m depth from previous sheet)</i> ... @ 9.0 Onset of very stiff clay. ... @ 10m Inclusions of fine to medium gravel sized siltstone. Strata becomes compressed towards base.	(11.20)						
9.50	2	U											
10.00	10	D											
10.50	11	D											
11.00-11.45	7	SPT	N=29										
12.00	12	D											
12.50	3	U	60 blows										
13.00	13	D											
13.50-13.88	8	SPT	N=35										
13.50	14	D											
14.20	15	D											
14.50	4	U	65 blows										
15.00	16	D											
												15.00	

GINT LIBRARY_v8_04.GLBilLog CABLE PERCUSSION LOG : 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:06 | OP:
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Borehole: BHK
Contract Ref: 25459	Start: 28.08.12 End: 29.08.12	Ground Level (m AOD): 18.78	National Grid Co-ordinate: E:543501.0 N:260653.0		Sheet: 1 of 2

Samples and In-situ Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.00-0.50	1	B				TOPSOIL: Brown organic slightly silty sandy CLAY with occasional angular to subangular fine to coarse gravels of flint.	(0.50)	
0.60	1	D				Brown very sandy CLAY with angular to subangular gravels of fine to medium flint. Sand is fine to medium predominantly fine.	(0.90)	
0.70-1.30	2	B					1.40	
1.40	2	D				Firm dark orangey-brown gravelly sandy CLAY. Gravels are angular fine to coarse flint and subangular to subrounded fine to medium chalk. Occasional fragments of organic matter noted at 1.4m depth. Sand is fine to coarse, predominantly fine. (RIVER TERRACE DEPOSITS)	(2.60)	
1.50-1.95	1	SPT(c)	N=18					
1.50-2.00	3	B						
2.40	3	D				...@ 3.4m Increase in clay content, increase in subrounded gravels of coarse flint.	4.00	
2.50-2.95	2	SPT(c)	N=11					
2.50-3.00	4	B						
3.40	4	D				Firm to stiff fissured dark grey silty CLAY with rare to occasional calcareous nodules, and with rare subrounded fine to medium gravels of flint to 7.5m. (GAULT FORMATION)		
3.50-3.95	3	SPT(c)	N=12					
3.50-4.00	5	B						
4.20	5	D						
4.30-4.75	4	SPT	N=14					
5.40	6	D						
5.50	1	U	45 blows					
6.00	7	D						
6.90	8	D						
7.00-7.45	5	SPT	N=30					
8.40	9	D						
8.50	2	U	60 blows					

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)	
									1. Groundwater strike at 3.9m bgl, rising to 3.8m bgl after 30 minutes 2. Borehole cased to 4.5m bgl 3. Installation to 4.5m depth
Method Used: Cable percussion						Plant Used: Cable tool rig			All dimensions in metres
Drilled By: SH						Logged By: OPengilly			Scale: 1:50
Checked By: AGS									



DRAFT BOREHOLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Borehole: BHK
Contract Ref: 25459	Start: 28.08.12 End: 29.08.12	Ground Level (m AOD): 18.78	National Grid Co-ordinate: E:543501.0 N:260653.0		Sheet: 2 of 2

Samples and In-situ Tests				Water	Backfill & Instru- mentation	Description of Strata	Depth (Thick- ness)	Material Graphic Legend
Depth	No	Type	Results					
9.00	10	D	N=30			Firm to stiff fissured dark grey silty CLAY with rare to occasional calcareous nodules, and with rare subrounded fine to medium gravels of flint to 7.5m. (GAULT FORMATION) (stratum text copied from layer at 4.00m depth from previous sheet) ... @ 9.0 Onset of stiff to very stiff consistency CLAY.	(11.00)	
9.90 10.00-10.45	11 6	D SPT						
11.40 11.50	12 3	D U	75 blows					
12.00	13	D						
12.90 13.00-13.45	14 7	D SPT	N=41					
14.40 14.50	15 4	D U	100 blows					
15.00	16	D					15.00	

Boring Progress and Water Observations						Chiselling / Slow Progress			General Remarks	
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	To	Duration (hh:mm)		

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP1
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 19.76	National Grid Co-ordinate: E:543482.0 N:260341.0	Sheet: 1 of 1


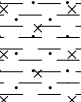
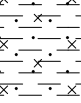
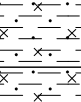
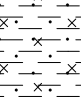

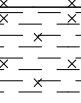
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES				MADE GROUND: Low-rise shrub vegetation and harvested crop remains over dark brown sandy gravelly CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is subangular to subrounded fine to coarse (predominantly medium to coarse) flint. Traces of subangular fine brick and occasional fragments of clay pottery and ceramics. Roots and decomposing organic matter throughout. (MADE GROUND)	(0.45)	
0.50	2	V	$c_u=65$			MADE GROUND: Grey/brown sandy gravelly CLAY. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to coarse flint. Traces of subangular fine to medium brick. Occasional roots to 1.0m depth. Occasional fine to medium gravel-sized fragments of charcoal. (MADE GROUND)	(0.30)	
0.60		ES					0.75	
0.75	3	D	$c_u=90$			Firm to stiff pale grey/brown slightly sandy slightly gravelly CLAY. Sand is predominantly medium. Gravel is predominantly subangular fine to medium clasts of weak to medium density chalk and occasional fine to medium flint. Occasional calcareous nodules. Fine roots (<1mm) noted to terminal depth. (GAULT FORMATION)		
0.75		V						
1.00		V	$c_u=90$...@ 1.5m Reduction in brown colouration		
1.50		V	$c_u=>130$...@ 1.7m Occasional fine gravel-sized lenses of orange silt along fissures	(2.25)	
2.00		V	$c_u=>130$					
2.50	4	D						
							3.00	

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable 2. CBR at 0.45m: 7% 3. CBR at 1.0m: 6%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

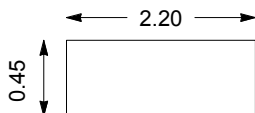
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GINT LIBRARY_V8_04.GLB|Log TRIAL PIT LOG - STANDARD 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:35 | OP:
Hemel Hempstead, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP2
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 18.47	National Grid Co-ordinate: E:543632.0 N:260217.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.30	1	ES				TOPSOIL: Low-rise shrub vegetation and harvested crop remains over dark brown sandy silty clayey TOPSOIL with traces of subangular to subrounded fine to medium flint. Frequent rootlets throughout. Humic-rich soils to 0.15m bgl. (TOPSOIL)	(0.30) 0.30	
0.50 0.50	2	D V	$c_u=56$			Firm grey/brown sandy silty CLAY with traces of subangular fine to medium flint. Occasional fine roots and rootlets noted to 0.7m depth. (GAULT FORMATION)	(0.90)	
0.75		V	$c_u=65$...@ 0.45m Slight increase in fine sand content		
1.00	3	D					1.20	
1.50		V	$c_u=>130$			Firm to stiff fissured pale grey slightly sandy slightly silty CLAY. Sand is fine. Occasional fine decomposing rootlets noted to 2.6m depth. Occasional calcareous nodules. (GAULT FORMATION)	(0.80)	
2.00	4	D				...@ 1.6m Becoming darker grey ...@ 1.7m Onset of fine to medium gravel-sized lenses of orange fine sand and silt.	2.00	
2.50		V	$c_u=>130$			Stiff dark grey slightly silty CLAY. (GAULT FORMATION)	(1.20)	
3.00 3.00	5	D V	$c_u=>130$				3.20	

Plan (Not to Scale)



General Remarks

1. Trial pit remained dry and stable
2. CBR at 0.4m: 4%
3. CBR at 0.6m: 4%
4. CBR at 1.0m: 10%

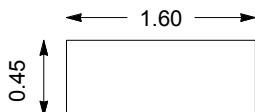

All dimensions in metres

Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: 
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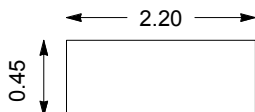

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP2 (i)
Contract Ref: 25459	Date: 28.08.12	Ground Level (m AOD): 18.28	National Grid Co-ordinate: E:543536.0 N:260494.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES				MADE GROUND: Dark brown/brown silty CLAY with occasional angular to subangular medium to coarse clasts of brick and flint. Frequent fine rootlets. (MADE GROUND)	(0.35) 0.35	
0.70	2	ES				Firm pale grey slightly sandy silty CLAY. Sand is fine to medium. Occasional fine gravel-sized inclusions of cream/off-white putty calcareous nodules and occasional medium to coarse sands. (GAULT FORMATION)	(1.15)	
1.00-1.50	3	D					1.50	

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable 2. Trial pit backfilled with 20mm shingle to 0.50m bgl for stability prior to subsequent infiltration testing		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: OPengilly	Checked By:	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP3
Contract Ref: 25459	Date: 28.08.12	Ground Level (m AOD): 17.93	National Grid Co-ordinate: E:543380.0 N:260565.0	Sheet: 1 of 1

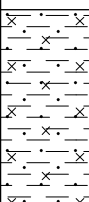
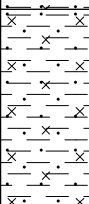
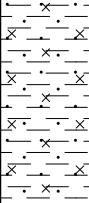
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				MADE GROUND: Harvested crop remains over dark brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is predominantly subangular to subrounded flint. Occasional angular to subangular fine to medium clasts of brick. Humic-rich soil with rootlets throughout. (MADE GROUND)	0.25	
0.50	2	V	$c_u=49$			Firm orangey-brown sandy silty CLAY with traces of subangular fine to medium calcareous nodules. Sand is fine to medium. (GAULT FORMATION)	(0.55)	
0.60		ES					0.80	
1.00	3	D	$c_u=67$			Firm fissured grey slightly sandy slightly silty CLAY. Sand is fine. (GAULT FORMATION)		
1.00		V						
2.00	4	D	$c_u=89$...@ 2.0m Becoming stiff	(2.00)	
2.00		V						
2.50		V	$c_u=84$				2.80	

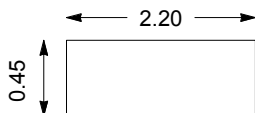

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable 2. CBR at 0.25m: 13% 3. CBR at 0.7m: 3%		
		All dimensions in metres	Scale:	1:25
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

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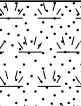
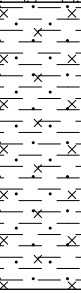
RSK LIBRARY_V8_04.GLIBLog TRIAL PIT LOG - STANDARD 125459_NIAB PHASE 1.GPJ - v8_04_12/10/12 - 16:35 | OP.
R3SK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

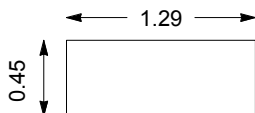

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP4
Contract Ref: 25459	Date: 28.08.12	Ground Level (m AOD): 19.02	National Grid Co-ordinate: E:543485.0 N:260447.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES				MADE GROUND: Grass over dark brown sandy slightly gravelly silty CLAY. Sand is predominantly fine to medium. Gravel is angular to subrounded fine to coarse flint and occasional brick and ceramics. Humic-rich to 0.3m. Rootlets noted throughout. (MADE GROUND)	(0.60)	
0.60	2	D	$c_u=64$			Firm grey/brown slightly sandy silty CLAY. Sand is fine to coarse (predominantly fine to medium). Traces of subangular fine to medium weak calcareous nodules. Occasional decomposing rootlets noted to 1.0m depth. (GAULT FORMATION)	0.60	
0.60		V				...@ 0.9m Increase in pale grey colouration. Reduction in sand content	(0.70)	
1.00		V	$c_u=67$				1.30	
1.40	3	D	$c_u=72$			Firm to stiff grey, occasionally mottled with orangey-brown, slightly sandy silty CLAY. Sand is predominantly fine to medium. (GAULT FORMATION)		
1.40		V						
2.00	4	D	$c_u=84$...@ 2.0m Becoming darker grey	(1.70)	
2.00		V						
2.50		V	$c_u=84$					
3.00	5	D					3.00	

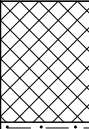
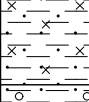
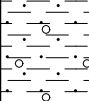
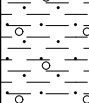
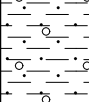
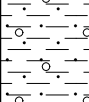
Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable 2. CBR at 0.6m: 7% 3. CBR at 1.0m: 4%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

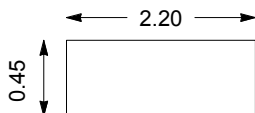

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP4 (i)
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 14.43	National Grid Co-ordinate: E:543941.0 N:260836.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				TOPSOIL: Low-rise shrub vegetation and harvested crop remains over dark brown silty sandy CLAY with traces of subangular to subrounded flint. Sand is predominantly fine to medium. Humic-rich soils to 0.15m bgl. Decomposing organic matter throughout. (TOPSOIL)	(0.35)	
0.60		V	$c_u=51$			Firm orangey-brown very silty sandy CLAY. Sand is fine to coarse. Traces of subangular medium to coarse flint. (RIVER TERRACE DEPOSITS)	(0.95)	
1.00	2	D				...@ 0.9m Increase in sand content (predominantly fine to medium)		
1.20		V	$c_u=65$				1.30	
1.50	3	D				Firm grey/brown slightly sandy slightly silty CLAY. Sand is predominantly fine to medium. (GAULT FORMATION)	1.53	


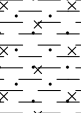

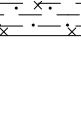

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable 2. Trial pit backfilled with 20mm shingle to 0.35m bgl for stability prior to subsequent infiltration testing		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

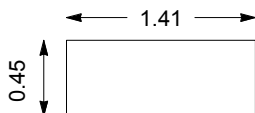

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP5
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 19.14	National Grid Co-ordinate: E:543585.0 N:260354.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.30	1	ES				MADE GROUND: Low-rise shrub vegetation and harvested crop remains over dark brown sandy silty CLAY. Traces of subangular fine to coarse (predominantly fine to medium) flint and brick. Humic-rich soils noted to 0.15m bgl. Frequent roots/rootlets and decomposing organic matter throughout. Single fragment (fine gravel-size) ceramic fragment noted. (MADE GROUND)	(0.40)	
0.40		V	$c_u=73$				0.40	
						Firm to stiff fissured grey/brown slightly sandy silty CLAY. Sand is fine. Traces of subangular medium to coarse flint. Fine rootlets noted to throughout. (GAULT FORMATION)	(0.30)	
0.80	2	ES				Firm to stiff pale grey slightly sandy slightly gravelly CLAY. Sand is predominantly fine. Gravel is subangular to subrounded fine to medium low density calcareous nodules. (GAULT FORMATION)	0.70	
1.00		V	$c_u=110$					
						...@ 1.4m Onset of medium to coarse gravel-sized lenses of orange silty sandy (fine to medium). Occasional linear calcareous inclusions.		
1.50	3	D					(1.80)	
1.50		V	$c_u=>130$					
						Stiff fissured dark grey slightly silty CLAY with occasional fine to medium gravel-sized lenses of fine sand/silt. (GAULT FORMATION)		
2.50	4	D					2.50	
2.50		V	$c_u=>130$				(0.70)	
							3.20	

Plan (Not to Scale)		General Remarks		
		1. Trial pit dry and stable 2. Trial pit backfilled with arisings		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

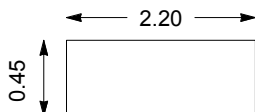

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP5 (i)
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 14.11	National Grid Co-ordinate: E:543983.0 N:260804.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES	c _u =49			TOPSOIL: Harvested crop remains over dark brown sandy clayey TOPSOIL with traces of fine to coarse flint. Sand is fine to medium. Humic-rich soils noted to 0.3m bgl. Frequent rootlets and decomposing organic matter throughout.	(0.40)	
0.50	4	D				Firm orangey-brown sandy silty CLAY with traces of subangular to subrounded fine to coarse (predominantly fine to medium) flint. Sand is fine to coarse.	(0.45)	
0.50	V						0.85	
0.60	2	ES	c _u =57			Firm yellowish-brown, mottled with pale grey, sandy silty CLAY. Sand is predominantly fine to medium. Traces of subangular fine to coarse flint. (RIVER TERRACE DEPOSITS) ...@ 1.2m Slight increase in sand (fine to medium) content	(0.50)	
1.00	3	ES					1.35	
1.00	V							
1.20	5	D						

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable 2. Trial pit backfilled with 20mm shingle to 0.30m bgl for stability prior to subsequent infiltration testing		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

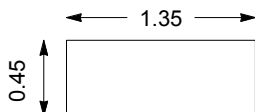

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP6
Contract Ref: 25459	Date: 28.08.21	Ground Level (m AOD): 17.72	National Grid Co-ordinate: E:543416.0 N:260636.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES				MADE GROUND: Harvested crop remains over dark brown sandy silty CLAY with traces of subangular to subrounded fine to coarse flint. Occasional subangular fine to medium brick clasts.	(0.35)	
0.50	2	ES				Firm to stiff orangey-brown slightly gravelly silty sandy CLAY. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to coarse flint and chert. (GAULT FORMATION)	0.35	
0.50	3	D	$c_u=49$				(0.65)	
0.50		V					1.00	
1.00	4	D	$c_u=59$			Firm to stiff grey slightly sandy silty CLAY. Sand is predominantly fine to medium. Occasional subangular fine to medium clasts of claystone. Rare decomposing rootlets noted to 2.0m depth (<1mm diameter). (GAULT FORMATION)		
1.00		V						
2.00		V	$c_u=64$...@ 2.0m Becoming stiff	(2.20)	
2.50		V	$c_u=83$					
3.00		V	$c_u=81$				3.20	

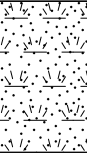
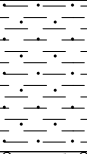
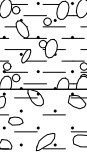

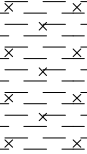
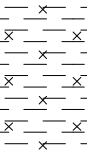



Plan (Not to Scale)		General Remarks		
		1. Trial pit dry and stable 2. CBR at 0.2m: 2% 3. CBR at 0.5m: 4%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

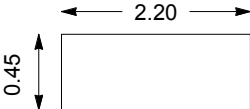

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP6 (i)
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 12.89	National Grid Co-ordinate: E:544120.0 N:260938.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES				MADE GROUND: Dark brown silty sandy slightly gravelly CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is subangular fine to medium flint. Rare subangular fragments of fine to medium brick and ceramics. Fine roots and rootlets throughout.	(0.35)	
0.40		V	$c_u=46$			(MADE GROUND)	0.35	
0.50	2	ES				Firm orangey-brown gravelly sandy CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is subangular to subrounded fine to coarse flint. Occasional subangular cobbles of flint.		
0.50	3	D				(RIVER TERRACE DEPOSITS)	(0.75)	
						...@ 0.5 to 0.7m Horizon of gravelly very sandy CLAY / gravelly very clayey SAND		
1.00		V	$c_u=68$...@ 1.0m Reduction in sand and gravel content	1.10	

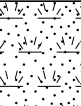
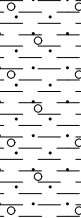

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable 2. Trial pit backfilled with 20mm shingle to 0.10m bgl for stability prior to subsequent infiltration testing		
		All dimensions in metres	Scale:	1:25
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

