Electrical Connection Environmental Report Appendices Part 2 of 2

Appendix 8.1: Landmark Envirocheck report

Appendix 8.2: Preliminary Geo-Environmental Risk Assessment

Appendix 8.3: British Geological Survey Borehole Log SN65200160

Appendix 8.4: Coal Authority Mining Report

Appendix 8.1

Landmark Information Group Envirocheck Report 2015 Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre **SWANSEA SA5 7NN**

File Name Map Series Published I Source Scale 142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Ordnance 11959-1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 1916 1:2,500 142844199 Glamorgan 142844199 Ordnance 11961-1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance 11959-1962 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500

142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance ! 1975 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500

142844199 Glamorgan 1935 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 1961 1:2,500 142844199 Ordnance !

142844199 Glamorgan 1876-1877 1:2,500

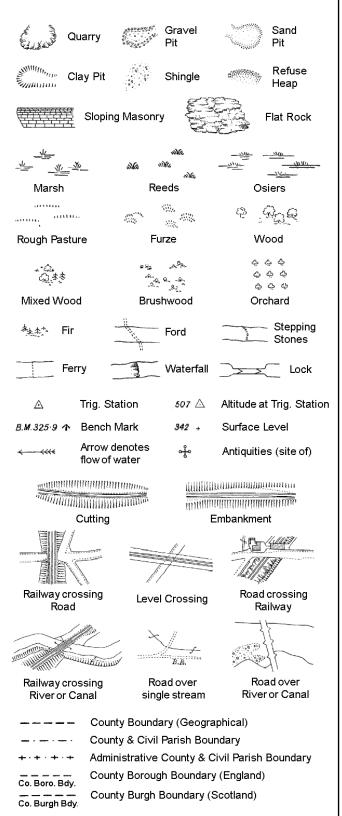
142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1916 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Additional 1990 1:2,500

142844199 Additional 1990 1:2,500 142844199 Additional 1988-1990 1:2,500 142844199 Additional 1989-1992 1:2,500 142844199 Additional 1986-1992 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 14284419! Supply of L 1973 1:2,500 142844195 Supply of L 1973-1975 1:2,500 142844195 Supply of L 1973-1975 1:2,500 14284419! Supply of L 1975 1:2,500 142844199 Supply of L 1973 1:2,500 142844199 Large-Scale 1993 1:2,500

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

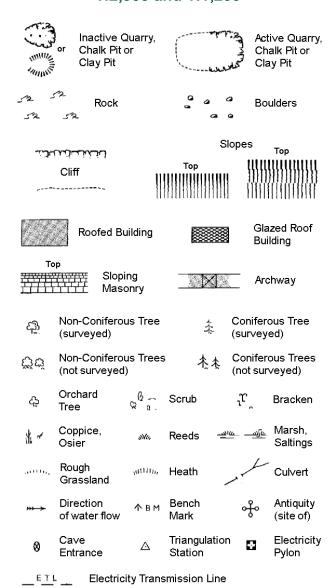
Trough Well

S.P

Sl.

Tr

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary

Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

вн	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

FΒ

Filter Bed

Gas Governer

Guide Post

Manhole

Fountain / Drinking Ftn.

Gas Valve Compound

Mile Post or Mile Stone

1:1,250

		Slo	opes _		
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	Cliff	Top	\$ \$ \$\$\$\$\$\$\$\$\$\$\$\$\$\$		
			(11111111111111111111111111111111111111		
	[]]	111111111111111111111111111111111111111	[11][1][1][1][1][1][1][1][1][1][1][1][1]		
523	Rock	23	Rock (scattered)		
\triangle_{Δ}	Boulders	Δ	Boulders (scattered)		
\triangle	Positioned Boulder		Scree		
<u>දව</u>	Non-Coniferous Tree (surveyed)	\$	Coniferous Tree (surveyed)		
ర్హోద	Non-Coniferous Tree (not surveyed)	s AA	Coniferous Trees (not surveyed)		
Ą.	Orchard $\mathfrak{P}_{\widehat{\mathfrak{q}}}$.	Scrub	_ໃ ້ Bracken		
* ~	Coppice, Osier	Reeds 🛥	Marsh, Saltings		
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Rough "шил, Grassland	Heath	Culvert		
>>>→	Direction △ of water flow	Triangulation Station	Antiquity (site of)		
E <u>T</u> L	Electricity Transmi	ssion Line	⊠ Electricity Pylon		
\ € \ вм	231.60m Bench Mark		Buildings with Building Seed		
	Roofed Building		Glazed Roof Building		
• •	•	n/community b	oundary		
	— District bo	ict boundary nty boundary			
_ •	— County bo				
9	Boundary	dary post/stone			
×	-		ol (note: these ed pairs or groups		
Bks	Barracks	Р	Pillar, Pole or Post		
Bty	Battery	PO	Post Office		
Cemy	Cemetery	PC	Public Convenience		
Chy	Chimney	Pp	Pump		
Cis	Cistern	Ppg Sta	Pumping Station		
Dismtd F	Rly Dismantled Railway				
El Gen S	ta Electricity Generating Station	g Sewage P	pg Sta Sewage Pumping Station		
EIP	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge		
El Sub S	ta Electricity Sub Station	SP, SL	Signal Post or Light		

Spr

Tr

Wd Pp

Wks

Spring

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

Tank or Track

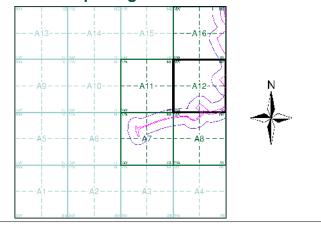
Envirocheck®

LANDMARK INFORMATION GROUPS

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1898 - 1899	3
Glamorganshire	1:2,500	1916 - 1918	4
Glamorganshire	1:2,500	1935	5
Ordnance Survey Plan	1:2,500	1961 - 1962	6
Ordnance Survey Plan	1:2,500	1961 - 1962	7
Supply of Unpublished Survey Information	1:2,500	1973 - 1975	8
Ordnance Survey Plan	1:2,500	1975	9
Additional SIMs	1:2,500	1989 - 1992	10
Additional SIMs	1:2,500	1990	11
Large-Scale National Grid Data	1:2,500	1993	12
Historical Aerial Photography	1:2,500	2000	13

Historical Map - Segment A12



Order Details

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice: 32.39 Site Area (Ha):

Search Buffer (m):

100

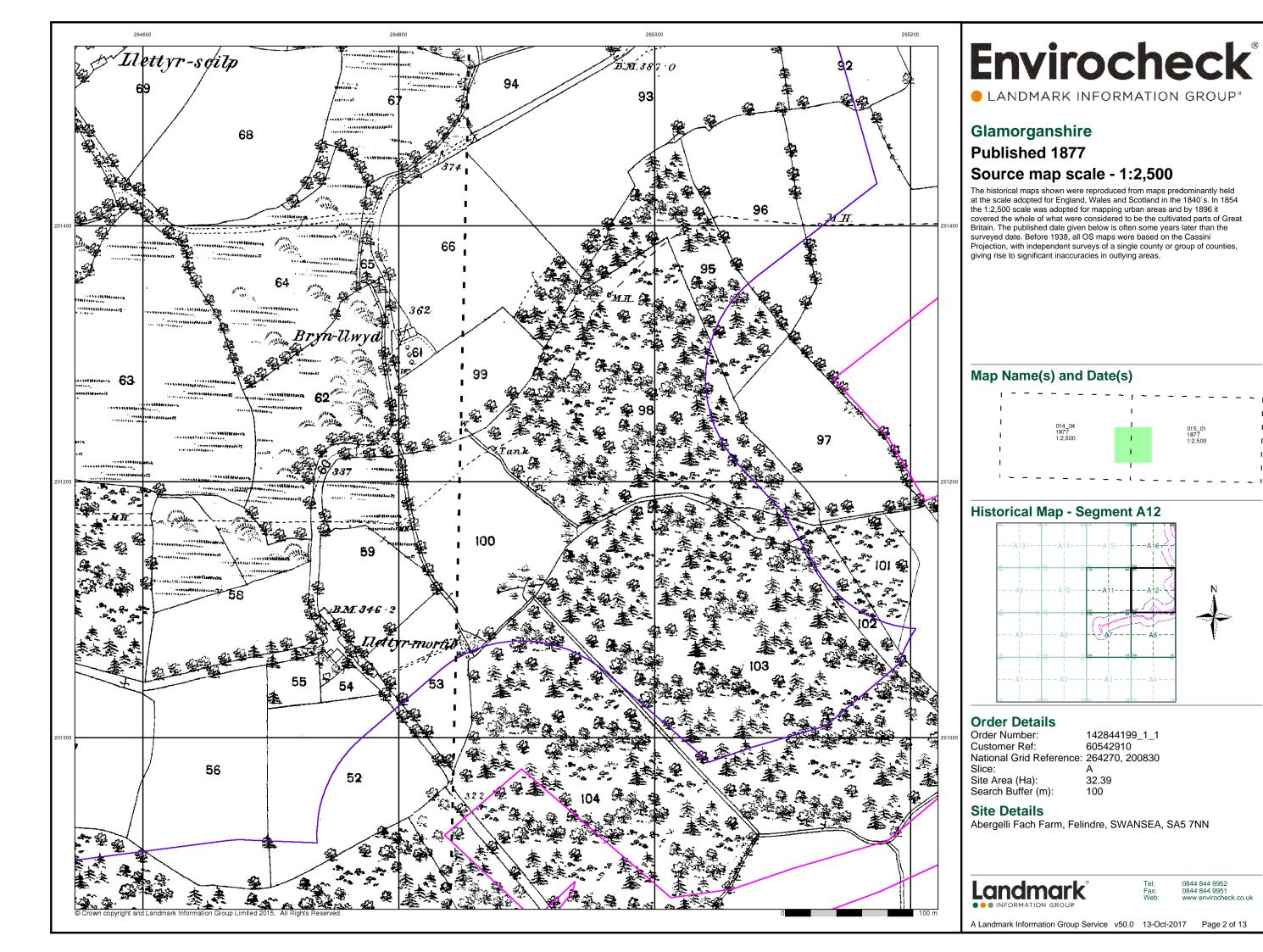
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

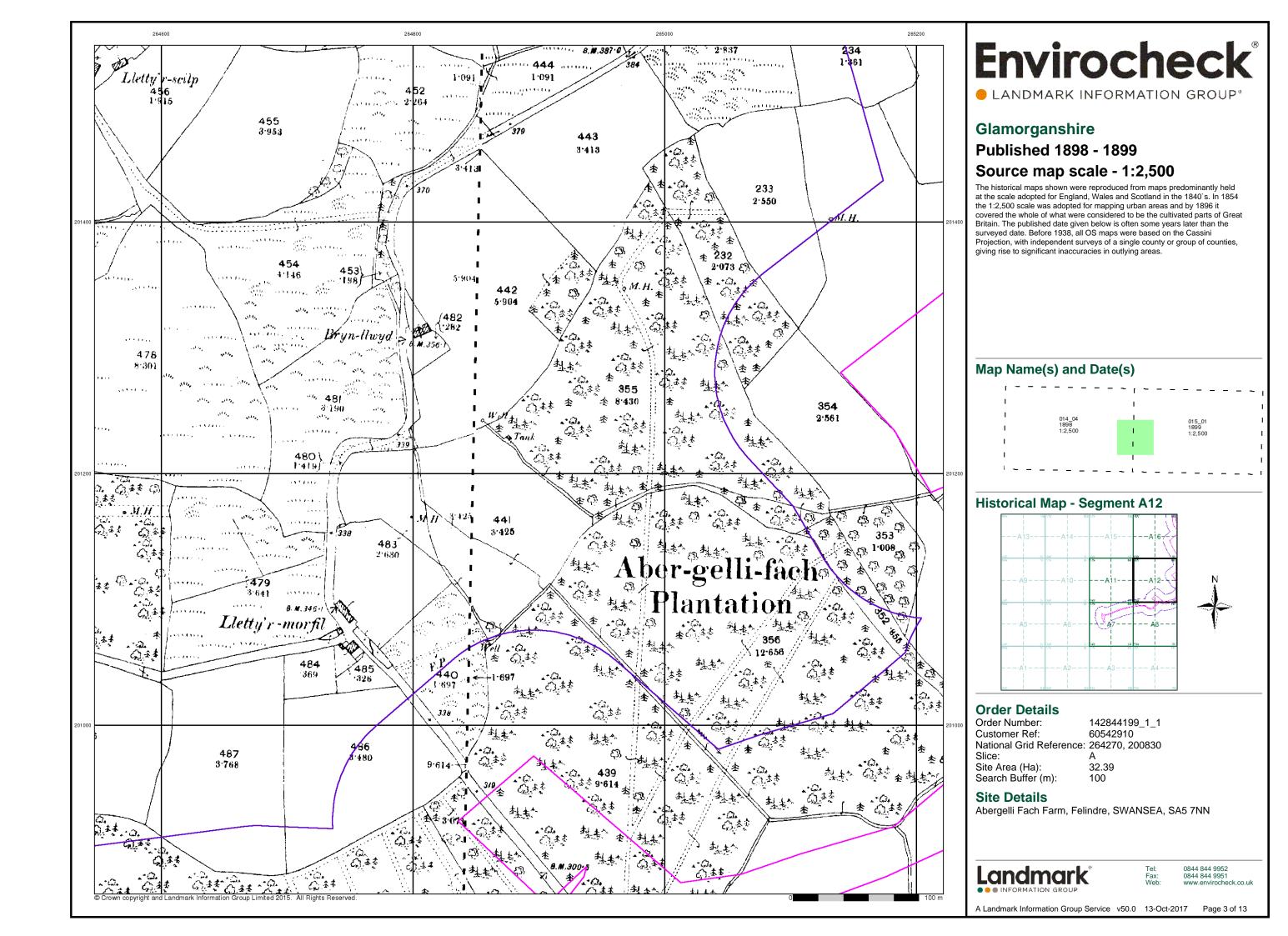


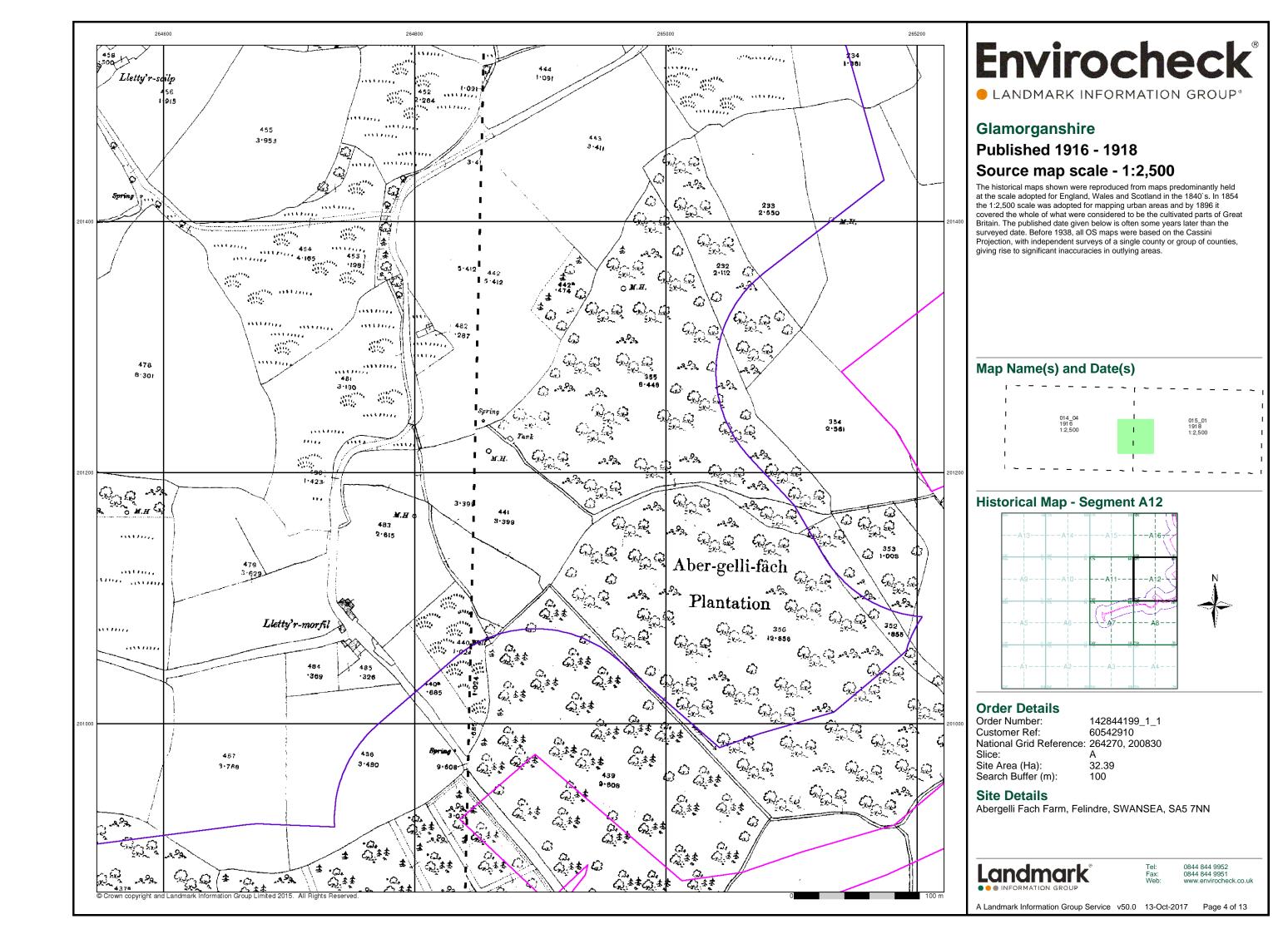
0844 844 9952 0844 844 9951

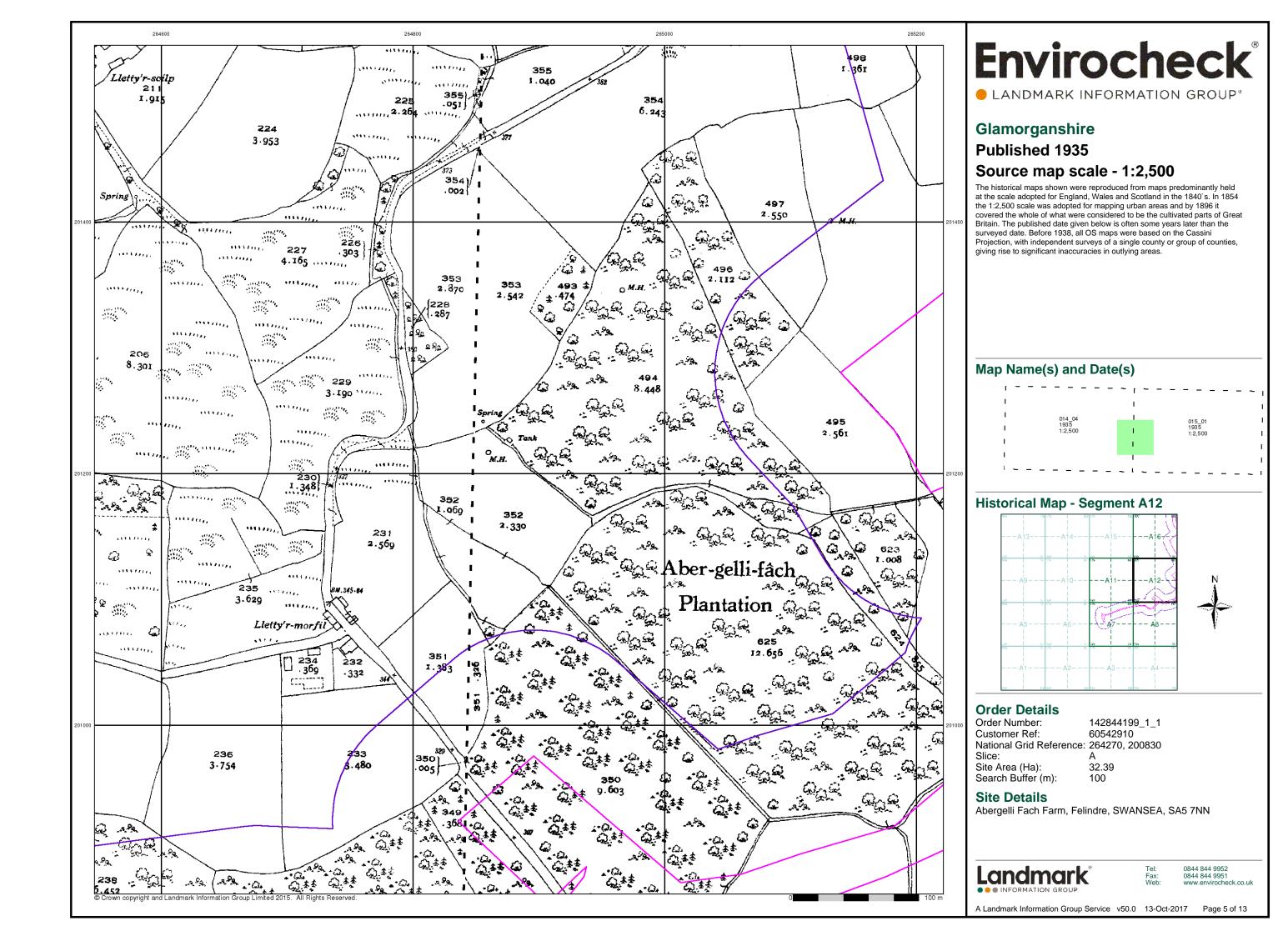
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 13

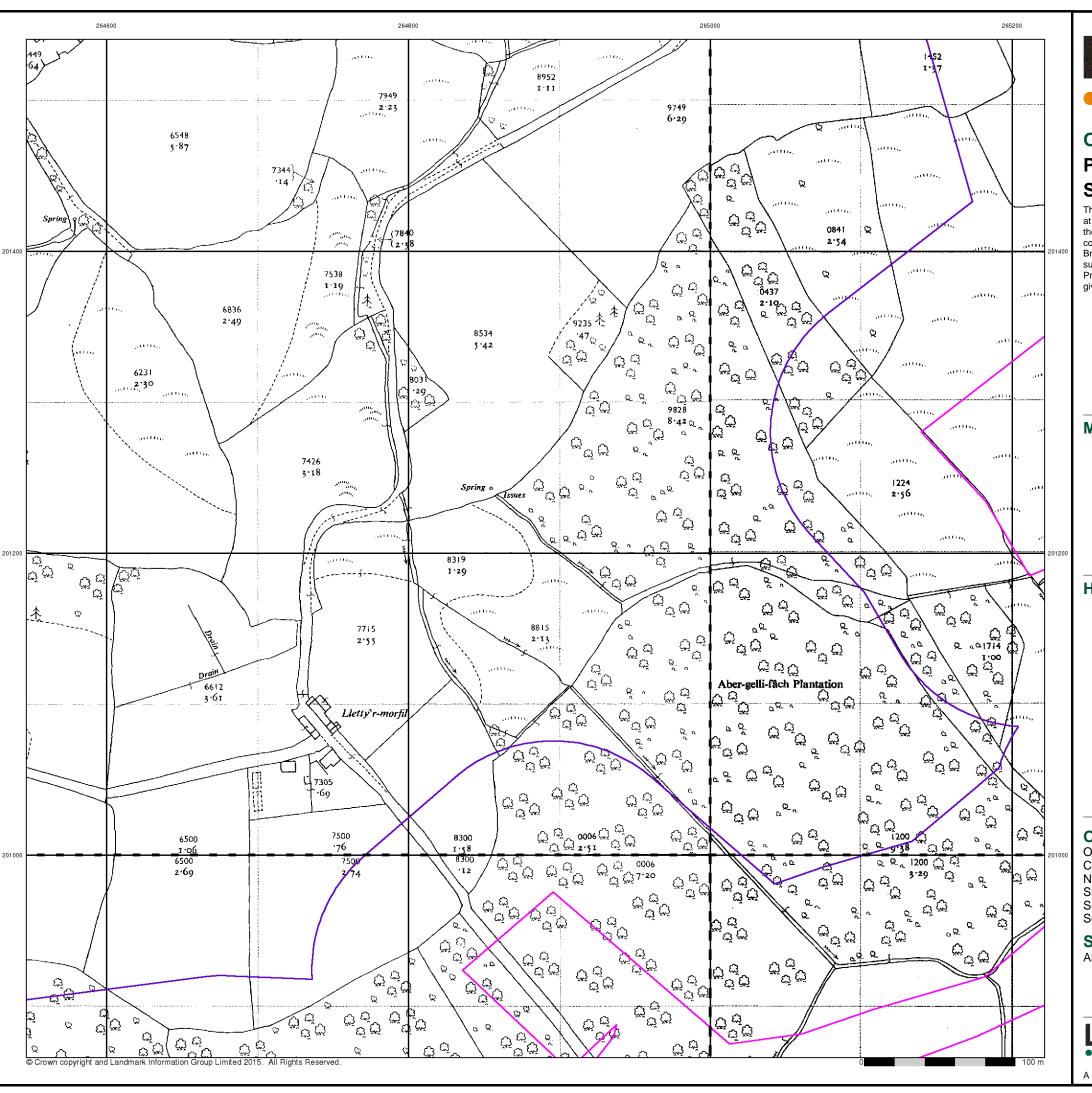


0844 844 9952 0844 844 9951 www.envirocheck.co.uk









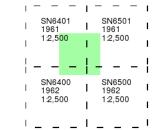
LANDMARK INFORMATION GROUP®

Ordnance Survey Plan Published 1961 - 1962

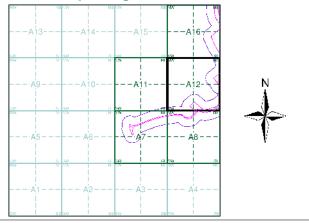
Source map scale - 1:2,500

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)



Historical Map - Segment A12



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m):

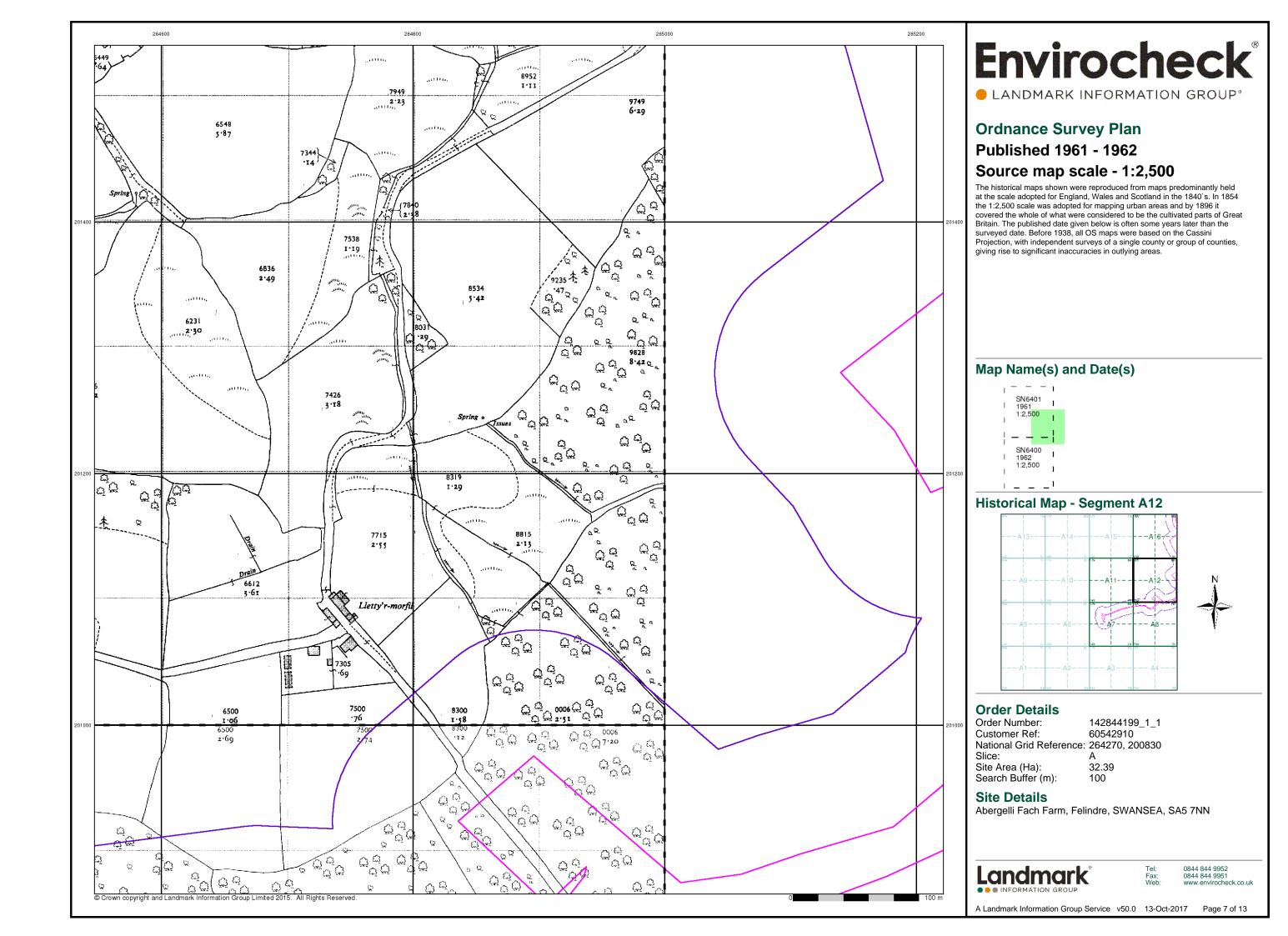
Site Details

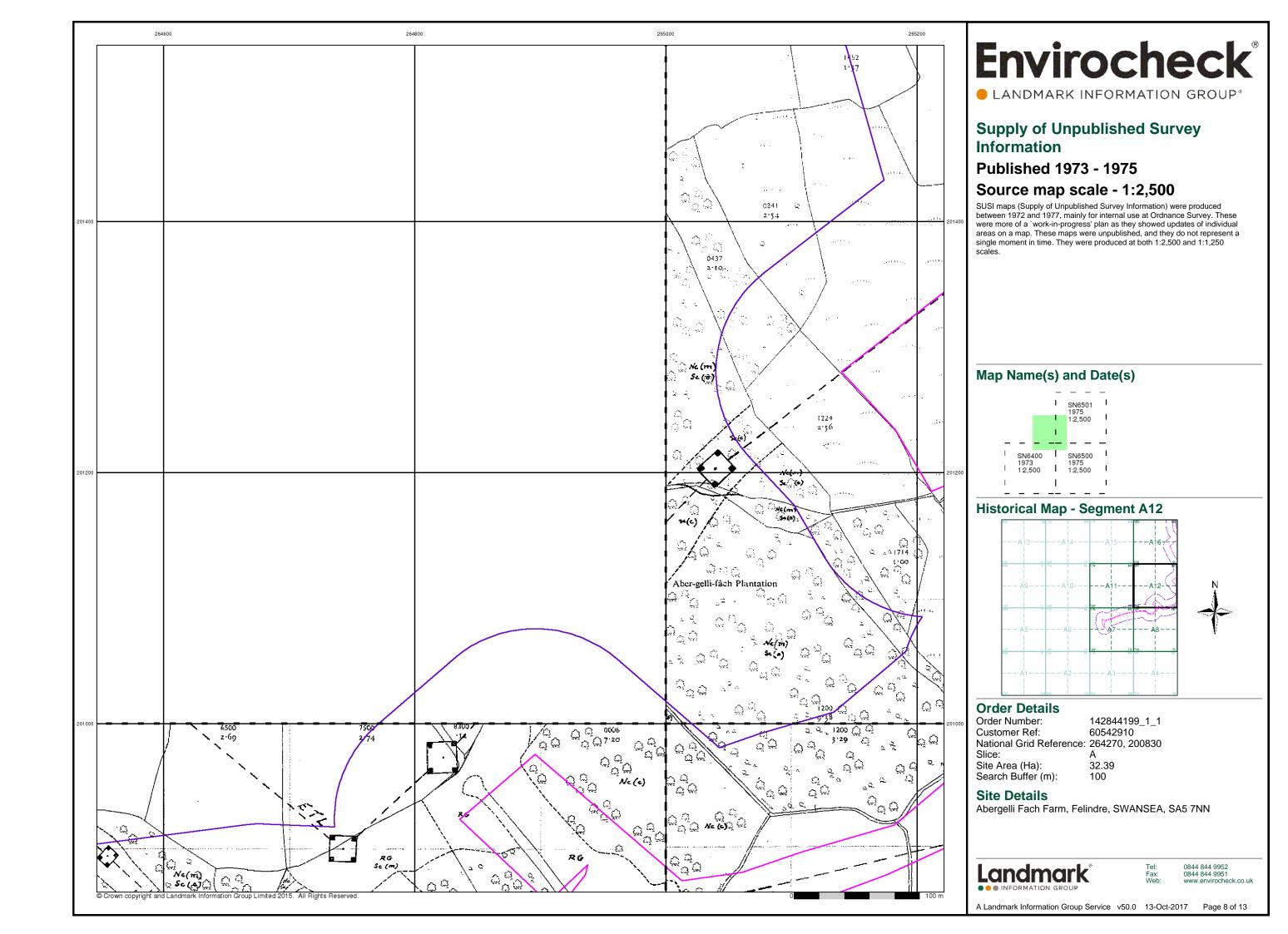
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

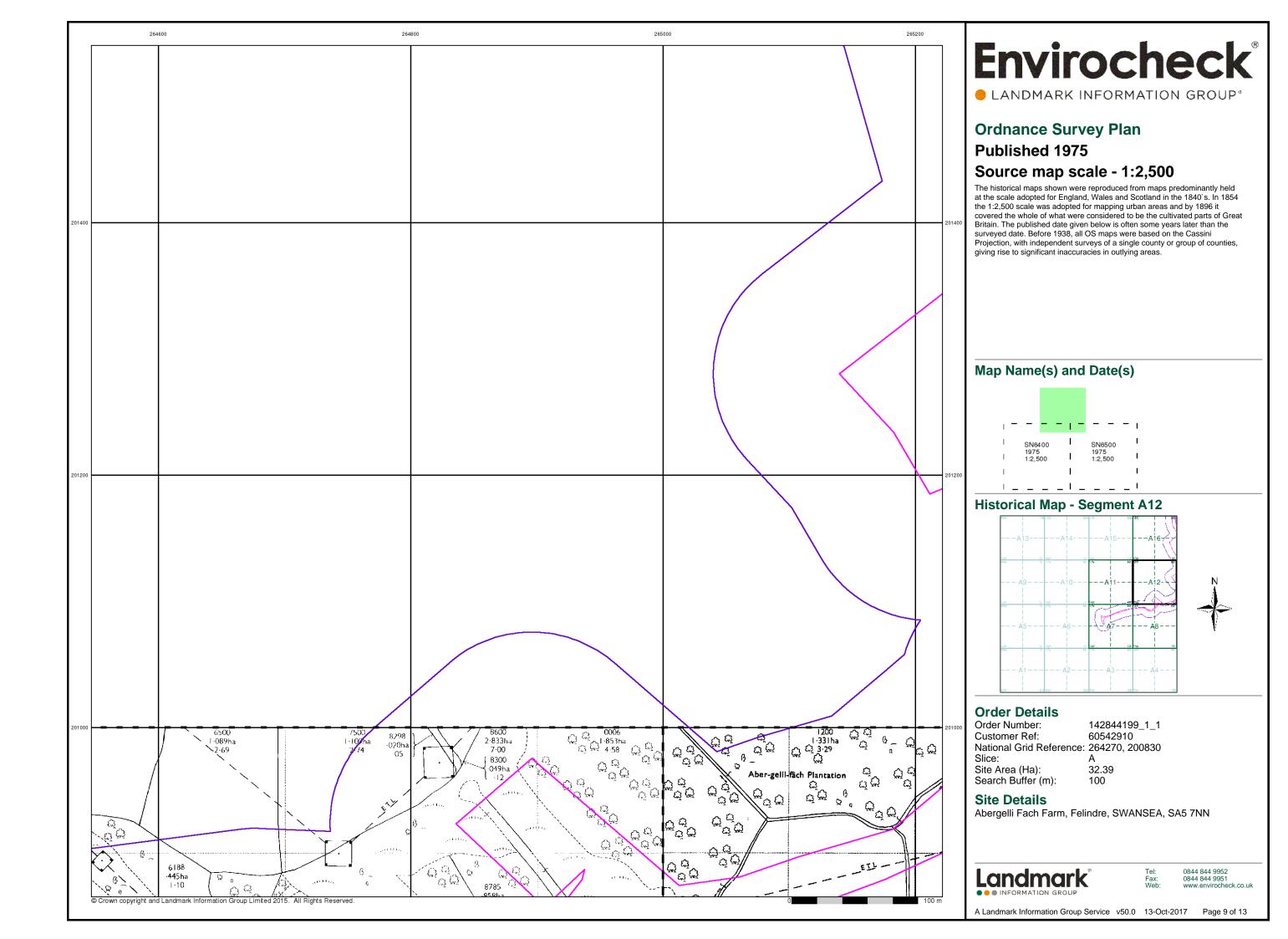


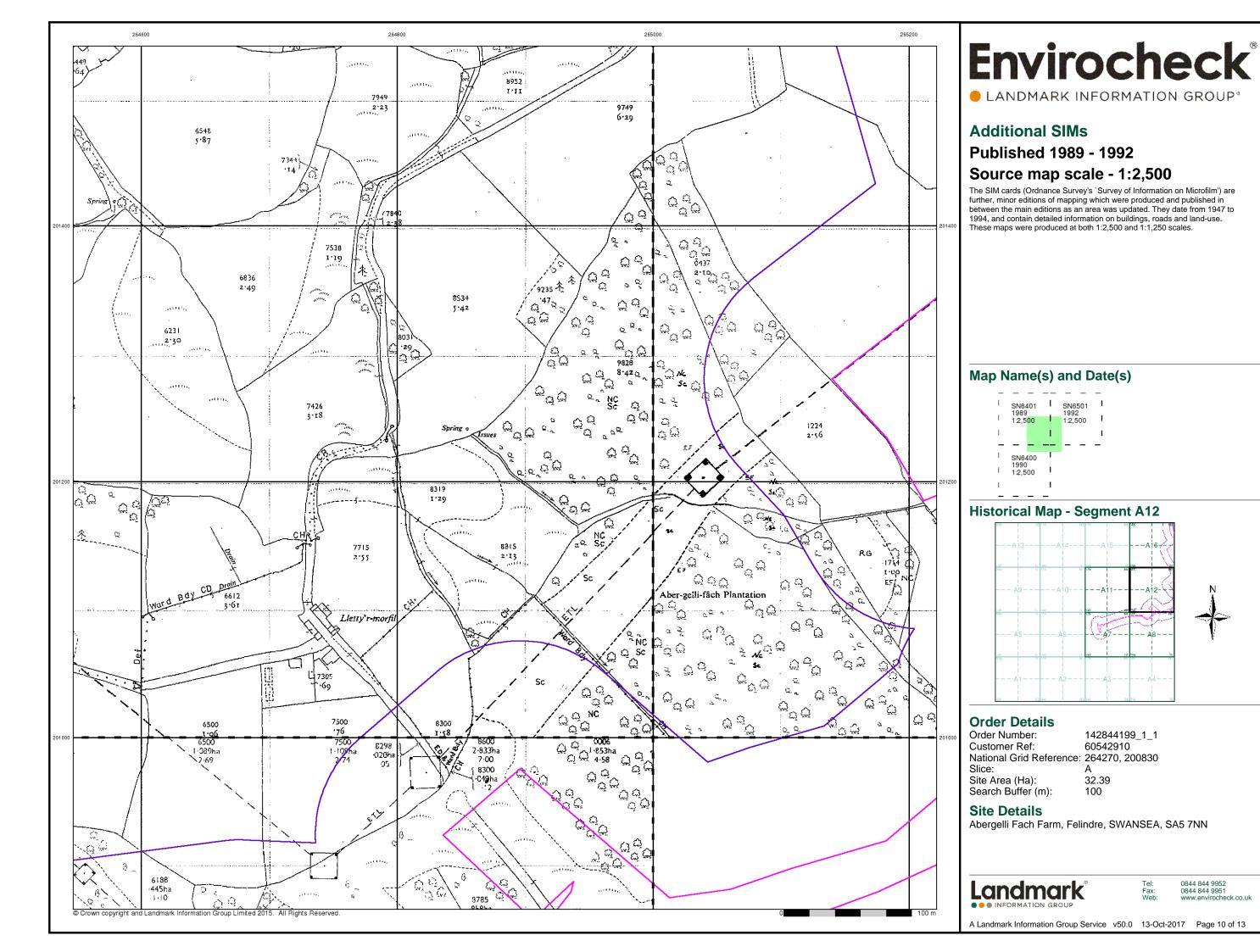
0844 844 9951 www.envirocheck.co.uk

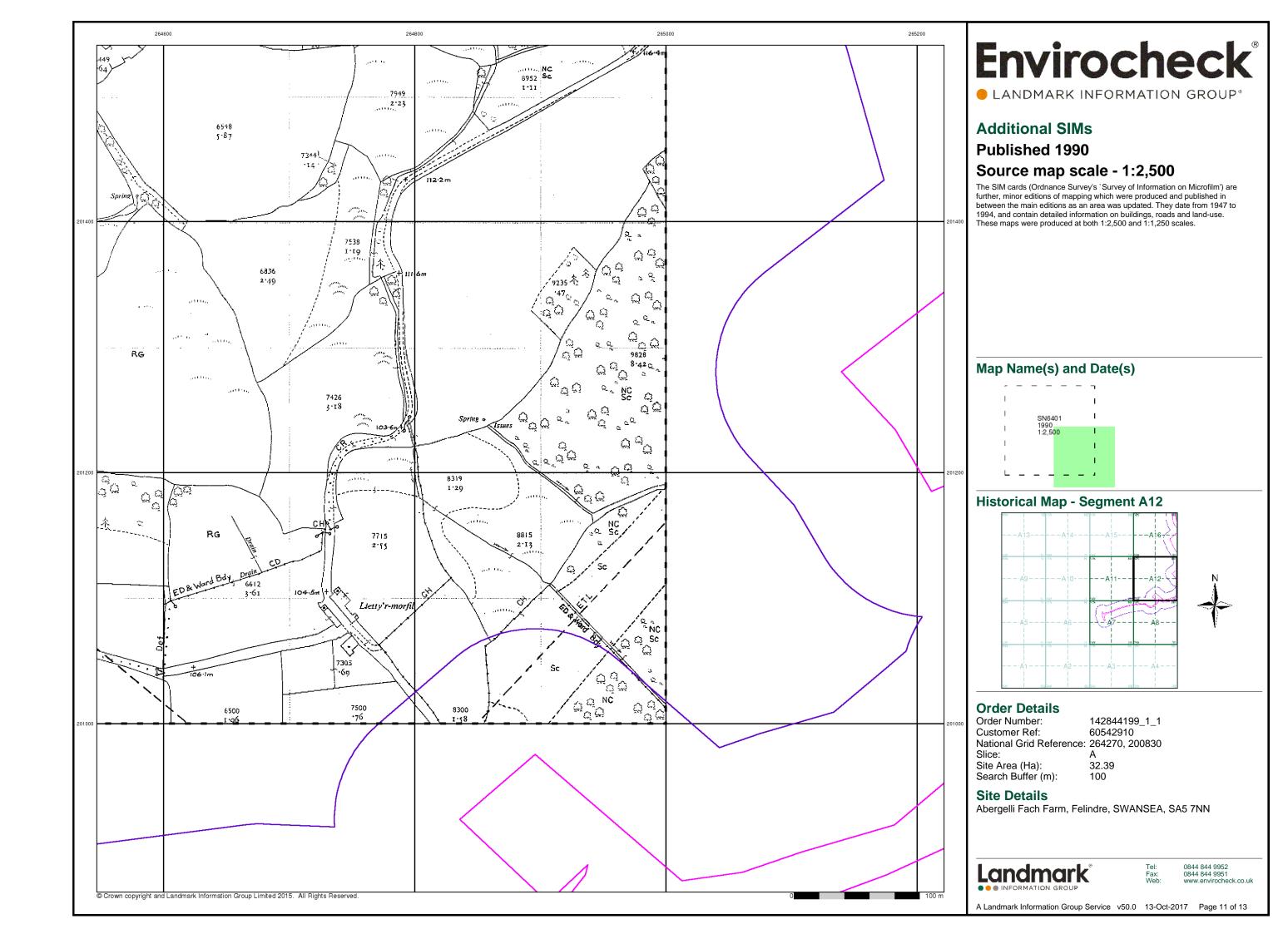
A Landmark Information Group Service v50.0 13-Oct-2017 Page 6 of 13

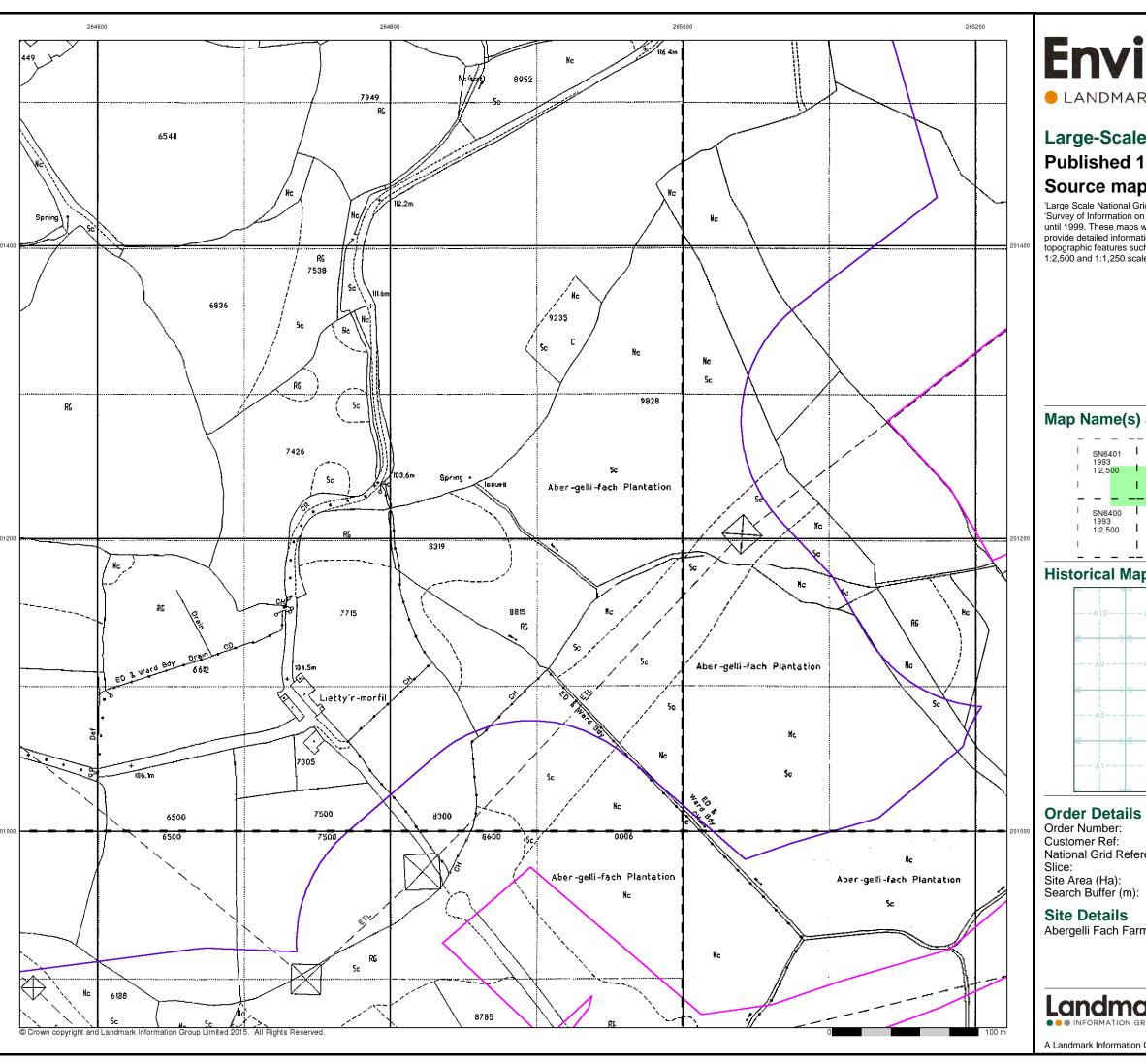












LANDMARK INFORMATION GROUP®

Large-Scale National Grid Data

Published 1993

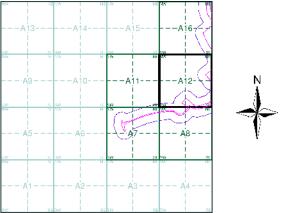
Source map scale - 1:2,500

'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)

1	SN6		- 1	SN6501	ı
1	1993 1:2,5			1993 1:2,500	- 1
1			-1		ı
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1 1 1	1993	3	 	1993	1 1 1

Historical Map - Segment A12



142844199_1_1 60542910 National Grid Reference: 264270, 200830

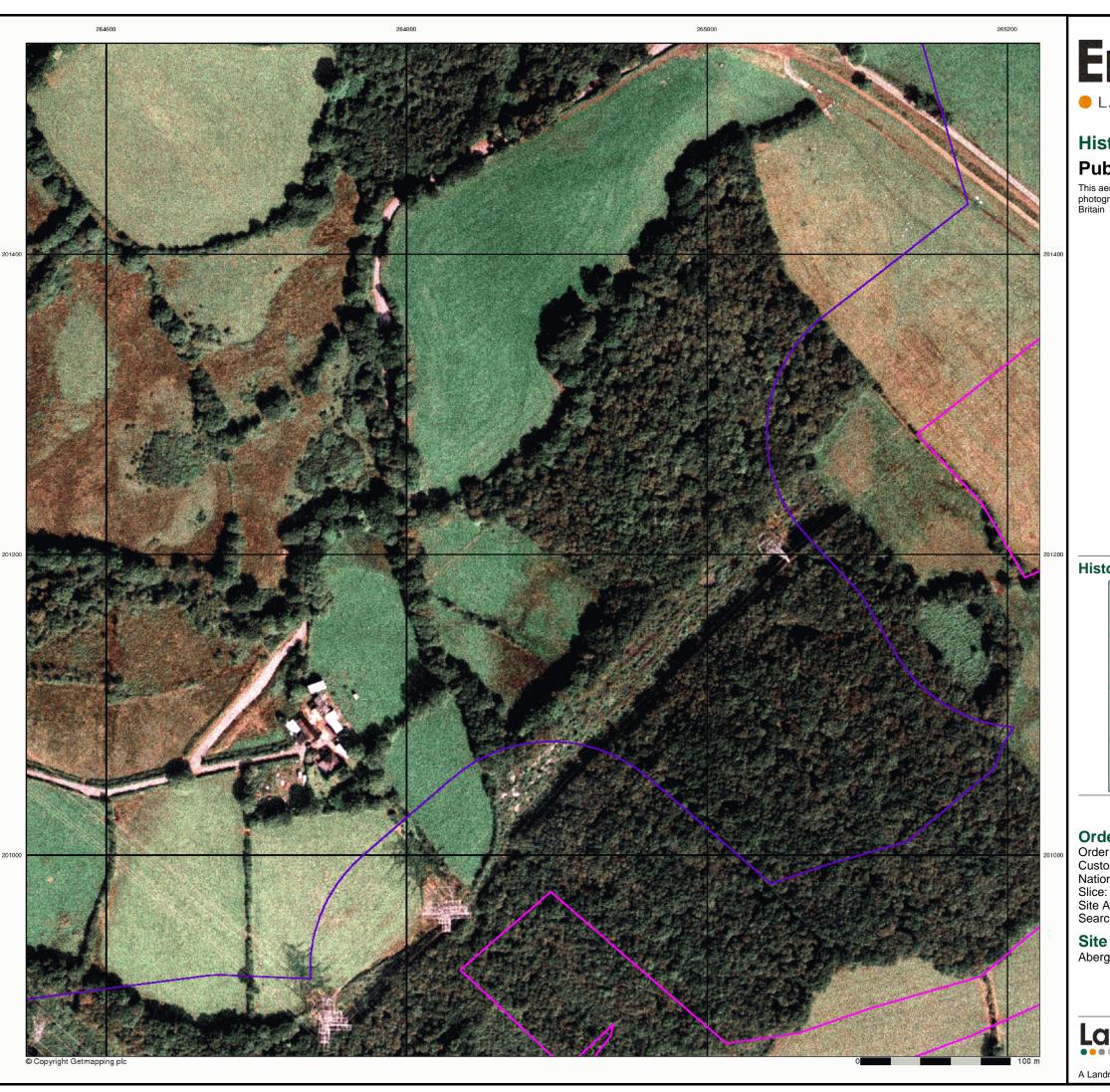
32.39

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 12 of 13

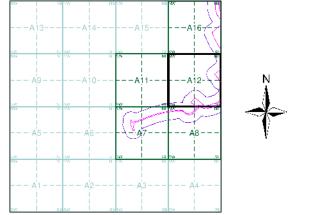


LANDMARK INFORMATION GROUP®

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 A12



Order Details

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

Slice: A
Site Area (Ha): 32.39
Search Buffer (m): 100

Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark*

Fel: 0844 844 9952 Fax: 0844 844 9951 Veb: www.envirocheck.co.uk

A Landmark Information Group Service v50.0 13-Oct-2017 Page 13 of 13

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre **SWANSEA SA5 7NN**

File Name Map Series Published I Source Scale 142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Ordnance 11959-1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 1916 1:2,500 142844199 Glamorgan 142844199 Ordnance 11961-1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance 11959-1962 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500

142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance ! 1975 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500

142844199 Glamorgan 1935 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 1961 1:2,500 142844199 Ordnance !

142844199 Glamorgan 1876-1877 1:2,500

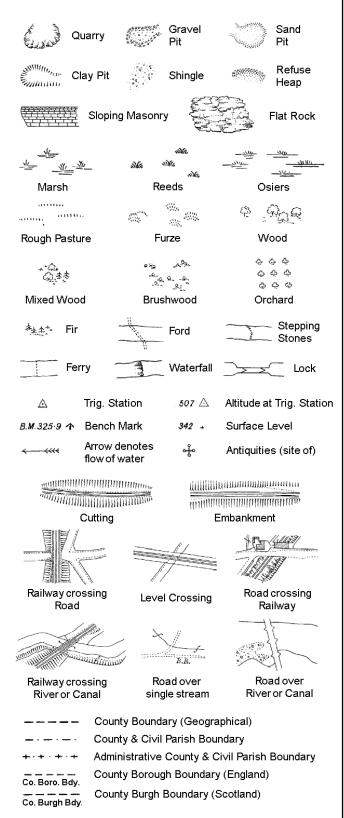
142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1916 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Additional 1990 1:2,500

142844199 Additional 1990 1:2,500 142844199 Additional 1988-1990 1:2,500 142844199 Additional 1989-1992 1:2,500 142844199 Additional 1986-1992 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 14284419! Supply of L 1973 1:2,500 142844195 Supply of L 1973-1975 1:2,500 142844195 Supply of L 1973-1975 1:2,500 14284419! Supply of L 1975 1:2,500 142844199 Supply of L 1973 1:2,500 142844199 Large-Scale 1993 1:2,500

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

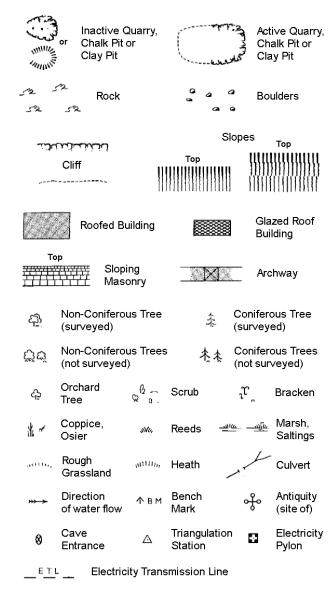
Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Guide Post or Board

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



,	-	_	
вн	Beer House	Р	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

County Boundary (Geographical)

Admin. County or County Bor. Boundary

Symbol marking point where boundary

GVC

Gas Governer

Mile Post or Mile Stone

Guide Post

Manhole

Wd Pp

Wks

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

County & Civil Parish Boundary

Civil Parish Boundary

mereing changes

London Borough Boundary

L B Bdy

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough Well

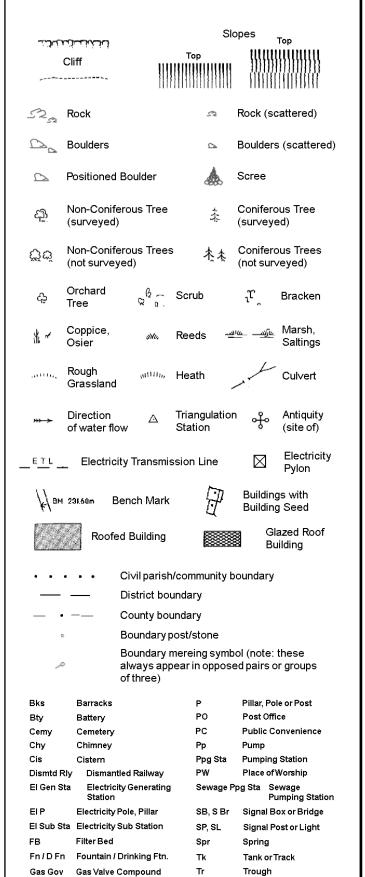
S.P

T.C.B

Sl.

 T_T

1:1,250



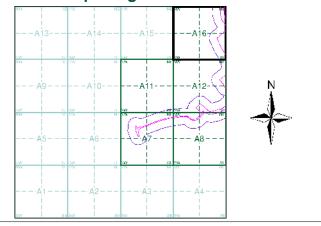
Envirocheck®

LANDMARK INFORMATION GROUPS

Historical Mapping & Photography included:

Date	Pg
	. 9
1876 - 1877	2
1898 - 1899	3
1916 - 1918	4
1935	5
1961	6
1961	7
1975	8
1986 - 1992	9
1989 - 1990	10
1993	11
2000	12
	1898 - 1899 1916 - 1918 1935 1961 1961 1975 1986 - 1992 1989 - 1990 1993

Historical Map - Segment A16



Order Details

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 100

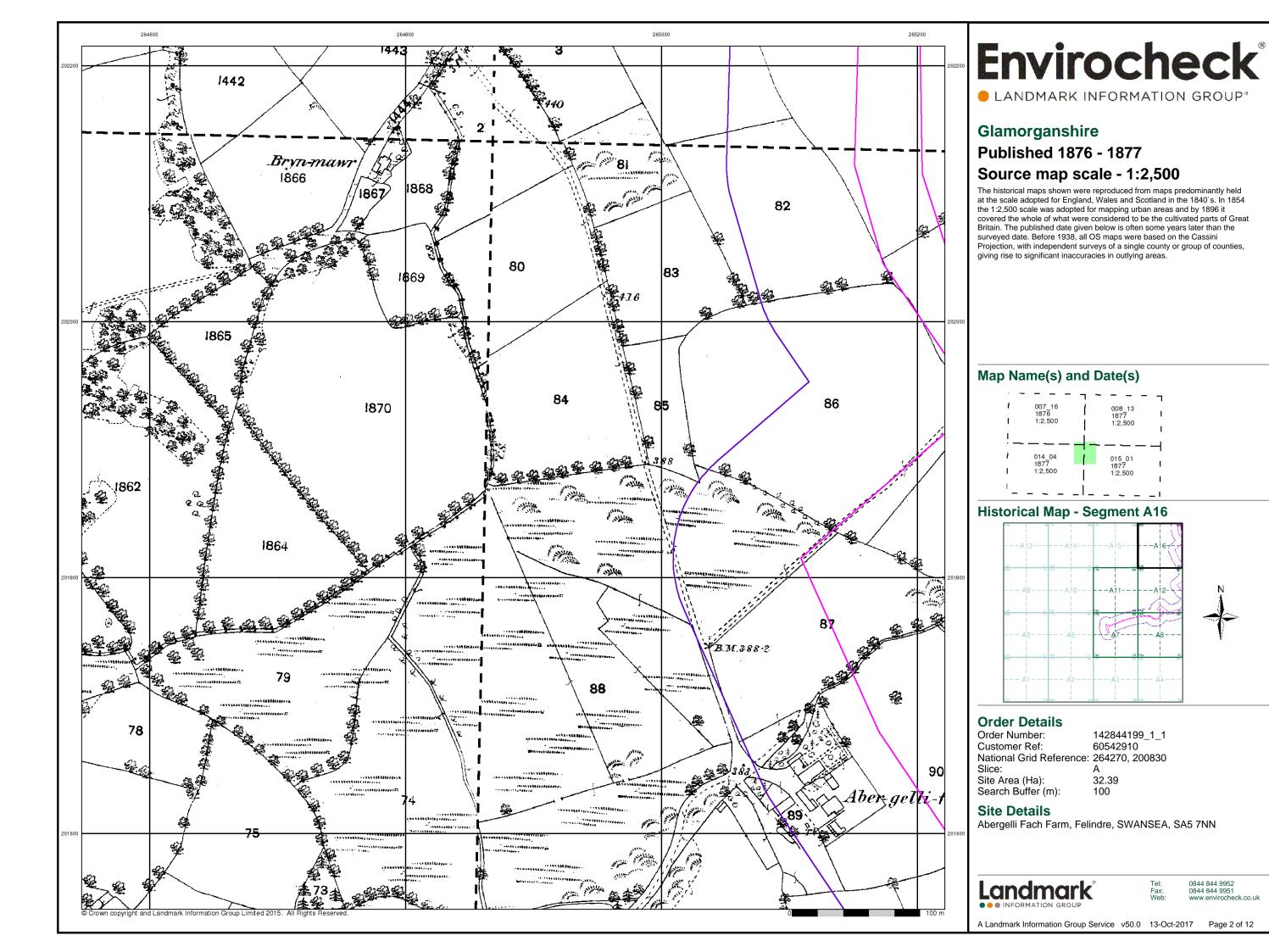
Site Details

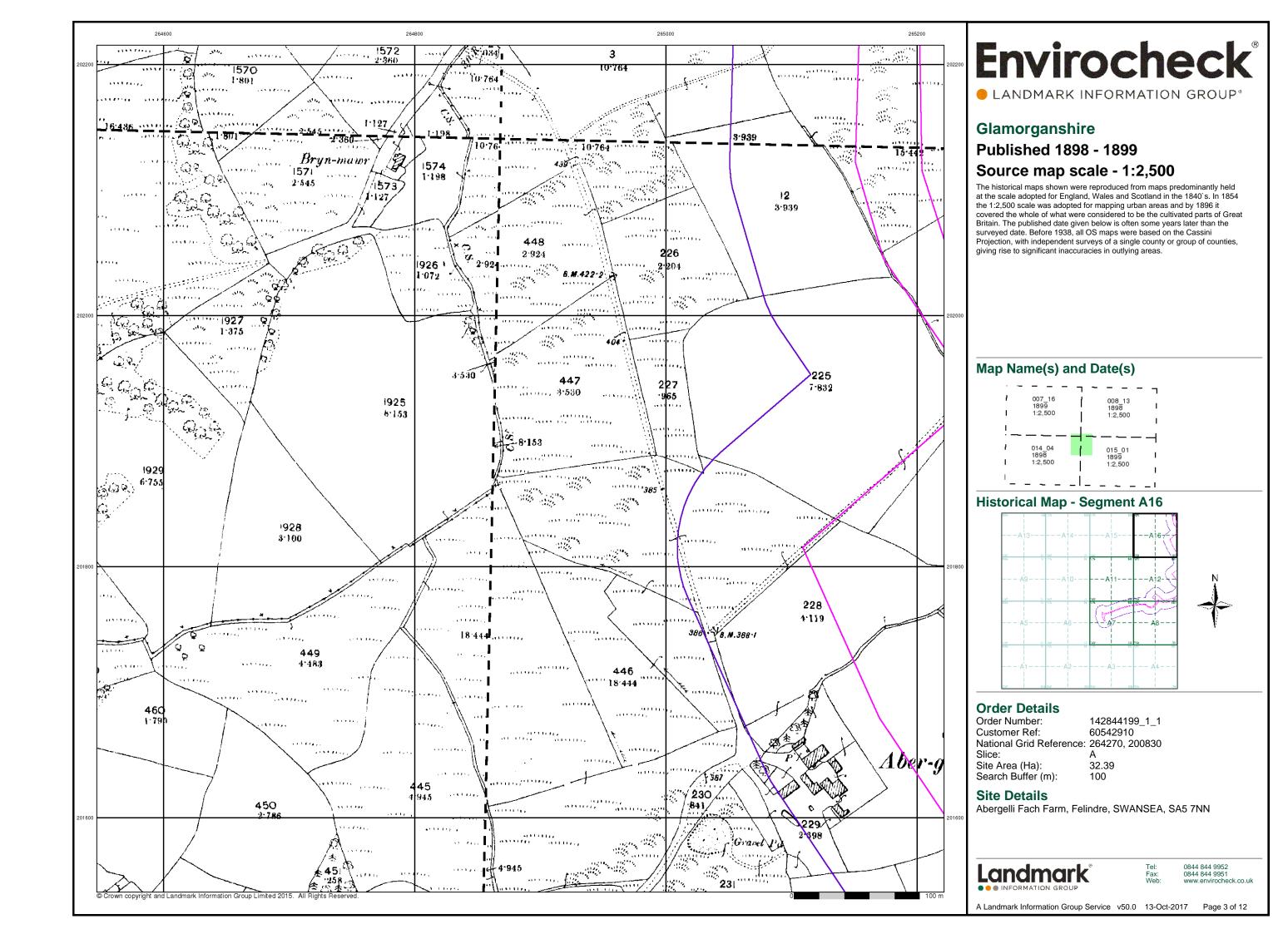
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

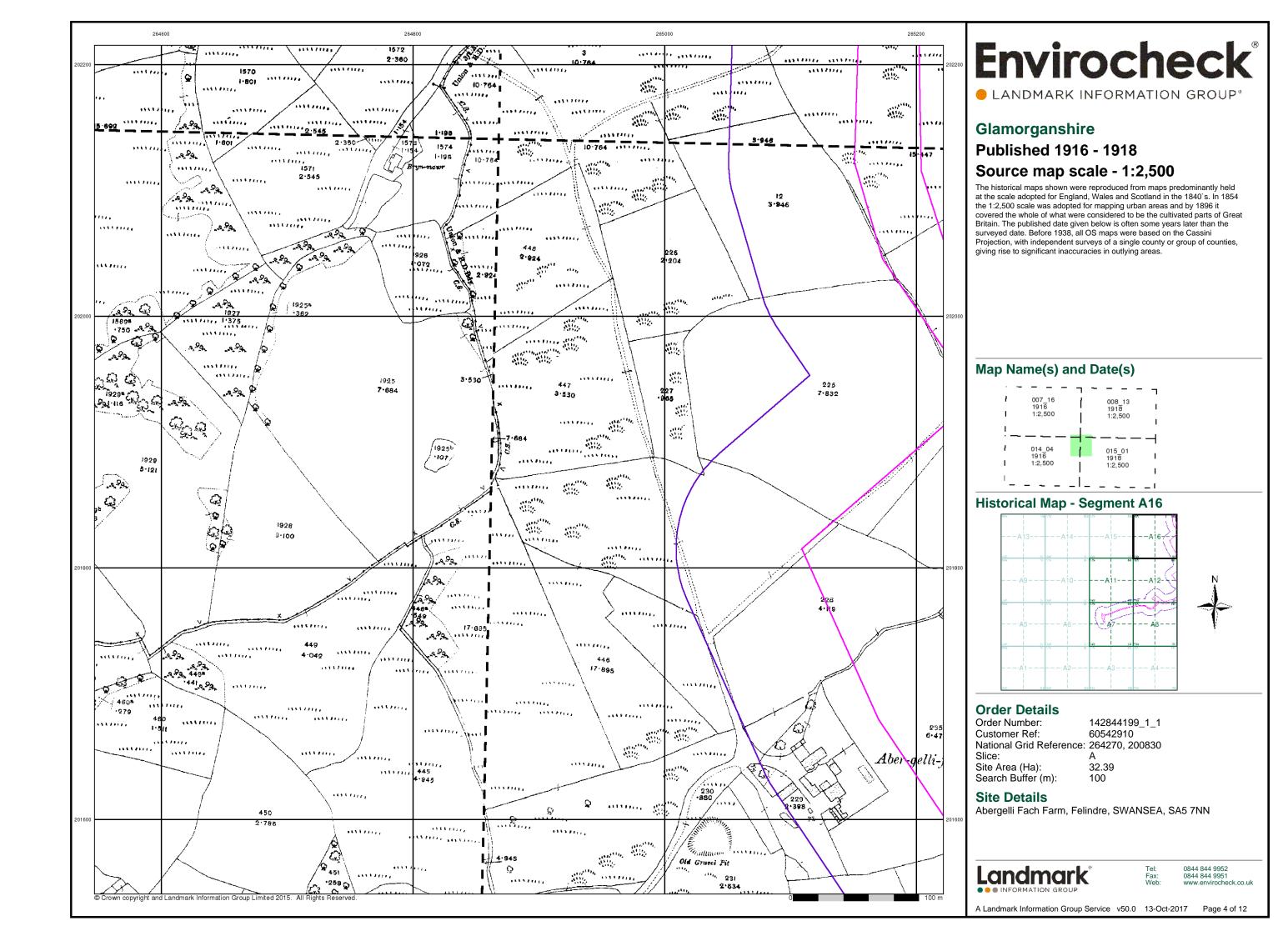


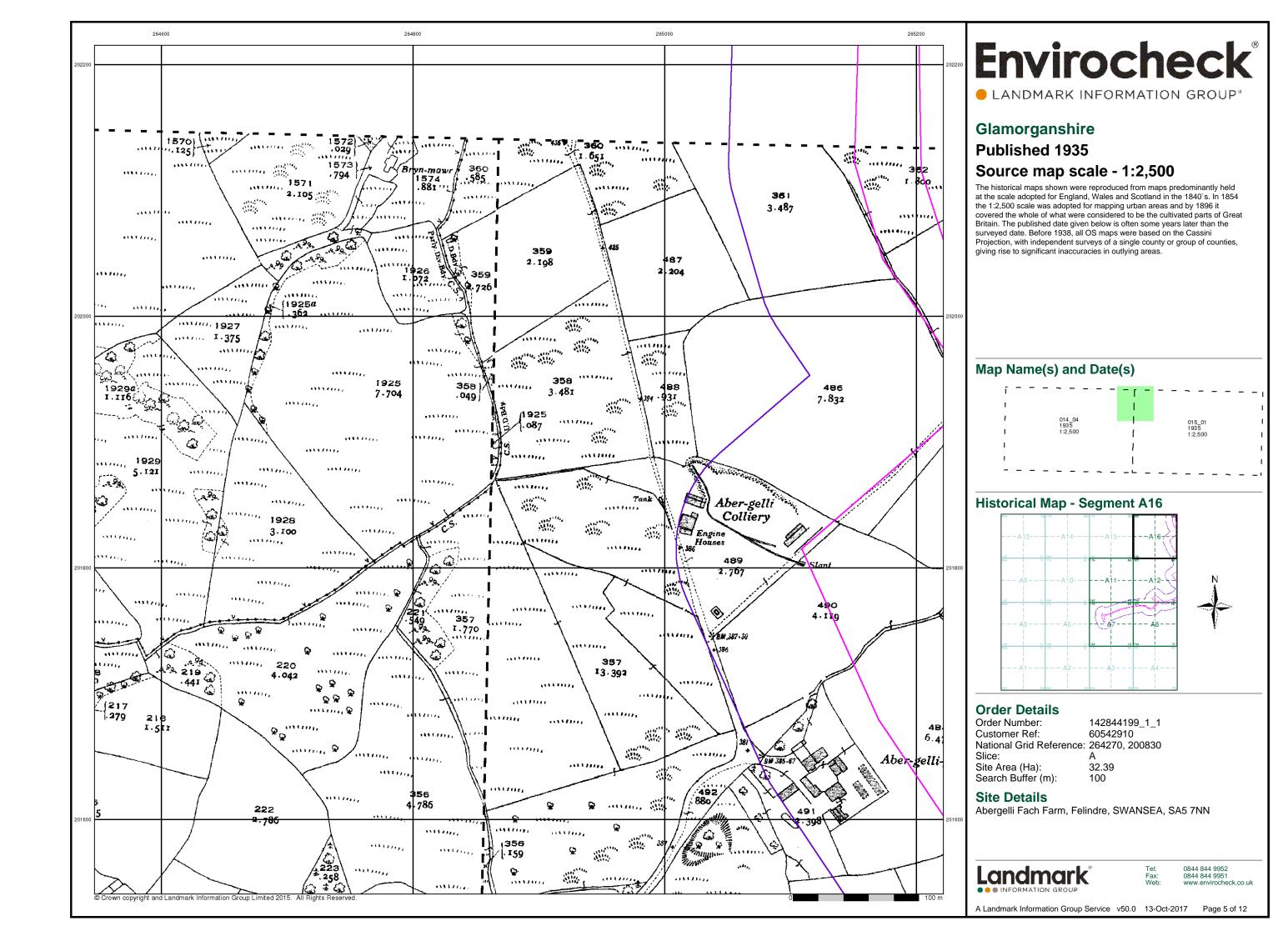
0844 844 9952 0844 844 9951

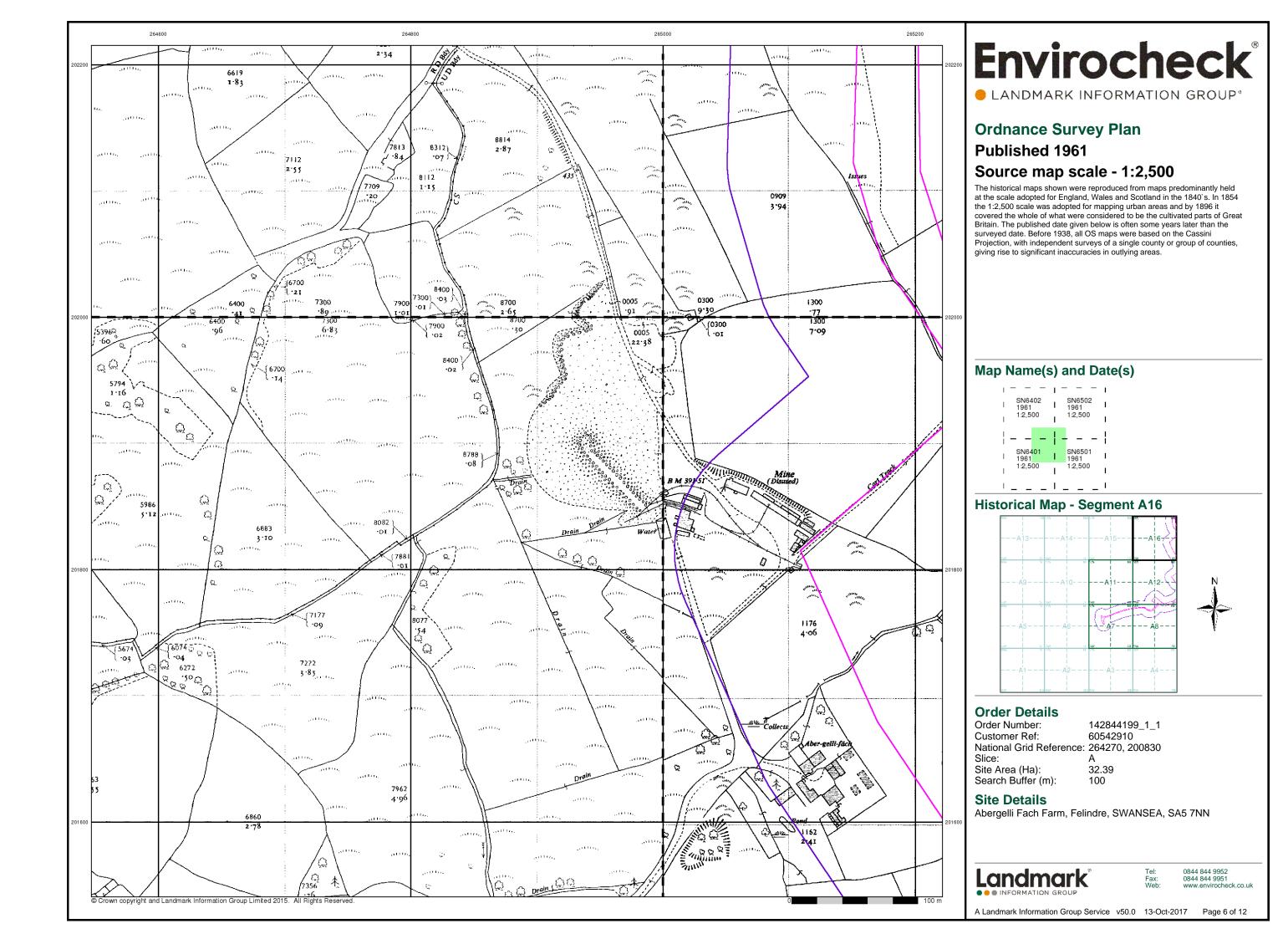
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 12

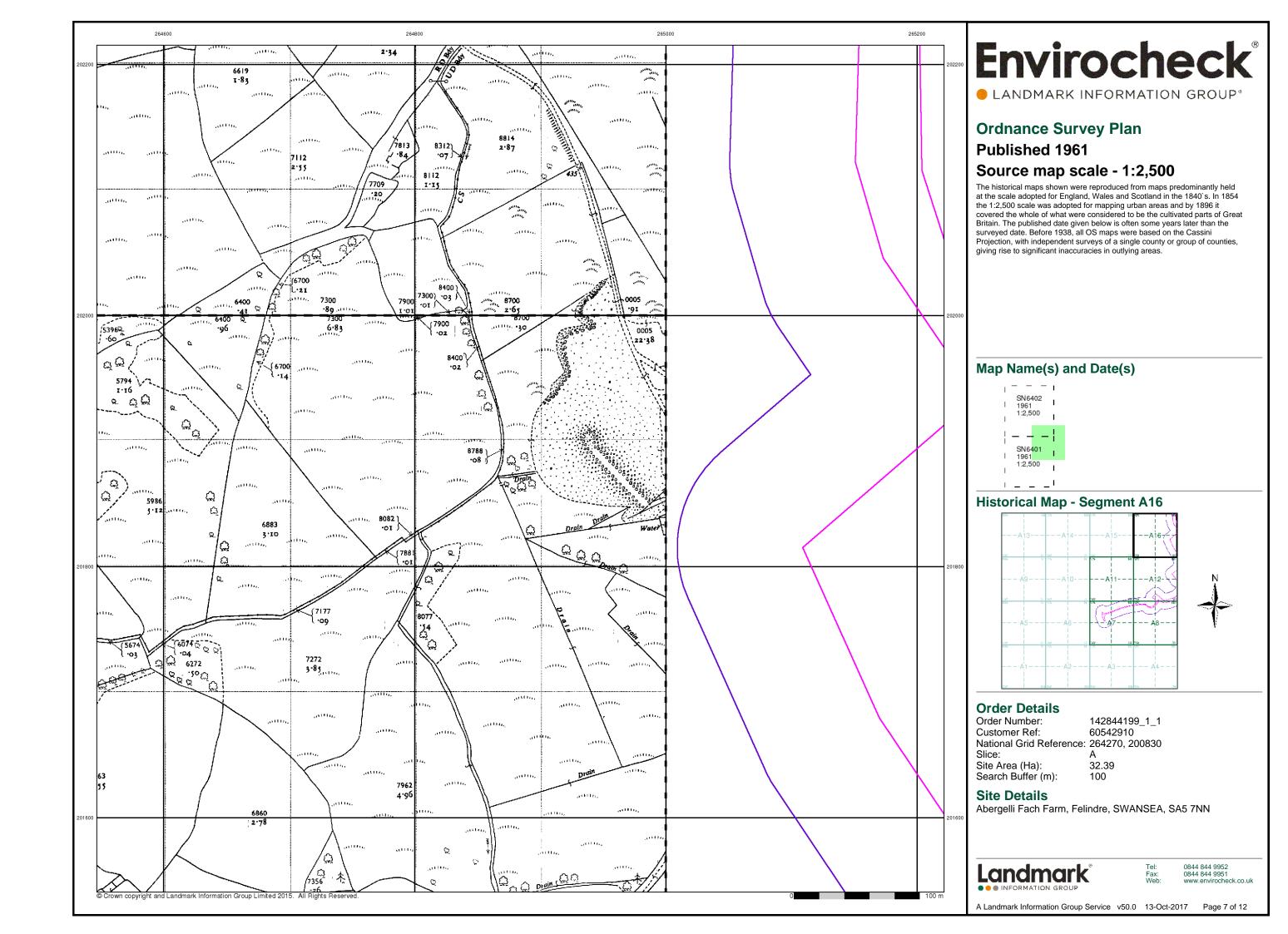


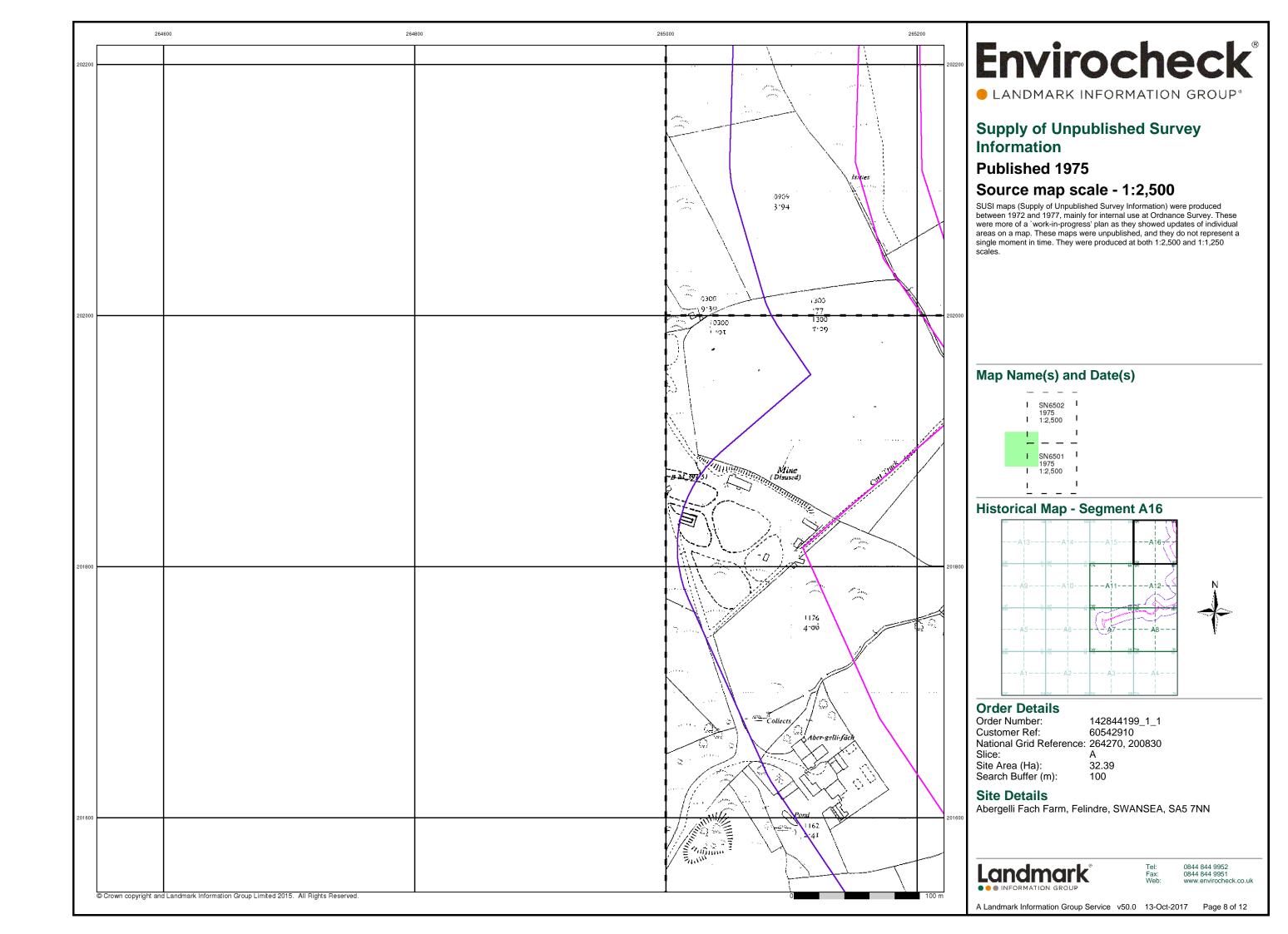


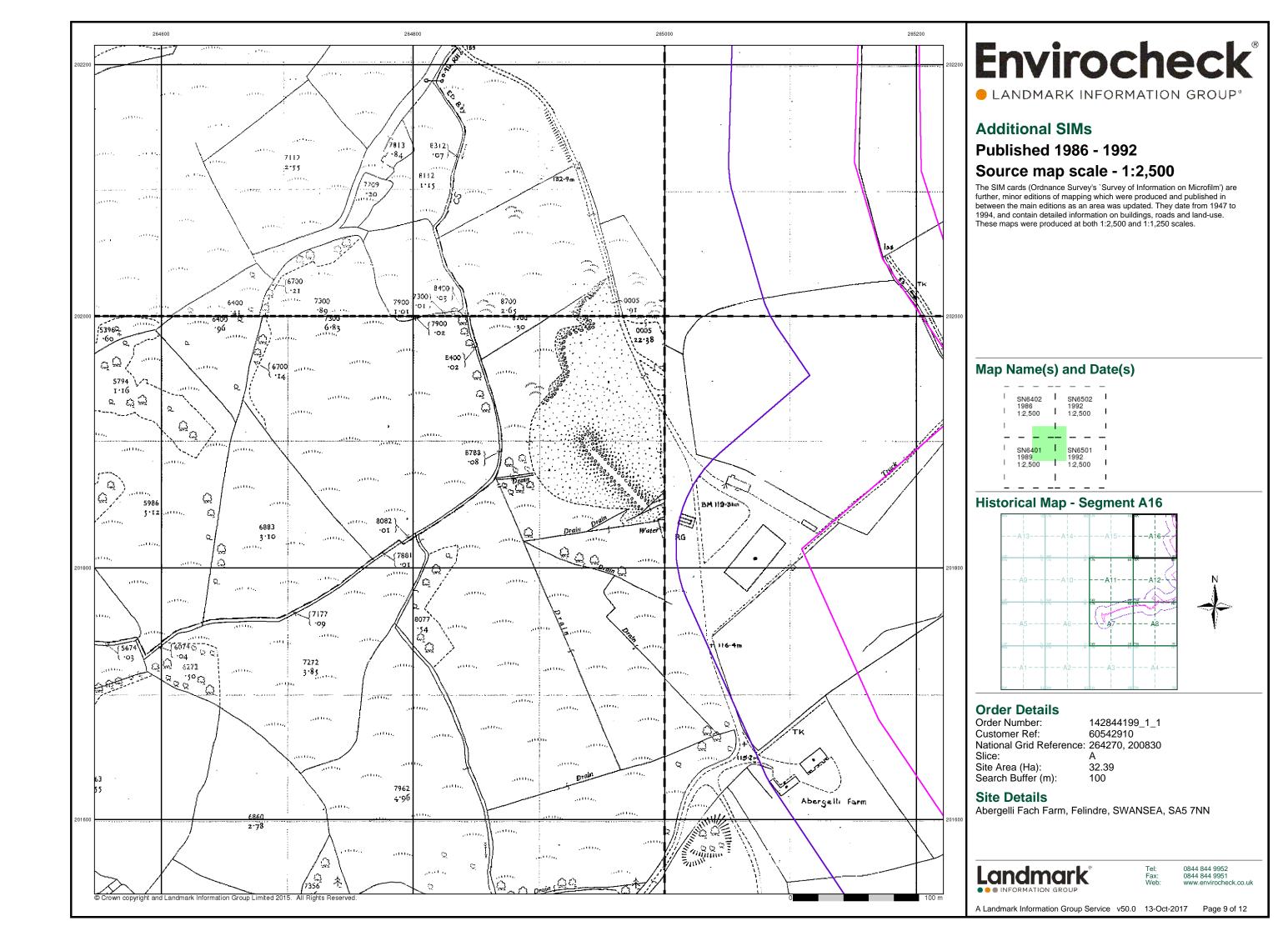


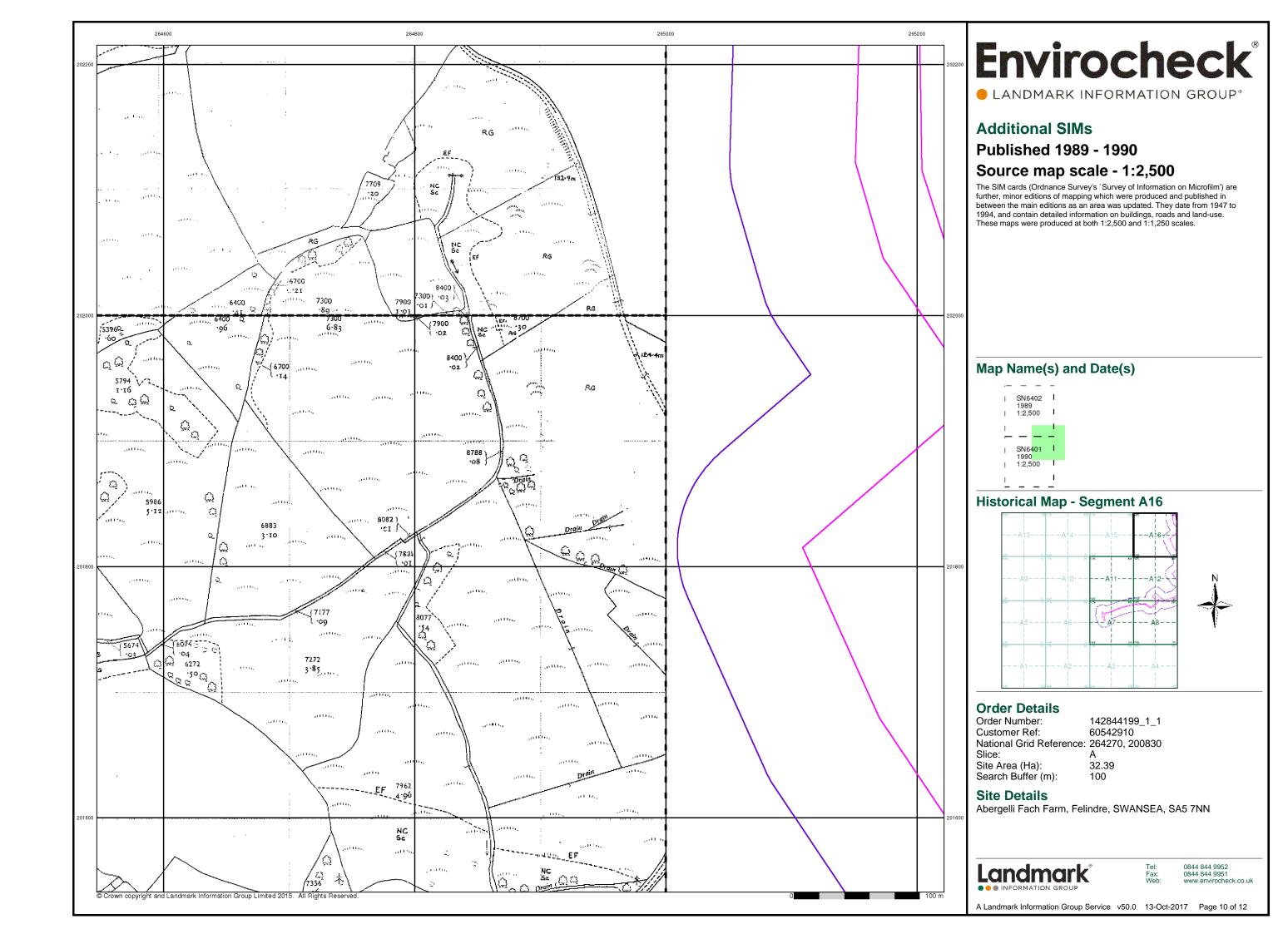


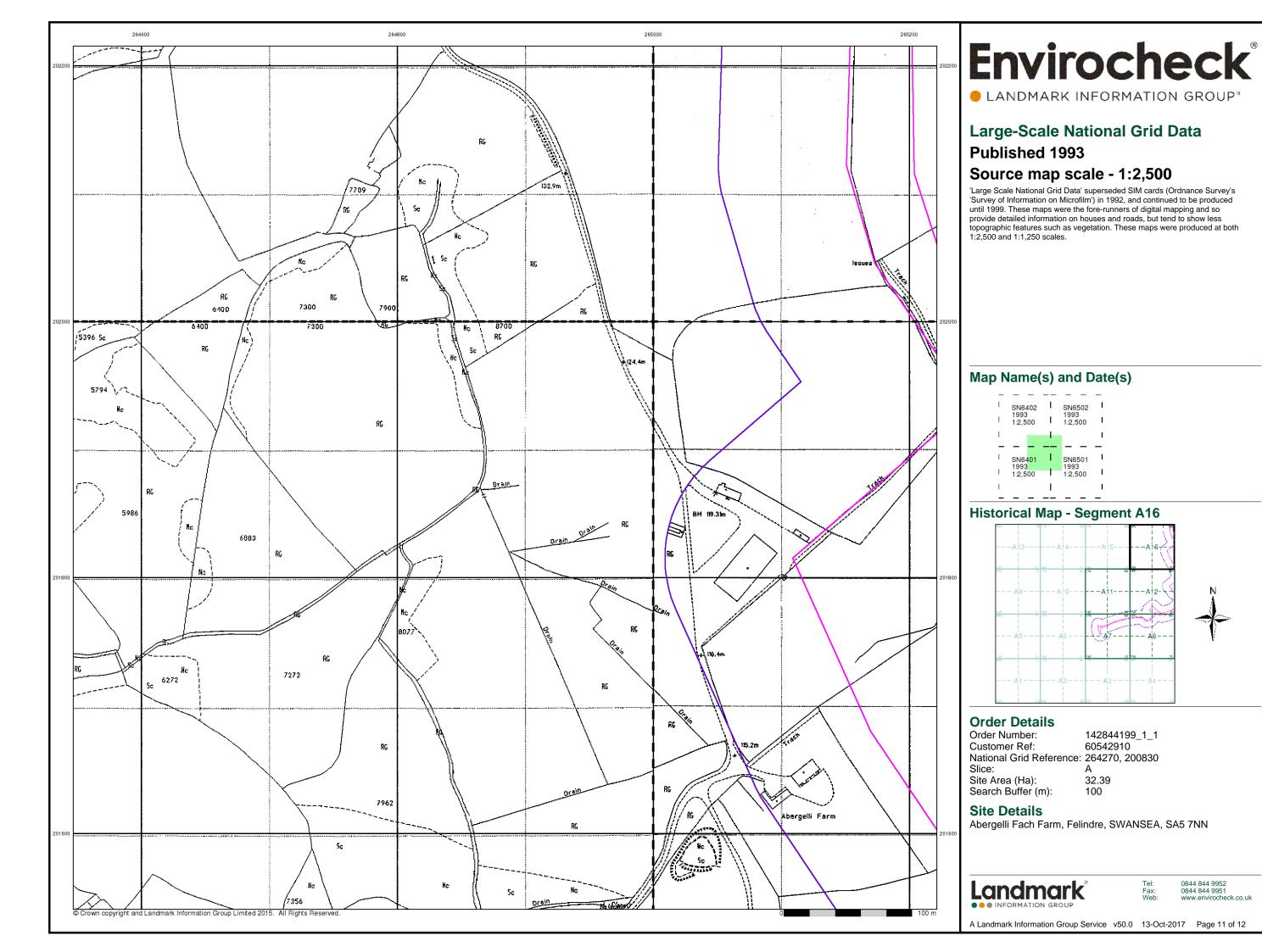












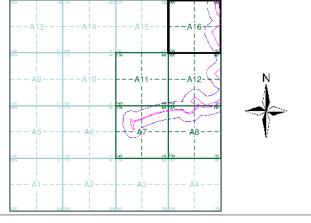


LANDMARK INFORMATION GROUP®

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 A16



Order Details

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

32.39 100 Site Area (Ha): Search Buffer (m):

Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark*

0844 844 9952 0844 844 9951 www.envirocheck.co.uk

A Landmark Information Group Service v50.0 13-Oct-2017 Page 12 of 12

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre **SWANSEA SA5 7NN**

File Name Map Series Published I Source Scale 142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Ordnance 11959-1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 1916 1:2,500 142844199 Glamorgan 142844199 Ordnance 11961-1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1898 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance 11959-1962 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500

142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500 142844199 Glamorgan 1876-1877 1:2,500 142844199 Ordnance ! 1975 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1898-1899 1:2,500

142844199 Glamorgan 1935 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance 11961-1962 1:2,500 1961 1:2,500 142844199 Ordnance !

142844199 Glamorgan 1876-1877 1:2,500

142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1916 1:2,500

142844199 Glamorgan 1916-1918 1:2,500 142844199 Additional 1990 1:2,500

142844199 Additional 1990 1:2,500 142844199 Additional 1988-1990 1:2,500 142844199 Additional 1989-1992 1:2,500 142844199 Additional 1986-1992 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 142844199 Additional 1989-1990 1:2,500 14284419! Supply of L 1973 1:2,500 142844195 Supply of L 1973-1975 1:2,500 142844195 Supply of L 1973-1975 1:2,500 14284419! Supply of L 1975 1:2,500 142844199 Supply of L 1973 1:2,500 142844199 Large-Scale 1993 1:2,500

Geology 1:10,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SUPNM	Superficial Theme Not Mapped [For Digital Map Use Only]	Unknown/Unclassifie d Entry	Not Supplied - Not Supplied
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Pleistocene
	TILLD	Till, Devensian	Diamicton	Devensian - Ipswichian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Ipswichian
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quaternary - Ryazanian
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Quaternary - Ryazanian

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	GDB	Grovesend Formation	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Sandstone	Westphalian D - Westphalian D
	GDB	Grovesend Formation	Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Fault			
	Rock			

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Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:10,000 Maps Coverage

Map ID: SN60SE Map Name: Map Date: 1972 Bedrock Geology: Available Superficial Geology: Available Artificial Geology: Available Faults: Landslip: **Rock Segments:** Map ID: Map Name:

Map Date:

Landslip:

Rock Segments:

Available Available Available SS69NE 1975 Available Bedrock Geology: Superficial Geology: Available Artificial Geology: Available Available Not Available Available

Map Name: Map Date: Bedrock Geology: Superficial Geology: Artificial Geology: Faults: Landslip: **Rock Segments:** Map ID: Map Name: Map Date:

Map ID:

SS69NW 1969 Bedrock Geology: Available Superficial Geology: Available **Artificial Geology:** Available Faults: Available Landslip: Available **Rock Segments:** Available

SN60SW

Available

Available

Available

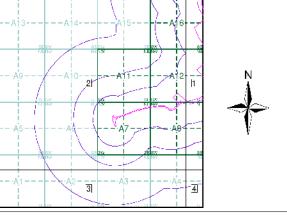
Available

Available

Available

1966

Geology 1:10,000 Maps - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

32.39 Site Area (Ha): Search Buffer (m): 1000

Site Details

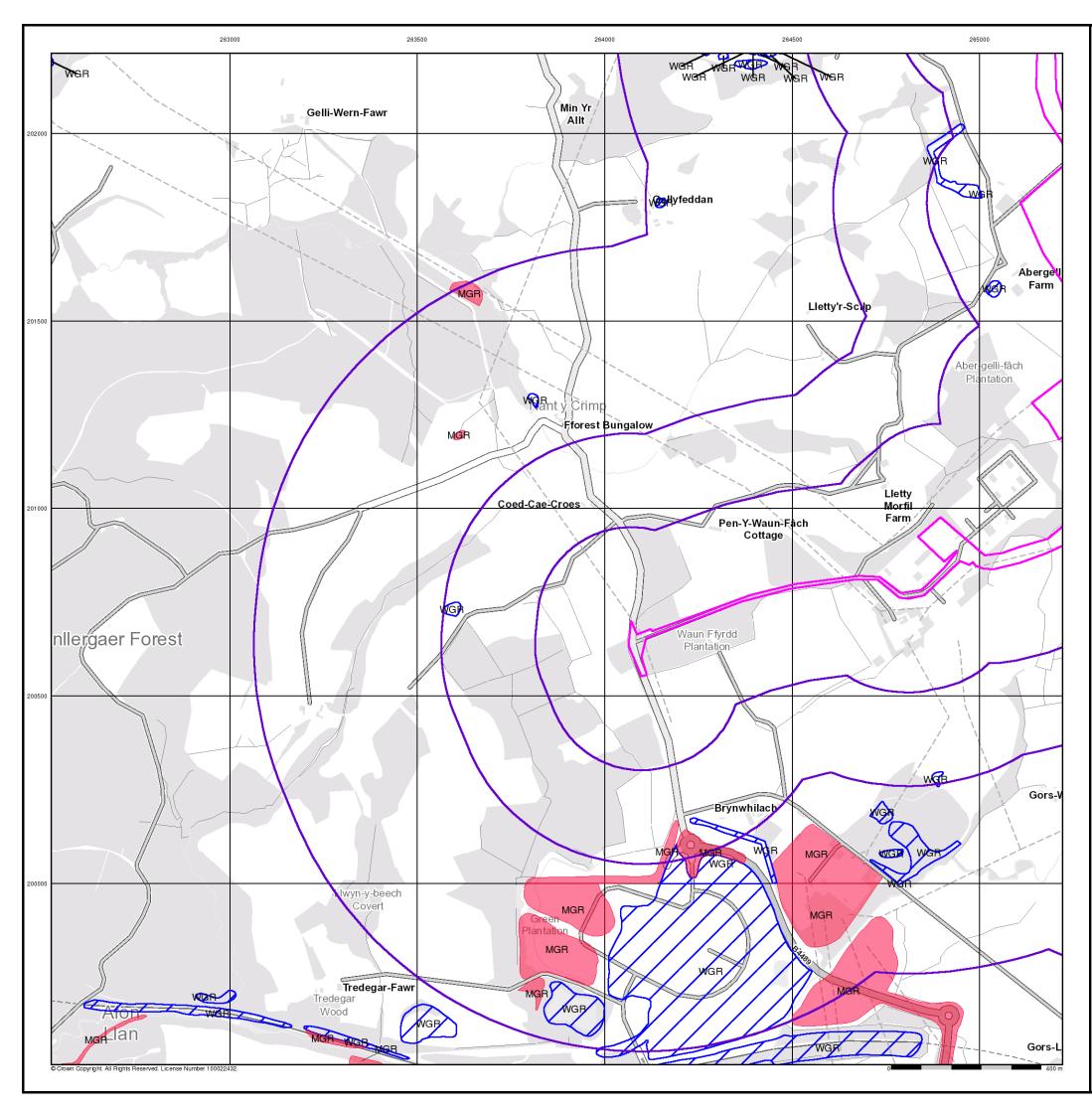
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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Artificial Ground and Landslip

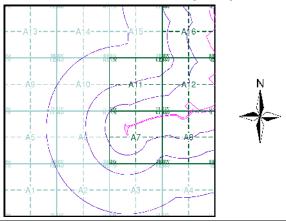
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground areas where the ground has been cut away such as guarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.
 Landscaped ground areas where the surface has been
- Landscaped ground areas where the surface has been reshaped.
- Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

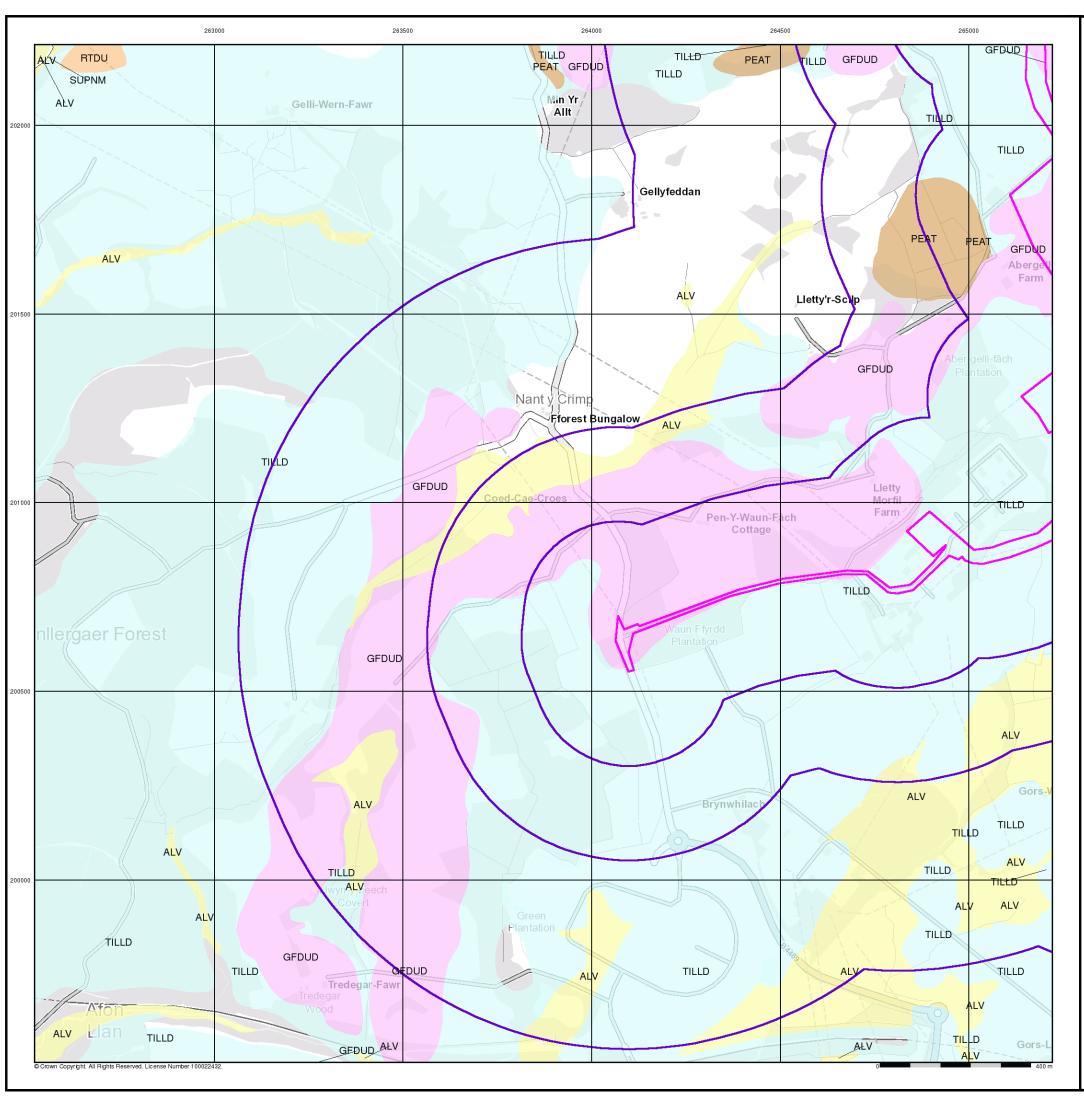
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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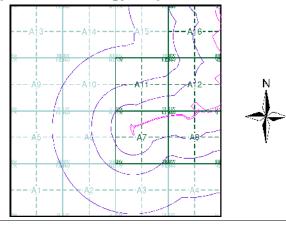
Superficial Geology

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

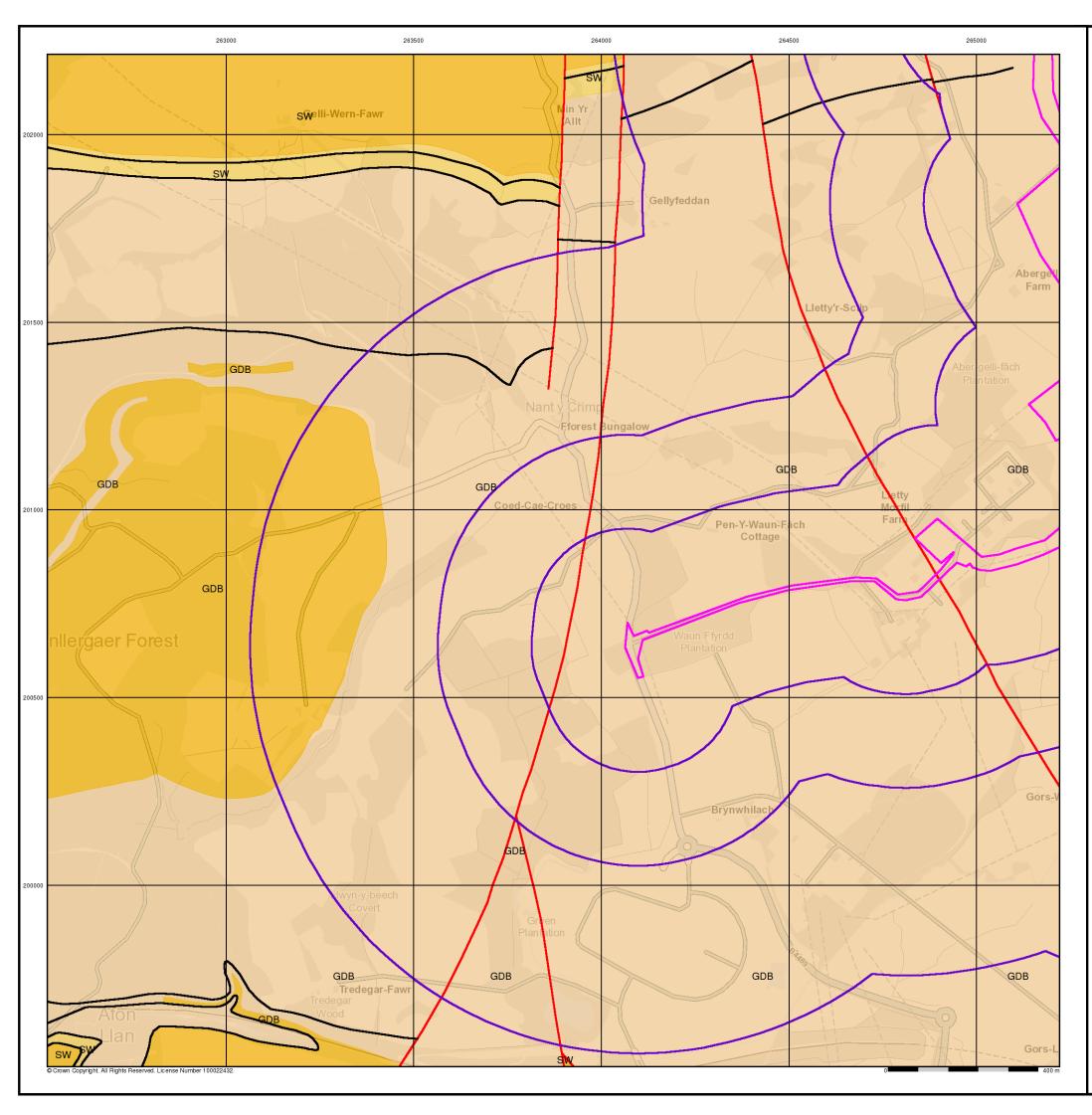
Site Details

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Bedrock and Faults

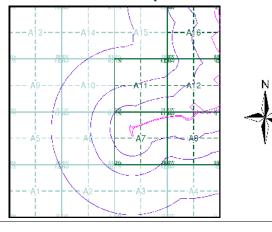
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

Bedrock and Faults Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): Search Buffer (m): 32.39 1000

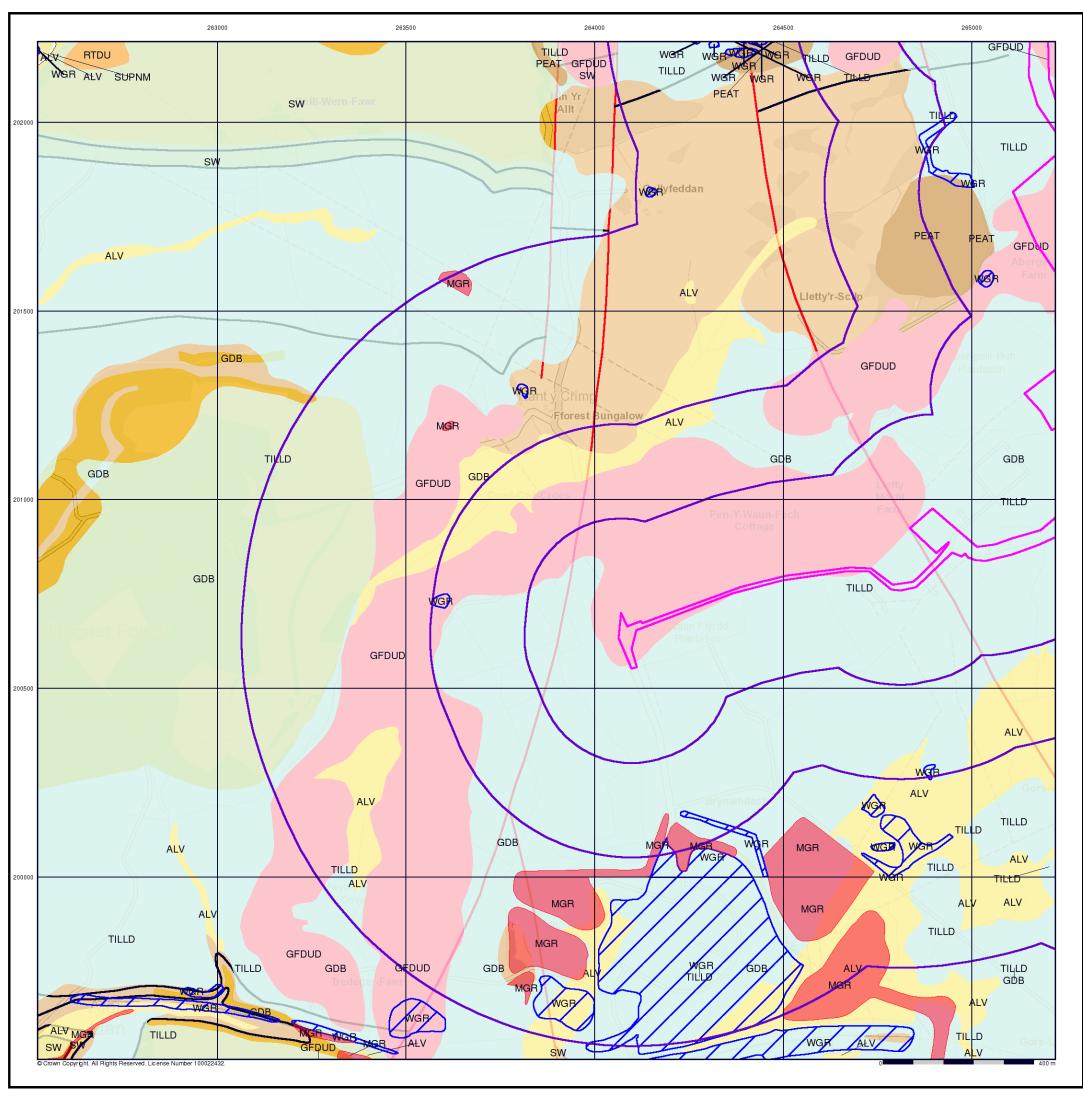
Site Details

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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

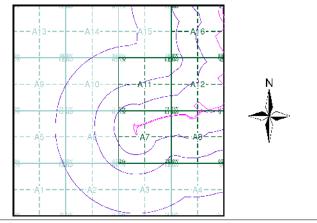
Additional Information

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details

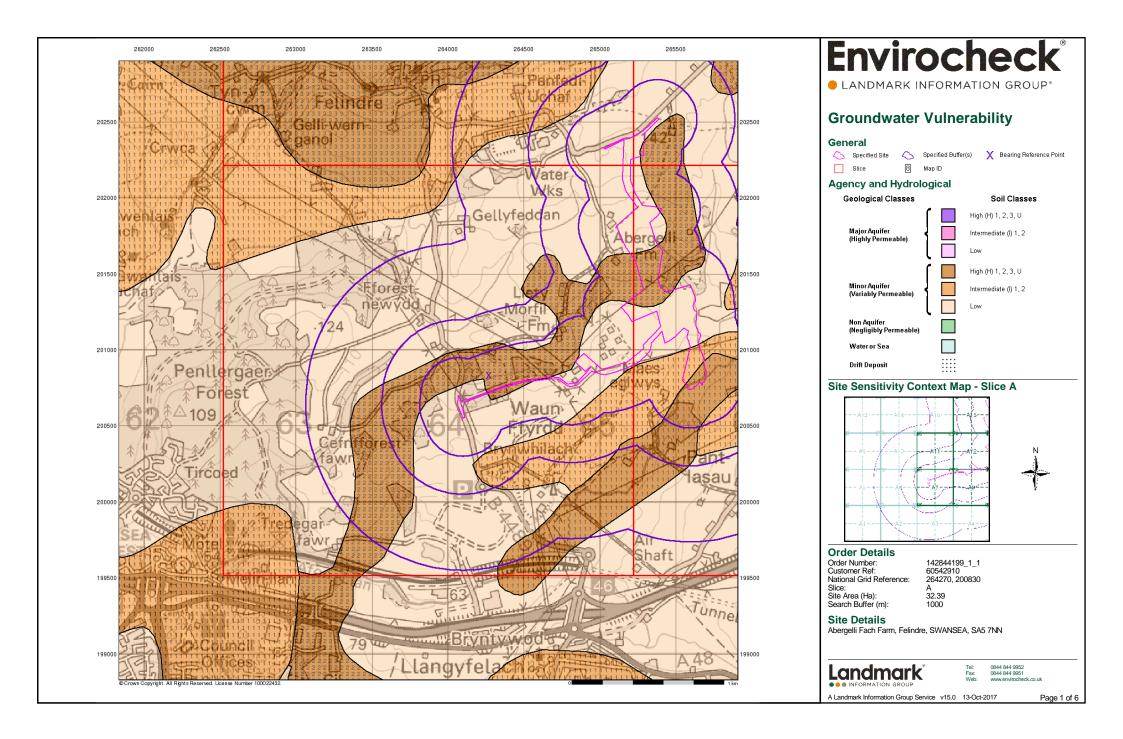
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

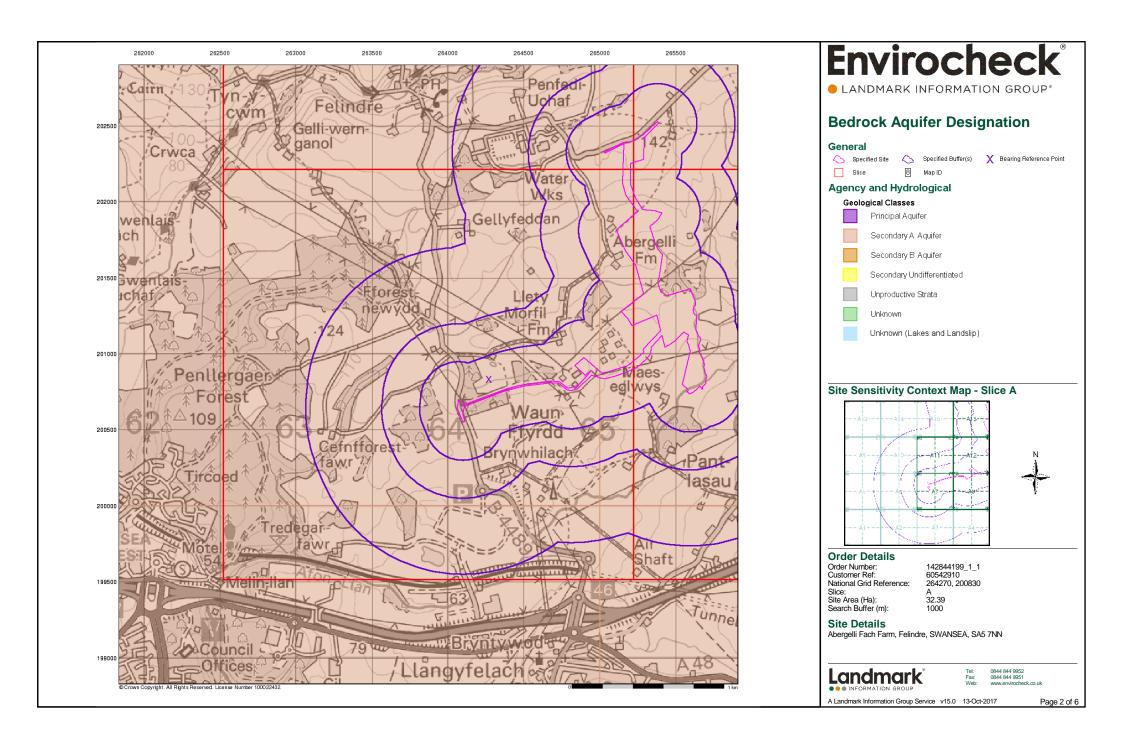


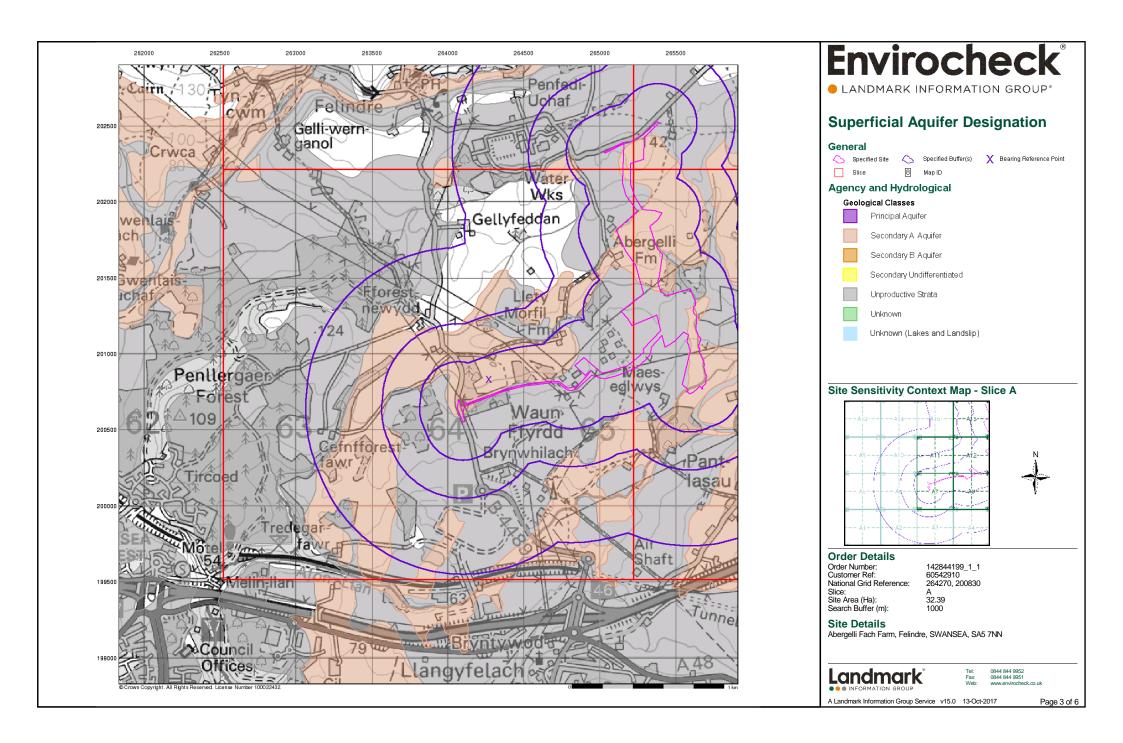
0844 844 9951 www.envirocheck.co.uk

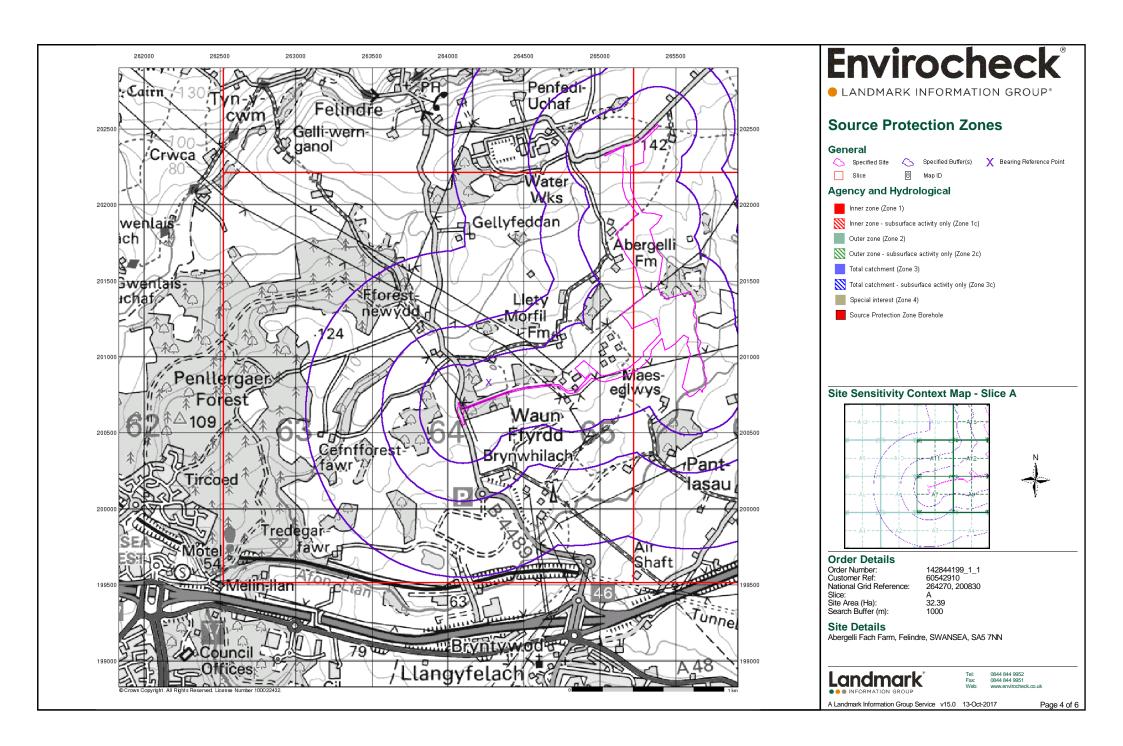
A Landmark Information Group Service v50.0 13-Oct-2017

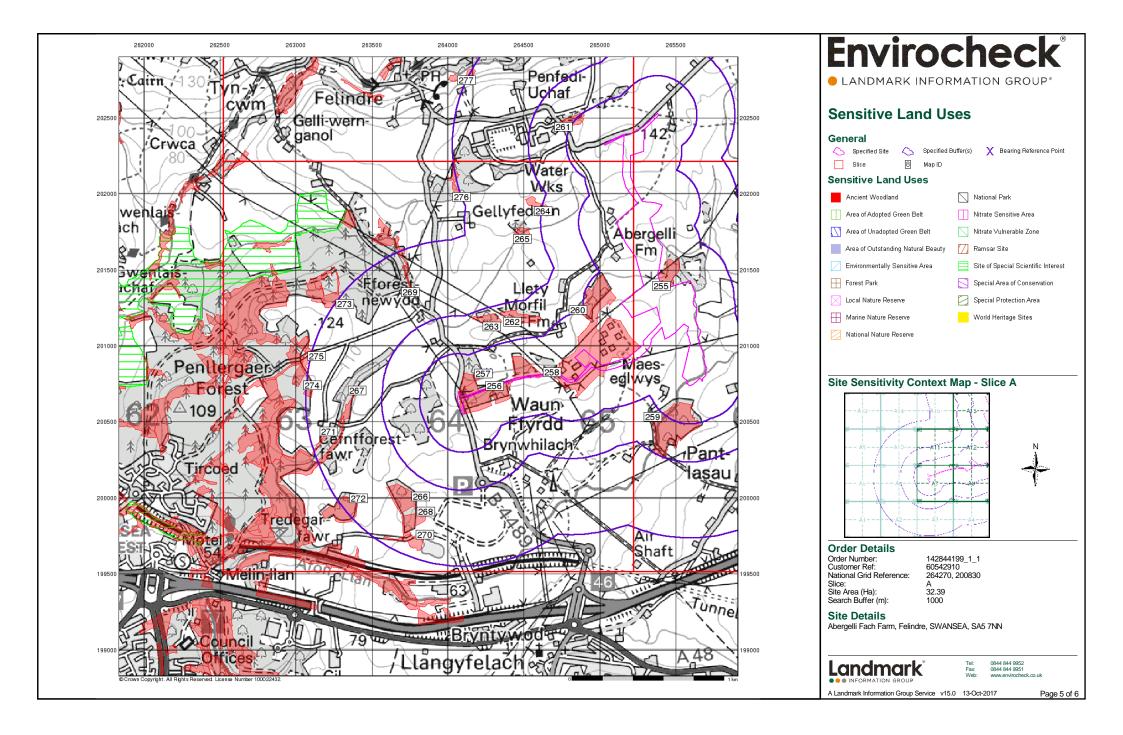
Page 5 of 5

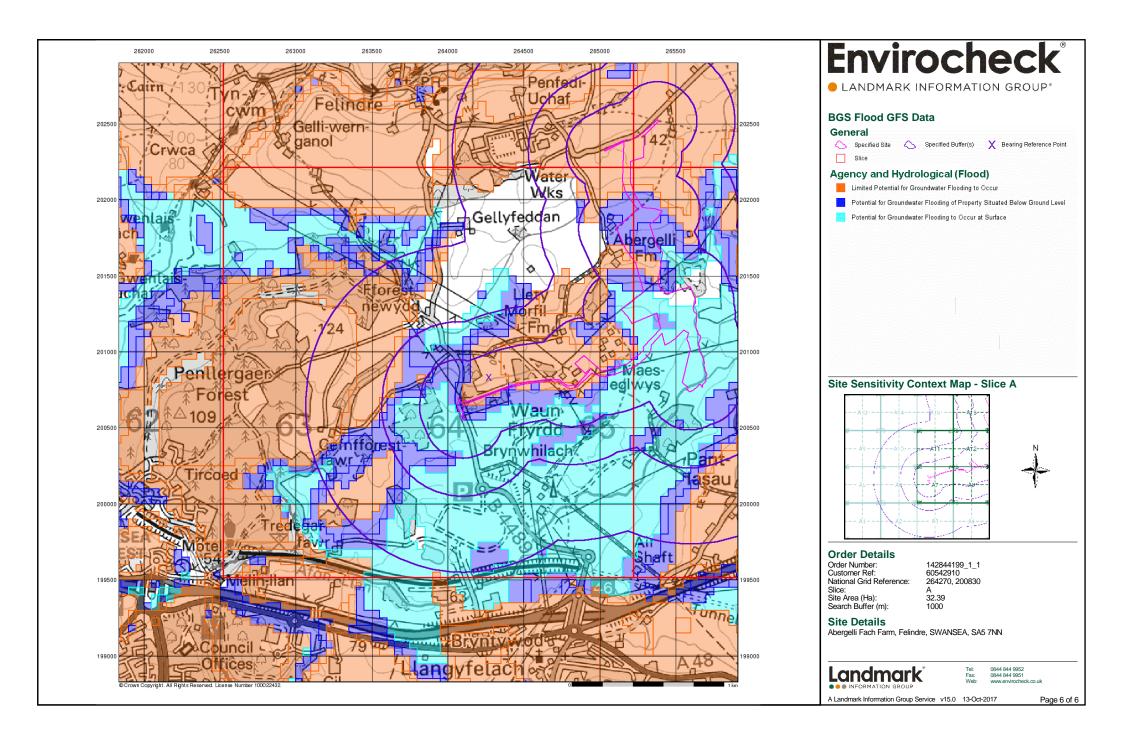














Envirocheck® Report:

Datasheet

Order Details:

Order Number:

142844199_1_1

Customer Reference:

60542910

National Grid Reference:

264270, 200830

Slice:

Α

Site Area (Ha):

32.39

Search Buffer (m):

1000

Site Details:

Abergelli Fach Farm Felindre SWANSEA SA5 7NN

Client Details:

MS J Foy Aecom Infrastructure & Environment UK Ltd Longcross Court 47 Newport Road Cardiff CF24 0AD

Prepared For:

Abergelli Power Station Project







Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	36
Hazardous Substances	-
Geological	40
Industrial Land Use	47
Sensitive Land Use	48
Data Currency	50
Data Suppliers	55
Useful Contacts	56

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 Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological 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 v53.0



Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 8	2	1		8
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 10		2		
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 11	Yes			
Pollution Incidents to Controlled Waters	pg 11				2
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 11		1		
River Quality Biology Sampling Points					
Substantiated Pollution Incident Register					
River Quality Chemistry Sampling Points					
Water Abstractions	pg 11		1		2
Water Industry Act Referrals					
Groundwater Vulnerability	pg 12	Yes	n/a	n/a	n/a
Drift Deposits	pg 12	2	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 12	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 13	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 13	Yes		n/a	n/a
Flooding from Rivers or Sea without Defences	pg 13	Yes		n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 13	9	52	61	75



Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites	pg 36			1	
Historical Landfill Sites	pg 36		1	3	
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)	pg 37		2		
Licensed Waste Management Facilities (Locations)	pg 37		2		
Local Authority Landfill Coverage	pg 37	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 37			1	4
Potentially Infilled Land (Water)	pg 38		1	5	3
Registered Landfill Sites	pg 38		2	2	
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					



Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 40	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 40	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 42		1	2	4
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages	pg 44			Yes	
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 44	Yes	n/a	n/a	n/a
Mining Instability	pg 44	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 44	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 44	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 45	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 45	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 45	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 47				1
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 47			1	
Points of Interest - Public Infrastructure	pg 47			1	4
Points of Interest - Recreational and Environmental					
Gas Pipelines	pg 47	3			
Underground Electrical Cables					



Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 48	4	3	3	13
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
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					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	/el (E)	0	1	265350 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	vel A7NW (SW)	0	1	264100 200650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	264250 200650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	265100 200900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	vel A7NW	0	1	264100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A7NE	0	1	200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A7NE	0	1	264350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(SE)	0	1	265000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	200750 264350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	265200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E) A8NW	0	1	200950 264600 200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	264400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	0	1	200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	264550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	0	1	264350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E) A8NE	0	1	264950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	265000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	200832 264250 200600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S) A8NE (E)	0	1	200600 265000 200850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	vel A8NE	0	1	265050 200850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E) A16SE (NE)	0	1	265150 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	265350 201600



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A16SE (NE)	0	1	265050 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A16NE (NE)	0	1	265150 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NE)	0	1	265050 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A16SE (NE)	0	1	265050 201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	0	1	265300 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A16SE (NE)	0	1	265000 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(NE)	0	1	265400 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A16SE (NE)	0	1	265200 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A16SE (NE)	0	1	265200 201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (NE)	0	1	265050 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	0	1	265350 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	0	1	265400 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A16NE (NE)	0	1	265000 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	1	1	265450 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (E)	5	1	265050 200900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (E)	9	1	264750 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NE (SE)	11	1	264400 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (E)	11	1	265000 200900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (E)	13	1	265100 200950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (W)	16	1	264100 200832
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NE)	21	1	265400 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A16NE (NE)	22	1	265050 202000



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15NE (N)	29	1	264269 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi		37	1	265150 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi		38	1	265000 200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		40	1	265050 201200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el A8NE	41	1	264950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	41	1	265550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		43	1	201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	(E) el A12NE (NE)	45	1	201050 265050 201300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		46	1	201300 265100 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi		46	1	264900 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi		48	1	265450 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi	el A7NE	54	1	264269 200650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NE)	58	1	265350 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi	el A8NW	59	1	264750 200700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (E)	71	1	265000 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi		74	1	265700 200700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi	el A12SE (E)	75	1	264900 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Levi		80	1	265050 201350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (NE)	90	1	265000 201250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (E)	92	1	264950 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		95	1	265000 201200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		105	1	264150 200832



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	113	1	266100 200832
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A16SE (NE)	115	1	264900 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	117	1	265500 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (NE)	121	1	265000 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SW (NE)	125	1	264850 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A16NE (NE)	132	1	265000 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	139	1	265550 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	139	1	265550 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NW (NE)	140	1	264600 201250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NE (E)	154	1	264950 200650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SE (NE)	162	1	264900 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	168	1	265550 201750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12NE (NE)	172	1	265000 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12SW (NE)	181	1	264800 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	192	1	265500 200550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8SW (SE)	195	1	264600 200450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7NW (W)	198	1	263900 200832
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	199	1	265800 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (S)	202	1	264100 200350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (SW)	208	1	264050 200350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	212	1	265850 200650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A16SW (NE)	212	1	264850 201850



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NE (W)	220	1	263850 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NE (E)	224	1	265000 200600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (SW)	225	1	264000 200350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	227	1	265900 200700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	228	1	265650 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	241	1	265650 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (W)	242	1	263850 200832
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A16NW (NE)	249	1	264850 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	254	1	265900 200650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N)	255	1	265000 202750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (S)	257	1	264050 200300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	264	1	265850 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (SW)	271	1	264000 200300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SE)	272	1	265700 200200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	291	1	265900 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(NE)	291	1	265700 201900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	292	1	265700 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	292	1	265700 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8SE (E)	304	1	265200 200450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	311	1	265900 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A7SW (SW)	318	1	264000 200250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (N)	319	1	264269 201100



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(N)	324	1	265050 202800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (N)	329	1	264200 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NE)	330	1	265250 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	339	1	265700 202100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	341	1	265750 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	343	1	265650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A11SW (NW)	346	1	200400 264100 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	346	1	265200 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (NW)	347	1	264150 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A15NW (N)	347	1	263900 201900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(NE)	349	1	265750 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	351	1	265900 200500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (N)	357	1	264400 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	364	1	265850 200450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A6NE (W)	365	1	263700 200700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(N)	367	1	265100 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SE (N)	368	1	264269 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	371	1	265750 200400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NE)	372	1	265300 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A11SW (N)	376	1	264200 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	379	1	265250 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (W)	384	1	263700 200832



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	390	1	265800 200400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	391	1	265900 200450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NE)	391	1	265800 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	l (NE)	392	1	265200 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	l (NE)	398	1	265800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	ıl (E)	403	1	202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(NE)	412	1	265150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	A6NE (W)	415	1	202900 263650 200700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	418	1	200700 265750 200350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N)	423	1	265000 202800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NE)	424	1	265750 202250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N)	436	1	265000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		447	1	202900 263700 200350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		450	1	264450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE)	450	1	201250 265800 202150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	451	1	265700 200300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (W)	464	1	263600 200700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		466	1	263600 200600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10SE (W)	466	1	263650 200900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		472	1	263650 200400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		483	1	263800 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		488	1	265400 200050



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater I	Flooding Susceptibility				
	Flooding Type:	Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	492	1	265650 200250
	BGS Groundwater I	Flooding Susceptibility				
	Flooding Type:	Limited Potential for Groundwater Flooding to Occur	A6SE (SW)	492	1	263650 200350
	Discharge Consent	S				
1	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Danny Leighton Sewage Disposal Works - Other Nat'L Grid Compressor Sta Swansea, Nat'L Grid Newb'D Compressor Sta, Felindre, Sa5 7lu Natural Resources Wales Not Supplied Bp0370301 1 2nd November 2007 2nd November 2007 2dth August 2010 Sewage Discharges - Final/Treated Effluent - Not Water Company Freshwater Stream/River Unnamed Land Drain Surrendered under EPR 2010 Located by supplier to within 10m	A12SE (E)	0	2	265052 200870
	Discharge Consents	S				
2	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status:	Danny Leighton Production & Distribution Of Electricity National Grid Site Llangyfelach, Felindre, Swansea Natural Resources Wales Not Supplied Bp0361101 1 22nd December 2006 22nd December 2006 16th June 2011 Trade Discharges - Site Drainage Freshwater Stream/River Afon Llan Surrendered under EPR 2010 Located by supplier to within 10m	A12SE (E)	0	2	265183 200917
	Discharge Consent	S				
3	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Humphreys B Domestic Property (Single) Penywaun Fach Cottages Felindre Swa, Felindre Swansea. Natural Resources Wales River Loughor Bp0108201 1 14th November 1988 14th November 1988 10th October 1994 Unspecified Not Supplied To Land Consent expired Located by supplier to within 10m	A11SE (NE)	191	2	264330 200950
	Discharge Consent	s				
4	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Watkins W Undefined Or Other Brynwilach Farm Llangyfelach Swanse, Llangyfelach Swansea Natural Resources Wales River Loughor Bp0071501 1 2nd December 1987 2nd December 1987 1st August 1994 Unspecified Not Supplied To Land Consent expired Located by supplier to within 10m	A7SE (S)	505	2	264470 200200



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Type: Status: Positional Accuracy:	Welsh Development Agency Domestic Property (Single) Fforest Newydd Felindre Road Llangy, Felindre Road Llangyfelach Natural Resources Wales River Loughor BP0238701 1 1st August 1994 1st August 1994 Not Supplied Unspecified Freshwater Stream/River Nant Y Crimp New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 100m	A10NE (NW)	574	2	263830 201220
6	-	The Head Of Estates Industrial Waste Landfills Former Tip Area Felindre Tinplate, Felindre Tinplate Site, Felindre, Swansea Natural Resources Wales Not Supplied Bp0298501 1 30th April 2003 30th April 2003 Not Supplied Waste Site - Industrial Landfill Tip Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A4NW (SE)	715	2	264878 200048
6	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	The Head Of Estates Industrial Waste Landfills Former Tip Area Felindre Tinplate, Felindre Tinplate Site, Felindre, Swansea Natural Resources Wales Not Supplied Bp0298501 1 30th April 2003 30th April 2003 Not Supplied Waste Site - Surface Water Monitoring Point - Landfill Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A4NW (SE)	715	2	264878 200048
6	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Senior Project Manager Industrial Waste Landfills Former Tip Area Felindre Tinplate, Felindre Tinplate Site, Felindre, Swansea Natural Resources Wales Not Supplied Bp0298501 1 30th April 2003 30th April 2003 Not Supplied Waste Site - Surface Water Monitoring Point - Landfill Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A4NW (SE)	715	2	264878 200048



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Senior Project Manager Industrial Waste Landfills Former Tip Area Felindre Tinplate, Felindre Tinplate Site, Felindre, Swansea Natural Resources Wales Not Supplied Bp0298501 1 30th April 2003 30th April 2003 Not Supplied Waste Site - Industrial Landfill Tip Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A4NW (SE)	715	2	264878 200048
7	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	The Site Service Delivery Manager Production & Distribution Of Electricity Swansea North Substation Gorsllan, Llangyfelach, Swansea, Sa5 7pd Natural Resources Wales Not Supplied Bp0308001 1 4th July 2003 4th July 2003 Not Supplied Trade Discharges - Site Drainage Freshwater Stream/River The Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A4NW (SE)	787	2	264787 199973
8	,	National Grid Company Plc. Production & Distribution Of Electricity Swansea North Sub Stn. Adj. Natural Resources Wales River Loughor Bg0021701 1 27th February 1970 27th February 1970 6th June 1994 Trade Effluent Not Supplied River Llan Consent expired Located by supplier to within 10m	A4SW (SE)	912	2	264750 199850
9	Name: Location: Authority: Permit Reference: Original Permit Ref: Effective Date: Status: Application Type: App. Sub Type: Positional Accuracy: Activity Code:	Prevention And Control National Grid Gas Plc Felindre, Gas Compressor Station, Gas Compressor Station, Heol Llangyfelach,Felindre,Swansea, SA5 7LX, West Glamorgan, SA5 7LX Natural Resources Wales WP3230TU Rp3232Id 29th March 2010 Effective Variation Minor Located by supplier to within 100m 1.1 A(1) (A) Combustion; Any Fuel Greater Or Equal To 50Mw Y	A12SE (E)	47	2	264950 200990



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	Name: Location: Authority: Permit Reference: Original Permit Ref: Effective Date: Status: Application Type: App. Sub Type: Positional Accuracy: Activity Code:	Prevention And Control National Grid Gas Plc Gas Compressor Station, Heol Llangyfelach, Felindre, Swansea, West Glamorgan, SA5 7LX Natural Resources Wales RP3232LD Rp3232ld 2nd July 2007 Superseded By Variation Application New Manually positioned to the road within the address or location 1.1 A(1) (A) Combustion; Any Fuel Greater Or Equal To 50Mw Y	A7NW (W)	126	2	264096 200822
	Nearest Surface Wa	ter Feature	(NE)	0	-	265246 201941
11	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters Not Given Swansea North Electricity Sub-Station, SWANSEA Environment Agency, Welsh Region Mud/Clay/Soil Accidental Spillage/Leakage 3rd December 1996 30660 Not Given Not Given Not Given Leakage Category 3 - Minor Incident Located by supplier to within 100m	A4NW (SE)	660	3	264800 200100
12	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters Industrial Premises Steel Works, FELINDRE Environment Agency, Welsh Region Algae Not Supplied 9th June 1995 24511 Not Given Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m	A4SW (S)	900	3	264600 199800
	River Quality Name: GQA Grade: Reach: Estimated Distance (km): Flow Rate: Flow Type: Year:	Llan River Quality B Cuckoo Mill - Felin-Wen 3.2 Flow less than 0.31 cumecs River 2000	A4NW (SE)	30	3	264814 199929
13	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr W Llewellyn 22/59/4/0027 100 Well In Enclosure 481 At Abergelli Farm, Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well In Enclosure 481 At Abergelli Farm; 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m	A16SE (NE)	56	3	265100 201700



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions					
14	Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Welsh Development Agency 22/59/4/0011 100 Spring At Fforest Newydd Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring At Fforest Newydd 01 January 31 December 26th March 1999 Not Supplied Located by supplier to within 100m	A10NE (NW)	645	3	263790 201280
15	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Brig Sir C Venables-Llewellyn Bart 22/59/4/0016 100 Spring In Field 830,Cefn Fforest Fawr Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Field 830;Cefn Fforest Fawr Farm 01 January 31 December 1st December 1st December 1965 Not Supplied Located by supplier to within 100m	A6SW (W)	842	3	263250 200420
	Groundwater Vulne Soil Classification: Map Sheet: Scale:	Soils of Low Leaching Potential - Soils in which pollutants 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 elsewhere in the catchment Sheet 35 West Glamorgan 1:100,000	A7NE (SW)	0	3	264236 200808
	Groundwater Vulne Soil Classification: Map Sheet: Scale:	Soils of High Leaching Potential (H2) - Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential Sheet 35 West Glamorgan 1:100,000	A7NE (N)	0	3	264269 200832
	Groundwater Vulne	·				
	Soil Classification: Map Sheet: Scale:	Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater Sheet 35 West Glamorgan 1:100,000	A4NW (SE)	0	3	264843 200090
	Groundwater Vulne Soil Classification: Map Sheet: Scale:	Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Sheet 35 West Glamorgan 1:100,000	A7SE (S)	0	3	264397 200366
	Drift Deposits Drift Deposit: Map Sheet: Scale:	Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000	A7NE (SE)	0	3	264319 200743
	Drift Deposits Drift Deposit: Map Sheet: Scale:	Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000	A11NW (NW)	0	3	263873 201390
	Bedrock Aquifer De Aquifer Designation:	esignations Secondary Aquifer - A	A7NE (N)	0	1	264269 200832



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A8NE (E)	0	1	265000 200832
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A12NE (NE)	0	1	265000 201475
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A8SE (SE)	0	1	265000 200477
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A7NE (N)	0	1	264269 200832
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A8NE (E)	0	1	265000 200832
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	A7NE (SE)	0	1	264316 200739
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A4NW (SE)	0	2	264838 200092
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A4NW (SE)	0	2	264824 200056
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
16	Water Network Lines Watercourse Form: Inland river Watercourse Length: 158.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NE (E)	0	4	265021 200809
17	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 101.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SE (E)	0	4	265082 200925
18	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 388.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12NE (NE)	0	4	265100 201494
19	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 396.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NE (E)	0	4	265156 200747



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 132.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	(NE)	0	4	265246 201941
21	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 123.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SE (E)	0	4	265180 200919
22	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NW (SW)	0	4	264075 200691
23	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A16SE (NE)	0	4	265107 201807
24	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 329.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NW (E)	0	4	264640 200799
25	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 545.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NW (SW)	1	4	264067 200682
26	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 290.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SE (NE)	2	4	265098 201181
27	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 294.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NE (SW)	2	4	264231 200817
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 202.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NE (S)	2	4	264295 200614



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NE (SE)	3	4	264394 200726
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NW (E)	8	4	264603 200786
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A8NW (E)	15	4	264603 200786
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 234.7 Watercourse Level: On ground surface True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A12SE (E)	35	4	264920 201094
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SW (E)	45	4	264867 201011
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 24.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A12SW (E)	45	4	264869 201012
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NE (SE)	53	4	264395 200705
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 159.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NE (SE)	59	4	264396 200699
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A12SW (E)	63	4	264873 201034



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NW (E)	71	4	264797 200622
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A12SE (E)	79	4	264885 201053
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SE (NE)	99	4	265052 201183
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.9 Watercourse Level: On ground surface True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SE (NE)	99	4	265077 201185
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 220.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NW (SW)	101	4	263935 200688
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 201.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NE (S)	105	4	264297 200613
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 397.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SW (NE)	113	4	264801 201178
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SE (E)	113	4	264910 201087
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 161.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SE (E)	122	4	264920 201094



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 234.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A16SE (NE)	124	4	264965 201642
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 237.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12NW (NE)	131	4	264849 201234
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 93.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NW (SE)	138	4	264730 200559
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 286.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SW (SW)	151	4	263945 200497
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 87.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NW (SW)	158	4	263912 200591
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 156.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NW (SW)	158	4	263885 200664
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 95.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NW (SW)	177	4	263888 200622
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NW (W)	178	4	263903 200761
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 61.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SW (SW)	180	4	263921 200510



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7NW (W)	182	4	263901 200766
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A8NW (SE)	193	4	264708 200580
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A8SW (SE)	198	4	264548 200490
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 106.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A16SE (NE)	200	4	264965 201642
60	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 137.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A16SE (NE)	200	4	264924 201739
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 116.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A16SW (NE)	203	4	264855 201607
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NW (SE)	211	4	264730 200559
63	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NW (SE)	216	4	264699 200545
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 122.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12NW (NE)	227	4	264863 201531



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	232	4	263840 200727
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	234	4	263839 200730
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NW (SE)	234	4	264694 200544
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 201.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (SE)	237	4	264518 200457
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NE (E)	238	4	265199 200616
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6SE (SW)	244	4	263861 200486
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A16SW (NE)	245	4	264869 201865
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A16SW (NE)	247	4	264868 201867
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 47.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	248	4	263827 200750



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	248	4	263827 200750
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SW (S)	248	4	264119 200305
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A16SW (NE)	250	4	264866 201873
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 323.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A7SW (S)	251	4	264102 200301
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 77.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A16SW (NE)	251	4	264803 201828
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 132.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12SW (NE)	253	4	264599 201093
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (SW)	267	4	263804 200577
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (SW)	271	4	263800 200576
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 67.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NE (E)	273	4	265196 200597



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83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NE (E)	273	4	265177 200571
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 97.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NE (E)	292	4	265177 200571
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 88.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8NE (E)	294	4	265097 200550
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 249.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A16SW (NE)	297	4	264855 201607
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (S)	303	4	264397 200439
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 441.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A15SE (N)	307	4	264435 201627
89	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 63.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (S)	311	4	264401 200433
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A7SE (SE)	316	4	264523 200467
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 77.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A12NW (NE)	318	4	264863 201531



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92	Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (SW)	321	4	263753 200558
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 22.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (SW)	321	4	263753 200558
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A7SE (SE)	322	4	264518 200459
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 76.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (SE)	324	4	264506 200450
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6SE (SW)	332	4	263753 200521
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 76.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6SE (SW)	333	4	263753 200517
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 156.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12NW (NE)	341	4	264774 201411
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (SW)	343	4	263731 200552
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 147.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (SW)	343	4	263723 200569



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 469.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6SE (SW)	346	4	263767 200445
	OS Water Network Lines				
102	Watercourse Form: Inland river Watercourse Length: 2.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (SE)	349	4	264456 200413
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 138.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (SE)	349	4	264456 200413
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (SE)	350	4	264453 200411
105	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 107.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8SE (E)	355	4	265173 200475
106	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8SE (SE)	381	4	265118 200465
107	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 492.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8SE (SE)	382	4	265118 200465
108	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (SW)	387	4	263689 200540
109	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A12NW (NE)	389	4	264773 201408



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
110	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 136.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (SW)	391	4	263686 200538
111	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 838.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Crimp Catchment Name: Loughor Primacy: 1	A11SW (NW)	394	4	264107 201115
112	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	394	4	264123 200159
113	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	396	4	264181 200165
114	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 90.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	399	4	264180 200162
115	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	400	4	264124 200153
116	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	416	4	263651 200675
117	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	418	4	263648 200678
118	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 136.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	421	4	263650 200717



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
119	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 840.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	A4NE (SE)	426	4	264926 200065
120	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 73.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11SW (N)	456	4	264187 201182
121	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 692.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10SE (W)	457	4	263733 201011
122	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.4 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (S)	457	4	264476 200278
123	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (S)	459	4	264471 200270
124	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 56.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	460	4	264134 200094
125	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 185.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Crimp Catchment Name: Loughor Primacy: 1	A11SW (N)	464	4	264165 201180
126	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	468	4	264079 200084
127	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 25.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (S)	468	4	264455 200238



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
128	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 273.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10SE (NW)	469	4	263797 201081
129	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 75.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	469	4	264075 200084
130	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 30.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A7SE (S)	478	4	264445 200214
131	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	489	4	263580 200568
132	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	492	4	263576 200572
133	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 88.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (SW)	492	4	263949 200082
134	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6NE (W)	493	4	263572 200608
135	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NE (S)	493	4	264437 200186
136	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	494	4	264002 200068



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
137	Water Network Lines Watercourse Form: Inland river Watercourse Length: 46.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	495	4	264000 200067
138	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 352.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NE (S)	512	4	264403 200134
139	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A3NW (SW)	521	4	263874 200082
140	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	532	4	263965 200037
141	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 271.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NW (S)	535	4	263960 200036
142	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3NE (S)	538	4	264415 200112
143	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 163.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NE (N)	538	4	264431 201409
144	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	572	4	263823 200051
145	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 71.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A8SE (SE)	576	4	265110 200253



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
146	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 192.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	581	4	263672 200157
147	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NE (N)	589	4	264248 201341
148	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 40.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A2NE (SW)	606	4	263814 200017
149	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	606	4	263814 200017
150	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	612	4	263781 200029
151	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 7.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NE (N)	617	4	264429 201410
152	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 137.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NE (N)	620	4	264297 201392
153	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 115.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NE (N)	623	4	264281 201383
154	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 17.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NE (N)	623	4	264281 201383



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
155	Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	626	4	263776 200016
156	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 268.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NE (N)	627	4	264297 201392
157	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 61.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	650	4	263763 199995
158	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10NE (NW)	680	4	263706 201293
159	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 303.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	690	4	263820 199921
160	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	690	4	263790 199935
161	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 20.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	690	4	263784 199938
162	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 27.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	690	4	263820 199921
163	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10NE (NW)	697	4	263706 201293



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
164	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NW (NW)	700	4	263921 201383
165	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A15SE (N)	701	4	264432 201623
166	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NE (SW)	703	4	263764 199933
167	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 605.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	A4NW (SE)	704	4	264882 200046
168	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 216.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10NE (NW)	718	4	263703 201316
169	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NE (N)	737	4	264265 201497
170	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 89.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A11NE (N)	741	4	264264 201500
171	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 18.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6SW (W)	742	4	263331 200520
172	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 157.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10SW (W)	745	4	263468 201143



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
173	Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10NE (NW)	750	4	263539 201228
174	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 64.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6SW (W)	760	4	263314 200513
175	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A6SW (W)	760	4	263314 200513
176	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A6SW (W)	781	4	263305 200452
177	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 211.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	A6SW (W)	783	4	263304 200447
178	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6SW (W)	785	4	263301 200452
179	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 204.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A6SW (W)	786	4	263301 200447
180	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 264.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A15NW (N)	795	4	264056 201939
181	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 159.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NW (SW)	812	4	263389 200156



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
182	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10NW (NW)	816	4	263491 201274
183	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2SE (SW)	825	4	263766 199797
184	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A15SE (N)	828	4	264248 201586
185	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 206.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A4NW (SE)	829	4	264779 199931
186	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 43.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A15SE (N)	832	4	264249 201591
187	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 76.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3SE (S)	839	4	264457 199791
188	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10NW (NW)	863	4	263492 201340
189	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 402.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10NW (NW)	871	4	263491 201349
190	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 440.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A4SE (SE)	871	4	264924 199835



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
191	OS Water Network Lines Watercourse Form: Inland river Watercourse Level: 59.8 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3SE (S)	915	4	264484 199720
192	OS Water Network Lines Watercourse Form: Lake Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NW (SW)	916	4	263369 199998
193	OS Water Network Lines Watercourse Form: Lake Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3SW (S)	917	4	263941 199649
194	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 115.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A5SE (W)	927	4	263162 200422
195	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 175.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A10NE (NW)	929	4	263645 201525
196	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 74.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NW (SW)	940	4	263332 200008
197	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 356.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A5SE (SW)	945	4	263185 200286
198	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 419.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2NW (SW)	951	4	263380 199929
199	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3SW (S)	952	4	263932 199614



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
200	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 97.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Crimp Catchment Name: Loughor Primacy: 1	A14SE (NW)	974	4	263675 201589
201	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	A3SE (S)	975	4	264502 199663
202	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A15SW (N)	981	4	264129 201823
203	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A15SW (N)	984	4	264126 201828
204	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 128.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A15SW (N)	987	4	264123 201832
205	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 375.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3SE (S)	992	4	264480 199633
206	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	A3SE (S)	995	4	264482 199632
207	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 205.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A14SE (NW)	997	4	263818 201664
208	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	A3SE (S)	998	4	264480 199629



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
209	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 172.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A3SE (S)	998	4	264470 199624
210	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 203.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Gors Catchment Name: Loughor Primacy: 1	A3SE (S)	998	4	264480 199629
211	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 290.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	A2SE (S)	999	4	263868 199580
212	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 108.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	A3SE (S)	1000	4	264476 199625

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
213	BGS Recorded Lan Site Name: Location: Authority: Ground Water: Surface Water: Geology: Positional Accuracy: Boundary Accuracy:	Gorswen Farm Pontdassau, LLANGYFELACH, Glamorgan British Geological Survey, National Geoscience Information Service No threat to ground water Threat to surface water N/A Positioned by the supplier	A8NE (E)	300	-	265177 200550
214	Historical Landfill S Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:	Abergelli Fach Farm Landfill Extension Felindre Abergelli Fach Farm Landfill Extension Not Supplied As Supplied	A16SE (NE)	92	2	265002 201603
215	Historical Landfill S 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:	Not Supplied Pontdassau, Llangyfelach, Glamorgan Gorswen Farm Not Supplied As Supplied	A8NE (E)	294	2	265177 200568
216	Historical Landfill S 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:	British Steel Pant-Iasau, Swansea British Steel Corporation, Velindre Not Supplied As Supplied EAHLD14861 31st December 1980 31st May 1994 Deposited Waste included Industrial and Household Waste 0 Not Supplied 6855/0005 Not Supplied Not Supplied	A8SW (SE)	309	2	264757 200273
217	Historical Landfill S 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:	3MS Felindre Gors Wen Not Supplied As Supplied	A8SE (SE)	402	2	265156 200403





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
218	Name: Licence Number: Location: Licence Holder: Authority: Site Category: Max Input Rate: Licence Status: Issued:	Abergelli Fach Farm Landfill Boundaries) Abergelli Fach Farm Landfill Extension 34165 Abergelli Fach Farm, Felindre, SA5 7NN Llewellyn William Bryn Natural Resources Wales Landfills Taking Non-biodegradeable Wastes (Not Construction) Not Supplied Inactive 6th September 1999 Positioned by the supplier As Supplied	A16SE (NE)	92	2	265002 201603
219	Name: Licence Number: Location: Licence Holder: Authority: Site Category: Max Input Rate: Licence Status: Issued:	Abergelli Fach Farm 34108 Abergelli Fach Farm, Felindre, Swansea, SA5 7NN Llewellyn Bryn Natural Resources Wales Landfills Taking Non-biodegradeable Wastes (Not Construction) Not Supplied Closure 29th September 1994 Positioned by the supplier As Supplied	A16SW (NE)	121	2	264870 201864
220	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference:	nagement Facilities (Locations) 34165 Abergelli Fach Farm, Felindre, SA5 7NN Llewellyn William Bryn Not Supplied Natural Resources Wales Landfills Taking Non-biodegradeable Wastes (Not Construction) Expired 6th September 1999 10th October 2003 Not Supplied Located by supplier to within 10m	A16SE (NE)	90	2	265020 201808
221	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference:	nagement Facilities (Locations) 34108 Abergelli Fach Farm, Felindre, Swansea, SA5 7NN Llewellyn Bryn Not Supplied Natural Resources Wales Landfills Taking Non-biodegradeable Wastes (Not Construction) Closed 29th September 1994 Not Supplied Located by supplier to within 10m	A16NE (NE)	121	2	265014 201890
	Local Authority Lan Name:	dfill Coverage City and County of Swansea - Has no landfill data to supply		0	5	264269 200832
222	Potentially Infilled L Bearing Ref: Use: Date of Mapping:	.and (Non-Water) SE Unknown Filled Ground (Pit, quarry etc) 1991	A8SE (SE)	465	8	264886 200301
223	Potentially Infilled L Bearing Ref: Use: Date of Mapping:	.and (Non-Water) SE Unknown Filled Ground (Pit, quarry etc) 1991	A4NW (SE)	644	8	264670 200129
224	Potentially Infilled L Bearing Ref: Use: Date of Mapping:	.and (Non-Water) NW Unknown Filled Ground (Pit, quarry etc) 1991	A10NE (NW)	645	8	263807 201287
225	Potentially Infilled L Bearing Ref: Use: Date of Mapping:	and (Non-Water) S Unknown Filled Ground (Pit, quarry etc) 1995	A3SE (S)	808	8	264296 199769





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
226	Potentially Infilled L Bearing Ref: Use: Date of Mapping:	and (Non-Water) N Unknown Filled Ground (Pit, quarry etc) 1991	A15SW (N)	955	8	264154 201825
227	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1951	A7SW (S)	235	8	264179 200331
228	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1921	A16NW (NE)	296	8	264825 201895
229	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1935	A8SW (SE)	346	8	264854 200344
230	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1921	A7SE (S)	475	8	264471 200246
231	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1884	A3NE (S)	482	8	264342 200133
232	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1921	A3NW (S)	493	8	264016 200066
233	Potentially Infilled L Use: Date of Mapping:	and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1884	A8SE (SE)	572	8	264946 200204
234	Potentially Infilled L Use: Date of Mapping:	.and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1935	A4NW (SE)	604	8	264820 200155
235	Potentially Infilled L Use: Date of Mapping:	.and (Water) Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1884	A3NW (S)	625	8	264176 199932
236	Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence:	W B Llewellyn SWW 180L Abergelli Fach Farm Landfill, Felindre, SWANSEA, West Glamorgan, SA5 7NN 264970 201770 Abergelli Fach Farm, Felindre, SWANSEA, West Glamorgan, SA5 7NN Environment Agency Wales, South West Area Landfill Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) No known restriction on source of waste Site not yet started 6th September 1999 3/94 Not Given Manually positioned to the address or location	A16SE (NE)	147	3	264970 201770



Envirocheck®

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
237	Registered Landfill Licence Holder: Licence Reference: Site Location:	Sites B Llewellyn 3/94 Abergelli Fach Farm Landfill, Felindre, SWANSEA, West Glamorgan, SA5	A16SE (NE)	154	3	264960 201850
	Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate:	Abergelii Facti Farii Landiii, Feilidie, SWANSEA, West Glamorgali, SAS 7NN 264960 201850 As Site Address Environment Agency Wales, South West Area Landfill Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year)				
	Waste Source Restrictions: Status: Dated: Preceded By Licence:	No known restriction on source of waste Operational as far as is knownOperational 29th September 1994 Not Given				
	Boundary Accuracy: Authorised Waste	Max.Waste Permitted By Licence Sw Wales Cat. A 'Non-Decomp'				
	Prohibited Waste	Tarmac Waste N.O.S.				
238	Registered Landfill Licence Holder: Licence Reference: Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence: Positional Accuracy: Boundary Accuracy: Authorised Waste	British Steel Tinplate 1/80; 2/84 Velindre Works, Velindre, SWANSEA, West Glamorgan, SA5 7LP 264900 200300 PO Box 101, Velindre, SWANSEA, West Glamorgan, SA5 5WW Environment Agency Wales, South West Area Landfill Undefined Waste produced/controlled by licence holder Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled 1st June 1980 Not Given Not Given Approximate location provided by supplier	A8SE (SE)	468	3	264900 200300
238	Registered Landfill Licence Holder: Licence Reference: Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence: Positional Accuracy: Boundary Accuracy: Authorised Waste	B.S.C. Tinplate Group 2/89 Velindre Works, Velindre, SWANSEA, West Glamorgan, SA5 7LP 264900 200300 As Site Address Environment Agency Wales, South West Area Landfill Undefined No known restriction on source of waste Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Not Supplied Not Given Not Given Approximate location provided by supplier	A8SE (SE)	468	3	264900 200300





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Description:	d Geology South Wales Upper Coal Measures Formation	A7NE	0	1	264269
	BGS Estimated Soil	Chemistry	(N)			200832
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg <1.8 mg/kg 60 - 90 mg/kg	A7NE (SE)	0	1	264316 200739
	Concentration:					
	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 25 - 35 mg/kg <1.8 mg/kg 60 - 90 mg/kg	A7NE (N)	0	1	264269 200832
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg 1.8 - 2.2 mg/kg 60 - 90 mg/kg <100 mg/kg 15 - 30 mg/kg	A11SE (N)	202	1	264269 201000
	BGS Estimated Soil	Chemistry				
	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	A11SW (NW)	245	1	264000 201142
	BGS Estimated Soil	Chemistry				
	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 - 2.2 mg/kg 60 - 90 mg/kg <100 mg/kg 15 - 30 mg/kg	A11SW (NW)	444	1	264068 201156
	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 25 - 35 mg/kg <1.8 mg/kg 60 - 90 mg/kg <100 mg/kg 30 - 45 mg/kg	A8SE (SE)	559	1	265009 200194

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A3NW (S)	583	1	264013 199975
	Concentration: Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source:	British Geological Survey, National Geoscience Information Service	A11NE	619	1	264490
	Soil Sample Type: Arsenic	Sediment 15 - 25 mg/kg	(N)			201451
	Concentration: Cadmium Concentration:	1.8 - 2.2 mg/kg				
	Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel	<100 mg/kg 15 - 30 mg/kg				
	Concentration:					
	BGS Estimated Soil					
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A10SW (W)	673	1	263449 201000
	Concentration: Cadmium	<1.8 mg/kg				
	Concentration:					
	Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A11NE (N)	703	1	264295 201500
	Concentration: Cadmium	<1.8 mg/kg				
	Concentration: Chromium	60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel	<100 mg/kg 15 - 30 mg/kg				
	Concentration:	To to myrky				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A2NE (SW)	730	1	263784 199893
	Concentration: Cadmium	<1.8 mg/kg				
	Concentration: Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type:	British Geological Survey, National Geoscience Information Service Sediment	A6NW (W)	765	1	263304 200549
	Arsenic Concentration:	25 - 35 mg/kg				
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel	<100 mg/kg 30 - 45 mg/kg				



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	-	4.01.1147	04.4		000500
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A2NW (SW)	814	1	263500 200000
	Cadmium Concentration:	3.0 - 6.0 mg/kg				
	Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A2NW (SW)	900	1	263349 200053
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	A2NW (SW)	908	1	263377 200000
	Concentration: Cadmium	3.0 - 6.0 mg/kg				
	Concentration: Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type:	British Geological Survey, National Geoscience Information Service Sediment	A10NW (NW)	983	1	263500 201500
	Arsenic Concentration: Cadmium	25 - 35 mg/kg 1.8 - 2.2 mg/kg				
	Concentration:	60 - 90 mg/kg				
	Concentration: Lead Concentration:					
	Nickel Concentration:	15 - 30 mg/kg				
	BGS Recorded Mine	eral Sites				
239	Site Name: Location: Source: Reference: Type: Status: Operator:	Aber-Gelli-Fach Gravel Pit , Clydach, Neath, West Glamorgan British Geological Survey, National Geoscience Information Service 154049 Opencast Ceased Not Supplied	A16SE (NE)	161	1	265036 201591
	Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Not Supplied Quaternary Glaciofluvial Deposits, Devensian Sand and Gravel Located by supplier to within 10m				
	BGS Recorded Mine					
240	Site Name: Location: Source: Reference: Type: Status:	Bryn-Whilach Plantation Gravel Pit , Clydach, Neath, West Glamorgan British Geological Survey, National Geoscience Information Service 154061 Opencast Ceased	A8SE (SE)	456	1	264893 200311
	Operator: Operator Location: Periodic Type: Geology:	Not Supplied Not Supplied Quaternary Till, Devensian				
	Commodity:	Sand and Gravel Located by supplier to within 10m				



Geological

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
241	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:	Waen Ffyrdd Plantation Sand Pit , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153916 Opencast Ceased Not Supplied Not Supplied Quaternary Glaciofluvial Deposits, Devensian Sand	A6NE (W)	474	1	263598 200743
		Located by supplier to within 10m				
242	Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:	Llidiard -Y-Cleders , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153915 Opencast Ceased Not Supplied Not Supplied Carboniferous Grovesend Formation Sandstone Located by supplier to within 10m	A10NE (NW)	648	1	263805 201290
243	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Bryn-Whilach , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153918 Underground Ceased Not Supplied Not Supplied Carboniferous Grovesend Formation Coal - Deep Located by supplier to within 10m	A4NW (SE)	676	1	264757 200086
244	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Paral Sites Nant-Y-Ganol Wood Sand Pit , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153919 Opencast Ceased Not Supplied Not Supplied Quaternary Till, Devensian Sand Located by supplier to within 10m	A3SE (S)	800	1	264288 199775
245	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Gelli-Feddan , Gorseinon, Swansea, West Glamorgan British Geological Survey, National Geoscience Information Service 153914 Opencast Ceased Not Supplied Not Supplied Carboniferous Grovesend Formation Sandstone Located by supplier to within 10m	A15SW (N)	956	1	264154 201828
	BGS Measured Urba	an Soil Chemistry				

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		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
BGS	S Urban Soil Che	emistry Averages				
Sour Sam		British Geological Survey, National Geoscience Information Service Swansea 368	A8SW (SE)	438	1	264800 200200
	enic Minimum centration:	8.00 mg/kg				
	enic Average centration:	79.00 mg/kg				
Cond	centration:	2161.00 mg/kg				
Cond	mium Minimum centration:					
Cond	centration:	2.90 mg/kg				
Cond	mium Maximum centration:					
Cond	omium Minimum centration:					
Cond	omium Average centration:					
	omium Maximum centration:	562.00 mg/kg				
	d Minimum centration:	23.00 mg/kg				
	d Average centration:	413.00 mg/kg				
Lead	d Maximum centration:	10000.00 mg/kg				
Nick	centration:	8.00 mg/kg				
	cel Average centration:	52.00 mg/kg				
	cel Maximum centration:	384.00 mg/kg				
Coa	I Mining Affecte	d Areas				
Desc	cription:	In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A7NE (N)	0	6	264269 200832
Minir Sour	ing Instability ng Evidence: rce: ndary Quality:	Inconclusive Coal Mining Ove Arup & Partners As Supplied	A7NE (N)	0	-	264269 200832
		eas of Great Britain				
No F	Hazard					
	•	sible Ground Stability Hazards	A 7815		4	264269
Sour	ard Potential: rce:	Very Low British Geological Survey, National Geoscience Information Service	A7NE (N)	0	1	200832
	•	sible Ground Stability Hazards	AGNIT		4	265000
Sour	ard Potential: rce:	Very Low British Geological Survey, National Geoscience Information Service	A8NE (E)	0	1	265000 200832
	ential for Collaps ard Potential:	sible Ground Stability Hazards No Hazard	A8SE	0	1	265021
Sour	rce:	British Geological Survey, National Geoscience Information Service	(SE)		ı	200490
	ard Potential:	sible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A16SE (NE)	94	1	265000 201563
	•	sible Ground Stability Hazards				
Haza Sour	ard Potential: rce:	No Hazard British Geological Survey, National Geoscience Information Service	A16SW (NE)	110	1	264796 201551
	ard Potential:	essible Ground Stability Hazards Moderate British Geological Survey, National Geoscience Information Service	A8SE (SE)	0	1	265021 200490
Pote	ential for Compre ard Potential:	essible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A7NE (N)	0	1	264269 200832
		essible Ground Stability Hazards	(14)			200032
Pote		No Hazard	A8NE	0	1	265000
	ard Potential: rce:	British Geological Survey, National Geoscience Information Service	(E)			200832

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	Details	(Compass Direction)	Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards				
	Hazard Potential: High Source: High British Geological Survey, National Geoscience Information Service	A16SW (NE)	110	1	264796 201551
	Potential for Ground Dissolution Stability Hazards	()			20.00.
	Hazard Potential: No Hazard	A7NE	0	1	264269
	Source: British Geological Survey, National Geoscience Information Service	(N)			200832
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard	A8NE	0	1	265000
	Source: British Geological Survey, National Geoscience Information Service	(E)		•	200832
	Potential for Landslide Ground Stability Hazards				
ļ	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NE (N)	0	1	264269 200832
	Potential for Landslide Ground Stability Hazards				
	Hazard Potential: Very Low	A8NE	0	1	265000
	Source: British Geological Survey, National Geoscience Information Service	(E)			200832
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low	A11SW	224	1	264082
	Source: British Geological Survey, National Geoscience Information Service	(NW)			201139
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A7NE (N)	0	1	264269 200832
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Low	A8SE	0	1	265021
	Source: British Geological Survey, National Geoscience Information Service	(SE)			200490
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low	A8NE	0	1	265000
	Source: British Geological Survey, National Geoscience Information Service	(E)		'	200832
	Potential for Running Sand Ground Stability Hazards				
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A4NE (SE)	55	1	265198 200041
	Potential for Running Sand Ground Stability Hazards	(02)			200041
	Hazard Potential: No Hazard	A11SW	224	1	264082
	Source: British Geological Survey, National Geoscience Information Service	(NW)			201139
	Potential for Shrinking or Swelling Clay Ground Stability Hazards	(NIT)	0	4	265222
	Hazard Potential: No Hazard Source: No Hazard British Geological Survey, National Geoscience Information Service	(NE)	0	1	265222 201889
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW	0	1	264571 200797
	Potential for Shrinking or Swelling Clay Ground Stability Hazards	(E)			200797
	Hazard Potential: Very Low	A7NE	0	1	264269
	Source: British Geological Survey, National Geoscience Information Service	(N)			200832
	Potential for Shrinking or Swelling Clay Ground Stability Hazards	4015		,	005000
	Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	0	1	265000 200832
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard	A16SE	109	1	265000
	Source: British Geological Survey, National Geoscience Information Service Potential for Shrinking or Swelling Clay Ground Stability Hazards	(NE)			201820
	Hazard Potential: No Hazard	A16SE	110	1	264933
	Source: British Geological Survey, National Geoscience Information Service	(NE)		•	201823
	Potential for Shrinking or Swelling Clay Ground Stability Hazards				
	Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A7NW (W)	185	1	263932 200865
	Potential for Shrinking or Swelling Clay Ground Stability Hazards	(,			
	Hazard Potential: No Hazard	A16NW	200	1	264682
	Source: British Geological Survey, National Geoscience Information Service	(N)			202113
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of hor	mes are A8NE	0	1	26/000
			. U	- 1	264998

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Geological

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Radon Potential - R	Radon Potential - Radon Affected Areas				
	Affected Area: Source:	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). British Geological Survey, National Geoscience Information Service	A7NE (N)	0	1	264269 200832
	Radon Potential - R	adon Protection Measures				
	Protection Measure: Source:	No radon protective measures are necessary in the construction of new dwellings or extensions British Geological Survey, National Geoscience Information Service	A8NE (E)	0	1	264998 200832
	Radon Potential - R	Radon Potential - Radon Protection Measures				
	Protection Measure: Source:	No radon protective measures are necessary in the construction of new dwellings or extensions British Geological Survey, National Geoscience Information Service	A7NE (N)	0	1	264269 200832

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Industrial Land Use

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Contemporary Trad	le Directory Entries				
246	Name: Location: Classification: Status: Positional Accuracy:	National Grid Co Plc Llangyfelach, Swansea, SA5 7PD Electricity Companies Inactive Automatically positioned to the address	A4NW (S)	725	-	264584 200006
	Points of Interest -	Manufacturing and Production				
247	Name: Location: Category: Class Code: Positional Accuracy:	W J & H N Watkins Llangyfelach, Swansea, SA5 7PE Farming Livestock Farming Positioned to address or location	A7SE (S)	443	7	264396 200216
	Points of Interest -	Public Infrastructure				
248	Name: Location: Category: Class Code: Positional Accuracy:	Tip SA6 Infrastructure and Facilities Refuse Disposal Facilities Positioned to an adjacent address or location	A8SE (SE)	446	7	265047 200367
	Points of Interest -	Public Infrastructure				
249	Name: Location: Category: Class Code: Positional Accuracy:	Tip SA6 Infrastructure and Facilities Refuse Disposal Facilities Positioned to an adjacent address or location	A8SE (SE)	513	7	264914 200257
	Points of Interest -	Public Infrastructure				
250	Name: Location: Category: Class Code: Positional Accuracy:	Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	A15NE (N)	595	7	264445 202215
	Points of Interest -	Public Infrastructure				
250	Name: Location: Category: Class Code: Positional Accuracy:	Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	A15NE (N)	654	7	264391 202185
	Points of Interest -	Public Infrastructure				
251	Name: Location: Category: Class Code: Positional Accuracy:	Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	A15NE (N)	722	7	264316 202210
	Gas Pipelines					
252	Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Felindre to Three Cocks Owned By National Grid 1200 132 Active 107292.6 Feeder 28	A12SE (E)	0	8	264942 201070
	Gas Pipelines					
253	Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Herbrandston to Felindre Owned By National Grid 1200 132 Active 104077.4 Feeder 28	A12SE (E)	0	8	264951 201074
	Gas Pipelines					
254	Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Felindre to Cilfrew Owned By National Grid 1200 132 Active 17048.8 Feeder 28	A12SE (E)	0	8	264961 201078

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Sensitive Land Use

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Ancient Woodland					
255	Name: Reference: Area(m²): Type:	Not Supplied 7060 16001.14 Ancient and Semi-Natural Woodland	(NE)	0	2	265404 201393
256	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 891 63487.78 Restored Ancient Woodland Site	A7NE (S)	0	2	264307 200736
257	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 38034 9098.78 Plantation on Ancient Woodland	A7NE (SW)	0	2	264231 200817
258	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 50394 151288.84 Ancient Woodland Site of Unknown Category	A8NW (E)	0	2	264685 200828
259	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7241 63268.23 Restored Ancient Woodland Site	(E)	118	2	265347 200531
260	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7316 21495.34 Restored Ancient Woodland Site	A12NW (NE)	129	2	264855 201236
261	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 882 7755.99 Ancient and Semi-Natural Woodland	(N)	207	2	264759 202440
262	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 893 13199.98 Restored Ancient Woodland Site	A11SE (NE)	331	2	264425 201157
263	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 892 8694.62 Restored Ancient Woodland Site	A11SE (N)	373	2	264288 201127
264	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 880 5527.37 Ancient and Semi-Natural Woodland	A16NW (N)	463	2	264626 201887
265	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 878 4775.36 Ancient and Semi-Natural Woodland	A15SE (N)	576	2	264490 201703
266	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 823 23816.66 Ancient and Semi-Natural Woodland	A2NE (SW)	609	2	263821 200009
267	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 824 11771.55 Ancient and Semi-Natural Woodland	A6NW (W)	666	2	263402 200706
268	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 1547 14539.56 Restored Ancient Woodland Site	A2NE (SW)	688	2	263856 199909

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Sensitive Land Use

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
269	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 879 19270.88 Ancient and Semi-Natural Woodland	A10NE (NW)	727	2	263752 201353
270	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 1544 10745.69 Ancient and Semi-Natural Woodland	A2SE (S)	832	2	263849 199758
271	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 850 7545.69 Ancient and Semi-Natural Woodland	A6SW (W)	871	2	263216 200437
272	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 822 25579.56 Ancient and Semi-Natural Woodland	A2NW (SW)	883	2	263411 199998
273	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 875 10841.26 Ancient and Semi-Natural Woodland	A10NW (NW)	945	2	263321 201276
274	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 845 3001.65 Ancient and Semi-Natural Woodland	A5NE (W)	960	2	263107 200740
275	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 849 8416.92 Ancient and Semi-Natural Woodland	A9SE (W)	962	2	263136 200932
276	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 881 5855.63 Ancient and Semi-Natural Woodland	A15NW (N)	972	2	264092 201981
277	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 883 5980.93 Ancient and Semi-Natural Woodland	(N)	972	2	264122 202749

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Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
City and County of Swansea - Environmental Health Department	January 2015	Annual Rolling Update
Carmarthenshire County Council - Environmental Health Department	October 2014	Annual Rolling Update
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Natural Resources Wales	August 2017	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Welsh Region	March 2013	As notified
Integrated Pollution Controls		
Environment Agency - Welsh Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control		
Natural Resources Wales	August 2017	Quarterly
Environment Agency - Welsh Region	July 2017	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Update
Carmarthenshire County Council - Environmental Health Department	March 2015	Annual Rolling Update
Local Authority Pollution Prevention and Controls		5 .
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Update
Carmarthenshire County Council - Environmental Health Department	March 2015	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Update
Carmarthenshire County Council - Environmental Health Department	September 2013	Annual Rolling Update
Nearest Surface Water Feature		
Ordnance Survey	May 2017	
Pollution Incidents to Controlled Waters	-	
Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes		11
Environment Agency - Welsh Region	March 2013	As notified
Natural Resources Wales	March 2013	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - Welsh Region	March 2013	As notified
Natural Resources Wales	March 2013	As notified
Registered Radioactive Substances		7.10.110.111.00
Natural Resources Wales	January 2015	As notified
Environment Agency - Welsh Region	January 2015	As notined
River Quality	Garradry 2010	
Environment Agency - Head Office	November 2001	Not Applicable
	November 2001	1401 Αρριισαδίο
Substantiated Pollution Incident Register Natural Resources Wales	August 2018	Quarterly
Environment Agency Wales - South West Area	August 2018 July 2017	Quarterly
	July 2017	Quarterly
Water Abstractions	lub. 2047	Out to the site.
Environment Agency - Welsh Region	July 2017	Quarterly
Natural Resources Wales	July 2017	Quarterly
Water Industry Act Referrals		
Natural Resources Wales	August 2017	Quarterly
Environment Agency - Welsh Region	July 2017	Quarterly
Groundwater Vulnerability		
Environment Agency - Head Office	April 2015	Not Applicable

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Agency & Hydrological	Version	Update Cycle	
Drift Deposits			
Environment Agency - Head Office	January 1999	Not Applicable	
Bedrock Aquifer Designations			
British Geological Survey - National Geoscience Information Service	August 2015	As notified	
Superficial Aquifer Designations			
British Geological Survey - National Geoscience Information Service	August 2015	As notified	
Source Protection Zones			
Natural Resources Wales	November 2016	As notified	
Extreme Flooding from Rivers or Sea without Defences			
Natural Resources Wales	August 2017	Quarterly	
Flooding from Rivers or Sea without Defences			
Natural Resources Wales	August 2017	Quarterly	
Areas Benefiting from Flood Defences			
Natural Resources Wales	August 2017	Quarterly	
Flood Water Storage Areas			
Natural Resources Wales	August 2017	Quarterly	
Flood Defences			
Natural Resources Wales	August 2017	Quarterly	
OS Water Network Lines			
Ordnance Survey	July 2017	6 Weekly	
Surface Water 1 in 30 year Flood Extent			
Natural Resources Wales	October 2013	As notified	
Surface Water 1 in 100 year Flood Extent			
Natural Resources Wales	October 2013	As notified	
Surface Water 1 in 1000 year Flood Extent			
Natural Resources Wales	October 2013	As notified	
Surface Water Suitability			
Natural Resources Wales	October 2013	As notified	
BGS Groundwater Flooding Susceptibility			
British Geological Survey - National Geoscience Information Service	May 2013	Annually	

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Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Natural Resources Wales	May 2017	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency Wales - South West Area	May 2017	Quarterly
Natural Resources Wales	May 2017	Quarterly
Licensed Waste Management Facilities (Locations)	4 .0047	
Natural Resources Wales	August 2017	Quarterly
Environment Agency Wales - South West Area	July 2017	Quarterly
Local Authority Landfill Coverage	Ma 0000	Not Applicable
Carmarthenshire County Council City and County of Swansea - Environmental Health Department	May 2000 May 2000	Not Applicable Not Applicable
	Iviay 2000	Not Applicable
Local Authority Recorded Landfill Sites Carmarthenshire County Council	May 2000	Not Applicable
City and County of Swansea - Environmental Health Department	May 2000	Not Applicable
Potentially Infilled Land (Non-Water)	May 2000	140t Applicable
Landmark Information Group Limited	December 1999	Not Applicable
·	December 1999	1401 Арріїсавіс
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
	December 1999	140t Applicable
Registered Landfill Sites Environment Agency Wales - South West Area	March 2003	Not Applicable
	IVIAICIT 2003	140t Applicable
Registered Waste Transfer Sites Environment Agency Wales - South West Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites	Maron 2000	140t Applicable
Environment Agency Wales - South West Area	March 2003	Not Applicable
Hazardous Substances	Version	Update Cycle
nazardous Substances	Version	Opuate Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	September 2017	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Carmarthenshire County Council - Area Planning Office (East Area)	February 2016	Annual Rolling Updat
Carmarthenshire County Council - Area Planning Office (South Area)	February 2016	Annual Rolling Updat
Carmarthenshire County Council - Environment Department (West Area)	February 2016	Annual Rolling Updat
City and County of Swansea - Planning Department	January 2016	Annual Rolling Updat
Planning Hazardous Substance Consents	F.1 0046	Assessed B. W. H. C.
Carmarthenshire County Council - Area Planning Office (East Area)	February 2016	Annual Rolling Updat
Cormorthopolita County Council Area Planning Office (Court Area)		
Carmarthenshire County Council - Area Planning Office (South Area) Carmarthenshire County Council - Environment Department (West Area)	February 2016 February 2016	Annual Rolling Updat Annual Rolling Updat

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 52 of 56



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	October 2015	As notified
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	April 2017	Bi-Annually
BGS Urban Soil Chemistry Averages		
British Geological Survey - National Geoscience Information Service	October 2015	As notified
CBSCB Compensation District		
Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas		
The Coal Authority - Property Searches	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	May 2015	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

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Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries		
Thomson Directories	September 2017	Quarterly
Fuel Station Entries		
Catalist Ltd - Experian	August 2017	Quarterly
Gas Pipelines		
National Grid	July 2014	Quarterly
Points of Interest - Commercial Services	0 1 1 227	
PointX	September 2017	Quarterly
Points of Interest - Education and Health	Contombor 2017	Quartarly
PointX	September 2017	Quarterly
Points of Interest - Manufacturing and Production	Camba mah an 2047	O a wt a wh .
PointX	September 2017	Quarterly
Points of Interest - Public Infrastructure	0 1 1 0047	O constant
PointX	September 2017	Quarterly
Points of Interest - Recreational and Environmental	0	2000
PointX	September 2017	Quarterly
Underground Electrical Cables		5.4
National Grid	December 2015	Bi-Annually
Sensitive Land Use	Version	Update Cycl
Ancient Woodland		
Natural Resources Wales	May 2017	Bi-Annually
Areas of Adopted Green Belt		
City and County of Swansea	May 2017	As notified
Areas of Outstanding Natural Beauty		
Natural Resources Wales	August 2017	Bi-Annually
Environmentally Sensitive Areas		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Carmarthenshire County Council	August 2017	Bi-Annually
City and County of Swansea	August 2017	Bi-Annually
Marine Nature Reserves		
Natural Resources Wales	August 2017	Bi-Annually
National Nature Reserves		
Natural Resources Wales	August 2017	Bi-Annually
National Parks		
Natural Resources Wales	August 2017	Annually
Nitrate Vulnerable Zones		
Natural Resources Wales	June 2017	Bi-Annually
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	
Ramsar Sites		
Natural Resources Wales	August 2017	Bi-Annually
Sites of Special Scientific Interest		
Natural Resources Wales	August 2017	Bi-Annually
Natural Necodifice Walco		
Special Areas of Conservation Natural Resources Wales	August 2017	Bi-Annually
Special Areas of Conservation	August 2017	Bi-Annually

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Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Map data
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SEPA
The Coal Authority	The Coal Authority
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	Cyfoeth Naturiol Cymni Naturol Resources Wules
Scottish Natural Heritage	SCOTTISH NATITAGE WASA
Natural England	NATURAL ENGLÅND
Public Health England	Public Health England
Ove Arup	ARUP
Peter Brett Associates	peterbrett



Useful Contacts

Contact	Name and Address	Contact Details
1	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
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 023 8079 2000 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	City and County of Swansea - Environmental Health Department The Guildhall, Swansea, West Glamorgan, SA1 4PE	Telephone: 01792 636000 extn 5651 Fax: 01792 635719
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

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Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WMGR	Infilled Ground	Artificial Deposit	Cenozoic - Cenozoic
Z	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene
	LSGR	Landscaped Ground (Undivided)	Artificially Modified Ground	Holocene - Holocene

c	Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
			Faults		
			Rock Segments		

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	TILLD	Till, Devensian	Diamicton	Devensian - Devensian
	HMGDD	Hummocky (Moundy) Glacial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	GFSDD	Glaciofluvial Sheet Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	GFICD	Glaciofluvial Ice Contact Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quatemary - Quaternary
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Quaternary - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	GDB	Grovesend Formation	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	GDB	Grovesend Formation	Sandstone	Westphalian D - Westphalian D

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Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID: Map ID: Map Sheet No: Map Name: Ammanford 1977 Map Date: Map Date: Superficial Geology Available Artificial Geology: Not Supplied Landslip: Available Landslin: Not Supplied

Map ID:
Map Sheet No:
Map Name:
Map Date:
Bedrock Geology:
Superficial Geology:
Artificial Geology:
Faults:
Landslip:
Rock Segments:

Swansea

Available

Available

Available

Not Supplied

Not Supplied

2011

Geology 1:50,000 Maps - Slice A



Order Details:

 Order Number:
 142844199_1_1

 Customer Reference:
 60542910

 National Grid Reference:
 264270, 200830

 Slice:
 A

 Site Area (Ha):
 32.39

 Search Buffer (m):
 1000

Site Details:

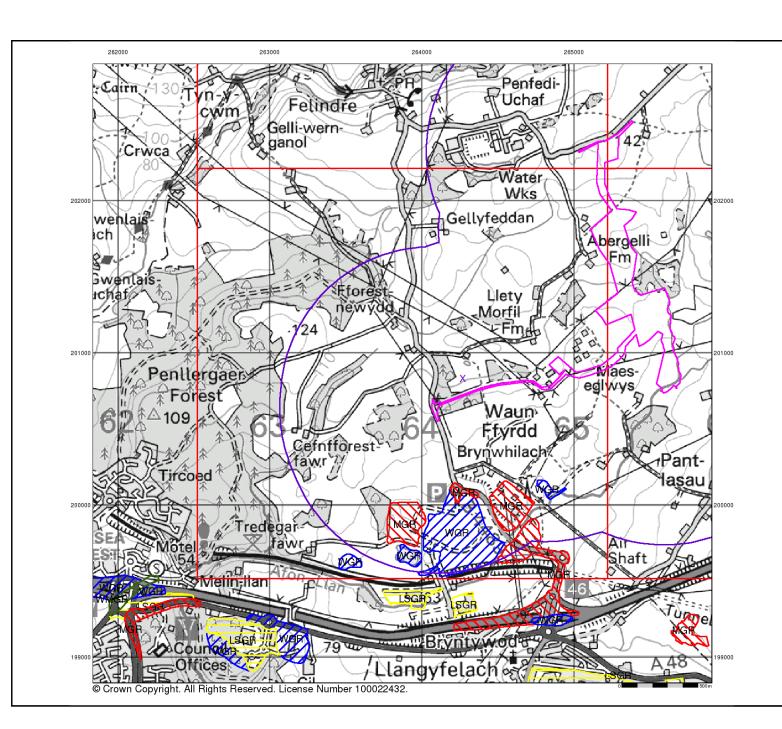
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark*

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

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Artificial Ground and Landslip

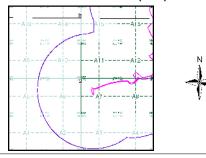
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.
 Worked ground - areas where the ground has been cut away such as
- Worked ground areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground areas where the surface has been reshaped.
 Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground.
- Mass movement (landslip) deposits on BGS geological maps are primarily supprificial deposits that have proved down slope under growth to form

superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details:

Order Number: 142844199_1_1
Customer Reference: 60542910
National Grid Reference: 264270, 200830
Slice: A
Site Area (Ha): 32.39

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

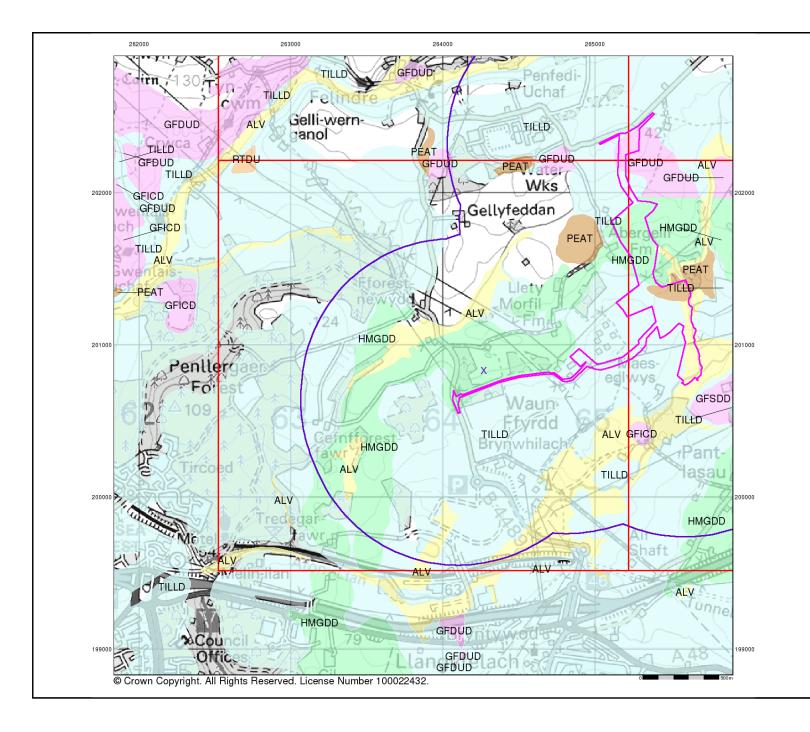
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



rel: 0844 844 9952 rax: 0844 844 9951 Veb: www.envirocheck.c

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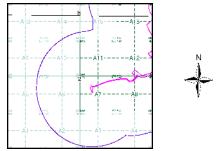
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details:

Order Number: 142844199_1_1
Customer Reference: 60542910
National Grid Reference: 264270, 200830
Slice: A
Site Area (Ha): 32.39
Search Buffer (m): 1000

Site Details:

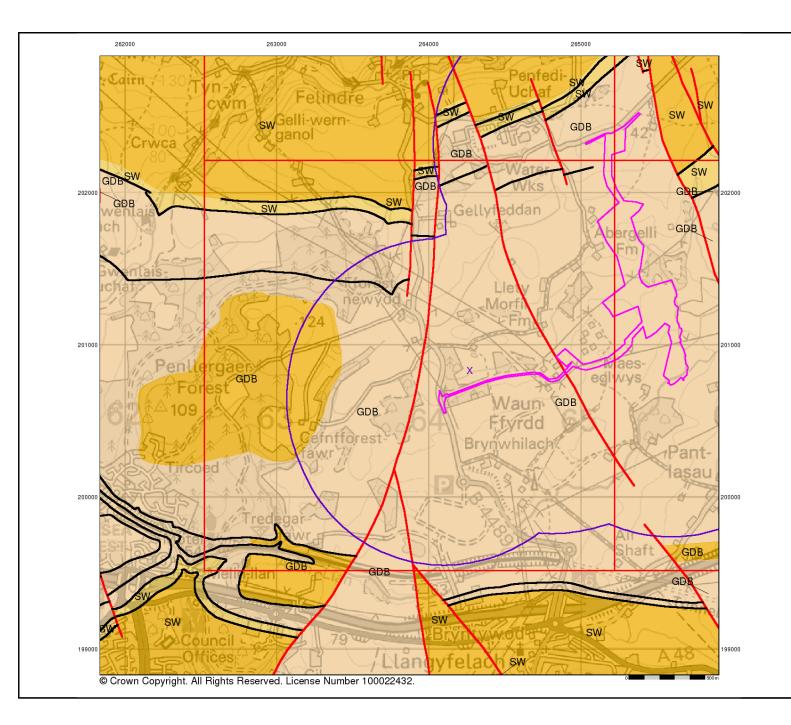
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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Bedrock and Faults

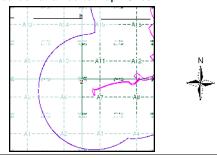
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A



Order Details:

Order Number: Customer Reference: 142844199_1_1 60542910 National Grid Reference: 264270, 200830 A 32.39 Site Area (Ha): Search Buffer (m): 1000

Site Details:

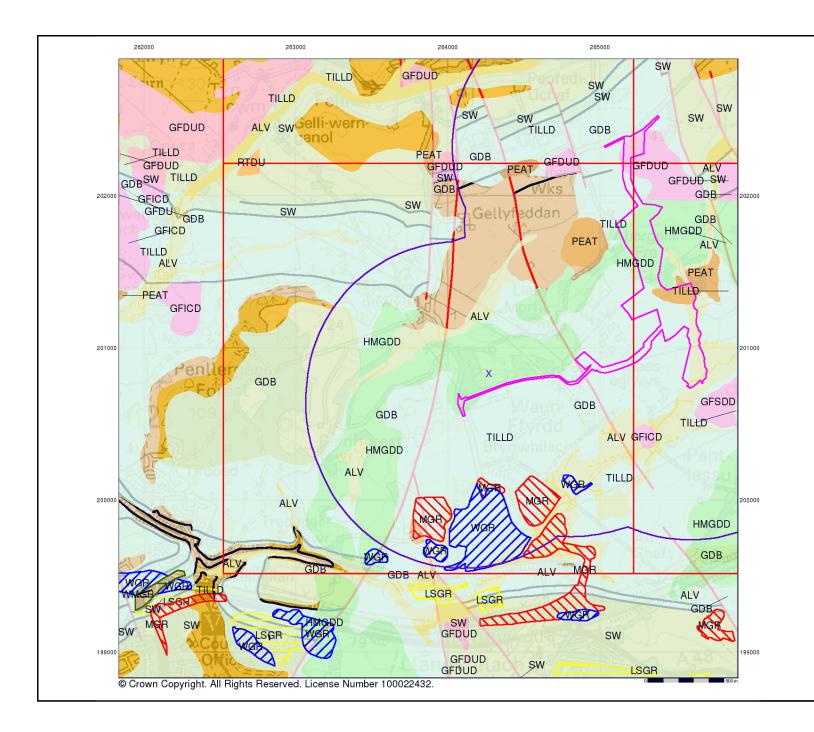
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

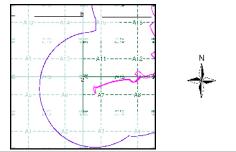
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

Order Number: 142844199_1_1
Customer Reference: 60542910
National Grid Reference: 264270, 200830
Slice: A
Site Area (Ha): 32.39
Search Buffer (m): 1000

Site Details:

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



iel: 0844 844 9952 ax: 0844 844 9951 Veb: www.envirocheck.

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Page 5 of 5

Historical Mapping Legends

Gravel Pit Other Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Station Bench Mark Site of Antiquities Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** ·285 Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Raised Road Sunken Road Railway over Road over Railway Ri∨er Railway over Level Crossing Road over Road over Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Rural District Boundary RD. Bdy.

····· Civil Parish Boundary

Ordnance Survey County Series 1:10,560

Ordnance Survey Plan 1:10,000

Exemp	Chalk Pit, Clay Pit or Quarry	000000	Gravel Pit
	Sand Pit		Disused Pit or Quarry
(0000000)	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
* * * /	Coniferous Trees	600	Non-Coniferous Trees
ф	Orchard Ω n _	Scrub	∖Y₁₁ Coppice
ਜ ਜ ਜ	Bracken willing	Heath	, , , , , , Rough Grassland
<u> </u>	Marsh wY///	Reeds	스크스 Saltings
	Direct	tion of Flow of	f Water
	Building	1/	Shingle
	4	<i>#</i>	
	Glasshouse		Sand
25.25	Olassiiouse	Pylon	
		- Fyloli	Electricity
	Sloping Masonry		Transmission
LILLEI	5.5pg55)	Pole	Line
			_
Cutting	**************		
"			" Multiple Track
	////	\\	⊨ Standard Gauge
Road ' ' Under	''∏''' Road // Leve Over Cross	el \\ Foot ing Bridg	3
			Siding, Tramway or Mineral Line
			→ Narrow Gauge
	Geographical Co	unty	
	— — Administrative Co		Borough
	Municipal Boroug Burgh or District		tural District,
	Borough, Burgh of Shown only when no		
	Civil Parish Shown alternately w	hen coincidence	of boundaries occurs
BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
сн	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB Fn	Foot Bridge	SB Spr	Signal Box
GP	Fountain Guide Post	Spr TCB	Spring Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post

1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock	3 3 3	Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle	Mud	Mud
Sand	Sand		Sand Pit
mmi	Slopes		Top of cliff
	General detail		Underground detail
	- Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)	• • • • • •	Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
۵ ⁰	Area of wooded vegetation	۵ ^۵	Non-coniferous trees
۵ ۵	Non-coniferous trees (scattered)	**	Coniferous trees
*	Coniferous trees (scattered)	Ö̈	Positioned tree
ф ф ф ф	Orchard	* *	Coppice or Osiers
ωTi,	Rough Grassland	www.	Heath
On_	Scrub	<u>→\\</u> /\r \\\	Marsh, Salt Marsh or Reeds
recovered the second			
6	Water feature	←	Flow arrows
MHW(S)	Water feature Mean high water (springs)	MLW(S)	Flow arrows Mean low water (springs)
MHW(S)	Mean high	MLW(S)	Mean low
MHW(S) ← ← ← BM 123.45 m	Mean high water (springs) Telephone line	← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ← ←	Mean low water (springs) Electricity transmission line
-• •-	Mean high water (springs) Telephone line (where shown) Bench mark		Mean low water (springs) Electricity transmission line (with poles) Triangulation
-• •-	Mean high water (springs) Telephone line (where shown) Bench mark (where shown) Point feature (e.g. Guide Post	→ - → -	Mean low water (springs) Electricity transmission line (with poles) Triangulation station Pylon, flare stack

Building

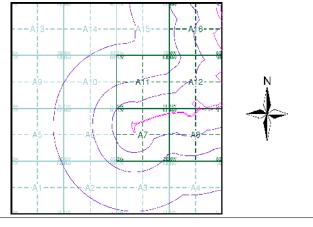
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Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1883 - 1884	3
Glamorganshire	1:10,560	1900	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1935 - 1936	6
Glamorganshire	1:10,560	1938 - 1951	7
Glamorganshire	1:10,560	1951 - 1953	8
Ordnance Survey Plan	1:10,000	1964	9
Ordnance Survey Plan	1:10,000	1968	10
Ordnance Survey Plan	1:10,000	1976	11
Swansea	1:10,000	1976	12
Ordnance Survey Plan	1:10,000	1980 - 1982	13
Ordnance Survey Plan	1:10,000	1989	14
Ordnance Survey Plan	1:10,000	1991 - 1995	15
10K Raster Mapping	1:10,000	1999	16
10K Raster Mapping	1:10,000	2006	17
VectorMap Local	1:10,000	2017	18

Historical Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 18

Russian Military Mapping Legends

1:5,000 and 1:10,000 mapping

a. Not drawn to scale b. Drawn to scale Military and Government and Industrial Buildings Administrative Buildings Military and Subway Entrance Communication Areas Prominent Fireproof Fireproof Building Non-fireproof Building Non-fireproof Building (non-dwelling) Factory, mill, Factory, mill, and flour mill. and flour mill. with chimneys without chimneys $\Gamma \mathcal{C}$ Hydroelectric Power Station. drawn to scale Power Station Radio Station, Telephone Station, drawn to scale Abandoned Open-pit Salt Mine Open-pit Mine **b** or Quarry аш нефть а нефть Oil Deposit or Well Oil Seepage a 🛦 (+7.0) omean скл. гор. Tailings Pile Fuel Storage Tanks Natural Gas Tank +1.2 🏡 67.8 **☆** + 2.0 Burial Triangulation Point Bench Mark Drill Hole Mound on Burial Mound cm. Tunnel тун. nsamo Double-track (Culvert) Single-track Railroad Railroad and Station Building ель береза ₹ 4 20 0.25 сосна € 24 0.30 Mixed Forest Coniferous Forest **Deciduous Forest**

Йй(Y)

K K (K)

Лл(L)

M m (m)

H H (N)

O o (o)

C c (s)

T T (T)

y y (u)

Фф(F)

X x (KH)

Цц(тѕ)

B B (V)

Γr (G)

Дд(D)

E e (E)

Ë ë (YO)

Ж ж (ZH)

ъ (-)

ы (Y)

Ээ(E)

Щ щ (SHCH)

Юю (YU or IU) A (YA or IA)

Heavy (Index)

Contour Line

Contour Line

and Value

Deciduous

1:25,000 mapping

a. Not draw	yn to scale b. Drawn to sca	ale		a. Not drav	n to s	cale b. Drawn to sca	lle	
	Sovernment and Administrative Buildings		Military and Industrial Buildings	4		vernment and ninistrative Buildings		flilitary and ndustrial Buildings
	filitary and Communication Areas		Subway Entrance	1		aryand nmunication Areas	M S	Subway Entrance
a b	Fireproof Building		Prominent Fireproof Building			ly Demolished dings	3883 C	emolished Buildings
a b	Non-fireproof Building	□ a □ b	Non-fireproof Building (non-dwelling)		Fire	t-Up Area with proof Buildings dominant	<i>/////////////////////////////////////</i>	Built-Up Area with Ion-Fireproof Buildings Predominant
	Factory, mill, and flour mill,		Factory, mill, and flour mill,	a b	Indi Buil	vidual Fireproof ding	STATE OF THE PARTY	Prominent Industrial Building
a l	with chimneys	a l	without chimneys			vidual Dwelling, proof		Ruins ofan Individual Owelling
- L - 20	Power Station, drawn to scale	Section 2	9C Hydroelectric Power Station	i [®]		ु бум. Гостоння М⊞	□ ckun	
5	Radio Station, drawn to scale		Telephone Station, drawn to scale	Factory Mill Chim	ney	Factory or Mill with Chimney	Factory or M without Chim	
	0 la d d			🗴 кам.	уг.	*		ο.4. Δ.
& E3	Abandoned Open-pit Mine or Quarry	a III	ov. Open-pit Salt Mine	Operatii Shaft or N		Non-Operating Shaft or Mine	Salt Mine	Tailings Pile
a b 🙃	a∎	нефть	а 🤊 нефть	00 -	1.7	CA. nec. kam.	₽	•
Contraction of the second	9-1,5	Dр	11111111111111111111111111111111111111	Pit		Stone Quarry	Gas Pump of Service Stati	
Pit	Oil Depos	sit or Well	Oil Seepage			\checkmark		- Natarai Cas Tarik
b a	Δ	ě ě _	• • • • • • • • • • • • • • • • • • • •	8			×	■ 6.mp.
yphilite.	omsan (50 ckn.	-	⊕ газг .	Oil or Nat Gas Deri		Small Hydroelectric Power Station	Power Statio	on Transformer Station
Tailings F	Pile Fuel Store	ige Tanks	Natural Gas Tank	· 6)		∆ 95.7	∆ 92.6
⊗ 125.4 125.1	⊙ бу р .	☆ +2.0	+1.2 🏡 67.8	Cemete		Burial Mound	Triangulation F	
Bench Ma	ark Drill Hole	Burial Mound	Triangulation Point on Burial Mound		•	(height in metres)	on Burial Mou	und Point
				□ 52. /		9 7/./	×	I
Fill 🕵	раз. Cut	Small	ст. Tunnel тун. Pipe	Bench M	ark	Bench Mark (monumented)	Telegraph Office	Telephone Station
Sing	gle-track Railroad	Bridge Railro	Double-track (^{Culvert}) ad and Station Building	4		\$	†	\$
сосна	₹ ²⁴ / _{0.30}	4 12 0 20	ель береза ₹ \$ 20 0.25	Radio Sta	tion	Radio Tower	Airfield or Seaplane Ba	Landing Strip ise
Conifero	ous Forest Deciduo	us Forest	Mixed Forest	Cut	Fill	Km Post Plantings		Width of Road
	6 6 6		a a	Tel	egraph	n/Telephone Lines	-	Steep Grade
Lawns	Citrus Orchard	Wet Gr	Scattered		Main	Highway	Highway under Construction	Improved Dirt Road (former truck road)
			Vegetation	Small Bridge	cm.	Pipe (Culvert) Tunnel		nantled Railroad
243,8 186,0	Values for prominent e Numbers for spot elev- contour lines, etc.		h soundings,	1		ack Railroad with Class Station		Under Construction
0,2	Velocity of the current,	width of rive	r bed, depth of river			ashe.		
180 180 12 12	Fractional terms: lengt fords and condition of t	h and capac	ity of bridges; depth of om; height of forest and	Shor		River or Ditch with	of aure	Water Gauge
	the diameter of trees			Embanki		Embankment		Water Level Mark
Russia	n Alphabet (Forreferen	ce and phone	etic interpretation of map text)	⊙ K. 125,0 (2	coa.)	■ edxp.	156,2 📍 K.A.	20
Аа (А) Бб (В)		Пп(P) Рр(R)	Чч (СН) Шш (SH)	Well		Water Reservoir or Rain Water Pit		Isobath with value

o 347.1

Spot Elevation

Value

Half Contour

Line

Key to Numbers on Mapping

SS69NW_Swansea

No.	Description
23	Factory (Metal Goods)

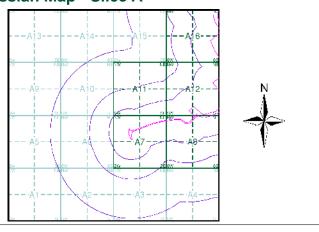
Envirocheck®

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Historical Mapping & Photography included:

		_
Scale	Date	Pg
1:10,560	1883 - 1884	3
1:10,560	1900	4
1:10,560	1921	5
1:10,560	1935 - 1936	6
1:10,560	1938 - 1951	7
1:10,560	1951 - 1953	8
1:10,000	1964	9
1:10,000	1968	10
1:10,000	1976	11
1:10,000	1976	12
1:10,000	1980 - 1982	13
1:10,000	1989	14
1:10,000	1991 - 1995	15
1:10,000	1999	16
1:10,000	2006	17
1:10,000	2017	18
	1:10,560 1:10,560 1:10,560 1:10,560 1:10,560 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000	1:10,560 1883 - 1884 1:10,560 1900 1:10,560 1921 1:10,560 1935 - 1936 1:10,560 1938 - 1951 1:10,560 1951 - 1953 1:10,000 1964 1:10,000 1976 1:10,000 1976 1:10,000 1980 - 1982 1:10,000 1989 1:10,000 1999 1:10,000 1999 1:10,000 2006

Russian Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Slice:

32.39 Site Area (Ha): Search Buffer (m): 1000

Site Details

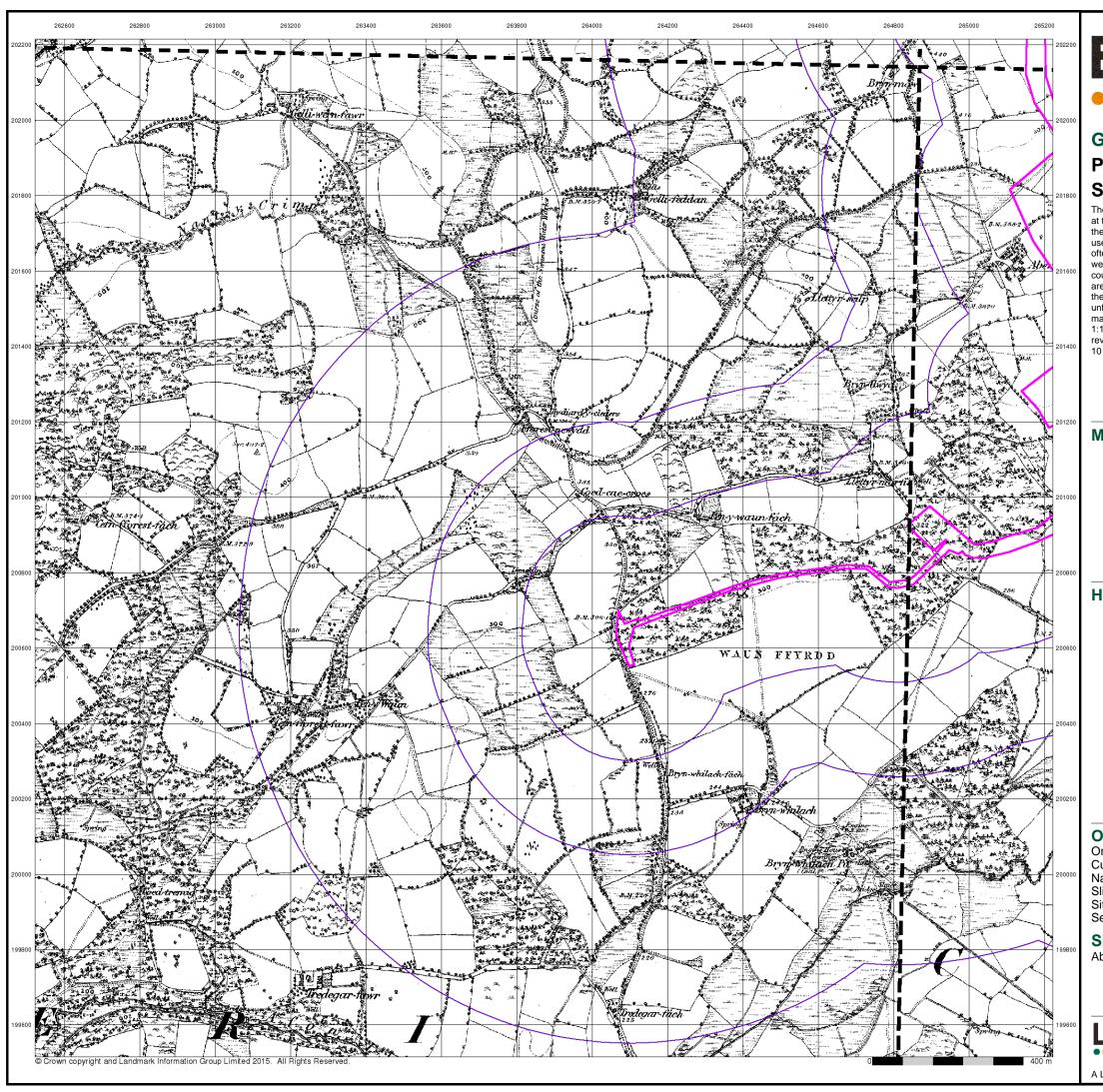
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 2 of 18





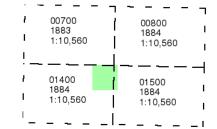
LANDMARK INFORMATION GROUP®

Glamorganshire

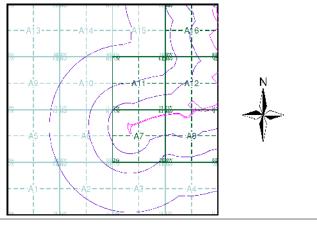
Published 1883 - 1884 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): 32.39 Search Buffer (m):

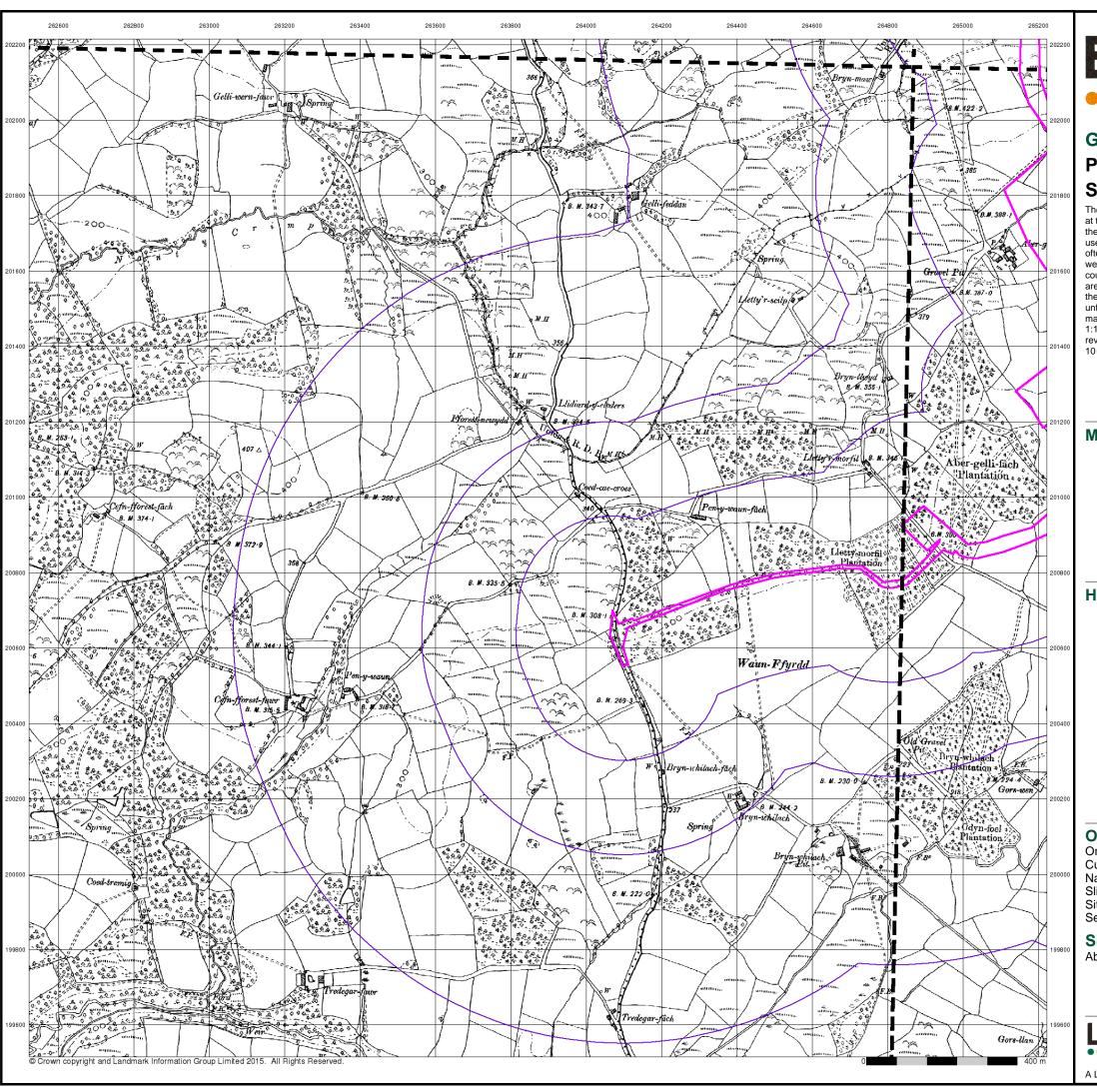
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 3 of 18



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Glamorganshire

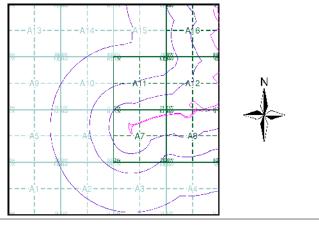
Published 1900 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

		7 ~ 7
ł	007SE	008SW
- 1	1900 1:10,560	1900 1:10,560
. ! .		<u>i</u> .
		
- 1	014NE	015NW
- 1	1900 1:10,560	1900
	1.10,500	1:10,560
١_		Τ .

Historical Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

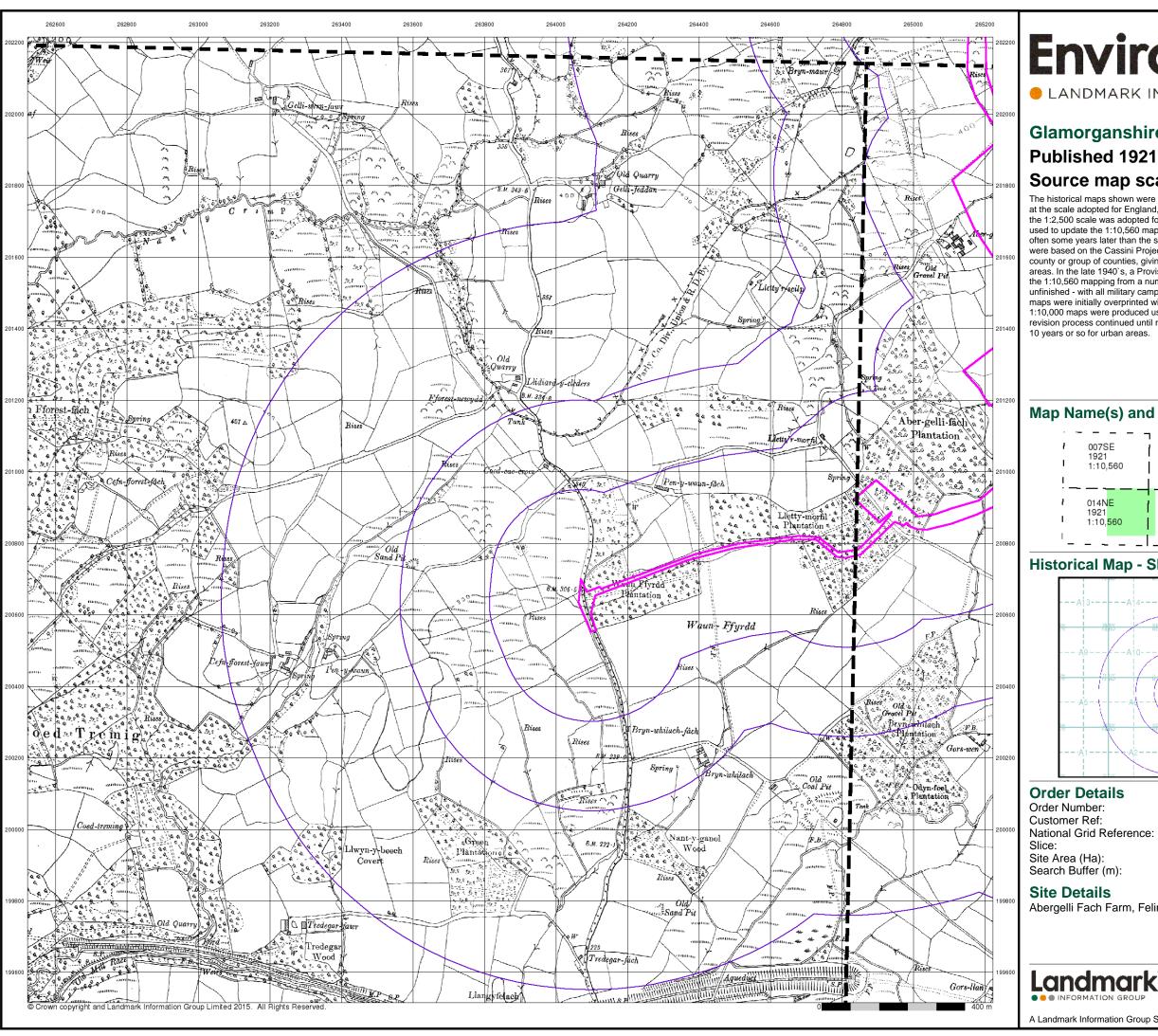
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

0844 844 9952

A Landmark Information Group Service v50.0 13-Oct-2017 Page 4 of 18



LANDMARK INFORMATION GROUP®

Glamorganshire

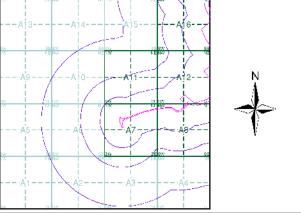
Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

		7 ~ 7
- 1	007SE 1921	008SW
I	1:10,560	1921 1:10,560
1		i i
1	014NE 1921	015NW
- 1	1:10,560	1921
	1.10,500	1:10,560
- 1		Τ .

Historical Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): 32.39 Search Buffer (m): 1000

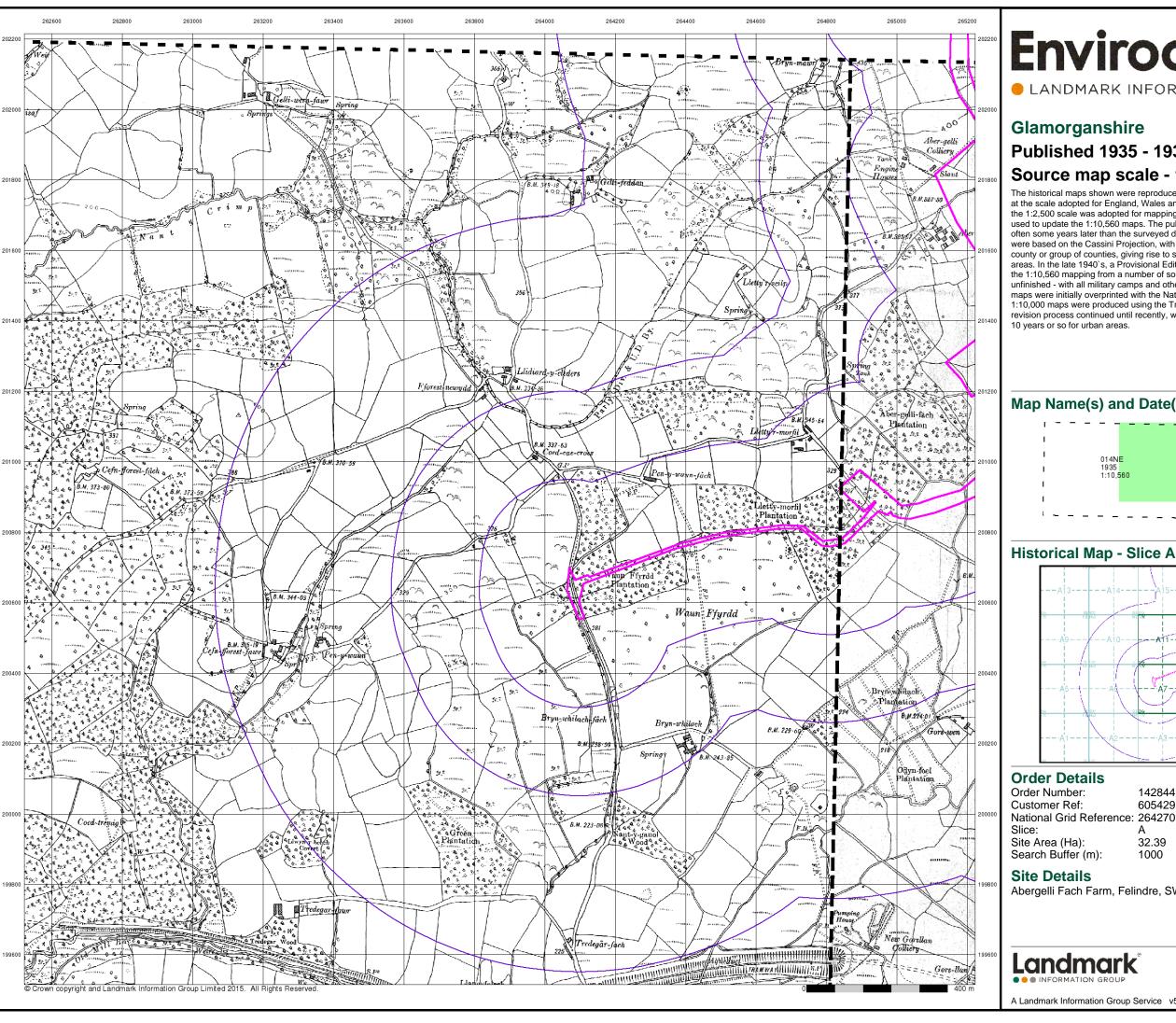
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 5 of 18



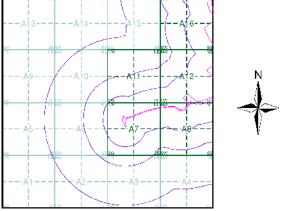
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Published 1935 - 1936 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every

Map Name(s) and Date(s)





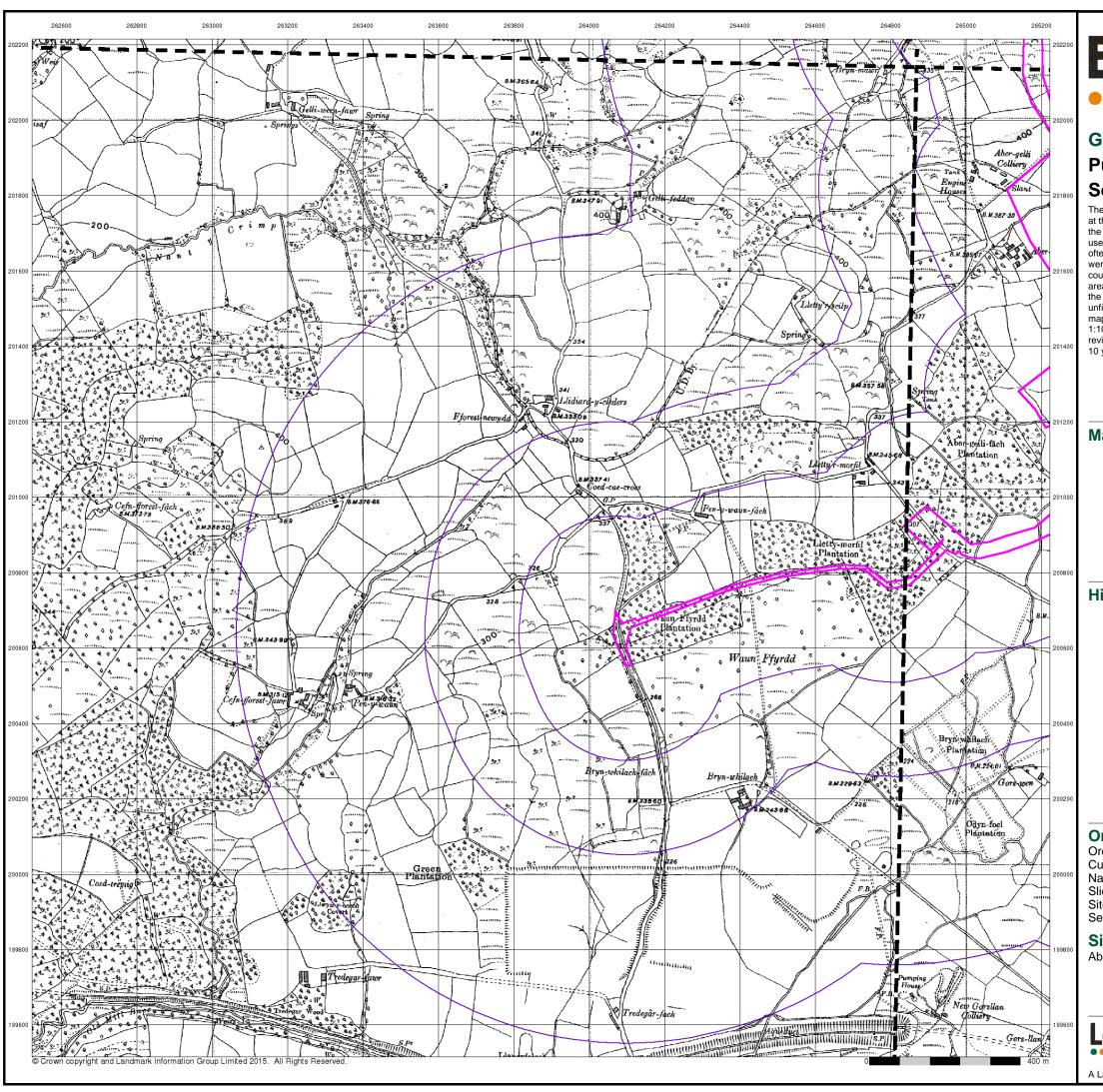
142844199_1_1 60542910 National Grid Reference: 264270, 200830

32.39 1000

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 6 of 18



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Glamorganshire

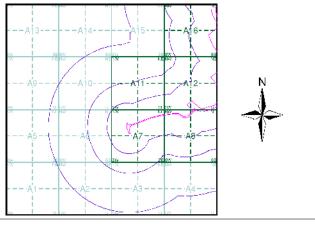
Published 1938 - 1951 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

		7 ~	
ı	007SE	008SW	
- 1	1938 1:10,560	1938 1:10,560	'
- 1		1.10,500	ı
	~ — — -	-	\dashv
- 1	014NE	015NW	
- 1	1951 1:10,560	1938	'
	1.10,000	1:10,560	I
' _			

Historical Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

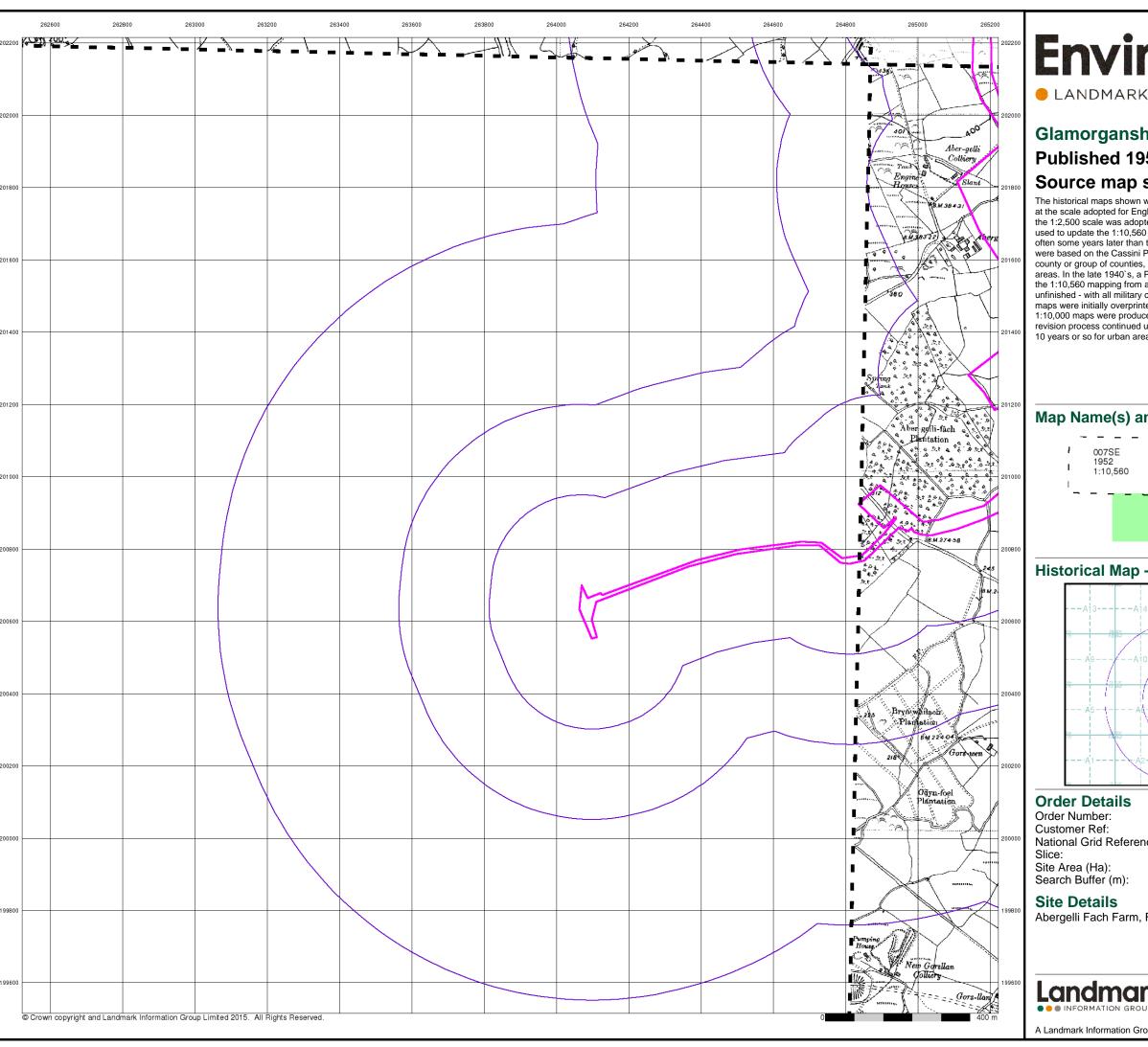
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 7 of 18



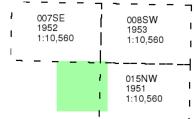
LANDMARK INFORMATION GROUP®

Glamorganshire

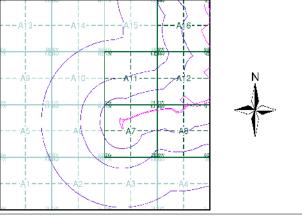
Published 1951 - 1953 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



142844199_1_1 60542910 National Grid Reference: 264270, 200830

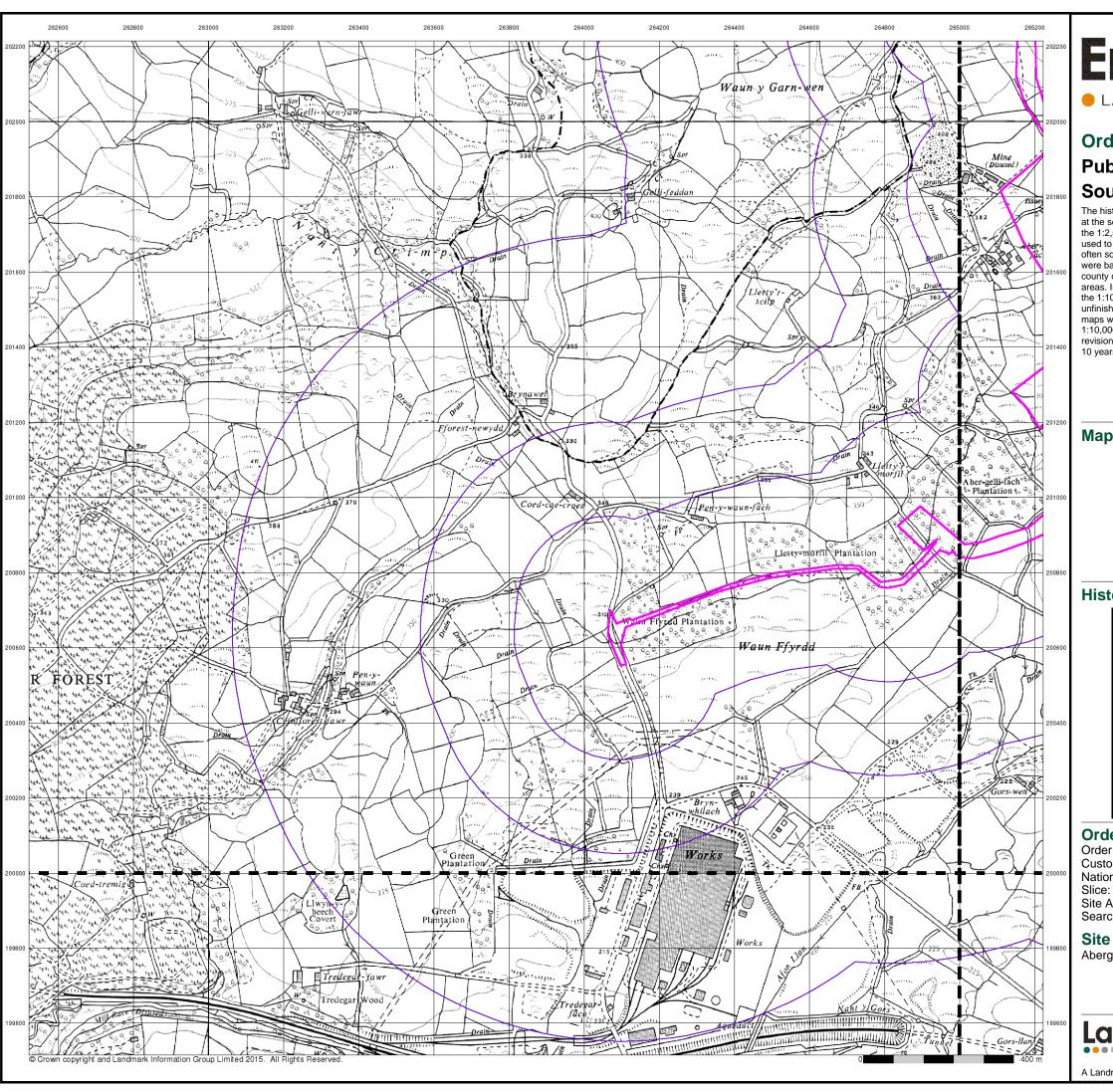
32.39 1000

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 8 of 18

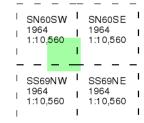


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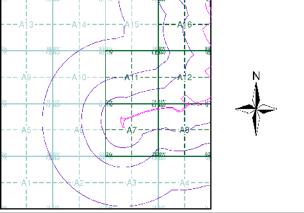
Ordnance Survey Plan Published 1964 Source map scale - 1:10,000

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

); ^ (11)

Site Area (Ha): 32.39 Search Buffer (m): 1000

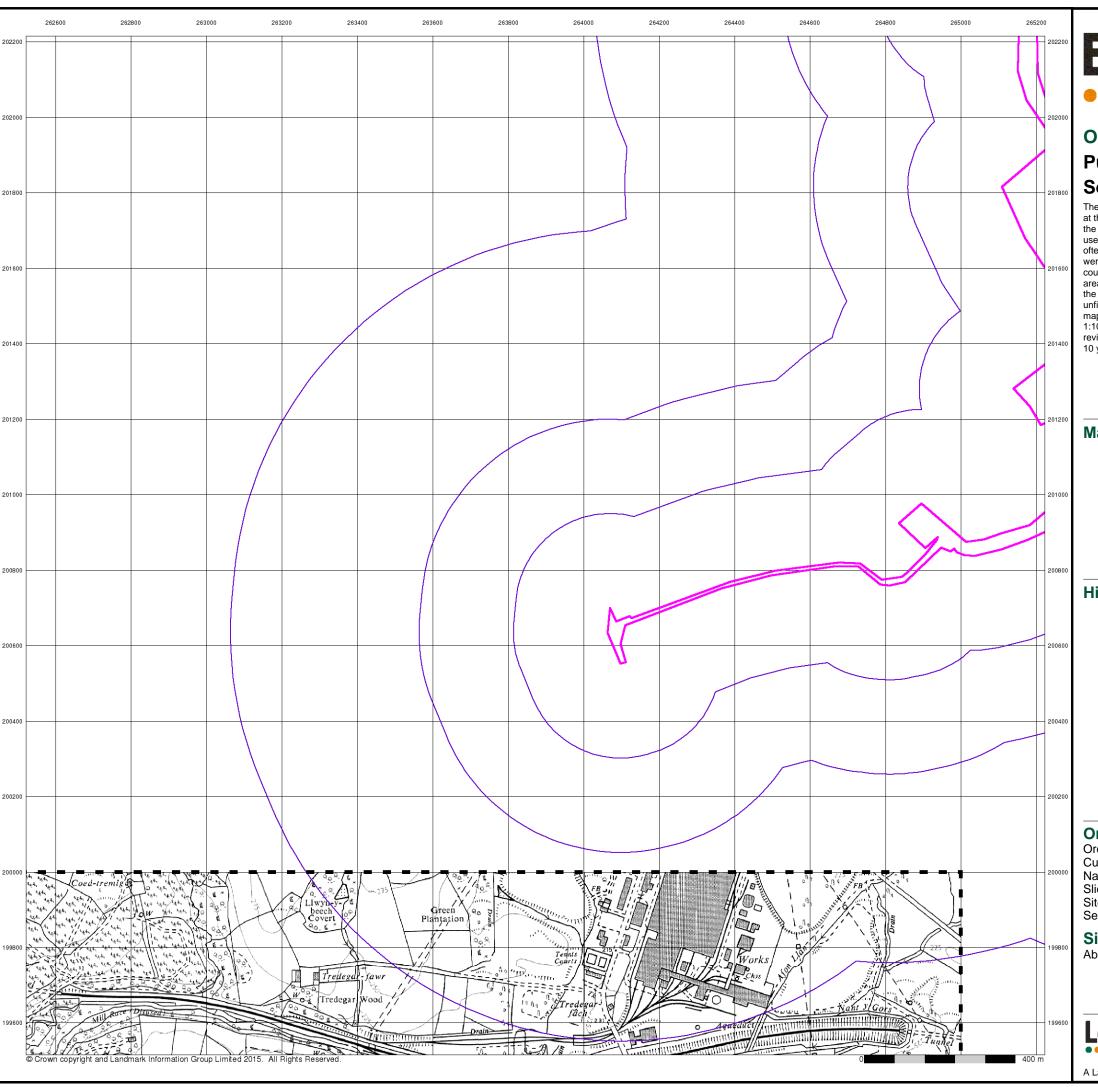
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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

A Landmark Information Group Service v50.0 13-Oct-2017 Page 9 of 18

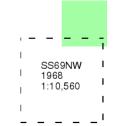


LANDMARK INFORMATION GROUP®

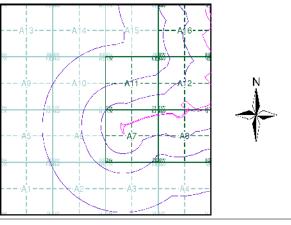
Ordnance Survey Plan Published 1968 Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): Search Buffer (m): 32.39

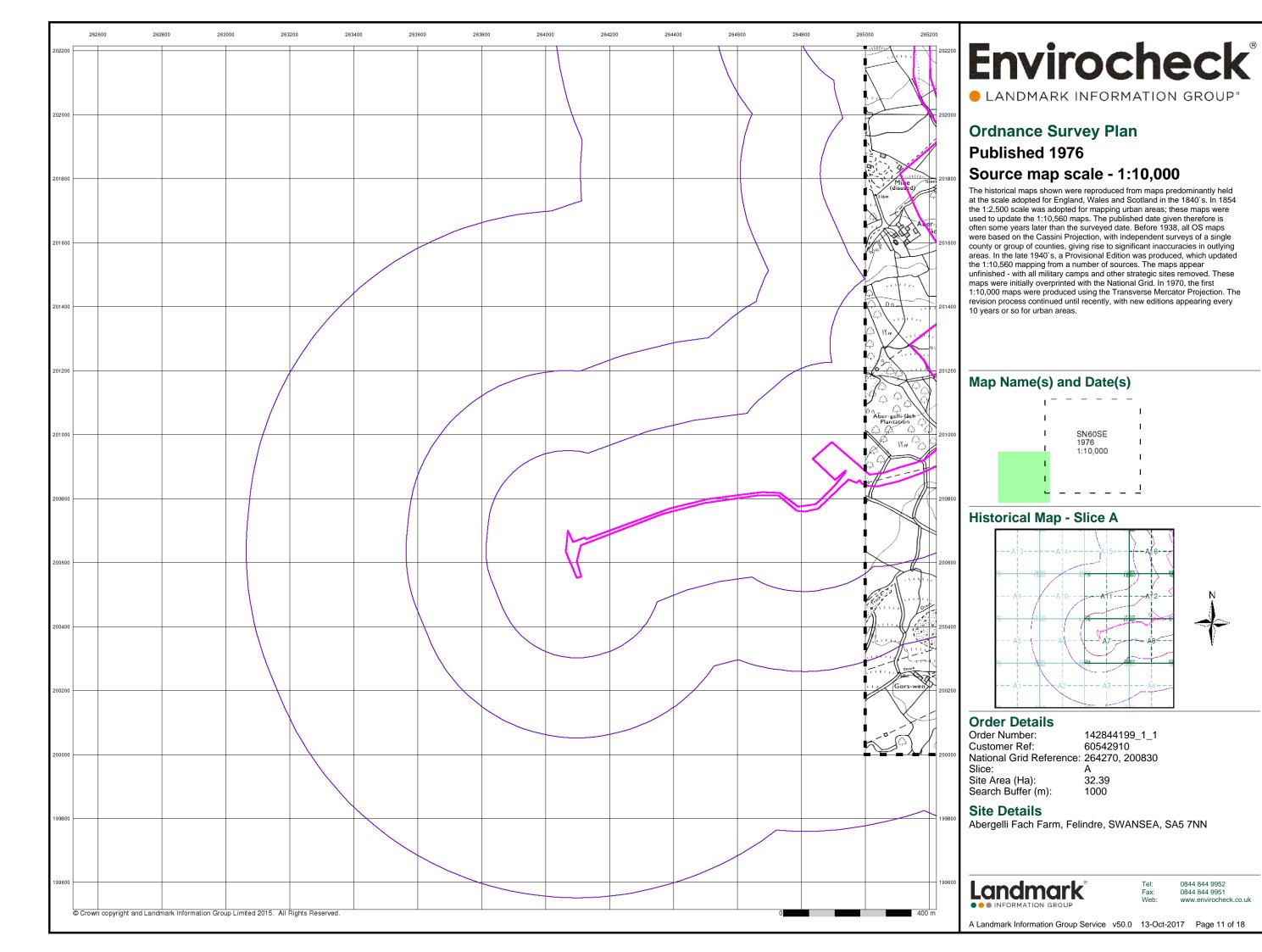
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

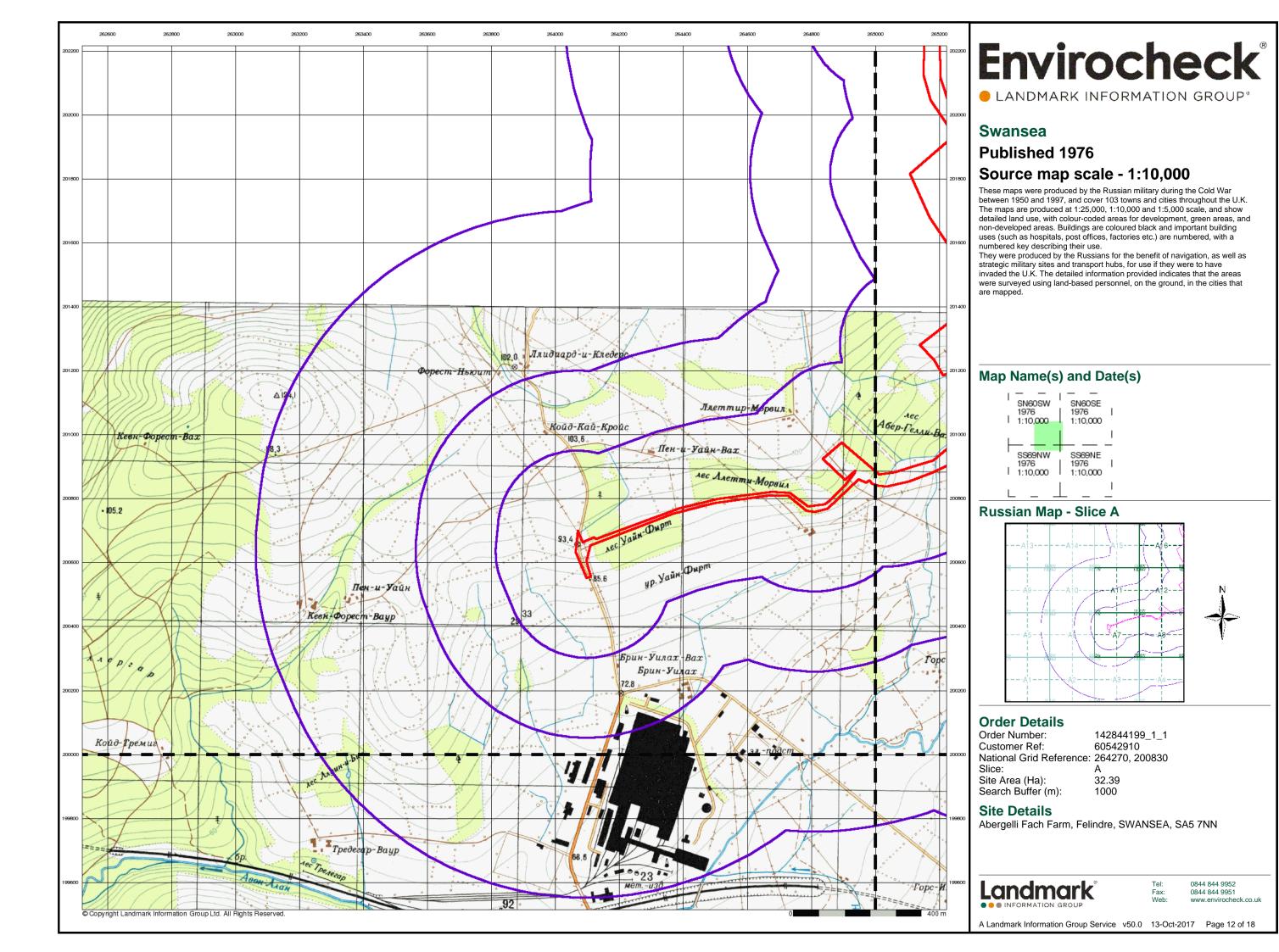


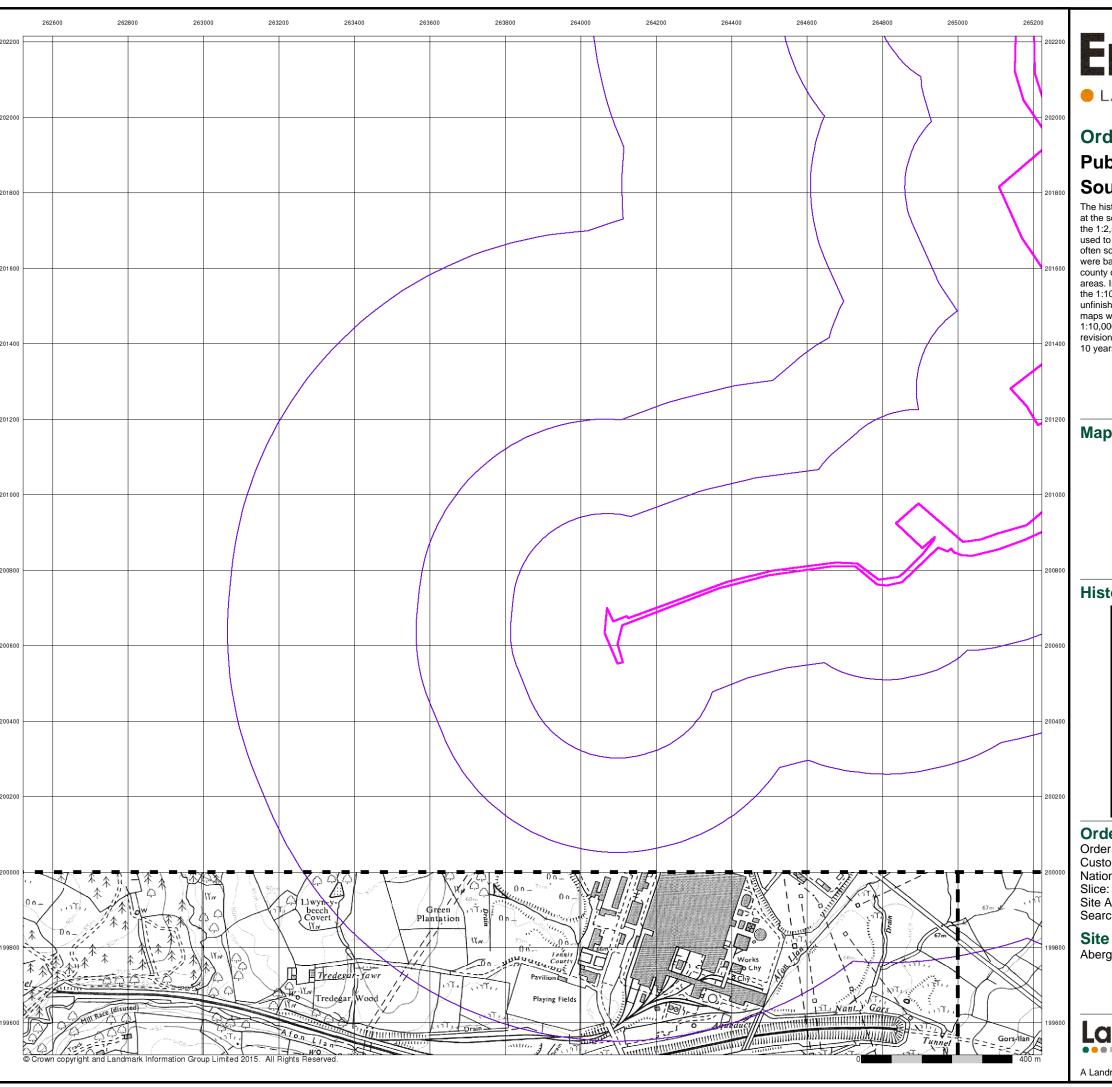
0844 844 9952

A Landmark Information Group Service v50.0 13-Oct-2017 Page 10 of 18



0844 844 9952



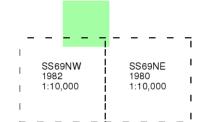


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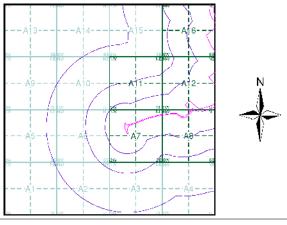
Ordnance Survey Plan Published 1980 - 1982 Source map scale - 1:10,000

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

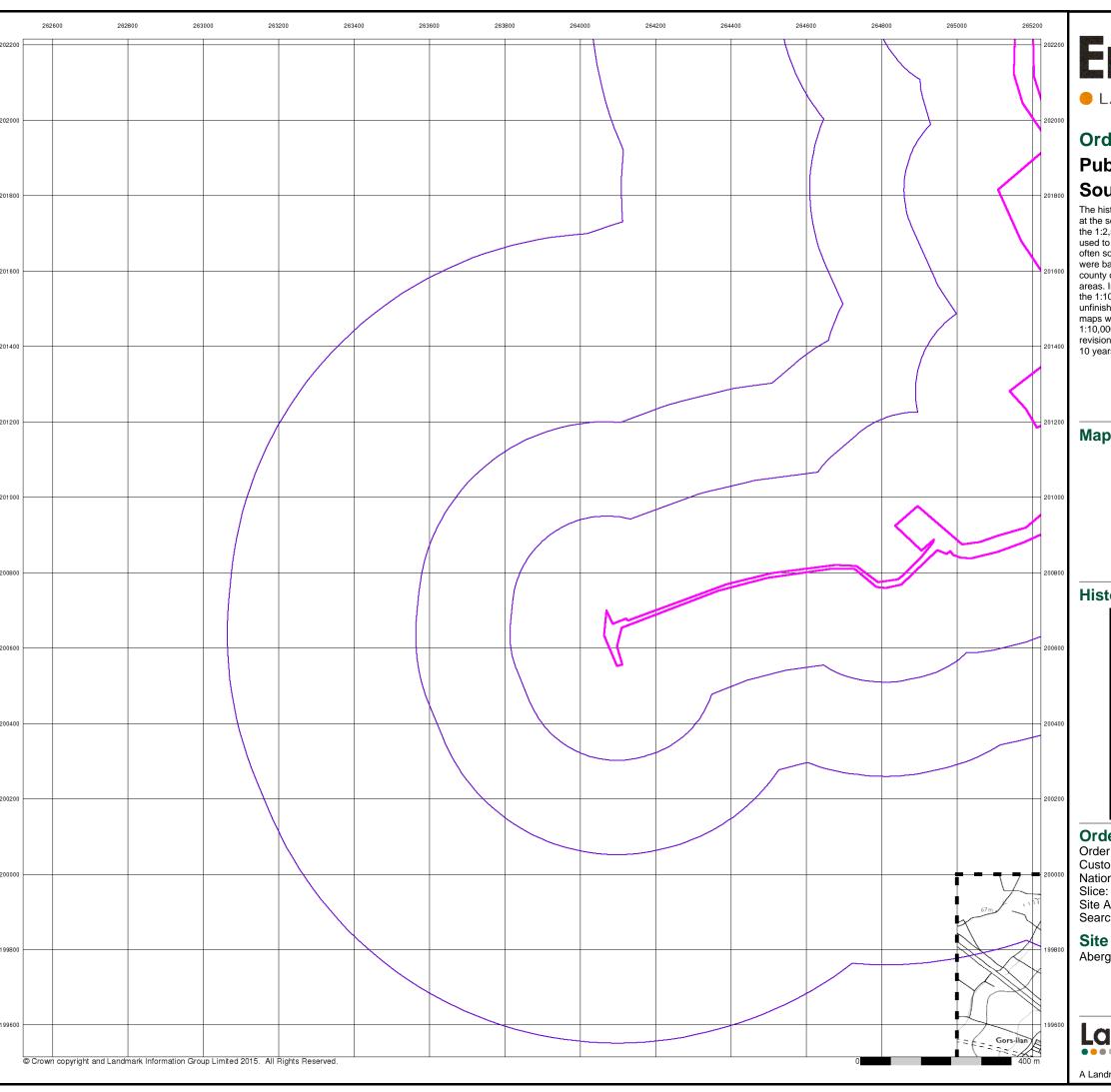
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952

A Landmark Information Group Service v50.0 13-Oct-2017 Page 13 of 18

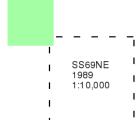


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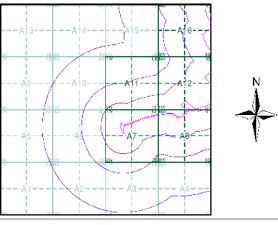
Ordnance Survey Plan Published 1989 Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39 1000

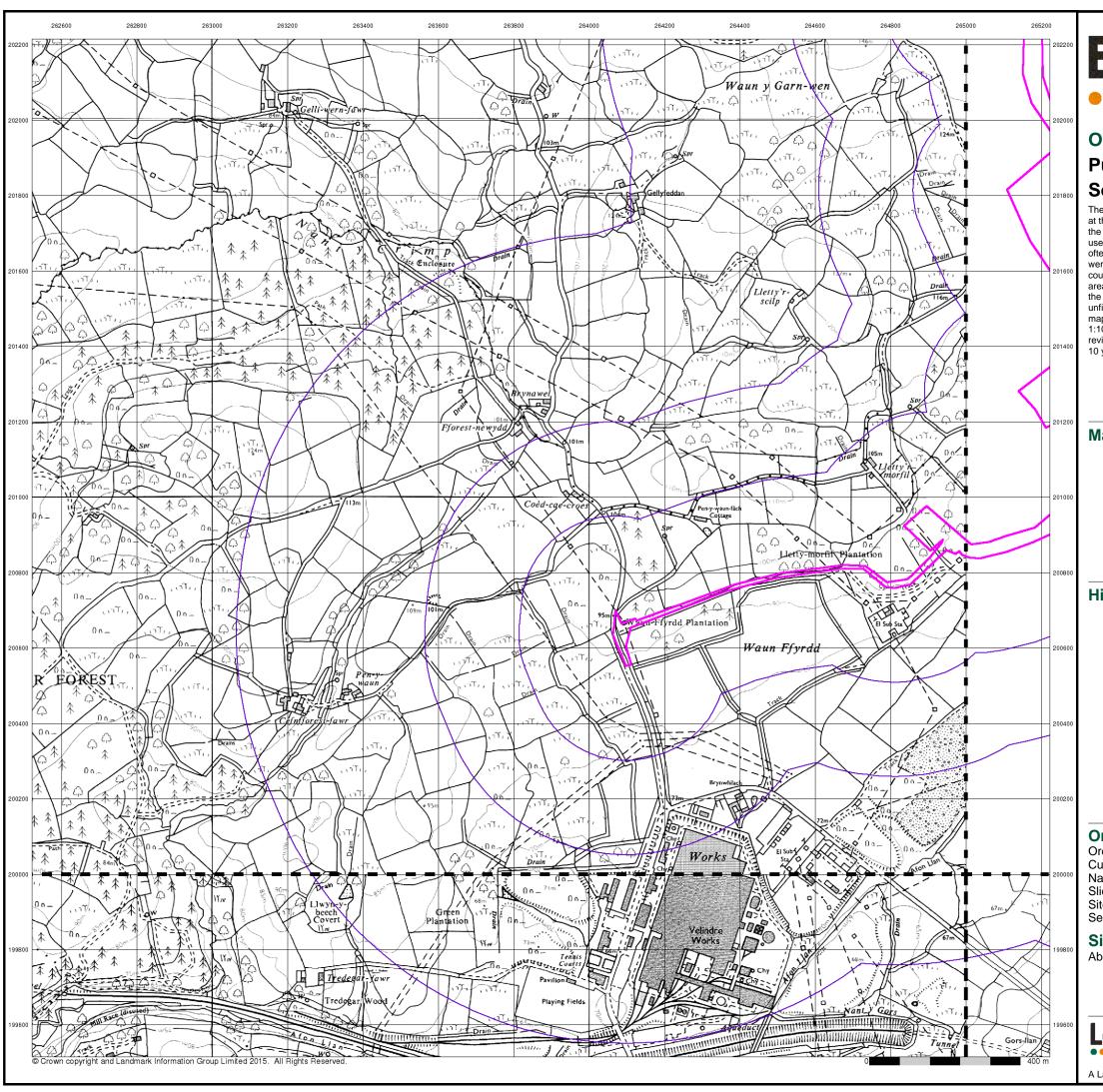
Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 14 of 18

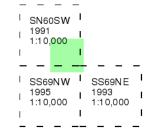


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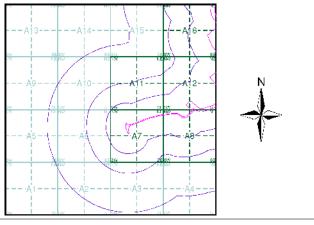
Ordnance Survey Plan Published 1991 - 1995 Source map scale - 1:10,000

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): Search Buffer (m): 32.39

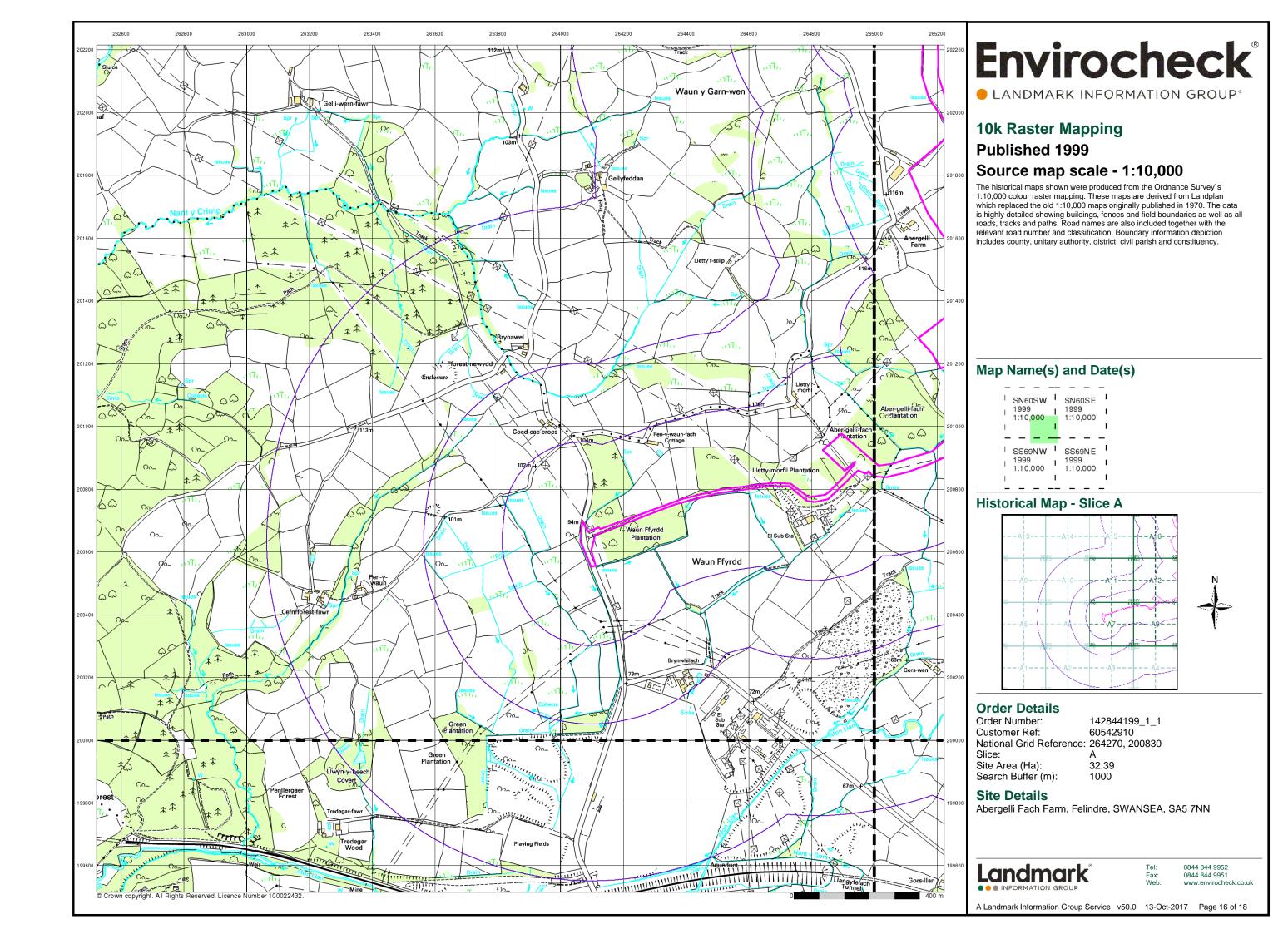
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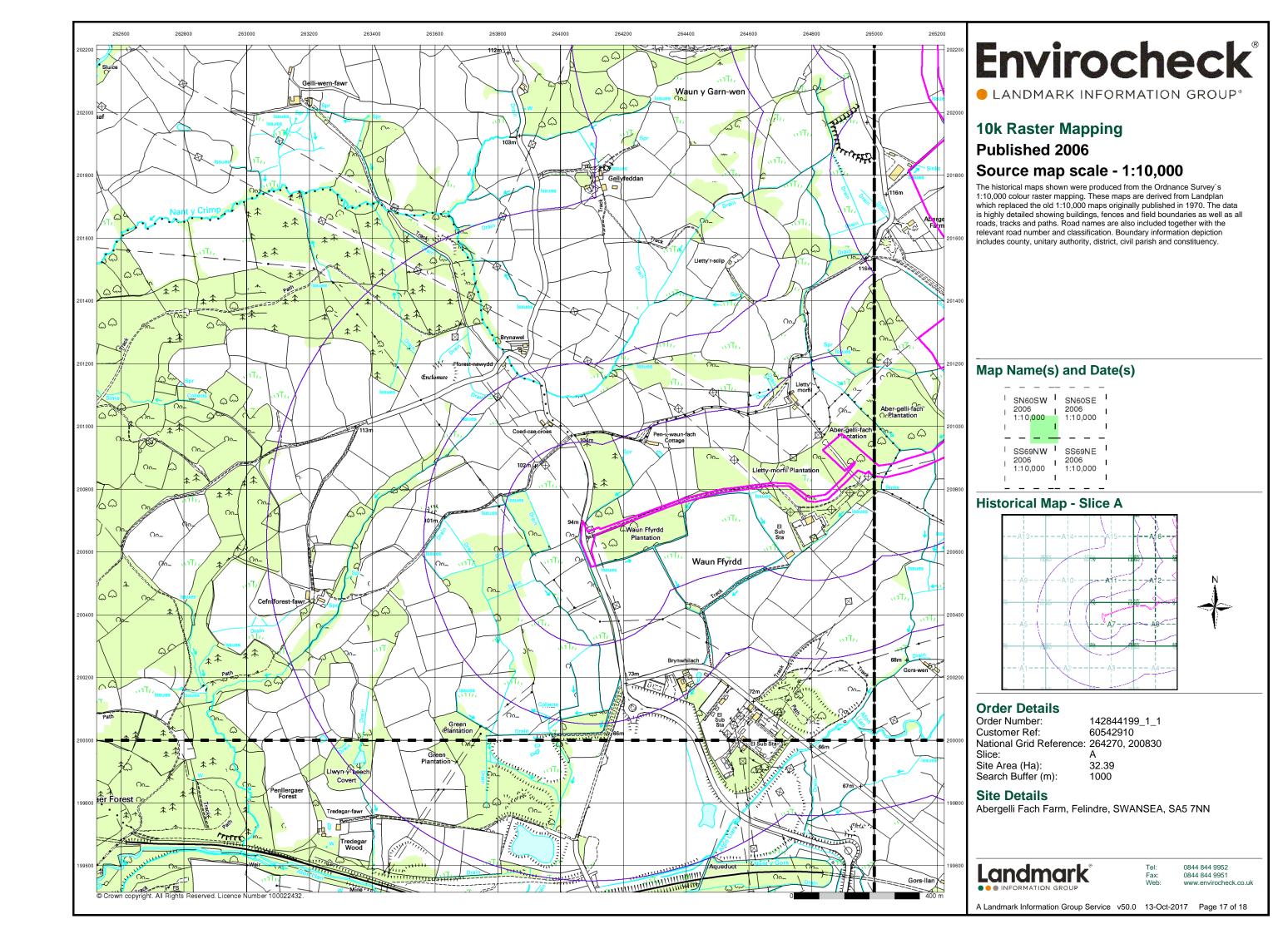
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

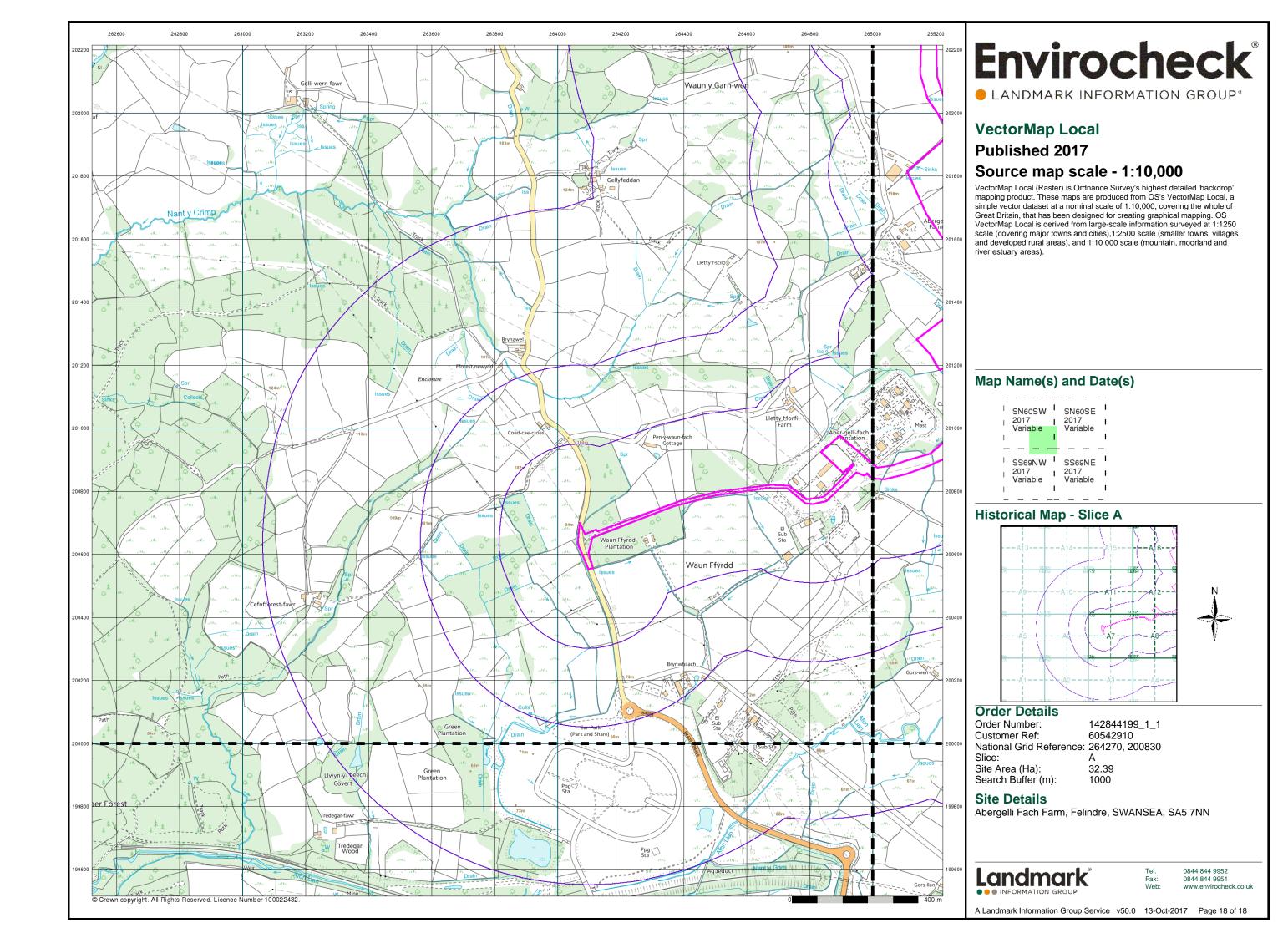


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A Landmark Information Group Service v50.0 13-Oct-2017 Page 15 of 18







Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice:

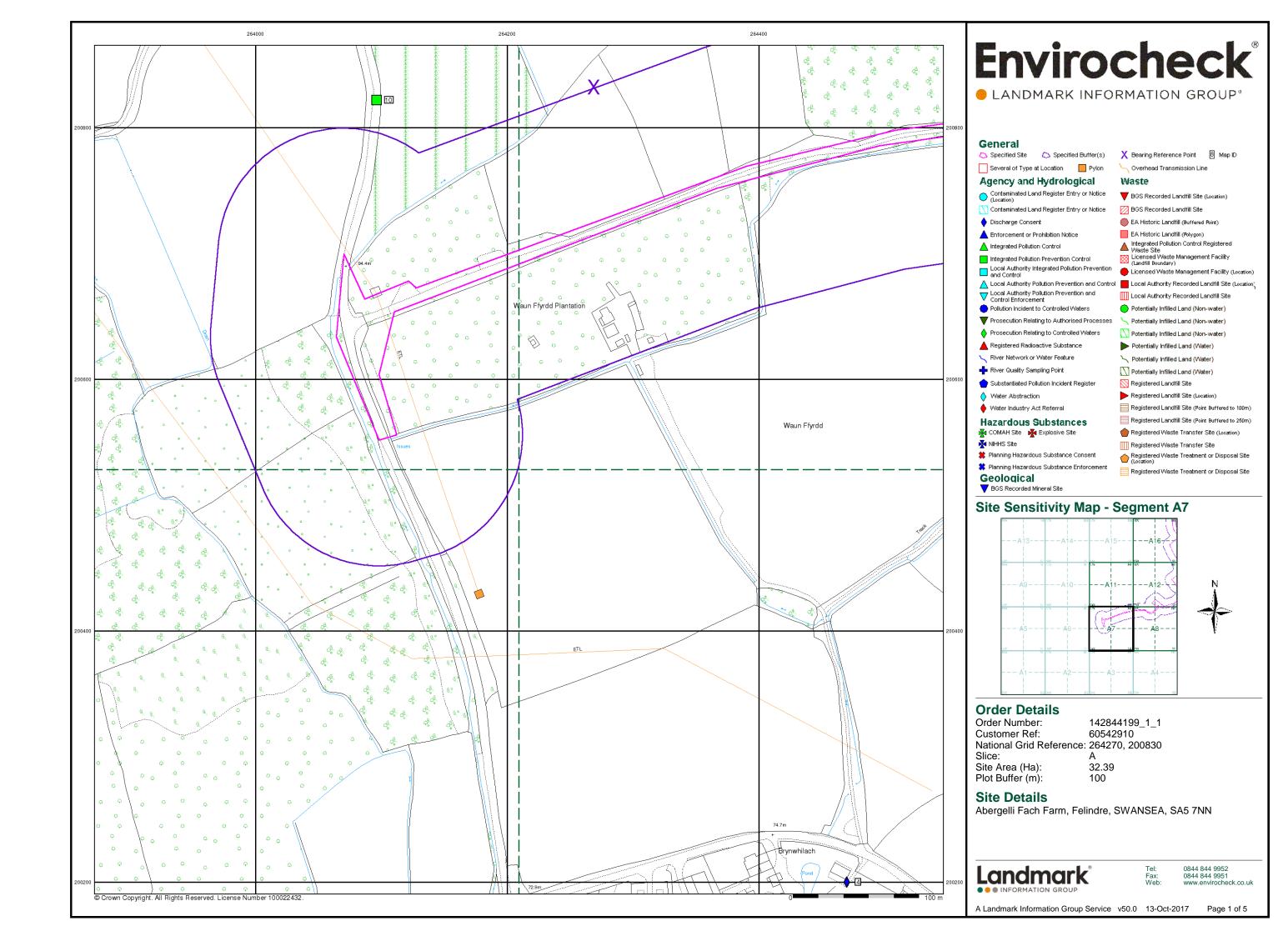
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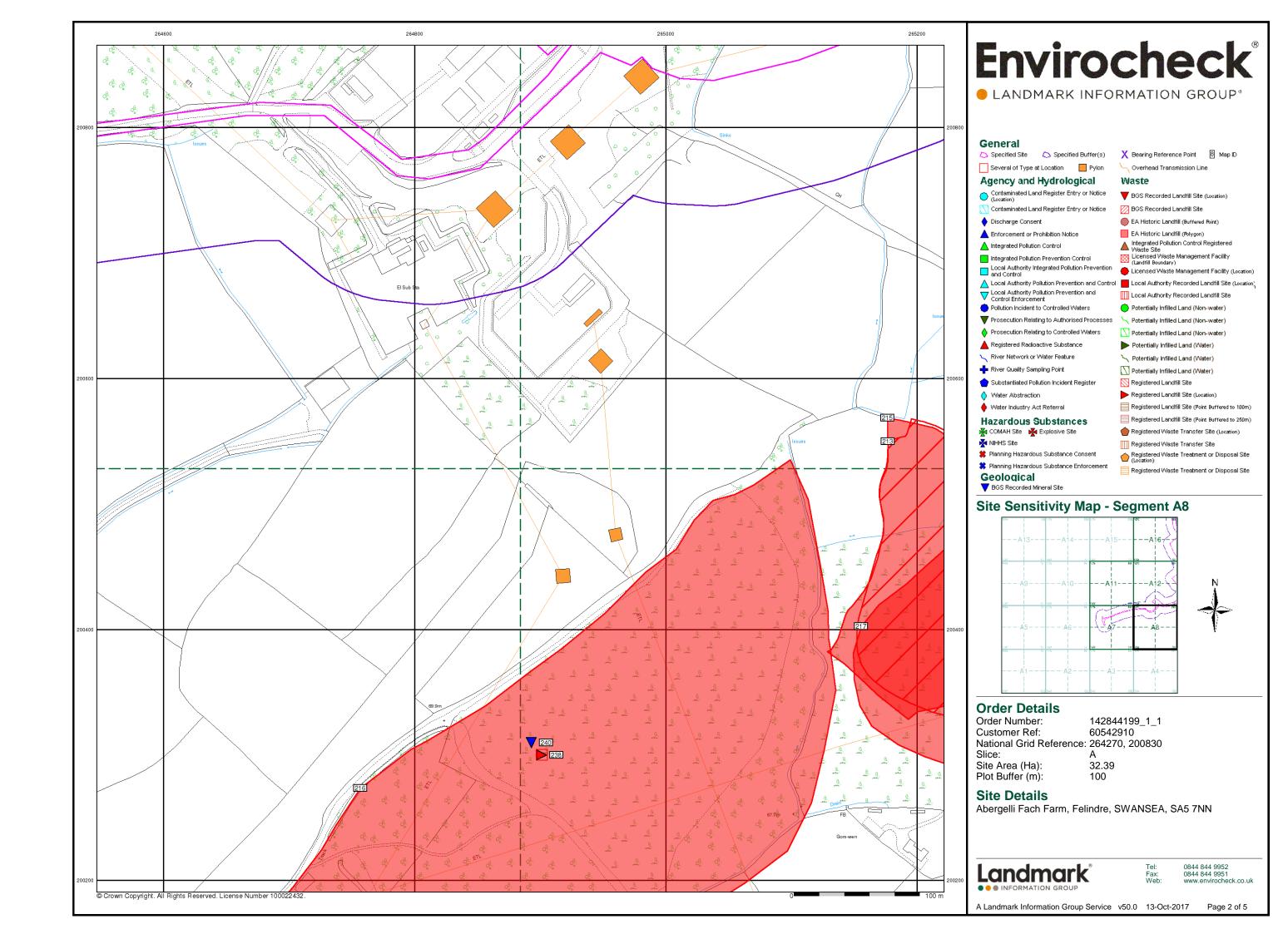
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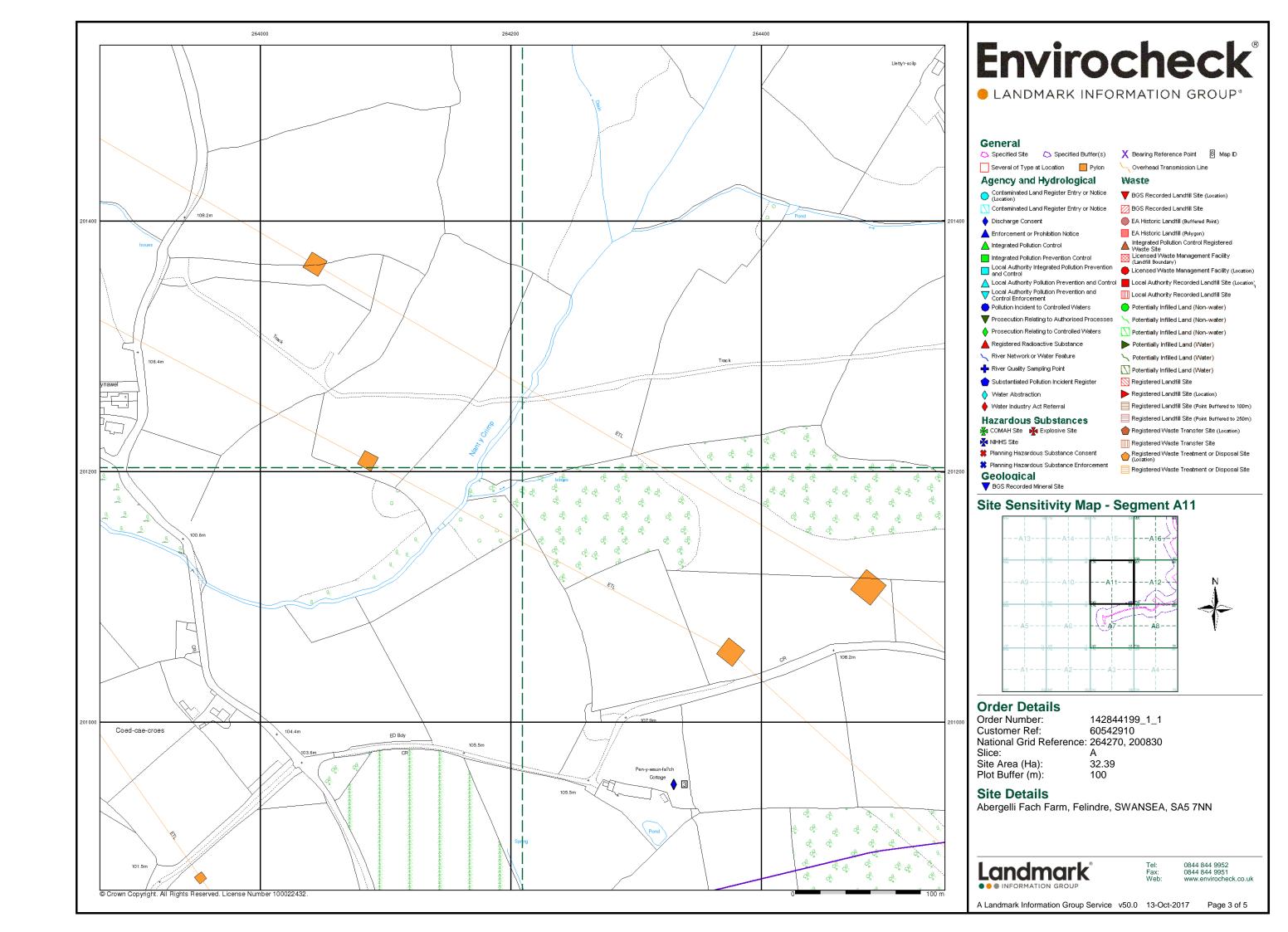
Abergelli F Felindre SWANSEA SA5 7NN

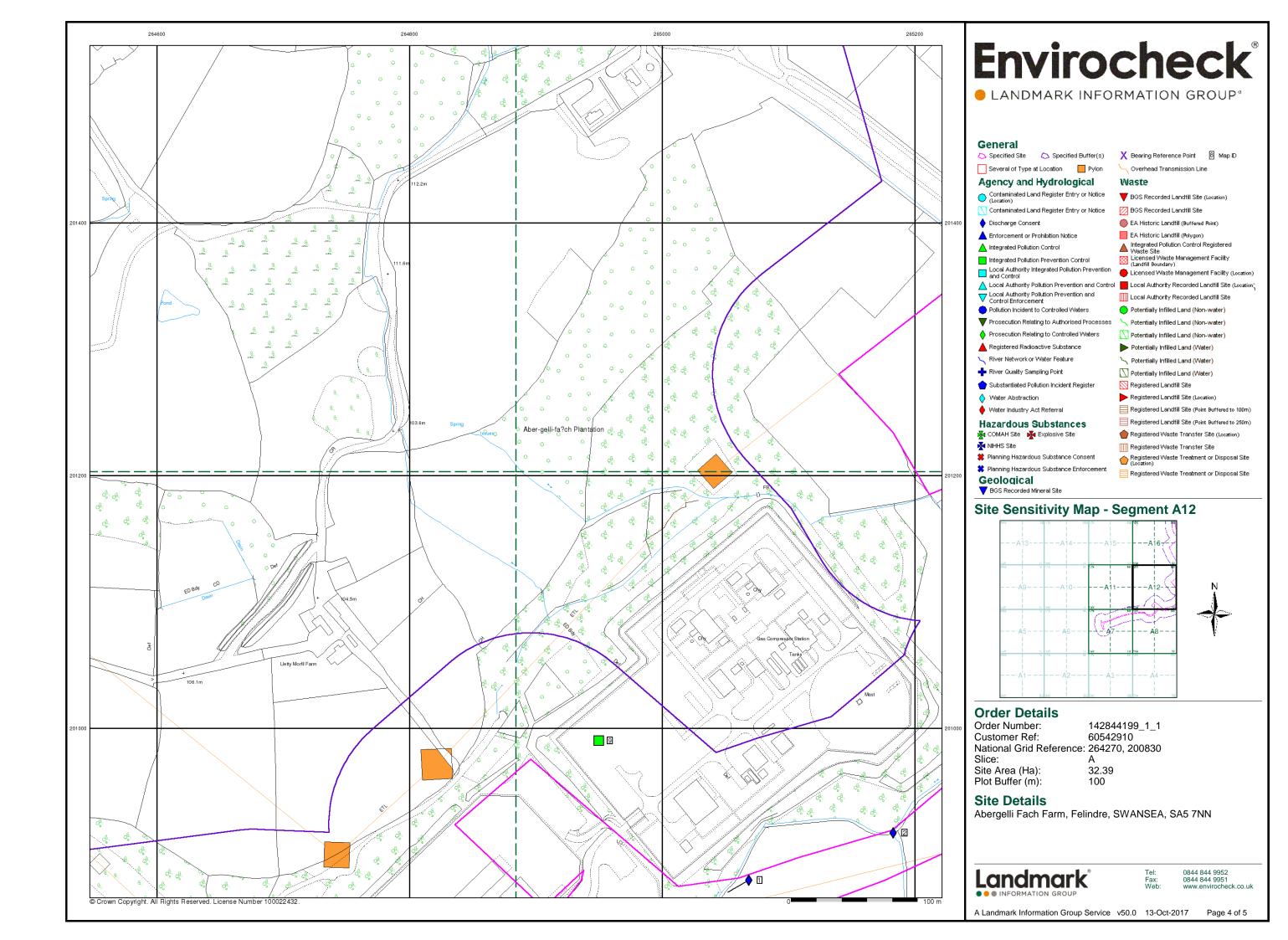
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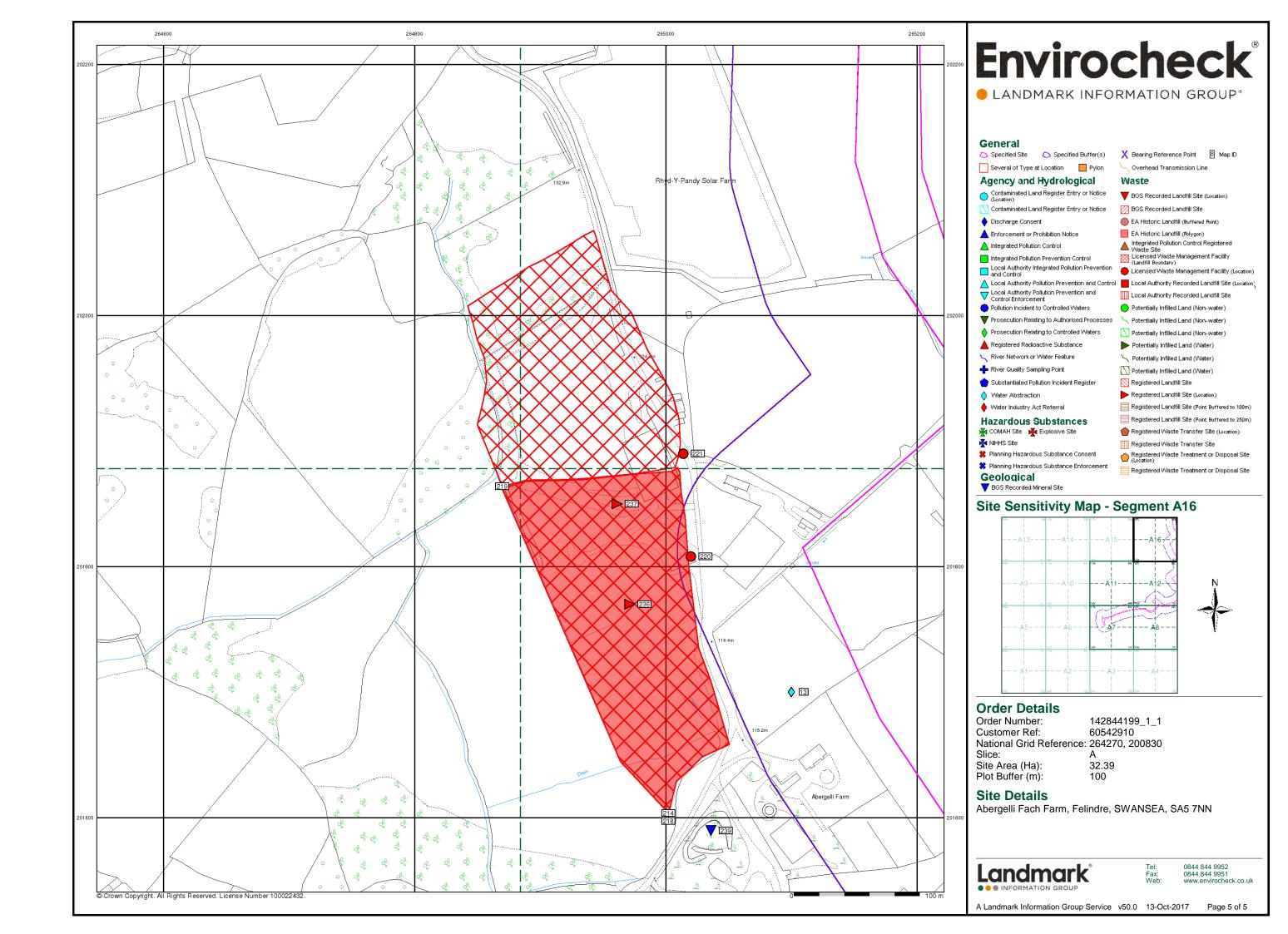
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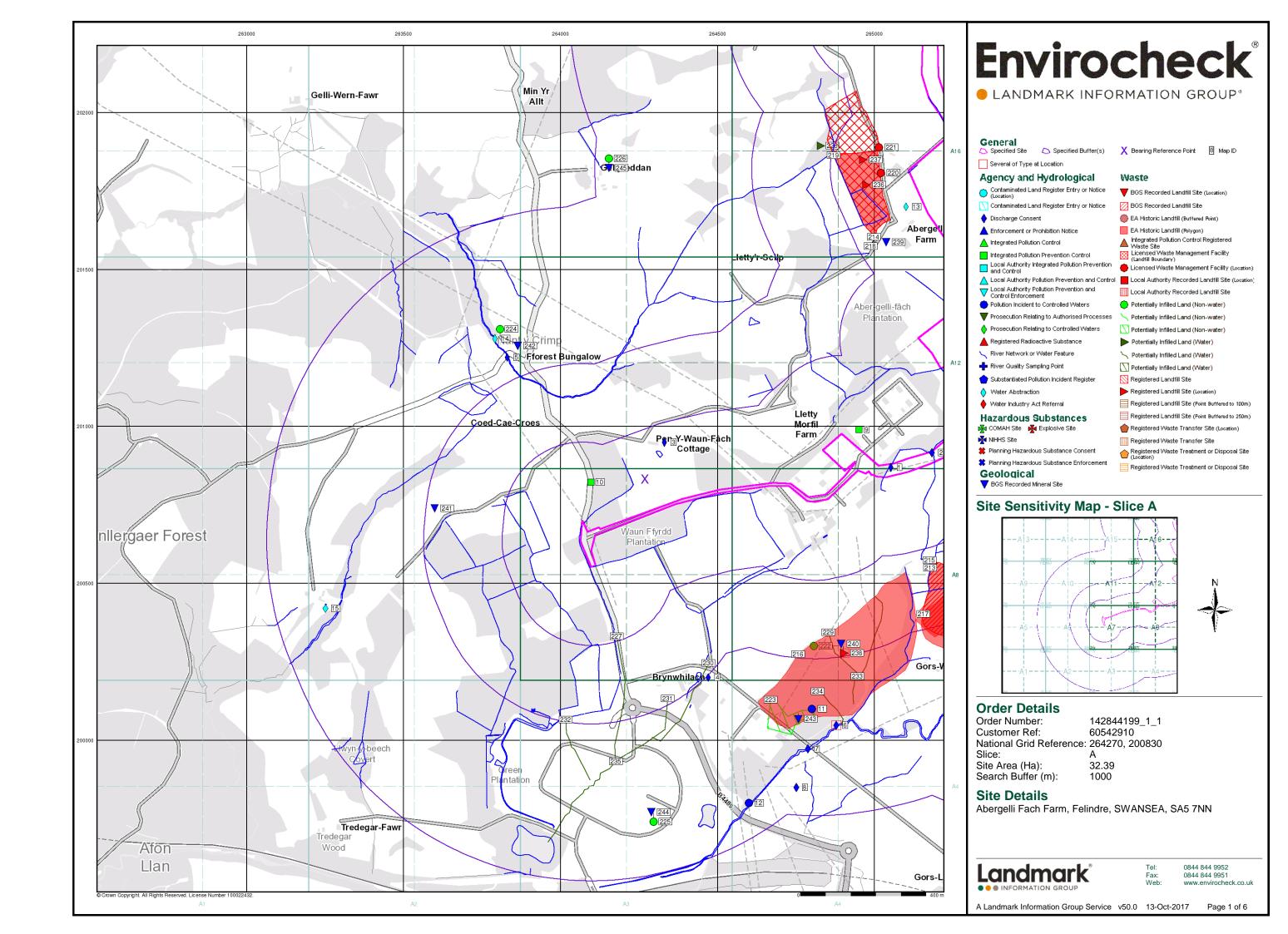


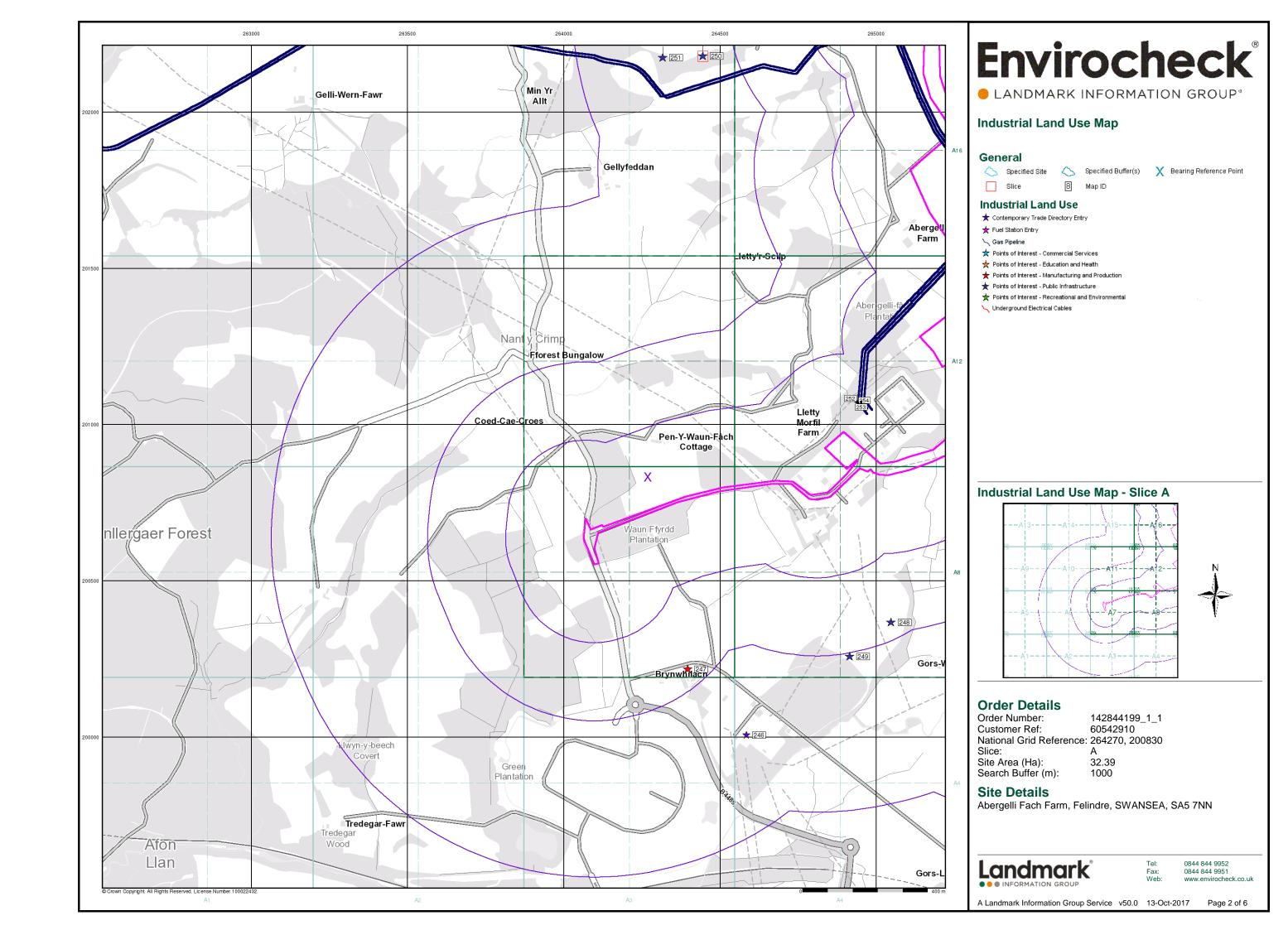


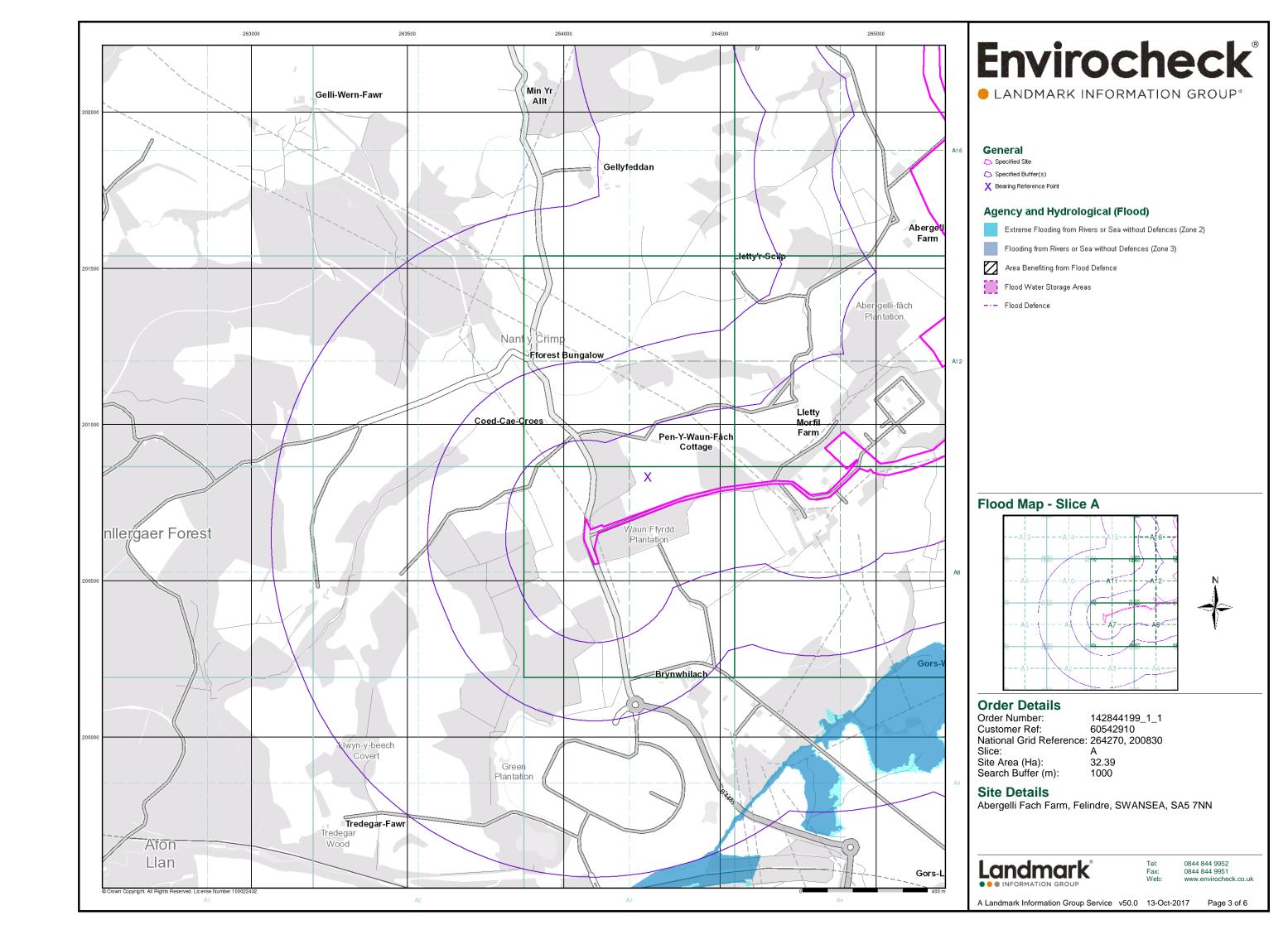


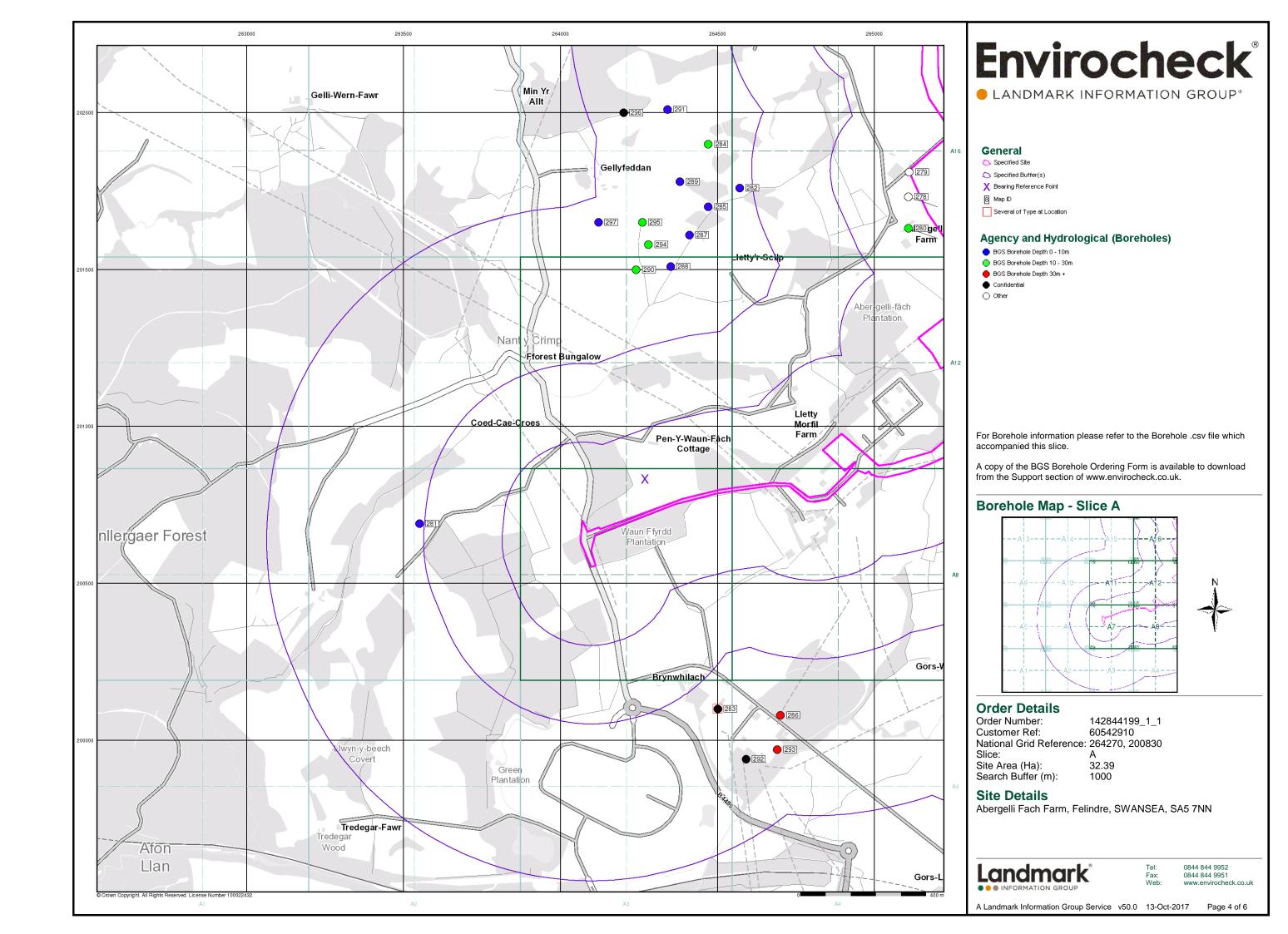


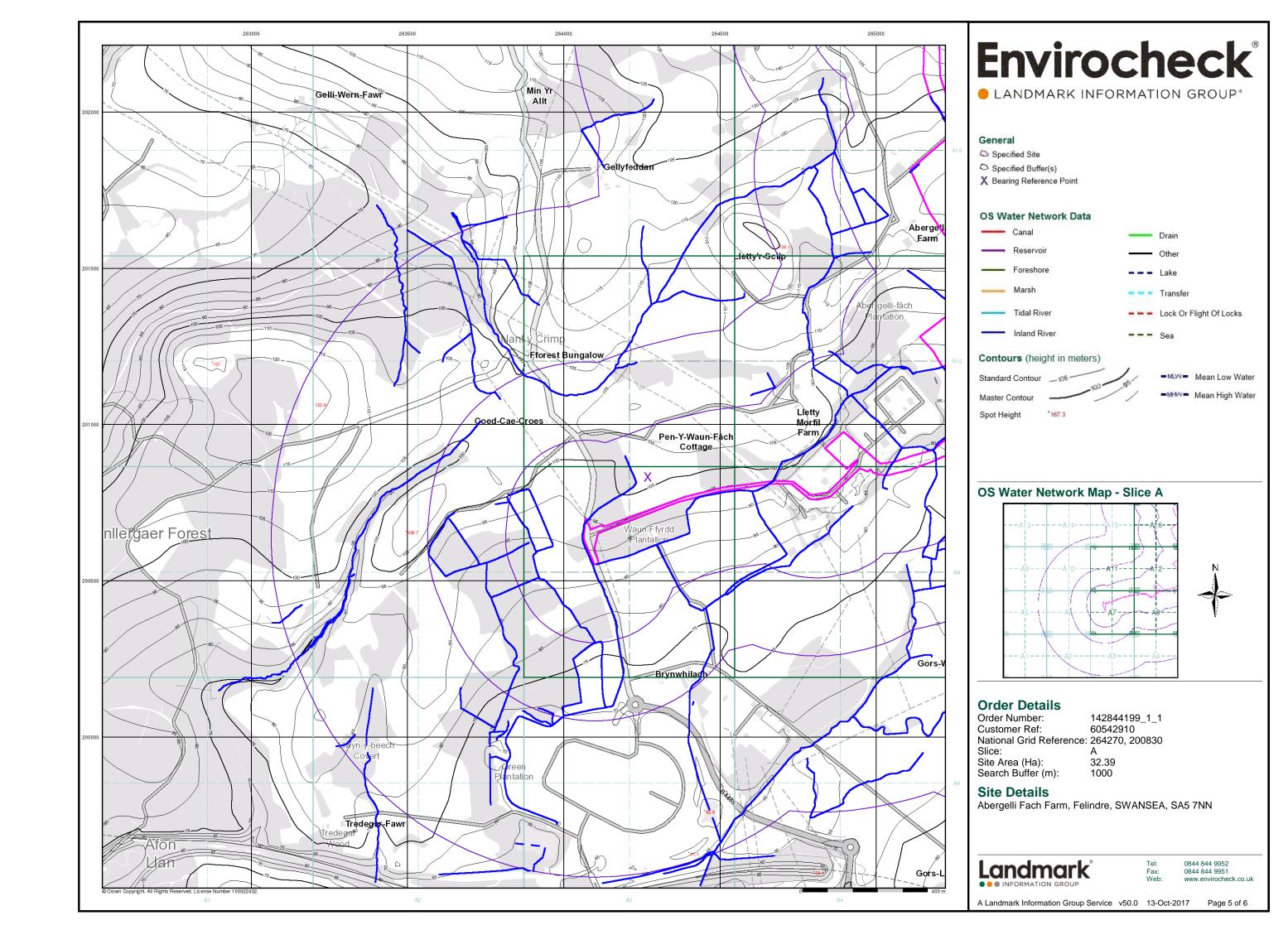


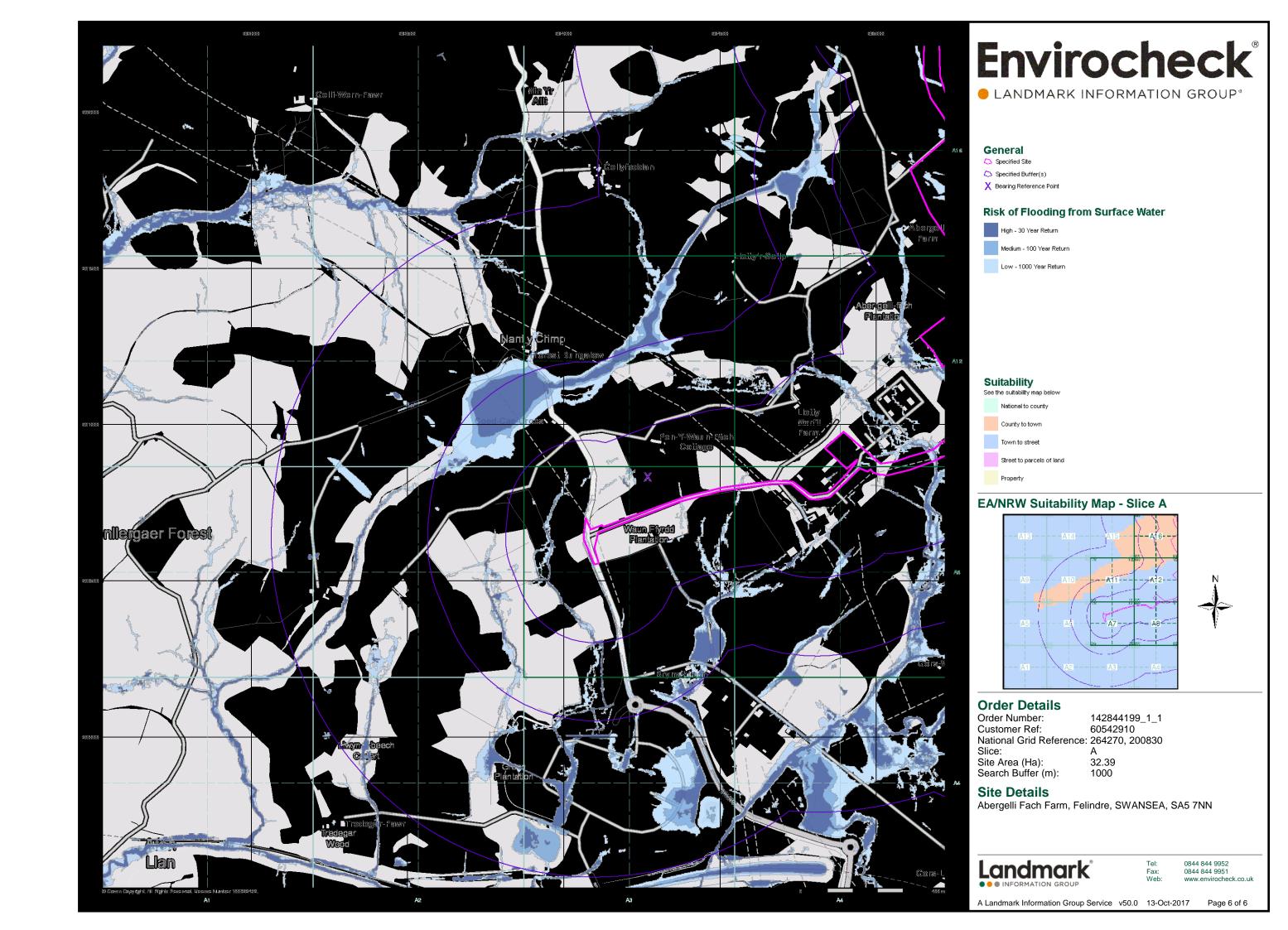


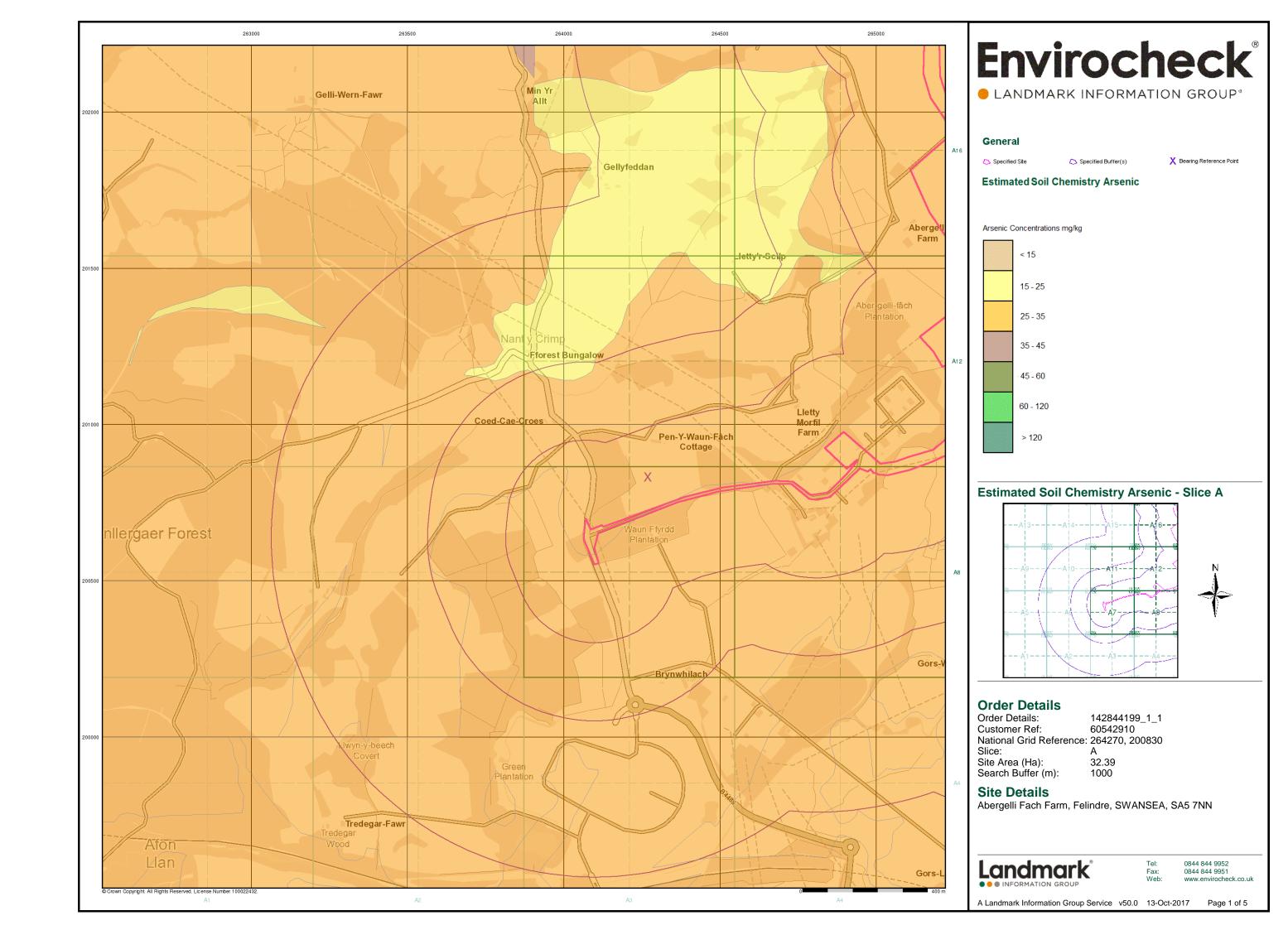


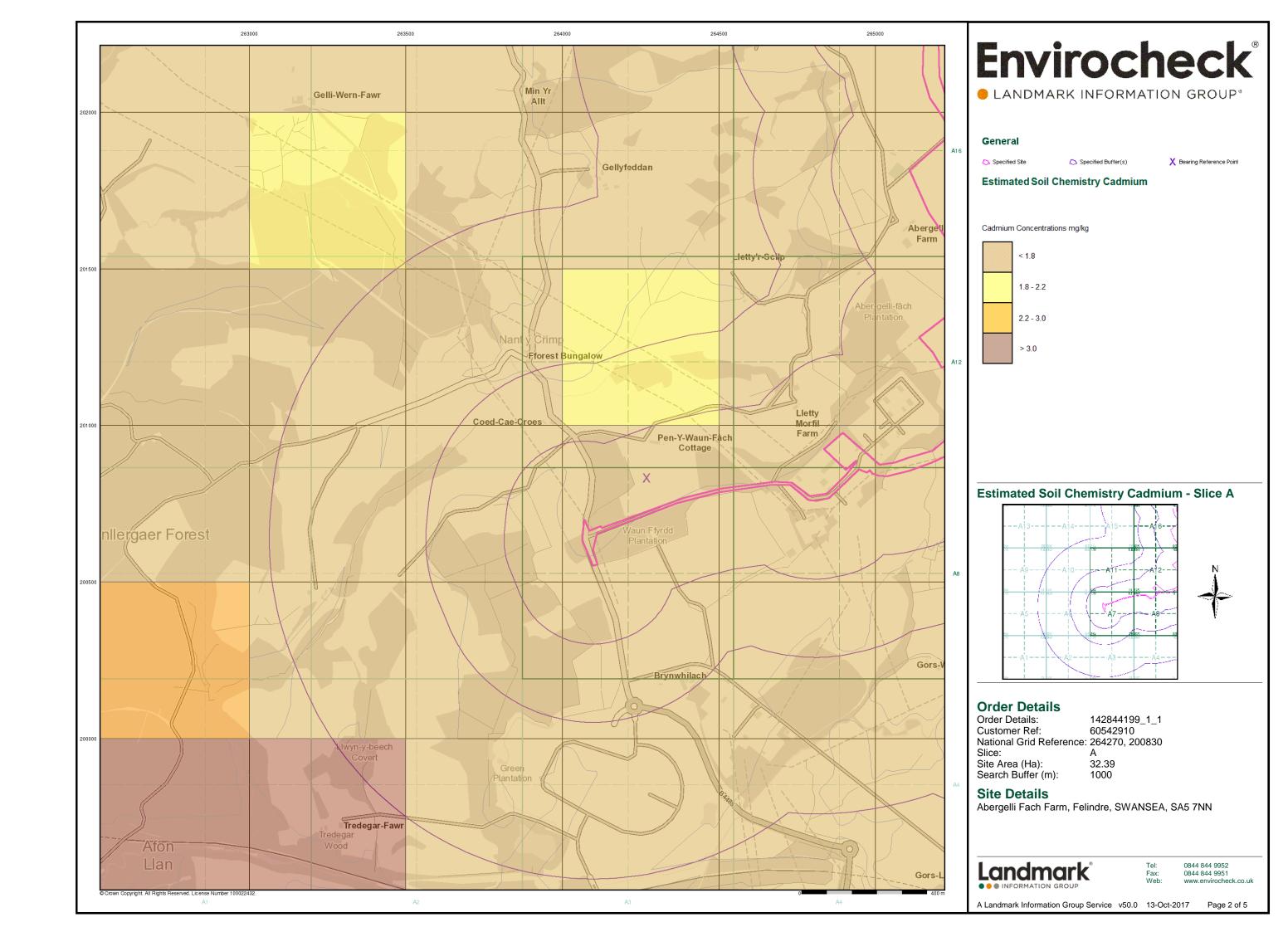


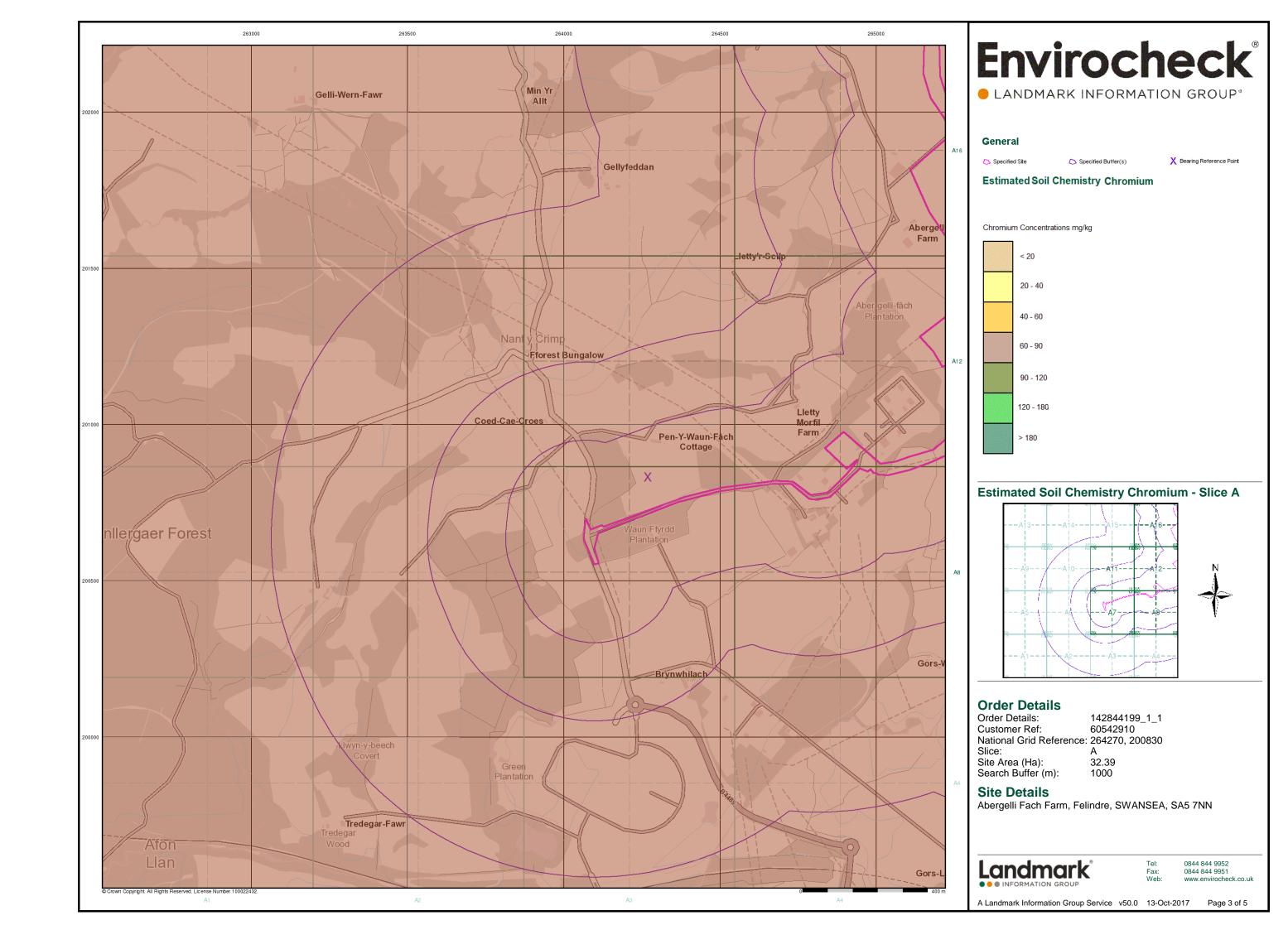


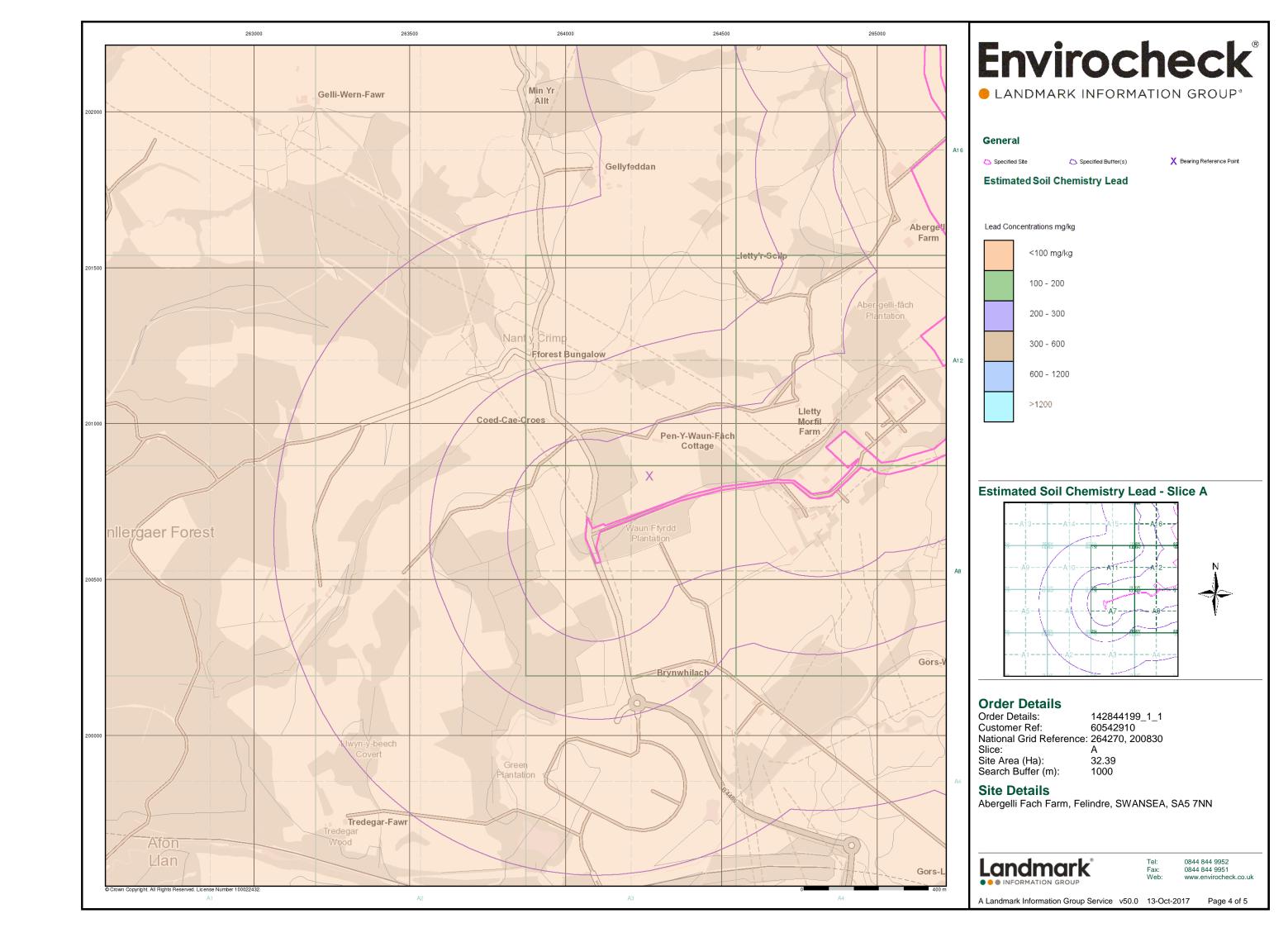


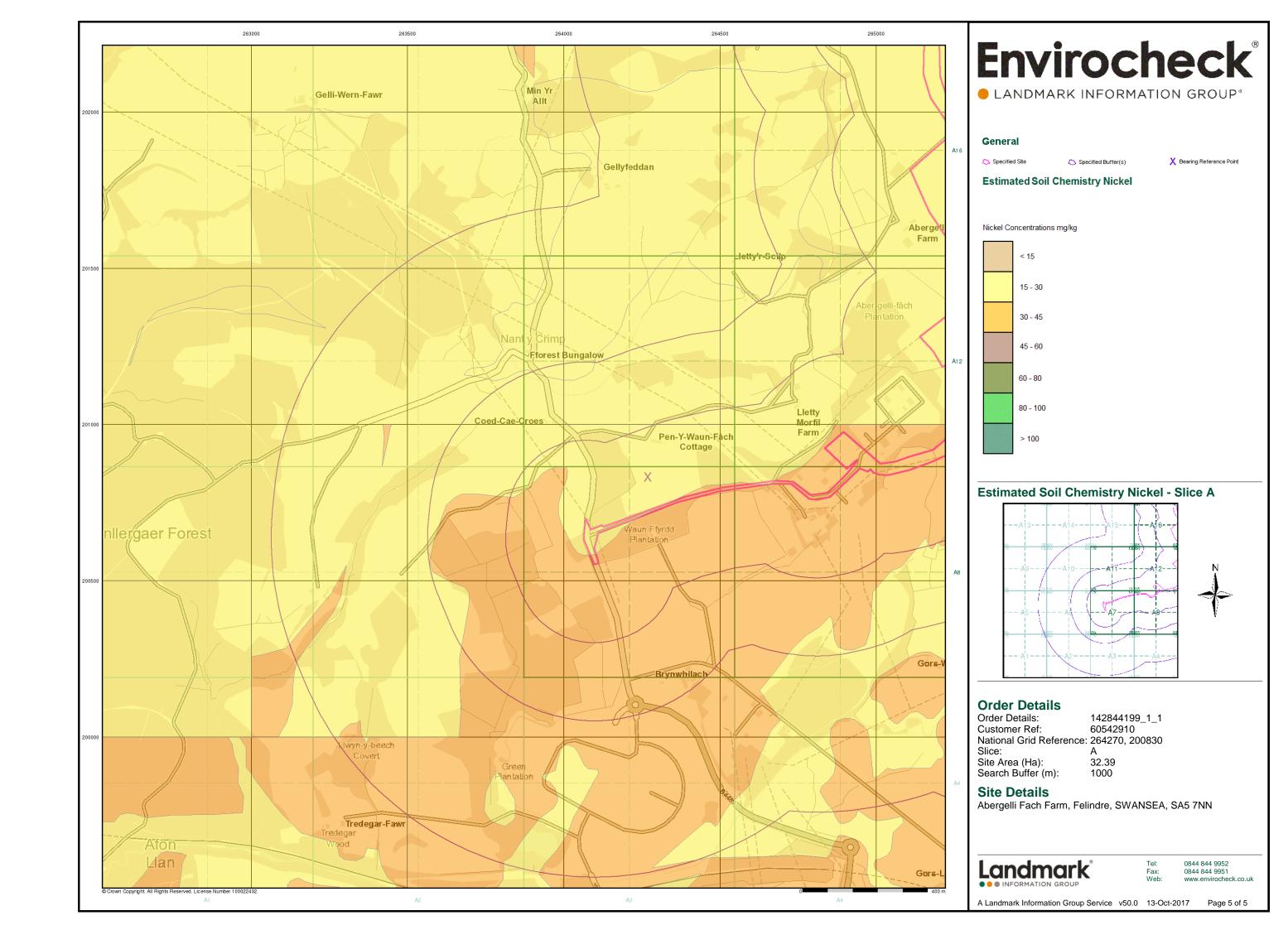












Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 200830

Slice: A

Site Area (Ha): 1000

Search Buffer:

Site Details Felindre SWANSEA SA5 7NN

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.enviroche BGS Boreholes

Map ID:	Easting:	Northing:	Distance:	Quadr	ant FQuadrant	t f Beari	ing Re BGS Refere	Drilled Len Borehole N
278	265200	201700	0	A16	SE	NE	Sn60se16	Not SupplicAbergelli S
279	265110	201810	2	A16	SE	NE	Sn60se15	Not SupplicAbergelli C
280	265200	201600	20	A16	SE	NE	Sn60se24	16 Abergelli-F
281	263550	200690	517	A6	NE	W	Sn60sw96	9 Pen-Y-Waι
282	264570	201760	542	A16	SW	N	Sn60sw68	7.92 Abergelli. E
283	264500	200100	599	А3	NE	S	Sn60sw78	Not SupplicSwansea N
283	264500	200100	599	А3	NE	S	Sn60sw79	Not SupplicSwansea N
283	264500	200100	599	А3	NE	S	Sn60sw80	Not SupplicSwansea N
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283	264500	200100	599	А3	NE	S	Sn60sw82	Not SupplicSwansea N
284	264470	201900	645	A15	NE	N	Sn60sw67	11.58 Abergelli. E
285	264470	201700	650	A15	SE	N	Sn60sw69	4.78 Abergelli. E
286	264700	200080	688	A4	NW	SE	Sn60sw48	130.4 Bryn-Whila
287	264410	201610	729	A15	SE	N	Sn60sw70	6.4 Abergelli. E
288	264350	201510	730	A11	NE	N	Sn60sw71	8.53 Abergelli. E
289	264380	201780	730	A15	SE	N	Sn60sw75	7.32 Abergelli. E
290	264240	201500	746	A11	NE	N	Sn60sw72	12.19 Abergelli. E
291	264340	202010	758	A15	NE	N	Sn60sw66	9.45 Abergelli. E
292	264590	199940	780	A4	NW	S	Ss69nw152	Not SupplicLlanelli-Sw
293	264690	199970	798	A4	NW	SE	Ss69nw369	130.48 Bryn-Whila
294	264280	201580	814	A15	SE	N	Sn60sw73	10.97 Abergelli. E
295	264260	201650	866	A15	SE	N	Sn60sw74	14.25 Abergelli. E
296	264200	202000	891	A15	NW	N	Sn60sw1	Not SupplicCil-Faen, 2!
297	264120	201650	921	A15	SW	N	Sn60sw76	7.92 Abergelli. E

eck.co.uk.

Link to Borehole Scan:

Not Available

Not Available

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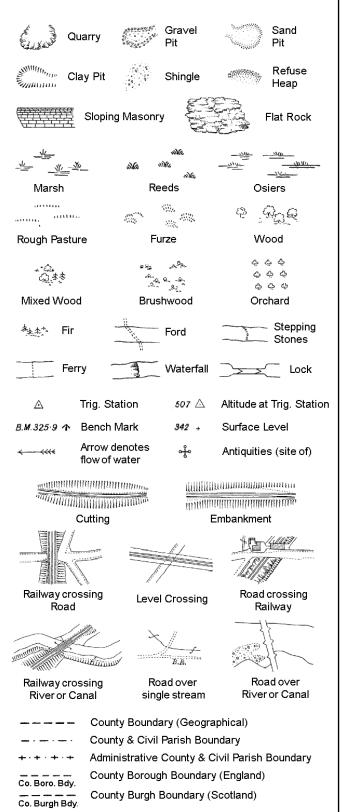
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Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



B.R.

E.P

F.B.

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

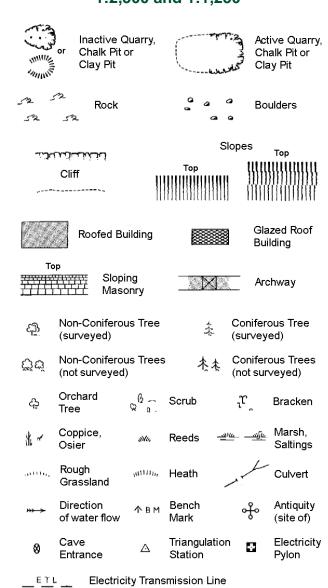
Trough Well

S.P

Sl.

 T_T

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



E T L	Electricity Transmission Line

County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

вн	Beer House	Р	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

1:1,250

المأعلان	للنبلين			opes	Тор
	Cliff 		Тор)))))) 	}}}}}
525	Rock		7,3	Rock (s	scattered)
\triangle_{a}	Boulders		<i>\triangle</i>	Boulde	rs (scattered)
\triangle	Positioned	Boulder		Scree	
C 53	Non-Conifo (surveyed)	erous Tree	\$	Conifer (surve)	rous Tree yed)
C) C 1	Non-Conife (not surve	erous Trees /ed)	, ¥*		rous Trees rveyed)
45	Orchard Tree	Q a.	Scrub	'n,	Bracken
	Coppice, Osier	siVe,	Reeds 🗝	। <u>।ए </u>	Marsh, Saltings
	Rough Grassland	mmm,	Heath	1	Culvert
***	Direction of water flo	ww	Triangulation Station	ુ નુ	Antiquity (site of)
E <u>T</u> L	. Electric	ity Transmis	ssion Line	\boxtimes	Electricity Pylon
\	231.6úm E	ench Mark			ngs with ng Seed
63.36.2	Roofe	ed Building		251	Blazed Roof Building
		Civil parish	/community b	oundar	у
		District box	undary		
_ •		County box	undarv		
٥		Boundary	=		
٥		Boundary r	mereing symb ear in oppose		
Bks	Barracks		Р	Pillar, P	ole or Post
Bty	Battery		PO	Post 01	ffice
Cemy	Cemetery		PC	Public (Convenience
Chy	Chimney		Pp	Pump	
Cis	Cistern		Ppg Sta		ng Station
Dismtd Ri El Gen St	•	tled Railway ity Generating	PW Sewage P		fWorship Sewage
	Station		_		Pumping Station
EIP		Pole, Pillar	SB, S Br	_	Box or Bridge
	a Electricity	Sub Station	SP, SL	Signal	Post or Light
FB	Filter Bed		Spr	Spring	

Fn / D Fn Fountain / Drinking Ftn.

Gas Governer

Guide Post

Manhole

Gas Valve Compound

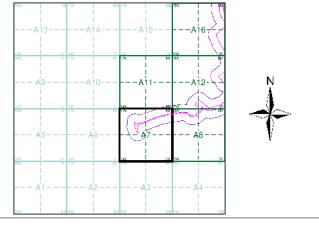
Envirocheck®

LANDMARK INFORMATION GROUPS

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1876 - 1877	2
Glamorganshire	1:2,500	1898	3
Glamorganshire	1:2,500	1916	4
Glamorganshire	1:2,500	1935	5
Ordnance Survey Plan	1:2,500	1959 - 1962	6
Ordnance Survey Plan	1:2,500	1962	7
Supply of Unpublished Survey Information	1:2,500	1973	8
Ordnance Survey Plan	1:2,500	1975	9
Additional SIMs	1:2,500	1989 - 1990	10
Large-Scale National Grid Data	1:2,500	1993	11
Historical Aerial Photography	1:2,500	2000	12

Historical Map - Segment A7



Order Details

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Tank or Track

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

Tr

Wd Pp

Site Area (Ha): 32.39 Search Buffer (m): 100

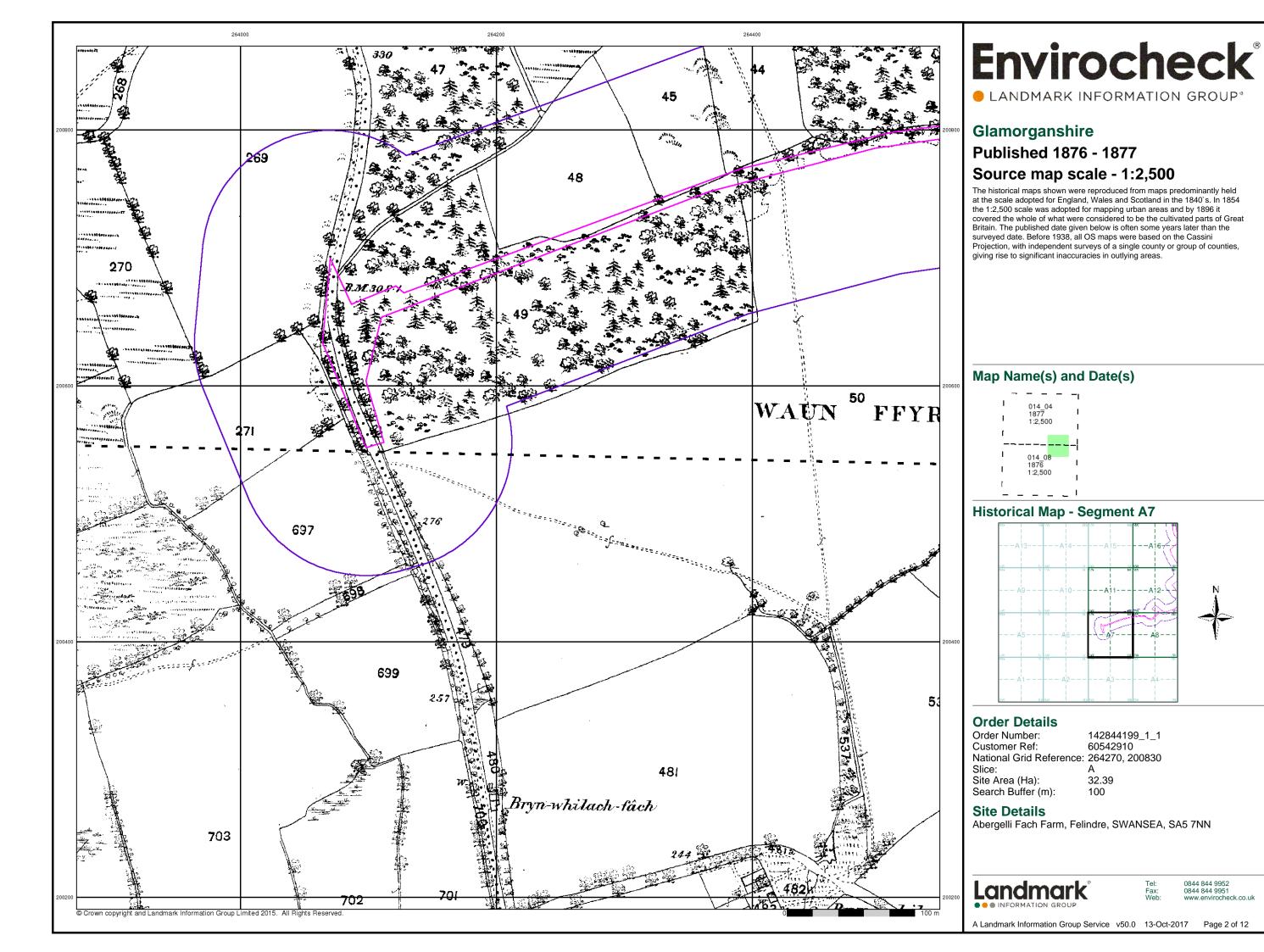
Site Details

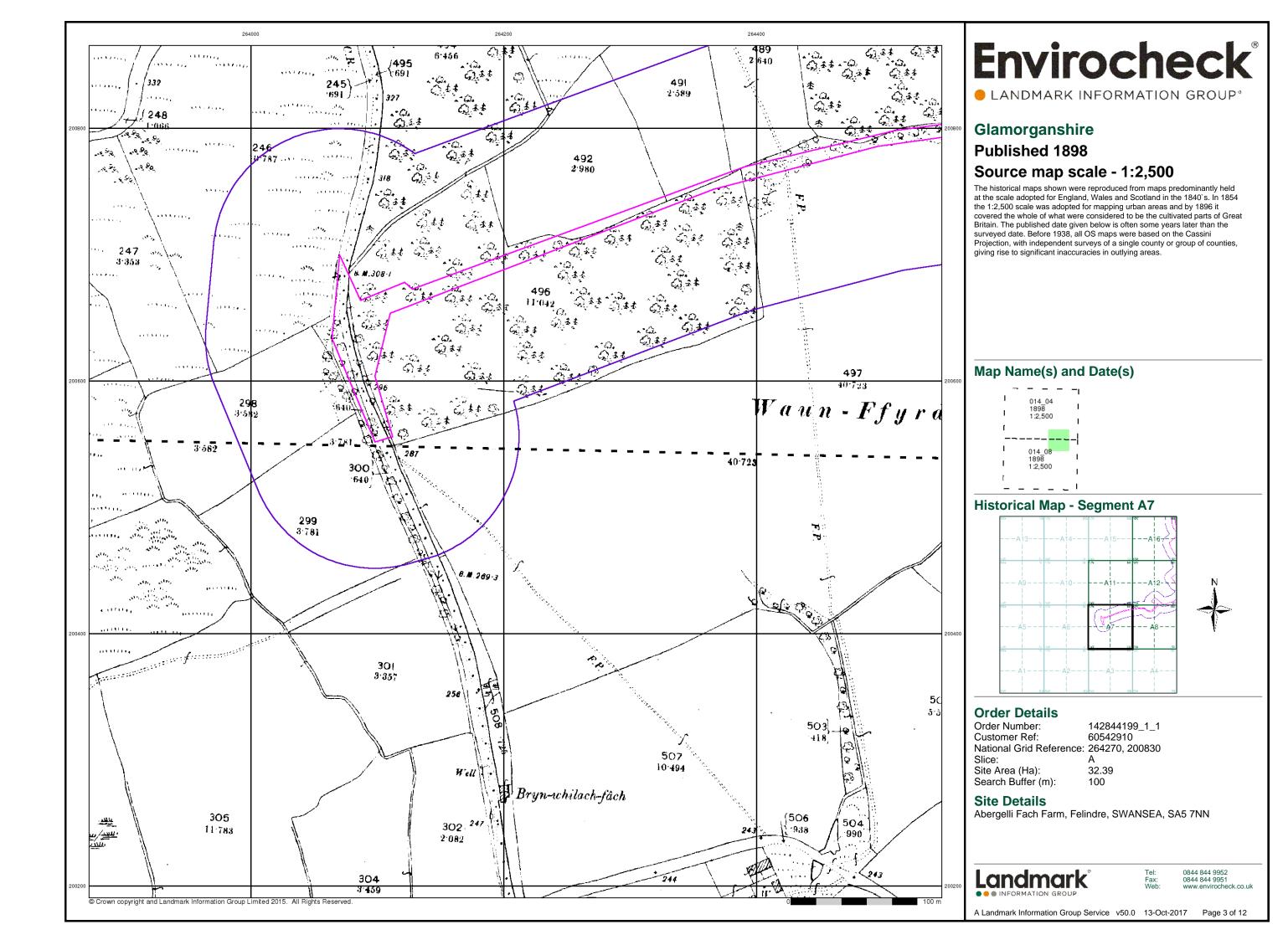
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

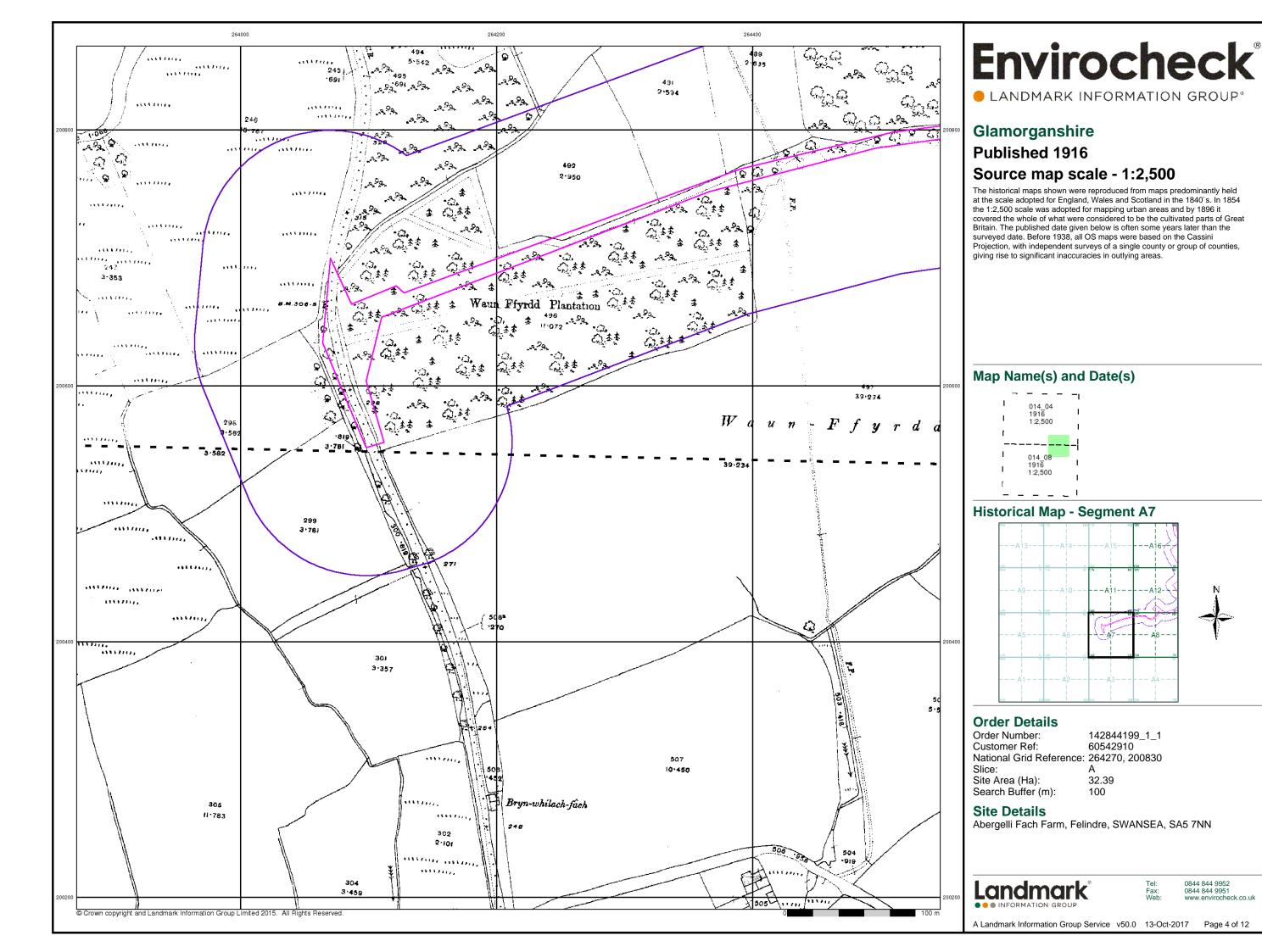


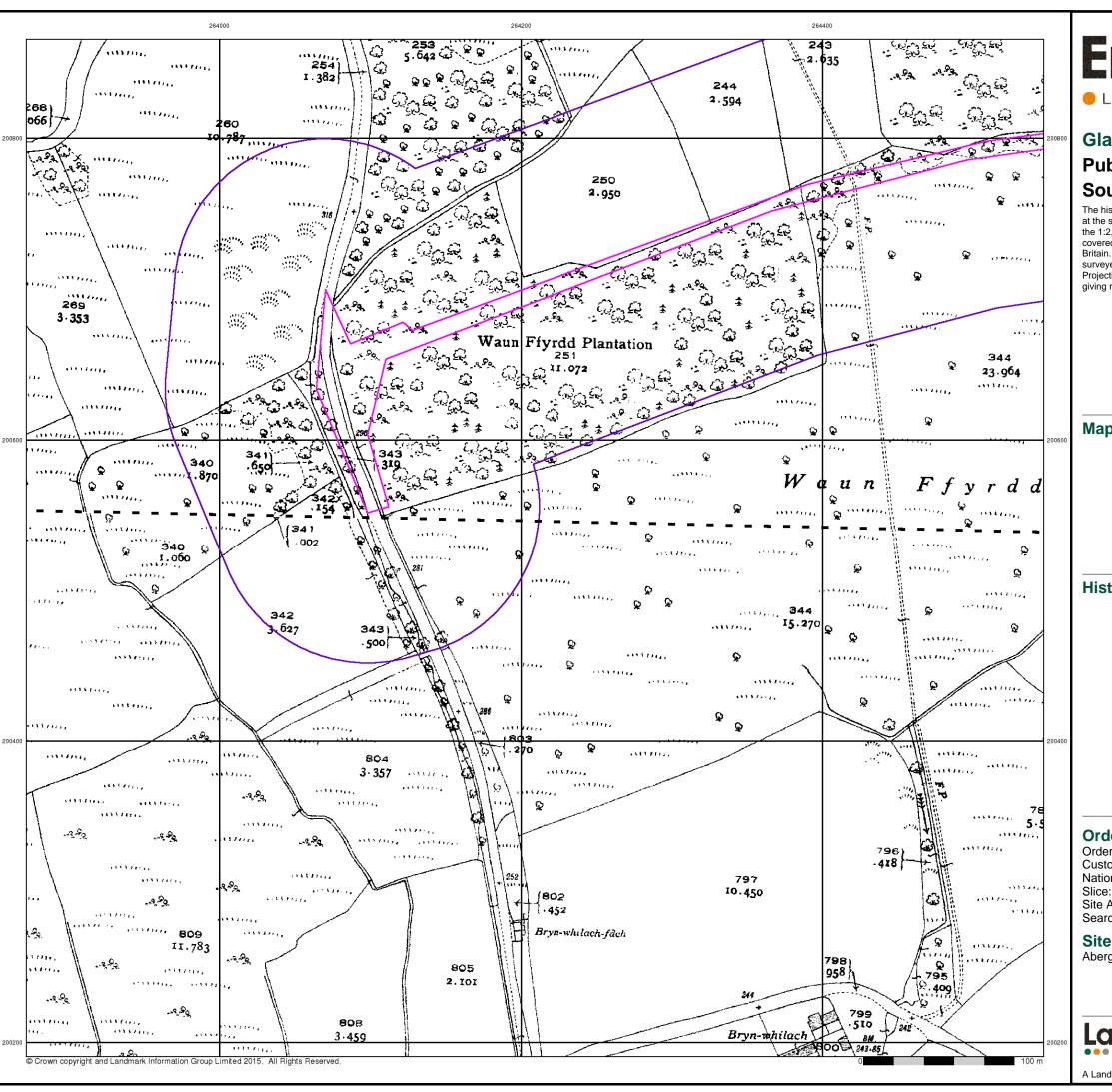
0844 844 9952 0844 844 9951

A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 12









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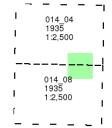
Glamorganshire

Published 1935

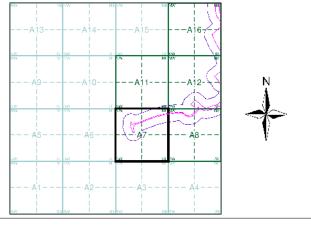
Source map scale - 1:2,500

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)



Historical Map - Segment A7



Order Details

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): 32.39 Search Buffer (m): 100

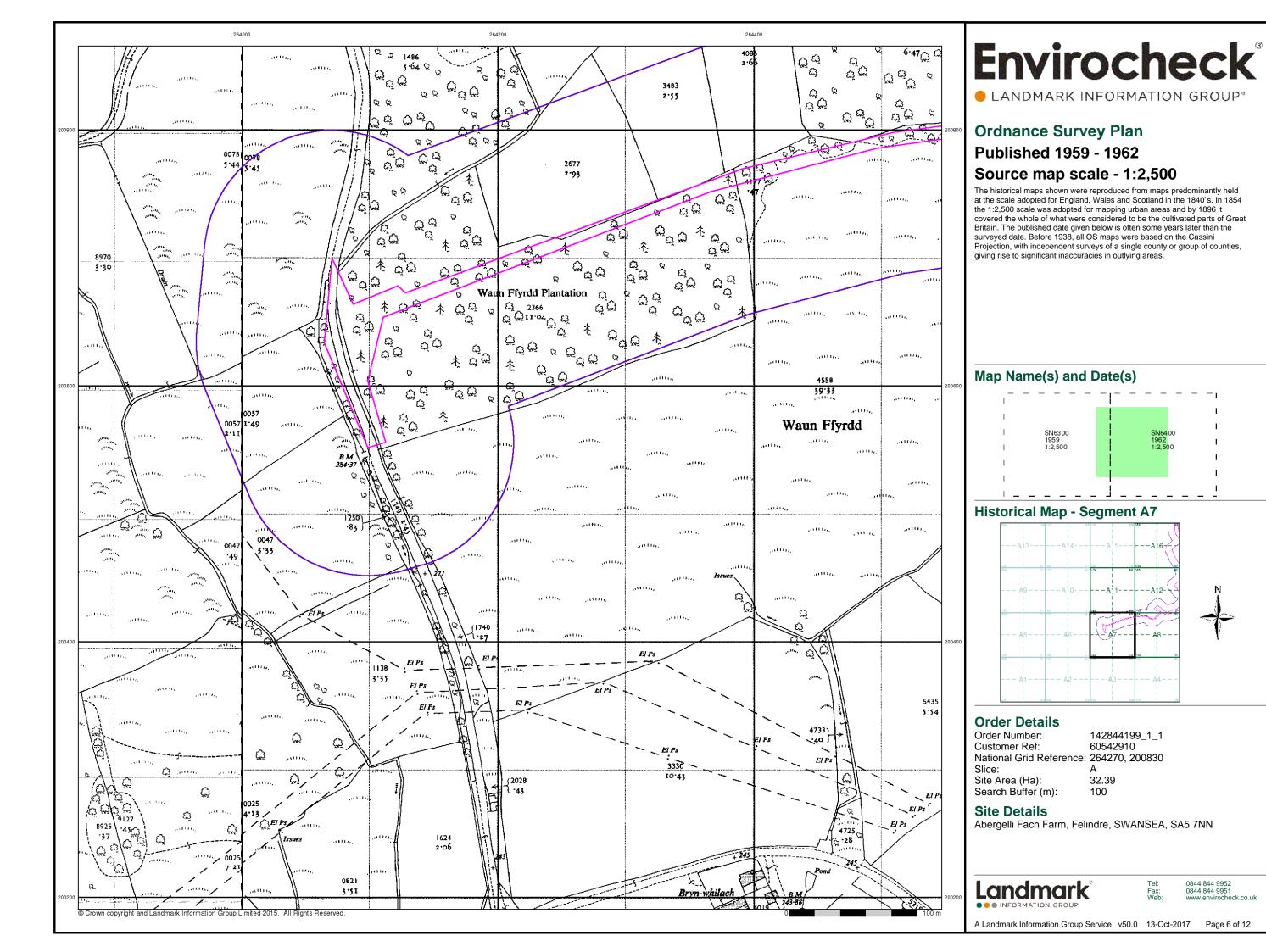
Site Details

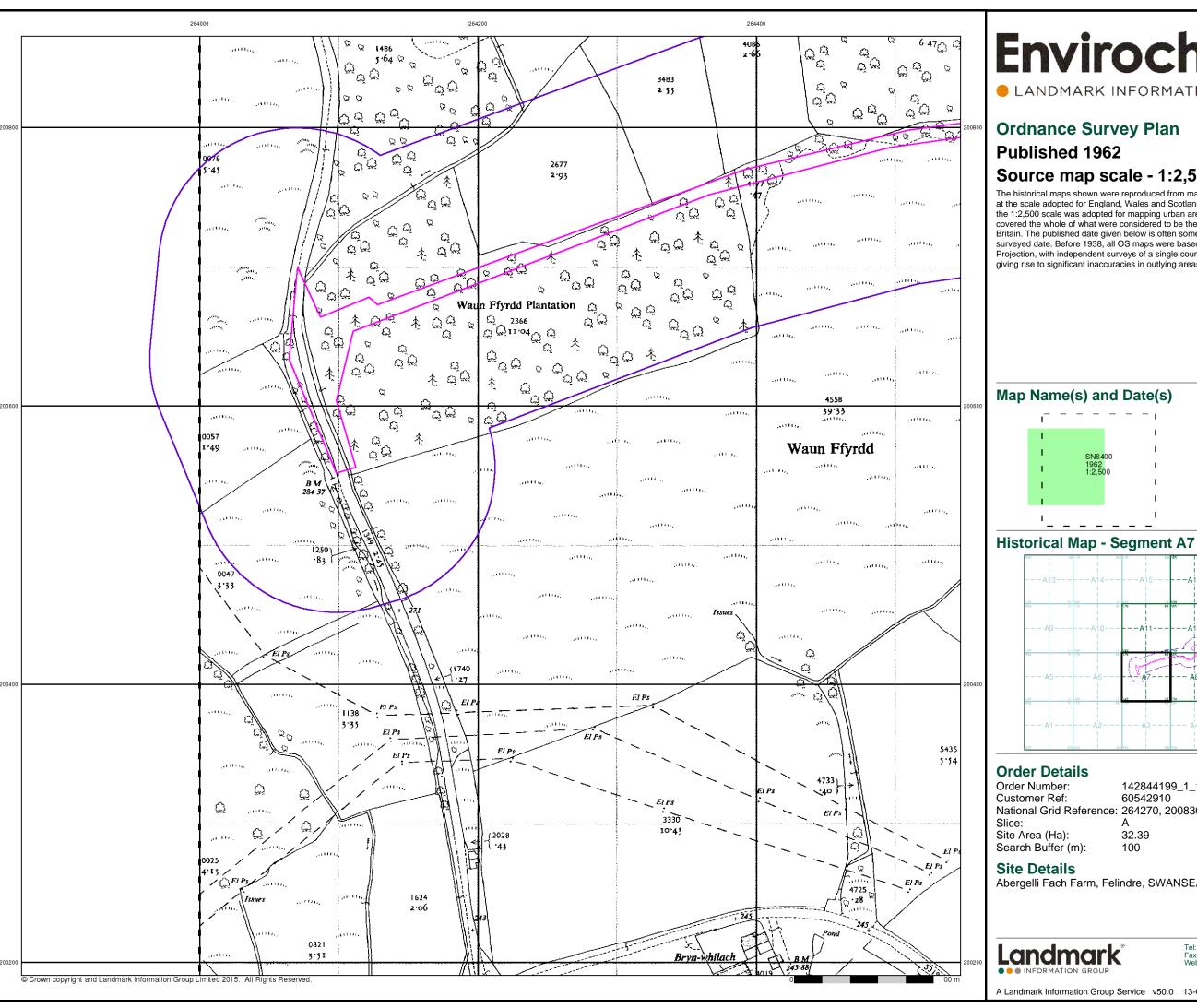
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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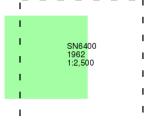
LANDMARK INFORMATION GROUP®

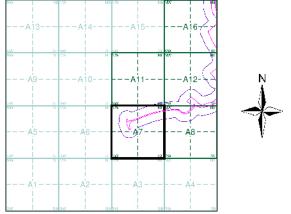
Ordnance Survey Plan

Source map scale - 1:2,500

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)





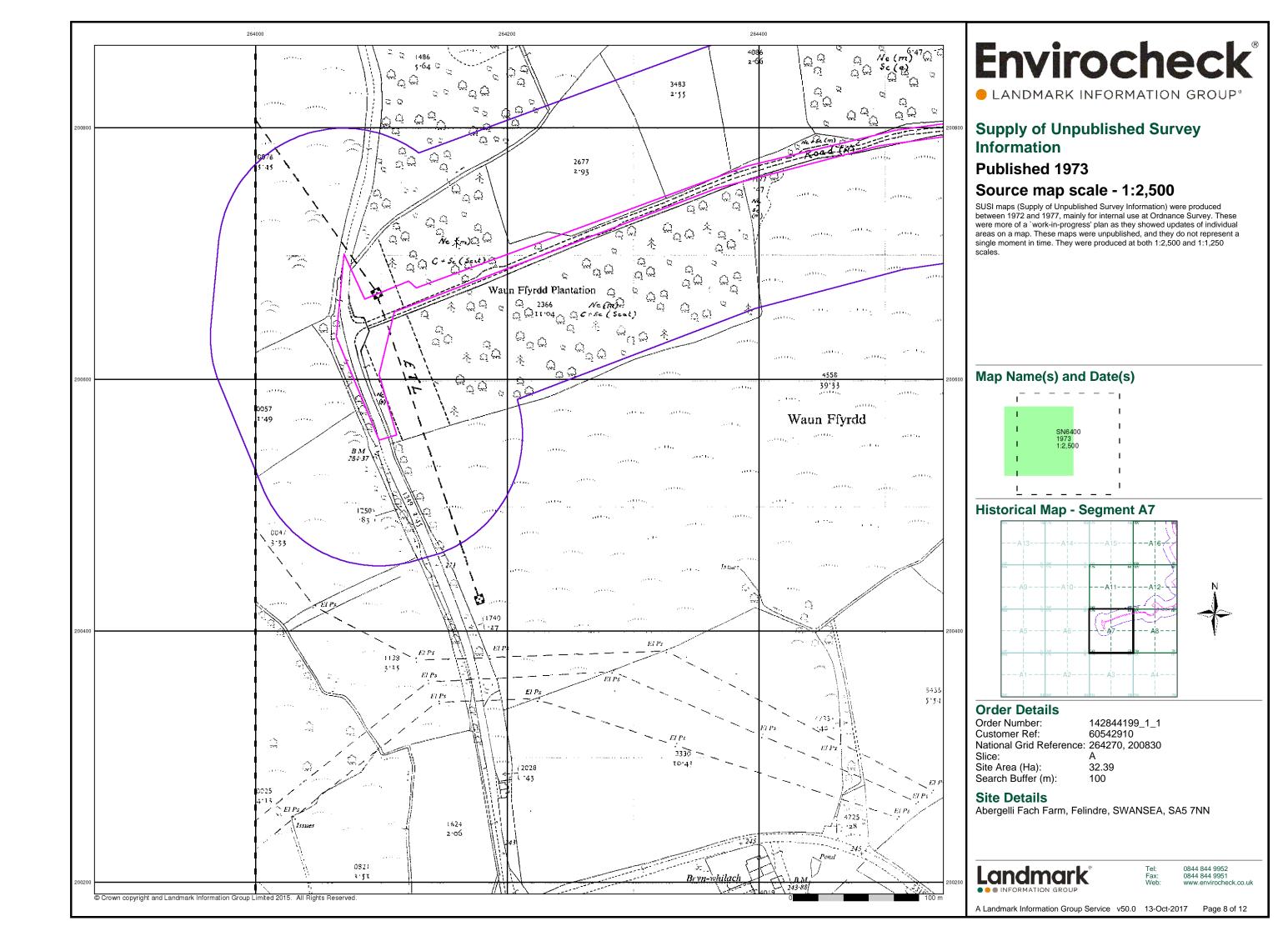
142844199_1_1 60542910 National Grid Reference: 264270, 200830

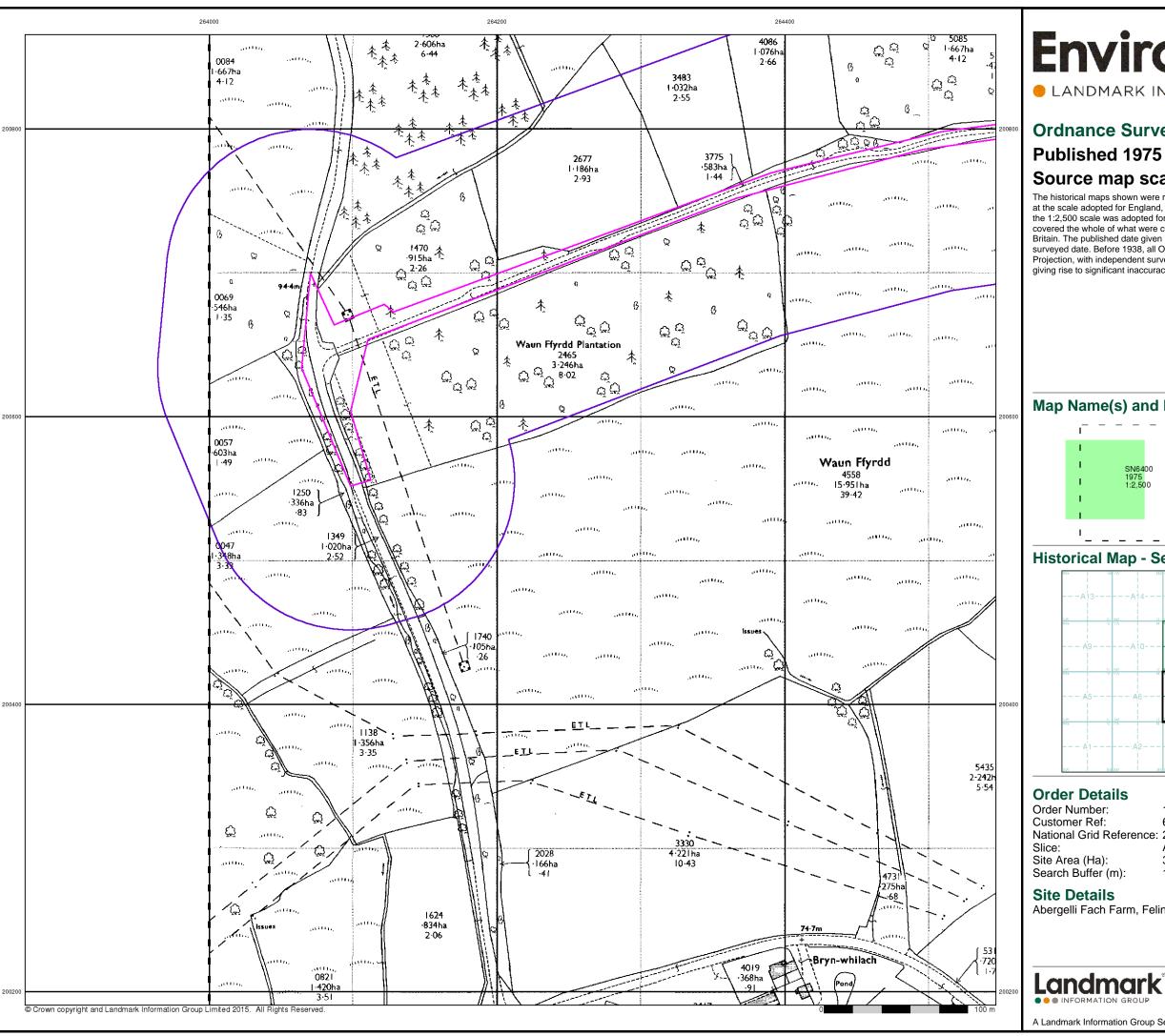
32.39

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 7 of 12





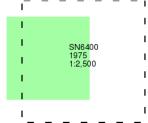
LANDMARK INFORMATION GROUP®

Ordnance Survey Plan

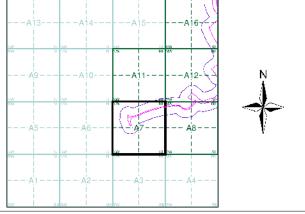
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Map Name(s) and Date(s)



Historical Map - Segment A7



142844199_1_1 60542910 National Grid Reference: 264270, 200830

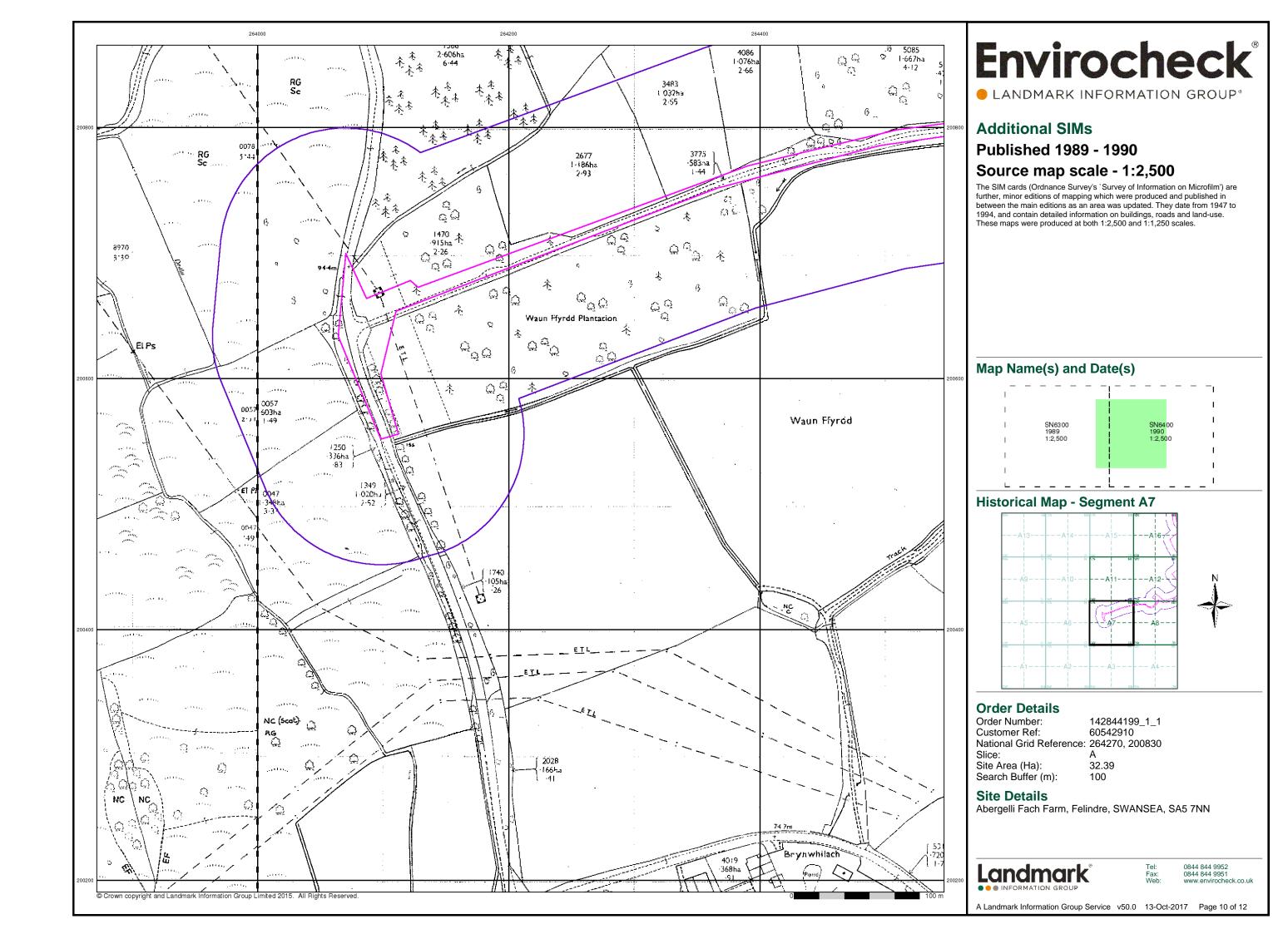
32.39 100

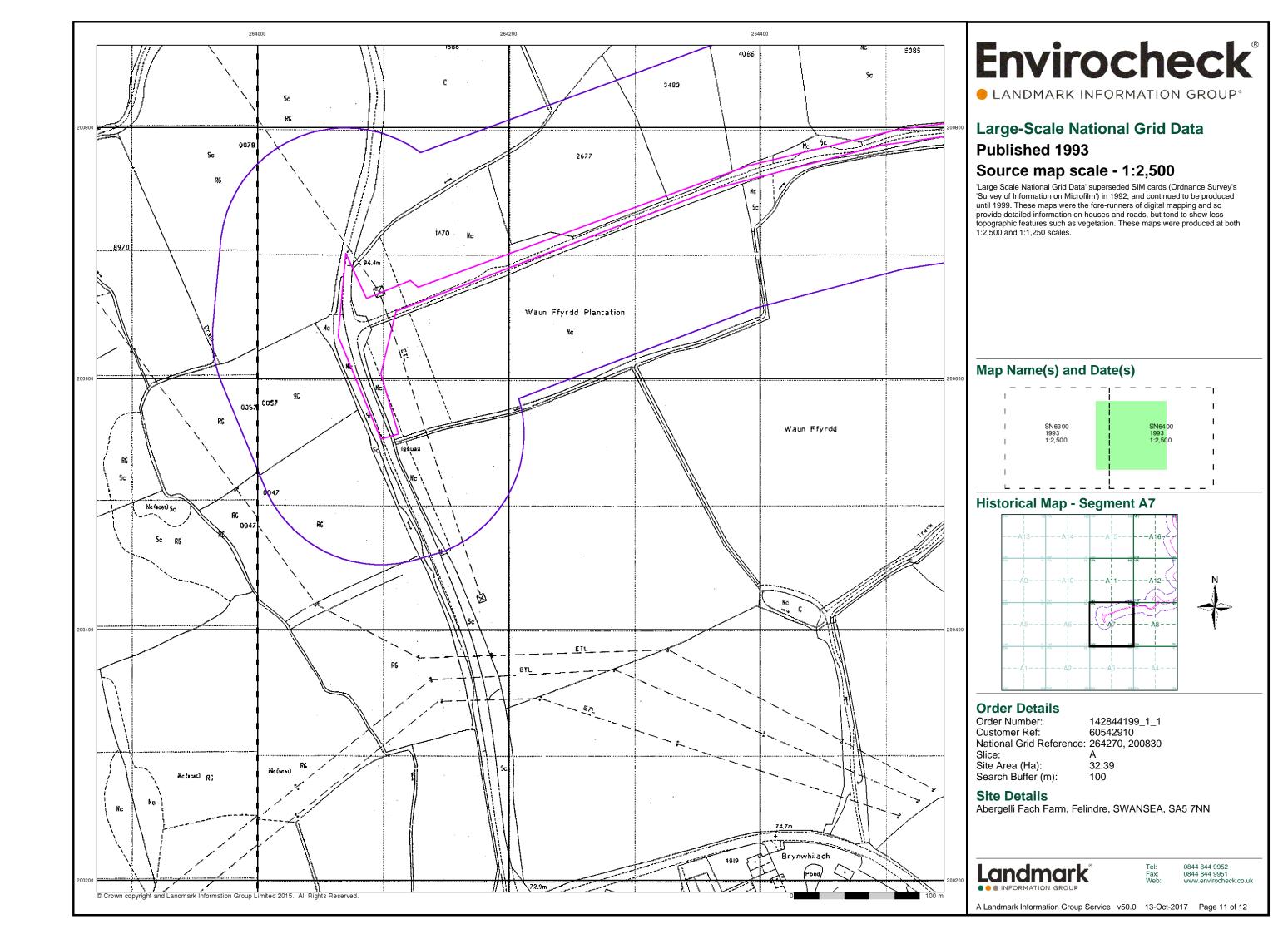
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 9 of 12





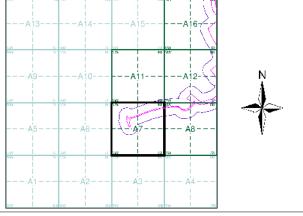


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Historical Aerial Photography Published 2000

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 A7



Order Details

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 12 of 12

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National Grid I 200830

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

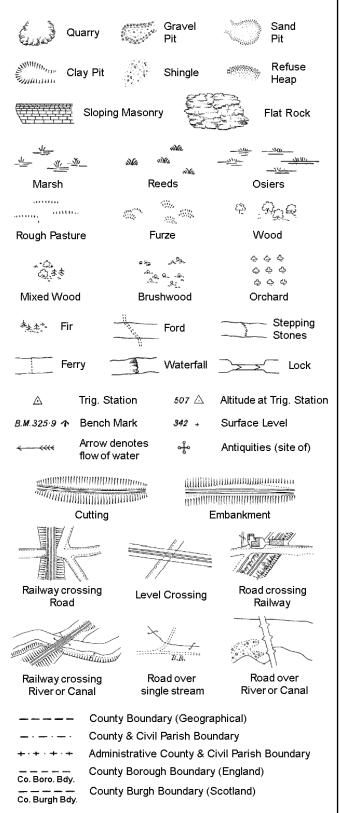
Abergelli Fach Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale 142844199 1 Glamorgan 1898-1899 1:2,500 142844199_1_Ordnance ! 1962 1:2,500 142844199 1 Ordnance! 1962 1:2,500 142844199 1 Glamorgan 1898 1:2,500 142844199 1 Ordnance : 1959-1962 1:2,500 142844199 1 Ordnance! 1975 1:2,500 142844199_1_Glamorgan 1916 1:2,500 142844199 1 Ordnance : 1961-1962 1:2,500 142844199 1 Ordnance : 1961-1962 1:2,500 142844199_1_Glamorgan 1898 1:2,500 142844199 1 Glamorgan 1876-1877 1:2,500 142844199 1 Ordnance : 1959-1962 1:2,500 142844199_1_Glamorgan 1916-1918 1:2,500 142844199 1 Glamorgan 1877 1:2,500 142844199 1 Glamorgan 1877 1:2,500 142844199_1_ Ordnance ! 1975 1:2,500 142844199 1 Glamorgan 1935 1:2,500 142844199 1 Glamorgan 1898-1899 1:2,500 142844199 1 Glamorgan 1876-1877 1:2,500 142844199_1_Ordnance ! 1975 1:2,500 142844199_1_Glamorgan 1916-1918 1:2,500 142844199 1 Ordnance! 1961 1:2,500 142844199 1 Glamorgan 1935 1:2,500 142844199_1_Glamorgan 1898-1899 1:2,500 142844199 1 Glamorgan 1876-1877 1:2,500 142844199 1 Glamorgan 1935 1:2,500 142844199 1 Ordnance! 1962 1:2,500 142844199 1 Ordnance : 1961-1962 1:2,500 142844199_1_Ordnance ! 1961 1:2,500 142844199 1 Ordnance! 1975 1:2,500 142844199 1 Glamorgan 1935 1:2,500 142844199_1_Glamorgan 1935 1:2,500 142844199_1_Glamorgan 1916 1:2,500 142844199 1 Glamorgan 1916-1918 1:2,500 142844199_1_Additional 1990 1:2,500 142844199_1_ Additional 1990 1:2,500

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142844199_1_Additional 1988-1990 1:2,500
142844199_1_Additional 1989-1992 1:2,500
142844199_1_ Additional 1986-1992 1:2,500
142844199_1_Additional 1989-1990 1:2,500
142844199_1_Additional 1989-1990 1:2,500
142844199_1_Additional 1989-1990 1:2,500
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                            1973 1:2,500
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142844199_1_Supply of L
                            1975 1:2,500
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                            1973 1:2,500
                            1993 1:2,500
142844199_1_Large-Scale
142844199_1_Large-Scale
                            1993 1:2,500
142844199_1_ Large-Scale
                            1993 1:2,500
142844199_1_Large-Scale
                            1993 1:2,500
142844199_1_ Large-Scale
                            1993 1:2,500
```

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



B.R.

E.P

F.B.

Bridle Road

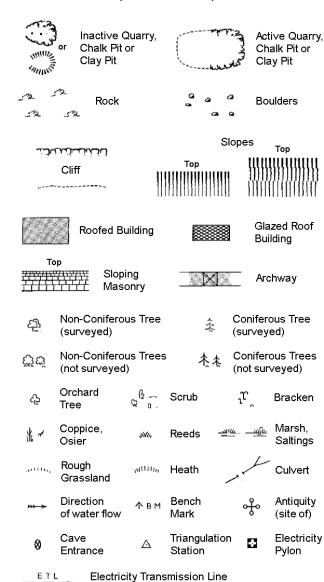
Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



		Symbol mark nereing chai		where boundary
вн	Beer House		Р	Pillar, Pole or Post
BP, BS	Boundary Post	or Stone	PO	Post Office
Cn, C	Capstan, Crane		PC	Public Convenience
Chy	Chimney		PH	Public House
D Fn	Drinking Founta	iin	Pp	Pump
EIP	Electricity Pillar	or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar		SP, SL	Signal Post or Light
FB	Foot Bridge		Spr	Spring
GP	Guide Post		Tk	Tank or Track
Н	Hydrant or Hydr	aulic	TCB	Telephone Call Box
LC	Level Crossing		TCP	Telephone Call Post
MH	Manhole		Tr	Trough
MP	Mile Post or Mod	ring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone		W	Well

Wd Pp

Wind Pump

County Boundary (Geographical) County & Civil Parish Boundary

Admin. County or County Bor. Boundary

Civil Parish Boundary

London Borough Boundary

L B Bdy

NTL

Normal Tidal Limit

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough

Well

S.P

Sl.

 T_{T}

1:1,250

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(	Cliff	111			)))))))))
,		111		111111	[[[]]]
75 E	Rock		7,5	Rock (se	cattered)
	Boulders		<i>△</i>	Boulder	s (scattered)
	Positioned	Boulder		Scree	
දුමු	Non-Conif (surveyed	erous Tree )	#	Conifero	ous Tree ed)
Öά	Non-Conif (not sur∨e	erous Trees yed)	* **	Coniferon (not sur	ous Trees veyed)
දා	Orchard Tree	Q a.	Scrub	ıτ,	Bracken
* ~	Coppice, Osier	sNu,	Reeds 🛥	11cc — <u>11</u> 5cc	Marsh, Saltings
artti,	Rough Grassland	<i>1</i> 1111111,	Heath .	1	Culvert
<del>&gt;&gt;&gt; →</del>	Direction of water flo	Δ ow	Triangulation Station	n of	Antiquity (site of)
E <u>TL</u> _	_ Electric	ity Transmi	ssion Line	$\boxtimes$	Electricity Pylon
\ <del>€</del> \ 8₩	291.60m E	Bench Mark		Buildin Buildin	gs with g Seed
	Roofe	ed Building		∞ 1	lazed Roof uilding
		Civil parish	n/community b	ooundarv	
		District bo	•	,	
			•		
_ ·		County bo			
٥		Boundary	oost/stone		
مر	,		mereing symb pear in oppos		
Bks	Barracks		Р	Pillar. Po	le or Post
Bty	Battery		PO	Post Off	
Cemy	Cemetery		PC	Public C	onvenience
Chy	Chimney		Pp	Pump	
Cis	Cistern		Ppg Sta	Pumping	g Station
Dismtd R	ly Disman	tled Railway	PW	Place of	Worship
El Gen S	ta Electric Station	ity Generating	Sewage F		ewage umping Station
EIP	Electricity	Pole, Pillar	SB, S Br	Signal B	ox or Bridge
El Sub St	ta Electricity	Sub Station	SP, SL	Signal P	ost or Light
FB	Filter Bed		Spr	Spring	
F= / D F=	F4-1 2	Data Lita a Cha			

Fn / D Fn Fountain / Drinking Ftn.

Gas Governer

**Guide Post** 

Manhole

Gas Valve Compound

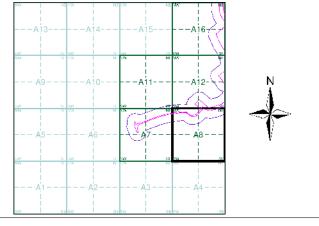
## **Envirocheck®**

LANDMARK INFORMATION GROUPS

#### **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1876 - 1877	2
Glamorganshire	1:2,500	1898 - 1899	3
Glamorganshire	1:2,500	1916 - 1918	4
Glamorganshire	1:2,500	1935	5
Ordnance Survey Plan	1:2,500	1962	6
Ordnance Survey Plan	1:2,500	1962	7
Supply of Unpublished Survey Information	1:2,500	1973 - 1975	8
Ordnance Survey Plan	1:2,500	1975	9
Additional SIMs	1:2,500	1990	10
Large-Scale National Grid Data	1:2,500	1993	11
Historical Aerial Photography	1:2,500	2000	12

#### **Historical Map - Segment A8**



#### **Order Details**

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Tank or Track

Works (building or area)

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Tr

Wd Pp

32.39 Site Area (Ha): Search Buffer (m): 100

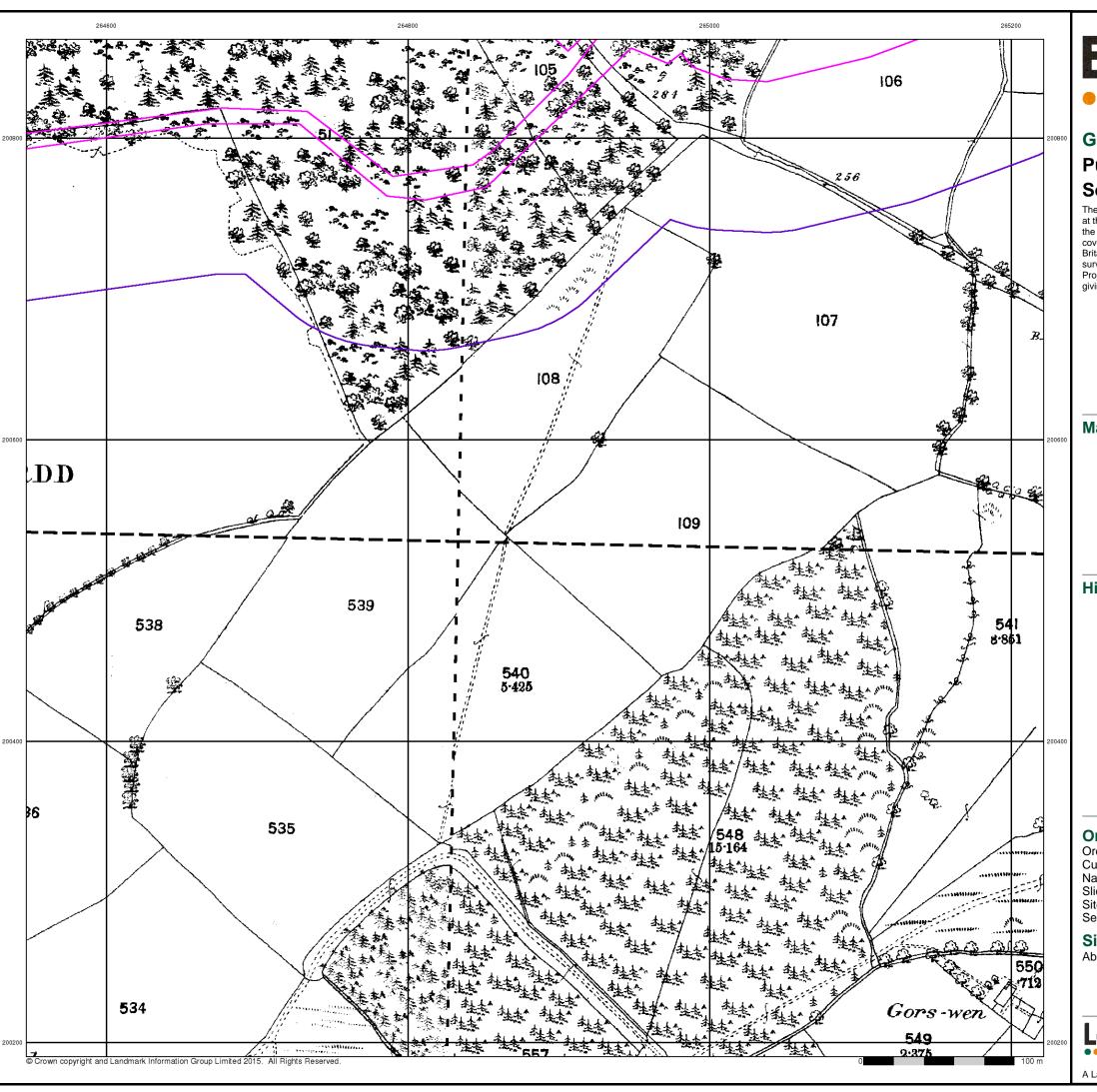
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 12



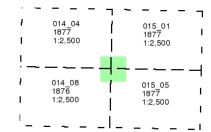
LANDMARK INFORMATION GROUP®

#### **Glamorganshire**

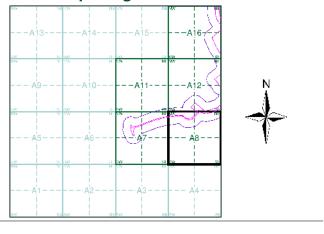
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered 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)



#### **Historical Map - Segment A8**



#### **Order Details**

142844199_1_1 60542910 Order Number: Customer Ref: National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

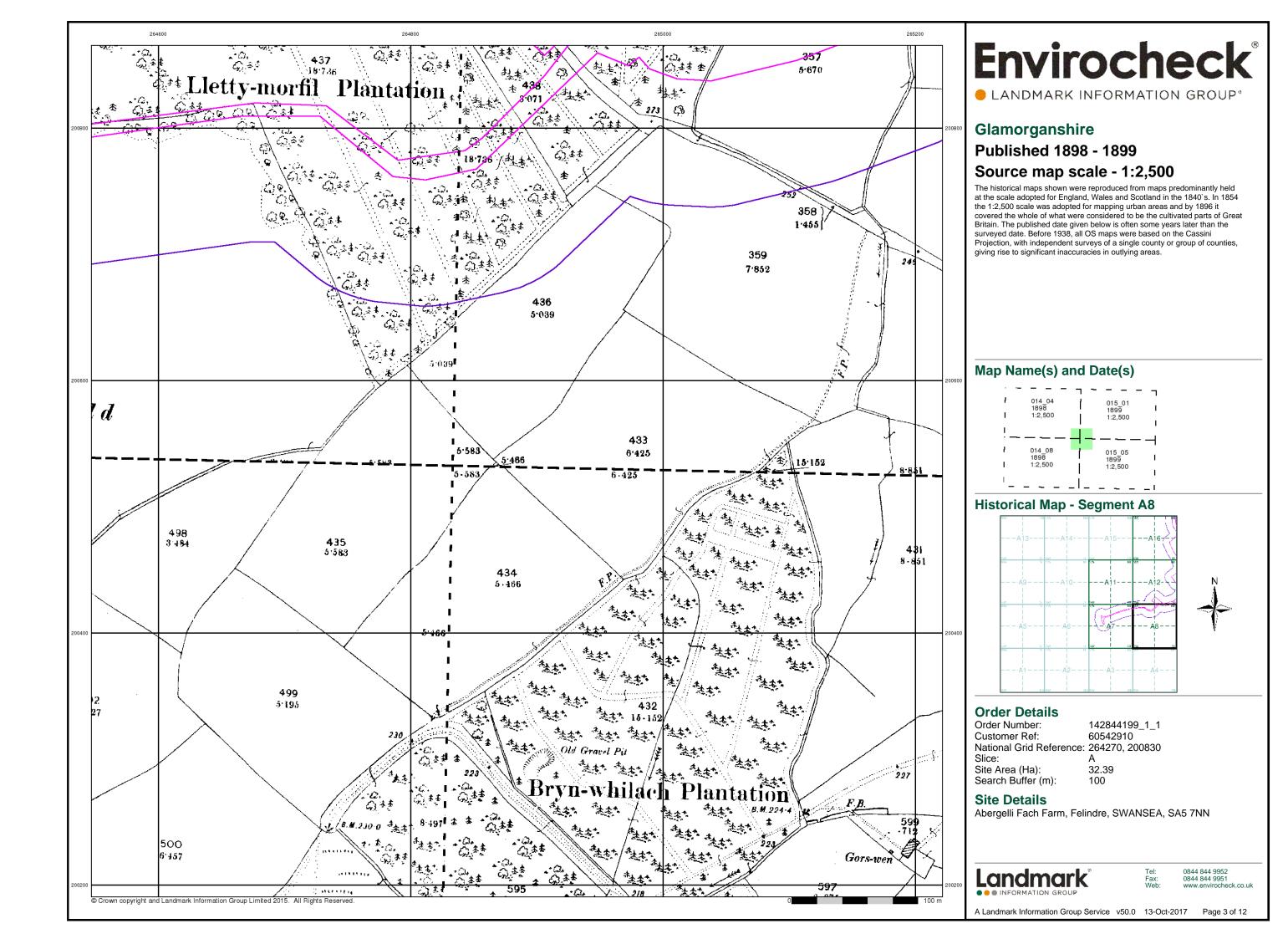
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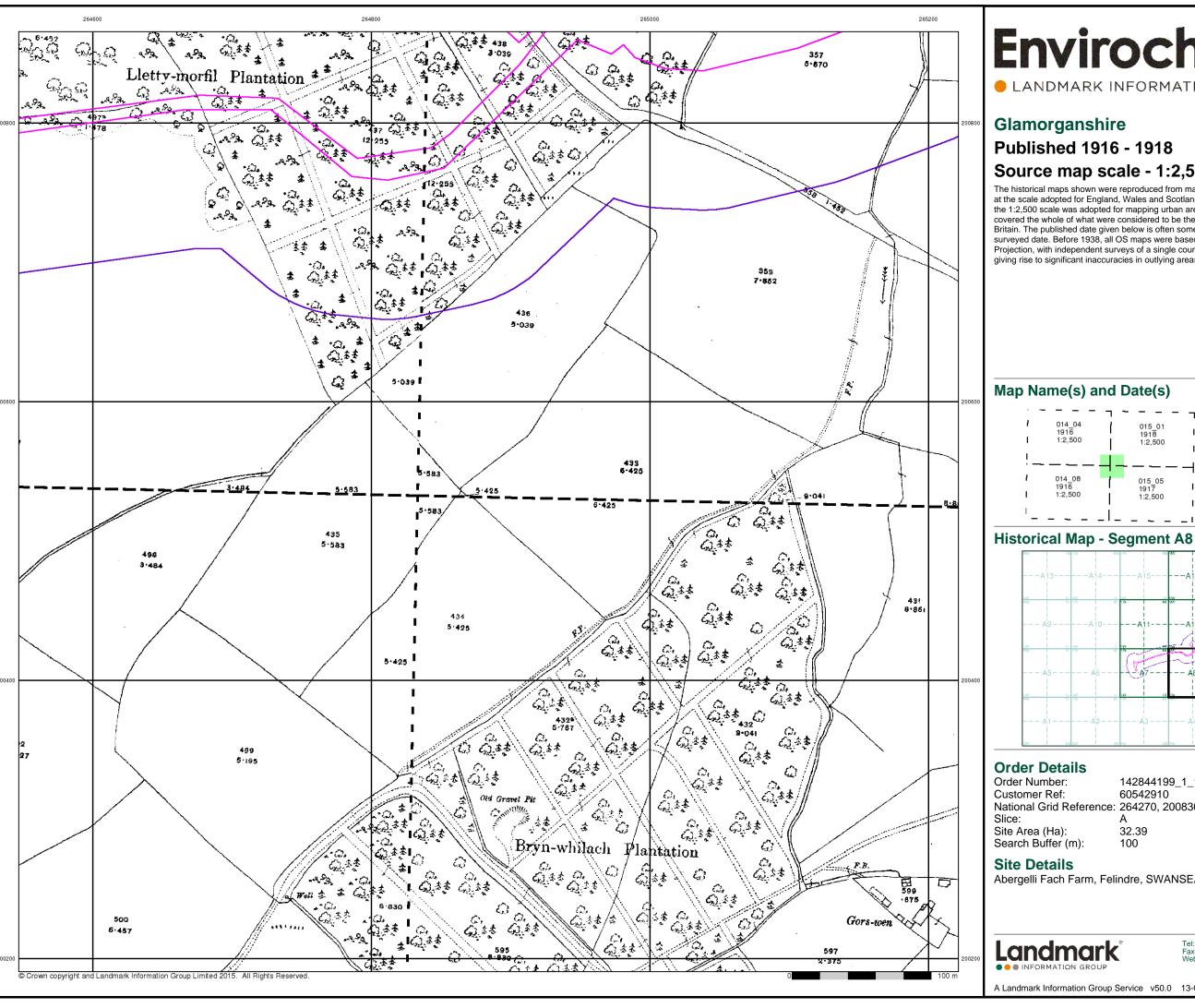
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 2 of 12



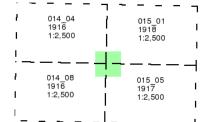


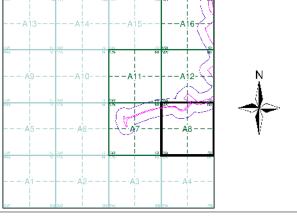
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### Source map scale - 1:2,500

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)



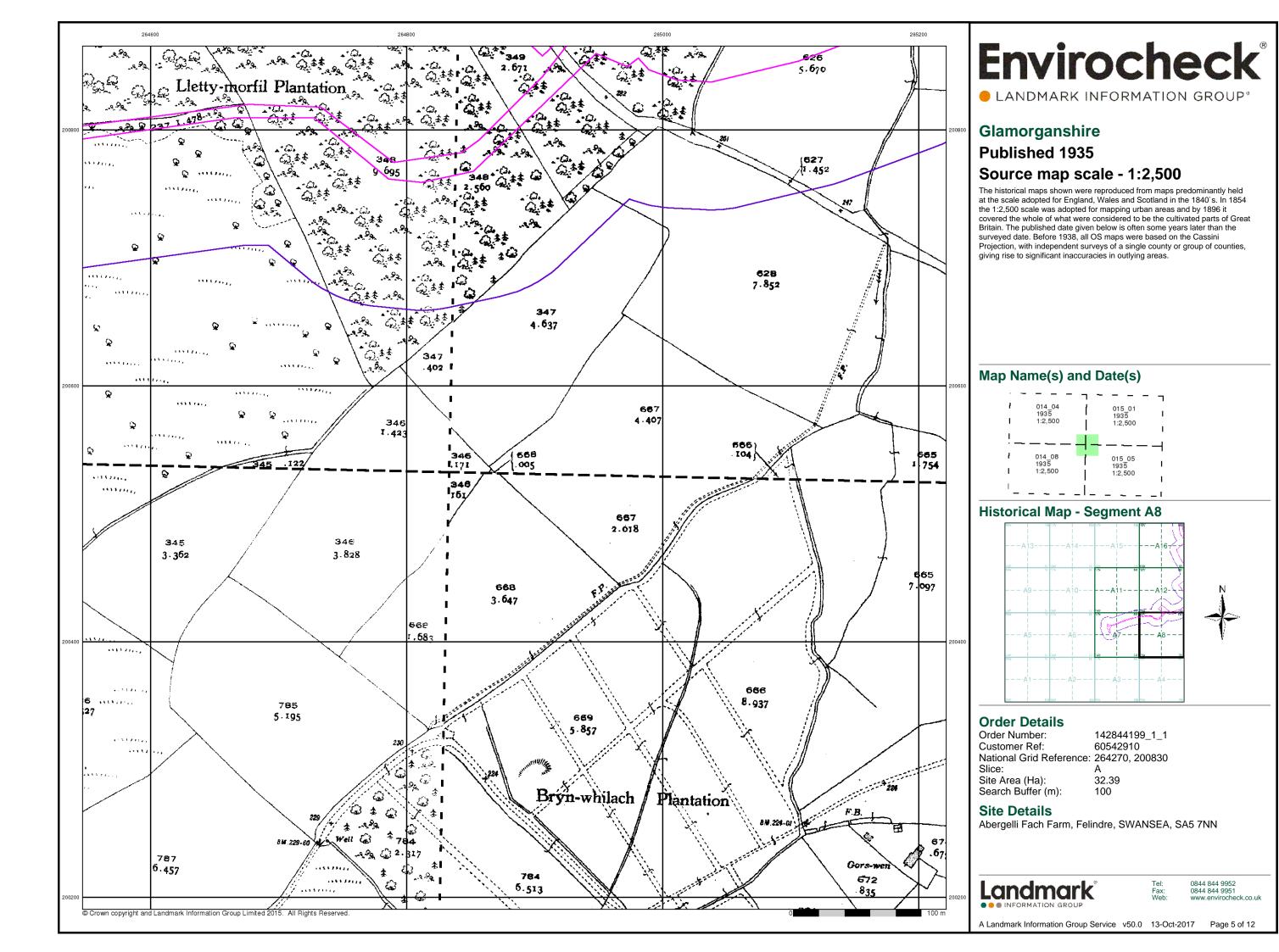


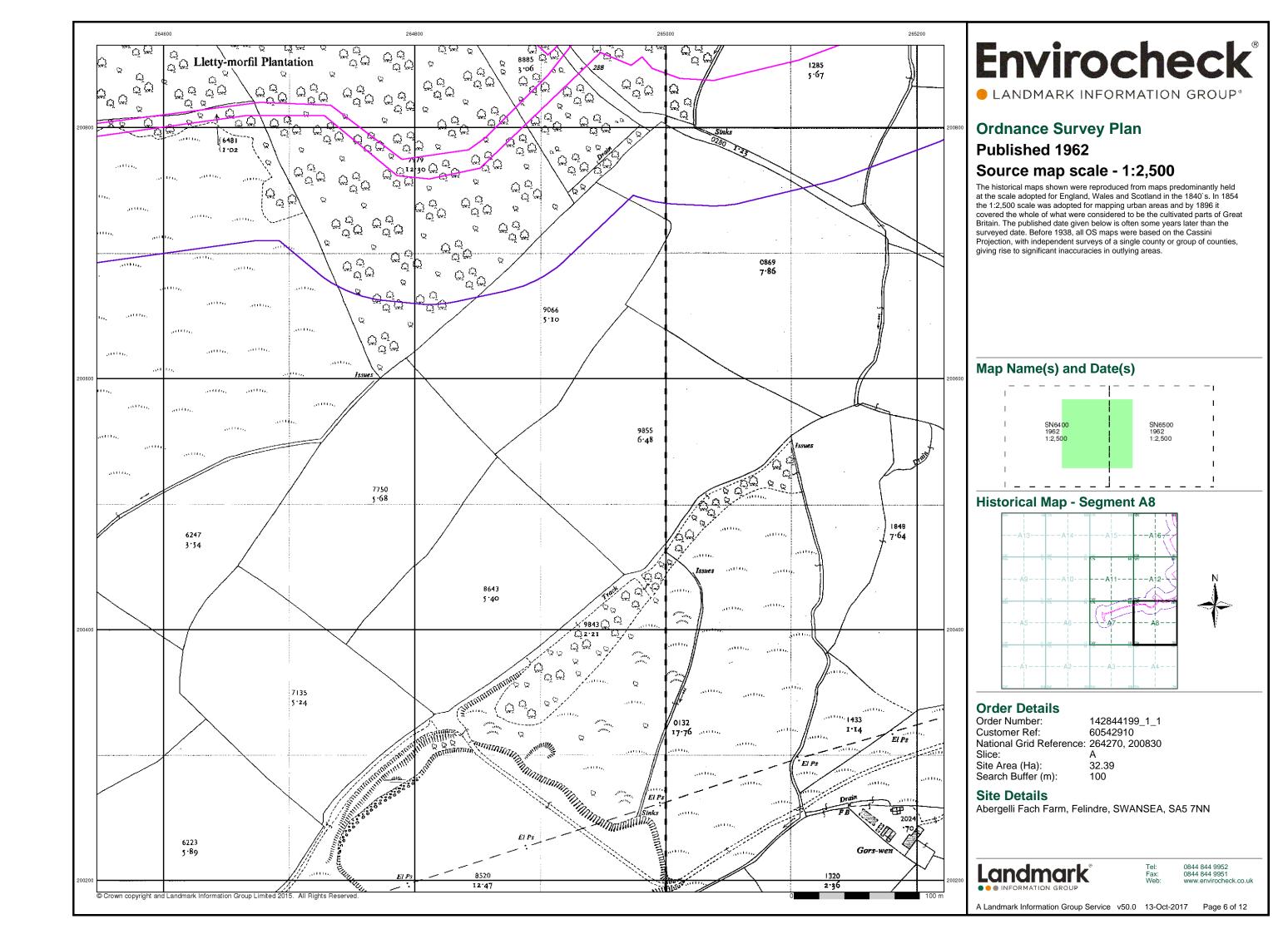
142844199_1_1 60542910 National Grid Reference: 264270, 200830

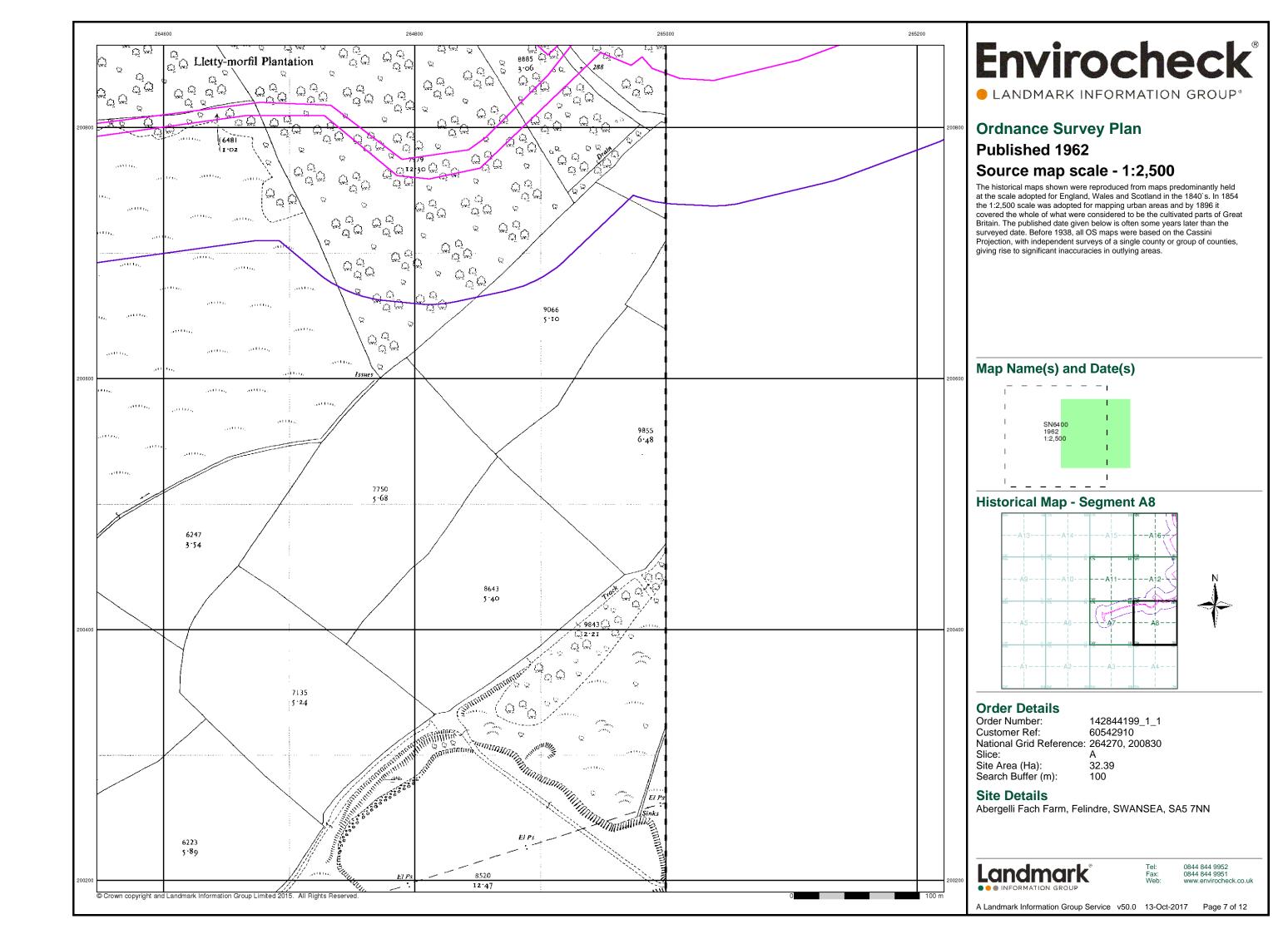
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

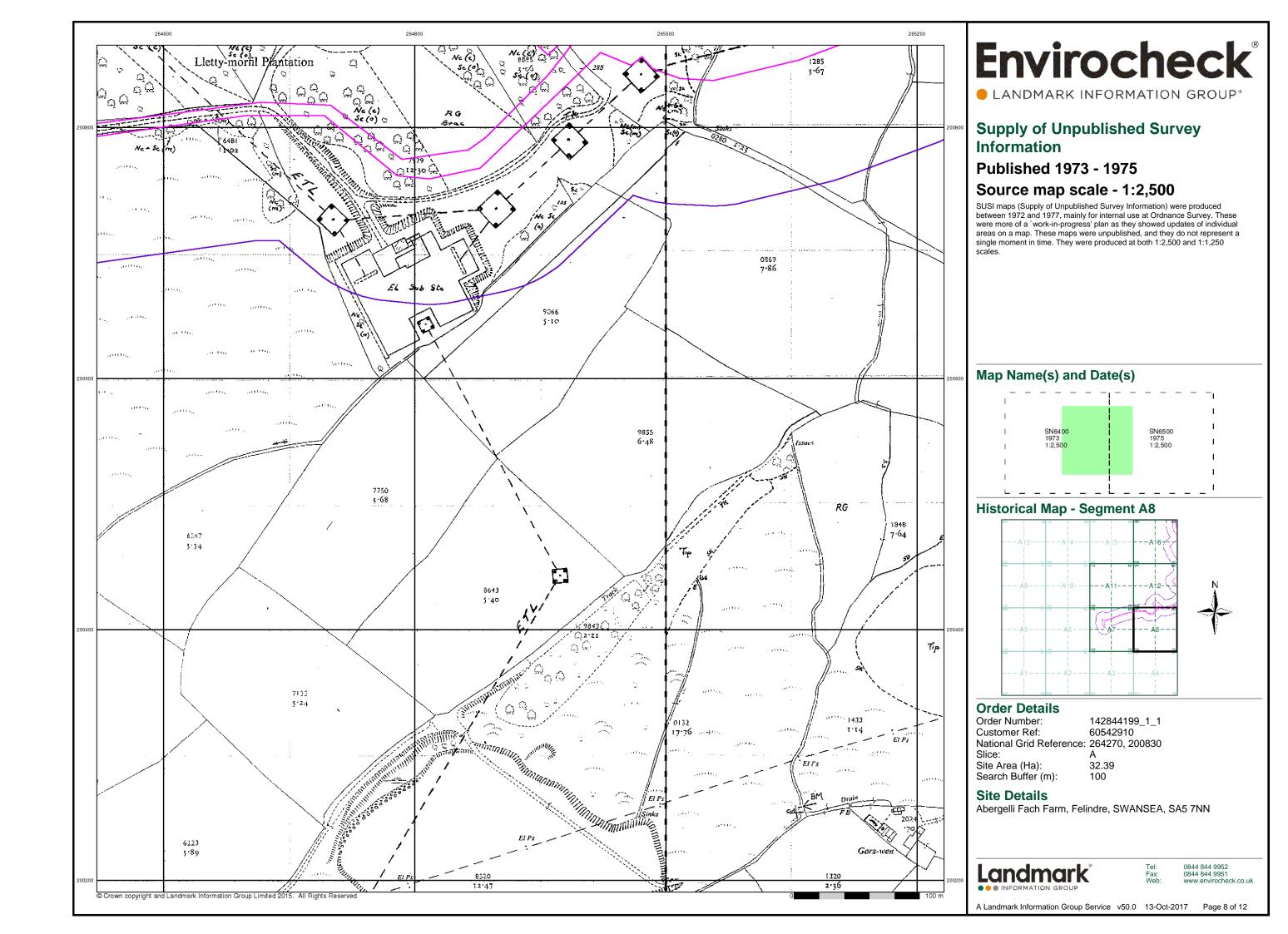
0844 844 9951 www.envirocheck.co.uk

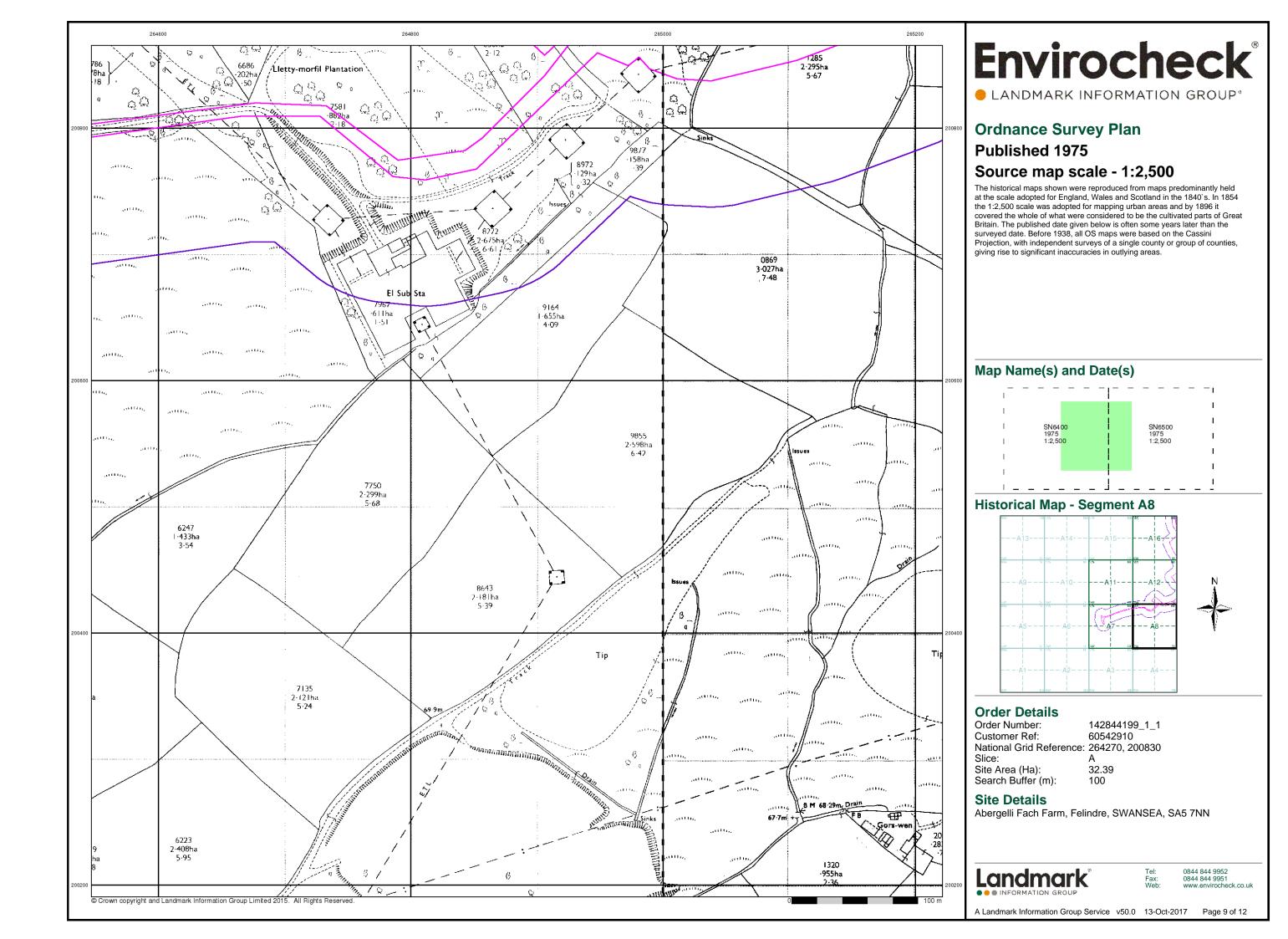
A Landmark Information Group Service v50.0 13-Oct-2017 Page 4 of 12

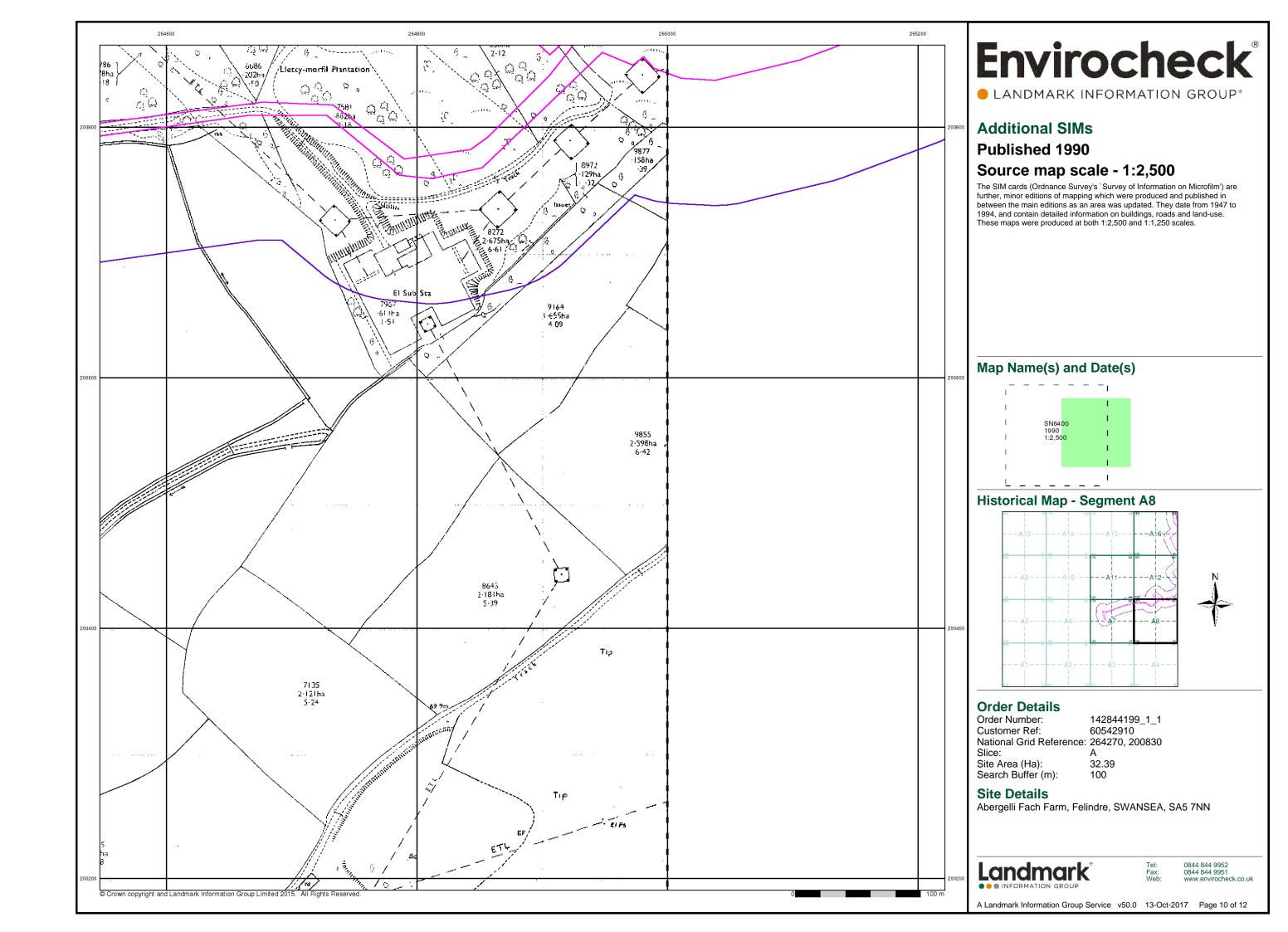


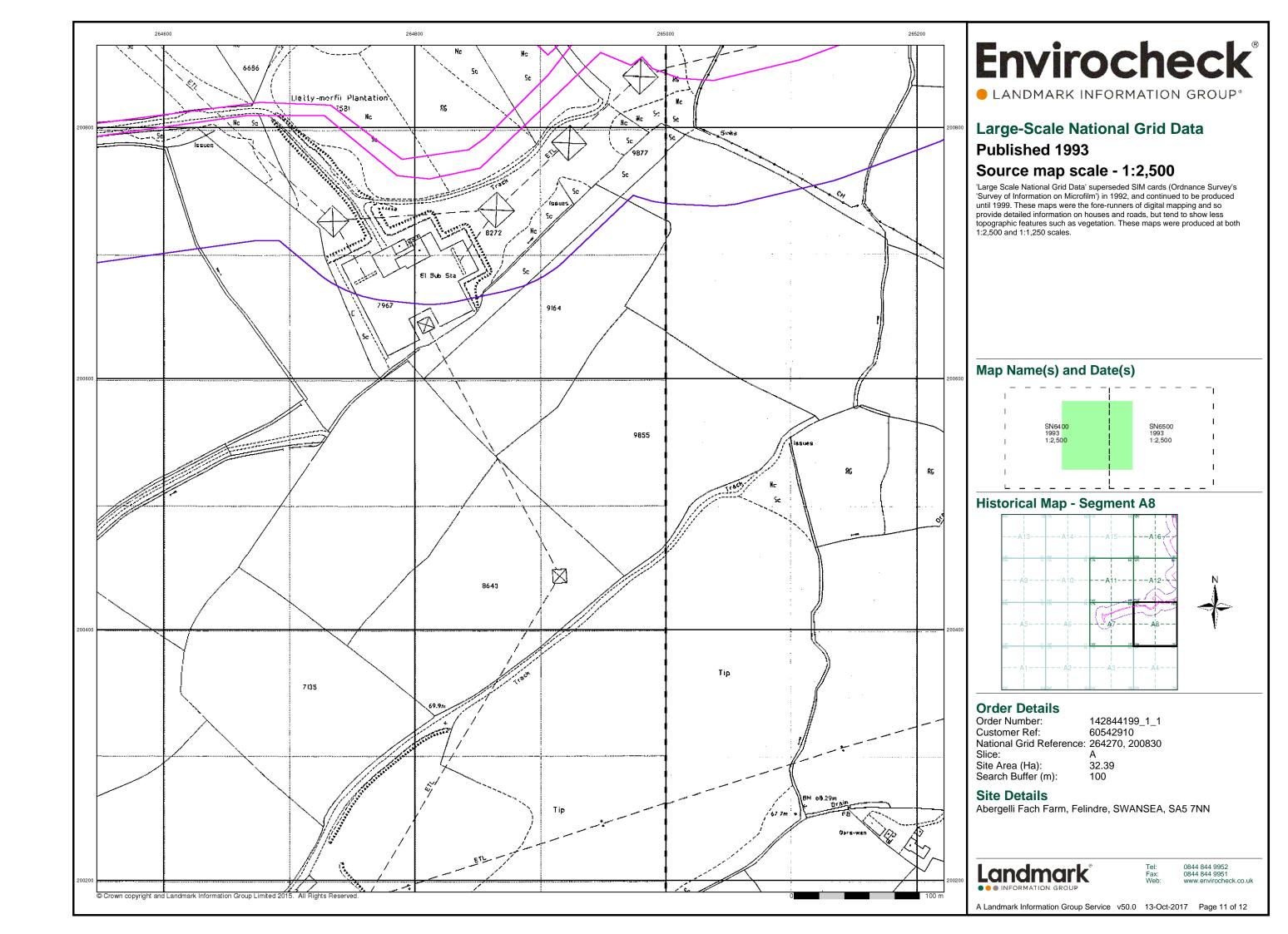


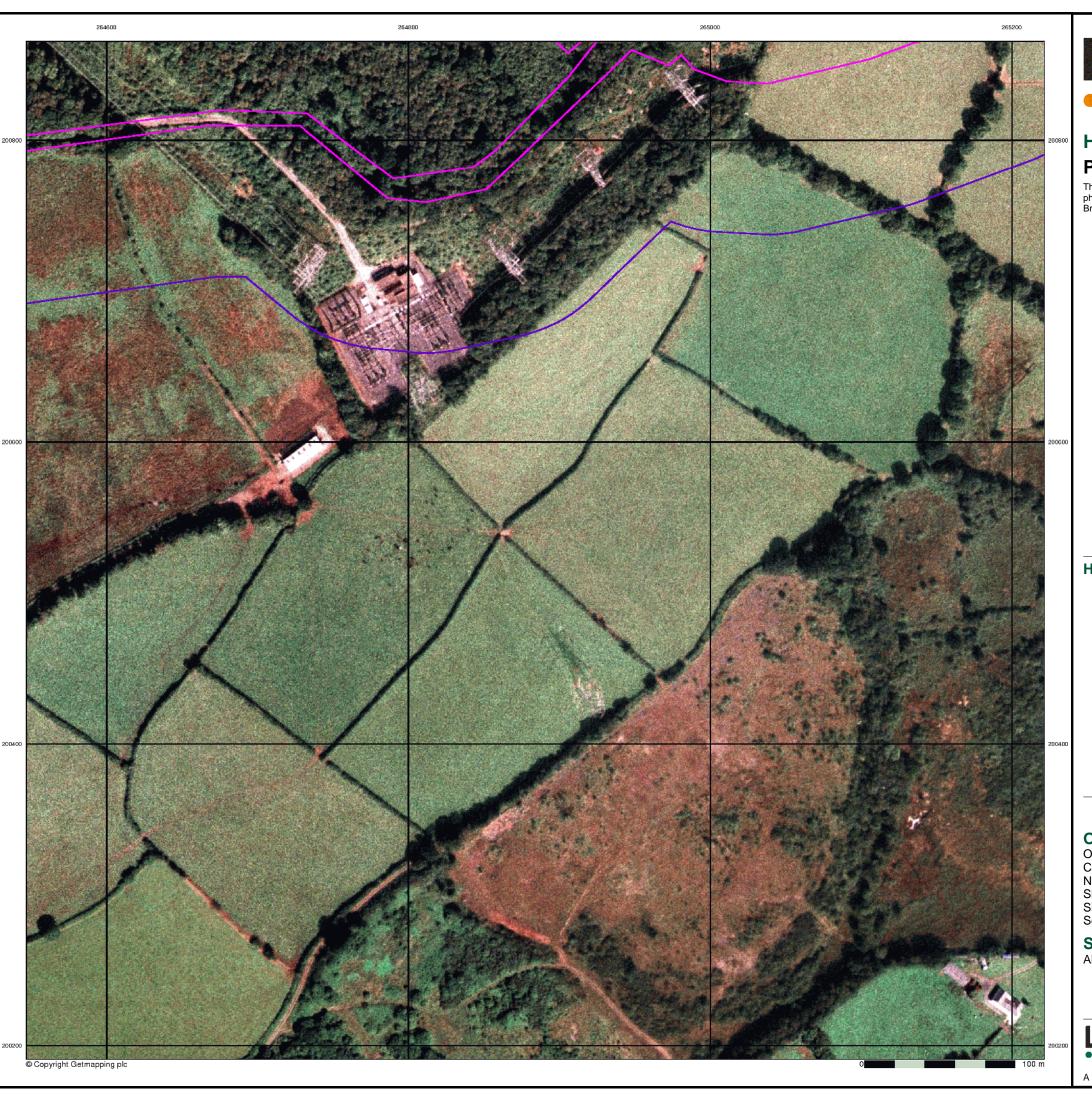










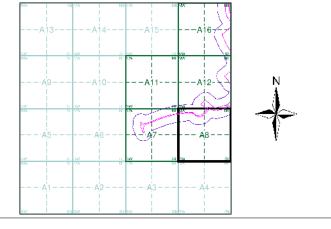


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### **Historical Aerial Photography** Published 2000

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 A8**



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 264270, 200830

Slice:

Site Area (Ha): Search Buffer (m): 32.39

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

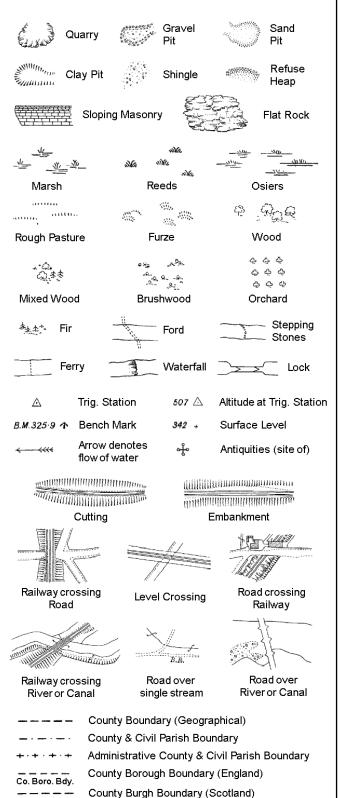
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A Landmark Information Group Service v50.0 13-Oct-2017 Page 12 of 12

### **Historical Mapping Legends**

#### **Ordnance Survey County Series and** Ordnance Survey Plan 1:2,500



Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough Well

S.P

T.C.B

Sl.

 $T_T$ 

Co. Burgh Bdy.

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Guide Post or Board

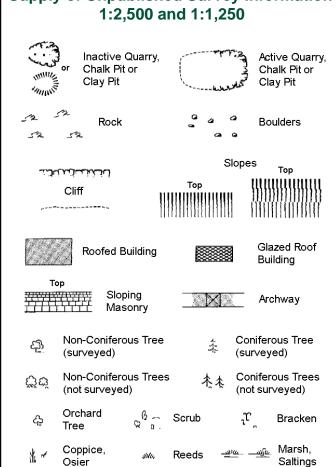
B.R.

E.P

F.B.

M.S

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 



Rough Culvert ш_и Heath Grassland Direction Bench Antiquity of water flow (site of) Electricity Triangulation Cave Entrance

**Electricity Transmission Line** County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

вн	Beer House	Р	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

Fn/DFn

GVC

Fountain / Drinking Ftn.

Gas Valve Compound

Mile Post or Mile Stone

Gas Governer

**Guide Post** 

Manhole

Tank or Track

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

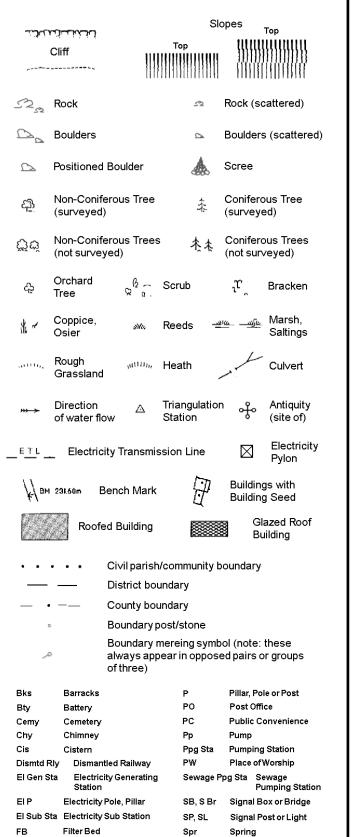
Works (building or area)

Tr

Wd Pp

Wks

1:1,250



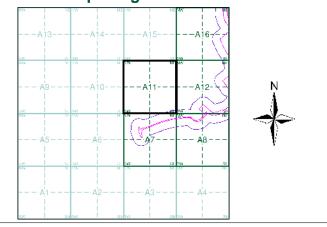
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#### **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1898	3
Glamorganshire	1:2,500	1916	4
Glamorganshire	1:2,500	1935	5
Ordnance Survey Plan	1:2,500	1959 - 1962	6
Ordnance Survey Plan	1:2,500	1961 - 1962	7
Supply of Unpublished Survey Information	1:2,500	1973	8
Ordnance Survey Plan	1:2,500	1975	9
Additional SIMs	1:2,500	1988 - 1990	10
Additional SIMs	1:2,500	1989 - 1990	11
Large-Scale National Grid Data	1:2,500	1993	12
Historical Aerial Photography	1:2,500	2000	13

#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 100

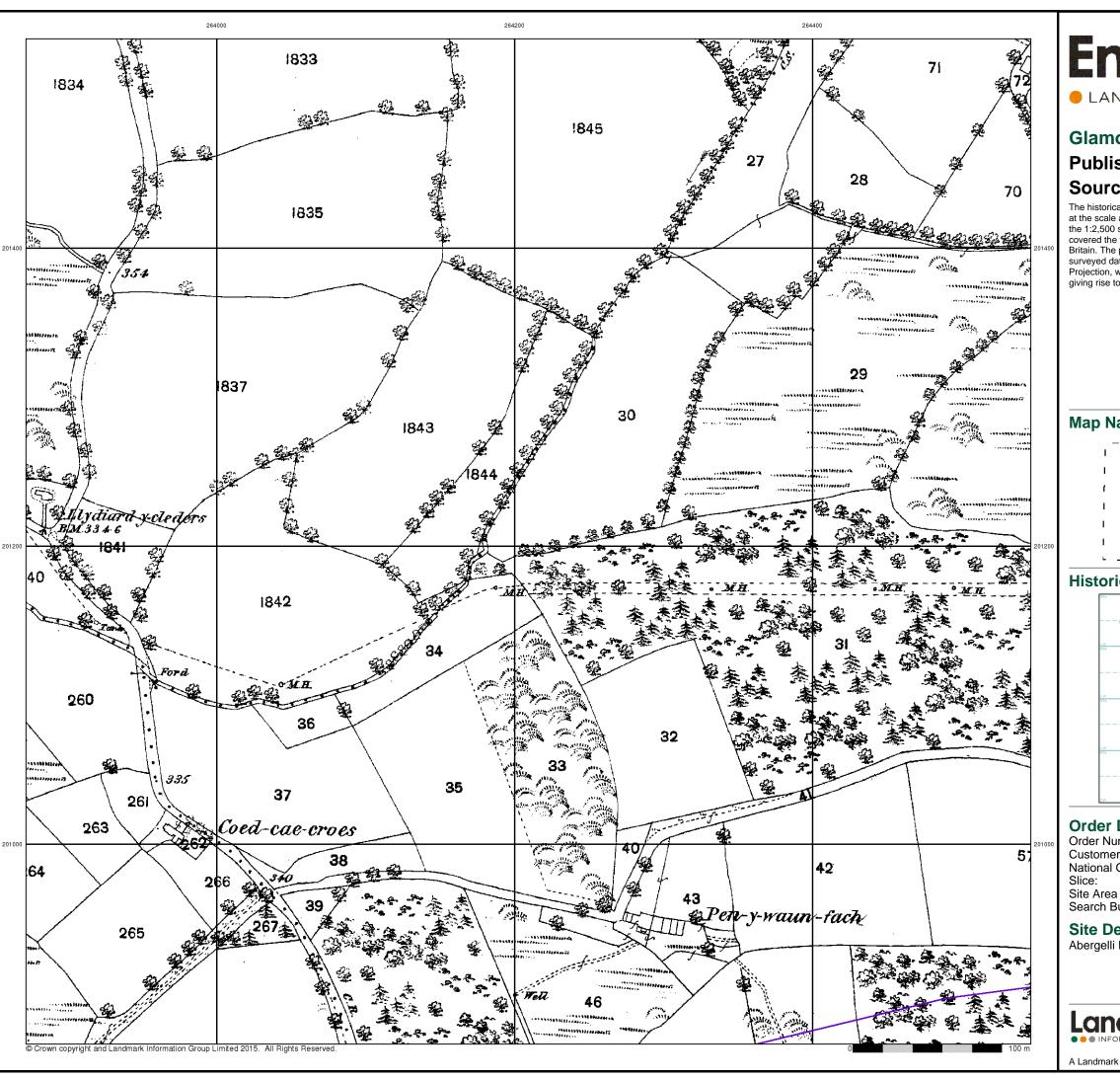
#### **Site Details**

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 13



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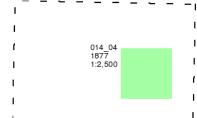
#### Glamorganshire

#### **Published 1877**

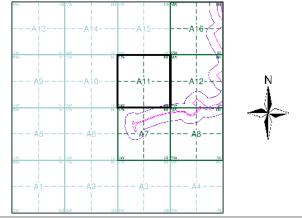
#### Source map scale - 1:2,500

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)



#### **Historical Map - Segment A11**



#### **Order Details**

142844199_1_1 60542910 Order Number: Customer Ref: National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

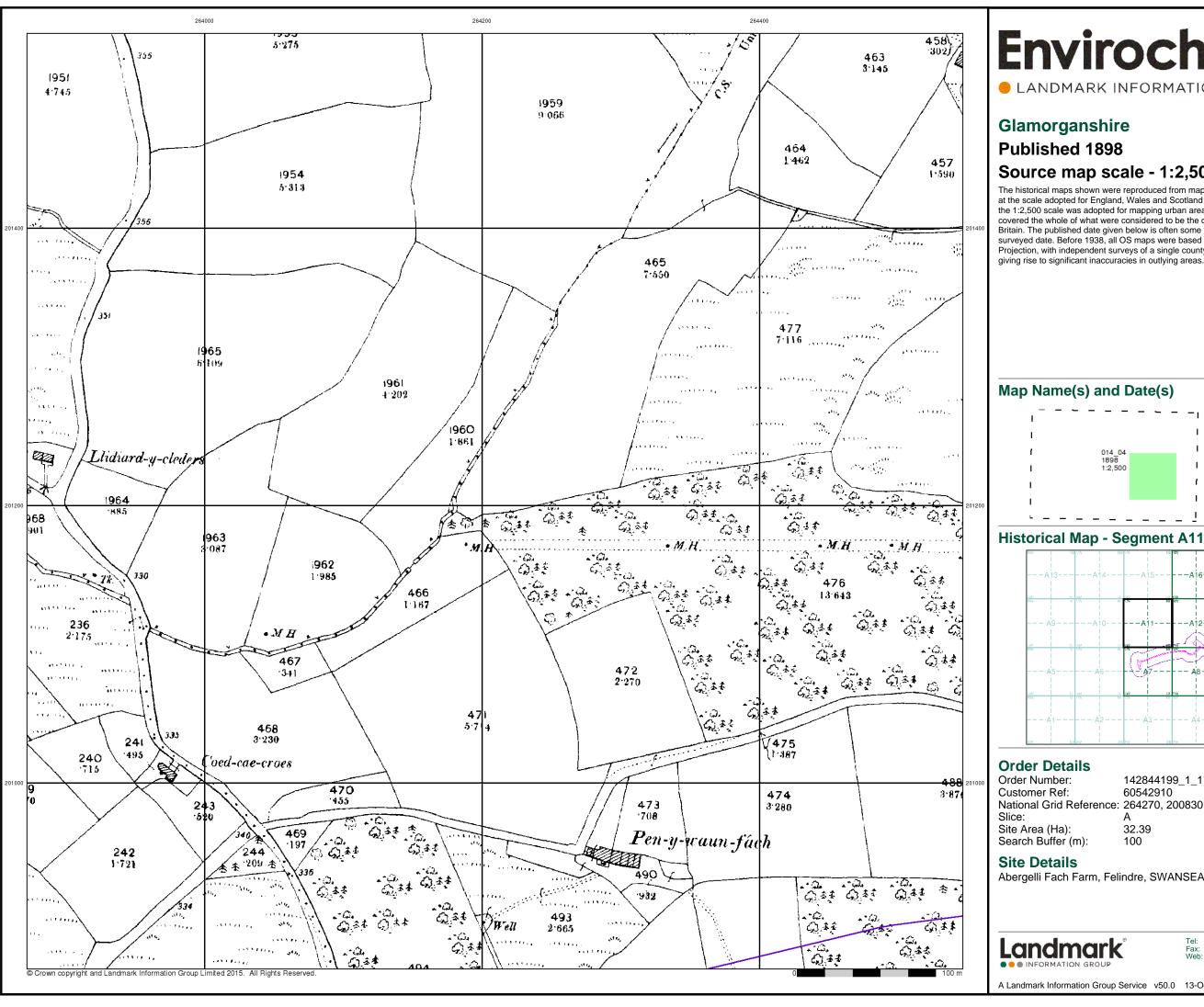
#### **Site Details**

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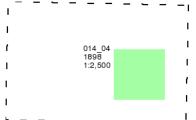
A Landmark Information Group Service v50.0 13-Oct-2017 Page 2 of 13

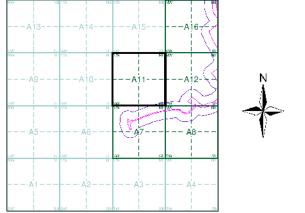


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#### Source map scale - 1:2,500

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.



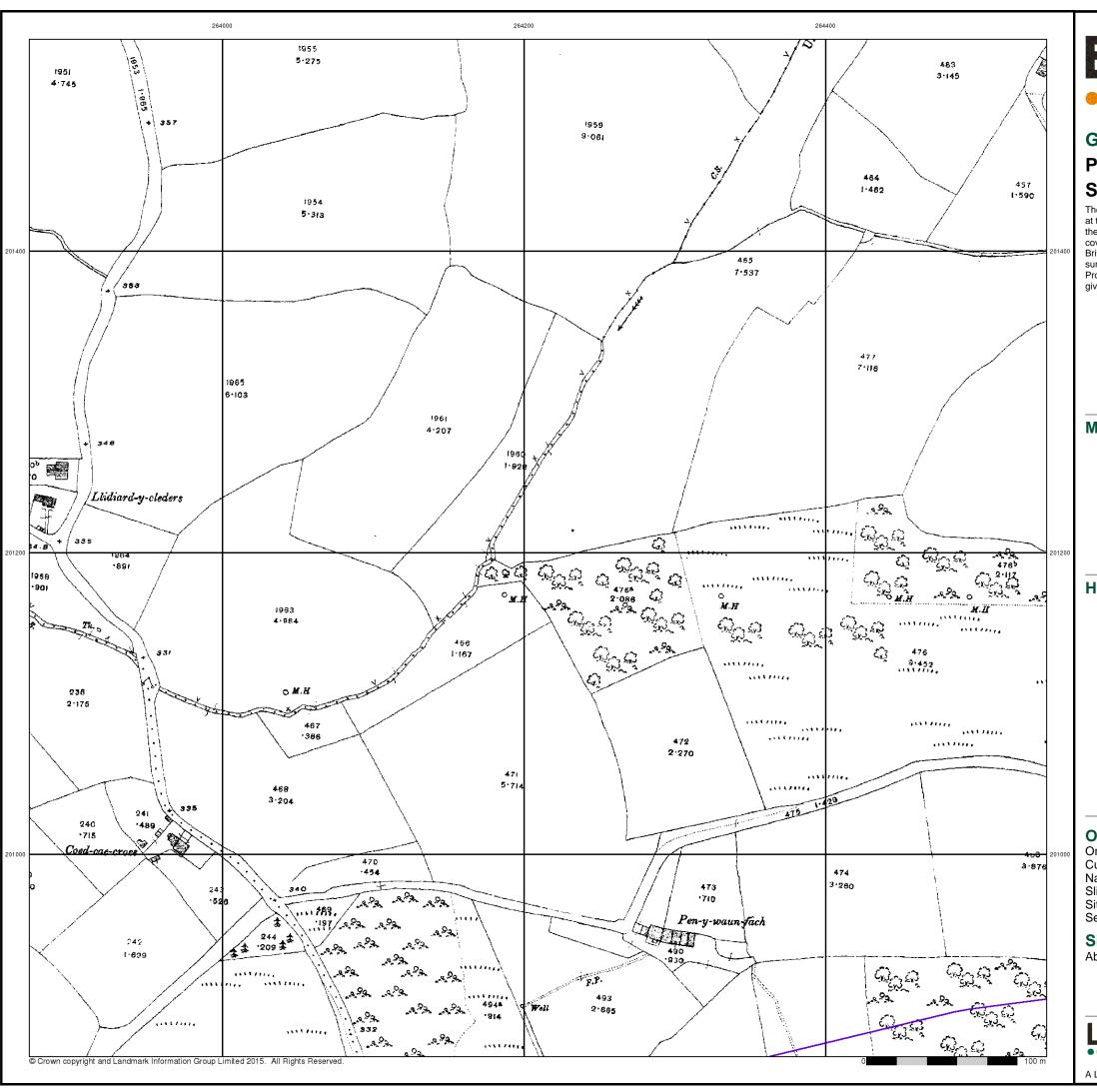


142844199_1_1 60542910 National Grid Reference: 264270, 200830

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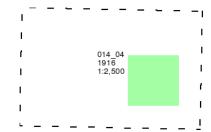
#### Glamorganshire

#### **Published 1916**

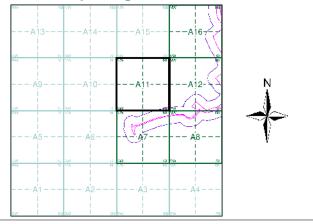
### Source map scale - 1:2,500

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)



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 100

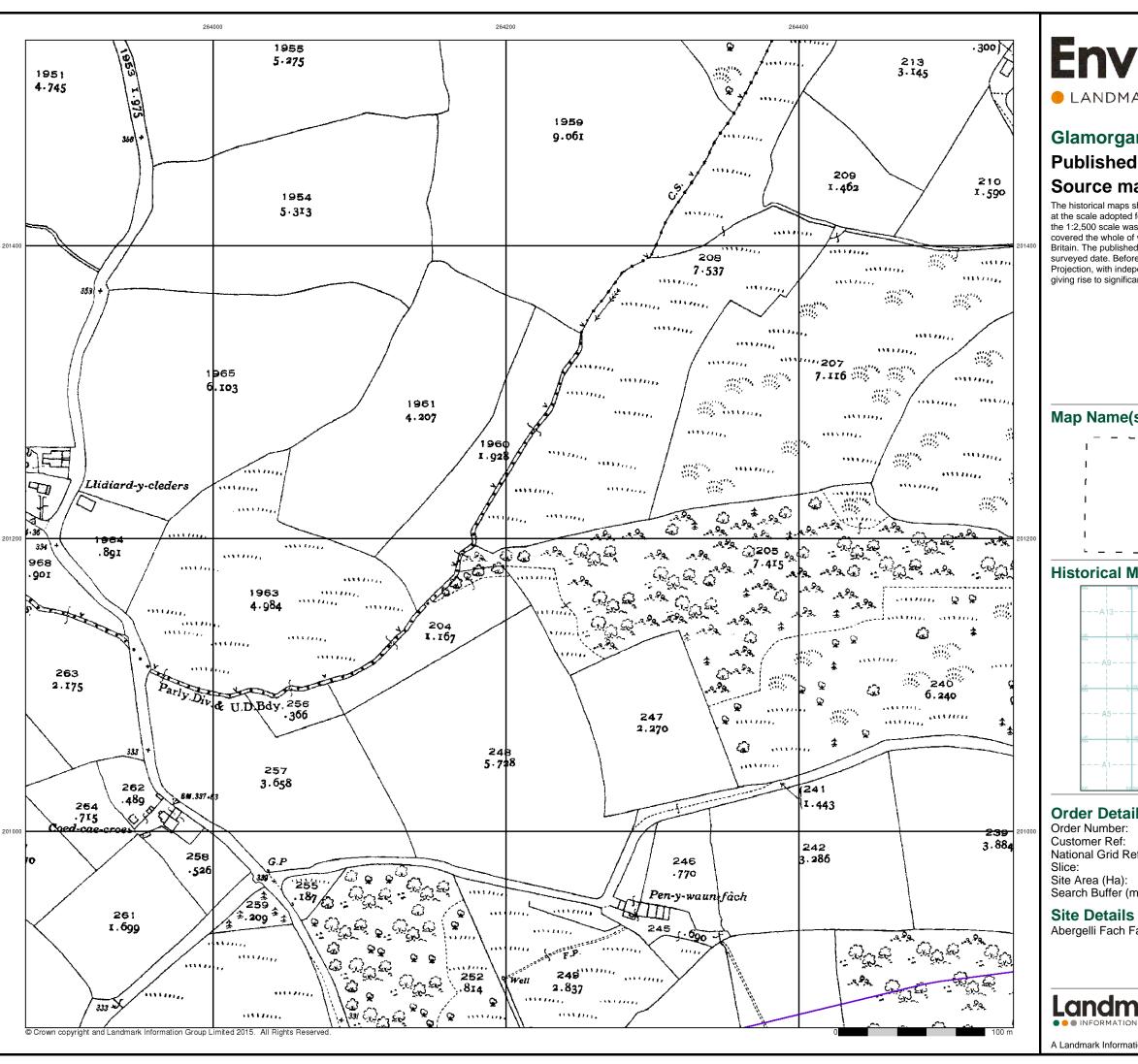
#### **Site Details**

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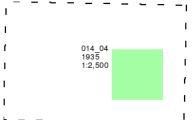
#### Glamorganshire

#### **Published 1935**

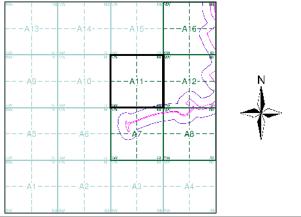
#### Source map scale - 1:2,500

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)



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

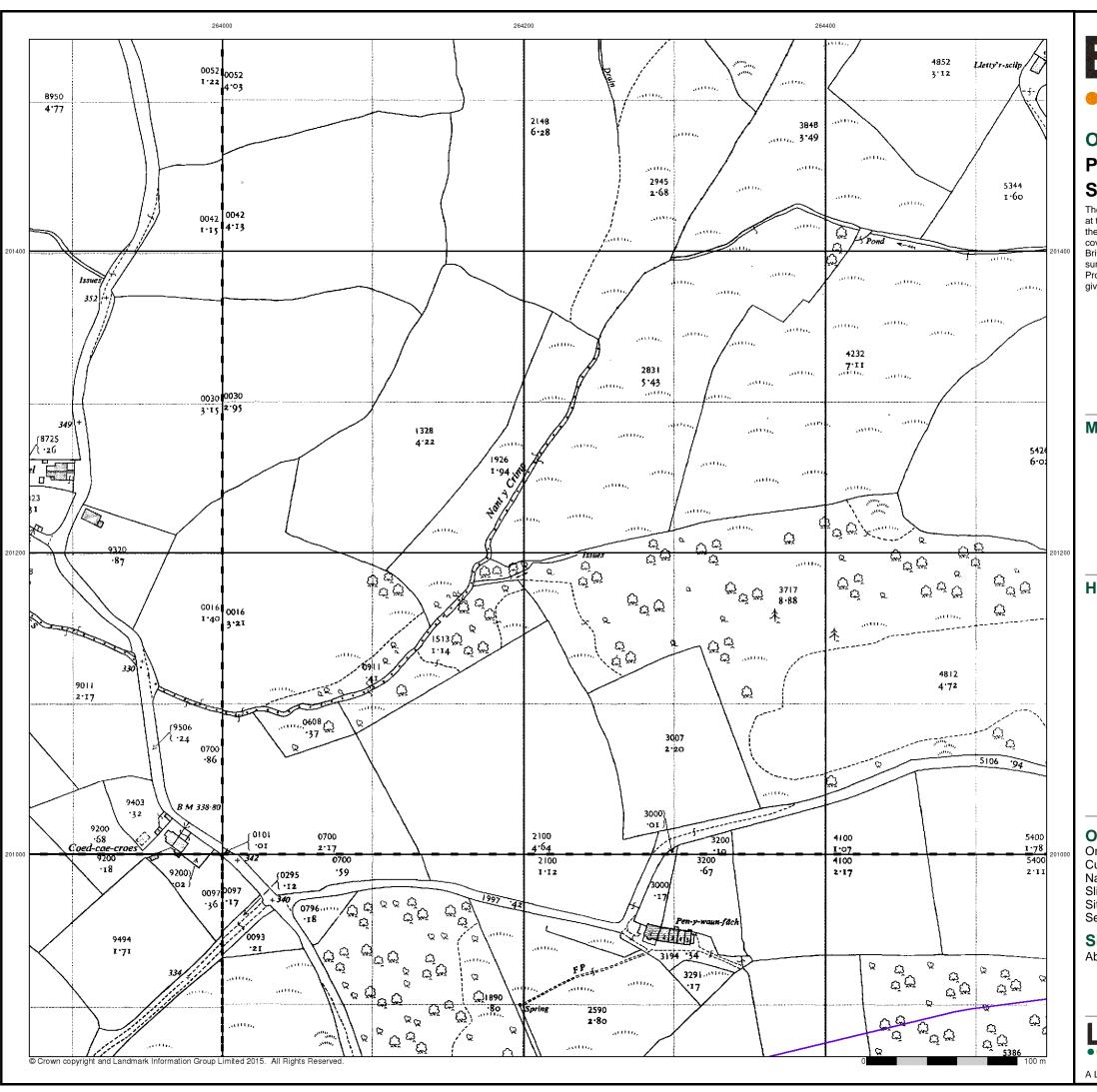
Site Area (Ha): 32.39 Search Buffer (m): 100

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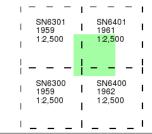
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# **Ordnance Survey Plan**

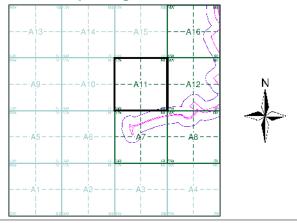
### Published 1959 - 1962 Source map scale - 1:2,500

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#### Map Name(s) and Date(s)



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830

Site Area (Ha): 32.39 Search Buffer (m):

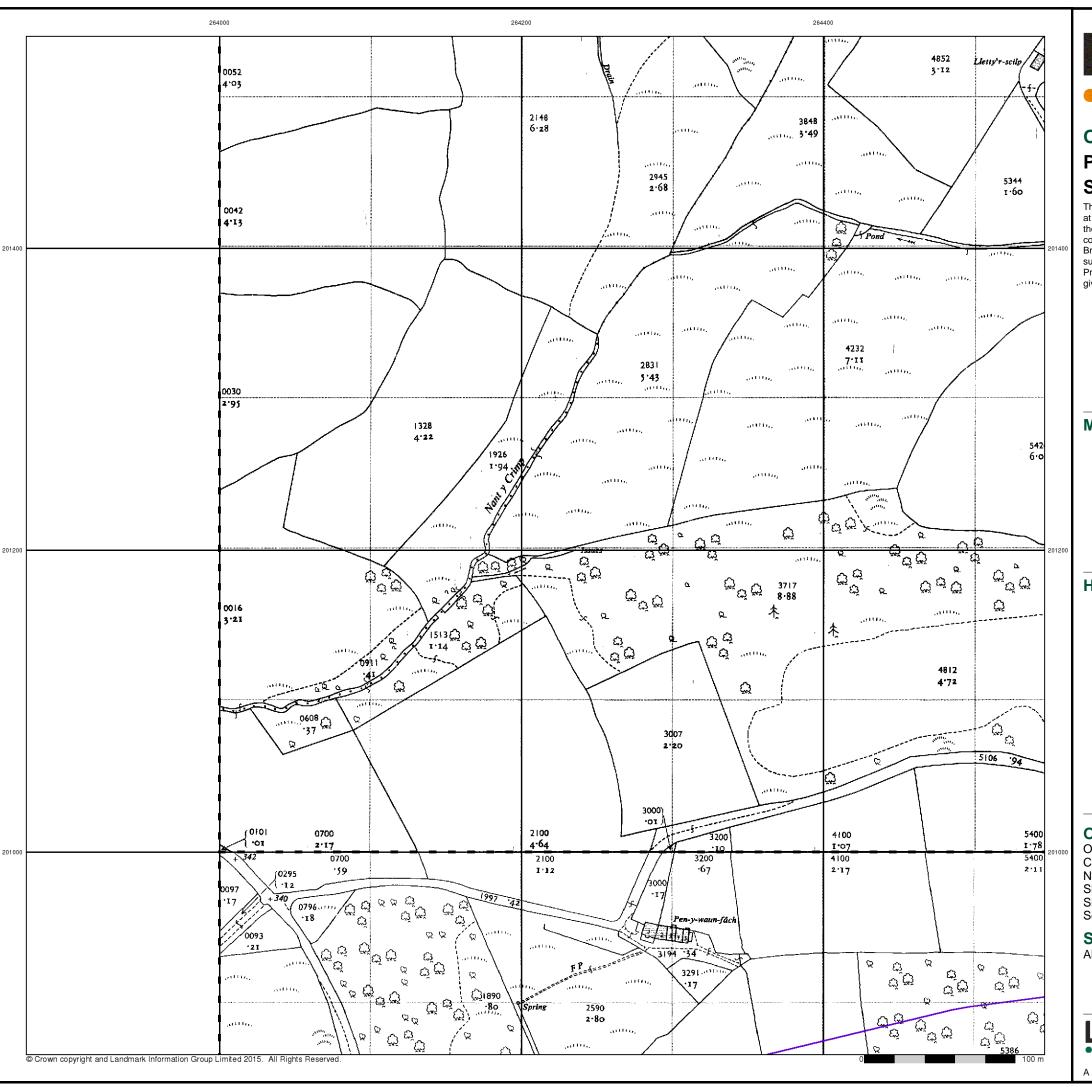
#### **Site Details**

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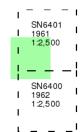
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# **Ordnance Survey Plan**

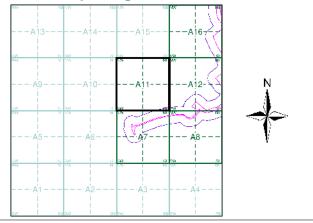
### Published 1961 - 1962 Source map scale - 1:2,500

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)



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 100

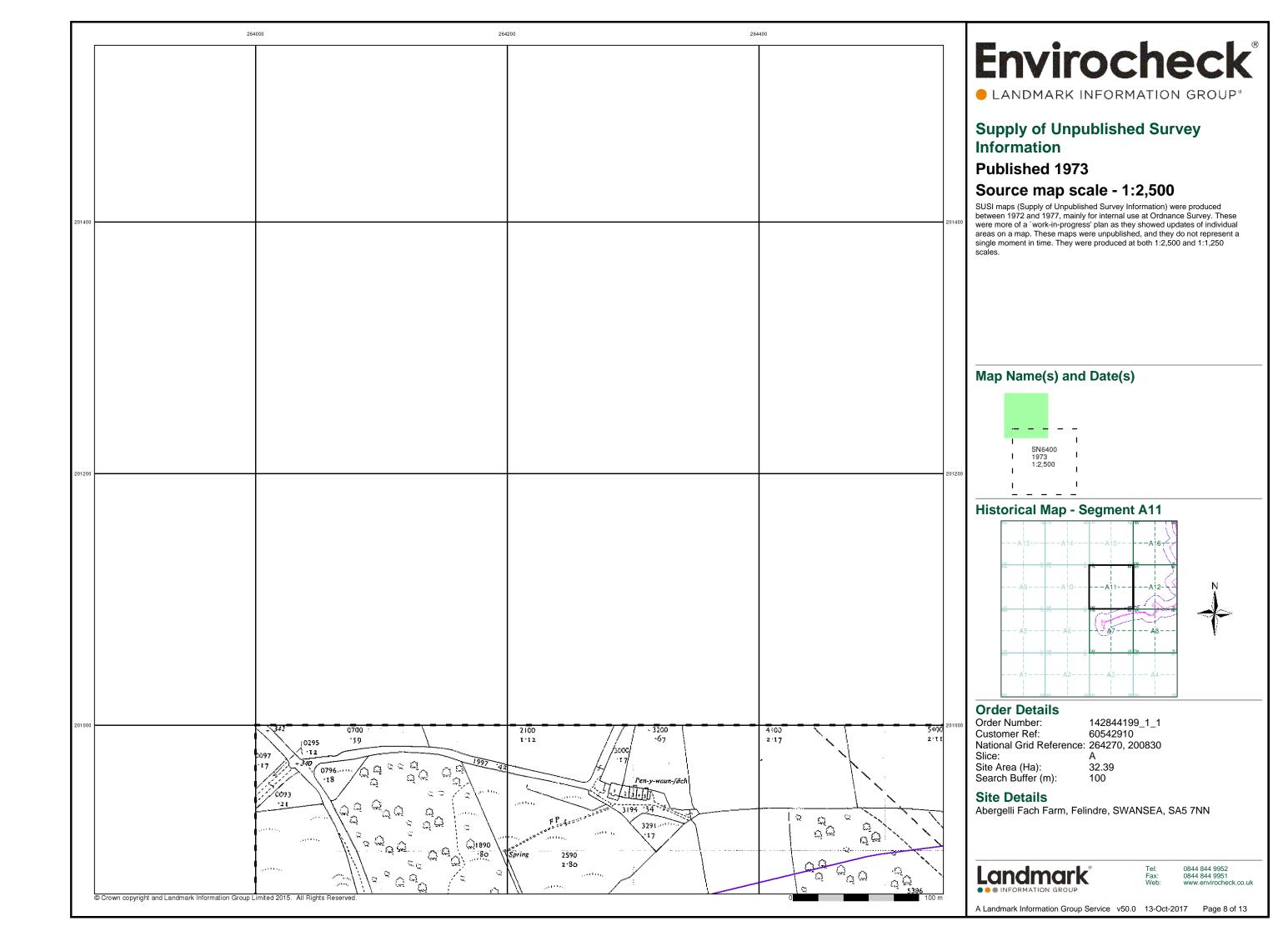
#### **Site Details**

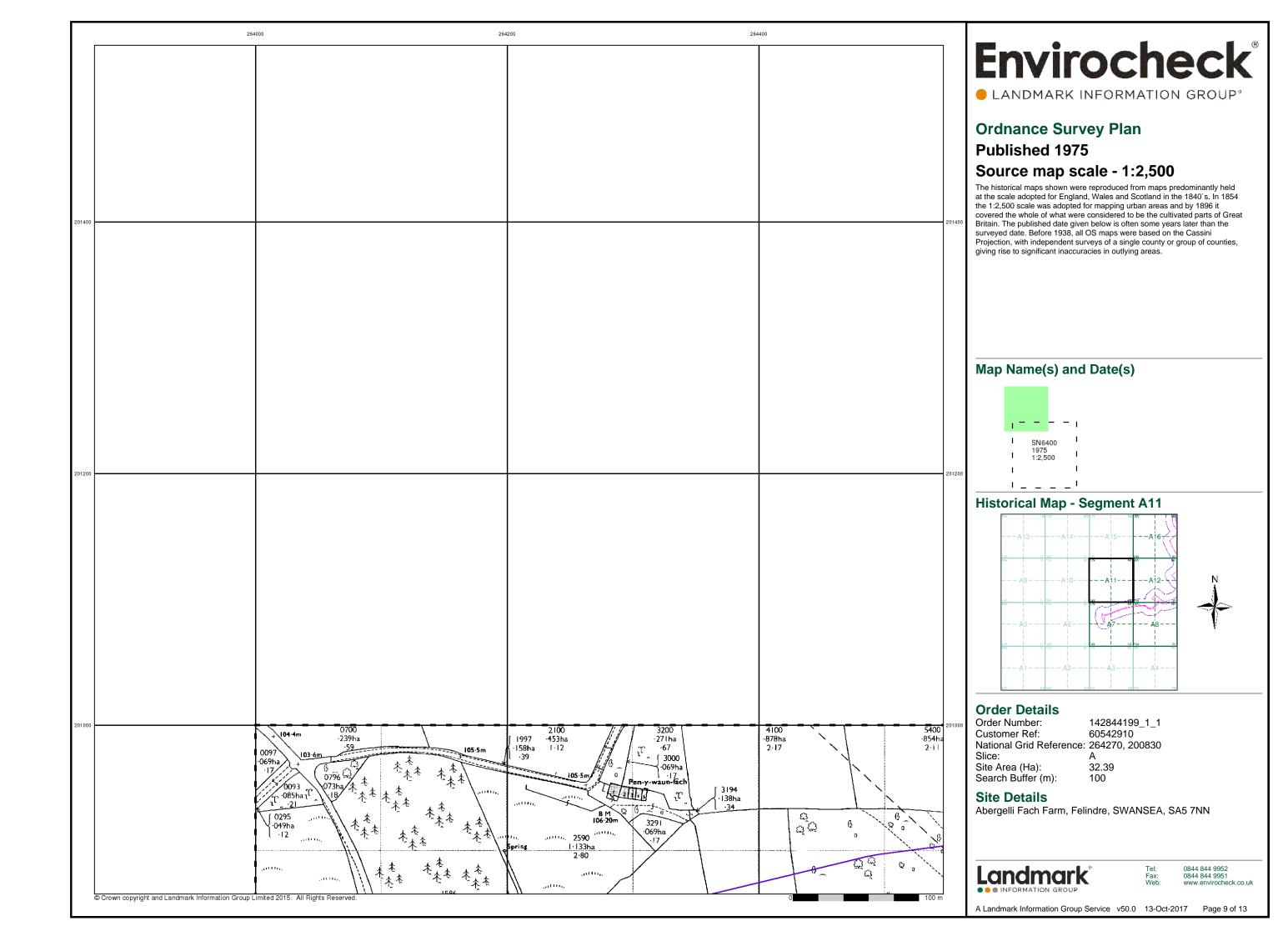
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

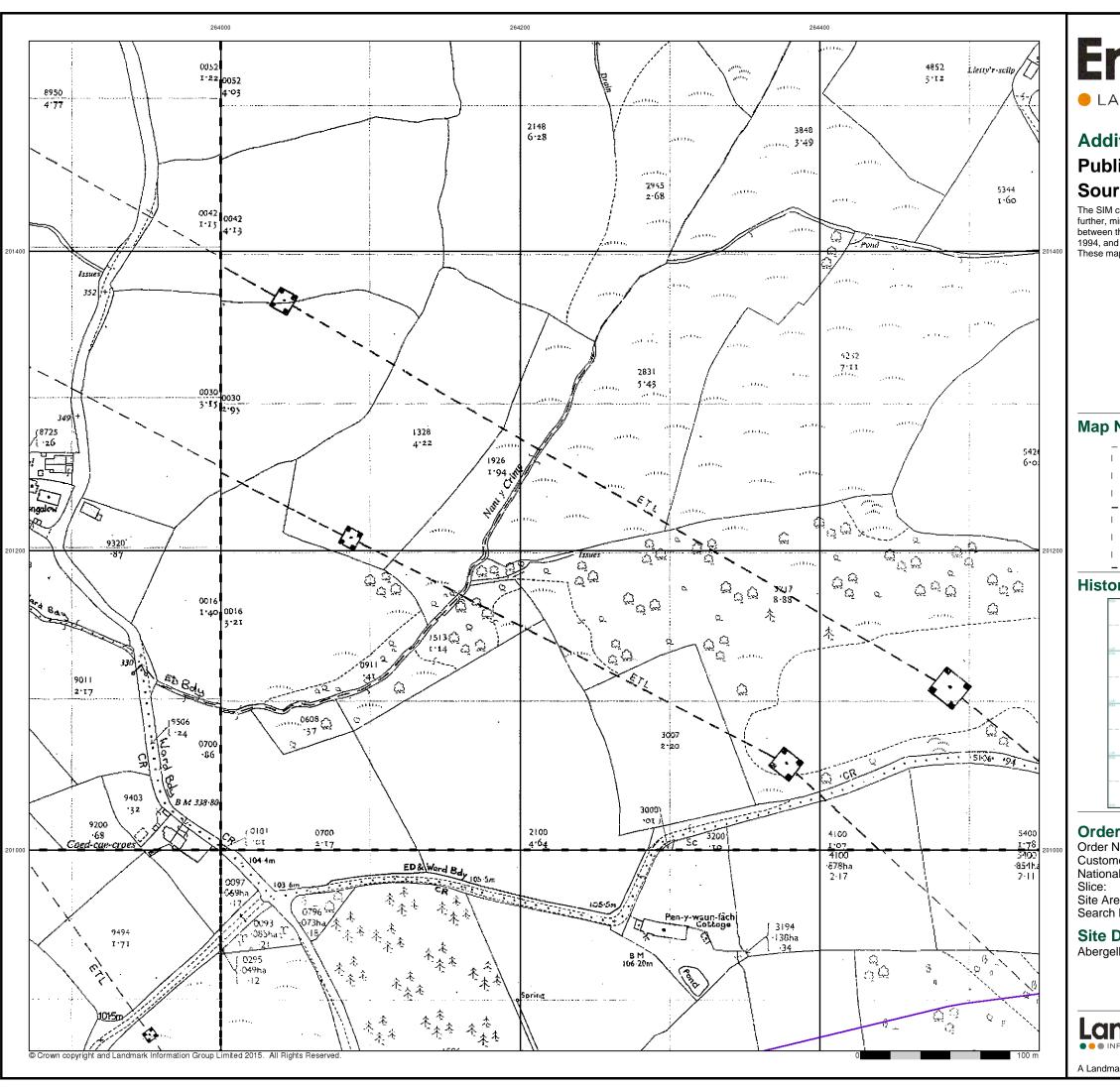


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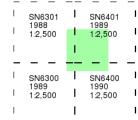
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#### **Additional SIMs**

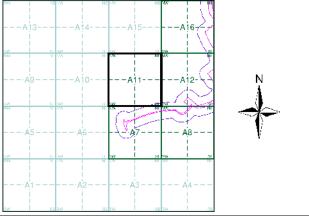
### Published 1988 - 1990 Source map scale - 1:2,500

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)



#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 264270, 200830

Site Area (Ha): Search Buffer (m): 32.39

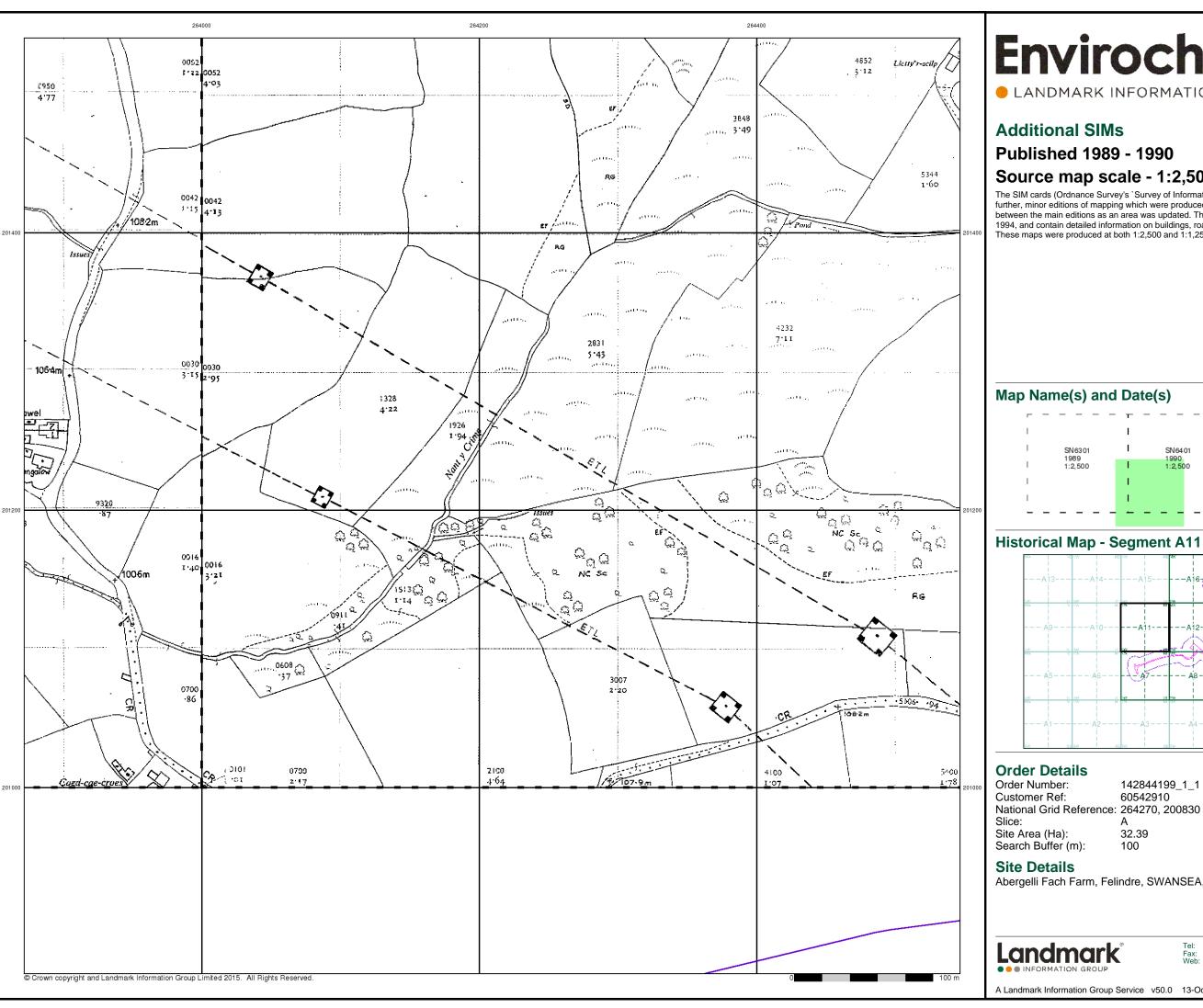
#### **Site Details**

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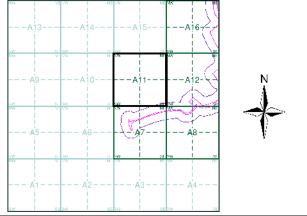


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### Published 1989 - 1990 Source map scale - 1:2,500

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.





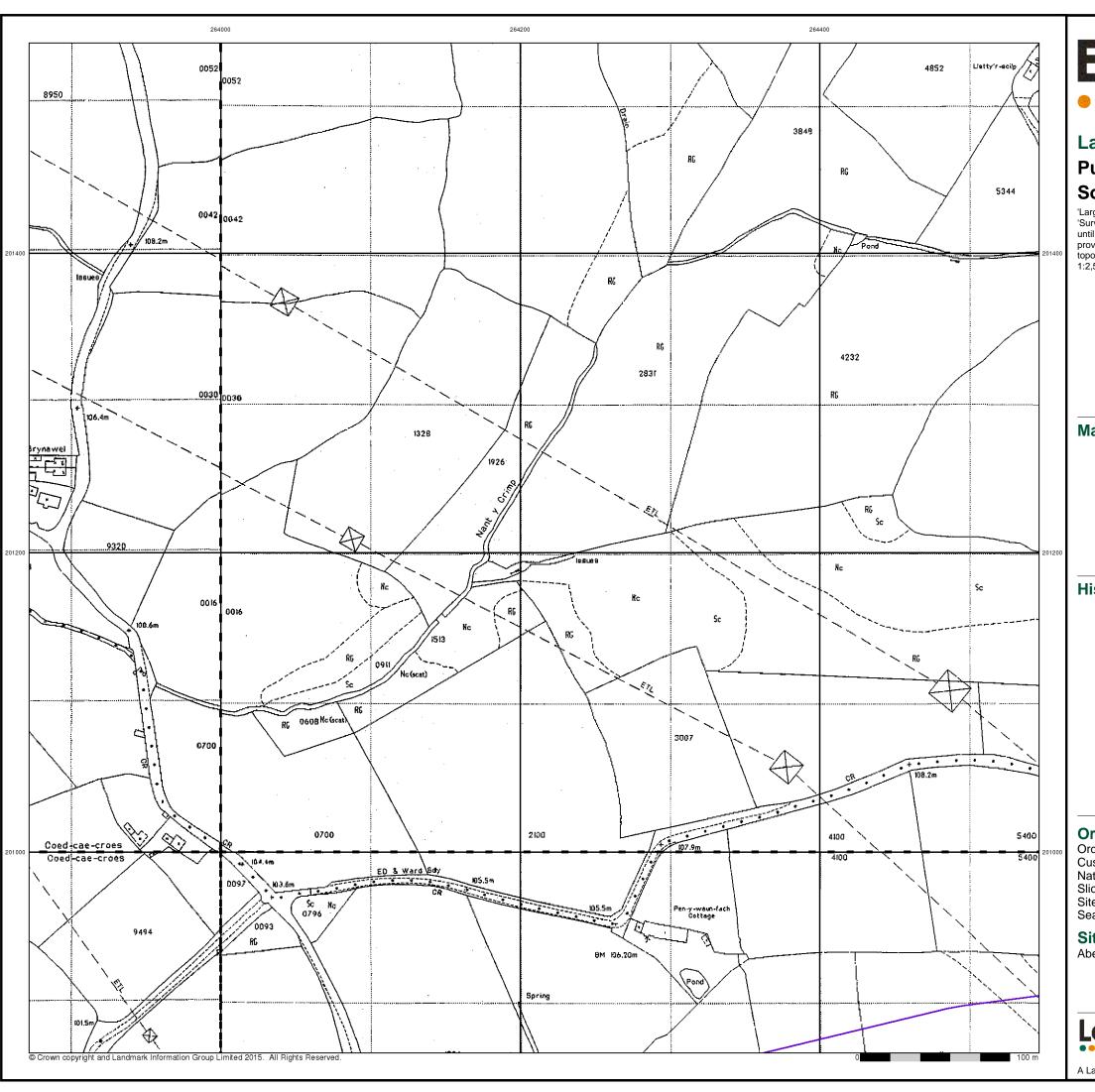
142844199_1_1 60542910 National Grid Reference: 264270, 200830

32.39 100

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### **Large-Scale National Grid Data**

### Published 1993

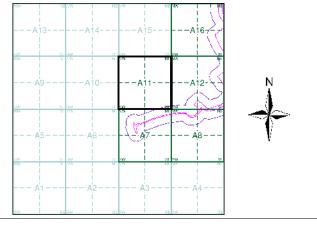
### Source map scale - 1:2,500

'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)

	1993	3	I	1993		I I
l			1			ı
_	_	_			_	Ξ.
			ı			•
			1			ı
			I			I
	  -	1993 1:2,5 — — SN6 1993	SN6301 1993 12,500 — — — SN6300 1993 12,500	1993 1.2,500 1 SN6300 1993	1993 12,500 12,5 1 1 SN6300 1993 1993	1993 12,500 1 12,500 1 1 SN6300 1993 1993

#### **Historical Map - Segment A11**



#### **Order Details**

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 264270, 200830 Slice:

Site Area (Ha): Search Buffer (m): 32.39

#### **Site Details**

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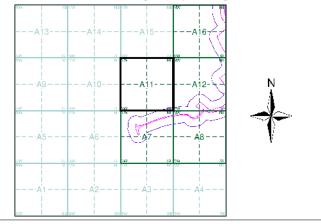


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# Historical Aerial Photography Published 2000

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 A11**



#### **Order Details**

 Order Number:
 142844199_1_1

 Customer Ref:
 60542910

 National Grid Reference:
 264270, 200830

Slice: A
Site Area (Ha): 32.39
Search Buffer (m): 100

**Site Details** 

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# **Geology 1:10,000 Maps Legends**

#### **Artificial Ground and Landslip**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	LSGR	Landscaped Ground (Undivided)	Unknown/Unclassifie d Entry	Holocene - Holocene

#### **Superficial Geology**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Pleistocene
	TILLD	Till, Devensian	Diamicton	Devensian - Ipswichian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Ipswichian
	GFSDD	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	Sand and Gravel	Devensian - Ipswichian
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quaternary - Ryazanian

#### **Bedrock and Faults**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	GDB	Grovesend Formation	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	GDB	Grovesend Formation	Sandstone	Westphalian D - Westphalian D
	Fault			
	Rock			

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#### Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

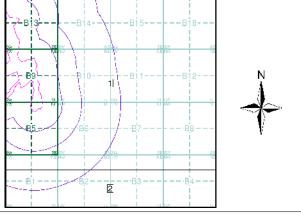
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

#### **Geology 1:10,000 Maps Coverage**

		•	
Map ID:	1	Map ID:	2
Map Name:	SN60SE	Map Name:	SS69NE
Map Date:	1972	Map Date:	1975
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Available
Faults:	Available	Faults:	Available
_andslip:	Available	Landslip:	Not Avai
Rock Segments:	Available	Rock Segments:	Available

#### Geology 1:10,000 Maps - Slice B



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010
Slice: B

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

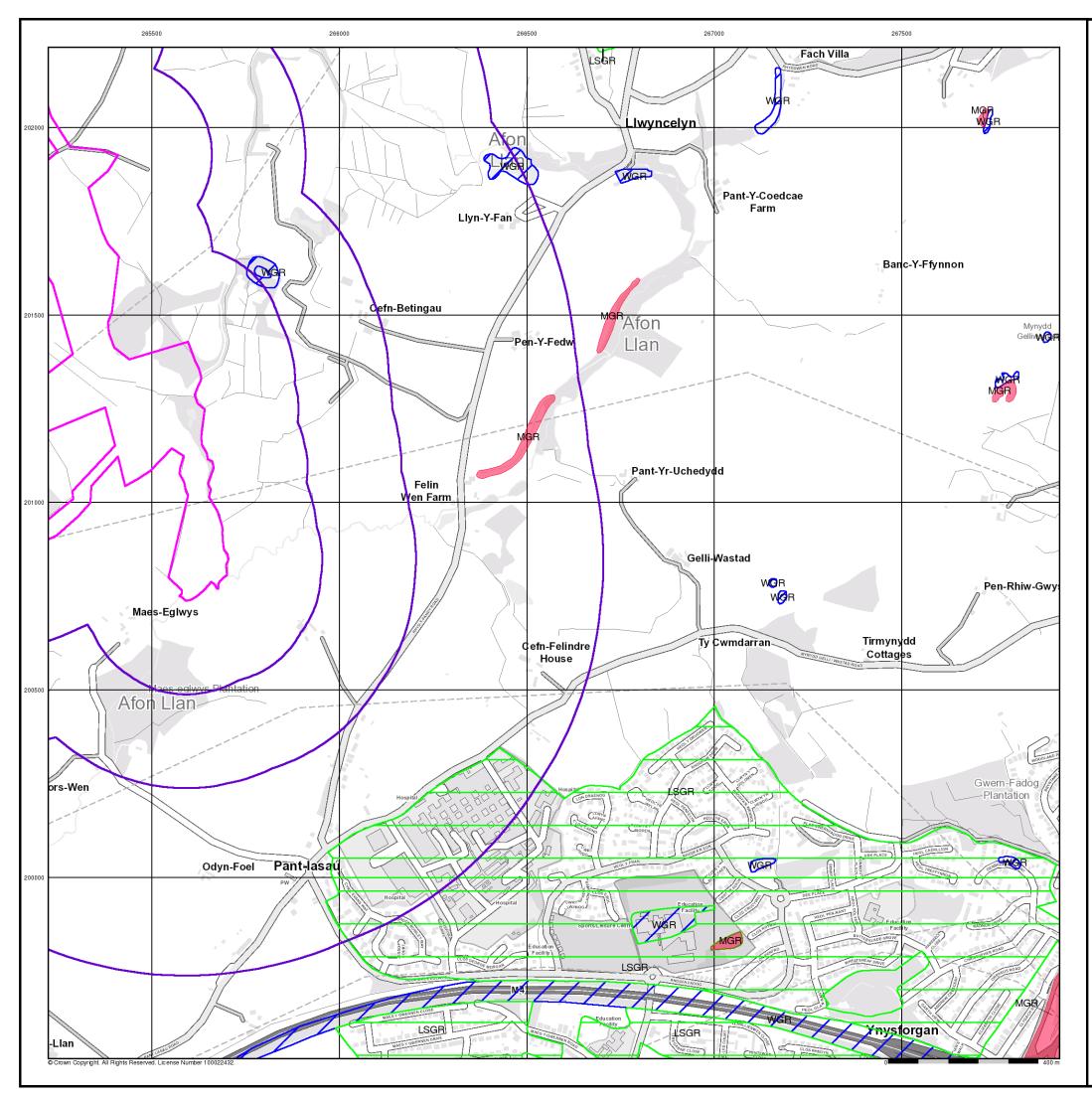
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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#### **Artificial Ground and Landslip**

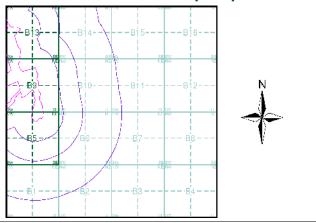
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

#### Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground areas where the surface has been reshaped.
- Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

#### **Artificial Ground and Landslip Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

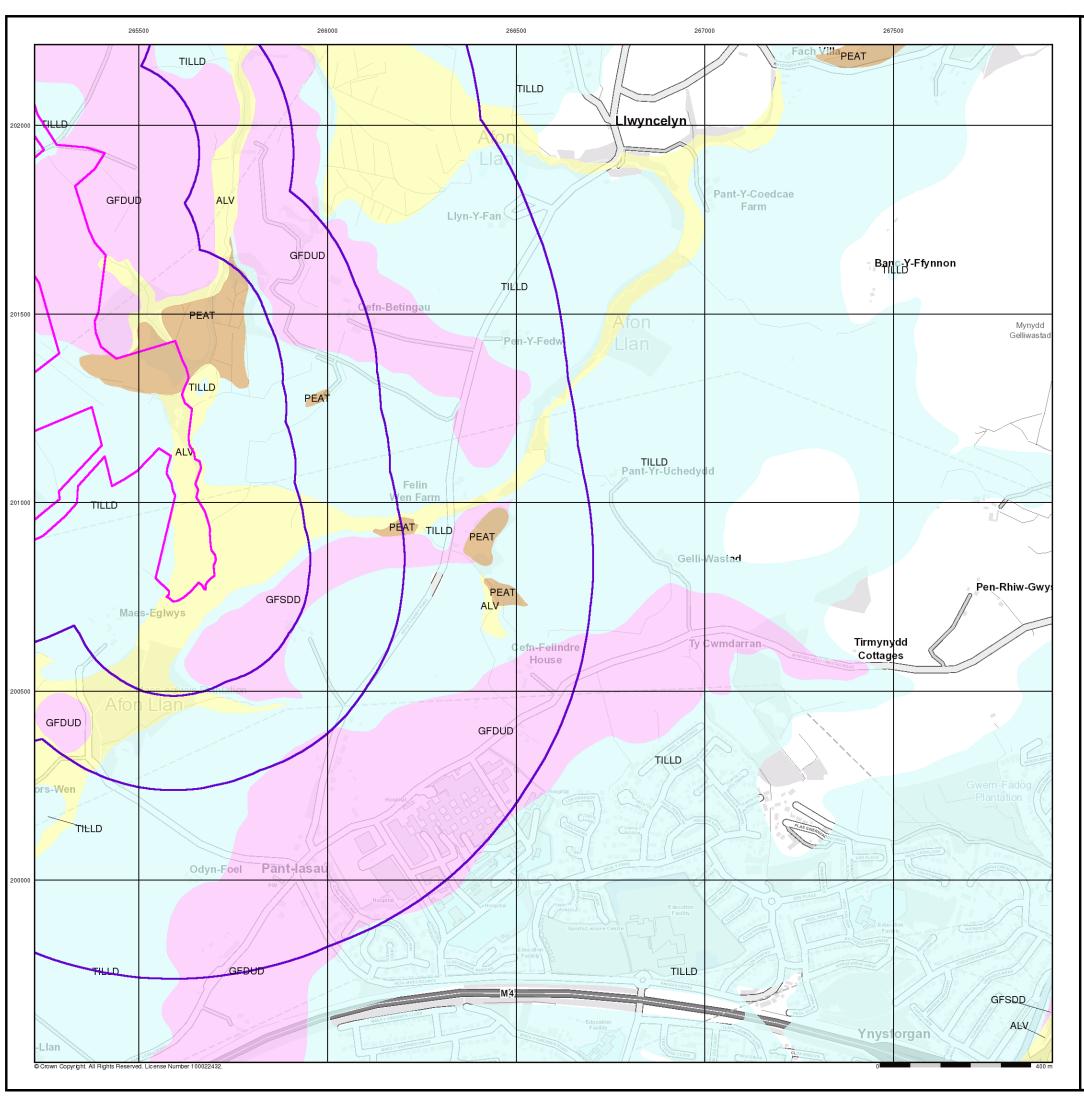
#### **Site Details**

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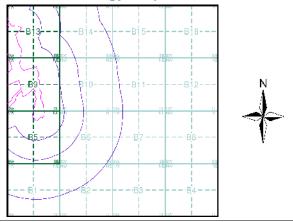
#### **Superficial Geology**

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

#### **Superficial Geology Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

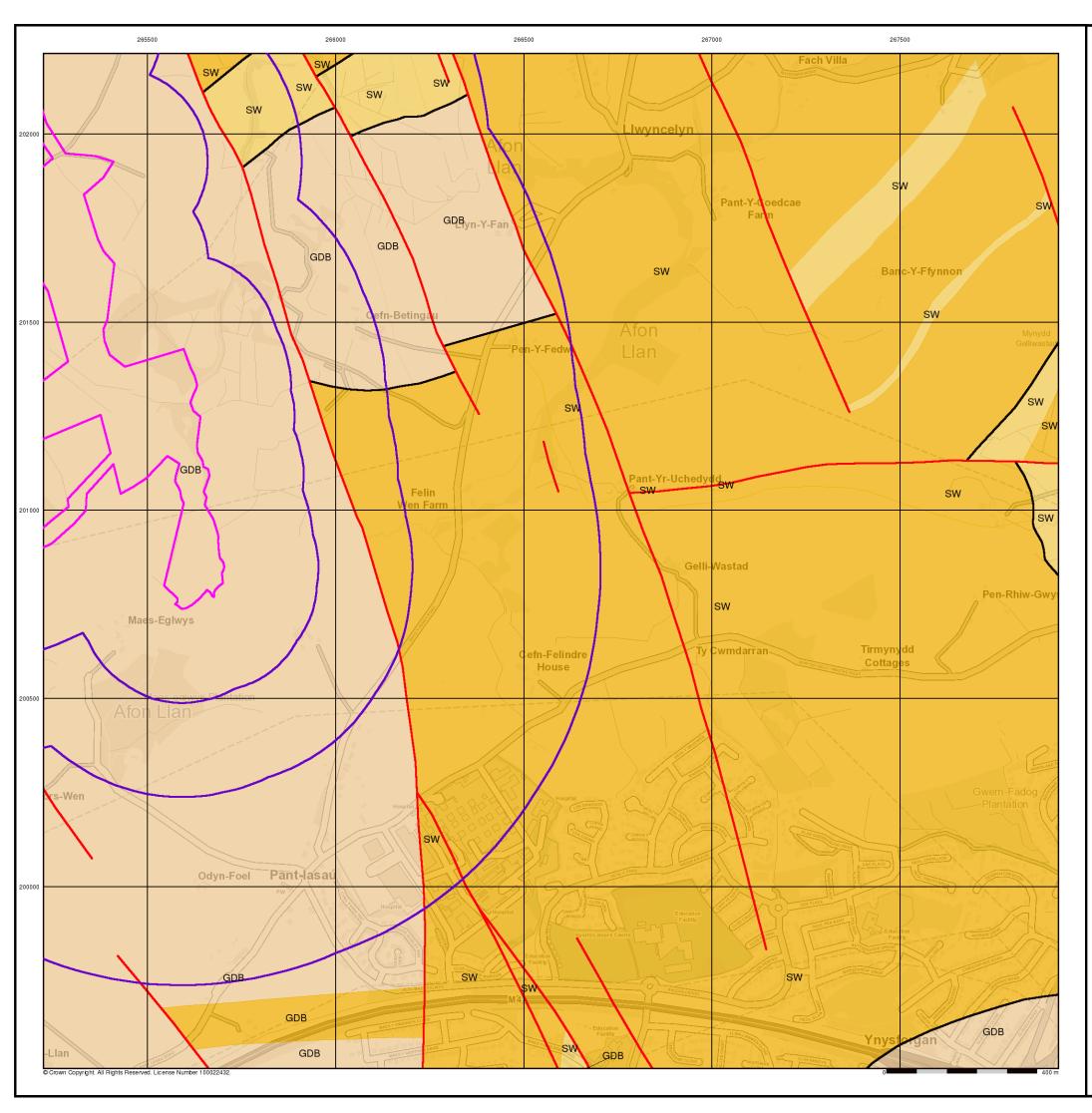
#### **Site Details**

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#### **Bedrock and Faults**

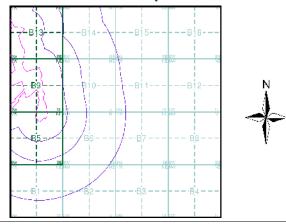
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

#### **Bedrock and Faults Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

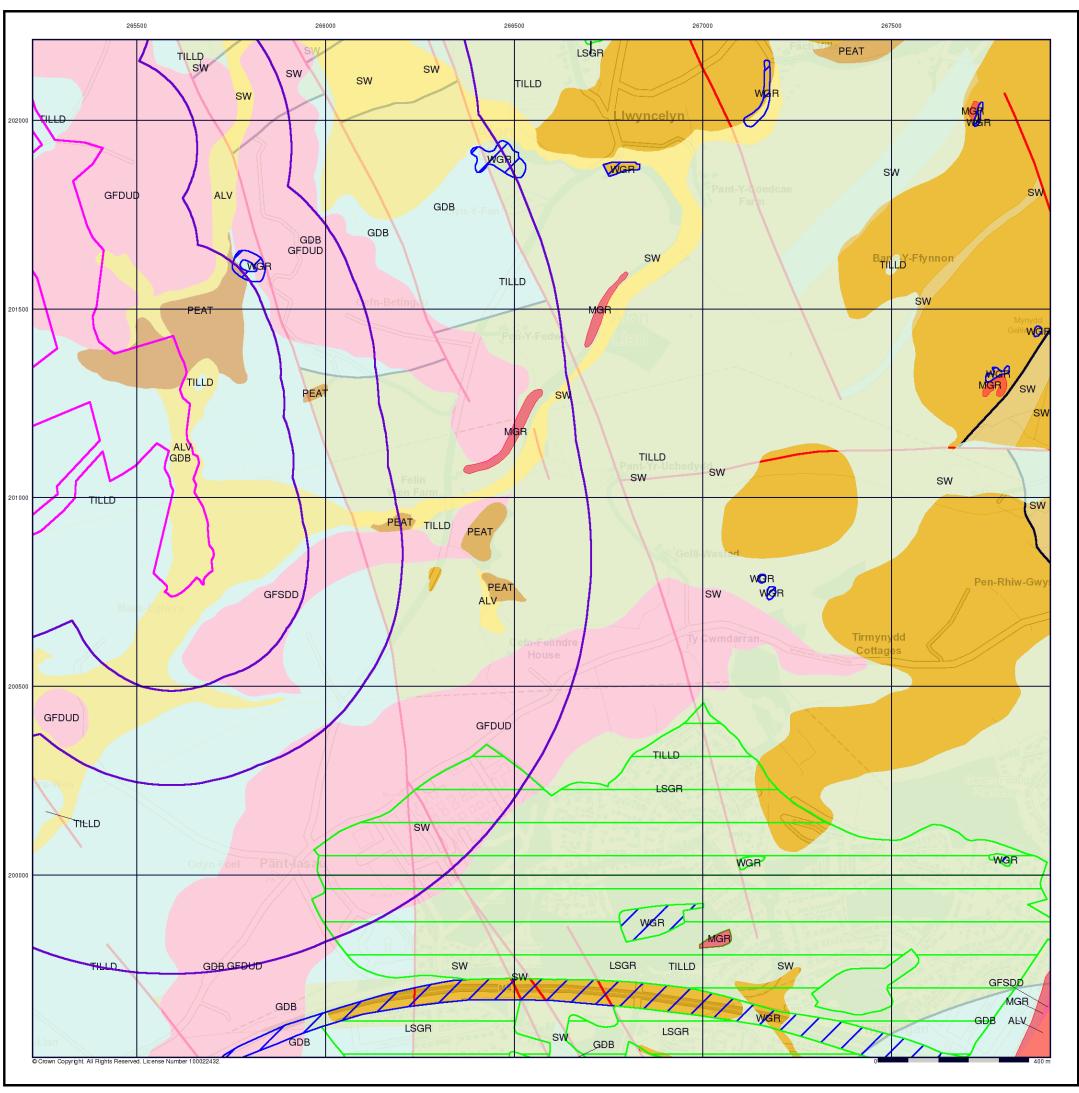
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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#### **Combined Surface Geology**

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

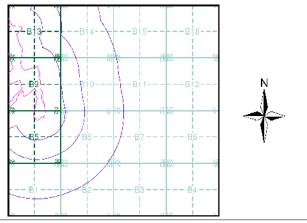
#### **Additional Information**

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

#### **Combined Geology Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

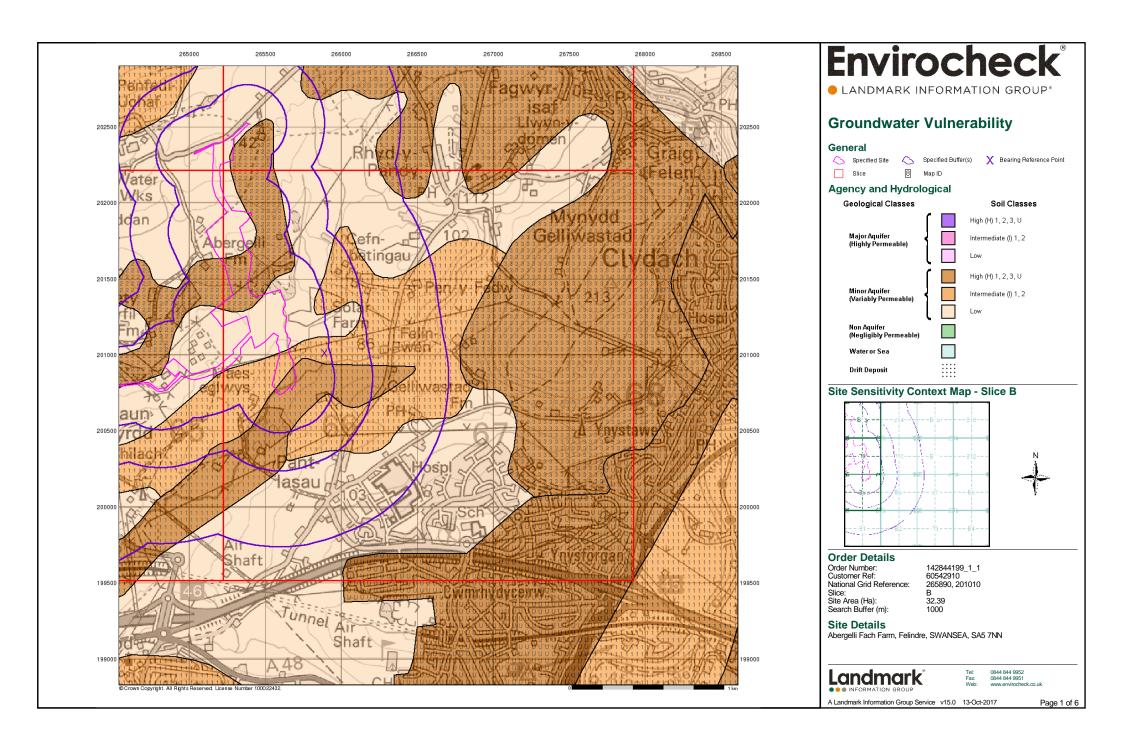
#### **Site Details**

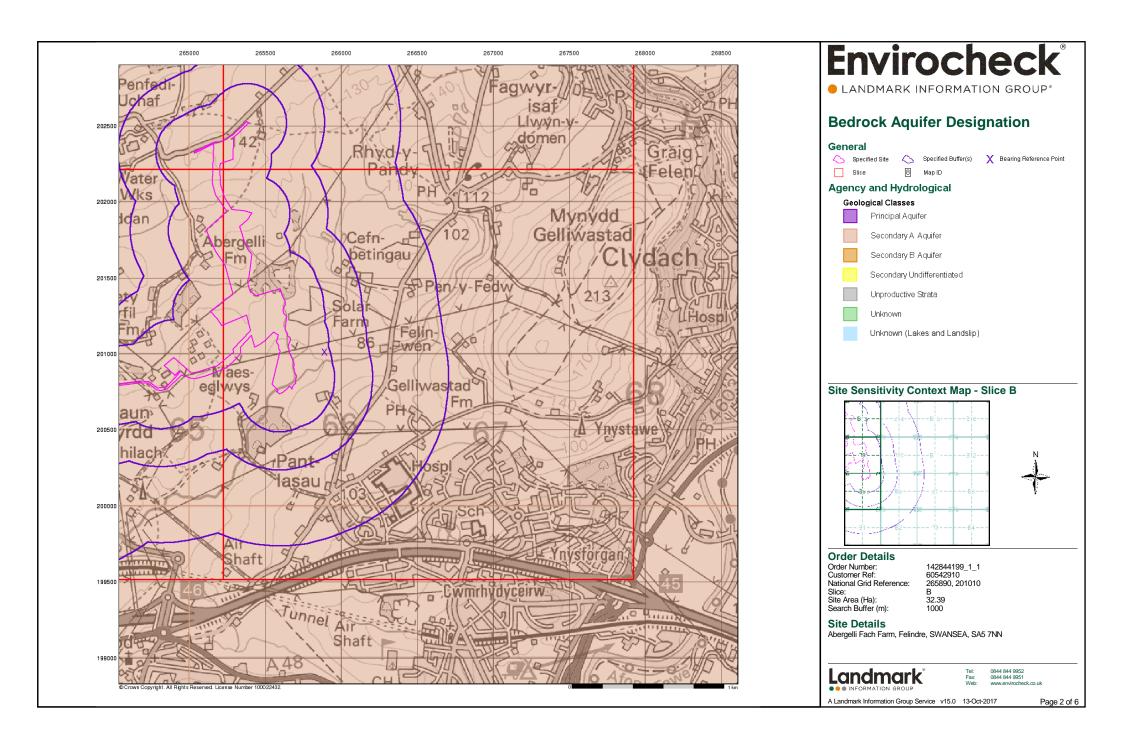
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

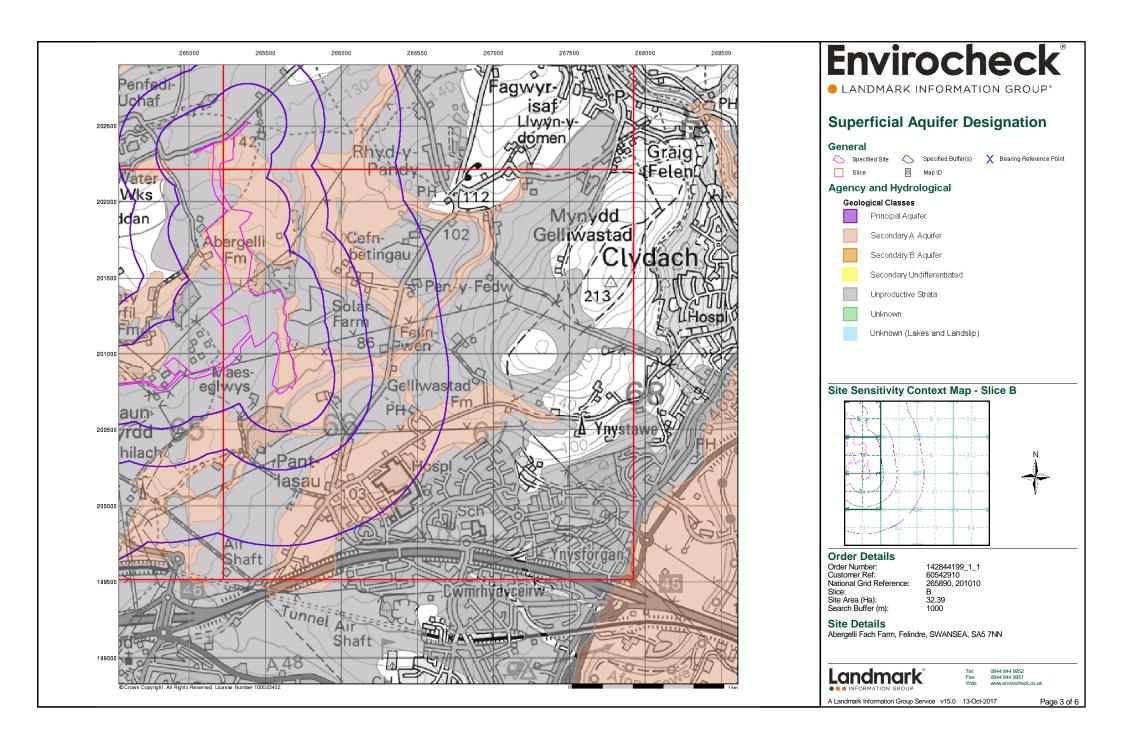


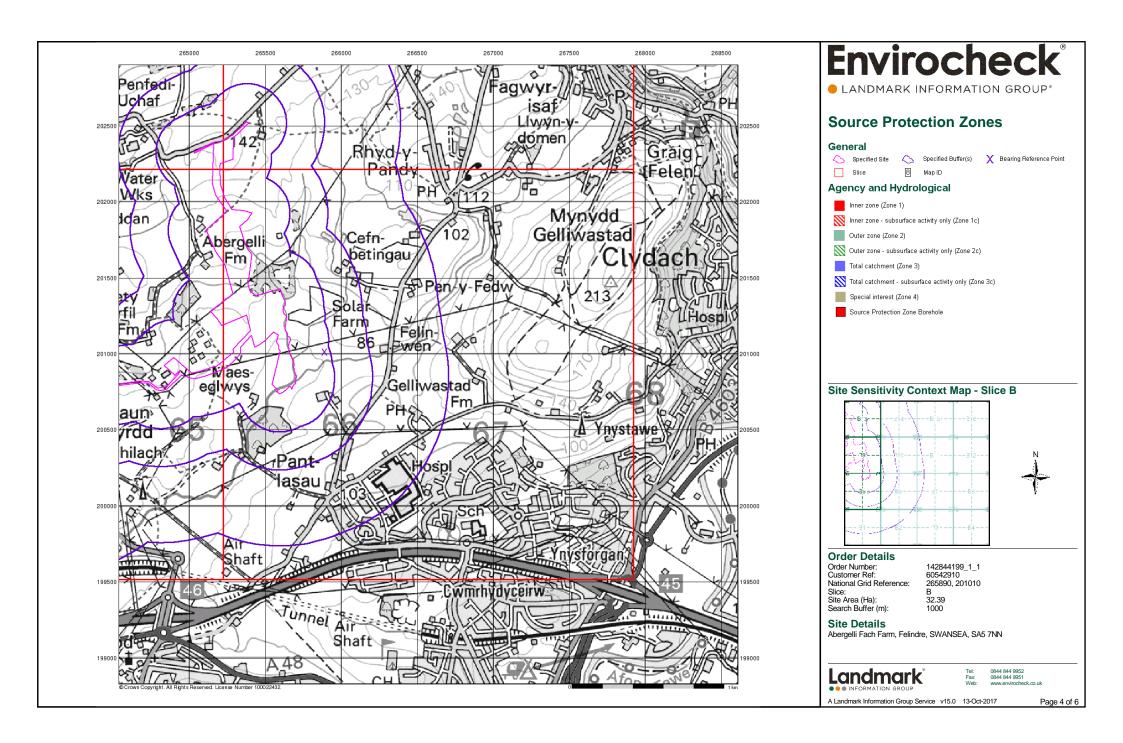
0844 844 9951 www.envirocheck.co.uk

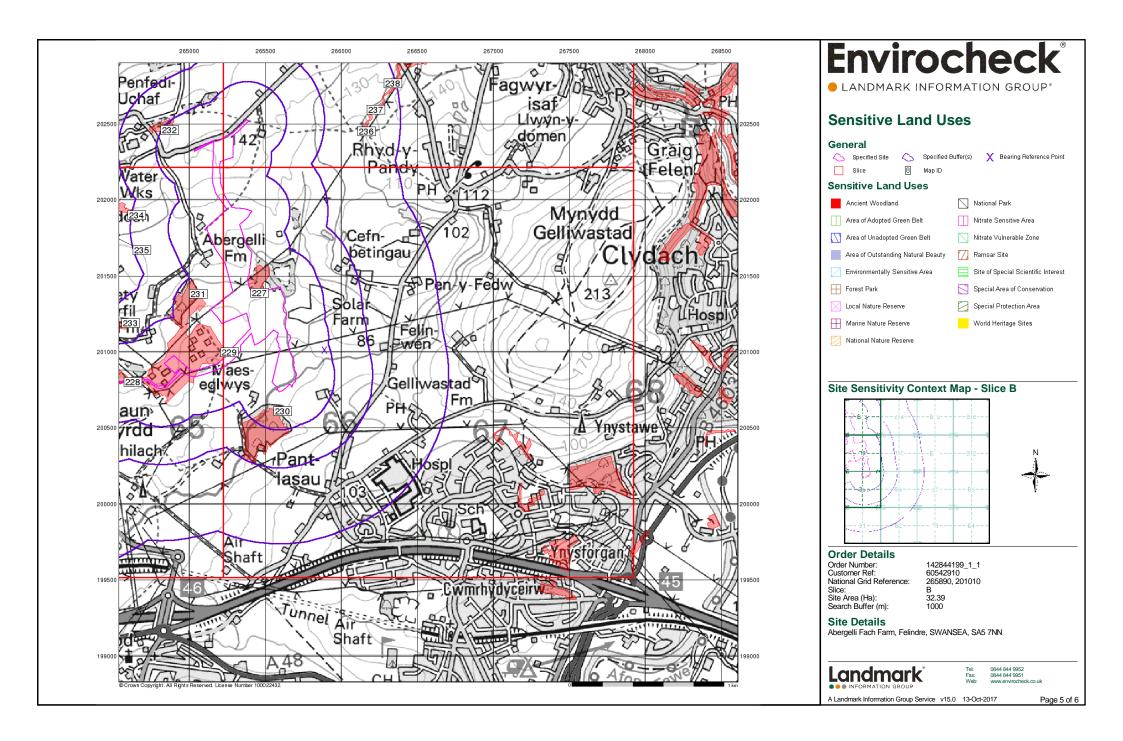
A Landmark Information Group Service v50.0 13-Oct-2017

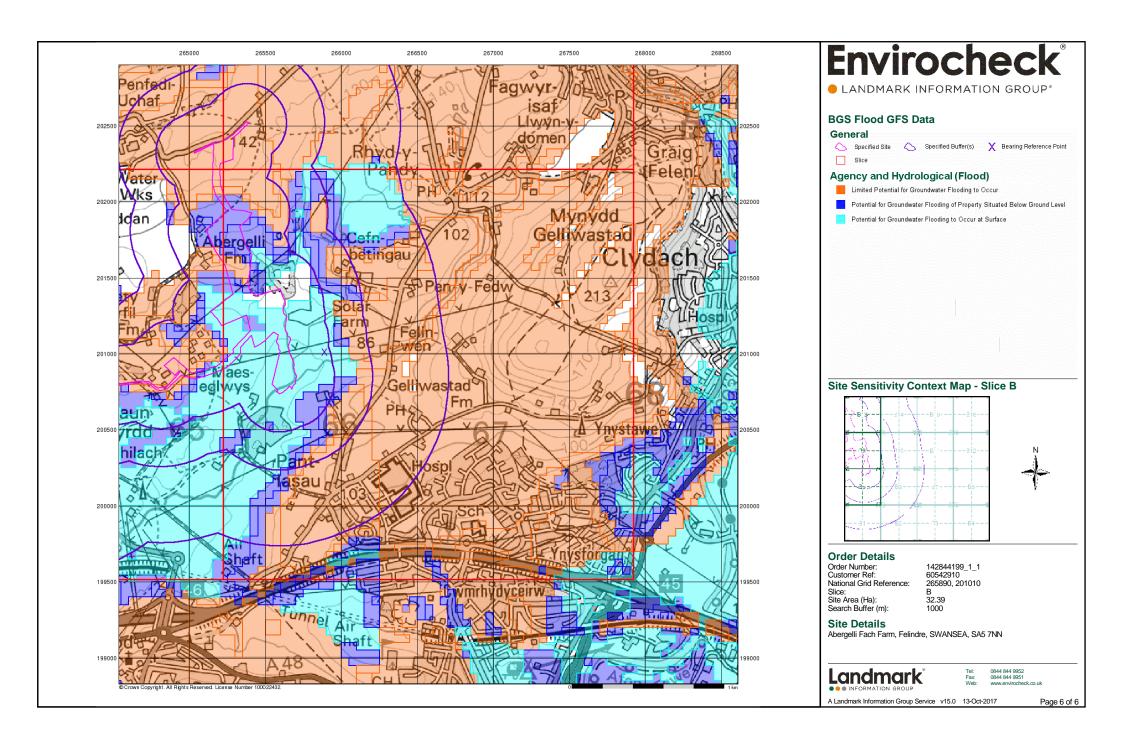














### **Envirocheck® Report:**

#### **Datasheet**

#### **Order Details:**

**Order Number:** 

142844199_1_1

**Customer Reference:** 

60542910

**National Grid Reference:** 

265890, 201010

Slice:

В

Site Area (Ha):

32.39

Search Buffer (m):

1000

#### Site Details:

Abergelli Fach Farm Felindre SWANSEA SA5 7NN

#### **Client Details:**

MS J Foy Aecom Infrastructure & Environment UK Ltd Longcross Court 47 Newport Road Cardiff CF24 0AD

#### **Prepared For:**

Abergelli Power Station Project







Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	37
Hazardous Substances	-
Geological	39
Industrial Land Use	44
Sensitive Land Use	46
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#### 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 Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological 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 v53.0



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 7		1		6
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature		Yes			
Pollution Incidents to Controlled Waters	pg 8			1	
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 9				12
River Quality	pg 11		1		1
River Quality Biology Sampling Points	pg 11				1
Substantiated Pollution Incident Register					
River Quality Chemistry Sampling Points					
Water Abstractions	pg 11		1	1	1 (*6)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 13	Yes	n/a	n/a	n/a
Drift Deposits	pg 14	2	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 14	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 14	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 14	Yes		n/a	n/a
Flooding from Rivers or Sea without Defences	pg 14	Yes		n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 14	19	46	43	88



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites	pg 37			1	
Historical Landfill Sites	pg 37			2	
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 37				1
Local Authority Landfill Coverage	pg 37	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)					
Potentially Infilled Land (Water)	pg 37				1
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 38				1
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					



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 39	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 39	Yes		Yes	Yes
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry	pg 41				Yes
BGS Urban Soil Chemistry Averages	pg 42			Yes	
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 42	Yes	n/a	n/a	n/a
Mining Instability	pg 42	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 42	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 42	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 42	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 43	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 44				4
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health	pg 44				7
Points of Interest - Manufacturing and Production	pg 44		1	1	3
Points of Interest - Public Infrastructure	pg 45			1	
Points of Interest - Recreational and Environmental					
Gas Pipelines	pg 45	3			
Underground Electrical Cables					



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 46	3	3	2	4
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
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					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					



Vlap ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B9SW (W)	0	1	265500 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	0	1	265150 200950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	0	1	264900 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(SW)	0	1	264950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	B9SE	0	1	265890
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B9SW (W)	0	1	201014 265250 201000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	0	1	264950 200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	0	1	264550 200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	0	1	264600 200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	0	1	265000 201014
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	0	1	265000 200850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	0	1	265050 200850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	0	1	265050 200900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	0	1	265100 200900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NW)	0	1	265200 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SW (NW)	0	1	265400 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NW)	0	1	265150 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B13NW (NW)	0	1	265350 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B9NW (NW)	0	1	265300 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SW (NW)	0	1	265400 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B9NW (NW)	0	1	265350 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B9NW (NW)	0	1	265400 201450



Map ID	Details		Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	B9NW (NW)	0	1	265550 201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	265300 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	265550 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	265350 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	el B9NW	0	1	265450 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		0	1	265450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B13NE	0	1	201550 265600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	el B9NW (NW)	1	1	201900 265500 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	5	1	201400 265100 200950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	el (W)	9	1	264850 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	el (W)	11	1	264750 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	11	1	265150 201014
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B9SW (W)	13	1	265250 201014
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B13NW	21	1	265450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NW)	22	1	201950 265150 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NW)	29	1	265000 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	el (W)	37	1	265200 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	el (W)	38	1	265050 200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	el (W)	40	1	265100 201200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev	el (W)	41	1	265000 200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B13SE (N)	41	1	265650 201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Lev		43	1	265250 201050



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	45	1	265100 201300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	46	1	265150 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	46	1	264950 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SW (NW)	48	1	265500 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B13NW (NW)	58	1	265400 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	59	1	265000 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	71	1	265150 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B6NW (S)	74	1	265950 200850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	75	1	264950 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NW)	80	1	265100 201350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	90	1	265050 201250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	92	1	265000 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	95	1	265050 201200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B10SW (SE)	113	1	266100 200900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NW)	115	1	265000 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SW (NW)	117	1	265550 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	121	1	265050 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	125	1	265000 201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NW)	132	1	265050 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SE (N)	139	1	265650 201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SE (N)	139	1	265650 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	140	1	265000 201200



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(W)	154	Contact  1  1  1  1  1  1  1  1  1  1  1  1  1	265000 200650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	162	1	265000 201150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SE (N)	168	1	265600 201750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NW)	172	1	265050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	181	1	201500 264850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B5NW (SW)	192	1	201150 265550 200550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	195	1	265000 200600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B10NW (N)	199	1	266000 201350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B5NE (S)	212	1	265890 200650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NW)	212	1	264900 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	224	1	265050 200600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B6NW (S)	227	1	265900 200700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SE (N)	228	1	265700 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SE (N)	241	1	265700 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NW)	249	1	264900 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B6NW (S)	254	1	265900 200650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N)	255	1	265250 202750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B6NW (S)	257	1	265950 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B9NE (N)	264	1	265890 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B6NW (SE)	272	1	266000 200750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B10SW (NE)	285	1	265950 201050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B10NW (N)	291	1	265900 201450



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	B13NE (N)	291	1	265750 201900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13SE (N)	292	1	265750 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13NE (N)	292	1	265800 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B6NW	300	1	266000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE) B5SW	304	1	200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW) B10NW	310	1	200500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N) B10NW	311	1	201250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(N) (N)	324	1	201450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N)	330	1	202800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B10SW	335	1	202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(NE) B13NE	339	1	201100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(N) B13SE	341	1	202100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(N) B5SE	343	1	201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S) (N)	346	1	200400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NW)	347	1	202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	B14SW	349	1	202650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N) B6NW	350	1	201750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE) B6SW	351	1	200800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S) B10SW	360	1	200500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E) B5SE	364	1	201000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	367	1	200450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B5SE	371	1	202850



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N) 372	372	1	265350 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B10NW (NE)	375	1	266150 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(N)	379	1	265300 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B5SE (S)	390	1	265890 200400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B6SW (S)	391	1	265900 200450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B13SE (N)	391	1	265890 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(N)	392	1	265250 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13NE (N)	398	1	265850 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B5SE (S)	403	1	265750 200350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(N)	412	1	265200 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B5SE (S)	418	1	265800 200350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(NW)	423	1	265050 202800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B14NW (N)	424	1	265950 202200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B10NW (NE)	424	1	266050 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(N)	436	1	265150 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B13NE (N)	450	1	265890 202150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B5SE (S)	451	1	265750 200300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	B10NW (NE)	474	1	266100 201400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B14SW (N)	479	1	266050 201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B5SE (S)	488	1	265650 200250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	B5SE (S)	492	1	265700 200250



#### LANDMARK INFORMATION GROUP®

# **Agency & Hydrological**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Edwards D A Undefined Or Other Maes Eglwys Farm Pantlasau Morristo, Pantlasau Morriston Natural Resources Wales Not Supplied Bf0214701 1 1st February 1979 1st February 1979 22nd April 1994 Unspecified Not Supplied To Land Nr. River Llan Consent expired Located by supplier to within 10m	B5NW (SW)	128	2	265460 200690
2	Discharge Consent Operator: Property Type: Location:  Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Mr N E Godfrey Domestic Property (Single) Brynderwen Rhydypandy Road Pontlass, Rhydypandy Road Pontlasse Swanse, Pontlasse Swansea Natural Resources Wales Not Given Bm0032601 1 21st September 1983 21st September 1983 31st October 1996 Unspecified Land/Soakaway To Underground Strata Lapsed (under Environment Act 1995, Schedule 23) Located by supplier to within 100m	B6SW (S)	526	2	266050 200400
3	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Davies R W E Domestic Property (Single) Bungalow At Gorswen Farm Pontlasse, Pontlasse Swansea Natural Resources Wales River Loughor Bp0011401 1 7th February 1986 7th February 1986 10th October 1994 Unspecified Not Supplied  To Land Consent expired Located by supplier to within 10m	B5SW (SW)	554	2	265250 200300
4	Discharge Consent Operator: Property Type: Location:  Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Mr Andrew Wilson Domestic Property (Single) Stw Serving 1 Domestic Property, Pantygelynen, Rhydypandy Road, Morriston, Swansea, Sa6 6nx Natural Resources Wales Not Supplied Npswqd000003 1 8th February 2008 8th February 2008 Not Supplied Sewage Discharges - Final/Treated Effluent - Not Water Company Freshwater Stream/River  Tributary Of Afon Llan New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	B10SE (E)	627	2	266330 200873



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# **Agency & Hydrological**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Evans C H Undefined Or Other Felin Wen Pontlasse Nr. Swansea. Natural Resources Wales Not Supplied Be0063401 1 12th October 1972 12th October 1972 31st January 1994 Unspecified Not Supplied To Land Nr. Afon Llan Consent expired Located by supplier to within 10m	B10SE (E)	676	2	266360 201010
6	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Jones C Undefined Or Other The Barn Cefn Velindre Fm Pontlasse Natural Resources Wales Not Supplied Bm0025201 1 26th July 1982 26th July 1982 2nd July 1994 Unspecified Not Supplied Underground Strata Consent expired Located by supplier to within 10m	B6NE (SE)	816	2	266480 200570
7	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Mr Glinski Undefined Or Other Rhydypandy Trout Farm Morriston, Swansea Natural Resources Wales Not Supplied Bm0021601 1 18th February 1982 18th February 1982 2nd July 1994 Unspecified Not Supplied To Land Consent expired Located by supplier to within 10m	B14NE (NE)	912	2	266370 201910
	Nearest Surface Wa	ater Feature	B13NW (NW)	0	-	265246 201941
8	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	Not Given Up Stream Of Felindre Tip Environment Agency, Welsh Region Chemicals - Pesticides Not Supplied 13th March 1992 4433 Not Given Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m	B5SW (SW)	413	3	265450 200350



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Registered Radioac	tive Substances				
9	Name: Location:	Abertawe Bro Morgannwg University Local Health Board Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, Morriston, Swansea, Sa6 6nl	B6SE (SE)	845	2	266300 200200
	Authority: Permit Reference: Dated: Process Type:	Natural Resources Wales CE0010 1st October 2009 Authorisation under S13 RSA for the disposal of Radioactive waste (was				
	Description: Status:	RSA60 S7) Discretionary authorisation under RSA Application has been authorised and any conditions apply to the				
	Positional Accuracy:	operatorAuthorised Manually positioned to the address or location				
	Registered Radioac	tive Substances				
9	Name: Location:	Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, Morriston, SWANSEA, SA6 6NL	B6SE (SE)	850	2	266311 200205
	Authority: Permit Reference: Dated:	Natural Resources Wales CC9644 29th October 2008				
	Process Type:  Description:	Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Minor variation to a registration under the Act of an open source which is also the subject of an authorisation				
	Status: Positional Accuracy:	Authorisation either revoked or cancelledCancelled Manually positioned to the address or location				
	Registered Radioac	tive Substances				
9	Name: Location:	Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, Morriston, SWANSEA, SA6 6NL	B6SE (SE)	850	2	266311 200206
	Authority: Permit Reference: Dated:	Natural Resources Wales CC9652 29th October 2008				
	Process Type:	Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6)				
	Description: Status: Positional Accuracy:	Minor variation to authorisation under RSA  Authorisation either revoked or cancelledCancelled  Manually positioned to the address or location				
	Registered Radioac	tive Substances				
9	Name: Location: Authority: Permit Reference:	Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales Bw8844	B6SE (SE)	850	2	266311 200206
	Dated: Process Type:	1st December 2003 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6)				
	Description: Status:	Minor variation to authorisation under RSA Authorisation superseded by a substantial or non substantial variationSuperseded AuthorisationSuperseded AuthorisationSuperseded to the address				
	-	Automatically positioned to the address				
9	Registered Radioac Name:	Abertawe Bro Morgannwg University Nhs Trust	B6SE	850	2	266311
Э	Location: Authority:	Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales		850	2	200206
	Permit Reference: Dated: Process Type:	BF8488 29th July 1999 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6)				
	Description: Status:	Initial variation to an authorisation under RSA Authorisation superseded by a substantial or non substantial variationSuperseded				
	Positional Accuracy:	Automatically positioned to the address				
	Registered Radioac	tive Substances				
9	Name: Location: Authority:	Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales	B6SE (SE)	850	2	266311 200206
	Permit Reference: Dated: Process Type:	BF8925 20th July 1999 Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1)				
	Description: Status:	(was NOAOU 31) Substantial variation to a registration under the Act of an open source which is also the subject of an authorisation Authorisation superseded by a substantial or non substantial				
		Automatically positioned to the address				



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# **Agency & Hydrological**

Begistered Radioactive Substances  Name  Abortione Bot Morganiva University Nha Trust Condition: Authority Natural Resources Walse  Date: Morrison Hoppital Head Mass Egiviys, Covernitydyceinv, SWANSEA, SA6 6NL Authority Process Type: Authoritication under \$14 RSA for the accumulation of Radioactive waste (was Authority Authoritication under \$14 RSA for the accumulation of Radioactive waste (was Authority Authoritication) posteriored by a substantial available of Radioactive waste (was Authority Authoritication) posteriored by a substantial or non substantial Authority Authoritication under \$14 RSA for the accumulation of Radioactive waste (was Authority Authoritication under \$14 RSA for the accumulation of Radioactive waste (was Registered Radioactive Substances  Registered Radioactive Substances Authority Permit Reference Authority Authority Permit Reference Authority Authority Authority Authority Authority Permit Reference Authority Authority Authority Permit Reference A	Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9 Nume: Abertawe Bro Morganowy University Nits Trust Location: Mortistor Hospital, Heal Mass Eglivys. Courninytyceinw, SWANSEA, SA6 (NL. Authority: Authority State (1998) Process Type: Authorisation under S14 RSA for the accumulation of Radioactive waste (was RAGA S01) Process Type: Authorisation superseded by a substantial or non substantial variation/Superseded Positional Accuracy: Authoritication superseded by a substantial or non substantial variation Superseded Positional Accuracy: Authoritication superseded by a substantial or non substantial variation superseded by a substantial or non substantial variation superseded by a substantial variation superseded by a substantial variation superseded by a substantial variation substantial variation substantial variation substantial variation substantial variations su		Registered Radioac	tive Substances				
Status: Authorisation superseded by a substantial or non substantial variation Superseded Poellional Accuracy, Automatically positioned to the address Pelistend Radioactive Substances  Registered Radioactive Substances  Name: Abertave Bro Morganning University Nhs Trust Location: Morrison Hospital, Host Mass Egivys, Commitydyceirv, SWANSEA, SA6 6NL (SE) Authority Authority Authority Authority Substances  Process Type: Authority Authority Substances  RSA6 0S Description: Mirror variation to authorisation under RSA Substances  Poellional Accuracy: Automatically positioned to the address RSA6 of NL Authority Authority Substances  Registered Radioactive Substances  Poellional Accuracy: Automatically positioned to the address RSA6 of NL Authority Substances Substan	9	Location: Authority: Permit Reference: Dated: Process Type:	Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AY1137 18th March 1997 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6)		850	2	
Registered Radioactive Substances Process Type: Authorisation under S14 RSA for the accumulation of Radioactive waste (was Positional Accuracy: Authorisation under S14 RSA for the accumulation of Radioactive waste (was Process Type: Authorisation under S14 RSA for the accumulation of Radioactive waste (was Positional Accuracy: Authorisation under S14 RSA for the accumulation of Radioactive waste (was Positional Accuracy: Authorisation superseded by a substantial variable of Authorisation under S14 RSA for the accumulation of Radioactive waste (was Positional Accuracy: Authorisation Superseded by a substantial variable of Authorisation Superseded by Authorisation Supersede		Status:	Authorisation superseded by a substantial or non substantial variationSuperseded				
9 Name: Abertawa Bra Morgannwg University Nits Trust Location: Moriston Hospital, Head Mase Eglwys, Cwmrhydyceirw, SWANSEA, SA6 8NL Authority: Authority: Authority of Star Authority: Auth							
Positional Accuracy: Authorisation positioned to the address  Registered Radioactive Substances Name: Abortawe Bro Morgannya University Nhs Trust Location: Moriston Hospital, Heol Mase Egwys, Cwmrhydyceirw, SWANSEA, SA6 8NL Authority: Authority: Authority and the	9	Name: Location: Authority: Permit Reference: Dated: Process Type: Description:	Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AW0741 15th August 1996 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6) Minor variation to authorisation under RSA		850	2	
Registered Radioactive Substances  9 Name: Abertawe Bro Morganway University Nhs Trust Location: Morrison Hospital, Heal Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Authority 1995 Permit Reference: April Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S8) Description: Minor variation to authorisation under RSA Status: Authorisation upperseded by a substantial or non substantial variationSuperseded Positional Accuracy: Authorisation upperseded by a substantial or non substantial variationSuperseded Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  9 Name: Swansea Neophala Nh Toust Location: Morgania Neophala Nh Toust Location: Authorisation Status: Authorisation under S7 RSA for the keeping and use of Radioactive materials Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Registration under the Act of an open source which is also the subject of an authorisation authorisation Authorisation superseded by a substantial or non substantial variations/uppreseded Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  9 Name: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL (SE) Authority: Natural Resources Wales ACG0372 Dated: 31st March 1991 Process Type: Automatically positioned to the address  Registered Radioactive Substances  Registered Radioactive Su			variationSuperseded				
9 Name: Abertawe Bro Morganmey University Nhs Trust Location: Moriston Hospital, Heol Maes Eglwys, Cwmrhydyceinw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Permit Reference: AP4734 Dated: 13th February 1995 Process Type: Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variations/upraseded Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances Name: Swansea Hospitals Nhs Trust Location: Memister Nespital, Heol Maes Eglwys, Cwmrhydyceinw, SWANSEA, SA6 6NL Location: Memister Nespital, Heol Maes Eglwys, Cwmrhydyceinw, SWANSEA, SA6 6NL Location: Memister Nespital, Heol Maes Eglwys (Wash Regon) Permit Reference: AG0372 Description: Registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation superseded by a substantial or non substantial variation/superseded Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  Registered Radioactive Resources Wales Re		-					
Registered Radioactive Substances  Name: Swansea Hospitals Nhs Trust Location: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Environment Agency, Welsh Region Permit Reference: AJ9016 Dated: 31st March 1991 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  Registered Radioactive Substances  Name: Morriston Hospital, Heol Maes Eglwys, Cwmrthydyceirw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Permit Reference: AG0372 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation either revoked or cancelledCancelled Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  Authorisation in under RSA Status: Authorisation in either revoked or cancelledCancelled Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  Registered Radioactive Substances  Name: Abertawa Bro Morgannwg University Nhs Trust Location: Morriston Hospital, Heol Maes Eglwys, Cwmrthydyceirw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Permit Reference: Al+2281	9	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Abertawe Bro Morgannwg University Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AP4734 13th February 1995 Authorisation under S14 RSA for the accumulation of Radioactive waste (was RSA60 S6) Minor variation to authorisation under RSA Authorisation superseded by a substantial or non substantial variationSuperseded		850	2	
9 Name: Swansea Hospitals Nhs Trust Location: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Environment Agency, Welsh Region Dated: 31st March 1991 Process Type: Registration under st RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation superseded by a substantial or non substantial variationSuperseded Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  Registered Radioactive Substances 9 Name: Morriston Hospital, Yebyty Treforys Nhs Trust Location: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Process Type: Authorisation under RSA Status: Authorisation under RSA Status: Authorisation either revoked or cancelledCancelled Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  Authorisation under RSA Status: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7)  Description: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7)  Description: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7)  Description: Authorisation under RSA Authorisation under RSA Authorisation under RSA Authorisation under RSA Authorisation superseded by a substantial or non substantial variation Superseded Status: Authorisation superseded by a substantial or non substantial variation Superseded Status: Authorisation superseded Status: Authorisation superseded Stat		-	, .				
Registered Radioactive Substances  9 Name: Morriston Hospital/Ysbyty Treforys Nhs Trust Location: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Permit Reference: AG0372 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation under RSA Status: Bess Bess Bess Bess Bess Bess Bess Be	9	Name: Location: Authority: Permit Reference: Dated: Process Type: Description: Status:	Swansea Hospitals Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Environment Agency, Welsh Region AJ9016 31st March 1991 Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Registration under the Act of an open source which is also the subject of an authorisation Authorisation superseded by a substantial or non substantial variationSuperseded		850	3	
9 Name: Morriston Hospital/Ysbyty Treforys Nhs Trust Location: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Permit Reference: AG0372 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation either revoked or cancelledCancelled Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  Registered Radioactive Substances  Name: Abertawe Bro Morgannwg University Nhs Trust Location: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Permit Reference: AH2281 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variationSuperseded		Positional Accuracy:	Automatically positioned to the address				
Status: Authorisation either revoked or cancelledCancelled Positional Accuracy: Automatically positioned to the address  Registered Radioactive Substances  Name: Abertawe Bro Morgannwg University Nhs Trust Location: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Permit Reference: AH2281 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial variationSuperseded	9	Name: Location: Authority: Permit Reference: Dated: Process Type:	Morriston Hospital/Ysbyty Treforys Nhs Trust Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AG0372 31st March 1991 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7)		850	2	
9 Name: Abertawe Bro Morgannwg University Nhs Trust Location: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Permit Reference: AH2281 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial variationSuperseded		Status:	Authorisation either revoked or cancelledCancelled				
Location: Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Authority: Natural Resources Wales Permit Reference: AH2281 Dated: 31st March 1991 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial variationSuperseded  Status: VariationSuperseded  Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL (SE)  AUTHORISTAN (SE)  AUTHORISTAN (SE)  AUTHORISTAN (SE)  AUTHORISTAN (SE)  Status: Authorisation under RSA  VariationSuperseded		Registered Radioac	tive Substances				
variationSuperseded	9	Location: Authority: Permit Reference: Dated: Process Type: Description:	Morriston Hospital, Heol Maes Eglwys, Cwmrhydyceirw, SWANSEA, SA6 6NL Natural Resources Wales AH2281 31st March 1991 Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Authorisation under RSA		850	2	
Positional Accuracy: Automatically positioned to the address			variationSuperseded				



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality					
	Name: GQA Grade: Reach: Estimated Distance (km): Flow Rate: Flow Type: Year:	Llan River Quality B Cuckoo Mill - Felin-Wen 3.2  Flow less than 0.31 cumecs River 2000	B6NW (S)	30	3	265923 200848
	River Quality					
	Name: GQA Grade: Reach: Estimated Distance (km): Flow Rate: Flow Type: Year:	Llan River Quality B Felin-Wen - Cynghordy 2.8  Flow less than 0.31 cumecs River 2000	B10SE (E)	615	3	266300 201000
	River Quality Biolog	gy Sampling Points				
10	Name: Reach: Estimated Distance: Positional Accuracy: Year: GQA Grade: Year:	Llan Cuckoo Mill To Felin To Wen 3.20 Manually corrected supplier location 1990 River Quality Biology GQA Grade Not Supplied 1995 River Quality Biology GQA Grade A - Very Good 2000 River Quality Biology GQA Grade A - Very Good 2002 River Quality Biology GQA Grade Not Supplied 2003 River Quality Biology GQA Grade Not Supplied 2004 River Quality Biology GQA Grade Not Supplied 2004 River Quality Biology GQA Grade B - Good 2005 River Quality Biology GQA Grade B - Good 2006 River Quality Biology GQA Grade B - Good 2007 River Quality Biology GQA Grade B - Good 2008 River Quality Biology GQA Grade B - Good 2008 River Quality Biology GQA Grade B - Good 2009 River Quality Biology GQA Grade B - Good	B10SE (E)	615	3	266300 201000
11	-	Mrs W Edwards 22/59/4/0013 100 Well On Land Belonging To Maeseglwys Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well On Land Belonging To Maeseglwys 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m	B5NW (SW)	165	3	265500 200600
12	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr & Mrs P Rasbridge 22/59/4/0022 100 Spring At Cwfn Betinge Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring At Cwfn Betinge Farm 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m	B10NW (N)	320	3	265950 201360



# **Agency & Hydrological**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr & Mrs J Woolley 22/59/4/0008 100 Well At Felin Wen Court Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well At Felin Wen Court 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m	B10SE (E)	655	3	266330 201060
		Mr S Griffiths 22/59/4/0006 100 Spring In Field No. 586 At Gelliwastad Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Field No. 586 At Gelliwastad Fm 01 January 31 December 1st December 1965 Not Supplied Located by supplier to within 100m	B11SW (E)	1046	3	266730 201050
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr D Thomas 22/59/4/0025 100 Spring In Enc. South West Of Pontycoedcae Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Enc. South West Of Pontycoedcae Farm 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m	B15SE (NE)	1423	3	266980 201790
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr B Bellingham 22/59/1/0057 100 Well & Reservoir In Enc. No. 2047 Nr Wernfadog Cottage Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well & Reservoir In Enc. No. 2047 Nr Wernfadog Cottage 01 January 31 December 30th March 1966 Not Supplied Located by supplier to within 100m	B7SE (SE)	1540	3	267200 200460



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Vlap ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location:	Mr W Watkins 22/59/4/0019 100 Well In Field No. 437 At Nantymilwr Farm	B16NW (NE)	1831	3	267260 202190
	Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End:	Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well In Field No. 437 At Nantymilwr Farm 01 January 31 December				
	Permit Start Date: Permit End Date: Positional Accuracy:	1st February 1993 Not Supplied Located by supplier to within 100m				
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3):	Mr I Phillips 22/59/1/0013 100 Well In Field No. 349 At Penrhiwgwysfa Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied	B12SE (E)	1907	3	267610 200910
	_	Not Supplied Well In Field No. 349 At Penrhiwgwysfa 01 January 31 December 1st December 1965 Not Supplied Located by supplier to within 100m				
	Water Abstractions		(6)	1011	2	266420
	_	Morriston Golf Club 22/59/1/0083 100 Unnamed Stream Environment Agency, Welsh Region Golf Courses: Spray Irrigation - Direct Water may be abstracted from a single point Surface Not Supplied Not Supplied Unnamed Stream 01 January 31 December 1st April 2001 Not Supplied Located by supplier to within 100m	(S)	1944	3	266130 198870
	Groundwater Vulne Soil Classification:	Soils of Low Leaching Potential - Soils in which pollutants 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 elsewhere in the catchment	B9SE (N)	0	3	265888 201120
	Map Sheet: Scale:	Sheet 35 West Glamorgan 1:100,000				
-	Groundwater Vulne	•				
	Soil Classification:  Map Sheet:	Soils of High Leaching Potential (H2) - Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential Sheet 35 West Glamorgan	B9NW (NW)	0	3	265480 201383
	Scale:	1:100,000				
	Groundwater Vulne Soil Classification:  Map Sheet: Scale:	Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater Sheet 35 West Glamorgan 1:100,000	B9SE (S)	0	3	265867 200947
	Groundwater Vulne	·				
	Soil Classification:  Map Sheet:	Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Sheet 35 West Glamorgan	B9SE (SW)	0	3	265890 201014



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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Drift Deposits Drift Deposit:  Map Sheet: Scale:	Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000		0	3	265891 201023
	Drift Deposits Drift Deposit:  Map Sheet: Scale:	Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000		0	3	265802 200842
	Bedrock Aquifer De Aquifer Designation:	esignations Secondary Aquifer - A	(W)	0	1	265000 201014
	Bedrock Aquifer De Aquifer Designation:	esignations Secondary Aquifer - A	B9SE (SW)	0	1	265890 201014
	Superficial Aquifer Aquifer Designation:	Designations Secondary Aquifer - A	B9NW (NW)	0	1	265478 201415
	Superficial Aquifer Aquifer Designation:	Designations Secondary Aquifer - A	B9SE (SW)	0	1	265890 201014
		Secondary Aquifer - A	(W)	0	1	264865 201014
	Superficial Aquifer Aquifer Designation:	Designations Unproductive Strata	B9SE (N)	0	1	265893 201033
	Superficial Aquifer Aquifer Designation:	Designations Unproductive Strata	(W)	0	1	265000 201014
	Extreme Flooding f Type: Flood Plain Type: Boundary Accuracy:	from Rivers or Sea without Defences  Extent of Extreme Flooding from Rivers or Sea without Defences Fluvial Models As Supplied	B10SW (S)	0	2	265902 200950
	Flooding from Rive Type: Flood Plain Type: Boundary Accuracy:	ers or Sea without Defences  Extent of Flooding from Rivers or Sea without Defences Fluvial Models As Supplied	B10SW (S)	0	2	265902 200946
	Areas Benefiting fro	om Flood Defences				
	Flood Water Storag None Flood Defences	ge Areas				
	None					
14	OS Water Network Watercourse Form: Watercourse Length Watercourse Level: Permanent: Watercourse Name: Catchment Name: Primacy:	Inland river : 388.0 On ground surface True Not Supplied	B9NW (NW)	0	4	265407 201256
15	OS Water Network Watercourse Form: Watercourse Length Watercourse Level: Permanent: Watercourse Name: Catchment Name: Primacy:	Inland river : 132.4 On ground surface True	B13NW (NW)	0	4	265246 201941



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 123.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SW (W)	0	4	265265 200999
17	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 250.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NW (NW)	0	4	265457 201319
18	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NW (NW)	0	4	265250 201935
19	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 8.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NW (NW)	0	4	265255 201927
20	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NW (NW)	0	4	265258 201920
21	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 428.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SW (NW)	0	4	265497 201587
22	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 226.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SE (W)	0	4	265587 201120
23	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 9.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NW (NW)	0	4	265457 201310
24	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 91.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NW (NW)	0	4	265542 201286



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 239.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	0	4	265610 201392
26	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 30.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NW (NW)	0	4	265536 201274
27	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 78.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	0	4	265619 201279
28	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 71.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B5NE (SW)	0	4	265579 200764
29	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 337.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SE (W)	0	4	265599 201020
30	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 114.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	0	4	265610 201392
31	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 337.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SE (W)	0	4	265682 200966
32	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 162.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SE (W)	0	4	265687 200945
33	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 46.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SW (W)	1	4	265288 201016



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
34	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B5NE (SW)	1	4	265690 200797
35	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 290.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SW (W)	2	4	265284 201039
36	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B5NW (SW)	2	4	265545 200797
37	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	2	4	265634 201330
38	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	2	4	265640 201252
39	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 162.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SE (W)	2	4	265796 201045
40	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 339.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B10SW (S)	2	4	265899 200930
41	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 54.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	3	4	265619 201279
42	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	3	4	265634 201330



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 39.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	3	4	265674 201272
44	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 507.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B5NE (SW)	6	4	265570 200745
45	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SW (W)	7	4	265284 201036
46	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 2.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SW (W)	8	4	265268 201000
47	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 128.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SW (NW)	14	4	265476 201788
48	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	41	4	265678 201273
49	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	45	4	265685 201276
50	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 64.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SW (NW)	52	4	265497 201587
51	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 81.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	53	4	265685 201276



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
52	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	53	4	265745 201292
53	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 82.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SW (NW)	58	4	265435 201716
54	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 25.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	75	4	265622 201498
55	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	75	4	265622 201498
56	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 50.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	77	4	265746 201363
57	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 1.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SW (NW)	94	4	265498 201586
58	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 2.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SW (NW)	95	4	265500 201584
59	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 43.6  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	112	4	265739 201468
60	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 180.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	112	4	265696 201477



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
61	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 49.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	113	4	265793 201281
62	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 71.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (NW)	113	4	265745 201292
63	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 85.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	119	4	265746 201363
64	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 478.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SE (NW)	120	4	265782 201060
65	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.4  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SE (W)	122	4	265782 201057
66	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 18.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9SE (NW)	122	4	265796 201053
67	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 50.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SW (NW)	124	4	265476 201788
68	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 239.1  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	B9SE (N)	137	4	265896 201034
69	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 69.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	149	4	265765 201462



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
70	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	149	4	265739 201468
71	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 168.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	156	4	265793 201281
72	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 213.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	156	4	265830 201275
73	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 28.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	180	4	265751 201524
74	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 25.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B9NE (N)	183	4	265751 201524
75	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 41.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SE (N)	201	4	265756 201549
76	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 36.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SE (N)	201	4	265764 201551
77	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 416.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B10SW (S)	215	4	265913 200936
78	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 56.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B5NW (SW)	238	4	265222 200644



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
79	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SE (N)	254	4	265723 201648
80	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 37.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SE (N)	254	4	265761 201649
81	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	256	4	265610 202150
82	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 67.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B5NW (SW)	273	4	265258 200590
83	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 455.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B5SE (S)	276	4	265773 200475
84	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 114.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	289	4	265738 201914
85	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 10.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	307	4	265625 202154
86	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 15.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	316	4	265629 202155
87	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 9.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	329	4	265642 202158



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
88	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 8.8  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	329	4	265747 201914
	OS Water Network Lines				
89	Watercourse Form: Inland river Watercourse Length: 54.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	337	4	265652 202160
90	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	338	4	265750 201914
91	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 262.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	341	4	265750 201914
92	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 147.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10NW (N)	352	4	265976 201518
93	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 107.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B5NW (SW)	355	4	265254 200530
94	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 74.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	380	4	265700 202182
95	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 46.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	386	4	265748 202170
96	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	386	4	265704 202176



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
97	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.7  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	387	4	265702 202179
98	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 50.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10NW (N)	387	4	265981 201517
99	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 71.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10NW (N)	397	4	266025 201386
100	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 16.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10NW (N)	397	4	266034 201372
101	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 80.1  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	404	4	265948 201631
102	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	407	4	265954 201625
103	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 12.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SE (N)	415	4	265855 201752
104	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 8.6  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	418	4	265756 202167
105	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 6.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	422	4	265762 202164



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
106	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SE (N)	425	4	265869 201754
107	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 840.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B5SW (SW)	426	4	265398 200358
108	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	B13NE (N)	426	4	265762 202164
109	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13SE (N)	428	4	265889 201750
110	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	B13SE (N)	429	4	265889 201750
111	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 63.3 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10NW (N)	430	4	266046 201454
112	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 42.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	435	4	265929 201737
113	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 18.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	446	4	265954 201694
114	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	B14SW (N)	449	4	265947 201719



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
115	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 32.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	455	4	265947 201719
116	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 22.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	455	4	265962 201709
117	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 175.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B13NE (N)	459	4	265868 201953
118	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	464	4	265965 201709
119	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 190.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	467	4	265967 201712
120	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 13.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	467	4	265967 201712
121	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 56.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	480	4	265976 201720
122	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 83.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	538	4	266006 201775
123	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 226.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	542	4	266006 202098



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
124	Water Network Lines  Watercourse Form: Inland river Watercourse Length: 17.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B10SE (E)	544	4	266239 200947
125	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10SE (E)	544	4	266239 200947
126	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 165.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B10SE (E)	554	4	266251 200939
127	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 222.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10SE (E)	554	4	266251 200939
128	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 85.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	568	4	266075 201732
129	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 56.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	581	4	266018 201890
130	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 109.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	581	4	265989 201894
131	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 96.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	608	4	266013 202000
132	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 57.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	615	4	266055 201837



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
133	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 0.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	615	4	266055 201837
	OS Water Network Lines				
134	Watercourse Form: Inland river Watercourse Length: 2.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	615	4	266056 201837
135	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 45.6  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	617	4	266098 201814
136	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	618	4	266115 201763
137	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	621	4	266007 202094
138	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	621	4	266006 202098
139	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 78.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	622	4	266007 202098
140	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 78.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	626	4	266045 201886
141	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 39.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	628	4	266134 201752



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
142	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 121.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	633	4	266065 202075
143	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	634	4	266116 201805
144	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	635	4	266193 201838
145	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	637	4	266082 201878
146	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.1  Watercourse Level: On ground surface Permanent: True  Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	642	4	266155 201742
147	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 17.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	643	4	266116 201805
148	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 10.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	643	4	266126 201800
149	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 26.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	648	4	266149 201788
150	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 127.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	655	4	266082 201878



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
151	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	656	4	266120 201822
152	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 44.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	656	4	266120 201822
153	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	660	4	266172 201777
154	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 44.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	663	4	266088 201876
155	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 114.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	673	4	266065 202075
156	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 52.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	673	4	266114 202054
157	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 41.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	673	4	266198 201763
158	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 85.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	689	4	266126 201868
159	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	689	4	266193 201838



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
160	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 63.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (NE)	697	4	266209 201759
161	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 124.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (NE)	697	4	266209 201759
162	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 71.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B10SE (E)	700	4	266376 201078
163	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 135.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B10SE (E)	700	4	266386 201007
164	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 105.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	B14NW (N)	702	4	266082 202127
165	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 16.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	702	4	266082 202127
166	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 910.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B10SE (E)	703	4	266376 201078
167	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 48.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	704	4	266079 202144
168	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 57.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	704	4	266079 202144



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
169	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 432.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B6NE (E)	709	4	266411 200800
	OS Water Network Lines				
170	Watercourse Form: Inland river Watercourse Length: 91.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B6NE (E)	711	4	266413 200802
	OS Water Network Lines				
171	Watercourse Form: Inland river Watercourse Length: 32.9 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B6NE (E)	711	4	266413 200802
	OS Water Network Lines				
172	Watercourse Form: Inland river Watercourse Length: 38.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	716	4	266149 202040
	OS Water Network Lines				
173	Watercourse Form: Inland river Watercourse Length: 53.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	716	4	266114 202054
	OS Water Network Lines				
174	Watercourse Form: Inland river Watercourse Length: 107.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SW (N)	724	4	266216 201825
	OS Water Network Lines				
175	Watercourse Form: Lake Watercourse Length: 68.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B6NE (E)	743	4	266445 200795
	OS Water Network Lines				
176	Watercourse Form: Inland river Watercourse Length: 5.1 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NW (N)	749	4	266154 202039
	OS Water Network Lines				
177	Watercourse Form: Inland river Watercourse Length: 138.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NE (N)	753	4	266280 201985



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
178	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 280.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B14NW (N)	756	4	266154 202167
179	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 91.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B6NE (SE)	770	4	266467 200730
180	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 265.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B14NE (N)	771	4	266281 201986
181	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 44.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SE (NE)	800	4	266300 201834
182	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 15.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	B14SE (NE)	804	4	266295 201823
183	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 12.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SE (NE)	804	4	266295 201823
184	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 13.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SE (NE)	813	4	266302 201833
185	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 82.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B6NE (SE)	818	4	266503 200653
186	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 78.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SE (NE)	819	4	266311 201827



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
187	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10SE (E)	820	4	266498 201057
188	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 110.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B10SE (E)	820	4	266498 201057
189	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	B14SE (NE)	839	4	266309 201874
190	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10SE (E)	853	4	266531 201058
191	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 97.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B14NE (NE)	858	4	266302 201916
192	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 33.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B14NE (NE)	869	4	266288 201953
193	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 770.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B10SE (E)	872	4	266536 201146
194	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 32.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B10SE (E)	877	4	266541 201137
195	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SE (NE)	888	4	266379 201846



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
196	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 8.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14SE (NE)	888	4	266379 201846
197	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B7NW (SE)	899	4	266587 200660
198	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NE (NE)	905	4	266352 201926
199	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 23.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B14NE (NE)	905	4	266368 201909
200	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 8.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NE (NE)	907	4	266372 201897
201	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 275.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NE (NE)	908	4	266352 201929
202	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 254.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B11SW (E)	909	4	266578 201116
203	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 2.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B11SW (E)	909	4	266573 201141
204	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	B14NE (NE)	910	4	266373 201906



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
205	OS Water Network Lines  Watercourse Form: Lake Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B11SW (E)	912	4	266575 201142
206	OS Water Network Lines  Watercourse Form: Inland river  Watercourse Length: 200.9  Watercourse Level: On ground surface  True  Watercourse Name: Afon Llan  Catchment Name: Loughor  Primacy: 1	B14NE (NE)	912	4	266373 201906
207	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 67.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NE (N)	943	4	266316 202207
208	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 77.8  Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B11SW (E)	963	4	266645 201053
209	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 1.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	B14NE (N)	970	4	266341 202198





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Recorded Landfill Sites					
210	Site Name: Location: Authority: Ground Water: Surface Water: Geology: Positional Accuracy: Boundary Accuracy:	Gorswen Farm Pontdassau, LLANGYFELACH, Glamorgan British Geological Survey, National Geoscience Information Service No threat to ground water Threat to surface water N/A Positioned by the supplier Moderate	B5NW (SW)	300	-	265336 200540
	Historical Landfill S	ites				
211	Licence Holder: Location: Name: Operator Location: Boundary Accuracy: Provider Reference: First Input Date: Last Input Date: Last Input Date: Specified Waste Type: EA Waste Ref: Regis Ref: WRC Ref: BGS Ref: Other Ref:		B5NW (SW)	294	2	265337 200539
	Historical Landfill S	ites				
212	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:	EAHLD14480 31st December 1955 31st December 1970 Deposited Waste included Inert, Industrial and Special Waste  0 Not Supplied 6855/0045 Not Supplied Not Supplied Not Supplied	B5SW (SW)	402	2	265294 200461
213	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference: Positional Accuracy: Local Authority Lan	-	B6SE (SE)	864	2	266400 200300
	Name:	City and County of Swansea - Has no landfill data to supply		0	5	265890
214	Potentially Infilled L	,	B6NE	807	8	201014
Z 14	Date of Mapping:	1900	(SE)	007	3	200568



**Waste** 

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Registered Waste T	ransfer Sites				
215	Licence Holder: Licence Reference: Site Location:  Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Licence Status: Dated: Preceded By Licence: Superseded By Licence: Positional Accuracy: Boundary Quality: Authorised Waste  Prohibited Waste	Morriston Hospital Nhs Trust L1/8 Morriston Hospital, Heol Maes Eglwys, Morriston, SWANSEA, West Glamorgan, SA6 6NL As Site Address Environment Agency Wales, South West Area Transfer Very Small (Less than 10,000 tonnes per year) Waste produced/controlled by licence holder  Licence has completion certificateSurrendered 30th March 1996 L1/8  Not Given  Manually positioned to the address or location Not Supplied Clinical Wastes Hospital Wastes Highly Flam./Lpg Regs'72 Subs Percussive/Explosive/Similar Waste Radioactive Waste Except In Work.Plan Spec.Waste (Epa'90:S62/1996 Regs)N.O.S Waste N.O.S.	B6SE (SE)	922	3	266400 200200





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid	d Geology				
	Description:	South Wales Upper Coal Measures Formation	B9SE (SW)	0	1	265890 201014
	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 25 - 35 mg/kg <1.8 mg/kg 60 - 90 mg/kg	B10SW (SE)	0	1	265961 200910
	BGS Estimated Soil	Chamistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg <1.8 mg/kg 60 - 90 mg/kg	B9SE (S)	0	1	265890 201000
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg  2.2 - 3.0 mg/kg  60 - 90 mg/kg  <100 mg/kg  15 - 30 mg/kg	B9SE (SW)	0	1	265890 201014
	BGS Estimated Soil	Chemistry				
	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 2.2 - 3.0 mg/kg 60 - 90 mg/kg	B10SW (NE)	303	1	266000 201150
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg <1.8 mg/kg 60 - 90 mg/kg	B10SW (E)	322	1	266000 201014
	BGS Estimated Soil	Chemistry				
	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 <100 mg/kg 15 - 30 mg/kg	B10SW (E)	340	1	266030 201066





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry					
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	B10SW (E)	344	1	266025 201000
	Concentration: Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg 30 - 45 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type:	British Geological Survey, National Geoscience Information Service Sediment	B10NW (N)	369	1	266011 201347
	Arsenic Concentration:	35 - 45 mg/kg				
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration:					
	Nickel Concentration:	15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry			· · ·	
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg	B10NE (NE)	556	1	266271 201531
	Concentration: Cadmium	<1.8 mg/kg				
	Concentration: Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<100 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg	B5SW (SW)	559	1	265281 200273
	Concentration: Cadmium	<1.8 mg/kg				
	Concentration: Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel	<100 mg/kg 30 - 45 mg/kg				
	Concentration:					
	Source: Soil Sample Type: Arsenic	Chemistry British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg	B14SW (N)	591	1	266000 201861
	Concentration: Cadmium	<1.8 mg/kg				
	Concentration:	60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<100 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type:	British Geological Survey, National Geoscience Information Service Sediment	B10SE (E)	681	1	266383 200912
	Arsenic Concentration: Cadmium	35 - 45 mg/kg <1.8 mg/kg				
	Concentration: Chromium	60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel	<100 mg/kg 30 - 45 mg/kg				
	Concentration:	50 - 45 mg/kg				





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR		
	BGS Estimated Soil Chemistry							
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium	British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg <1.8 mg/kg 60 - 90 mg/kg	B6NE (E)	729	1	266431 200802		
	Concentration: Lead Concentration: Nickel Concentration:	<100 mg/kg 30 - 45 mg/kg						
	BGS Estimated Soil	Chemistry						
	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 <100 mg/kg 15 - 30 mg/kg	B14NE (NE)	778	1	266565 201960		
	BGS Estimated Soil	Chemistry						
	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  <100 mg/kg  15 - 30 mg/kg	B10SE (E)	801	1	266490 201000		
	BGS Estimated Soil	Chemistry						
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	British Geological Survey, National Geoscience Information Service Sediment 35 - 45 mg/kg <1.8 mg/kg 60 - 90 mg/kg	B14NE (N)	845	1	266333 202123		
	BGS Measured Urba	an Soil Chemistry						
	Source: Grid: Soil Sample Type: Sample Area: Arsenic Measured Concentration: Cadmium Measured Concentration: Chromium Measured Concentration: Lead Measured Concentration: Nickel Measured		B1SE (S)	970	1	265740 199780		





lap D		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Urban Soil Chemistry Averages					
	Source: Sample Area: Count Id:	British Geological Survey, National Geoscience Information Service Swansea 368	B5SE (S)	438	1	265890 200300
	Arsenic Minimum Concentration:	8.00 mg/kg				
	Arsenic Average Concentration:	79.00 mg/kg				
	Arsenic Maximum Concentration:	2161.00 mg/kg				
	Cadmium Minimum Concentration:	0.10 mg/kg				
	Cadmium Average Concentration:	2.90 mg/kg				
	Cadmium Maximum Concentration:	61.90 mg/kg				
	Chromium Minimum Concentration:	13.00 mg/kg				
	Chromium Average Concentration:	72.00 mg/kg				
	Chromium Maximum Concentration:	562.00 mg/kg				
	Lead Minimum Concentration:	23.00 mg/kg				
	Lead Average Concentration:	413.00 mg/kg				
	Lead Maximum Concentration:	10000.00 mg/kg				
	Nickel Minimum Concentration:	8.00 mg/kg				
	Nickel Average Concentration:	52.00 mg/kg				
	Nickel Maximum Concentration:	384.00 mg/kg				
	Coal Mining Affecte	d Areas				
	Description:	In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	B9SE (SW)	0	6	265890 201014
	Mining Instability Mining Evidence: Source:	Inconclusive Coal Mining Ove Arup & Partners	B9SE (SW)	0	-	265890 201014
	Boundary Quality:  Non Coal Mining Are	As Supplied				
	No Hazard					
	=	sible Ground Stability Hazards				
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	B9SE (N)	0	1	265895 201035
	-	sible Ground Stability Hazards				
	Hazard Potential: Source:	No Hazard British Geological Survey, National Geoscience Information Service	B9SE (SW)	0	1	265890 201014
	=	essible Ground Stability Hazards	_			
	Hazard Potential: Source:	Moderate British Geological Survey, National Geoscience Information Service	B9NE	0	1	265587 20142
,		<b>5</b> ,,	(NW)			
	Hazard Potential:	essible Ground Stability Hazards  Moderate	B9SE	0	1	
	Hazard Potential: Source: Potential for Compr Hazard Potential:	essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard	B9SE (SW)	0	1	201014
	Hazard Potential: Source: Potential for Compr Hazard Potential: Source:	essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service	B9SE (SW)			201014
	Hazard Potential: Source: Potential for Compr Hazard Potential: Source:	essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard	B9SE (SW)			201014 265895 201035 265784
	Hazard Potential: Source: Potential for Compr Hazard Potential: Source: Potential for Compr Hazard Potential: Source:	essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  High	B9SE (SW)  B9SE (N)	0	1	201014 265899 201039 265784 201304
	Hazard Potential: Source:  Potential for Compr Hazard Potential: Source:  Potential for Compr Hazard Potential: Source:  Potential for Ground Hazard Potential: Source:  Potential for Landsl Hazard Potential:	essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  High British Geological Survey, National Geoscience Information Service  Id Dissolution Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service  Id Geoscience Information Service	B9SE (SW)  B9SE (N)  B9NE (N)  B9SE (SW)	0	1	265896 201036 265784 201304 265896 201014 265507
	Hazard Potential: Source:  Potential for Compr Hazard Potential: Source:  Potential for Compr Hazard Potential: Source:  Potential for Ground Hazard Potential: Source:  Potential for Landsl Hazard Potential: Source:	essible Ground Stability Hazards  Moderate British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service essible Ground Stability Hazards  High British Geological Survey, National Geoscience Information Service d Dissolution Stability Hazards  No Hazard British Geological Survey, National Geoscience Information Service dide Ground Stability Hazards	B9SE (SW)  B9SE (N)  B9NE (N)  B9NE (SW)	0 0	1 1	265890 201014 265895 201035 265784 201304 265890 201014 265501 201365



# **Geological**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR	
	Potential for Running Sand Ground Stability Hazards						
	Hazard Potential: Source:	Low British Geological Survey, National Geoscience Information Service	B9SE (SW)	0	1	265890 201014	
	Potential for Runni	ng Sand Ground Stability Hazards					
	Hazard Potential: Source:	Low British Geological Survey, National Geoscience Information Service	B9NE (NW)	0	1	265587 201421	
	Potential for Runni	ng Sand Ground Stability Hazards					
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	B9SE (N)	0	1	265895 201035	
	Potential for Runni	ng Sand Ground Stability Hazards					
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	B10SW (SE)	55	1	265952 200897	
	Potential for Shrink	ring or Swelling Clay Ground Stability Hazards					
	Hazard Potential: Source:	No Hazard British Geological Survey, National Geoscience Information Service	B13SE (N)	0	1	265605 201855	
	Potential for Shrink	ring or Swelling Clay Ground Stability Hazards					
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	B9SE (SW)	0	1	265890 201014	
	Radon Potential - R	Radon Affected Areas					
	Affected Area:	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).	B9SE (SW)	0	1	265890 201014	
	Source:	British Geological Survey, National Geoscience Information Service					
	Radon Potential - R	Radon Protection Measures					
		No radon protective measures are necessary in the construction of new dwellings or extensions	B9SE (SW)	0	1	265890 201014	
	Source:	British Geological Survey, National Geoscience Information Service					



### **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
216	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries  Artificial Limb & Appliance Centre Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Disability Equipment - Manufacturers & Suppliers Inactive Automatically positioned to the address	B6SE (SE)	850	-	266311 200206
216	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Swansea Nhs Trust Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Hospitals Inactive Automatically positioned to the address	B6SE (SE)	850	-	266311 200206
216	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries  City & County Of Swansea Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Hospitals Inactive Automatically positioned to the address	B6SE (SE)	850	-	266311 200206
217	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries  Charles A Blatchford & Sons Ltd Heol Maeseglwys, Swansea, SA6 6LG Disability Equipment - Manufacturers & Suppliers Inactive Automatically positioned to the address	B2NE (SE)	888	-	266279 200119
218	Name: Location: Category: Class Code:	Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Accident & Emergency Department Positioned to address or location	B6SE (SE)	811	7	266297 200248
218	Name: Location: Category: Class Code:	Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Hospitals Positioned to address or location	B6SE (SE)	850	7	266311 200206
218	Name: Location: Category: Class Code:	Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Accident & Emergency Department Positioned to address or location	B6SE (SE)	850	7	266311 200206
218	Name: Location: Category: Class Code:	Education and Health Regional Cardiac Centre Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Hospitals Positioned to address or location	B6SE (SE)	850	7	266311 200206
218	Name: Location: Category: Class Code:	Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Accident & Emergency Department Positioned to address or location	B6SE (SE)	850	7	266311 200206
218	Name: Location: Category: Class Code:	Education and Health  Morriston Hospital  Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL  Health Practitioners and Establishments  Hospitals  Positioned to address or location	B6SE (SE)	850	7	266311 200206
219	Name: Location: Category: Class Code:	Education and Health  Morriston Hospital Heol Maes Eglwys, Cwmrhydyceirw, Swansea, SA6 6NL Health Practitioners and Establishments Hospitals Positioned to address or location	B2NE (S)	862	7	266248 200125
220	Name: Location: Category: Class Code:	Manufacturing and Production  Abergelli Glas Solar Farm - Solar Photovoltaics (DECC) Land At Abergelli Farm, Felindre, Swansea, Powys, SA5 7NN Industrial Features Energy Production Positioned to address or location	B13NW (NW)	25	7	265361 201966



### **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
221	Name: Location: Category: Class Code:	Manufacturing and Production  Cefn Betingau Farm - Solar Photovoltaics (DECC) Land At Cefn Betingau Farm, Morriston, Swansea, SA6 6NX Industrial Features Energy Production Positioned to an adjacent address or location	B10NW (NE)	428	7	266064 201309
222	Name: Location: Category: Class Code:	Manufacturing and Production  Tank SA6 Industrial Features Tanks (Generic) Positioned to address or location	B6SE (SE)	876	7	266431 200325
222	Name: Location: Category: Class Code:	Manufacturing and Production  Tank SA6 Industrial Features Tanks (Generic) Positioned to address or location	B6SE (SE)	879	7	266436 200327
222	Name: Location: Category: Class Code:	Manufacturing and Production  Tanks SA6 Industrial Features Tanks (Generic) Positioned to an adjacent address or location	B6SE (SE)	883	7	266444 200331
223	Name: Location: Category: Class Code:	Public Infrastructure  Slurry Pond SA6 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	B10NW (N)	450	7	266066 201447
224	Gas Pipelines Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Felindre to Three Cocks Owned By National Grid 1200 132 Active 107292.6 Feeder 28	B13SW (NW)	0	8	265270 201570
225	Gas Pipelines Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Herbrandston to Felindre Owned By National Grid 1200 132 Active 104077.4 Feeder 28	B13SW (NW)	0	8	265275 201562
226	Gas Pipelines Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Felindre to Cilfrew Owned By National Grid 1200 132 Active 17048.8 Feeder 28	B13SW (NW)	0	8	265289 201563



### **Sensitive Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
227	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7060 16001.14 Ancient and Semi-Natural Woodland	B9NW (NW)	0	2	265460 201388
228	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 891 63487.78 Restored Ancient Woodland Site	(W)	0	2	264626 200801
229	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 50394 151288.84 Ancient Woodland Site of Unknown Category	B9SW (W)	0	2	265263 200999
230	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7241 63268.23 Restored Ancient Woodland Site	B5NE (SW)	118	2	265614 200610
231	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7316 21495.34 Restored Ancient Woodland Site	(NW)	129	2	265057 201382
232	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 882 7755.99 Ancient and Semi-Natural Woodland	(NW)	207	2	264868 202459
233	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 893 13199.98 Restored Ancient Woodland Site	(W)	331	2	264612 201188
234	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 880 5527.37 Ancient and Semi-Natural Woodland	(NW)	463	2	264653 201900
235	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 878 4775.36 Ancient and Semi-Natural Woodland	(NW)	576	2	264539 201741
236	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7139 2605.61 Ancient and Semi-Natural Woodland	(N)	750	2	266163 202450
237	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7140 3219.21 Ancient and Semi-Natural Woodland	(N)	812	2	266226 202594
238	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7141 3530.41 Ancient and Semi-Natural Woodland	(N)	974	2	266338 202766



LANDMARK INFORMATION GROUP®

# **Data Currency**

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
City and County of Swansea - Environmental Health Department	January 2015	Annual Rolling Update
Neath Port Talbot County Borough Council - Environmental Health Department	March 2015	Annual Rolling Update
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Natural Resources Wales	August 2017	Quarterly
Enforcement and Prohibition Notices  Environment Agency - Welsh Region	March 2013	As notified
	Water 2015	As notined
Integrated Pollution Controls	O-t-b 2000	Niet Annlineble
Environment Agency - Welsh Region	October 2008	Not Applicable
ntegrated Pollution Prevention And Control		
Natural Resources Wales	August 2017	Quarterly
Environment Agency - Welsh Region	July 2017	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Swansea Bay Port Health Authority	April 2014	Annually
Neath Port Talbot County Borough Council - Environmental Health Department	August 2012	Annual Rolling Update
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Updat
Local Authority Pollution Prevention and Controls		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Updat
Neath Port Talbot County Borough Council - Environmental Health Department	March 2014	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Update
Neath Port Talbot County Borough Council - Environmental Health Department	March 2014	Annual Rolling Updat
Nearest Surface Water Feature		
Ordnance Survey	May 2017	
Pollution Incidents to Controlled Waters		
Environment Agency - Welsh Region	December 1998	Not Applicable
	December 1990	Not Applicable
Prosecutions Relating to Authorised Processes	Marsh 2012	A = == 4:f: = d
Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	As notified As notified
	Walti 2013	As notined
Prosecutions Relating to Controlled Waters		
Environment Agency - Welsh Region	March 2013	As notified
Natural Resources Wales	March 2013	As notified
Registered Radioactive Substances		
Natural Resources Wales	January 2015	As notified
Environment Agency - Welsh Region	January 2015	
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points	lulu 2042	Annually
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Natural Resources Wales	August 2018	Quarterly
Environment Agency Wales - South West Area	July 2017	Quarterly
Water Abstractions		
Environment Agency - Welsh Region	July 2017	Quarterly
Natural Resources Wales	July 2017	Quarterly
Water Industry Act Referrals		
Natural Resources Wales	August 2017	Quarterly
Environment Agency - Welsh Region	July 2017	Quarterly

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Agency & Hydrological	Version	Update Cycle
Groundwater Vulnerability		
Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits		
Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations	A	A = == 4:6: = d
British Geological Survey - National Geoscience Information Service	August 2015	As notified
Superficial Aquifer Designations  British Geological Survey - National Geoscience Information Service	August 2015	As notified
Source Protection Zones		
Natural Resources Wales	November 2016	As notified
Extreme Flooding from Rivers or Sea without Defences		
Natural Resources Wales	August 2017	Quarterly
Flooding from Rivers or Sea without Defences		
Natural Resources Wales	August 2017	Quarterly
Areas Benefiting from Flood Defences		
Natural Resources Wales	August 2017	Quarterly
Flood Water Storage Areas		
Natural Resources Wales	August 2017	Quarterly
Flood Defences		
Natural Resources Wales	August 2017	Quarterly
OS Water Network Lines		
Ordnance Survey	July 2017	6 Weekly
Surface Water 1 in 30 year Flood Extent		
Natural Resources Wales	October 2013	As notified
Surface Water 1 in 100 year Flood Extent	0.11.0010	A
Natural Resources Wales	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent	0 . 1 . 2215	A
Natural Resources Wales	October 2013	As notified
Surface Water Suitability	0.11.0010	A
Natural Resources Wales	October 2013	As notified
BGS Groundwater Flooding Susceptibility	M 2012	
British Geological Survey - National Geoscience Information Service	May 2013	Annually

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Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Natural Resources Wales	May 2017	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency Wales - South West Area	May 2017	Quarterly
Natural Resources Wales	May 2017	Quarterly
Licensed Waste Management Facilities (Locations)		
Natural Resources Wales	August 2017	Quarterly
Environment Agency Wales - South West Area	July 2017	Quarterly
Local Authority Landfill Coverage		
City and County of Swansea - Environmental Health Department	May 2000	Not Applicable
Neath Port Talbot County Borough Council - Environmental Health Department	May 2000	Not Applicable
Local Authority Recorded Landfill Sites	Mar. 0000	Niet Asselles III
City and County of Swansea - Environmental Health Department	May 2000	Not Applicable
Neath Port Talbot County Borough Council - Environmental Health Department	September 2003	Not Applicable
Potentially Infilled Land (Non-Water)	December 1000	Not Applicable
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)	December 1999	Not Applicable
Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites	Marsh 2002	Not Applicable
Environment Agency Wales - South West Area	March 2003	Not Applicable
Registered Waste Transfer Sites	Marris 0000	Not Applicable
Environment Agency Wales - South West Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites	Marris 0000	Not Applicable
Environment Agency Wales - South West Area	March 2003	Not Applicable
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	September 2017	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
City and County of Swansea - Planning Department	January 2016	Annual Rolling Updat
Neath Port Talbot County Borough Council - Planning Department	October 2015	Annual Rolling Updat
Planning Hazardous Substance Consents		
City and County of Swansea - Planning Department	January 2016	Annual Rolling Updat
Neath Port Talbot County Borough Council - Planning Department	October 2015	Annual Rolling Updat

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 49 of 53



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	October 2015	As notified
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	April 2017	Bi-Annually
BGS Urban Soil Chemistry		
British Geological Survey - National Geoscience Information Service	October 2015	As notified
BGS Urban Soil Chemistry Averages		
British Geological Survey - National Geoscience Information Service	October 2015	As notified
CBSCB Compensation District		
Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas		
The Coal Authority - Property Searches	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	May 2015	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

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Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries		
Thomson Directories	September 2017	Quarterly
Fuel Station Entries		
Catalist Ltd - Experian	August 2017	Quarterly
Gas Pipelines		
National Grid	July 2014	Quarterly
Points of Interest - Commercial Services		
PointX	September 2017	Quarterly
Points of Interest - Education and Health	0	
PointX	September 2017	Quarterly
Points of Interest - Manufacturing and Production		
PointX	September 2017	Quarterly
Points of Interest - Public Infrastructure		
PointX	September 2017	Quarterly
Points of Interest - Recreational and Environmental	_	
PointX	September 2017	Quarterly
Underground Electrical Cables		
National Grid	December 2015	Bi-Annually
Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural Resources Wales	May 2017	Bi-Annually
Areas of Adopted Green Belt		
City and County of Swansea	May 2017	As notified
Areas of Outstanding Natural Beauty		
Natural Resources Wales	August 2017	Bi-Annually
Environmentally Sensitive Areas		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
City and County of Swansea	August 2017	Bi-Annually
Neath Port Talbot County Borough Council	August 2017	Bi-Annually
Marine Nature Reserves		
Natural Resources Wales	August 2017	Bi-Annually
National Nature Reserves		
Natural Resources Wales	August 2017	Bi-Annually
National Parks		
Natural Resources Wales	August 2017	Annually
Nitrate Vulnerable Zones		
Natural Resources Wales	June 2017	Bi-Annually
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	
Ramsar Sites		
Natural Resources Wales	August 2017	Bi-Annually
Sites of Special Scientific Interest		
Natural Resources Wales	August 2017	Bi-Annually
Special Areas of Conservation		
Natural Resources Wales	August 2017	Bi-Annually
Natural Resources Wales		
Special Protection Areas		

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service



# **Data Suppliers**

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Map data
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SEPA Scotlish Environment Frotection Agency
The Coal Authority	The Coal Authority
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology  NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	Cyfoeth Naturiol Naturiol Natural Resources Wales
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE 収入
Natural England	NATURAL ENGLAND
Public Health England	Public Health England
Ove Arup	ARUP
Peter Brett Associates	peterbrett



# **Useful Contacts**

Contact	Name and Address	Contact Details
1	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
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Ordnance Survey  Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 023 8079 2000 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	City and County of Swansea - Environmental Health Department The Guildhall, Swansea, West Glamorgan, SA1 4PE	Telephone: 01792 636000 extn 5651 Fax: 01792 635719
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 53 of 53

## Geology 1:50,000 Maps Legends

#### **Artificial Ground and Landslip**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WMGR	Infilled Ground	Artificial Deposit	Cenozoic - Cenozoic
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene
Z	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	LSGR	Landscaped Ground (Undivided)	Artificially Modified Ground	Holocene - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassif ied Entry	Quaternary - Quaternary

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	Н	Hughes Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Н	Hughes Member	Sandstone	Westphalian D - Westphalian D
		Faults		
		Rock Segments		

#### **Superficial Geology**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	TILLD	Till, Devensian	Diamicton	Devensian - Devensian
	HMGDD	Hummocky (Moundy) Glacial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	GFSDD	Glaciofluvial Sheet Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	GFICD	Glaciofluvial Ice Contact Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quaternary - Quaternary

#### **Bedrock and Faults**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	GDB	Grovesend Formation	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	GDB	Grovesend Formation	Sandstone	Westphalian D - Westphalian D

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#### Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Swansea

Available

Available

Available

Not Supplied

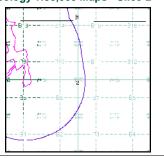
Not Supplied

2011

#### Geology 1:50,000 Maps Coverage

Map ID: Map ID: Map Sheet No: Map Name: Ammanford Map Name: 1977 Map Date: Map Date: Superficial Geology: Available Superficial Geology: Artificial Geology: Artificial Geology: Not Supplied Landslip: Available Landslin: Not Supplied

Geology 1:50,000 Maps - Slice B



#### **Order Details:**

Order Number: 142844199_1_1 Customer Reference: 60542910 National Grid Reference: 265890, 201010 Site Area (Ha): Search Buffer (m): 32.39 1000

#### Site Details:

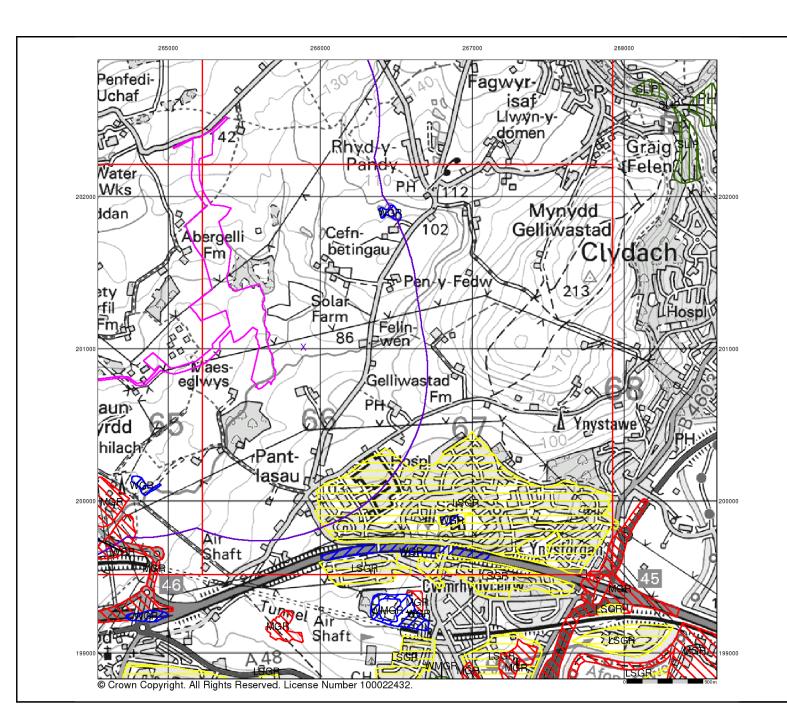
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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#### Artificial Ground and Landslip

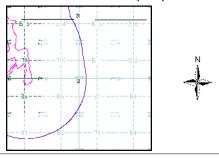
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.
   Worked ground - areas where the ground has been cut away such as
- Worked ground areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground areas where the surface has been reshaped.
   Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

#### Artificial Ground and Landslip Map - Slice B



#### **Order Details:**

 Order Number:
 142844199_1_1

 Customer Reference:
 60542910

 National Grid Reference:
 265890, 201010

 Slice:
 B

 Site Area (Ha):
 32.39

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### Site Details:

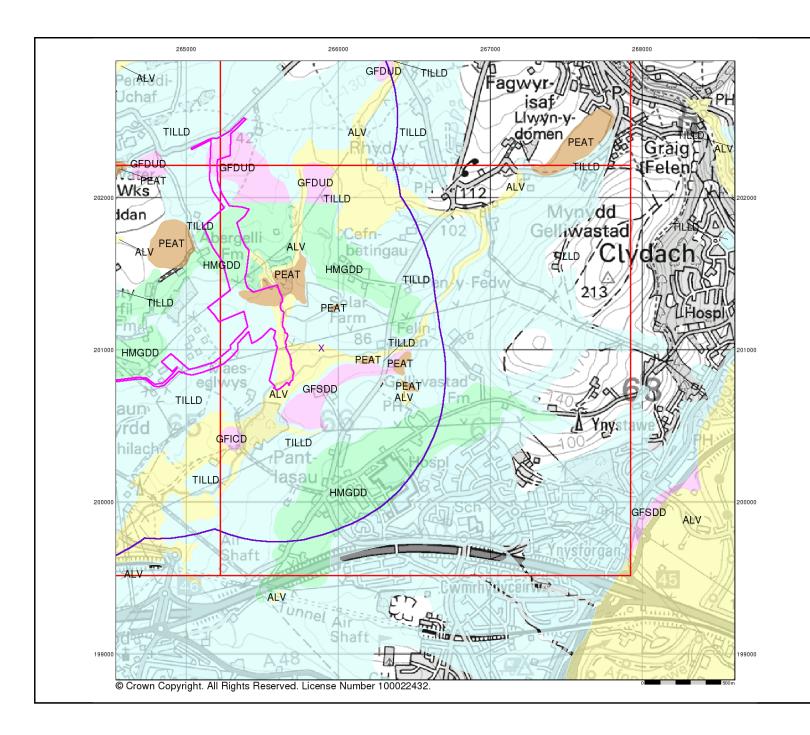
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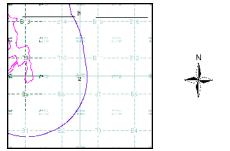
#### **Superficial Geology**

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

#### Superficial Geology Map - Slice B



#### **Order Details:**

Order Number: Customer Reference: 142844199_1_1 60542910 National Grid Reference: 265890, 201010 B 32.39 Site Area (Ha): Search Buffer (m):

1000

#### Site Details:

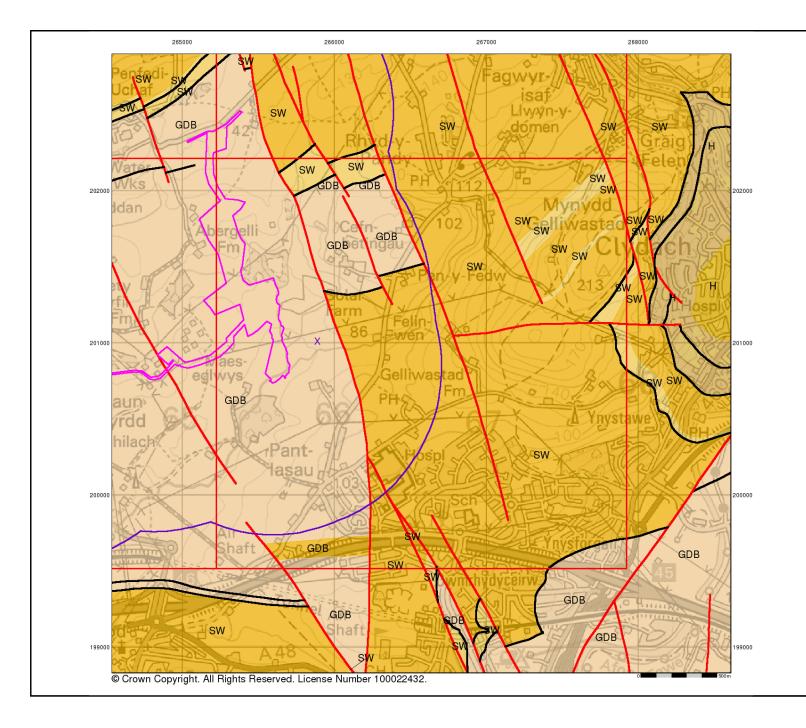
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#### **Bedrock and Faults**

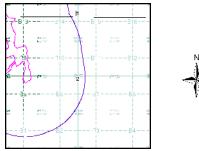
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or lader, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

#### Bedrock and Faults Map - Slice B



#### **Order Details:**

Order Number: 142844199_1_1
Customer Reference: 60542910
National Grid Reference: 265890, 201010
Slice: Slice Area (Ha): 32.39

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### Site Details:

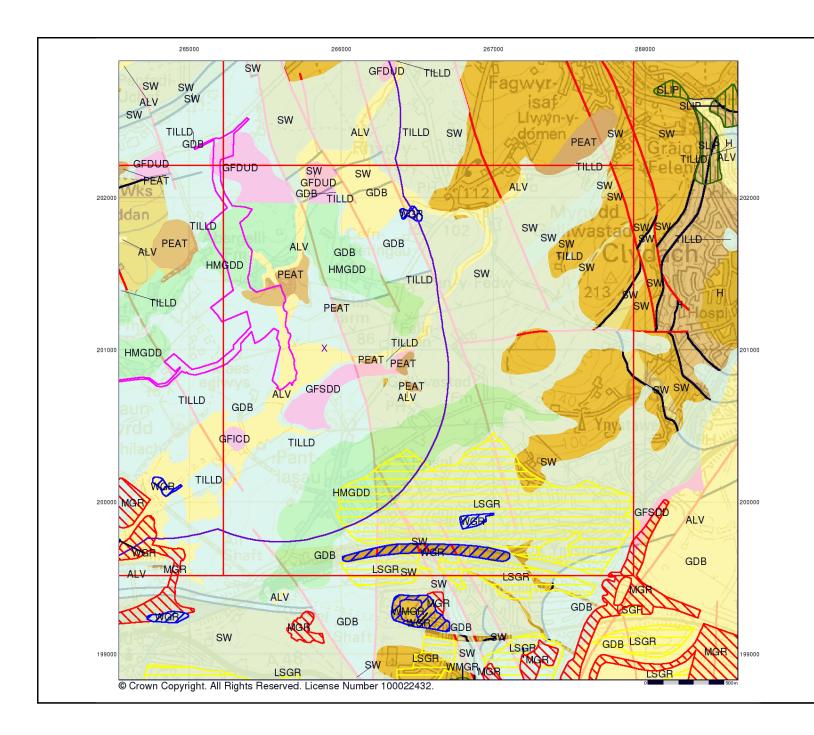
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#### **Combined Surface Geology**

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

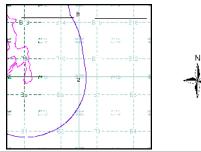
#### **Additional Information**

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

#### Combined Geology Map - Slice B



#### **Order Details:**

Order Number: 142844199_1_1
Customer Reference: 60542910
National Grid Reference: 265890, 201010
Slice: B
Site Area (Ha): 32.39
Search Buffer (m): 1000

Site Details:

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# **Historical Mapping Legends**

## Gravel Pit Other Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Station Bench Mark Site of Antiquities Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** ·285 Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Raised Road Sunken Road Railway over Road over Railway Ri∨er Railway over Level Crossing Road over Road over Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Rural District Boundary RD. Bdy.

····· Civil Parish Boundary

**Ordnance Survey County Series 1:10,560** 

## Ordnance Survey Plan 1:10,000

Chalk Pit, Clay P or Quarry	it లోకి కెండ్ Gravel Pit
Sand Pit	Disused Pit or Quarry
Refuse or Slag Heap	Lake, Loch or Pond
Dunes	Boulders
↑ ↑ ↑ Coniferous Trees	
⇔ ⇔ Orchard ∩ n  →	Scrub \Yn Coppice
ளி Bracken லயம் எ	Heath VIII, Rough Grassland
→ <u>·</u> ·· Marsh ···V//	Reeds — Saltings
Dire	ection of Flow of Water
Building	Shingle
*	Sand
Glasshouse	Salid
	Pylon
	Electricity
Sloping Masonry	Transmission  Pole  •
Cutting Embank	ment
***************************************	Standard Gauge
	Widitiple Track
Road'''  ''' Road Le	Standard Gauge Single Track
	ssing Bridge
	Siding, Tramway or Mineral Line
	─────────────────────────────────────
— — Geographical C	County
	County, County Borough
or County of C	ugh, Urban or Rural District,
Burgh or Distri	
	h or County Constituency not coincident with other boundaries
Civil Parish Shown alternately	when coincidence of boundaries occurs
BP, BS Boundary Post or Stone	Pol Sta Police Station
Ch Church	PO Post Office
CH Club House	PC Public Convenience
F E Sta Fire Engine Station  FB Foot Bridge	PH Public House SB Signal Box
FB Foot Bridge Fn Fountain	SB Signal Box Spr Spring
GP Guide Post	TCB Telephone Call Box
MP Mile Post	TCP Telephone Call Post
MO Mile Otema	)A( )A(-II

## 1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle	Mud	Mud
Sand	Sand		Sand Pit
***************************************	Slopes		Top of cliff
	General detail		Underground detail
	- O∨erhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)	• • • • •	Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
۵ ^۵	Area of wooded ∨egetation	۵ ^۵ ۵	Non-coniferous trees
$\Diamond$	Non-coniferous trees (scattered)	**	Coniferous trees
		** **	
۵ *	trees (scattered) Coniferous	**	trees Positioned
* *	trees (scattered)  Coniferous trees (scattered)	<u></u>	trees  Positioned tree  Coppice
\$ \$\phi \ \phi \phi	trees (scattered)  Coniferous trees (scattered)  Orchard  Rough	£ € £	trees Positioned tree  Coppice or Osiers
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland	£ € € € € € € € € € € € € € € € € € € €	trees Positioned tree Coppice or Osiers Heath Marsh, Salt
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub	£ € € € € € € € € € € € € € € € € € € €	trees Positioned tree Coppice or Osiers Heath Marsh, Salt Marsh or Reeds
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub  Water feature  Mean high		trees  Positioned tree  Coppice or Osiers  Heath  Marsh, Salt Marsh or Reeds  Flow arrows  Mean low
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub  Water feature  Mean high water (springs)  Telephone line		trees  Positioned tree  Coppice or Osiers  Heath  Marsh, Salt Marsh or Reeds  Flow arrows  Mean low water (springs)  Electricity transmission line
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub  Water feature  Mean high water (springs)  Telephone line (where shown)  Bench mark	A A A A A A A A A A A A A A A A A A A	trees  Positioned tree  Coppice or Osiers  Heath  Marsh, Salt Marsh or Reeds  Flow arrows  Mean low water (springs)  Electricity transmission line (with poles)  Triangulation
\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	trees (scattered)  Coniferous trees (scattered)  Orchard  Rough Grassland  Scrub  Water feature  Mean high water (springs)  Telephone line (where shown)  Bench mark (where shown)  Point feature (e.g. Guide Post		trees  Positioned tree  Coppice or Osiers  Heath  Marsh, Salt Marsh or Reeds  Flow arrows  Mean low water (springs)  Electricity transmission line (with poles)  Triangulation station  Pylon, flare stack

Building

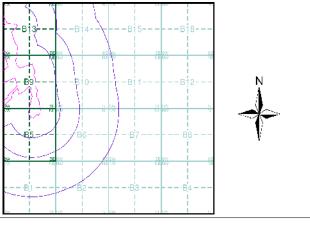
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## **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1884	3
Glamorganshire	1:10,560	1900	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1936	6
Glamorganshire	1:10,560	1938	7
Glamorganshire	1:10,560	1951 - 1953	8
Ordnance Survey Plan	1:10,000	1964	9
Ordnance Survey Plan	1:10,000	1976	10
Swansea	1:10,000	1976	11
Ordnance Survey Plan	1:10,000	1980	12
Ordnance Survey Plan	1:10,000	1989	13
Ordnance Survey Plan	1:10,000	1993	14
10K Raster Mapping	1:10,000	1999	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2017	17

## **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 1000

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952

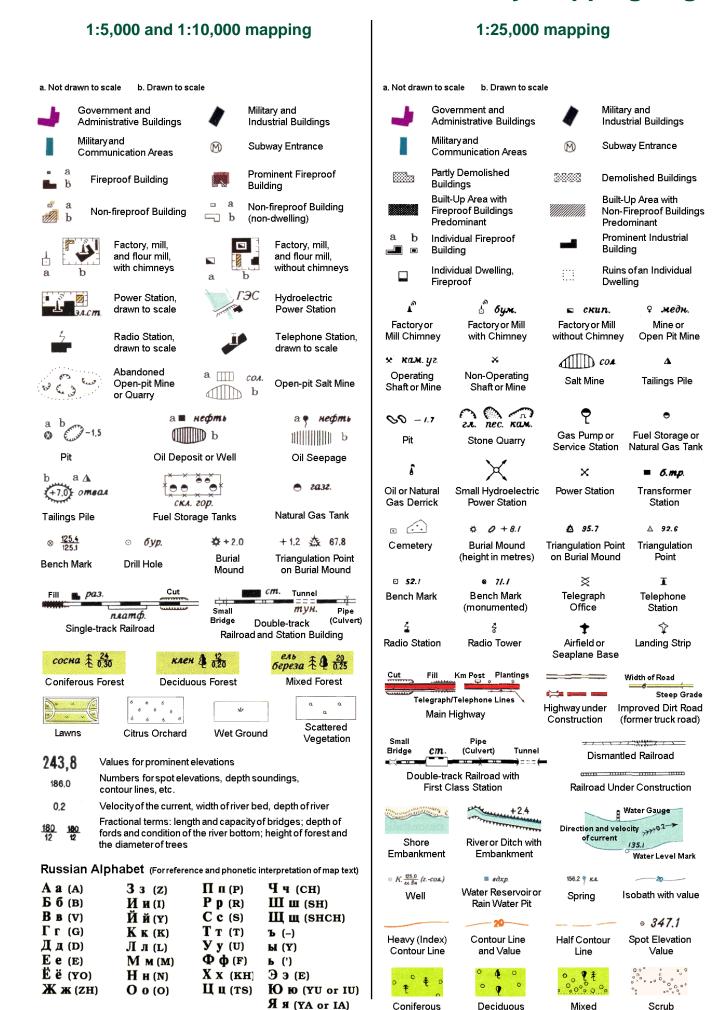
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# **Russian Military Mapping Legends**

Deciduous

Mixed

Scrub



#### **Key to Numbers on Mapping**

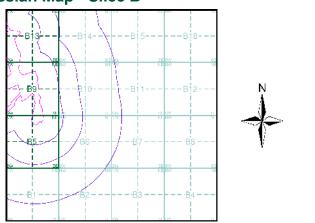
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### **Historical Mapping & Photography included:**

		$\overline{}$
Scale	Date	Pg
1:10,560	1884	3
1:10,560	1900	4
1:10,560	1921	5
1:10,560	1936	6
1:10,560	1938	7
1:10,560	1951 - 1953	8
1:10,000	1964	9
1:10,000	1976	10
1:10,000	1976	11
1:10,000	1980	12
1:10,000	1989	13
1:10,000	1993	14
1:10,000	1999	15
1:10,000	2006	16
1:10,000	2017	17
	1:10,560 1:10,560 1:10,560 1:10,560 1:10,560 1:10,560 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000 1:10,000	1:10,560 1884 1:10,560 1900 1:10,560 1921 1:10,560 1936 1:10,560 1938 1:10,560 1951 - 1953 1:10,000 1964 1:10,000 1976 1:10,000 1976 1:10,000 1980 1:10,000 1993 1:10,000 1999 1:10,000 2006

### Russian Map - Slice B



### **Order Details**

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

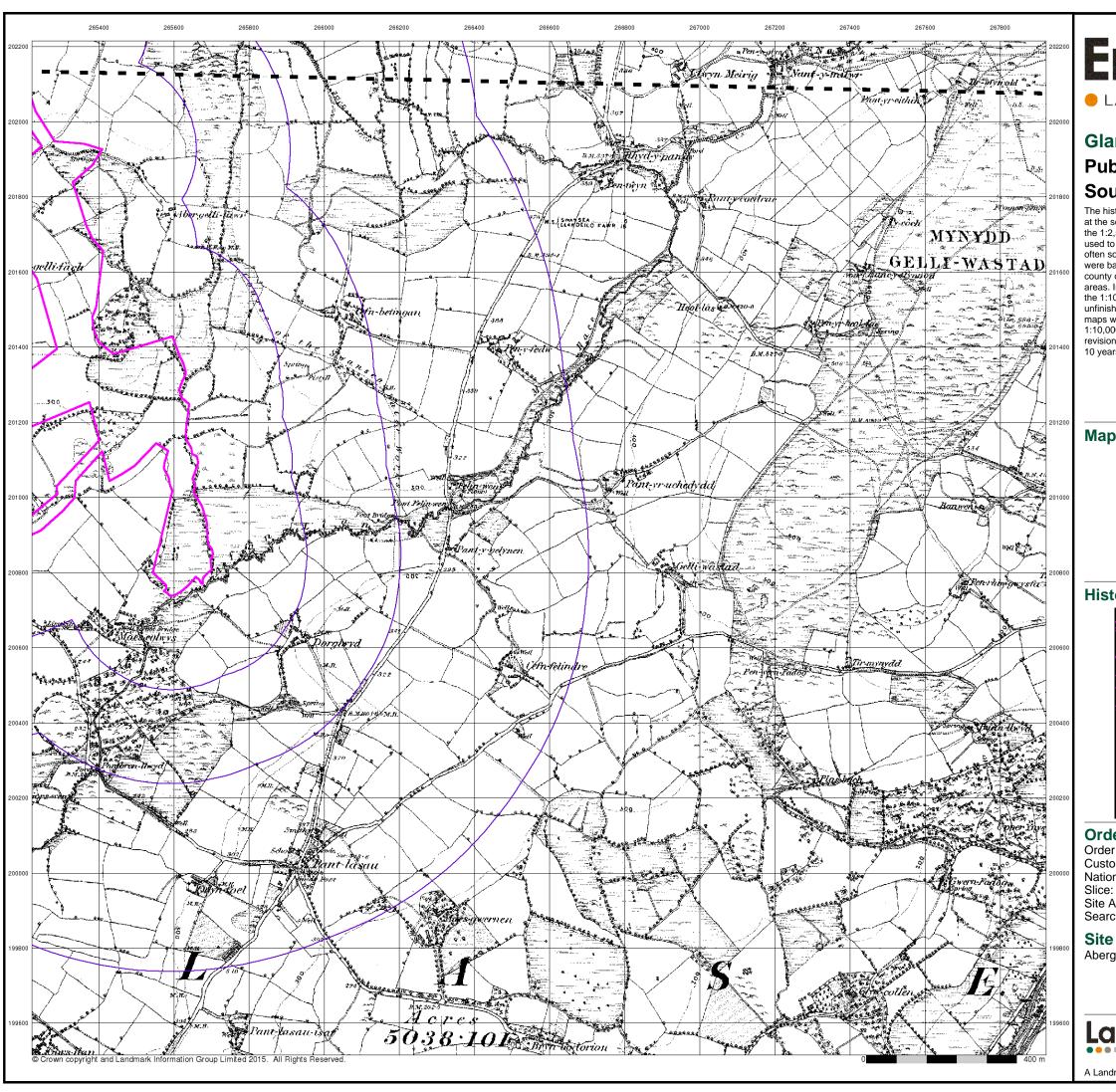
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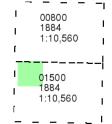
# Glamorganshire

## **Published 1884**

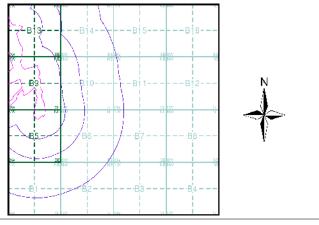
# Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

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Site Area (Ha): 32.39 Search Buffer (m): 1000

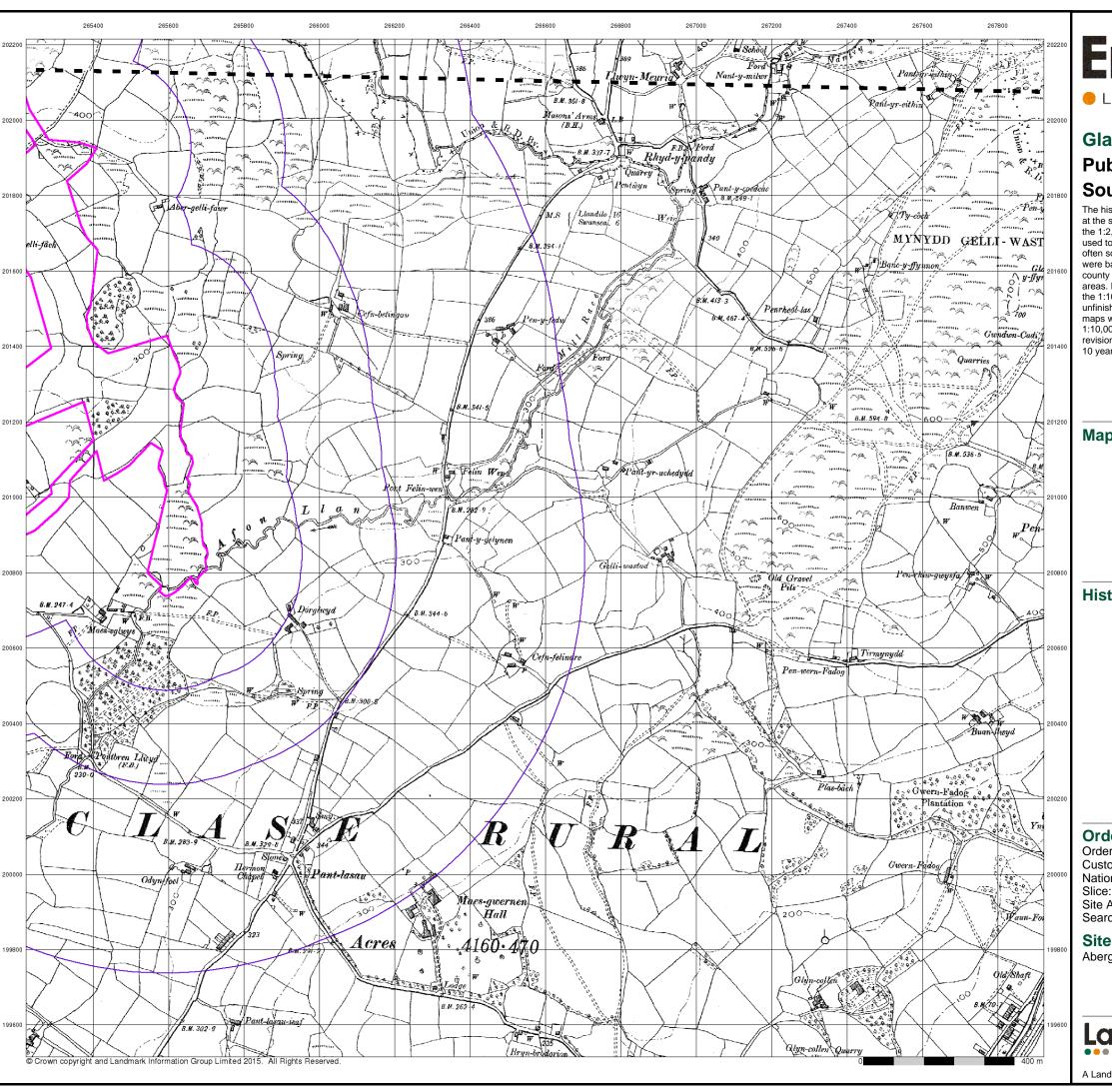
#### **Site Details**

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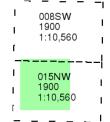
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# Glamorganshire

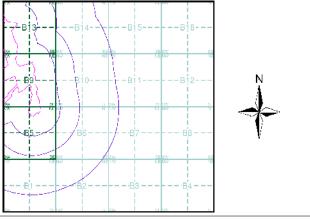
# Published 1900 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

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Site Area (Ha): 32.39 Search Buffer (m): 1000

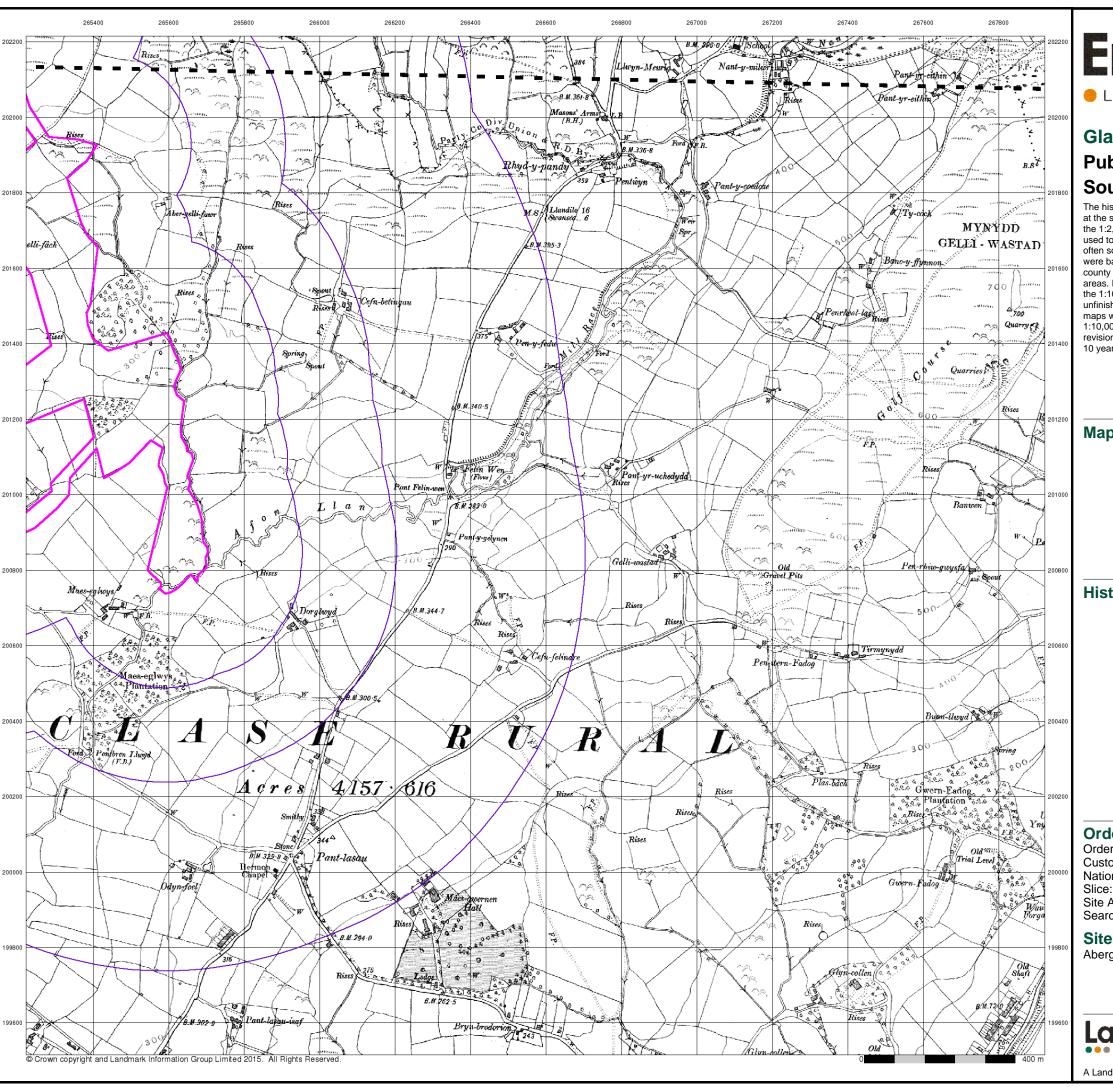
#### **Site Details**

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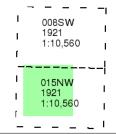
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# Glamorganshire

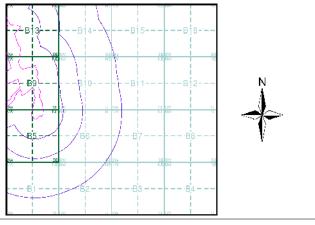
# Published 1921 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

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Site Area (Ha): 32.39 Search Buffer (m): 1000

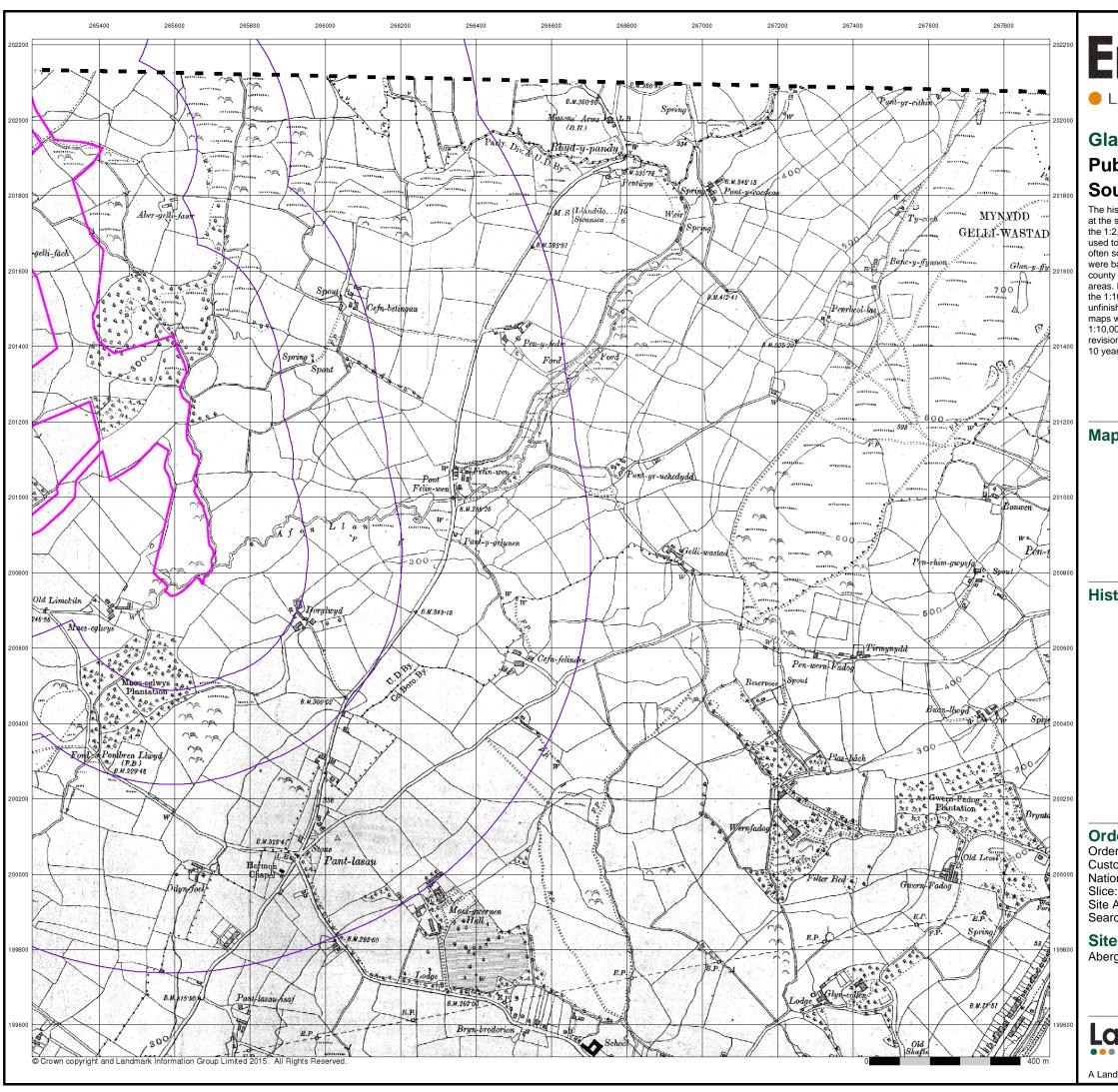
#### **Site Details**

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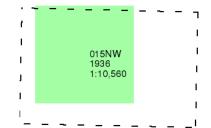
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# Glamorganshire Published 1936

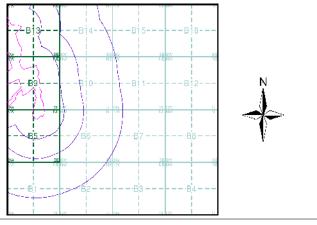
# Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

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Site Area (Ha): 32.39 Search Buffer (m): 1000

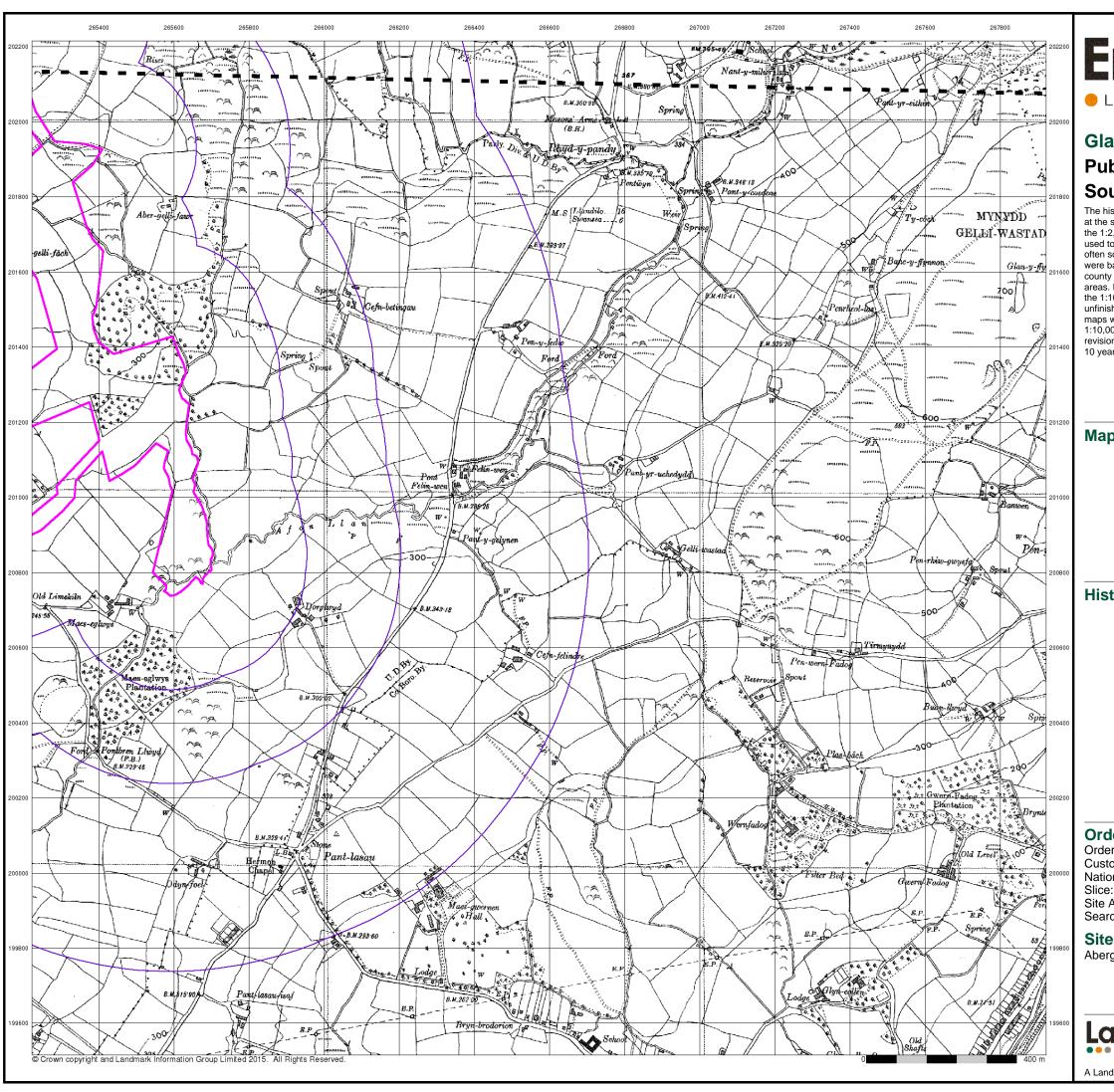
#### **Site Details**

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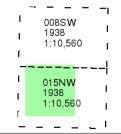
LANDMARK INFORMATION GROUP®

# Glamorganshire

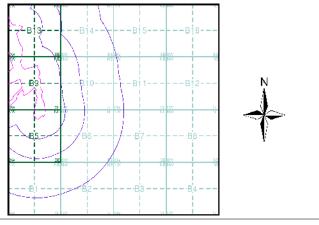
# Published 1938 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

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Site Area (Ha): 32.39 Search Buffer (m): 1000

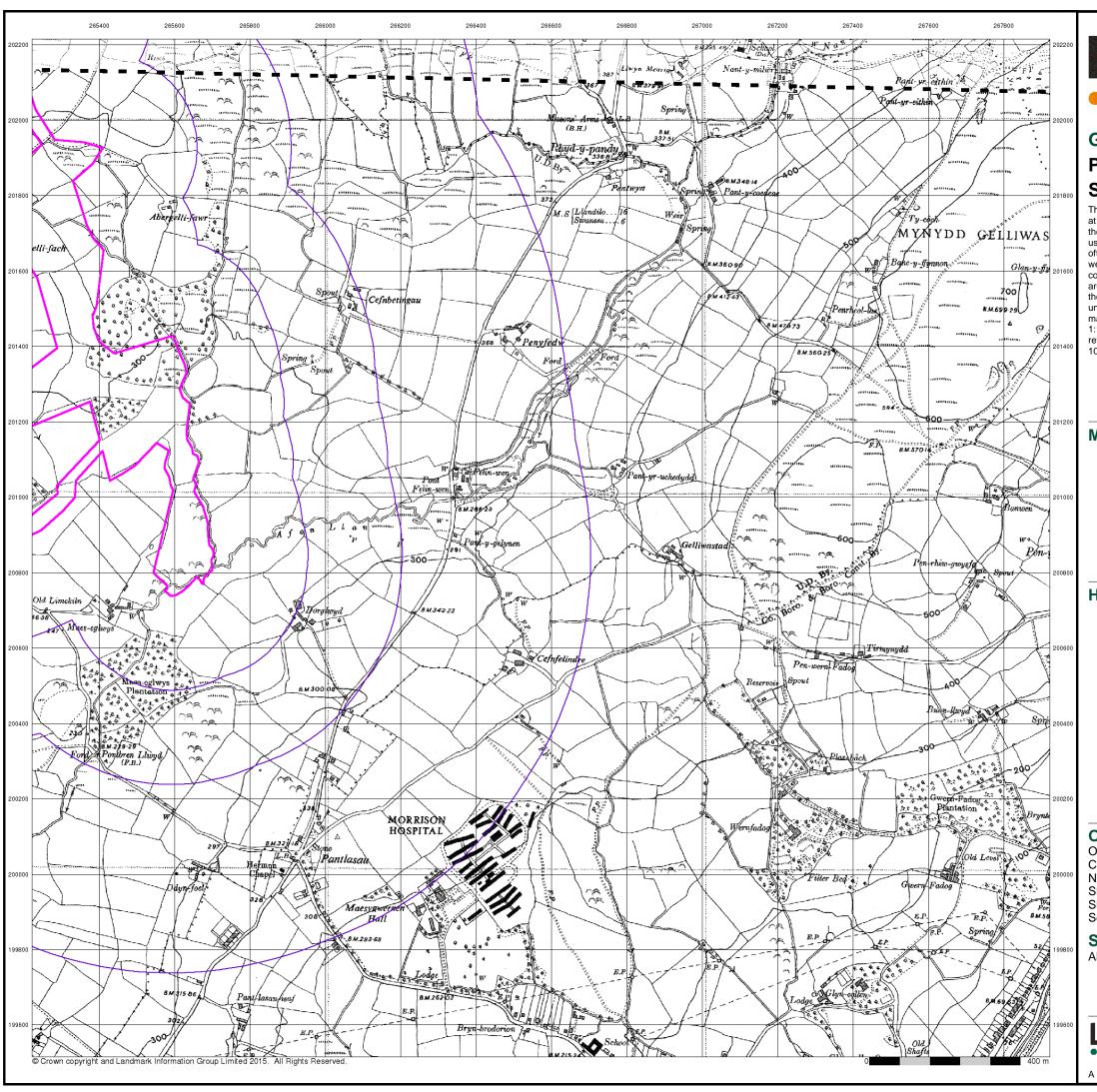
#### **Site Details**

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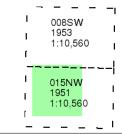
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## **Glamorganshire**

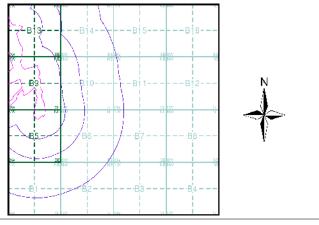
# Published 1951 - 1953 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010
Slice: B

Site Area (Ha): 32.39 Search Buffer (m): 1000

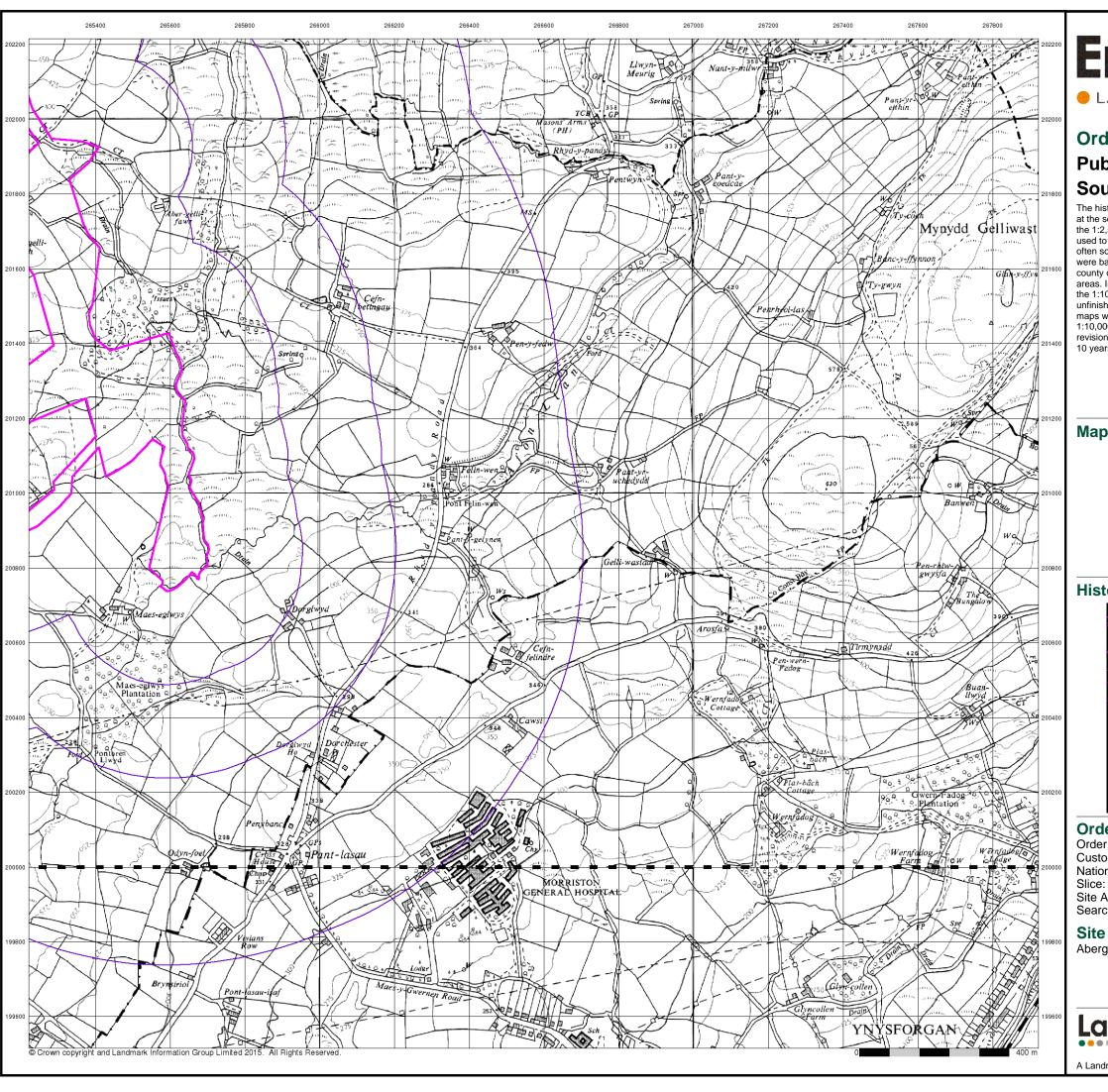
#### **Site Details**

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Web: www.envirocheck.

A Landmark Information Group Service v50.0 13-Oct-2017 Page 8 of 17

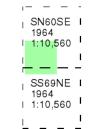


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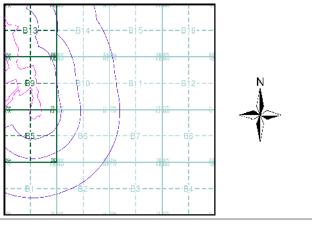
# Ordnance Survey Plan Published 1964 Source map scale - 1:10,000

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

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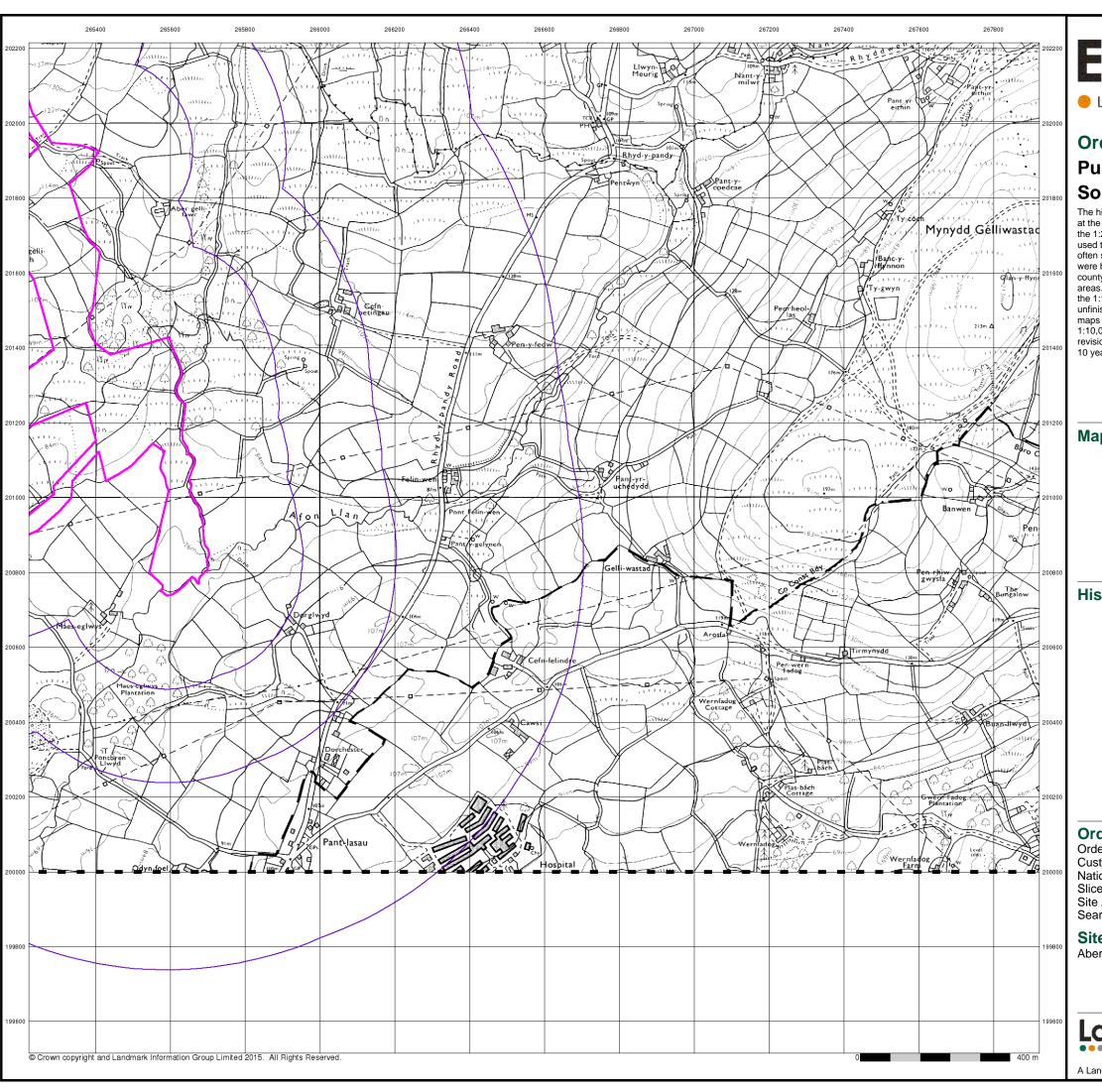
#### **Site Details**

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Fax: 0844 844 9951
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A Landmark Information Group Service v50.0 13-Oct-2017 Page 9 of 17

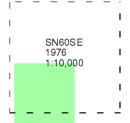


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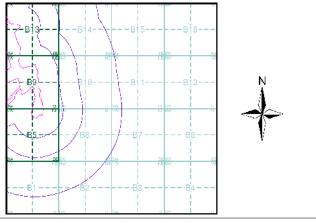
# **Ordnance Survey Plan Published 1976** Source map scale - 1:10,000

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## Map Name(s) and Date(s)



### **Historical Map - Slice B**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

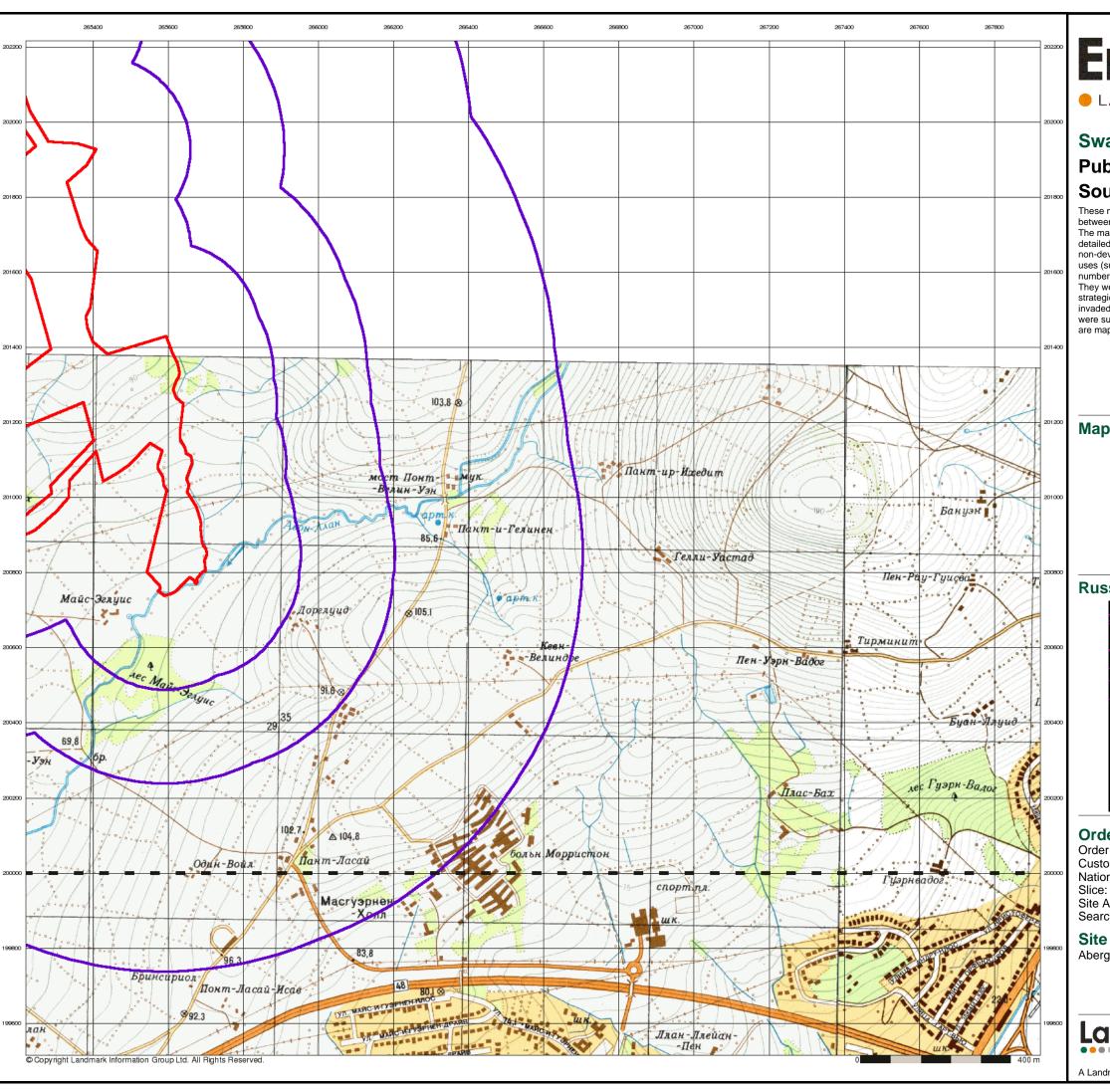
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### **Swansea**

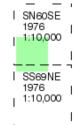
# **Published 1976** Source map scale - 1:10,000

These maps were produced by the Russian military during the Cold War between 1950 and 1997, and cover 103 towns and cities throughout the U.K. The maps are produced at 1:25,000, 1:10,000 and 1:5,000 scale, and show detailed land use, with colour-coded areas for development, green areas, and non-developed areas. Buildings are coloured black and important building uses (such as hospitals, post offices, factories etc.) are numbered, with a

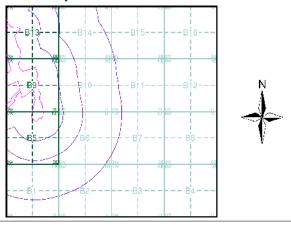
numbered key describing their use.

They were produced by the Russians for the benefit of navigation, as well as strategic military sites and transport hubs, for use if they were to have invaded the U.K. The detailed information provided indicates that the areas were surveyed using land-based personnel, on the ground, in the cities that

## Map Name(s) and Date(s)



## Russian Map - Slice B



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Site Area (Ha): 32.39 Search Buffer (m): 1000

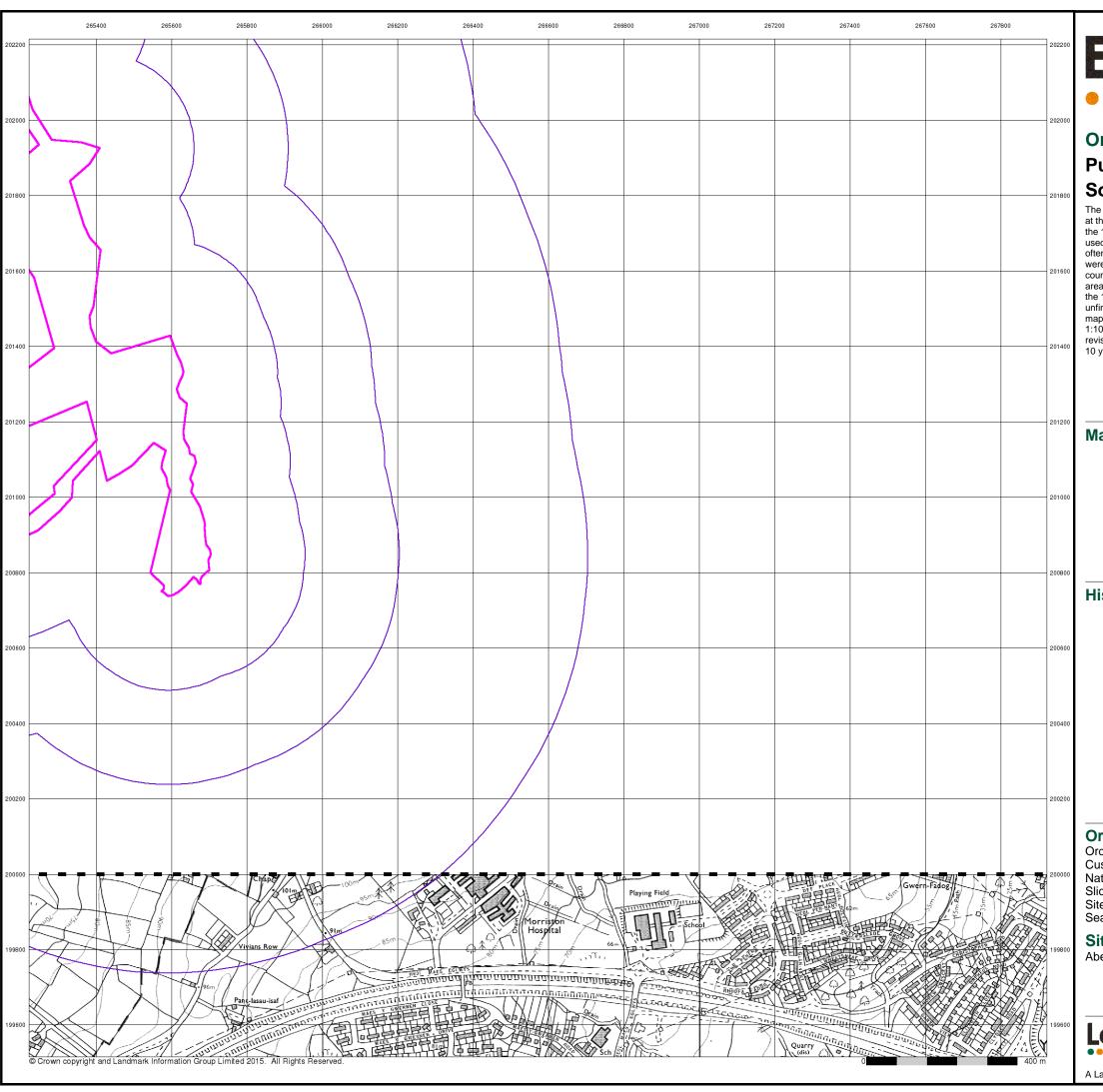
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 11 of 17

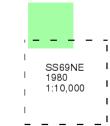


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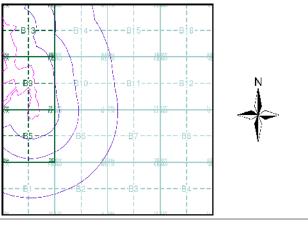
# **Ordnance Survey Plan** Published 1980 Source map scale - 1:10,000

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## **Historical Map - Slice B**



### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): Search Buffer (m):

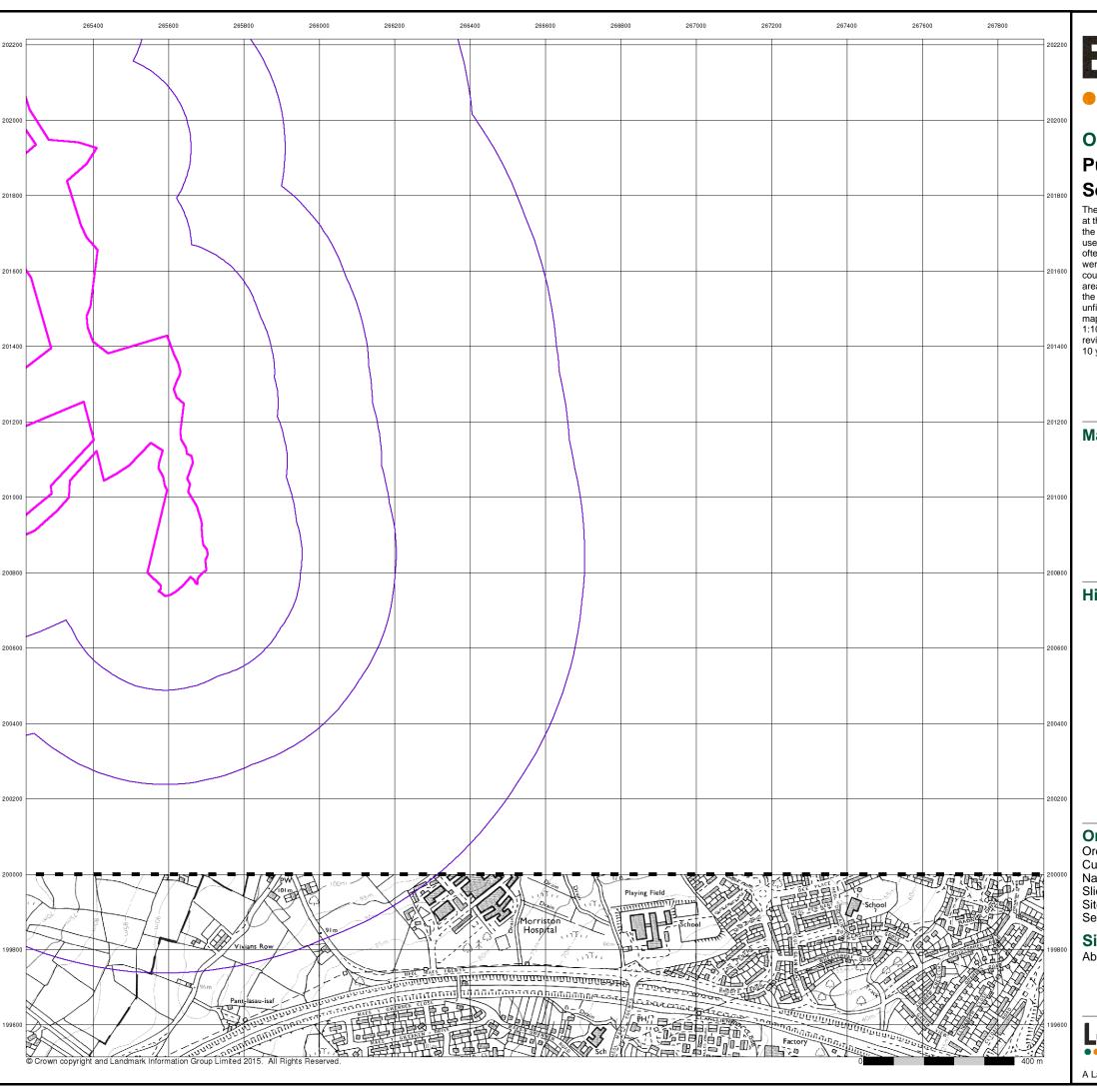
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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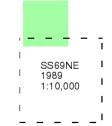


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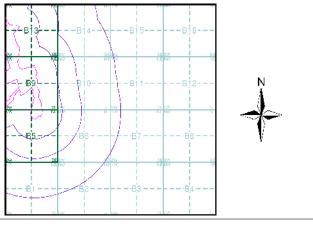
# **Ordnance Survey Plan Published 1989** Source map scale - 1:10,000

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

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## **Historical Map - Slice B**



### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): Search Buffer (m): 1000

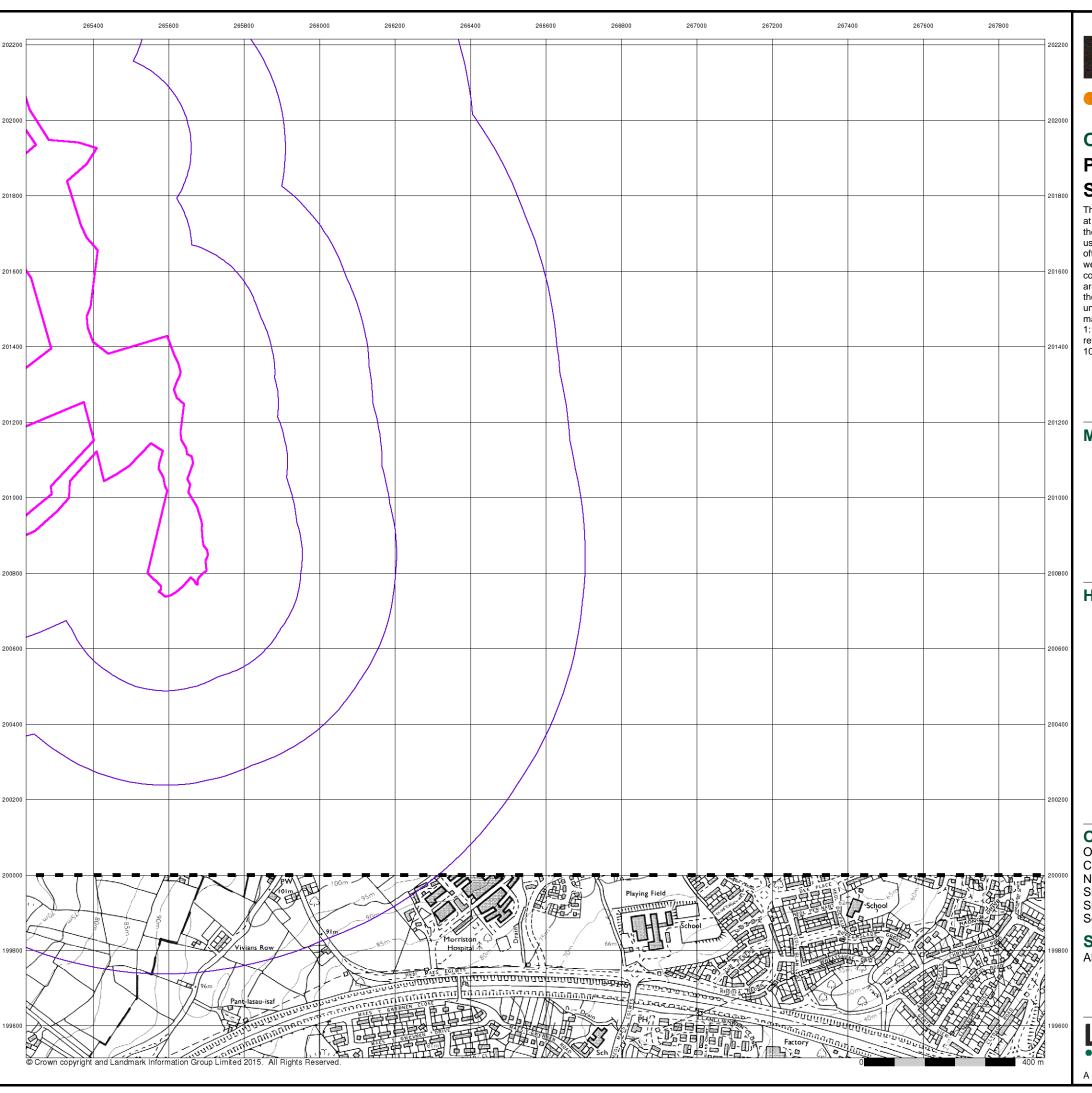
#### **Site Details**

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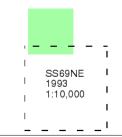


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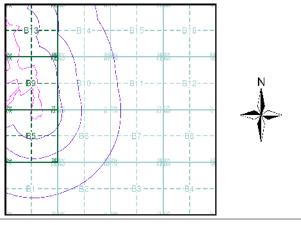
# **Ordnance Survey Plan Published 1993** Source map scale - 1:10,000

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## **Historical Map - Slice B**



### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010 Slice:

Site Area (Ha): Search Buffer (m):

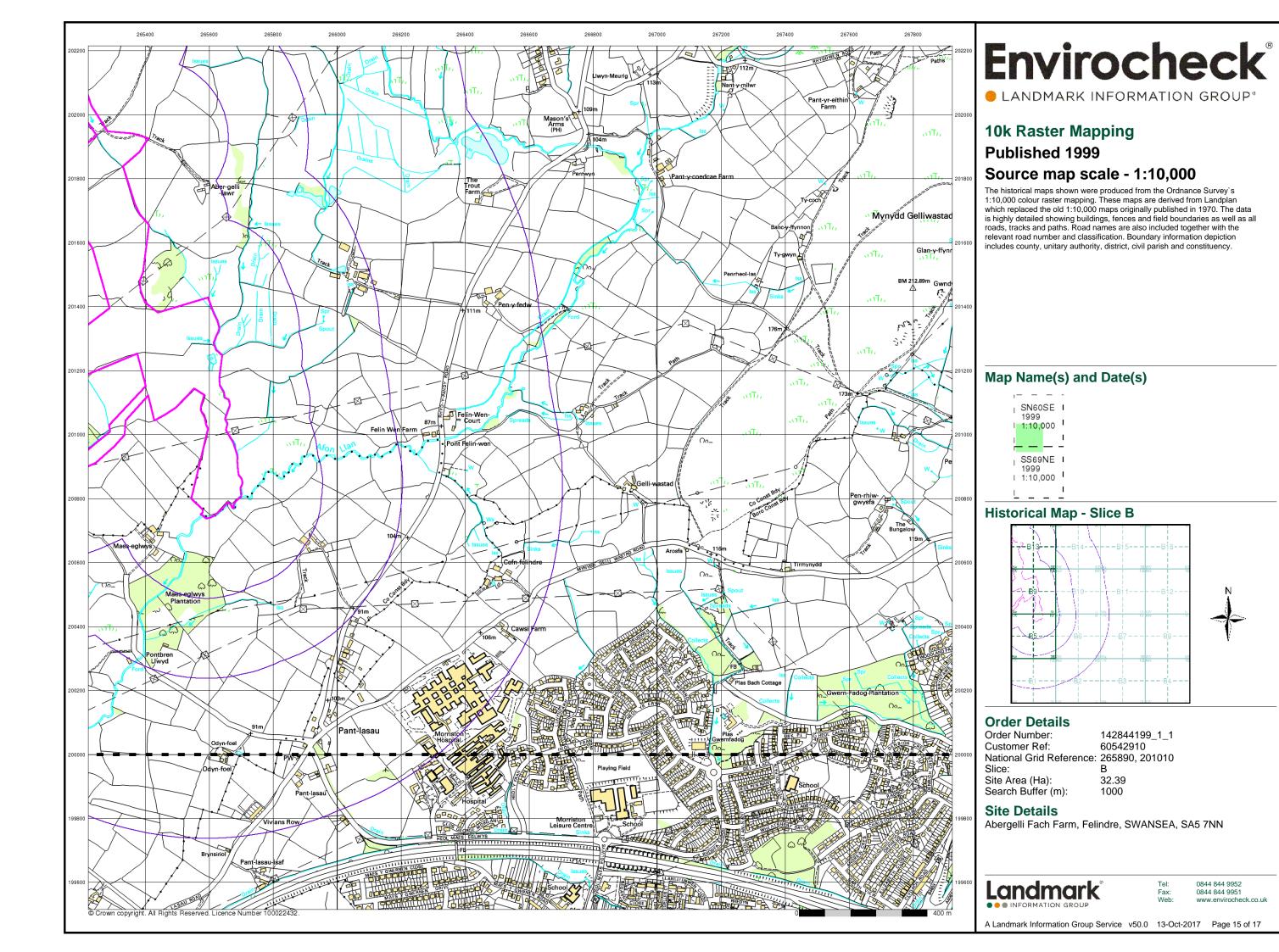
#### **Site Details**

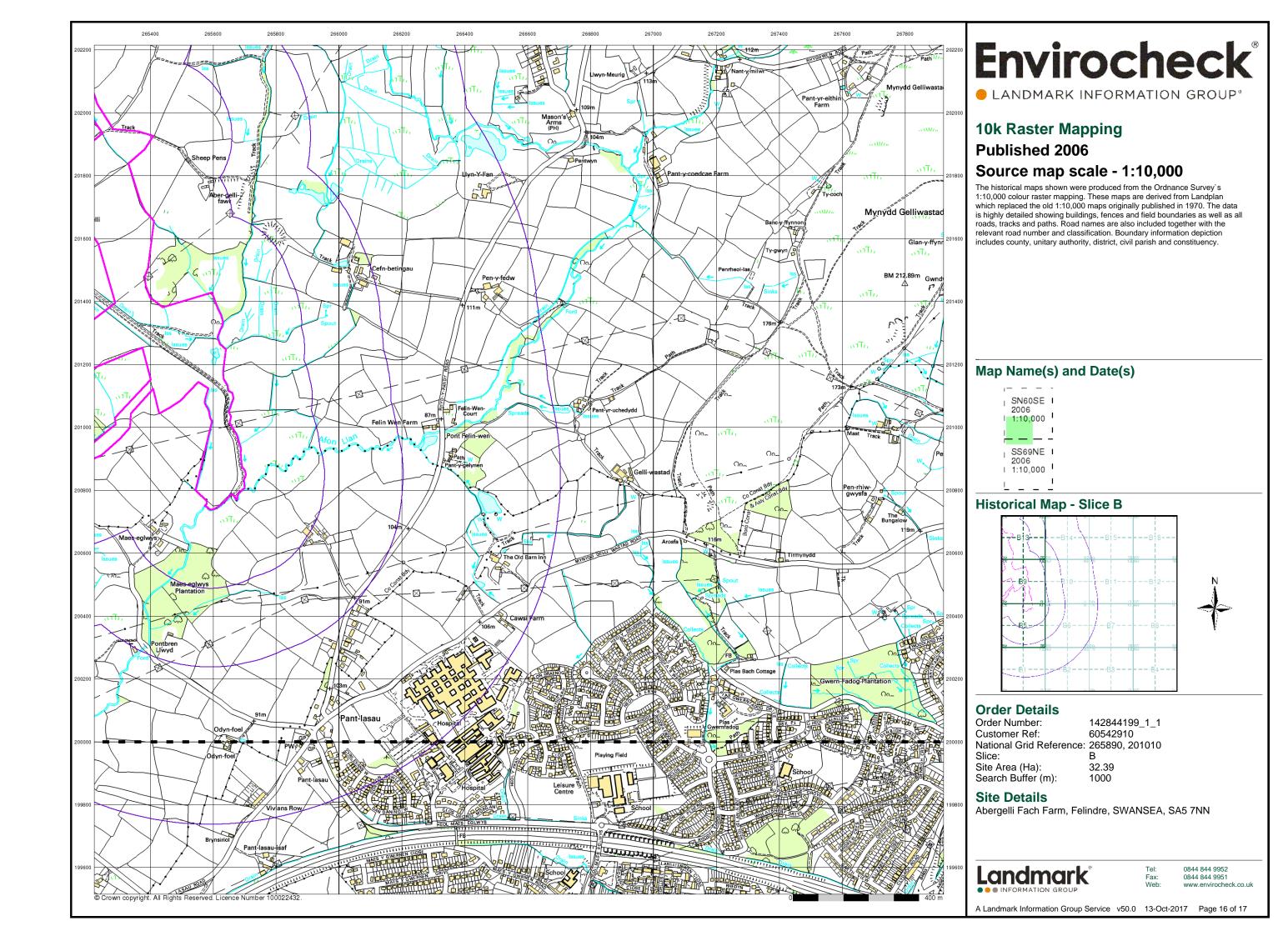
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

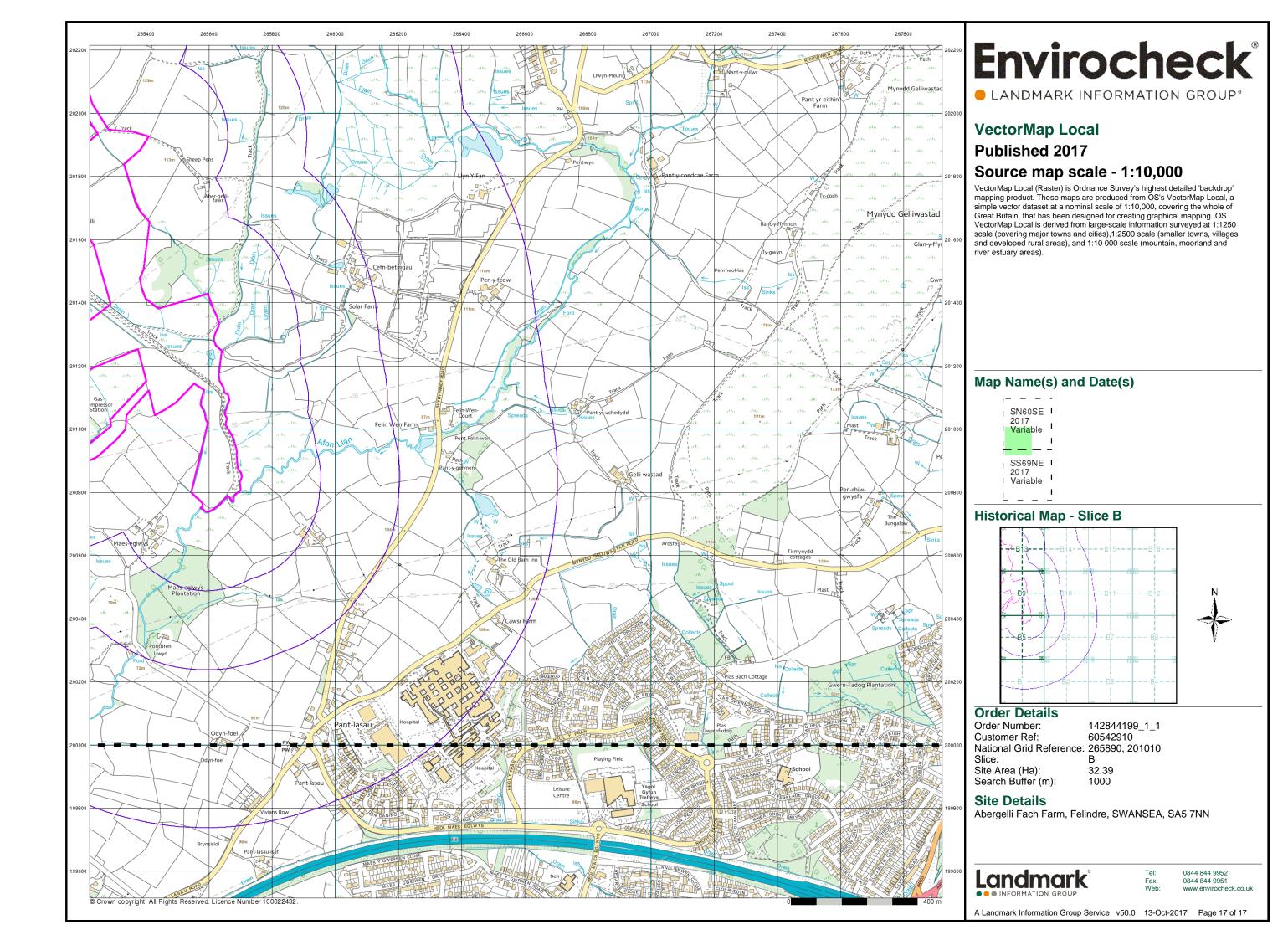


0844 844 9952

A Landmark Information Group Service v50.0 13-Oct-2017 Page 14 of 17







Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

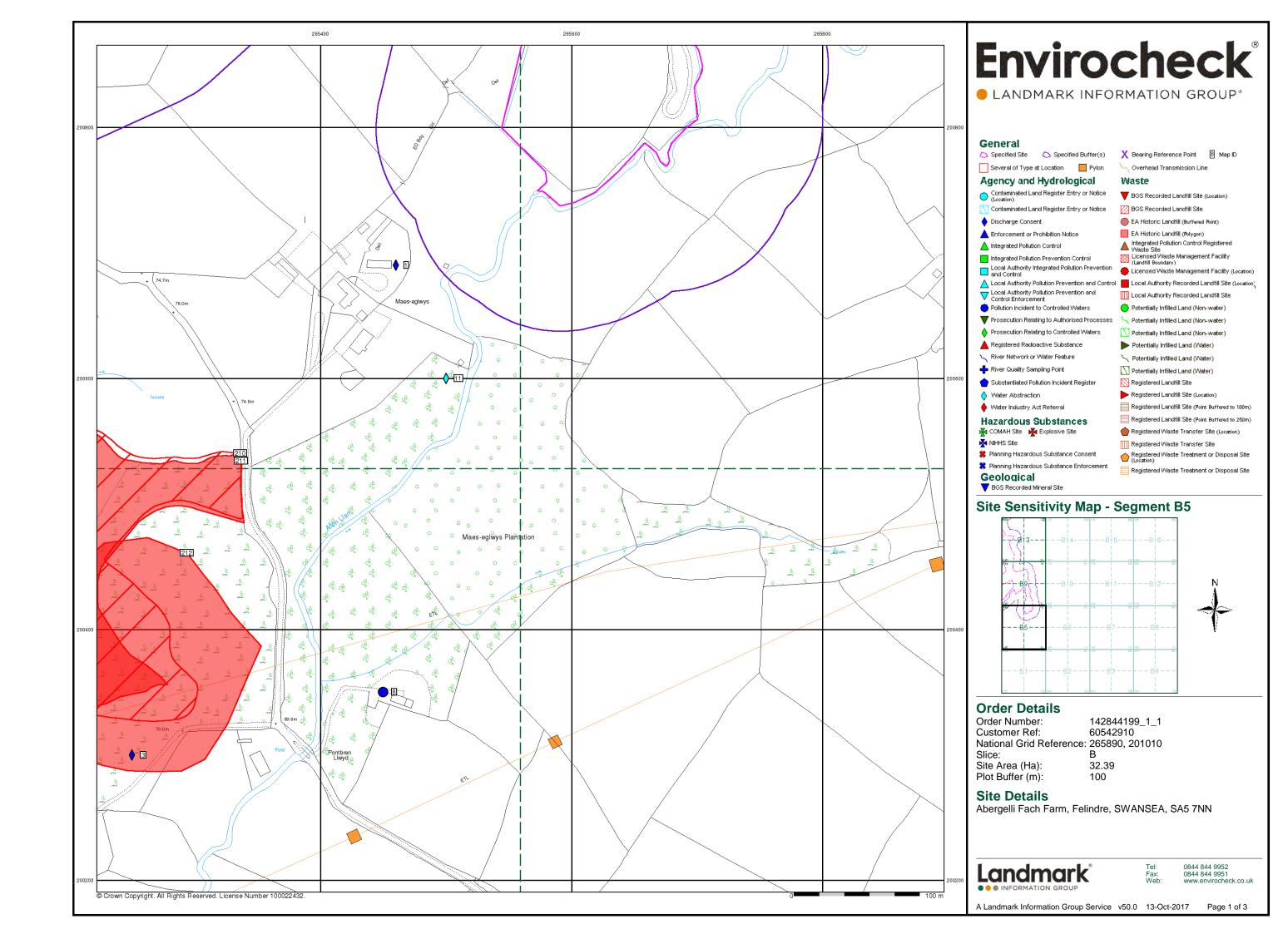
Slice:

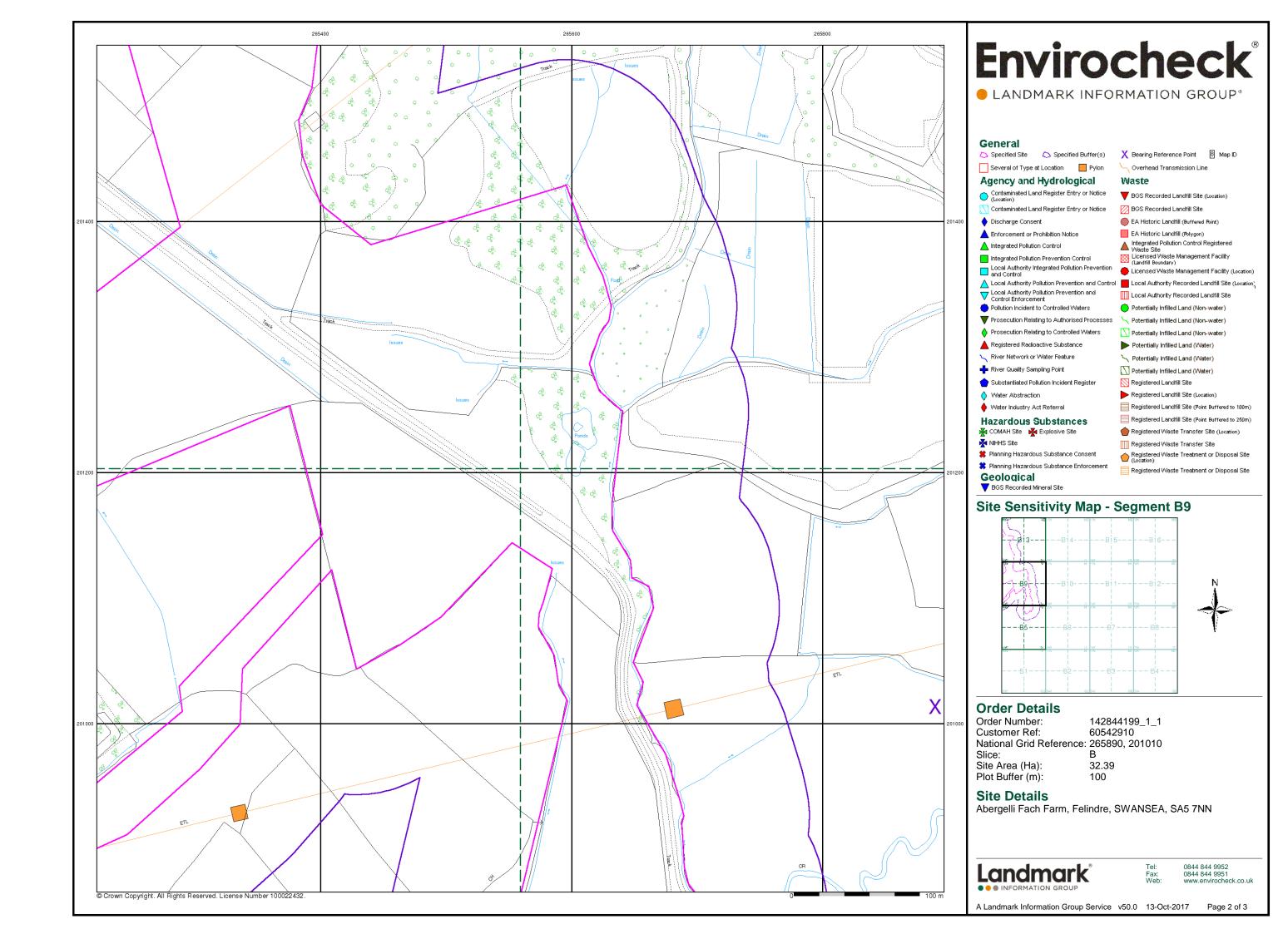
Site Area (Ha): 32.39 Search Buffer (m): 1000

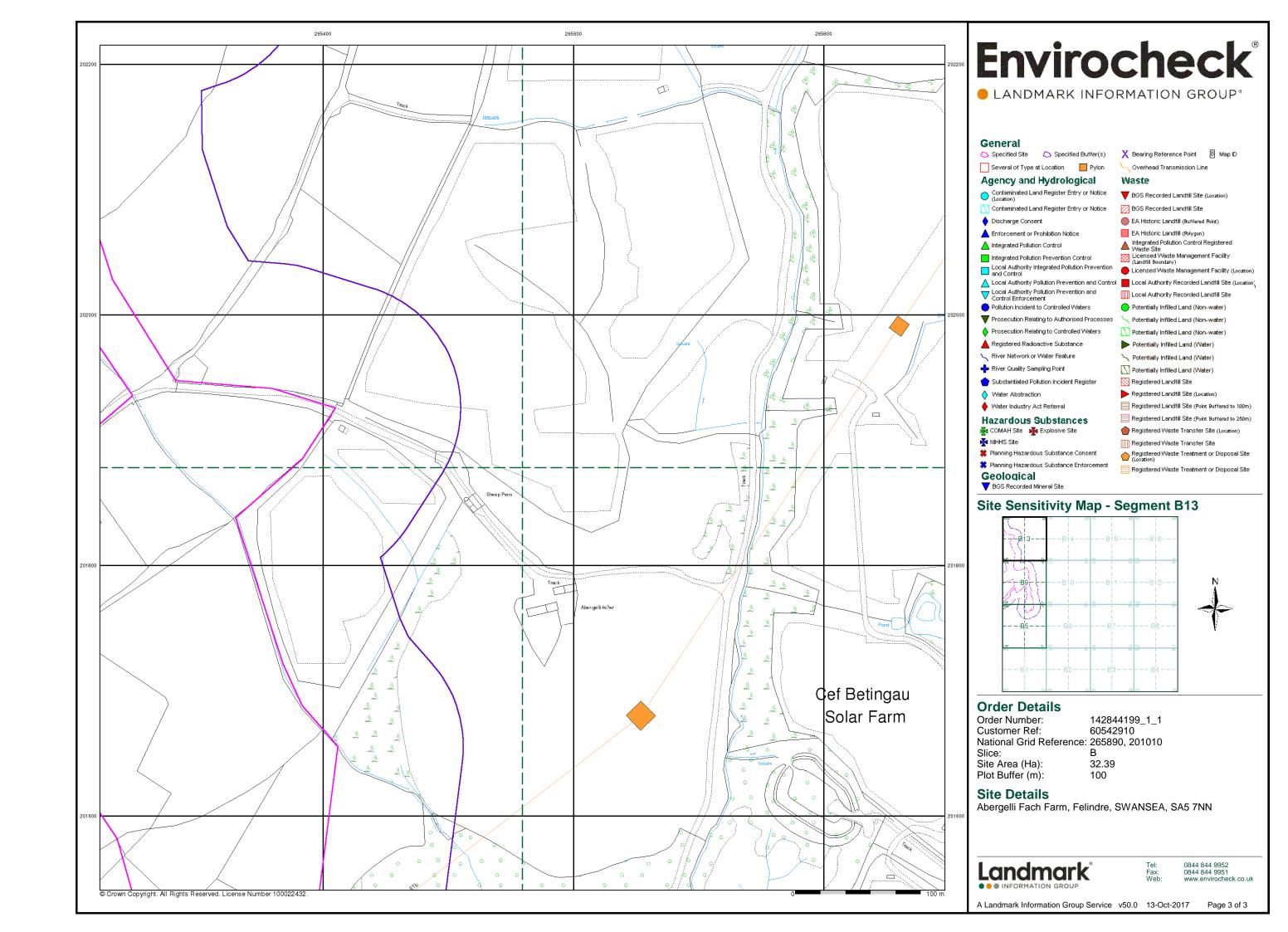
Site Details:

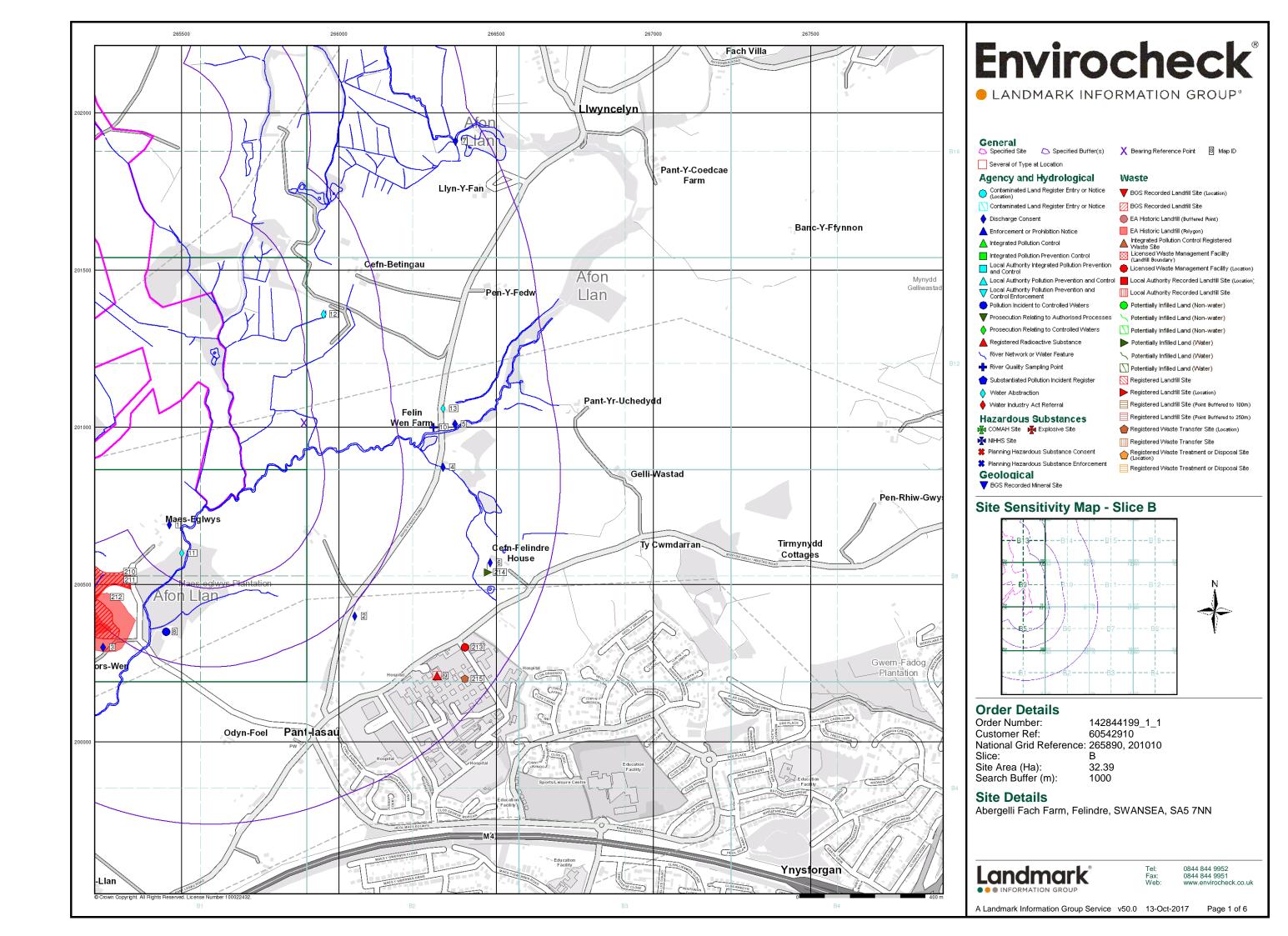
Abergelli F Felindre SWANSEA SA5 7NN

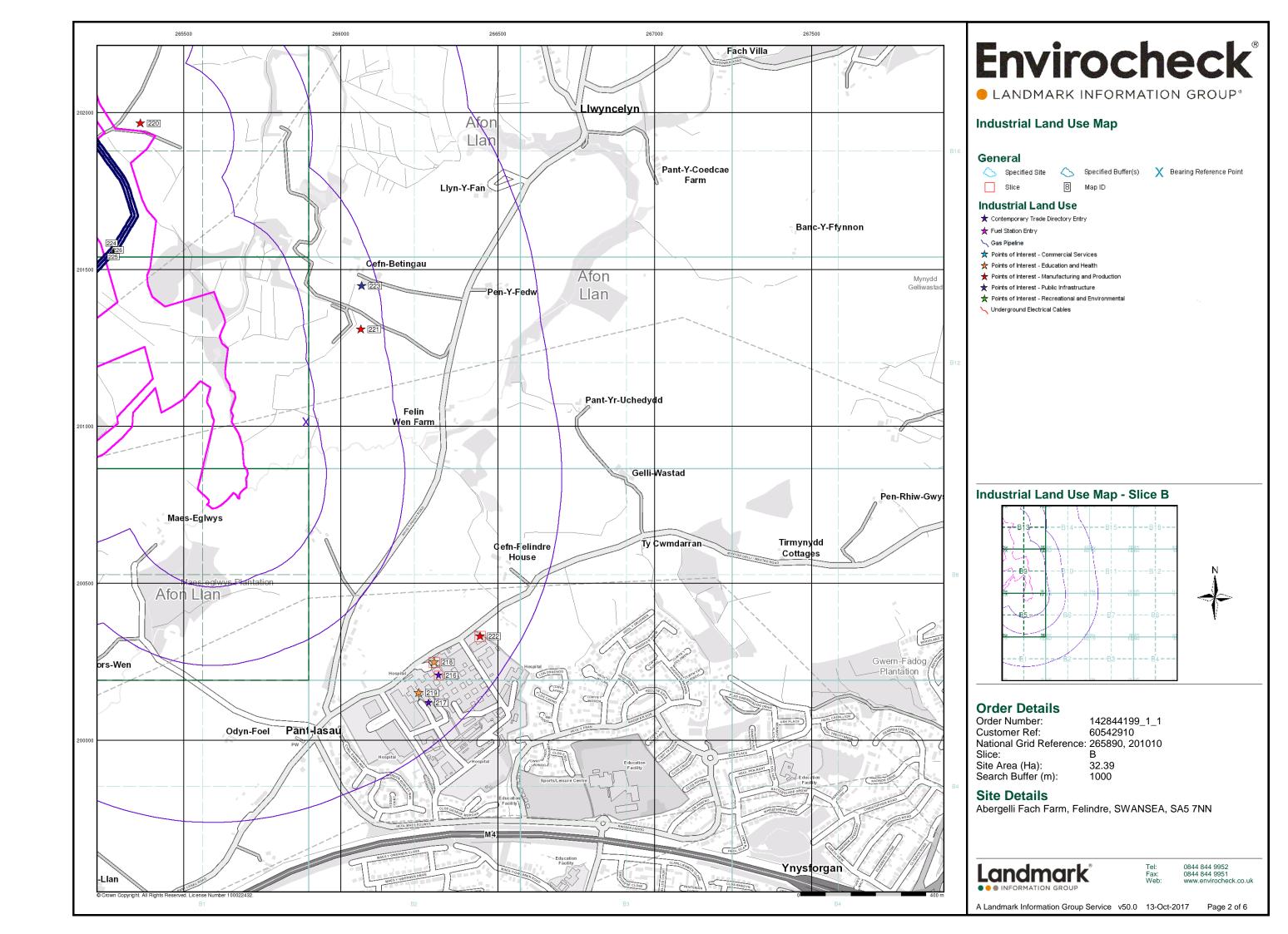
File Name Map Series Pub	lished Source Sca	a Survey Dat Revisi	on D: Addition D	Edition Dat Published Date
142844199 Glamorgan	1936 1:10,560	1876	1936	1935
142844199 Glamorgan	1938 1:10,560	1876-1876	1938-1938	3 1913-1936
142844199 Glamorgan	1921 1:10,560	1876-1876 1913-	1913	1921-1921
142844199 Glamorgan	1900 1:10,560	1877-1876 1897-	1897	1900-1900
142844199 Glamorgan	1884 1:10,560	1877-1877		1884-1884
142844199 Glamorgan 195	1-1953 1:10,560	1876-1876	1948-1948	3 1913-1936 1953-1951
142844199 Ordnance 9	1980 1:10,000	1977	1977	1980
142844199 Ordnance 9	1976 1:10,000	1974	1975	1976
142844199 Ordnance 9	1964 1:10,560	1961-1962		1964-1964
142844199 Ordnance 9	1993 1:10,000	1985	1992	1993
142844199 Ordnance 9	1989 1:10,000	1985	1988	1989
14284419 ^c Swansea	1976 1:10,000			
14284419510K Raster	1999 1:10,000			
14284419910K Raster	2006 1:10,000			
142844199 VectorMar	2017 Variable			

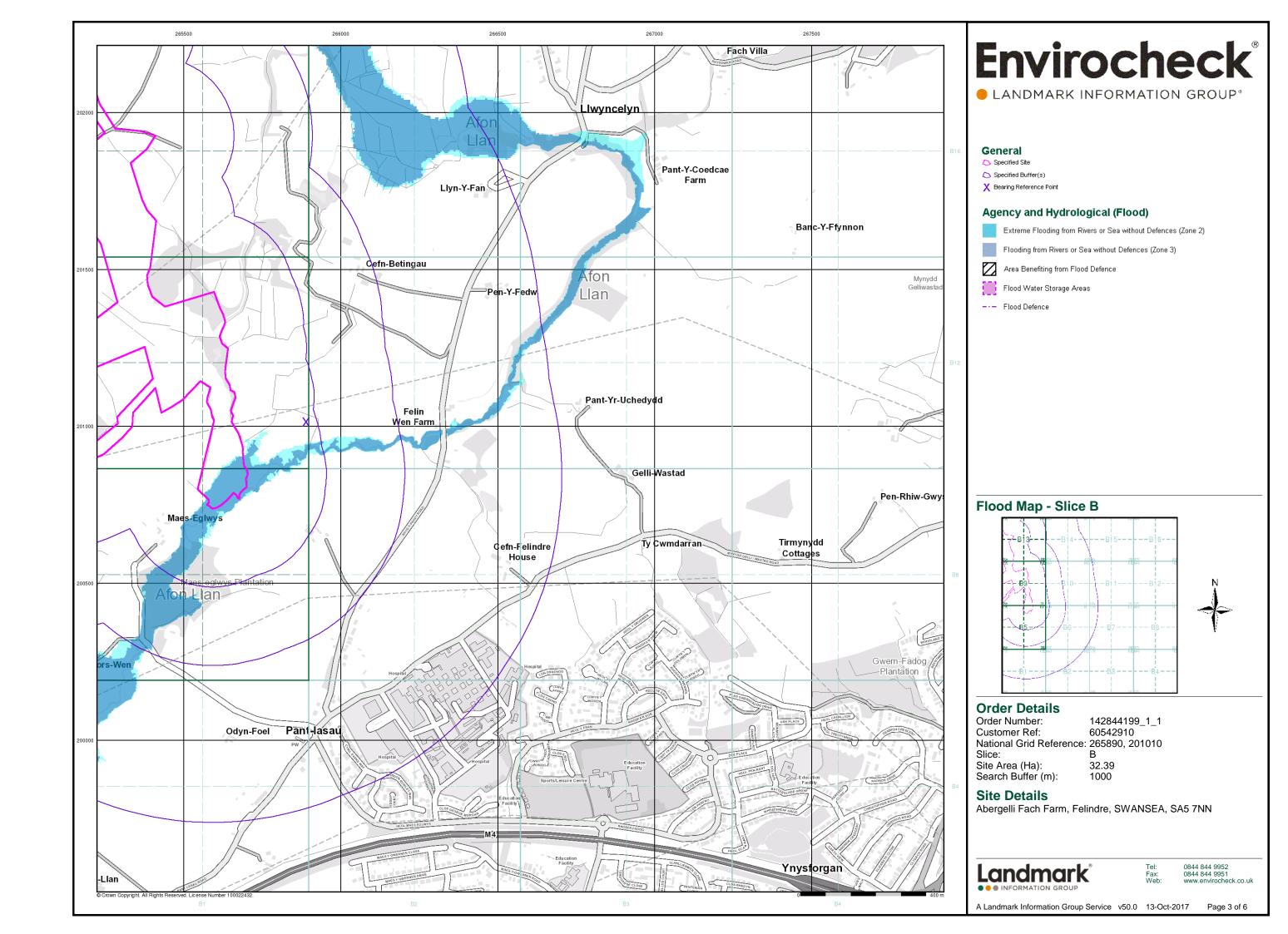


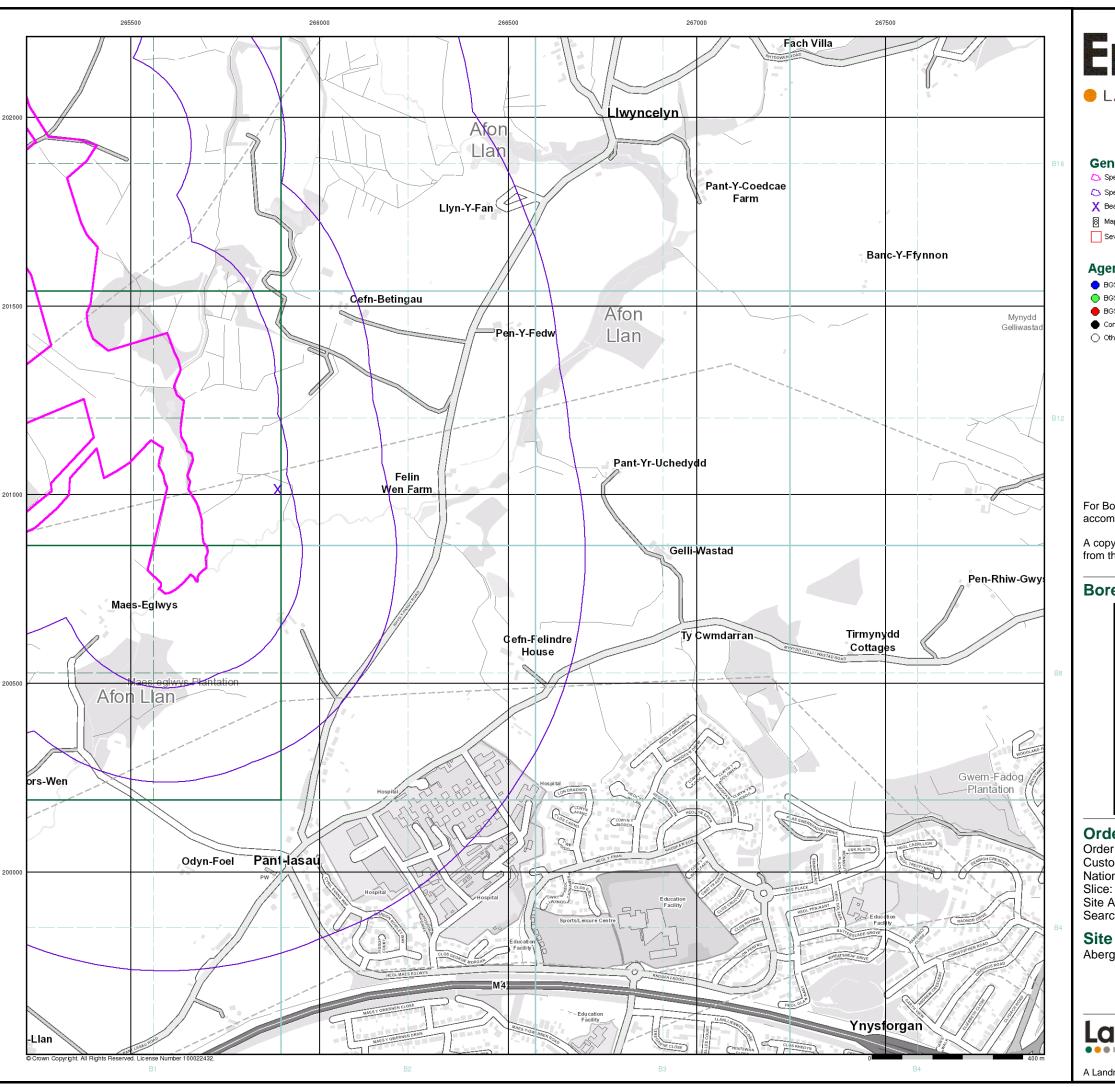












LANDMARK INFORMATION GROUP®

#### General

Specified Buffer(s)

X Bearing Reference Point

8 Map ID

Several of Type at Location

### Agency and Hydrological (Boreholes)

BGS Borehole Depth 0 - 10m

BGS Borehole Depth 10 - 30m

BGS Borehole Depth 30m +

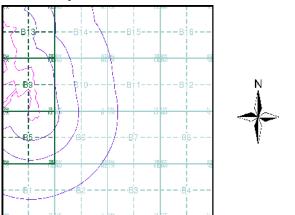
Confidential

Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

### **Borehole Map - Slice B**



### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m): 32.39 1000

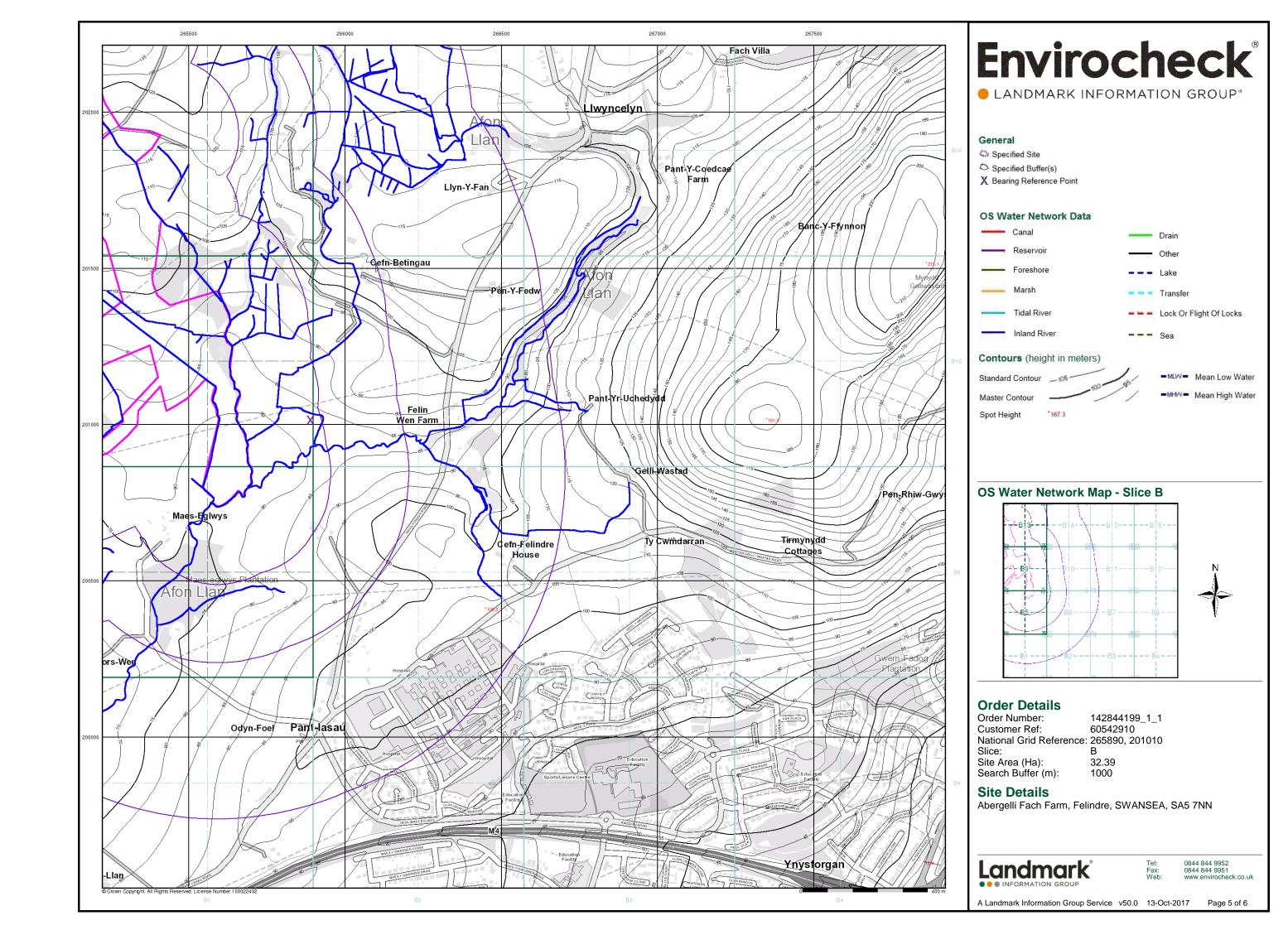
### **Site Details**

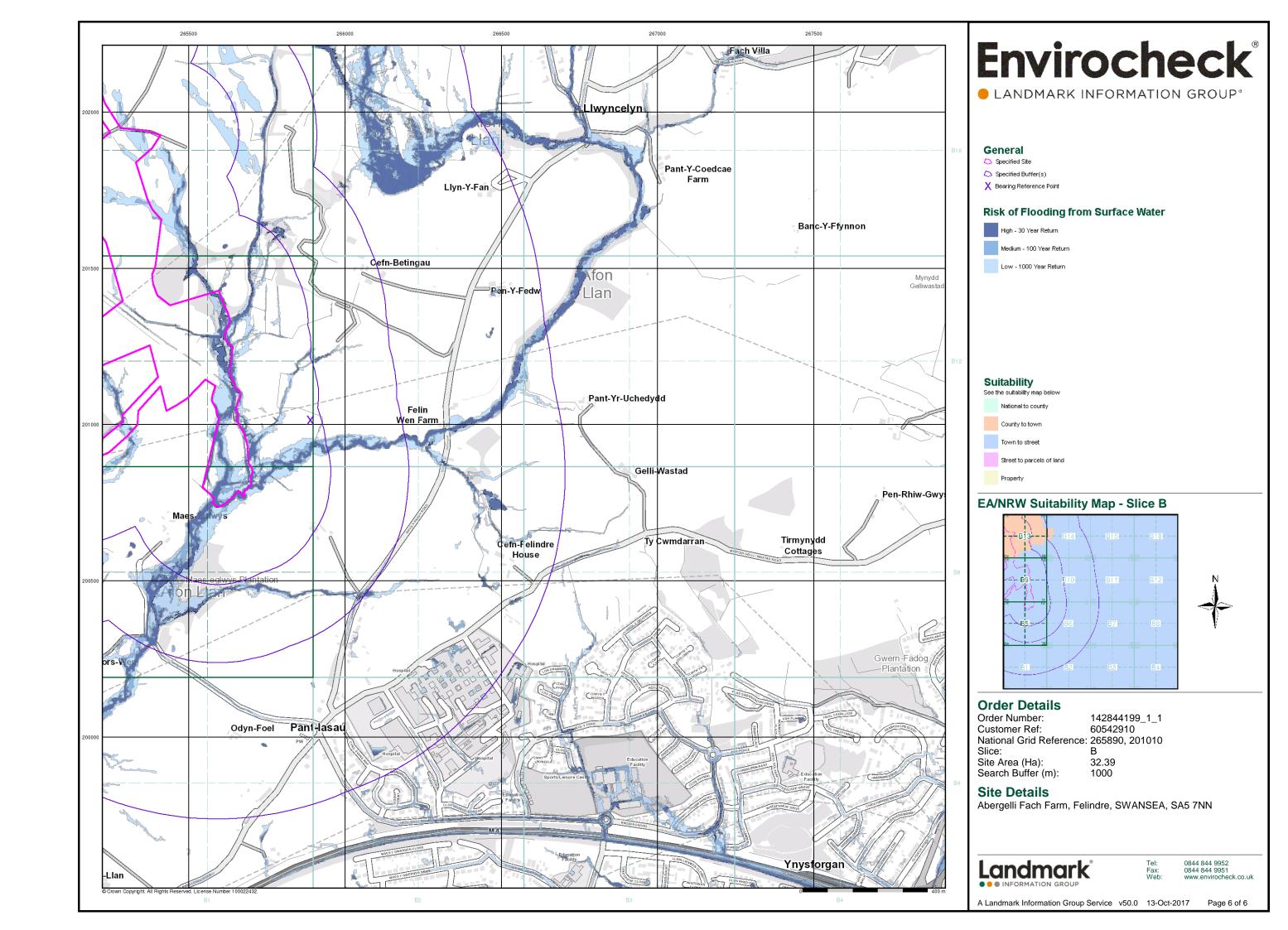
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

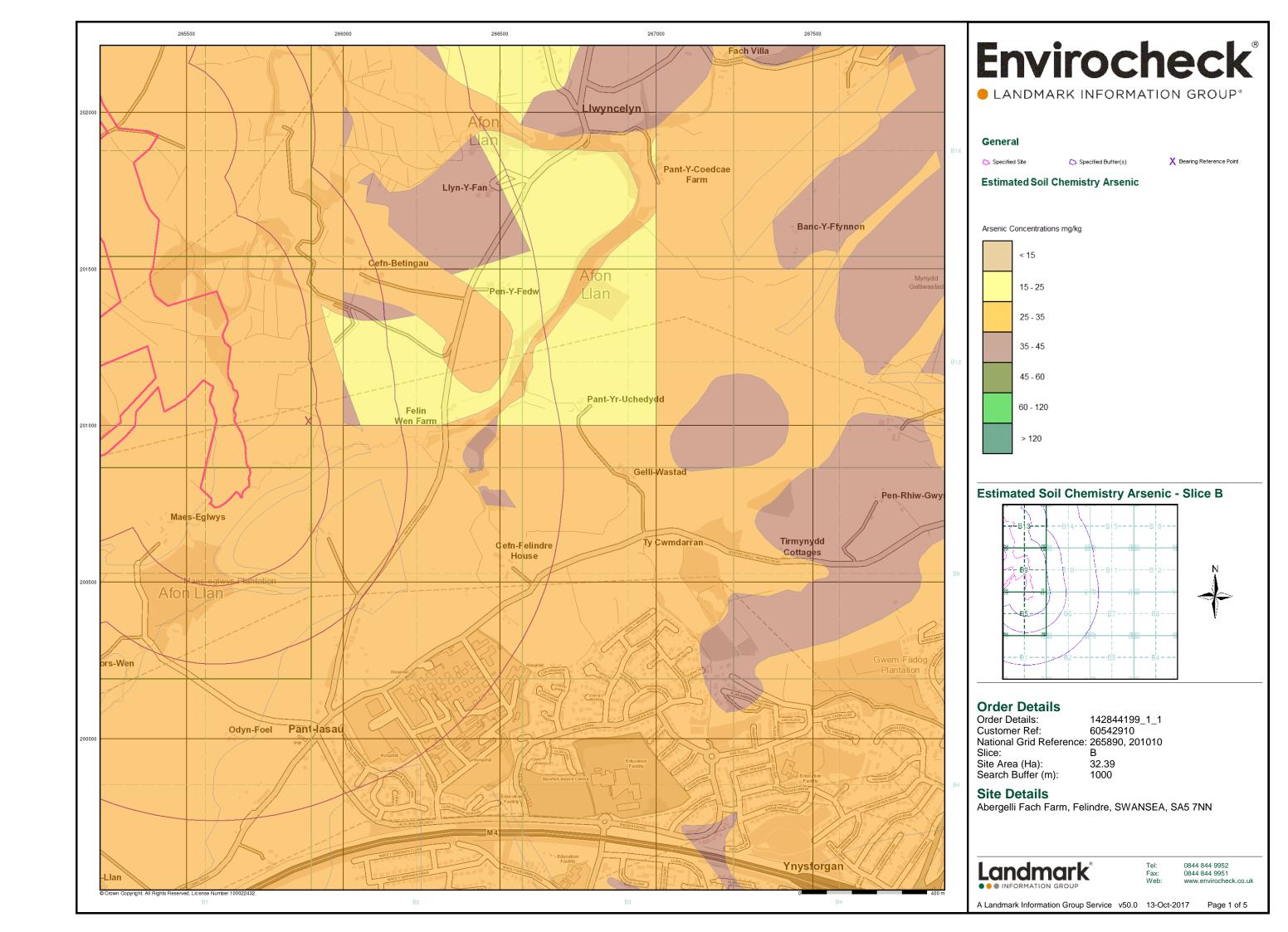
Landmark

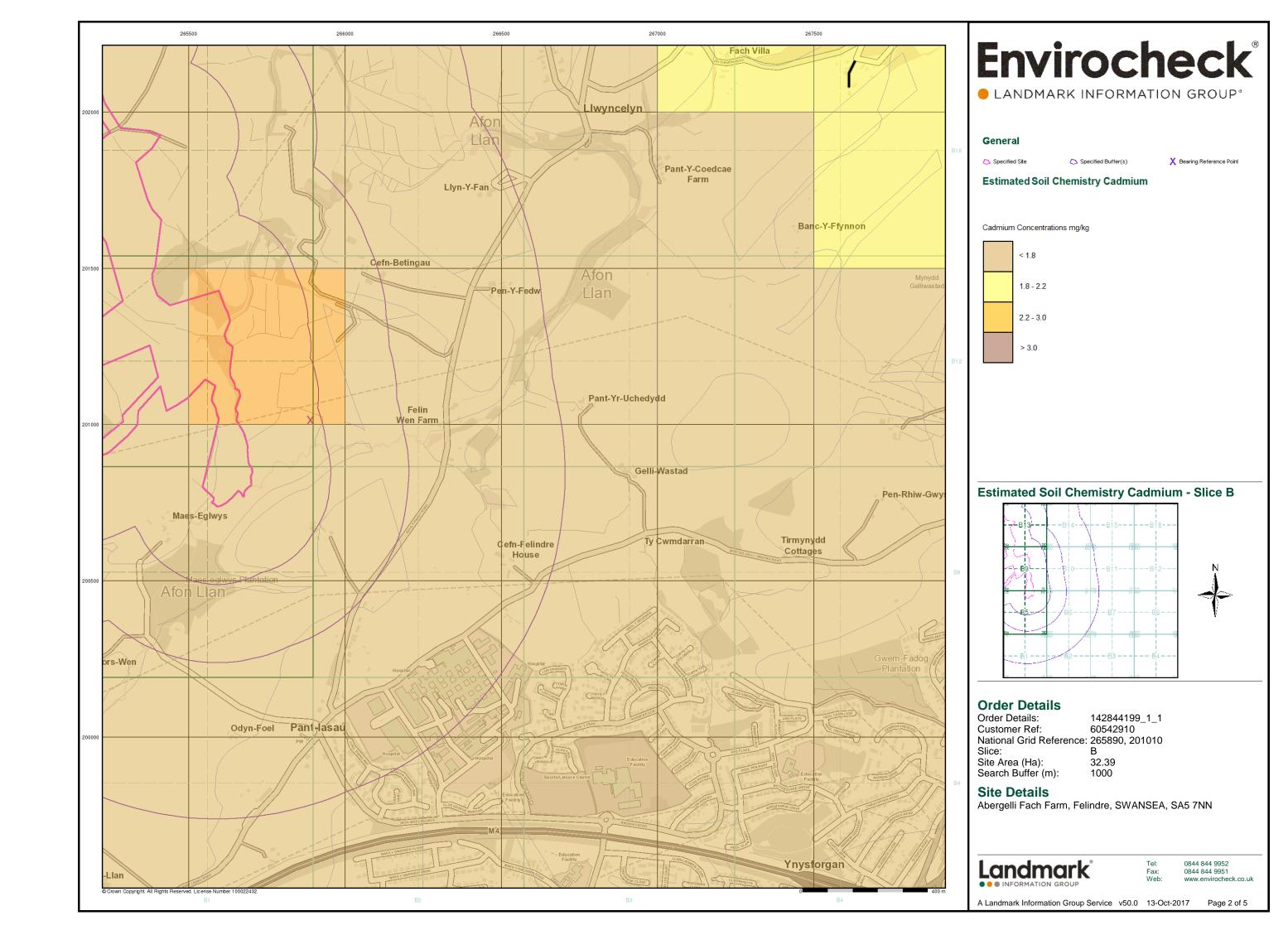
0844 844 9951 www.envirocheck.co.uk

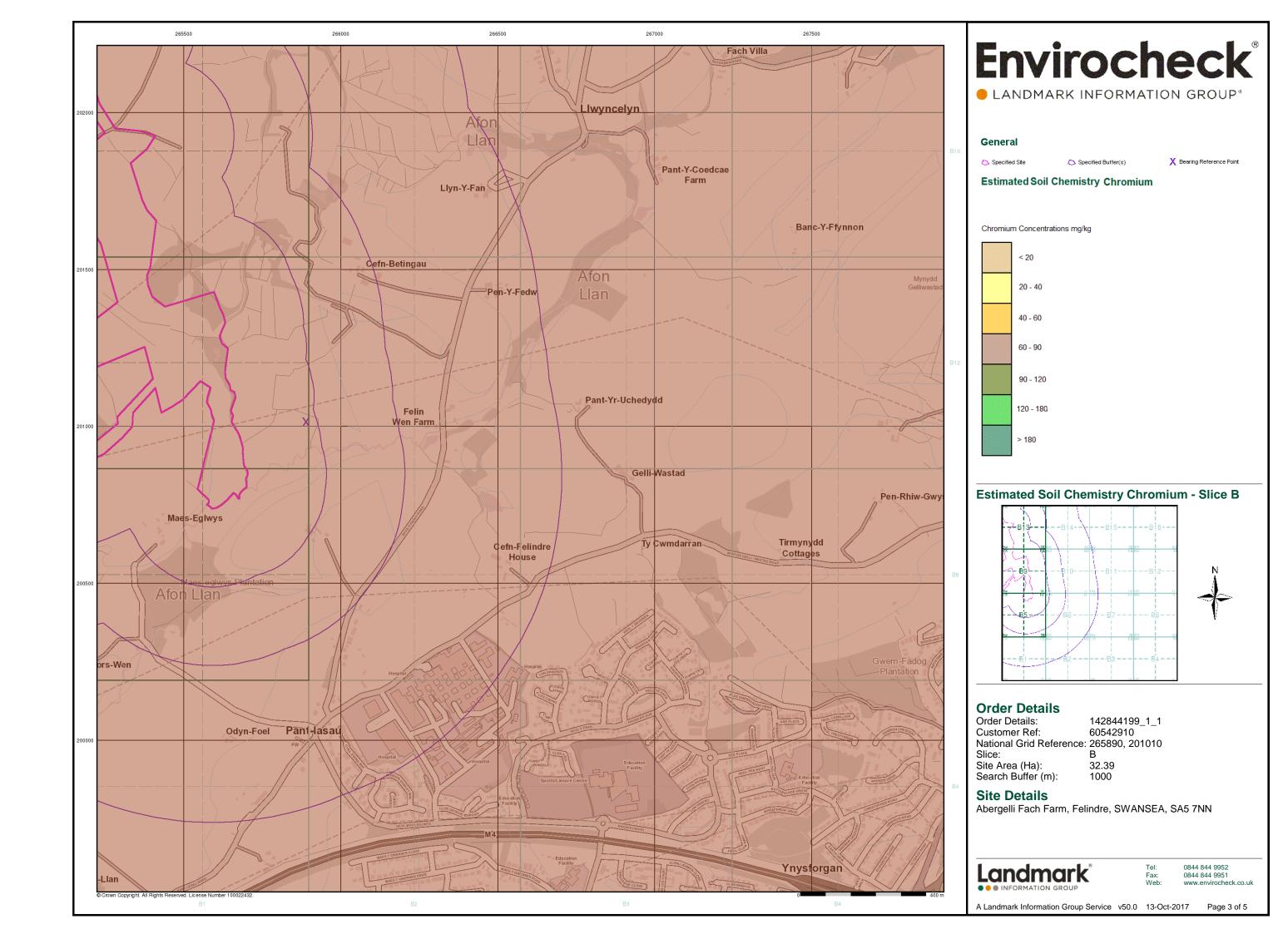
A Landmark Information Group Service v50.0 13-Oct-2017

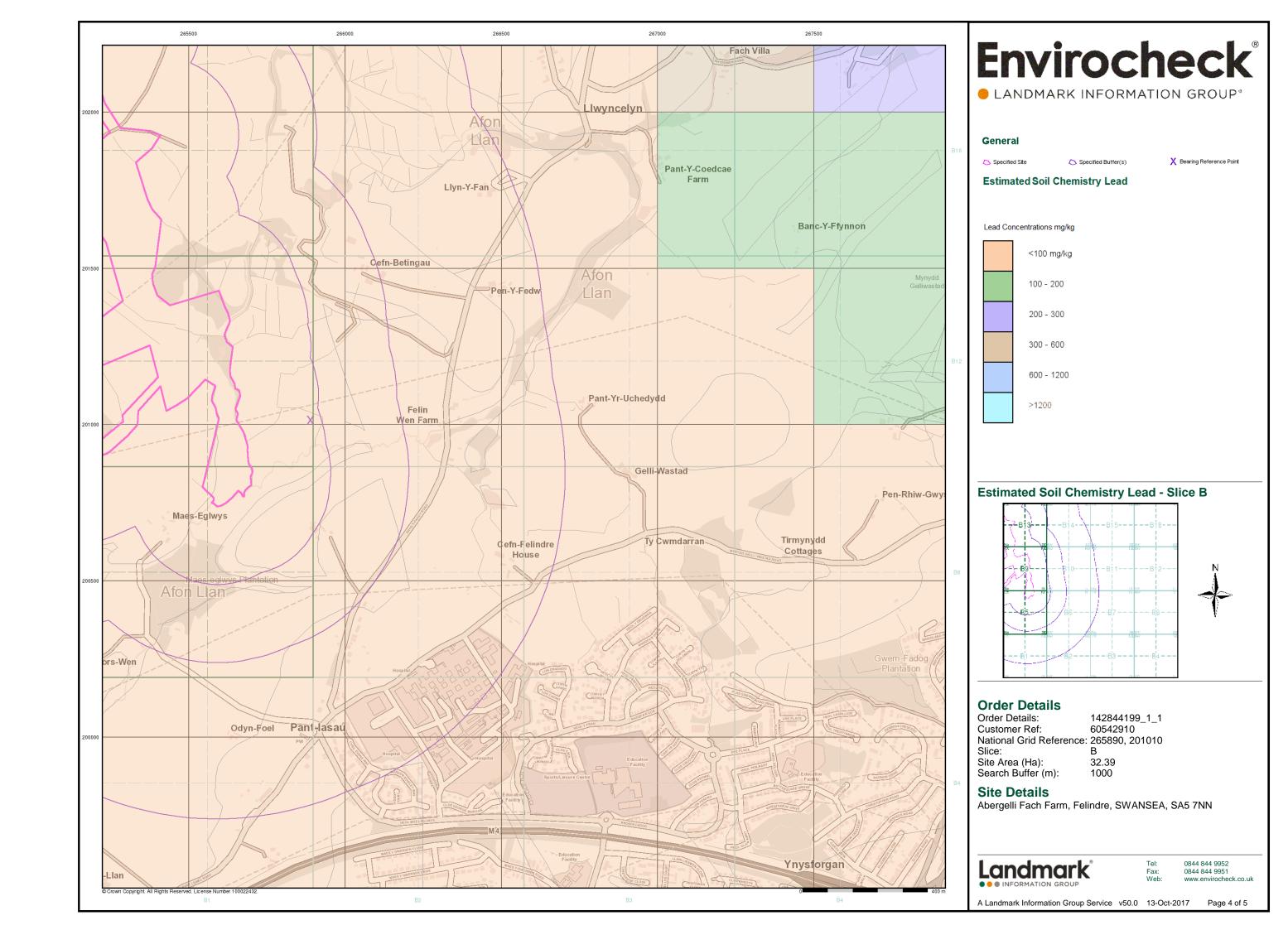


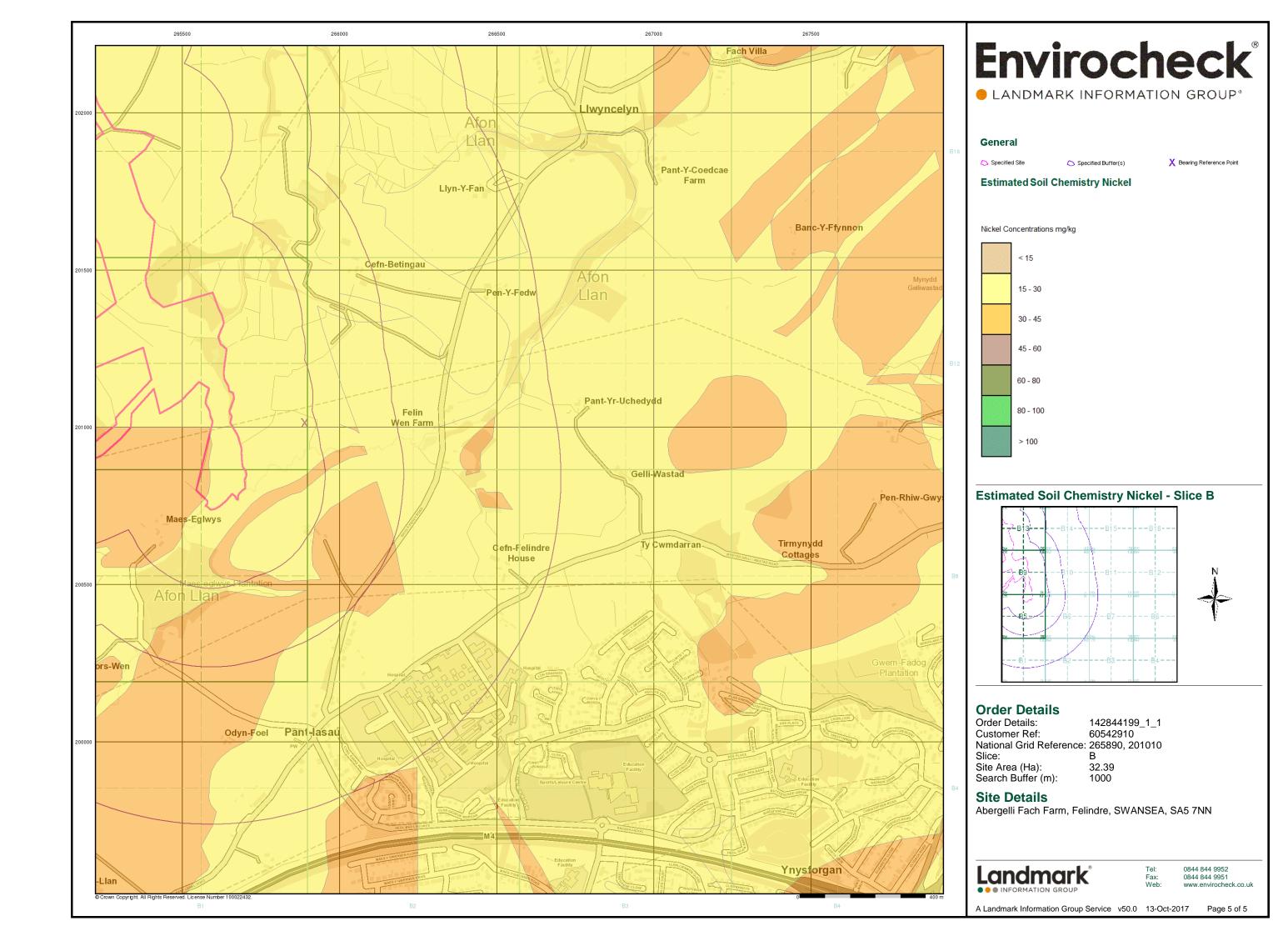












Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

Slice: B

Site Area (Ha): 1000

Search Buffer:

Site Details Felindre SWANSEA SA5 7NN

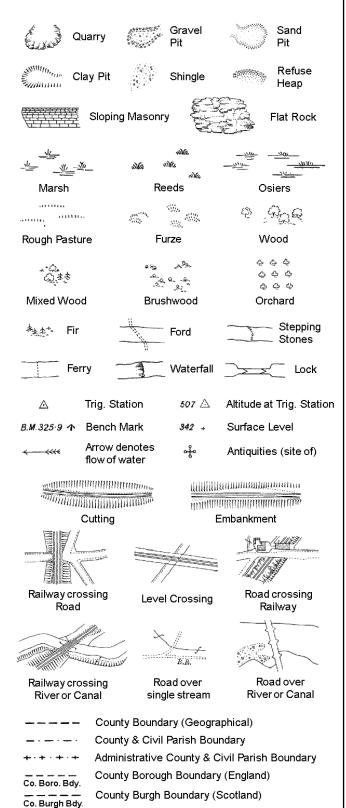
A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.enviroche

**BGS** Boreholes

eck.co.uk.

### **Historical Mapping Legends**

### **Ordnance Survey County Series and** Ordnance Survey Plan 1:2,500



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough Well

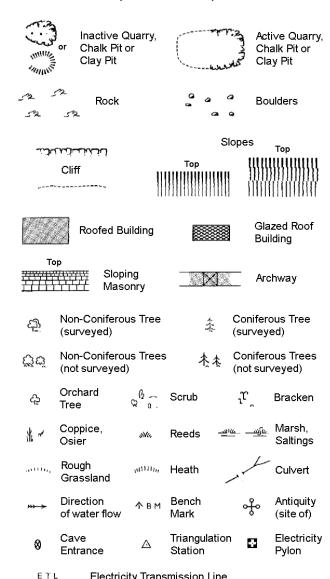
S.P

T.C.B

Sl.

 $T_T$ 

### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



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	County Boundary (Geographical)
	County & Civil Parish Boundary
	Civil Parish Boundary
· <del></del> · <del></del> ·	Admin. County or County Bor. Boundary
L B Bdy	London Borough Boundary
***	Symbol marking point where boundary mereing changes

вн	Beer House	Р	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

FΒ

Fn/DFn

Filter Bed

Gas Governer

**Guide Post** 

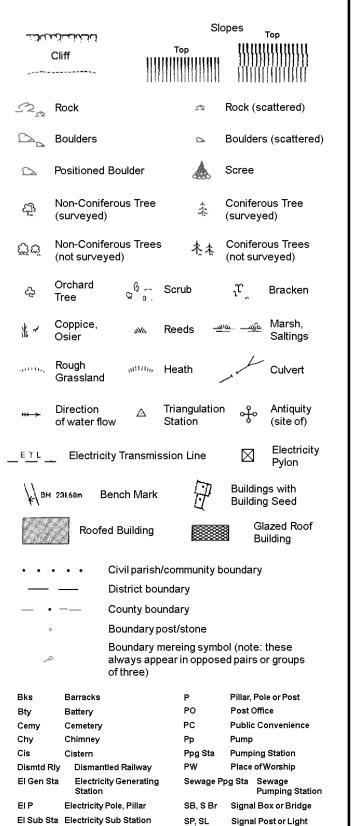
Manhole

Fountain / Drinking Ftn.

Gas Valve Compound

Mile Post or Mile Stone

### 1:1,250



Spr

Tr

Wd Pp

Wks

Spring

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

Tank or Track

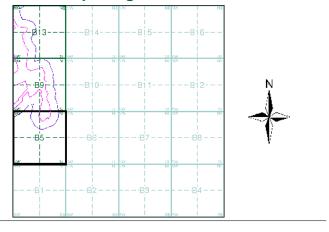
## **Envirocheck®**

LANDMARK INFORMATION GROUPS

### **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1917 - 1918	4
Glamorganshire	1:2,500	1935	5
Ordnance Survey Plan	1:2,500	1962	6
Ordnance Survey Plan	1:2,500	1975	7
Supply of Unpublished Survey Information	1:2,500	1975	8
Large-Scale National Grid Data	1:2,500	1993	9
Historical Aerial Photography	1:2,500	2000	10

### **Historical Map - Segment B5**



#### **Order Details**

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 265890, 201010 Slice: 32.39

Site Area (Ha):

Search Buffer (m): 100

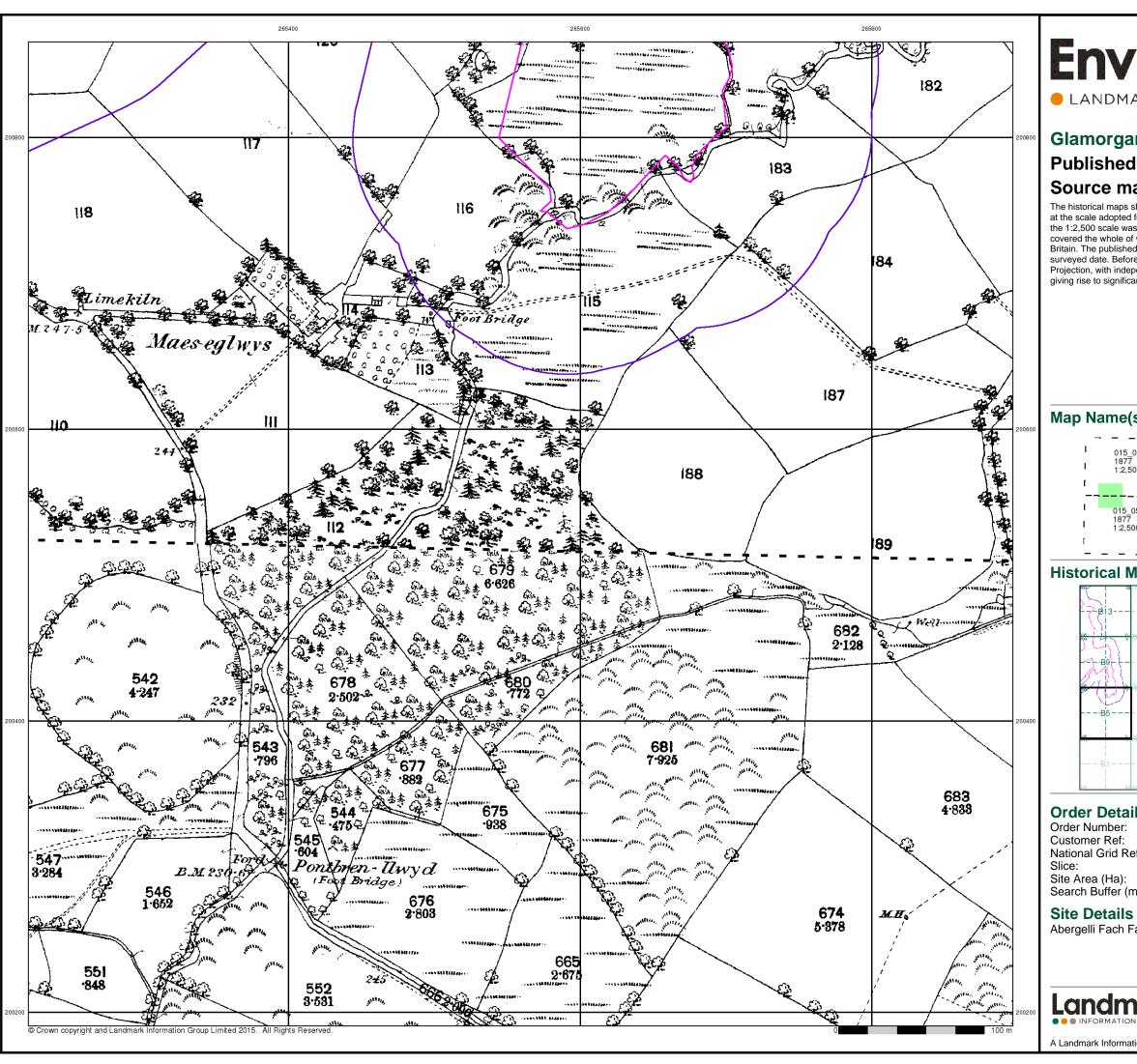
#### Site Details

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952 0844 844 9951

A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 10



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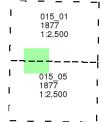
### Glamorganshire

### **Published 1877**

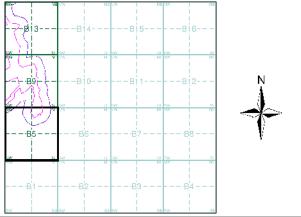
### Source map scale - 1:2,500

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)



### **Historical Map - Segment B5**



### **Order Details**

142844199_1_1 60542910 Customer Ref: National Grid Reference: 265890, 201010

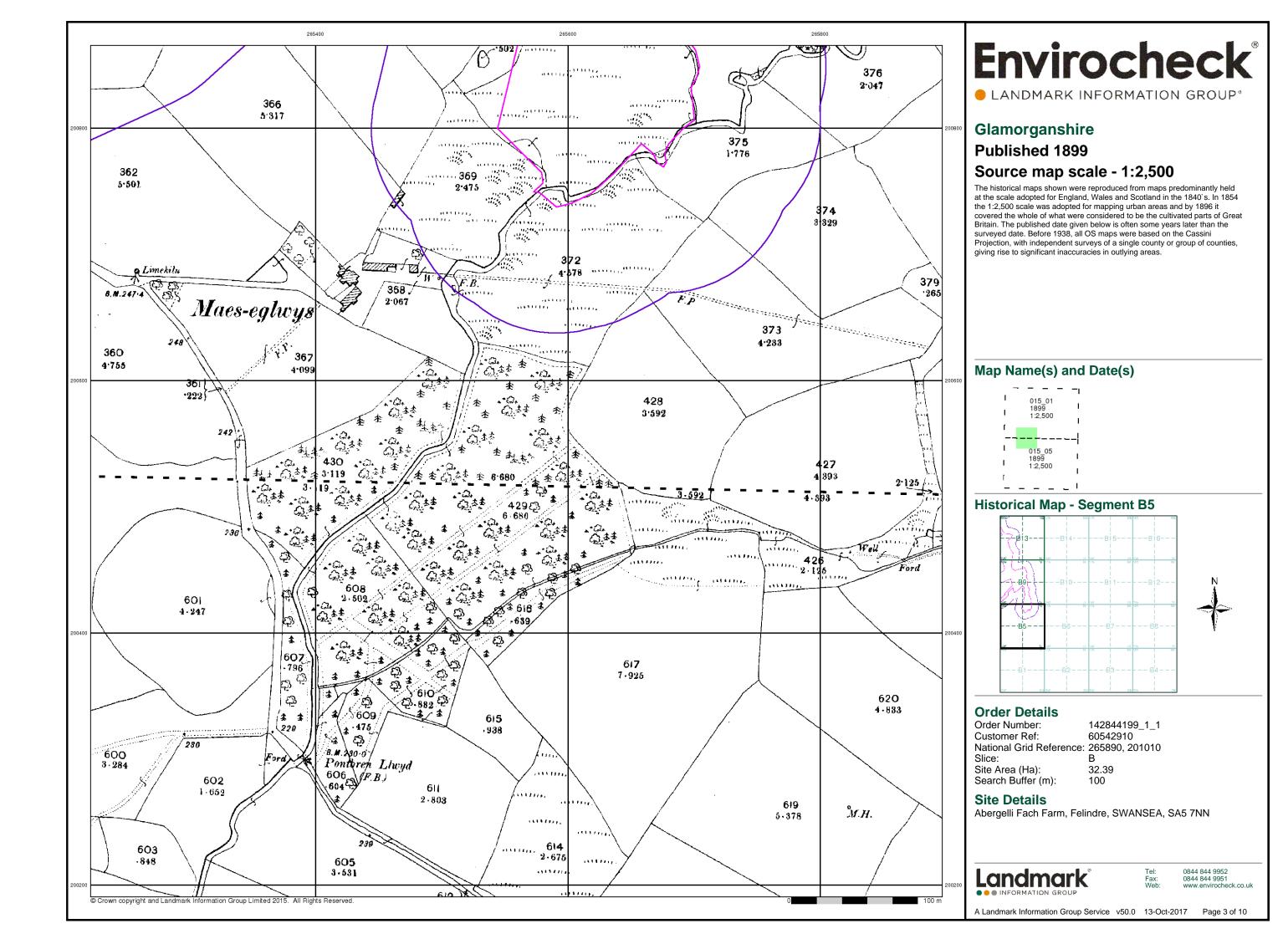
Site Area (Ha): Search Buffer (m): 32.39

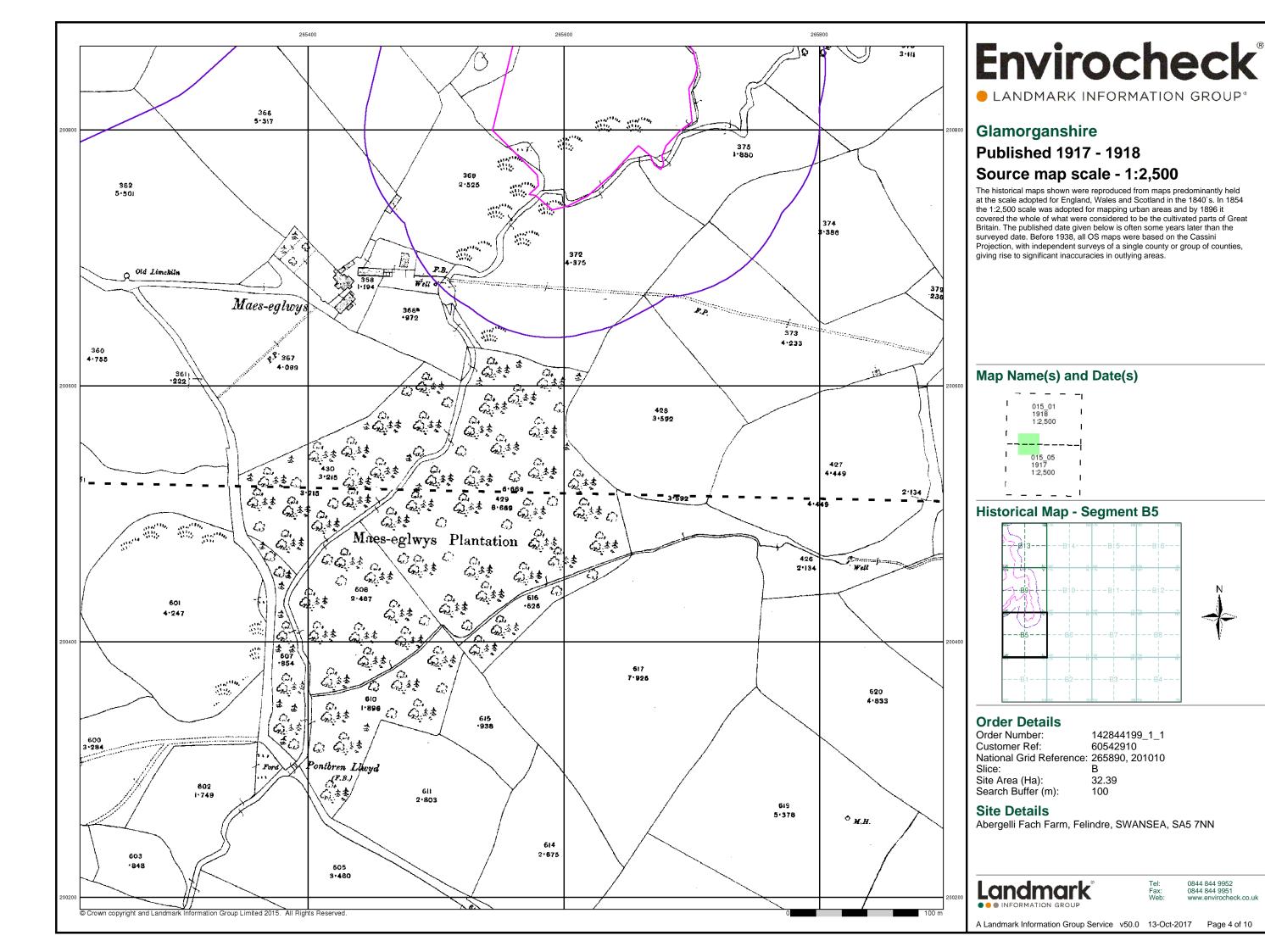
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

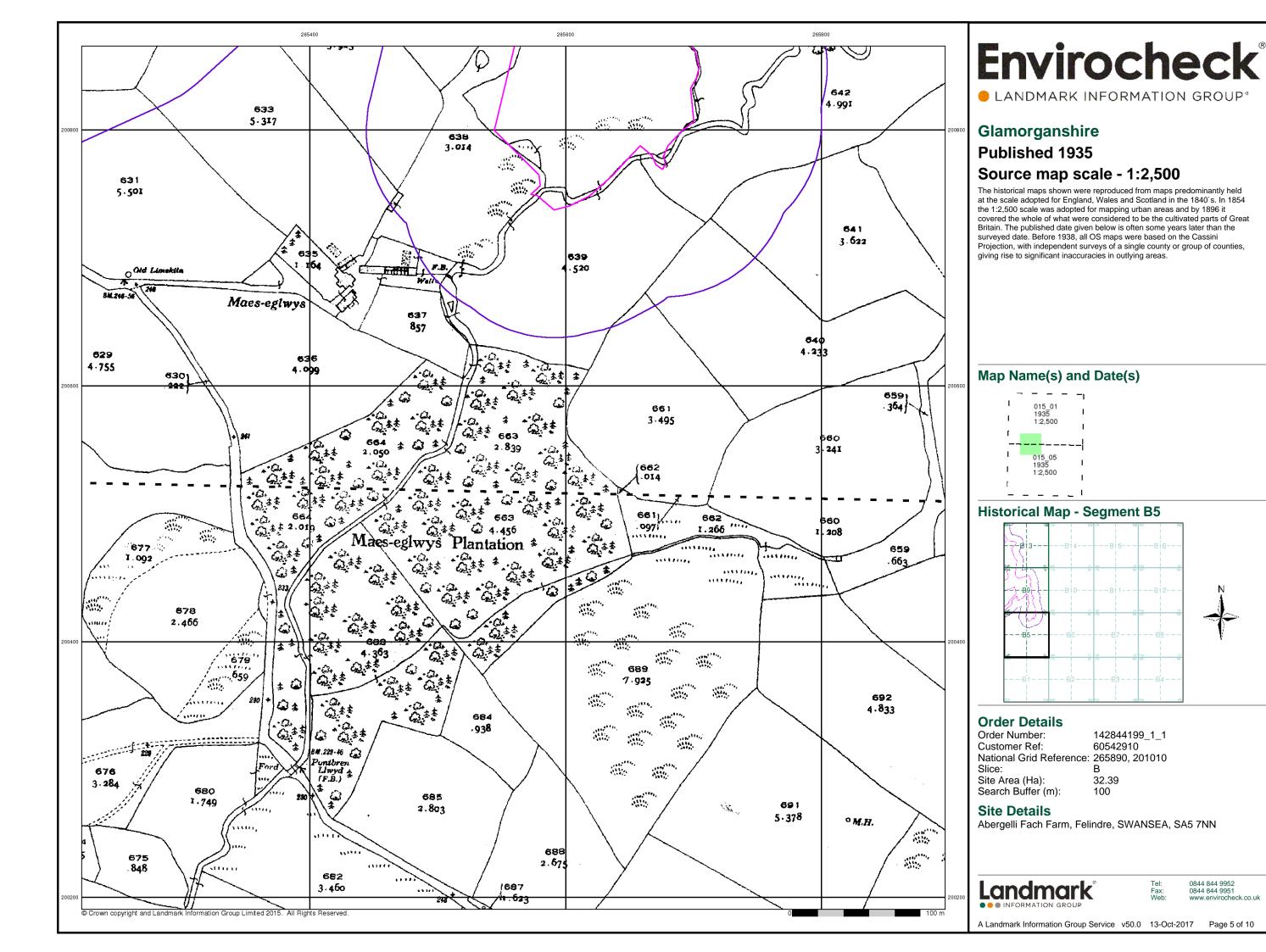


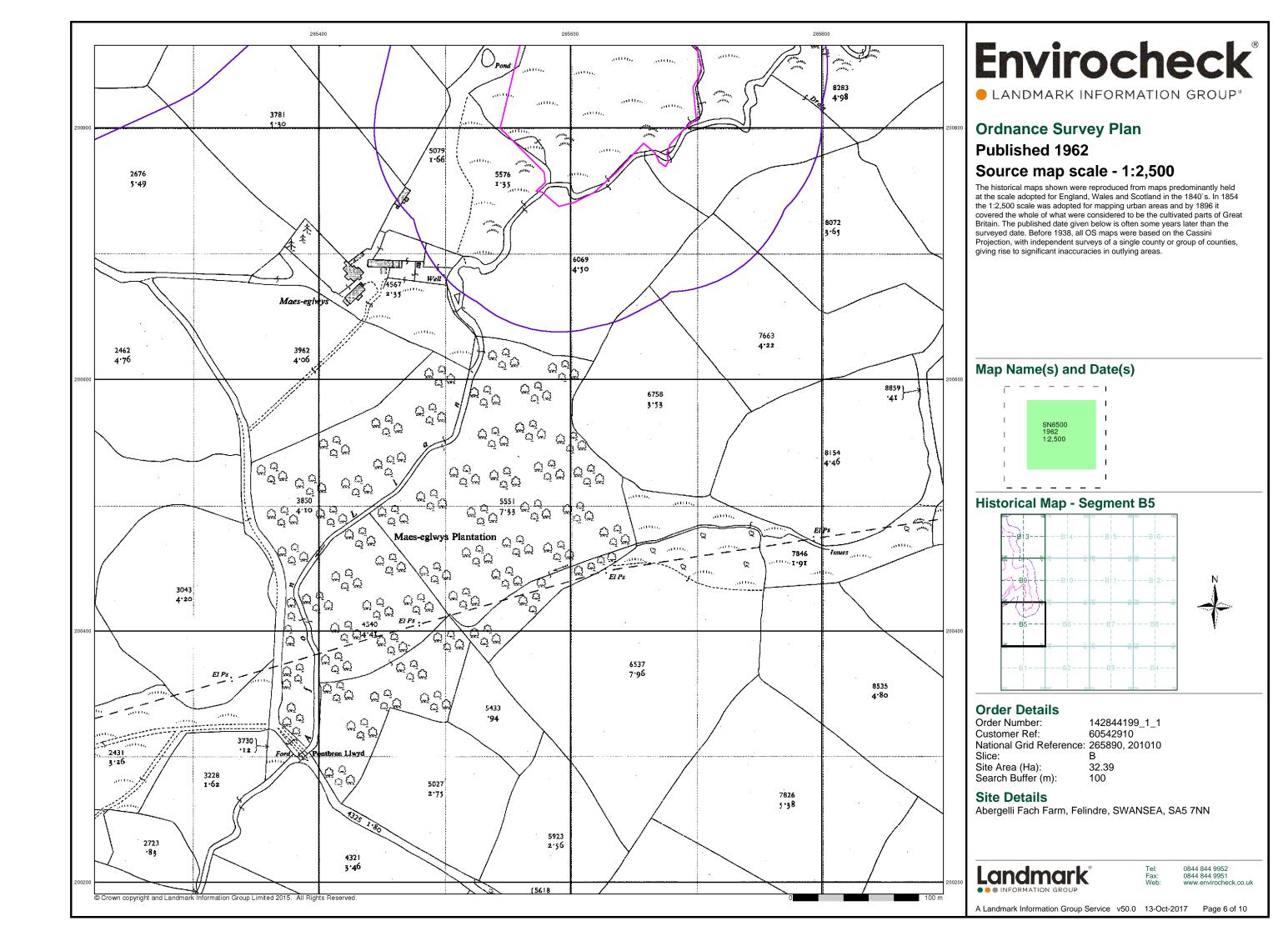
0844 844 9951 www.envirocheck.co.uk

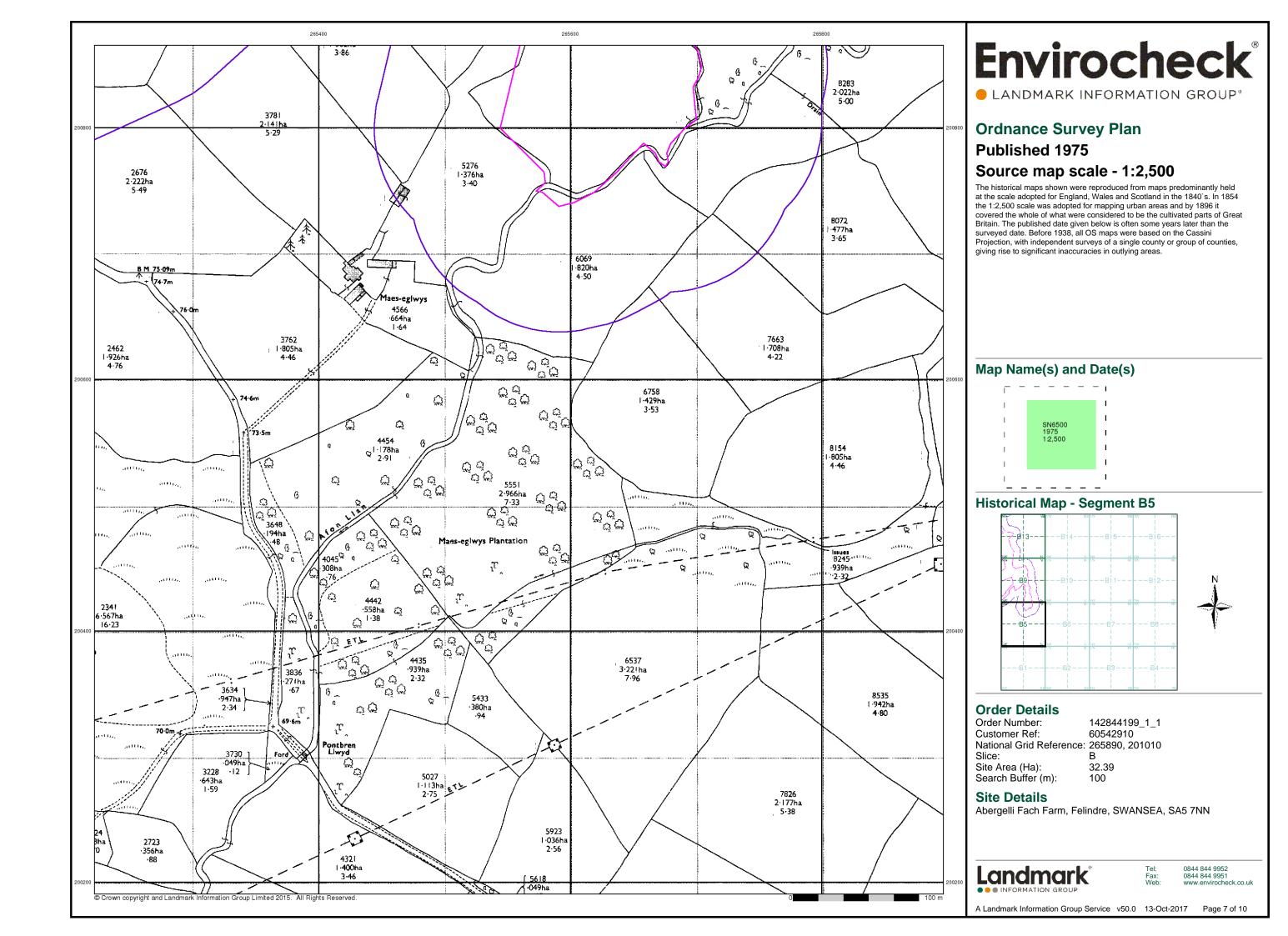
A Landmark Information Group Service v50.0 13-Oct-2017 Page 2 of 10

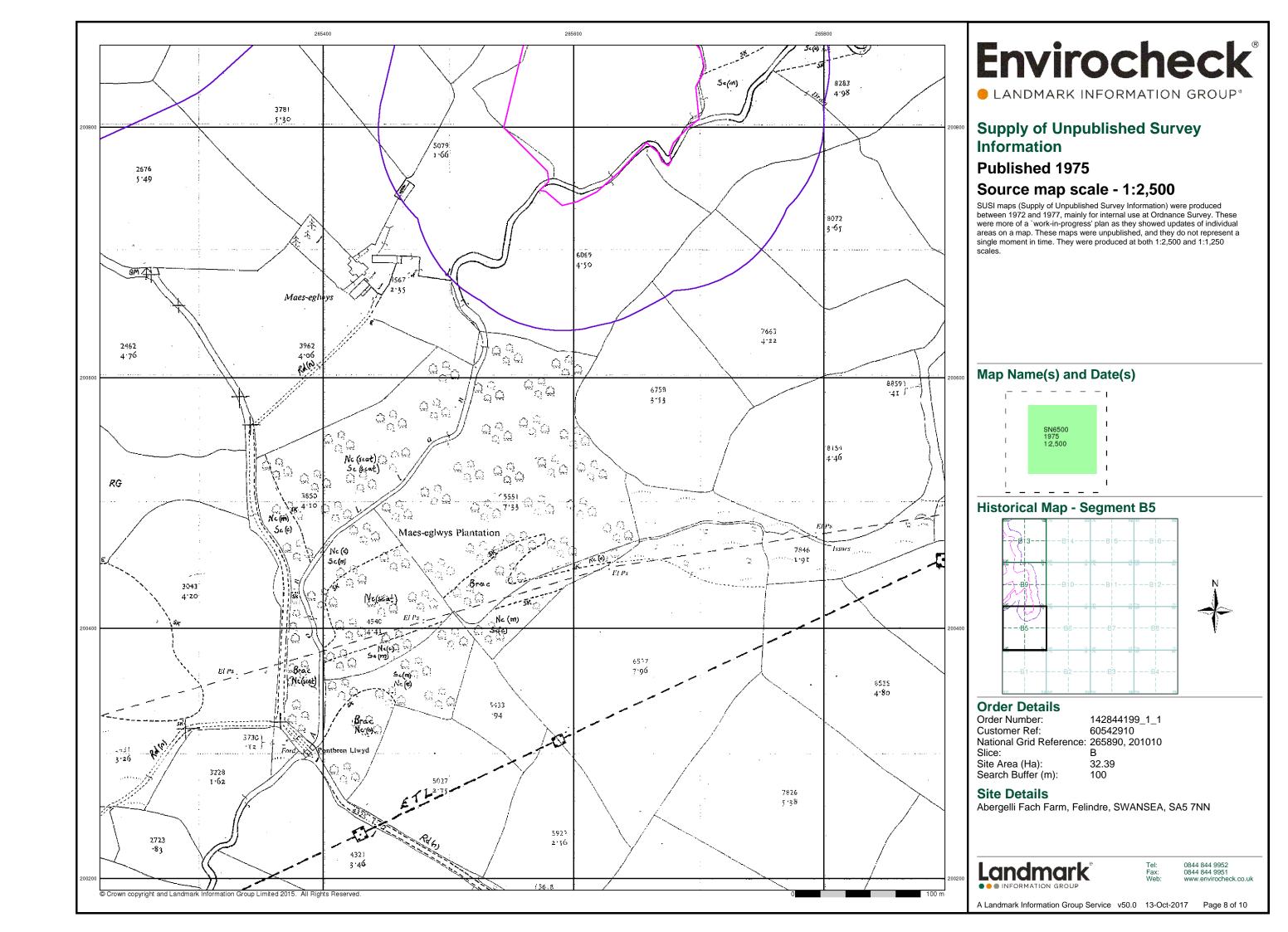


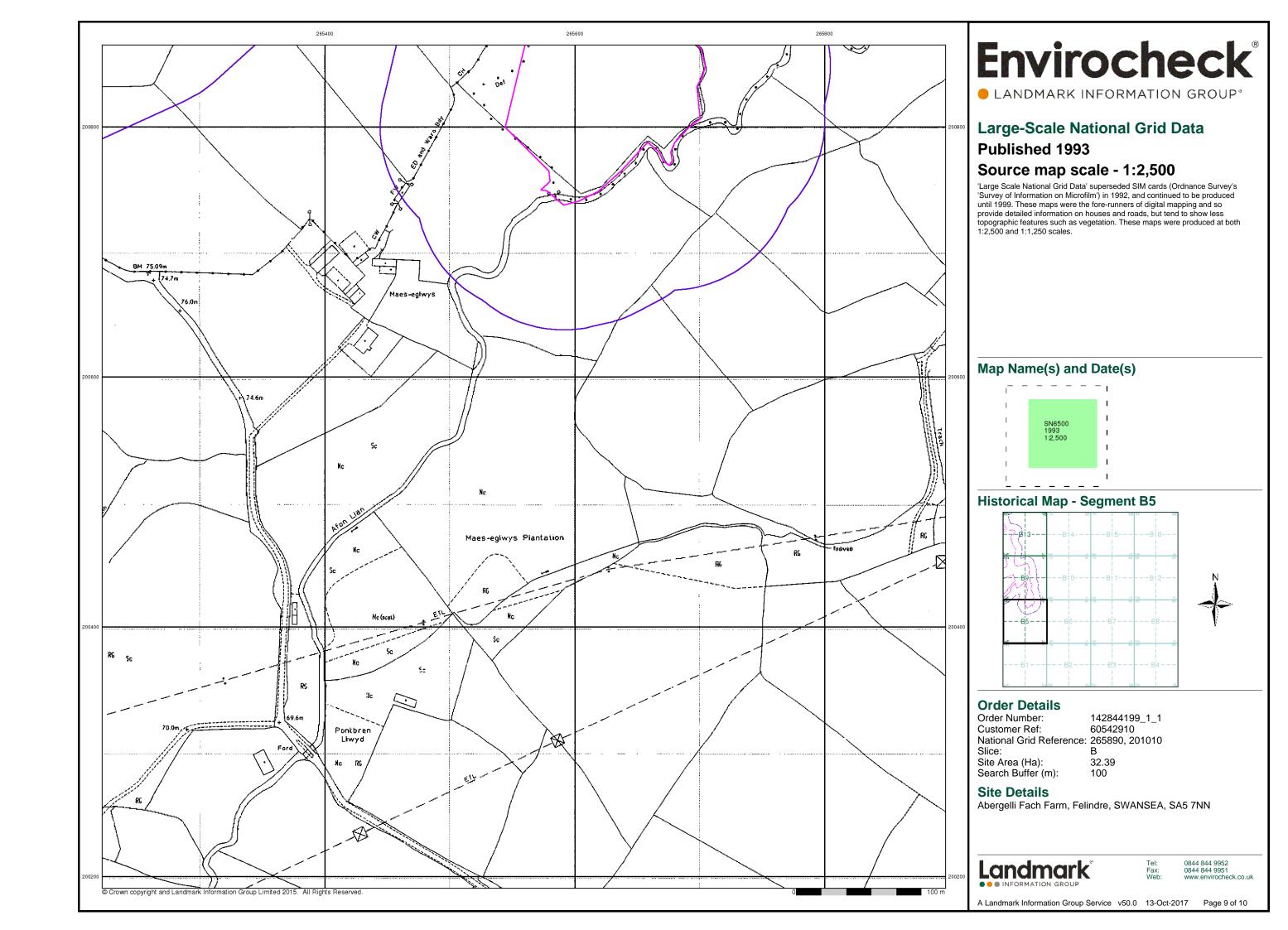


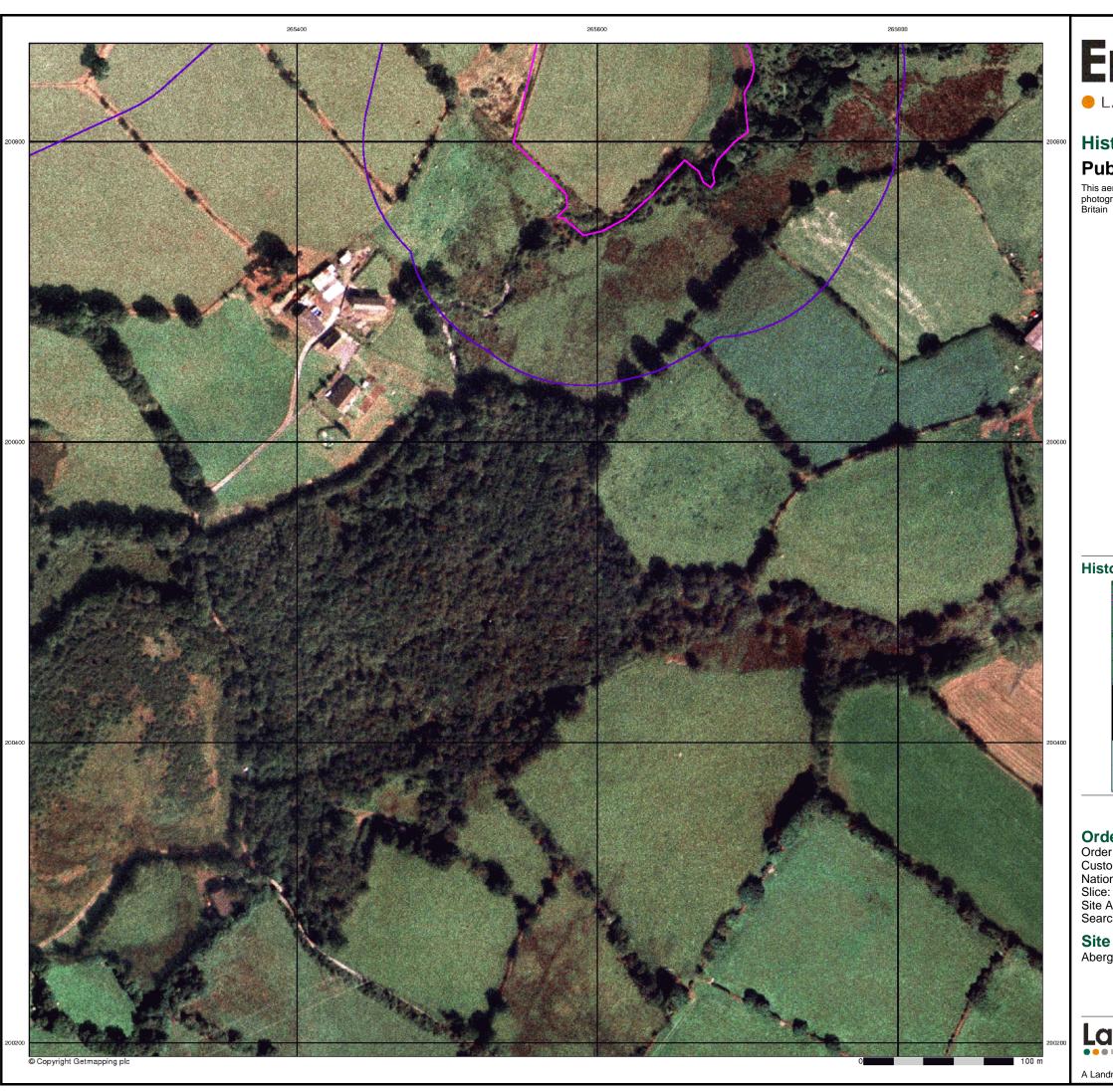










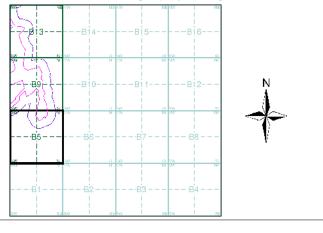


LANDMARK INFORMATION GROUP®

### **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 B5**



### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m): 32.39

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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A Landmark Information Group Service v50.0 13-Oct-2017 Page 10 of 10

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

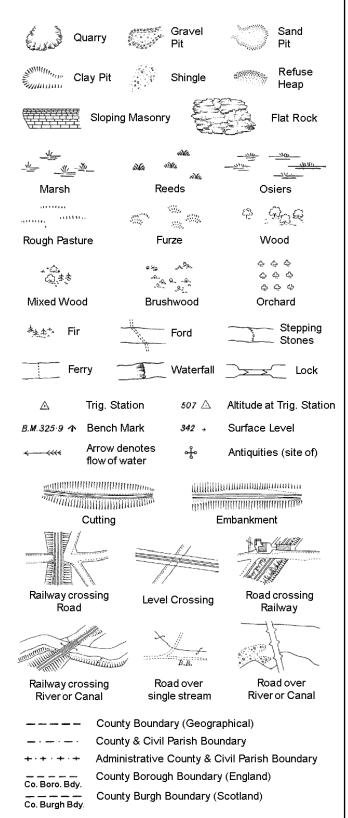
Abergelli F Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale

142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1917-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Additional 1992 1:2,500 1992 1:2,500 142844199 Additional 142844195 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500

### **Historical Mapping Legends**

### **Ordnance Survey County Series and** Ordnance Survey Plan 1:2,500



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

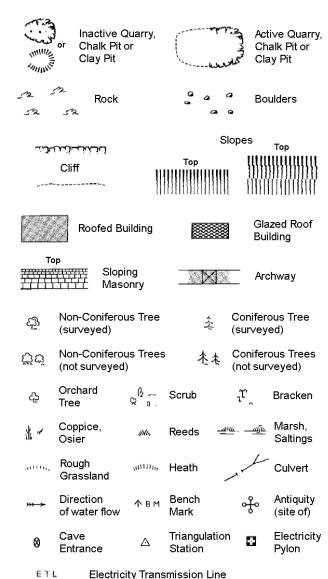
Trough Well

S.P

Sl.

 $T_{T}$ 

### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



**Electricity Transmission Line** 

County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

вн	Beer House	Р	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

### 1:1,250

بالمثند	لكناب			ppes	Тор
,	Cliff		Top	<b>))))))</b>	
72°	Rock		S	Rock (s	cattered)
$\Box_{\Delta}$	Boulders		<i>△</i>	Boulder	s (scattered)
	Positioned	d Boulder		Scree	
<u>ය</u> ු	Non-Conit	ferous Tree l)	丰	Conifer (survey	ous Tree ed)
Ďΰ	Non-Conit (not surve	ferous Trees yed)	春春	Conifer (not sur	ous Trees ∨eyed)
දා	Orchard Tree	çê a. S	Scrub	'n,	Bracken
* ~	Coppice, Osier	ava R	eeds ⊸	ا <u>ند سی)ن</u> د	Marsh, Saltings
,000,	Rough Grassland	_{мини} , Н	leath	1	Culvert
<del>*** &gt;</del>	Direction of water fl		riangulatior Itation	ું નુ	Antiquity (site of)
ETL_	Electric	city Transmissi	on Line	$\boxtimes$	Electricity Pylon
\ ∤\ BM	l 231.6úm	Bench Mark		Buildin Buildin	igs with ig Seed
	Roof	ed Building	` \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	81 -	lazed Roof uilding
		Ci∨il parish/c	ommunity h	oundary	
• •	• • •	District bound	-	ouriuar y	
			-		
_ •		County bound	<del>-</del>		
4	5	Boundary pos	st/stone		
بر	>	Boundary me always appea of three)		,	
Bks	Barracks		Р	Pillar, Po	ole or Post
Bty	Battery		PO	Post Off	
Cemy	Cemetery	•	PC	Public C	Convenience
Chy	Chimney		Рр	Pump	
Cis	Cistern		Ppg Sta		g Station
Dismtd F	-	ntled Railway	PW		Worship
El Gen S	Sta Electric Station	city Generating	Sewage P		ewage umping Station
EIP	Electricity	/Pole, Pillar	SB, S Br		Box or Bridge
El Sub S	ta Electricity	Sub Station	SP, SL	Signal F	ost or Light
FB	Filter Bed		Spr	Spring	
EL ZELE		/ Data Library EAss	_		

Fn / D Fn Fountain / Drinking Ftn.

Gas Governer

**Guide Post** 

Manhole

Gas Valve Compound

Mile Post or Mile Stone

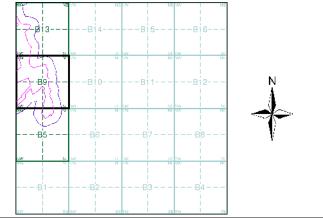
## **Envirocheck®**

LANDMARK INFORMATION GROUP®

### **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1918	4
Glamorganshire	1:2,500	1935	5
Ordnance Survey Plan	1:2,500	1961 - 1962	6
Ordnance Survey Plan	1:2,500	1975	7
Supply of Unpublished Survey Information	1:2,500	1975	8
Additional SIMs	1:2,500	1992	9
Large-Scale National Grid Data	1:2,500	1993	10
Historical Aerial Photography	1:2,500	2000	11

### **Historical Map - Segment B9**



#### **Order Details**

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 265890, 201010 Slice: Site Area (Ha): 32.39

Search Buffer (m):

100

#### **Site Details**

Tank or Track

Works (building or area)

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Tr

Wd Pp

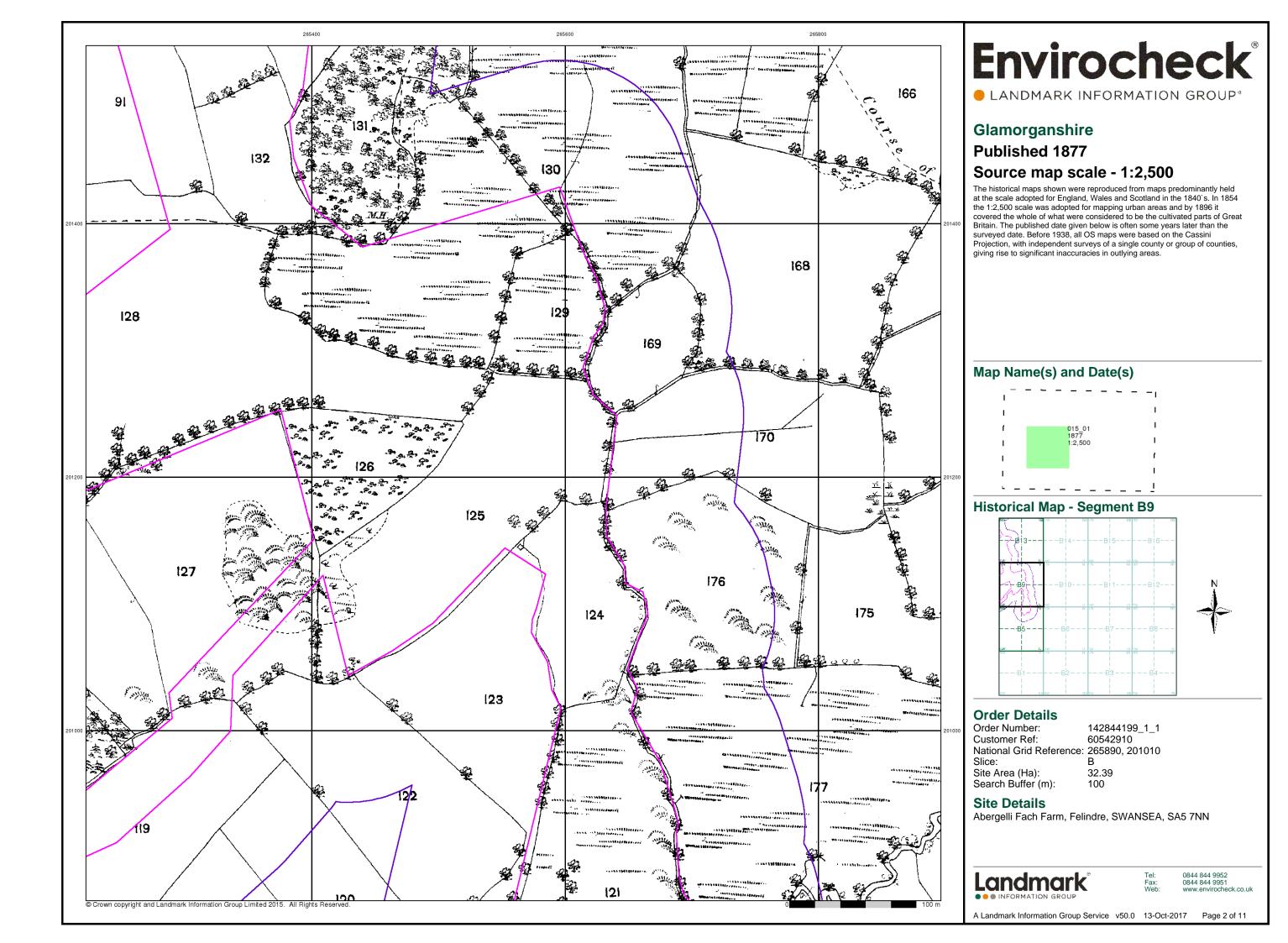
Wks

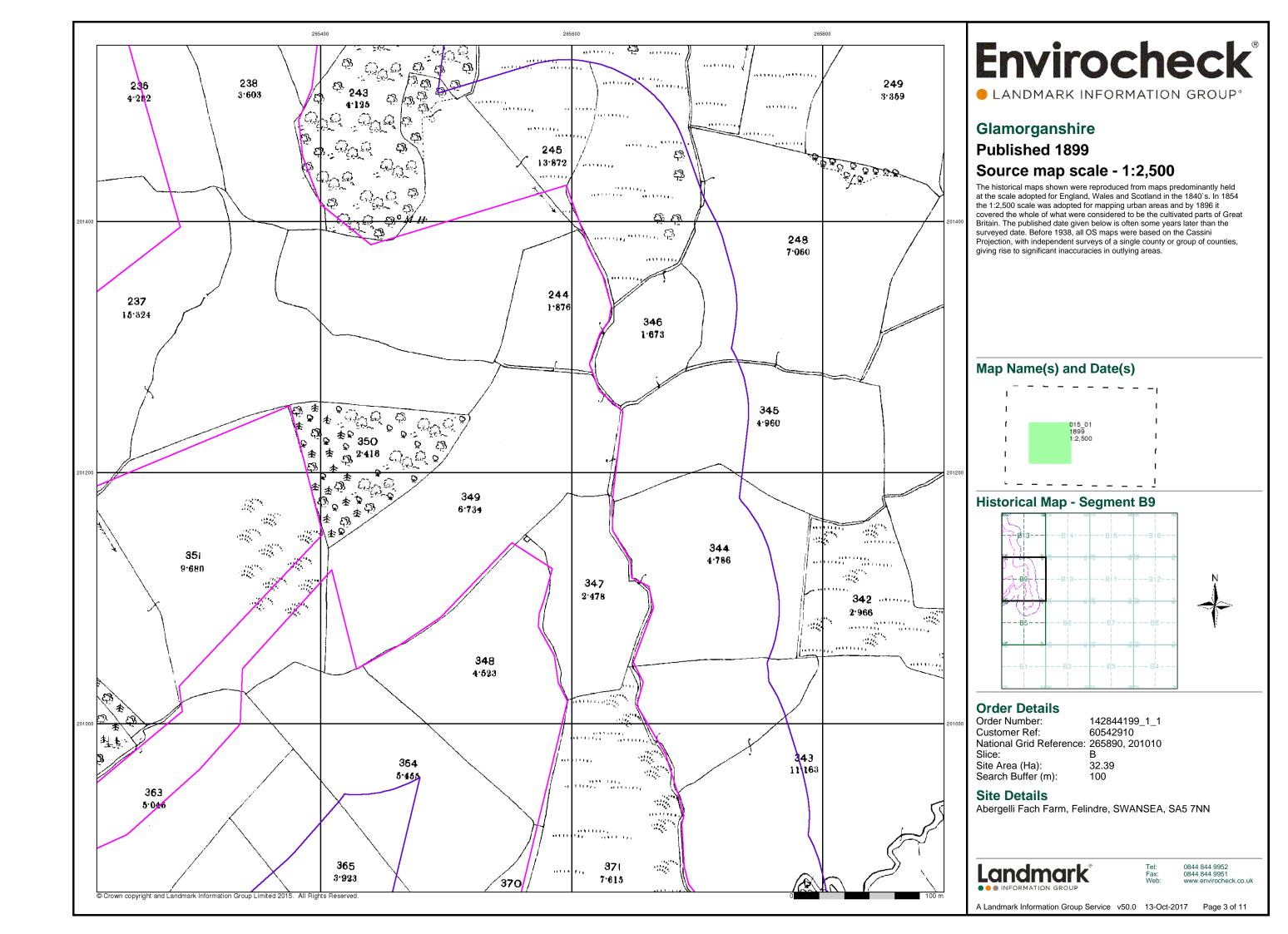
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

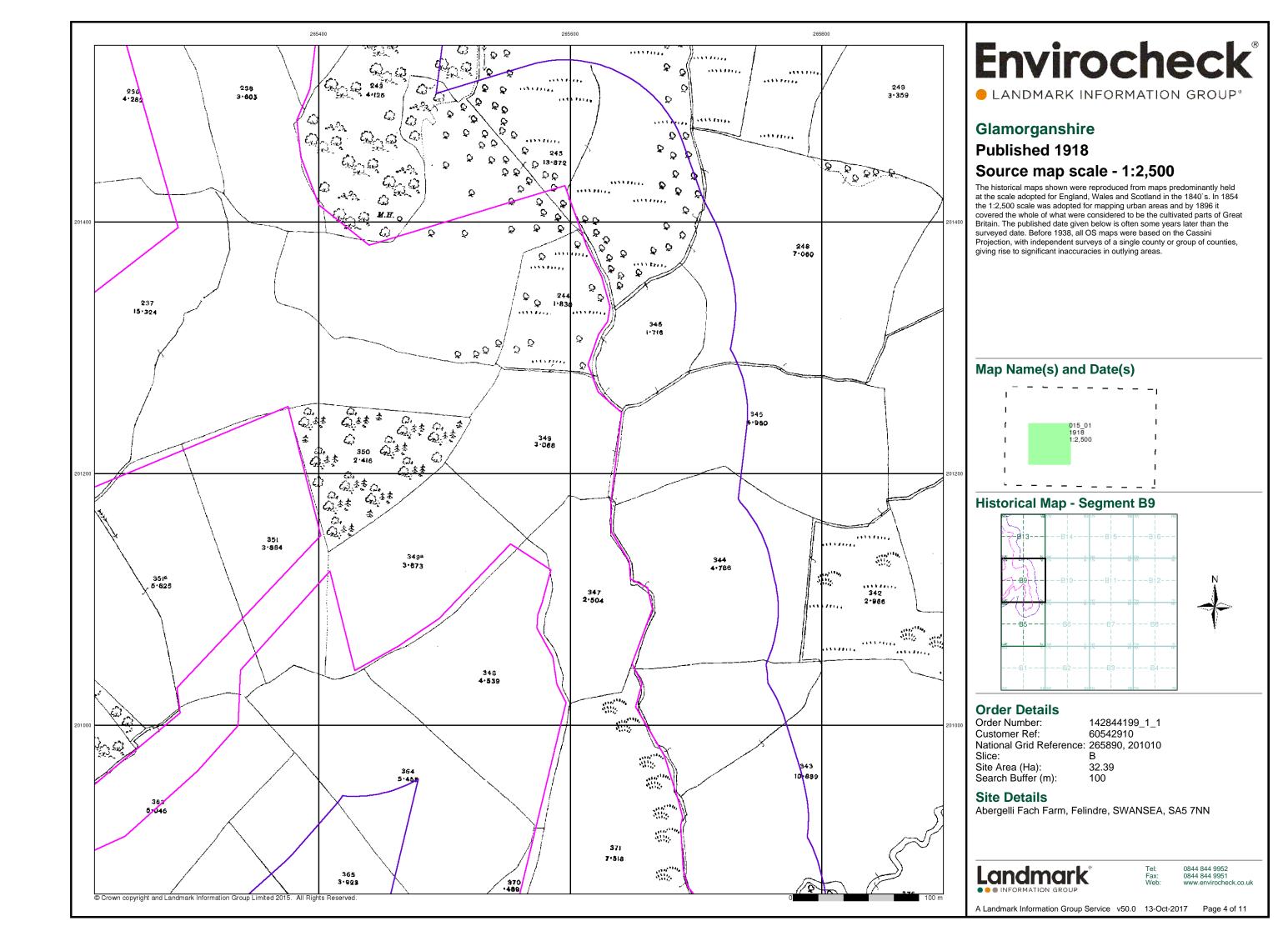


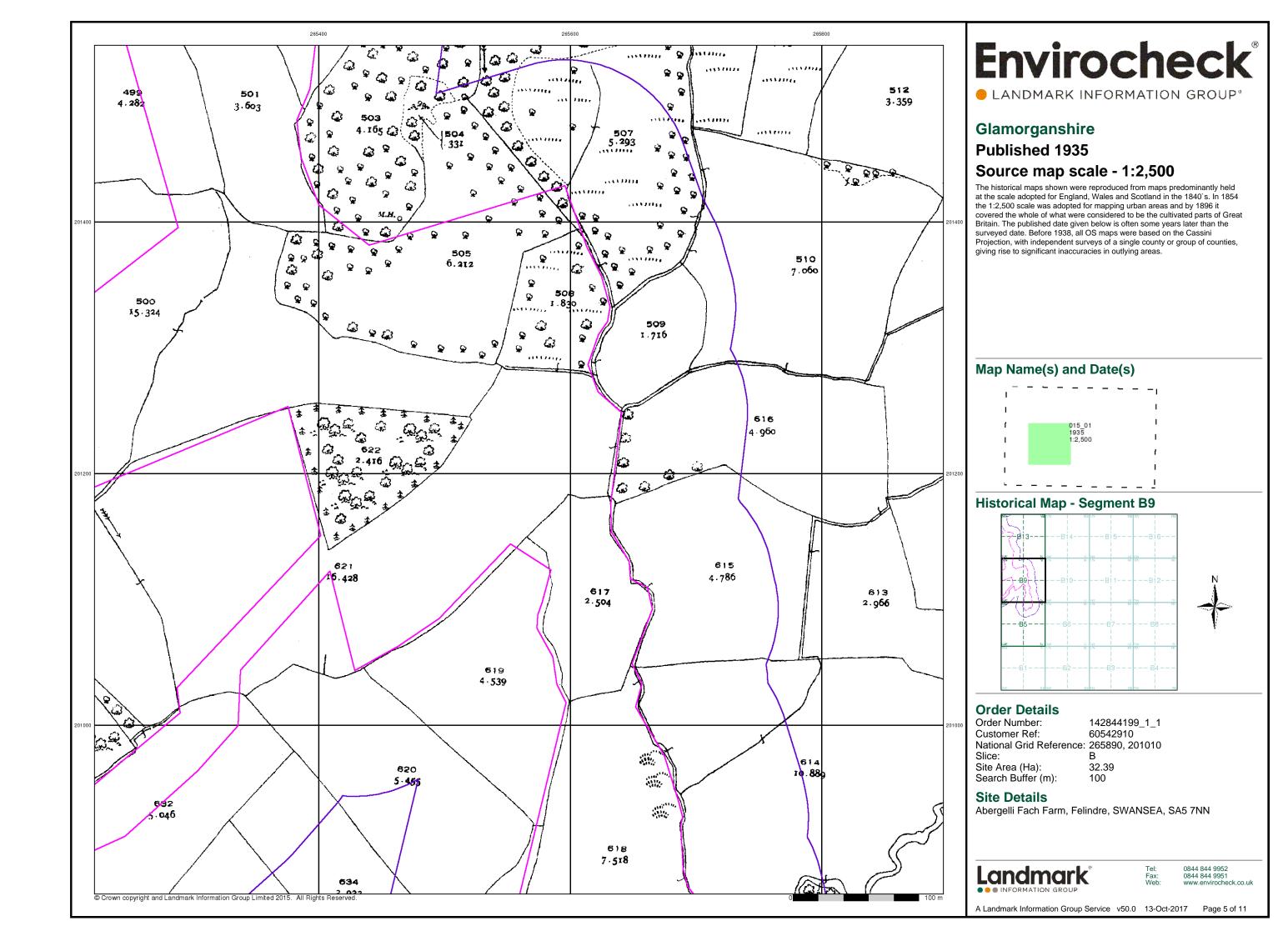
0844 844 9952 0844 844 9951

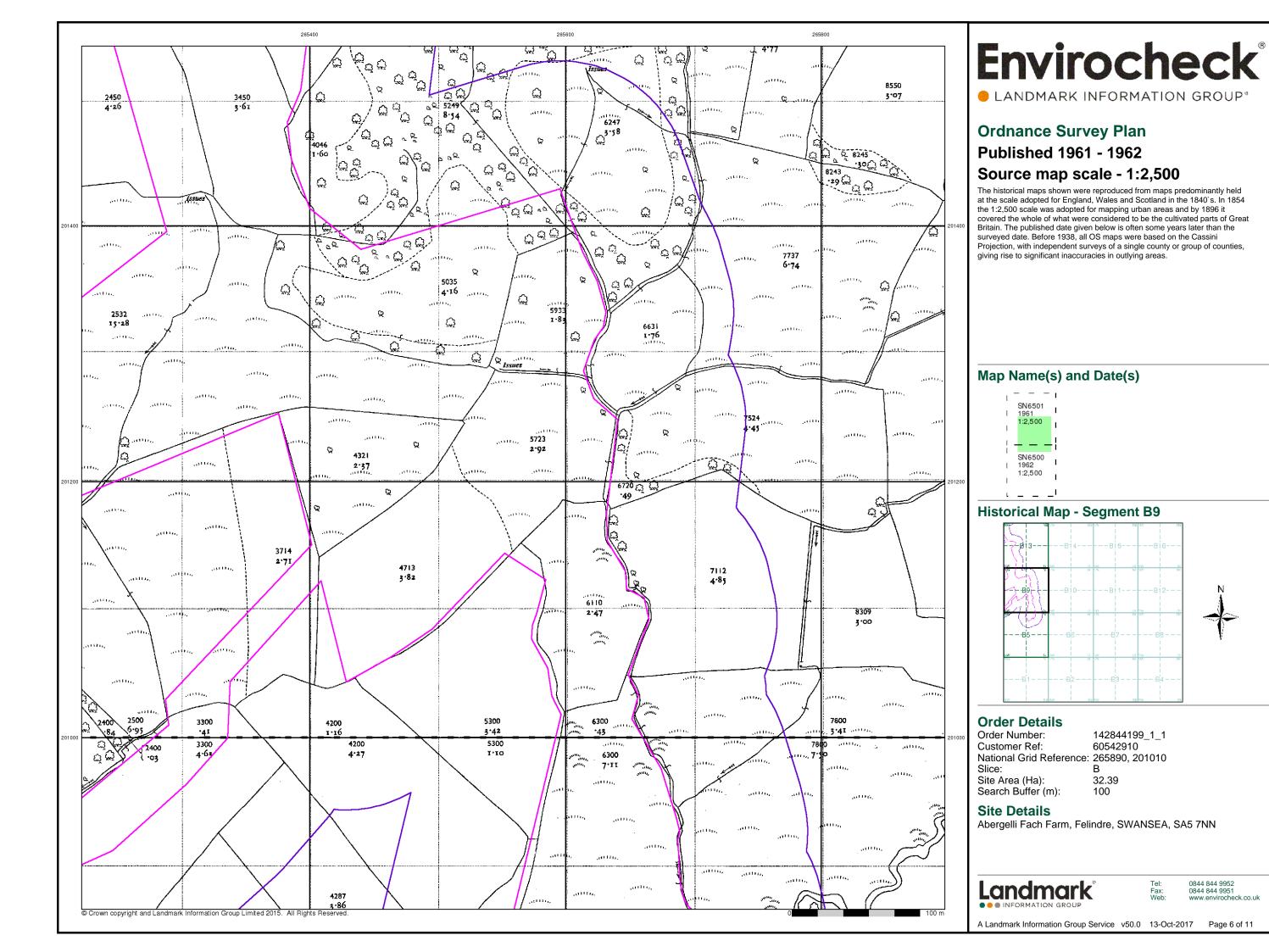
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 11

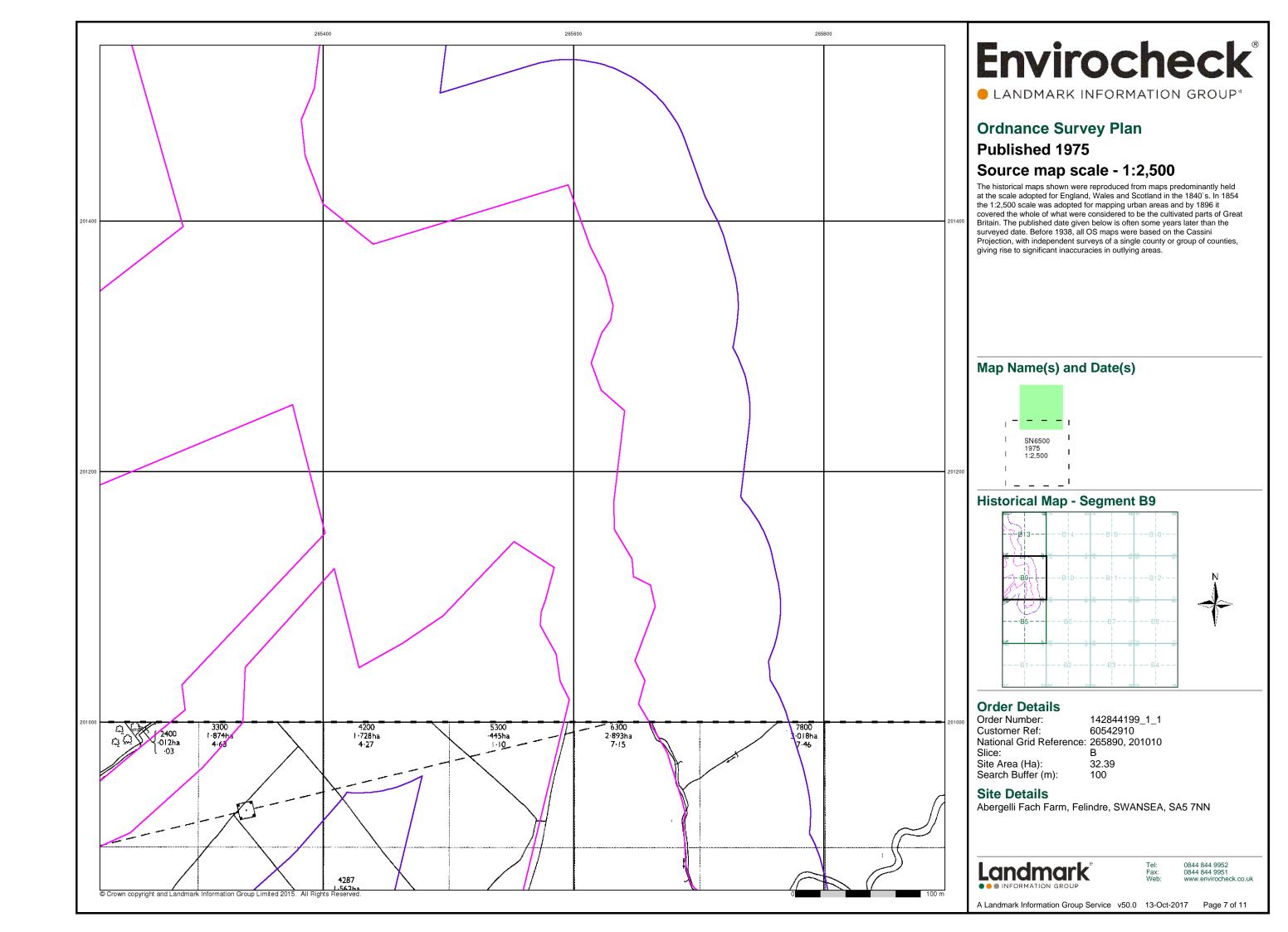


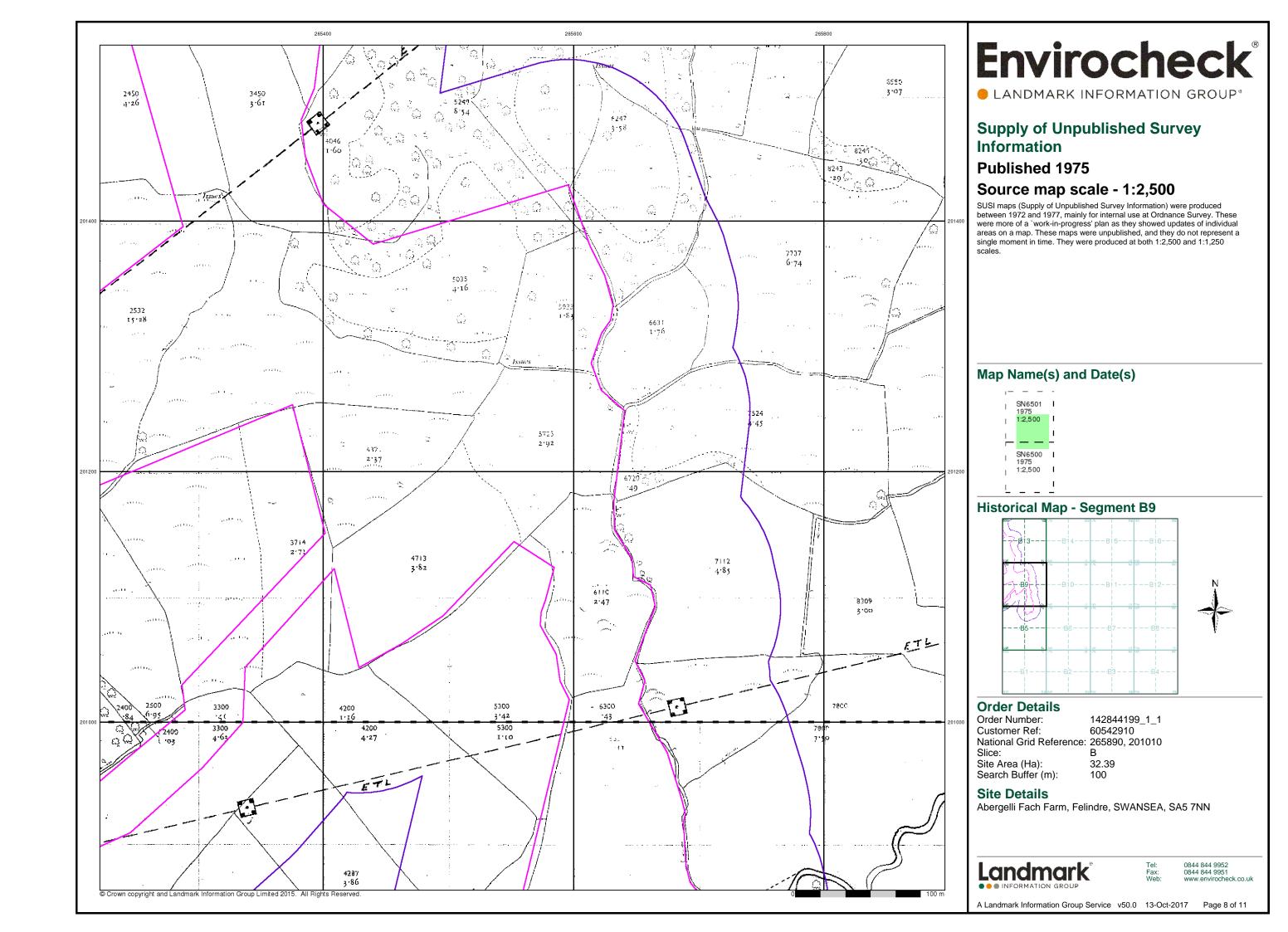


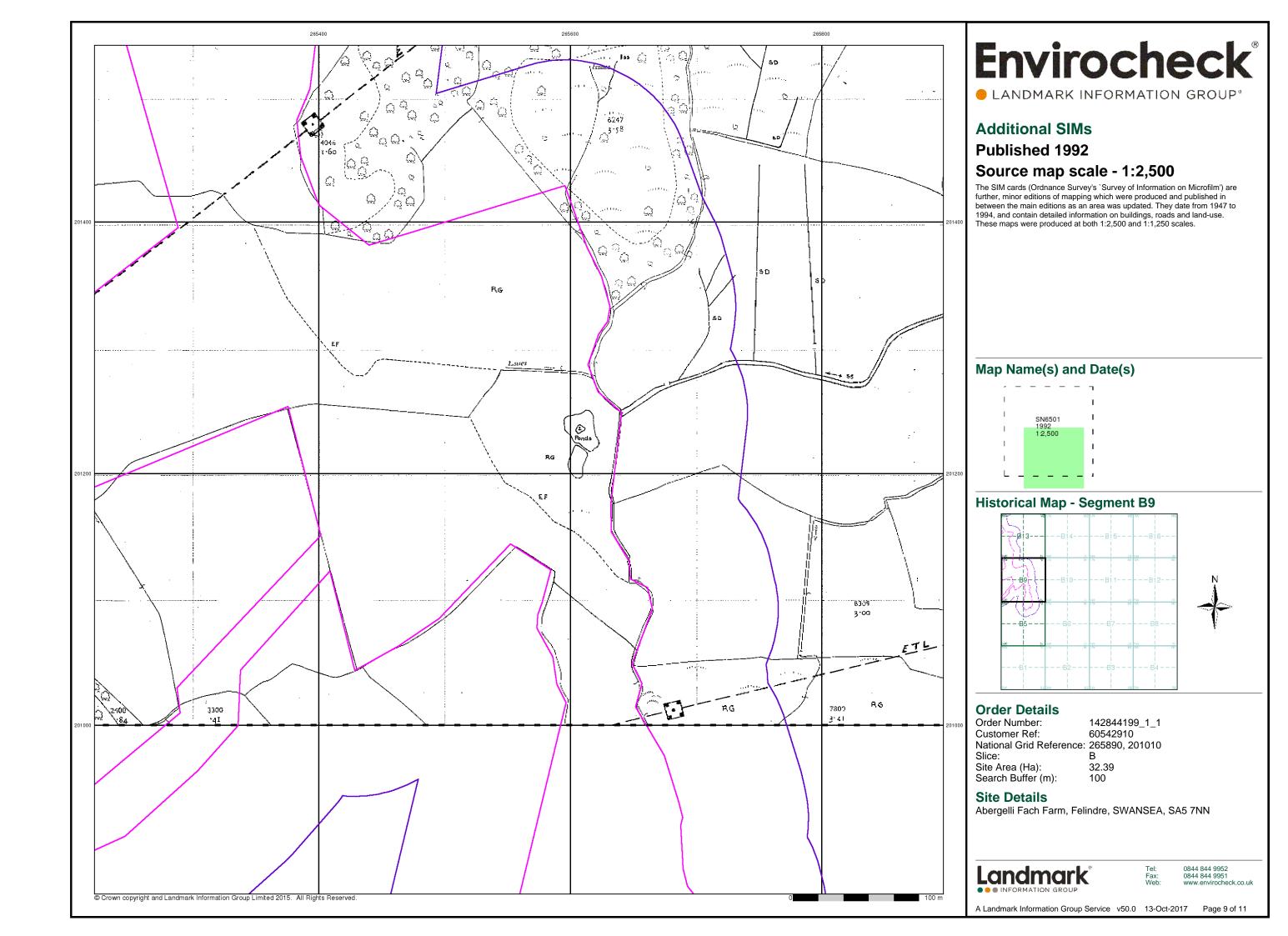


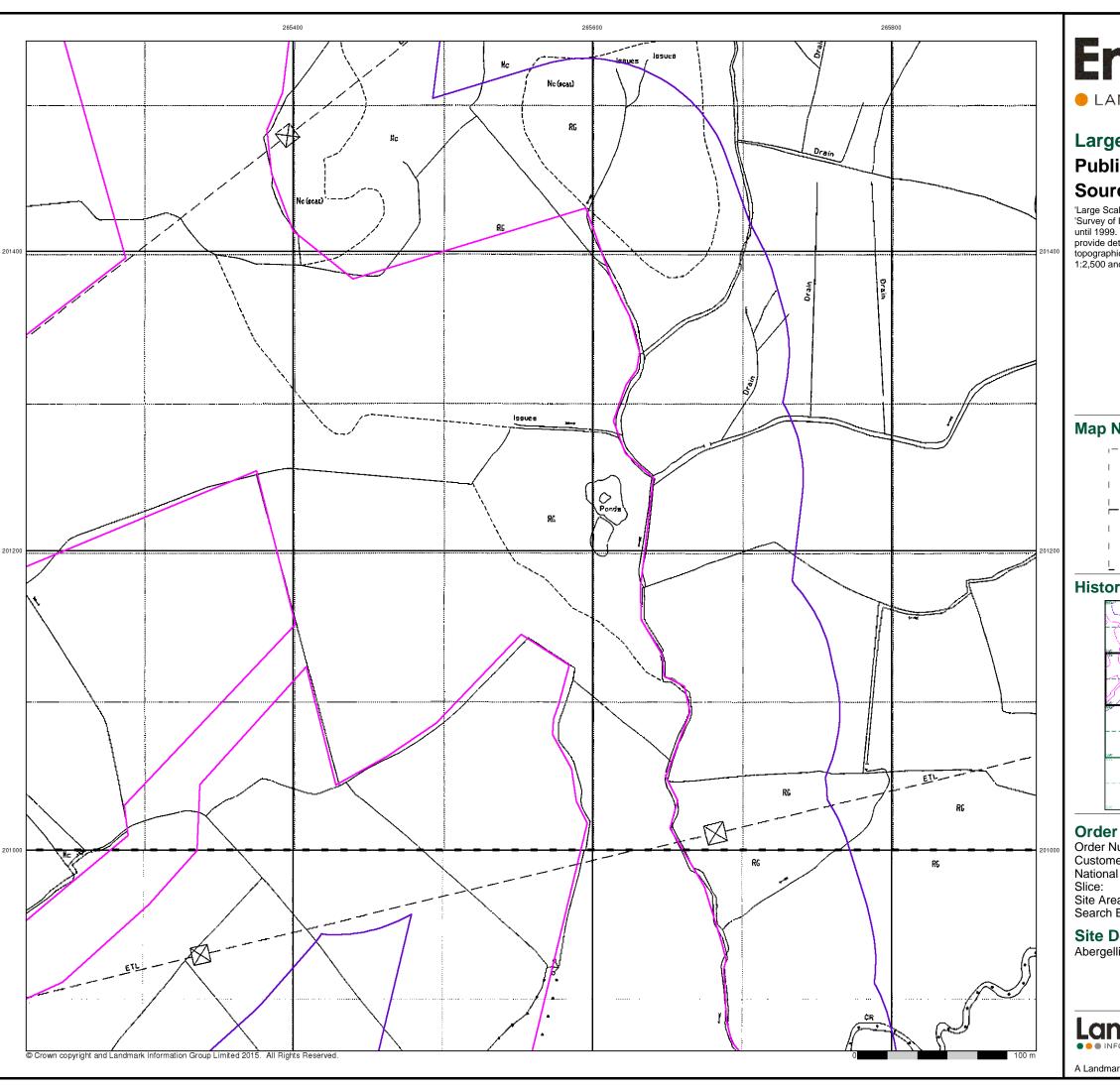












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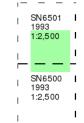
### **Large-Scale National Grid Data**

### **Published 1993**

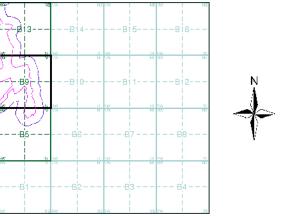
### Source map scale - 1:2,500

'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 B9**



### **Order Details**

142844199_1_1 60542910 Order Number: Customer Ref: National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m):

32.39

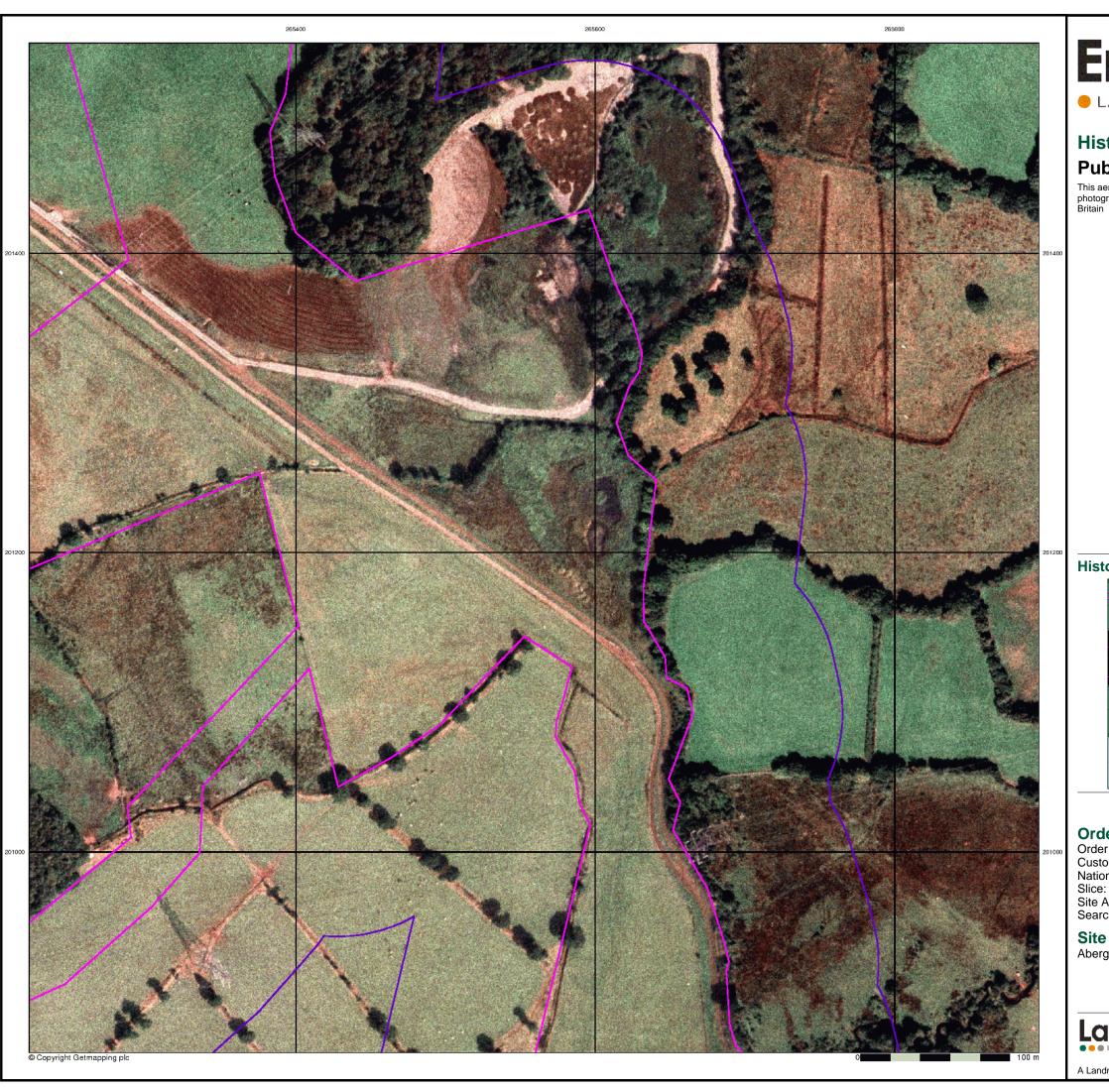
### **Site Details**

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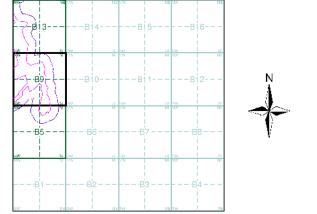


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### **Historical Aerial Photography** Published 2000

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 B9**



### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m): 32.39 100

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

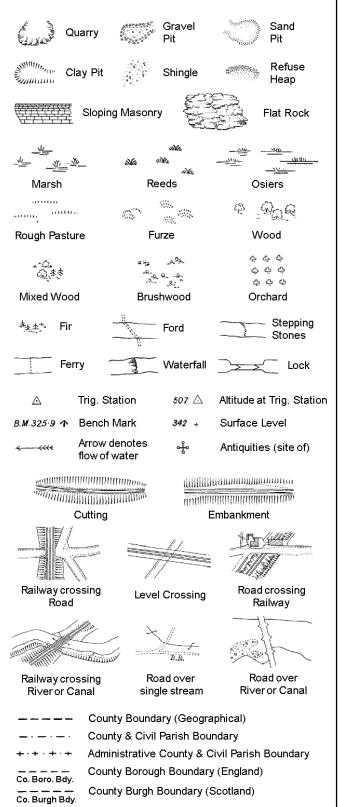
Abergelli F Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale

142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1917-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Additional 1992 1:2,500 1992 1:2,500 142844199 Additional 142844195 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500

### **Historical Mapping Legends**

### **Ordnance Survey County Series and** Ordnance Survey Plan 1:2,500



B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

Spring

Trough Well

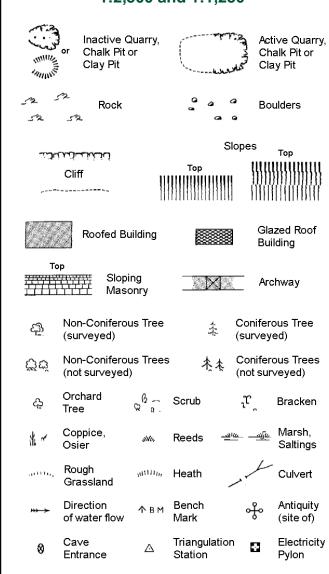
S.P

T.C.B

Sl.

 $T_T$ 

### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



### **Electricity Transmission Line** County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary

Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

вн	Beer House	Р	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

Fn/DFn

GVC

Fountain / Drinking Ftn.

Gas Valve Compound

Mile Post or Mile Stone

Gas Governer

**Guide Post** 

Manhole

Tank or Track

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

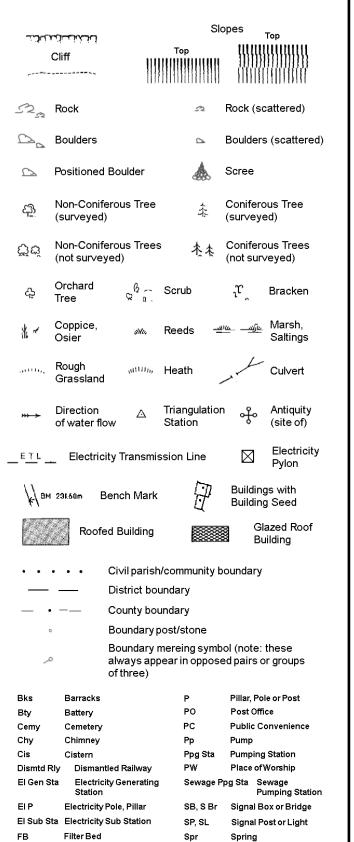
Works (building or area)

Tr

Wd Pp

Wks

### 1:1,250



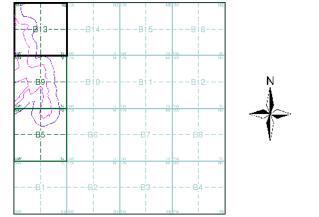
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### **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1898 - 1899	3
Glamorganshire	1:2,500	1918	4
Glamorganshire	1:2,500	1935	5
Ordnance Survey Plan	1:2,500	1961	6
Supply of Unpublished Survey Information	1:2,500	1975	7
Additional SIMs	1:2,500	1992	8
Large-Scale National Grid Data	1:2,500	1993	9
Historical Aerial Photography	1:2,500	2000	10

### **Historical Map - Segment B13**



#### **Order Details**

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 265890, 201010 Slice: Site Area (Ha): 32.39

Search Buffer (m):

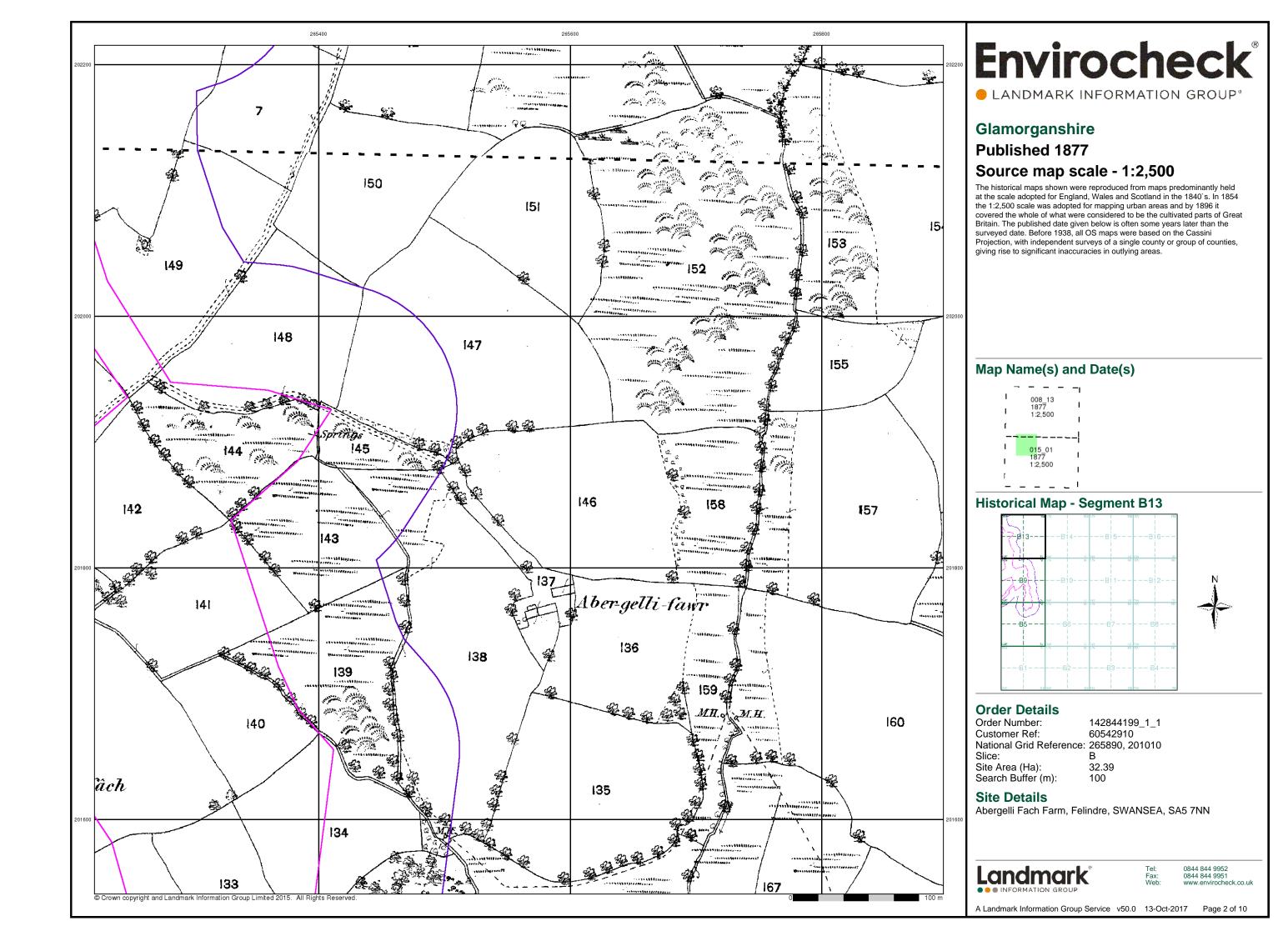
Site Details Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

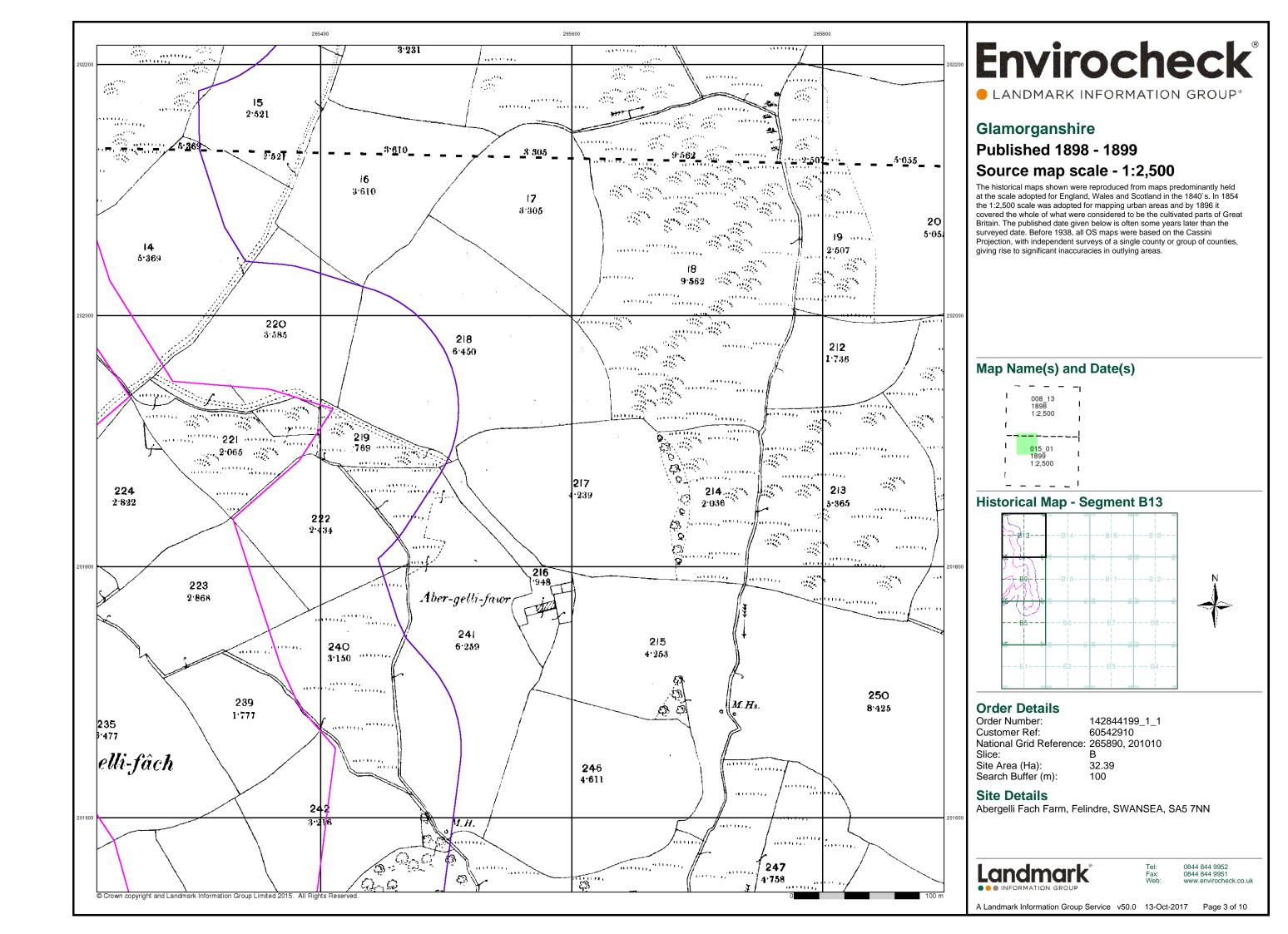
100

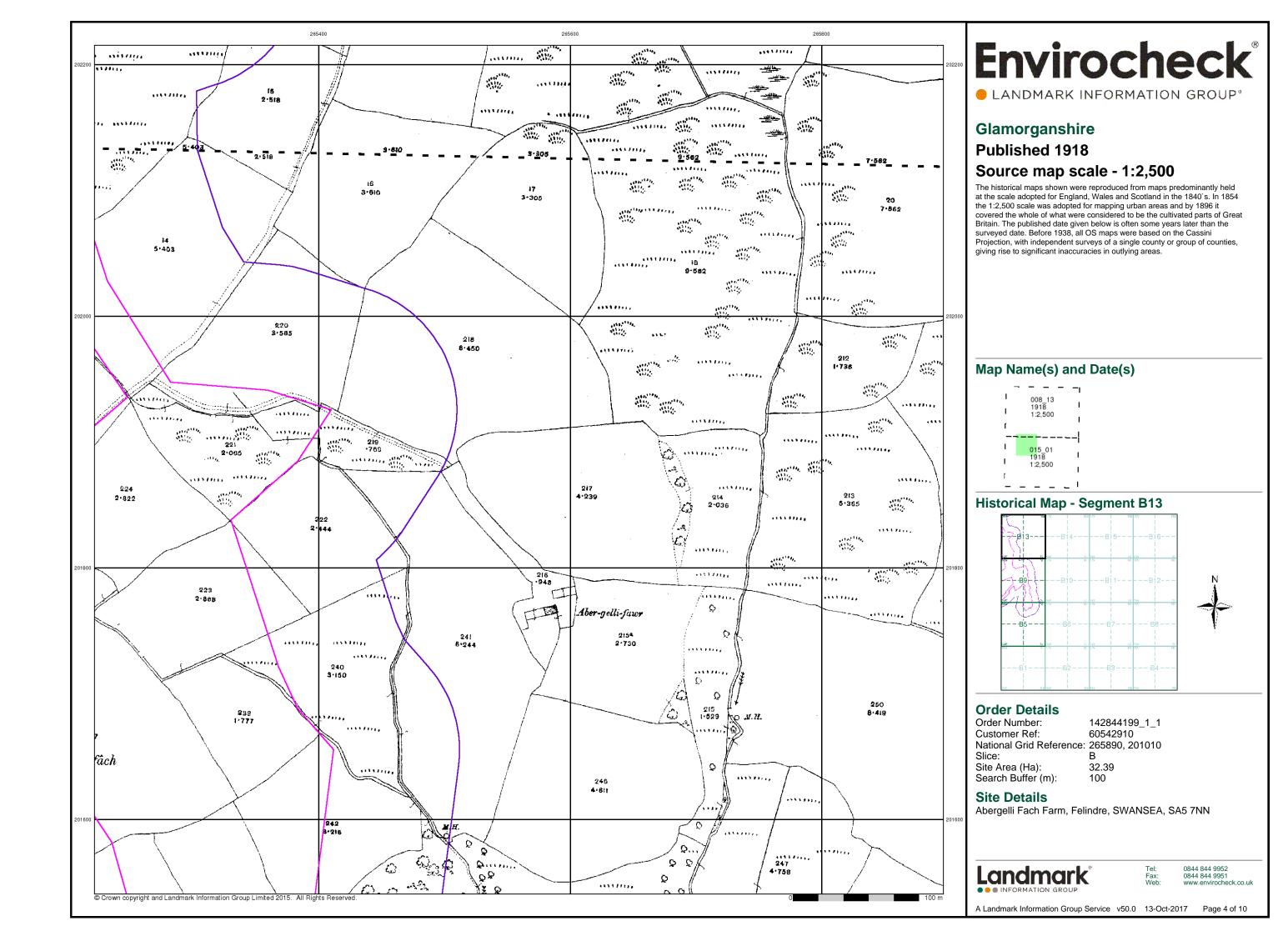


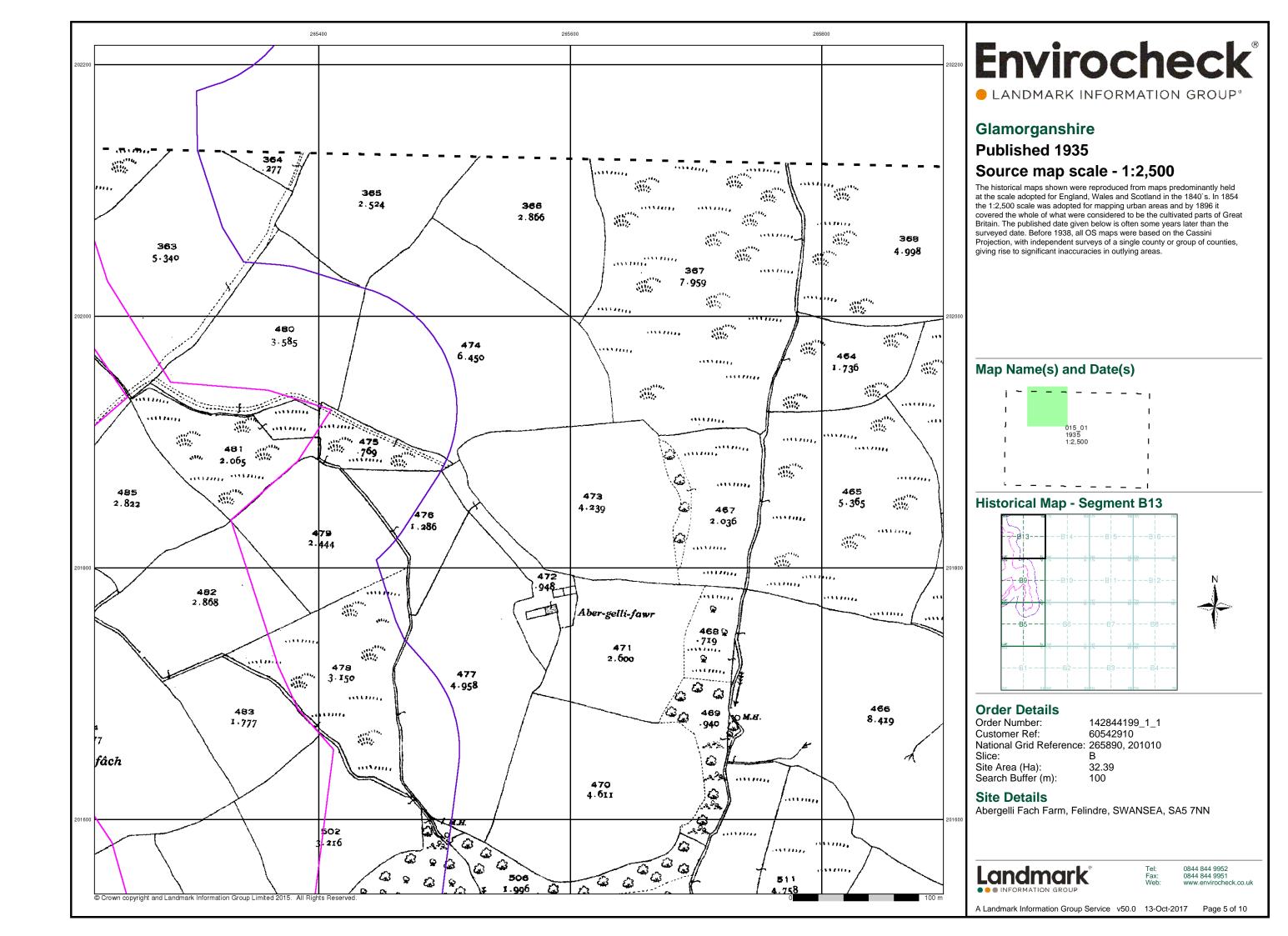
0844 844 9952 0844 844 9951

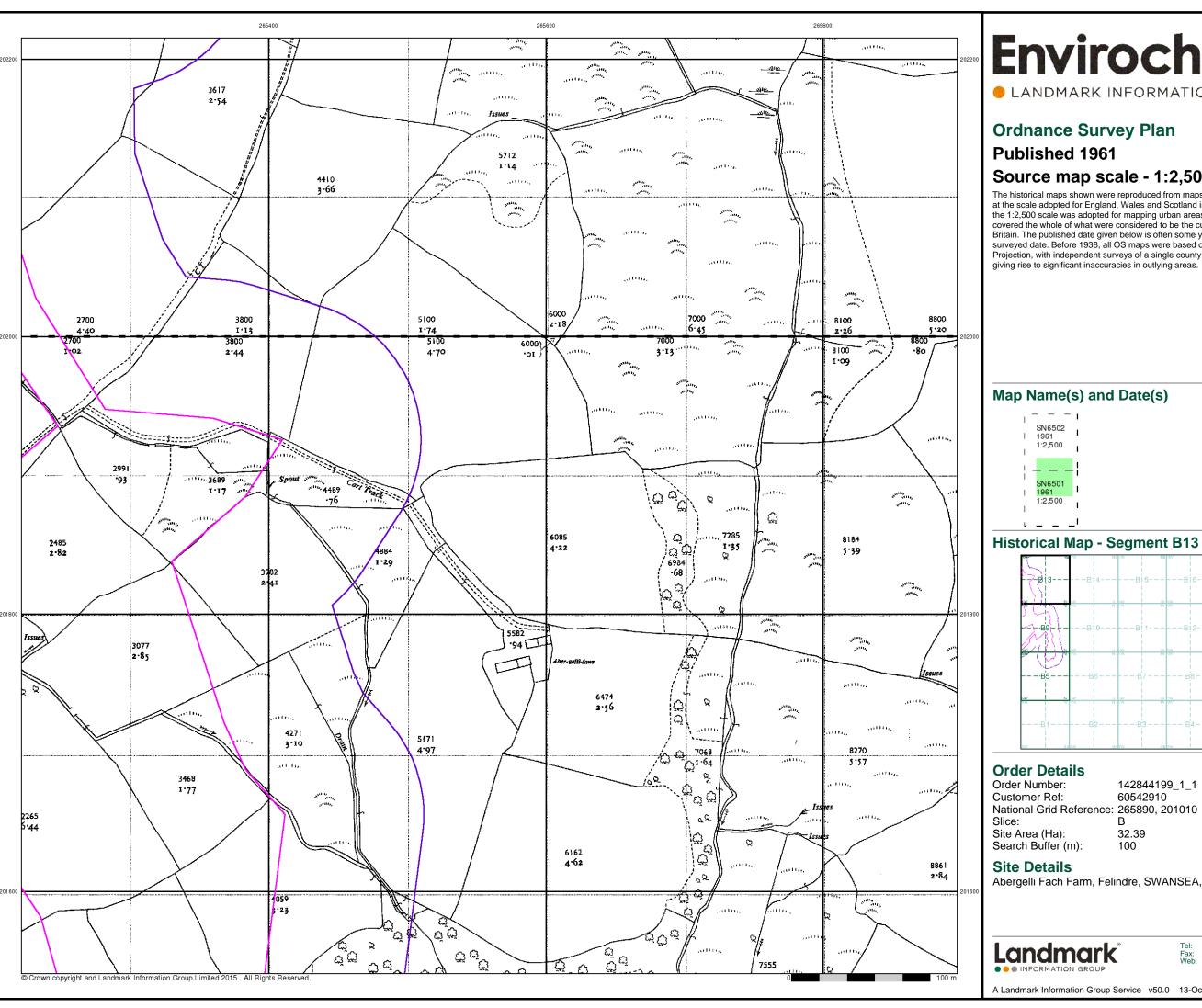
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 10









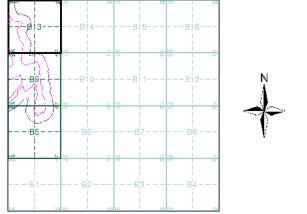


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### **Ordnance Survey Plan**

### Source map scale - 1:2,500

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.



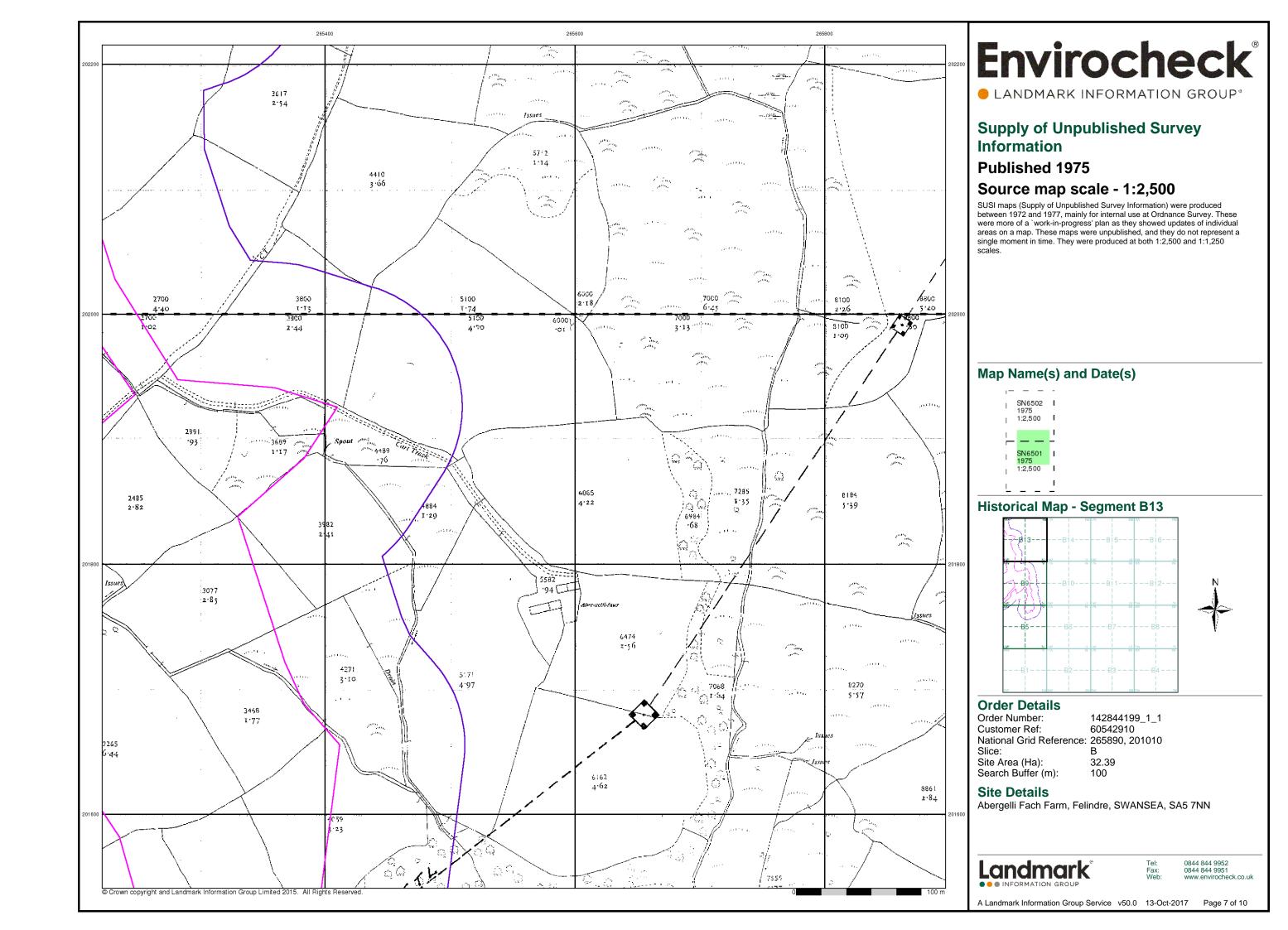
142844199_1_1 60542910 National Grid Reference: 265890, 201010

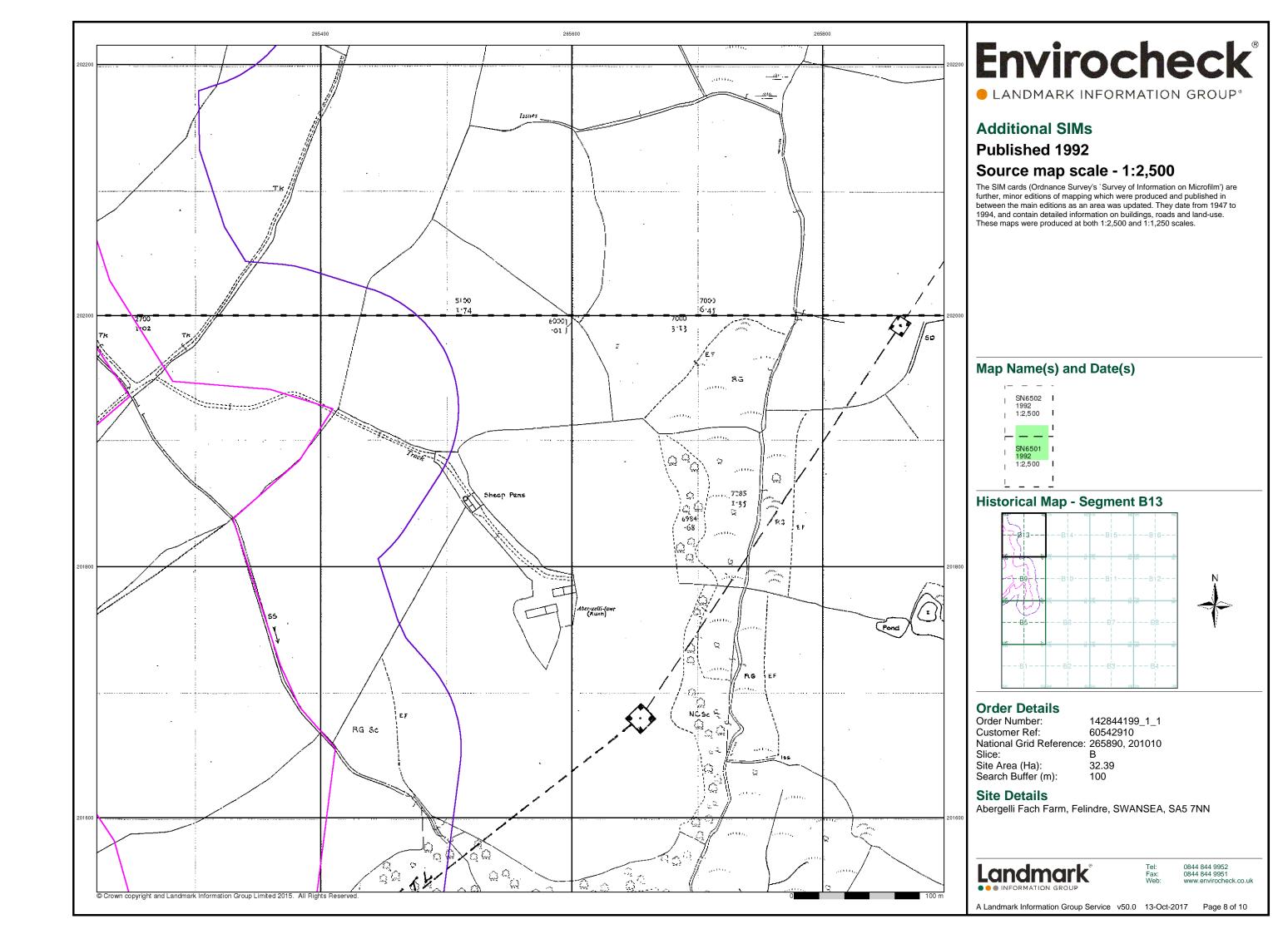
32.39

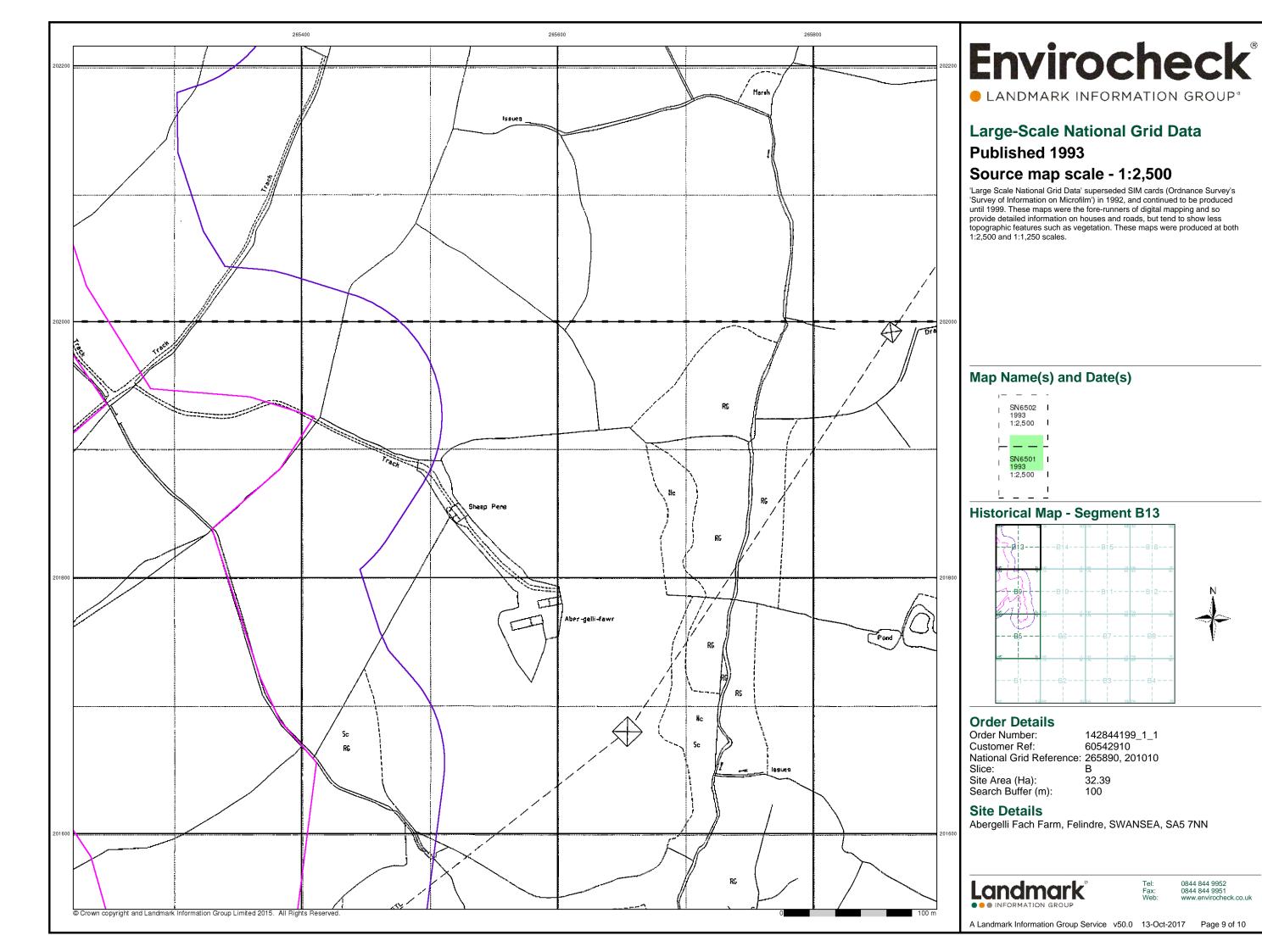
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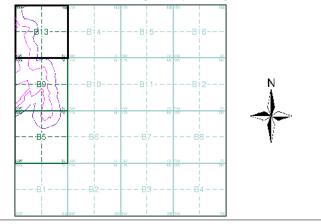


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### **Historical Aerial Photography** Published 2000

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 B13**



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265890, 201010

Site Area (Ha): Search Buffer (m): 32.39

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 201010

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale

142844199 Glamorgan 1898-1899 1:2,500 142844199 Ordnance ! 1962 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Ordnance ! 1961 1:2,500 142844199 Glamorgan 1918 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1917-1918 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Glamorgan 1877 1:2,500 142844199 Ordnance 11961-1962 1:2,500 142844199 Glamorgan 1899 1:2,500 142844199 Ordnance ! 1975 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Glamorgan 1935 1:2,500 142844199 Additional 1992 1:2,500 1992 1:2,500 142844199 Additional 142844195 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Supply of L 1975 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500 142844199 Large-Scale 1993 1:2,500



C

## **Geology 1:10,000 Maps Legends**

#### **Artificial Ground and Landslip**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassifie d Entry	Quaternary - Quaternary

#### **Superficial Geology**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SUPNM	Superficial Theme Not Mapped [For Digital Map Use Only]	Unknown/Unclassifie d Entry	Not Supplied - Not Supplied
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Pleistocene
	TILLD	Till, Devensian	Diamicton	Devensian - Ipswichian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Ipswichian
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quaternary - Ryazanian
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Quaternary - Ryazanian
	ALF	Alluvial Fan Deposits	Sand and Gravel	Quaternary - Ryazanian

#### **Bedrock and Faults**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	GDB	Grovesend Formation	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Н	Hughes Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Н	Hughes Member	Sandstone	Westphalian D - Westphalian D
	Fault			
	Rock			

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#### **Geology 1:10,000 Maps**

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

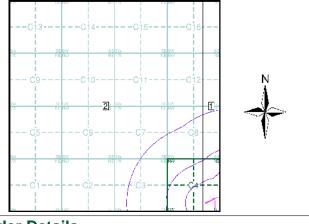
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

#### Geology 1:10,000 Maps Coverage

Map ID: Map ID: Map Name: SN60SE Map Name: SN60SW Map Date: 1972 Map Date: 1966 Available Available Bedrock Geology: Bedrock Geology: Superficial Geology: Superficial Geology: Available Available Artificial Geology: Available Artificial Geology: Available Available Faults: Available Landslip: Available Landslip: Available **Rock Segments:** Available **Rock Segments:** 

#### Geology 1:10,000 Maps - Slice C



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740 Slice:

Site Area (Ha):

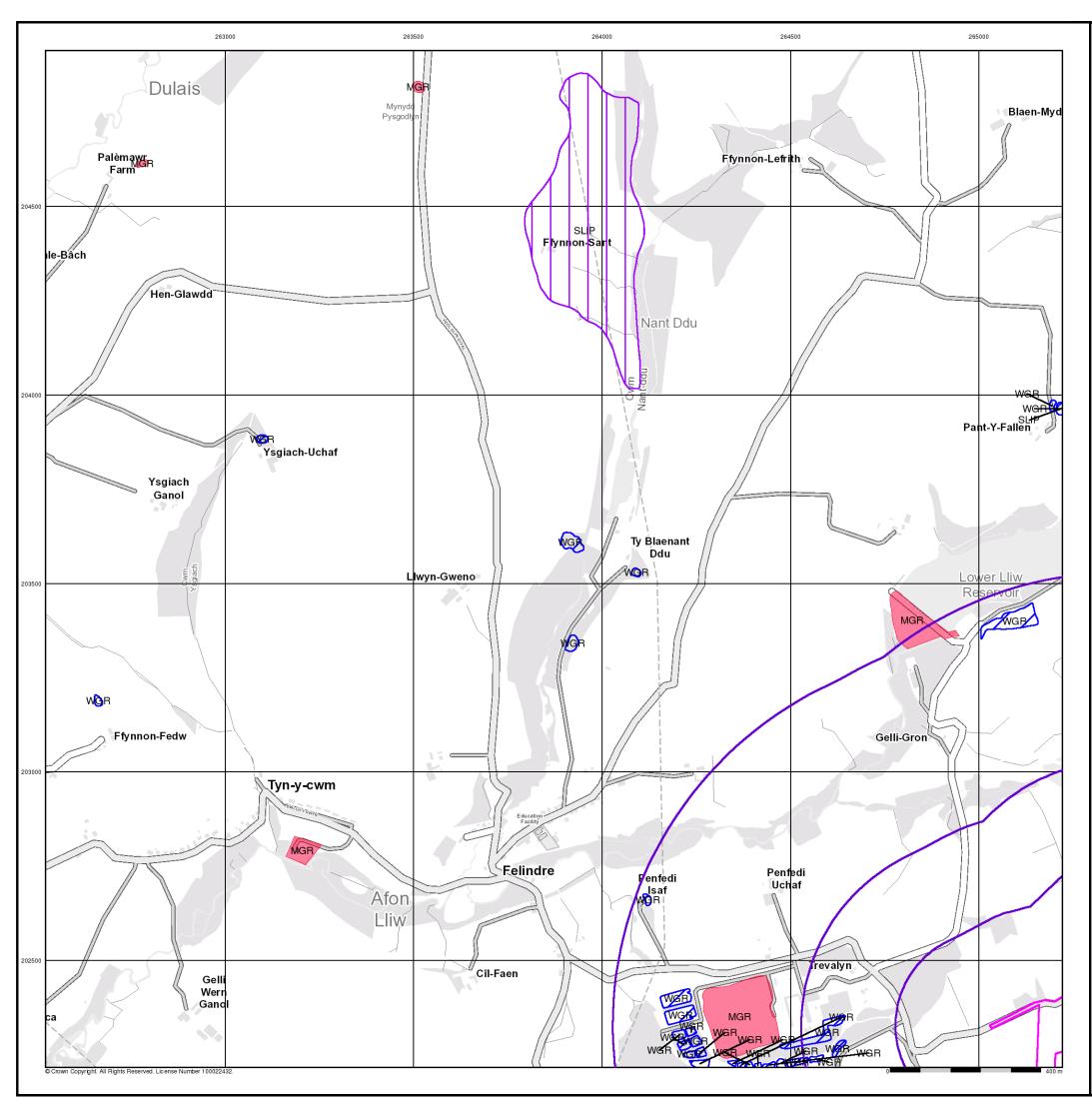
32.39 Search Buffer (m): 1000

#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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#### **Artificial Ground and Landslip**

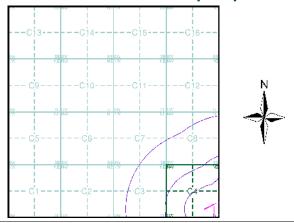
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable

#### Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground areas where the surface has been reshaped.
- Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

#### **Artificial Ground and Landslip Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

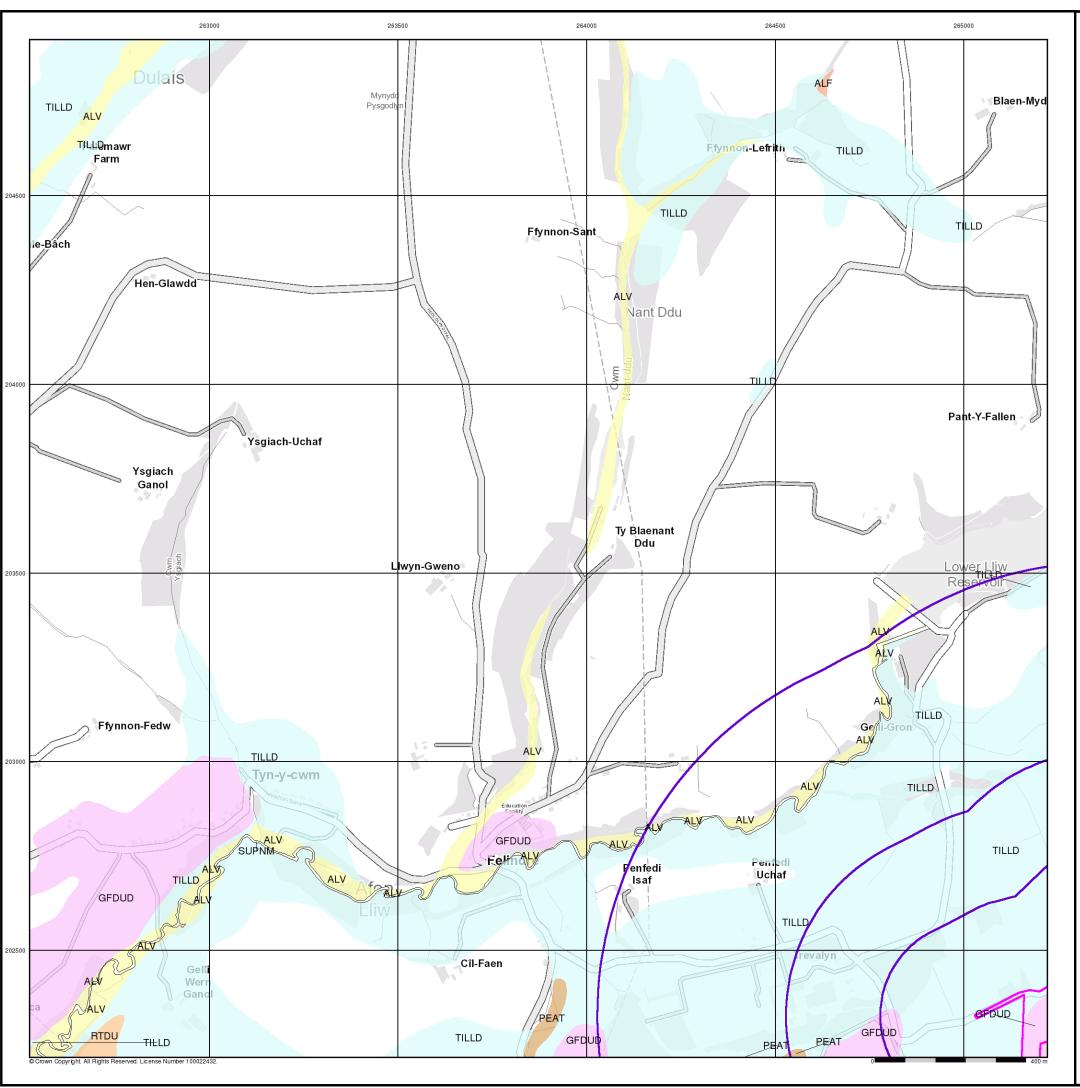
#### **Site Details**

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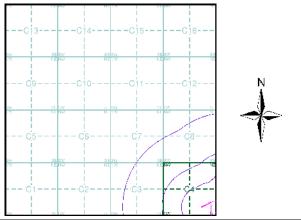
### **Superficial Geology**

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

#### **Superficial Geology Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

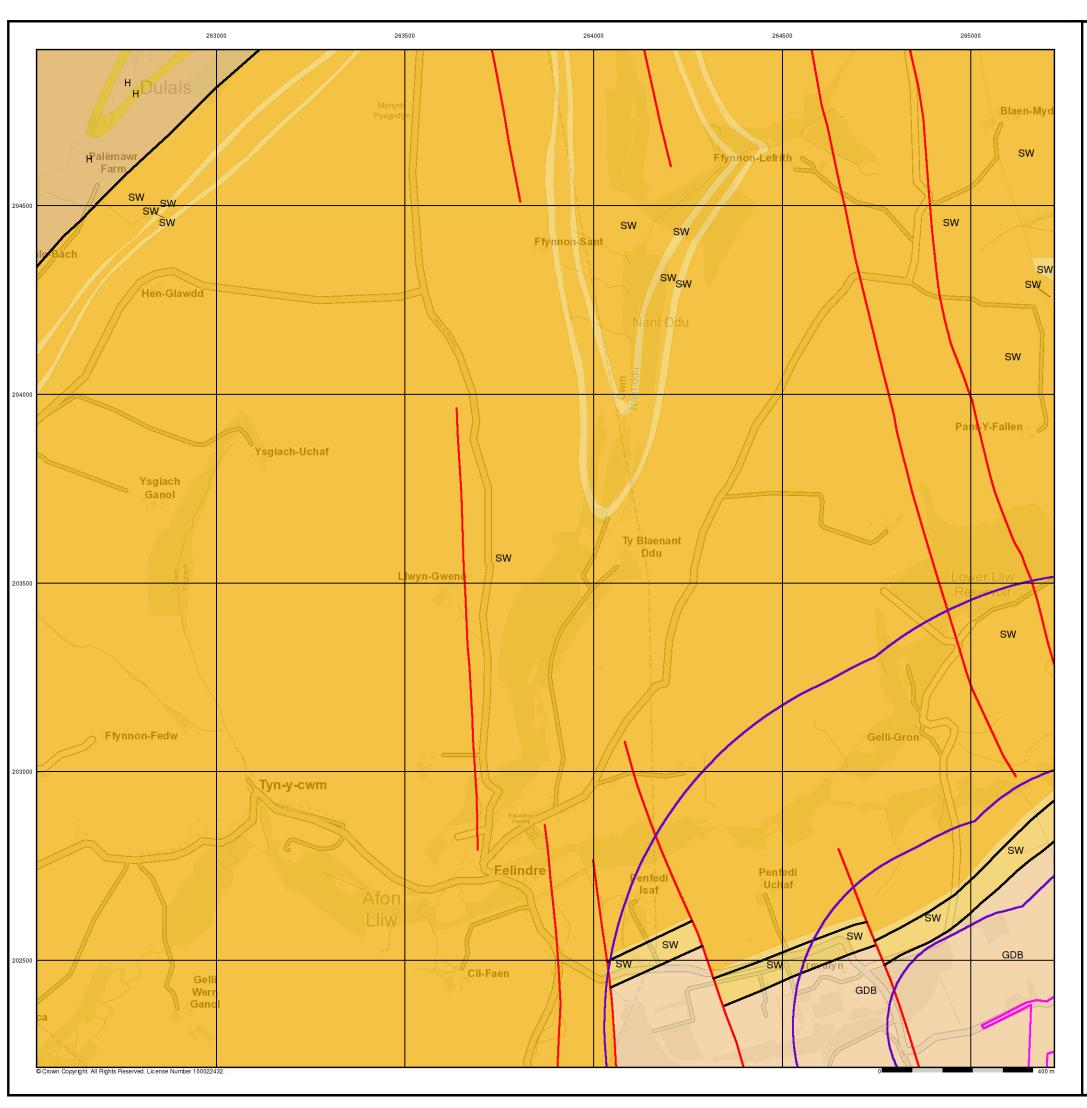
#### **Site Details**

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#### **Bedrock and Faults**

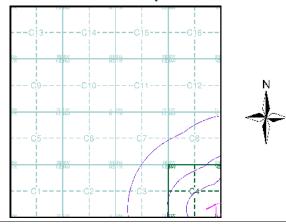
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

#### **Bedrock and Faults Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

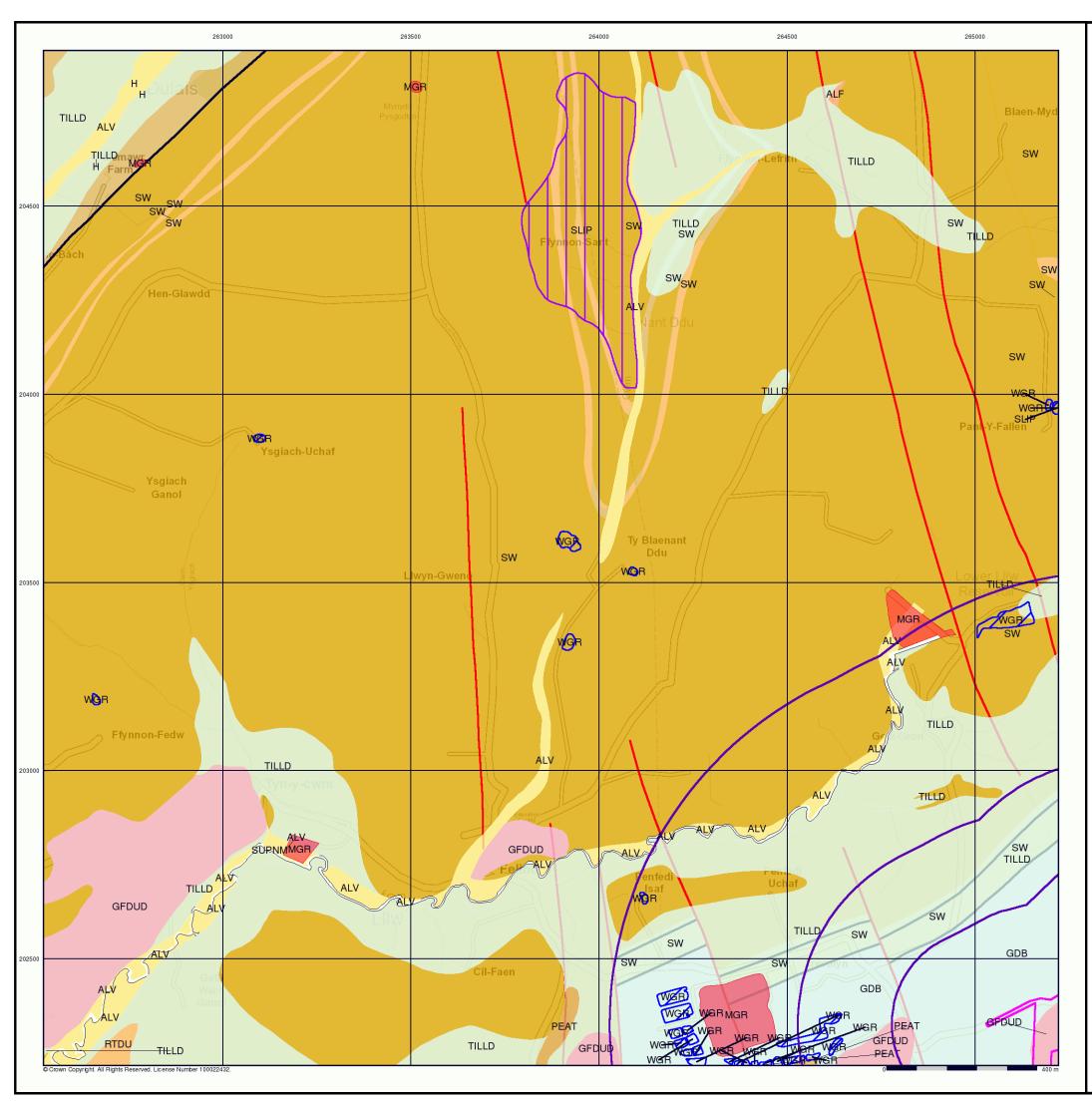
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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Page 4



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### **Combined Surface Geology**

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

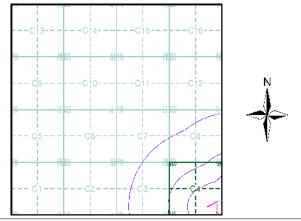
#### **Additional Information**

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

#### **Combined Geology Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

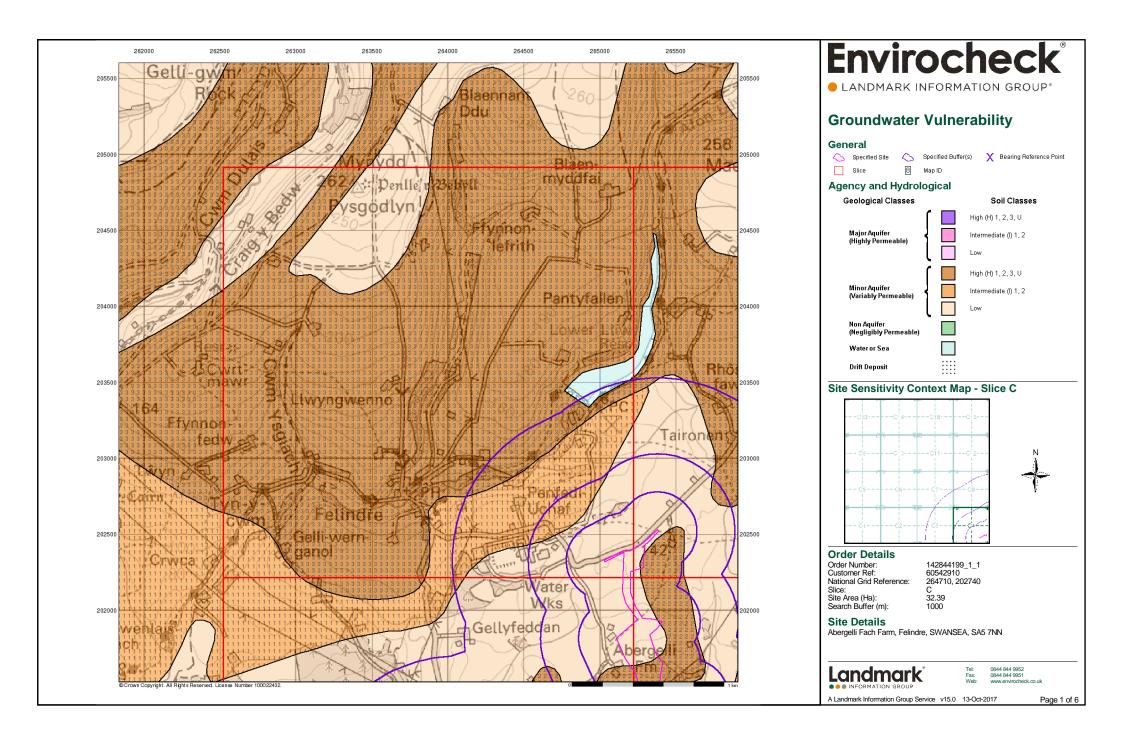
#### **Site Details**

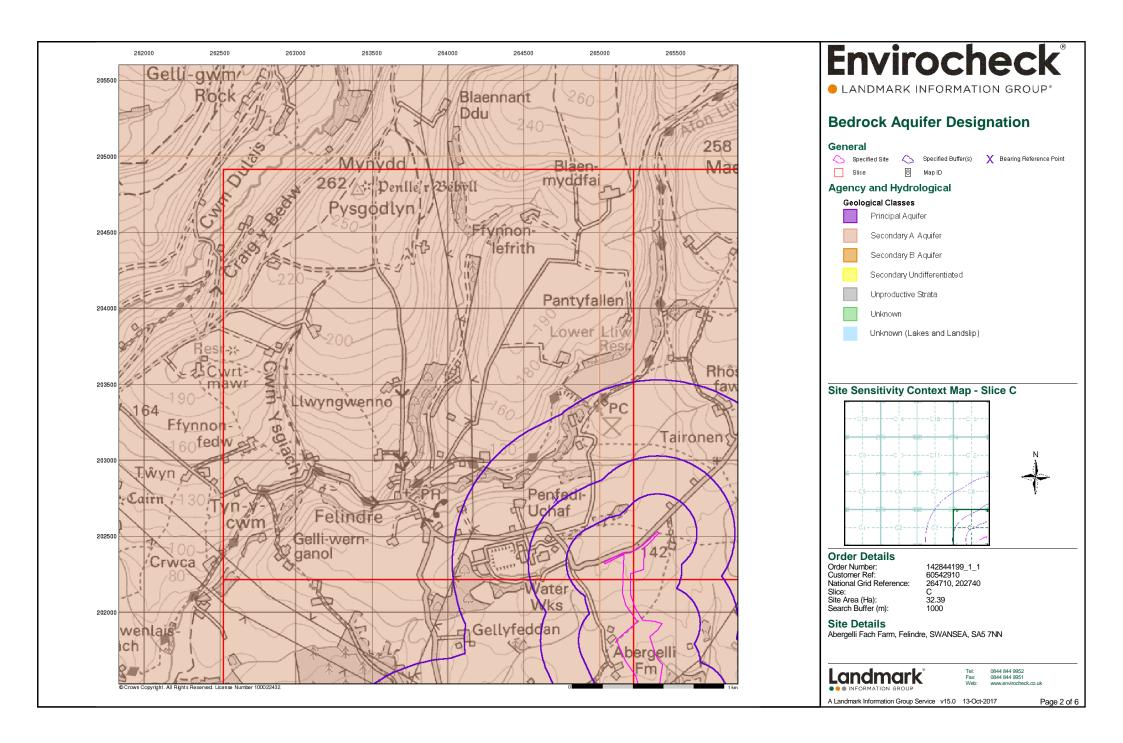
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

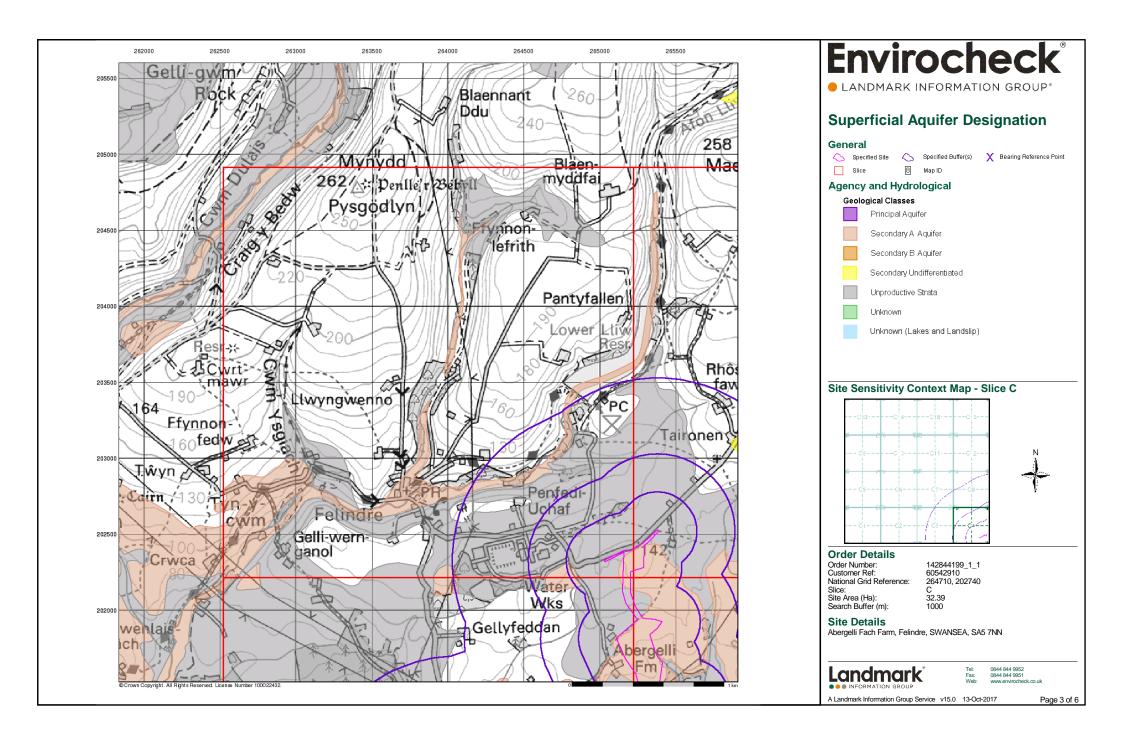


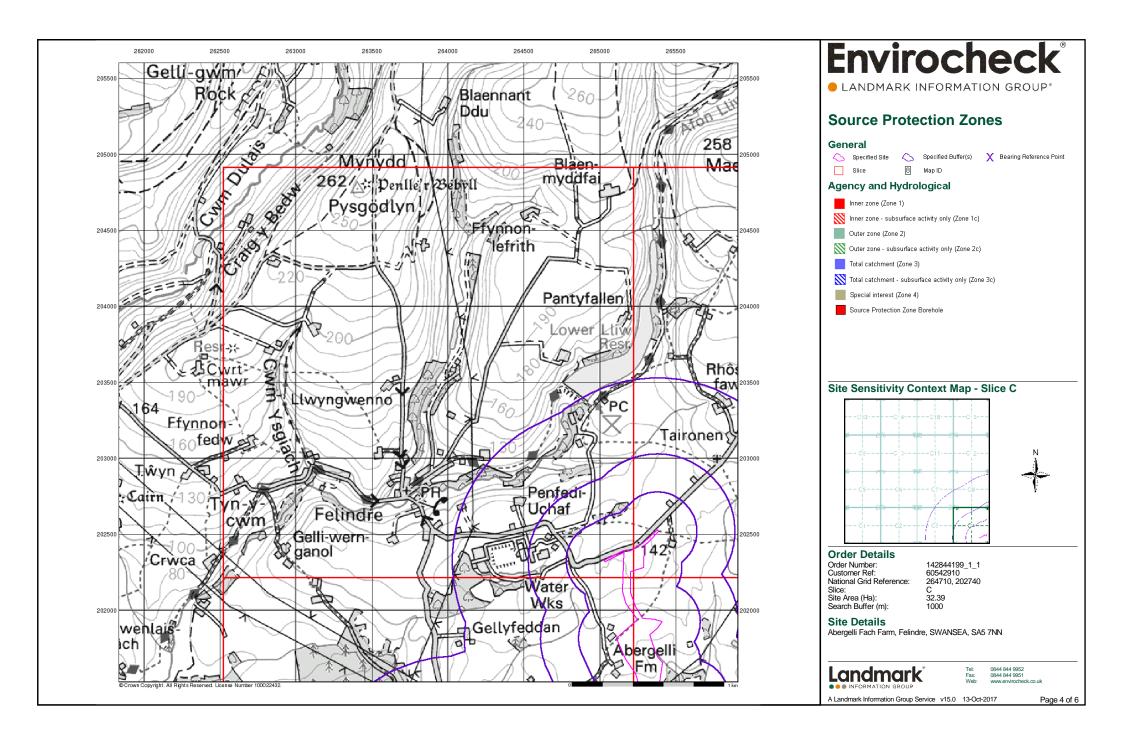
0844 844 9951 www.envirocheck.co.uk

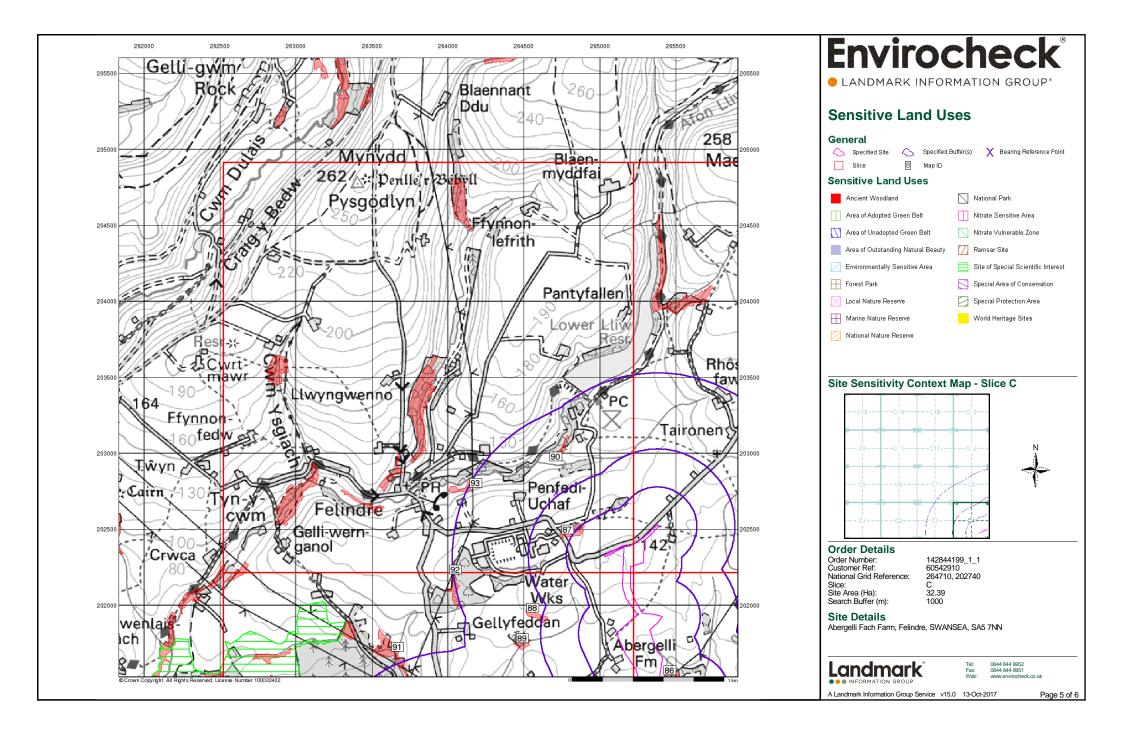
A Landmark Information Group Service v50.0 13-Oct-2017

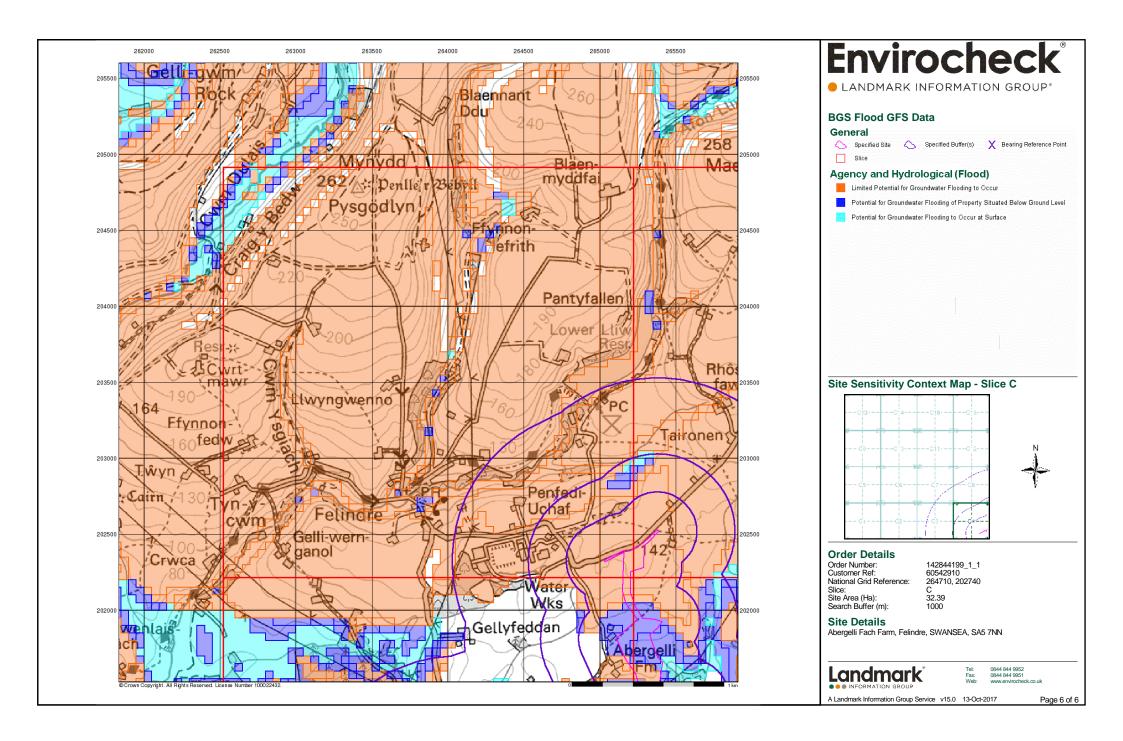














## **Envirocheck® Report:**

#### **Datasheet**

#### **Order Details:**

**Order Number:** 

142844199_1_1

**Customer Reference:** 

60542910

**National Grid Reference:** 

264710, 202740

Slice:

С

Site Area (Ha):

32.39

Search Buffer (m):

1000

#### Site Details:

Abergelli Fach Farm Felindre SWANSEA SA5 7NN

#### **Client Details:**

MS J Foy Aecom Infrastructure & Environment UK Ltd Longcross Court 47 Newport Road Cardiff CF24 0AD

#### **Prepared For:**

Abergelli Power Station Project







Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	16
Hazardous Substances	17
Geological	18
Industrial Land Use	20
Sensitive Land Use	22
Data Currency	23
Data Suppliers	28
Useful Contacts	29

#### 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 Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological 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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Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 4				5
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 5		Yes		
Pollution Incidents to Controlled Waters	pg 5				8
Prosecutions Relating to Authorised Processes	pg 6				1
Registered Radioactive Substances					
River Quality	pg 7				2
River Quality Biology Sampling Points	pg 7				2
Substantiated Pollution Incident Register	pg 8		1		
River Quality Chemistry Sampling Points					
Water Abstractions	pg 8				1 (*4)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 9	Yes	n/a	n/a	n/a
Drift Deposits	pg 9	2	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 10		5	8	38



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 16	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 16				2
Potentially Infilled Land (Water)	pg 16		1		
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)	pg 17			2	
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)	pg 17				1
Planning Hazardous Substance Consents	pg 17				1
Planning Hazardous Substance Enforcements					



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 18	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 18	Yes			
BGS Recorded Mineral Sites	pg 18				3
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 18	Yes	n/a	n/a	n/a
Mining Instability	pg 18	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 18	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 19	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 19	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 19	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries					
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 20			2	1
Points of Interest - Public Infrastructure	pg 20				8
Points of Interest - Recreational and Environmental					
Gas Pipelines	pg 21	3			
Underground Electrical Cables					



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 22	1	1	1	5
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
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					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					



## **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	0	1	265150 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el (SE)	0	1	265350 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el (S)	0	1	265050 201900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SE)	0	1	265150 202100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el (S)	0	1	265050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el (SE)	0	1	201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	0	1	202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(SE)	0	1	201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el (SE)	0	1	201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el (SE)	0	1	201700 265250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el (SE)	0	1	201850 265400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	el (SE)	0	1	201550 265400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	C4NE	0	1	201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve	(E)	1	1	202741
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SE)	21	1	201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SE)	22	1	202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	C4NW	29	1	202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SE)	41	1	202650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Leve		48	1	202200
	BGS Groundwater Flooding Susceptibility				201900 265350
	BGS Groundwater Flooding Susceptibility	(SE)	58	1	202050
	Flooding Type: Limited Potential for Groundwater Flooding to Occur  BGS Groundwater Flooding Susceptibility	C8SE (NE)	113	1	265000 202950
	Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	115	1	264850 202050



## **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	117	1	265500 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	132	1	265000 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	139	1	265550 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	139	1	265550 201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	140	1	264750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	168	1	201550 265550 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	172	1	265000 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	199	1	265750 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	212	1	264850 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	228	1	265650 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	241	1	265650 202150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	249	1	264850 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	C4NE (E)	255	1	265000 202750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	264	1	265900 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(SE)	291	1	265700 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	292	1	265700 201900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	292	1	265700 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SE)	311	1	265900 201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	C4NE (E)	324	1	265050 202800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	330	1	265250 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	339	1	265700 202200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	341	1	265750 201950



## **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(S)	346	1	264400 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	C4NE (E)	346	1	265200 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	C4NW (E)	347	1	264714 202741
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(SE)	349	1	265750 202250
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	C4NE (E)	367	1	265100 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(E)	372	1	265300 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	379	1	265250 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SE)	391	1	265800 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	C8SE (E)	392	1	265200 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	398	1	265800 202150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	C8SE (E)	412	1	265150 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(E)	422	1	265300 202950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	C4NE (E)	423	1	265000 202800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SE)	424	1	265750 202300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	C8SE (NE)	428	1	265200 202950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	C8SE (NE)	436	1	265000 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SE)	450	1	265800 202200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	C8SE (NE)	457	1	265150 202950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	466	1	263700 201500
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	C8SE (NE)	488	1	265200 203000



## **Agency & Hydrological**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Dwr Cymru Cyfyngedig Water Supply Grid Felindre Chlor.Overflow Natural Resources Wales Not Supplied Bp0180001 1 2nd October 1989 2nd October 1989 14th March 1994 Unspecified Not Supplied To Land Consent expired Located by supplier to within 100m	C3SE (SW)	534	2	264500 202400
2	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Dwr Cymru Cyfyngedig Undefined Or Other Felindre Wtw (Septic Tank Disc Natural Resources Wales River Loughor Bc0011901 1 22nd May 1970 22nd May 1970 19th October 1992 Unspecified Not Supplied Unnamed Trib. River Lliw Consent expired Located by supplier to within 100m	C3SE (SW)	556	2	264500 202500
3	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Dwr Cymru Cyfyngedig Water Treatment Works Felindre Wtw W'Water Em Emerge Natural Resources Wales River Loughor Be0033201 1 24th June 1970 24th June 1970 7th July 1997 Unspecified Not Supplied Trib River Lliw Consent expired Located by supplier to within 100m	C8SE (NE)	569	2	264900 202900
4	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Dwr Cymru Cyfyngedig Water Treatment Works Felindre Wtw Natural Resources Wales River Loughor Bc0011902 2 1st January 2010 24th September 2009 Not Supplied Trade Discharges - Process Effluent - Water Company (Wtw) Freshwater Stream/River  Unnamed Trib. Of River Lliw New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 100m	C3SW (W)	945	2	264100 202500



## **Agency & Hydrological**

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Dwr Cymru Cyfyngedig Water Treatment Works Felindre Wtw Natural Resources Wales River Loughor BC0011902 1 22nd May 1970 22nd May 1970 31st December 2009 Trade Discharges - Process Effluent - Water Company (Wtw) Freshwater Stream/River Unnamed Trib. Of River Lliw New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 100m	C3SW (W)	945	2	264100 202500
5	Location: Prosecution Text: Prosecution Act: Hearing Date: Verdict: Fine: Cost:	ing to Controlled Waters  Water Treatment Works, FELINDRE, . Ea News Release 02/12/1999 (Ref Sm329/99Ir), Two Offences Of Discharging Trade Effluent Into The River Lliw Wra91 S85(3): Saffa75 S4 29th November 1999 Guilty 7750 3812.67 Manually positioned to the address or location	C3SE (SW)	489	3	264545 202395
	Nearest Surface Wa	ater Feature	C4SE (SE)	1	-	265065 202348
6	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters  Not Given Felindre Wtw Environment Agency, Welsh Region Chemicals - Other Inorganic Accident 18th April 1997 31955 Not Given Not Given Leakage Category 1 - Major Incident Located by supplier to within 100m	C3SE (SW)	550	3	264505 202495
6	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	Water Company Sewage: Water Treatment Works Felindre Sewage Treatment Works, FELINDRE Environment Agency, Welsh Region Crude Sewage Accidental Spillage/Leakage 6th April 1991 84 Not Given Not Given Leakage Category 2 - Significant Incident Located by supplier to within 100m	C3SE (SW)	555	3	264500 202495
6	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters  Water Company Sewage: Water Treatment Works Felindre Sewage Treatment Works, FELINDRE Environment Agency, Welsh Region Algae Accidental Spillage/Leakage 6th April 1991 427 Not Given Not Given Leakage Category 3 - Minor Incident Located by supplier to within 100m	C3SE (SW)	556	3	264500 202500



## **Agency & Hydrological**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Pollution Incidents					
7	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity: Positional Accuracy:	Not Given Penfedi, Isaf Farm, FELINDRE Environment Agency, Welsh Region Unknown Not Supplied 19th May 1992 4709 Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	C3NE (W)	710	3	264500 202800
	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:	Water Company Sewage: Water Treatment Works Felindre Sewage Treatment Works, FELINDRE Environment Agency, Welsh Region Crude Sewage Accidental Spillage/Leakage 5th April 1991 475 Not Given Not Given Leakage Category 2 - Significant Incident Located by supplier to within 100m	C3SW (SW)	895	3	264150 202495
	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: Positional Accuracy:	Water Company Sewage: Water Treatment Works Penfedi Isaf, FELINDRE Environment Agency, Welsh Region Light Oil Not Supplied 20th February 1991 2451 Not Given Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m	C3SW (W)	939	3	264105 202495
	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: Positional Accuracy:	Not Given Penfedi Isaf, FELINDRE Environment Agency, Welsh Region Filter Backwash Water Not Supplied 19th February 1991 2452 Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	C3SW (W)	944	3	264100 202495
	Pollution Incidents	to Controlled Waters				
9	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	Water Company Sewage: Water Treatment Works Opposite, Felindre Water Treatment Works Environment Agency, