

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 (m³): - Max Daily Volume (m³): - 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 (m³): - Max Daily Volume (m³): - 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 (m³): - Max Daily Volume (m³): - 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	Е	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 (m³): - Max Daily Volume (m³): - 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 (m³): - Max Daily Volume (m³): - 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 (m³): - Max Daily Volume (m³): - 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 (m³): - Max Daily Volume (m³): - 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 (m³): - Max Daily Volume (m³): - 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 (m³): - Max Daily Volume (m³): - 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 (m³): - Max Daily Volume (m³): - 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
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	Version End Date: 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	Е		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
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	Version End Date: 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

 Not
 1812.0
 SE
 544500,

 shown
 258500

Licence No: 6/33/33/*S/0063
Details: General Farming & Domestic
Direct Source: Surface Water Source Of
Supply

Details

Point: River Cam At Cambridge Data Type: Point Annual Volume (m³): Max Daily Volume (m³): 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	River Type: Tertiary River
			Water Course Name: - Welsh River Name: -	Catchment: - Drain: YES
			Alternative Name: -	Main River Status: Currently Undefined
2	174.0	NW	River Name: Drain	River Type: Tertiary River
			Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: YES
			Alternative Name: -	Main River Status: Currently Undefined
3	174.0	NW	River Name: Drain	River Type: Tertiary River
			Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: YES
4	224.0	N	Alternative Name: - River Name: Drain	Main River Status: Currently Undefined River Type: Secondary River
4	224.0	IN	Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: YES
			Alternative Name: -	Main River Status: Currently Undefined
5	225.0	NW	River Name: -	River Type: Tertiary River
			Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: NO
			Alternative Name: -	Main River Status: Currently Undefined
6	228.0	NW	River Name: Drain	River Type: Secondary River
			Water Course Name: -	Catchment: -
			Welsh River Name: - Alternative Name: -	Drain: YES Main River Status: Currently Undefined
7	309.0	N	River Name: Drain	River Type: Secondary River
,	303.0	IV	Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: YES
			Alternative Name: -	Main River Status: Currently Undefined
8A	324.0	NW	River Name: -	River Type: Tertiary River
			Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: NO
	222.0	B1047	Alternative Name: -	Main River Status: Currently Undefined
9A	328.0	NW	River Name: Drain	River Type: Tertiary River
			Water Course Name: -	Catchment: - Drain: YES
			Welsh River Name: - Alternative Name: -	Main River Status: Currently Undefined
10	366.0	W	River Name: Drain	River Type: Tertiary River
10	300.0	**	Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: YES
			Alternative Name: -	Main River Status: Currently Undefined
11	381.0	NW	River Name: Drain	River Type: Secondary River
			Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: YES
12	204.0	NIVA	Alternative Name: -	Main River Status: Currently Undefined
12	384.0	NW	River Name: Drain Water Course Name: -	River Type: Secondary River Catchment: -
			Welsh River Name: -	Drain: YES
			Alternative Name: -	Main River Status: Currently Undefined
13	386.0	W	River Name: -	River Type: Tertiary River
			Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: NO
			Alternative Name: -	Main River Status: Currently Undefined
14	427.0	NW	River Name: -	River Type: Extended Culvert (greater than 50m)
			Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: NO
1 -	420.0	NIVA	Alternative Name: -	Main River Status: Currently Undefined
15	430.0	NW	River Name: - Water Course Name: -	River Type: Tertiary River Catchment: -
			Welsh River Name: -	Drain: NO
			Alternative Name: -	Main River Status: Currently Undefined
16	436.0	NW	River Name: -	River Type: Tertiary River
			Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: NO
			Alternative Name: -	Main River Status: Currently Undefined
17	471.0	NW	River Name: Drain	River Type: Tertiary River
			Water Course Name: -	Catchment: -
			Welsh River Name: -	Drain: YES
			Alternative Name: -	Main River Status: Currently Undefined
	470.0	B1147		
18	473.0	NW	River Name: -	River Type: Secondary River
18	473.0	NW	River Name: - Water Course Name: -	River Type: Secondary River Catchment: -
18	473.0	NW	River Name: -	River Type: Secondary River





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

NE NW Girton SE Crown Copyright. All Rights **Environment Agency Flood Legend** Reserved Licence Number: 100035207 Zone 2 Floodplain Site Outline Zone 3 Floodplain Flood Storage Area Search Buffers (m) Area Benefiting from Flood Defences Flood Defences





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:

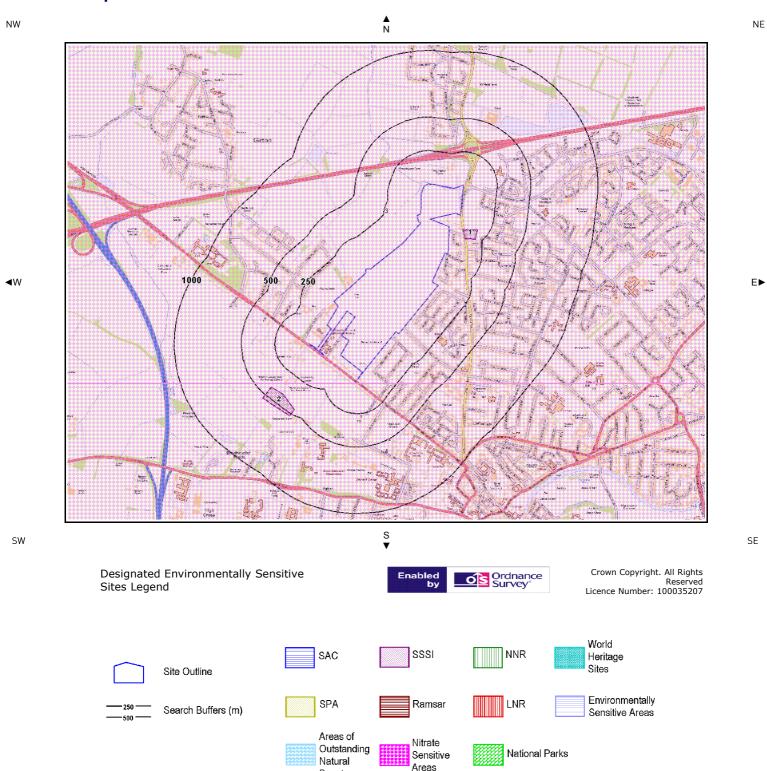
Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

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



Beauty





7. Designated Environmentally Sensitive Sites

<u> </u>				
Records of Sites of Speci	al Scientific Inte	rest (SSSI) within 2000m of the	e study site:	2
		st (SSSI) records provided by Nat esented as polygons on the Desigr		
ID Distance Direct	on	SSSI Name	Data Source	
1 108.0 E 2 415.0 SW		Histon Road Traveller's Rest Pit	Natural England Natural England	
		Traveller of Reserve		
Records of National Nati	ıre Reserves (NN	R) within 2000m of the study si	ite:	0
Database searched and no	data found.			
Records of Special Areas	of Conservation	(SAC) within 2000m of the stud	ly site:	0
Database searched and no	data found.			
Records of Special Prote	ction Areas (SPA) within 2000m of the study site	a:	
_		, 200 0 0 5. , 5		
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) v	within 2000m of the study site:		0
Database searched and no	data found.			
Records of World Heritag	ge Sites within 20	000m of the study site:		0
Database searched and no	data found.			
Records of Environments	ally Sensitive Are	as within 2000m of the study si	ite:	
	•			
Database searched and no	aata round.			
Records of Areas of Outs	tanding Natural	Beauty (AONB) within 2000m o	f the study site:	0
Database searched and no	data found.			
Report Reference: EMS-176	5835 260485			





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 polyg	ons on the Designated

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.

8.1.6Running 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

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emapsite™

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 ORQ

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

Acknowledgements

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Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, English Nature who retain the Copyright and Intellectual Property Rights for the data.

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British
Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

















Standard Terms and Conditions

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. accordance with clause 11.

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

"Data Provider" means me 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

"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.

2.1 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

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 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.

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

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

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 a greement with GroundSure) to; (a) remove, suppress or modify any t

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;

respect of adjacent or nearby sites:





- (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 legislations or requirement to the time.
- 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.

Liability

- 7. Liability
 THE CLIENT'S ATTENTION IS DRAWN TO THIS PROVISION
 7.1Subject 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.
- 7.2GroundSure 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 GroudSure'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
- and conducins provided such insurance is readily available at commercially value 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 he 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.

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.

 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
 - 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
- 11.3 No failure on the part of GroundSure to exercise and no delay in exercising, any right, power or provision under these terms and condutions shall operate as a warver unered.

 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:

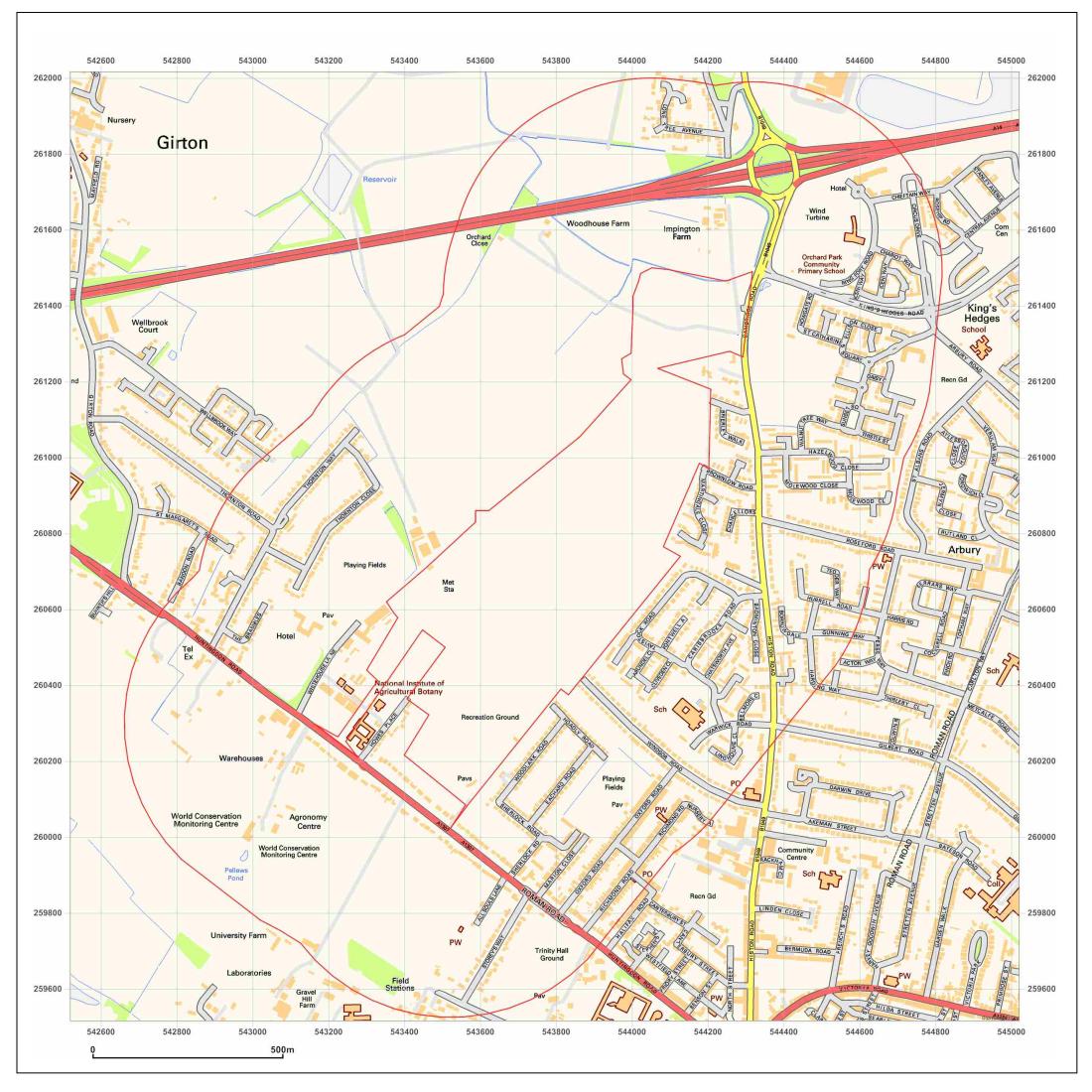
 - (vi) strikes, labour disputes or industrial action;
 (vi) acts or regulations of any governmental or other agency;
 (vii) suspension or delay of services at public registries by Data Providers; or
- (viii) changes in law.
- Any notice provided shall be in writing and shall be deemed to be properly 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.
 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
- The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.

 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.
- enorceaning of the remaining provisions shall not in any way be fainted or impaired.

 1.11 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



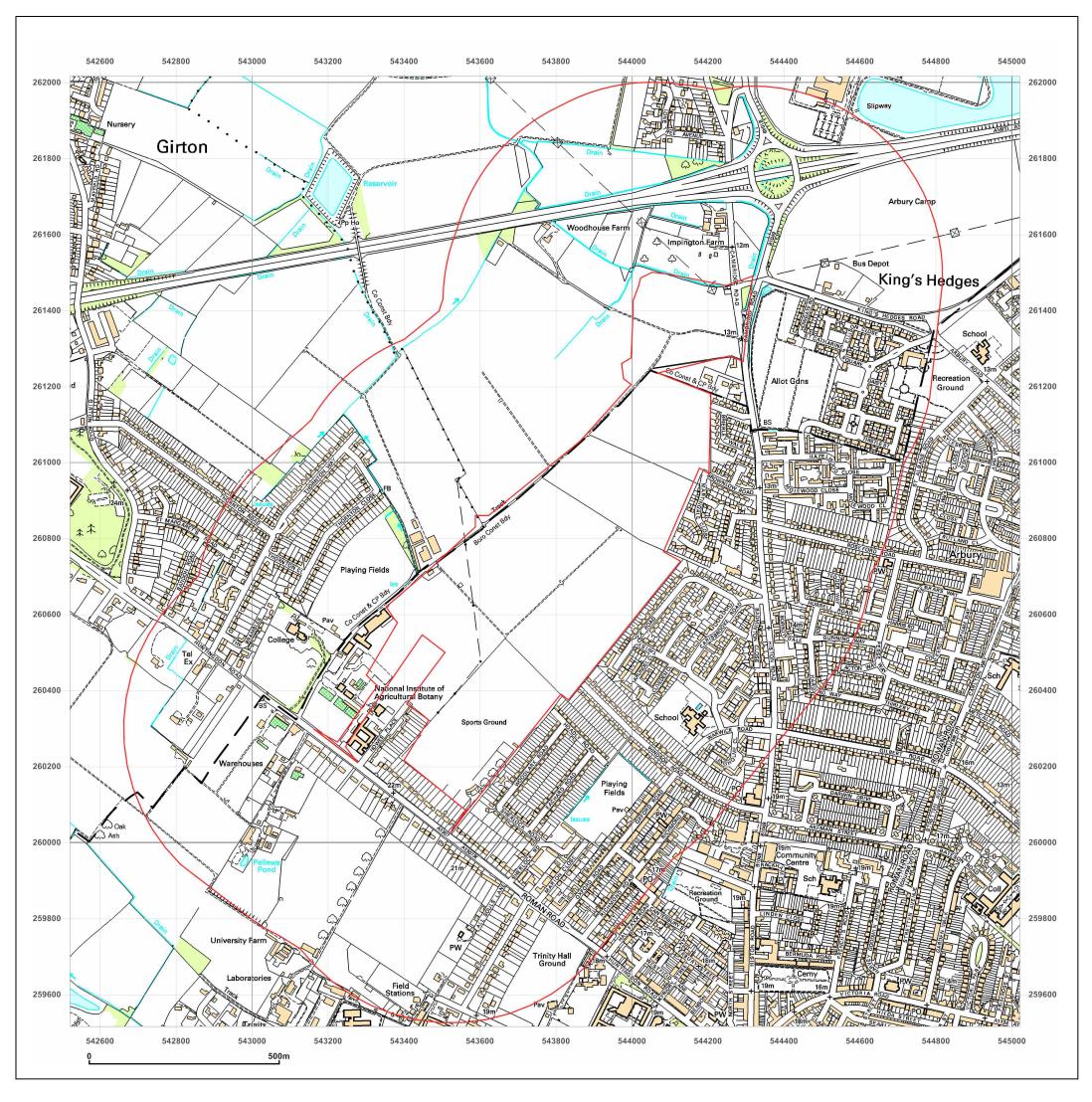
Produced by GroundSure Environmental Insight www.groundsure.com



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Production date: 23 August 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: 1:10,000 Raster

2002 Map date:

Scale: 1:10,000

Printed at: 1:10,000

2002



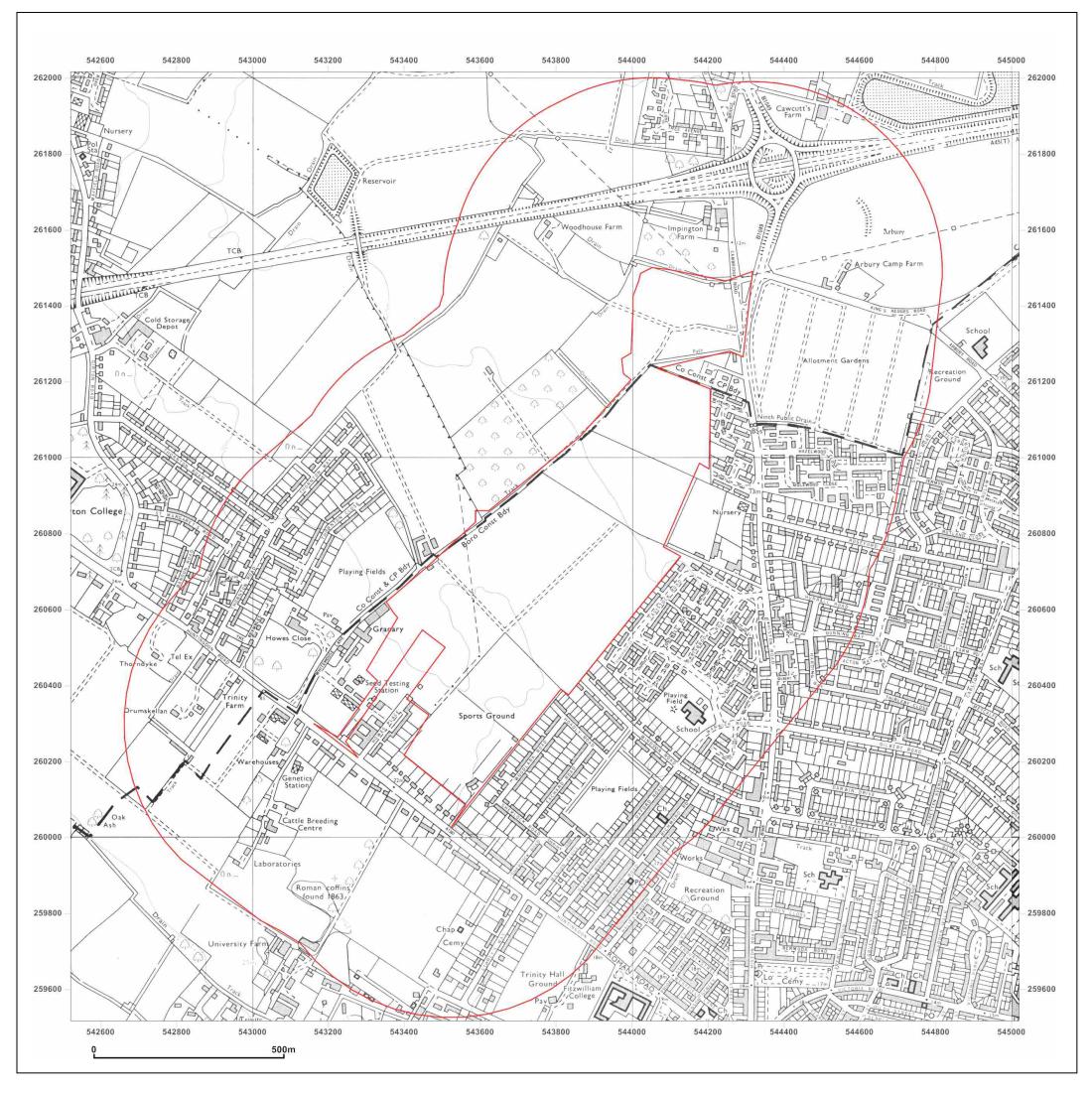
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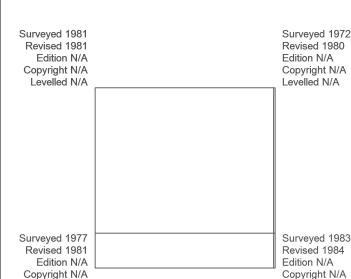
Client Ref: EMS 176835 260483 **Report Ref:** EMS-176835_260483 **Grid Ref:** 543770, 260766

Map Name: National Grid

Map date: 1980-1984

1:10,000 Scale:

Printed at: 1:10,000





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Levelled N/A



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Production date: 23 August 2012



Site Details:

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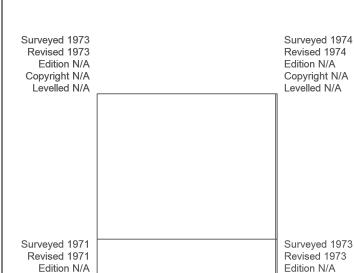
Client Ref: EMS_176835_260483 Report Ref: EMS-176835_260483 Grid Ref: 543770, 260766

Map Name: National Grid

Map date: 1971-1974

Scale: 1:10,000

Printed at: 1:10,000





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Copyright N/A

Levelled N/A



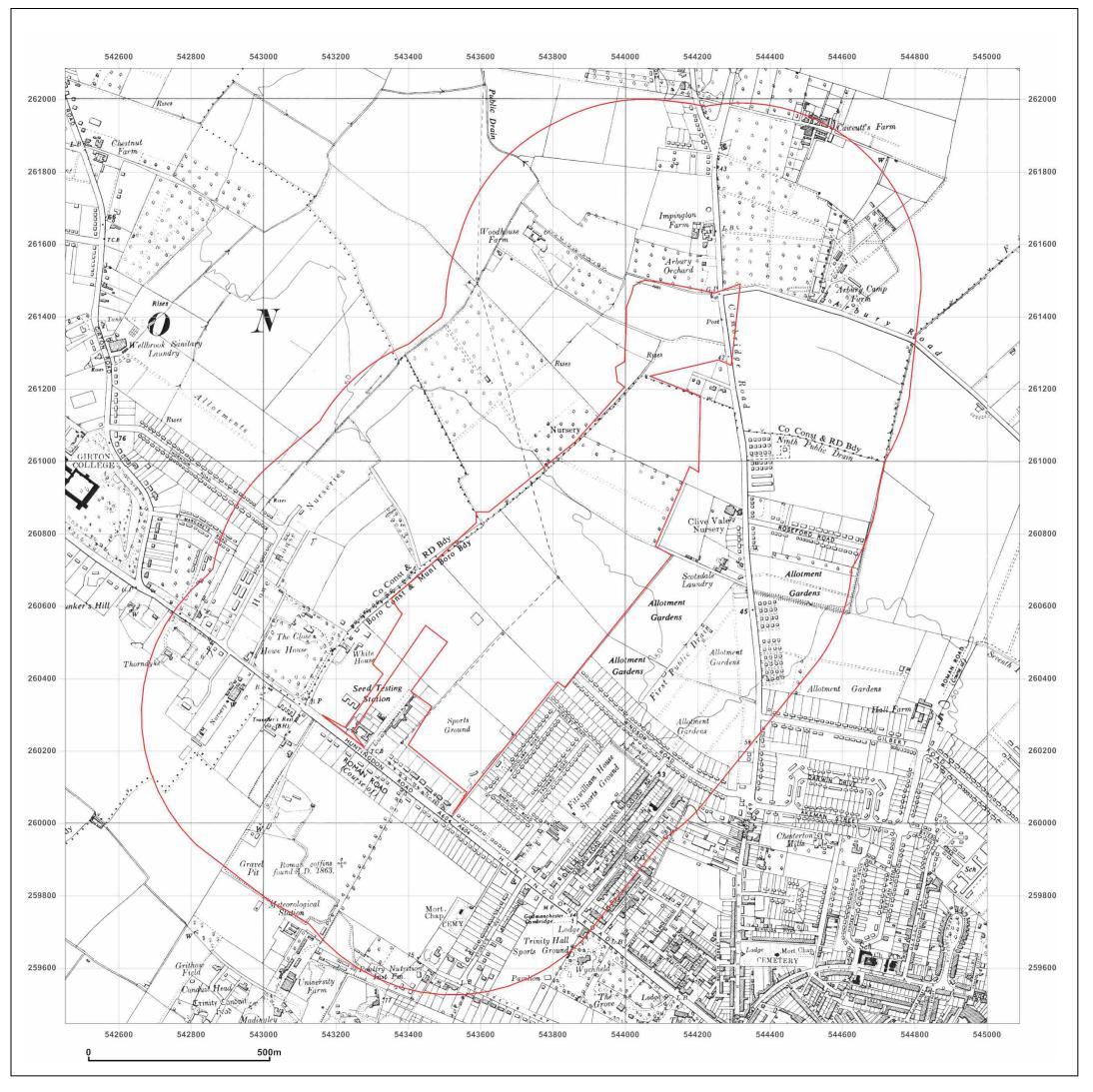
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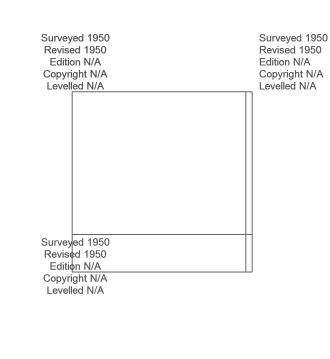
Client Ref: EMS_176835_260483 Report Ref: EMS-176835_260483 Grid Ref: 543770, 260766

Map Name: Provisional

1965-1966 Map date:

Scale: 1:10,560

Printed at: 1:10,560





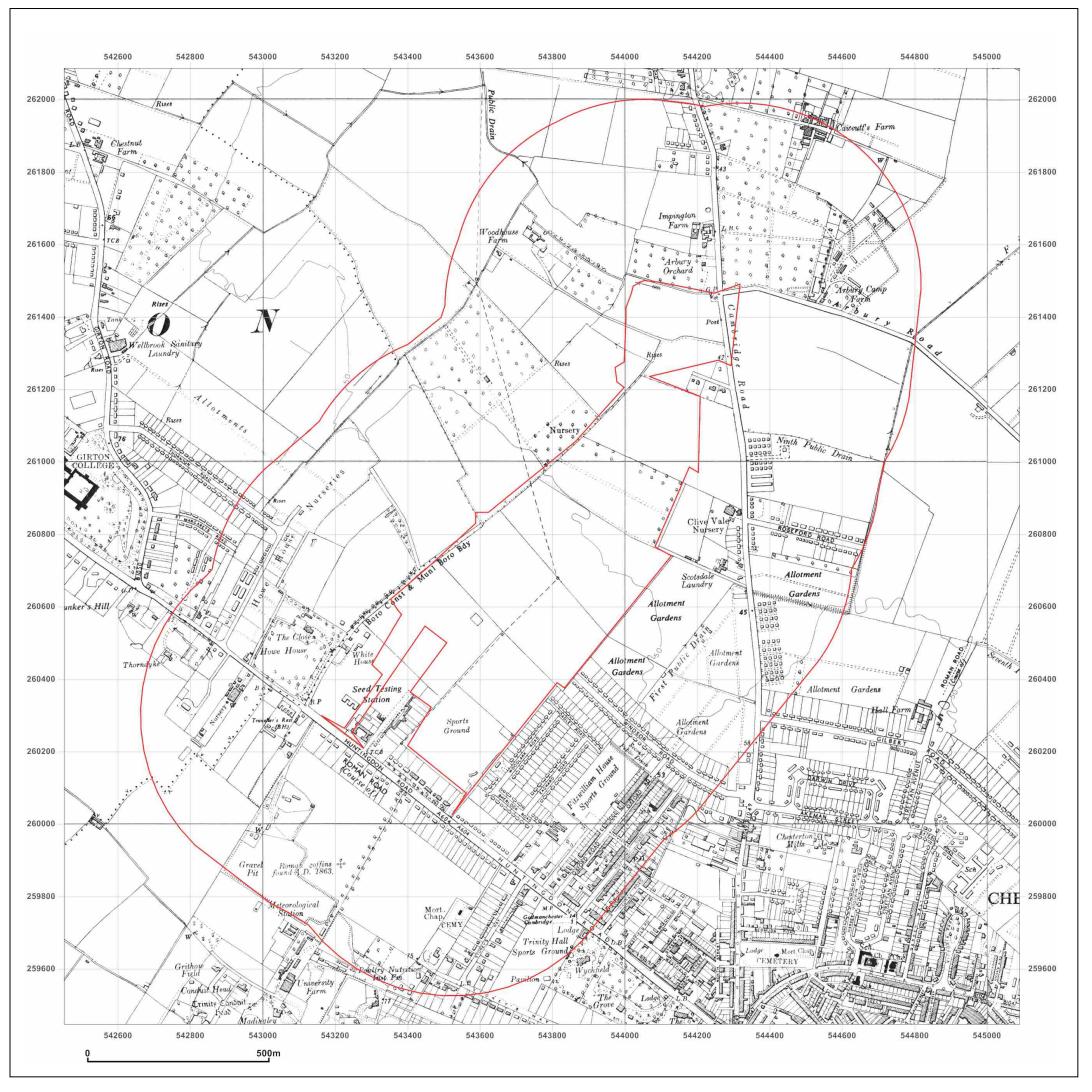
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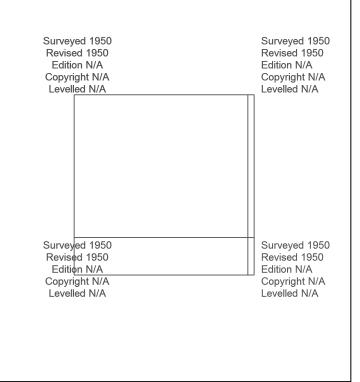
Client Ref: EMS_176835_260483 Report Ref: EMS-176835_260483 Grid Ref: 543770, 260766

Map Name: Provisional

1957-1959 Map date:

Scale: 1:10,560

Printed at: 1:10,560





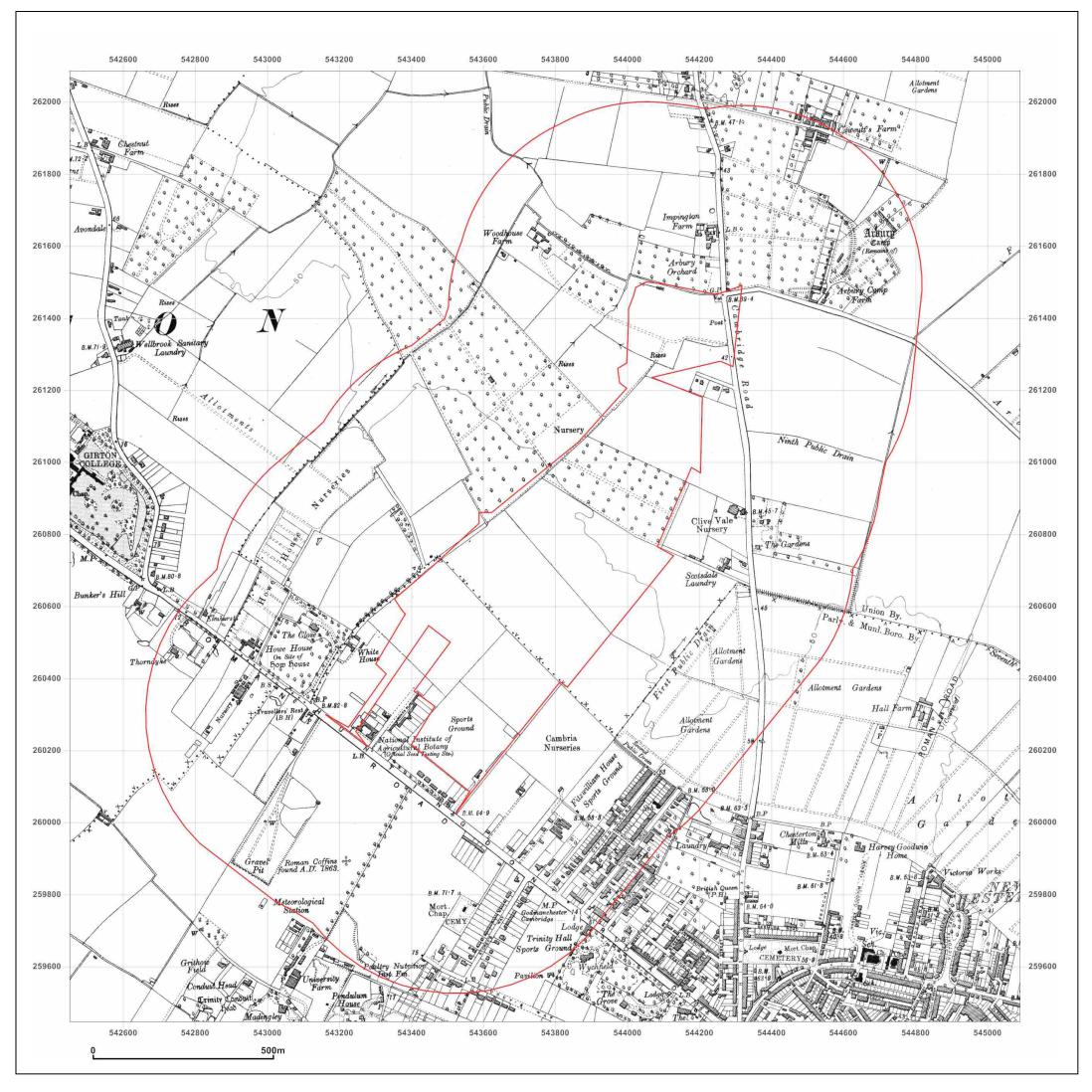
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Production date: 23 August 2012





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: County Series

1927 Map date:

Scale: 1:10,560

Printed at: 1:10,560

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



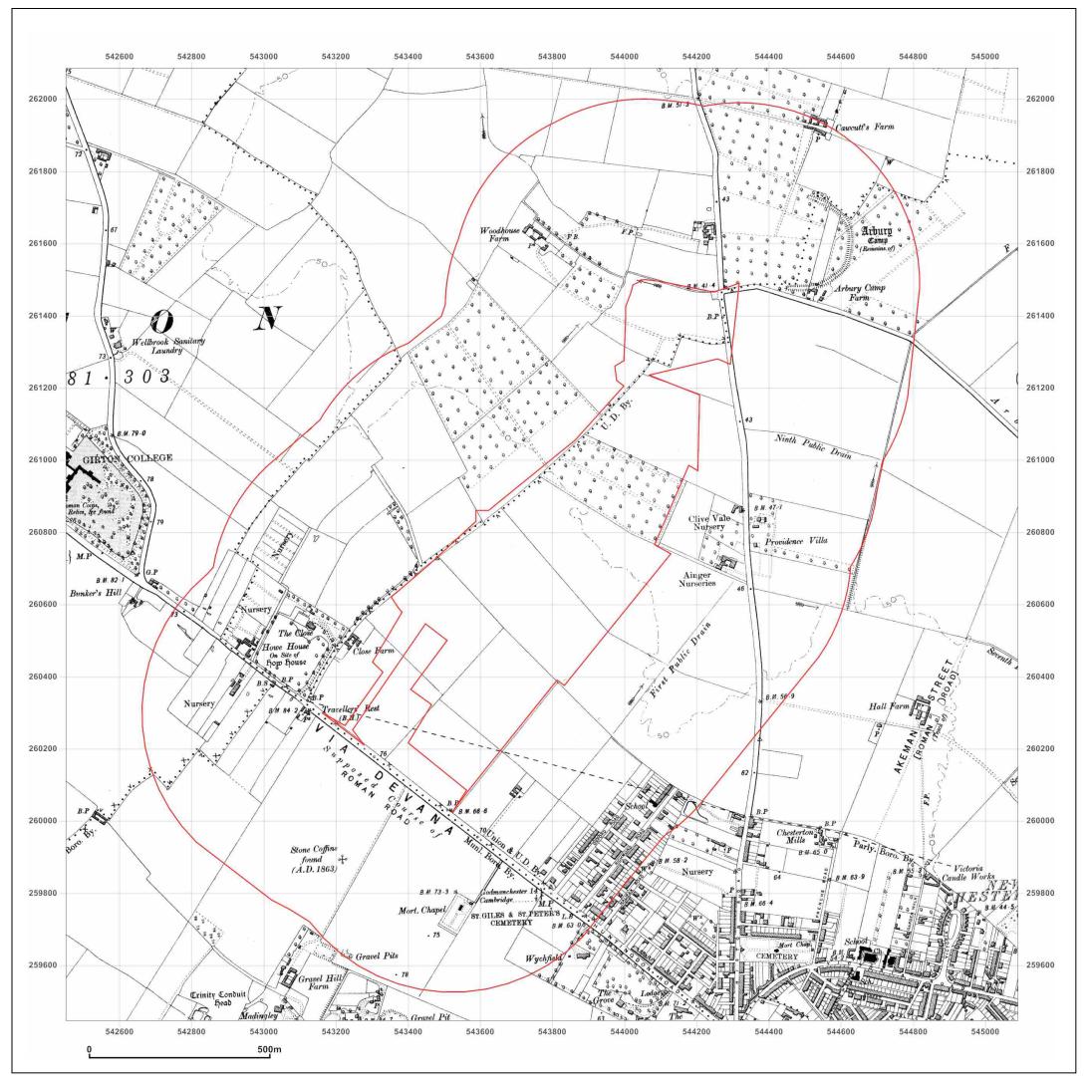
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Production date: 23 August 2012





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: County Series

1901 Map date:

1:10,560 Scale:

Printed at: 1:10,560

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



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Production date: 23 August 2012



APPENDIX F BGS BOREHOLE RECORDS



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British Geological Survey	British Geological Survey	British Geological Survey
	· ·	,
		r,



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 attchment) 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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Before printing think about your responsibility and commitment to the ENVIRONMENT!

----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

Please consider the environment - do you really need to print this e-mail?

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APPENDIX H
INVESTIGATION RECORDS



H1 - EXPLORATORY HOLE LOGS



Contract:							Client:					Boreho	ole:	
		NIAB	- Phase	1				DW T	rading L	imited		20.0		BH1
Contract Ref	F:			28.0	8.12	Grour	nd Level (m AOD		tional Grid C			Sheet:		
	254	59	End:		8.12		19.13	.	E:543567	7.0 N:260	278.0		1	of 2
Samp	les a	and In-si	tu Tests	e	∞ ' '2								Depth	Material
Depth	No	Туре	Results	Water	Backfill & Instru-mentation				cription of S				(Thick ness)	Graphic Legend
- 0.00-0.40	1	В					PSOIL: Brown slig PSOIL)	ghtly silt	y sandy CLA	AY.			0.40	17:71:41 74:71:71
0.50	1 2	D B				ີ to sເ	vn slightly grave ubrounded fine to ULT FORMATIC	o mediur	tly sandy Cl n flint and ch	LAY. Gravel halk.	s are suba	ngular	(1.00)	
1.40 1.50-1.95	2	D SPT	N=40			occa	n fissured dark asional gravels usions of fine cha	of subralk clasts	ounded fine	e to mediu	m flint and	with d with	(0.70)	x x
- - - 2.10	3	D				Firm	ULT FORMATIC to stiff fissured		ey occasiona	ally mottled y	yellow-brow	n silty	2.10	x x
- 2.40 - 2.50	4 1	D U ₍₁₀₀₎	45 blows 100% recover	v		CLA (GA	Y. ULT FORMATIC	N)					(0.90)	xx x
3.00	5	D	100701000001	,		Firm	n to stiff fissure	ed sligh	tly fissured	dark grey	silty CLA	Y with	3.00	- x
3.40 3.50-3.95	6 2	D SPT	N=13				ULT FORMATIC		omposea orç	ganic matter.			(2.10)	X X X
4.50 4.60	7 2	D U ₍₁₀₀₎	50 blows 100% recover	у		X							- - - - - - - - - - - - - - - - - - -	xx xx xx
5.10	8	D				fine	fissured dark gr to medium grave ULT FORMATIC	els of flin		are to occas	ional subro	unded	-	X X X X X X X X X X X X X X X X X X X
-5.90 - 6.00-6.45 	9 3	D SPT	N=19										(2.30)	X X X X X X X X X X X X X X X X X X X
7.40 7.50 - 8.00	10 3	D U ₍₁₀₀₎	60 blows 100% recover	у		Hard (GA	d fissured dark g ULT FORMATIC	rey silty)N)	CLAY.					X X X X X X X X X X X X X X X X X X X

	Boring Pro	gress and	Water Ol	oservations	<u> </u>	Chisel	ling / Slow F	Progress	Conoral	Domorko		
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	То	Duration (hh:mm)	General I			
		·	·		·				at 2.8m when hole left bgl. 2. Borehole cased to 1.6 3. Installation to 4.5m bg	m bgl Il.		
Method			Plar				Drilled		Logged	Scale: 1:50 Checkec		
Used:	Cable p	ercussio	n Use	^{d:} Ca	ble tool	rig	By:	SH	By: OPengilly By: AGS			

GINT_LIBRARY_V8_04.GLBILog 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.ulk.



Contract:							Client:		Boreho	ole:		
	NIAE	- Pha	ise 1				BDV	V Trading Limited			ВІ	H1
Contract R	ef:	!	Start:	28.0	8.12	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
	25459	I	End:	28.0	8.12		19.13	E:543567.0 N:260278.0		2	of	2
Sam Depth	nples and In-si	itu Tests Resu		Water	Sackfill & Instru-			Description of Strata		Depth (Thick	Gra	٠.

		55		20.00.		13:10 L:040007:0 N:200270:0		01 &
Samp	les a	nd In-si	tu Tests	Water	Instru- mentation	Description of Strata	Depth (Thick	Material Graphic
Depth	No	Туре	Results	Wack	Ins		ness)	Legend
- 8.90 - 9.00-9.45 - -	12 4	D SPT	N=31			Hard fissured dark grey silty CLAY. (GAULT FORMATION) (stratum text copied from layer at 7.40m depth from previous sheet)		xx
- - 10.40 - 10.50	13 4	D U ₍₁₀₀₎	80 blows 100% recovery				- - - - - - - -	- ^ _ x x x x x x x
- 11.00	14	D					(7.60)	X X
-11.90 12.00-12.45	15 5	D SPT	N=42					X X
- 13.40 - 13.50 - 14.00	16 5	D U ₍₁₀₀₎	100 blows 100% recovery			@ 13.4 Increase in fissuring.	-	× - ×
- 14.30 - 14.40-14.85	18 6	D SPT	N=47				15.00	X X
- 15.00	19	D						

	ļ	Boring Pro	gress and	Water Ob	servations	3	Chiselli	ng / Slow F	Progress	General Remarks	
	Date	Time	Borehole	Casing	Borehole Diameter	Water	From	То	Duration	General Remarks	
	Date	Tillie	Depth	Depth	(mm)	Depth	1 10111	10	(hh:mm)		٦
,											
										All dimensions in metres Scale: 1:50	
	Method			Plan				Drilled		Logged Checkec By: Checkec By:	
	Used:	Cable p	ercussio	n Used	d: Cal	ble tool	rig	By:	SH	By: OPengilly By:	7

GINT_LIBRARY_V8_04.GLBILog CABLE PERCUSSION LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:05 | OP. RSK Environment Ltd, 18 Frogmore Road, Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437556, Web: www.rsk.co.uk.



Contract:						Client:		R. B.	orehol	<u> </u>		_
Contract.		NIAR	3 - Phase 1				N Trading Limited		Orenoi	С.	BH2	,
Contract Ref	f·	ITIAD		28.08.12	Grour	nd Level (m AOD):	National Grid Co-ordinate:	S	heet:		DI 12	_
	254	59		28.08.12	Orour	16.33	E:543821.0 N:260		11001.	1	of 2	
			tu Tests		5					Depth	Materia	= al
Depth	No	Туре	Results	Water Backfill & Instru-			Description of Strata			(Thick ness)	Graphi Legen	
- 0.00-0.50	1	В					brown organic gravelly claye ar fine to coarse flints.	ey SAND. Gra	vels	0.40	7.7.7.7	1/
- 0.80	1	D			CLA occa	Y with some ang	o grey mottled orangey bro ular to subangular fine to fine to medium chalk. POSITS)	wn slightly sa medium flint	and	(1.30)		-
- - 1.20-1.65 -	1	SPT	N=15		; ; ;					4.70		-
- 1.80 - 2.00-2.45 - 2.00-2.50	2 2 2	D SPT(c) B	N=13		fine grav	ium dense slightly SAND. Gravels ar els/coarse sand siz ER TERRACE DEI		rse predomina int and some	antly -	1.70 (0.60) 2.30		0
- - - 2.80	3	D			Firm	to stiff fissured d	ark grey mottled pale grey/y o subrounded fine calcareou	/ellow/orange s nodules.	silty		x x x	×
3.00	1	U ₍₁₀₀₎	40 blows 100% recovery						-	-	× × × _	× × ×
- 3.50 -	4	D							-			×
- 3.80 - 4.00-4.45	3	D SPT	N=16						-	-	×	×
- - 4.80	6	D			8						× -	×
- - 5.00	2	U ₍₁₀₀₎	50 blows 100% recovery		@) 4.8m Mottling become	omes paler grey.		-	-		×
- 5.50 -	7	D			@) 5.5m Inclusions of	siltstone. Reduction in silt co	ontent.			_ x	×
- 6.00	8	D								-	x x 	×
6.50-6.95	4	SPT	N=20						- - - - - - -	-	x x x x x	×
- 7.50 -	9	D							 - -		x	×
_ - 8.00 -	3	U ₍₁₀₀₎	50 blows 100% recovery						-	-	X	×
8.50	10	D			@ nodi) 8.5m Onset of studies are absent to b	ff to very stiff CLAY. Mottlinottom of borehole.	ng and calcare		(12.70)	X	×

.5459_NIAB PHASE 1.GPJ - v8_04 26/10/12 - 17:05 OP. artfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.	
GINT_LIBRARY_V8_04.GLBILog CABLE PERCUSSION LOG 25459_NIAB PHASE 1.GPJ - v8_04 266 RSK Environment Ltd; 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 4375	

		Boring Pro	gress and	Water Ob	servations	3	Chisell	ing / Slow F	Progress	Conoral	Domorko	
Ī	Date	Time	Borehole	Casing	Borehole Diameter	Water	From	То	Duration	General	Remarks	
	Date	Tillie	Depth	Depth	(mm)	Depth	1 10111	10	(hh:mm)	1. No groundwater enco	untered during drillir	na
										Borehole cased to 2.5m bgl Installation to 4.5m depth		
										All dimensions in metres	Scale: 1:50	
	Method Used:	Cable p	ercussio	Plan Use		ble tool ı		Drilled By:	DH	Logged By: OPengilly Checked By: AGS		



Contract:							Client:		Boreho	ole:	
		NIAE	B - Pha	ase 1				V Trading Limited			BH2
Contract Re	f:			Start:	28.0	8.12	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59		End:	28.0	8.12	16.33	E:543821.0 N:260691.0		2	of 2
Samp	les a	ınd In-si	itu Tests	3	Water	Fill &				Depth	Material
Depth	No	Туре	Res	sults	Ma	Backfill & Instru-		Description of Strata		(Thick ness)	Graphic Legend
9.00	11	D					Firm to stiff fissured da	rk grey mottled pale grey/yellow/oran	ge silty		<u>×x</u>
-							(GAULT FORMATION)	subrounded fine calcareous nodules.		-	xx
- 9.50-9.95 -	5	SPT	N=	=28			(stratum text copied from	n layer at 2.30m depth from previous sl	heet)	-	xx
-										_	xx
-										-	xx
- - 10.50	12	D								-	<u> </u>
										-	
- 11.00	4	U ₍₁₀₀₎	55 b	lows						-	
			100% re	ecovery						-	
11.50	13	D								-	
-										-	× _ ×
12.00	14	D								-	xx
12.50-12.95	6	SPT	N=	-27						-	x
- 12.50-12.95	6	371	11-	-31						-	<u> </u>
-											<u> </u>
-										-	xx
13.50	15	D	05.1							-	xx
13.50	5	U ₍₁₀₀₎		lows ecovery						-	<u> </u>
14.00	16	D								-	xx
14.30	17	D								-	× _ ×
14.50-14.95	7	SPT	N=	- 40						-	
- - 15.00	18	D								15.00	
- 10.00											
-										-	
-										-	
-										-	
-										-	
-										-	

	Boring Pro	gress and	Water Ob		S	Chiselli	ng / Slow	Progress	General	Domarke	
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	То	Duration (hh:mm)	General	Remains	
									All dimensions in metres	Scale: 1:50	
Method Used:	Cable n	ercussio	Plan Use		ble tool r	l -	Drilled By:	DH	Logged By: OPengilly	Checked By:	AGS

GINT_LIBRARY_V8_04.GLBILog 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.ulk.



Contract:						Client:			Boreho	ole:	
		NIAB	- Phase 1			BD	W Tradi	ng Limited			ВН3
Contract Re	f:		Start:	29.08.12	Groun	d Level (m AOD):	National	Grid Co-ordinate:	Sheet:		
	254	59	End:	30.08.12		12.45	E:54	4067.0 N:261091.0		1	of 2
Samp Depth	les a	nd In-si	tu Tests Results	Water Backfill & Instru-			Description	on of Strata		(Thick	Material Graphic Legend
- 0.00-0.40	1	В	results			SOIL: Brown orga	nic slightly s	silty sandy CLAY		ness)	74 1/2 . 1/2 . 1/2 . 1/2
-		_								0.40	17.511, 11/
- - 0.50 - 0.60-0.90	1 2	D B			suba coar	angular to subrouse, predominantly	nded fine fine fine.	ightly sandy CLAY. Grav to medium flints. Sand is		(0.60)	
- 1.00 - 1.10-1.40	2 3	D B			Firm	ER TERRACE DE orangey-brown to angular to subroun ominanlty fine.	grey slightl	y gravelly sandy CLAY. Gra coarse flints. Sand is fine to	vels are medium	(0.60)	
1.60-2.05	1	SPT(c)	N=8		.∖(RIV	ER TERRACE DE				1.60	
1.60 -1.60-2.10	3 4	D`´ B			angu med	ılar to subangulaı ium chalk.	fine to me	velly clayey fine SAND. Gra edium flint and subrounded	vels are fine to	(0.80)	#
- 2.40		D				ER TERRACE DE		and CLAV Crousle are an	audon to	2.40	
2.50-2.95 2.50-3.00	4 2 5	SPT(c) B	N=13		suba calca	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)					
-										3.40	
- 3.40 - 3.50-3.95	5 3	D SPT	N=13		are roun		nded fine to is nodules.	orange gravelly silty CLAY. o coatrse flints and subrou		(1.00)	0
- - -										4.40	
4.40 4.50-4.95	6 4	D SPT	N=17		CLA		inclusions o	sionally mottled yellow bro f fine grey to black clayey sil		(0.60)	<u>x</u> _x
-					. ·		·	Ity CLAY with some fine to	coarse	5.00	
- - 5.40 - 5.50	7	D U ₍₁₀₀₎	40 blows		inclu med		black silt a dules.	and occasional subrounded		- - - - -	
- -			100% recovery							(1.90)	× ×
- 6.00 - - - -	8	D								- - - -	
-6.90	9	D			Firm	to stiff light a	rov oiltu va	on, aandy CLAV with an	nacional	6.90	¥ - ×
7.00-7.45	5	SPT	N=14		🛭 subr	ounded gravels of ULT FORMATION	fine calcare	ery sandy CLAY with occ eous nodules.	casional	-	XX XX XX
- - - -										(2.10)	× · · ×
- 8.40 - 8.50	10 2	D U ₍₁₀₀₎	60 blows 80% recovery							- - -	× · · ×
8.50-9.00	6	В			X					9.00	

	Boring Pro	ogress and	Water Ob	servation	S	Chisel	ling / Slow I	Progress	General I	Domarka	
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	То	Duration (hh:mm)	1. Groundwater strike at		
									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 All dimensions in metres Scale: 1:50		
Method Used:	Cable n	ercussio	Plan Used	:	ble tool i	ria	Drilled By:	SH	Logged By: OPengilly	Checked By: AGS	

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Contract:						Client:		Boreho	le:	
		NIAB	- Phase				W Trading Limited			BH3
Contract Re			Start	29.0	8.12	Ground Level (m AOD):		Sheet:		
	254	59	End:	30.0		12.45	E:544067.0 N:261091.0		2	of 2
			tu Tests	Water	Backfill & Instru-mentation		Description of Strata		Depth (Thick	Material Graphic
Depth	No	Туре	Results		8 = E		ODAVEL Court is seen	4-	ness)	Legend
9.00-9.45	6 7	SPT B	N=13			subangular fine to c calcareous nodules, pr (GAULT FORMATION		uiar to nedium	9.40	
9.70	11 7	D SPT	N=23			Stiff dark grey slightly s (GAULT FORMATION	silty CLAY.)		- - - - - - - - - - -	X X X
11.30	12 3	D U ₍₁₀₀₎	65 blows 100% recover	у					-	× - × -
-11.90 -1.90 -1.90 -12.90	13	D							[(5.60)	X X X X X X X X X X X X X X X X X X X
13.00-13.45	8	SPT	N=35						- - - - - - - - - -	X X X
14.40 14.50	15 4	D U ₍₁₀₀₎	90 blows 100% recover	у					15.00	
15.00	16	D								

	Method			Plan	<u>t</u>			Drilled		All dimensions in metres Logged	Scale: 1:50 Checked	■1 AGS
	Date	Time	Depth	Depth	(mm)	Depth	FIOIII	10	(hh:mm)			
ŀ	Date	Time	Borehole	Casing	Borehole Diameter	Water	From	То	Duration	General	Remarks	
		Boring Pro	ogress and	Water Ob	servations	3	Chisel	ling / Slow I	Progress			

GINT_LIBRARY_V8_04.GLBILog 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.ulk.



Contract:						Client:		Boreh	ole:	
		NIAB	- Phase 1			BD	W Trading Limited			BHG
Contract Re	f:		Start:	28.08.12	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet	•	
	254	159	End:	28.08.12		18.56	E:543545.0 N:260587.0)	1	of 2
Samp	les a	and In-si	tu Tests	Water Backfill & Instru-			Description of Strata		Depth (Thick	
Depth	No	Туре	Results	W Bac			Description of other		ness)	Legend
- 0.00-0.50	1	В					r brown organic slightly silty sandy avels of angular to subangular flint.	clay with	(0.80)	\(\frac{1}{2}\frac{1}{
0.80	1	D			Med	ium dense dark o	rangey brown slightly gravelly fine to	o medium	0.80	1/2 1 17 - 11/2
- 1.20-1.65 - 1.20-1.70	1 2	SPT(c) B	N=25		pred med (RIV	(1.20)				
- -1.90	2	D							2.00	
2.00-2.45 - 2.00-2.50	2 3	SPT(c) B	N=26		Med angu (RIV	(1.00)				
- - 2.80	3	D							3.00	
3.00-3.45	3	SPT	N=12		Firm	to stiff dark gre	/ occasionally mottled with yellow/b subrounded fine calcareous nodules.	rown silty		x x
- - -						JLT FORMATION			(0.80)	× _ ×
3.80 - 4.00-4.45 - 4.00-4.50	4 4 4	D SPT(c) B	N=28		to su	to stiff fissured da ubangular fine to n ium calcareous no JLT FORMATION		of angular led fine to	3.80	X X X X X X X X X X X X X X X X X X X
- 4.80 - 5.00-5.45	5 5	D SPT	N=19						- - - - - - -	X X X X X X X X X X X X X X X X X X X
6.00	6	D							- - - - -	xx
6.50	1	U	55 blows						F	xx
- - 7.00	7	D							- - - -	xx
- 7.50	8	D				7.5m Onset of s les below this dep	tiff CLAY. Absence of gravels and c	alcareous	-	X
- 8.00-8.45	6	SPT	N=23		node	nes below this dep	u		- - - - -	xx

	Boring Pro	ogress and	Water Ob	servations	3	Chisell	ing / Slow F	Progress	General Remarks
Date	Time	Borehole	Casing	Borehole Diameter	Water	From	То	Duration (hh:mm)	General Remarks
		Depth	Depth	(mm)	Depth			(111.11111)	Groundwater strike at 3.3m bgl, rising to 3.1m bgl after 30 minutes Borehole cased to 4.8m bgl Installation to 4.5m depth
									All dimensions in metres Scale: 1:50
Method Used:	Cable r	ercussio	Plan Used		ble tool r		Drilled By:	DH	Logged By: OPenailly By: AGS

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Contract:							Client:		Boreho	ole:	
		NIAB	- Phase	e 1				W Trading Limited			BHG
Contract Re	f:		Sta	art:	28.08.12	Grour	nd Level (m AOD):		Sheet:		
,	254	59	En	d: 2	28.08.12		18.56	E:543545.0 N:260587.0		2	of 2
Samp	oles a	ınd In-si	tu Tests		r ≡ e	5				Depth	Material
Depth	No	Туре	Results	6	Water Backfill & Instru-			Description of Strata		(Thick ness)	Graphic Legend
9.00	9	D U	60 blows	3		to su med (GAI	ubangular fine to r lium calcareous no ULT FORMATION		d fine to	(11.20)	X X
10.00	10	D				@	9.0 Onset of very	stiff clay.	·	- - - -	xx
10.50	11	D				beco	omes compressed	of fine to medium gravel sized siltstone towards base.	e. Strata	-	xx xx
 11.00-11.45	7	SPT	N=29							-	X X X
- - 12.00	12	D								- - - -	
12.50	3	U	60 blows	3						- - - -	xx
13.00	13	D								- - - -	× _ × - × -
13.50-13.88	8 14	SPT D	N=35							- - - - -	xx xx xx
14.20	15	D									
14.50	4	U	65 blows	3						15.00	× _ × - × _ ·
15.00	16	D									

RSK En	Method Used:	Cable p	percussio		Plan Used		ble tool	rig	Drilled By:	DH
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead,			Dopu.	201	7.11	(iiiii)	Борин			
oad, Her	Date	Time	Borehole Depth	Cas Dep	_	Borehole Diameter (mm)	Water Depth	From	То	Duration (hh:mm)
nel Hem		Boring Pr	ogress and	Wate	er Ob	servations	3	Chisel	ling / Slow	Progress
pstead, Her	- - -									

General Remarks

All dimensions in metres | Scale: 1:50 Logged By: Checked Ву: **OPengilly**

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D U

D

D SPT

D U

Cable percussion

DRAFT

Contract:						Client:		Boreh	ole:	
		NIAB	- Phase 1			BD	W Trading Limited	l		BHK
Contract Re	f:		Start:	28.08.	12 Gr	ound Level (m AOD):	National Grid Co-ordina	te: Sheet	:	
	254	59	End:	29.08.	12	18.78	E:543501.0 N:2	60653.0	1	of 2
Samp	oles a	and In-sit	tu Tests	ter 🖺 &	ation				Depth	
Depth	No	Туре	Results	Water Backfill &	Instru- mentation		Description of Strata		(Thick ness)	Graphic Legend
0.00-0.50	1	В		¥			anic slightly silty sandy Cl		(0.50)	74 18. 77 17.
						ingular to oubungular	mic to codice gravelo or im		0.50	7.27.2
0.60	1	D					AY with angular to subanguine to medium predominant		-	
0.70-1.30	2	В			淵!	incularii iiint. Gana is i	ine to mediam predominam	ly ilile.	(0.90)	
									-	
4.40		_							1.40	<u> </u>
1.40 1.50-1.95	2	D SPT(c)	N=18		∄∷¦¦	rirm dark orangey-bro ine to coarse flint a	own gravelly sandy CLAY. Ind subangular to subroun	Graveis are angular ded fine to medium	Ė	
1.50-2.00	3	В			∷⊟∷∣	halk. Occasional frag	ments of organic matter r	oted at 1.4m depth.	-	
•						Sand is fine to coarse, RIVER TERRACE DE			-	<u> </u>
					∄∷ `				F	
2.40 2.50-2.95	3	D SPT(c)	N=11						(2.60)	
2.50-2.95	2 4	B	N=11						(2.60)	
									-	
									-	
3.40	4	D		**	:::::::::::::::::::::::::::::::::::::::				[
3.50-3.95	3	SPT(c)	N=12				clay content, increase in su	brounded gravels of	-	
3.50-4.00	5	В			Hill (oarse flint.			4.00	
					∄∷TF	irm to stiff fissured	dark grey silty CLAY with	rare to occasional		× ×
4.20	5 4	D SPT	N=14			alcareous nodules, a of flint to 7.5m.	nd with rare subrounded fin	e to medium gravels	+	

(GAULT FORMATION)

45 blows

N=30

60 blows

Plant

Used:

Boring Progress and Water Observations Chiselling / Slow Progress **General Remarks** Borehole Diameter (mm) Borehole Casing Water Duration Date Time From То (hh:mm) Depth Depth Depth 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 All dimensions in metres | Scale:

Cable tool rig

Drilled

SH

Ву:

Logged

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8.40 8.50

Method

Used:

5.40 5.50

6.00

-6.90 7.00-7.45

1:50

Checked

Ву:

OPengilly



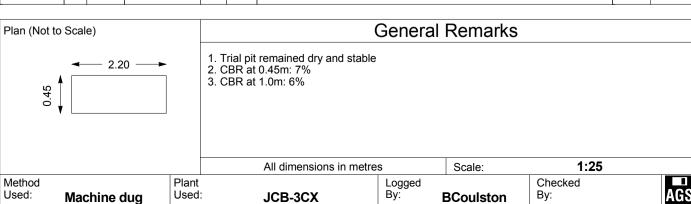
Contract:						Client:			Boreh	ole:	
		NIAE	- Phase 1				BDW	/ Trading Limited			BHK
Contract Re	f:		Start:	28.0	8.12	Ground Level (m A	OD):	National Grid Co-ordinate:	Sheet:		
	254	59	End:	29.0	8.12	18.78		E:543501.0 N:260653.	0	2	of 2
Samp	les a	and In-si	tu Tests	ter	fill &					Depth	
Depth	No		Results	Water	Backfill & Instru-mentation			Description of Strata		(Thick ness)	Graphic Legend
9.00	10	D				calcareous nodule of flint to 7.5m. (GAULT FORMA	es, and TION)	rk grey silty CLAY with rare to with rare subrounded fine to media a layer at 4.00m depth from previous	um gravels	(11.00)	X X X X X X X X X X X X X X X X X X X
-9.90 10.00-10.45	11 6	D SPT	N=30			@ 9.0 Onset of	f stiff to	very stiff consistency CLAY.		-	x _ x _ x _ x _ x _ x _ x _ x _ x _ x _
- 11.40 - 11.50	12 3	D U	75 blows							- - -	xx
- 12.00	13	D								- - - - -	x _ x x _ x
-12.90 -13.00-13.45	14 7	D SPT	N=41								-
14.40 14.50	15 4	D U	100 blows							15.00	X
15.00	16	D									

	Boring Pr	ogress and	Water Ol		3	Chisell	ing / Slow	Progress	General	Domar	·kc	
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter (mm)	Water Depth	From	То	Duration (hh:mm)	General	Remai	NS	
			'		'							
									All dimensions in metres	Scale:	1:50	
Method Used:	Cable r	percussio	Plar Use		ble tool i	ria	Drilled By:	SH	Logged By: OPenailly	Checked By:	1.00	AG

GINT_LIBRARY_V8_04.GLBILog 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:							Client:			Trial Pi	<u> </u>	
		NIAE	- Phase	1			BD	W Trading Limited				TP1
Contract Re	f:		Date			Grour	nd Level (m AOD):	National Grid Co-ordinate:		Sheet:		
	254	59		30.0	8.12		19.76	E:543482.0 N:260	341.0		1	of 1
	_		tu Tests	Water	Backfill			Description of Strata			Depth (Thick	Graphic
Depth	No	Туре	Results	->	<u> </u>	NAAF	DE COOLIND, La	ioo obwik isoostotion and	han raatad		ness)	Legend
0.10-0.20	1	ES				rema (pre fine suba	ains over dark brow edominantly fine to to coarse (predo angular fine brick	w-rise shrub vegetation and vn sandy gravelly CLAY. Sand medium). Gravel is subangula minantly medium to coarse and occasional fragments of ecomposing organic matter thro	is fine to c ar to subrou flint. Trac clay potter	oarse unded es of	0.45)	
0.50		V	c _u =65			\(MA	DE GROUND)			/	(0.30)	
0.60	2	ES						rey/brown sandy gravelly (medium. Gravel is subangula			0.75	
- 0.75 - 0.75	3	D V	c _u =90			fine	to coarse flint.	Fraces of subangular fine to 1.0m depth. Occasional f	medium	brick.	0.75	
1.00		V	c _u =90			Firm San fine occa	ADE GROUND) n to stiff pale grey nd is predominantly to medium clas	//brown slightly sandy slightly medium. Gravel is predomin ts of weak to medium der ium flint. Occasional calcareo	antly subar nsity chalk	ngular and	-	
1.50		V	c _u =>130			(GA @	ULT FORMATION 1.5m Reduction in 1.7m Occasional		orange silt	along	(2.25)	
2.50	4	V D	c _u =>130									
-											3.00	
-												



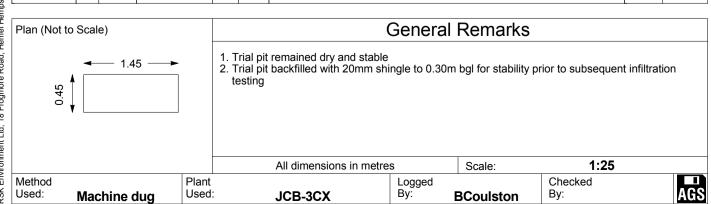
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Machine dug

JCB-3CX



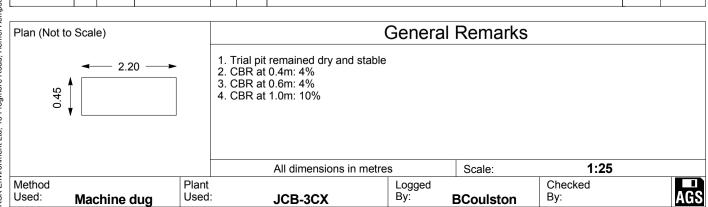
																\ I/	7 L	- !		_		
Contract:								Client	t:									Trial	Pit:			-
		NIAE	- Ph	ase 1						BDV	N T	radi	ng L	.imit	ed					T	Έ1	(i)
Contract Re	f:			Date:			Groun	d Leve	el (m A	(OD):	Na	tional	Grid C	Co-ord	inate:			She	et:			
	254	59			28.08	8.12		19	.93		E	E:54	3483	3.0 N	:26	018	1.0			1	of	1
Samı	oles a	and In-si	tu Tests	S	ter	Kfill					_									Depth		ıterial
Depth	No	Туре	Res	sults	Water	Backfill					Des	criptic	on of S	strata						Thick ness)		aphic gend
0.10	1	ES					over fine to (TOF	dark to med SOIL pale	brown lium fli grey	rise sh sandy nt, woo slightly grave	clay ody fr	yey Toragme	OPSOnts an	IL wit d freq AY. Sa	h traduent f	ine ro	f sub ootlets to n	angula s. nedium	ar [0.25	\(\frac{1}{2} \cdot 1	
0.50	2	ES V	C _u =	=55			calca	areous	nodu	es and TION)	occa	asiona	al med	ium to	coars	se sar	nds.			(1.10)		× · · · · · · · · · · · · · · · · · · ·
1.00	=60															-	1.35	 	\$ 			
	1.00																					



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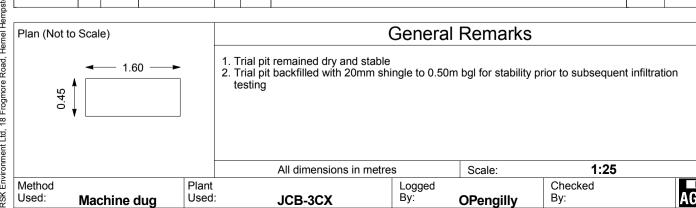
Contract:								Client:				Trial P	it:	
		NIAE	- Ph	ase 1					BDW	/ Trading Limi	ited			TP2
Contract Re	f:			Date:			Groun	d Level (m AC	OD):	National Grid Co-or	dinate:	Sheet:		
	254	.59			30.0	8.12		18.47		E:543632.0	N:260217.0		1	of 1
Samp	les a	and In-si	itu Tests	6	ter	Kfill							Depth	
Depth	No	Туре	Res	sults	Water	Backfill			I	Description of Strata	a		(Thick ness)	Graphic Legend
0.20-0.30	1	ES					over suba throu (TOF Firm	remains races of rootlets	(0.30)					
0.50 0.50	2	D V	C _u =	=56				JLT FORMAT		fine roots and rootle	ets noted to 0.7m	i deptri.	-	× × ×
- 0.75 -		V	C _u =	=65			@	(0.90)	x - x					
1.00	3	D											-	× ×
1.50		V	C _u =>	>130			Firm is fir Occa (GAU	1.20	x . x . x					
2.00	4	D					sand	l and silt. dark grey sligl JLT FORMAT	htly silt				2.00	x x x x - x - x x x
2.50		V	C _u =>	>130										X X
3.00 - 3.00	5	D V	C _u =>	>130										
-								- - - -						



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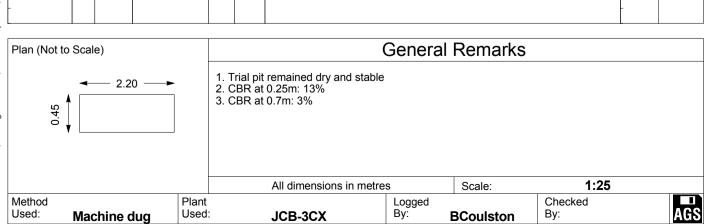
Contract:							Client:		Tria	l Pit:	
		NIAB	- Phas	se 1				DW Trading Limited			P2 (i)
Contract Re	f:		D	ate:			Ground Level (m AOD)		She		
	254	59			28.08	3.12	18.28	E:543536.0 N:26049	4.0	1	of 1
Samp Depth	les a		tu Tests Resul	te	Water	Backfill		Description of Strata		(Thick	Material Graphic Legend
0.20	1	ES	rtesur	13	_		angular to subangular Frequent fine rootlets (MADE GROUND)		rick and flin	t. (0.35) 0.35	Legend
0.70	2	ES					Occasional fine gra	tly sandy silty CLAY. Sand is fine avel-sized inclusions of cream/of and occasional medium to coarse sa N)	ff-white put	n ty - - - - - (1.15)	x
1.00-1.50	3	D								1.50	x . x . x . x . x . x . x . x . x . x .
- - -										- - - -	
-										- - - -	
-										-	
-										- - -	
-										-	
-											



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Contract:						Client:		Trial Pi	t:	
		NIAB	B - Phase 1			BD\	W Trading Limited			TP3
Contract Re	f:		Date:		Gr	ound Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59		28.08	.12	17.93	E:543380.0 N:260565.0		1	of 1
Sam	oles a	and In-si	tu Tests	e	=				Depth	
Depth	No	Туре	Results	Water	Backfill		Description of Strata		(Thick ness)	Graphic Legend
0.10	1	ES			g s ∖to	ravelly CLAY. Sand ubangular to subround	rested crop remains over dark brown is fine to coarse. Gravel is predom ed flint. Occasional angular to subanguk. Humic-rich soil with rootelts througho	ninantly lar fine	- 0.25	×
0.50	2	V ES	c _u =49		to	irm orangey-brown sa o medium calcareous n GAULT FORMATION)	ndy silty CLAY with traces of subangu odules. Sand is fine to medium.	lar fine	(0.55)	x - x - x - x - x - x - x - x - x - x -
1.00	3	D			F ((irm fissured grey slight GAULT FORMATION)	ly sandy slightly silty CLAY. Sand is fine	9.	0.80	
1.00		V	c _u =67						- - - - - - (2.00)	
2.00	4	D V	c _u =89			.@ 2.0m Becoming stif	f		- - -	
2.50		V	c _u =84						- - -	
									2.80	

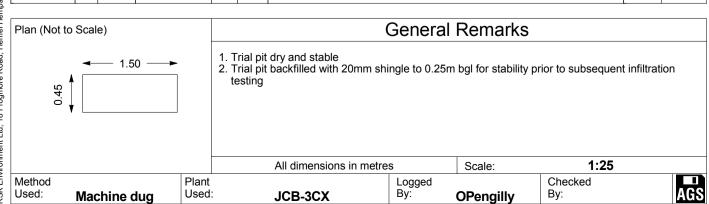


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DRAFT

															CO
Contract:								Client:					Trial Pi	t:	
		NIAB	- Pha	ase 1					BDV	V Trading I	Limited			T	P3 (i)
Contract Re	f:			Date:			Groun	id Level (r	n AOD):	National Grid	Co-ordinate:		Sheet:		
	254	59			28.0	8.12		18.20	3	E:54371	2.0 N:26	0329.0		1	of 1
Samp	oles a	and In-si	tu Tests	;	er	ĮĮ.								Depth	Material
Depth	No	Туре	Res	sults	Water	Backfill				Description of				(Thick ness)	Graphic Legend
0.20	1	ES					subr	ounded m	nedium to content a	brown silty cl coarse flint an nd frequent fine	d fine subar	ces of ang ngular brick	ular to k. High	0.40	
0.50	2	D					Occa	asional fin	e subangu	sandy silty CL ular fine to med	AY. Sand is ium clasts of	s fine to m f weak calc	edium. areous	(0.75)	x
-														- 1.15	<u>×-</u> - ×



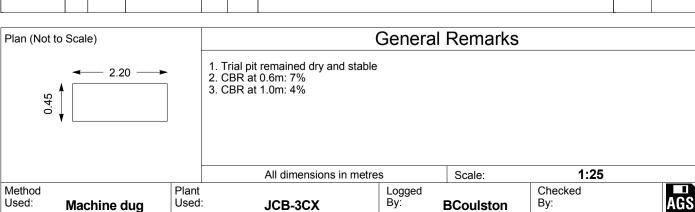
GINT LIBRARY_V8_04.GLBILog TRIAL PIT LOG - STANDARD | 25459 NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:35 | OP.
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												. –	
Contract:								Client:			Trial P	it:	
		NIAE	- Ph	ase 1				BD\	V Trading Limite	ed			TP4
Contract Re	f:			Date:			Groui	nd Level (m AOD):	National Grid Co-ordi	nate:	Sheet:		
	254	59			28.0	8.12		19.02	E:543485.0 N	:260447.0		1	of 1
Samp	oles a	and In-si	itu Tests	3	Water	Backfill			Description of Strate			Depth	Materia Graphic
Depth	No	Туре	Res	sults	Wa	Вас			Description of Strata			(Thick ness)	Legend
0.20	1	ES					CLA subi Hun	Y. Sand is predomount of the coard of the co	s over dark brown san- inantly fine to medium irse flint and occasion- itlets noted throughout.	n. Gravel is ang	ular to	(0.60)	

0.60 Firm grey/brown slightly sandy silty CLAY. Sand is fine to coarse (predominantly fine to medium). Traces of subangular fine to medium 0.60 2 D V c_u=64 0.60 weak calcareous nodules. Occasional decomposing rootlets noted to 1.0m depth. (GAULT FORMATION) (0.70)1.00 ٧ $c_u = 67$...@ 0.9m Increase in pale grey colouration. Reduction in sand 1.30 Firm to stiff grey, occasionally mottled with orangey-brown, slightly sandy silty CLAY. Sand is predominantly fine to medium. 1.40 3 D (GAULT FORMATION) 1.40 $c_u = 72$ 2.00 2.00 D V 4 c_u=84 ...@ 2.0m Becoming darker grey (1.70)2.50 c,,=84 ٧ 3.00 3.00 5 D



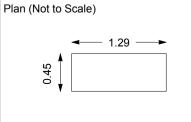
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TRIAL PITLOG

Contract:								Client:					Trial Pi		
		NIAB	- Pha	se 1						V Trading				T	P4 (i)
Contract Re	f:			Date:			Grour	nd Level (m	n AOD):	National Grid	d Co-ordinat	e:	Sheet:		
	254	59			29.0	8.12		14.43	3	E:5439	41.0 N:20	60836.0)	1	of 1
Samp	oles a	and In-si	tu Tests		er	≡									Material
Depth	No	Туре	Resi	ults	Water	Backfill				Description o				(Thick ness)	Legend
0.10	1	ES					over subr soils	dark bro ounded fli	wn silty nt. Sand	rub vegetation sandy CLAY is predominan mposing organ	with traces	of subanedium. H	ngular to	0.35	\(\frac{1}{2}\frac{1}{
0.60		V	c _u ={	51			Trac	orangey-les of suba ER TERR	ıngular me	y silty sandy edium to coars OSITS)	CLAY. San se flint.	d is fine to	o coarse.	- - -	- x x x - x x
1.00	2	D					@	0.9m Incre	ease in sa	nd content (pr	edominantly	fine to me	edium)	- (0.95) - - -	X X X
1.20		V	c _u =6	65										1.30	× · · · ×
1.50	3	D					pred	grey/bro ominantly ULT FORN	fine to me	tly sandy s dium.	lightly silty	CLAY.	Sand is	- - 1.53	

GINT_LIBRARY_V8_04.GLBit.og TRIAL PIT LOG - STANDARD | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:35 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442



General Remarks

 Trial pit remained dry and stable
 Trial pit backfilled with 20mm shingle to 0.35m bgl for stability prior to subsequent infiltration testing

> 1:25 All dimensions in metres Scale: Logged By: Checked

Method Plant Used: Used: Machine dug JCB-3CX

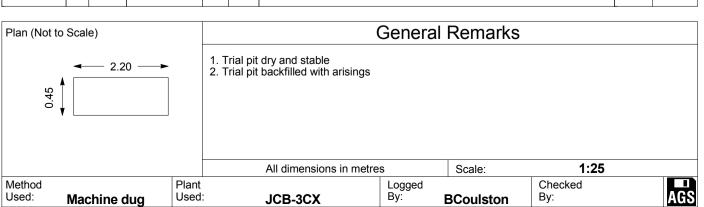
BCoulston

Ву:



									•				
Contract:								Client:			Trial Pi	it:	
		NIAE	- Ph	ase 1				BD'	W Trading Limite	d			TP5
Contract Re	f:			Date:			Grour	d Level (m AOD):	National Grid Co-ordin	ate:	Sheet:		
	25459 30.08.12							19.14	E:543585.0 N:	260354.0		1	of 1
Samp	oles a	and In-si	itu Tests	3	ater	Backfill			Description of Strata			Depth (Thick	Materia Graphic
Depth	No	Туре	Res	sults	×	Вас			Description of Strata			ness)	Legend
							MAE	E GROUND: Lov	v-rise shrub vegetation	and harvested	d crop		

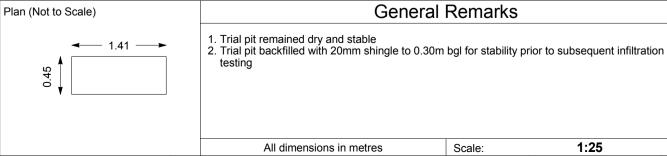
Sam	ples a	ınd In-si	tu Tests	ter	Kfill	Description of Oberts	Depth	Material Graphic
Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Legend
0.10-0.30	1	ES V	c _u =73			MADE GROUND: Low-rise shrub vegetation and harvested crop remains over dark brown sandy silty CLAY. Traces of 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) Firm to stiff fissured grey/brown slightly sandy silty CLAY. Sand is fine. Traces of subangular medium to coarse flint. Fine rootlets noted	(0.40) 0.40 (0.30) 0.70	
0.80	2	ES V	c _u =110			to thoughout. (GAULT FORMATION) 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)	- - -	
1.50	3	D V	c _u =>130			@ 1.4m Onset of medium to coarse gravel-sized lenses of orange silty sandy (fine to medium). Occasional linear calcareous inclusions.	-(1.80)	
2.50	4	D 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	
-							3.20	xx
- - - -							-	
-							-	



GINT LIBRARY_V8_04.GLBILog TRIAL PIT LOG - STANDARD | 25459 NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:36 | OP.
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0							Oli e t	1111/16			
Contract:		NUAD	. Di-	4			Client:	M Too alise or I involte al	Trial P		FDE (:)
Contract Re		NIAB	B - Pha	ase 1 Date:			Ground Level (m AOD):	V Trading Limited National Grid Co-ordinate:	Sheet:		Γ P 5 (i)
	 254	5 0		Date.	20.00	. 40	14.11	E:543983.0 N:260804.0	Sileet.	_	. 1
					29.08		14.11	E.343903.0 N.260004.0		1	of 1
	oles a		itu Tests	i	Water	Backfill		Description of Strata		Depth (Thick	Material Graphic
Depth	No	Туре	Res	ults	>	Ba		•		ness)	Legend
0.20	1	ES					TOPSOIL with traces of	rop remains over dark brown sandy f fine to coarse flint. Sand is fine to m d to 0.3m bgl. Frequent rootlet: atter throughout.	edium.	- (0.40) - 0.40	1/2 - 24 - 1/2 - 24 - 1/2 - 1/
0.50 0.50 0.50 - 0.60	4 2	D V ES	C ⁿ =	-49			Firm orangey-brown sa subrounded fine to coar is fine to coarse.	ndy silty CLAY with traces of subang se (predominantly fine to medium) flint	ular to t. Sand	(0.45)	x _ x _ x _ x _ x _ x _ x _ x _ x _ x _
1.00	3	ES V	c _u =	:57			Firm yellowish-brown, m is predominantly fine to flint. (RIVER TERRACE DEP	ottled with pale grey, sandy silty CLAY medium. Traces of subangular fine to	. Sand coarse	- 0.85 - - -(0.50)	x : x : x : x : x : x : x : x : x : x :
1.20	5	D					@ 1.2m Slight increas	e in sand (fine to medium) content		1.35	- ×-



Method
Used: Machine dug

Plant Used:

JCB-3CX

Logged By: Checked By:

BCoulston

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DRAFT

Contract:								Client:			Trial Pi	t:	
		NIAB	- Phas	e 1				BDV	V Trading Limited				TP6
Contract Re	ef:		Da	ate:		- 1	Groun	d Level (m AOD):	National Grid Co-ordinate	e:	Sheet:		
	254	59		28	.08.2	21		17.72	E:543416.0 N:20	60636.0		1	of 1
Sam	oles a	and In-si	tu Tests	ŗ	5	€						Depth	Materia
Depth	No	Туре	Result	s to	:	Backfill			Description of Strata			(Thick ness)	Graphi Legen
0.20	1	ES					silty	CLAY with traces	ested crop remains over of subangular to subrour ular fine to medium brick c	nded fine to c		(0.35)	
								to titt	P. I. O			0.35	
0.50 0.50 0.50	2 3	ES D V	c _u =49				predo	to still drangey-blo ominantly fine to n o coarse flint and c JLT FORMATION)	wn slightly gravelly silty sa ledium. Gravel is subang nert.	ular to subrou	unded	(0.65)	x - x - x - x - x - x - x - x - x - x -
1.00	4	D V	c _u =59				to me Rare	edium. Occasional s	sandy silty CLAY. Sand is subangular fine to medium ets noted to 2.0m depth (<	clasts of clays	stone.		x - x - x - x - x - x - x - x - x - x -
2.00		V	c _u =64				@	2.0m Becoming stif	ī			- - (2.20) - -	x x x

2.50

3.00

General Remarks Plan (Not to Scale) 1. Trial pit dry and stable 2. CBR at 0.2m: 2% 3. CBR at 0.5m: 4% 2.20 1:25 All dimensions in metres Scale: Method Plant Checked

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Used: Machine dug Used:

c_u=83

c_u=81

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JCB-3CX

Logged By:

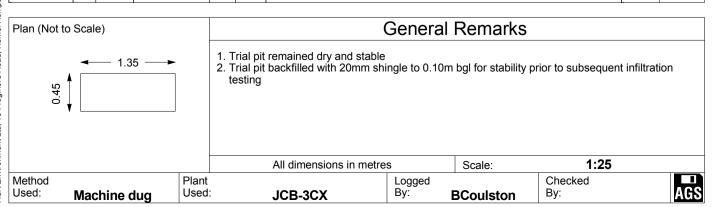
BCoulston

Ву:

3.20



0 1 1								011 1					<u>-</u>	
Contract:		NUAD	Dla	4										DC (:)
Contract Re	£.	NIAB	- Pha	Date:			Croun	d Lovel (National Grid C		Shee		P6 (i)
		EΩ		Date.	00.0	0.40	Groui	,	,					. 4
	254				29.0	8.12	1	12.8	9	E:544120	.0 N:26093	30.0		of 1
Samp	oles a	ınd In-si	tu Tests	3	Water	Backfill				Description of St	trata		Depth (Thick	
Depth	No	Туре	Res	sults	×	Вас				Description of S	ırala		ness)	Legend
0.20	1	ES					San suba med	d is fine angular fir	to coarse ne to medi and ceran	k brown silty sa e (predominantly um flint. Rare sub nics. Fine roots ar	fine to mediu pangular fragm	ım). Ğravel i nents of fine t	s (0.35)	
0.40 0.50 0.50	2 3	V ES D	C _u =	-46			Firm (pre- fine (RIV	e d (0.75)						
1.00		V	C,,=	=68			@ clay	y [1.10						
							\@	1.0m Red	duction in s	sand and gravel o	ontent			

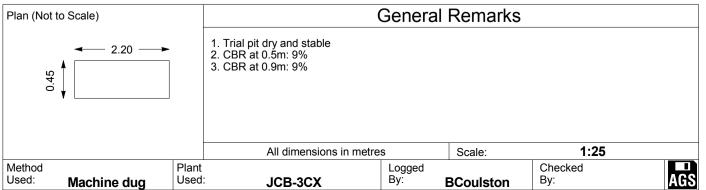


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Contract:							Client:		Trial Pi	t:	
		NIAE	B - Phas	e 1			BDV	V Trading Limited			TP7
Contract Re	f:		D	ate:		G	round Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59			30.08.	12	19.05	E:543650.0 N:260409.0		1	of 1
		1	itu Tests	·	Water	Backfill		Description of Strata		Depth (Thick	Graphic
Depth	No	Туре	Resul	ıs	>		TORSOII : Harvestad a	rop remains over dark brown slightly o	gravally	ness)	Legend
0.20-0.30	1	ES				3	sandy CLAY. Sand is fi Gravel is subangular to soils noted to 0.2m bgl. (TOPSOIL)	ne to coarse (predominantly fine to mo subrounded fine to coarse flint. Hur Roots and rootlets throughout.	edium). nic-rich	0.50	17 - 3 - 17 - 3 - 17 - 3 - 15 - 3 - 15 - 15 - 3 - 15 - 3 - 15 - 3 - 17 - 3 - 17 - 3
0.50		V	c _u =69	l		;		andy CLAY with traces of fine to raded flint and chert. Occasional fine		- - - - - -	
0.70	3	ES D					RIVĔR TERRACE DEF	POSITS)		(0.50)	
1.00		٧	c _u =99	ı		1 (predominantly mediur	ry gravelly CLAY. Sand is fine to n to coarse). Gravel is subangu	ılar to	(0.30)	000
1.20	4	D				\\ <u>\</u>				1.30	
						1	Orangey-brown sandy medium to coarse. Grav	clayey GRAVEL. Sand is predon rel is subangular to subrounded fine to n to coarse) flint and chert. Occ flint.	coarse	(0.70)	
2.00	5	D					encountered as predor calcareous nodular gra speckling and orange sil Stiff pale grey silty CL	orizon of Off-white/grey calcareous n minantly medium to coarse medium avels with clay/silt matrix. Occasiona ty inclusions. AY with occasional orange inclusions fissures. Occasional calcareous incl	density I black of fine	2.00	x x
-						(encountered as linear 1 (GAULT FORMATION)			(1.10) - - -	X X
3.00	6	D V	c _u =>13	60						3.10	X X
-										-	







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Contract:								Client:				Trial Pi	t:	
		NIAB	- Pha	ase 1				BD	W Tradi	ing Limited			T	P7 (i)
Contract Re	f:			Date:			Groun	nd Level (m AOD):	National	Grid Co-ordinate:		Sheet:		
	254	59			29.0	8.12		12.54	E:54	3955.0 N:26	1102.0		1	of 1
Samp	oles a	ınd In-si	tu Tests	}	Water	Backfill			D ti ti	f Ott-			Depth	Materia Graphi
Depth	No	Туре	Res	ults	×	Вас			Description	on of Strata			(Thick ness)	Legeno
0.20	1 2	ES D					silty suba wood	PSOIL: Harvested TOPSOIL. Sand angular to subrour dy fragments. Deco PSOIL)	is predom ded fine	ninantly fine to m to medium flint g	iedium. Trad gravel. Occa	ces of asional	0.35)	\(\frac{1}{2}\), \(\frac{1}\), \(\frac{1}\), \(\frac{1}{2}\), \(\frac{1}{2
0.50		V	C _u =	-58			Firm	n brown, becoming dy CLAY. Sand i rse). Gravel is pred ULT FORMATION	fine to ominantly s	coarse (predomin	nantly medi	ravelly um to	- - - (0.75) -	
1.20		V	c _u =	- 75			coar	n pale grey, mottle rse (GAULT FORM ULT FORMATION)	ATION).	brown sandy CLA	Y. Sand is	fine to	1.10	
· · · · · · · · · · · · · · · ·													- - - -	

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Plan (Not to Scale)	(General Remarks	
1.32	Trial pit remained dry and stable Trial pit backfilled with 20mm shi testing		prior to subsequent infiltration
	All dimensions in metre	s Scale:	1:25
Method Used: Machine dug Plan		Logged By: BCoulston	Checked By: AGS

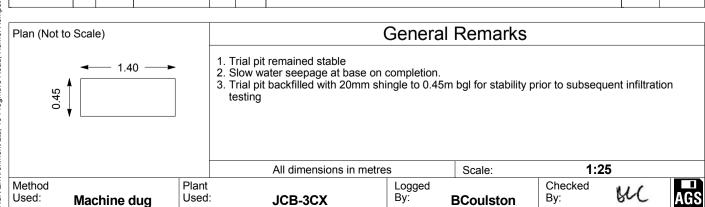


Contract:						Client:		Trial P	it:				
		NIAB	- Phase 1			BDV	W Trading Limited			TP8			
Contract Re	f:		Date:		Gr	ound Level (m AOD):	National Grid Co-ordinate:	Sheet:					
	254	59		30.08.	12	19.05	E:543650.0 N:260490.0		1	of 1			
	1		tu Tests	Water	Васкт		Description of Strata		Depth (Thick	Graphic			
Depth	No	Туре	Results	>	T		rop remains over dark brown slightly		ness)	Legend			
0.10-0.20	1	ES			G	Fravel is subangular to	ne to coarse (predominantly fine to mosubrounded fine to coarse flint. Hur Roots and rootlets throughout.		0.30)	17 · 24 · 14 · 14 · 17 24 · 15 · 14 · 15 · 14			
0.30-0.40	2	D				ГОРSOIL) Prangey-brown gravelly	very clayey SAND. Gravel is subang	gular to	0.50				
0.50 0.50	3	ES V	c _u =55		s fl	subrounded fine to coarse flint. Occasional subrounded cobbles of flint. Roots and rootlets throughout. Occasional decomposing organic matter.							
0.70	4	D			(F	(RIVER TERRACE DEPOSITS) Firm orangey-brown sandy gravelly CLAY. Sand is fine to coarse							
-					(t }	(predominantly medium to coarse). Gravel is subangular to subrounded fine to coarse flint. Occasional subrounded cobbles of flint.							
1.20	5	D			\(I	RIVER TERRACE DEF			_	0. 6			
-					to (p	(RIVER TERRACE DEPOSITS) 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)							
-						.@ 1.2m Becoming a v	ery sandy GRAVEL		(1.30)	:			
2.00	6	D				.@ 1.9m Becoming a g	ravelly SAND		-				
					F	irm to stiff orangev-br	own/grey very sandy gravelly CLAY.	Sand is	2.30				
2.50 2.50	7	D V	c _u =72		it () W	ne to coarse. Gravel	is subangular to subrounded fine to medium) flint and subangular fine to r	coarse	(0.70)				
_									3.00				
-									- - - -				
-									- -				
_									-				

