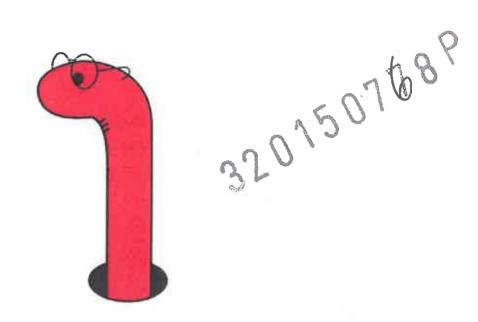
# **Electronic Report**



# **WORMS EYE**

52 Bank Parade Burnley BB11 1TS Phone 01282 414649 / 458410 Our Ref: Downham Road/BB7 4AV/2015

Date: 20/7/2015

Leanne Flynn Avalon Chartered Town Planning 2 Reedley Business Centre Redman Road Reedley BB10 2TY

# PROPOSED HOUSES BEHIND 9 DOWNHAM ROAD, CHATBURN, CLITHEROE, BB7 4AV PRELIMINARY RISK ASSESSMENT (DESK STUDY)

# INTRODUCTION

It is proposed to build two detached houses. The objective is to carry out a desk study, supplemented with a walk over survey, to form a Preliminary Risk Assessment to consider contamination, landfill gas and geotechnical issues.

# **SITE DESCRIPTION**

The site is located to the South of Downham Road in Chatburn, Clitheroe, and at OS Grid Reference 376970, 444080. The site was inspected on 06/07/15 by Simon Gimeno and is about 30 by 40 metres with a 30 metre access coming in from the north. The site comprises a dilapidated, unused, workshop/garage with a builders' yard surrounding the south and west.

The workshop/garage comprises two sections one to the north running west to east and another section going north to south together, forming a 'T' shape. The northern section was made of breeze block to the west and stone to the east with a slate roof. The southern section again comprised a slate roof but with red brick walls. The building was being used to store materials, tractors, forklift trucks and gardening tools.

The builders' yard was surfaced with gravel creating a pathway through the centre of the site and then the remainder of the site was unkempt grass and weeds. The southwest corner appeared to have been used as a bonfire. Along the west of the yard was a porta cabin, JCB, skip and again various building materials. In the northwest corner was a canopy with a steam roller and building materials.

South of the building was a service pit with an old disused boiler, further to the south there was an abandoned truck/lorry, a shipping container storing various lengths of timber and an old rusted through steam roller.

Throughout the yard there are piles of scrap materials, oil drums, rubble and asbestos cement pieces.

To the north and northeast are houses, to the southeast is a railway line, and Chatburn Brook (at a lower level) forms the south boundary.

# **TREES**

The southern boundary is bordered by deciduous trees up to 12 metres high these being mainly Sycamores, Elms and Ash. Along the west boundary to the south is a conifer tree standing at about 10 metres high with two deciduous trees thought to be Ash trees.

This is not an accurate arboricultural survey.

### PROPOSED DEVELOPMENT

It is proposed to build two detached houses, each having a garden to the rear (south). At the northeast corner of the site will be a garage with adjacent workshop.

### **DATA SOURCES**

The following data sources have been viewed in compiling this report.

- BGS, Geology Map, 1:50000 scale, Sheet 68, Clitheroe, Solid and Drift Edition
- BGS, on-shore boreholes scans (no nearby relevant records)
- Environment Agency, What's In Your Backyard
  - Groundwater
  - Landfill Sites
  - Pollution
- Landmark Envirocheck Report
- Ordnance Survey, Historical Maps, 1:10000 and 1:2500 scale
- Walkover Survey, 6/7/15.

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# **ENVIRONMENTAL DATA**

A Landmark Envirocheck report has been obtained for the site and geological maps have been reviewed, the following is a summary of the combined data. The Envirocheck report indicated none of the following within 250 metres:

- Contaminated land register entries
- Source protection zones
- Radioactive sites
- Hazardous substances sites
- Sensitive land uses

# Geology of Site

The geological map indicates that the underlying solid rocks are Chatburn Limestone.

The site is shown to be free of drift deposits and natural subsidence hazards are shown as very low to no hazard.

# Surface Water (Hydrology)

Chatburn Brook, GQA Grade B, forms the South boundary.

There are no discharge consents within 100 metres.

There are two listed pollution incidents within 200 metres, both minor incidents of unknown sewage to Chatburn Brook\*

A water abstraction point at Smith and Nephew, 189 metres northwest, is now revoked\*

The site is shown to be at risk of flooding from the adjacent brook.

The area slopes down to the southwest, however, the flow of surface water is expected to be to the brook to the South.

\* not relevant due to distance/severity/significance

# Groundwater (Hydrogeology)

The solid rocks under the site are indicated as a Secondary A aquifer.

No details are given for superficial (drift) deposits.

Groundwater flow is likely to follow the topography and move to the southwest and the brook.

# **Landfill Sites**

A small historical landfill site is shown 96 metres east where waste types are shown to have included inert waste. No details are given or input dates.

# Radon

Between 5-10% of homes in the area are above the radon action level. Basic radon protection measures are required.

# Nearby Industry

A car dealers is listed as 63 metres north\*

A fuel station (now closed) is shown 95 metres north\*

not relevant due to distance/severity/significance

# **SITE HISTORY**

Date	On Site	Off Site
1847 (1:10560)	Poor mapping – Site appears undeveloped	Houses immediately northeast and northwest, and 10m north Chatburn Brook immediately South.
1886	Desilation of words aget access	Railway immediately east, in cutting.
(1:2500)	Building at northeast corner.	Cotton Mill 215m northwest.
1912 (1:2500)	Small buildings on east of site.	No relevant change
1932 (1:2500)	Little or no change.	Cotton Mill extended, now 160m northwest.
1973 (1:2500)	Building extended to the South.	No relevant change.
1994 (1:2500)	Little or no change	Cotton Mill to northwest demolished.
2015	Little or no change	No relevant change

# **ANECDOTAL EVIDENCE**

Discussions with the client indicate the following:

- The site has not been used for about 30 years.
- Prior to this the site was a small vehicle, transport yard.
- The building was used for repairs/maintenance of vehicles.
- The site has been filled to form a level area.

# **DISCUSSION**

# Contamination

The site is a former transport yard with the building used for repairs. This is a potential source of contaminants especially beneath and around the building.

The fill material used to level the site is from an unknown source and is another potential source of contaminants. Contamination is therefore expected, at levels exceeding residential thresholds, and a risk to householders is likely.

There are no nearby land uses that will affect the site and no pollution incidents on or close to the site.

The proposed development will be houses with gardens. Potential pollutant linkages are:

- Direct contact with soil.
- Ingestion of soil.
- From homegrown vegetables and soil attached to vegetables.
- Inhalation and ingestion of dust.
- Sulphate attack on buried concrete.
- Inhalation of vapours.
- Contaminants entering drinking water pipes.

# **Controlled Waters**

There is an underlying Secondary A aquifer beneath little or no drift deposits.

Chatburn Brook forms the south boundary.

The gardens will allow rainwater to pass through the surface soils potentially leaching out contaminants that may migrate towards the aquifer and brook. Contamination is expected and, bearing in mind the absence of drift deposits, and short pathway to the brook, a risk to both receptors is considered likely.

# Landfill Gas/Ground Gas

There is an inert landfill site 96 metres east, this is a small site (about 30 metres diameter on the Envirocheck Plan) and a low gas generation potential is possible.

The nature of the made ground beneath the site is not known, neither is the thickness. At this stage this is therefore considered to be a possible gas source and potential risk to the development.

The age of filling suggests a low degradable matter content is likely and, taking into account protection, precautionary gas protection is considered suitable, instead of testing.

### Radon

Basic radon protection measures are required.

### **Flooding**

The Environment Agency maps show that this site is at risk of flooding from the adjacent brook.

Information is obtained from the EA flood maps and suggests areas where rivers would flood. There are two zones:

- 'normal' flooding, based on a 1 in 100 chance of it happening in any year (1:200 if flooding is from the sea). This is normally closer to the river.
- 'extreme' flooding, further away from the river and having a 1 in 1000 chance.

Flood defences are sometimes shown on the maps and a purple line indicates these; the hatched areas behind show places that are defended up to a 1 in 100 chance.

Flooding can occur for many reasons other than those dealt with by the EA maps. These include:

- burst pipes
- blocked drains, sewers and culverts
- inadequate drainage
- cloudbursts/flash flooding overwhelming normally satisfactory drainage systems

Statements in this report such as 'clear of flooding/flood plain' and 'flooding – no further action' are references to the EA river and sea flood maps and are no guarantee that flooding will not occur.

### **Foundations**

The geology map suggests the site is underlain by rock at shallow depth, which often provides a good bearing strata for traditional shallow foundations. However, there is suspected made ground on site and a range of foundation options may need to be considered.

# INDUSTRY PROFILE

The site was formerly transport yard.

Industry	Possible Contaminants	 
Garage Services	Metals: lead, chromium, copper Volatile organic compounds/solvents (VOC) Fuel: petrol, diesel, MTBE Polycyclic aromatic hydrocarbons (PAH) Asbestos	 19

# **CONCEPTUAL MODEL**

A conceptual model based on the source-pathway-receptor concept is included with this desk study to show the potential pollutant linkages with this site.

