

4	232.0	W	376980, 433350	Address: Simonstone Cso, Nr Altham, Lancashire Effluent Type: Sewage Discharges - Sewer Storm Overflow - Water Company Permit Number: 01RIB0050 Permit Version: 1	Receiving Water: River Calder Status: Post Nra Legislation Where Issue Date > 31-aug-89 (historic Only) Issue date: - Effective Date: 1/1/1995 Revocation Date: -
---	-------	---	-------------------	--	---

Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site: 0

Database searched and no data found.

1.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 0

Database searched and no data found.

1.3 Environment Agency Recorded Pollution Incidents

Records of National Incidents Recording System, List 2 within 250m of the study site: 2

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

ID	Distance	Direction	NGR	Details	
1	151.0	SW	377150, 433220	Incident Date: 26/3/2003 Incident Identification: 146866 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
2	205.0	S	377499, 433023	Incident Date: 22/11/2001 Incident Identification: 44458 Pollutant: Contaminated Water Pollutant Description: Minewater	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

Records of National Incidents Recording System, List 1 within 250m of the study site: 1

The following NIRS List 1 records are represented as points on the Authorisations, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details	
3	0.0	On Site	377400, 433400	Incident Date: 06-Jan-1999 Incident Identification: 1593.0 Catchments Name: RIVER CALDER (RIBBLE) Water Description: RIVER STRETCH (FRESHWATER) Water Course: RIVER RIBBLE Incident Substantiated: Yes	Priority Description: Immediate (2 Hours) Waste Description: Not Available Water Impact: Minor Impact Land Impact: Significant Impact Air Impact: Significant Impact Pollutant:

1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site? 0

Database searched and no data found.

Report Reference: EMS-124171_165885

2. Landfill and Other Waste Sites Map

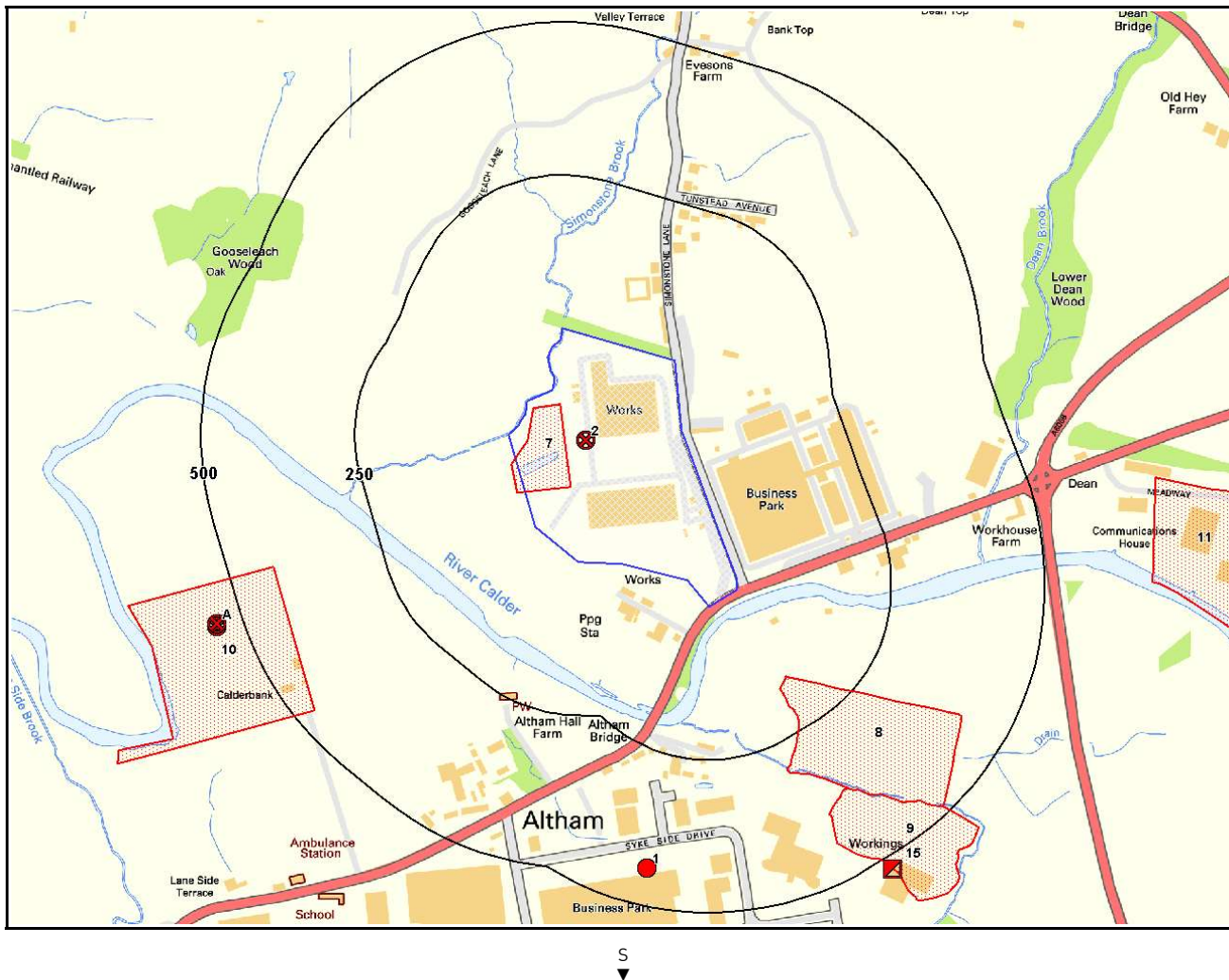
NW

N

NE

SW

SE



SW

S

SE

Landfill & Other Waste Sites Legend



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- | | | |
|---|---|--|
|  Site Outline |  E.A. Active Landfill |  Operational Waste Treatment Licence |
|  E.A. Historic Landfill (Area Data) |  Closed Waste Treatment Licence |  REGIS Waste Licence |
|  E.A. Historic Landfill (Point Data) |  Operational Landfill |  Closed Landfill |
|  BGS / DoE Survey Landfill |  Closed Landfill | |
|  Local Authority Landfill (Area Data) | | |
|  Local Authority Landfill (Point Data) | | |

2. Landfill and Other Waste Sites

2.1 Landfill Sites

Records from Environment Agency landfill data within 1000m of the study site:

0

Database searched and no data found.

Records of operational landfill sites sourced from Landmark within 1000m of the study site:

1

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

ID	Distance	Direction	NGR	Details
1	440.0	S	377400, 432800	Site Address: adj. NE Boundary of Altham Business Park, Altham, ACCRINGTON, Lancashire, Agency Reference: L1/11/663 LVO Waste Type: Inert Waste Description: Inert Landfill Known Restrictions: Some restriction on source of waste Record Date: 01-Jul-1994 Transfer Date: Modification Date: 01-Mar-1999 Status: Operational as far as is known Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Very Small (<10,000 tonnes/year)

Records of Environment Agency historic landfill sites within 1500m of the study site:

8

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

ID	Distance	Direction	NGR	Details
7	0.0	On Site	377200, 433400	Site Address: Mullard Simonstone, West of Simonstone Lane, Simonstone, Burnley, Lancashire Waste Licence: Yes Site Reference: L1/03/118, WD/100/118, WR/K1/03/044 Licence No 95 Waste Type: Inert, Industrial, Liquid sludge Regis Reference: - Licence Issue: 28/07/1978 Licence Surrendered: 19/07/1993 Licence Hold Address: Blackburn Road, Simonstone, Burnley Operator: -
8	162.0	SE	377700, 433000	Site Address: Altham Sewage Works, Burnley Road, Altham, Burnley, Lancashire Waste Licence: - Site Reference: K1/12/033 Waste Type: Inert, Household Regis Reference: - Licence Issue: - Licence Surrendered: - Licence Hold Address: - Operator: -
9	369.0	SE	377800, 432800	Site Address: Altham Business Park, Shorton Brook Drive, Altham, Accrington, Lancashire Waste Licence: Yes Site Reference: Licence No 583, K1/11/057, L1/11/663 Waste Type: Inert, Industrial, Commercial Regis Reference: NS1/L/BAR002 Licence Issue: 29/07/1994 Licence Surrendered: 22/05/2002 Licence Hold Address: Cornmill Farmhouse, Burnley Road, Altham Operator: -
10	427.0	W	376700, 433100	Site Address: Altham Sewage Works, Burnley Road, Calderbank, Accrington, Lancashire Waste Licence: Yes Site Reference: L1/11/336, L1/11/432, K1/11/010, Licences 272 and 364 Waste Type: Inert, Commercial Regis Reference: - Licence Issue: 17/02/1988 Licence Surrendered: 31/12/1994 Licence Hold Address: Calderbank, Altham Sewage Works, Burnley Road, Accrington Operator: -

11	676.0	E	378600, 433200	Site Address: Padiham Power Station, Land off Blackburn Road, Simonstone, Burnley, Lancashire Waste Licence: - Site Reference: K1/23/034 Waste Type: Inert, Industrial, Household Regis Reference: -	Licence Issue: - Licence Surrendered: - Licence Hold Address: - Operator: -
Not shown	1386.0	N	377000, 435000	Site Address: Whins Lane, Whins Lane, Read, Lancashire Waste Licence: - Site Reference: K1/03/025 Waste Type: - Regis Reference: -	Licence Issue: - Licence Surrendered: - Licence Hold Address: - Operator: D H Barnes Esquire
Not shown	1461.0	S	377400, 431200	Site Address: Enfield Road, Enfield Road, Huncoat, Accrington, Lancashire Waste Licence: - Site Reference: K1/11/003 Waste Type: Inert, Industrial, Household Regis Reference: -	Licence Issue: - Licence Surrendered: - Licence Hold Address: - Operator: -
Not shown	1494.0	E	379000, 433300	Site Address: Elizabeth Street, Elizabeth Street, Padiham, Burnley, Lancashire Waste Licence: - Site Reference: K1/12/035 Waste Type: , Waste unknown Regis Reference: -	Licence Issue: - Licence Surrendered: - Licence Hold Address: - Operator: -

Records of non-operational landfill sites sourced from Landmark within 1000m of the study site:

3

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

ID	Distance	Direction	NGR	Details
2	0.0	On Site	377300, 433500	Site Address: Rear of TVPG, Simonstone Lane, BURNLEY, Lancashire, Landfill Licence: 250ADMAL Agency Reference: 118 CSM Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: Some restriction on source of waste Record Date: 01-Jul-1978 Transfer Date: Modification Date: Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL - with lagoon Regulator: EA - North West Region - Central Area (Preston) Size: Undefined
3A	543.0	W	376700, 433200	Site Address: Altham S.T.Works, Burnley Road, Altham, ACCRINGTON, Lancashire Landfill Licence: 250ARHAL Agency Reference: Waste Type: Inert Waste Description: Inert Landfill Known Restrictions: No known restriction on source of waste Record Date: 01-Feb-1988 Transfer Date: Modification Date: 01-Jan-1990 Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined
4A	544.0	W	376700, 433195	Site Address: Altham Sewage Works, Burnley Road, ACCRINGTON, Lancashire, Landfill Licence: 25FAABAL Agency Reference: 432 LTK Waste Type: Non-Hazardous Waste Description: Non-Hazardous Landfill Known Restrictions: No known restriction on source of waste Record Date: 01-Jul-1991 Transfer Date: Modification Date: Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined

Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

1

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

ID	Distance	Direction	NGR	Details
Not shown	1424.0	N	377100, 435100	Address: Whins Lane, By Whins Lodge, Burnley BGS Number: 2919.0 Risk: No risk to aquifer Waste Type: N/A

Records of Local Authority landfill sites within 1500m of the study site:

0

Database searched and no data found.

2.2 Other Waste Sites

Records of operational waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

Records of non-operational waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

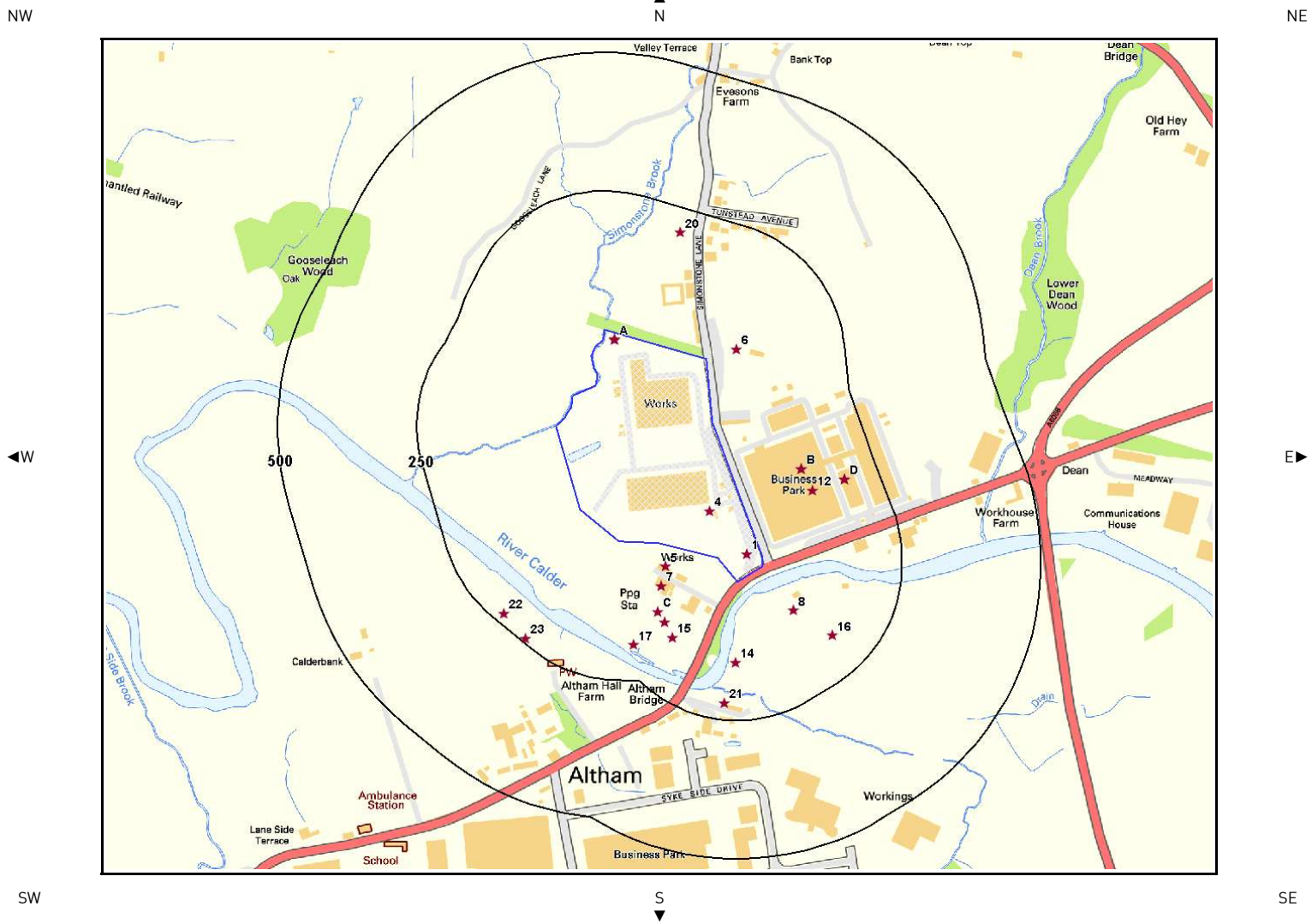
Records of Environment Agency licensed waste sites within 1500m of the study site:

2

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

ID	Distance	Direction	NGR	Details
15	522.0	SE	377800, 432800	Site Address: Land Ajoining The North East Boundary Of Altham Business Pk., Altham, Accrington, Lancashire, BB5 Type: Landfill taking Non-Biodegradeable Wastes Size: < 25000 tonnes Regis Licence Number: BAR002 EPR reference: PP3897CZ/S002 Operator: Mr John Barnes Waste Management licence No: 54171 Annual Tonnage: 150000.0 Issue Date: 29/07/1994 Effective Date: - Modified: - Surrendered Date: 22/05/2002 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Barnes Correspondence Address: -, -
Not shown	855.0	E	378400, 433200	Site Address: Shuttleworth Mead Business Pk, Unit 14b, Meadway, Padiham, Burnley, Lancashire, BB12 7NG Type: Special Waste Transfer Station Size: < 25000 tonnes Regis Licence Number: DRU001 EPR reference: SP3993ZT/A001 Operator: Druck Chemie U K Ltd Waste Management licence No: 54471 Annual Tonnage: 0.0 Issue Date: 30/03/2007 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Druck Chemie Uk Ltd Correspondence Address: -, -

3. Current Land Use Map



Current Land Use Legend



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-  Site Outline
-  Current Industrial Sites
-  Search Buffers (m)
-  Petrol & Fuel Sites
-  Underground High Pressure Oil & Fuel Pipelines

3. Current Land Uses

3.1 Current Industrial Data

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

23

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

ID	Distance	Direction	Company	Address	Activity	Category
1	0.0	On Site	Gas Governor	BB12	Gas Features	Infrastructure and Facilities
2A	0.0	On Site	Gas Valve Compound	BB12	Gas Features	Infrastructure and Facilities
3A	0.0	On Site	Gas Valve Compound	BB12	Gas Features	Infrastructure and Facilities
4	0.0	On Site	Fort Vale Engineering Ltd	Calder Vale Park, Simonstone Lane, Simonstone, Burnley, BB12 7ND	Industrial Engineers	Engineering Services
5	39.0	S	Calder Works	BB12	Unspecified Works Or Factories	Industrial Features
6	57.0	E	Depot	BB12	Container and Storage	Transport, Storage and Delivery
7	74.0	S	Ascotex Ltd	Calder Works, Burnley Road, Simonstone, Burnley, BB12 7NL	General Purpose Machinery	Industrial Products
8	97.0	SE	Pylon	BB12	Electrical Features	Infrastructure and Facilities
9B	121.0	E	Urbana Contracts Ltd	Time Technology Park, Blackburn Road, Simonstone, Burnley, Lancashire, BB12 7TW	General Manufacturing	Industrial Products
10 C	121.0	S	Pylon	BB12	Electrical Features	Infrastructure and Facilities
11 B	121.0	E	Oldfield Engineering	Time Technology Park, Blackburn Road, Simonstone, Burnley, BB12 7TW	Food and Beverage Industry Machinery	Industrial Products
12	127.0	E	Simonstone Business Park	BB12	Business Parks and Industrial Estates	Industrial Features
13 C	136.0	S	Altham Pumping Station	BB12	Water Pumping Stations	Industrial Features
14	145.0	S	Outfall	BB12	Waste Storage, Processing and Disposal	Infrastructure and Facilities
15	154.0	SW	Pylon	BB12	Electrical Features	Infrastructure and Facilities
16	178.0	SE	Pylon	BB12	Electrical Features	Infrastructure and Facilities
17	185.0	S	Outfall	BB12	Waste Storage, Processing and Disposal	Infrastructure and Facilities
18 D	187.0	E	C D Electronics Great Harwood Ltd	Unit 5c Simonstone Business Park, Blackburn Road, Simonstone, Burnley, Lancashire, BB12 7NQ	Electronic Equipment	Industrial Products
19 D	187.0	E	H T Wiring Electrical Wiring Assemblies	Simonstone Business Park, 19 Blackburn Road, Simonstone, Burnley, Lancashire, BB12 7NQ	Cable, Wire and Fibre Optics	Industrial Products
20	206.0	N	Electricity Sub Station	BB12	Electrical Features	Infrastructure and Facilities
21	219.0	S	Chimney	BB5	Chimneys	Industrial Features
22	232.0	SW	Pylon	BB5	Electrical Features	Infrastructure and Facilities
23	242.0	SW	Pylon	BB5	Electrical Features	Infrastructure and Facilities

3.2 Petrol and Fuel Sites

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

0

Database searched and no data found.

3.3 Underground High Pressure Oil and Gas Pipelines

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

0

Database searched and no data found.

4. Geology

4.1 Artificial Ground and Made Ground

Database searched and no data found.

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

4.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON

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

4.3 Bedrock and Solid Geology

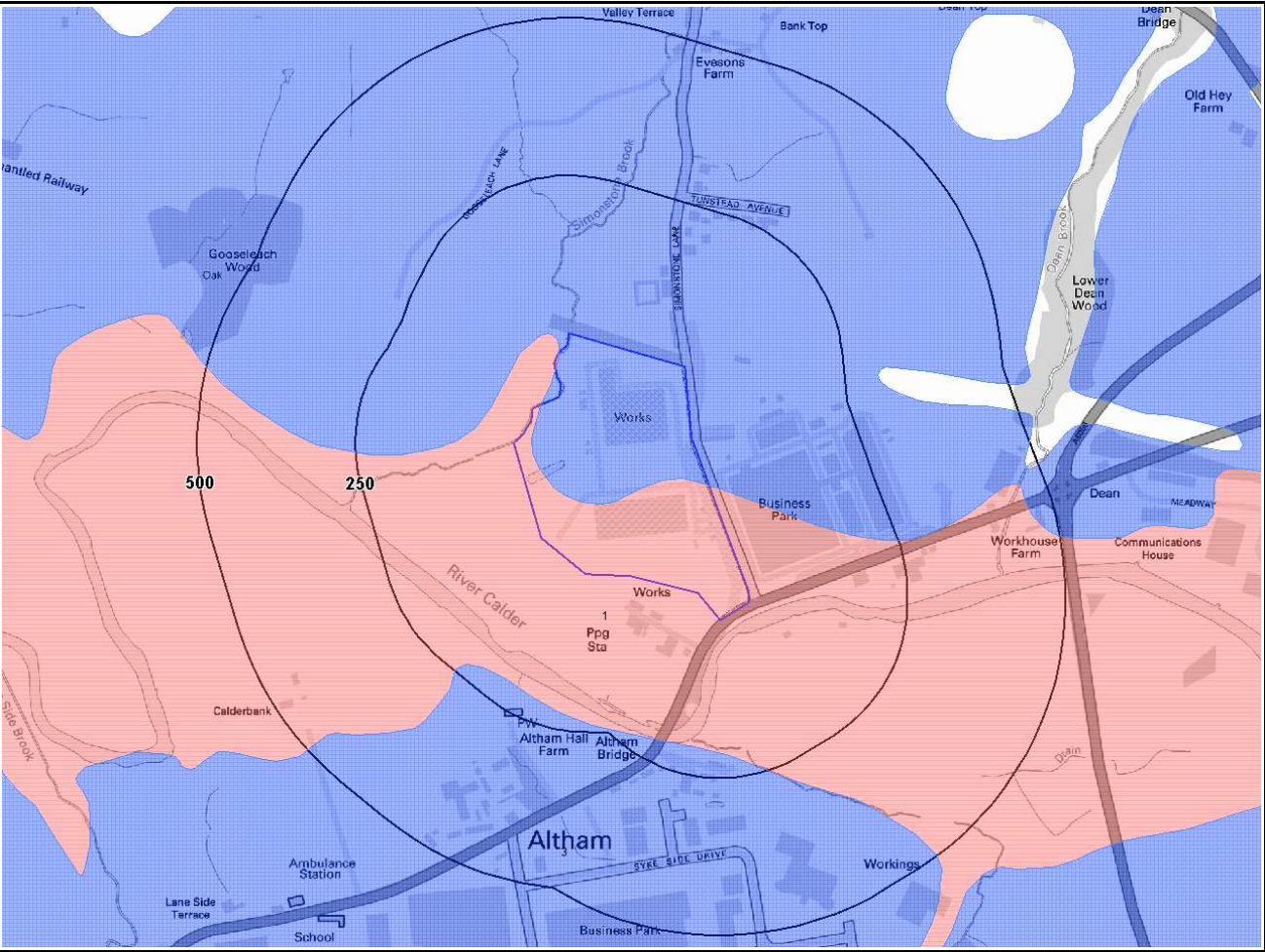
The database has been searched on site, including a 50m buffer.

LEX Code	Description	Rock Type
PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE

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

For more detailed geological and ground stability data please refer to the "GroundSure GeoInsight". Available from our website.

5a. Hydrogeology - Aquifer Within Superficial Geology



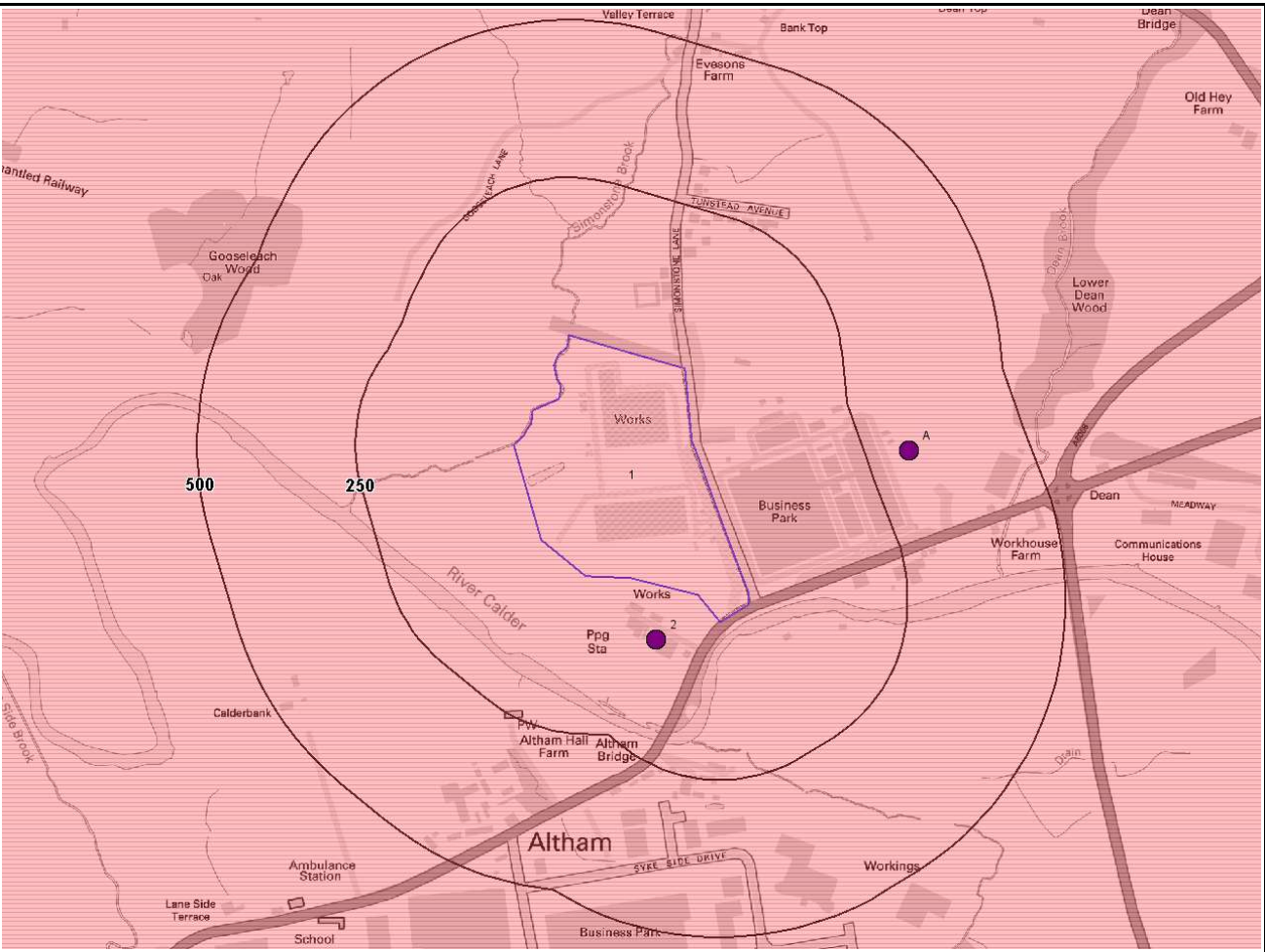
Aquifer Within Superficial Geology Legend



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	Site Outline		Principal Aquifer		Secondary Aquifer - Undifferentiated Layers
			Secondary (A) Aquifer - Permeable Layers		Unproductive
			Secondary (B) Aquifer - Lower Permeability Layers		Unknown (lakes and landslip)
	250				
	500				
	Search Buffers (m)				

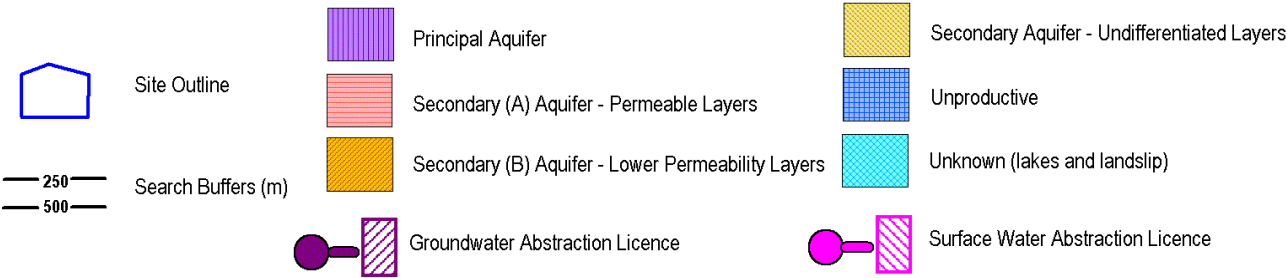
5b. Hydrogeology - Aquifer Within Bedrock Geology and Abstraction Licenses



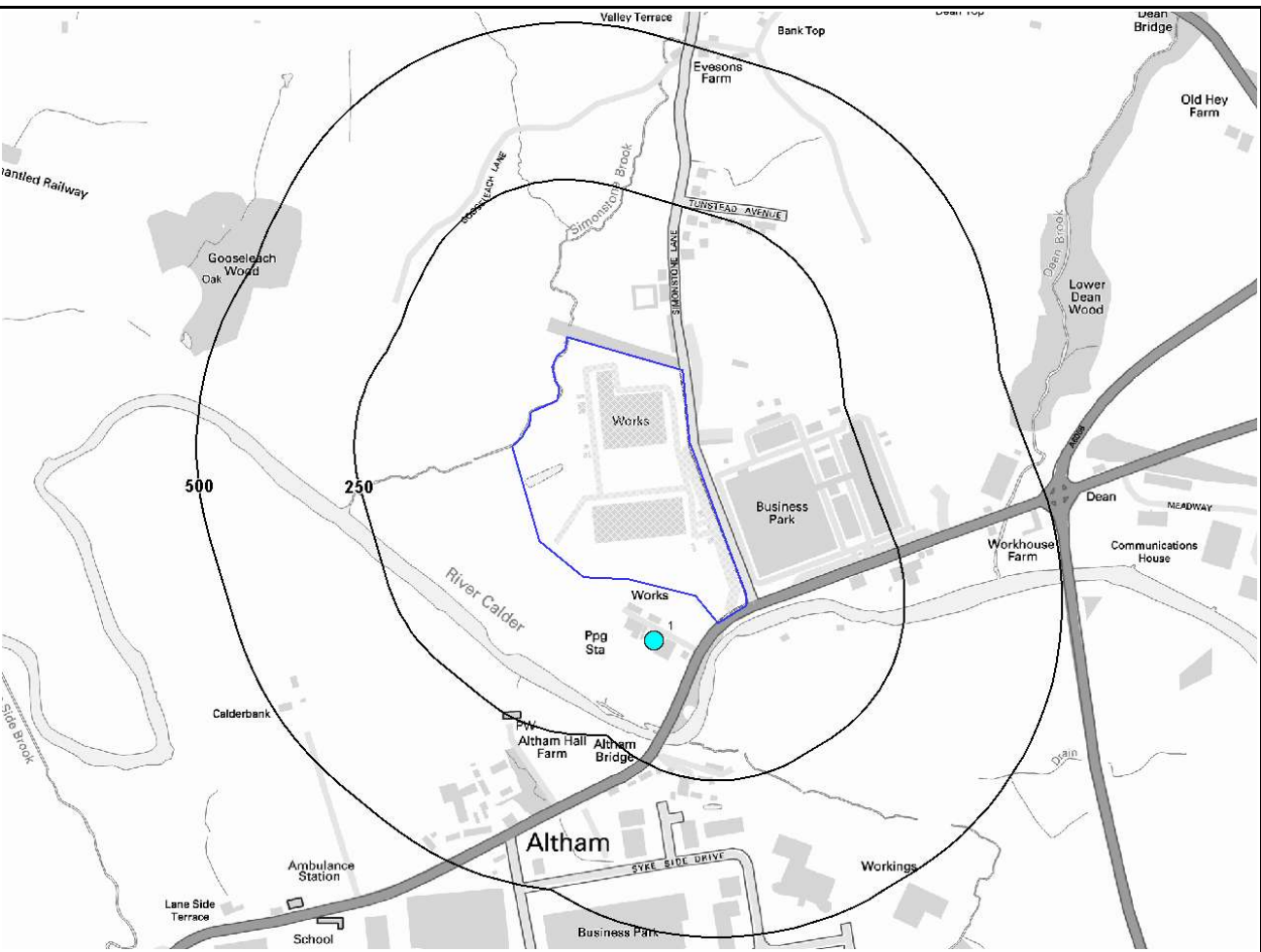
Aquifer Within Bedrock Geology Legend



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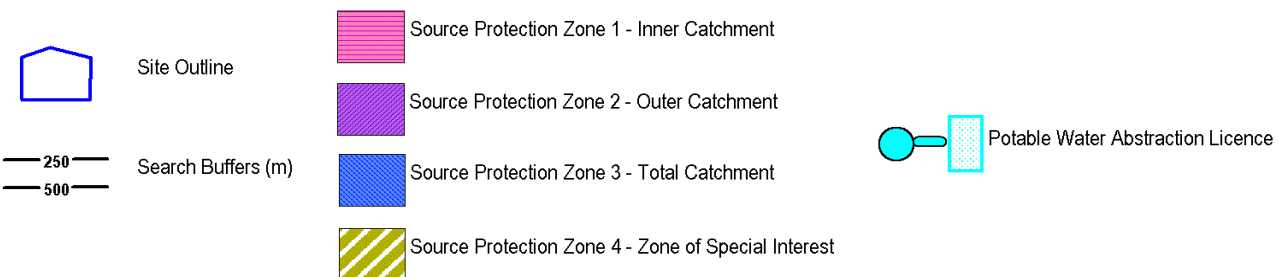
5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



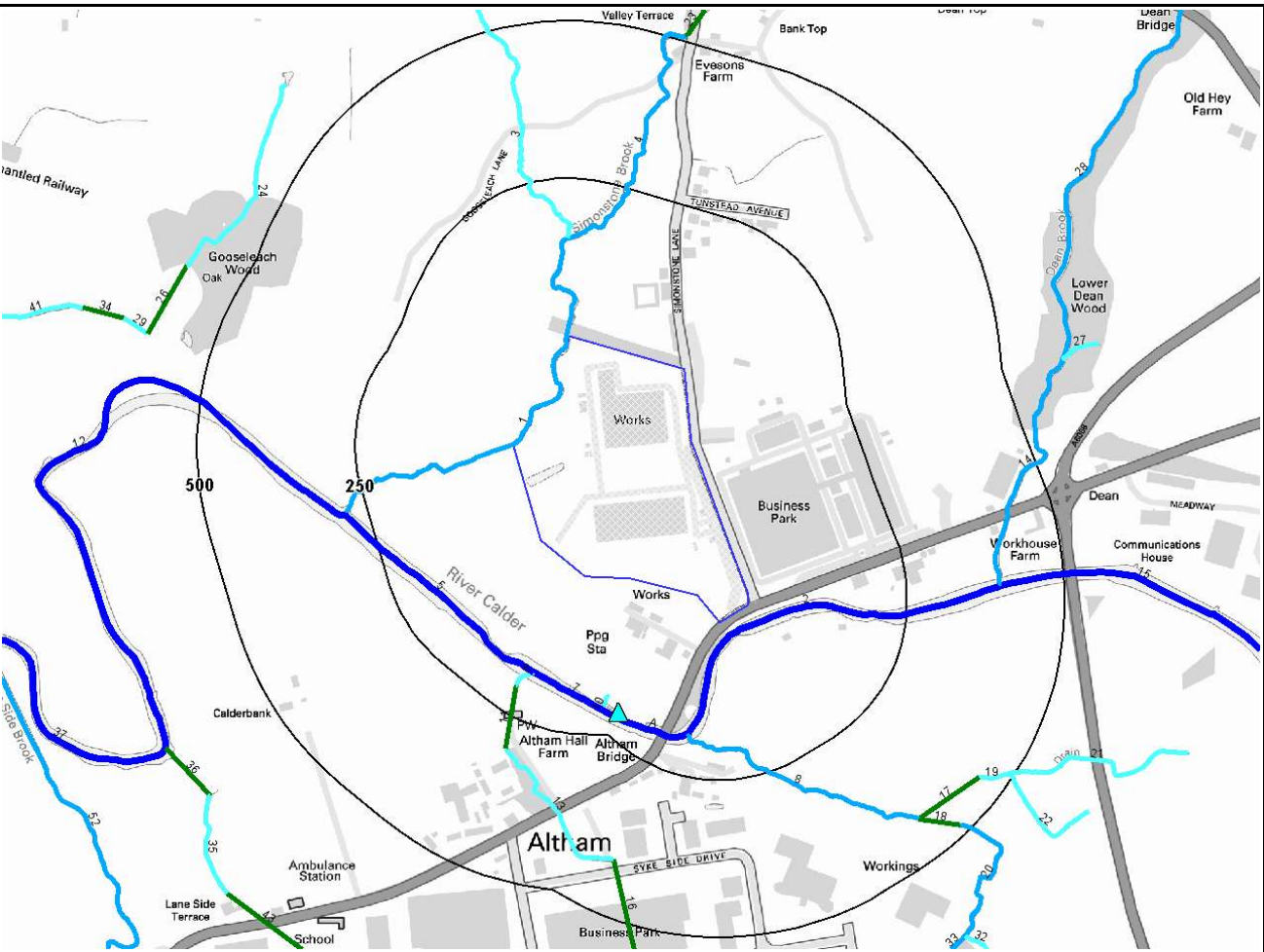
SPZ and Potable Water Abstraction Licenses Legend



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5d. Hydrology – Detailed River Network and River Quality



Hydrology Legend

	Site Outline		Primary River		Canal
	Search Buffers (m)		Secondary River		Canal Tunnel
	Tertiary River		Lake/Reservoir		Extended Culvert (greater than 50m)
	Underground River (inferred)		D/S of High Water Mark		D/S seaward extension
	General Quality Assessment: Chemistry		General Quality Assessment: Biology		



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5. Hydrogeology and Hydrology

5.1 Aquifer within Superficial Deposits

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

Yes

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

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

ID	Distance [m]	Direction	Designation	Description
1	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	0.0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
3	204.0	S	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

5.2 Aquifer within Bedrock Deposits

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

Yes

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

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

ID	Distance [m]	Direction	Designation	Description
1	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

5.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 1000m of the study site?

Yes

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

ID	Distance	Direction	NGR	Details
2	86.0	S	377400, 433200	Licence No: 2671332013 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: Boreholes (4) At Altham Data Type: Point Annual Volume (m³): 1241058 Max Daily Volume (m³): 4546 Original Application No: 3399 Original Start Date: 20/5/1966 Expiry Date: - Issue No: 100 Version Start Date: 6/1/1995 Version End Date:

3A	317.0	E	377800, 433500	Licence No: 2671332022 Details: Process water Direct Source: Ground Water - North West Region Point: "borehole At Simonstone Business Park, Burnley" Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 7275 Original Start Date: 5/5/1994 Expiry Date: - Issue No: 100 Version Start Date: 5/5/1994 Version End Date:
4A	317.0	E	377800, 433500	Licence No: 2671332022 Details: Process Water Direct Source: Ground Water - North West Region Point: Borehole At Simonstone Business Park, Burnley Data Type: Point	Annual Volume (m³): 87600 Max Daily Volume (m³): 240 Original Application No: 7275 Original Start Date: 5/5/1994 Expiry Date: - Issue No: 101 Version Start Date: 1/12/2000 Version End Date:

5.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 1000m of the study site?

Yes

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

ID	Distance	Direction	NGR	Details	
Not shown	975.0	SW	376500, 432700	Licence No: 2671332020 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: "surface, Non-tidal - North West Region" Point: "syke Side Br00k At Altham, Accrington" Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: 4698 Original Start Date: 31/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 31/10/1967 Version End Date:
Not shown	975.0	SW	376500, 432700	Licence No: 2671332020 Details: General use relating to Secondary Category (Medium Loss) Direct Source: "surface, Non-tidal - North West Region" Point: "syke Side Br00k At Altham, Accrington" Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: 4698 Original Start Date: 31/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 31/10/1967 Version End Date:
Not shown	975.0	SW	376500, 432700	Licence No: 2671332020 Details: General Cooling (Existing Licences Only) (Low Loss) Direct Source: Surface, Non-tidal - North West Region Point: Syke Side Br00k At Altham, Accrington Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: 4698 Original Start Date: 31/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 31/10/1967 Version End Date:
Not shown	975.0	SW	376500, 432700	Licence No: 2671332020 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Surface, Non-tidal - North West Region Point: Syke Side Br00k At Altham, Accrington Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: 4698 Original Start Date: 31/10/1967 Expiry Date: - Issue No: 100 Version Start Date: 31/10/1967 Version End Date:

5.5 Potable Water Abstraction Licences

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

Yes

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

ID	Distance	Direction	NGR	Details
----	----------	-----------	-----	---------

Report Reference: EMS-124171_165885

1	86.0	S	377400, 433200	Licence No: 2671332013 Details: Potable Water Supply - Direct Direct Source: Ground Water - North West Region Point: Boreholes (4) At Altham Data Type: Point	Annual Volume (m³): 1241058 Max Daily Volume (m³): 4546 Original Application No: 3399 Original Start Date: 20/5/1966 Expiry Date: - Issue No: 100 Version Start Date: Version End Date:
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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?

Yes

Biological Quality:

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

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

ID	Distance [m]	Direction	NGR	River Details	Biological Quality Grade				
					2004	2005	2006	2007	2008
Not shown	1453.0	E	379000, 433300	River Name: Calder (calder) Reach: Pendle Water To Padiham Power Station End/Start of Stretch: End of Stretch NGR	C	C	C	C	C
Not shown	1453.0	E	379000, 433300	River Name: Calder (calder) Reach: Padiham Power Station To Hyndburn Bk End/Start of Stretch: Start of Stretch NGR	C	C	C	C	C

Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAH). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

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

ID	Distance [m]	Direction	NGR	River Details	Chemical Quality Grade (Headline Indicator)				
					2004	2005	2006	2007	2008
59A	214.0	S	377341, 433083	River Name: Calder Reach: Padiham Power Station To Hyndburn Bk End/Start of Stretch: Sample Point NGR	D	C	B	C	C
Not shown	1453.0	E	379000, 433300	River Name: Calder Reach: Padiham Power Station To Hyndburn Bk End/Start of Stretch: Start of Stretch NGR	D	C	B	C	C

Not shown	1453.0	E	379000, 433300	River Name: Calder Reach: Pendle Water To Padiham Power Station End/Start of Stretch: End of Stretch NGR	D	C	C	C	C
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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	0.0	On Site	River Name: Simonstone Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
2	26.0	SE	River Name: Calder Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
3	154.0	N	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
4	154.0	N	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
5	171.0	SW	River Name: - Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
6	172.0	SW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
7	172.0	SW	River Name: - Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
8	183.0	S	River Name: Shorten Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
9A	183.0	S	River Name: - Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
10	188.0	S	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
11	205.0	SW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
12	286.0	W	River Name: River Calder Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined
13	301.0	SW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined
14	394.0	E	River Name: Dean Brook Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
15	396.0	E	River Name: River Calder Water Course Name: RIVER CALDER Welsh River Name: - Alternative Name: -	River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined

16	411.0	SW	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
17	434.0	SE	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
18	434.0	SE	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined
19	457.0	SE	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
20	485.0	SE	River Name: - Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined
21	490.0	SE	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined
22	490.0	SE	River Name: Drain Water Course Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Catchment: - Drain: YES Main River Status: Currently Undefined

5.9 Surface Water Features

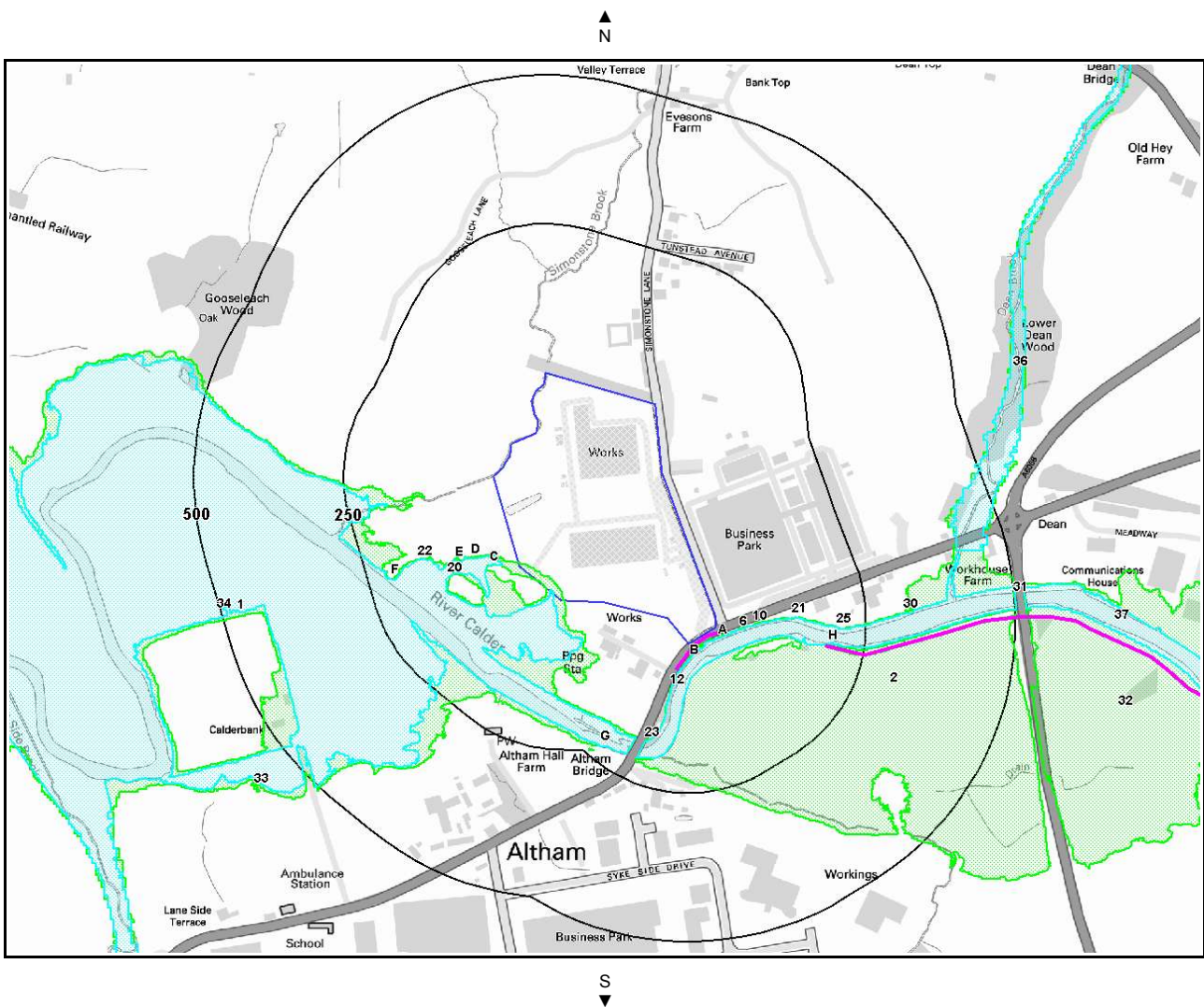
Are there any surface water features within 250m of the study site?

Yes

The following surface water records are not represented on mapping:

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

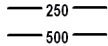
6. Environment Agency Flood Map



Environment Agency Flood Legend



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-  Site Outline
-  Search Buffers (m)
-  Zone 2 Floodplain
-  Zone 3 Floodplain
-  Flood Storage Area
-  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?

Yes

The following floodplain records are represented as green shading on the Flood Map:

ID	Distance	Direction	Update	Type
1	0.0	On Site	04-Nov-2010	Zone 2 - (Fluvial Models and Fluvial / Tidal / Coastal Events)
2	10.0	SE	04-Nov-2010	Zone 2 - (Fluvial Models and Fluvial / Tidal / Coastal Events)
3A	17.0	SE	04-Nov-2010	Zone 2 - (Fluvial Models)
4A	18.0	SE	04-Nov-2010	Zone 2 - (Fluvial Models)
5B	25.0	S	04-Nov-2010	Zone 2 - (Fluvial Models)
6	35.0	E	04-Nov-2010	Zone 2 - (Fluvial Models)
7B	46.0	S	04-Nov-2010	Zone 2 - (Fluvial Models)
8C	50.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
9C	52.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
10	63.0	E	04-Nov-2010	Zone 2 - (Fluvial Models)
11D	74.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
12	79.0	S	04-Nov-2010	Zone 2 - (Fluvial Models)
13D	80.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
14D	86.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
15D	88.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
16D	104.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
17E	104.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
18E	108.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
19E	111.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
20	118.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
21	123.0	E	04-Nov-2010	Zone 2 - (Fluvial Models)
22	157.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
23	176.0	SW	04-Nov-2010	Zone 2 - (Fluvial Models)
24H	187.0	E	04-Nov-2010	Zone 2 - (Fluvial Models)
25	201.0	E	04-Nov-2010	Zone 2 - (Fluvial Models)
26F	212.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
27F	220.0	W	04-Nov-2010	Zone 2 - (Fluvial Models)
28G	226.0	SW	04-Nov-2010	Zone 2 - (Fluvial Models)
29G	238.0	SW	04-Nov-2010	Zone 2 - (Fluvial Models and Fluvial / Tidal / Coastal Events)

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?

Yes

The following floodplain records are represented as blue shading on the Flood Map:

ID	Distance	Direction	Update	Type
34	0.0	On Site	04-Nov-2010	Zone 3 - (Fluvial Models)
35H	12.0	SE	04-Nov-2010	Zone 3 - (Fluvial Models)

6.3 Flood Defences

Are there any Flood Defences within 250m of the study site? **Yes**

The following flood defence records are represented as lines on the Flood Map:

ID	Distance	Direction	Update
38	5.0	SE	04-Nov-2010
39	185.0	E	04-Nov-2010

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? **High**

6.7 Groundwater Flooding Confidence Areas

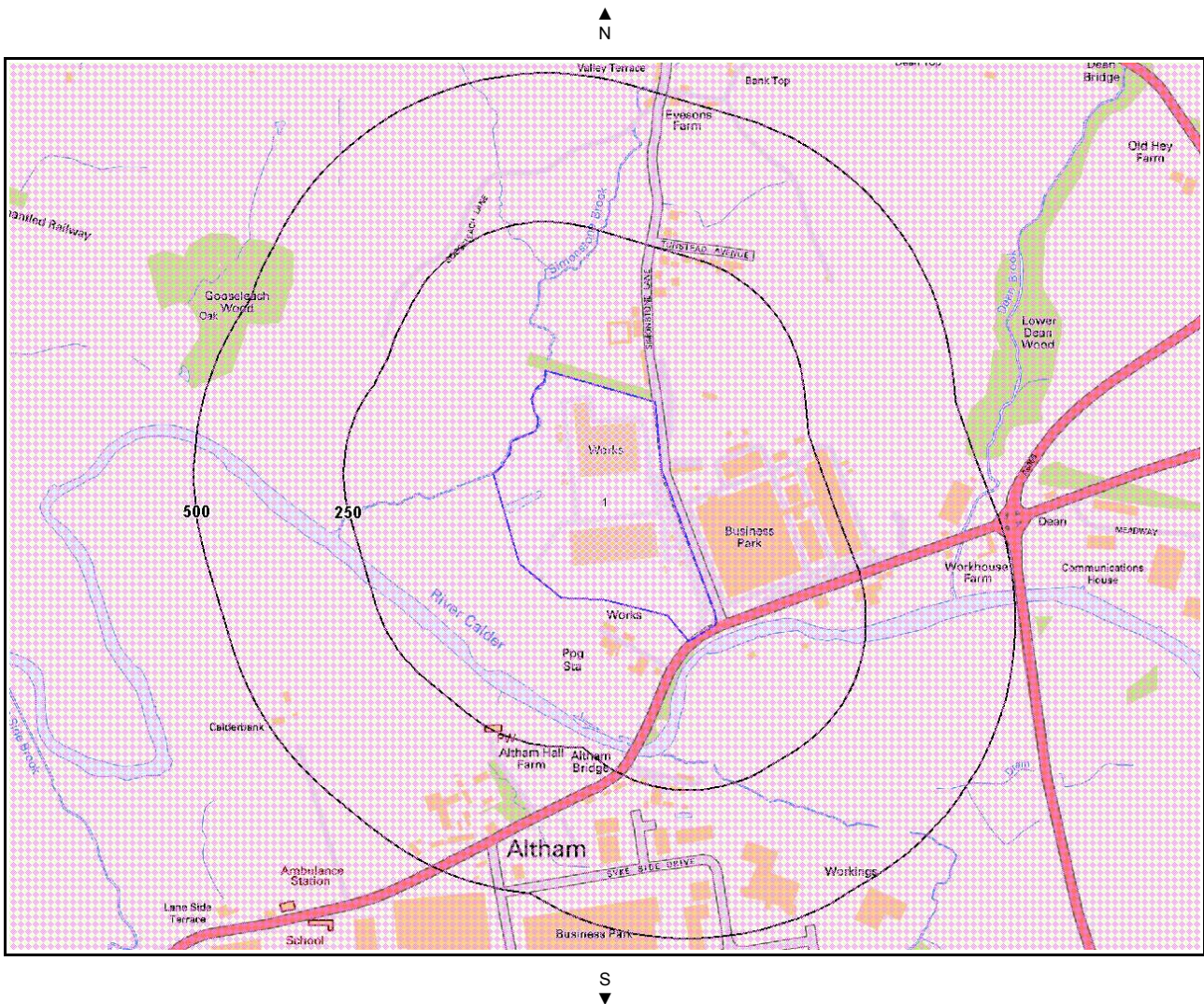
What is the British Geological Survey confidence rating in this result? **Moderately Low**

Notes:

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

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

7.Designated Environmentally Sensitive Sites Map



Designated Environmentally Sensitive Sites Legend

Enabled by Ordnance Survey

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- | | | | | |
|------------------------|-------------------------------------|-------------------------|----------------|---------------------------------|
| Site Outline | SAC | SSSI | NNR | World Heritage Sites |
| 250 Search Buffers (m) | SPA | Ramsar | LNR | Environmentally Sensitive Areas |
| 500 | Areas of Outstanding Natural Beauty | Nitrate Sensitive Areas | National Parks | |

7.Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 500m of the study site? **Yes**

Records of Sites of Special Scientific Interest (SSSI) within 500m of the study site: **0**

Database searched and no data found.

Records of National Nature Reserves (NNR) within 500m of the study site: **0**

Database searched and no data found.

Records of Special Areas of Conservation (SAC) within 500m of the study site: **0**

Database searched and no data found.

Records of Special Protection Areas (SPA) within 500m of the study site: **0**

Database searched and no data found.

Records of Ramsar sites within 500m of the study site: **0**

Database searched and no data found.

Records of Local Nature Reserves (LNR) within 500m of the study site: **0**

Database searched and no data found.

Records of World Heritage Sites within 500m of the study site: **0**

Database searched and no data found.

Records of Environmentally Sensitive Areas within 500m of the study site: **0**

Database searched and no data found.

Records of Areas of Outstanding Natural Beauty (AONB) within 500m of the study site: **0**

Database searched and no data found.

Records of National Parks (NP) within 500m of the study site: **0**

Database searched and no data found.

Records of Nitrate Sensitive Areas within 500m of the study site:**0**

Database searched and no data found.

Records of Nitrate Vulnerable Zones within 500m of the study site:**1**

The following Nitrate Vulnerable Zone records produced by DEFRA are not represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	NVZ Name	Data Source
1	0.0	On Site	No place name provided	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? **Very Low**

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

Hazard
Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

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? **Moderate**

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

Hazard
Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.

8.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site? **Null - Negligible**

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

8.1.6Running Sand

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

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

Hazard
Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property no significant increase in insurance risk due to running sand problems is likely.

* 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?

Yes

The following coal mining information provided by the Coal Authority is not represented on Mapping:

Distance	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

9.2 Shallow Mining

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

Low-Moderate

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

9.3 Brine Affected Areas

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

No

Database searched and no data found.

10. Contacts

EmapSite

Telephone: 0118 9736883
sales@emapsite.com



British Geological Survey (England & Wales)

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



Environment Agency

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



Health Protection Agency

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



The Coal Authority

200 Lichfield Lane, Mansfield, Notts NG18 4RG
Tel: 0845 762 6848. DX 716176 Mansfield 5
www.coal-authority.co.uk
Coal mining reports and related enquiries



Ordnance Survey

Romsey Road
Southampton SO16 4GU
Tel: 08456 050505



Local Authority

Authority: Ribble Valley Borough Council
Phone: 01200 425111
Web: www.ribblevalley.gov.uk
Address: Council Offices, Church Walk, Clitheroe,
Lancashire, BB7 2RA

Get Mapping PLC

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



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Standard Terms and Conditions

1 Definitions

In these conditions unless the context otherwise requires:

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

"Commercial" means any building which is not Residential.

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

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

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

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

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

"Data Provider" means any third party providing 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.

"Intellectual Property" means any patent, copyright, design rights, service marks, moral rights, data protection rights, know-how, trademark 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.

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

2 Scope of Services

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

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

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

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

2.5 In the event that a Client/Beneficiary opts to take out insurance in conjunction with or as a result of the Services, such insurance shall be subject solely to the terms of any policy issued to it in that respect and GroundSure will have no liability therefore.

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

3 The Client's obligations

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

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

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

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

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

4 Reliance

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

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

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

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

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

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

5 Fees and Disbursements

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

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

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

6 Intellectual Property

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 Content where such 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 and each of the parties set out in clause 4.2 are permitted to make up to 8 (commercial) or 2 (residential) printed copies of the Report only. Further copies of the Report may not be made in whole or in part without the prior written permission of GroundSure who shall be entitled to make a charge for each additional copy.

6.6 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;

(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 6.6(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.

6.7 The Client and/or Beneficiary shall and shall procure that any party to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

7. Liability

7.1 Nothing in these terms and conditions shall limit GroundSure's liability for causing death or personal injury through negligence or willful default.

7.2 Save as otherwise set out in these conditions, any information provided by one party ("**Disclosing Party**") to the other party ("**Receiving Party**") shall be treated as confidential except so far as authorised by the Disclosing Party to provide such information in whole or in part to a third party.

7.3 Nothing in these conditions shall affect the statutory rights of a consumer under the applicable consumer protection legislation from time to time.

7.4 In relation to Data Reports, Mapping and Risk Screening Reports, GroundSure's liability under the Contract shall cease upon the expiry of six years from the date when the Beneficiary became aware that it may have a claim against GroundSure in respect of the Services provided always that there shall be no liability at the expiration of twelve years from the completion of the Contract. For the avoidance of doubt, any claims in respect of which proceedings are notified to GroundSure in writing prior to the expiry of the time periods referred to in this clause shall survive the expiry of those time periods provided any such claim is actually commenced within six months of notification.

7.5 In relation to Consultancy Services GroundSure's liability under the Contract shall cease upon the expiry of six years from the date the Services were completed.

7.6 GroundSure shall not be liable to the Client or any person to whom the Client provides a copy of a Data Report, Mapping or Risk Screening Report in any circumstances whatsoever unless arising out of a breach on its part of the obligations set out in the Contract.

7.7 GroundSure shall not be liable if the Data Reports, Mapping or Risk Screening Report are used otherwise than as provided or referred to in these conditions and the relevant User Guide.

7.8 Subject to the provisions of clause 7.3, GroundSure makes no representation, warranties, express or implied, as to the accuracy, reliability, completeness, validity or fitness for purpose of any Content and shall not be liable for any omission, error or inaccuracy in relation thereto unless GroundSure should reasonably have been alerted to any omission, error or inaccuracy in the Content.

7.9 Subject to the provisions of clause 7.1 and irrespective of whether multiple parties make use of the same Services the total liability of GroundSure under or in connection with the Contract, whether in contract in tort for breach of statutory duty or otherwise shall not exceed £10 million per claim or series of connected claims,

7.10 Whilst GroundSure will use all reasonable endeavours to maintain operability of its internet ordering service it will not be liable for any loss or damages caused by a delay or loss of use of such service. The Client shall use GroundSure's internet ordering service at its own risk. GroundSure shall not be responsible for any damage to a Client or permitted assignee's computer, software, modem, telephone or other property resulting from the use of GroundSure's internet ordering service.

7.11 The Client accepts, and shall use all reasonable endeavours to procure that anyone who is provided with a copy of the Report accepts, that it has no claim or recourse to any Data Provider or to GroundSure in respect of the acts or omissions of such Data Providers including Content supplied by them.

7.12 GroundSure shall provide the Services using reasonable skill and care, however, GroundSure shall not be liable for any inaccurate statement or risk rating in a Report which resulted from a reasonable interpretation of the Content.

7.13 Subject to clause 7.1, GroundSure shall not be liable to the Client, the Beneficiary or any third party in contract, tort (including, without limitation, negligence) or for misrepresentation or breach of statutory duty or otherwise in respect of any loss of profits, goodwill, revenue or opportunity, or any indirect or consequential loss (even if such loss was reasonably foreseeable).

7.14 GroundSure undertakes for the duration of the liability periods referred to in clauses 7.4 and 7.5 to maintain professional indemnity insurance in respect of its liabilities under this Contract. GroundSure shall produce evidence of such insurance if requested by the Client. A greater level of cover may be available upon request and agreement with the Client.

8. GroundSure right to suspend or terminate

8.1 In the event that GroundSure reasonably believes that the Client or Beneficiary as applicable has not provided the information or assistance required to enable the proper performance of the Services, GroundSure shall be entitled on fourteen days written notice to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:

(i) the Client shall fail to pay any sum due to GroundSure within 28 days of the Payment Date; or

(ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an Administration Order made against it or if a Receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or

(iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any material term of the Contract (including, but not limited to, the obligations in clause 4) incapable of remedy or if remediable, is not remedied within 14 days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately performance of all or any of the Services.

9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a Report/Mapping. This does not affect the Beneficiary's statutory rights.

10. Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client/Beneficiary any property of the Client/ Beneficiary in GroundSure's possession or control.

10.2 In the event of termination/suspension of the Contract under clauses 8 or 9, the Client shall pay to GroundSure all and any fees payable in respect of the performance of the Services up to the date of termination/suspension. In respect of any Consultancy Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination/suspension of the Contract.

11. General

11.1 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in these terms.

11.2 GroundSure reserves the right to amend these terms and conditions. No variation to these terms shall be valid unless signed by an authorised representative of GroundSure.

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

11.4 Save as expressly provided in clauses 4.2, 4.3, 6.3 and 11.5, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

11.5 The Secretary of State for Communities and Local Government acting through Ordnance Survey may enforce breach of clause 6.1 of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

11.6 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

(i) the Client or Beneficiary's failure to provide facilities, access or information;

(ii) fire, storm, flood, tempest or epidemic;

(iii) Acts of God or the public enemy;

(iv) riot, civil commotion or war;

(v) strikes, labour disputes or industrial action;

(vi) acts or regulations of any governmental or other agency;

(vii) suspension or delay of services at public registries by Data Providers; or

(viii) changes in law.

11.7 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

11.8 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email and on the second working day after the day of posting if sent by first class post.

11.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.

11.10 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

11.11 These terms and conditions shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the exclusive jurisdiction of the English courts.

11.12 If the Client or Beneficiary has a complaint about the Services, notice can be given in any format eg writing, phone, email to the Compliance Officer at GroundSure who will respond in a timely manner.

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A P P E N D I X E

Issued by:

The Coal Authority, Mining Reports Office, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire NG18 4RG
ON-Line Service: www.groundstability.com - Phone: 0845 762 6848 - DX 716176 MANSFIELD 5

CHRIS STOREY,
GRM DEVELOPMENT SOLUTIONS LIMITED,
FIRST AVENUE,
BURTON-ON-TRENT,
STAFFORDSHIRE,
DE14 2WH

Person dealing with this matter:	Eric Fretwell
Our reference:	00020543-11
Your reference:	CRS/P5467
Electronic Ref:	EME_00015688310001_005
RRUID:	005.00015688310001
Date of your enquiry:	30 March 2011
Date we received your enquiry:	30 March 2011
Date of issue:	30 March 2011

This report is for the property described in the address below and the attached plan.

Non-Residential Coal and Brine Report

Site At, Calder Vale Business Park, Simonstone Lane, Simonstone, Burnley, Lancashire

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Coal mining	Yes
Brine Compensation District	No

Information from the Coal Authority

Underground Coal Mining

Past

The property is in the likely zone of influence from workings in 1 seam of coal at 270m to 320m depth, and last worked in 1955.

Any ground movement from these coal workings should have stopped by now.

In addition the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past.

Present

The property is not in the likely zone of influence of any present underground coal workings.

Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

The property is not in an area for which a licence has been granted to remove coal using underground methods.

The property is not in an area that is likely to be affected at the surface from any planned future workings.

However reserves of coal exist in the local area which could be worked at some time in the future.

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

Mine entries

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

Records may be incomplete. Consequently, there may exist in the local area mine entries of which the Coal Authority has no knowledge.

Coal-mining geology

The Authority is not aware of any evidence of damage arising due to geological faults or other lines of weakness that have been affected by coal mining.

Opencast Coal Mining

Past

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

Present

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

Coal-mining subsidence

The Coal Authority has not received a damage notice or claim for the property since 1 January 1984.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

Withdrawal of Support

The property is in an area for which a notice of entitlement to withdraw support was published in 1944.

The property is not in an area for which a notice has been given under section 41 of the Coal Industry Act 1994, revoking the entitlement to withdraw support.

Working Facilities Orders

The property is not in an area for which an Order has been made under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

Payments to Owners of Former Copyhold Land

The property is not in an area for which a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Comments on Coal Authority information

In view of the mining circumstances a prudent developer would seek appropriate technical advice before any works are undertaken.

Therefore if development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. Developers should be aware that the investigation of coal seams/ former mines of coal may have the potential to generate and/or displace underground gases and these risks both under and adjacent to the development should be fully considered in developing any proposals. The need for effective measures to prevent gases entering into public properties either during investigation or after development also needs to be assessed and properly addressed. This is necessary due to the public safety implications of any development in these circumstances.

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

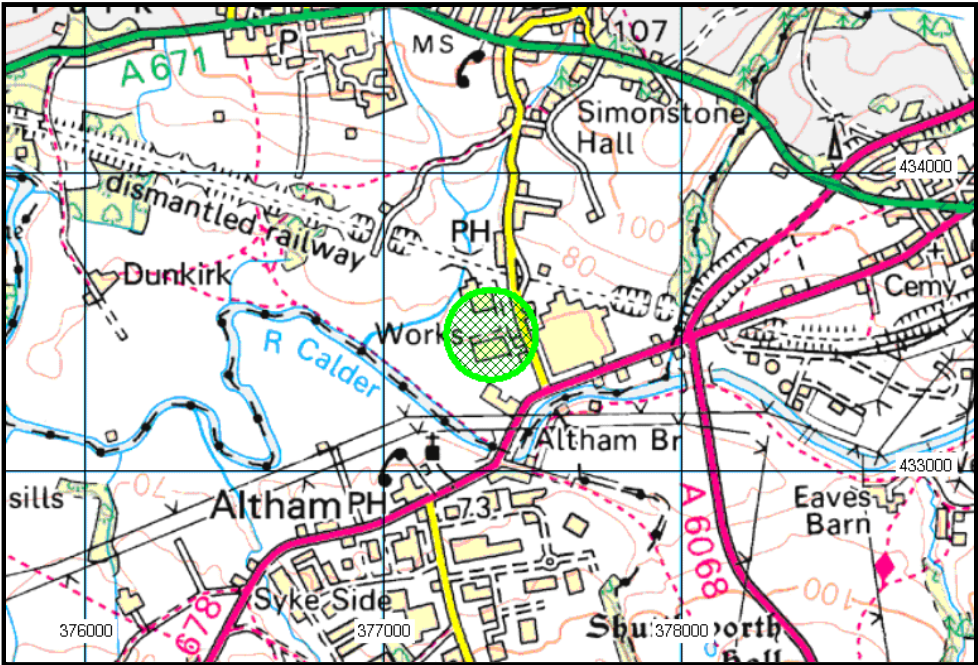
Additional remarks

This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006. The report is compliant with Home Information Pack requirements.

The Coal Authority owns the copyright in this report. The information we have used to write this report is protected by our database right. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

Location map

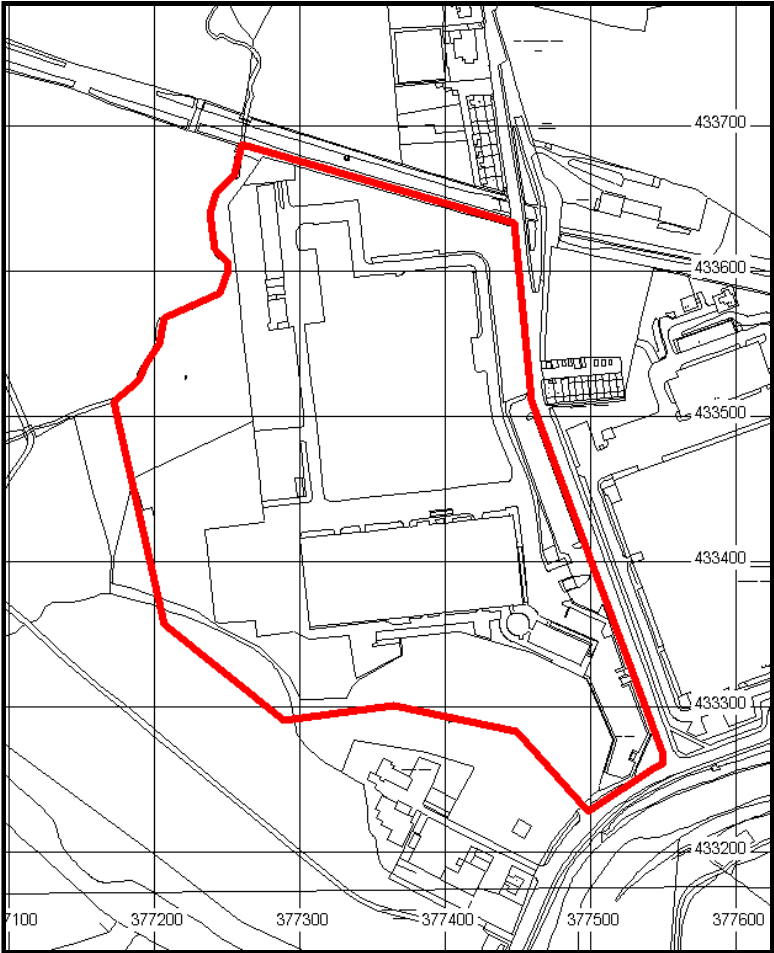

Approximate
position
of property



Enquiry boundary

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Key
Approximate position of enquiry boundary shown



A P P E N D I X F



- Proposed GRM Holes
 - WS – Window Sample Holes (15no, depth 1BC)
 - BH – Cable Percussive Holes (10no, depth 15m)
 - RD – Rotary Open Holes (< 20no, depth 20m)
- Existing Holes
 - WS101 – AECOM Window Sample Hole
 - WS1 – AECOM Window Sample Hole
 - BH1 – AECOM Cable Percussive Hole
 - DP101 – AECOM Trial Pit/Trench

DATE		06/04/11		CHECKED BY		CHECKED SE		CHECKED	
SCALE		1:750							
Latnus House, First Avenue, Canunoo 100 Burton on Trent, Staffs, DE14 2WH Tel: (01228) 551249 Fax: (01228) 211966									
									
Fort Vale Engineering Ltd c/o The Alan Johnson Partnership									
PROJECT Calder Vale Business Park Simonsstone Lane Burnley									
TITLE Exploratory Hole Location Plan									
REF		DRAWING NO.		REVISION					
P5467		001		*					
This drawing is copyright. Do not scale from this drawing. All dimensions and sizes to be verified on site and any discrepancies reported to this office before proceeding.									

A P P E N D I X G



Burton-on-Trent (HQ) Tel: 01283 551249
Market Harborough Tel: 01858 414981
Email: mail@grm-uk.com Web: www.grm-uk.com

Window Sample Borehole

Borehole
Number

WS1

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: Ian Taylor DS Ltd Logger PW

-
-

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.05-0.15/D/D1 0.05-0.15/J/J1				0.20	-0.20		Grass over: Brown and locally mottled orange-brown silty slightly sandy clay with rare fine to medium subangular gravel including quartz. (Re-laid Topsoil)(MADE GROUND)
	1	0.90-1.00/D/D2	1.00 C	N=10 (2,2,2,2,3,3)		1.60	-1.60		Firm to stiff grey-brown mottled orange-brown silty slightly sandy clay with occasional (becoming some below 1.2m) fine to coarse angular to subangular gravel including sandstone, siltstone, limestone and carbonaceous mudstone.(GLACIAL TILL)
	2	1.80-1.90/D/D3	2.00 C	N=31 (4,5,5,8,8,10)		2.10	-2.10		Dense grey-brown fine to coarse SAND with much fine to coarse subrounded gravel including sandstone and quartzite.(GLACIAL TILL)
	3	2.80-2.90/D/D4	3.00 C	N=45 (7,8,8,8,10,19)		3.00	-3.00		Hard dark brown silty slightly sandy CLAY with much fine to coarse subrounded to angular gravel including sandstone, granitic material and mudstone.(GLACIAL TILL)
4									End of Borehole at 3.00 m

Hole Started 12/04/2011

Hole Complete 12/04/2011

General Remarks:

Groundwater Remarks: Wet below 0.9m

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS2

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

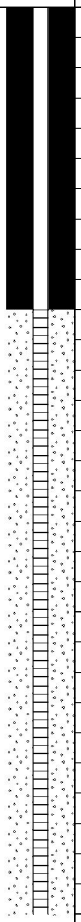
Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: TDS Ltd Logger PW

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
						0.35	-0.35		Concrete (cored).(MADE GROUND)
						0.45	-0.45		Brick coarse.(MADE GROUND)
		0.70-0.80/D/D1 0.70-0.80/J/J1				0.50	-0.50		Brown fine to coarse sand and fine to medium angular to subrounded gravel including mudstone, sandstone and concrete.(MADE GROUND)
	1		1.00 C	N=28 (2,2,7,9,6,6)		0.90	-0.90		Stiff brown silty slightly sandy CLAY with some to much fine to coarse angular to subrounded gravel including limestone, mudstone, siltstone and volcanic material.(GLACIAL TILL)
						1.00	-1.00		Coarse angular GRAVEL including limestone.(GLACIAL TILL)
									Very stiff brown silty slightly sandy CLAY with some fine to coarse subrounded to subangular gravel including mudstone, sandstone, siltstone and volcanic material. Occasional fine sandy and silty pockets.(GLACIAL TILL)
	2	1.90-2.00/D/D2	2.00 C	N=22 (6,5,6,7,4,5)					
	3	2.90-3.00/D/D3	3.00 C	N=23 (4,3,3,6,8,6)		3.00	-3.00		End of Borehole at 3.00 m
	4								

Hole Started 12/04/2011

Hole Complete 12/04/2011

General Remarks:

Groundwater Remarks: Non observed

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS3

Site: Calder Vale Business Park, Simonstone		GRM Project ref: P5467	Ground Level mAOD 0.000
Client: The Alan Johnston Partnership		Equipment:	Coordinates:
		Crew: IDS Ltd Logger PW	- -

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD				Scale: 1:25
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description	
	1								End of Borehole at 0.40 m	
	2									
	3									
	4									

Hole Started 12/04/2011	Hole Complete 12/04/2011
General Remarks: Obstruction encountered at 0.4m - hole abandoned.	
Groundwater Remarks: Non observed	
Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.	



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Window Sample Borehole

Borehole
Number

WS4

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

-
-

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.10-0.20/D/D1 0.10-0.20/J/J1				0.30 0.35	-0.30 -0.35		Grey-brown and red-brown sandy slightly clayey fine to coarse angular gravel including concrete and brick (Demolition Rubble).(MADE GROUND)
		0.60-0.70/D/D2				0.55	-0.55		Dark brown silty slightly clayey fine to coarse sand with some fine to medium angular gravel including brick, limestone and sandstone.(MADE GROUND)
		0.90-1.00/D/D3	1.00 C	N=3 (1,1,1,1,0,1)		0.75	-0.75		Red-brown sandy coarse angular gravel of brick.(MADE GROUND)
	1					1.20	-1.20		Firm dark grey-brown mottled black-brown silty slightly sandy clay with occasional fine to medium subrounded to subangular gravel including brick, mudstone, sandstone and some organic matter.(DISTURBED GROUND)
		1.80-1.90/D/D4	2.00 C	N=4 (1,1,1,1,1,1)		2.30 2.40	-2.30 -2.40		Orange-brown mottled grey-brown silty slightly sandy CLAY.(ALLUVIUM)
	2					2.70	-2.70		Grey-brown silty to very silty slightly sandy CLAY. Stratum is damp.(ALLUVIUM)
		2.50-2.60/D/D5	3.00 C	N=6 (2,1,1,2,1,2)					Firm orange-brown mottled grey-brown sandy silty organic CLAY.(ALLUVIUM)
	3								
		3.90-4.00/D/D6	4.00 C	N=9 (2,1,2,2,2,3)		4.00	-4.00		
	4								
									End of Borehole at 4.00 m

Hole Started 12/04/2011

Hole Complete 12/04/2011

General Remarks:

Groundwater Remarks:Damp at 2.4m

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS5

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

-
-

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD				Scale: 1:25
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description	
	1	0.05-0.15/D/D1 0.05-0.15/J/J1	1.00 C	N=6 (1,2,1,2,1,2)		0.20	-0.20		Loose red-brown and mottled grey-brown fine to coarse sand with much fine to coarse angular to subangular gravel including brick and concrete (Demolition Rubble).(MADE GROUND)	
		0.60				-0.60	Medium dense red-brown and brown locally black-brown slightly clayey, slightly silty fine to coarse sand and fine to coarse angular brick, sandstone and limestone.(MADE GROUND)			
		0.80				-0.80	Brown locally mottled black-brown and yellow-brown silty slightly clayey fine to coarse sand with some fine to medium angular gravel including limestone and sandstone.(MADE GROUND)			
	2	0.90-1.00/D/D2	2.00 C	N=0 (0,0,0,0,0,0)		1.60	-1.60		Loose dark grey-brown silty slightly organic SAND with occasional fine subangular to subrounded gravel including mudstone and quartz.(ALLUVIUM)	
		1.90-2.00/D/D3				Very soft becoming firm below 3.0m orange-brown and grey-brown silty slightly sandy slightly organic CLAY with fragments of wood and plant material.(ALLUVIUM)				
	3	2.90-3.00/D/D4	3.00 C	N=5 (1,1,1,1,1,2)	0.00	3.00	-3.00		End of Borehole at 3.00 m	
	4									

Hole Started 12/04/2011

Hole Complete 12/04/2011

General Remarks:

Groundwater Remarks: Damp at 1.6m

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS6

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

-
-

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.10-0.20/D/D1 0.10-0.20/J/J1				0.30	-0.30		Grey-brown and red-brown fine to coarse sand and fine to coarse angular gravel including brick and concrete (Demolition Rubble).(MADE GROUND)
						0.60	-0.60		Dark brown and red-brown very silty fine sand with much fine to coarse angular gravel including brick and sandstone.(MADE GROUND)
						0.70	-0.70		Fine to coarse angular gravel of glass.(MADE GROUND)
	1	0.90-1.00/D/D2	1.00 C	N=7 (1,2,1,2,2,2)		1.50	-1.50		Firm dark-brown and locally mottled orange-brown very silty slightly sandy slightly organic CLAY.(ALLUVIUM)
	2	1.90-2.00/D/D3	2.00 C	N=10 (1,1,2,2,3,3)		2.10	-2.10		Firm grey-brown mottled red-brown and brown silty organic CLAY with occasional fine to coarse subrounded gravel including sandstone.(ALLUVIUM)
		2.20-2.30/D/D4				2.80	-2.80		Firm to stiff brown finely laminated slightly silty CLAY.(GLACIAL TILL)
	3	2.90-3.00/D/D5	3.00 C	N=12 (2,1,3,3,3,3)		3.00	-3.00		Stiff dark brown silty slightly sandy CLAY with some fine to coarse subangular gravel including sandstone, siltstone and mudstone.(GLACIAL TILL)
									End of Borehole at 3.00 m
	4								

Hole Started 12/04/2011

Hole Complete 12/04/2011

General Remarks:

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS7

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

-
-

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
	1	0.50-0.60/D/D1 0.50-0.60/J/J1	1.00 C	N=2 (1,1,1,0,1,0)		0.15	-0.15		Grey fine to coarse angular gravel including limestone. Geotextile at base. (MADE GROUND)
						0.35	-0.35		Pale orange-brown fine to coarse angular gravel including sandstone. (MADE GROUND)
						0.45	-0.45		Dark brown sandy to very sandy fine to coarse angular gravel including brick and sandstone. (MADE GROUND)
						0.65	-0.65		Dark grey-brown silty to very silty sandy slightly organic CLAY with rare fine subrounded gravel including sandstone. (ALLUVIUM)
									Very loose grey-brown and orange-brown clayey silty fine to medium SAND. (ALLUVIUM)
	2	0.90-1.00/D/D2	2.00 C	N=12 (1,2,2,3,3,4)		1.30	-1.30		Soft grey-brown and orange-brown sandy silty CLAY. (ALLUVIUM)
						1.70	-1.70		Stiff dark grey-brown mottled red-brown and brown slightly organic CLAY. (GLACIAL TILL)
									Stiff dark grey-brown mottled red-brown and brown slightly organic CLAY. (GLACIAL TILL)
									Stiff dark grey-brown mottled red-brown and brown slightly organic CLAY. (GLACIAL TILL)
									Stiff dark grey-brown mottled red-brown and brown slightly organic CLAY. (GLACIAL TILL)
	3	1.90-2.00/D/D3	3.00 C	N=46 (2,4,13,15,12,6)		2.70	-2.70		Hard dark brown silty slightly sandy CLAY with some to much fine to medium subrounded to subangular gravel including sandstone, siltstone and mudstone. (GLACIAL TILL)
						3.00	-3.00		Hard dark brown silty slightly sandy CLAY with some to much fine to medium subrounded to subangular gravel including sandstone, siltstone and mudstone. (GLACIAL TILL)
									Hard dark brown silty slightly sandy CLAY with some to much fine to medium subrounded to subangular gravel including sandstone, siltstone and mudstone. (GLACIAL TILL)
									Hard dark brown silty slightly sandy CLAY with some to much fine to medium subrounded to subangular gravel including sandstone, siltstone and mudstone. (GLACIAL TILL)
									Hard dark brown silty slightly sandy CLAY with some to much fine to medium subrounded to subangular gravel including sandstone, siltstone and mudstone. (GLACIAL TILL)
	4	2.80-2.90/D/D4							End of Borehole at 3.00 m
									End of Borehole at 3.00 m
									End of Borehole at 3.00 m
									End of Borehole at 3.00 m
									End of Borehole at 3.00 m

Hole Started 12/04/2011 Hole Complete 12/04/2011

General Remarks:

Groundwater Remarks: Non observed

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS8

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

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-

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD				Scale: 1:25				
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description					
		0.10-0.20/D/D1 0.10-0.20/J/J1				0.30	-0.30		Brown fine to coarse sand and fine to coarse angular to subrounded gravel including quartz and quartzite.(MADE GROUND)					
		0.60				-0.60	Dark brown mottled red-brown sandy fine to medium angular gravel including brick and concrete.(MADE GROUND)							
		0.70				-0.70	Dark brown silty clayey fine to medium sand with occasional fine to medium angular gravel including brick and concrete.(MADE GROUND)							
		0.80				-0.80								
		1				0.90-1.00/D/D2							Pale grey fine to coarse angular gravel including concrete.(MADE GROUND)	
													Red-brown and grey-brown clayey sandy fine to coarse angular gravel including brick and sandstone.(MADE GROUND)	
		2				1.80-1.90/D/D3								Medium dense brown and locally red-brown silty slightly clayey fine to coarse sand with some to much fine to coarse angular gravel including brick, sandstone and metal fragments (90% core loss between 2-3m).(MADE GROUND)
		3												Dark grey-brown silty slightly sandy CLAY. (GLACIAL TILL)
		4				3.80-3.90/D/D4								
				</										

Hole Started 13/04/2011

Hole Complete 13/04/2011

General Remarks:

Groundwater Remarks: Non observed

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS9

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

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-

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
	1								End of Borehole at 0.10 m
	2								
	3								
	4								

Hole Started 13/04/2011 Hole Complete 13/04/2011

General Remarks: Unable to penetrate demolition rubble. Stepped back a metre and re-tried - again non penetration. Hole abandoned.

Groundwater Remarks: Non observed

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS10

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

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Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.10-0.20/D/D1 0.10-0.20/J/J1				0.30	-0.30		Grass over: Brown sandy silty clay with occasional fine to medium angular to subangular gravel including sandstone, brick and concrete (Demolition Rubble).(MADE GROUND)
						0.90	-0.90		Firm dark-brown sandy and locally very sandy silty clay with rare fine to medium angular gravel including ceramic tile.(MADE GROUND)
	1	1.00-1.10/D/D2				1.40	-1.40		Firm grey-brown slightly sandy silty CLAY with rare fine to medium subangular gravel including sandstone. (GLACIAL TILL)
						1.80	-1.80		Firm grey-brown locally mottled orange-brown sandy to very sandy silty CLAY.(GLACIAL TILL)
	2	1.90-2.00/D/D3				2.60	-2.60		Medium dense grey-brown locally mottled orange-brown clayey to very clayey fine to coarse SAND with occasional to some fine to medium subangular gravel including sandstone. Wet at 2.0m.(GLACIAL TILL)
		2.80-2.90/D/D4				3.00	-3.00		Firm grey-brown and locally orange-brown sandy silty CLAY with some fine to coarse subangular gravel including sandstone. 70% core loss between 2m-3m.(GLACIAL TILL)
	3								End of Borehole at 3.00 m
	4								

Hole Started 13/04/2011

Hole Complete 13/04/2011

General Remarks:

Groundwater Remarks:Wet at 2.0m

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS11

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

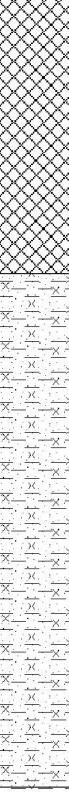
Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

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Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
	1	0.30-0.40/D/D1 0.30-0.40/J/J1				0.20	-0.20		Tarmacadam (cored).(TARMAC)
						0.60	-0.60		Grey-brown clayey slightly sandy fine to coarse angular gravel including limestone (sub base).(MADE GROUND)
	2	1.10-1.20/D/D2				1.00	-1.00		Dense to very dense clayey fine to coarse angular gravel including limestone (sub base).(MADE GROUND)
		1.90-2.00/D/D3							Dense grey-brown clayey slightly sandy locally sandy fine to coarse angular gravel including limestone and concrete.(MADE GROUND)
	3	2.90-3.00/D/D4				2.30	-2.30		Soft and locally soft to firm grey and orange-brown silty to very silty slightly sandy CLAY.(ALLUVIUM)
4		3.90-4.00/D/D5				4.00	-4.00		End of Borehole at 4.00 m

Hole Started 13/04/2011

Hole Complete 13/04/2011

General Remarks:

Groundwater Remarks: Wet at 2.3m

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



Borehole
Number

WS12

GRM Project ref: P5467

Ground Level mAOD
0.000

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

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Scale: 1:25

[illegible]

Hole Started	13/04/2011	Hole Complete	13/04/2011
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General Remarks:

Groundwater Remarks: Wet at 2.2m

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS13

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

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Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.10-0.20/D/D1 0.10-0.20/J/J1							Rough grass over: Brown silty clay with some fine to coarse subangular gravel including brick, limestone and volcanic material.(MADE GROUND)
		0.55-0.65/D/D2				0.50	-0.50		Grey silty slightly sandy clay.(MADE GROUND)
		0.80-0.90/D/D3				0.70	-0.70		Grey silty fine to medium sand. Wet at 1.0m.(MADE GROUND)
	1								
						1.70	-1.70		Brown and grey-brown silty very finely laminated clay. Laminae include black organic matter.(MADE GROUND)
	2	1.90-2.00/D/D4				1.80	-1.80		Firm becoming very soft between 2.0m-2.6m blue-grey silty slightly sandy clay. Very wet.(MADE GROUND)
						2.70	-2.70		Grey and brown silty clay.(MADE GROUND)
	3	2.90-3.00/D/D5				2.80	-2.80		Grey-brown slightly sandy silt.(MADE GROUND)
						3.80	-3.80		Firm dark brown silty slightly sandy organic CLAY (peat-like).(ALLUVIUM)
	4	3.90-4.00/D/D6				4.20	-4.20		Very soft grey silty CLAY.(ALLUVIUM)
		4.70-4.80/D/D7				4.60	-4.60		Firm brown mottled dark-brown silty slightly sandy CLAY.(ALLUVIUM)

Hole Started 13/04/2011

Hole Complete 13/04/2011

End of Borehole at 5.00 m

General Remarks:

Groundwater Remarks:Wet at 1.0m

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS14

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

-
-

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.05-0.15/D/D1				0.20	-0.20		Rough grass over: Yellow-brown mottled orange-brown sandy silty clay with occasional to some fine to medium subrounded gravel including quartzite.(MADE GROUND) Firm grey SILT.(MADE GROUND)
	1	0.80-0.90/D/D2				1.00	-1.00		Very soft grey SILT. Very wet below 1.0m. (MADE GROUND)
	2	1.90-2.00/D/D3							
	3	2.90-3.00/D/D4				2.90 3.00	-2.90 -3.00		Dark brown mottled grey silty slightly sandy CLAY.(ALLUVIUM) <i>End of Borehole at 3.00 m</i>
	4								

Hole Started 13/04/2011

Hole Complete 13/04/2011

General Remarks:

Groundwater Remarks: Wet at 1.0m

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

WS15

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
0.000

Client: The Alan Johnston Partnership

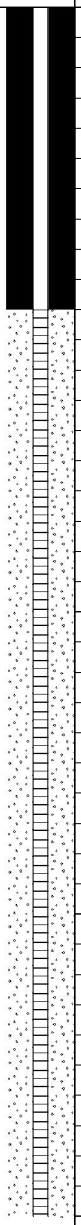
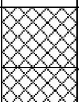
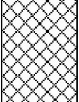
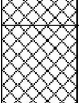
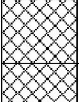
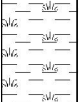
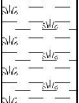
Equipment:

Coordinates:

Crew: IDS Ltd Logger PW

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Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.05-0.15/D/D1				0.20	-0.20		Rough grass over: Brown silty slightly sandy clay with occasional fine to medium angular to subrounded gravel including brick, sandstone and quartz.(MADE GROUND)
						0.80	-0.80		Medium dense grey-brown sandy fine to coarse angular to subangular gravel including brick and concrete.(MADE GROUND)
	1	0.90-1.00/D/D2				1.30	-1.30		Firm brown silty slightly sandy clay with some fine to coarse angular to subrounded gravel including brick, sandstone, siltstone, quartz, concrete and plastic bags.(MADE GROUND)
						1.45	-1.45		Firm brown mottled dark-brown sandy silty clay.(MADE GROUND)
	2	1.90-2.00/D/D3							Firm locally soft to firm brown mottled orange-brown and grey-brown silty slightly sandy CLAY with occasional flecks of organic matter. Very soft 2.1m-2.4m and 3.0m-3.5m. (ALLUVIUM)
		2.90-3.00/D/D4							
	3					3.50	-3.50		Firm brown and grey-brown sandy silty CLAY with occasional to some fine to medium subangular gravel including sandstone.(ALLUVIUM)
		3.90-4.00/D/D5				4.00	-4.00		
	4								End of Borehole at 4.00 m

Hole Started 13/04/2011

Hole Complete 13/04/2011

General Remarks:

Groundwater Remarks:None observed

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Cable-Percussion Borehole

Borehole
Number

BH1

Site **Calder Vale Business Park, Simonstone**

GRM Project ref: **P5467**

Ground Level mAOD
-

Client **The Alan Johnston Partnership**

Equipment:

Coordinates:
0.00E
0.00N

Crew: TDS Ltd

Logger: PW

Scale: 1:75

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation/ Backfill	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value (Sample Blows)	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
	1	0.50/B/B1				0.20	-		Grass over: Brown and locally mottled orange-brown silty slightly sandy clay with occasional fine to coarse subangular to subrounded gravel including quartz, and sandstone.(MADE GROUND)
	2	1.20-1.65/SPTLS/C2	1.20 C	N=10 (2,2,3,2,3,2)					Loose to medium dense becoming dense below 3.0m brown fine to coarse SAND with some fine to coarse rounded to subrounded gravel including sandstone, siltstone, and mudstone. Sand becoming very clayey below 1.5m. (GLACIAL TILL)
	3	1.70/D/D3							
	4	2.00-2.45/SPTLS/C4	2.00 C	N=13 (1,2,3,4,4,2)					
	5	2.50/D/D5							Very stiff brown, grey-brown and locally mottled orange-brown silty slightly sandy CLAY with occasional fine to coarse angular to subrounded gravel including sandstone, siltstone and mudstone.(GLACIAL TILL)
	6	3.00-3.45/SPTLS/C6	3.00 C	N=33 (4,6,6,8,9,10)					
	7	4.00-4.45/SPTLS/S7	4.00 S	50/245mm (8,9,11,12,15,12)		4.00	-		
	8	5.00-5.07/SPTLS/S8	5.00 S	75/105mm - Abandoned		5.00	-		Possible BOULDER (Drillers Description).(GLACIAL TILL)
	9	5.20/SPTLS/S9	5.20 C	75/0mm - Abandoned		5.20	-		
	10								End of Borehole at 5.20 m
	11								
	12								
	13								
	14								

Hole Started 11/04/2011

Hole Complete 11/04/2011

Remarks: Water Observations, Chiselling, Installations etc
1.5 Hours chiselling 4m-5m.

Test Type: S = Standard Penetration Test, C = Cone Penetration Test.
N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

BH1

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
-

Client: The Alan Johnston Partnership

Equipment:

Coordinates:
0E
0N

Crew: TDS Ltd Logger PW

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
	0.50	B/B1				0.20	-		Grass over: Brown and locally mottled orange-brown silty slightly sandy clay with occasional fine to coarse subangular to subrounded gravel including quartz, and sandstone.(MADE GROUND)
	1.20	1.65/SPTLS/C2	1.20 C	N=10 (2,2,3,2,3,2)					
	1.70	D/D3							
	2.00	2.45/SPTLS/C4	2.00 C	N=13 (1,2,3,4,4,2)					
	2.50	D/D5							
	3.00	3.45/SPTLS/C6	3.00 C	N=33 (4,6,6,8,9,10)					
	4.00	4.45/SPTLS/S7	4.00 S	50/245mm (8,9,11,12,15,12)		4.00	-		Very stiff brown, grey-brown and locally mottled orange-brown silty slightly sandy CLAY with occasional fine to coarse angular to subrounded gravel including sandstone, siltstone and mudstone.(GLACIAL TILL)

Continued next sheet

Hole Started 11/04/2011 Hole Complete 11/04/2011

General Remarks: 1.5 Hours chiselling 4m-5m.

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number
BH1

Site: Calder Vale Business Park, Simonstone	GRM Project ref: P5467	Ground Level mAOD -
---	------------------------	------------------------

Client: The Alan Johnston Partnership	Equipment:	Coordinates: 0E 0N
	Crew: TDS Ltd Logger PW	

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD				Scale: 1:25
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description	
		5.00-5.07/SPTLS/S9	5.00 S	75/105mm - Abandoned		5.00	-		Possible BOULDER (Drillers Description).(GLACIAL TILL)	
		5.20/SPTLS/S9	5.20 C	75/0mm - Abandoned		5.20	-		End of Borehole at 5.20 m	
	6									
	7									
	8									
	9									

Hole Started 11/04/2011 Hole Complete 11/04/2011

General Remarks: 1.5 Hours chiselling 4m-5m.

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Market Harborough Tel: 01858 414981
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Cable-Percussion Borehole

Borehole
Number

BH2

Site **Calder Vale Business Park, Simonstone**

GRM Project ref: **P5467**

Ground Level mAOD

-

Client **The Alan Johnston Partnership**

Equipment:

Crew: DP Drilling

Logger:

Coordinates:

0.00E

0.00N

Scale: 1:75

GROUNDWATER

SAMPLES

INSITU TESTING

STRATA RECORD

Installation/ Backfill	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value (Sample Blows)	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.30/D/1 0.50-1.00/B/2							Firm brown mottled red-brown slightly sandy clay with some fine to medium subrounded to subangular gravel including sandstone, siltstone, mudstone and granitic material. Occasional cobble of sandstone.(MADE GROUND)
	1	1.20-1.45/SPTLS/3	1.20 C	N=54 (3,3,10,19,21,4)		1.40	-		Boulder (drillers description).(GLACIAL TILL)
	2	1.80/D/4 2.00-2.45/SPTLS/5	2.00 C	N=17 (3,3,5,4,3,5)		1.70	-		Stiff brown very sandy silty CLAY with much fine to coarse subangular gravel including sandstone and mudstone.(GLACIAL TILL)
	3	3.00-3.45/SPTLS/6	3.00 C	N=18 (2,2,5,4,4,5)					
	4	4.00-4.45/SPTLS/7	4.00 C	N=35 (3,3,7,9,9,10)		3.90	-		Very stiff dark brown and locally dark grey-brown slightly sandy CLAY with some fine to coarse subrounded to subangular gravel including sandstone, coal, siltstone and mudstone. Occasional cobble of sandstone. (GLACIAL TILL)
	5	5.00-5.35/SPTLS/8	5.00 C	50/225mm (5,5,12,16,22,0)		4.60	-		Hard dark grey-brown slightly sandy CLAY with some fine to coarse angular to subrounded gravel including coal, mudstone, sandstone and siltstone. (GLACIAL TILL)
	6	6.50-6.70/SPTLS/9	6.50 C	50/150mm (9,10,23,27,0,0)					
	7	7.80-8.00/SPTLS/10	7.80 C	110/145mm (12,13,60,50,0,0)					
	8					8.00	-		End of Borehole at 8.00 m
	9								
	10								
	11								
	12								
	13								
14									

Hole Started **11/04/2011**

Hole Complete **11/04/2011**

Remarks: Water Observations, Chiselling, Installations etc

Test Type: S = Standard Penetration Test, C = Cone Penetration Test.
N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

BH2

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
-

Client: The Alan Johnston Partnership

Equipment:

Coordinates:
0E
0N

Crew: DP Drilling Logger

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
	1	0.30/D/1 0.50-1.00/B/2							Firm brown mottled red-brown slightly sandy clay with some fine to medium subrounded to subangular gravel including sandstone, siltstone, mudstone and granitic material. Occasional cobble of sandstone.(MADE GROUND)
		1.20-1.45/SPTLS/3	1.20 C	N=54 (3,3,10,19,21,4)		1.40	-		Boulder (drillers description).(GLACIAL TILL)
		1.80/D/4				1.70	-		Stiff brown very sandy silty CLAY with much fine to coarse subangular gravel including sandstone and mudstone.(GLACIAL TILL)
2		2.00-2.45/SPTLS/5	2.00 C	N=17 (3,3,5,4,3,5)					
3		3.00-3.45/SPTLS/6	3.00 C	N=18 (2,2,5,4,4,5)					Very stiff dark brown and locally dark grey-brown slightly sandy CLAY with some fine to coarse subrounded to subangular gravel including sandstone, coal, siltstone and mudstone. Occasional cobble of sandstone. (GLACIAL TILL)
4		4.00-4.45/SPTLS/7	4.00 C	N=35 (3,3,7,9,9,10)		3.90	-		
						4.60	-		Hard dark grey-brown slightly sandy CLAY with some fine to coarse angular to subrounded gravel including coal, mudstone, sandstone and siltstone. (GLACIAL TILL)

Continued next sheet

Hole Started 11/04/2011

Hole Complete 11/04/2011

General Remarks:

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Cable-Percussion Borehole

Borehole
Number

BH3

Site **Calder Vale Business Park, Simonstone**

GRM Project ref: **P5467**

Ground Level mAOD
-

Client **The Alan Johnston Partnership**

Equipment:

Crew: DR Drilling

Logger: PW

Coordinates:
0.00E
0.00N

Scale: 1:75

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation/ Backfill	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value (Sample Blows)	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.30/D/1 0.50-1.00/B/2				0.20 0.40	- -		Stone (Drillers description). (MADE GROUND)
	1	1.20-1.65/SPTLS/3	1.20 C	N=7 (1,1,2,1,2,2)					Brown and red-brown slightly clayey fine to coarse sand and fine to coarse angular to subangular gravel including brick and concrete. (MADE GROUND)
	2	1.80/D/4 2.00-2.45/SPTLS/5	2.00 C	N=6 (1,1,1,2,1,2)		2.40	-		Firm brown mottled red-brown and grey-brown sandy silty CLAY with occasional fine angular gravel including sandstone, siltstone and coal. (ALLUVIUM)
	3	3.00-3.45/SPTLS/6 3.50/D/7	3.00 C	N=14 (2,1,3,3,3,5)		3.50	-		Stiff brown and blue-grey silty CLAY. (GLACIAL TILL)
	4	4.00-4.15/SPTLS/8 4.30-4.40/SPTLS/9	4.00 C 4.30 C	50/35mm (12,13,50,0,0,0) 50/20mm (12,13,50,0,0,0)		4.10 4.40	- -		Very stiff brown and locally dark-grey-brown silty slightly sandy CLAY with some fine to coarse subangular to subrounded gravel including sandstone, siltstone and coal. (GLACIAL TILL)
	5								Strong orange-brown fine to medium grained SANDSTONE. (COAL MEASURES)
	6								End of Borehole at 4.40 m
	7								
	8								
	9								
	10								
	11								
	12								
	13								
	14								

Hole Started 12/04/2011

Hole Complete 12/04/2011

Remarks: Water Observations, Chiselling, Installations etc

Test Type: S = Standard Penetration Test, C = Cone Penetration Test.
N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

BH3

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
-

Client: The Alan Johnston Partnership

Equipment:

Coordinates:
0E
0N

Crew: DR Drilling Logger PW

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
						0.20	-		Stone (Drillers description).(MADE GROUND)
		0.30/D/1				0.40	-		Brown and red-brown slightly clayey fine to coarse sand and fine to coarse angular to subangular gravel including brick and concrete.(MADE GROUND)
		0.50-1.00/B/2							Firm brown mottled red-brown and grey-brown sandy silty CLAY with occasional fine angular gravel including sandstone, siltstone and coal.(ALLUVIUM)
	1								
		1.20-1.65/SPTLS/3	1.20 C	N=7 (1,1,2,1,2,2)					
		1.80/D/4							
	2					2.40	-		Stiff brown and blue-grey silty CLAY.(GLACIAL TILL)
		2.00-2.45/SPTLS/5	2.00 C	N=6 (1,1,1,2,1,2)					
	3					3.50	-		Very stiff brown and locally dark-grey-brown silty slightly sandy CLAY with some fine to coarse subangular to subrounded gravel including sandstone, siltstone and coal.(GLACIAL TILL)
		3.00-3.45/SPTLS/6	3.00 C	N=14 (2,1,3,3,3,5)					
		3.50/D/7							
	4					4.10	-		Strong orange-brown fine to medium grained SANDSTONE.(COAL MEASURES)
		4.00-4.15/SPTLS/8	4.00 C	50/35mm (12,13,50,0,0,0)					
		4.30-4.40/SPTLS/9	4.30 C	50/20mm (12,13,50,0,0,0)		4.40	-		End of Borehole at 4.40 m

Hole Started 12/04/2011

Hole Complete 12/04/2011

General Remarks:

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Cable-Percussion Borehole

Borehole
Number

BH4

Site **Calder Vale Business Park, Simonstone**

GRM Project ref: **P5467**

Ground Level mAOD
-

Client **The Alan Johnston Partnership**

Equipment:

Crew: DP Drilling

Logger: PW

Coordinates:
0.00E
0.00N

Scale: 1:75

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation/ Backfill	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value (Sample Blows)	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		0.50-1.00/B/2 0.60/D/1				0.50	-		Concrete.(MADE GROUND)
1		1.20-1.65/SPTLS/3	1.20 C	N=7 (1,1,1,2,2,2)		1.50	-		Firm brown mottled orange-brown and dark brown sandy to very sandy clay with some fine to coarse angular to subrounded gravel including brick, sandstone and siltstone. Some cobbles of sandstone.(MADE GROUND)
2		2.00-2.45/SPTLS/4	2.00 C	N=8 (1,1,1,2,2,3)					Firm grey-brown slightly sandy silty CLAY.(ALLUVIUM)
3		3.00-3.45/SPTLS/5	3.00 C	N=25 (6,6,6,6,5,8)		2.90	-		Medium dense brown and grey-brown clayey COBBLES including sandstone. Clay is finely laminated.(GLACIAL TILL)
4		4.00-4.45/SPTLS/6	4.00 C	N=42 (5,6,7,9,10,16)		3.90	-		Hard dark brown and grey-brown sandy CLAY with some fine to coarse subrounded to angular gravel including sandstone and siltstone. Some cobbles of sandstone. (GLACIAL TILL)
5		5.00-5.45/SPTLS/7	5.00 C	190/37mm (7,75,75,75,40,0)					
6		6.50-6.95/SPTLS/8	6.50 C	N=45 (6,6,10,10,11,14)					
7									
8		8.00-8.10/SPTLS/9	8.00 C	50/60mm (12,13,50,0,0,0)		8.10 8.30	-		Strong orange-brown fine to coarse grained SANDSTONE.(COAL MEASURES) <i>End of Borehole at 8.30 m</i>
9									
10									
11									
12									
13									
14									

Hole Started **13/04/2011**

Hole Complete **13/04/2011**

Remarks: Water Observations, Chiselling, Installations etc

Test Type: S = Standard Penetration Test, C = Cone Penetration Test.
N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

BH4

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
-

Client: The Alan Johnston Partnership

Equipment:

Coordinates:
0E
0N

Crew: DP Drilling Logger PW

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
	1	0.50-1.00/B/2	1.20 C	N=7 (1,1,1,2,2,2)		0.50	-		Concrete.(MADE GROUND)
		0.60/D/1				1.50	-		Firm brown mottled orange-brown and dark brown sandy to very sandy clay with some fine to coarse angular to subrounded gravel including brick, sandstone and siltstone. Some cobbles of sandstone.(MADE GROUND)
	2	1.20-1.65/SPTLS/3	2.00 C	N=8 (1,1,1,2,2,3)		2.90	-		Firm grey-brown slightly sandy silty CLAY.(ALLUVIUM)
	3	2.00-2.45/SPTLS/4	3.00 C	N=25 (6,6,6,6,5,8)		3.90	-		Medium dense brown and grey-brown clayey COBBLES including sandstone. Clay is finely laminated.(GLACIAL TILL)
4		3.00-3.45/SPTLS/5	4.00 C	N=42 (5,6,7,9,10,16)					Hard dark brown and grey-brown sandy CLAY with some fine to coarse subrounded to angular gravel including sandstone and siltstone. Some cobbles of sandstone. (GLACIAL TILL)
		4.00-4.45/SPTLS/6							Continued next sheet

Hole Started 13/04/2011

Hole Complete 13/04/2011

General Remarks:

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number
BH4

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
-

Client: The Alan Johnston Partnership

Equipment:

Coordinates:
0E
0N

Crew: DP Drilling Logger PW

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
	6	5.00-5.45/SPTLS/7	5.00 C	190/37mm (7,75,75,75,40,0)					Hard dark brown and grey-brown sandy CLAY with some fine to coarse subrounded to angular gravel including sandstone and siltstone. Some cobbles of sandstone. (GLACIAL TILL)
	7	6.50-6.95/SPTLS/8	6.50 C	N=45 (6,6,10,10,11,14)					
	8	8.00-8.10/SPTLS/9	8.00 C	50/60mm (12,13,50,0,0,0)		8.10	-		
						8.30	-		Strong orange-brown fine to coarse grained SANDSTONE.(COAL MEASURES)
									End of Borehole at 8.30 m
	9								

Hole Started 13/04/2011 Hole Complete 13/04/2011

General Remarks:

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Cable-Percussion Borehole

Borehole
Number

BH5

Site **Calder Vale Business Park, Simonstone**

GRM Project ref: **P5467**

Ground Level mAOD
-

Client **The Alan Johnston Partnership**

Equipment:

Crew: DP Drilling

Logger: PW

Coordinates:
0.00E
0.00N

Scale: 1:75

GROUNDWATER

SAMPLES

INSITU TESTING

STRATA RECORD

Installation/ Backfill	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value (Sample Blows)	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
	1					0.60 0.70	- -		Brick rubble fill (Drillers description).(MADE GROUND)
	2								Concrete.(MADE GROUND)
	3								End of Borehole at 0.70 m
	4								
	5								
	6								
	7								
	8								
	9								
	10								
	11								
	12								
	13								
	14								

Hole Started 13/04/2011

Hole Complete 13/04/2011

Remarks: Water Observations, Chiselling, Installations etc
Concrete obstruction hit at 0.7m unable to chisel through - hole abandoned.

Test Type: S = Standard Penetration Test, C = Cone Penetration Test.
N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

BH5

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
-

Client: The Alan Johnston Partnership

Equipment:

Coordinates:
0E
0N

Crew: DP Drilling Logger PW

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
						0.60	-		Brick rubble fill (Drillers description).(MADE GROUND)
						0.70	-		Concrete.(MADE GROUND)
									End of Borehole at 0.70 m
	1								
	2								
	3								
	4								

Hole Started 13/04/2011 Hole Complete 13/04/2011

General Remarks: Concrete obstruction hit at 0.7m unable to chisel through - hole abandoned.

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.

		Burton-on-Trent (HQ) Tel: 01283 551249 Market Harborough Tel: 01858 414981 Email: mail@grm-uk.com Web: www.grm-uk.com		Cable-Percussion Borehole		Borehole Number BH5A		
Site Calder Vale Business Park, Simonstone				GRM Project ref: P5467		Ground Level mAOD -		
Client The Alan Johnston Partnership				Equipment:		Coordinates: 0.00E 0.00N		
				Crew: DP Drilling Logger: PW				
GROUNDWATER		SAMPLES	INSITU TESTING		STRATA RECORD			
Installation/ Backfill	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value (Sample Blows)	Casing Depth (m)	Depth (m)	Level (mAOD)	Key
	0.30 0.40							
Brijk rubble fill (Driller's description).(MADE GROUND)								
Concrete.(MADE GROUND)								
End of Borehole at 0.40 m								
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
Hole Started 13/04/2011			Hole Complete 13/04/2011					
Remarks: Water Observations, Chiselling, Installations etc Concrete obstruction hit at 0.4m. Unable to chisel through - hole abandoned.								
Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.								



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Window Sample Borehole

Borehole
Number

BH5A

Site: Calder Vale Business Park, Simonstone	GRM Project ref: P5467	Ground Level mAOD -
---	------------------------	------------------------

Client: The Alan Johnston Partnership	Equipment:	Coordinates: 0E 0N
	Crew: DP Drilling Logger PW	

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD				Scale: 1:25
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description	
						0.30	-		Briq rubble fill (Driller's description).(MADE GROUND)	
						0.40	-		Concrete.(MADE GROUND)	
									End of Borehole at 0.40 m	
	1									
	2									
	3									
	4									

Hole Started 13/04/2011 Hole Complete 13/04/2011

General Remarks: Concrete obstruction hit at 0.4m. Unable to chisel through - hole abandoned.

Groundwater Remarks:



Burton-on-Trent (HQ) Tel: 01283 551249
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Email: mail@grm-uk.com Web: www.grm-uk.com

Cable-Percussion Borehole

Borehole
Number

BH5B

Site **Calder Vale Business Park, Simonstone**

GRM Project ref: **P5467**

Ground Level mAOD
-

Client **The Alan Johnston Partnership**

Equipment:

Crew: DP Drilling

Logger: PW

Coordinates:
0.00E
0.00N

Scale: 1:75

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation/ Backfill	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value (Sample Blows)	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
			0.00 S						
		0.50-1.00/B/1				0.40	-		Brown, grey-brown and red-brown clayey, sandy fine to coarse angular gravel including concrete and brick.(MADE GROUND)
						0.70	-		
1		1.20-1.65/SPTLS/2	1.20 C	N=20 (3,4,7,6,5,2)	0.00				Concrete (broken out).(MADE GROUND)
		1.80/D/3				1.50	-		Medium dense brown and red-brown slightly sandy clay with much fine to coarse angular gravel including brick, coal and sandstone.(MADE GROUND)
2		2.00-2.45/SPTLS/4	2.00 C	N=6 (1,1,1,2,1,2)					Firm grey-brown, mottled orange-brown sandy silty CLAY with some organic matter (rootlets).(ALLUVIUM)
		2.70/D/5				2.70	-		
3		3.00-3.45/SPTLS/6	3.00 C	N=8 (1,1,2,2,2,2)					Firm brown and dark grey-brown silty CLAY with occasional fine subangular gravel including sandstone.(GLACIAL TILL)
		4.00-4.45/U/7		(60)		3.90	-		
		4.50/D/8							Firm becoming stiff below 5.0m brown and dark grey-brown sandy CLAY with occasional fine to medium subrounded to subangular gravel including sandstone and siltstone. (GLACIAL TILL)
5		5.00-5.45/SPTLS/9	5.00 C	N=17 (1,2,4,4,4,5)					
		5.30/D/10				5.30	-		
6									Hard brown and dark grey-brown silty slightly sandy CLAY with some and locally much fine to coarse subangular gravel including sandstone, coal and siltstone. Some cobbles of sandstone. (GLACIAL TILL)
		6.50-6.95/SPTLS/11	6.50 C	N=49 (5,5,11,12,12,14)					
7									
		8.00-8.25/SPTLS/12	8.00 C	54/225mm (8,9,16,20,14,4)					
8		8.60-8.70/SPTLS/13	8.60 C	50/3mm (12,13,50,0,0,0)		8.60	-		
						8.70	-		Orange-brown coarse subrounded BOULDER of sandstone.(GLACIAL TILL)
9									End of Borehole at 8.70 m
10									
11									
12									
13									
14									

Hole Started **14/04/2011**

Hole Complete **14/04/2011**

Remarks: Water Observations, Chiselling, Installations etc

Test Type: S = Standard Penetration Test, C = Cone Penetration Test.
N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



Burton-on-Trent (HQ) Tel: 01283 551249
Market Harborough Tel: 01858 414981
Email: mail@grm-uk.com Web: www.grm-uk.com

Window Sample Borehole

Borehole
Number

BH5B

Site: Calder Vale Business Park, Simonstone

GRM Project ref: **P5467**

Ground Level mAOD
-

Client: The Alan Johnston Partnership

Equipment:

Coordinates:
0E
0N

Crew: DP Drilling Logger PW

Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
			0.00 S						Brown, grey-brown and red-brown clayey, sandy fine to coarse angular gravel including concrete and brick. (MADE GROUND)
		0.50-1.00/B/1				0.40	-		Concrete (broken out). (MADE GROUND)
						0.70	-		Medium dense brown and red-brown slightly sandy clay with much fine to coarse angular gravel including brick, coal and sandstone. (MADE GROUND)
	1	1.20-1.65/SPTLS/2	1.20 C	N=20 (3,4,7,6,5,2)	0.00	1.50	-		Firm grey-brown, mottled orange-brown sandy silty CLAY with some organic matter (rootlets). (ALLUVIUM)
		1.80/D/3							
	2	2.00-2.45/SPTLS/4	2.00 C	N=6 (1,1,1,2,1,2)		2.70	-		Firm brown and dark grey-brown silty CLAY with occasional fine subangular gravel including sandstone. (GLACIAL TILL)
		2.70/D/5							
	3	3.00-3.45/SPTLS/6	3.00 C	N=8 (1,1,2,2,2,2)		3.90	-		Firm becoming stiff below 5.0m brown and dark grey-brown sandy CLAY with occasional fine to medium subrounded to subangular gravel including sandstone and siltstone. (GLACIAL TILL)
		4.00-4.45/U/7							
	4	4.50/D/8							
Continued next sheet									

Hole Started 14/04/2011

Hole Complete 14/04/2011

General Remarks:

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.



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Window Sample Borehole

Borehole
Number

BH5B

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Ground Level mAOD
-

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0E
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Scale: 1:25

GROUNDWATER		SAMPLES	INSITU TESTING			STRATA RECORD			
Installation	Depth (m)	Depth/Type/Ref (m)	Depth/Type (m)	N Value	Casing Depth (m)	Depth (m)	Level (mAOD)	Key	Description
		5.00-5.45/SPTLS/9	5.00 C	N=17 (1,2,4,4,4,5)					Firm becoming stiff below 5.0m brown and dark grey-brown sandy CLAY with occasional fine to medium subrounded to subangular gravel including sandstone and siltstone. (GLACIAL TILL)
		5.30/D/10				5.30	-		
		6.50-6.95/SPTLS/11	6.50 C	N=49 (5,5,11,12,12,14)					Hard brown and dark grey-brown silty slightly sandy CLAY with some and locally much fine to coarse subangular gravel including sandstone, coal and siltstone. Some cobbles of sandstone. (GLACIAL TILL)
		8.00-8.25/SPTLS/12	8.00 C	54/225mm (8,9,16,20,14,4)					
		8.60-8.70/SPTLS/13	8.60 C	50/3mm (12,13,50,0,0,0)		8.60 8.70	- -		Orange-brown coarse subrounded BOULDER of sandstone.(GLACIAL TILL) <i>End of Borehole at 8.70 m</i>

Hole Started 14/04/2011

Hole Complete 14/04/2011

General Remarks:

Groundwater Remarks:

Test Type: S = Standard Penetration Test, C = Cone Penetration Test. N values reported are uncorrected. N value 50/275 = 50 blows in 275mm.