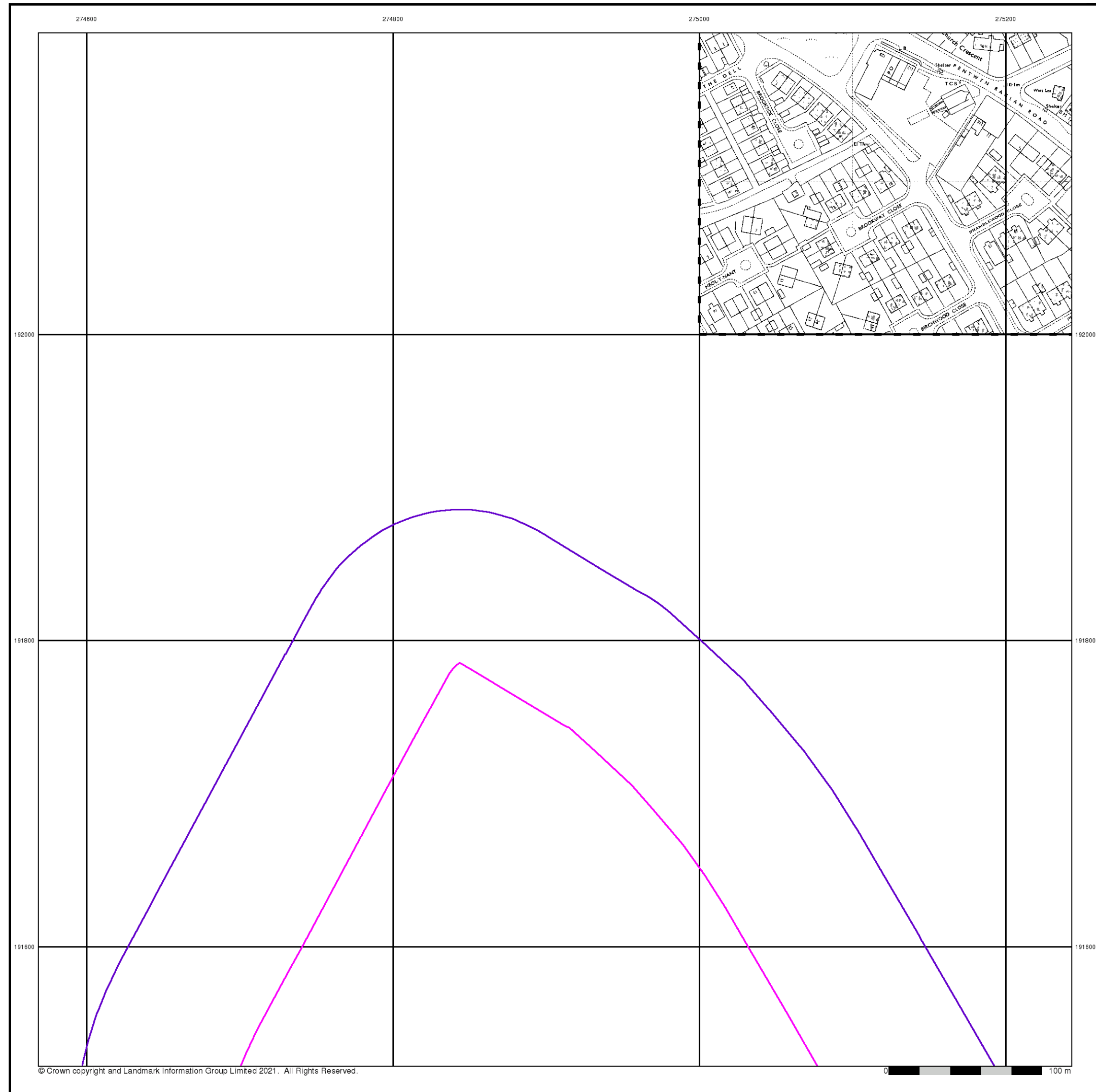






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Ordnance Survey Plan

Published 1975

Source map scale - 1:1,250

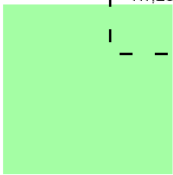
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)

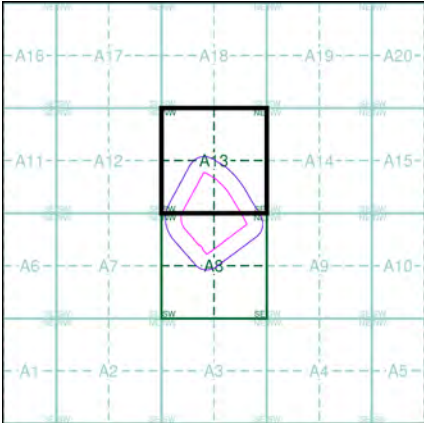
SS7592SW

1975

1:1,250



Historical Map - Segment A13



Order Details

Order Number:	280525462_1_1
Customer Ref:	16750/JRW
National Grid Reference:	274890, 191520
Slice:	A
Site Area (Ha):	12.64
Search Buffer (m):	100

Site Details

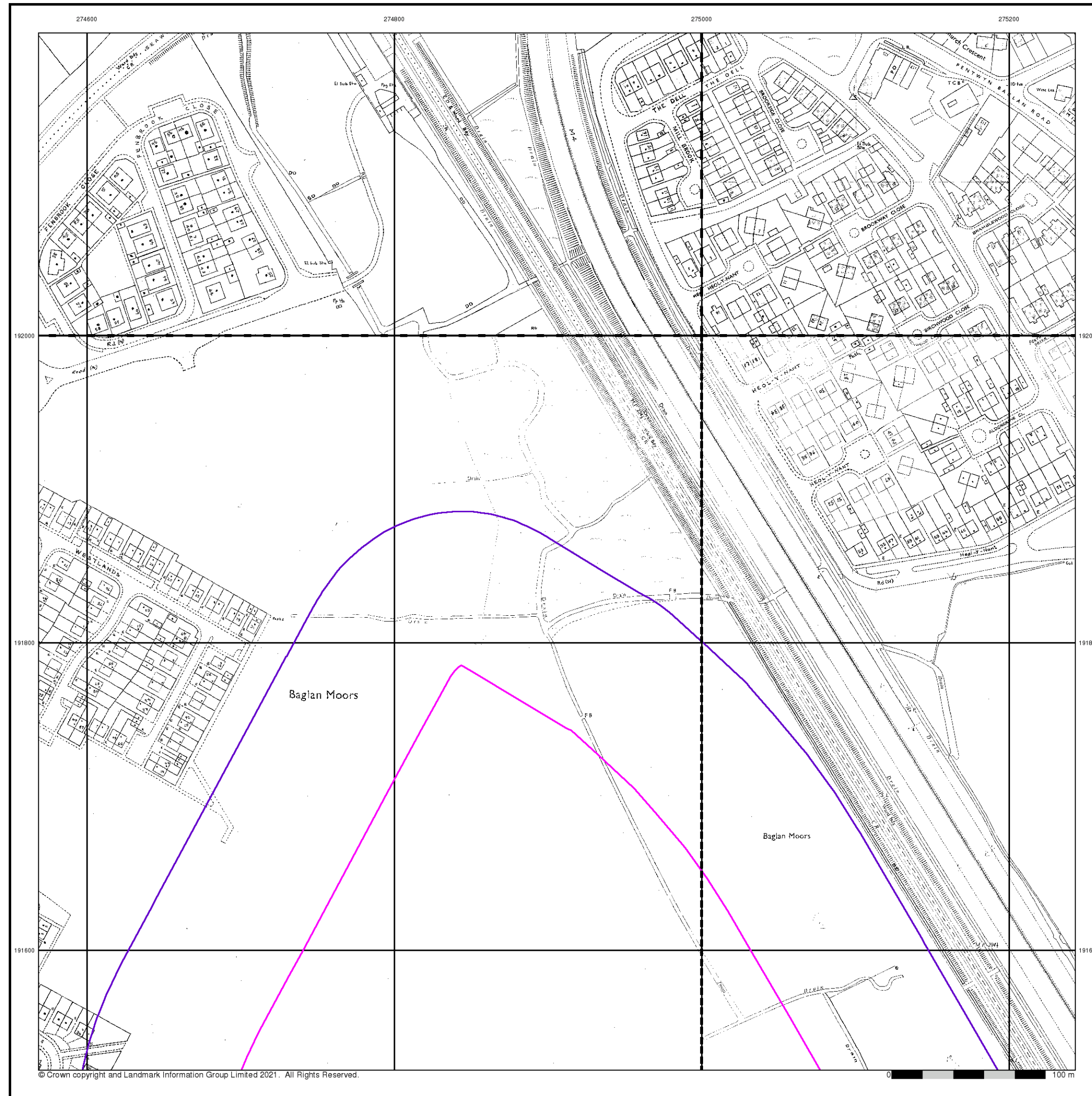
Land off Baglan Way, Baglan Industrial Park, Port Talbot, SA12 7BZ



INFORMATION GROUP

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A Landmark Information Group Service v50.0 16-Jun-2021 Page 9 of 16



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Additional SIMs

Published 1978 - 1991

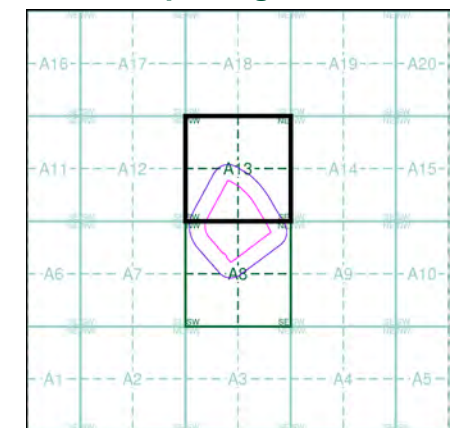
Source map scale - 1:1,250

The SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SS7492SE	SS7592SW
1985	1991
1:1,250	1:1,250
SS7491NE	SS7591NW
1978	1978
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

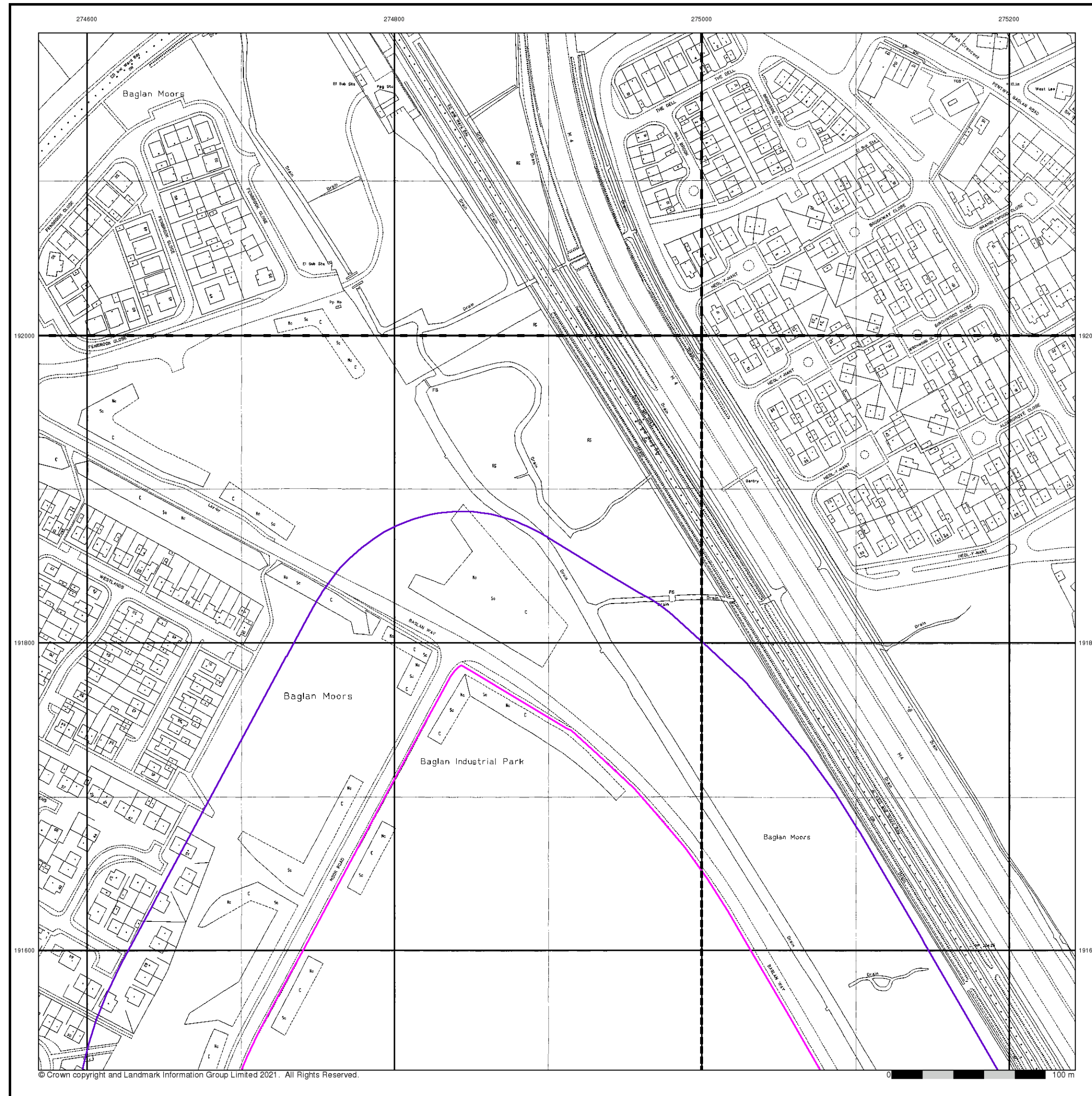
Order Number: 280525462_1_1
Customer Ref: 16750/JRW
National Grid Reference: 274890, 191520
Slice: A
Site Area (Ha): 12.64
Search Buffer (m): 100

Site Details

Land off Baglan Way, Baglan Industrial Park, Port Talbot, SA12 7BZ



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Large-Scale National Grid Data

Published 1993

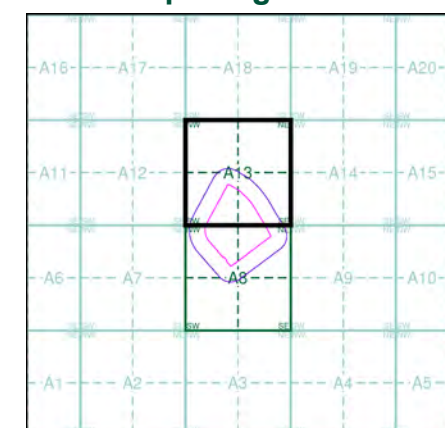
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SS7492SE	SS7592SW
1993	1993
1:1,250	1:1,250
SS7491NE	SS7591NW
1993	1993
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