Source	Receptors	Pathway	Likely Pollutant Linkage
Construction Activity	Chatburn Brook	Risks of silt, water, litter, fuels reaching brook	Yes
	Instruction Activity Chatbum Brook Risks of silt, water, litter, fuels reaching brook Construction workers Inhalation End-users Inhalation Construction workers Activity Construction workers Inhalation Construction workers Activity Activity Construction workers Activity Act	Yes	
Asbestos End-users Inhalation  Construction workers Short-term direct contact, inhalation of dust, ingestion  Direct contact, ingestion, from home grown vegetables inhalation of dust  Groundwater Leaching towards  Chatburn Brook Leaching towards  Sulphate Building fabric Concrete directly in contact with soil	Yes		
	Construction workers	Short-term direct contact, inhalation of dust, ingestion	Possible
	Householders		Yes
contaminants	Groundwater	Leaching towards	Possible
	Chatburn Brook	Leaching towards	Possible
Sulphate Building fabric Concrete directly in contact with soil		Unlikely	
	Construction workers	Short-term direct contact, inhalation of dust, ingestion	Yes
Lludracarhone	Householders		Yes
nydrocarbons	Service pipes	Seeping into drinking water pipes	Yes
	Groundwater	Migrating towards	Yes
	Chatburn Brook	Migrating/leaching towards	Yes
Hydrocarbon	Construction workers	Short-term inhalation	Unlikely
vapours	Householders	Inhalation of vapours indoors and outdoors	Unlikely
Landfill gas	End-users - in buildings	Seeping into buildings, explosion, asphyxiation	Possible
Radon	End-users - in buildings	Seeping into buildings	Yes

# **CONCLUSION**

### **Contamination**

Taking into account the past use of the site it is thought likely that contamination will be present on the site, exceeding residential thresholds.

An intrusive investigation is required, consisting of boreholes/trial holes and tests to confirm the presence and extent of contamination on the site.

There are no specific point sources for contamination and the investigation will need to target the existing building, proposed gardens (most sensitive part of the development), proposed buildings and provide all round coverage.

### **Controlled Waters**

A potential risk to controlled water is expected and it is likely that leachate tests, and possibly tests on water samples, will be required.

This will need to be reviewed following the soil tests, allowing those contaminants and areas of the site where there is a concern to be targeted.

There is a significant risk from soil, water, litter, fuels etc impacting Chatburn Brook during construction.

### Landfill Gas/Ground Gas

Basic radon protection measures are required.

There is a potential gas risk from on-site made ground. It is considered that, subject to Local Authority Permission, precautionary gas protection measures for landfill gas and radon will adequately reduce the risk. The following are considered appropriate:

- Ventilation of confined spaces within building
- A well-constructed ground slab/ or ventilated sub-floor void
- A low-permeability gas membrane.
- Minimum penetration of ground slab by services.
- Also gas precautions should continue across the cavity.

It is recommended that the decision on the membrane be left until after contamination tests have been completed, and the potential risk from hydrocarbons evaluated.

# Flooding

The Environment Agency maps suggest that the site could flood, however these maps are fairly crude. A topographical survey could clarify the situation and a comprehensive survey could clarify the situation.

# **Foundations**

Made ground over limestone is suspected.

A series of boreholes are required in the area of the proposed building to allow the most suitable foundations to be designed.

Retaining/river bank walls need to be considered up against Chatburn Brook.

Yours faithfully on behalf of Worms Eye Ltd

David Lord BSc (Hons) FGS, MIEnvSc, AIEMA

# PROPOSED HOUSES AT 9 DOWNHAM ROAD, CHATBURN, CLITHEROE, BB7 4AV

# List of Appendices - Desk Study

Existing Site Plan – 1:500

Photographs of site

**Avalon Proposed Site Plan** 

Landmark Summary Map

**Enlarged Floor Map** 

Landmark Envirocheck Report

Historical Maps

**Conceptual Model** 

### **ABBREVIATIONS**

Benzo(a)pyrene BAP Chemical Benzene, toluene, ethylbenzene, xylene **BTEX** Dibenzo(ah)anthracene DAHA Methyl tertiaryt-butyl ether (additive to petrol) MTBE Extractable Petroleum Hydrocarbons (formerly Diesel Range Organics - DRO) **EPH** No fibres detected (asbestos test) NFD Polycyclic aromatic hydrocarbons PAH Polychlorinated biphenyls **PCB** Photo ionisation detector PID Petrol range organics/gasoline range organics PRO/GRO Semi-volatile organic compounds SVOC Trichloroethylene TCE Total petroleum hydrocarbons TPH Volatile organic compounds VOC Association of Geotechnical Specialists **AGS** Other **British Geological Survey** BGS **Building Research Establishment** BRE California Bearing Ratio CBR Chartered Institute of Environmental Health CIEH Construction Industry Research and Information Association **CIRIA** Contaminated Land Exposure Assessment (Environment Agency) CLEA Contaminated Land Research Report 8 (Environment Agency) CLR 8 Drinking water quality DWQ **Environment Agency** EΑ Environmental quality standards EQS Inter-departmental Commission for the Reclamation of Contaminated Land **ICRCL** Land Quality Management Ltd (Land and Environmental Consultancy) LQM National House Builders Council NHBC

Soil Guideline Values

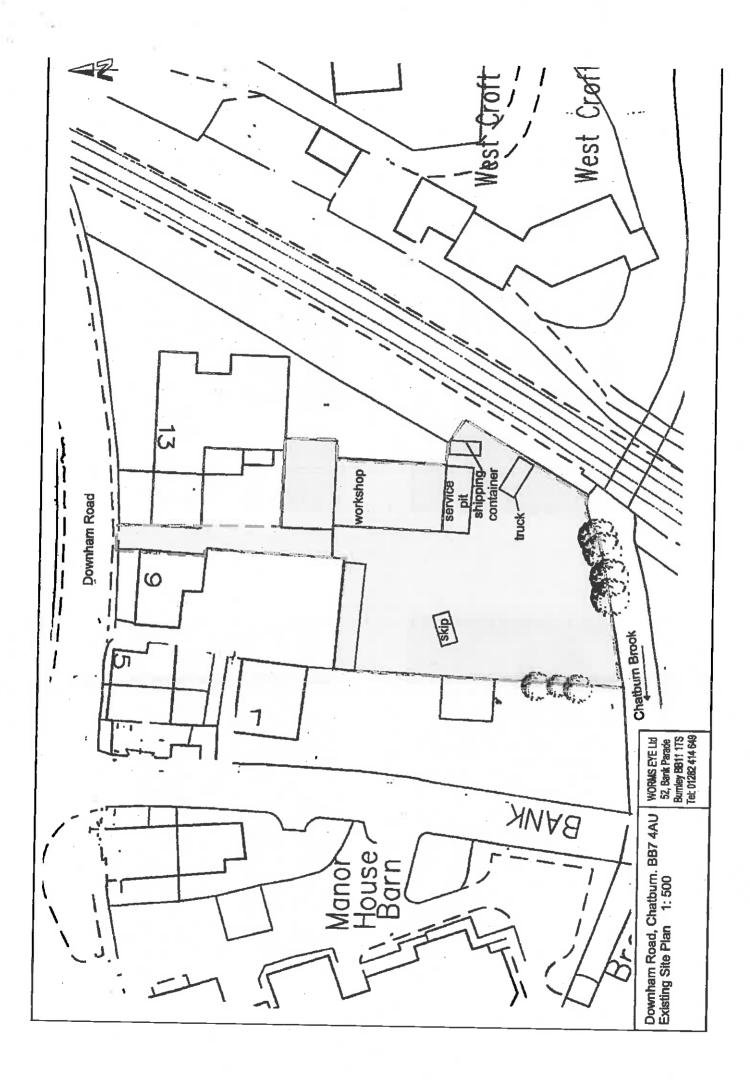
**TPH Working Group** 

Standard penetration test

SGV

SPT

**TPHWG** 



# Downham Road, Chatburn, BB7 4AU



view of site looking northeast



view of site looking southwest



bonfire remains and asbestos fragments in southwest corner



service pit

130 136 :::; 겂 Ordnence Survey (c) Crrwm Copyright 2014, All rights reserved, Licence number 100022432 ဖ O N. JIII **NA8** House Manor Barn This plan is reproduced from the ordnance survey map with the senction of the Controller H.M.Stationary Office. Crown copyright reserved. This plan is published for the convenience of identification only and attrough befreved to be correct its accuracy is not guaranteed. It is expressly excluded from any contract. House Manor