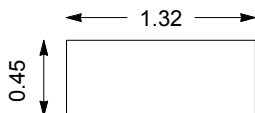

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP7
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 19.05	National Grid Co-ordinate: E:543650.0 N:260409.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.30	1	ES	$c_u=69$			TOPSOIL: Harvested crop remains over dark brown slightly gravelly sandy CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is subangular to subrounded fine to coarse flint. Humic-rich soils noted to 0.2m bgl. Roots and rootlets throughout. (TOPSOIL)	(0.50)	
0.50		V				Firm orangey-brown sandy CLAY with traces of fine to medium subangular to subrounded flint and chert. Occasional fine roots throughout. (RIVER TERRACE DEPOSITS)	0.50	
0.70 0.70	2 3	ES D					(0.50)	
1.00		V	$c_u=99$			Firm to stiff sandy very gravelly CLAY. Sand is fine to coarse (predominantly medium to coarse). Gravel is subangular to subrounded medium to coarse flint. Occasional subrounded cobbles of flint. Rare inclusions of chalk, predominantly as fine to medium gravel-sized putty chalk. (RIVER TERRACE DEPOSITS)	1.00	
1.20	4	D					(0.30)	
						Orangey-brown sandy clayey GRAVEL. Sand is predominantly medium to coarse. Gravel is subangular to subrounded fine to coarse (predominantly medium to coarse) flint and chert. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	1.30	
2.00	5	D	$c_u=>130$... @ 1.80m to 2.0m Horizon of Off-white/grey calcareous nodules, encountered as predominantly medium to coarse medium density calcareous nodular gravels with clay/silt matrix. Occasional black speckling and orange silty inclusions. Stiff pale grey silty CLAY with occasional orange inclusions of fine sand and silt along fissures. Occasional calcareous inclusions, encountered as linear 1mm in thickness. (GAULT FORMATION)	2.00	
							(1.10)	
3.00 3.00	6	D V					3.10	










Plan (Not to Scale)		General Remarks		
		1. Trial pit dry and stable 2. CBR at 0.5m: 9% 3. CBR at 0.9m: 9%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

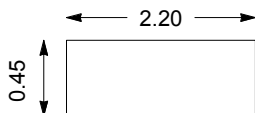

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP7 (i)
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 12.54	National Grid Co-ordinate: E:543955.0 N:261102.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES				TOPSOIL: Harvested crop remains over dark brown slightly sandy silty TOPSOIL. Sand is predominantly fine to medium. Traces of subangular to subrounded fine to medium flint gravel. Occasional woody fragments. Decomposing organic matter and roots throughout. (TOPSOIL)	(0.35)	
0.30	2	D					0.35	
0.50		V	$c_u=58$			Firm brown, becoming orangey-brown by 0.55m, slightly gravelly sandy CLAY. Sand is fine to coarse (predominantly medium to coarse). Gravel is predominantly subangular fine flint. (GAULT FORMATION)	(0.75)	
							1.10	
1.20		V	$c_u=75$			Firm pale grey, mottled orangey-brown sandy CLAY. Sand is fine to coarse (GAULT FORMATION). (GAULT FORMATION)	1.30	


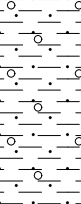
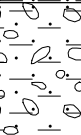
Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable 2. Trial pit backfilled with 20mm shingle to 0.25m bgl for stability prior to subsequent infiltration testing		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP8
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 19.05	National Grid Co-ordinate: E:543650.0 N:260490.0	Sheet: 1 of 1

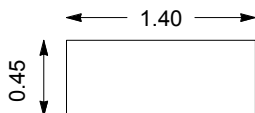
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES	c _u =55			TOPSOIL: Harvested crop remains over dark brown slightly gravelly sandy CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is subangular to subrounded fine to coarse flint. Humic-rich soils noted to 0.2m bgl. Roots and rootlets throughout. (TOPSOIL)	(0.30)	
0.30-0.40	2	D				Orangey-brown gravelly very clayey SAND. Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint. Roots and rootlets throughout. Occasional decomposing organic matter. (RIVER TERRACE DEPOSITS)	0.30	
0.50	3	ES V				Firm orangey-brown sandy gravelly CLAY. Sand is fine to coarse (predominantly medium to coarse). Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	0.50	
0.50	4	D				Light brown/orange/yellow very gravelly SAND. Gravel is subangular to subrounded fine to coarse flint. Sand is fine to coarse (predominantly medium to coarse). (RIVER TERRACE DEPOSITS)	(0.50)	
0.70			c _u =72			...@ 1.2m Becoming a very sandy GRAVEL	1.00	
1.20	5	D				...@ 1.9m Becoming a gravelly SAND	(1.30)	
2.00	6	D				Firm to stiff orangey-brown/grey very sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse (predominantly fine to medium) flint and subangular fine to medium weak to medium density calcareous nodules. (GAULT FORMATION)	2.30	
2.50	7	D V					(0.70)	
2.50							3.00	

Plan (Not to Scale)		General Remarks		
		1. Trial pit dry and stable 2. CBR at 0.3m: 4% 3. CBR at 0.8m: 6%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP8 (i)
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 12.22	National Grid Co-ordinate: E:544175.0 N:261116.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES	c _u =57			TOPSOIL: Harvested crop remains over dark brown slightly sandy silty TOPSOIL. Sand is predominantly fine to medium. Traces of subangular to subrounded fine to medium flint gravel. Occasional woody fragments. Decomposing organic matter and roots throughout. (TOPSOIL)	0.25	
0.50 0.60	2	V ES				Firm orangey-brown slightly gravelly sandy CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is predominantly subangular fine flint. (RIVER TERRACE DEPOSITS)	(0.70)	
						...@ 0.65m Increase in sand and gravel constituents	0.95	
1.00	3	D				Orangey-brown slightly clayey very sandy GRAVEL. Sand is fine to coarse (predominantly medium to coarse). Gravel is subangular to subrounded fine to coarse (predominantly fine to medium) flint and chert. (RIVER TERRACE DEPOSITS)	(0.45)	
							1.40	

Plan (Not to Scale)



General Remarks








1. Trial pit remained stable
2. Slow water seepage at base on completion.
3. Trial pit backfilled with 20mm shingle to 0.45m bgl for stability prior to subsequent infiltration testing

All dimensions in metres

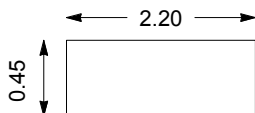
Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: 	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP9
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 18.17	National Grid Co-ordinate: E:543730.0 N:260478.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES	c _u =66			TOPSOIL: Harvested crop remains over dark brown sandy slightly gravelly clayey TOPSOIL. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to medium flint. Roots, rootlets and decomposing organic matter throughout. Rare subangular fine chalk clasts. (TOPSOIL)	0.25	
0.55 0.60	2	V ES				Firm orangey-brown slightly gravelly sandy CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to coarse flint. Roots noted throughout. (RIVER TERRACE DEPOSITS)	(0.55) 0.80	
1.00	4	D				Light brown/orangey-brown gravelly SAND. Gravel is subangular to subrounded fine to coarse flint. Sand is fine to coarse (predominantly medium to coarse). (RIVER TERRACE DEPOSITS)		
1.50	3	ES					(1.80)	
2.00	5	D				...@ 2.0m Increase in gravel content, becoming a SAND and GRAVEL		
							2.60	
						Brown/grey/orangey-brown sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse (predominantly fine to medium). Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.40) 3.00	
3.00	6	D						

Plan (Not to Scale)



General Remarks

1. Trial pit becoming unstable below 2.0m depth
2. Slow water seepage noted at 2.0m depth
3. Water level at 2.7m depth on completion
4. Terminal depth at 3.0 due to instability of excavation

All dimensions in metres

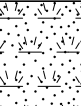
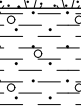
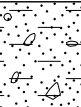
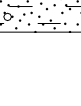

Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: AGS
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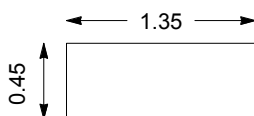


DRAFT TRIAL PIT LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP9 (i)
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 12.28	National Grid Co-ordinate: E:544181.0 N:261357.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES	c _u =65			TOPSOIL: Harvested crop remains over dark brown sandy silty clayey TOPSOIL with traces of subangular to subrounded fine to medium flint. Humic-rich horizon to 0.1m bgl. Rootlets and inclusions of decomposing organic matter throughout. (TOPSOIL)	(0.37)	
0.50	3	D				Firm orangey-brown, occasionally mottled with pale grey, sandy gravelly CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is predominantly subangular fine to medium flint. (RIVER TERRACE DEPOSITS)	(0.33)	
0.50		V					0.70	
0.70	2	ES				Orangey-brown slightly clayey gravelly SAND. Gravel is subangular to subrounded fine to coarse (predominantly fine to medium) flint. Sand is predominantly medium. (RIVER TERRACE DEPOSITS)	(0.45)	
0.90	4	D					1.15	

Plan (Not to Scale)



General Remarks



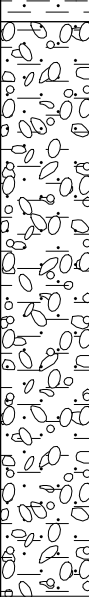
1. Trial pit remained dry and stable
2. Trial pit backfilled with 20mm shingle to 0.1m bgl for stability prior to subsequent infiltration testing
3. CBR @ 0.2m: 6%

All dimensions in metres

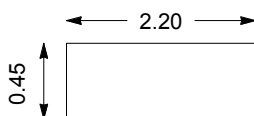
Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: 	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP10
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 18.76	National Grid Co-ordinate: E:543519.0 N:260729.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES	c _u =51			TOPSOIL: Low-rise shrub vegetation and harvested crop remains over dark brown slightly gravelly sandy clayey TOPSOIL. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium flint. Humic-rich soil noted to 0.1m depth. Roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	0.25	
0.50 0.50	2	ES V				Firm orangey-brown slightly gravelly very sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded medium to coarse flint. (RIVER TERRACE DEPOSITS)	(0.35) 0.60	
1.00	3	D				Orange/brown/yellow slightly clayey sandy GRAVEL. Sand is fine to coarse (predominantly medium to coarse). Gravel is subangular to subrounded fine to coarse flint and chert. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS) ...@ 1.0m Becoming a very gravelly SAND ...@ 1.5m Becoming a SAND and GRAVEL	(1.90) 2.50	
2.00	4	D						
2.50	5	D						

Plan (Not to Scale)



General Remarks

1. Trial pit unstable below 1.8m depth
2. Slow water seepage noted at 1.6m depth, faster seepage at 2.0m depth
3. Water level at 2.2m on completion
4. Terminal depth at 2.5m due to instability of excavation
5. CBR at 0.5m: 10%
6. CBR at 0.8m: 10%

All dimensions in metres

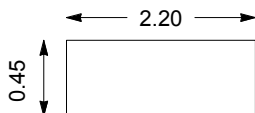
Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: 
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP11
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 18.82	National Grid Co-ordinate: E:543585.0 N:260674.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES	c _u =63			MADE GROUND: Low-rise shrub vegetation and harvested crop remains over dark brown silty very sandy CLAY with traces of subangular to subrounded fine to coarse flint, brick and charcoal. Occasional fine to medium fragments of clay tiling (MADE GROUND)	(0.30) 0.30	
0.50-0.60	2	ES				Firm orangey-brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse (predominantly medium to coarse) flint. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.90)	
0.75	3	D						
1.00		V					1.20	
1.50	4	D				Orangey-brown/light brown clayey gravelly SAND. Gravel is subangular to subrounded fine to coarse flint and chert. (RIVER TERRACE DEPOSITS)	(0.80) 2.00	
2.20	5	D				Yellow/orangey-brown/light brown very gravelly SAND/very sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse (predominantly fine to medium) flint. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(1.00)	
3.00	6	D				...@ 2.5m Becoming a sandy GRAVEL. Occasional subrounded cobbles of flint. ...@ 2.6m Slight increase in clay content ...@ 2.9m Increase in fine to coarse flint gravels	3.00	

Plan (Not to Scale)



General Remarks

1. Trial pit unstable below 2.0m depth
2. Water seepage noted from base
3. Terminal depth at 3.0m due to instability of excavation
4. CBR at 0.5m: 6%

All dimensions in metres

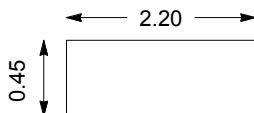
Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP12
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 18.29	National Grid Co-ordinate: E:543723.0 N:260560.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.30	1	ES				TOPSOIL: Harvested crop remains over dark brown silty sandy clayey TOPSOIL with traces of subangular fine to medium flint. Roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	(0.40)	
0.50		V	$c_u=51$				0.40	
0.60-0.70	2	ES				Firm light brown/orangey-brown sandy gravelly CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint. Decomposing rootlets noted to 0.7m depth. (RIVER TERRACE DEPOSITS)	(0.90)	
1.00		D	$c_u=67$				1.30	
1.00	3	V						
1.50		D				Firm pale grey slightly gravelly silty CLAY. Sand is fine to coarse. Gravel is subangular fine to medium flint and low density chalk clasts. Occasional black carbonaceous speckling and orange fine sand/silty lenses (possibly reworked chalk). (RIVER TERRACE DEPOSITS)	(0.50)	
1.50	4	ES					1.80	
1.50	5	D	$c_u=123$					
		V				Orangey-brown gravelly clayey SAND. Gravel is predominantly fine to medium flint. Sand is predominantly medium to coarse. (RIVER TERRACE DEPOSITS)	(0.40)	
							2.20	
						Orangey-brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is fine to coarse subangular to subrounded flint. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.45)	
							2.65	
						Light brown/orangey-brown slightly clayey SAND and GRAVEL. Sand is predominantly medium to coarse. Gravel is subangular to subrounded predominantly medium to coarse flint. (RIVER TERRACE DEPOSITS)	(0.55)	
3.00	6	ES					3.20	

Plan (Not to Scale)



General Remarks

1. Trial pit unstable below 2.6m depth
2. Moderate water seepage noted at 2.5m depth
3. Water level at 3.0m on completion
4. CBR at 0.4m: 6%
5. CBR at 0.8m: 5%

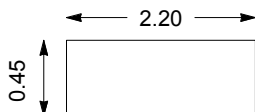

All dimensions in metres

Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP13
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 18.44	National Grid Co-ordinate: E:543663.0 N:260659.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.30	1	ES	$c_u=49$			TOPSOIL: Low-rise shrub vegetation and harvested crop remains over dark brown slightly gravelly sandy clayey TOPSOIL. Sand is predominantly fine to medium. Gravel is predominantly subangular fine to medium flint. Humic-rich soil noted to 0.2m depth. Roots/rootlets and decomposing organic matter throughout.	(0.45)	
0.50		V				Firm orangey-brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse (predominantly medium to coarse) flint. Occasional subrounded cobbles of flint.	0.45 0.65	
0.70-0.80	2	ES				Orangey-brown slightly clayey very sandy GRAVEL. Sand is predominantly medium to coarse. Gravel is subangular to subrounded fine to coarse (predominantly fine to medium flint). (RIVER TERRACE DEPOSITS)		
						...@ 1.2m Reduction in sand content. Increase in medium to coarse gravel constituents	(1.70)	
						...@ 1.6m Increase in clay content		
2.50	3	D	$c_u \Rightarrow 130$			Firm pale grey slightly sandy slightly gravelly CLAY. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to medium low density calcareous nodules. (GAULT FORMATION)	2.35	
2.50		V					(0.65) 3.00	

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained stable 2. Slow water seepage noted at 2.6m depth 3. CBR at 0.45m: 13% 4. CBR at 0.9m: 10%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

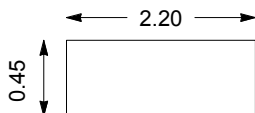


DRAFT TRIAL PIT LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP14
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 17.93	National Grid Co-ordinate: E:543655.0 N:260732.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20 0.10-0.30	1 2	ES D				TOPSOIL: Low-rise shrub vegetation and harvested crop remains over dark brown slightly gravelly sandy clayey TOPSOIL. Sand is predominantly fine to medium. Gravel is predominantly subangular fine to medium flint. Humic-rich soil noted to 0.2m depth. Roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	(0.55) 0.55	
0.60	3	ES				Firm orangey-brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse (predominantly medium to coarse) flint. (RIVER TERRACE DEPOSITS)	(0.45) 1.00	
1.00	4	D				Orangey-brown SAND and GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint. (RIVER TERRACE DEPOSITS)	(1.80) 2.80	
						...@ 1.8m Increase in medium to coarse gravel constituents		

Plan (Not to Scale)



General Remarks







1. Trial pit unstable below 2.6m depth
2. Fast water seepage noted at 2.6m depth.
3. Water level at 2.45m on completion
4. Terminal depth at 2.8m due to instability of excavation

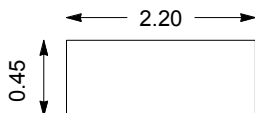

All dimensions in metres

Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP15
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 17.21	National Grid Co-ordinate: E:543755.0 N:260662.0	Sheet: 1 of 1








Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				TOPSOIL: Harvested crop remains over dark brown silty sandy clayey TOPSOIL with traces of subangular fine to medium flint. Roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	(0.30)	
0.50-0.60	2	ES V	$c_u=52$			Firm light brown/orange-brown sandy gravelly CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint.	(0.50)	
1.00	3	D V	$c_u=96$...@ 0.5m Increase in fine to medium sand content Firm to stiff pale grey slightly gravelly CLAY. Sand is predominantly coarse. Gravel is predominantly subangular fine to medium flint and rare calcareous nodules. (GAULT FORMATION)	(1.30)	
2.00	4	D V	$c_u=>130$				2.10	
2.20	5	ES				Firm to stiff fissured slightly sandy silty CLAY. Sand is fine. Occasional fine subangular claystone clasts. Occasional calcareous inclusions. (GAULT FORMATION)	(1.10)	
3.00	6	D V	$c_u=>130$				3.20	

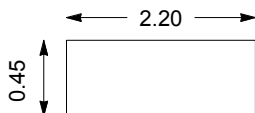

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable throughout 2. CBR at 0.3m: 4% 3. CBR at 0.5m: 5% 4. CBR at 0.9m: 13%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

[illegible]

Plan (Not to Scale) <div style="text-align: center;"> </div>		<h2 style="text-align: center;">General Remarks</h2> <ol style="list-style-type: none"> 1. Trial pit unstable below 1.6m depth 2. Fast water seepage noted at 1.6m depth 3. Water level at 1.8m on completion 4. Terminal depth at 2.4m due to instability of excavation 5. CBR at 0.5m: 5% 	
		All dimensions in metres Scale: 1:25	
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: <div style="text-align: right;"></div>

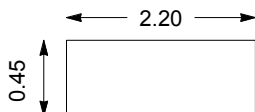

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP17
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 17.35	National Grid Co-ordinate: E:543856.0 N:260594.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES				TOPSOIL: Low-rise shrub vegetation and harvested crop remains over dark brown sandy gravelly CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is subangular to subrounded fine to medium flint. Frequent roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	(0.30)	
0.50	2	V	$c_u=56$			Firm light brown/orangey-brown very sandy slightly gravelly CLAY. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to medium flint. Occasional coarse gravel and cobbles-sized subrounded flint. (RIVER TERRACE DEPOSITS)	(0.90)	
0.60		ES						
1.00		V	$c_u=69$...@ 0.5m Increase in sand content	1.20	
1.50	3	D				Orangey-brown sandy GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(1.10)	
							2.30	
2.50	4	D				Firm to stiff grey slightly sandy slightly silty CLAY. Sand is fine. (GAULT FORMATION)	(0.50)	
2.80		V	$c_u=>130$				2.80	

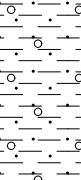
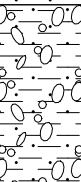