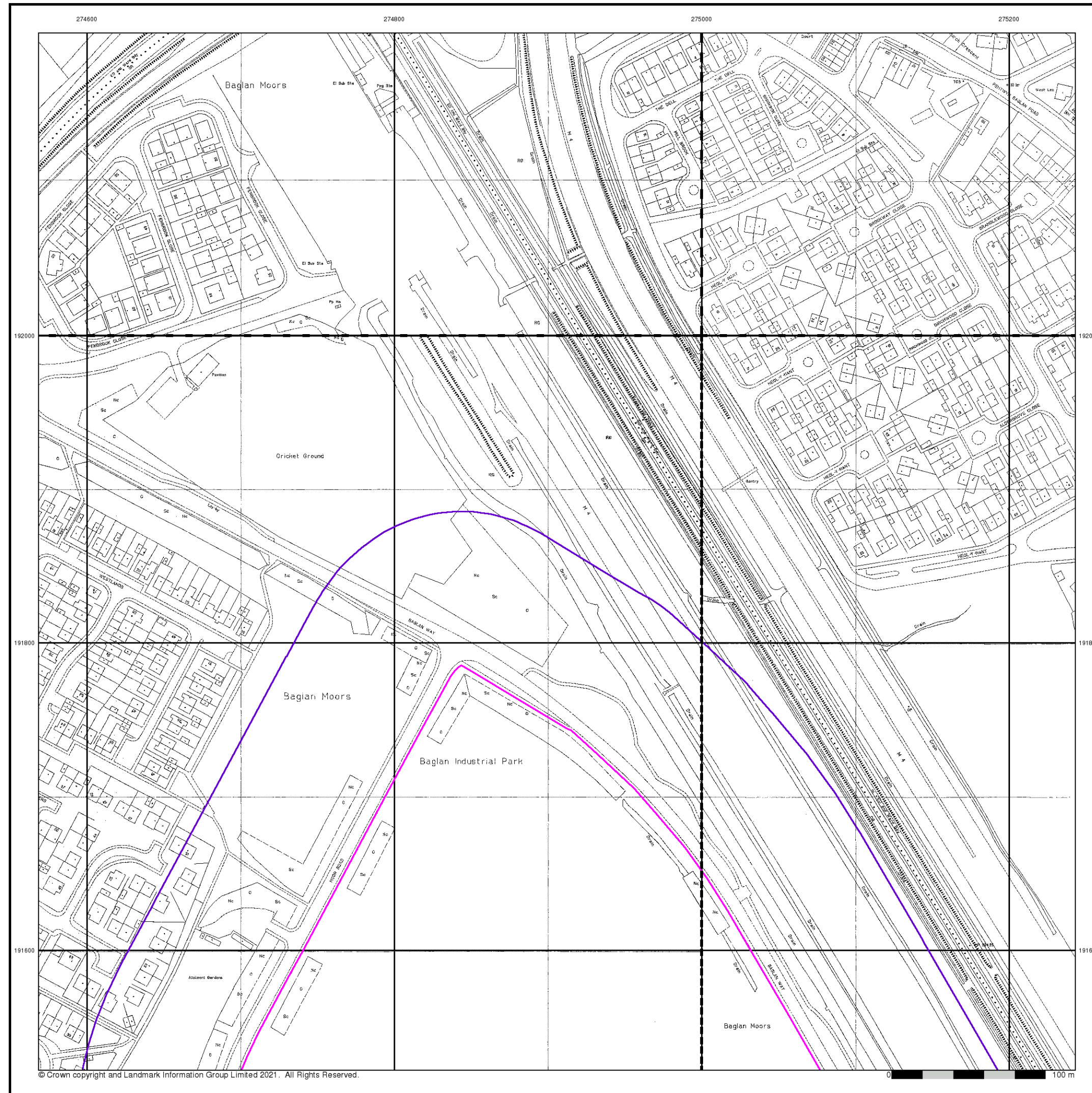
Order Number: 280525462_1_1
Customer Ref: 16750/JRW
National Grid Reference: 274890, 191520
Slice: A
Site Area (Ha): 12.64
Search Buffer (m): 100

Site Details

Land off Baglan Way, Baglan Industrial Park, Port Talbot, SA12 7BZ



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Fax: 0844 844 9951
Web: www.envirocheck.co.uk



Geotechnical & Geoenvironmental Specialists

Large-Scale National Grid Data

Published 1995

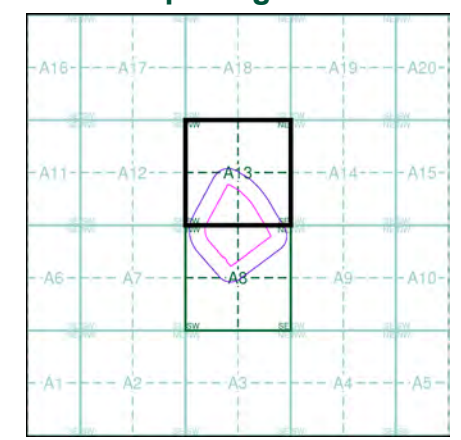
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)

SS7492SE	SS7592SW
1995	1995
1:1,250	1:1,250
SS7491NE	SS7591NW
1995	1995
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 280525462_1_1
Customer Ref: 16750/JRW
National Grid Reference: 274890, 191520
Slice: A
Site Area (Ha): 12.64
Search Buffer (m): 100

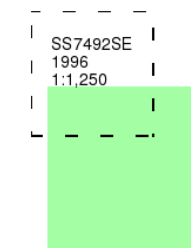
Site Details

Land off Baglan Way, Baglan Industrial Park, Port Talbot, SA12 7BZ

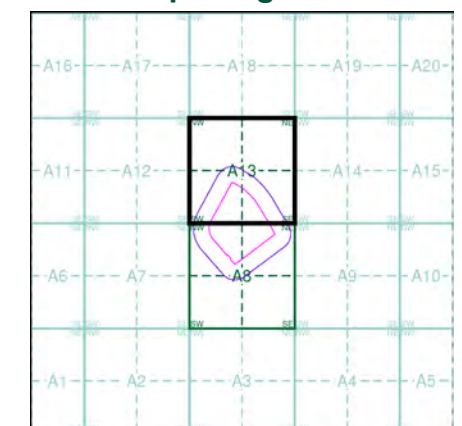


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Fax: 0844 844 9951
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Map Name(s) and Date(s)



Historical Map - Segment A13

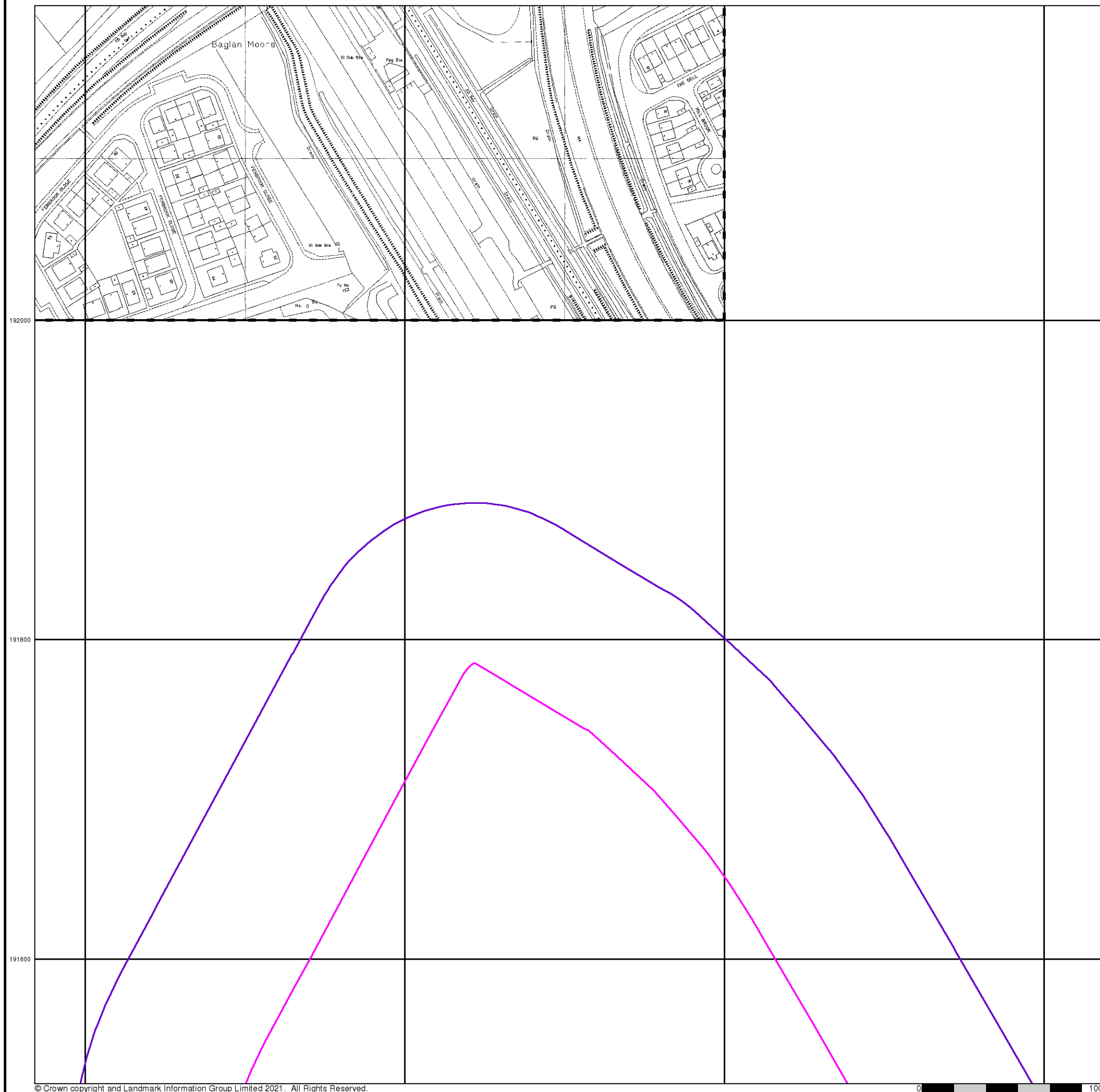


Order Details

Order Number: 280525462_1_1
Customer Ref: 16750/JRW
National Grid Reference: 274890, 191520
Slice: A
Site Area (Ha): 12.64
Search Buffer (m): 100

Site Details

Land off Baglan Way, Baglan Industrial Park, Port Talbot, SA12 7BZ





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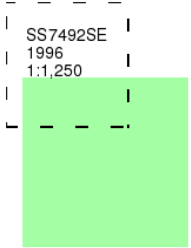
Large-Scale National Grid Data

Published 1996

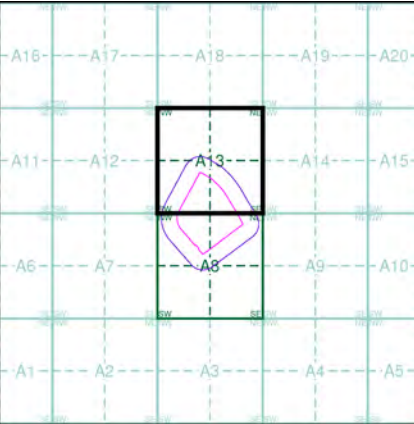
Source map scale - 1:1,250

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

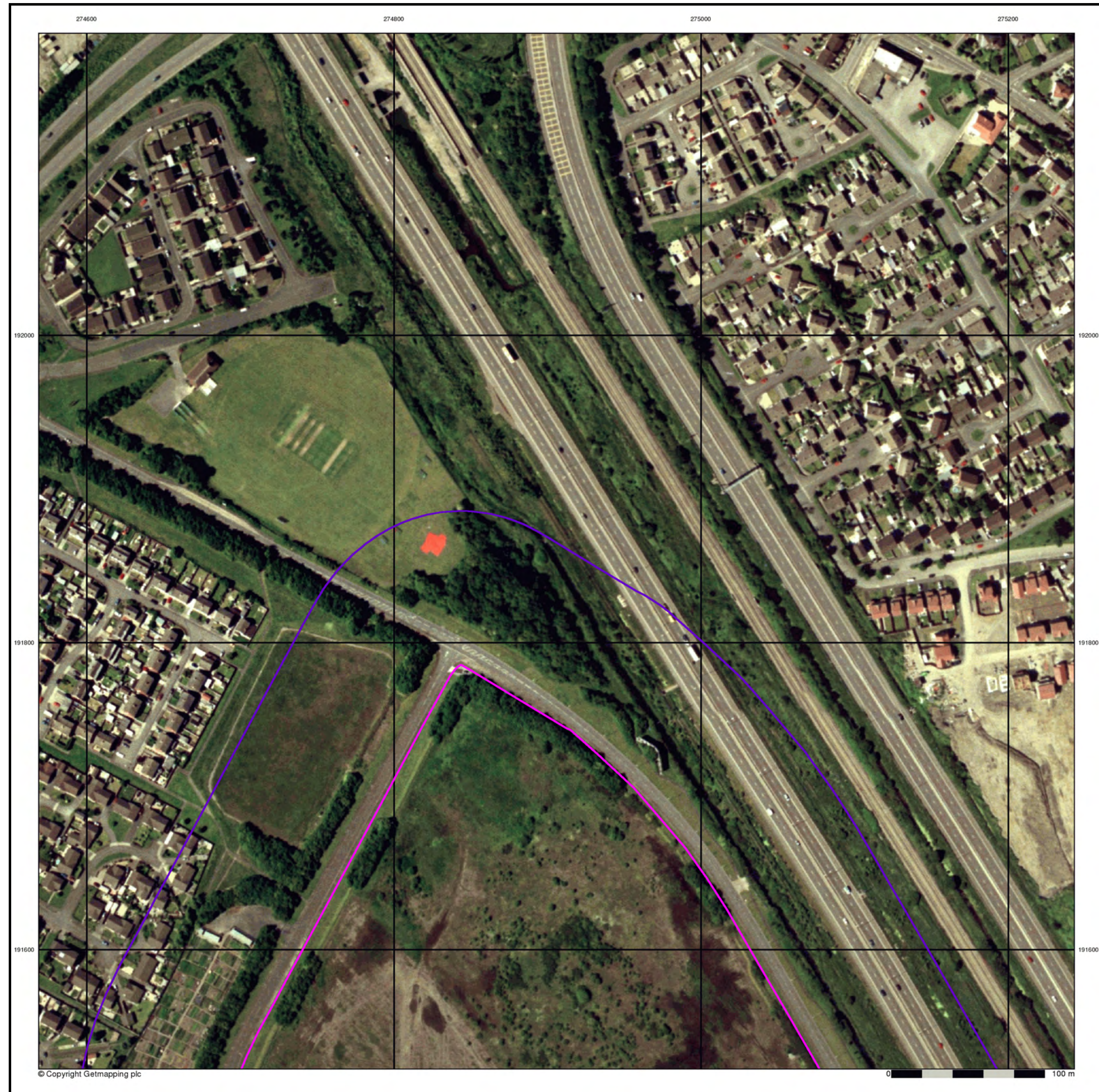
Order Number: 280525462_1_1
Customer Ref: 16750/JRW
National Grid Reference: 274890, 191520
Slice: A
Site Area (Ha): 12.64
Search Buffer (m): 100

Site Details

Land off Baglan Way, Baglan Industrial Park, Port Talbot, SA12 7BZ



Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

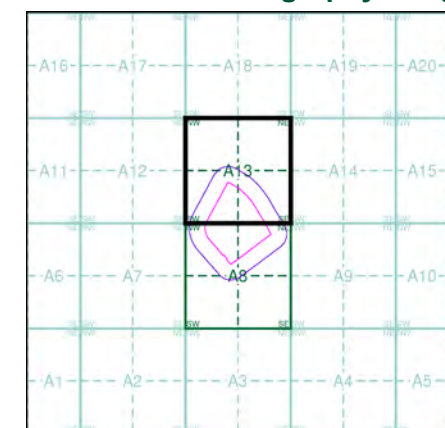


Historical Aerial Photography

Published 2000

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13

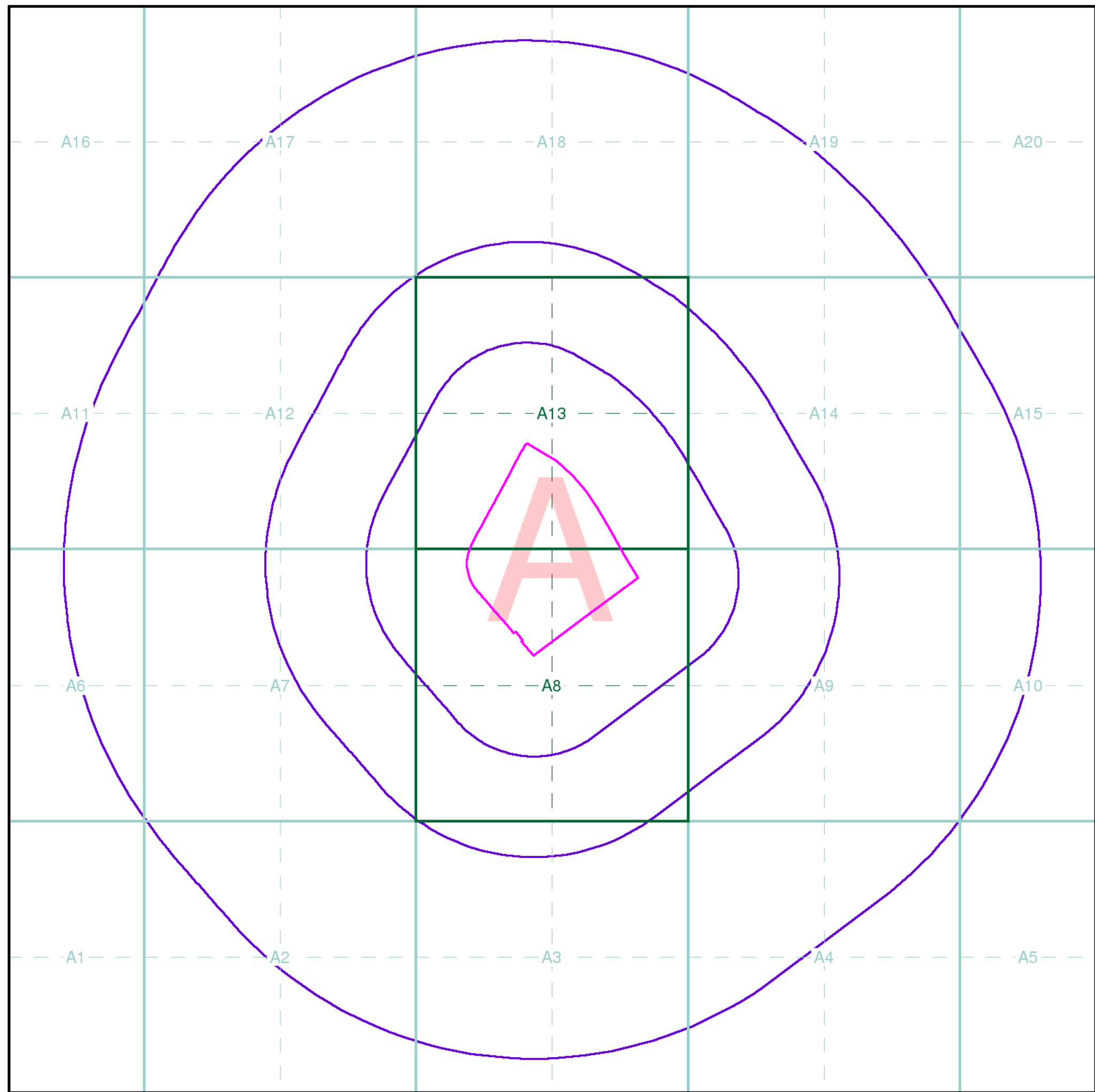


Order Details

Order Number: 280525462_1_1
Customer Ref: 16750/JRW
National Grid Reference: 274890, 191520
Slice: A
Site Area (Ha): 12.64
Search Buffer (m): 100

Site Details

Land off Baglan Way, Baglan Industrial Park, Port Talbot, SA12 7BZ



Geotechnical & Geoenvironmental Specialists

Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mr J Rhys-Williams, Terra Firma (Wales) Ltd, 5 Deryn Court, Wharfdale Road, Pentwyn, Cardiff, CF23 7HB

Order Details

Order Number: 280525462_1_1
Customer Ref: 16750/JRW
National Grid Reference: 274890, 191510
Site Area (Ha): 12.64
Search Buffer (m): 1000

Site Details

Land off Baglan Way, Baglan Industrial Park, Port Talbot, SA12 7BZ

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>



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Fax: 0844 844 9951
Web: www.envirocheck.co.uk

ANNEX B
Coal Authority Report



The Coal
Authority

CON29M

coal mining report

LAND OFF BAGLAN WAY, BAGLAN INDUSTRIAL PARK, PORT TALBOT, SA12 7BZ,
VALE OF GLAMORGAN



Known or potential coal mining risks

Future underground coal mining

Page 3



Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit
www.groundstability.com



Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Your reference: **280525462_2**
Our reference: **51002539576001**
Date: **16 June 2021**

Client name:
NLIS Hub

If you require any further assistance please
contact our experts on:
0345 762 6848
groundstability@coal.gov.uk



The Law
Society

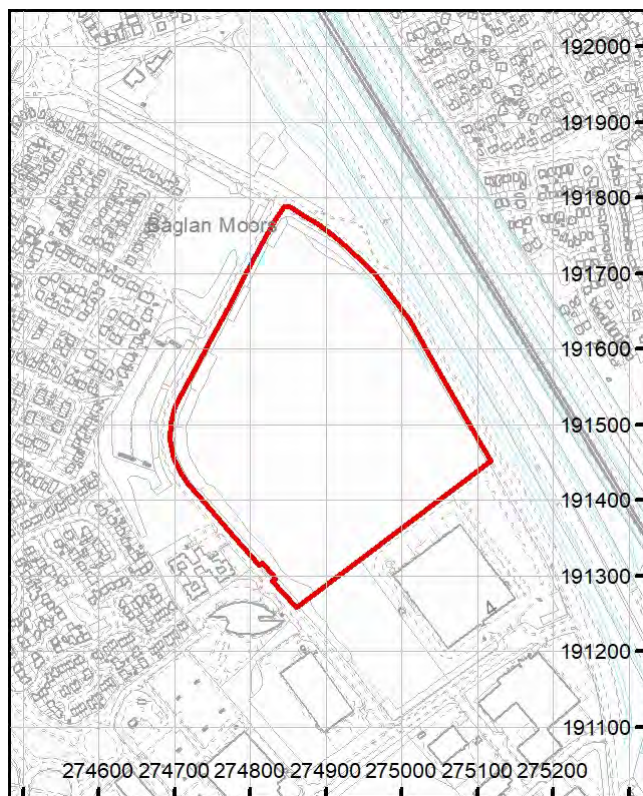
Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is
on the coalfield



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Ordnance Survey Licence number: 100020315.

This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.



Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

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1 Past underground coal mining

The property is not within a surface area that could be affected by any past recorded underground coal mining.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

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

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4 Mine entries

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

5 Coal mining geology

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

6 Past opencast coal mining

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

7 Present opencast coal mining

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

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

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.

9 Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

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

The Coal 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.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

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

12 Withdrawal of support

The property is not in an area where a notice to withdraw support has been given.

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

13 Working facilities order

The property is not in an area where 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.

14 Payments to owners of former copyhold land

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

Statutory cover



Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.

www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **01623 646 333**. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

ANNEX C
Risk Assessment Definitions

The contaminated land regime is set out in Part 2A of the Environmental Protection Act (EPA) 1990 and was introduced on the 1st April 2000 in England and 1st July 2001 in Wales. A similar regime was introduced in Scotland on 14th July 2000.

Part 2A was introduced to achieve three overarching objectives:

- (a) To identify and remove unacceptable risks to human health and the environment.
- (b) To seek to ensure that contaminated land is made suitable for its current use.
- (c) To ensure that the burdens faced by individuals, companies and society as a whole are proportionate, manageable and compatible with the principles of sustainable development.

Under Part 2A the statutory definition of 'contaminated land' is:

"any land which appears to the local authority in whose area it is situated, to be in such a condition, by reason of substances in, on, or under the land, that:

- (a) Significant harm is being caused or there is a significant possibility of such harm being caused; or
- (b) Pollution of controlled waters is being, or is likely to be, caused."

Under Part 2A, for land to be classified as 'Contaminated Land' there must be one or more contaminant, pathway, receptor linkages, known as the '**Pollutant Linkage**'. A pollutant linkage requires three essential elements:

- (a) A **CONTAMINANT** (SOURCE) – a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of controlled waters.
- (b) A **RECEPTOR** – something which could be adversely affected by a contaminant.
- (c) A **PATHWAY** – a route by which a receptor is or might be exposed to or affected by a contaminant.

The term 'Risk' is widely used in different contexts and situations, but a prescriptive definition is given by the Guidelines for Environmental Risk Assessment and Management (DEFRA *et al*, 2000):

'Risk is a combination of the probability, or frequency, of occurrence of a defined hazard and the magnitude of the consequences of the occurrence'.

Model Procedures for the Management of Land Contamination – Contamination Land Report 11 (2004) defines a 'Hazard' as

'a property or situation that in particular circumstances could lead to harm'.

A framework for qualitative risk assessment is provided in CIRIA publication C552 Contaminated Land Risk Assessment – A Guide to Good Practice (2001). The method requires an assessment of the magnitude of the probability of the risk occurring and the magnitude of the potential consequence. Classifications of consequences and probability, levels and descriptions of risk have been devised from the above publication and are defined in the following sections.

Classification of Consequence

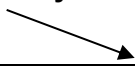
Table A Classification of Consequence	
Classification	Definition
Severe	• Short term (acute) risk to human health likely to result in significant harm • Short term risk to controlled waters • Catastrophic damage to buildings/structures • Short term risk to an ecosystem or organism within the particular ecosystem
Medium	• Chronic damage to human health (long term risk) • Pollution of a sensitive water resource • A significant change in an ecosystem or organism within the ecosystem
Mild	• Pollution of non-sensitive water resources • Significant damage to buildings/structures • Damage to sensitive buildings/structure/services or the environment
Negligible	• Harm (not necessarily significant) which may result in financial loss • Non-permanent health effects to humans (easily prevented by PPE for example) • Easily repairable effects of structural (building) damage

Classification of Probability

Table B Classification of Probability	
Classification	Definition
High Likelihood	• There is a complete pollution linkage and an event appears very likely to occur in the short term and is inevitable in the long term. • Evidence of harm to the receptor
Likely	• There is a complete pollution linkage which means that it is probable that an event will occur • The event is not inevitable but possible in short term and likely in the long term
Low Likelihood	• There is a complete pollution linkage and circumstances are possible under which an event could occur • It is not certain that an event will occur in the long term, and it is less likely to occur in the short term
Unlikely	• There is a complete pollution linkage but circumstances are such that it is improbable that an event would occur even in the long term

Risk Assessment Matrix

By comparing the consequences of a risk and the probability of the risk of a pollution linkage, the likely risk category can be determined as shown in **Table C** below.

Table C Risk Assessment Matrix					
Increasing acceptability 		Consequence			
		Severe	Medium	Mild	Negligible
Probability	High Likelihood	High risk	High risk	Medium risk	Low risk
	Likely	High risk	Medium risk	Low risk	Near zero risk
	Low Likelihood	Medium risk	Low risk	Low risk	Near zero risk
	Unlikely	Low risk	Near zero risk	Near zero risk	Near zero risk

Description of Risks and Likely Actions

High Risk

There is a high probability that severe harm could arise to a receptor, or there is evidence that a receptor is currently being severely harmed. The risk if realised is likely to result in liability, and urgent investigation or remediation will be required.

Medium Risk

It is probable that harm will arise to a receptor. However, it is relatively unlikely that such harm would be severe, or if harm does occur the harm is likely to be relatively mild. Investigation will be required to determine the liability, and some remedial works may be required in the long term.

Low Risk

It is possible that harm may arise to a receptor, but it is likely that the harm would be mild.

Near Zero Risk

There is a very low risk of harm to the receptor. In the event of harm being realised the harm is not likely to be severe.

ANNEX D
Trial Pit Logs

Trial Pit Log

Trial Pit No:
TP01
 Sheet 1 of 1

Project Name: Baglan Way

Project No:
 16750

Co-ords: -
 Level:

Date:
 30/06/2021

Location: Baglan

Dimensions:

1.80

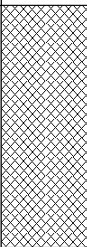
Depth
 0.80

0.50

Scale:
 1:25

Logged:
 JRW

Client: CJ Construction Wales Ltd

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.50	ES		0.80			Medium dense dark grey slightly clayey sandy angular fine to coarse sandstone, mudstone and rare slag GRAVEL with low cobble content. (MADE GROUND) Very dense. End of Pit at 0.800m
							1
							2
							3
							4
							5

Stability: Stable and vertical.

Remarks: Refusal at 0.80m in very dense ground conditions. Groundwater not encountered. On completion trial pit backfilled with materials arising.

Trial Pit Log

Trial Pit No:
TP02
 Sheet 1 of 1

Project Name: Baglan Way

Project No:
 16750

Co-ords: -
 Level:

Date:
 30/06/2021

Location: Baglan

Dimensions: 2.20

Depth

1.20

0.50

Scale:

1:25

Logged:
 JRW

Client: CJ Construction Wales Ltd

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.60	ES		0.40			Medium dense dark grey slightly clayey sandy angular fine to coarse sandstone, mudstone and rare slag GRAVEL with low cobble content. (MADE GROUND)
							Medium dense grey sandy angular fine to coarse slag GRAVEL with medium cobble content. (MADE GROUND)
				1.20			Very dense. End of Pit at 1.200m

Stability: Stable and vertical.

Remarks: Refusal at 1.20m in very dense ground conditions. Groundwater not encountered. On completion trial pit backfilled with materials arising.

Trial Pit Log

Trial Pit No:
TP03
Sheet 1 of 1

Project Name: Baglan Way

Project No:
16750

Co-ords: -
Level:

Date:
30/06/2021

Location: Baglan

Dimensions:

1.70

Depth
1.00

0.50

Scale:
1:25

Logged:
JRW

Client: CJ Construction Wales Ltd

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.30	ES		0.40			Medium dense dark grey slightly clayey sandy angular fine to coarse sandstone, mudstone and rare slag GRAVEL with low cobble content. (MADE GROUND)	
				1.00			Medium dense grey sandy angular fine to coarse slag GRAVEL with medium cobble content. (MADE GROUND)	
							Very dense.	1
							End of Pit at 1.000m	2
								3
								4
								5

Stability: Stable and vertical.

Remarks: Refusal at 1.00m in very dense ground conditions. Groundwater not encountered. On completion trial pit backfilled with materials arising.

Trial Pit Log

Trial Pit No:
TP04
Sheet 1 of 1

Project Name: Baglan Way

Project No:
16750

Co-ords: -
Level:

Date:
30/06/2021

Location: Baglan

Dimensions:

1.70

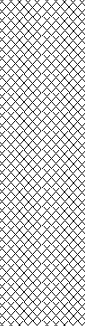
Depth
1.30

0.50

Scale:
1:25

Logged:
JRW

Client: CJ Construction Wales Ltd

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	1.20	ES		1.10 1.30			Medium dense dark grey slightly clayey sandy angular fine to coarse sandstone, mudstone and rare slag GRAVEL with low cobble content. (MADE GROUND) Medium dense to very dense dark brown clayey sandy angular fine to coarse slag GRAVEL with low cobble content. (MADE GROUND) End of Pit at 1.300m

Stability: Stable and vertical.

Remarks: Refusal at 1.30m in very dense ground conditions. Groundwater not encountered. On completion trial pit backfilled with materials arising.