Client: Alan Jackson

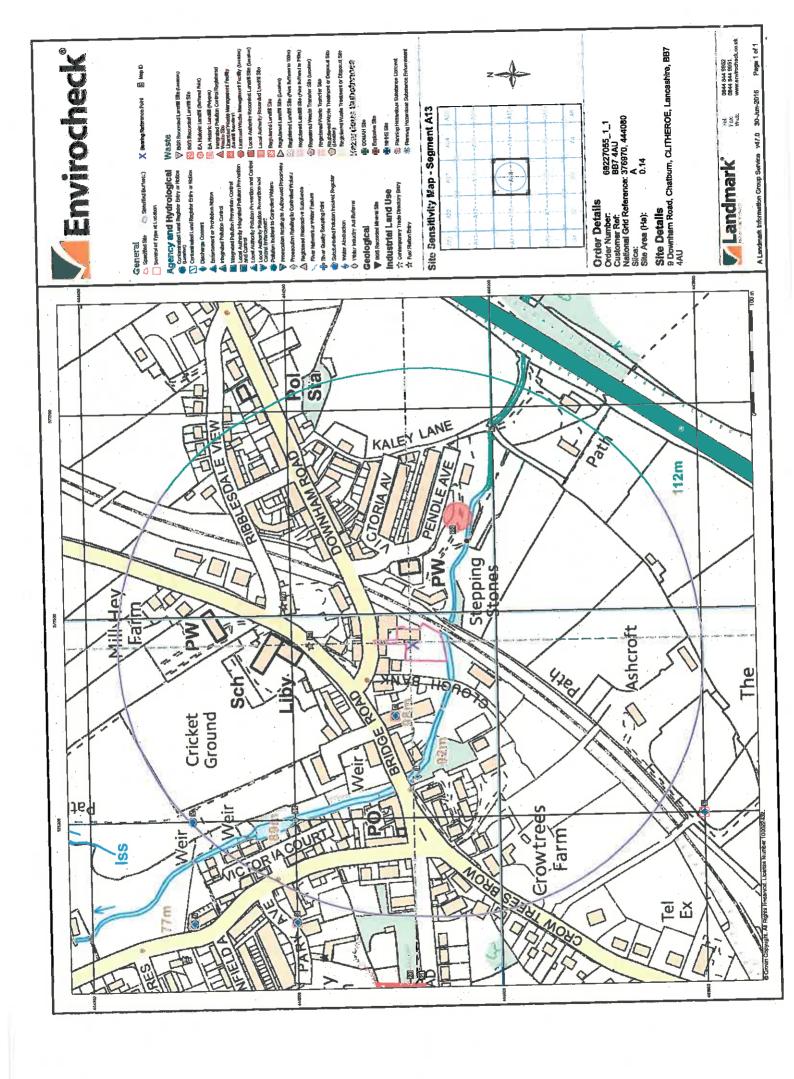
Chartered Town Planning

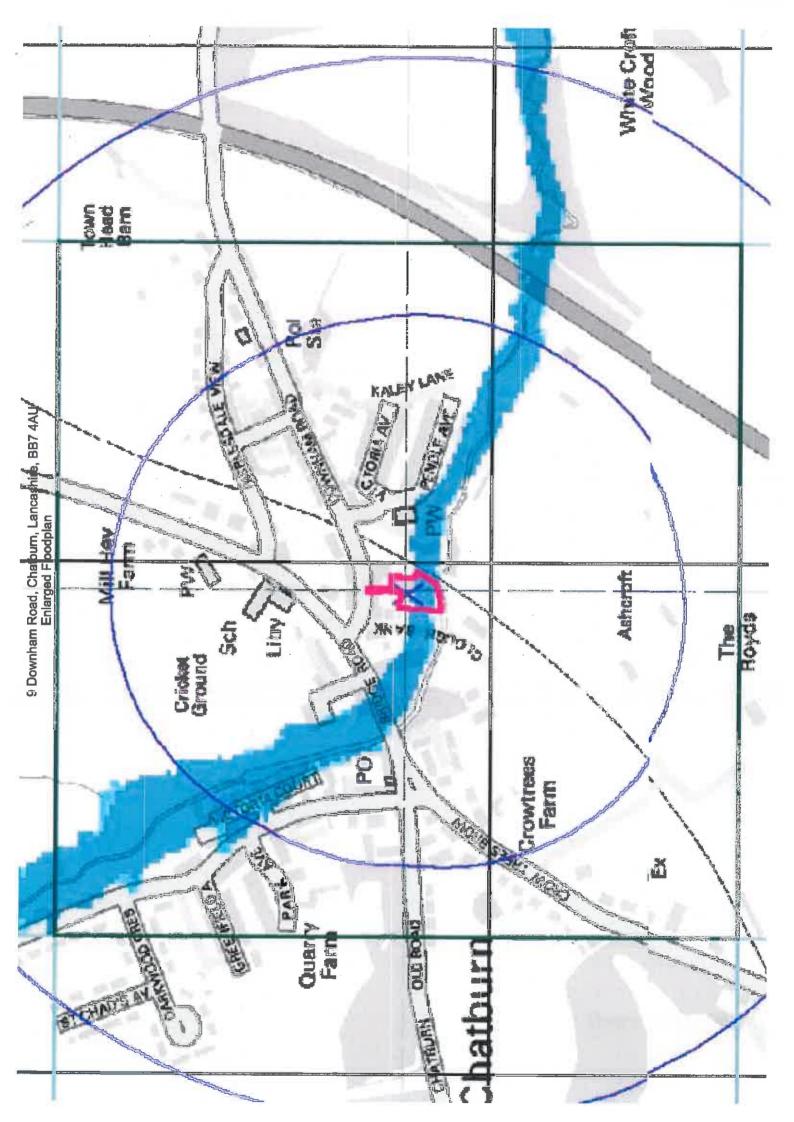
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Wells: www.zhvelonip.co.uk. Enuil: planning@emionip.co.uk. 2 Readiny Business Certre, Radnum Road, Burnloy, Lanzanshins, 18610 2TY Fax: 01282 451666 Phone: 01282 834834

Notes:
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STE PLAN







# **Envirocheck® Report:**

# Datasheet

# **Order Details:**

Order Number: 69227055\_1\_1

**Customer Reference:** BB7 4AU

National Grid Reference: 376970, 444080

Slice:

Δ

Site Area (Ha):

0.14

Search Buffer (m):

500

# Site Details:

9 Downham Road Chatburn CLITHEROE Lancashire BB7 4AU

# **Client Details:**

Mr D Lord EC Environmental Ltd 1 Grasmere Close Colne Lancashire BB8 7DN







Report Section	Page Number
Summary	
Agency & Hydrological	1
Waste	7
Hazardous Substances	į.
Geological	8
Industrial Land Use	13
Sensitive Land Use	14
Data Currency	15
Data Suppliers	19
Useful Contacts	20

### Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottlish Environment Protection Agency; it also incorporates data from Natural England (and the Scottlish equivalents) and Local Authorities; and highlights hydrogological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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### Report Version v49.0



# **Summary**

Data Type	Page Number	On Site	0 to 250m	251 to 500m (*up to 1000m
Agency & Hydrological				
Contaminated Land Register Entries and Notices				
Discharge Consents	pg 1		2	3
Enforcement and Prohibition Notices				
Integrated Pollution Controls				
Integrated Pollution Prevention And Control			ļ	
Local Authority Integrated Pollution Prevention And Control				
Local Authority Pollution Prevention and Controls				0
Local Authority Pollution Prevention and Control Enforcements		<u> </u>	<u></u>	
Nearest Surface Water Feature	pg 2	Yes		
Pollution Incidents to Controlled Waters	pg 2	<u> </u>	3	6
Prosecutions Relating to Authorised Processes				
Prosecutions Relating to Controlled Waters				1
Registered Radioactive Substances	9		<u> </u>	<u> </u>
River Quality	pg 3	1	1 .1	
River Quality Biology Sampling Points				
River Quality Chemistry Sampling Points				
Substantiated Pollution Incident Register	Y			
Water Abstractions	pg 4		1	
Water Industry Act Referrals				
Groundwater Vulnerability	pg 4	Yes	n/a	n/a
Bedrock Aquifer Designations	pg 4	Yes	n/a	n/a
Superficial Aquifer Designations			n/a	n/a
Source Protection Zones			na .	nia
Extreme Flooding from Rivers or Sea without Defences	pg 4	Yes	145	n/a
Flooding from Rivers or Sea without Defences	pg 4	Yes	Yes	n/a
Areas Benefiting from Flood Defences				n/a
Flood Water Storage Areas				n/a
Flood Defences				n/a
Detailed River Network Lines	pg 4		Yes	Yes
Detailed River Network Offline Drainage	pg 6			Yes



# **Summary**

Data Type	Page Number	On Site	0 to 250m	251 to 500m (*up to 1000m)
Waste				
BGS Recorded Landfill Sites	pg 7			1
Historical Landfill Sites	pg 7		1	1
Integrated Pollution Control Registered Waste Sites				
Licensed Waste Management Facilities (Landfill Boundaries)				
Licensed Waste Management Facilities (Locations)				
Local Authority Recorded Landfil! Sites				
Registered Landfill Sites	pg 7			1
Registered Waste Transfer Sites				
Registered Waste Treatment or Disposal Sites				
Hazardous Substances				
Control of Major Accident Hazards Sites (COMAH)				
Explosive Sites				
Notification of Installations Handling Hazardous Substances (NIHHS)				
Planning Hazardous Substance Consents				
Planning Hazardous Substance Enforcements				
Geological				
BGS 1:625,000 Solid Geology	pg 8	Yes	n/a	n/a
BGS Estimated Soil Chemistry	pg 8	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 11			1
BGS Urban Soil Chemistry				
BGS Urban Soil Chemistry Averages				
Brine Compensation Area			n/a	n/a
Coal Mining Affected Areas			n/a	n/a
Mining Instability	·		n/a	n/a
Man-Made Mining Cavities				
Natural Cavities				
Non Coal Mining Areas of Great Britain	pg 12	Yes		n/a
Potential for Collapsible Ground Stability Hazards	pg 12	Yes		n/a
Potential for Compressible Ground Stability Hazards				n/a
Potential for Ground Dissolution Stability Hazards	pg 12	Yes	Yes	n/a
Potential for Landslide Ground Stability Hazards	pg 12	Yes		n/a
Potential for Running Sand Ground Stability Hazards	pg 12		Yes	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 12		Yes	n/a
Radon Potential - Radon Affected Areas	pg 12	Yes	n/a	n/a
Radon Potential - Radon Protection Measures	pg 12	Yes	n/a	n/a



# Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m (*up to 1000m)
Industrial Land Use				
Contemporary Trade Directory Entries	pg 13		1	n/a
Fuel Station Entries	pg 13		1	
Sensitive Land Use				
Areas of Adopted Green Belt				
Areas of Unadopted Green Belt			,	
Areas of Outstanding Natural Beauty	pg 14			1
Environmentally Sensitive Areas				
Forest Parks				
Local Nature Reserves		. ]		
Marine Nature Reserves				
National Nature Reserves				
National Parks				
Nitrate Sensitive Areas				
Nitrate Vulnerable Zones				
Ramsar Sites				
Sites of Special Scientific Interest	pg 14			1
Special Areas of Conservation				
Special Protection Areas				