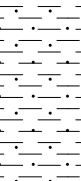
Plan (Not to Scale)		General Remarks		
		<ol style="list-style-type: none"> 1. Trial pit unstable below 1.6m depth 2. Water seepage noted at 1.6m depth 3. Water level at 2.65m on completion 4. Terminal depth at 2.8m due to instability of excavation 5. CBR at 0.4m: 3% 6. CBR at 0.7m: 5% 		
		All dimensions in metres	Scale:	1:25
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

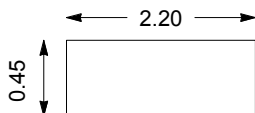

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP18
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 17.17	National Grid Co-ordinate: E:543920.0 N:260525.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20 0.15	1 2	D ES	$c_u=71$			MADE GROUND: Dark brown silty gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse (predominantly fine to medium) flint. Rare fragments of fine subangular brick. Occasional woody fragments. Roots/rootlets and decomposing organic matter throughout. (MADE GROUND)	(0.35) 0.35	
0.50 0.50	3	ES V				Firm orangey-brown slightly sandy gravelly CLAY. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to coarse flint. (RIVER TERRACE DEPOSITS)	(0.45) 0.80	
1.50 1.50	4	D V				Firm pale grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint and chalk. Occasional calcareous inclusions and occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.80) 1.60	
2.50 2.50	5	D V				Orangey-brown clayey sandy GRAVEL. Sand is fine to coarse (predominantly medium to coarse). Gravel is subangular medium to coarse flint. (RIVER TERRACE DEPOSITS) ...@ 1.6m Orangey-brown clayey sandy GRAVEL. Sand is fine to coarse (predominantly medium to coarse). Gravel is subangular medium to coarse flint. Firm pale grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint and chalk. Occasional calcareous inclusions and occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS) Firm to stiff pale grey slightly silty slightly sandy CLAY. Sand is fine. Occasional linear calcareous inclusions. (GAULT FORMATION)	(0.30) (0.40) (0.70) 3.00	

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable throughout 2. CBR at 0.5m: 4% 3. CBR at 0.8m: 7%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP19
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 17.42	National Grid Co-ordinate: E:543697.0 N:260767.0	Sheet: 1 of 1

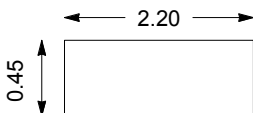
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES				MADE GROUND: Harvested crop remains over dark brown sandy gravelly CLAY. Sand is fine to coarse (predominantly fine to medium). Gravel is predominantly subangular fine to medium flint. Rare subangular fine clasts of brick. Humic-rich soils noted to 0.15m bgl. Roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	(0.45)	
0.50	2	D	$c_u=57$			Firm orangey-brown slightly silty sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse (predominantly fine to medium) flint. (RIVER TERRACE DEPOSITS)	(0.65)	
0.50 0.60	3	V ES						
1.00	4	D	$c_u=106$			Firm to stiff pale grey/brown slightly gravelly sandy CLAY. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to coarse flint and occasional fine to medium chalk. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.65)	
1.00		V						
1.50	5	D	$c_u > 130$			Firm to stiff pale greyish blue silty slightly sandy CLAY. Sand is fine. Traces of subangular fine to medium claystone. (GAULT FORMATION)	(1.25)	
1.50		V						
2.00			$c_u > 130$...@ 0.7m Becoming a very clayey SAND and GRAVEL	1.10	
3.00	6	D	$c_u > 130$...@ 1.4m Slight increase in sand and gravel constituents	1.75	
3.00		V						
						...@ 2.5m Onset of grey/brown mottling	3.00	

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained stable throughout 2. Slow water seepage noted at 1.5m depth		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP20
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 16.22	National Grid Co-ordinate: E:543707.0 N:260872.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES				TOPSOIL: Harvested crop remains over dark brown very sandy very clayey TOPSOIL with traces of subangular fine to coarse flint. Roots/rootlets and decomposing organic matter throughout.	(0.35)	
0.40		V	$c_u=66$			Firm orangey-brown slightly gravelly silty sandy CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint. Occasional fine rootlets. (RIVER TERRACE DEPOSITS)	0.35	
0.50	2	D						
0.70	3	ES						
1.00		V	$c_u=79$...@ 0.6m Increase in fine sand and silt content		
						...@ 1.0m Becoming pale grey with occasional inclusions of chalk	(1.80)	
2.00	4	ES				...@ 2.0m Becoming a very sandy very gravelly CLAY	2.15	
2.00	5	D	$c_u=>130$			Grey/brown clayey SAND & GRAVEL. Sand is fine to coarse (predominantly medium to coarse). Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.35)	
2.00		V				Firm pale greyish blue silty slightly sandy CLAY. Sand is fine. Traces of subangular fine to medium claystone. (GAULT FORMATION)	2.50	
							(0.50)	
3.00	6	ES					3.00	
3.00	7	D	$c_u=>130$					
3.00		V						

Plan (Not to Scale)



General Remarks

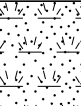
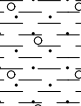

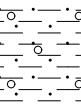
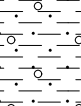
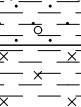
1. Trial pit remained stable throughout
2. Slow water seepage noted at 1.9m depth
3. CBR at 0.35m: 3%
4. CBR at 0.7m: 5%

All dimensions in metres

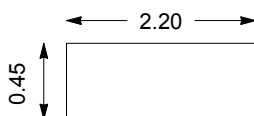
Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: AGS
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP21
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 15.88	National Grid Co-ordinate: E:543763.0 N:260814.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.30	1	ES				TOPSOIL: Low-rise shrub vegetation and harvested crop remains over dark brown silty sandy clayey TOPSOIL with traces of subangular to subrounded fine to medium flint. Roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	(0.35)	
0.50-0.60	2	ES V	$c_u=61$			Firm slightly gravelly very sandy CLAY. Sand is predominantly medium to coarse. Gravel is subangular to subrounded fine to coarse flint. Fine roots and rootlets noted throughout. (GAULT FORMATION)	(0.55)	
1.00	3	D V	$c_u=83$			Firm pale grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint and fine to medium calcareous nodules. Occasional fine to medium gravel-sized soft calcareous inclusions. Occasional decomposing rootlets (<1mm diameter) noted. (GAULT FORMATION)	(1.10)	
1.50		V	$c_u=>130$...@ 1.2m Reduction in sand and gravel content. Gravel predominantly comprises chalk ...@ 1.6m Increase in calcareous nodules (predominantly fine to medium).	2.00	
2.50	4	ES				Firm to stiff fissured dark grey slightly sandy slightly silty CLAY. Sand is fine and predominantly encountered as fine gravel-sized lenses. Occasional linear calcareous inclusions. (GAULT FORMATION)	(0.70)	
2.50	5	D V	$c_u=>130$				2.70	

Plan (Not to Scale)



General Remarks





1. Trial pit remained dry and stable throughout

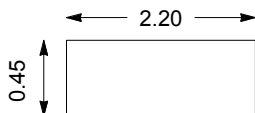

All dimensions in metres

Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP22
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 16.63	National Grid Co-ordinate: E:543817.0 N:260762.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES				TOPSOIL: Harvested crop vegetation over dark brown sandy silty clayey TOPSOIL. Sand is predominantly fine to medium. Traces of subangular fine to medium flint. Roots/rootlets and decomposing organic matter throughout (TOPSOIL)	0.20	
0.60	2	V	$c_u=81$			Firm brown very sandy CLAY with traces of subangular fine to medium flint. Sand is predominantly fine to medium. Occasional subrounded cobbles of flint. (GAULT FORMATION)	(0.70)	
0.70		D					0.90	
1.20	3	V	$c_u=>130$			Firm to stiff pale grey sandy gravelly CLAY. Sand is fine to medium. Gravel is subangular to subrounded fine to medium flint and calcareous nodules. Occasional coarse gravel and cobbles-sized flint. Occasional calcareous inclusions. (GAULT FORMATION)	(1.30)	
1.50		D					2.20	
2.00	4	V	$c_u=>130$			Firm fissured grey silty CLAY. Occasional fine gravel-sized inclusions of orange/light brown fine sand and silt. Occasional linear calcareous inclusions. (GAULT FORMATION)	(1.10)	
2.20		ES					3.30	
2.20	5	D						
3.00	V		$c_u=>130$					

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable throughout		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	



Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.30	1	ES	Tub+VL+J			<p>TOPSOIL: Dark brown sandy silty clayey TOPSOIL with traces of subangular to subrounded fine to coarse flint (TOPSOIL)</p>	(0.40)	
0.50 0.50	2	D V	$c_u=49$			<p>Firm light brown/orangey-brown sandy CLAY. Sand is predominantly fine to medium. Fine rootlets noted to 0.6m. (RIVER TERRACE DEPOSITS)</p>	0.40	
0.70-0.80	3	ES	Tub+VL+J			<p>... @ 0.6 m to 1.7 m Lense of sandy CLAY.</p>	(0.90)	
1.00		V	$c_u=76$				1.30	
2.00 2.00	4 5	D ES	Tub+VL+J			<p>Oragney-brown slightly clayey slightly gravelly SAND. Sand is prediominantly medium. Gravel is subangular to subrounded fine to coarse flint. Rare subangular cobbles of flint. (RIVER TERRACE DEPOSITS)</p> <p>... @ 2.0 m slight increase in fine to medium subangular flint content.</p>	(1.80)	
							3.10	

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RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

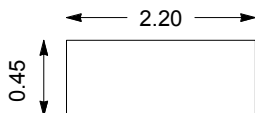


DRAFT TRIAL PIT LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP24
Contract Ref: 25459	Date: 03.09.12	Ground Level (m AOD): 13.89	National Grid Co-ordinate: E:543843.0 N:260966.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20-0.30	1	ES	Tub+VL+J			MADE GROUND: Harvested vegetation over dark brown sandy silty CLAY. Sand is predominantly fine to medium. Occasional angular to subangular medium to coarse gravels of flint. (MADE GROUND) ... @ 0.5 m cobbled sized roof-tiles found Light orangey-brown gravelly angular fine to coarse predominantly coarse SAND. Gravel is angular to subangular fine to cobbled predominantly coarse flint with rare to occasional fine to coarse fragments of brick. (RIVER TERRACE DEPOSITS) ... @ 1.0 onset of cobbled sized pockets of stiff fractured grey silty clay with gravels of subrounded fine to coarse chalk and angular to subangular gravels of flint and chert within the sand matrix.	(0.60)	
0.45		V	$c_u=56$				0.60	
0.60	2	ES	Tub+VL+J					
							(0.80)	
							1.40	

Plan (Not to Scale)



General Remarks

1. Trial pit remained stable throughout
2. Water seepage at 1.4 m
3. CBR at 0.45 mbgl: 5%

All dimensions in metres

Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: OPengilly	Checked By:	
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DRAFT TRIAL PIT LOG

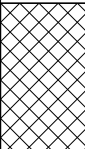
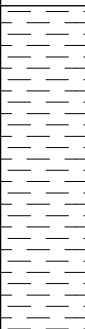

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP25	
Contract Ref: 25459	Date: 03.09.12	Ground Level (m AOD): 13.03	National Grid Co-ordinate: E:544100.0 N:260825.0	Sheet: 1 of 1	

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation on top of dark brown clayey slightly silty sandy TOPSOIL, with occasional angular to subrounded fine to coarse gravels of flint.	0.25	
0.20	2	D				(TOPSOIL)		
0.40		V	$c_u=60$			Firm orangey-brown sandy CLAY. (RIVER TERRACE DEPOSITS)	(0.40)	
							0.65	
						Firm orangey-brown gravelly fine SAND with occasional to some coarse to cobbled sized pockets of sandy grey clay. Gravel is fine to coarse angular to subrounded flint. (RIVER TERRACE DEPOSITS)	(0.95)	
1.10	3	D					1.60	
						Firm to stiff grey sandy CLAY. (GAULT FORMATION)	(1.20)	
2.00	4	D					2.80	
2.60		V	$c_u=91$					

Plan (Not to Scale)		General Remarks	
		1. Trial pit remained stable throughout 2. Pit remained dry during excavation	
All dimensions in metres		Scale: 1:25	
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: OPengilly	Checked By:

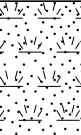

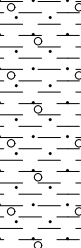
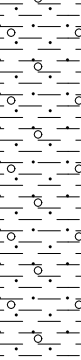
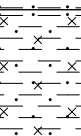





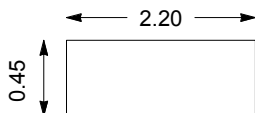
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES	VL+J			MADE GROUND: Harvested vegetation over dark brown slightly silty sandy clayey TOPSOIL, with occasional angular to rounded fine to coarse gravels of flint and chert. Sand is fine. (MADE GROUND)	(0.50)	
0.10-0.20	2	D						
0.20-0.30	3	ES	Tub					
0.40		V	c _u >130			... @ 0.1m onset of orangey dark brown fine to medium sandy very mottled grey CLAY	0.50	
0.60	4	D				... @ 0.3 m rare coarse ash and clinker Orangey brown to grey sandy CLAY with rare angular to subangular fine to medium gravels of flint and with medium pockets of dark organic matter. (RIVER TERRACE DEPOSITS)	(1.00)	
							1.50	
1.50	5	D				Firm grey mottled with orangey-brown CLAY. (RIVER TERRACE DEPOSITS)	(1.10)	
1.50		V	c _u =80					
1.80		V	c _u =80					
						Orangey brown gravelly fine SAND. Gravel is angular to subangular fine to coarse flint and chert (RIVER TERRACE DEPOSITS). (RIVER TERRACE DEPOSITS)	(0.50)	
					3.10			

Plan (Not to Scale)		General Remarks	
<p>A diagram showing a rectangle representing a trial pit. The width is labeled as 2.20 and the height is labeled as 0.45.</p>		<ol style="list-style-type: none"> 1. Trial pit remained stable throughout 2. Water seepage noted at 2.7 mbgl 3. CBR at 0.4 mbgl: 7% 4. CBR at 0.7 mbgl: 6% 	
		All dimensions in metres	Scale: 1:25
Method Used:	Machine dug	Plant Used:	JCB-3CX
		Logged By:	OPencilly
		Checked By:	BUC
		AGS	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP27
Contract Ref: 25459	Date: 03.09.12	Ground Level (m AOD): 13.15	National Grid Co-ordinate: E:543916.0 N:261033.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.30	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over slightly gravelly clayey sandy TOPSOIL. Gravel is angular to subangular fine to coarse flint. Sand is predominantly fine to medium. (TOPSOIL)	(0.45)	
0.45		V	$c_u=59$			Orangey-brown gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint.	0.45	
0.50	2	D						
0.60	3	ES	Tub+VL+J			Pale grey-brown very sandy gravelly CLAY with medium to coarse chalk. Sand is predominantly fine to medium. Gravel is fine to coarse flint. (RIVER TERRACE DEPOSITS)	0.65	
0.90		V	$c_u=>130$					
1.50								
1.50	4	D	$c_u=89$... @ 1.30 to 1.50m Horizon of orangey-grey silty SAND with gravels of flint and chalk and with pockets of orangey brown mottled grey sandy clays.	(2.05)	
1.50		V						
2.70						Firm pale grey sandy silty CLAY. Sand is predominantly fine. (RIVER TERRACE DEPOSITS)	2.70	
2.70	5	D	$c_u=>130$				(0.60)	
		V				... @ 3.10 Onset of angular cobbles of flint and increased sand content.	3.30	

Plan (Not to Scale)



General Remarks

1. Trial pit became unstable at 3 mbgl
2. Water seepage noted at 3.1 mbgl
3. CBR at 0.45 mbgl: 5%
4. CBR at 0.9 mbgl: 21%

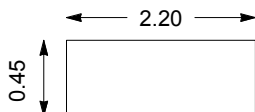

All dimensions in metres

Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: OPengilly	Checked By: 	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP28
Contract Ref: 25459	Date: 03.09.12	Ground Level (m AOD): 12.53	National Grid Co-ordinate: E:544039.0 N:261022.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over slightly gravelly clayey sandy TOPSOIL. Gravel is angular to subangular fine to coarse flint. Sand is predominantly fine to medium. (TOPSOIL)	(0.35)	
0.10-0.20	2	D					0.35	
0.60		V	$c_u=43$			Firm orangey-brown sandy CLAY with occasional subrounded medium to coarse flints. (RIVER TERRACE DEPOSITS)		
1.00	3	D				... @ 1.0m Increase in sand content.	(1.35)	
							1.70	
2.00	4	D				Orangey brown medium SAND with subrounded fine to medium gravels of flint. (RIVER TERRACE DEPOSITS)	(0.70)	
						... @ 2.0m Increase in subangular to subrounded fine to coarse flint gravel	2.40	
						Orangey brown to light brown SAND and GRAVEL. Sand is fine to medium. GRAVEL is angular to subangular fine to cobbled gravels of flint. (RIVER TERRACE DEPOSITS)	2.60	

Plan (Not to Scale) 		General Remarks 1. Trial pit unstable at 1.5 mbgl 2. Water seepage noted at 1.7 mbgl 3. Trial pit terminated at 2.6 mbgl due to instability	
Method Used: Machine dug		Plant Used: JCB-3CX	
Logged By: OPengilly		Checked By: 	
All dimensions in metres		Scale: 1:25	

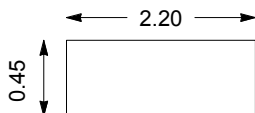


DRAFT TRIAL PIT LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP29
Contract Ref: 25459	Date: 03.09.12	Ground Level (m AOD): 12.53	National Grid Co-ordinate: E:544161.0 N:260984.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over slightly gravelly clayey sandy TOPSOIL. Gravel is angular to subangular fine to coarse flint. Sand is predominantly fine to medium. (TOPSOIL)	(0.30) 0.30	
0.50	2	D				Firm orangey brown mottled orange and dark brown sandy CLAY with occasional gravels of angular to subangular fine to medium flint. (GAULT FORMATION)	(0.70) 1.00	
1.30		V	$c_u=89$			Firm to stiff grey/brown slightly sandy slightly silty CLAY with clasts of flint and calcareous nodules. (GAULT FORMATION)	(0.60) 1.60	
1.50	3	D						
2.00						Firm grey/brown mottled orange slightly sandy silty CLAY with rare fine subangular calcareous nodules. Sand is fine. (GAULT FORMATION)	(1.50) 3.10	
2.00	4	ES V	J $c_u=85$					
3.00		V	$c_u=62$					

Plan (Not to Scale)



General Remarks

1. Trial pit remained dry and stable throughout excavation

All dimensions in metres

Scale: **1:25**

Method Used:

Machine dug

Plant Used:

JCB-3CX

Logged By:

OPengilly

Checked By:





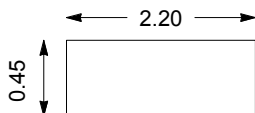


Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP30
Contract Ref: 25459	Date: 03.09.12	Ground Level (m AOD): 12.03	National Grid Co-ordinate: E:544023.0 N:261167.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.30	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over slightly gravelly clayey very sandy TOPSOIL. Gravel is angular to subangular fine to coarse flint. Sand is predominantly fine to medium.	(0.45)	
0.10-0.30	2	D					0.45	
0.45		V	$c_u=60$			Firm grey / light orangey brown sandy CLAY with some fine to medium gravels of chalk and with occasional fine to medium gravels of flint. Sand is predominantly fine to medium.	0.65	
						Orangey-brown gravelly SAND with coarse gravel-sized pockets of brown mottled with grey sandy clay. Sand is predominantly fine. Gravels are angular to subangular fine to coarse flint. (RIVER TERRACE DEPOSITS)	(0.55)	
						... @ 0.9 to 1.2 m lense of coarse sands and gravels	1.20	
1.20	3	D				Firm grey CLAY with traces of putty chalk and frequent lenses of sand and gravel. (RIVER TERRACE DEPOSITS)		
1.50		V	$c_u=97$				(1.00)	
2.00	4	D				... @ 2m Increase in sand content	2.20	
2.20		V	$c_u=70$			Firm to stiff dark grey silty CLAY with rare to occasional fragments of calcareous nodules. (GAULT FORMATION)	(0.80)	
							3.00	






Plan (Not to Scale)		General Remarks		
		1. Trial pit unstable at 2 mbgl 2. Water seepage noted at 2 mbgl 3. CBR at 0.45 m: 6% 4. CBR at 0.9 m: 10%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: OPengilly	Checked By:	

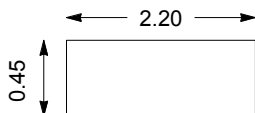

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP31
Contract Ref: 25459	Date: 03.09.12	Ground Level (m AOD): 12.03	National Grid Co-ordinate: E:544091.0 N:261142.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation and low shrub vegetation over very sandy very clayey TOPSOIL with traces of subangular fine to medium flint and with frequent rootlets and decomposing organic matter throughout.	(0.30)	
0.50		V	$c_u=65$			Firm orangey-brown sandy / very sandy CLAY. Sand is predominantly medium. Traces of subangular to subrounded fine to coarse flint. Occasional fine decomposing rootlets. (RIVER TERRACE DEPOSITS)		
0.70-0.80	2	ES	Tub+VL+J			... @ 0.7m Onset of fine to medium subangular chalk clasts. Occasional pale grey mottling.	(0.90)	
0.70	3	D						
0.90		V	$c_u=104$					
							1.20	
						Orangey-brown slightly clayey SAND and GRAVEL. Sand is predominantly medium. Gravel is subangular to subrounded fine to coarse (predominantly fine to medium) flint. (RIVER TERRACE DEPOSITS)	(0.40)	
1.50	4	D					1.60	
						Orangey brown occasionally mottled with pale grey slightly gravelly SAND. Sandy is fine to coarse, predominantly medium. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)		
2.00	5	D				... @ 2.0m slight increase in fine to medium gravel content.	(1.00)	
						... @ 2.2m Increase in clay content		
						... @ 2.5m Becomes a very sandy GRAVEL. Gravel is subangular fine to medium flint.	2.60	

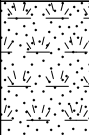
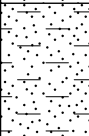
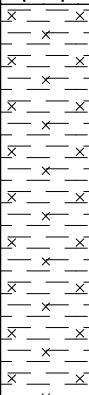
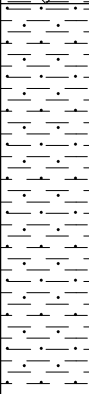
Plan (Not to Scale) 		General Remarks 1. Trial pit becoming unstable below 1.5m depth 2. Water seepage at 1.5m to 1.6m bgl 3. Trial pit terminated due to instability below 2.4m bgl. 4. CBR at 0.5m: 6% 5. CBR at 0.9m: 5%	
Method Used: Machine dug		Plant Used: JCB-3CX	
Logged By: BCoulston		Checked By: 	
Scale: 1:25			

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP32
Contract Ref: 25459	Date: 03.09.12	Ground Level (m AOD): 12.09	National Grid Co-ordinate: E:544055.0 N:261212.0	Sheet: 1 of 1

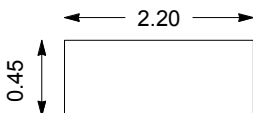
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.30	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over slightly gravelly clayey very sandy TOPSOIL. Gravel is angular to subangular fine to coarse flint. Sand is predominantly fine to medium.	0.25	
0.50	2	D	$c_u=89$			(TOPSOIL)	(0.35)	
0.50		V				Orangey brown sandy CLAY with angular to subangular fine to medium gravels of flint and with occasional medium gravel sized chalk clasts.	0.60	
1.00		V	$c_u=67$			Orange and grey sandy CLAY with some pockets of orange very sandy clay. Sand is predominantly fine to medium. Occasional clasts of medium gravel sized chalk.	(0.60)	
1.20	3	D				(RIVER TERRACE DEPOSITS)	1.20	
2.00	4	D				Orangey-brown SAND and GRAVEL. Sand is fine. Gravel is subangular to subrounded fine to medium flint.		
						(RIVER TERRACE DEPOSITS)		
						... @ 1.8 Onset of saturated soils		
						... @ 2.0m Increase in clay content within the matrix	(1.80)	
3.00	5	D	Tub+VL+J				3.00	
3.00	6	ES				Stiff gravelly grey CLAY. Gravel is fine to medium calcareous nodules and flint.	3.20	
						(GAULT FORMATION)		

Plan (Not to Scale)		General Remarks		
		1. Trial pit became unstable below 2m depth 2. Slow water seepage at 1.5m		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: OPengilly	Checked By:	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP33
Contract Ref: 25459	Date: 03.09.12	Ground Level (m AOD): 12.04	National Grid Co-ordinate: E:544183.0 N:261166.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over slightly gravelly clayey very sandy TOPSOIL. Gravel is angular to subangular fine to coarse flint. Sand is predominantly fine to medium. (TOPSOIL)	(0.45)	
						Orangey-grey light brown occasionally mottled with orange clayey SAND with frequent pockets of fine chalk.	(0.45)	
0.85 0.90	2	D V	$c_u=68$			Firm grey mottled brown sandy, slightly silty CLAY with frequent calcareous nodules. (GAULT FORMATION)	0.90	
1.60		V	$c_u=67$				(1.30)	
2.50	3	D				Firm grey fissured sandy CLAY. (GAULT FORMATION)	(1.30)	
						... @ 3m Onset of sandier matrix with occasional calcareous inclusions	3.50	
3.50	4	ES	Tub+VL+J			... @ 3.4 Transitions to a very clayey SAND.		

Plan (Not to Scale)



General Remarks

1. Trial pit was unstable below 3m bgl
2. Water seepage was noted at 3m bgl
3. CBR at 0.5m: 5%
4. CBR at 0.9m: 6%

All dimensions in metres

Scale: **1:25**

Method Used:

Machine dug

Plant Used:

JCB-3CX

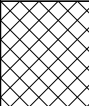


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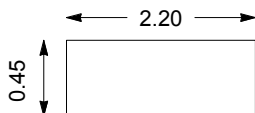


OPengilly

Checked By:

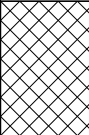






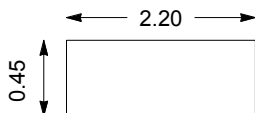


Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP34
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 12.22	National Grid Co-ordinate: E:544116.0 N:261323.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES	Tub+VL+J			MADE GROUND: Dark brown silty very sandy CLAY with traces of angular to subrounded flint and rare medium to coarse subangular clasts of pottery / brick. Frequent rootlets throughout and decomposing organic matter. (MADE GROUND)	(0.37)	
0.40		V	$c_u=53$				0.37	
0.60	2	ES	Tub+VL+J			Orangey-brown slightly gravelly very sandy CLAY. Sand is fine to coarse, predominantly medium. Gravel is subangular to subrounded predominantly fine to medium flint. (RIVER TERRACE DEPOSITS)	0.60	
0.75-1.00	3	D						
						Orangey-brown clayey gravelly SAND. Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint. sand is fine to coarse, predominantly medium. (RIVER TERRACE DEPOSITS)	(1.00)	
1.50	4	D					1.60	
						... @ 1.4m increase in fine to medium gravel content.		
2.00	5	D				Orangey brown / grey SAND and GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint. (RIVER TERRACE DEPOSITS)	(0.80)	
							2.40	

Plan (Not to Scale)		General Remarks		
		<ol style="list-style-type: none"> 1. Trial pit was unstable below 1.5m bgl. 2. Slight water seepage noted at 1.6m bgl. 3. Trial pit terminated at 2.4m bgl due to instability at base. 4. CBR at 0.3m: 5% 5. CBR at 0.6m: 6% 		
		All dimensions in metres	Scale:	1:25
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: 	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP35
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 12.35	National Grid Co-ordinate: E:544262.0 N:261302.0	Sheet: 1 of 1

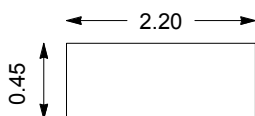
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES	Tub+VL+J			MADE GROUND: Dark brown sandy slightly gravelly silty CLAY. Sand is predominantly fine to medium. Gravel is subangular to coarse brick. (MADE GROUND)	(0.45)	
0.50	2	ES	Tub+VL+J			Firm orangey brown sandy slightly gravelly very silty CLAY. Sand is predominantly fine to medium flint. (RIVER TERRACE DEPOSITS)	0.45	
0.50	3	D				Orangey-brown gravelly SAND. Gravel is subangular to subrounded fine to coarse flint. Occasional subangular cobbles of flint. Sand is fine to coarse. (RIVER TERRACE DEPOSITS)	0.65	
1.50	4	D				... @ 1.4m Onset of sandy GRAVEL	(2.20)	
						... @ 1.8m Onset of gravelly SAND		
						Firm to stiff pale grey slightly sandy CLAY. Sand is fine to medium. (GAULT FORMATION)	2.85	
							3.00	

Plan (Not to Scale)		General Remarks		
		1. Trial pit unstable at 2m bgl. 2. Water seepage noted at 1.7m bgl.		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: 	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP36
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 12.13	National Grid Co-ordinate: E:544150.0 N:261146.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10	1	ES	Tub+VL+J			TOPSOIL: Harvested crop remains over dark brown sandy silty clayey TOPSOIL with traces of subangular to subrounded fine to medium flint. Humic-rich soils noted to 0.1m bgl. Rootlets and inclusions of decomposing organic matter throughout. (TOPSOIL)	0.25	
0.20	2	D						
0.50		V	$c_u=59$			Firm orangey-brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is predominantly subangular fine flint. (RIVER TERRACE DEPOSITS)	(0.55)	
0.80	3	ES	Tub+VL+J			Grey/brown slightly clayey very gravelly SAND. Sand is fine to coarse predominantly medium to coarse. Gravel is subangular to subrounded fine to coarse predominantly fine to medium flint. Occasional subangular to subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	0.80	
1.00	4	D					(0.80)	
						... @ 1m Increase in gravel content.	1.60	
2.00	5	D				Grey brown SAND and GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint. Occasional subangular cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.80)	
							2.40	

Plan (Not to Scale)



General Remarks

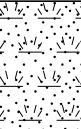
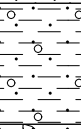

1. Trial pit unstable below 1.3m bgl.
2. Trial pit terminated at 2.4m bgl due to instability.
3. Water seepage at 1.3m bgl.
4. CBR at 0.5m: 4%
5. CBR at 1.0m: 15%

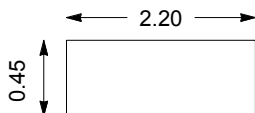

All dimensions in metres

Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: 	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP37
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 12.16	National Grid Co-ordinate: E:544248.0 N:261385.0	Sheet: 1 of 1

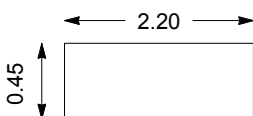
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES	c _u =52			TOPSOIL: Harvested crop remains over dark brown sandy silty clayey TOPSOIL with traces of subangular to subrounded fine to medium flint. Humic-rich soils noted to 0.1m bgl. Rootlets and inclusions of decomposing organic matter throughout. (TOPSOIL)	(0.45)	
0.50	2	ES				Firm orangey-brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is predominantly subangular fine flint. (RIVER TERRACE DEPOSITS)	(0.40)	
0.50	3	D					0.85	
0.50		V				...@ 0.5m Increase in sand content		
						Orangey-brown/yellow slightly clayey very sandy GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse (predominantly fine to medium) flint. Occasional subangular cobbles of flint. (RIVER TERRACE DEPOSITS)	(1.55)	
1.30	4	D				...@ 1.0m Increase in sand content, becoming a very gravelly SAND		
2.00	5	D					2.40	

Plan (Not to Scale)		General Remarks		
		1. Trial pit becoming unstable below 1.8m depth 2. Water seepages from 1.5m bgl		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP38
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 17.93	National Grid Co-ordinate: E:543794.0 N:260549.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.30	1	ES	Tub+VL+J			MADE GROUND: Dark brown sandy gravelly CLAY. Sandy is fine to coarse. Gravel is subangular to subrounded fine to coarse flint. Occasional fine to medium subangular brick fragments. (MADE GROUND)	(0.40)	
0.50	2	V	$c_u=71$			Orangey brown sandy gravelly CLAY. Sand is predominantly fine to medium. Gravel is subangular to subrounded predominantly medium to coarse flint. Occasional specks of decomposing organic matter (including fine rootlets). (RIVER TERRACE DEPOSITS)	(0.70)	
0.60		D						
1.00	3	ES	Tub+VL+J			Pale grey sandy slightly gravelly silty CLAY. Sand is predominantly fine to medium. Gravel is predominantly subangular fine to medium flint and chalk. Occasional subrounded coarse flint. (RIVER TERRACE DEPOSITS)	1.10	
1.00		V	$c_u=>130$					
1.50	4	D					(1.00)	
2.00		V	$c_u=>130$				2.10	
2.50	5	D				Orangey-brown SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse predominantly fine to medium subangular to subrounded flint. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.80)	
							2.90	

Plan (Not to Scale)



General Remarks









1. Trial pit unstable below 2.4m bgl, terminated due to instability at 2.9m bgl.
2. Water seepage at 2.4m, water level at 2.8m bgl on completion.
3. CBR at 0.5m: 6%
4. CBR at 1.0m: 19%

All dimensions in metres

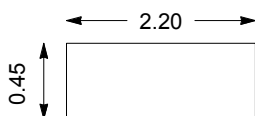
Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TP39
Contract Ref: 25459	Date: 31.08.12	Ground Level (m AOD): 14.95	National Grid Co-ordinate: E:543952.0 N:260731.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES	Tub+VL+J			TOPSOIL: Harvested crop vegetation over dark brown sandy silty clayey TOPSOIL. Sand is predominantly fine to medium. Traces of subangular fine to medium flint. Roots/rootlets and decomposing organic matter throughout (TOPSOIL)	0.25	
0.50 0.50	2	D V	$c_u=63$			Firm orangey brown slightly gravelly sandy silty CLAY. Sand is predominantly fine to medium. Gravel is predominantly subangular to subrounded fine to medium flint. Occasional cobbled flints. (RIVER TERRACE DEPOSITS)	(0.65)	
0.75		V	$c_u=57$				0.90	
1.00	3	D				Orangey-brown slightly clayey SAND with traces of subangular to subrounded fine to medium flint. Sand is predominantly medium. (RIVER TERRACE DEPOSITS)		
1.50	4	D				... @ 1.5m Increase in fine to medium flint gravel		
						... @ 1.7m Increase in coarse sand constituent		
						... @ 2.0m Increase in clay content	(2.40)	
3.00 3.00	5 6	D ES	Tub+VL+J				3.30	

Plan (Not to Scale)



General Remarks

1. Trial pit unstable below 2.4m bgl.
2. CBR at 0.3m: 4%
3. CBR at 0.6m: 5%
4. CBR at 0.9m: 5%

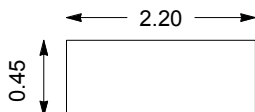

All dimensions in metres

Scale: **1:25**

Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By: 	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TPC
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 18.33	National Grid Co-ordinate: E:543498.0 N:260506.0	Sheet: 1 of 1

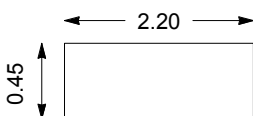
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.05-0.15	1	ES	VLx2+Tub			TOPSOIL: Grass over dark brown sandy slightly gravelly clayey TOPSOIL with frequent rootlets. Sand is predominantly fine to medium. Occasional fragments of decomposing organic matter. Rare fine subangular brick fragments. (TOPSOIL)	(0.45)	
0.50	2	ES	J			Remnants of clay pipe, possible field drain.	0.45	
0.50		V	c _u =110			Firm brown/grey slightly sandy slightly gravelly CLAY. Sand is predominantly fine to medium. Gravel is subrounded to medium to coarse flint. Occasional subrounded cobbles of flint. Occasional fine rootlets to 0.6m bgl.		
0.60	3	D				(GAULT FORMATION)		
1.00	4	D	c _u =81			... @ 0.6m Becoming pale grey. Onset of fine to medium subangular calcareous nodules.		
1.00		V						
1.50		V	c _u =>130				(2.05)	
2.00	5	D	c _u =>130					
2.00		V						
2.50	6	D				Stiff blue/grey slightly silty CLAY. Occasional calcareous inclusions. (GAULT FORMATION)	2.50	
2.50		V					(0.50)	
3.00		V	c _u =>130				3.00	

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable during excavation. 2. CBR at 0.4m: 6% 3. CBR at 0.8m: 10%		
All dimensions in metres		Scale: 1:25		
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TPD
Contract Ref: 25459	Date: 30.08.12	Ground Level (m AOD): 19.03	National Grid Co-ordinate: E:543599.0 N:260612.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.10-0.20	1	ES	Tub+VI+J			TOPSOIL: Grass / low rise shrub vegetation over dark brown slightly gravelly sandy clayey TOPSOIL. Sand is predominantly medium to coarse. Gravel is subangular fine to coarse flint. Frequent rootlets throughout. Humic rich horizon to 0.2m bgl. Decomposing organic matter throughout.	(0.35)	
0.20	2	D					0.35	
0.50	3	ES	Tub+VI+J			Firm brown sandy gravelly CLAY. Sand is fine to coarse predominantly medium to coarse. Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint. Occasional rootlets and decomposing organic matter noted.	(0.45)	
0.50		V	c _u =55				0.80	
0.80	4	D				Firm to stiff pale grey slightly gravelly slightly sandy CLAY. Sand is predominantly fine to medium. Gravel is predominantly subangular to subrounded calcareous inclusions and occasional fine flint. (GAULT FORMATION)		
0.90	5	ES	Tub+VI					
1.00		V	c _u =61					
1.50	6	D				... @ 2.0m Reduction in sand and gravel constituents to only rare fine subrounded flint.		
1.50		V	c _u =93				(2.20)	
2.50	7	D						
2.50		V	c _u =>130					
3.00		V	c _u =>130				3.00	

Plan (Not to Scale)



General Remarks

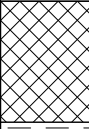
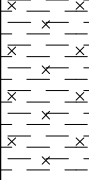
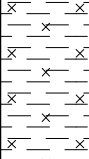
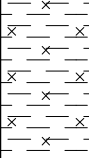
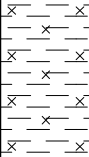
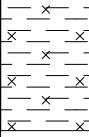
1. Trial pit remained dry and stable during excavation.
2. CBR at 0.4m: 7%
3. CBR at 0.8m: 6%

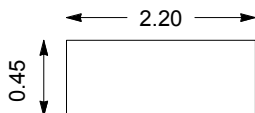


All dimensions in metres

Scale: **1:25**

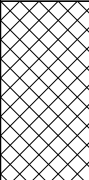
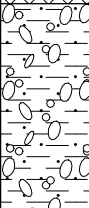
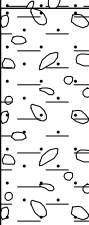



Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: BCoulston	Checked By:	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TPI
Contract Ref: 25459	Date: 28.08.12	Ground Level (m AOD): 18.46	National Grid Co-ordinate: E:543493.0 N:260602.0	Sheet: 1 of 1

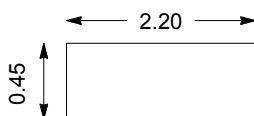
Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.20	1	ES	Tub+VI+J			MADE GROUND: Harvested vegetation over brown silty slightly gravelly clay. Gravel is angular to subrounded fine to coarse flint. Occasional fragments of tiling and ceramics. (MADE GROUND)	(0.40)	
0.60 0.70	2	V ES	$c_u=55$ Tub+J			Firm to stiff grey silty CLAY with occasional pockets of orangey-brown fine sand. (GAULT FORMATION)	0.40	
1.00 1.00	3	D V	$c_u=120$					
1.50 1.50	4	D V	$c_u=114$				(2.60)	
2.50	5	D				... @ Onset of rare medium sized gravels of siltstone		
							3.00	

Plan (Not to Scale)		General Remarks		
		1. Trial pit remained dry and stable during excavation. 2. CBR at 0.4m: 3% 3. CBR at 1.0m: 5%		
		All dimensions in metres	Scale:	1:25
Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: OPengilly	Checked By: 	

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TPL
Contract Ref: 25459	Date: 29.08.12	Ground Level (m AOD): 18.83	National Grid Co-ordinate: E:543530.0 N:260679.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.30	1	ES	Tub+VI+J			MADE GROUND: Dark brown very sandy gravelly CLAY. Sand is fine to coarse predominantly fine to medium. Gravel is predominantly subangular to subrounded fine to medium flint. Traces of subangular fine to medium brick. Rootles and decomposing organic matter throughout. (MADE GROUND)	(0.60)	
0.70 0.75	2 3	ES D	Tub+VI+J			Firm brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.70)	
1.00		V	c _u =59				1.30	
1.50	4	D				Orangey-brown/yellow/grey slightly clayey sandy GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse predominantly fine to medium flint. (RIVER TERRACE DEPOSITS)		
2.00	5	D				... @ 2.0m Becomes a gravelly SAND.	(1.55)	
3.00	6	D				Pale grey mottled orangey-brown sandy slightly gravelly silty CLAY. Sand is predominantly fine to medium. (GAULT FORMATION)	2.85 3.00	

Plan (Not to Scale)



General Remarks

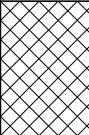
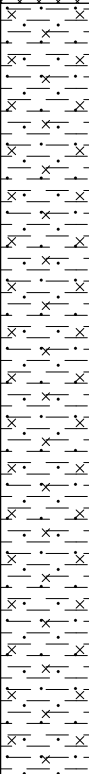
1. Trial pit remained stable during excavation.
2. Water seepage at 2.65m bgl.
3. CBR at 0.3m: 3%
4. CBR at 0.6m: 4%

All dimensions in metres

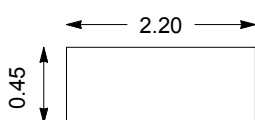
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Method Used: Machine dug	Plant Used: JCB-3CX	Logged By: OPengilly	Checked By: 	
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Contract: NIAB - Phase 1		Client: BDW Trading Limited		Trial Pit: TPO
Contract Ref: 25459	Date: 28.08.12	Ground Level (m AOD): 17.67	National Grid Co-ordinate: E:543430.0 N:260673.0	Sheet: 1 of 1

Samples and In-situ Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Depth	No	Type	Results					
0.30 0.30	1 2	ES D	Tub+VL+J			MADE GROUND: Harvested vegetation over dark brown sandy silty CLAY with traces of subangular to Subrounded flint. Occasional ceramics and subangular fine to medium brick. Occasional woody deposits. Frequent decomposing organic matter and fine rootlets. (MADE GROUND)	(0.45)	
0.50	3	D					0.45	
0.80	4	ES	Tub+VL+J			Firm orangey-brown, becoming grey by 0.75m slightly sandy silty CLAY. Occasional fine to medium subangular claystone clasts. (GAULT FORMATION)		
1.00 1.00	5	D V	$c_u=65$					
1.50		V	$c_u=69$					
2.00 2.00	6	D V	$c_u=94$					
						... @ 1.8m Consistency becomes stiff, reduction in sand content.		
3.00	7	D					3.00	

Plan (Not to Scale)



General Remarks

1. Trial pit remained stable and dry during excavation.
2. CBR at 0.55m: 4%
3. CBR at 0.8m: 4%

All dimensions in metres

Scale: **1:25**

Method Used:

Machine dug

Plant Used:

JCB-3CX

Logged By:

BCoulston

Checked By:

BC







DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS1
Contract Ref: 25459	Date: 05.09.12	Ground Level (m AOD): 20.45	National Grid Co-ordinate: E:543436.0 N:260222.0		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20-0.30	1	ES	Tub+VL+Jar			MADE GROUND: Dark brown silty sandy clay with fine to medium gravels of flint brick and chalk. (MADE GROUND)	0.25	
	0.50	2	D				Firm brown slightly sandy slightly silty CLAY with subangular fine to coarse gravels of flint and fine to coarse gravels of chalk, and with occasional pockets of fine orangey red sand. Sand is predominantly fine.	(0.45)	
	0.70	3	ES	Tub+VL+Jar			Firm slightly silty mottled with orangey-brown CLAY. Some fine to medium gravels of angular flint and subrounded to rounded calcareous nodules. (GAULT FORMATION)	0.70	
	1.00-1.45 1.00	1	SPT V	11 c _u =62				(1.80)	
	2.00-2.45 2.00	2	SPT V	12 c _u >=130			... @ 1.9m Coarse (2-3 cm) pockets of red-orange sand with fine subrounded gravels of flint. ... Rare sulfate bearing crystals noted in matrix.	2.50	
	3.00-3.45	3	SPT	12			Stiff finely laminated blue/grey finely mottled with orange silty CLAY with some siltstone and occasional calcareous nodules. (GAULT FORMATION)	(0.50) 3.00	

Drilling Progress and Water Observations						General Remarks							
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)								
						1. Borehole remained dry and stable during excavation.							
All dimensions in metres						Scale:	1:25						
Method Used:	Tracked window sampling			Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly	Checked By:		



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WS2
Contract Ref: 25459	Date: 05.09.12	Ground Level (m AOD): 19.07	National Grid Co-ordinate: E:543656.0 N:260163.0	Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20	1	ES	Tub+VL+J			TOPSOIL: Dark sandy clayey TOPSOIL. Sand is fine to medium with occasional coarse particles. Occasional fine to medium gravels of flint. (TOPSOIL) Firm brown slightly sandy slightly silty CLAY with subangular fine to coarse gravels of flint and fine to coarse gravels of chalk. Sand is predominantly fine.	0.20	
							Firm grey mottled with orangey-brown slightly silty CLAY. Some fine to medium gravels of angular flint and rounded to subrounded chalk/ calcareous nodules. (GAULT FORMATION)	(0.45)	
							... @ 1.3m increase in mottled red-orange sandy clays.	0.65	
	1.00-1.45 1.00	1	SPT V	N=11 c _u =110				(1.55)	
	2.00-2.45 2.00	2	SPT V	N=15 c _u >130			Stiff fissured blue/grey finely mottled with orange silty CLAY with some siltstone and occasional calcareous inclusions with occasional pockets of red-orange sandy clay of 2mm to 5mm in diameter. (GAULT FORMATION)	2.20	
	3.00-3.45 3.00	3	SPT V	N=14 c _u =120				(0.80)	
								3.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Borehole remained dry and stable during excavation.			
						All dimensions in metres		Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly
						Checked By:			

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WS3
Contract Ref: 25459	Date: 06.09.12	Ground Level (m AOD): 18.04	National Grid Co-ordinate: E:543352.0 N:260480.0	Sheet: 1 of 2


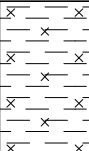
Progress	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10	1	ES	Tub+VL+J			MADE GROUND: Dark brown slightly silty slightly sandy clay with occasional fine to medium gravels of flint and brick. (MADE GROUND)	0.25	
	0.50	2	D				Firm brown slightly sandy slightly silty CLAY with subangular fine to coarse gravels of flint and occasional to some subangular to subrounded fine to coarse calcitic nodules. Sand is predominantly fine.	(0.45)	
	1.00-1.45	1	SPT	N=10			Firm grey mottled with orangey-brown slightly silty CLAY. Some fine to medium gravels of angular flint and rounded to subrounded chalk. (GAULT FORMATION)	(0.80)	
	1.00		V	c _u =68			... @ 1m decrease in gravel content with depth.	1.50	
	1.70		V	c _u =101			Firm to stiff grey mottled with pale orange-yellow silty CLAY. (GAULT FORMATION)	(1.20)	
	2.00-2.45	2	SPT	N=12			... @ 2.5m Coarse pocket of sandy, calcareous clay.	2.70	
	2.70		V	c _u =82			Stiff fissured blue/grey finely mottled with orange silty CLAY with some siltstone and calcitic nodules with occasional brown mottling. (GAULT FORMATION)	(2.30)	
	2.90		V	c _u =111			... @ 2.9m onset in stiff clays at depth.		
	3.00-3.45	3	SPT	N=16					
	4.00-4.45	4	SPT	N=16					


Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Borehole remained dry and stable during excavation.			
All dimensions in metres						Scale:	1:25		
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly
						Checked By:			



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WS3
Contract Ref: 25459	Date: 06.09.12	Ground Level (m AOD): 18.04	National Grid Co-ordinate: E:543352.0 N:260480.0	Sheet: 2 of 2

Progress	Samples / Tests				Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick-ness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	5.00-5.45	5	SPT	N=30			Stiff fissured blue/grey finely mottled with orange silty CLAY with some siltstone and calcitic nodules with occasional brown mottling. (GAULT FORMATION) <i>(stratum text copied from layer at 2.70m depth from previous sheet)</i> ... @ 4.6m Occasional rounded to subrounded medium gravels of flint. ... @ 4.7m Cluster of crystals, potentially sulfate bearing of approximately 15% of matrix.	5.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						All dimensions in metres		Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly
						Checked By:			







DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS4
Contract Ref: 25459	Date: 05.09.12	Ground Level (m AOD): 19.45	National Grid Co-ordinate: E:543546.0 N:260409.0		Sheet: 1 of 2

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20 0.20-0.40	1 2	ES D	Tub+VL+J			MADE GROUND: Friable dark brown clayey SAND with fine to medium gravels of flint and occasional fragments of brick. (MADE GROUND)	0.20	
	0.50	3	ES	Tub+VL+J			Firm light brown to grey slightly sandy CLAY with medium clasts of chalk and with occasional pockets of orange clayey sand. Sand is fine.	(0.60)	
	1.00-1.45	1	SPT	N=10			Firm grey mottled yellow brown slightly silty slightly sandy CLAY with Occasional calcitic nodules. (GAULT FORMATION) ... @ 0.8 increase in sand content	0.80 (1.10)	
	1.80		V	c _u =115			... @ 1.7m mottling becomes less frequent.	1.90	
	2.00-2.45	2	SPT	N=11			Firm to stiff fissured dark grey silty CLAY with frequent pockets of mottled with orange sandy clays. (GAULT FORMATION) ... @ 2.3m rare crystals of selenite noted and continue at depth. ... @ 2.4m onset of coarse sand to fine gravels of hard and soft nodular calcrete.	(3.10)	
	3.00-3.45 3.00	3 4	SPT D	N=13			... @ 3.5m reduction in mottled orange sandy clays. Fine to medium inclusions of siltstone (0.1cm to 1cm).		
	4.00-4.45	4	SPT	N=14					

Drilling Progress and Water Observations						General Remarks
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	
						1. Borehole remained dry and stable during excavation.
						</



Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	4.50-5.00	5	D	N=19			Firm to stiff fissured dark grey silty CLAY with frequent pockets of mottled with orange sandy clays. (GAULT FORMATION) <i>(stratum text copied from layer at 1.90m depth from previous sheet)</i>		  
	5.00-5.45	5	SPT					5.00	



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Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500. Fax: 01442 437550. Web: www.rsk.co.uk.



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS5
Contract Ref: 25459	Date: 05.09.12	Ground Level (m AOD): 18.42	National Grid Co-ordinate: E:543676.0 N:260287.0		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.05-0.15	1	ES	Tub+VL+J			MADE GROUND: Brown slightly silty slightly sandy clay with some angular gravels of flint and with occasional fragments of brick. (MADE GROUND) Soft to firm brown slightly sandy CLAY with some angular fine to coarse gravels of flint. Occasional fine gravels of chalk.	0.15	
	1.00-1.45	1	SPT	N=12			Soft grey slightly silty mottled with orange CLAY with occasional inclusions of chalk. (GAULT FORMATION)	(0.75)	
	1.00	2	ES	Tub+VL+J				0.90	
	1.00	3	D				... @ 1.6m Onest of stiff clay.	(1.20)	
	2.00-2.45	2	SPT	N=13			Stiff fissured silty grey slightly mottled with orange CLAY with some siltstone and chalk inclusions. (GAULT FORMATION)	2.10	
	3.00-3.45	3	SPT	N=12				(0.90)	
								3.00	

Drilling Progress and Water Observations						General Remarks					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)						
						1. Borehole remained dry and stable during excavation.					
						All dimensions in metres		Scale:	1:25		
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By: MOS		Logged By: OPengilly		Checked By: 	



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS6
Contract Ref: 25459	Date: 06.09.12	Ground Level (m AOD): 18.14	National Grid Co-ordinate: E:543448.0 N:260554.0		Sheet: 1 of 1

Progress		Samples / Tests			Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20	1	ES	Tub+VL+J			MADE GROUND: Brown slightly sandy clay with some angular to subangular fine to medium gravels of flint, brick and fine rounded chalk.	(0.30)	
	0.30-0.40	2	D				(MADE GROUND)	0.30	
	0.50	3	ES	Tub+VL+J			Firm brown mottled with red/brown slightly sandy CLAY with fine gravels of subrounded chalk and subangular flint.	(0.40)	
	0.60		V	c _u =65				0.70	
	1.00-1.45	1	SPT	N=12			Firm fissured slightly silty mottled with orangey-brown/grey CLAY with some fine to medium gravels of flint and subrounded to rounded calcareous nodules. (GAULT FORMATION)	(2.30)	
	2.00-2.45	2	SPT	N=12					
	2.00		V	c _u =115					
	3.00-3.45	3	SPT	N=12			... @ 2.5m Yellow brown mottling becomes fainter and contributes to a 5-30% discolouration of the matrix.	3.00	

Drilling Progress and Water Observations						General Remarks						
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)							
						1. Borehole remained dry and stable during excavation.						
						All dimensions in metres		Scale:	1:25			
Method Used:	Tracked window sampling			Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly	Checked By:	<div><div></div>AGS</div>





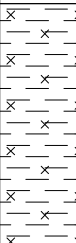
DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS7
Contract Ref: 25459	Date: 05.09.12	Ground Level (m AOD): 18.42	National Grid Co-ordinate: E:543757.0 N:260380.0		Sheet: 1 of 1

Progress		Samples / Tests			Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10	1	ES	Tub+VL+J			TOPSOIL: Dark brown slightly clayey predominantly medium to coarse SAND with some fine to coarse angular to subangular gravels of flint. (TOPSOIL)	(0.35)	
	0.50	2	ES	Tub+VL+J			Orange to dark brown clayey medium SAND with occasional to some gravels of angular to subangular medium to coarse flint. (RIVER TERRACE DEPOSITS)	(0.30)	
	0.50	3	D				Firm orangey-brown gravelly sandy CLAY. Sand is predominantly medium to coarse. Gravel is predominantly angular flint. (RIVER TERRACE DEPOSITS)	0.65	
	1.00-1.45	1	SPT(c)	N=13			... @ 1m increase in sand and gravel content.	(0.45)	
	1.20-1.30	4	D				Orangey-brown SAND and GRAVEL. Sand is predominantly fine, occasionally medium to coarse. Gravel is angular to subangular fine to coarse flint. (RIVER TERRACE DEPOSITS)	1.10	
							Stiff slightly silty slightly sandy grey mottled with yellow brown CLAY. (RIVER TERRACE DEPOSITS)	1.40	
							... @ 1.7 and 1.8 lense of sandy clay.	(0.60)	
	2.00-2.45	2	SPT	N=10			Stiff grey mottled orangey brown, occasionally mottled orange-red slightly silty sandy CLAY with subangular to subrounded fine to coarse gravels of flint and calcareous nodules. (RIVER TERRACE DEPOSITS)	2.00	
							... @ 2.6 Increase in sand content.	(0.80)	
	3.00-3.45	3	SPT	N=9			Orangey-brown coarse SAND with occasional to some angular to subangular fine to coarse gravel of flint and with occasional pockets of grey silty clay. Stratum is saturated throughout. (RIVER TERRACE DEPOSITS)	2.80	
								(1.20)	
	4.00-4.45	4	SPT(c)	N=7				4.00	

Drilling Progress and Water Observations						General Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			
						1. Borehole becoming unstable below 4m bgl. 2. Water seepage noted at 3m bgl.		
						All dimensions in metres Scale: 1:25		
Method Used: Tracked window sampling	Plant Used: Archway Competitor		Drilled By: MOS	Logged By: OPengilly	Checked By:			



Progress		Samples / Tests			Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.30-0.40	1	ES	Tub+VL+J		MADE GROUND: Brown slightly silty sandy clay with fine to medium gravels of angular flint, fine brick clasts and occasional fine chalks. (MADE GROUND)	(0.45)		
						0.45			
	0.80	2	D			Orangey-brown to red slightly gravelly medium SAND. Gravel is angular fine to coarse flint. (RIVER TERRACE DEPOSITS) ... @ 0.5m Increase in sand content	(1.45)		
						... @ 1.7m Gravel content within the matrix increases to 40%, sands become coarser.	1.90		
						Orangey-brown SAND and GRAVEL. Sand is coarse. Gravel is subangular fine flint. (RIVER TERRACE DEPOSITS)	(0.30) 2.20		
					Stiff fissured grey occasionally mottled pale yellow brown silty CLAY with occasional selenite crystals. (GAULT FORMATION)	(0.80)			
						3.00			

GINIT_LIBRARY_v8_04.GLBLog WINDOW SAMPLE_LOG | 25459 NIAB PHASE 1.GPU - v8_04 | 26/10/12 - 17:01 | OP.
Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500. Fax: 01442 437550. Web: www.rsk.co.uk.



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WS9
Contract Ref: 25459	Date: 07.09.12	Ground Level (m AOD): 18.52	National Grid Co-ordinate: E:543683.0 N:260586.0	Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10	1	ES	Tub+VL+J			MADE GROUND: Dark brown sandy CLAY with angular fine to medium gravels of flint and fine to medium brick tiling. (MADE GROUND)	(0.40) 0.40	
	0.70-1.00	2	D				Orangey-brown gravelly SAND. Gravel is angular fine to coarse flint. Sand is predominantly fine to medium.	(0.60) 1.00	
	1.00-1.45	1	SPT(c)	N=29			Medium dense orangey-brown slightly gravelly fine to medium SAND. Gravels are subangular fine to medium predominantly medium flints with occasional coarse flints, and occasional subrounded fine chalks. (RIVER TERRACE DEPOSITS)	(0.50) 1.50	
	1.60	3	ES				Firm orangey-brown to red mottled with orangey-red gravelly very sandy CLAY. Gravels are fine to medium. (RIVER TERRACE DEPOSITS)	(0.60) 2.10	
	2.00-2.45	2	SPT(c)	N=24			Orangey brown to yellow medium to coarse SAND. Occasional angular fine gravels of flint. (RIVER TERRACE DEPOSITS)	(0.70) 2.80	
	3.00-3.45	3	SPT	N=13			... @ 2.60 to 2.80m Lense of orangey-brown and grey SAND and GRAVEL. Sand is coarse. Gravel is subangular fine to medium flint. Stiff blue/grey thinly laminated mottled pale yellow silty CLAY. (GAULT FORMATION)	3.00	

Drilling Progress and Water Observations						General Remarks	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		
						1. Trial pit remained stable during excavation. 2. Water seepage noted at 2.6m.	
						All dimensions in metres	Scale: 1:25
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By: MOS	Logged By: OPengilly
						Checked By:	



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS10
Contract Ref: 25459	Date: 10.09.12	Ground Level (m AOD): 17.48	National Grid Co-ordinate: E:543835.0 N:260462.0		Sheet: 1 of 1

Progress		Samples / Tests			Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20	1	ES	Tub+VL+J			TOPSOIL: Brown slightly silty slightly clayey fine to medium SAND with occasional fine to medium gravels of angular to subangular flint.	(0.40)	
								0.40	
	0.80	2	ES	J			Firm dark brown to orange occasionally mottled with orange brown sandy CLAY with gravels of angular fine to coarse flint and with occasional pockets of decomposing organic matter noted between 0.7m and 0.9m (potentially reworked).	(0.55)	
								0.95	
	1.00-1.45	1	SPT(c)	N=12			Orangey-brown fine to medium SAND. (RIVER TERRACE DEPOSITS)	1.10	
	1.00	3	D				Firm dark brown to orangey mottled with orangey-brown sandy CLAY with fine to medium gravels of angular to subangular flint. (RIVER TERRACE DEPOSITS)	(0.30)	
								1.40	
							Orangey-brown SAND and GRAVEL. Sand is coarse. Gravel is subangular fine flint. (RIVER TERRACE DEPOSITS)	(0.30)	
								1.70	
	2.00-2.45	2	SPT(c)	N=31			Dense Light brown fine SAND with occasional angular fine gravels of flint. (RIVER TERRACE DEPOSITS)	(0.80)	
								2.50	
							Dense orangey-brown SAND and GRAVEL. Sands are fine to coarse predominantly coarse. Gravels are angular fine to medium flint. (RIVER TERRACE DEPOSITS)	(0.50)	
								3.00	
	3.00-3.45	3	SPT(c)	N=31					

Drilling Progress and Water Observations						General Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			
						1. Borehole unstable below 2.8m bgl. 2. Water seepage njoted at approximately 2.2m bgl.		
						All dimensions in metres Scale: 1:25		
Method Used: Tracked window sampling	Plant Used: Archway Competitor			Drilled By: MOS	Logged By: OPengilly	Checked By:		



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WS11
Contract Ref: 25459	Date: 07.09.12	Ground Level (m AOD): 16.83	National Grid Co-ordinate: E:543741.0 N:260740.0	Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thick ness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.40	1	ES	Tub+VL+J			TOPSOIL: Dark brown slightly silty clayey SAND with gravels of angular fine to medium occasionally coarse flints and chert. (TOPSOIL) ... @ 0.3m increase in clay content	(0.50) 0.50	
	0.90-1.00 1.00-1.45	2 1	D SPT(c)	N=9			Firm orangey dark brown mottled with dark grey slightly sandy CLAY with occasional angular fine to coarse gravels of flint. (RIVER TERRACE DEPOSITS)	(0.80) 1.30	
	1.70-2.00 2.00-2.45	3 2	D SPT	N=15			Firm pale grey mottled with pale orangey-brown and red-brown silty CLAY with occasional inclusions of fine calcareous nodules. (GAULT FORMATION) ... @ 1.9m onset of stiff clay.	(1.10) 2.40	
	3.00-3.45	3	SPT	N=12			Stiff fissured dark blue/grey CLAY. (GAULT FORMATION)	(0.60) 3.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Borehole remained dry and stable throughout excavation.			
						All dimensions in metres	Scale:	1:25	
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly
						Checked By:			



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS12
Contract Ref: 25459	Date: 10.09.12	Ground Level (m AOD): 16.12	National Grid Co-ordinate: E:543933.0 N:260602.0		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20-0.30	1	ES	Tub+VL+J			TOPSOIL: Brown slightly silty clayey SAND with fine to medium gravels of flint. Medium gravel sized decomposing organic matter found at 0.25m. (MADE GROUND) Firm dark brown to orange sandy CLAY with some fine to medium angular gravels of flint. ... @ 0.3m increase in clay content	(0.30) 0.30	
	0.80	2	D				Firm grey mottled with pale orange grey slightly silty CLAY with gravels of subangular fine to medium chalk and angular fine to medium flint. (GAULT FORMATION)	0.55 (0.65)	
	1.00-1.45	1	SPT	N=12				1.20	
							Firm fissured grey mottled with pale orange-yellow silty CLAY with frequent calcareous nodules, angular fine gravels of chalk clasts and occasional gravels of subangular to subrounded fine to medium flints. (GAULT FORMATION)	(0.80) 2.00	
	2.00-2.45	2	SPT	N=16			Stiff fissured grey silty CLAY. (GAULT FORMATION)	(1.00) 3.00	
	2.50	3	D						
	3.00-3.45	3	SPT	N=15					

Drilling Progress and Water Observations						General Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			
						1. Borehole remained dry and stable throughout excavation.		
						All dimensions in metres	Scale: 1:25	
Method Used: Tracked window sampling	Plant Used: Archway Competitor		Drilled By: MOS	Logged By: OPengilly	Checked By:			



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WS13
Contract Ref: 25459	Date: 07.09.12	Ground Level (m AOD): 15.32	National Grid Co-ordinate: E:543830.0 N:260816.0	Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.30	1	ES	Tub+VL+J			MADE GROUND: Dark brown slightly silty clayey sand with subangular to subrounded fine to medium gravels of flint and occasional brick.	(0.30)	
	1.00-1.45	1	SPT	N=4			Firm brown slightly sandy slightly silty CLAY with subangular fine to coarse gravels of flint and fine to coarse gravels of chalk. Sand is predominantly fine. (RIVER TERRACE DEPOSITS)	(1.25)	
	1.00	2	D				... @ 1.40 to 1.55m Lense of orangey brown fine sand with angular coarse gravel of flint.	1.55	
							Firm light grey mottled orangey-brown sandy CLAY with subrounded fine to medium gravels of chalk. (RIVER TERRACE DEPOSITS)	1.80	
	2.00-2.45	2	SPT	N=4			Orangey-brown fine SAND. (RIVER TERRACE DEPOSITS)	(0.30)	
							Orangey-brown clayey fine SAND with occasional coarse sand. (RIVER TERRACE DEPOSITS)	2.10	
	3.00-3.45	3	SPT(c)	N=36			... @ 2.8m onset of predominantly coarse sand with pockets of clayey fine sand.	(1.60)	
								3.70	
	4.00-4.45	4	SPT(c)	N=18			Orangey-brown and coarse SAND and GRAVEL. Sand is fine to medium. Gravel is angular fine to medium flint, subrounded chalk and flint clasts. (RIVER TERRACE DEPOSITS)	(0.30)	
								4.00	

Drilling Progress and Water Observations						General Remarks					
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)						
						1. Borehole terminated at 4m bgl due to collapsing gravels 2. Water seepage at approximately 2.6m bgl. 3. Water level noted at 2.5m bgl prior to backfilling.					
						All dimensions in metres	Scale:	1:25			
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly	Checked By:	



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WS14
Contract Ref: 25459	Date: 07.09.12	Ground Level (m AOD): 14.29	National Grid Co-ordinate: E:543929.0 N:260803.0	Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20	1	ES	Tub+VL+J			MADE GROUND: Dark brown slightly silty sandy clay with fine to medium gravels of flint and rare to occasional fine clasts of brick. (MADE GROUND)	(0.35)	
	0.40-0.60	2	D				Firm brown slightly sandy slightly silty CLAY with subangular fine to coarse gravels of flint and fine to coarse gravels of chalk. Sand is predominantly fine. Firm light brown mottled grey slightly silty very sandy CLAY. Sand is predominantly fine. Gravel is angular fine to coarse flint and rounded fine chalk. (RIVER TERRACE DEPOSITS)	0.35 0.55	
	1.00-1.45	1	SPT	N=14			... @ 0.9m Increase in gravel content to 15% of matrix consisting of predominantly fine to medium flint. ... @ 1.5m Subrounded cobble of flint gravel.	(1.35)	
	2.00-2.45	2	SPT(c)	N=12			... @ 1.80 to 1.90m Lense of soft orangey-brown clayey SAND. Orangey brown gravelly SAND. Sand is fine to coarse. Gravels are subangular to rounded fine to coarse flint. (RIVER TERRACE DEPOSITS)	1.90 (0.30) 2.20	
	2.40-2.60	3	D				Firm to stiff thinly laminated light grey silty mottled pale yellow-orange CLAY. (GAULT FORMATION)	(0.80)	
	3.00-3.45	3	SPT	N=47			... @ 2.8m onset of sand clay with angular fine to coarse gravels of flint.	3.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Borehole remained stable during excavation. 2. Low water seepage noted at 2m bgl.			
						All dimensions in metres		Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly
						Checked By:			

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS15
Contract Ref: 25459	Date: 10.09.12	Ground Level (m AOD): 13.50	National Grid Co-ordinate: E:544079.0 N:260737.0		Sheet: 1 of 2

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20-0.30	1	ES	Tub+VL+J			MADE GROUND: Brown slightly silty clayey SAND with angular fine to medium gravel of flint. Rare to occasional fine clasts of charcoal and decomposed organic matter noted at 0.25m depth. (TOPSOIL)	(0.30)	
							Loose orangey-brown slightly clayey fine to medium predominantly fine SAND with occasional fine gravels of subangular flint. (RIVER TERRACE DEPOSITS)	0.30	
	1.00-1.45	1	SPT	N=17			Firm grey mottled orangey-brown sandy CLAY with subrounded fine gravels of chalk and with coarse pockets of fine SAND. (RIVER TERRACE DEPOSITS)	(0.60)	
	1.20	2	D				... @ 1.0m Onset of clayey sand. Stiff fissured light grey mottled with orangey-brown silty CLAY with rare coarse gravels of angular flint and with occasional fine partings of siltstone. (RIVER TERRACE DEPOSITS)	1.20	
							Orangey-brown gravelly fine to coarse SAND. Gravels are angular fine to coarse flint. (RIVER TERRACE DEPOSITS) ... Fining upwards.	(0.40)	
	2.00-2.45	2	SPT(c)	N=15			Firm grey slightly sandy silty CLAY. (RIVER TERRACE DEPOSITS)	2.30	
							Orangey-brown fine SAND with occasional angular gravels of coarse flint. (RIVER TERRACE DEPOSITS)	(0.30)	
	3.00-3.45	3	SPT	N=17			Firm grey/blue very silty CLAY. (GAULT FORMATION) ... Coarsening upwards. ... @ 3.0m increase in fine sand content.	(0.60)	
							... @ 3.5m strata description discontinued.	3.50	
	4.00-4.45	4	SPT	N=6					

Drilling Progress and Water Observations						General Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Borehole unstable below 2.6m bgl, collapse reported at 3.5m bgl. 2. Stratum descriptions discontinued at 3.5m bgl owing to instability and backfilling, SPT data continued to 5m. 3. Water seepage noted during drilling at approximately 2m bgl. 4. Water Level measured at 1.85m bgl on completion.		
All dimensions in metres						Scale:	1:25	
Method Used:	Tracked window sampling			Plant Used:	Archway Competitor		Drilled By:	MOS
						Logged By:	OPengilly	
						Checked By:		



Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	5.00-5.45	5	SPT	N=8					

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DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS16
Contract Ref: 25459	Date: 07.09.12	Ground Level (m AOD): 14.99	National Grid Co-ordinate: E:543791.0 N:260905.0		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20	1	ES	Tub+VL+J			TOPSOIL: Sandy loam occasional fine to medium gravels of flint and chalk. (TOPSOIL)	(0.40)	
	0.50-0.60	2	D				... @ 0.3m increase in clay content at base of stratum Orangey-brown slightly mottled with red and occasionally dark grey sandy CLAY with some gravels of angular fine to medium flint and occasional chalk (RIVER TERRACE DEPOSITS - COHESIVE). (RIVER TERRACE DEPOSITS)	(0.50)	
	1.00-1.45	1	SPT	N=12			Orangey-brown fine to coarse predominantly fine to medium SAND with occasional pockets of grey sandy clay. (RIVER TERRACE DEPOSITS)	(0.90)	
	2.00-2.45	2	SPT(c)	N=28			... @ 1.6m Lense of orangey-brown mottled streaky grey sandy clay. Orangey-brown slightly gravelly SAND. Sand is fine to coarse. Gravels are angular fine to medium, predominantly fine flint. Occasional subrounded coarse gravels of flint. (RIVER TERRACE DEPOSITS)	(0.40)	
	3.00-3.45	3	SPT(c)	N=28			Orangey-brown SAND and GRAVEL. Sand is coarse. Gravel is subangular to subrounded fine flint. (RIVER TERRACE DEPOSITS)	(0.80)	
	3.00	3	ES	Tub+VL+J				3.00	
	3.00	4	D						

Drilling Progress and Water Observations						General Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			
						1. Borehole unstable below 2.4m. 2. Water seepage noted at 2.4m during drilling.		
						All dimensions in metres Scale: 1:25		
Method Used: Tracked window sampling	Plant Used: Archway Competitor		Drilled By: MOS	Logged By: OPengilly	Checked By:			



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WS17
Contract Ref: 25459	Date: 10.09.12	Ground Level (m AOD): 13.81	National Grid Co-ordinate: E:543998.0 N:260818.0	Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.05-0.15	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over very dark brown organic rich slightly silty clayey SAND with pockets of decomposed organic matter. (TOPSOIL)	(0.30)	
							Orangey-brown clayey fine SAND with some fine to coarse gravels of angular flint. (RIVER TERRACE DEPOSITS)	(0.30)	
							Firm to stiff light grey slightly sandy silty CLAY with frequent fine to coarse gravels of angular flint and fine clasts of chalk and with pockets of orangey-brown sand. Occasional rounded pebbles noted. (RIVER TERRACE DEPOSITS)	(0.60)	
	1.00-1.45	1	SPT	N=30			... @ 1.10m to 1.20m Lense of orangey-brown fine SAND.	1.20	
	1.00-1.20	2	D					(0.90)	
							Stiff fissured light grey occasionally mottled with orangey-brown slightly sandy very silty CLAY with some lenses of subangular to subrounded fine to coarse gravels of flint. Occasional dark grey to black carbonaceous inclusions. (GAULT FORMATION)	2.10	
	2.00-2.45	2	SPT	N=26			Stiff fissured light grey silty CLAY. (GAULT FORMATION)	(0.90)	
								3.00	
	3.00-3.45	3	SPT	N=42					

Drilling Progress and Water Observations						General Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			
						1. Borehole remained stable during excavation. 2. Water depth at 2.16m bgl.		
						All dimensions in metres	Scale: 1:25	
Method Used: Tracked window sampling	Plant Used: Archway Competitor			Drilled By: MOS	Logged By: OPengilly	Checked By:		



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS18
Contract Ref: 25459	Date: 12.09.12	Ground Level (m AOD): 13.16	National Grid Co-ordinate: E:544122.0 N:260872.0		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20-0.30	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over dark brown sandy silty CLAY with traces of subangular fine to medium flint. Frequent roots, fine rootlets and decomposing organic matter throughout. (TOPSOIL)	(0.37)	
	0.70-0.80 0.75-1.00	2 3	ES D	Tub+VL+J			Firm light brown/orangey-brown slightly gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium flint. Rare fine rootlets to 0.9m depth. Possibly reworked to 0.8m depth. Occasional decomposing organic matter to 1.0m. (RIVER TERRACE DEPOSITS)	(1.08)	
	1.00-1.45	1	SPT	N=15				1.45	
	1.50-1.70	4	D				Orangey-brown slightly clayey slightly gravelly SAND. Gravel is subangular to subrounded fine to coarse flint and chert. Sand is predominantly medium. (RIVER TERRACE DEPOSITS)	(1.05)	
	2.00-2.45	2	SPT(c)	N=18			... @ 1.8m Increase in medium to coarse flint. Onset of subrounded cobbles of flint.	2.50	
	2.80-3.00 3.00-3.45	5 3	D SPT	N=10			Firm pale grey slightly sandy silty CLAY with traces of subangular fine calcareous nodules. (GAULT FORMATION)	(1.95)	
	4.00-4.45	4	SPT	N=9				4.45	

Drilling Progress and Water Observations						General Remarks
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	
						1. Sample becoming saturated below 1.6m depth. 2. Hole beginning to collapse after 3.0m run.



Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over dark brown slightly clayey slightly silty fine SAND with fine to medium gravels of angular to subangular flint. (TOPSOIL)	(0.30) 0.30	
							Medium dense orangey-brown clayey fine SAND with some angular fine to coarse gravels of flint. (RIVER TERRACE DEPOSITS) ... @ 0.5m Clay content decreases, onset of fine SAND.	(0.90) 1.20	
	1.00-1.45	1	SPT	N=12			Medium dense orangey-brown slightly clayey gravelly fine to coarse predominantly fine SAND. Gravels are subangular fine to medium chalk and angular fine to coarse flints. Some dark brown/grey decomposing organic matter. (RIVER TERRACE DEPOSITS) ... @ 1.6m Increase in medium to coarse gravel content of predominantly flint.	(0.60) 1.80	
							Firm light grey mottled with orangey-brown, gravelly sandy CLAY. Gravels are angular fine to medium flints and fine clasts of chalk. (RIVER TERRACE DEPOSITS) Dense orangey-brown SAND and GRAVEL with pockets of stiff grey gravelly clay. Sand is fine to coarse. Gravel is angular fine flint. (RIVER TERRACE DEPOSITS)	2.00 (1.00) 3.00	
	2.00-2.45	2	SPT(c)	N=32					
	3.00-3.45	3	SPT(c)	N=53					

GINIT_LIBRARY_v8_04.GLBilLog WINDOW SAMPLE_LOG | 25459 NIAB PHASE 1.GPU - v8_04 | 26/10/12 - 17:02 | OP.

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS20
Contract Ref: 25459	Date: 11.09.12	Ground Level (m AOD): 12.80	National Grid Co-ordinate: E:544098.0 N:260973.0		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20	1	ES	Tub+VL+J			TOPSOIL: Grass and harvested vegetation over dark brown slightly gravelly very sandy clayey TOPSOIL. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to coarse flint. Frequent roots and decomposing organic matter. (TOPSOIL)	(0.50)	
	0.50-0.70	3	D				... @ 0.35m Becomes light brown with a reduction in sand content.	0.50	
	0.60-0.70	2	ES	Tub+VL+J			Firm light brown sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular medium flint. Fine gravel-sized lenses of decomposing organic matter throughout. Occasional fine rootlets to 0.8m. (RIVER TERRACE DEPOSITS)	(0.45)	
	1.00-1.45	1	SPT(c)	N=17			... @ 0.85m Increase in sand and gravel content.	0.95	
	1.00-1.20	4	D				Medium dense orangey-brown clayey SAND and GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint. (RIVER TERRACE DEPOSITS)	(0.40)	
	1.50-1.70	5	D				Firm light brown/orangey-brown gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium flint. (RIVER TERRACE DEPOSITS)	1.35	
	2.00-2.45	2	SPT(c)	N=18			Medium dense slightly clayey slightly gravelly SAND. Gravel is subangular to subrounded fine to medium flint. Sand is predominantly medium. (RIVER TERRACE DEPOSITS)	(0.45)	
	2.00-2.50	6	D				... @ 2.65 to 2.85m Horizon of sandy gravelly clay.	1.80	
	2.50	7	ES	Tub+VL+J			... @ 3.0m Reduction in clay content to a gravelly SAND.	(2.10)	
	3.00-3.45	3	SPT(c)	N=15				3.90	
	4.00-4.45	4	SPT	N=11			Firm pale grey slightly sandy silty CLAY. Sand is fine. (GAULT FORMATION)	(0.55)	
								4.45	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Sample becoming saturated below 1.6m bgl. 2. Hole unstable and collapsing below 3.0m bgl. 3. Water level at 2.35m bgl on completion.			
All dimensions in metres						Scale:	1:25		
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	BCoulston
						Checked By:			



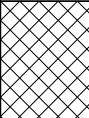
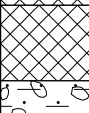
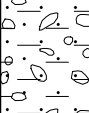
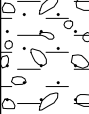
DRAFT WINDOW SAMPLE LOG


Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS21
Contract Ref: 25459	Date: 12.09.12	Ground Level (m AOD): 12.36	National Grid Co-ordinate: E:543981.0 N:261141.0		Sheet: 1 of 1

Progress		Samples / Tests			Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.05-0.15 0.10-0.25	1 2	ES D	Tub+VL+J			TOPSOIL: Low-rise shrub vegetation and harvested crop remains over dark brown sandy silty clayey TOPSOIL with traces of subangular fine to medium flint. Roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	(0.30) 0.30	
	0.70-0.80 0.80-1.00	3 4	ES D	Tub+VL+J			Firm orangey-brown sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is subangular fine to medium flint. (RIVER TERRACE DEPOSITS)	(0.70) 1.00	
	1.00-1.45 1.20-1.40	1 5	SPT D	N=16			Firm brown/pale grey slightly sandy gravelly CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse predominantly fine to medium flint and chalk. Occasional calcareous inclusions and decomposing organic matter. (RIVER TERRACE DEPOSITS)	(0.65) 1.65	
	2.00-2.45	2	SPT(c)	N=17			Medium dense light brown/orangey-brown slightly clayey gravelly SAND. (RIVER TERRACE DEPOSITS)	(0.85) 2.50	
	2.50-3.00 3.00-3.45	6 3	D SPT	N=10			Firm pale grey slightly sandy silty CLAY with traces of subangular fine white flint. Sand is fine. (GAULT FORMATION)	(0.95) 3.45	

Drilling Progress and Water Observations						General Remarks
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	
						1. Sample becoming saturated below 2.2m depth. 2. Borehole remained stable during excavation.
						</

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS22
Contract Ref: 25459	Date: 12.09.12	Ground Level (m AOD): 12.47	National Grid Co-ordinate: E:544165.0 N:261044.0		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20-0.30	1	ES	Tub+VL+J			MADE GROUND: Low-rise shrub vegetation and harvested crop remains over dark brown slightly gravelly very sandy CLAY. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to medium flint. Occasional fragments of charcoal and subangular fine brick/pottery. Rootlets and decomposing organic matter throughout. (MADE GROUND)	(0.40)	
	0.50-0.60	2	ES	Tub+VL+J				0.40	
	0.70-1.00	3	D				MADE GROUND: Firm light brown slightly gravelly slightly sandy CLAY. Gravel is predominantly subangular fine to medium flint with occasional fragments of charcoal and decomposing organic matter. Rare fragments of ceramics and decomposing wood with rootlets throughout. (MADE GROUND)	0.65	
	1.00-1.45	1	SPT(c)	N=14					
	1.50-2.00	4	D				Orangey-brown slightly clayey very sandy GRAVEL. Sand is fine to coarse. Gravel is predominantly recovered as subangular fine to medium flint. (RIVER TERRACE DEPOSITS) ... @ 1.3m Becomes a SAND and GRAVEL. ... @ 1.5m Slight increase in clay content.		
	2.00-2.45	2	SPT(c)	N=25				(2.80)	
							... @ 2.2m Reduction in gravel content		
	3.00-3.45	3	SPT(c)	N=36				3.45	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Sample becoming saturated below 1.7m depth. 2. Casing could not be driven below 1.5m depth. 3. Terminated at 3.45 due to density. 4. Water level at 2.2m on completion.			
All dimensions in metres						Scale:	1:25		
Method Used:	Tracked window sampling			Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By: BCoulston Checked By: 

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS23
Contract Ref: 25459	Date: 12.09.12	Ground Level (m AOD): 12.03	National Grid Co-ordinate: E:544117.0 N:261186.0		Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over dark brown sandy CLAY with traces of subangular fine to medium flint. Roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	0.22	
	0.50-0.60	2	ES	Tub+VL+J			Firm light brown/orangey brown sandy gravelly CLAY. Sand is predominantly medium. Gravel is subangular to subrounded fine to coarse predominantly medium to coarse flint. (RIVER TERRACE DEPOSITS)	(0.88)	
	0.60-0.80	3	D						
	1.00-1.45	1	SPT	N=20			... @ 0.65m Becomes mottled with pale grey	1.10	
	1.40-1.70	4	D				... @ 0.9m Increase in gravel content of predominantly medium to coarse flint.		
	2.00-2.45	2	SPT(c)	N=15			Medium dense orangey brown slightly clayey slightly gravelly SAND. Gravel is subangular to subrounded fine flint and chert. Sand is predominantly medium to coarse. (RIVER TERRACE DEPOSITS)	(1.75)	
	2.20-2.50	5	D						
	2.85-3.00	6	D				Stiff pale grey very sandy silty CLAY. Sand is fine. (GAULT FORMATION)	2.85	
	3.00-3.45	3	SPT	N=17				(0.35)	
	4.00-4.45	4	SPT(c)	N=19			Brown/grey slightly clayey slightly gravelly SAND. Gravel is subangular fine flint. Sand is fine to coarse, predominantly medium. (Possibly partly backfilled from upper strata at terminal depth).	3.20	
								(0.80)	
								4.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Sample becoming saturated below 1.5m depth. 2. Water level at 2.55m on completion. 3. Terminated at 4m due to instability and backfill - backfill at terminal depth			
All dimensions in metres						Scale:	1:25		
Method Used:	Tracked window sampling			Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By: BCoulston Checked By:



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WS24
Contract Ref: 25459	Date: 10.09.12	Ground Level (m AOD): 15.63	National Grid Co-ordinate: E:543884.0 N:260684.0		Sheet: 1 of 1

Progress		Samples / Tests			Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20	1	ES	Tub+VL+J			MADE GROUND: Dessicated dark brown slightly silty clayey sand with fine to medium gravels of angular to subangular flint. Occasional clasts of fine brick and charcoal. (MADE GROUND)	(0.30) 0.30	
	0.40-0.50	2	ES	J			Firm dark brown to orange sandy CLAY with some fine to medium angular gravels of flint. Frequent pockets of decomposing organic matter between 0.4m and 0.5m.	(0.35) 0.65	
	0.80	3	D				Firm grey mottled pale orange brown slightly sandy slightly silty CLAY with gravels of subangular fine to medium chalk and angular fine to medium flint. Sand is fine.	(0.65)	
	0.90		V	c _u =70			(RIVER TERRACE DEPOSITS)		
	1.00-1.45	1	SPT	N=12				1.30	
							Firm fissured grey mottled with pale orange-yellow silty CLAY. (RIVER TERRACE DEPOSITS) ... @ 1.4m Onset of firm to stiff clays.		
	1.70		V	c _u =85				(1.40)	
	2.00-2.45	2	SPT	N=15			... @ 1.9 to 2.0 Lense of medium SAND and medium to coarse GRAVELS within a clay matrix.		
								2.70	
							Stiff pale grey silty CLAY. (GAULT FORMATION)	(0.30)	
	3.00-3.45	3	SPT	N=15				3.00	


Drilling Progress and Water Observations						General Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			
						1. Borehole remained dry and stable during excavation.		
						All dimensions in metres Scale: 1:25		
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By: OPengilly
						Checked By:		












DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WSB
Contract Ref: 25459	Date: 06.09.12	Ground Level (m AOD): 19.02	National Grid Co-ordinate: E:543603.0 N:260547.0		Sheet: 1 of 1

Progress		Samples / Tests			Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20	1	ES	Tub+VL+J			MADE GROUND: Organic sandy slightly silty CLAY with fine to coarse gravels of flint and occasional fine brick clasts. (MADE GROUND)	(0.40) 0.40	
	0.50	2	ES	J			Brown slightly silty sandy CLAY with frequent angular to subangular gravels of flint. (RIVER TERRACE DEPOSITS)	(0.40) 0.80	
	0.90-1.00 1.00-1.45	3 1	D SPT(c)	N=29			Medium dense reddish to orangey-brown gravelly fine SAND. Gravel is fine to coarse angular clasts of flint and occasional clasts of subangular chert. (RIVER TERRACE DEPOSITS)	(2.30)	
	2.00-2.45	2	SPT(c)	N=8					
	3.00-3.45	3	SPT	N=12			... @ 3.0 - 3.1m Lense of orangey-brown SAND and GRAVEL. Sand is predominatly coarse. Gravel is angular fine to coarse flint. Soft to firm thinly laminated grey mottled orangey-brown slightly silty sandy CLAY with some fine to medium gravels of flint and chalk. (RIVER TERRACE DEPOSITS)	3.10 (0.50) 3.60	
	4.00-4.45	4	SPT	N=11			Stiff fissured dark grey/blue occasionally mottled with pale yellow-brown silty CLAY with some inclusions of fine decomposed rootlets up to 10mm in length and 3mm in thickness. (GAULT FORMATION)	(0.90) 4.50	

Drilling Progress and Water Observations						General Remarks						
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)							
						1. Drilling to 2.0m observed to be slow. Low CPT N value is associated with backfill, rather than in-situ conditions. 2. Refusal after 4.5m due to hole instability. 3. Water seepage at approximately 3m.						
						All dimensions in metres		Scale:	1:25			
Method Used:	Tracked window sampling			Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly	Checked By:	<div></div>

Contract: NIAB - Phase 1			Client: BDW Trading Limited		Window Sample: WSE
Contract Ref: 25459	Date: 06.09.12	Ground Level (m AOD): 18.16	National Grid Co-ordinate: E:543469.0 N:260550.0		Sheet: 1 of 2

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10-0.20	1	ES	Tub+VL+J			MADE GROUND: Dark brown organic slightly sandy CLAY with fine gravels of brick, flint and chalk. (MADE GROUND)	0.25	
	0.50	2	D				Firm brown mottled with red-brown slightly sandy CLAY with occasional angular to subangular fine to medium gravels of flint and subrounded fine to medium clasts of chalk.	(0.45)	
	1.00-1.45	1	SPT	N=14			Firm to stiff grey mottled with light brown slightly silty slightly sandy CLAY with occasional putty chalk, gravels of angular fine to coarse flint and subrounded chalk. Sand is fine. (GAULT FORMATION)	0.70	
	1.00	3	D				... @ 1.3m Onset of firm clays becoming fissured. Streaky calcareous inclusions and putty chalk noted throughout strata.	(1.70)	
	1.00		V	c _u =49					
	2.00-2.45	2	SPT	N=12					
	2.00		V	c _u =115				2.40	
	3.00-3.45	3	SPT	N=14			Stiff fissured dark grey/blue occasionally mottled with pale yellow to brown silty CLAY with some inclusions of fine decomposed wood fragmets up to 10mm in length and 3mm in thickness. (GAULT FORMATION)		
	4.00-4.45	4	SPT	N=19			... @ 4.0m Selenite crystals noted and fine gravel sized/coarse sand-sized siltstone and calcareous nodules.	(2.60)	

Drilling Progress and Water Observations						General Remarks
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	
						1. Borehole remained dry and stable during excavation.



Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	5.00-5.45	5	SPT	N=32			Stiff fissured dark grey/blue occasionally mottled with pale yellow to brown silty CLAY with some inclusions of fine decomposed wood fragmets up to 10mm in length and 3mm in thickness. (GAULT FORMATION) <i>(stratum text copied from layer at 2.40m depth from previous sheet)</i>	5.00	

GINIT_LIBRARY_v8_04.GLBilLog WINDOW SAMPLE_LOG | 25459 NIAB PHASE 1.GPU - v8_04 | 26/10/12 - 17:03 | OP.



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WSH
Contract Ref: 25459	Date: 06.09.12	Ground Level (m AOD): 19.16	National Grid Co-ordinate: E:543567.0 N:260638.0	Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill & Instrumentation	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.20-0.30	1	ES	Tub+VL+J			TOPSOIL: Grass vegetation over brown to dark brown slightly silty sandy CLAY with gravels of angular to subangular fine to coarse flint, subrounded fine to medium chalk and fine to coarse chert. Frequent rootlets of 1-2mm encountered throughout. (TOPSOIL)	(0.50)	
	0.50-0.60	2	D				Orangey-brown gravelly sandy CLAY. Gravels are angular to subangular fine to coarse flints. Dark grey pockets of decomposing matter noted throughout. (RIVER TERRACE DEPOSITS)	0.50	
	1.00-1.45	1	SPT	N=9			... @ 1.1m Gravels become more rare and are predominantly fine to medium.	(1.50)	
	1.40-1.60	3	D				... @ 1.7m Clasts of hard and soft calcareous nodules found at the base of strata.	2.00	
	2.00-2.45	2	SPT	N=33			... @ 1.80m to 2.0m Lense of orangey-brown gravelly medium SAND. Gravels are predominantly angular fine to medium flint.	(0.50)	
							Orangey-brown SAND and GRAVEL. Gravel is angular fine to coarse flint and fine chalk clasts. Sand is fine to coarse predominantly fine to medium. (RIVER TERRACE DEPOSITS)	2.50	
							Firm orangey-brown/grey mottled with orange-red sandy silty CLAY. Sand is predominantly fine. (GAULT FORMATION)	(0.50)	
	3.00-3.45	3	SPT(c)	N=16			... @ 2.8 Transition into grey mottled pale yellow-grey slightly sandy silty CLAY.	3.00	

Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)				
						1. Borehole remained stable during excavation. 2. Soils saturated below 2.5m 3. Water seepage noted at 2.4m bgl.			
						All dimensions in metres		Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly
						Checked By:			



DRAFT WINDOW SAMPLE LOG

Contract: NIAB - Phase 1		Client: BDW Trading Limited		Window Sample: WSM
Contract Ref: 25459	Date: 06.09.12	Ground Level (m AOD): 18.75	National Grid Co-ordinate: E:543512.0 N:260704.0	Sheet: 1 of 1

Progress	Samples / Tests				Water	Backfill	Description of Strata	Depth (Thickness)	Material Graphic Legend
Window Run	Depth	No	Type	Results					
	0.10	1	ES	J			MADE GROUND: Dark brown slightly silty sandy CLAY. Some fine to coarse gravels of subangular flint and occasional fine subangular brick fragments.	0.25	
	0.30-0.40	2	ES	Tub+VL+J			(MADE GROUND) Orange to dark brown slightly clayey gravelly SAND. Gravel is fine to coarse subangular flint and subrounded chalk clasts. Sand is fine.	0.50	
	0.60-0.80	3	D				Medium dense to very dense gravelly SAND. Gravel is angular to subrounded fine to coarse flint and occasional cobbles of flint. Sand is predominantly medium to coarse.	(0.50) 1.00	
	1.00-1.17	1	SPT(c)	N=91*					

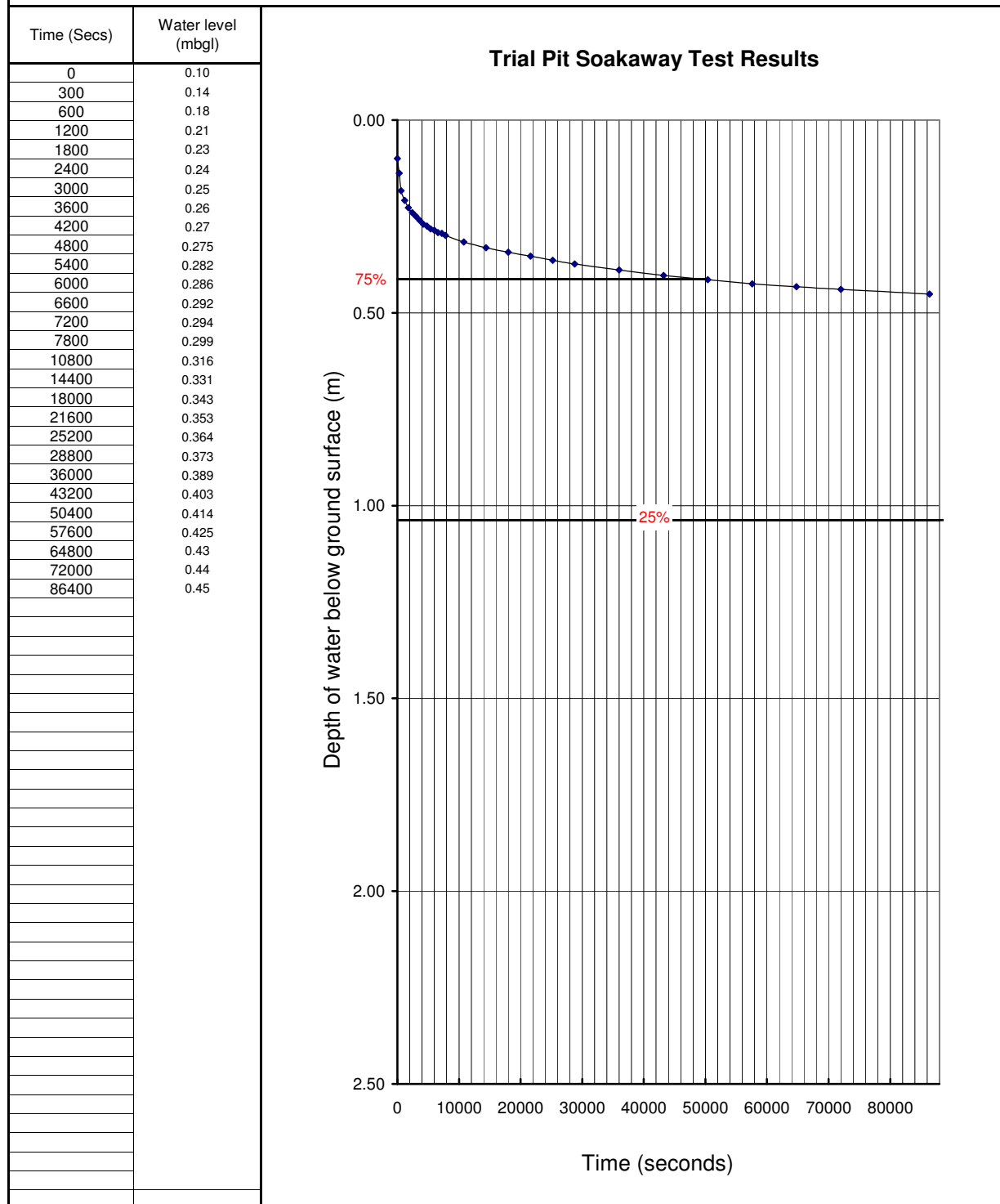
Drilling Progress and Water Observations						General Remarks			
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Refusal at terminal depth due to density of soils			
						All dimensions in metres		Scale:	1:25
Method Used:	Tracked window sampling		Plant Used:	Archway Competitor		Drilled By:	MOS	Logged By:	OPengilly
						Checker By:			