Trial Pit Log

Trial Pit No:
TP05
 Sheet 1 of 1

Project Name: Baglan Way

Project No:
 16750

Co-ords: -
 Level:

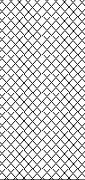
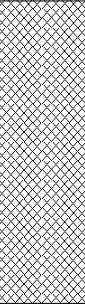
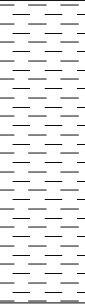
Date:
 30/06/2021

Location: Baglan

Dimensions: 2.00
 Depth 0.50
 2.60

Scale:
 1:25
 Logged:
 JRW

Client: CJ Construction Wales Ltd

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.50	ES		0.60			Medium dense dark grey slightly clayey sandy angular fine to coarse sandstone, mudstone and rare slag GRAVEL with low cobble content. (MADE GROUND)	
							Medium dense to dense dark brown clayey sandy angular fine to coarse slag GRAVEL with low cobble content. (MADE GROUND)	1
	1.70	ES		1.60			Very soft dark bluish grey CLAY.	2
▼				2.60			End of Pit at 2.600m	3
								4
								5

Stability: Stable and vertical.

Remarks: Groundwater seepage encountered at 2.50m. On completion trial pit backfilled with materials arising.

Trial Pit Log

Trial Pit No:
TP06
 Sheet 1 of 1

Project Name: Baglan Way
 Project No: 16750
 Co-ords: -
 Level:

Date:
 30/06/2021

Location: Baglan

Dimensions:

2.10

Depth

2.60

0.50

Scale:

1:25

Logged:

JRW

Client: CJ Construction Wales Ltd

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.20	ES					Medium dense dark grey slightly clayey sandy angular fine to coarse sandstone, mudstone and rare slag GRAVEL with low cobble content. (MADE GROUND)	1
				1.20			Medium dense to dense dark brown clayey sandy angular fine to coarse slag GRAVEL with low cobble content. (MADE GROUND)	
				1.60			Medium dense to dense grey sandy angular fine to coarse slag GRAVEL with medium cobble content. (MADE GROUND)	2
				2.60			End of Pit at 2.600m	3
								4
								5

Stability: Stable and vertical.

Remarks: Groundwater encountered at 2.50m. On completion trial pit backfilled with materials arising.

Trial Pit Log

Trial Pit No:
TP07
 Sheet 1 of 1

Project Name: Baglan Way

Project No:
 16750

Co-ords: -
 Level:

Date:
 30/06/2021

Location: Baglan

Dimensions: 2.00

Depth
 3.00

0.50

Scale:
 1:25

Logged:
 JRW

Client: CJ Construction Wales Ltd

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
▼	0.60	ES					Firm dark grey sandy gravelly CLAY with low cobble and boulder content. Gravel is angular fine to coarse sandstone and mudstone. With rare timber fragments. (MADE GROUND)
				2.80			
				3.00			Medium dense to dense dark brown clayey sandy angular fine to coarse slag GRAVEL with low cobble and boulder content. (MADE GROUND)
							End of Pit at 3.000m

Stability: Stable and vertical.

Remarks: Groundwater seepage encountered at 1.70m. On completion trial pit backfilled with materials arising.

Trial Pit Log

Trial Pit No:
TP08
Sheet 1 of 1

Project Name: Baglan Way

Project No:
16750

Co-ords: -
Level:

Date:
30/06/2021

Location: Baglan

Dimensions:

2.10

Depth
2.30

0.50

Scale:
1:25

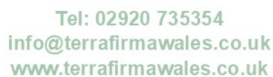
Logged:
JRW

Client: CJ Construction Wales Ltd

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth	Type	Results					
	0.90	ES		0.80			Medium dense dark grey slightly clayey sandy angular fine to coarse sandstone, mudstone and rare slag GRAVEL with low cobble content. (MADE GROUND)	
							Loose to dense dark brown sandy angular fine to coarse slag GRAVEL with low cobble content. (MADE GROUND)	1
▼	2.20	ES		2.10			Firm brownish grey CLAY.	2
				2.30			End of Pit at 2.300m	3
								4
								5

Stability: Stable and vertical.

Remarks: Groundwater encountered at 2.00m. On completion trial pit backfilled with materials arising.



Trial Pit No:
TP09
Sheet 1 of 1

Project Name: Baglan Way

Project No:
16750

Co-ords: -
Level:

Date:
30/06/2021

Location: Baglan

Dimensions:

2.00

Scale:

Depth

0.50

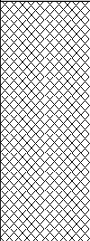
1.00

1:25

logged

Logged:
JRW

Client: CJ Construction Wales Ltd

Water Strike	Samples & In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description
	Depth	Type	Results				
	0.20	ES					Medium dense dark grey slightly clayey sandy angular fine to coarse sandstone, mudstone and rare slag GRAVEL with low cobble content. (MADE GROUND)
				0.80			Medium dense to very dense dark brown clayey sandy angular fine to coarse slag GRAVEL with low cobble content. (MADE GROUND)
				1.00			End of Pit at 1.000m

Stability:	Stable and vertical.
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Remarks: Refusal at 1.00m in very dense ground conditions. Groundwater not encountered. On completion trial pit backfilled with materials arising.

ANNEX E
Soakaway Results

SOAKAWAY TEST



Site Name: Baglan Way
Project Number: 16750
Date: 30/06/2021
Engineer: JRW

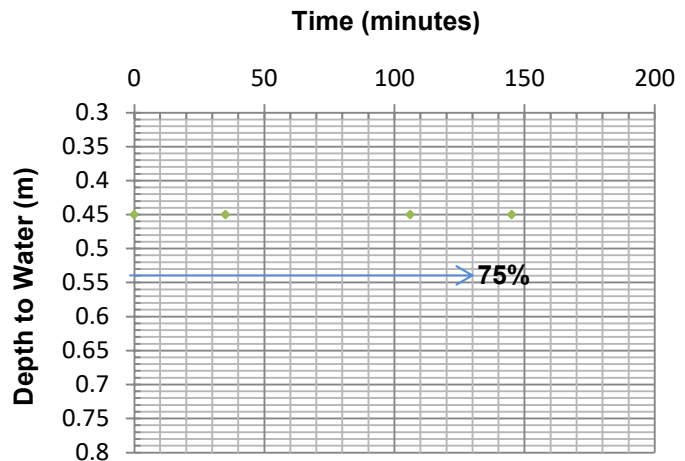
Trial Pit: TP01

TEST 1

Length 1.80 m
Bredth 0.50 m
Depth 0.80 m
Fill Level 0.45 m

V_{p75-25} 0.158 m³
 a_{p50} 1.705 m²
 t_{p75-25} 0 minutes

Soil Infiltration Rate, f - ms⁻¹
Too little water take to calculate infiltration rate

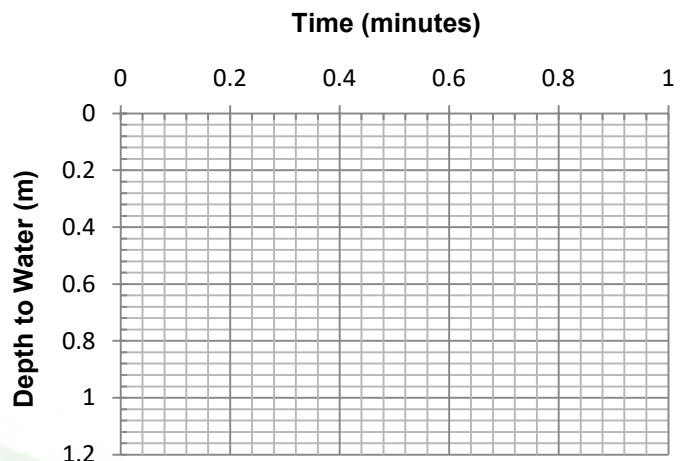


TEST 2

Length m
Bredth m
Depth m
Fill Level m

V_{p75-25} 0 m³
 a_{p50} 0 m²
 t_{p75-25} 0 minutes

Soil Infiltration Rate, f - ms⁻¹

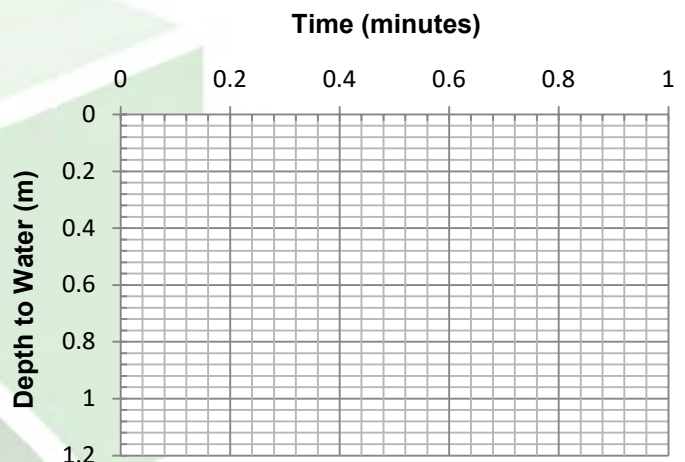


TEST 3

Length m
Bredth m
Depth m
Fill Level m

V_{p75-25} 0 m³
 a_{p50} 0 m²
 t_{p75-25} 0 minutes

Soil Infiltration Rate, f - ms⁻¹



REMARKS:

Test carried out in genral accordance with BRE DIGEST 365 (2016)

SOAKAWAY TEST



Site Name: Baglan Way
Project Number: 16750
Date: 30/06/2021
Engineer: JRW

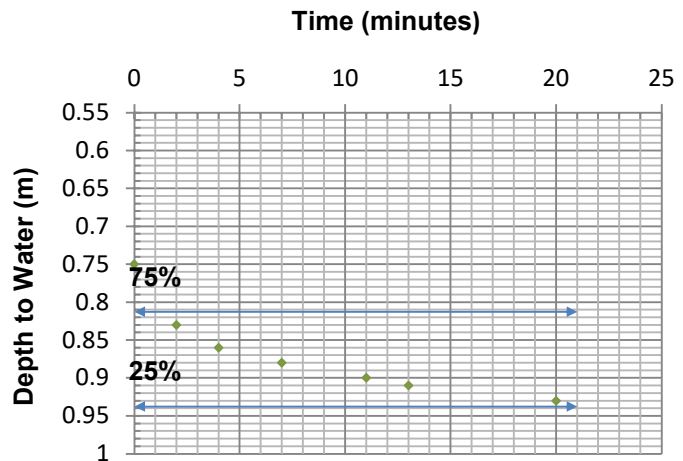
Trial Pit: TP03

TEST 1

Length 1.70 m
Width 0.50 m
Depth 1.00 m
Fill Level 0.75 m

V_{p75-25} 0.106 m³
 a_{p50} 1.4 m²
 t_{p75-25} 18.5 minutes

Soil Infiltration Rate, f 6.84E-05 ms⁻¹

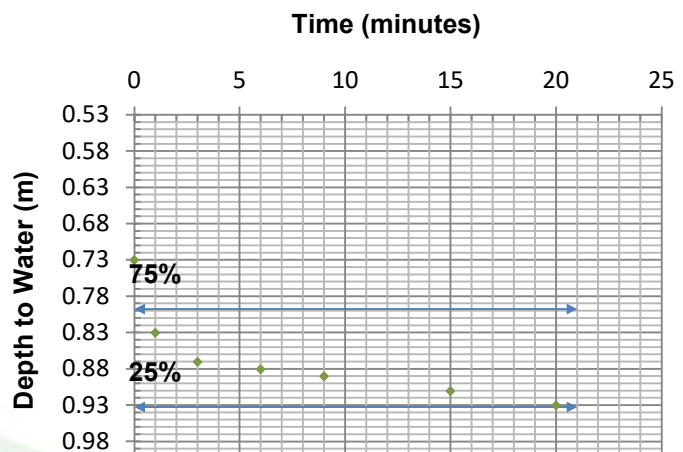


TEST 2

Length 1.70 m
Width 0.50 m
Depth 1.00 m
Fill Level 0.73 m

V_{p75-25} 0.115 m³
 a_{p50} 1.444 m²
 t_{p75-25} 19.2 minutes

Soil Infiltration Rate, f 6.90E-05 ms⁻¹

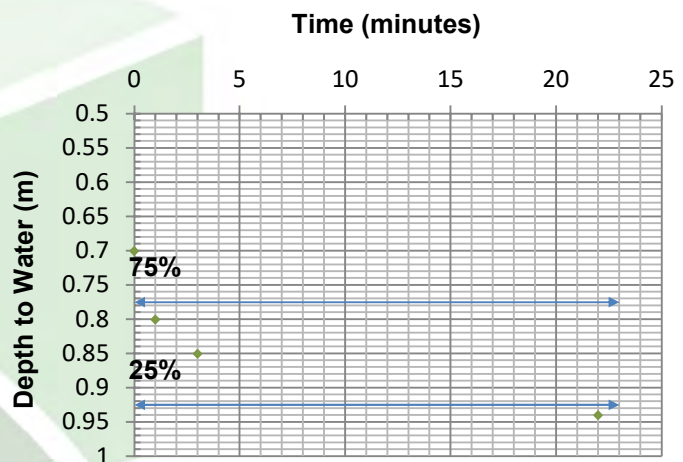


TEST 3

Length 1.70 m
Width 0.50 m
Depth 1.00 m
Fill Level 0.70 m

V_{p75-25} 0.128 m³
 a_{p50} 1.51 m²
 t_{p75-25} 20.2 minutes

Soil Infiltration Rate, f 6.97E-05 ms⁻¹



REMARKS:

Test carried out in accordance with BRE Digest 365 (2016)

SOAKAWAY TEST



Site Name: Baglan Way
Project Number: 16750
Date: 30/06/2021
Engineer: JRW

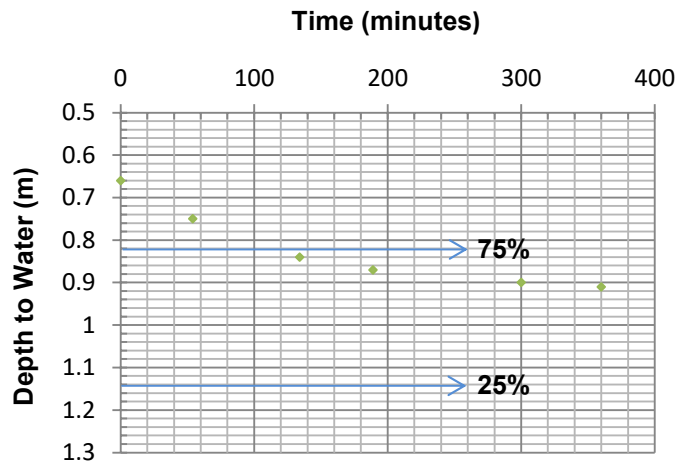
Trial Pit: **TP04**

TEST 1

Length 1.70 m
Bredth 0.50 m
Depth 1.30 m
Fill Level 0.66 m

V_{p75-25} 0.272 m³
 a_{p50} 2.258 m²
 t_{p75-25} 0 minutes

Soil Infiltration Rate, f - ms⁻¹
Too little water take in 6hrs of testing to calculate infiltration rate

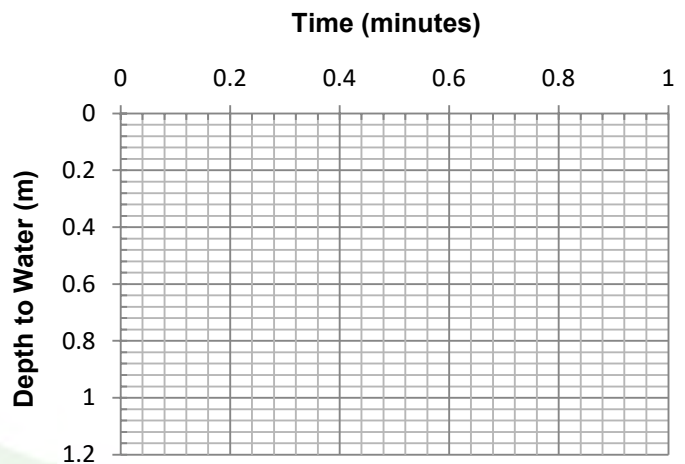


TEST 2

Length m
Bredth m
Depth m
Fill Level m

V_{p75-25} 0 m³
 a_{p50} 0 m²
 t_{p75-25} 0 minutes

Soil Infiltration Rate, f - ms⁻¹

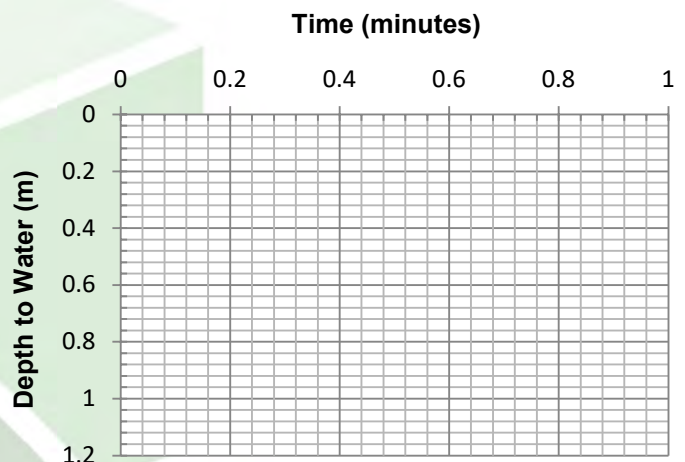


TEST 3

Length m
Bredth m
Depth m
Fill Level m

V_{p75-25} 0 m³
 a_{p50} 0 m²
 t_{p75-25} 0 minutes

Soil Infiltration Rate, f - ms⁻¹



REMARKS:

Test carried out in genral accordance with BRE DIGEST 365 (2016)

ANNEX F
Borehole Logs

Borehole Log

Borehole No.