Map ID		Detalls	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consent	8				
1	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date:	Lafarge Tarmac Trading Limited General Construction Work Bankfield Quarry, Pimlico Link Road, Clitheroe, Lancashire, Bb7 4qa Environment Agency, North West Region Not Given 017190614 1 11th February 1999	. A13SW (W)	114		376840 444080
	Issued Date: Revocation Date: Discharge Type: Discharge Environment:	11th February 1999 Not Supplied Discharge Of Other Matter-Surface Water Freshwater Stream/River				
	Receiving Water: Status: Positional Accuracy:	Heys (Chatburn) Brook New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m				
	Discharge Consents	• • • • • • • • • • • • • • • • • • •		· · ·		
2	Operator: Property Type: Location:	Jack & Marian Howard Domestic Property (Single) Whitecroft, Kaley Lane Off Pendle Av, Chatburn, Clitheroe, Lancashire, Bb7 4ax	A13SE (E)	194	2	377170 444000
	Authority: Catchment Area: Reference: Permit Version: Effective Date:	Environment Agency, North West Region Not Given 011644 1 21st March 1969				
	lasued Date: Revocation Date: Discharge Type: Discharge Environment;	21st March 1969 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Freshwater Stream/River				
	Receiving Water: Status: Positional Accuracy:	Heyes Brook  Pre National Rivers Authority Legislation where issue date < 01/09/1989  Located by supplier to within 100m				
	Discharge Consents					
3	Operator: Property Type: Location:	Mr Simon Campbell Domestic Property (Single) The Royds Septic Tank And Soakaway The Royds, Chatburn, Clitheroe, Lancashire, Bb7 4lb	A13SW (SW)	292	2	376800 443800
	Authority: Catchment Area: Reference: Permit Version: Effective Date:	Environment Agency, North West Region Ribble 017190605 3				
	Issued Date: Issued Date: Revocation Date: Discharge Type: Discharge	4th April 2007 4th April 2007 4th April 2019 Sewage Discharges - Finai/Treated Effluent - Not Water Company Land/Soakaway				
	Environment: Receiving Water: Status:	Land Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)				
	Positional Accuracy:	Located by supplier to within 100m				
	Discharge Consents	3			-	
3	Operator: Property Type: Location:	Mr Simon Campbell Domestic Property (Single) The Royds Septic Tank And Soakaway The Royds, Chatburn, Clitheroe, Lancashire, Bb7 4lb	A13SW (SW)	292	2	376800 443800
	Authority: Catchment Area: Reference: Permit Version: Effective Date:	Environment Agency, North West Region Ribble 017190605 2 12th March 2007				
	Issued Date: Revocation Date: Discharge Type: Discharge	12th March 2007 3rd April 2007 Sewage Discharges - Final/Treated Effluent - Not Water Company Land/Soakaway	·			
	Environment: Receiving Water: Status: Positional Accuracy:	Land Consent revoked or revised: New Consent issued (Section 37(1)) Located by supplier to within 100m				



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Property Type: Location:	Mr Simon Campbell Domestic Property (Single) The Royds Septic Tank And Soakaway The Royds, Chatburn, Clitheroe, Lancashire, Bb7 4lb	A13SW (SW)	292	2	376800 443800
	Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date:	Environment Agency, North West Region Ribble 017190605 1 11th September 1998 11th September 1998				
	Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	11th March 2007 Sewage Discharges - Final/Treated Effluent - Not Water Company Onto Land Land Consent revoked or revised: New Consent Issued (Section 37(1)) Located by supplier to within 100m				
	Nearest Surface Wa	ter Feature	A13SE (S)	0	·	376977 444054
4	Property Type: Location: Authority: Poliutant:	to Controlled Waters Private Sewage (Non-PLC): Sewerage Systems Location Description Not Available Environment Agency, North West Region Unknown Sewage	A13NW (W)	55	2	376900 444095
	Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity: Positional Accuracy:	Chatbum Brook 4th July 1991 91340055 Ribble - Non-Tidal Not Given Unknown Category 3 - Minor Incident Located by suppiler to within 100m				
4	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters  Private Sewage (Non-PLC): Sewerage Systems Location Description Not Available Environment Agency, North West Region Unknown Sewage Chatburn Brook 7th May 1991 91340034 Ribble - Non-Tidal Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m	A13NW (W)	56	2	376900 444100
5	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters  Not Given Location Description Not Available Environment Agency, North West Region Oils - Unknown Chatburn Brook 8th September 1993 93340079 Ribble - Non-Tidal Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	A13NW (NW)	249	2	376800 444300
6	Pollution incidents Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area:	to Controlled Waters  Boats/Ships Lancashire Environment Agency, North West Region Unknown None 6th June 1994 94340082 Ribble - Non-Tida!	A13NW (NW)	276	2	376700 444195
	Receiving Water: Cause of Incident: Incident Severity:	Canal Other Incident/Unknown Category 3 - Minor Incident Located by supplier to within 100m				



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Pollution Incidents	to Controlled Waters				
6	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity: Positional Accuracy	Not Given Location Description Not Available Environment Agency, North West Region Oils - Unknown Chatburn Brook 29th November 1992 92340111 Ribble - Non-Tidal Not Given Unknown Category 3 - Minor Incident : Located by supplier to within 100m	A13NW (NW)	278		376700 444200
		to Controlled Waters				
7	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	Not Given Location Description Not Available Environment Agency, North West Region Olls - Unknown Chatburn Brook 5th June 1995	A13NW (NW)	323	2	376700 444295
		to Controlled Waters				
7	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Perence: Catchment Area: Receiving Water: Cause of Incident: Incident Severity: Positional Accuracy:	Private Sewage (Non-PLC): Sewerage Systems Location Description Not Available Environment Agency, North West Region Unknown Sewage Chatburn Brook 7th June 1993 93340043 Ribble - Non-Tidal Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	A13NW (NW)	326	2	37 <b>670</b> 0 444300
	Pollution Incidents	to Controlled Waters				
8	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	Not Given Location Description Not Available Errvironment Agency, North West Region Oils - Unknown Chatbum Brook 2nd February 1993 93340007 Ribble - Non-Tidal Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m	A12NE (NW)	413	2	376600 444300
		to Controlled Waters	<del>-                                    </del>			· _
9	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	Not Given Location Description Not Available Environment Agency, North West Region Miscellaneous - Unknown Chatburn Brook 30th August 1991 91340084 Ribble - Non-Tidal Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	A18SW (NW)	467	2	376700 444500
$\neg$	River Quality				-	
	GQA Grade: Reach: Estimated Distance (km): Flow Rate:	Chatburn (Heys) Bk River Quality B Qsi Downham To Railway Bridge 1.6 Flow less than 0.31 cumecs	(S)	0	2	3769 <b>6</b> 7 444076
F	Flow Type:	River 2000				



Vlap ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
- (	GQA Grade: Reach:	Chatburn (Heys) Bk River Quality B Rallway Bridge To Ribble .9	A13NW (W)	77	2	376880 444105
	(km): Flow Rate: Flow Type: Year:	Flow less than 0.31 cumecs River 2000	-		. 1	
10	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source:	Smith & Nephew Textiles Ltd. 2671309005 Not Supplied Lodge Fed By Chatburn Brook, Chatburn, CLITHEROE, Lancashire Environment Agency, North West Region Manufacturing Not Supplied River	A13NW (NW)	189	2	376800 444200
	Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	20 5455 Licence Status: Revoked Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 100m				
	Groundwater Vulne Soll Classification: Map Sheet: Scale:	rability  Soils of Low Leaching Potential - Soils in which poliutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge eisewhere in the catchment Sheet 10 Central Lancashire  1:100.000	A13SW (S)	0	2	376969 444082
	Drift Deposits None					
	Bedrock Aquifer De	signations Secondary Aquifer - A	A13SW (S)	0	3	376969 444082
	Superficial Aquifer No Data Available	Designations	:			Ų.
	Extreme Flooding to Type: Flood Plain Type: Boundary Accuracy:	rom Rivers or Sea without Defences  Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial Models As Supplied	A13SW (W)	0	2	376965 444080
		rs or Sea without Defences  Extent of Flooding from Rivers or Sea without Defences Fluvial Models	A13SW (W)	0	2	376965 444080
		ors or Sea without Defences  Extent of Flooding from Rivers or Sea without Defences Fluvial Models	A13NW (NW)	240	2	376755 444225
	Areas Benefiting fr	om Flood Defences	<u> </u>			1
	Flood Water Storag	ge Areas	7	l)		
	Flood Defences None			11552		1
11	Detailed River Nets River Type: River Name: Hydrographic Area: River Flow Type: River Surface Level Drain Feature: Flood Risk	Primary River Heys Brook D011 Primary Flow Path	A13SE (S)	3	2	37697 44405
	Management Status Water Course Name:			1		



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D011 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Not Supplied Name: Water Course Not Supplied Reference:	A13NW (NW)	326	2	376771 444377
13	Detailed River Network Lines  River Type: Extended Culvert (greater than 50m)  River Name: Not Supplied  Hydrographic Area: D011  River Flow Type: Primary Flow Path River Surface Level: Below Surface  Drain Feature: Not a Drain  Flood Risk Other Rivers  Management Status: Water Course  Not Supplied  Neme:  Water Course Not Supplied  Reference:	A18SW (NW)	389	2	376790 444464
14	Detailed River Network Lines  River Type: Tertlary River River Name: Not Supplied Hydrographic Area: D011 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Not Supplied Name: Water Course Not Supplied Reference:	A18SW (N)	410	2	37 <b>6881</b> 444519
15	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D011 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Not Supplied Name: Water Course Not Supplied Reference:	A18SW (N)	416	2	37 <b>6853</b> 444519
16	Detailed River Network Lines River Type: Tertlary River River Name: Not Supplied Hydrographic Area: D011 River Flow Type: Primary Flow Path River Surface Levei: Surface Drain Feature: Not a Drain Flood Risk Other Rivers Management Status: Water Course Not Supplied Name: Water Course Not Supplied Reference:	A18SW (N)	443	2	376799 444528
17	Detailed River Network Lines River Type: Primary River River Name: Not Supplied DO11 Primary Flow Path River Surface Level: Surface Drain Feature: Flood Risk Water Course Water Course Water Course Water Course HEBR River Type: Primary Flow Path Primary River Not Supplied DO11 Primary Flow Path Pri	A18SW (NW)	495	2	376736 444555



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Detailed River Network Offline Drainage	7		. 6	
18	River Type: Tertiary River Hydrographic Area: D011	A14NW (E)	371	2	377357 444123
•	Detailed River Network Offline Drainage				
19	River Type: Tertiary River Hydrographic Area: D011	A14NW (NE)	465	2	377412 444283
	Detailed River Network Offline Drainage				
20	River Type: Tertiary River Hydrographic Area: D011	A19SW (NE)	483	2	377332 444443





Map	Details  BGS Recorded Landfill Sites		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
				-		
21	Site Name: Location: Authority: Ground Water: Surface Water: Geology: Positional Accuracy: Boundary Accuracy:	Chatburn Old Road Chatburn, CLITHEROE, Lancashire British Geological Survey, National Geoscience Information Service Information not available Information not available Limestone Quarry located on anticline Positioned by the supplier Derived	A13NW (W)	317	-	376637 444085
	Historical Landfill S	ites				
22	Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:		A13SE (E)	96	2	377081 444040
		·	-			
23	Historical Landfill S Licence Holder: Location: Name: Operator Location;	ites Ribble Valley Borough Council Off Chatburn Old Road, Clitheroe, Lancashire Chatburn Not Supplied	A13NW (W)	317	2	37 <b>6638</b> 444091
	Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:	As Supplied EAHLD07088 1st November 1953 31st December 1978 Deposited Waste included Inert, Industrial, Commercial and Household Waste, and Liquid Sludge 0 Not Supplied 2300/0160 267				
	-	K1/03/005, Resolution 200/52		E		
	Local Authority Lan Name:	chil Coverage  Ribble Valley Borough Council  - Had landfill data but passed it to the relevant environment agency		0	.5	376969 444082
	Local Authority Lan	dfill Coverage				
	Name:	Lancashire County Council  - Had landfill data but passed it to the relevant environment agency		0	6	376969 444082
24	Registered Landfill Licence Holder: Licence Reference: Site Location:	Sites Lancs C.C. SR 24 Clitheroe Old Road, Chatburn, Clitheroe, Lancashire	A12NE (W)	405	2	376550 444100
	Licence Easting: Licence Northing: Operator Location; Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence:	376550 444100 PO Box 9, Guildhouse, Cross Street, PRESTON, Lancashire, PR1 8RD Environment Agency - North West Region, Central Area Landfill Undefined No known restriction on source of waste  Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled 1st August 1980 Not Given				
	Boundary Accuracy: Authorised Waste	Construction And Demolition Wastes Incinerator Residues Pulverised Fuel Ash Sawage				
	Environment Agency must give specific authorisation for this waste to be acceptedWaste requires prior approval	Waste N.O.S			,	





Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid	I Geology	72			
	Description:	Bowland High Group And Craven Group (Undifferentiated)	A13\$W (S)	0	3	376969 444082
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cedmium Concentration: Chromium	Chemistry British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg 1.8 - 2.2 mg/kg 60 - 90 mg/kg	A13SW (S)	0	3	376969 444082
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soil	Chemistry	- M	(8)		114
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromlum Concentration: Lead Concentration: Nickel	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg 1.8 - 2.2 mg/kg 60 - 90 mg/kg	A13SE (E)	10	3	377000 444082
	Concentration:	30 - 49 mg/kg		100		0
	BGS Estimated Soil Source: Soil Sample Type: Arsenic	Chemistry British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13SW (S)	49	3	376969 444000
	Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	1.8 - 2.2 mg/kg 60 - 90 mg/kg <150 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soi Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration:	Chemistry British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg 1.8 - 2.2 mg/kg	A13SE (S)	58	3	377000 444000
	Chromium Concentration: Lead Concentration: Nickel Concentration:	60 - 90 mg/kg <150 mg/kg 30 - 45 mg/kg				
	BGS Estimated Sol Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13SE (SE)	192	3	377094 443900
	Cadmium Concentration: Chromium Concentration: Lead Concentration:					
	Nickel Concentration:	15 - 30 mg/kg				
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium	il Chemistry British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg <1.8 mg/kg	A13SE (S)	208	3.	377000 443848
	Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	60 - 90 mg/kg : <150 mg/kg 15 - 30 mg/kg				





Map ID		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR	
	BGS Estimated Sol	I Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13SE (S)	255	3	377064 443814
	Cadmium Concentration: Chromlum	<1.8 mg/kg 60 - 90 ma/ka				
,	Concentration: Lead Concentration: Nickel Concentration:			·		
	BGS Estimated Soil	Chemistry	-			
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13SE (S)	261	. 3	377000 443792
	Concentration: Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration: Lead Concentration:	60 - 90 mg/kg				
	Nickel Concentration:	15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soll Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13NW (NW)	276	3	376764 44430
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	* *				
	BGS Estimated Soil	Chamistry			· ·	
	Source: Soil Sample Type: Arsenic	Shitish Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A13NW (NW)	281	3	376746 44 <b>428</b> 7
	Concentration: Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration: Lead Concentration:	60 - 90 mg/kg <150 mg/kg				
	Nickel Concentration:	15 - 30 mg/kg				
	BGS Estimated Soll Source:	British Geological Survey, National Geoscience Information Service	A13NW	319	3	376696
	Soil Sample Type: Arsenic Concentration:	Sediment 15 - 25 mg/kg	(NW)			444282
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg		ļ		
i	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
Ė	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A18SE (N)	361	3	377115 444451
	Concentration: Cadmium Concentration: Chromium	<1.8 mg/kg				
	Concentration: Lead Concentration: Nickel	60 - 90 mg/kg <150 mg/kg 15 - 30 mg/kg				
	Concentration:	10 - 00 11Bull				





Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	Chemistry				
2006	Source: Soil Sample Type: Arsenic Concentration: Cadmlum Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg <1.8 mg/kg 60 - 90 mg/kg <150 mg/kg 30 - 45 mg/kg	A14SW (SE)	369	3	377317 443901
		Observation			-	<u> </u>
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg <1.8 mg/kg 60 - 90 mg/kg	A13SE (SE)	370	3	377203 443760
	ļ	Chamlein	<del>                                     </del>			
	BGS EstImated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium	British Geologicai Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg <1.8 mg/kg 60 - 90 mg/kg	A8NE (S)	394	3	377127 443689
	Concentration: Lead Concentration: Nicke: Concentration:	<150 mg/kg 15 - 30 mg/kg	e <u></u>			:
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium	Chemistry  British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg  1.8 - 2.2 mg/kg	A8NE (SE)	396	3	377159 443702
	Concentration: Chromium Concentration: Lead Concentration: Nickel	60 - 90 mg/kg				į
	Concentration:				170. 15	
	BGS Estimated Sol Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg 1.8 - 2.2 mg/kg	A8NE (SE)	396	3	377195 443722
	Chromium Concentration: Lead Concentration: Nickel Concentration:	60 - 90 mg/kg <150 mg/kg 30 - 45 mg/kg				
	BGS Estimated Sol	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg	A8NE (S)	413	3	377000 443639
	Cadmium Concentration: Chromium Concentration: Lead Concentration:					
	Nickel Concentration:	15 - 30 mg/kg			ļ	

Date: 30-Jun-2015



# Geological

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGI
	BGS Estimated S					+
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A18SW (N)	462	3	37685 44456
	Cadmium Concentration:	<1.8 mg/kg		•		
	Chromium Concentration: Lead Concentration Nickel	60 - 90 mg/kg n: <150 mg/kg				
	Concentration:	30 - 45 mg/kg				
	BGS Estimated Sc	NI Chemistry	<del> </del>			<u> </u>
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A18SW (NW)	473	3	37676 44454
	Cadmium Concentration: Chromium	<1.8 mg/kg 40 - 60 mg/kg	1			
	Concentration: Lead Concentration Nickel Concentration:					
	BGS Estimated So	il Chemistry				
	Source: Soil Sample Type; Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A18SE (N)	475	3	377000 444593
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil			$\longrightarrow$		
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium	British Geological Survey, National Geoscience Information Service Sediment 15 - 25 mg/kg 1.8 - 2.2 mg/kg	A14SW (E)	489	3	377484 443952
	Concentration: _ead Concentration: Nickel	60 - 90 mg/kg <150 mg/kg	ŝ			
	Concentration:	30 - 45 mg/kg				
	GS Estimated Soll	,				
S	Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A18SW (NW)	492	3	376699 444529
	Concentration:	<1.8 mg/kg 60 - 90 mg/kg			. [	
· L	ead Concentration:	<150 mg/kg 30 - 45 mg/kg				
	GS Recorded Mines	al Sites				
Se Re	ocation: ource: eference:	Chatburn Chatburn, Clitheroe, Lancashire British Geological Survey, National Geoscience Information Service 2327	A12NE (W)	398	3	3765 <b>69</b> 4441 <b>8</b> 5
81 O	tatus: ( perator: ( perator Location: (	Opencast Ceased Jinknown Operator Jinknown Operator				
G	eology: ( ommodity: L	Sarboniferous Shatiburn Limestone Formation Innestone Located by supplier to within 10m				
	33 Measured Urban					
	data available			1		