H2 – INFILTRATION TEST RESULTS



Trial Pit Soakaway Test to BRE Digest 365

Location	TP1 (i)	Test No	Test 1
Client	BDW Trading Limited	Length of Trial Pit (m)	1.45
Job Number	25459	Width of Trial Pit (m)	0.45
Date	28.08.12	Water level at start (mbgl)	0.1
Operator	MOS / OP	Depth to Base of Trial Pit (m)	1.35



Results

$V_{p75-25} (m^3)$	-
$a_{p50} (m^2)$	-
$t_{p75} (s)$	-
$t_{p25} (s)$	-
$t_{p75-25} (s)$	-
Infiltration Rate (m/s)	INVALID

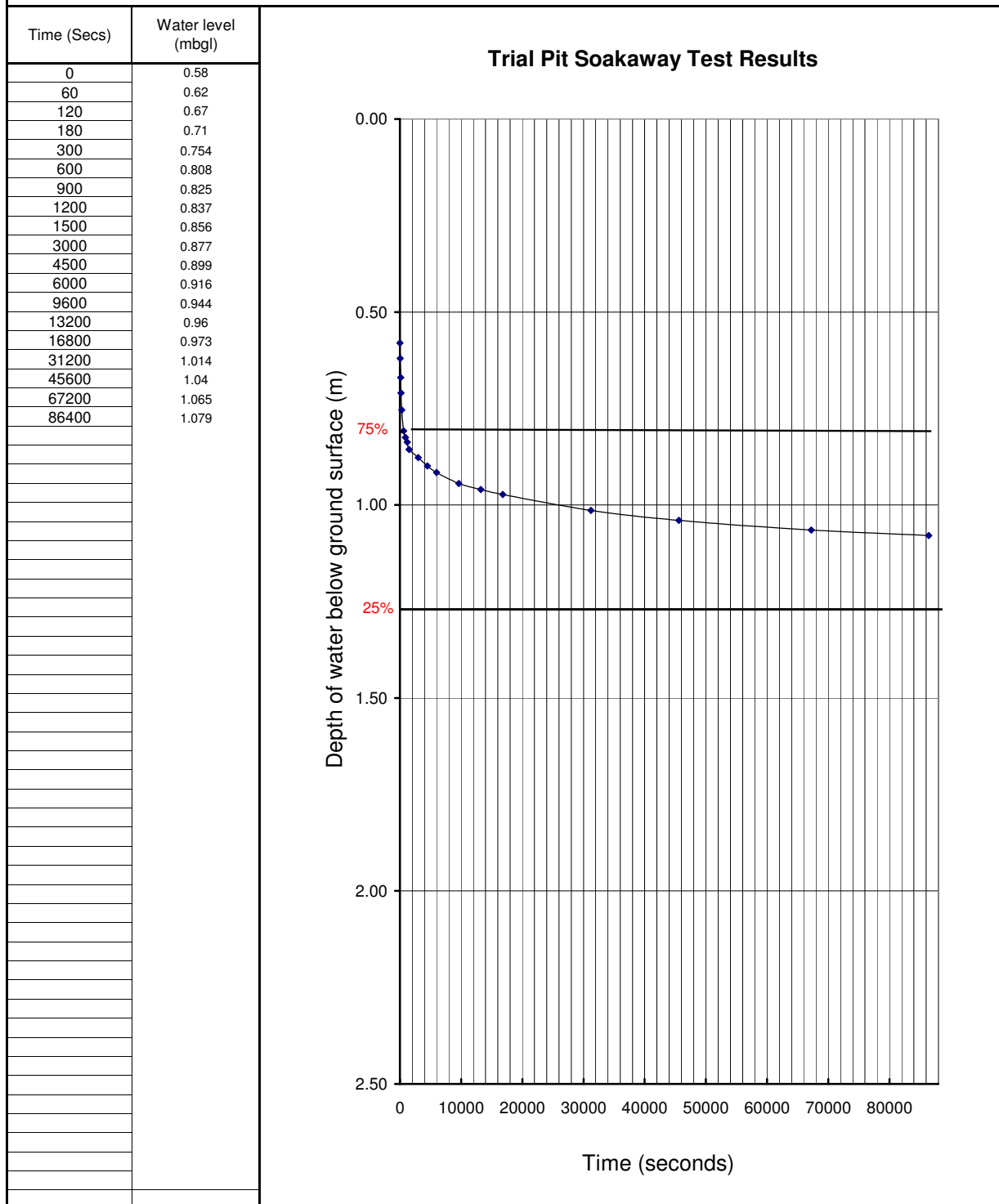
Groundwater did not infiltrate past the 25 and 75 percentiles over a 24 hour period.

Figure
Appendix H



Trial Pit Soakaway Test to BRE Digest 365

Location	TP2(i)	Test No	Test 1
Client	BDW Trading Limited	Length of Trial Pit (m)	1.1
Job Number	25459	Width of Trial Pit (m)	0.45
Date	28.08.12 - 29.08.12	Water level at start (mbgl)	0.58
Operator	MOS / OP	Depth to Base of Trial Pit (m)	1.50



Results

$V_{p75-25} (m^3)$	-
$a_{p50} (m^2)$	-
$t_{p75} (s)$	-
$t_{p25} (s)$	-
$t_{p75-25} (s)$	-
Infiltration Rate (m/s)	INVALID

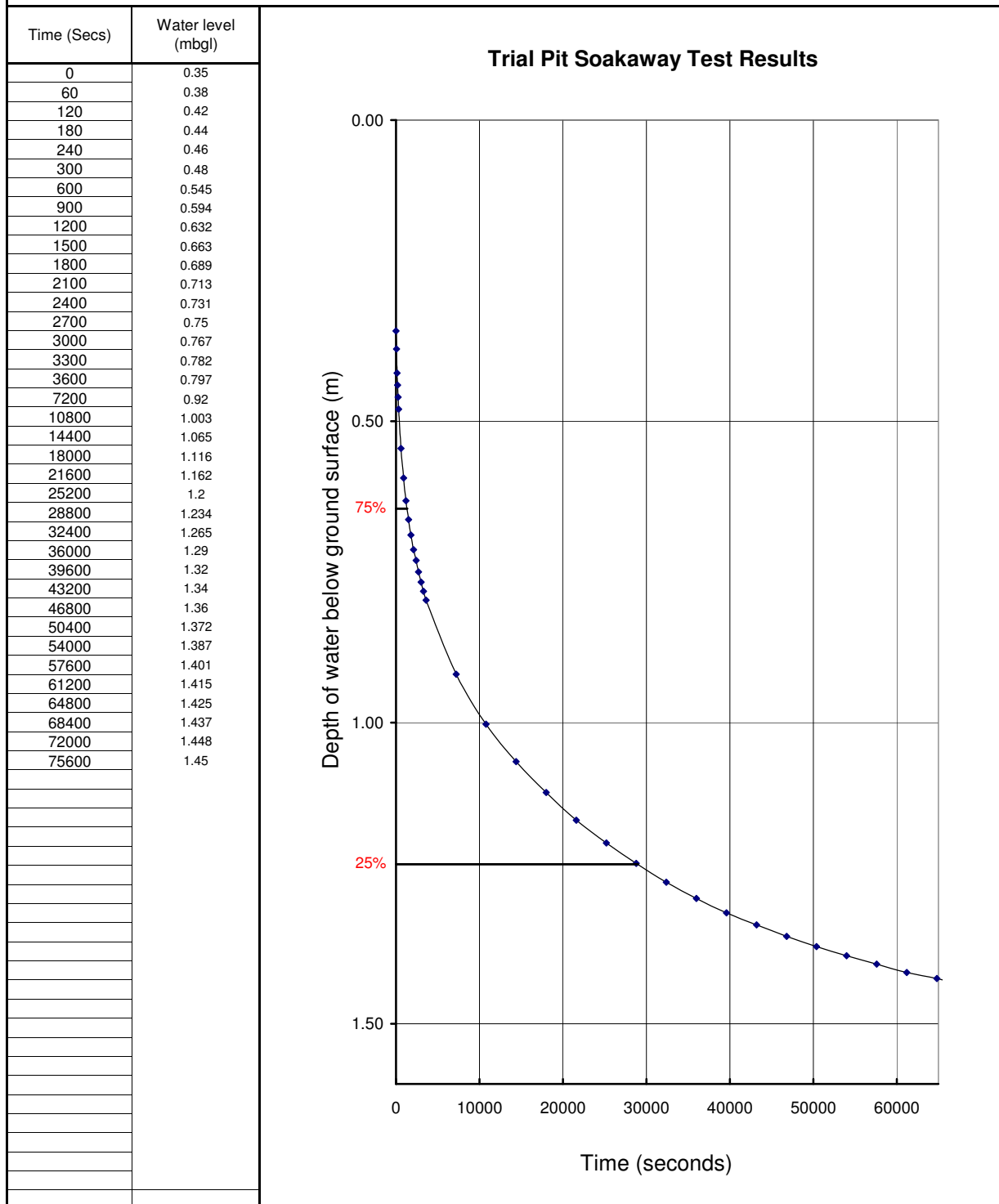
Groundwater did not infiltrate past the 25 and 75 percentiles over a 24 hour period.

Figure
Appendix H



Trial Pit Soakaway Test to BRE Digest 365

Location	TP4 (i)	Test No	Test 1
Client	BDW Trading Limited	Length of Trial Pit (m)	1.29
Job Number	25459	Width of Trial Pit (m)	0.45
Date	30.08.12 - 31.08.12	Water level at start (mbgl)	0.35
Operator	MOS / OP / BC	Depth to Base of Trial Pit (m)	1.53



Results

$V_{p75-25} (m^3)$	0.10
$a_{p50} (m^2)$	2.63
$t_{p75} (s)$	1350.00
$t_{p25} (s)$	29000.00
$t_{p75-25} (s)$	27650.00
Infiltration Rate (m/s)	1.41E-06

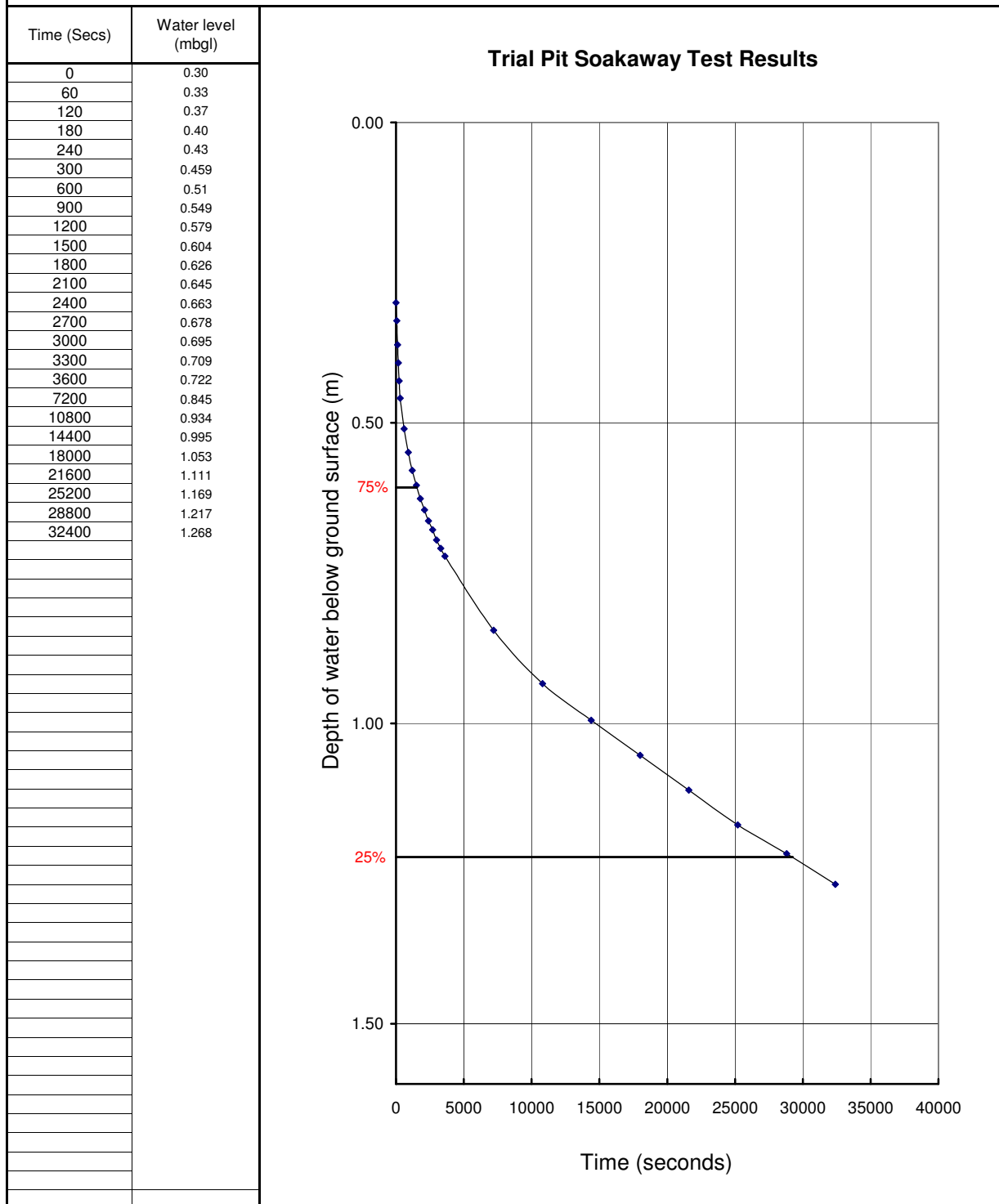
Calculations based on 30% porosity of backfill shingle

Figure
Appendix H



Trial Pit Soakaway Test to BRE Digest 365

Location	TP4 (i)	Test No	Test 2
Client	BDW Trading Limited	Length of Trial Pit (m)	1.29
Job Number	25459	Width of Trial Pit (m)	0.45
Date	31.08.12	Water level at start (mbgl)	0.3
Operator	MOS	Depth to Base of Trial Pit (m)	1.53



Results

$V_{p75-25} (m^3)$	0.11
$a_{p50} (m^2)$	2.72
$t_{p75} (s)$	1550.00
$t_{p25} (s)$	29250.00
$t_{p75-25} (s)$	27700.00
Infiltration Rate (m/s)	1.42E-06

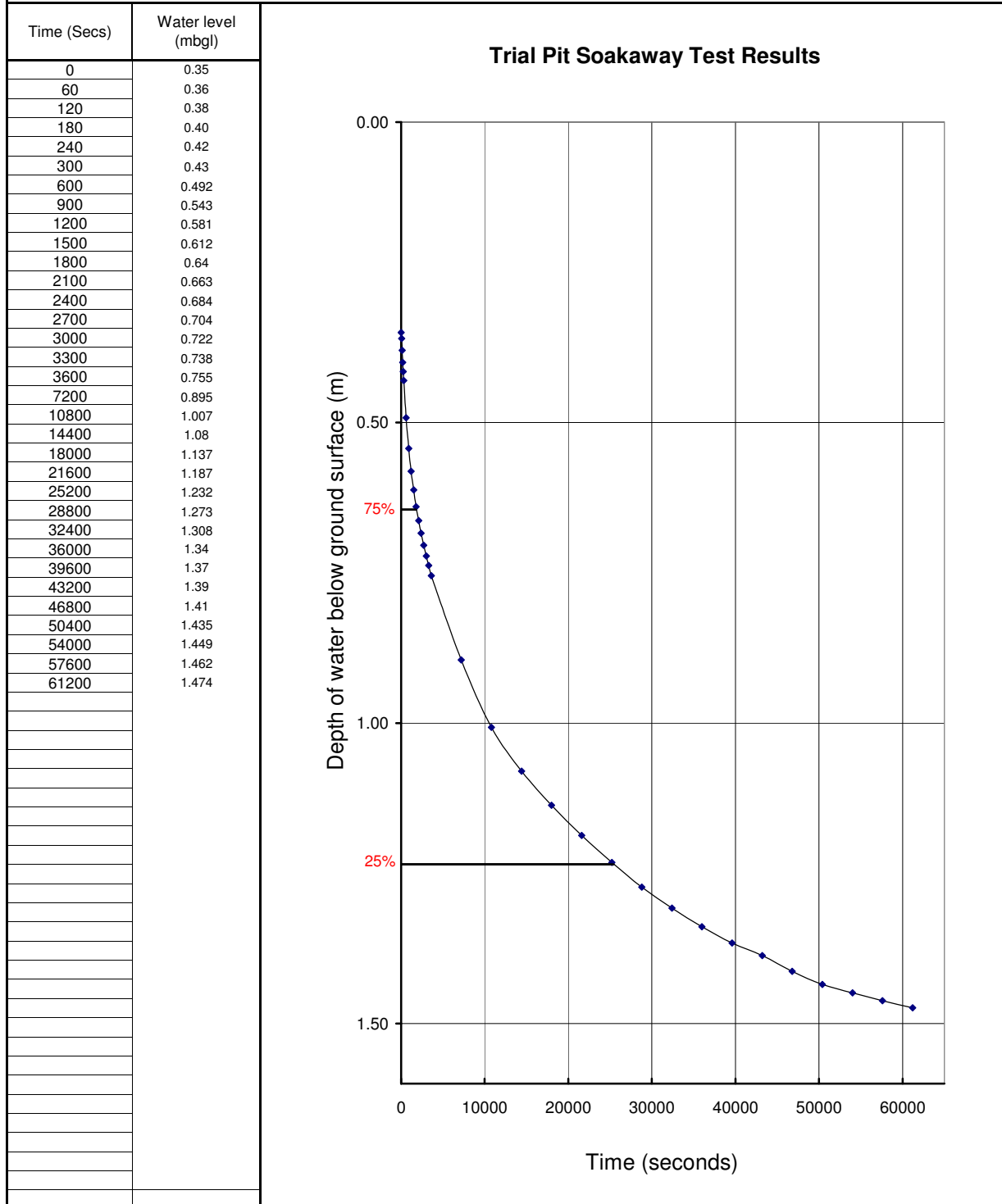
Calculations based on 30% porosity of backfill shingle

Figure
Appendix H



Trial Pit Soakaway Test to BRE Digest 365

Location	TP4 (i)	Test No	Test 3
Client	BDW Trading Limited	Length of Trial Pit (m)	1.29
Job Number	25459	Width of Trial Pit (m)	0.45
Date	03.09.12	Water level at start (mbgl)	0.35
Operator	MOS / BC	Depth to Base of Trial Pit (m)	1.53



Results

$V_{p75-25} (m^3)$	0.10
$a_{p50} (m^2)$	2.63
$t_{p75} (s)$	1800.00
$t_{p25} (s)$	25400.00
$t_{p75-25} (s)$	23600.00
Infiltration Rate (m/s)	1.65E-06

Calculations based on 30% porosity of backfill shingle

Figure
Appendix H