BH01

Sheet 1 of 3

Project Name:	Baglan Way
---------------	------------

Project No:	16750
-------------	-------

Co-ords:

Hole Type
CP

Location: Baqlan

Level:

Scale
1:50

Client: CJ Construction Wales Ltd

Dates: 28/06/2021 - 01/07/2021

Logged By
ES

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.05 - 0.25	ES		0.30				MADE GROUND. Grey and brown gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse concrete.	1
	1.20	SPT	50 (25 for 105mm/50 for 125mm)					MADE GROUND. Grey sandy clayey GRAVEL. Sand is fine to coarse. Gravel is angular to subrounded fine to coarse of concrete and slag.	2
	2.00	SPT	N=46 (25 for 125mm/15,17,6,8)						
	2.60 - 3.00	ES		2.60				Soft grey mottled brown silty CLAY.	3
	3.00	SPT	N=3 (1,0/1,0,1,1)						4
	4.00	SPT	N=0 (0,0/0,0,0,0)						5
	5.00	SPT	N=2 (1,0/0,1,0,1)						6
				5.50				Soft dark brown spongy fibrous PEAT.	7
	6.50	SPT	N=4 (1,1/1,1,1,1)						8
	7.90 - 8.35 8.00	ES SPT	N=0 (0,0/0,0,0,0)	7.90				Very soft grey mottled brown silty CLAY with occasional pockets (10mm x 10mm x 10mm) of soft spongy dark brown fibrous peat.	9
Chiseling	Depth Top (m)		Depth Base (m)		Duration (hh:mm)		Remarks		
	1.20		1.90		01:30				
	2.10		2.60		02:00				

Remarks:	Groundwater encountered at 1.90m rising to 1.40m and 13.20m rising to 9.90m. On completion borehole installed with a 2No. (50mm) standpipes with response zones at 21.00-12.00m and 2.50-0.50m, sealed with a bentonite plugs at 12.00-2.50m and 0.50-0.20m, concrete and upstanding cover 0.20-0.00m.
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Borehole Log

Borehole No.

BH01

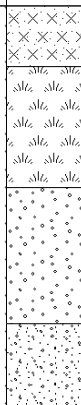
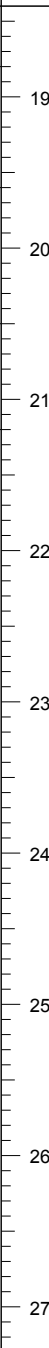
Sheet 2 of 3

Project Name:	Baglan Way	Project No:	16750	Co-ords:		Hole Type	CP
Location:	Baglan	Level:		Scale	1:50	Logged By	ES
Client:	CJ Construction Wales Ltd	Dates:	28/06/2021 - 01/07/2021				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	9.50	SPT	N=0 (0,0/0,0,0,0)	10.45				Very soft grey mottled brown silty CLAY with occasional pockets (10mm x 10mm x 10mm) of soft spongy dark brown fibrous peat.	10
	11.00	SPT	N=0 (0,0/0,0,0,0)					Very soft grey mottled brown silty CLAY.	11
	12.50	SPT	N=2 (1,0/1,0,1,0)	16.10					12
	14.00	SPT	N=0 (0,0/0,0,0,0)						13
	15.50	SPT	N=2 (1,0/0,1,0,1)						14
	16.10 - 16.55 16.10 - 16.55	D ES						Very soft grey sandy SILT. Sand is fine to coarse.	15
	17.00	SPT	N=3 (1,0/1,1,0,1)						16
									17
									18

Chiseling	Depth Top (m)	Depth Base (m)	Duration (hh:mm)	Remarks

Remarks: Groundwater encountered at 1.90m rising to 1.40m and 13.20m rising to 9.90m. On completion borehole installed with a 2No. (50mm) standpipes with response zones at 21.00-12.00m and 2.50-0.50m, sealed with a bentonite plugs at 12.00-2.50m and 0.50-0.20m, concrete and upstanding cover 0.20-0.00m.

 Tel: 02920 735354 info@terrafirmawales.co.uk www.terrafirmawales.co.uk Borehole Log Borehole No. BH01 Sheet 3 of 3									
Project Name: Baglan Way			Project No: 16750	Co-ords:	Hole Type CP				
Location: Baglan			Level:		Scale 1:50				
Client: CJ Construction Wales Ltd			Dates: 28/06/2021 - 01/07/2021		Logged By ES				
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	18.50	SPT	N=6 (1,1/1,2,1,2)	18.80				Very soft grey sandy SILT. Sand is fine to coarse.	
				19.60				Soft dark brown spongy fibrous PEAT.	
	20.00	SPT	N=32 (5,7/8,8,8,8)	20.50				Dense grey slightly sandy GRAVEL. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of very weak mudstone	
	21.00	SPT	50 (10,13/50 for 275mm)	21.20				Very dense grey gravelly SAND with low cobble content. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of very weak mudstone.	
	21.20	SPT	50 (25 for 85mm/50 for 115mm)					End of Borehole at 21.200m	
Chiseling	Depth Top (m)		Depth Base (m)		Duration (hh:mm)		Remarks		
	20.80		21.00		01:00				
	21.00		21.20		01:30				
Remarks: Groundwater encountered at 1.90m rising to 1.40m and 13.20m rising to 9.90m. On completion borehole installed with a 2No. (50mm) standpipes with response zones at 21.00-12.00m and 2.50-0.50m, sealed with a bentonite plugs at 12.00-2.50m and 0.50-0.20m, concrete and upstanding cover 0.20-0.00m.									

Borehole Log

Borehole No.

BH02

Sheet 1 of 3

Project Name:	Baglan Way
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Project No:	16750
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Co-ords:

Hole Type
CP

Location: Baqlan

Level:

Scale
1:50

Client: CJ Construction Wales Ltd

Dates: 01/07/2021 - 14/07/2021

Logged By
ES

[illegible]

Chiseling	Depth Top (m)	Depth Base (m)	Duration (hh:mm)	Remarks
	1.30	1.60	01:00	
	2.10	2.30	00:30	

Remarks:	Groundwater encountered at 16.10m rising to 10.30m. On completion borehole installed with a 2No. (50mm) standpipes with response zones at 21.00-12.00m and 2.50-0.50m, sealed with a bentonite plugs at 22.20-21.00m, 12.00-2.50m and 0.50-0.20m, concrete and upstanding cover 0.20-0.00m.
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Borehole Log

Borehole No.

BH02

Sheet 2 of 3

Project Name:	Baglan Way
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Project No:	16750
-------------	-------

Co-ords:

Hole Type
CP

Location: Baqlan

Level:

Scale
1:50

Client: CJ Construction Wales Ltd

Dates: 01/07/2021 - 14/07/2021

Logged By
ES

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
<									

Borehole Log

Borehole No.

BH02

Sheet 3 of 3

Project Name:	Baglan Way	Project No:	16750	Co-ords:		Hole Type	CP
Location:	Baglan	Level:		Scale	1:50	Logged By	ES
Client:	CJ Construction Wales Ltd	Dates:	01/07/2021 - 14/07/2021				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	18.50	SPT	N=8 (1,1/2,2,2,2)					Loose grey silty SAND. Sand is fine and medium.	
	19.20 - 19.65	ES		19.20				Firm mottled orangish brown CLAY with occasional lenses (<3mm x 10mm x 10mm) of coarse sand.	19
	20.00	SPT	N=25 (3,3/4,6,6,9)						20
	21.50	SPT	N=31 (3,4/6,8,8,9)	21.70					21
	22.20	SPT	50 (25 for 115mm/50 for 125mm)	22.00 22.20				Stiff grey gravelly CLAY. Gravel is angular and subangular fine and medium of mudstone. Grey MUDSTONE. Recovered as very dense grey gravel. Gravel is angular and subangular fine to coarse of mudstone.	22
								End of Borehole at 22.200m	23
									24
									25
									26
									27

Chiseling	Depth Top (m)	Depth Base (m)	Duration (hh:mm)	Remarks
	22.00	22.20	01:00	

Remarks: Groundwater encountered at 16.10m rising to 10.30m. On completion borehole installed with a 2No. (50mm) standpipes with response zones at 21.00-12.00m and 2.50-0.50m, sealed with a bentonite plugs at 22.20-21.00m, 12.00-2.50m and 0.50-0.20m, concrete and upstanding cover 0.20-0.00m.

Borehole Log

Borehole No.

BH03

Sheet 1 of 3

Project Name:	Baglan Way
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Project No:	16750
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Co-ords:

Hole Type
CP

Location: Baqlan

Level:

Scale
1:50

Client: CJ Construction Wales Ltd

Dates: 15/07/2021 - 19/07/2021

Logged By
ES

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	0.05 - 0.45	ES		0.50				MADE GROUND. Grey and brown gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of concrete.,	
	1.20	SPT	N=43 (7,10/14,18,7,4)	1.60				MADE GROUND. Grey sandy gravelly CLAY with frequent ashy pockets (<5mm x 10mm x 10mm) and occasional fragments (<30mm x 30mm x 30mm) of brick and concrete. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies.	1
	2.00	SPT	50 (3,2/50 for 150mm)					MADE GROUND. Grey and brown slightly gravelly SAND. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of concrete.,	2
	2.80 - 3.25	ES		2.80					
	3.00	SPT	N=2 (1,0/1,0,0,1)					Soft grey mottled brown silty CLAY.	3
	4.00	SPT	N=0 (0,0/0,0,0,0)						4
	5.00	SPT	N=1 (1,0/0,1,0,0)						5
	5.30 - 5.75	ES		5.30				Soft dark brown spongy fibrous PEAT.	6
	6.50	SPT	N=0 (0,0/0,0,0,0)						
	6.90 - 7.35	D		6.90				Very soft grey mottled brown silty CLAY with occasional pockets (10mm x 10mm x 10mm) of soft spongy dark brown fibrous peat.	7
	8.00	SPT	N=0 (0,0/0,0,0,0)						8
									9

Chiseling	Depth Top (m)		Depth Base (m)		Duration (hh:mm)		Remarks
	1.40		1.60		00:30		
	2.30		2.60		01:00		

Remarks:	Groundwater encountered at 1.90m rising to 1.30m and 8.70m rising to 7.30m. On completion borehole installed with a 2No. (50mm) standpipes with response zones at 21.00-12.00m and 2.50-0.50m, sealed with a bentonite plugs at 22.20-21.00m, 12.00-2.50m and 0.50-0.20m. concrete and upstanding cover 0.20-0.00m.
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Borehole Log

Borehole No.

BH03

Sheet 2 of 3

Project Name:	Baglan Way	Project No:	16750	Co-ords:		Hole Type	CP
Location:	Baglan	Level:		Scale	1:50	Logged By	ES
Client:	CJ Construction Wales Ltd	Dates:	15/07/2021 - 19/07/2021				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	9.50	SPT	N=0 (0,0/0,0,0,0)					Very soft grey mottled brown silty CLAY with occasional pockets (10mm x 10mm x 10mm) of soft spongy dark brown fibrous peat.	10
	11.00	SPT	N=0 (0,0/0,0,0,0)						11
	12.50	SPT	N=0 (0,0/0,0,0,0)						12
	14.00	SPT	N=0 (0,0/0,0,0,0)						13
	15.50	SPT	N=2 (1,0/1,0,1,0)						14
	17.00	SPT	N=0 (0,0/0,0,0,0)	16.90				Soft dark brown spongy fibrous PEAT.	15
	18.10 - 18.55	ES		18.10				Dense brown clayey GRAVEL. Gravel is angular and subangular fine to coarse of very weak mudstone	16

Chiseling	Depth Top (m)	Depth Base (m)	Duration (hh:mm)	Remarks

Remarks: Groundwater encountered at 1.90m rising to 1.30m and 8.70m rising to 7.30m. On completion borehole installed with a 2No. (50mm) standpipes with response zones at 21.00-12.00m and 2.50-0.50m, sealed with a bentonite plugs at 22.20-21.00m, 12.00-2.50m and 0.50-0.20m, concrete and upstanding cover 0.20-0.00m.

Borehole Log

Borehole No.

BH03

Sheet 3 of 3

Project Name:	Baglan Way	Project No:	16750	Co-ords:		Hole Type	CP
Location:	Baglan	Level:		Scale	1:50	Logged By	ES
Client:	CJ Construction Wales Ltd	Dates:	15/07/2021 - 19/07/2021				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	18.50	SPT	N=44 (8,8/9,11,12,12)					Dense brown clayey GRAVEL. Gravel is angular and subangular fine to coarse of very weak mudstone	19
	20.00	SPT	N=49 (5,9/11,11,15,12)						20
	21.50	SPT	N=34 (6,8/7,9,9,9)						21
	22.20	SPT	50 (25 for 125mm/50 for 180mm)	21.90 22.20				Very dense grey clayey GRAVEL. Gravel is angular and subangular fine and medium of very weak mudstone.	22
								End of Borehole at 22.200m	23
									24
									25
									26
									27

Chiseling	Depth Top (m)	Depth Base (m)	Duration (hh:mm)	Remarks
	20.30	20.50	00:30	
	22.00	22.20	01:00	

Remarks: Groundwater encountered at 1.90m rising to 1.30m and 8.70m rising to 7.30m. On completion borehole installed with a 2No. (50mm) standpipes with response zones at 21.00-12.00m and 2.50-0.50m, sealed with a bentonite plugs at 22.20-21.00m, 12.00-2.50m and 0.50-0.20m, concrete and upstanding cover 0.20-0.00m.

 Tel: 02920 735354 info@terrafirmawales.co.uk www.terrafirmawales.co.uk Borehole Log Borehole No. BH04 Sheet 1 of 3									
Project Name: Baglan Way		Project No: 16750	Co-ords:	Hole Type CP					
Location: Baglan		Level:		Scale 1:50					
Client: CJ Construction Wales Ltd		Dates: 19/07/2021 - 21/07/2021		Logged By ES					
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
▼ ▽	0.05 - 0.50	ES						MADE GROUND. Grey sandy gravelly CLAY with frequent ashy pockets (<5mm x 10mm x 10mm) and occasional fragments (<30mm x 30mm x 30mm) of brick and concrete. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies.	1
	1.10 - 11.65 1.20	ES SPT	50 (25 for 105mm/50 for 50mm)	1.10				MADE GROUND. Dark grey slightly sandy gravelly CLAY with frequent ashy pockets (<5mm x 10mm x 10mm) and frequent fragments (<30mm x 30mm x 30mm) of brick, concrete and slag. Sand is fine to coarse. Gravel is angular and subangular fine to coarse of mixed lithologies.	2
	2.00	SPT	N=12 (6,9/8,2,1,1)						
	2.30 - 2.75	ES		2.30				Soft grey mottled brown silty CLAY.	
	3.00	SPT	N=4 (1,1/1,1,1,1)						3
	4.00	SPT	N=0 (0,0/0,0,0,0)						4
	5.00	SPT	N=0 (0,0/0,0,0,0)						5
				5.70				Soft dark brown spongy fibrous PEAT.	6
	6.50	SPT	N=4 (1,1/1,1,1,1)						7
				7.20				Very soft grey mottled brown silty CLAY with occasional pockets (10mm x 10mm x 10mm) of soft spongy dark brown fibrous peat.	
	8.00	SPT	N=0 (0,0/0,0,0,0)						8
									9
Chiseling	Depth Top (m)		Depth Base (m)		Duration (hh:mm)		Remarks		
	1.20		1.60		01:00				
Remarks: Groundwater encountered at 2.00m rising to 1.30m and 7.90m rising to 6.40m. On completion borehole backfilled with materials arising.									

Borehole Log

Borehole No.

BH04

Sheet 2 of 3

Project Name:	Baglan Way	Project No:	16750	Co-ords:		Hole Type	CP
Location:	Baglan	Level:		Scale	1:50	Logged By	ES
Client:	CJ Construction Wales Ltd	Dates:	19/07/2021 - 21/07/2021				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	9.50	SPT	N=0 (0,0/0,0,0,0)					Very soft grey mottled brown silty CLAY with occasional pockets (10mm x 10mm x 10mm) of soft spongy dark brown fibrous peat.	10
	11.00	SPT	N=0 (0,0/0,0,0,0)						11
	12.50	SPT	N=0 (0,0/0,0,0,0)						12
	14.00	SPT	N=0 (0,0/0,0,0,0)						13
	14.90 - 15.35	D		14.90				Very soft grey sandy SILT. Sand is fine to coarse.	14
	15.50	SPT	N=9 (2,1/2,2,2,3)						15
	17.00	SPT	N=2 (1,0/1,0,1,0)	17.00				Very loose grey silty SAND. Sand is fine to coarse.	16
				18.10				Soft dark brown spongy fibrous PEAT.	17
									18

Chiseling	Depth Top (m)	Depth Base (m)	Duration (hh:mm)	Remarks

Remarks: Groundwater encountered at 2.00m rising to 1.30m and 7.90m rising to 6.40m. On completion borehole backfilled with materials arising.

Borehole Log

Borehole No.

BH04

Sheet 3 of 3

Project Name:	Baglan Way	Project No:	16750	Co-ords:		Hole Type	CP
Location:	Baglan	Level:		Scale	1:50	Logged By	ES
Client:	CJ Construction Wales Ltd	Dates:	19/07/2021 - 21/07/2021				

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Well	Legend	Stratum Description	
	Depth (m)	Type	Results						
	18.50	SPT	N=7 (1,2/1,2,2,2)					Soft dark brown spongy fibrous PEAT.	
				19.20					19
	20.00	SPT	N=32 (6,7/8,8,7,9)					Dense to very dense grey very clayey GRAVEL. Gravel is angular and subangular fine and medium of weak mudstone.	20
	21.50	SPT	50 (8,13/50 for 210mm)						21
	22.40 - 22.70	ES							22
	22.70	SPT	50 (25 for 105mm/50 for 50mm)	22.70				End of Borehole at 22.700m	23
									24
									25
									26
									27

Chiseling	Depth Top (m)	Depth Base (m)	Duration (hh:mm)	Remarks
	21.60	21.80	00:30	
	22.40	22.70	01:00	

Remarks: Groundwater encountered at 2.00m rising to 1.30m and 7.90m rising to 6.40m. On completion borehole backfilled with materials arising.

**ANNEX G
CBR Results**

DYNAMIC CONE PENETROMETER TEST



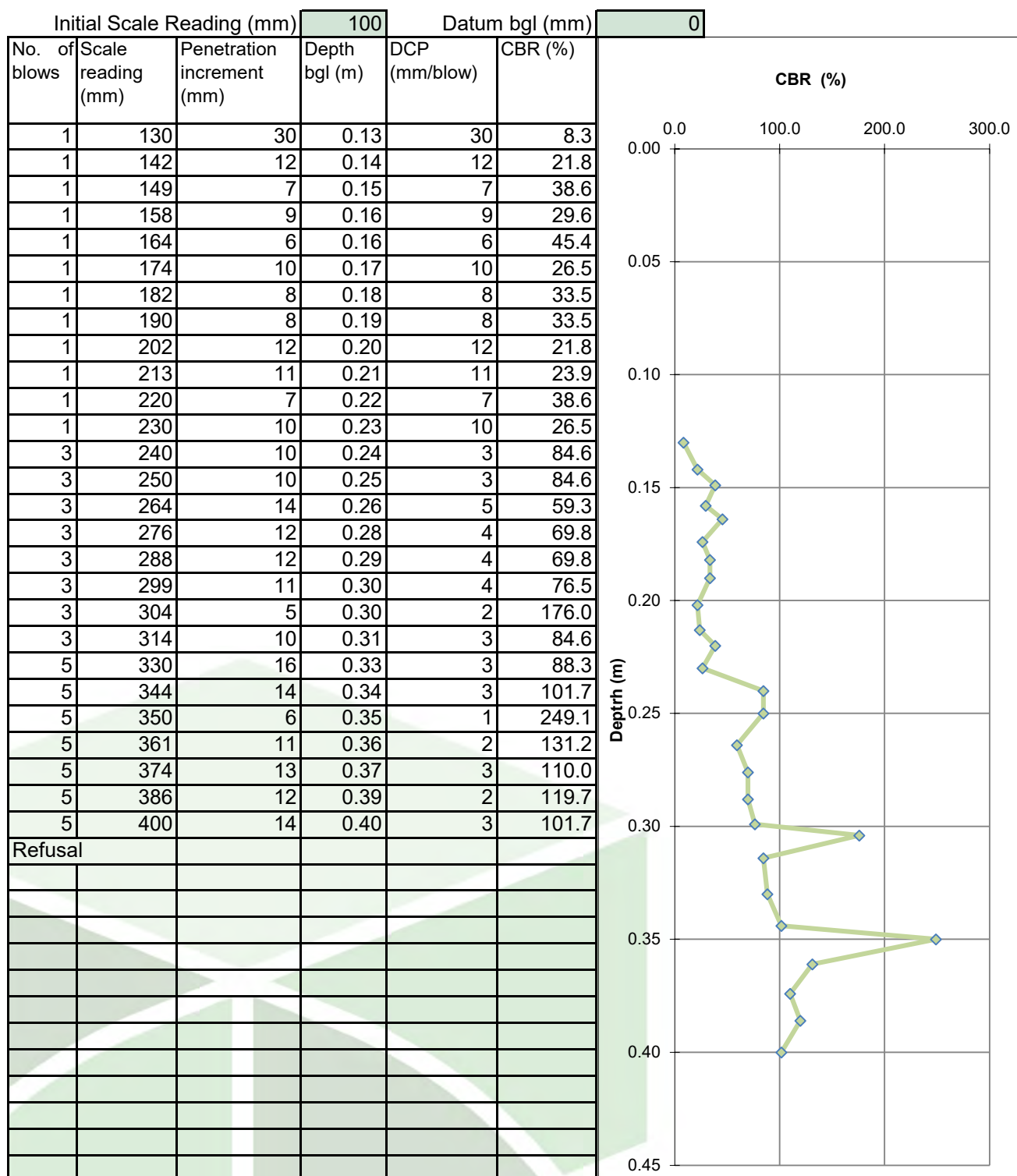
Site Name: Baglan Way

Project Number: 16750

Date: 30/06/2021

Engineer: JRW

Test: DCP01



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

**terra
firma**
Geotechnical & Geoenvironmental Specialists

Test: DCP02

REMARKS: Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd. CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)	
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**terra
firma**
Geotechnical & Geoenvironmental Specialists

Test: DCP03

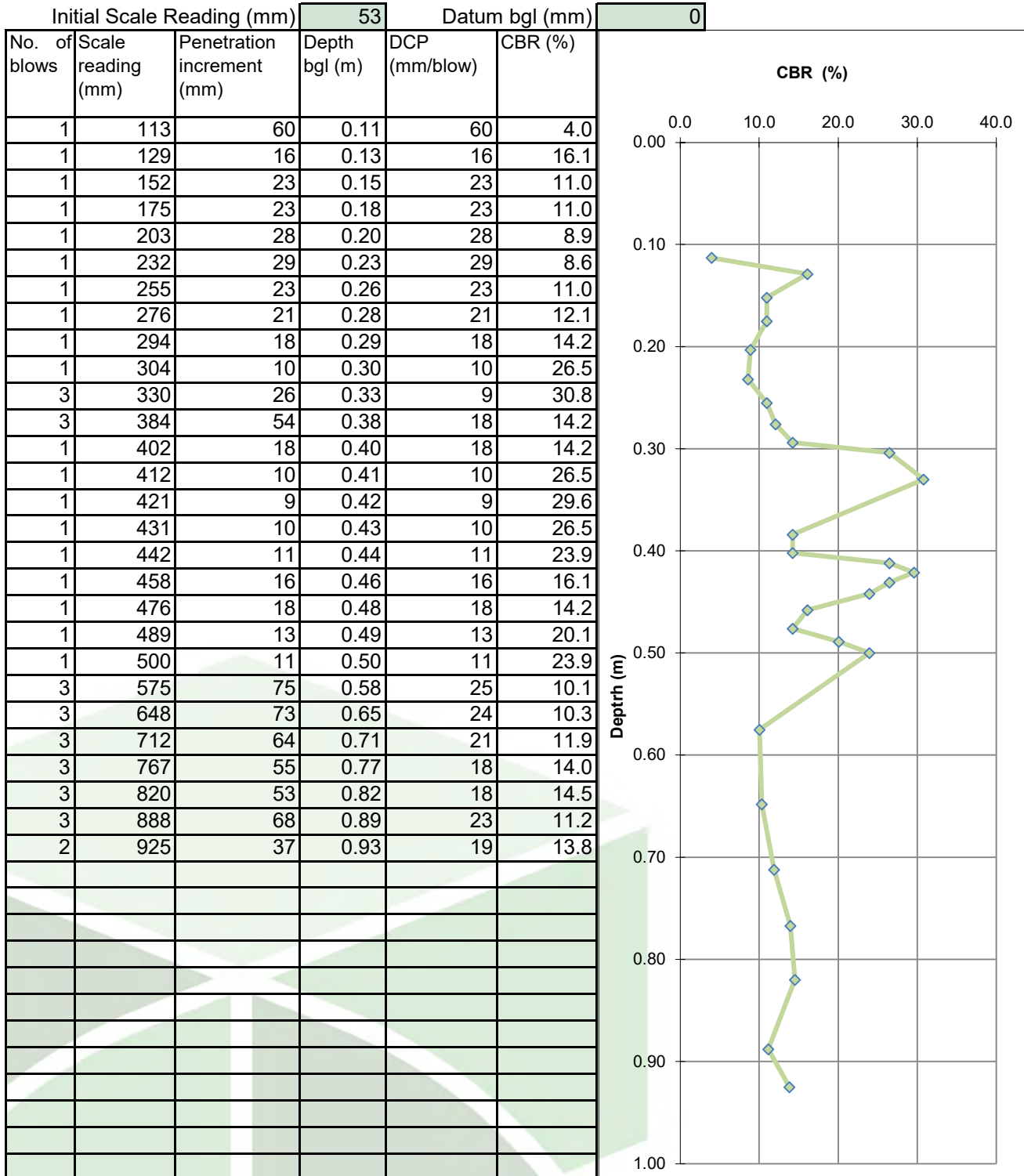
REMARKS:	
Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd. CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)	

DYNAMIC CONE PENETROMETER TEST



Site Name: Baglan Way
Project Number: 16750
Date: 30/06/2021
Engineer: JRW

Test: DCP04



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.
CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

DYNAMIC CONE PENETROMETER TEST



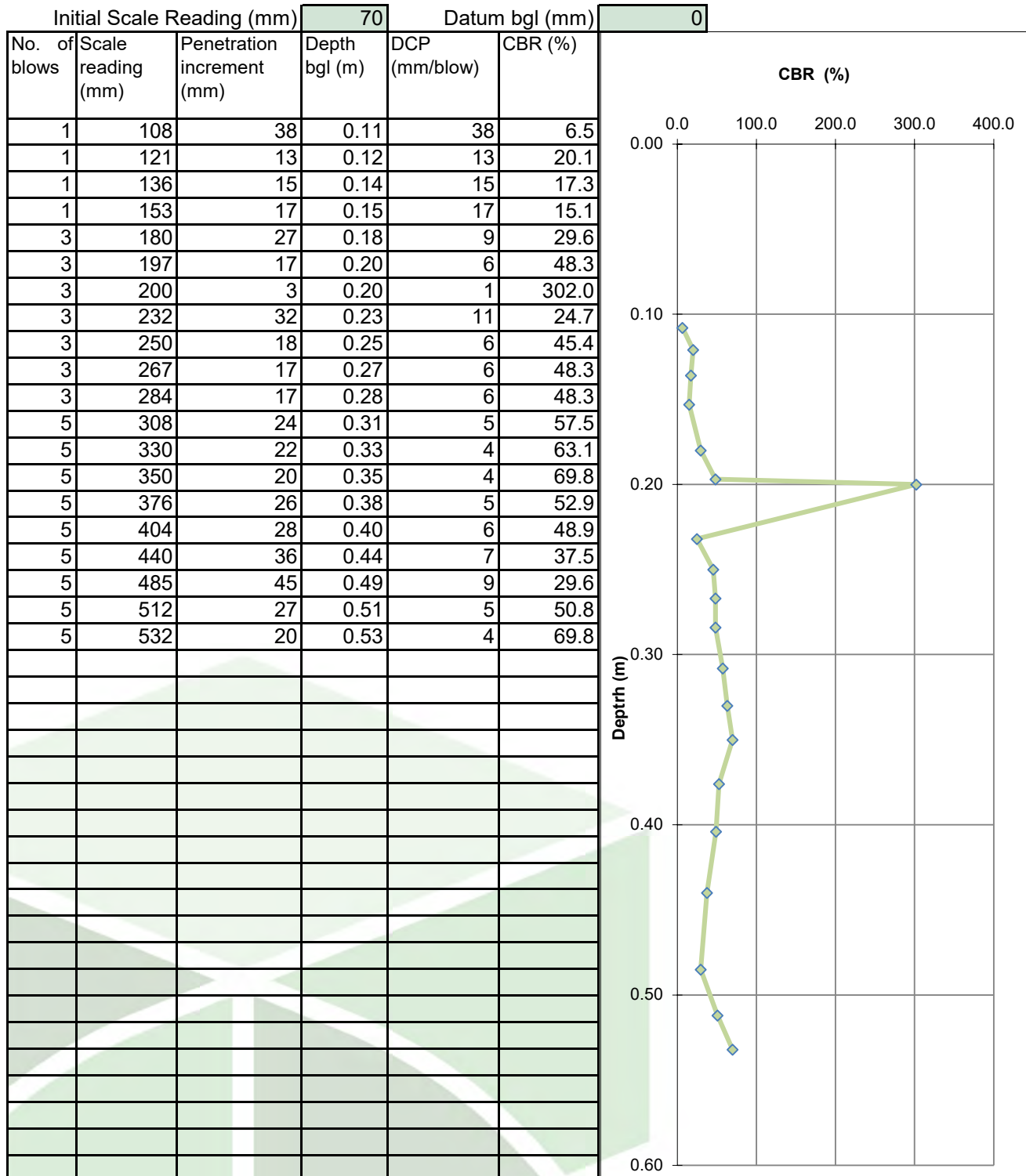
Site Name: Baglan Way

Project Number: 16750

Date: 30/06/2021

Engineer: JRW

Test: DCP05



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

DYNAMIC CONE PENETROMETER TEST



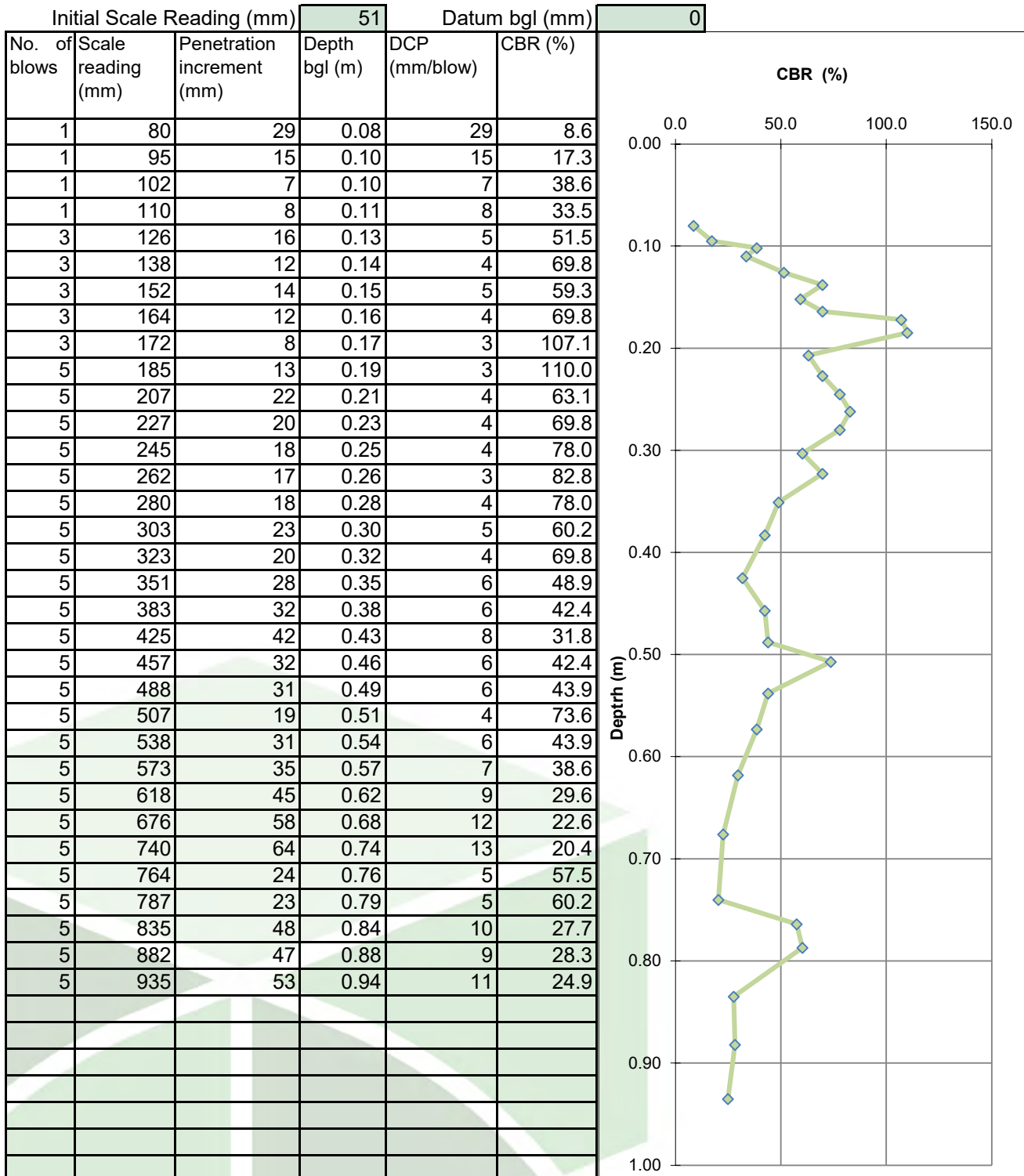
Site Name: Baglan Way

Project Number: 16750

Date: 30/06/2021

Engineer: JRW

Test: DCP06



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

**terra
firma**
Geotechnical & Geoenvironmental Specialists

Test: DCP07

[illegible]

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.
CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The
Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

DYNAMIC CONE PENETROMETER TEST



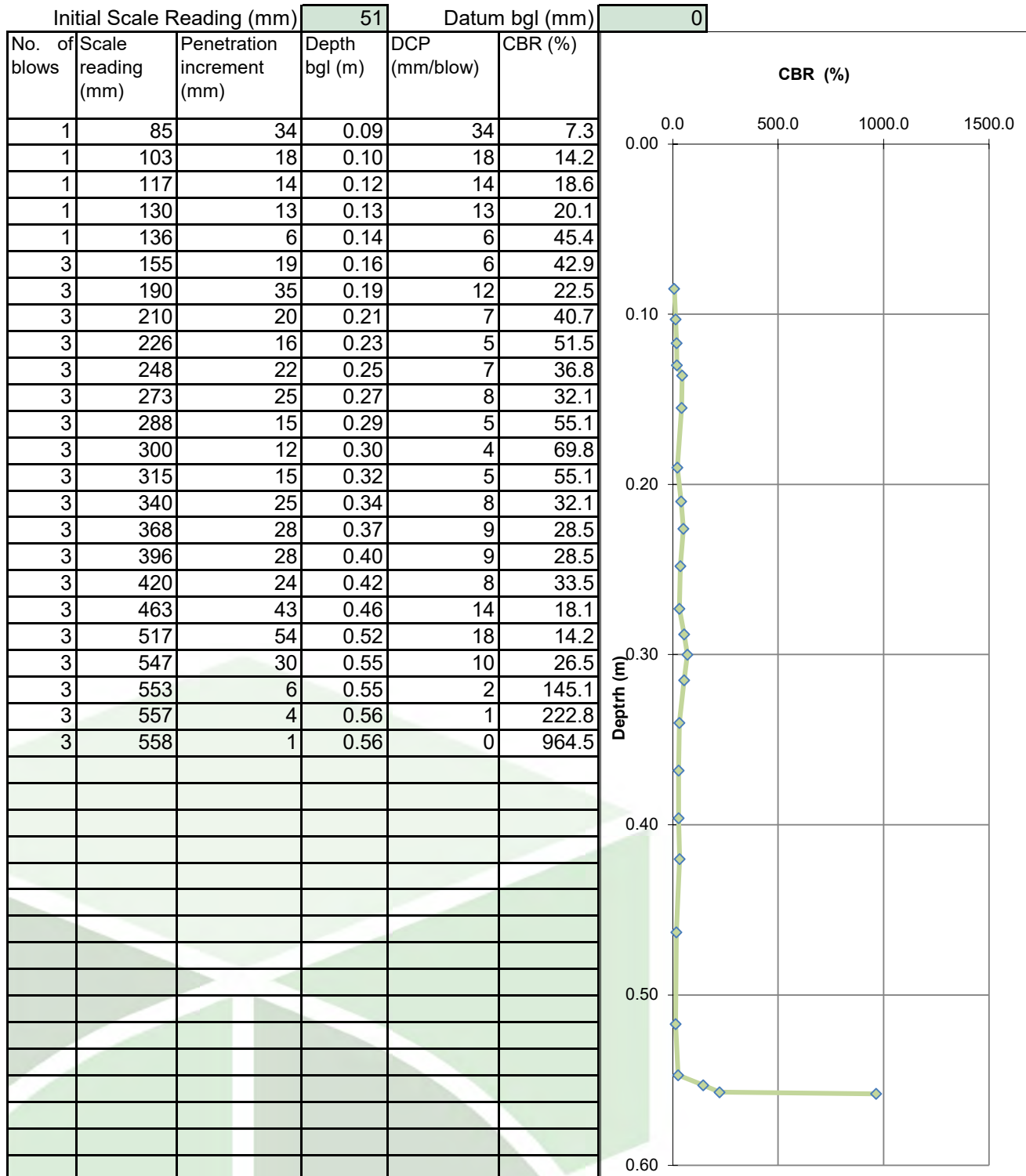
Site Name: Baglan Way

Project Number: 16750

Date: 30/06/2021

Engineer: JRW

Test: DCP08



REMARKS:

Test carried out in accordance with operating instructions for the dynamic cone penetrometer Model A2465 by CNS Farnell Ltd.

CBR correlation based on the relationship $\text{Log}_{10}(\text{CBR}) = 2.48 - 1.057 * \text{Log}_{10}(\text{mm/blow})$ developed by TRL taken from The Highways Agency Interim Advice Note 73/06 - Design Guidance for Road Pavement Foundations (2009)

ANNEX H
Ground Gas Monitoring Results

Page 1 of 1

Page 1 of 1

Page 1 of 1

Page 1 of 1

Page 1 of 1

Page 1 of 1

ANNEX I
Laboratory Chemical Test Results



Final Report

Report No.:	21-23063-1		
Initial Date of Issue:	12-Jul-2021		
Client	Terra Firma (Wales) Ltd		
Client Address:	5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		
Contact(s):	james@terrafirmawales.co.uk		
Project	Baglan Way		
Quotation No.:		Date Received:	06-Jul-2021
Order No.:	16750/JRW	Date Instructed:	06-Jul-2021
No. of Samples:	11		
Turnaround (Wkdays):	5	Results Due:	12-Jul-2021
Date Approved:	12-Jul-2021		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: Baglan Way

Client: Terra Firma (Wales) Ltd	Chemtest Job No.: 21-23063 21-23063 21-23063 21-23063 21-23063 21-23063 21-23063 21-23063 21-23063 21-23063												
Quotation No.:	Chemtest Sample ID.: 1234732 1234733 1234734 1234735 1234736 1234737 1234738 1234739 1234740												
	Client Sample ID.:	1	2	3	4	5	6	7	8	9			
	Sample Location:	TP01	TP02	TP03	TP04	TP05	TP05	TP06	TP07	TP08			
	Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL			
	Top Depth (m):	0.5	0.6	0.3	1.2	0.5	1.7	0.2	0.6	0.9			
	Date Sampled:	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021			
	Time Sampled:	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00			
	Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM		DURHAM	DURHAM	DURHAM			
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	8.4	4.4	6.4	7.8	5.9	20	6.9	11	10
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Grey	Black	Black	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones	None	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Clay	Sand	Sand	Sand
pH	M	2010		4.0	9.6	9.9	9.8	8.8	9.3	8.8	8.8	9.0	9.0
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	2.8	3.5	0.49	3.0	0.86	4.1	1.2	1.0	1.0
Cyanide (Complex)	M	2300	mg/kg	0.50	66	10	4.4	3.0	4.8		29	17	4.7
Cyanide (Free)	M	2300	mg/kg	0.50	3.0	1.9	< 0.50	0.50	< 0.50		1.8	1.7	1.3
Cyanide (Total)	M	2300	mg/kg	0.50	69	12	4.4	3.5	4.8	3.7	31	19	6.0
Sulphate (Acid Soluble)	M	2430	%	0.010	0.24	0.36	0.068	0.13	0.031	< 0.010	0.089	0.011	0.046
Arsenic	M	2450	mg/kg	1.0	5.9	11	8.3	16	6.3	11	7.7	7.1	17
Beryllium	U	2450	mg/kg	1.0	1.4	4.8	1.6	< 1.0	< 1.0		< 1.0	< 1.0	1.6
Cadmium	M	2450	mg/kg	0.10	0.19	< 0.10	0.13	0.28	0.11	< 0.10	0.11	< 0.10	0.26
Chromium	M	2450	mg/kg	1.0	12	55	44	13	9.0	25	9.1	3.6	22
Mercury Low Level	M	2450	mg/kg	0.05	< 0.05	0.11	0.09	0.12	0.11	0.05	0.10	0.13	0.14
Manganese	M	2450	mg/kg	5.0	1200	2800	1300	650	560		410	320	1300
Molybdenum	M	2450	mg/kg	2.0	< 2.0	3.4	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0	2.5	< 2.0	< 2.0	< 2.0		< 2.0	< 2.0	< 2.0
Copper	M	2450	mg/kg	0.50	33	45	73	29	40	59	41	50	74
Nickel	M	2450	mg/kg	0.50	27	16	31	18	27	22	27	27	22
Lead	M	2450	mg/kg	0.50	19	18	21	19	13	15	14	12	39
Selenium	M	2450	mg/kg	0.20	0.79	1.5	0.79	0.74	0.82	0.20	0.67	0.76	0.70
Zinc	M	2450	mg/kg	0.50	100	51	75	65	57	55	64	54	100
Chromium (Trivalent)	N	2490	mg/kg	1.0	12	55	44	13	9.0	25	9.1	3.6	22
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0		< 1.0	< 1.0	< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0		< 5.0	< 5.0	< 5.0

Results - Soil

Project: Baglan Way

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:									
Quotation No.:	Chemtest Sample ID.:									
	Client Sample ID.:	1	2	3	4	5	6	7	8	9
	Sample Location:	TP01	TP02	TP03	TP04	TP05	TP05	TP06	TP07	TP08
	Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):	0.5	0.6	0.3	1.2	0.5	1.7	0.2	0.6	0.9
	Date Sampled:	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021	02-Jul-2021
	Time Sampled:	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
	Asbestos Lab:	DURHAM	DURHAM	DURHAM	DURHAM	DURHAM		DURHAM	DURHAM	DURHAM
Determinand	Accred.	SOP	Units	LOD						
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10	< 10	< 10	< 10	< 10	< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	1.2	0.34	< 0.10	0.22	< 0.10	< 0.10
Pyrene	M	2700	mg/kg	0.10	1.1	0.50	< 0.10	0.33	< 0.10	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	0.45	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Chrysene	M	2700	mg/kg	0.10	0.36	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	3.1	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Organic Matter BS1377	N	2930	%	0.10	2.9	0.90	2.4	4.3	3.6	0.90

Results - Soil

Project: Baglan Way

Client: Terra Firma (Wales) Ltd		Chemtest Job No.:			21-23063	21-23063
Quotation No.:		Chemtest Sample ID.:			1234741	1234742
		Client Sample ID.:			10	11
		Sample Location:			TP08	TP09
		Sample Type:			SOIL	SOIL
		Top Depth (m):			2.2	0.2
		Date Sampled:			02-Jul-2021	02-Jul-2021
		Time Sampled:			12:00	12:00
		Asbestos Lab:				DURHAM
Determinand	Accred.	SOP	Units	LOD		
ACM Type	U	2192		N/A		-
Asbestos Identification	U	2192		N/A		No Asbestos Detected
Moisture	N	2030	%	0.020	17	6.2
Soil Colour	N	2040		N/A	Brown	Brown
Other Material	N	2040		N/A	None	Stones
Soil Texture	N	2040		N/A	Clay	Sand
pH	M	2010		4.0	8.3	9.2
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.66	0.52
Cyanide (Complex)	M	2300	mg/kg	0.50		1.8
Cyanide (Free)	M	2300	mg/kg	0.50		< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	2.3	2.0
Sulphate (Acid Soluble)	M	2430	%	0.010	< 0.010	0.036
Arsenic	M	2450	mg/kg	1.0	10	6.6
Beryllium	U	2450	mg/kg	1.0		1.1
Cadmium	M	2450	mg/kg	0.10	< 0.10	0.12
Chromium	M	2450	mg/kg	1.0	18	8.6
Mercury Low Level	M	2450	mg/kg	0.05	< 0.05	0.08
Manganese	M	2450	mg/kg	5.0		680
Molybdenum	M	2450	mg/kg	2.0		< 2.0
Antimony	N	2450	mg/kg	2.0		< 2.0
Copper	M	2450	mg/kg	0.50	13	47
Nickel	M	2450	mg/kg	0.50	19	23
Lead	M	2450	mg/kg	0.50	9.9	14
Selenium	M	2450	mg/kg	0.20	0.30	0.61
Zinc	M	2450	mg/kg	0.50	42	58
Chromium (Trivalent)	N	2490	mg/kg	1.0	18	8.6
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0		< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0		< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0		< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0		< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0		< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0		< 1.0
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0		< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0

Results - Soil

Project: Baglan Way

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				21-23063	21-23063
Quotation No.:	Chemtest Sample ID.:				1234741	1234742
	Client Sample ID.:				10	11
	Sample Location:				TP08	TP09
	Sample Type:				SOIL	SOIL
	Top Depth (m):				2.2	0.2
	Date Sampled:				02-Jul-2021	02-Jul-2021
	Time Sampled:				12:00	12:00
	Asbestos Lab:					DURHAM
Determinand	Accred.	SOP	Units	LOD		
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0		< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0		< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0		< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0		< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0		< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0		< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0		< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0		< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0		< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0		< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Chrysene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	< 2.0	< 2.0
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10
Organic Matter BS1377	N	2930	%	0.10	0.80	2.4

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazine.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com



Final Report

Report No.:	21-25578-1		
Initial Date of Issue:	04-Aug-2021		
Client	Terra Firma (Wales) Ltd		
Client Address:	5 Deryn Court Wharfedale Road Pentwyn Cardiff CF23 7HA		
Contact(s):	elliott@terrafirmawales.co.uk; james@terrafirmawales.co.uk		
Project	16750 - Baglan		
Quotation No.:		Date Received:	26-Jul-2021
Order No.:	16750	Date Instructed:	26-Jul-2021
No. of Samples:	16		
Turnaround (Wkdays):	5	Results Due:	30-Jul-2021
Date Approved:	04-Aug-2021		
Approved By:			
Details:	Glynn Harvey, Technical Manager		

Results - Soil

Project: 16750 - Baglan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				21-25578	21-25578	21-25578	21-25578	21-25578	21-25578	21-25578	21-25578	21-25578
Quotation No.:	Chemtest Sample ID.:				1247489	1247490	1247491	1247492	1247493	1247494	1247495	1247496	1247497
	Client Sample ID.:				ES1	ES2	ES3	ES4	ES1	ES2	ES3	ES4	ES1
	Sample Location:				BH01	BH01	BH01	BH01	BH02	BH02	BH02	BH02	BH03
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				0.05	2.6	7.9	16.1	1.3	2.8	3.6	19.2	0.05
	Bottom Depth (m):				0.25	3	8.35	16.55	1.75	3.35	4.05	19.65	0.45
	Date Sampled:				22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021
	Time Sampled:				12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
	Asbestos Lab:				DURHAM				DURHAM				DURHAM
Determinand	Accred.	SOP	Units	LOD									
ACM Type	U	2192		N/A	-				-				-
Asbestos Identification	U	2192		N/A	No Asbestos Detected				No Asbestos Detected				No Asbestos Detected
Moisture	N	2030	%	0.020	5.4	23	21	27	8.4	17	31	15	3.5
Soil Colour	N	2040		N/A	Brown	Grey	Grey	Grey	Brown	Grey	Grey	Grey	Brown
Other Material	N	2040		N/A	Stones	None	None	None	Stones	None	None	None	Stones
Soil Texture	N	2040		N/A	Sand	Clay	Clay	Clay	Sand	Clay	Clay	Clay	Sand
pH	M	2010		4.0	8.5	8.7	8.2	8.4	9.3	8.7	8.4	8.4	9.5
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	0.84	1.7			2.1	1.2			1.4
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010			0.91	0.23			0.24	0.056	
Total Sulphur	M	2175	%	0.010			0.17	0.22			0.35	0.12	
Cyanide (Complex)	M	2300	mg/kg	0.50	< 0.50				< 0.50				< 0.50
Cyanide (Free)	M	2300	mg/kg	0.50	< 0.50				< 0.50				< 0.50
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50	< 0.50			< 0.50	< 0.50			< 0.50
Sulphate (Acid Soluble)	M	2430	%	0.010	0.19	0.058	0.21	0.046	0.24	0.029	0.13	0.056	0.11
Arsenic	M	2450	mg/kg	1.0	16	14			9.6	17			8.1
Beryllium	U	2450	mg/kg	1.0	1.7				5.8				4.1
Cadmium	M	2450	mg/kg	0.10	0.48	< 0.10			< 0.10	< 0.10			0.15
Chromium	M	2450	mg/kg	1.0	25	35			54	30			11
Mercury Low Level	M	2450	mg/kg	0.05	0.15	< 0.05			< 0.05	< 0.05			0.07
Manganese	M	2450	mg/kg	5.0	910				4600				3200
Molybdenum	M	2450	mg/kg	2.0	< 2.0				< 2.0				< 2.0
Antimony	N	2450	mg/kg	2.0	< 2.0				< 2.0				< 2.0
Copper	M	2450	mg/kg	0.50	34	8.2			2.2	8.4			17
Nickel	M	2450	mg/kg	0.50	42	29			12	23			20
Lead	M	2450	mg/kg	0.50	49	15			0.73	14			9.5
Selenium	M	2450	mg/kg	0.20	0.57	0.36			0.69	0.25			0.71
Zinc	M	2450	mg/kg	0.50	120	66			14	64			55
Chromium (Trivalent)	N	2490	mg/kg	1.0	25	35			54	30			11
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50			< 0.50	< 0.50			< 0.50
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0	< 1.0				< 1.0				< 1.0
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0	< 1.0				< 1.0				< 1.0
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0				< 1.0				< 1.0
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0				< 1.0				< 1.0
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0				< 1.0				< 1.0
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0	< 1.0				< 1.0				< 1.0

Results - Soil

Project: 16750 - Baglan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:					21-25578	21-25578	21-25578	21-25578	21-25578	21-25578	21-25578	21-25578	21-25578
Quotation No.:	Chemtest Sample ID.:					1247489	1247490	1247491	1247492	1247493	1247494	1247495	1247496	1247497
	Client Sample ID.:					ES1	ES2	ES3	ES4	ES1	ES2	ES3	ES4	ES1
	Sample Location:					BH01	BH01	BH01	BH01	BH02	BH02	BH02	BH02	BH03
	Sample Type:					SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):					0.05	2.6	7.9	16.1	1.3	2.8	3.6	19.2	0.05
	Bottom Depth (m):					0.25	3	8.35	16.55	1.75	3.35	4.05	19.65	0.45
	Date Sampled:					22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021
	Time Sampled:					12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00	12:00
	Asbestos Lab:					DURHAM				DURHAM				DURHAM
Determinand	Accred.	SOP	Units	LOD										
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0					< 5.0				< 5.0
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0	< 1.0					< 1.0				< 1.0
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0	< 5.0					< 5.0				< 5.0
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0	< 10					< 10				< 10
Naphthalene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Acenaphthene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Fluorene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Phenanthrene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Chrysene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Total Of 16 PAH's	M	2700	mg/kg	2.0	< 2.0	< 2.0				< 2.0	< 2.0			< 2.0
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10				< 0.10	< 0.10			< 0.10
Organic Matter BS1377	N	2930	%	0.10	< 0.10	0.20				0.50	0.30			0.70

Results - Soil

Project: 16750 - Baglan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:				21-25578	21-25578	21-25578	21-25578	21-25578	21-25578	21-25578
Quotation No.:	Chemtest Sample ID.:				1247498	1247499	1247500	1247501	1247502	1247503	1247504
	Client Sample ID.:				ES2	ES3	ES4	ES1	ES2	ES3	ES4
	Sample Location:				BH03	BH03	BH03	BH04	BH04	BH04	BH04
	Sample Type:				SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
	Top Depth (m):				2.8	5.3	18.1	0.05	2.3	1.1	22.4
	Bottom Depth (m):				3.25	5.75	18.55	0.5	2.75	1.65	22.7
	Date Sampled:				22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021
	Time Sampled:				12:00	12:00	12:00	12:00	12:00	12:00	12:00
	Asbestos Lab:							DURHAM			
Determinand	Accred.	SOP	Units	LOD							
ACM Type	U	2192		N/A				-			
Asbestos Identification	U	2192		N/A				No Asbestos Detected			
Moisture	N	2030	%	0.020	24	61	9.6	7.2	21	11	7.3
Soil Colour	N	2040		N/A	Grey	Black	Brown	Brown	Grey	Brown	Grey
Other Material	N	2040		N/A	None	None	Stones	Stones	None	Stones	Stones
Soil Texture	N	2040		N/A	Clay	Clay	Sand	Sand	Clay	Sand	Clay
pH	M	2010		4.0	8.3	7.4	8.7	9.2	8.5	9.6	9.5
Boron (Hot Water Soluble)	M	2120	mg/kg	0.40	2.4			5.5	0.50		
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010		0.094	0.043			0.63	0.13
Total Sulphur	M	2175	%	0.010		1.7	0.12			0.27	0.25
Cyanide (Complex)	M	2300	mg/kg	0.50				< 0.50			
Cyanide (Free)	M	2300	mg/kg	0.50				< 0.50			
Cyanide (Total)	M	2300	mg/kg	0.50	< 0.50			< 0.50	< 0.50		
Sulphate (Acid Soluble)	M	2430	%	0.010	0.023	0.30	0.014	0.23	0.087	0.29	0.045
Arsenic	M	2450	mg/kg	1.0	21			4.3	11		
Beryllium	U	2450	mg/kg	1.0				< 1.0			
Cadmium	M	2450	mg/kg	0.10	< 0.10			0.12	< 0.10		
Chromium	M	2450	mg/kg	1.0	45			4.2	20		
Mercury Low Level	M	2450	mg/kg	0.05	< 0.05			0.05	< 0.05		
Manganese	M	2450	mg/kg	5.0				560			
Molybdenum	M	2450	mg/kg	2.0				< 2.0			
Antimony	N	2450	mg/kg	2.0				< 2.0			
Copper	M	2450	mg/kg	0.50	9.4			18	4.8		
Nickel	M	2450	mg/kg	0.50	34			20	15		
Lead	M	2450	mg/kg	0.50	18			14	8.8		
Selenium	M	2450	mg/kg	0.20	0.56			0.65	0.47		
Zinc	M	2450	mg/kg	0.50	76			43	37		
Chromium (Trivalent)	N	2490	mg/kg	1.0	45			4.2	20		
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50			< 0.50	< 0.50		
Aliphatic TPH >C5-C6	N	2680	mg/kg	1.0				< 1.0			
Aliphatic TPH >C6-C8	N	2680	mg/kg	1.0				< 1.0			
Aliphatic TPH >C8-C10	M	2680	mg/kg	1.0				< 1.0			
Aliphatic TPH >C10-C12	M	2680	mg/kg	1.0				< 1.0			
Aliphatic TPH >C12-C16	M	2680	mg/kg	1.0				< 1.0			
Aliphatic TPH >C16-C21	M	2680	mg/kg	1.0				< 1.0			

Results - Soil

Project: 16750 - Baglan

Client: Terra Firma (Wales) Ltd	Chemtest Job No.:		21-25578	21-25578	21-25578	21-25578	21-25578	21-25578	21-25578
Quotation No.:	Chemtest Sample ID.:		1247498	1247499	1247500	1247501	1247502	1247503	1247504
	Client Sample ID.:	ES2	ES3	ES4	ES1	ES2	ES3	ES4	
	Sample Location:	BH03	BH03	BH03	BH04	BH04	BH04	BH04	
	Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	
	Top Depth (m):	2.8	5.3	18.1	0.05	2.3	1.1	22.4	
	Bottom Depth (m):	3.25	5.75	18.55	0.5	2.75	1.65	22.7	
	Date Sampled:	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	22-Jul-2021	
	Time Sampled:	12:00	12:00	12:00	12:00	12:00	12:00	12:00	
	Asbestos Lab:				DURHAM				
Determinand	Accred.	SOP	Units	LOD					
Aliphatic TPH >C21-C35	M	2680	mg/kg	1.0			< 1.0		
Aliphatic TPH >C35-C44	N	2680	mg/kg	1.0			< 1.0		
Total Aliphatic Hydrocarbons	N	2680	mg/kg	5.0			< 5.0		
Aromatic TPH >C5-C7	N	2680	mg/kg	1.0			< 1.0		
Aromatic TPH >C7-C8	N	2680	mg/kg	1.0			< 1.0		
Aromatic TPH >C8-C10	M	2680	mg/kg	1.0			< 1.0		
Aromatic TPH >C10-C12	M	2680	mg/kg	1.0			< 1.0		
Aromatic TPH >C12-C16	M	2680	mg/kg	1.0			< 1.0		
Aromatic TPH >C16-C21	U	2680	mg/kg	1.0			< 1.0		
Aromatic TPH >C21-C35	M	2680	mg/kg	1.0			< 1.0		
Aromatic TPH >C35-C44	N	2680	mg/kg	1.0			< 1.0		
Total Aromatic Hydrocarbons	N	2680	mg/kg	5.0			< 5.0		
Total Petroleum Hydrocarbons	N	2680	mg/kg	10.0			< 10		
Naphthalene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Acenaphthylene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Acenaphthene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Fluorene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Phenanthrene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Anthracene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Fluoranthene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Pyrene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Benzo[a]anthracene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Chrysene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Benzo[b]fluoranthene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Benzo[k]fluoranthene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Benzo[a]pyrene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Indeno(1,2,3-c,d)Pyrene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Dibenz(a,h)Anthracene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Benzo[g,h,i]perylene	M	2700	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Total Of 16 PAH's	M	2700	mg/kg	2.0	< 2.0		< 2.0	< 2.0	
Total Phenols	M	2920	mg/kg	0.10	< 0.10		< 0.10	< 0.10	
Organic Matter BS1377	N	2930	%	0.10	0.80		1.0	0.30	

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2300	Cyanides & Thiocyanate in Soils	Free (or easy liberatable) Cyanide; total Cyanide; complex Cyanide; Thiocyanate	Alkaline extraction followed by colorimetric determination using Automated Flow Injection Analyser.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.
2450	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2680	TPH A/A Split	Aliphatics: >C5–C6, >C6–C8,>C8–C10, >C10–C12, >C12–C16, >C16–C21, >C21–C35, >C35– C44Aromatics: >C5–C7, >C7–C8, >C8– C10, >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35– C44	Dichloromethane extraction / GCxGC FID detection
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenzo[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
2930	Organic Matter	Organic Matter	Acid Dichromate digestion/Titration

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A - Date of sampling not supplied
- B - Sample age exceeds stability time (sampling to extraction)
- C - Sample not received in appropriate containers
- D - Broken Container
- E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:

customerservices@chemtest.com