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Urban Soll Chem	listry Averages				
	Coal Mining Affected	Areas ot be affected by coal mining		i i		
	Non Coal Mining Area		A13SW (S)	0	3	376969 444082
	4	ble Ground Stability Hazards /ery Low British Geological Survey, National Geoscience Information Service	A13SW (S)	0	3	376969 444082
	1	ssible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13SW (S)	0	3	376969 444082
	□	Dissolution Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SW (S)	0	3	376969 444082
	No. 1 - 1 - 1	Dissolution Stability Hazards Low British Geologicai Survey, National Geoscience Information Service	A13SE (SE)	192	3	377094 443900
	10	de Ground Stability Hazards Very Low British Geologicai Survey, National Geoscience Information Service	A13SW (S)	0	3	376969 444082
	Potential for Runnin	g Sand Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13SW (S)	0	3	376969 444082
-		g Sand Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SE (SE)	192	3	377094 443900
	<b>4</b>	ing or Swelling Clay Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13SW (S)	0	3	376969 444082
		ing or Swelling Clay Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service	A13SE (SE)	192	3	377094 443900
0	Poden Potential - R	ladon Protection Measures  Basic radon protective measures are necessary in the construction of new dwellings or extensions  British Geological Survey, National Geoscience Information Service	A13SW (S)	0	3	376969 444082
		tadon Affected Areas  The property is in an intermediate probability radon area, as between 5 and 10% of homes are above the action level  British Geological Survey, National Geoscience Information Service	A13SW (S)	0	3	376969 444082



# **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Contemporary Trad	e Directory Entries				
<b>26</b>	Name: Location: Classification: Status: Positional Accuracy:	Chatburn Village Motor Co Sawley Rd, Chatburn, Clitheroe, Lancashire, BB7 4AS Car Dealers - Used Active Manually positioned to the road within the address or location	A13NW (N)	63	-	376970 444182
	Fuel Station Entries					
27	Name: Location: Brand: Premises Type: Status: Positional Accuracy:	P Harrison And Son Ltd Sawley Road, Chatburn, CLITHEROE, Lancashire, BB7 4AS Unbranded Not Applicable Obsolete Automatically positioned to the address	A13NE (N)	95	- -	377009 444207



# **Sensitive Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	Multiple Areas:	g Natural Beauty Forest Of Bowland Y 805733322.62 28th February 1964 Natural England	A14SW (E)	344	4	377321 443980
29	Sites of Special Scle Name: Multiple Areas: Total Area (m2): Source: Reference: Designation Details: Designation Date: Date Type:	entific Interest Clitheroe Knoll Reefs Y 1177518 Natural England 1000894 Geological Conservation Review 29th January 1987 Notified	A14SW (E)	330	4	377319 444069



Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Ribble Valley Borough Council - Environmental Health Department	October 2014	Annual Rolling Update
Discharge Consents Environment Agency - North West Region	April 2015	Quarterly
Enforcement and Prohibition Notices Environment Agency - North West Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - North West Region	October 2008	Not Applicable
Integrated Pollution Prevention And Contro! Environment Agency - North West Region	April 2015	Quarterly
Local Authority Integrated Pollution Prevention And Control Ribble Valley Borough Council - Environmental Health Department	June 2014	Annual Rolling Update
Local Authority Pollution Prevention and Controls  Ribble Valley Borough Council - Environmental Health Department	June 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Ribble Valley Borough Council - Environmental Health Department	June 2014	Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
Pollution Incidents to Controlled Waters Environment Agency - North West Region	January 2000	Not Applicable
Prosecutions Relating to Authorised Processes Environment Agency - North West Region	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - North West Region	March 2013	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantlated Pollution Incident Register Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	April 2015 April 2015	Quarterly Quarterly
Water Abstractions Environment Agency - North West Region	April 2015	Quarterly
Water Industry Act Referrals Environment Agency - North West Region	April 2015	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	As notified
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	January 2015	As notified
Source Protection Zones Environment Agency - Head Office	April 2015	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2015	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	May 2015	Quarterly



Agency & Hydrological	Version	Update Cycle
Areas Benefiting from Flood Defences Environment Agency - Head Office	May 2015	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	May 2015	Quarterly
Flood Defences Environment Agency - Head Office	May 2015	Quarterly
Detailed River Network Lines Environment Agency - Head Office	March 2012	Annually
Detalled River Network Offline Dralnage Environment Agency - Head Office	March 2012	Annually
Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	February 2015 February 2015	Quarterly Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - North West Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	August 2014 August 2014	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	April 2015 April 2015	Quarterly Quarterly
Local Authority Landfill Coverage  Lancashire County Council - Waste Management Group  Ribble Valley Borough Council - Environmental Health Department	May 2000 May 2000	Not Applicable Not Applicable
Local Authority Recorded Landfill Sites  Lancashire County Council - Waste Management Group  Ribble Valley Borough Council - Environmental Health Department	May 2000 May 2000	Not Applicable Not Applicable
Registered Landfill Sites  Environment Agency - North West Region - Central Area  Environment Agency - North West Region - North Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Transfer Sites Environment Agency - North West Region - Central Area Environment Agency - North West Region - North Area	March 2003 March 2003	Not Applicable Not Applicable
Registered Waste Treatment or Disposal Sites  Environment Agency - North West Region - Central Area  Environment Agency - North West Region - North Area	March 2003 March 2003	Not Applicable Not Applicable



Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	June 2015	BI-Annually
Explosive Sites Health and Safety Executive	June 2015	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Ribble Valley Borough Council Lancashire County Council	January 2015 September 2014	Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Ribble Valley Borough Council Lancashire County Council	January 2015 September 2014	Annual Rolling Update Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	May 2015	Bi-Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Mining Report Service	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	July 2014	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards  British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards  British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards  British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures  British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	May 2015	Quarterly
Fuel Station Entries Catalist Ltd - Experian	May 2015	Quarterly



Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt Ribble Valley Borough Council	May 2015	As notified
Areas of Unadopted Green Belt Ribble Valley Borough Council	May 2015	As notified
Areas of Outstanding Natural Beauty Natural England	February 2015	Bi-Annually
Environmentally Sensitive Areas Natural England	August 2014	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	April 2015	Bi-Annually
Marine Nature Reserves Natural England	July 2013	Bi-Annually
National Nature Reserves Natural England	March 2015	Bi-Annually
National Parks Natural England	February 2015	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	July 2014	Annually
Ramsar Sites Natural England	March 2014	Bi-Annually
Sites of Special Scientific Interest Natural England	April 2015	Bi-Annually
Special Areas of Conservation Natural England	March 2014	Bi-Annually
Special Protection Areas Natural England	April 2015	Bi-Annually

Order Number: 69227055\_1\_1





#### A selection of organisations who provide data within this report

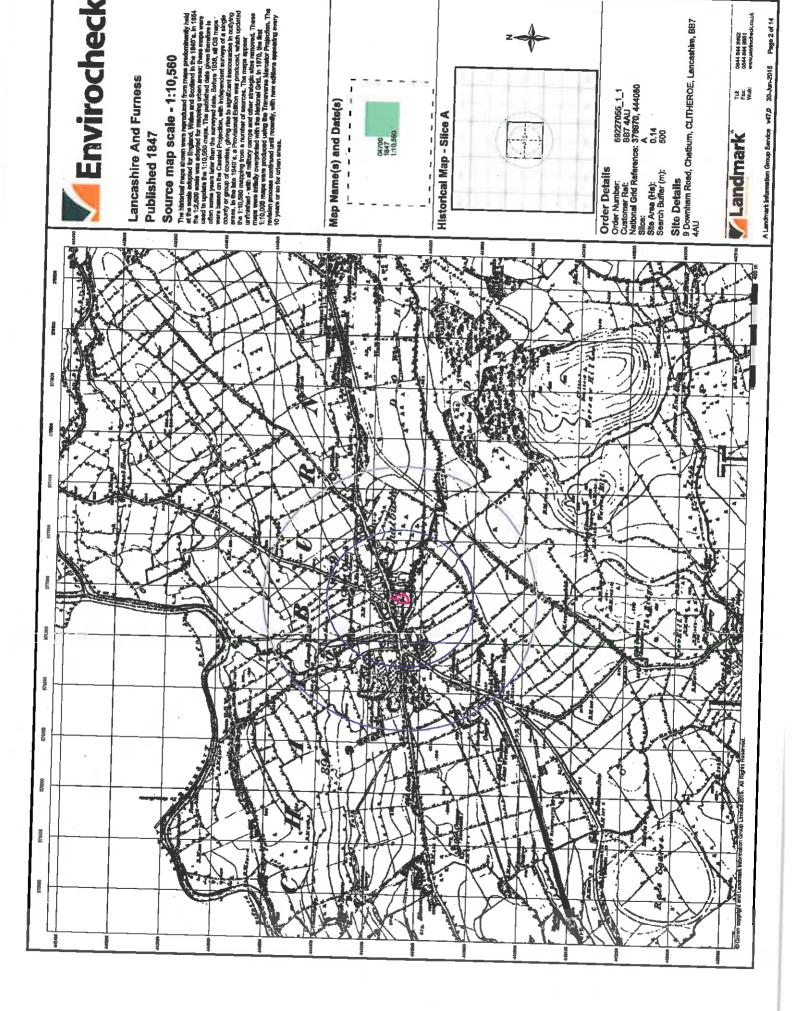
Data Supplier	Data Supplier Logo
Ordnance Survey	Licaneed Partner
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SEPA
The Coal Authority	THE COAL AUTHORITY
British Geological Survey	British Geological Survey MATURAL ENVIRONMENT SEEBARCH COUNCIL
Centre for Ecology and Hydrology	CELL Centre for Ecology & Hydrology
Natural Resources Wales	Orlociti Niburial Ormuni Nebrial Resources Weller
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE
Natural England	ENGLAND
Public Health England	Public Health England
Ove Arup	ARUP
Peter Brett Associates	<b>DOC</b> peterbrett

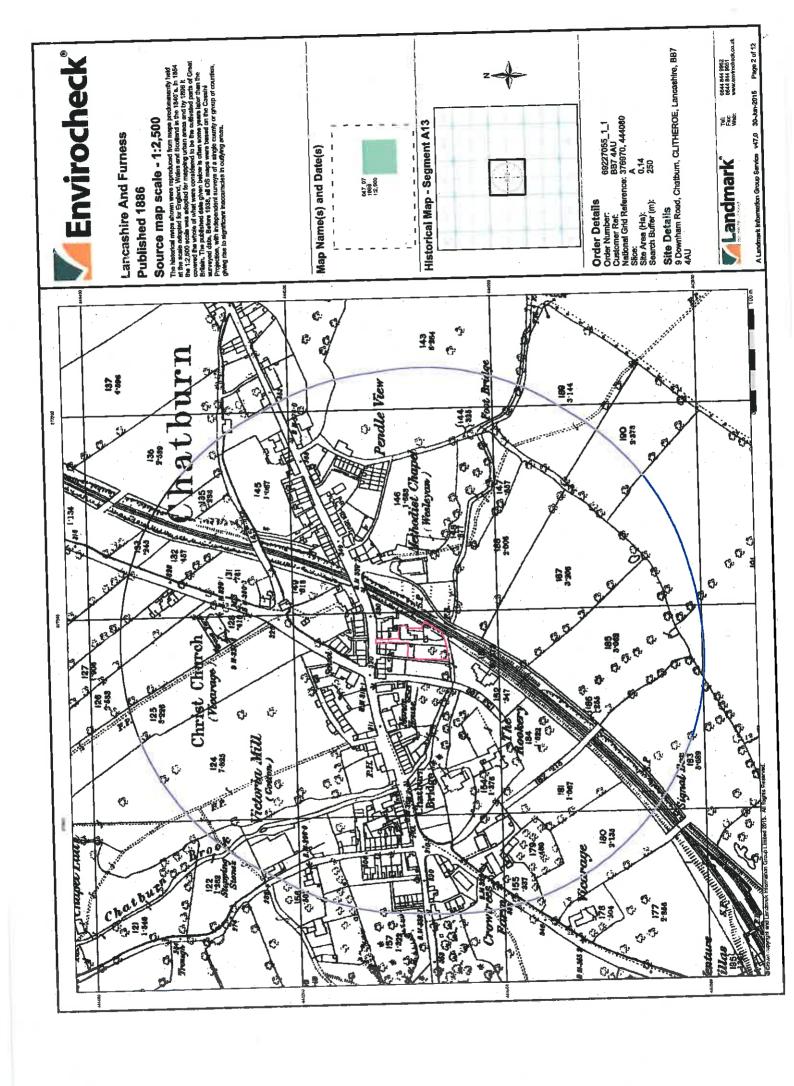


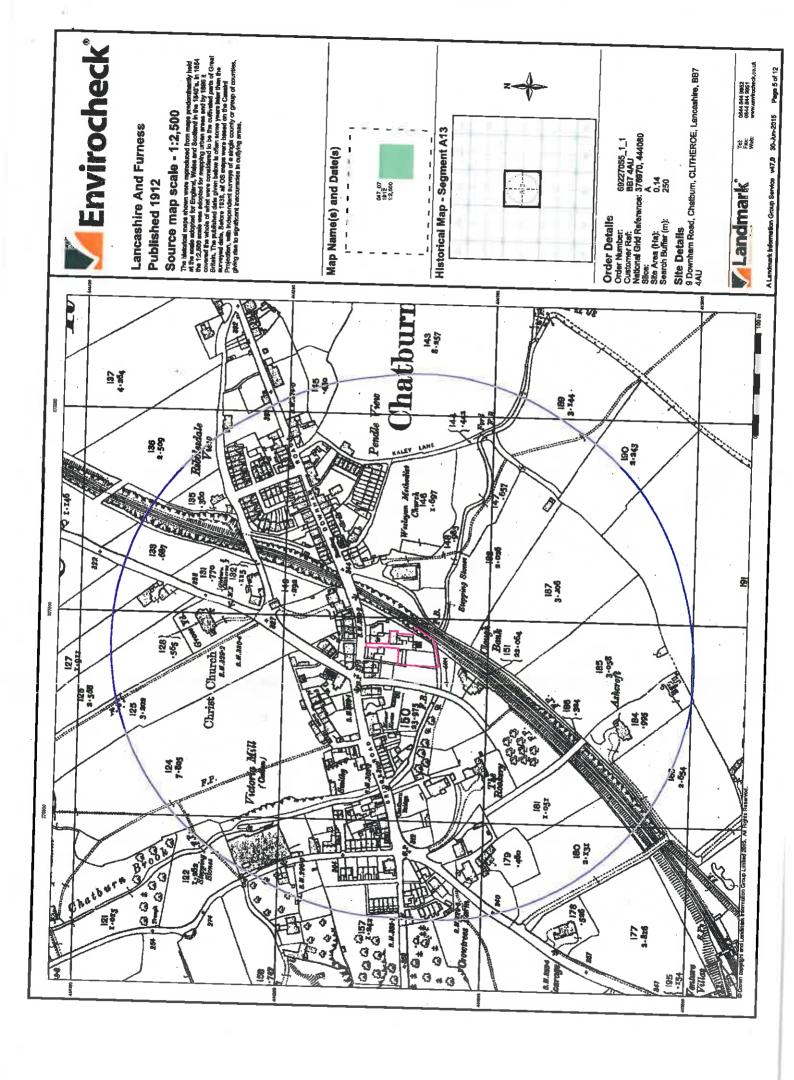
#### **Useful Contacts**

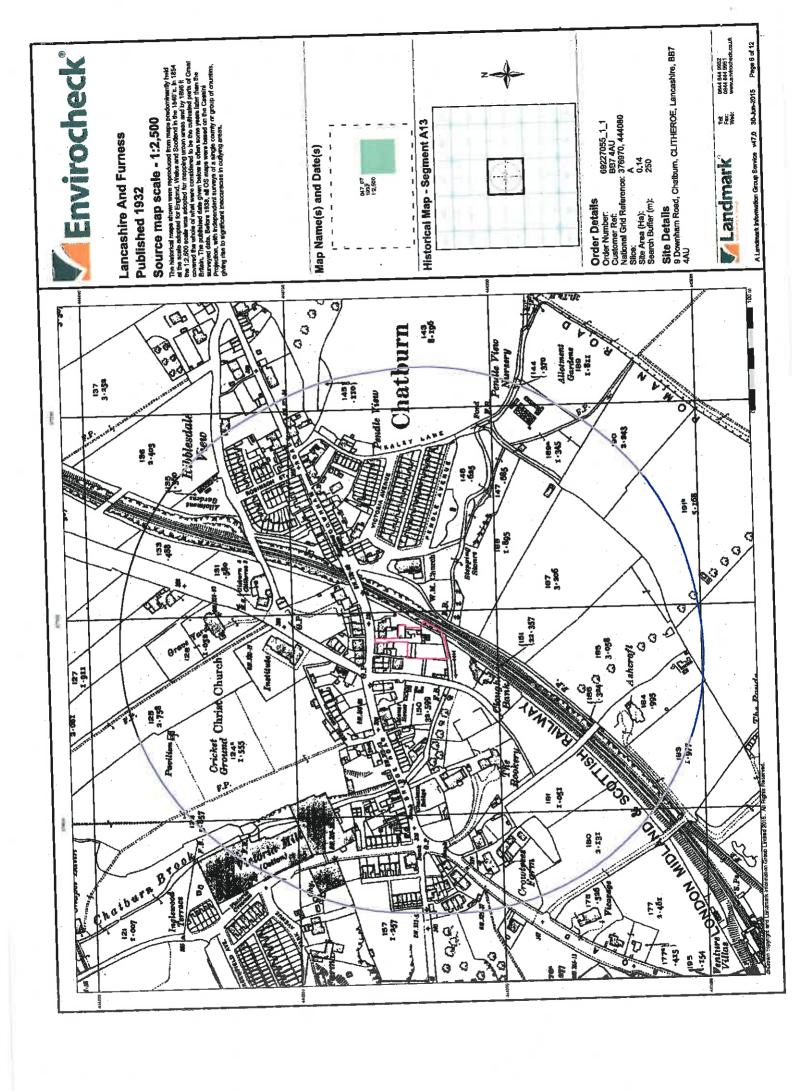
Contact	Name and Address	Contact Details
2	Environment Agency - National Customer Contact Centre (NCCC)	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
	PO Box 544, Templeborough, Rotherham, S60 1BY	
3	British Geological Survey - Enquiry Service  British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
4	Natural England	Telephone: 0845 600 3078
	Suite D, Unex House, Bourges Boulevard, Peterborough, Cambridgeshire, PE1 1NG	Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
5	Ribble Valley Borough Council - Environmental Health Department	Telephone: 01200 425111 Fax: 01200 26339 Website: www.ribblevalley.gov.uk
	Council Offices, Church Walk, Clitheroe, Lancashire, BB7 2RA	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
6	Lancashire County Council - Waste Management Group	Website: www.lancashire.gov.uk
	Environment Directorate, Guild House, Cross Street, Preston, Lancashire, PR1 8RD	
	Public Health England - Radon Survey, Centre for	Telephone: 01235 822622
	Radiation, Chemical and Environmental Hazards	Fax: 01235 833891 Email: radon@phe.gov.uk
	Chilton, Didcot, Oxfordshire, OX11 0RQ	Website: www.ukradon.org
-	Landmark Information Group Limited	Telephone: 0844 844 9952
	Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

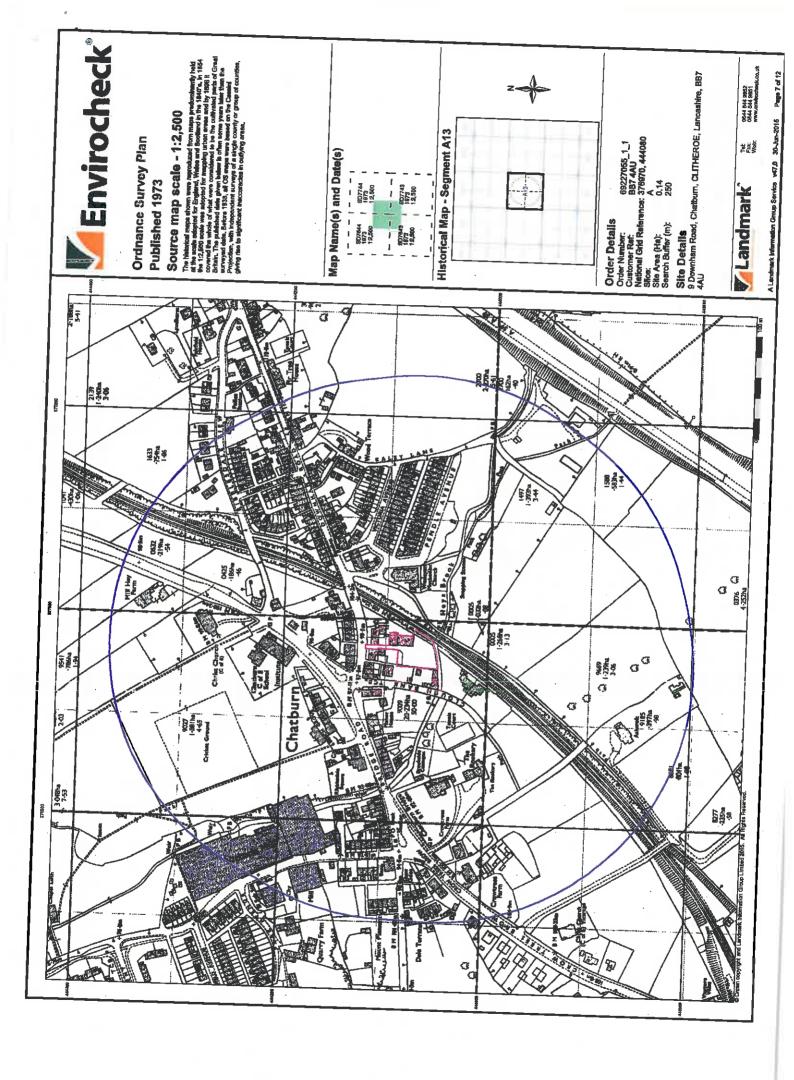
Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

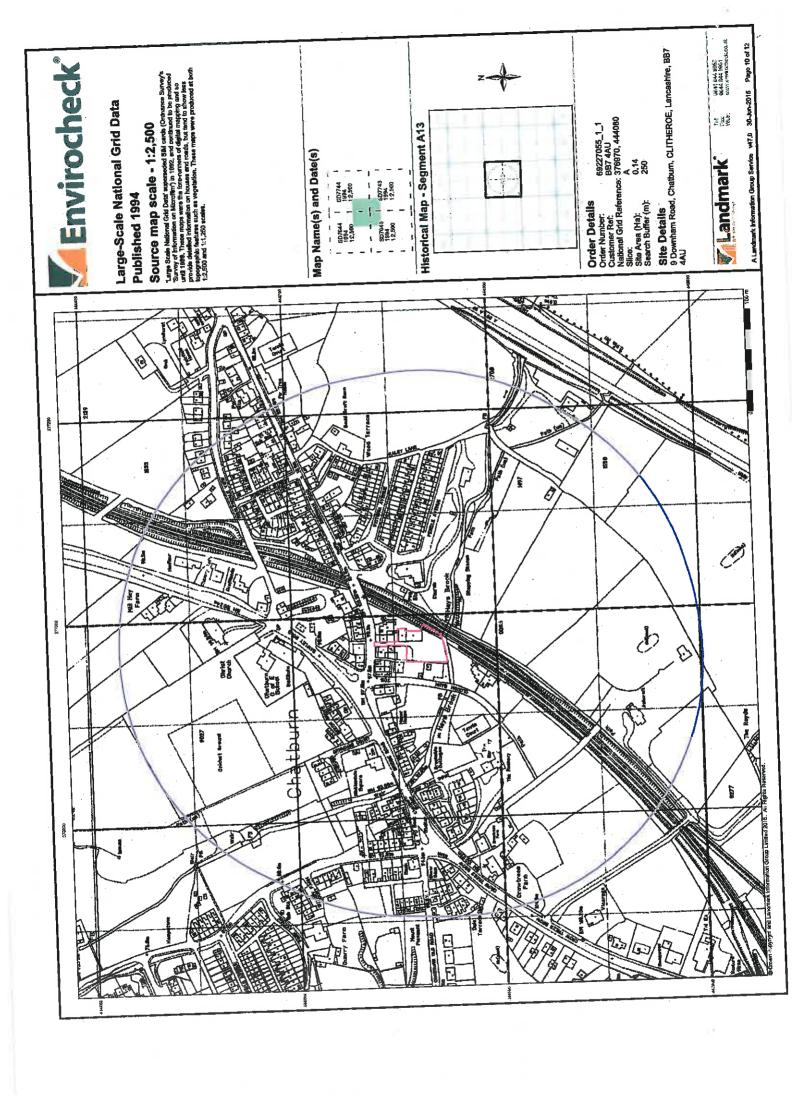


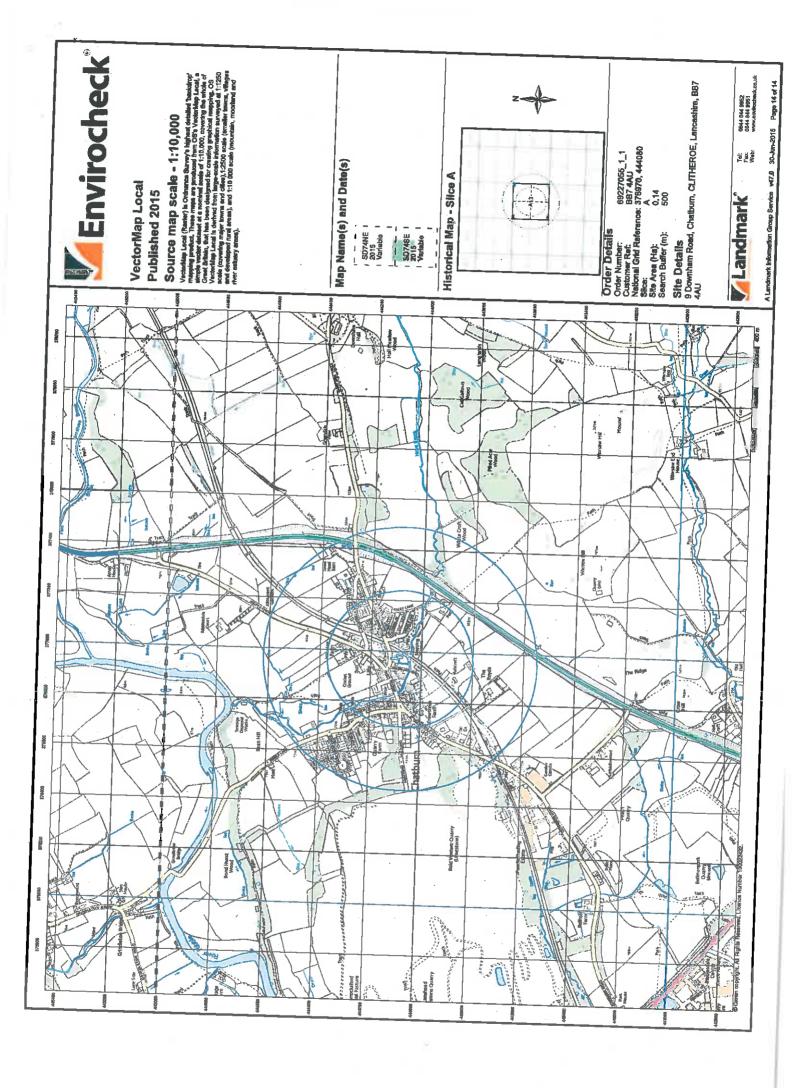












9 Downham Road, Chatburn
Clitheroe, BB7 4AV

Conceptual Model based on PRA

Not to scale 09/07/2015

potential contaminants on site, heavy metals, asbestos, sulphate, TPHs, PAHs

risk to householders likely from contamination

risk of leaching to aquifer and brook basic radon protection required

site at risk of flooding

contamination expected on site in made ground

landfill 96m east railway Chatbum Brook (Grade B) leaching toward Chatburn Brook direct contact with building risk of inhalation /explosion of vapours pasodoud direct contact
ingestion/inhalation
of dust from
vegetables proposed proposed parderi Limestone (secondary A aquifer) drift deposits nsk of inhalation /explosion of gases free of entering service contaminants S leaching toward aquifer existing garage Avorkshop unknown source fill from