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



Contract:		NUAD	DI	4				Client:	DDM	/ T 1 :	!4!		Trial Pi		'DO (!)
On other at Day	e .	NIAB	- Ph				0			/ Trading Li			01	<u> </u>	P8 (i)
Contract Re		- 0		Date:			Groun	nd Level (m A	40D):	National Grid Co		400	Sheet:	4	
	254				29.0	8.12		12.22		E:544175	.U N:2611	16.0		1	of 1
Samp	les a	and In-si	tu Tests	3	Water	Backfill) C4				Depth (Thick	
Depth	No	Туре	Res	sults	8	Вас			L	Description of St	Iala			ness)	Legend
0.10	1	ES					silty suba wood (TOF	TOPSOIL. angular to si dy fragments PSOIL)	Sand is subround s. Decon	op remains ove predominantly ed fine to medi nposing organic r	fine to medion of the control of the	um. Trac el. Occa ots throug	ces of isional ghout.	- - 0.25 -	1/2 · 34 · 1/2 · · · 3 1/2 · 34 · 1/2 · · · (4 · 1/2
0.50	2	V ES	C _u =	=57			coar	orangey-brookse (predom angular fine f ER TERRAC	inantly lint.	phtly gravelly sa fine to medium OSITS)	ndy CLAY. S). Gravel is	and is f predomi	ine to inantly	- (0.70) -	
_							@	0.65m Incre	ase in sa	and and gravel c	onstituents			0.95	
1.00	3	D					Orangey-brown slightly clayey very sandy GRAVEL. Sand is fine coarse (predominantly medium to coarse). Gravel is subangular subrounded fine to coarse (predominantly fine to medium) flint a chert. \((RIVER TERRACE DEPOSITS)\)							(0.45)	
_							\(RIV	ER TERRAC	CE DEP	OSITS)				1.40	

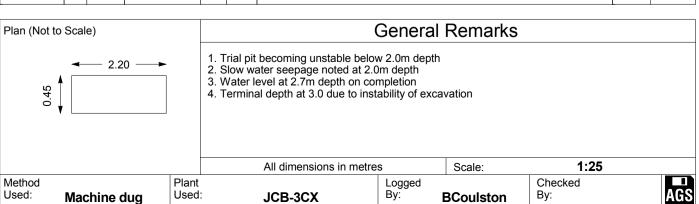


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Contract:								Client:		Trial P	it:	
		NIAB	- Pha	ase 1				BDV	V Trading Limited			TP9
Contract Re							Grour	und Level (m AOD): National Grid Co-ordinate: Shee				
25459 31.08.12						8.12		18.17	E:543730.0 N:260478.0		1	of 1
Sam						Backfill			Description of Strate		Depth	Materia Graphic
Depth	No	Туре	Res	sults	×	Вас	Description of Strata				(Thick ness)	Legend
							TOP	SOIL: Harvested of	rop remains over dark brown sandy	slightly		7,1%

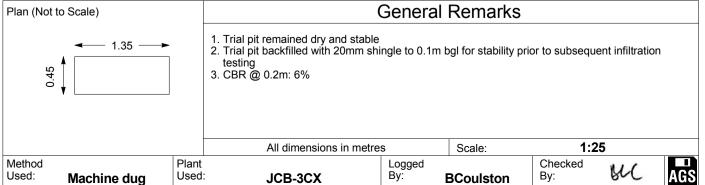
Samp	les a	nd In-si	tu Tests	ter	ξĘ.	Description of Otroto	Depth	Material
Depth	No	Туре	Results	Water	Backfill	Description of Strata	ness)	Graphic Legend
0.10-0.20	1	ES				TOPSOIL: Harvested crop remains over dark brown sandy slightly gravelly clayey TOPSOIL. Sand is predominantly fine to medium. Gravel is subangular to subrounded fine to medium flint. Roots, rootlets and decomposing organic matter throughout. Rare subangular fine chalk clasts. (TOPSOIL)	0.25	\(\frac{1}{2}\), \(\frac{1}\), \(\frac{1}{2}\), \(\frac{1}\), \(\frac{1}{2
- 0.55 _ 0.60	2	V ES	c _u =66			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)	0.80	
- 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)	-	0.00
- - 1.50 -	3	ES					-(1.80)	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
- 2.00 - -	5	D				@ 2.0m Increase in gravel content, becoming a SAND and GRAVEL	-	0.0
3.00	6	D				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)	2.60	
-							-	



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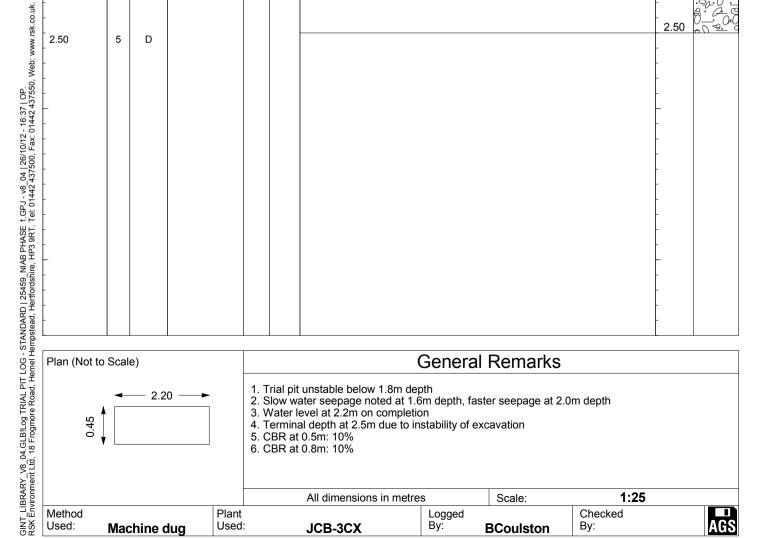


Contract:						Client:		Trial Pi	t:	
		NIAB	- Phas	e 1			N Trading Limited			P9 (i)
Contract Re	ef:		Da	ate:		Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59		29.0	08.12	12.28	E:544181.0 N:261357.0		1	of 1
	1		tu Tests	Water	Backfill		Description of Strata		Depth (Thick	Material Graphic
Depth	No	Туре	Result	s ≥	Be		•		ness)	Legend
0.20	1	ES				clayey TOPSOIL with medium flint. Humic-ricl of decomposing organic (TOPSOIL)		fine to clusions	0.37	17 · 2 · 19 · 2 · 2 · 19 · 2 · 19 · 2 · 2 · 19 · 2 · 19 · 2 · 2 · 19 · 2 · 2 · 2
0.50 0.50	3	D V	c _u =65			gravelly CLAY. Sand is Gravel is predominantly	occasionally mottled with pale grey, fine to coarse (predominantly fine to m subangular fine to medium flint.	sandy edium).	(0.33) 0.70	
0.70	2	ES				subrounded fine to coa	clayey gravelly SAND. Gravel is subangrse (predominantly fine to medium) flin	gular to t. Sand	(0.45)	
0.90	4	D				is predominantly mediur (RIVER TERRACE DEF	n. POSITS)		1.15	





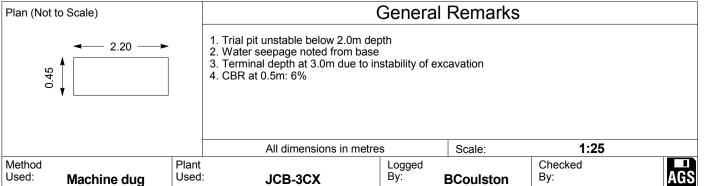
Contract:								Client:						Trial P	it·	
Contract.		NIAB	- Ph	ase 1				Ollotte.		W	Trading Li	mited		Trick t		TP10
Contract Re	f:			Date:			Groun	d Level	(m AOD):		National Grid Co			Sheet:		
	254	59			30.08	8.12		18.	76		E:543519.	0 N:2607	29.0		1	of 1
·		ınd In-si			Water	Backfill				D	escription of Str	ata			Depth (Thick	Graphic
Depth	No	Туре	Res	sults	>	ä	TOD	0011.	Lavy mia a ala	h	.h. vanatatian am				ness)	Legend
0.20	1	ES					over to co \Hum	dark br barse. (ic-rich s	rown slightly Gravel is su soil noted to	ly g uba to 0	ub vegetation ar gravelly sandy cla angular to subro).1m depth. Root	yey TOPSO unded fine to	IL. Sand o mediur	is fine n flint.	- - 0.25 -	1/. 1/. 1/. 1/.
_								nic mat PSOIL)	ter througho	out	t.				(0.35)	
0.50 0.50	2	ES V	C _u =	=51		Firm orangey-brown slightly gravelly very sandy CLAY. Sand coarse. Gravel is subangular to subrounded medium to coarse (RIVER TERRACE DEPOSITS)									0.60	0,000
1.00	3	D					Orar coars subre cobb (RIV	IVER TERRACE DEPOSITS) range/brown/yellow slightly clayey sandy GRAVEL. Sand is fine to arse (predominantly medium to coarse). Gravel is subangular to brounded fine to coarse flint and chert. Occasional subrounded bbles of flint. IVER TERRACE DEPOSITS) @ 1.0m Becoming a very gravelly SAND						ular to	- - - - - - - - - - - - - - - - - - -	
2.00	4	D					@	1.5m B	ecoming a S	SA	ND and GRAVE	L			2.50	
2.50	5	D													-	





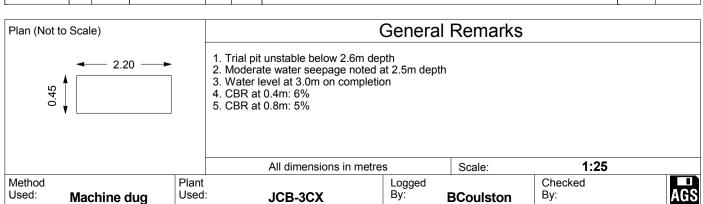
Contract:								Client:					Trial Pi	t:	
NIAB - Phase 1 Contract Ref: Date: 0							BDW	/ Trading L	imited				TP11		
Contract Re	f:			Date:			Grour	nd Level (m A	(OD):	National Grid C	o-ordinate:		Sheet:		
	254	.59			30.08	8.12		18.82		E:543585	.0 N:2606	74.0		1	of 1
		and In-si		sults	Water	Backfill				Description of S	trata			Depth (Thick	Graphic
0.10-0.20	No 1	Type	Nes	Suits		Ш	rema suba Occ	ains over da angular to si	ark brov ubrounde o mediur	rise shrub veg wn silty very s ed fine to coar m fragments of o	sandy CLAY se flint, brick	with trac	es of	(0.30) 0.30	Legend
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)								
- 0.75 - 1.00	3	D V	c =	=63			,			,				(0.90) - -	00.0
- 1.00		V	O _u -	-03			Oran	ngev-hrown/li	aht hro	own clayey g	ravelly SAN	D Grav	el is	1.20	0-80-
1.50	4	D					suba		brounde	d fine to coarse			ei 15	- - - - (0.80) -	
2.20	5	D					GRA (predof fli	AVEL. Sand dominantly fi	is find ne to me	ht brown very e to coarse. edium) flint. Occ OSITS)	Gravel is f	ine to c	oarse	2.00	
3.00	6	D					cobb	bles of flint. 2.6m Slight i	increase	sandy GRAVE in clay content to coarse flint of		nal subrou	unded	3.00	0.000 0.000 0.000 0.000







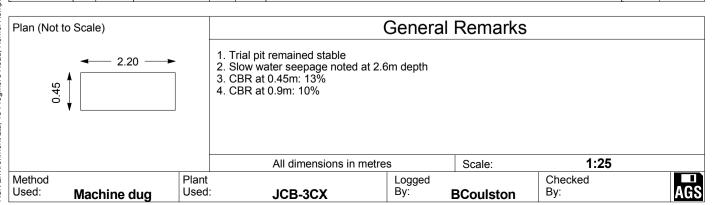
Contract:							Client:		Trial P	it:	
		NIAB	B - Phase '	1			BD'	W Trading Limited			TP12
Contract Re	f:		Date:			Grour	nd Level (m AOD):	National Grid Co-ordinate:	Sheet		
	254	59		31.08	.12		18.29	E:543723.0 N:26056	0.0	1	of 1
Samp Depth	les a	ind In-si	tu Tests Results	Water	Backfill			Description of Strata		Depth (Thick ness)	
0.20-0.30	1	ES				clay Roo	ey TOPSOIL with	crop remains over dark brow traces of subangular fine to emposing organic matter through	medium flint.	-(0.40)	\(\frac{1}{2}\), \(\frac{1}\), \(\frac{1}\), \(\frac{1}{2}\), \(\frac{1}{2
0.50	2	V ES	c _u =51			Firm coar subr flint. (RIV	(0.90)				
1.00	3	D V	c _u =67			Firm pale grey slightly gravelly silty CLAY. Sand is fine to coarse.					0-0-0
1.50 1.50 1.50 - 1.50	4 5	ES D V	c _u =123			Firm Grav Occi lens (RIV	(0.50)	X X			
- -						med		y clayey SAND. Gravel is predon redominantly medium to coarse. POSITS)	ninantly fine to	-(0.40) -2.20	
-						is f subr				(0.45)	0
3.00	6	ES				Ligh is p subr (RIV	- 2.65 - - - (0.55) - -				
-										3.20	8 · · · · · · · · · · · · · · · · · · ·



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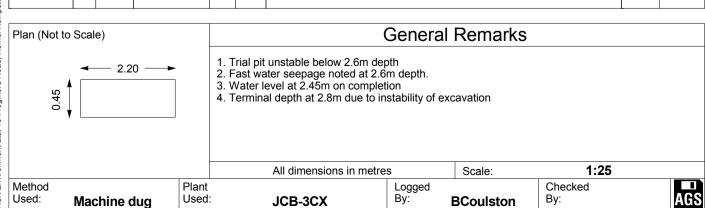
Contract:								Client:					 Frial Pit	- 	
Contracts		NIAE	B - Pha	ise 1				Oliona.	BDV	V Trading	Limited			•	TP13
Contract Ref	f:			Date:			Grou	nd Level (m		National Grid		S	Sheet:		
	254	59			30.0	8.12		18.44	ļ	E:54366	3.0 N:260	659.0		1	of 1
Samp	les a	and In-si	itu Tests		ter	Kfill								Depth	
Depth	No	Туре	Resi	ults	Water	Backfill				Description of	Strata			(Thick ness)	Graphic Legend
0.20-0.30	1	ES					over pred fine	r dark bro dominantly to medi	wn slightl fine to n ium flint.	rub vegetation y gravelly san nedium. Grave Humic-rich mposing organi	dy clayey TOI I is predomina soil noted to	PSOIL. Sar antly subanç o 0.2m de	nd is gular	(0.45)	\$\frac{1}{2} \cdot \frac{1}{2}
0.50								vel is sub	angular to		fine to coarse	(predomina	arse. antly	0.65	0000
0.70-0.80	2	ES			Gravel is subangular to subrounded fine to coarse (predominantly medium to coarse) flint. Occasional subrounded cobbles of flint. 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)								0.00		
-								. 1.2m Rec vel constitu		sand content.	Increase in mo	edium to co	ŀ	(1.70)	
-							@	1.6m Incre	ease in cla	ay content				2.35	
2.50 - 2.50 	3	D V	C ⁿ =>.	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)							(0.65)	
-														3.00	



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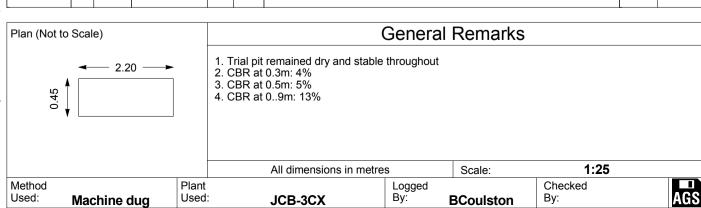
Contract:							Client:		Trial Pi	it:		
		NIAB	- Phas	e 1				W Trading Limited			TP14	
Contract Re	f:		Da	ate:		G	round Level (m AOD):	National Grid Co-ordinate:	Sheet:			
	254	59		3	80.08.	12	17.93	E:543655.0 N:260732.0		1	of 1	
·			tu Tests		Water	Backfill		Description of Strata		(Thick	Material Graphic	
Depth	No	Туре	Result	s	>			·		ness)	Legend	
0.10-0.20	1 2	ES D					over dark brown slight predominantly fine to r fine to medium flint.	rub vegetation and harvested crop r ly gravelly sandy clayey TOPSOIL. S nedium. Gravel is predominantly sub Humic-rich soil noted to 0.2m mposing organic matter throughout.	Sand is angular	(0.55)	17. 21.17	
0.60	3	ES					Firm orangey-brown sa Gravel is subangular to medium to coarse) flint. (RIVER TERRACE DEF	(0.45)				
1.00	4	D					Orangey-brown SAND a	gey-brown SAND and GRAVEL. Sand is fine to coarse. Grave gular to subrounded fine to coarse flint. R TERRACE DEPOSITS)				
								edium to coarse gravel constituents		-(1.80)		
										- - - - - - - - - - -		



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Contract:								Client:		Trial P	it:	
		NIAB	- Ph	ase 1				BD	W Trading Limited			TP15
Contract Re	f:			Date:			Grour	nd Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59			31.0	8.12		17.21	E:543755.0 N:260662.0		1	of 1
	Samples and In-situ Tests h No Type Results			Water				Depth (Thick	Graphic			
Depth	INO	Type	Re	SuitS	>	ш	TOP	PSOII : Harvested	crop remains over dark brown silt	v sandv	ness)	Legend
0.10	1	ES					claye Roo (TOI	ey TOPSOIL with ots/rootlets and deco PSOIL)	traces of subangular fine to medi emposing organic matter throughout.	um flint.	0.30	17 · 3 · 17 · 3 · 17
0.50-0.60	2	ES V	C _u :	=52			coar	rse (predominantly rounded fine to coa	ey-brown sandy gravelly CLAY. Sand fine to medium). Gravel is suban arse flint. Occasional subrounded co	gular to	(0.50)	
-									ne to medium sand content		0.80	
1.00	3	D V	C _u :	=96			coar	n to stiff pale grey s rse. Gravel is predo calcareous nodules ULT FORMATION)		minantly flint and	-	
-											(1.30)	
2.00 2.00	4	D V	C _u =	>130			Firm	n to stiff fissured	slightly sandy silty CLAY. Sand	is fine.	2.10	
2.20	5	ES					Occi		gular claystone clasts. Occasional ca		(1.10)	X X X
3.00	6	D	0 =	~120							- ` ´ - -	
3.00		V	c _u −.	>130							3.20	x. - x
-											- - - - - -	

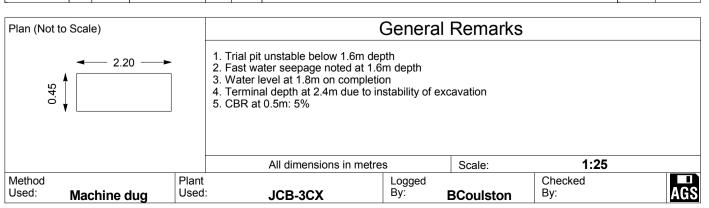


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Contract:			Client: Trial Pit:				it:					
NIAB - Phase 1 BDW Trading Limited							V Trading Limited			TP16		
Contract Ref: D				Date:	Date: Groun			nd Level (m AOD):	National Grid Co-ordinate:	Sheet:		
25459					31.0	8.12		17.10	E:543801.0 N:260622.0		1	of 1
Samp	Samples and In-situ Tests 5					Description of Strata		Depth (Thick	Materia Graphic			
Depth	No	Туре	Res	sults	8	Вас			Description of Strata		ness)	Legend
							TOP	SOIL: Harvested	crop remains over dark brown silty	/ sandv		7,1%. 7,1%.

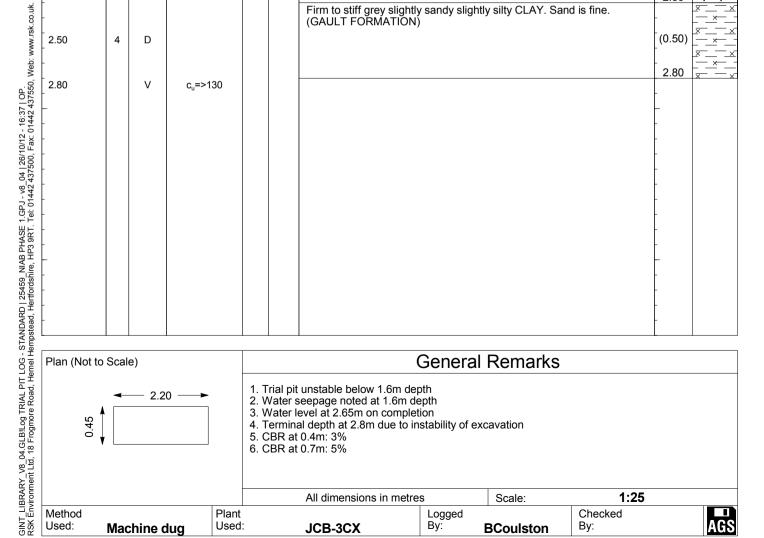
				••	···-		-	· •
Samples and In-situ Tests			Water	Backfill	Description of Strata	Depth (Thick		
Depth	No	Туре	Results	×	Вас	·	ness)	Legend
- 0.15-0.25	1	ES				TOPSOIL: Harvested crop remains over dark brown silty sandy clayey TOPSOIL with traces of subangular fine to medium flint. Roots/rootlets and decomposing organic matter throughout. (TOPSOIL)	(0.30)	76.76.7 7.5.76.7 7.5.76.7
0.50	2	D V	c _u =57			Firm light brown/orangey-brown sandy 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)	(1.05)	
1.00	3	D V	c _u =67				1.35	0-00
-						Orangey-brown/grey gravelly SAND. Gravel is predominantly subangular to subrounded fine to medium flint. Sand is medium to coarse. (RIVER TERRACE DEPOSITS)	(0.35)	
2.00	4	D				Orangey-brown very sandy GRAVEL. Sand is predominantly fine to medium. Gravel is predominantly subangular to subrounded fine to medium flint. Occasional subrounded cobbles of flint. (RIVER TERRACE DEPOSITS)	(0.70)	
-						@ 2.1m Increase in sand content to a very gravelly SAND	2.40	
- - - -							-	7,50
-							-	
-							-	
-							-	
-							<u>-</u>	



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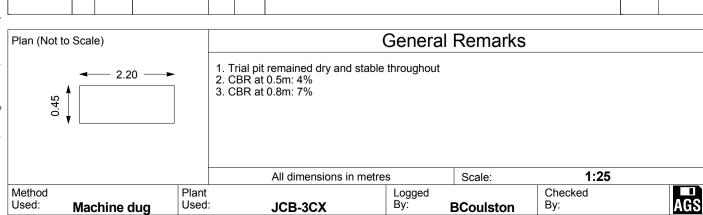


Contract:							(Client:						Trial Pi	t:		
		NIAB	- Ph	ase 1					BDV	V Tradin	g Limi	ted				T	217
Contract Ref	f:			Date:			Ground	Level (m AOD):	National G	rid Co-or	dinate:		Sheet:			
	254	59			31.0	8.12		17.3	5	E:543	856.0 N	N:2605	94.0		1	of	1
Samp	les a	and In-si		sults	Water	Backfill				Description	of Strata				Depth (Thick	Gı	aterial aphic egend
Берш	INO	Туре	1100	buito	_		TOPS	SOIL : La	w-rise sh	rub vegetat	ion and I	narveste	d cron	remains	ness)		<u>∵.∜/⁄.∵</u>
0.10-0.20	1	ES					over (predo	dark br ominantl	rown sand y fine to m	ly gravelly nedium). Gra quent roots/	CLAY. Savel is su	and is bangular	fine to	coarse rounded	(0.30) 0.30		1.1, 1.1,
_							matter (TOPS	r througl SOIL)	hout.						-		
0.50	2	V ES	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) @ 0.5m Increase in sand content							gular to	(0.90)		
1.00		V	C _u =	- 69			(RIVER TERRACE DEPOSITS)@ 0.5m Increase in sand content Orangey-brown sandy GRAVEL. Sand is fine to coarse. Gravel is							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)						1.20 - - - - - - - - -	0.0.0.0.0.0.000				
							Firm t	o stiff ar	ov eliabtly	sandy slight	lly cilty CI	AV San	d is fine		2.30	× O	 × ∂. о
2.50	4	D							MATION)	sandy silgin	lly Silly GL	AT. Sali	u is iiile.	•	[(0.50)	× .	× × ×
2.80		V	C _u =	- 130											2.80	×	× ×
-															- - - - -		





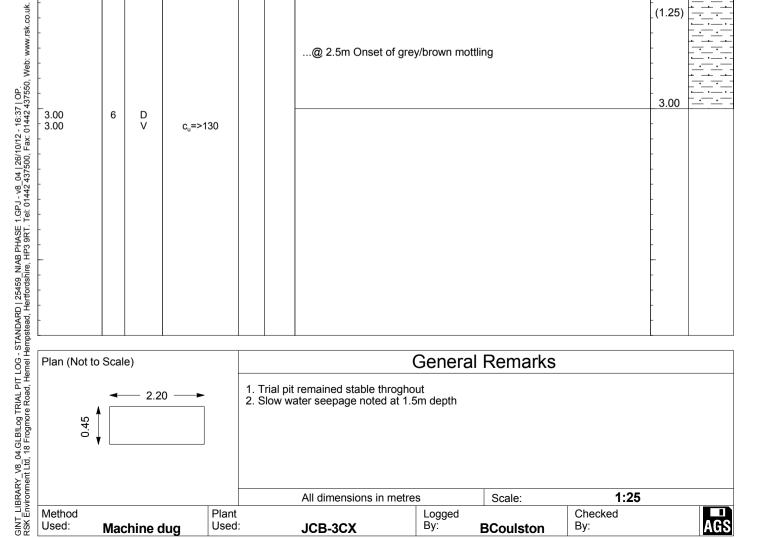
Contract:								Client:					Trial Pi	t:	
		NIAB	- Pha	ase 1					BDW	/ Trading	Limite	d			TP18
Contract Re	f:			Date:			Groun	d Level (m A	OD):	National Gri	d Co-ordina	ate:	Sheet:		
	254	59			31.0	8.12		17.17		E:5439	20.0 N:2	260525.0	0	1	of 1
Samp	les a	and In-si	tu Tests	;	ter	¥Ę								Depth	
Depth	No	Туре	Res	sults	Water	Backfill				Description o	of Strata			(Thick ness)	Graphic Legend
0.10-0.20 0.15	1 2	D ES					coars (prec	DE GROUND se. Gravel dominantly fi ingular brick. Imposing orga	is sub ine to Occas	pangular to medium) f sional woody	subround lint. Rare fragments	ed fine t fragments	to coarse s of fine	_ _(0.35) 0.35	
0.50 0.50	3	ES V	c _u =	- 71			\((MADE GROUND)\) Firm orangey-brown slightly sandy gravelly CLAY. Sand i predominantly fine to medium. Gravel is subangular to subrounde fine to coarse flint. (RIVER TERRACE DEPOSITS) Firm hale grey sandy gravelly CLAY. Sand is fine to coarse. Gravel is							(0.45)	
_							(RIVER TERRACE DEPOSITS)							0.80	
-														- - - (0.80) -	
1.50	4	D V		120										1.60	
1.50		V	C _u =>	130			(pred	ngey-brown o dominantly mo se flint.	edium t	o coarse). C				(0.30)	
_							(RIV	ER TERRAC	E DEPO	OSITS)			Г	1.90	000
-							coars	1.6m Orang se (predomir ium to coarse	nántly r					(0.40)	
2.50	5	D					suba	pale grey sai ingular to sub areous inclusi ER TERRAC	brounde ions and	ed fine to coad d occasional	arse flint a	nd chalk. C	Occasional	2.30	x : x x : x
2.50		V	C _u =>	·130			Occa	to stiff pale gasional linear JLT FORMAT	calcare	ghtly silty slig ous inclusion	ghtly sandy ns.	CLAY. Sa	and is fine.	(0.70)	× × ×
_														3.00	<u>x x</u>
														-	
_														-	
_														-	
-														-	
-														- -	
_														_	



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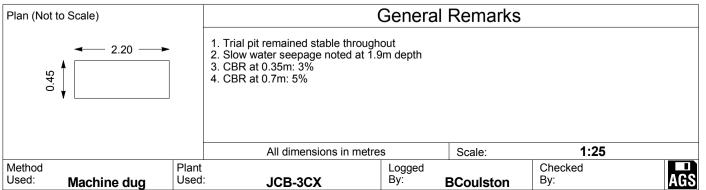
Contract:								Client:			Trial P	it:	
		NIAB	B - Pha	ase 1				В	3DV	V Trading Limited			TP19
Contract Re	f:			Date:			Ground	d Level (m AOI	D):	National Grid Co-ordinate:	Sheet:		
	254	59			31.08	3.12		17.42		E:543697.0 N:260767.0		1	of 1
Samp	oles a	and In-si	itu Tests	1	Water	Κ				D ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '		Depth	
Depth	No	Туре	Res	ults	×	Backfill				Description of Strata		(Thick ness)	Graphic Legend
0.10-0.20	1	ES					grave Grave subar Roots	elly CLAY. Sand el is predomi ngular fine clas	d is f inant sts o	ested crop remains over dark bror ine to coarse (predominantly fine to ly subangular fine to medium fli of brick. Humic-rich soils noted to 0. mposing organic matter throughout.	medium). nt. Rare	(0.45)	
0.50 - 0.50 - 0.60	3	D V ES	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) @ 0.7m Becoming a very clayey SAND and GRAVEL						
1.00	4	D					@(0.7m Becoming	g a ve	ery clayey SAND and GRAVEL		1.10	
1.00		V	C"=	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 : 0 : 0 : 0 : 0 : 0 : 0 : 0 : 0 : 0 :
1.50 1.50	5	D V	C _u =>	130			(RIVER TERRACE DEPOSITS)@ 1.4m Slight increase in sand and gravel constituents						00.0
2.00		V	C _u =>	·130			Trace		ar fin	n blue silty slightly sandy CLAY. Sar e to medium claystone.	d is fine.	1.75	
-							@ 2	2.5m Onset of (grey/	brown mottling		3.00	
3.00	6	D V	C _u =>	130								-	





Contract:								Client:					Trial Pi	t:	
		NIAB	- Pha	ase 1					BDV	/ Trading	Limited				TP20
Contract Re	f:			Date:			Grour	nd Level (m	n AOD):	National Grid	l Co-ordinat	e:	Sheet:		
	254	59			31.08	3.12		16.22		E:54370	07.0 N:20	60872.0		1	of 1
Samı	oles a	ınd In-si	tu Tests	5	ter	₩.				- · · ·				Depth	
Depth	No	Туре	Res	sults	Water	Backfill				Description of	Strata			(Thick ness)	Graphic Legend
0.20	1	ES					clay Roo	ey TOPS(ts/rootlets	OIL with and decor	op remains ov traces of su nposing organ	bangular fi iic matter th	ne to coars oughout.	sé flint.	_ _(0.35) - 0.35	\(\frac{1}{2}\), \(\frac{1}\), \(\frac{1}\), \(\frac{1}{2}\), \(\frac{1}{2
0.40	2	V D	c _u =	- 66			med Occ	ium. Grav asional sul	el is sub prounded	ntly gravelly si angular to su cobbles of flin	ıbrounded f	ine to coars	se flint.	-	\$ \$
0.70	3	ES					(RIVER TERRACE DEPOSITS)@ 0.6m Increase in fine sand and silt content							-	Q.—, O. ×O
1.00		٧	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 2.00 2.00 - 2.00	4 5	ES D V	c"=>	> 130			Grey (pre subr flint.	//brown cl dominantly ounded fir	ayey SAl medium ne to coa	ery sandy very ND & GRAV to coarse rse flint. Occa	EL. Sand). Gravel	is fine to is subange	ular to	- 2.15 - (0.35)	
-							Firm of su	pale grey	ish blue si	Ity slightly sar	ndy CLAY. Se.	Sand is fine.	Traces	(0.50) - 3.00	x x xx
3.00 3.00 3.00	6 7	ES D V	C _u =>	- 130											x x







Contract:						Client:		Trial P	it:			
		NIAE	- Phase 1			BD\	N Trading Limited			TP21		
Contract Re	f:		Date:		Gro	und Level (m AOD):	National Grid Co-ordinate:	Sheet:				
	254	159		31.08.1	2	15.88	E:543763.0 N:260814.0		1	of 1		
			tu Tests	Water			Description of Strata		Depth (Thick	Graphic		
Depth	No	Туре	Results	S d					ness)	Legend		
0.20-0.30	1	ES			ov su de \(T	rer dark brown silty bangular to subroun ecomposing organic m OPSOIL)		ces of ets and	0.35	\(\frac{1}{1}\text{y} \cdot \frac{1}{1}\text{y} \cdot \frac{1}{1}\text		
0.50-0.60 0.50	2	ES V	c _u =61		m flir	edium to coarse. Grav	very sandy CLAY. Sand is predor vel is subangular to subrounded fine to lets noted throughout.	ninantly coarse	(0.55)			
1.00	3	D V	c _u =83		ca ca dia	bangular to subroun licareous nodules. C licareous inclusions. ameter) noted.	avelly CLAY. Sand is fine to coarse. G ded fine to coarse flint and fine to recasional fine to medium gravel-siz Occasional decomposing rootlets	medium ed soft	0.90			
1.50		V	c _u =>130		pr 	(GAULT FORMATION)						
2.50	4	ES			is O	rm to stiff fissured da fine and predominar ccasional linear calcal AULT FORMATION)	rk grey slightly sandy slightly silty CLA' ntly encountered as fine gravel-sized reous inclusions.	Y. Sand lenses.	(0.70)	- ° - X - X - X - X - X - X - X - X - X		
2.50 - 2.50 - 2.50	5	D V	c _u =>130						2.70	xx		
-									-			
-									-			

Method Used:	Machine dug	Plant Used:	JCB-3CX	Logged By:	BCoulston	Checked By:	AGS
			All dimensions in	metres	Scale:	1:25	
0.45							
	← 2.20 →	► 1. Tr	ial pit remained dry and	stable throughout			
Plan (Not	to Scale)			Genera	I Remarks		



Contract:							Client:				Trial Pi	it:	
		NIAE	- Phase	1				DW	Trading Limited				TP22
Contract Re	f:		Date			Grour	nd Level (m AOD)		National Grid Co-ordinate:		Sheet:		
	254	59		31.0	8.12		16.63		E:543817.0 N:260	762.0		1	of 1
Samp	oles a	and In-si	tu Tests	- Lo	■						·	Depth	Material
Depth	No	Туре	Results	Water	Backfill				escription of Strata			(Thick ness)	Legend
0.10	1	ES				clay suba orga	ey TOPSOIL. Sa	and is medi	p vegetation over dark be s predominantly fine to me um flint. Roots/rootlets a	edium. Tra	ices of	0.20	17 · 74 · 17 · 14 · 17
0.60	2	V D	c _u =81			med		is p of flin	CLAY with traces of su redominantly fine to med it.			(0.70)	
-						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. (GALILT FORMATION)							00.00
1.20		V	c _u =>130										000
2.00	3	D V	c,=>130			-							00-0 00-0
2.20	4 5	ES D				of o	n fissured grey sil orange/light brown usions. ULT FORMATIO	n fine	AY. Occasional fine grave sand and silt. Occasional	l-sized inc linear calc	lusions areous	2.20	X X X X X X X X X X X X X X X X X X X
3.00		V	c _u =>130									(1.10)	X X X
-												3.30	x - x

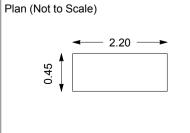
Plan (Not to Scale)		General Remarks	
2.20	Trial pit remained dry and stable	throughout	
	All dimensions in metre	s Scale:	1:25
Method Used: Machine dug Plan Used		Logged By: BCoulston	Checked By: AGS



Contract:							Client:		Trial P	it:	
		NIAB	- Phas	se 1			BD	W Trading Limited			TP23
Contract Re	f:		D	ate:		Gro	und Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	.59		;	31.08.	12	14.94	E:544025.0 N:26065	9.0	1	of 1
Samp	les a	and In-si	tu Tests		e	Į I				Depth	
Depth	No	Туре	Resul	lts	Water	Backill		Description of Strata		(Thick ness)	Legend
0.20-0.30	1	ES	Tub+VL	_+J		su		n sandy silty clayey TOPSOIL w led fine to coarse flint	vith traces of	(0.40)	\(\frac{1}{2}\), \(\frac{1}\), \(\frac{1}\), \(\frac{1}{2}\), \(\frac{1}{2
0.50	2	D V	c _u =49			fin (R	e to medium. Fine ro IVER TERRACE DE	POSITS)	redominantly	0.40	
0.70-0.80	3	ES V	Tub+VL c _u =76				@ 0.6 m to 1.7 m Le		(0.90)		
_		-	-u · ·							1.30	
-						pre	ediominantly medium	y clayey slightly gravelly SAN . Gravel is subangular to subroungular cobbles of flint. POSITS)	ID. Sand is unded fine to	-	
2.00	5	D ES	Tub+VL	_+J			@ 2.0 m slight increa	ise in fine to medium subangular f	lint content.	-(1.80)	
-										3.10	-0-05
-										- - - - - - - -	

Method

Used:



Machine dug

Plant

Used:

General Remarks

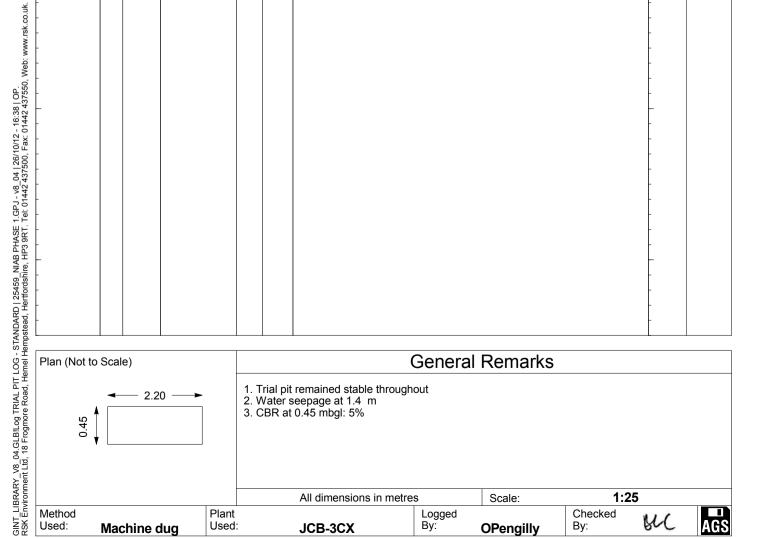
1. Trial pit terminated at 3.1 due to instability of pit 2. Slow water seepage at 2.0 mbgl

All dimensions in metre	3	Scale:	1:25

Logged By: JCB-3CX **OPengilly** Checked SIC Ву:

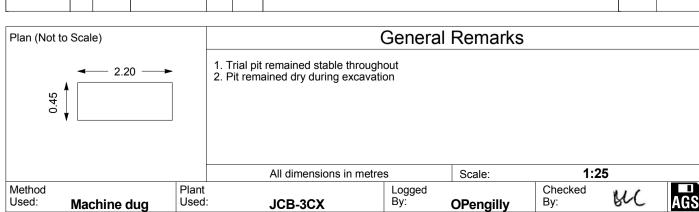


Contract:								Client:			Trial Pi	t:	
		NIAB	- Pha	ase 1						/ Trading Limited			TP24
Contract Re	f:			Date:			Grour	nd Level (m AC)D):	National Grid Co-ordinate:	Sheet:		
	254	59			03.0	9.12		13.89		E:543843.0 N:260966.0		1	of 1
Samp	oles a	and In-si	tu Tests	3	Water	Backfill				Description of Otroto			Material Graphic
Depth	No	Туре	Res	sults	Ma	Вас				Description of Strata		(Thick ness)	Legend
0.20-0.30	1	ES V		VL+J =56			CLA suba	Y. Sand is pre	edomir n to co	ested vegetation over dark brown san nantly fine to medium. Occasional and parse gravels of flint.	dy silty gular to	- - (0.60) - - 0.60	11 31 31 31 31 31 31 31 31 31 31 31 31 3
													i,i,i,
_ 0.60 _ _ _ _ _ _	2	ES	Tub+	VL+J			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.						





Contract: NIAB - Phase 1								Client:			Trial Pi	t:	
		NIAB	- Pha	ase 1				В	W Trading Li	mited			TP25
Contract Re	f:			Date:			Grour	nd Level (m AOD):	National Grid Co	-ordinate:	Sheet:		
	254	.59			03.09	9.12		13.03	E:544100.	0 N:260825.0		1	of 1
Samp Depth	les a	and In-si Type		sults	Water	Backfill			Description of Str	ata		Depth (Thick ness)	Material Graphic Legend
0.20	1 2	ES D		VL+J			silty coar \(TOI	sandy TOPSOIL, rse gravels of flint. PSOIL)	with occasional an	f dark brown clayey gular to subrounded	slightly fine to	- 0.25	1/ · ½ · / · / · · · · · · · · · · · · ·
0.40		V	c _u =	- 60			Firm (RIV	n orangey-brown s /ER TERRACE DI	andy CLAY. EPOSITS)			0.40)	
-							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)						· · · · · · · · · · · · · · · · · · ·
1.10	3	D											0. 0 0. 0
-							Firm to stiff grey sandy CLAY. (GAULT FORMATION)					1.60 - -	
2.00	4	D										- - - (1.20) - -	
2.60		V	C _u =	:91								- - -	
												2.80	

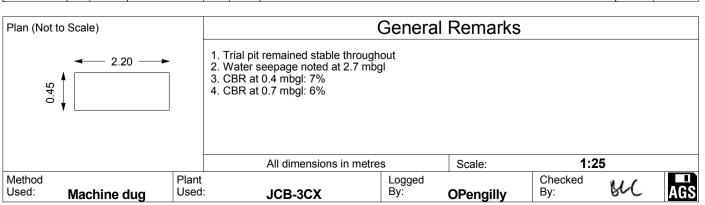


GINT_LIBRARY_V8_04.GLBILog TRIAL PIT LOG - STANDARD | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:38 | OP.
RSK Environment Ltd., 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.



Contract:			Client:		Trial Pi	t:		
NIAB -	Phase 1		BDV	V Trading Limited			TF	P26
Contract Ref:	Date:	Groun	nd Level (m AOD):	Sheet:				
25459	03.09.12		13.39	E:544048.0 N:260856.0		1	of	1
							\neg	

	2 54	.JJ		03.0	9.12	13.33		OT I
	_		tu Tests	Water	Backfill	Description of Strata	Depth (Thick	
Depth	No	Туре	Results	>	Ba	Boompton of ottata	ness)	
0.10-0.20 0.10-0.20 0.20-0.30	1 2 3	ES D ES	VL+J Tub			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)	
0.40		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)	
- 4.50	_						1.50	
1.50	5	V V	c _u =80 c _u =80			Firm grey mottled with orangey-brown CLAY. (RIVER TERRACE DEPOSITS)	(1.10)	
- - - -						Orangey brown gravelly fine SAND. Gravel is angular to subangular fine to coarse flint and chert (RIVER TERRACE DEPOSITS). (RIVER TERRACE DEPOSITS)	(0.50)	0 0
-							- - - - - - - - -	

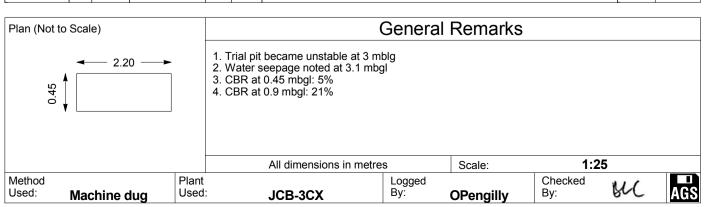


GINT_LIBRARY_V8_04.GLB!Log TRIAL PIT LOG - STANDARD | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:38 | OP.
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Contract:		Client:		Trial Pit	t:		
NIAB - Ph	ase 1	BD	N Trading Limited			TP	27
Contract Ref:	Date:	Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	03.09.12	13.15	E:543916.0 N:261033.0		1_	of	1
Samples and In-situ Test	Vater sackfill		Description of Strata			1	aphic

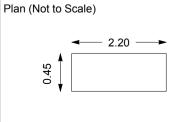
	254	.00		03.0	9.12	13.15 E.343310.0 N.201033.0	<u> </u>	OT I
Sam	ples a	and In-si	itu Tests	Water	Backfill	Description of Strata	Depth (Thick	Material Graphic
Depth	No	Туре	Results	M	Вас	Description of Strata	ness)	Legend
0.30	1	ES	Tub+VL+J			TOPSOIL: Harvested vegetation over slightly gravelly clayey sandy TOPSOIL. Gravel is angular to subangular fine to coarse flint. Sand is predominantly fine to medium. (TOPSOIL)	(0.45)	1/ · 2 · 1/ · 3 · 1/ 1/ · 2 · 1/ · 3 · 1/ · 1/ · 2 · 1/ · 3 · 1/ 1/ · 2 · 1/ · 3 · 1/
- 0.45 - 0.50	2	V D	c _u =59			Orangey-brown gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint.	0.45	
0.60	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.	-	
0.90		٧	c _u =>130			(RIVER TERRACE DEPOSITS)	-	
1.50	4	D V	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)	
2.70 2.70	5	D V	c,=>130			Firm pale grey sandy silty CLAY. Sand is predominantly fine. (RIVER TERRACE DEPOSITS)	2.70	
-							(0.60)	× · · × · · · × · · · · · · · · · · · ·
-						@ 3.10 Onset of angular cobbles of flint and increased sand content.	3.30	× :- ×
-							-	



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Contract:						Client:		Trial P	it:	
		NIAB	- Phase 1			BD\	W Trading Limited			TP28
Contract Re	f:		Date:		Gro	und Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59		03.09.	12	12.53	E:544039.0 N:261022.0		1	of 1
Samp	oles a	and In-si	tu Tests	e	■				Depth	
Depth	No	Туре	Results	Water	Backfill		Description of Strata		(Thick ness)	Legend
0.10 0.10-0.20	1 2	ES D	Tub+VL+J		TC pre	DPSOIL: Harvested von DPSOIL. Gravel is ano edominantly fine to mo OPSOIL)	regetation over slightly gravelly clayegular to subangular fine to coarse flint. edium.	y sandy Sand is	(0.35)	\(\frac{1}{1}\) \(\frac{1}\) \(\frac{1}{1}\) \(\frac{1}\) \(\
0.60		V	c _u =43		me	rm orangey-brown : edium to coarse flints. IVER TERRACE DEF		rounded	-	
1.00	3	D				@ 1.0m Increase in s	and content.		(1.35)	
_									1.70	
-					gra	rangey brown mediu avels of flint. IVER TERRACE DEF	m SAND with subrounded fine to posits)	medium	_	
2.00	4	D				@ 2.0m Increase in avel	subangular to subrounded fine to coa	rse flint	(0.70)	
-					me ∖ flir	edium. GRavel is and	brown SAND and GRAVEL. Sand is gular to subangular fine to cobbled graph (POSITS)	fine to avels of	2.40	
									- - - - - - - - - -	



General Remarks

Trial pit unstable at 1.5 mbgl
 Water seepage noted at 1.7 mbgl
 Trial pit terminated at 2.6 mbgl due to instability

All dimensions in metres

Scale:

OPengilly

1:25

Method Used: Machine dug Plant Used:

JCB-3CX

Logged By:

Checked Ву:

SIC





Contract: NIAB - Phase 1							Client:		Trial P	it:	
		NIAB	- Phase	1				W Trading Limited			TP29
Contract Re	f:		Date	:		Groun	nd Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59		03.09	9.12		12.53	E:544161.0 N:260984.0		1	of 1
			tu Tests	Water	Backfill			Description of Strata		(Thick	Material Graphic
Depth	No	Туре	Results	>	Δ					ness)	Legend
0.10-0.20	1	ES	Tub+VL+J			TOP pred (TOF	SOIL. Gravel is and lominantly fine to me SOIL)		Sand is	(0.30)	
0.50	2	D				occa		ottled orange and dark brown sandy CL ngular to subangular fine to medium flir		(0.70)	
_										1.00	
-						flint a	to stiff grey/brown and calcareous noc ULT FORMATION)		clasts of	-	xx
1.30		V	c _u =89			,	,			(0.60)	X
1.50	3	D								1.60	
2.00 2.00	4	ES V	J c _u =85			fine	grey/brown mottle subangular calcare ULT FORMATION)	ed orange slightly sandy silty CLAY vous nodules. Sand is fine.	ith rare	- - -	x x x x x x x x x x x x x x x x x x x
										(1.50)	x x x x x x x x x x x x x x x x x x x
3.00		V	c _u =62							3.10	¥ ×

General Remarks Plan (Not to Scale) 1. Trial pit remained dry and stable throughout excavation 2.20 -1:25 All dimensions in metres Scale: Logged By: Method Plant Checked Used: Used: Ву: Machine dug JCB-3CX **OPengilly**

GINT LIBRARY V8 04.GLB!Log TRIAL PIT LOG - STANDARD | 25459. NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:38 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

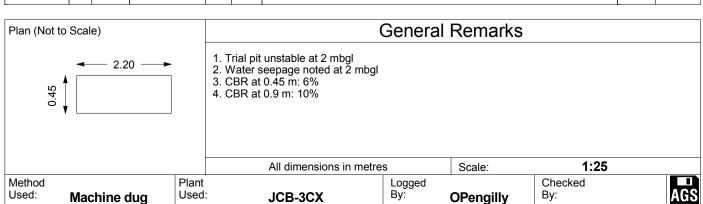


GINT_LIBRARY_V8_04.GLB!Log TRIAL PIT LOG - STANDARD | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:39 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

DRAFT TRIAL PIT LOG

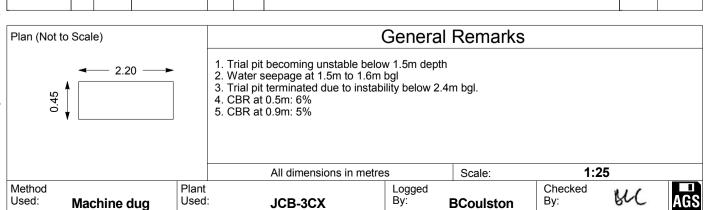
									117				
Contract:								Client:			Trial Pi	it:	
		NIAB	- Ph	ase 1				BDV	V Trading Limited				TP30
Contract Re	f:			Date:			Grour	nd Level (m AOD):	National Grid Co-ordinate:		Sheet:		
	254	59			03.0	9.12		12.03	E:544023.0 N:261	167.0		1	of 1
Samp	oles a	and In-si	tu Tests	3	ater	Backfill			Description of Strata			Depth (Thick	Materia Graphic
Depth	No	Туре	Res	sults	8	Вас			Description of Strata			ness)	Legend
0.10-0.30 0.10-0.30	1 2	ES D	Tub+	-VL+J			sand		vegetation over slightly grav el is angular to subangular fin ne to medium.			(0.45)	17.31.17.31

c_u=60 0.45 ٧ Firm grey / light orangey brown sandy CLAY with some fine to medium gravels of chalk and with occasional fine to medium gravels 0.65 of flint. Sand is predominantly fine to medium. 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. (0.55)(RIVER TERRACE DEPOSITS) ... @ 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 ٧ $c_u = 97$ (1.00)2.00 4 D ... @ 2m Increase in sand content 2.20 2.20 c_u=70 Firm to stiff dark grey silty CLAY with rare to occasional fragments of calcareous nodules. (GAULT FORMATION) (0.80)3.00





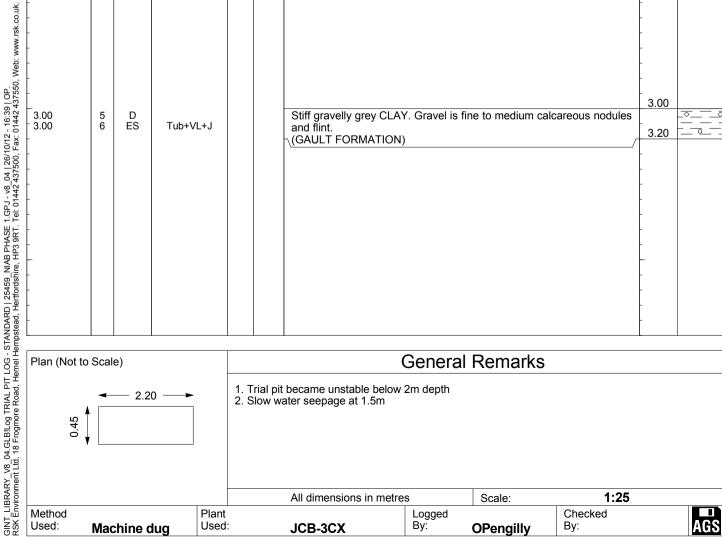
Contract:								Client:			Trial P	it:	
		NIAE	- Pha	ase 1				В	DW	/ Trading Limited			TP31
Contract Re	ef:			Date:			Groun	nd Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59			03.09	9.12		12.03		E:544091.0 N:261142	.0	1	of 1
	·				/ater	Backfill			[Description of Strata		Depth (Thick	Graphic
Depth	No	Туре	9 03.09.			ä						ness)	Legend
0.10-0.20	1	ES	Tub+	VL+J			sand flint throu	dy very clayey T0 and with frequ ughout.	OPS ent	getation and low shrub vegetation OIL with traces of subangular fine rootlets and decomposing orga	to medium anic matter	, ,	\(\frac{1}{2} \cdot \frac{1}{2} \cdot \frac{1}{2
0.50		V	c _u =	:65			med Occ		sub			-	
0.70-0.80 0.70 0.90	3	D			Occi (RI'			@ 0.7m Onset casional pale grey		fine to medium subangular ch	alk clasts.	(0.90)	
		V	C _u –	104								1.20	
-							pred coar	dominantly medic	ım. ly fin	clayey SAND and GRAVEL. Gravel is subangular to subroun ne to medium) flint.		-(0.40)	
1.50	4	D					(KIV	ZER TERRACE L	JEF	J3113)		1.60	
-							SAN subr		e to of fli			-	
2.00	5	D					@	2.0m slight incre	ease	e in fine to medium gravel content.		(1.00)	000
-							@	2.2m Increase i	n cla	ay content		-	0.000
-								2.5m Becomes nedium flint.	a ve	ery sandy GRAVEL. Gravel is suba	angular fine	2.60	
-												-	
-												-	
-												-	
												-	
- -												-	
-												- -	



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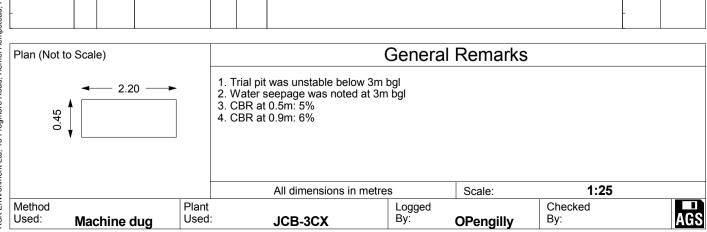


Contract:								Client:			Trial F	Pit:	
		NIAB	- Pha	ase 1				E	BDV	V Trading Limited			TP32
Contract Re	f:			Date:			Groun	d Level (m AOI	D):	National Grid Co-ordinate:	Sheet	:	
	254	59			03.09	9.12		12.09		E:544055.0 N:2612	12.0	1_	of 1
Samp Depth	les a		tu Tests Res		Water	Backfill			ı	Description of Strata		Depth (Thick ness)	
-						<u> </u>	sand		iravel	egetation over slightly grave is angular to subangular fine to medium.		<u> </u>	24 1/2 . 34 1/2 . 34 1/2
0.30	2	ES D		VL+J			med	ngey brown sa ium gravels of k clasts.	andy flint	CLAY with angular to suba and with occasaional mediu	angular fine to m gravel sized	(0.35)	
0.50		V	c _u =	=89			sand of m	nge and grey s ly clay. Sand is edium gravel si: ER TERRACE	pred zed c		of orange very ccasional clasts		
1.00		V	c _u =	-67									
1.20	3	D								and GRAVEL. Sand is find the first state of the state of	ine. Gravel is	1.20	
2.00	4 5 6	D D	Tub+	VL+J			@	ER TERRACE 2.1.8 Onset of some second secon	DEP	OSITS)	areous nodules	l l	
3.00	6	ES	Tub+	VL+J			and \(GAI	flint. JLT FORMATIO	ON)			3.20	





Contract:						Client:		Trial P	it:	
		NIAB	- Phase 1			BD	W Trading Limited			TP33
Contract Re	f:		Date:			Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59		03.0	9.12	12.04	E:544183.0 N:261166.0		1	of 1
		1	tu Tests	Water	Backfill		Description of Strata		Depth (Thick	Graphic
Depth	No	Туре	Results	>	ш	TOPSOIL: Harvested	vegetation over slightly gravelly clay	ov von	ness)	Legend
0.20	1	ES	Tub+VL+J				el is angular to subangular fine to coar		(0.45)	17.311, 37
_						Orangov grov light bro	own occasionally mottled with orange	olavov	0.45	
-						SAND with frequent por		Clayey	(0.45)	
- 0.85	2	D				<u></u>			0.90	
_0.90		V	c _u =68			Firm grey mottled bro calcareous nodules. (GAULT FORMATION)	wn sandy, slightly silty CLAY with f	requent	-	x x x x x x x x
1.60		V	c _u =67						(1.30)	X X X
-									2.20	xx
2.50	3	D				Firm grey fissured sand (GAULT FORMATION)	y CLAY.		-	
-						@ 3m Onset of inclusions	sandier matrix with occasional calo	careous	(1.30)	
3.50	4	ES	Tub+VL+J			\ @ 3.4 Transitions to	a very clayey SAND.	ſ	3.50	
_									-	



GINT LIBRARY V8 04.GLBILOG TRIAL PIT LOG - STANDARD | 25459 NIAB PHASE 1.GPJ - v8 04 | 26/10/12 - 16:39 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442437500, Fax: 01442437550, Web: www.rsk.co.uk.

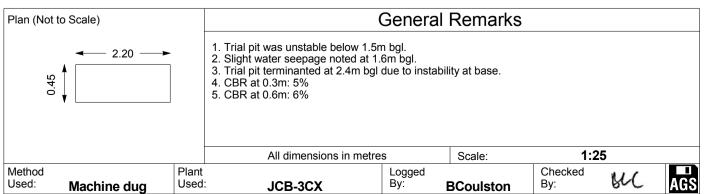


2.40

Contract:								Client:	TRIA	L PI		.OG
Contract.		ΝΙΔΕ	B - Ph	ase 1					V Trading Limited	IIIair	π.	TP34
Contract Re	ef:	1417 12		Date:			Groun	nd Level (m AOD):	National Grid Co-ordinate:	Sheet	:	11 0-1
	254	59			29.0	8.12		12.22	E:544116.0 N:261323.	0	1	of 1
	·		itu Tests		Water	Backfill			Description of Strata		Depth (Thick	
Depth 0.20 0.40	1	Type ES V	Tub+	sults +VL+J =53	>	8	angu clast deco (MA	ular to subrounded ts of pottery / omposing organic ma DE GROUND)	brown silty very sandy CLAY with flint and rare medium to coarse shrick. Frequent rootlets through atter. gravelly very sandy CLAY. Sand	subangular hout and	0.37	Legend
0.60	3	ES D		-SS +VL+J			coar pred (RIV Orar subr flint.	ngey-brown slightly see, predominantly rise to me ER TERRACE DEP ngey-brown clayey ounded fine to coars and is fine to coars ER TERRACE DEP	ubrounded angular to	0.60		
1.50	4	D					Orar Grav	ngey brown / grey S	ne to medium gravel content. SAND and GRAVEL. Sand is fine subrounded fine to coarse flint. OSITS)	to coarse.	1.60	0-0-0-1 w 0-
	_	_									(0.80)	

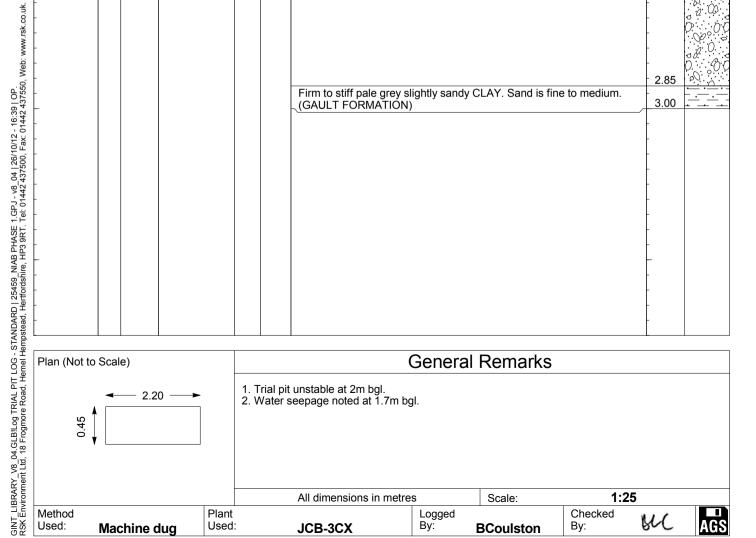
GINT_LIBRARY_V8_04.GLB!Log TRIAL PIT LOG - STANDARD | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:39 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437555, Web: www.rsk.co.uk. 2.00

D



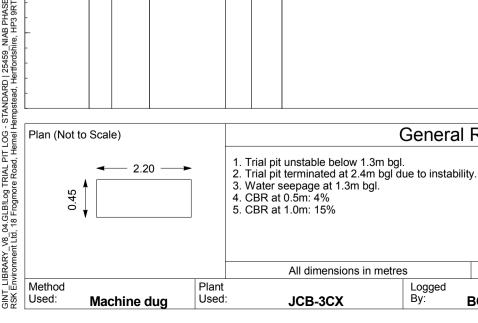


												•	1 11/	` L'	•	_	
Contract:								Client:						Tri	al Pi	t:	
		NIAB	- Pha	ase 1							rading l						TP35
Contract Re	f:			Date:			Grour		(m AOD):	Nat	tional Grid	Co-ordina	ate:	Sh	eet:		
	254	59			29.08	3.12		12.3	35	E	E:54426	2.0 N:2	261302	2.0		1	of 1
Samp	oles a	and In-si	tu Tests	1	Water	Backfill				Desc	cription of	Strata				Depth (Thick	
Depth	No	Туре	Res	ults	Š	Ва				D000	onpuon or	Olidia				ness)	Legend
0.10	1	ES	Tub+	VL+J			Sand subr	d is pre		fine	to mediu	ım. Grav	∕el is su	ıbangular	to	(0.45) - - 0.45	
0.50 0.50	2 3	ES D	Tub+	VL+J			pred	lomniantl	y brown sar ly fine to me RACE DEP	edium	n flint.	velly very	/ silty CL	.AY. Sand	l is	0.65	× × ×
1.50	4	D					Orar fine fine (RIV	ngey-bro to coarse to coarse 'ER TER	wn gravelly se flint. Occ	SAN casio POSIT	ND. Gravel nal subanç TS)	is subar gular cob	ngular to bles of f	subround flint. Sand	led is	- - - - - - - - - - - - - - - - - - -	
_							Firm	to stiff r	alo grov elic	abtly	candy CL /	V Sand	io fino to	modium		2.85	<u></u>
									oale grey slig RMATION)	grilly	Sariuy CLA	AT. SAIIO	is line to	mealum.		3.00	<u></u>
-																- - - - - -	





Contract: Client: Trial Pit: NIAB - Phase 1 BDW Trading Limited																
	NIAB - Phase 1 BDW Trading Limited ract Ref: Date: Ground Level (m AOD): National Grid Co-ordinate: Sheet:															
Contract Re	f:			Date:					Sheet:							
	254	59			29.0	8.12	12.13	E:544150.0 N:261146.0		1	of 1					
Samp Depth	les a	ind In-si	1	sults	Water	Backfill		Description of Strata		Depth (Thick ness)	Material Graphic Legend					
0.10 0.20	1 2	ES D		-VL+J =59			TOPSOIL: Harvested clayey TOPSOIL with medium flint. Humic-ric inclusions of decomposi (TOPSOIL) Firm orangey-brown sa Gravel is predominantly	fine to	0.25							
-							(RIVER TERRACE DEF		-							
0.80	3	ES	Tub-	-VL+J			Grey/brown slightly clay predominantly medium subrounded fine to co	ılar to	0.80							
1.00	4	D					Occasional subangular to (RIVER TERRACE DEF		- (0.80) -							
2.00	5	D					subangular to subround cobbles of flint.	Grey brown SAND and GRAVEL. Sand is fine to coarse. Gravel is subangular to subrounded fine to coarse flint. Occasional subangular								
										2.40						



General	Remarks
---------	---------

1:25 All dimensions in metres Scale:

BCoulston

Logged By:

Checked Ву:

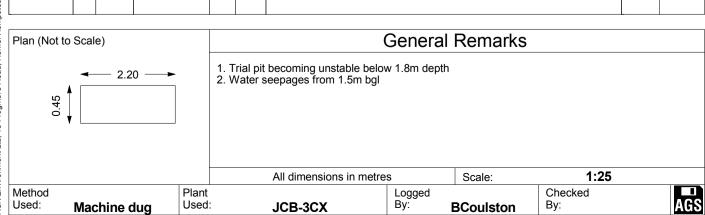
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Contract:								Client:			Trial Pi	+-	
Contract.		ΝΙΔΡ	B - Pha	1 1	1 BDW Trading Limited e: Ground Level (m AOD): National Grid Co-ordinate: Sh							ι.	TP37
Contract Re	f:	1417.		Date:			Grour		Sheet:		11 07		
	254	59			29.0	8.12		12.16		E:544248.0 N:261385.0		1	of 1
Samp	oles a	and In-si	tu Tests		ē						-	Depth	Material
Depth	No		Res		Water	Backfill				Description of Strata		(Thick ness)	Graphic Legend
0.10-0.20	1	ES					claye med inclu	PSOIL: Harveste ey TOPSOIL wi lium flint. Humiousions of decomp PSOIL)	fine to	(0.45) - - 0.45	17 - 3 17 - 3 17 - 3 19 - 3 19 - 3 - 17 - 3 17 - 3 17		
0.50 0.50 0.50 - 0.50	2 3	ES D V	c _u =	52			Grav (RIV	n orangey-brown vel is predominar /ER TERRACE D	coarse.	(0.40)			
1.30	5	D	J				Orar fine (pred of fli (RIV	to coarse. Grav dominantly fine t int. /ER TERRACE D	w sli zel is to m	ightly clayey very sandy GRAVEL. S s subangular to subrounded fine to edium) flint. Occasional subangular c	coarse obbles	- 0.85	
- - - - -												- - - -	

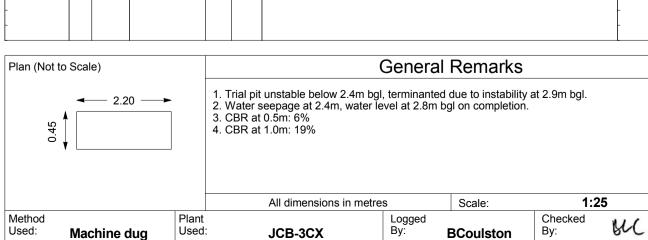


GINT LIBRARY V8 04.GLBILOg TRIAL PIT LOG - STANDARD | 25459 NIAB PHASE 1.GPJ - v8 04 | 26/10/12 - 16:39 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442437500, Fax: 01442437550, Web: www.rsk.co.uk.



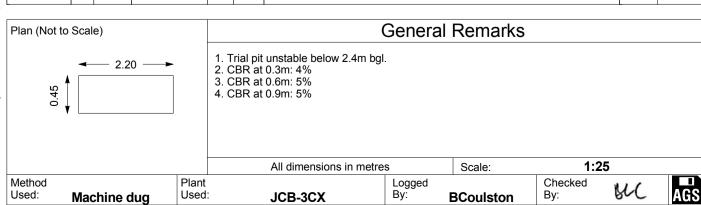
GINT LIBRARY V8 04.GLB!Log TRIAL PIT LOG - STANDARD | 25459. NIAB PHASE 1.GPJ - v8 04 | 26/10/12 - 16:39 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

Contract:								Client:				Trial	Pit:	
		NIAB	- Pha	ase 1					BDV	/ Trading L	imited			TP38
Contract Re	f:			Date:			Groun	d Level (m	AOD):	National Grid (Co-ordinate:	Shee	et:	
	254	59			31.08	8.12		17.93		E:54379	4.0 N:2605	549.0	1	of 1
Samp Depth	oles a	1	tu Tests Res		Water	Backfill			I	Description of S	Strata		Depth (Thick	
0.30	1	ES	Tub+			ш	Coar	DE GROUND se. Gravel asional fine to DE GROUN	Sandy is fine to to coarse flints.	ness) 0	Legend			
0.50	2	V D	C _u =	71			Orangey brown sandy gravelly CLAY. Sand is predominantly fine to medium. Gravel is subangular to subrounded predoominantly medium to coarse flint. Occasional specks of decomposing organic matter (including fine rootlets). (RIVER TERRACE DEPOSITS)							
1.00	3	ES V	C _u =>				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 y 1	XO XC X X X X X X X X X X X X X X X X X
1.50	4	D											(1.00)	x x x x x x x x x x x x x x x x x x x
2.00		V	c _u =>	130			fine subr	to coarse	predo Occasio	nd GRAVEL. Sa minantly fine onal subrounder OSITS)	to medium	sabangular to		000 a.000
2.50	5	D											2.90	000 000 000
-													- - - - - - - - - -	





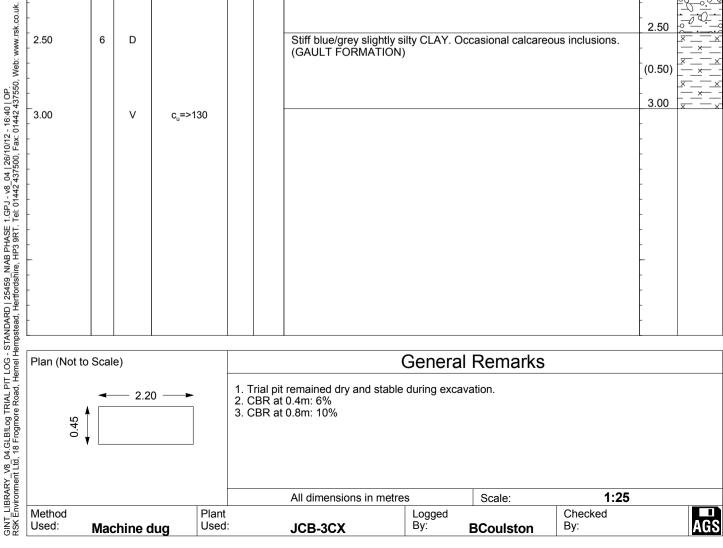
Contract:							Client:		Trial Pi	it:	
		NIAE	B - Ph	ase 1			BDV	V Trading Limited			TP39
Contract Re	f:			Date:			Ground Level (m AOD):	National Grid Co-ordinate:	Sheet:		
	254	59			31.0	8.12	14.95	E:543952.0 N:260731.0		1	of 1
Sam _l Depth	oles a	nd In-si		sults	Water	Backfill		Description of Strata		Depth (Thick ness)	Graphic
0.10-0.20	1	ES		-VL+J			clayey TOPSOIL. Sand	rop vegetation over dark brown san is predominantly fine to medium. Tra dium flint. Roots/rootlets and decon tt	aces of	- 0.25	
0.50 0.50 0.50	2	D V	C _u =	=63			and is gular to	(0.65)	× · · ×		
- 0.75		V	C _u =	=57						0.90	
1.00	3	D					Orangey-brown slightly subrounded fine to medic (RIVER TERRACE DEP) @ 1.5m Increase in fine @ 1.7m Increase in control or c	- - - - - -			
3.00	5 6	D ES	Tub+	-VL+J			@ 2.0m Increase in cl	-(2.40) - - - - - - - - -			
-										3.30	<u> </u>



GINT LIBRARY_V8_04.GLBiLog TRIAL PIT LOG - STANDARD | 25459 NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 16:40 | OP.
RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.

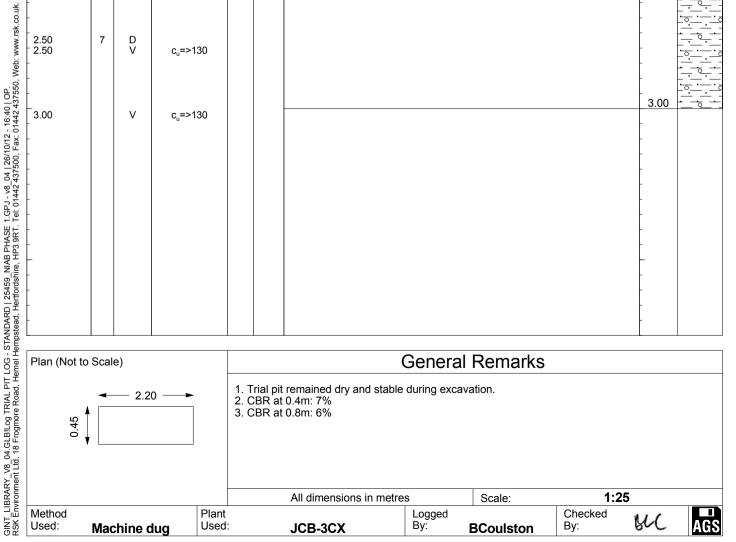


Contract:								Client:				Trial Pi	t:		
		NIAE	- Pha	se 1				ВІ	DW Tradii	ng Limited				TPC	
Contract Re	f:			Date:			Grour	nd Level (m AOD)	: National (Grid Co-ordinate	e:	Sheet:			
	254	59			30.08	3.12		18.33	E:543	3498.0 N:26	60506.0		1	of 1	
Samp	les a	and In-si	itu Tests		Water	Backfill			Description	n of Strata			Depth (Thick		
Depth	No	Туре	Resu	ults	Š	Ba			Description	ii di dilata			ness)	Legend	
- 0.05-0.15	1	ES	VLx2+	-Tub			TOP Occasuba	PSOIL: Grass over PSOIL with frequest easional fragment angular brick fragit PSOIL)	edium.	- (0.45) - 0.45	\(\frac{1}{2}\) \(\frac{1}\) \(\frac{1}{2}\) \(\frac{1}{2}\) \(\frac{1}{2}\) \(\frac{1}{2}\) \(\frac{1}{2}\) \				
0.50 - 0.50 - 0.60	3	ES V D	J c _u =1	10			Firm pred coar rootl	nnants of clay pipen brown/grey slip dominantly fine to rse flint. Occasion lets to 0.6m bgl. ULT FORMATIOI	ium to	- - - -					
1.00	4	D V	C"={	81			@ calca	rootlets to 0.6m bgl. (GAULT FORMATION) @ 0.6m Becoming pale grey. Onset of fine to medium subangular calcareous nodules.							
1.50 - - - - 2.00 - 2.00	5	V D V	C ⁿ =>,												
2.50	6	D						Stiff blue/grey slightly silty CLAY. Occasional calcareous inclusions. (GAULT FORMATION)							
3.00		V	c _u =>′	130									3.00	x - x	



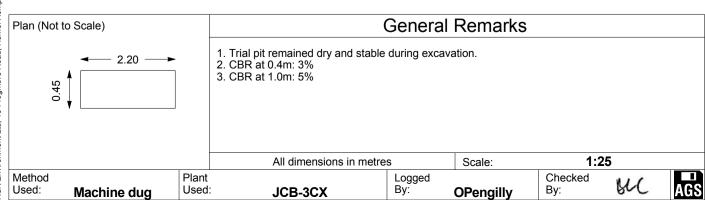


Contract:						Clier	nt:		Trial P	it:				
	NIAB - Phase 1 BDW Trading Limited ef: Date: Ground Level (m AOD): National Grid Co-ordinate: Sheet: 25459 30.08.12 19.03 E:543599.0 N:260612.0										TPD			
Contract Re	f:		Da	ate:	Sheet:									
	254	59		30	0.08.12	19	9.03	E:543599.0 N:2606	12.0	1	of 1			
Sam _l Depth	oles a	and In-si	itu Tests Result	s	Water Backfill			Description of Strata		Depth (Thick ness)				
0.10-0.20	1 2	ES D	Tub+VI+			gravelly some coarse. Go throughout matter tho	andy clayey laravel is suba t. Humic rich oughout.	rise shrub vegetation over dark TOPSOIL. Sand is predominar ngular fine to coarse flint. Fre horizon to 0.2m bgl. Decomp	atly medium to equent rootlets posing organic	(0.35)	1/2 3/			
0.50 0.50	3	ES V	Tub+VI+ c _u =55			predomina fine to	to subrounded bles of flint. bted.	(0.45)						
0.80 0.90 1.00	5	D ES V	Tub+V c _u =61			predomiar subrounde	Occasional rootlets and decomposing organic matter noted. 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)							
1.50	6	D V	c _u =93			@ 2 Om								
2.50 2.50	7	D V	c _u =>13(0			@ 2.0m Reduction in sand and gravel constituents to only rare fine subrounded flint.							
3.00		V	c _u =>13(0						3.00				





Contract:								Client:					Trial Pi	t:	
		NIAE	- Pha	ase 1						V Tradir	ng Limit	ed			TPI
Contract Re	f:			Date:			Groun	d Level (m	n AOD):	National (Grid Co-ord	linate:	Sheet:		
	254	59			28.0	8.12		18.46	3	E:543	493.0 N	l:260602.	.0	1	of 1
Sam _l Depth	oles a	1	tu Tests	sults	Water	Backfill				Description	n of Strata			Depth (Thick ness)	
0.20	1	ES	Tub+				grav Occa (MAI	elly clay. aisonal fra DE GROU	Gravel is gments of ND)	angular to f tiling and o	subround ceramics.	ver brown s led fine to c	coarse flint.	-(0.40)	
0.60	2	V ES	c _u = Tul				fine	to stiff gresand. JLT FORN		AY with oc	casional po	ockets of orar	ngey-brown	-	X X X
1.00	3	D V	c _u =	120										-	X X X
1.50	4	D V	c _u =	114										- - (2.60) - -	x x x x x x x x x x x x x x x x x x x
2.50	5	D					@	Onset of	rare med	um sized g	ravels of si	Itstone		- - - - -	X X X X X X X X X X X X X X X X X X X
														3.00	xx

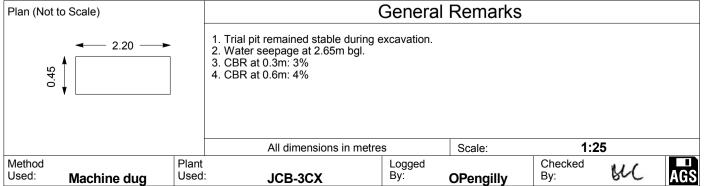


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	Client:	Trial Pit:	
ise 1	BDW Trading Limited		TPL
Date:	Ground Level (m AOD): National Grid Co-ordinate:	Sheet:	
29.08.12	18.83 E:543530.0 N:260679.0	1 (of 1
<i>1</i> 6 ≡		Depth	Material
Mate stlu	Description of Strata	(Thick ness)	Graphic Legend
VI+J	to coarse predominantly fine to medium. Gravel is predom subangular to subrounded fine to medium flint. Traces of suba	ninantly angular - (0.60) matter	
VI+J	Firm brown sandy gravelly CLAY. Sand is fine to coarse. Grands subangular to subrounded fine to coarse flint. Occasional subrocobbles of flint. (RIVER TERRACE DEPOSITS)	ravel is counded	
59			
		Sand is	
	@ 2.0m Becomes a gravelly SAND.	(1.55)	
	Pale grey mottled orangey-brown sandy slightly gravelly silty Sand is predominantly fine to medium. ((GAULT FORMATION)	- 2.85 CLAY 3.00	
	29.08.12	See 1 BDW Trading Limited	BDW Trading Limited Date: Ground Level (m AOD): National Grid Co-ordinate: Sheet: 29.08.12 18.83 Description of Strata Depth (Thick ness) Description of Strata Depth (Thick ness) Description of Strata Depth (Thick ness) Depth (Thick







Contract:							Client:	:			Trial Pi	t:	
		NIAE	3 - Ph	ase 1				BDV	V Trading Lin	nited			TPO
Contract Re	ef:			Date:			Ground Level		National Grid Co-	ordinate:	Sheet:		
	254		1	of 1									
	oles a	and In-si		sults	Water	Backfill			Description of Stra	ta		(Thick	
0.30 0.30 0.50	1 2 3	ES D		+VL+J	>	ш	MADE GRO CLAY with ceramics at deposits. Fr (MADE GRO Firm orang CLAY. Occa (GAULT FO	easional woody tts.	(0.45) - 0.45	Legend			
0.80 1.00 1.00	4 5	ES D V		+VL+J =65			(0.1021110		- - - -	x x			
1.50		V		=69				- - - - (2.55)	x x				
2.00	6	D V	c _u i	=94			@ 1.8m (- - - - -					
3.00	7	D										3.00 - - - - -	



Plan (Not to S	cale)			Genera	I Remarks			
0.45	₹ 2.20 →		1. Trial pit remained stable and dry 2. CBR at 0.55m: 4% 3. CBR at 0.8m: 4%	during exca	vation.			
			All dimensions in metre	S	Scale:	1:2	5	
Method Used:	lachine dug	Plant Used:	JCB-3CX	Logged By:	BCoulston	Checked By:	sic	AGS



Contract:			Client:		Window	San	nple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			V	VS 1
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	05.09.12		20.45	E:543436.0 N:260222.0		1	of	1

	7700			03.03.12		20.	TO		01 1
Progress		Samp	oles / 1	Tests	e	III.		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	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) 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 graphy and Sond is prodominantly fine.	0.25	X X X X X X X X X X X X X X X X X X X
	0.50	2	D				fine orangey red sand. Sand is predominantly fine.	0.70	- <u>·</u> -×
-	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.	-	xx xx
- - - - - - -	1.00-1.45 - 1.00 	1	SPT V	11 c _u =62			(GAULT FORMATION)	(1.80)	X X X
-	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	X X
	- - -						Stiff finely laminated blue/grey finely mottled with orange silty CLAY with some siltstone and occasional calcareous nodules. (GAULT FORMATION)	(0.50)	X X
	- 3.00-3.45 	3	SPT	12				-	

5	[Orilling Pro	gress and	Water Ob	servations	3		Can	امدم	الم مم معاد	
	Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth		Gene	erai	Remark	S
3	24.0		(m)	(m)	(mm)	(m)	1. Bore	hole remained dry and st	table dı	ıring excavat	ion.
2											
2											
<u>?</u>											
5							Δ	All dimensions in metres		Scale:	1:25
								di dimensions in metres		Scale.	
į	Method	Tracket	d windov	v ∣Plan	t Archw	ay Comp	etitor	Drilled	Logge	d	Checkec , , ,

GINT LIBRARY V8 04.GLB!Log WINDOW SAMPLE LOG | 25459 INAB PHASE 1.GPJ - v8 04 | 26/10/12 - 17:00 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 07442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

Method Tracked window Used: sampling

Plant Archway Competitor Used:

Ву: MOS Logged By: **OPengilly**





WINDOW SAMPLE LOG

Contract:			Client:		Window	San	nple:		
NIAB - Ph	ase 1		BDV	V Trading Limited			V	VS	2
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:				
25459	05.09.12		19.07	E:543656.0 N:260163.0		1	of	_1	l

) 4 55			05.09.12		19.	U/ E.343030.U N.200103.U	1 '	OT I
Progress		Sam	ples / 1	rests	<u>_</u>	=		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
	0.20	1	ES	Tub+VL+J			Firm brown slightly sandy slightly silty CLAY with subangular fine to coarse gravels of flint and fine to	0.20	\$\frac{1}{2} \cdot \frac{1}{2}
-	1.00-1.45	1	SPT	N=11			coarse gravels of chalk. Sand is predominantly fine. 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)	0.65	X _ X X _ X X _ X X _ X X _ X X _ X
	1.00		V	c _u =110			@ 1.3m increase in mottled red-orange sandy clays.	(1.55)	X X X X X X X X X X X X X X X X X X X
: - - - -	2.00-2.45	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	2.20	X X X X X X X X X X X X X X X X X X X
	- - - - - - - - - - - - - - - - - - -	3	ODT	N=14				3.00	x x x
	3.00	3	SPT V	c _u =120			-		
	- - - -						-	-	
	-								

5												
:	Е	Drilling Pro	gress and	Water Ob	servation	S		Con	aral	Domor	lea	
2	Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth		Gene	erai	Remar	KS	
3	Date	10	(m)	(m)	(mm)	(m)	1. Borel	nole remained dry and st	able du	uring excava	ation.	
5								,		Ü		
5												
2												
į												
5							Д	Il dimensions in metres		Scale:	1:25	
	Method	Tracke	d windov	v Plan	t Archw	ay Comp	etitor	Drilled	Logge	d	Checkec *//	

GINT_LIBRARY_V8_04.GLBit.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:00 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.

Used: sampling

Used:

By: MOS

By: OPengilly By:



Contract:			Client:		Window	San	nple:		
NIAB - Pha	ase 1		BDV	V Trading Limited			V	VS	3
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:				
25459	06.09.12		18.04	E:543352.0 N:260480.0		1	of	2	2

	0459			06.09.12		18.0)4	E:543352.0 N:	200400.0		1	of Z
Progress		Sami	oles / T	ests	. ∞	. 5					Danth	Material
Window Run	Depth	T	Туре	Results	Water	Instru- mentation		Description of S	trata		Depth (Thick ness)	
-	0.10	1	ES	Tub+VL+J	•••		clay with occorrick.	UND: Dark brown slig casional fine to medic	htly silty slightly um gravels of fli	sandy nt and	0.25	
-	0.50	2	D				subangular f	SUND) slightly sandy slig fine to coarse gravels ubangular to subrou les. Sand is predomin	of flint and occa	sional	(0.45)	x _ x _ x _ x _ x _ x _ x _ x _ x _ x _
-	1.00-1.45	1	SPT V	N=10 c _u =68			CLAY. Some rounded to s (GAULT FO	mottled with orange e fine to medium grav ubrounded chalk. RMATION) crease in gravel conte	éls of angular flí		(0.80)	X X X X X X X X X X X X X X X X X X X
-	- - -								·		1.50	X X
-	1.70		V	c _u =101			CLAY. (GAULT FO	grey mottled with pa	ale orange-yellov	w silty	-	X _ X
-	2.00-2.45	2	SPT	N=12							(1.20)	xx
-	- - -				• • • • • • • • • • • • • • • • • • •	\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	@ 2 5m C	coarse pocket of sand	v calcareous cla	ıv.	- - -	x _ x _ x _ x
-	2.70		V	c _u =82	**		Stiff fissured	d blue/grey finely mo some siltstone and	ttled with orang	e silty	2.70	<u> </u>
-	2.90 3.00-3.45	3	V SPT	c _u =111 N=16	•••		occasional b (GAULT FO	rown mottling. RMATION)			-	xx
-	- - -						@ 2.9m o	nset in stiff clays at de	eptn.		-	x _ x - x _ x - x _ x
-	-										(2.30)	xx xx xx
-	4.00-4.45	4	SPT	N=16							- -	X X X

						П
1	Drilling Pro	gress and	Water Ob	oservations	3	
Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth	
		(m)	(m)	(mm)	(m)	1. Borel
						II II BOICI
						А

GINT LIBRARY V8 04.GLB!Log WINDOW SAMPLE LOG | 25459 INAB PHASE 1.GPJ - v8 04 | 26/10/12 - 17:00 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 07442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

Method Used:

sampling

General Remarks

OPengilly

ehole remained dry and stable during excavation.

MOS

1:25 All dimensions in metres Scale: Logged By: **Tracked window Plant Archway Competitor** Drilled Checked Used: Ву: Ву:



WINDOW SAMPLE LOG

Contract:						Client:			Windov	v Samp	le:
	NIAB -	Pha	ase 1					V Trading Limited			WS3
Contract Ref:			Date:		Groun	d Level	(m AOD):	National Grid Co-ordinate:	Sheet:		
25	5459			06.09.12		18.		E:543352.0 N:260480.0		2	of 2
Progress		Sam	oles / T	ests	Te Te	fill & rru- ation		Description of Otroto		Depth	Material Graphic
Window Run	Depth	No	Туре	Results	Water	Backfill & Instru-mentation		Description of Strata		(Thick ness)	Legend
	5.00-5.45	5	SPT	N=30			Stiff fissure CLAY with occasional (GAULT FO (stratum to previous should be also marked as 4.6m gravels of follows.	Occasional rounded to subrounded n	es with	5.00	

	[Orilling Pro	gress and	Water Ob	servations	3			Con	orol	Domorko		
,	Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			Gen	erai	Remarks		
							P	All dimension	ons in metres		Scale:	1:25	
	Method Used:		d windov npling	V Plan Use	t Archw d:	ay Comp	etitor	Drilled By:	MOS	Logge By:	OPengilly	Checked By:	AGS

GINT_LIBRARY_V8_04.GLB!Log WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:00 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.



AGS

Contract:			Client:		Window	San	ıple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			V	VS4
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	05.09.12		19.45	E:543546.0 N:260409.0		1	of	2

	7700			03.03.12		13.	TO E.OTOOTO.0 11.200T03.0		
Progress		Samp	oles / T	ests	_	=		Depth	Material
Window Run	Depth		Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	0.10-0.20	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	x x x x x x x x x x x x x x x x x x x
	-							(1.10)	x x x x x x x x x x x x x x .
-	1.80		V	c _u =115			@ 1.7m mottling becomes less frequent.	1.90	x. -x
-	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)	- - -	X X
-	-						@ 2.3m rare crystals of selenite noted and continue at depth.	-	<u>x x</u>
-	-						@ 2.4m onset of coarse sand to fine gravels of hard and soft nodular calcrete.	- - -	x _ x - x _ x
-	3.00-3.45 - 3.00 - -	3 4	SPT D	N=13				(3.10)	x _ x _ x _ x _ x _ x _ x _ x _ x _ x _
- - - - - - -	- - - 4.00-4.45 - -	4	SPT	N=14			@ 3.5m reduction in mottled orange sandy clays. Fine to medium inclusions of siltstone (0.1cm to 1cm).	- - - - - -	X X X X X X X X X X X X X X X X X X X

-	-										-
Date	Drilling Pro	Borehole Depth	Water Ob Casing Depth	Servations Borehole Diameter	Water Depth			Gene	eral	Remarks	
Date	Time	(m)	(m)	(mm)	(m)	1. Bore	hole remain	ed dry and st	table du	ıring excavation.	
						ļ A	All dimension	ns in metres		Scale:	1:25
Method Used:		d windov npling	V Plan Use	t Archw ad:	ay Comp	etitor	Drilled By:	MOS	Logge By:	d OPengilly	Checked By:

GINT LIBRARY V8 04 GLB!Log WINDOW SAMPLE LOG | 25459. NIAB PHASE 1.GPJ - v8.04 | 26/10/12 - 17:00 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.



Contract:			Client:			Window	Sample:		
NIAB - F	hase 1		BD	W٦	Frading Limited			V	VS4
Contract Ref:	Date:	Ground	d Level (m AOD):	Na	ational Grid Co-ordinate:	Sheet:			
25459	05.09.12		19.45		E:543546.0 N:260409.0		2	of	2
		-							

Progress Samples / Tests Test Test	25459 05.09.12					19.	45	E:543546.	U N:260409.0			of 2	
Vindow Run Depth No Type Results ≤ m ness) Legend 4.50-5.00 5 D Firm to stiff fissured dark grey silty CLAY with frequent pockets of mottled with orange sandy clays. (GAULT FORMATION) (stratum text copied from layer at 1.90m depth from previous sheet) 5.00 5.00 5.00 Firm to stiff fissured dark grey silty CLAY with frequent pockets of mottled with orange sandy clays. (GAULT FORMATION) (stratum text copied from layer at 1.90m depth from previous sheet)						ater	ıckfill		Description	of Strata		Depth (Thick	Material Graphic
pockets of mottled with orange sandy clays. (GAULT FORMATION) (stratum text copied from layer at 1.90m depth from previous sheet) 5.00	Window Run			Туре	Results	Š	Ba					ness)	Legend
5.00-5.45 5 SPT N=19	-	- - -						pockets of (GAULT FO	pockets of mottled with orange sandy clays. (GAULT FORMATION) (stratum text copied from layer at 1.90m depth from				
		5.00-5.45	5	SPT	N=19							-	
		-										-	
		-											
		-										-	
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		-										-	

	[Orilling Pro	gress and	Water Ob	servations	6		Con	orol	Domorle	· · · · · · · · · · · · · · · · · · ·	
,	Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)		Gene	erai	Remark		
			()	()	(*****)	()						
:												
-												
;							P	All dimensions in metres		Scale:	1:25	
j	Method	Tracke	d windov	v Plan	Archw	ay Comp	etitor	Drilled	Logge	d	Checked	

GINT_LIBRARY_V8_04.GLBit.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:00 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.

sampling Used:

Used:

Ву: MOS By: OPengilly By:

AGS



Contract:			Client:		Window	San	Sample:		
NIAB - Pha	ase 1		BDV	BDW Trading Limited					
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:				
25459	05.09.12		18.42	E:543676.0 N:260287.0		1	of	1	

2:	0459			05.09.12		18.	42	E:543676.0 N:260287.0		1	of 1
Progress		Sam	ples / T	Tests	Water	Backfill		Description of Strata		Depth (Thick	Material Graphic
Window Run	Depth	No	Туре	Results	Wa	Bac	14455.05	•		ness)	Legend
-	- 0.05-0.15 - - - -	1	ES	Tub+VL+J			with some fragments (MADE GF	ROUND) rm brown slightly sandy CLAY with ne to coarse gravels of flint. Occaison	some	- 0.15	
-	1.00-1.45 - 1.00 - 1.00 - 1.00	1 2 3	SPT ES D	N=12 Tub+VL+J			occasional	slightly silty mottled with orange CLA' l inclusions of chalk. ORMATION)	Y with	0.90	X X
-	-						@ 1.6m	Onest of stiff clay.		(1.20)	X X
-	2.00-2.45	2	SPT	N=13			with some	ed silty grey slightly mottled with orange siltstone and chalk inclusions. ORMATION)	CLAY	2.10	X X
	-									3.00	X X
-	3.00-3.45	3	SPT	N=12						-	
-	- - -									-	
- - -	- - -									- - -	

	Г	Drilling Progress and Water Observations							Con	oral	Remarks		
	Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth			Gen	cıaı	Remarks		
200			(m)	(m)	(mm)	(m)	1. Bore	nole remai	ned dry and s	table dı	uring excavation.		
2													
2													
·													
5							A	II dimensio	ons in metres		Scale:	1:25	
5	Method Used:		d windov npling	V Plan Used	t Archw	ay Comp	etitor	Drilled By:	MOS	Logge By:	od OPengilly	Checkec By:	AGS

GINT_LIBRARY_V8_04.GLB!Log WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:01 | OP-RSK Environment Ltd, 18 Frogmore Road, Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437556, Web: www.rsk.co.uk.



Contract:				Client:	:		Windo			
	NIAB - Ph	ase 1			BDV			W	/ S6	
Contract Ref:		Date:	Groun	d Leve	I (m AOD):	National Grid Co-ordinate:	Sheet:			
2	5459	06.09.12		18.	14	E:543448.0 N:260554.0		1	of	1
Progress	Sam	ples / Tests	_	Τ =				Denth	Ma	ateria

Progress	Samples / Tests			Tests	Ē	■		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	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. (MADE GROUND)	0.30	
-	0.30-0.40	3	D ES	Tub+VL+J			Firm brown mottled with red/brown slightly sandy CLAY with fine gravels of subrounded chalk and subangular flint.	(0.40)	
-	1.00-1.45	1	V SPT	c _u =65 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)	0.70	X X X X X X X X X X X X X X X X X X X
-	2.00-2.45	2	SPT V	N=12 c _u =115				(2.30)	X X X X X X X X X X X X X X X X X X X
-	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	X X
-	-		OI I	14-12				- - - - -	
-	-							- - - -	

	Drilling Pro							Gen	aral	Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	<u></u>						
		, ,	. ,	, ,	. ,	1. Bore	nole remai	ned dry and si	table du	ıring excavation.		
1												
							II dina an ais			01	4.05	
								ons in metres		Scale:	1:25	
Method Used:		d windov าpling	V Plan Used	t Archwa	ay Comp	etitor	Drilled By:	MOS	Logge By:	d OPengilly	Checked By:	AGS

GINT_LIBRARY_V8_04.GLBit.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:01 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.



Contract:			Client:		Window	San	nple:		
NIAB - Pha	ase 1		BDV	V Trading Limited			V	VS:	7
Contract Ref:	Date:	Groun	nd Level (m AOD):	National Grid Co-ordinate:	Sheet:				
25459	05.09.12		18.42	E:543757.0 N:260380.0		1	of	1	

Z)4 03			05.09.12		10.	42 E.343737.0 N.200300.0	ı	OT I
Progress		Sam	ples / 1	Tests	_	æ		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	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)	70.70.7 7.77.7 7.77.7 7.7.7
- - -	0.50	2 3	ES D	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)	
-	-						Firm orangey-brown gravelly sandy CLAY. Sand is predominantly medium to coarse. Gravel is predominantly angular flint. (RIVER TERRACE DEPOSITS)	(0.45)	- · · · · ·
-	1.00-1.45	1	SPT(c)	N=13			\ @ 1m increase in sand and gravel content.	1.10	
-	1.20-1.30	4	D				Orangey-brown SAND and GRAVEL. Sand is	(0.30)	
-	-						predominantly fine, occasionally medium to coarse. Gravel is angular to subangular fine to coarse flint. ((RIVER TERRACE DEPOSITS)	1.40	<u>× - ×</u>
-	-						Stiff slightly silty slightly sandy grey mottled with yellow brown CLAY. (RIVER TERRACE DEPOSITS)	(0.60)	xx
-	_						@ 1.7 and 1.8 lense of sandy clay.	2.00	× · · ×
-	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)	(0.80)	X X X X X X X X X X X X X X X X X X X
_	_						@ 2.6 Increase in sand content.	2.80	XTT_X
- - -	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)	-	
	-							(1.20)	
-	4.00-4.45	4	SPT(c)	N=7				4.00	

	Drilling Pro	gress and	Water Ob	servations	3
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

Borehole becoming unstable below 4m bgl.
 Water seepage noted at 3m bgl.

1:25 All dimensions in metres Scale: Drilled

Tracked window Method Used: sampling

GINT_LIBRARY_V8_04.GLBit.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:01 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.

Plant Archway Competitor Used:

Ву: MOS Logged Ву: **OPengilly**

Checked Ву:





Contract:			Client:		Window	Sam	ıple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			V	VS8
Contract Ref:	Date:	Groun	nd Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	07.09.12		18.43	E:543575.0 N:260763.0		1	of	1

	7700			07.03.12		10.	TO E.OTOO1 0.0 14.2001 00.0		01 1
Progress	;	Samp	oles / T	ests	7.	a - loi tion			Material
Window Run	Depth	No	Туре	Results	Water	Backfill & Instru-mentation	Description of Strata	(Thick ness)	Graphic Legend
	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)	
	0.80	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	- 0.45	
	-							(1.45)	0 D
	-						@ 1.7m Gravel content within the matrix increases to $\ \ \ \ \ \ \ \ \ \ \ \ \ $	1.90	
-	-						Orangey-brown SAND and GRAVEL. Sand is coarse. Gravel is subangular fine flint.	(0.30)	
	- - - -						(RIVER TERRACE DEPOSITS) Stiff fissured grey occasionally mottled pale yellow brown silty CLAY with occasional selenite crystals. (GAULT FORMATION)	(0.80)	x
=	- - -							3.00	×
	-							-	
	-							_	
-	- -							_	
	-							_	
	-								

rilling Pro	gress and	Water Ob	servations	3
Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)
		Borehole Time Depth	Borehole Casing Time Depth Depth	Time Depth Depth Diameter

sampling

Used:

General Remarks

Ву:

Ву:

OPengilly

- Borehole unstable below 2.5m bgl.
 Water seepage noted at 2.1m bgl.

MOS

1:25 All dimensions in metres Scale: **Tracked window Plant Archway Competitor** Drilled Checked Method Logged

Ву:

GINT_LIBRARY_V8_04.GLBit.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:01 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.



Contract:			Client:		Window	San	ıple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			V	VS9
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	07.09.12		18.52	E:543683.0 N:260586.0		1	of	1

) 4 03			07.09.12		10.	DZ E.343003.0 N.200300.0	<u> </u>	OT I
Progress		Sam	ples / T	ests	Water	Backfill	Description of Strata	Depth (Thick	
Window Run	Depth	No	Туре	Results	Wa	Ba	·	ness)	
	0.10	1	ES	Tub+VL+J			MADE GROUND: Dark brown sandy CLAY with angu fine to medium gravels of flint and fine to medium bri tiling. (MADE GROUND)		
	-						Orangey-brown gravelly SAND. Gravel is angular fine coarse flint. Sand is predominantly fine to medium.	to	(
	0.70-1.00	2	D					(0.60)	0.0
-	1.00-1.45	1	SPT(c)	N=29			Medium dense orangey-brown slightly gravelly fine medium SAND. Gravels are subangular fine to mediu predominantly medium flints with occasional coar flints, and occasional subrounded fine chalks. (RIVER TERRACE DEPOSITS)	se (0.50)	0 e
	1.60	3	ES				Firm orangey-brown to red mottled with orangey-r gravelly very sandy CLAY. Gravels are fine to medium (RIVER TERRACE DEPOSITS)	1.50 ed . [(0.60)	
_	2.00-2.45	2	SPT(c)	N=24				2.10	- <u>•</u>
	- - -						Orangey brown to yellow medium to coarse SAN Occasional angular fine gravels of flint. (RIVER TERRACE DEPOSITS)	(0.70)	
	-						@ 2.60 to 2.80m Lense of orangey-brown and gr SAND and GRAVEL. Sand is coarse. Gravel subangular fine to medium flint.	is	
_	3.00-3.45	3	SPT	N=13			Stiff blue/grey thinly laminated mottled pale yellow si CLAY. (GAULT FORMATION)	3.00	x ×
	-							_	
	-								
	-							-	
	-							_	
	-							-	

	Drilling Pro	gress and	Water Ob	servations	3
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

1. Trial pit remained stable during excavation.

MOS

2. Water seepage noted at 2.6m.

All dimensions in metres Scale: 1:25

ked window Plant Archway Competitor Drilled Logged Checket

Method Used: Tracked window sampling

GINT_LIBRARY_V8_04.GLBit.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:01 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.

Used:

By:

Logged
By: **OPengilly**

Checked By:

AGS



Contract:			Client:		Window	San	ıple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			WS	310
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	10.09.12		17.48	E:543835.0 N:260462.0		1	of	1

25	9459			10.09.12		17.	48	E:543835.0 N:260462.0	1	of 1
Progress		Sam	ples / T	ests	Water	Backfill		Description of Strata	Depth	Materia Graphic
Window Run	Depth	No	Туре	Results	Wa	Вас			ness)	Legend
	0.20	1	ES	Tub+VL+J			medium S	Brown slightly silty slightly clayey fine t AND with occasional fine to medium gravel to subangular flint.		1/2 - 2 1/2 - 3 1/2 -
	-						orange bro to coarse decompos	brown to orange occaisonally mottled wit own sandy CLAY with gravels of angular fin e flint and with occasional pockets of ing organic matter noted between 0.7m an entially reworked).	e [of (0.55)	
	0.80	2	ES	J					0.95	
-	1.00-1.45	1 3	SPT(c)	N=12				rown fine to medium SAND. ERRACE DEPOSITS)	1.10	
	1.00 - -	3	D					brown to orangey mottled with orangey-brow AY with fine to medium gravels of angular t	o [(0.30)	
	-						$\sqrt{(RIVER\;TE)}$	ERRACE DEPOSITS)	1.40	
	-						Gravel is s	prown SAND and GRAVEL. Sand is coarse subangular fine flint. ERRACE DEPOSITS)	1.70	
	-						Dense Lig	ht brown fine SAND with occasional angula	ır _	
-	2.00-2.45 - -	2	SPT(c)	N=31					(0.80)	
	-								2.50	
	-						fine to c	ingey-brown SAND and GRAVEL. Sands ar oarse predominantly coarse. Gravels ar e to medium flint. ERRACE DEPOSITS)		
-	3.00-3.45	3	SPT(c)	N=31					3.00	
	-		0(0)							
	-								-	
	-									
	-								-	
	-								-	
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-	_								H	
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	-								-	

I	Orilling Pro	gress and	Water Ob	servations	3
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

sampling

Used:

General Remarks

Ву:

Ву:

OPengilly

Borehole unstable below 2.8m bgl.
 Water seepage njoted at approximately 2.2m bgl.

MOS

1:25 All dimensions in metres Scale: **Tracked window Plant Archway Competitor** Drilled Checked Method Logged

Ву:

GINT_LIBRARY_V8_04.GLBit.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:01 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.



Checked

OPengilly

AGS

Contract:			Client:	Client:				
NIAB - Ph	ase 1		BDV	V Trading Limited			W	S1 1
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	07.09.12		16.83	E:543741.0 N:260740.0		1	of	1

Zi	25459 07.09.12					10.	03 E.343741.0 N.200740.0	ı	OT I
Progress	_			mples / Tests				Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	-						TOPSOIL: Dark brown slightly silty clayey SAND with gravels of angular fine to medium occasionally coarse flints and chert. (TOPSOIL)	(0.50)	1/2 3 1/2 3 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2
-	0.40	1	ES	Tub+VL+J			@ 0.3m increase in clay content	0.50	11: 11: 11: 1
- - -	-						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)	
-	0.90-1.00 1.00-1.45	2	D SPT(c)	N=9				-	
- -	- 1.00-1.45	'	SPT(C)	N=9				1.30	
- -	-						Firm pale grey mottled with pale orangey-brown and red-brown silty CLAY with occasional inclusions of fine calcareous nodules. (GAULT FORMATION)	_	X X
- - -	1.70-2.00	3	D					(1.10)	x x
- - -	2.00-2.45	2	SPT	N=15			@ 1.9m onset of stiff clay.	_	
• -	-						Stiff fissured dark blue/grey CLAY. (GAULT FORMATION)	2.40	<u>× ×</u>
-	-							(0.60)	
-	3.00-3.45	3	SPT	N=12				3.00	
-									
-									
-	_								
-	-							-	
- -	-							- -	
- -	-							-	
-	- -							-	

2							П					
2	[Orilling Pro	ogress and	Water Ob	servations	3			Con	orol	Domorko	
	Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth			Gen	erai	Remarks	
			(m)	(m)	(mm)	(m)	1. Bore	hole remai	ned dry and s	table th	roughout excava	ition.
2												
2												
<u>.</u>												
2												
5							A	II dimensio	ons in metres		Scale:	1:25
	Method Used:		d windov	N Plan Use		ay Comp	etitor	Drilled By:	MOS	Logge By:	OPengilly	Check By:

GINT_LIBRARY_V8_04.GLBit.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:01 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.

sampling



Contract:			Client:	Window	nple:			
NIAB - Ph	ase 1		BDV	V Trading Limited			W	S12
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	10.09.12		16.12	E:543933.0 N:260602.0		1	of	1

25459 10.09.12						16.	12	E:543933.0 N:260602.0	1	of 1
Progress		Sam	ples / 1	ests		=		Depth	Material	
Window Run	Depth	No	Туре	Results	Water	Backfill		Description of Strata	(Thick ness)	Graphic
-	0.20-0.30	1	ES	Tub+VL+J			medium decompos (MADE GF		sized (0.30) 0.30	
- -	-						to medium	brown to orange sandy CLAY with some angular gravels of flint.	fine	
-	-						Firm grey	silty		
- - -	0.80	2	D				CLAY with and angula (GAULT F	(0.65)	<u>x _ x</u>	
- -	1.00-1.45	1	SPT	N=12					1.20	XX
- - -	-						CLAY with gravels of	red grey mottled with pale orange-yellow n frequent calcareous nodules, angular f chalk clasts and occasional gravels r to subrounded fine to medium flints.	fine	× × ×
- - -	- -						(GAULT F	ORMATION)	(0.80)	× × ×
- 	-								2.00	x - x
- - -	2.00-2.45	2	SPT	N=16			Stiff fissure (GAULT F	ed grey silty CLAY. ORMATION)		X X X
-	2.50	3	D						(1.00)	xx
- - -	-								200	x _ x
- -	3.00-3.45	3	SPT	N=15					3.00	
-	-								-	
- - -	-									
-	- -									
-	_									
- -	-									

	Drilling Pro	ogress and	Water Ob	servations		General Remarks						
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)							
				,	,	1. Bore	hole remai	ned dry and s	table th	roughout excava	tion.	
)												
						<i>A</i>	II dimensi	ons in metres		Scale:	1:25	
Method Used:		d windov npling	V Plan Used	t Archw	ay Comp	etitor	Drilled By:	MOS	Logge By:	d OPengilly	Checked By:	AGS

GINT_LIBRARY_V8_04.GLB!Log WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:01 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.



Contract:			Client:	Window	iple:			
NIAB - Pha	ase 1		BDV	V Trading Limited			W	S13
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	07.09.12		15.32	E:543830.0 N:260816.0		1	of	1

	25455			07.09.12			E.343030.0 N.2000 10.0		I	OT I
Progress		Sam	amples / Tests			=			Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata		(Thick ness)	Graphic
-	-						MADE GROUND: Dark brown slightly silty clay with subangular to subrounded fine to medium of flint and occasional brick.	ey sand gravels	(0.30)	
- - - -	0.30	1	ES	Tub+VL+J			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)			X X X
- - -	1.00-1.45 1.00	1 2	SPT D	N=4					- (1.25) - -	X X X X X X X X X X X X X X X X X X X
- - -	-						@ 1.40 to 1.55m Lense of orangey brown f	ine sand,	1.55	x · · x · · x · · · x · · · x
- - -	-						with angular coarse gravel of fint. Firm light grey mottled orangey-brown sandy C subrounded fine to medium gravels of chalk. (RIVER TERRACE DEPOSITS)	_AY with	1.80	
-	2.00-2.45	2	SPT	N=4			Orangey-brown fine SAND. (RIVER TERRACE DEPOSITS)		2.10	
- - - -	-						Orangey-brown clayey fine SAND with or coarse sand. (RIVER TERRACE DEPOSITS)	casional	-	
- - - - - - -	3.00-3.45	3	SPT(c)	N=36			@ 2.8m onset of predominantly coarse s pockets of clayey fine sand.	and with	(1.60)	
- - - - -	4.00-4.45	4	SPT(c)) N=18			Orangey-brown and coarse SAND and GRAVE is fine to medium. Gravel is angular fine to med subrounded chalk and flint clasts. (RIVER TERRACE DEPOSITS)		3.70 (0.30) 4.00	0.00
-	-								-	

			·			
[Orilling Pro	gress and	d Water Ob	servations	3	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	-

sampling

Used:

General Remarks

Ву:

OPengilly

- 1. Borehole terminated at 4m bgl due to collapsing gravels
- Water seepage at approximately 2.6m bgl.
 Water level noted at 2.5m bgl prior to backfilling.

MOS

1:25 All dimensions in metres Scale: Plant Archway Competitor **Tracked window** Drilled Checked Logged

GINT_LIBRARY_V8_04.GLBit.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:01 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.



Contract:			Client:	Client:				
NIAB - Pha	ase 1		BDV	V Trading Limited			W	S14
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	07.09.12		14.29	E:543929.0 N:260803.0		1	of	1

2	20403 07.03.12						23		01 1
Progress	Progress Samples / Tests			Tests		_		Donth	Material
Window Run	Depth	No			Water	Backfill	Description of Strata	(Thick ness)	
-	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.	0.55	× · · × · · · · · · · · · · · · · · · ·
	-						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)	-	x x x
-	1.00-1.45	1	SPT	N=14			@ 0.9m Increase in gravel content to 15% of matrix consiting of predominantly fine to medium flint.	- - (1.35)	x
- - -	-						@ 1.5m Subrounded cobble of flint gravel.	-	× _ × × _ × × _ × _ ·
- - -	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.	1.90	×
-	-						Gravels are subangular to rounded fine to coarse flint. (RIVER TERRACE DEPOSITS)	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)	xx
- - -	3.00-3.45	3	SPT	N=47			@ 2.8m onset of sand clay with angular fine to coarse gravels of flint.	3.00	x -x
-	- -							- -	
	-							-	
-	-							- -	
-	-							-	
†	†							-	

]	Drilling Pro	gress and Borehole	Water Ob	servations Borehole	S Water		Gen	eral	Remarks		
Date	Time	Depth (m)	Depth (m)	Diameter (mm)	Depth (m)		ned stable du page noted at				
Method Used:		d windov	V Plan	t Archw ad:	ay Comp	II dimension Drilled By:	ons in metres	Logge By:	Scale: d OPengilly	1:25 Checked By:	AGS

GINT_LIBRARY_V8_04.GLB!Log WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:02 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.



Contract:			Client:		Window	San	nple:	
NIAB - Ph	ase 1		BDV	V Trading Limited			W	S15
Contract Ref:	Date:	Grour	nd Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	10.09.12		13.50	E:544079.0 N:260737.0		1	of	2

20403 10.03.12				10.	DO E.OTTO/ 3.0 14.200/ 5/1.0	•	01 2		
Progress		Sami	oles / T	Tests		_		Donth	Material
Window Run	Depth		Туре		Water	Backfill	Description of Strata	(Thick ness)	
-	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	1/ · 2 · 1/ · 2 · 1/ · 2 · 1/ · 2 · 2 · 1/ · 2 · 2 · 1/ · 2 · 2 · 1/ · 2 · 2 · 2 · 2 · 2 · 2 · 2 · 2 · 2 ·
	- - -						Loose orangey-brown slightly clayey fine to medium predominantly fine SAND with occasional fine gravels of subangular flint. ((RIVER TERRACE DEPOSITS) Firm grey mottled orangey-brown sandy CLAY with	0.60	
	1.00-1.45	1	SPT	N=17			subrounded fine gravels of chalk and with coarse pockets of fine SAND. (RIVER TERRACE DEPOSITS)	1.20	
-	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)	(0.70)	X X
- - - - - -	- - - 2.00-2.45 - -	2	SPT(c)) N=15			Orangey-brown gravelly fine to coarse SAND. Gravels are angular fine to coarse flint. (RIVER TERRACE DEPOSITS) Fining upwards. Firm grey slightly sandy silty CLAY. (RIVER TERRACE DEPOSITS)	1.90 (0.40) 2.30 (0.30)	. 0
-	3.00-3.45	3	SPT	N=17			Orangey-brown fine SAND with occasional angular gravels of coarse flint. (RIVER TERRACE DEPOSITS) Firm grey/blue very silty CLAY. (GAULT FORMATION) Coarsening upwards @ 3.0m increase in fine sand content. @ 3.5m strata description discontinued.	2.60 (0.30) 2.90 (0.60)	X
-	4.00-4.45	4	SPT	N=6				- - - -	

Drilling Progress and Water Observations Borehole Depth (m) Casing Depth (m) Borehole Diameter Water Depth (m) Date Time (mm)

Used:

Plant Archway Competitor

Tracked window

sampling

General Remarks

- Borehole unstable below 2.6m bgl, collapse reported at 3.5m bgl.
 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.

Α	II dimension	s in metres		Scale:	1:25
•	Drilled Bv:	MOS	Logged By:	OPengilly	Checked By:

GINT LIBRARY V8 04.GLBILog WINDOW SAMPLE LOG | 25459 NIAB PHASE 1.GPJ - v8 04 | 26/10/12 - 17:02 | 0P. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.



GINT_LIBRARY_V8_04.GLB!Log WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:02 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

DRAFT WINDOW SAMPLE LOG

Contract:						(Client:			Windo	w Samp	ole:
	NIAB -	Pha	ase 1					BDV	V Trading Limited		,	WS15
Contract Ref:	Contract Ref: Date: Great						Level	(m AOD):	National Grid Co-ordinate:	Sheet:		
25	25459 10.09.12						13.	50	E:544079.0 N:260737.0		2	of 2
Progress		Sam	ples / T	ests		ē	୍ଲା Description of Strata				Depth	Material
Window Run	Window Run Depth No Type Results			Water	Back		Description of Strata		(Thick ness)	Graphic Legend		
	_										_	

Progress		Samp	oles / T	ests	er	III.		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	Depth (Thick ness)	Material Graphic Legend
-	-							-	
-	-							-	
_	-								
_	_ 5.00-5.45	5	SPT	N=8				_	
-	5.00-5.45	5	SFI	IN-O				-	
-	-								
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	С	Drilling Pro	gress and	Water Ob	oservations	3			Con	orol	Remarks		
Da	ate	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			Gen	erai	Remarks		
:													
												4.05	
								All dimension	ons in metres		Scale:	1:25	
Met Use			d windov apling	N Plan Use	t Archw d:	ay Comp	etitor	Drilled By:	MOS	Logge By:	d OPengilly	Checked By:	AGS



Contract:			Client:		Window	San	nple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			WS	S16
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	07.09.12		14.99	E:543791.0 N:260905.0		1	of	1

	7700			07.03.12		17.	55 E.OTO / S 1.0 14.200500.0	•	01 1
Progress		Sami	oles / T	ests		_		Depth	Material
Window Run	Depth		Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	0.10-0.20	1	ES	Tub+VL+J			TOPSOIL: Sandy loam occasional fine to medium gravels of flint and chalk. (TOPSOIL)	(0.40)	70.70 7.34.37 34.37
-	-						\ @ 0.3m increase in clay content at base of stratum /	0.40	/ ₂ / ₂ / ₂
-	0.50-0.60	2	D				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).	(0.50)	
- - -	1.00-1.45	1	SPT	N=12			(RIVER TERRACE DEPOSITS) Orangey-brown fine to coarse predominantly fine to medium SAND with occasional pockets of grey sandy clay. (RIVER TERRACE DEPOSITS)	0.90	
-	-							(0.90)	
	-						@ 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,	1.80	· · · · · · · · · · · · · · · · · · ·
-	2.00-2.45	2	SPT(c)	N=28			predominantly fine flint. Occasional subrounded coarse gravels of flint. \((RIVER TERRACE DEPOSITS)\)	2.20	0.0
-	-						Orangey-brown SAND and GRAVEL. Sand is coarse. Gravel is subangular to subrounded fine flint. (RIVER TERRACE DEPOSITS)	(0.00)	
-	-							(0.80)	
_	-							3.00	
-	3.00-3.45 3.00 - 3.00	3 4	SPT(c) ES D	N=28 Tub+VL+J				-	
-	- 0.00	-						-	
-	-							-	
_	_							-	
-	_							-	
_	<u>-</u>							-	
-	<u>-</u>							-	
								-	
								[

	Γ	Orilling Pro	gress and						Can	oral	Remarks		
	Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth			Gen	Ciai	INCIIIAINS		
,			(m)	(m)	(mm)	(m)			ble below 2.4 noted at 2.4r		g drilling.		
							P	II dimensi	ons in metres		Scale:	1:25	
	Method Used:		d windov npling	V Plan Used	t Archw a	ay Comp	etitor	Drilled By:	MOS	Logge By:	OPengilly	Checked By:	AGS

GINT_LIBRARY_V8_04.GLB!Log WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:02 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

Used:



Contract:			Client:		Window	San	nple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			W	S17
Contract Ref:	Date:	Groun	nd Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	10.09.12		13.81	E:543998.0 N:260818.0		1	of	1

Zi)4 09			10.09.12		13.0	61 E.343990.0 N.2000 10.0	ı	OT I
Progress		Sam	ples / 1	Tests	_	∞ - n		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill & Instru-mentation	Description of Strata	(Thick ness)	Graphic
-	- 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.	0.30)	17 · 2 · 19 · 2 · 19 · 2 · 19 · 2 · 19 · 2 · 19 · 2 · 19 · 2 · 19 · 2 · 2 · 2 · 2 · 2 · 2 · 2 · 2 · 2 ·
- - -	-						(TOPSOIL) Orangey-brown clayey fine SAND with some fine to coarse gravels of angular flint. (RIVER TERRACE DEPOSITS)	(0.30)	
- - - -	1.00-1.45	1	SPT	N=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	X X X X X X X X X X X X X X X X X X X
- - -	1.00-1.45	1 2	D	N-30			@ 1.10m to 1.20m Lense of orangey-brown fine SAND.	1.20	× · · × · · ×
- - - -	- - -						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)	(0.90)	X X X X X X X X X X X X X X X X X X X
- -	2.00-2.45	2	SPT	N=26			Stiff fissured light grey silty CLAY.	2.10	X X
- - - -	-						(GAULT FORMATION)	(0.90)	X X X
- - -	3.00-3.45	3	SPT	N=42		******		3.00	X
- - -	-							-	
- - -	-							-	
- - -	-							- -	
- - -	-							- -	
-	-							_	

[Orilling Pro	gress and	Water Ob	servations	3
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

Borehole remained stable during excavation.
 Water depth at 2.16m bgl.

MOS

1:25 All dimensions in metres Scale:

Tracked window Method Used: sampling

GINT_LIBRARY_V8_04.GLBIL.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:02 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.

Plant Archway Competitor Used:

Drilled Ву:

Logged Ву: **OPengilly**

Checked Ву:



Contract:			Client:		Window	San	nple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			W	S 18
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	12.09.12		13.16	E:544122.0 N:260872.0		1	of	1

	7700			12.03.12		10.	10 L.OTT 122.0 11.200012.0		01
Progress		Samp	oles / T	ests	<u>.</u>	≡		Depth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	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	\(\frac{1}{2}\), \(\frac{1}\), \(\frac{1}\), \(\frac{1}{2}\), \(\frac{1}{2
-	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)	- - -	
-	2.00-2.45	2	SPT(c)	N=18			@ 1.8m Increase in medium to coarse flint. Onset of subrounded cobbles of flint.	(1.05)	<i></i>
-	-							2.50	
	-						Firm pale grey slightly sandy silty CLAY with traces of subangular fine calcareous nodules. (GAULT FORMATION)	-	x x x x
-	2.80-3.00	5	D					-	X X
-	3.00-3.45	3	SPT	N=10				-	
-	-							(1.95)	x x
- -	_							- - -	× · · ×
-	4.00-4.45	4	SPT	N=9				- -	xx
-	-							4.45	× ×

04 26/10/12 - 17:02 OP. 442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.	
AMPLE LOG 25459_NIAB PHASE 1.GPJ - v8_inel Hempstead, Hertfordshire, HP3 9RT. Tel: 01	- - - - -
GINT_LIBRARY_V8_04.GLB!Log WINDOW SA RSK Environment Ltd, 18 Frogmore Road, Hem	Me: Use

ı	Drilling Progress and Water Observations											
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)							

General Remarks

- 1. Sample becoming saturated below 1.6m depth.
- 2. Hole beginning to collapse after 3.0m run.

All dimensions in metres Scale: 1:25

Method Tracked window Jsed: Plant Archway Competitor Used: Drilled By: MOS Logged By: BCoulston Checked By: BY: BCoulston





Contract:			Client:		Window	San	nple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			W	S19
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	10.09.12		13.59	E:543901.0 N:260978.0		1	of	1

	7700			10.03.12		10.	03 E.070301.0 N.200310.0		01 1
Progress		Sam	oles / T	Tests	fer	Backfill	Description of Oberts	Depth	Material
Window Run	Depth	No	Туре	Results	Water	Вас	Description of Strata	(Thick ness)	Legend
-	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	17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17.34.17
-	- - -						Medium dense orangey-brown clayey fine SAND with some angular fine to coarse gravels of flint. (RIVER TERRACE DEPOSITS)	- -	
-	-		OPT	N. 40			@ 0.5m Clay content decreases, onset of fine SAND.	(0.90)	
_	1.00-1.45	1	SPT	N=12				1.20	
-	- -						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.	(0.60)	
-	-						(RÎVER TERRACE DEPOSITS) @ 1.6m Increase in medium to coarse gravel content for predominantly flint.	1.80	
-	2.00-2.45	2	SPT(c)	N=32			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)	2.00	
-	- - -						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)	(1.00)	
_	-								
_	-		ODT()	N. 50				3.00	
-	3.00-3.45	3	SPT(c)	N=53				-	
-	- -							-	
-	- -							-	
-	- -							-	
-	 - -							-	
_	- -							-	
_	- -							-	

[Orilling Pro	gress and	Water Ob	servations	3	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1 Darahala ramaina
						Borehole remained Water seepage not Water level at 2.16
						All dimensions

Used:

sampling

General Remarks

Ву:

ed stable during excavation.

MOS

- oted after 2.0m bgl during drilling.
- 16 on completion.

1:25 All dimensions in metres Scale: Plant Archway Competitor **Tracked window** Drilled Checked Method Logged

Ву:

GINT LIBRARY V8 04.GLB!Log WINDOW SAMPLE LOG | 25459 INAB PHASE 1.GPJ - v8 04 | 26/10/12 - 17:02 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 07442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

Used:



Ву:

OPengilly



Contract:			Client:		Window	San	nple:	
NIAB - Ph	ase 1		BDV	V Trading Limited			W	S20
Contract Ref:	Date:	Grour	nd Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	11.09.12		12.80	E:544098.0 N:260973.0		1	of	1

	7700			11.03.12		14.	L:044030:0 14:20037 5:0	•	01 1
Progress	,	Sam	oles / T	Tests	_	=		Denth	Material
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	
-	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	1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2
_	0.50-0.70	3	D				@ 0.35m Becomes light brown with a reduction in	-	<u> </u>
-	0.60-0.70	2	ES	Tub+VL+J			sand conent.	(0.45)	
-	- - 1.00-1.45 1.00-1.20	1 4	SPT(c) D	N=17			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)	- 0.95 - - (0.40)	
	_						@ 0.85m Increase in sand and gravel content.	4.05	9.00
	1.50-1.70	5	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)	(0.45)	
	- - -						Firm light brown/orangey-brown gravelly sandy CLAY. Sand is fine to coarse. Gravel is subangular to subrounded fine to medium flin. (RIVER TERRACE DEPOSITS)	1.80	
-		2 6	SPT(c) D	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)	-	θ- Δ. - Θ Θ.
_	2.50	7	ES	Tub+VL+J					
-	- -						@ 2.65 to 2.85m Horizon of sandy gravelly clay.	(2.10)	
-	3.00-3.45 - - -	3	SPT(c)	(N=15			@ 3.0m Reduction in clay content to a gravelly SAND.	- - -	
-	-						Firm pale grey slightly sandy silty CLAY. Sand is fine.	3.90	
	- 4.00-4.45 -	4	SPT	N=11			(GAULT FORMATION)	(0.55)	XX
-	-							4.45	× ×

Method	Tracked	d windo	w Plan	t Archw	ay Co
Date	Time	Depth (m)	Depth (m)	Diameter (mm)	Depth (m)
		Borehole	Casing	bservations	Wate
	_				

sampling

Used:

General Remarks

- 1. Sample becoming saturated below 1.6m bgl.
- 2. Hole unstable and colapsing below 3.0m bgl.
- 3. Water level at 2.35m bgl on completion.

1:25 All dimensions in metres Scale: **Plant Archway Competitor** Drilled Checked Logged Ву: By: By: MOS **BCoulston**

GINT_LIBRARY_V8_04.GLBIL.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:02 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.



Contract:			Client:		Window	San	nple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			W	S21
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	12.09.12		12.36	E:543981.0 N:261141.0		1	of	1

				.2.001.2				-	o. .
Progress		Sam	ples / 7	Tests	ī	≣		Depth	
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	- 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	1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2 1/2
-	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)	
_			ODT	N-40			Eight (1) Clay	1.00	
-	1.20-1.40	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	
-	-						Medium dense light brown/orangey-brown slightly clayey gravelly SAND. (RIVER TERRACE DEPOSITS)	-	
-	2.00-2.45	2	SPT(c)	N=17				2.50	<i>b</i>
-	2.50-3.00	6	D				Firm pale grey slightly sandy silty CLAY with traces of subangular fine white flint. Sand is fine. (GAULT FORMATION)	-	X X X X X X X X X X X X X X X X X X X
-	3.00-3.45	3	SPT	N=10				(0.95)	x _ x x _ x x _ x
-	-							-	x x
-	-							_	
-	-							- -	
-	-							-	
								-	

[Orilling Pro	gress and	Water Ob	servations	3	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	
						2.

sampling

Used:

General Remarks

By:

Ву:

BCoulston

- 1. Sample becoming saturated below 2.2m depth.
- 2. Borehole remained stable during excavation.

MOS

 Method
 Tracked window
 Plant Archway Competitor
 Drilled
 Logged
 Checked

Ву:

GINT_LIBRARY_V8_04.GLBIL.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:02 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Hertfordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.



AGS

Contract:			Client:		Window Sample:				
NIAB - Ph	ase 1		BDV			W	S22		
Contract Ref:	Date:	Grour	nd Level (m AOD):	National Grid Co-ordinate:	Sheet:				
25459	12.09.12		12.47	E:544165.0 N:261044.0		1	of	1	

20403 12.03.12				14.	±1		01 1		
Progress	gress Samples / Tests			_	=		Denth	Material	
Window Run	Depth	No	Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic
-	0.20-0.30	1 2	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.	0.40	
-	0.70-1.00	3	D				(MADE GROUND) MADE GROUND: Firm light brown slightly gravelly	0.65	
-	1.00-1.45		SPT(c)	N=14			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)	-	
-	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)	
-	3.00-3.45	3	SPT(c)	N=36			@ 2.2m Reduction in gravel content	- 3.45	
-	- - - - - - - -							-	

2	[Orilling Pro	gress and	Water Ol	oservations	3	General Remarks					
2	Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth			Gene	erai	Remarks	
וופות בומ, וס ריספיוסים ייספי			(m)	(m)	(mm)	(m)	2. Casii 3. Term	ng could no nionated at	ng saturated to the driven be 3.45 due to do .2m on compl	elow 1.5 ensity.		
5							P	All dimensio	ns in metres		Scale:	1:25
	Method Used:		d windov npling	V Plan Use	t Archw d:	ay Comp	etitor	Drilled By:	MOS	Logge By:	BCoulston	Checked By:

GINT_LIBRARY_V8_04.GLBIL.og WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:03 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.



Contract:			Client:		Window	San	nple:	
NIAB - Pha	ase 1		BDV			WS	S23	
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	12.09.12		12.03	E:544117.0 N:261186.0		1	of	1

2)4 03			12.09.12		14.	U3 E.344117.U N.201100.U	I	OT I
Progress			rests	ter	Backfill	Description of Charte	Depth		
Window Run	Depth	No	Туре	Results	Water	Вас	Description of Strata	(Thick ness)	Legend
- - -	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 -	1/ · ½ · ½ · ½ · ½ · ½ · ½ · ½ · ½ · ½ ·
- - -	0.50-0.60	2 3	ES D	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) - -	
-	1.00-1.45	1	SPT	N=20			@ 0.65m Becomes mottled with pale grey @ 0.9m Increase in gravel content of predominantly _	- - 1.10	<u> </u>
- 	-						medium to coarse flint.	-	.o
-	1.40-1.70	4	D				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)	- - -	
- - -	_						@ 1.3m to 1.5m Occasional medium to coarse gravel sized inclusions of pale grey sandy clay.	-	######################################
	2.00-2.45	2	SPT(c)	N=15				(1.75) -	
-	2.20-2.50	5	D				@ 2.2m Becoming SAND and GRAVEL.	- - - -	0
-	-							2.85	<u>- ∅</u> <u>- ⊘</u>
- -	- 2.85-3.00 - 3.00-3.45	6	D SPT	N=17			Stiff pale grey very sandy silty CLAY. Sand is fine. (GAULT FORMATION)	- -(0.35)	× × ×
-								3.20	<u> </u>
- - - -	-						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).	- - (0.80) -	
- - -	4.00-4.45	4	SPT(c)	N=19				4.00	
-	-							-	

[Orilling Pro	ogress and Water Observations									
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	L					
		()	()	,		2					
						3					

General Remarks

Sample becoming saturated below 1.5m depth.
 Water level at 2.55m on completion.
 Terminated at 4m due to instability and backfill - backfill at terminal depth

1:25 All dimensions in metres Scale: Drilled Logged MOS

Tracked window Method Used: sampling

GINT LIBRARY V8 04.GLB!Log WINDOW SAMPLE LOG | 25459 INAB PHASE 1.GPJ - v8 04 | 26/10/12 - 17:03 | OP-RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 07442 437500, Fax: 01442 437550, Web: www.rsk.co.uk.

Plant Archway Competitor Used:

Ву:

BCoulston

Checked Ву:





			Client:	Window	San	nple:		
NIAB - Pha	ase 1		BDV	V Trading Limited			W	S24
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	10.09.12		15.63	E:543884.0 N:260684.0		1	of	1

20403 10.03.12				10.	C. C		01 1		
Progress	gress Samples / Tests		5 €			Denth	Material		
Window Run	Depth		Туре	Results	Water	Backfill	Description of Strata	(Thick ness)	Graphic Legend
-	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	
-	0.40-0.50	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)	
-	0.80 0.90 1.00-1.45	3	D V SPT	c _u =70 N=12			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. (RIVER TERRACE DEPOSITS)	(0.65)	x x
-	-						Firm fissured grey mottled with pale orange-yellow silty CLAY. (RIVER TERRACE DEPOSITS) @ 1.4m Onset of firm to stiff clays.	1.30	x
-	1.70 2.00-2.45 	2	V SPT	c _u =85 N=15			@ 1.9 to 2.0 Lense of medium SAND and medium to coarse GRAVELS within a clay matrix.	- - (1.40) - -	X X X
-	- - - - - - - - - - - - - - - - - - -	3	SPT	N=15			Stiff pale grey silty CLAY. (GAULT FORMATION)	2.70	X X X X X X X X X X X X X X X X X X X
-		3	SFI	14-15				- - - -	
-	- - - -							-	

,												
	[Drilling Pro	gress and	Water Ob	servations	S		Con	aral	Domor	l.o	
	Date	Time	Borehole Depth	Casing Depth	Borehole Diameter	Water Depth		Gene	erai	Remar	KS	
			(m)	(m)	(mm)	(m)	1. Bore	hole remained dry and st	able dı	uring excava	ation.	
							A	All dimensions in metres		Scale:	1:25	
i	Method	Tracke	d windov	N Plan	t Archw	ay Comp	etitor	Drilled	Logge	ed	Checked	

GINT LIBRARY_V8_04.GLBILog WINDOW SAMPLE LOG | 25459_NIAB PHASE 1.GPJ - v8_04 | 26/10/12 - 17:03 | OP. RSK Environment Ltd, 18 Frogmore Road, Hemel Hempstead, Herifordshire, HP3 9RT. Tel: 01442 437500, Fax: 01442 437550, Web: www.rsk.co.ulk.

Method Used: Tracked window Sampling Plant Used:

Plant **Archway Competitor** Jsed: Drilled By:

MOS

Logged By: **OPengilly**

Checked By: AGS



Contract:			Client:		Window	San	nple:	
NIAB - Pha	ase 1		BDV	V Trading Limited			W	/SB
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:			
25459	06.09.12		19.02	E:543603.0 N:260547.0		1	of	1

Z	25459			06.09.12		19.	02 E.343603.0 N.260347.0		ot I
Progress		Sam	oles / T	ests	Water	Backfill	Description of Strata		Material Graphic
Window Run	Depth	No	Туре	Results	Wa	Ba		(Thick ness)	Legend
-	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)	
-	0.50	2	ES	J			Brown slightly silty sandy CLAY with frequent angular to subangular gravels of flint. (RIVER TERRACE DEPOSITS)	0.40	xx
-	0.90-1.00	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)	0.80	
-	2.00-2.45	2	SPT(c)	N=8				- (2.30) - - - -	6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
-	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	3.10	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
-	4.00-4.45	4	SPT	N=11			gravels of flint and chalk. (RIVER TERRACE DEPOSITS) 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)	3.60	X X X X X X X X X X X X X X X X X X X

Method	Tracke	d windo	v Pla	int Archw	ay Com	petitor
						3. Wat
						back 2. Refu
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Drilli
[Orilling Pro	ogress and	Water C	Observation	s	
			'	•		
-	-					

sampling

Used:

General Remarks

- 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

| Drilled | Logged By: | OPengilly | By: | OPengilly | By: | OPengilly | OPe





Contract:			Client:		Window Sample			e:		
NIAB - Pha	ase 1		BDV	BDW Trading Limited						
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:					
25459	06.09.12		18.16	E:543469.0 N:260550.0		1	of	2		

۷,)40 9			06.09.12		10.	16 E.343469.0 N.260330.0	<u> </u>	or Z
Progress		Sam	oles / ٦	ests	Water	Backfill	Description of Strata	Depth (Thick	
Window Run	Depth	No	Туре	Results	W	Ba	·	ness)	
-	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.	0.70	
-	1.00-1.45 - 1.00 - 1.00	1 3	SPT D V	N=14 c _u =49			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)	-	x x
-	-						@ 1.3m Onset of firm clays becoming fissured. Streaky calcareous inclusions and putty chalk noted throughout strata.	(1.70)	
-	2.00-2.45 2.00	2	SPT V	N=12 c _u =115				2.40	x x x x x x
-	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)	- - - - - - -	X X X X X X X X X X X X X X X X X X X
-	- - - 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)	X X X X X X X X X X X X X X X X X X X

	Drilling Pro	gress and	Water Ob	servations	3			Con	orol	Domorko		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	1. Bore	hole remai			Remarks uring excavation.		
						A	II dimensi	ons in metres		Scale:	1:25	
Method Used:		d windov npling	V Plan	t Archw	ay Comp	etitor	Drilled By:	MOS	Logge By:	oPengilly	Checked By:	AGS

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Contract:							Client:			Windov	v Samp	le:
	NIAB -	Pha	ase 1						V Trading Limited			WSE
Contract Ref:			Date:		Gr	ound	Level	(m AOD):	National Grid Co-ordinate:	Sheet:		
25	5459			06.09.12			18.	16	E:543469.0 N:260550.0		2	of 2
Progress		Sam	ples / T	ests		er	III				Depth	Material
Window Run	Depth	No	Туре	Results		Water	Backfill		Description of Strata		(Thick ness)	Graphic Legend
	5.00-5.45	5	SPT	N=32				pale yellow fine decom and 3mm in (GAULT FO	ed dark grey/blue occasionally mottle to brown silty CLAY with some inclus sposed wood fragmets up to 10mm in thickness. ORMATION) text copied from layer at 2.40m depondent)	ions of length	5.00	\$X X X X X X X
											-	

	Drilling Pro	ogress and	Water Ob	servations	3			Con	orol	Remarks		
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)			Gen	erai	Remarks		
						A	II dimensio	ons in metres		Scale:	1:25	
Method Used:		d windov npling	Plan Used	t Archw a	ay Comp	etitor	Drilled By:	MOS	Logge By:	d OPengilly	Checked By:	AGS

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Contract:			Client:		Window	San	nple:		
NIAB - Pha	ase 1		BDV	BDW Trading Limited					
Contract Ref:	Date:	Groun	d Level (m AOD):	National Grid Co-ordinate:	Sheet:				
25459	06.09.12		19.16	E:543567.0 N:260638.0		1	of	1	

2	7455			06.09.12		19.	10 E.343307.0 N.200030.0	I	OT I
Progress		Sam	oles / T	ests	Water	Backfill & Instru-mentation	Description of Strata	Depth (Thick	
Window Run	Depth	No	Туре	Results	Wa	Bacl		ness)	
- - -	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)	17 - 34 17 - 34 19 - 3
- - -	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)	-	
- - - -	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	-	
-	2.00-2.45	2	SPT	N=33			found at the base of strata. @ 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	
-	-							-	
-	-							_	
-	-							_	
-	-							-	
-	-							-	

I	Drilling Pro	gress and	Water Ob	servations	6
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)

General Remarks

1. Borehole remained stable during excavation.

MOS

- 2. Soils saturated below 2.5m
- 3. Water seepage noted at 2.4m bgl.

All dimensions in metres Scale: 1:25

Method **Tracked window** Used: **sampling**

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Plant **Archway Competitor** Used:

Drilled By: Logged By: **OPengilly**

Checked By:

AGS



Contract:							Windo	w Samp	le:	
	NIAB - Ph	ase 1			BDV	V Trading Limited			W	SM
Contract Ref:		Date:	Groun	d Leve	I (m AOD):	National Grid Co-ordinate:	Sheet:			
2	5459	06.09.12		18.	75	E:543512.0 N:260704.0		1	of	1
Progress	Sam	ples / Tests		Τ=				Denth	Ma	ateria

Zi	3433			06.09.12		10.	75 E.343312.0 N.260704.0	<u> </u>	OT I
Progress		Sam	ples / 1	Tests	_	=		Depth	Material
Window Run	Depth		Туре		Water	Backfill	Description of Strata	(Thick ness)	Graphic
-	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			\(\text{(MADE GROUND)}\) Orange to dark brown slightly clayey gravelly SAND. Gravel is fine to coarse subangular flint and subrounded \(\text{chalk clasts. Sand is fine.}\)	0.50	0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0. 0
- - -	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)	
-	1.00-1.17	1	SPT(c)	N=91*				1.00	0 403
- -	_							-	
-	-							-	
- -	_							-	
-	-							-	
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			·			
[Orilling Pro	ogress and	d Water Ol	oservations	3	
Date	Time	Borehole Depth (m)	Casing Depth (m)	Borehole Diameter (mm)	Water Depth (m)	

General Remarks

1. Refusal at terminal depth due to density of soils

All dimensions in metres Scale: 1:25

Method Used: Plant Archway Competitor Used: Plant Archway Competitor Used:

Drilled By: **MOS** Logged
By: **OPengilly**

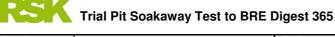
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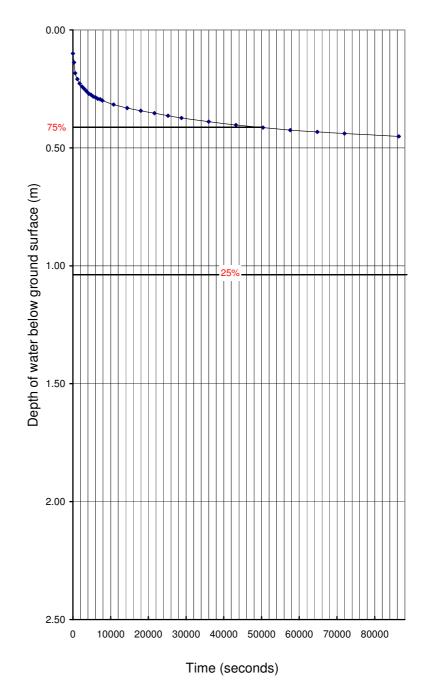
H2 – INFILTRATION TEST RESULTS



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

Time (Secs)	Water level (mbgl)
0	0.10
300	0.14
600	0.18
1200	0.21
1800	0.23
2400	0.24
3000	0.25
3600	0.26
4200	0.27
4800	0.275
5400	0.282
6000	0.286
6600	0.292
7200	0.294
7800	0.299
10800	0.316
14400	0.331
18000	0.343
21600	0.353
25200	0.364
28800	0.373
36000	0.389
43200	0.403
50400	0.414
57600	0.425
64800	0.43
72000	0.44
86400	0.45
	I

Trial Pit Soakaway Test Results



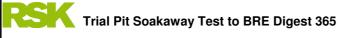
Results

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

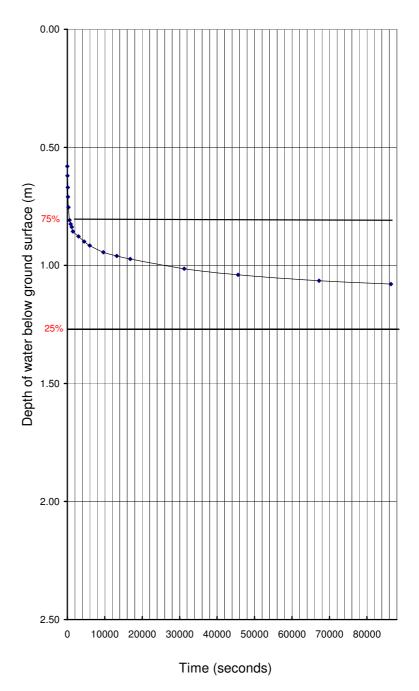
Appendix H



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

Time (Secs)	Water level (mbgl)
0	0.58
60	0.62
120	0.67
180	0.71
300	0.754
600	0.808
900	0.825
1200	0.837
1500	0.856
3000	0.877
4500	0.899
6000	0.916
9600	0.944
13200	0.96
16800	0.973
31200	1.014
45600	1.04
67200	1.065
86400	1.079

Trial Pit Soakaway Test Results



Results

V _{p75-25} (m ³)	-
a _{p50} (m²)	-
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

Location	TP3 (i)	Test No	Test 1
Client	BDW Trading Limited	Length of Trial Pit (m)	1.55
Job Number	25459	Width of Trial Pit (m)	0.45
Date	29.08.12 - 30.08.12	Water level at start (mbgl)	0.25
Operator	MOS	Depth to Base of Trial Pit (m)	1.15

Time (Secs)	Water level (mbgl)	Trial Pit Soakaway Test Results
0	0.25	That I it Council at I could
60	0.26	
120	0.28	0.00
180	0.29	
240	0.31	
300	0.31	
600	0.327	
900	0.345	
1200	0.359	
1500	0.371	
1800	0.39	
2100	0.39	
2400	0.398	
2700	0.407	‡
3000	0.415	t
3300	0.428	
9900	0.489	_E_
13500	0.525	
17100	0.551	8 <u> </u>
20700	0.57	<u>, </u>
24300	0.586	5
31500	0.61	$\underline{\sigma}$
38700	0.631	Depth of water below ground surface (m) 25% 25% 25% 25% 25% 25% 25% 25
45900	0.647	0.50
53100	0.66	<u>5</u>
60300	0.67	<u>o</u>
67500	0.69	
74700	0.70	<u> </u>
81900	0.70	ă
89100	0.711	
		ate
		%
		<u>-</u>
		9
		
		Θ \square
		25%
		1.00 -
		0 10000 20000 30000 40000 50000 60000 70000 80000 900
		Time (seconds)

Results	
V _{p75-25} (m ³)	-
$a_{p50} (m^2)$	-
t _{p75} (s)	-

 $\begin{array}{cccc} t_{p75}\left(s\right) & & - \\ t_{p25}\left(s\right) & & - \\ t_{p75-25}\left(s\right) & & - \\ \\ Infiltration Rate\left(m/s\right) & & INVALID TEST \end{array}$

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

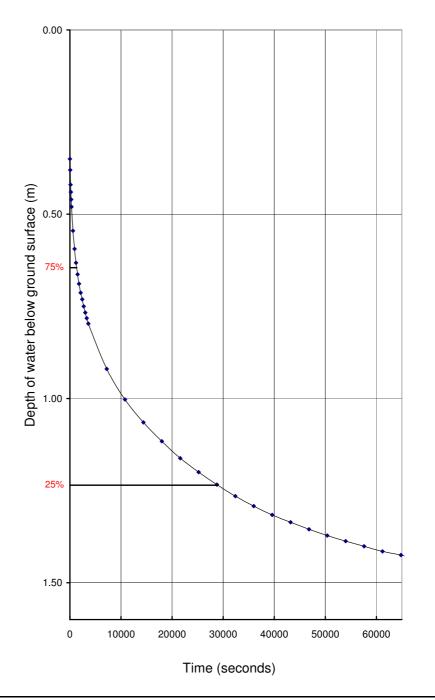
ASSUMED 30% POROSITY OF BACKFILL SHINGLE

Inferred infiltration calculated at <1.86E-07

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

Time (Secs)	Water level
(2000)	(mbgl)
0	0.35
60	0.38
120	0.42
180	0.44
240	0.46
300	0.48
600	0.545
900	0.594
1200	0.632
1500	0.663
1800	0.689
2100	0.713
2400	0.731
2700	0.75
3000	0.767
3300	0.782
3600	0.797
7200	0.92
10800	1.003
14400	1.065
18000	1.116
21600	1.162
25200	1.2
28800	1.234
32400	1.265
36000	1.29
39600	1.32
43200	1.34
46800	1.36
50400	1.372
54000	1.387
57600	1.401
61200	1.415
64800	1.425
68400	1.437
72000	1.448
75600	1.45
	l

Trial Pit Soakaway Test Results



Results

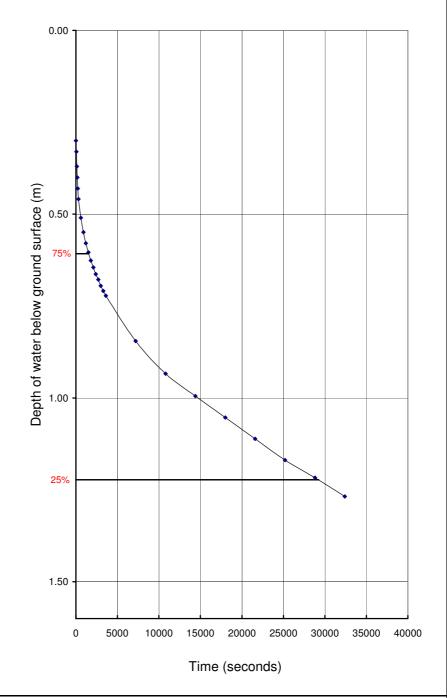
V _{p75-25} (m ³)	0.10
$a_{p50} (m^2)$	2.63
t _{p75} (s)	1350.00
t _{p25} (s)	29000.00
t _{p75-25} (s)	27650.00
Infiltration Rate (m/s)	1.41E-06

Calculations based on 30% pososity of backfill shingle

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

Time (Secs)	Water level (mbgl)
0	0.30
60	0.33
120	0.37
180	0.40
240	0.43
300	0.459
600	0.51
900	0.549
1200	0.579
1500	0.604
1800	0.626
2100	0.645
2400	0.663
2700	0.678
3000	0.695
3300	0.709
3600	0.722
7200	0.845
10800	0.934
14400	0.995
18000	1.053
21600	1.111
25200	1.169
28800	1.217
32400	1.268

Trial Pit Soakaway Test Results



Results

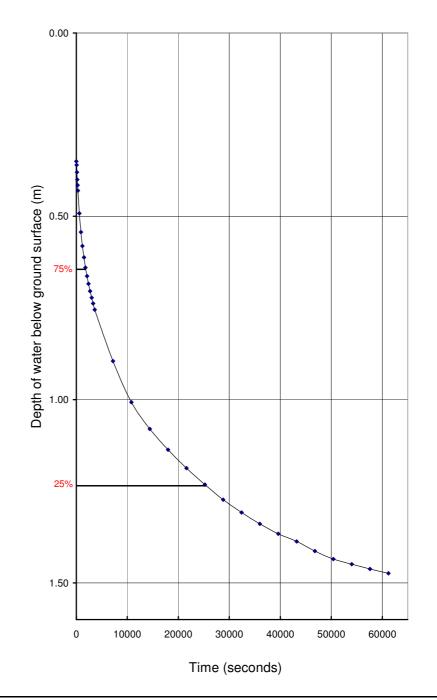
V _{p75-25} (m ³)	0.11
a _{p50} (m ²)	2.72
t _{p75} (s)	1550.00
t _{p25} (s)	29250.00
t _{p75-25} (s)	27700.00
Infiltration Rate (m/s)	1.42E-06

Calculations based on 30% pososity of backfill shingle

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

Time (Secs)	Water level (mbgl)
0	0.35
60	0.36
120	0.38
180	0.40
240	0.42
300	0.43
600	0.492
900	0.543
1200	0.581
1500	0.612
1800	0.64
2100	0.663
2400	0.684
2700	0.704
3000	0.722
3300	0.738
3600	0.755
7200	0.895
10800	1.007
14400	1.08
18000	1.137
21600	1.187
25200	1.232
28800	1.273
32400	1.308
36000	1.34
39600	1.37
43200	1.39
46800	1.41
50400	1.435
54000	1.449
57600	1.462
61200	1.474

Trial Pit Soakaway Test Results



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% pososity of backfill shingle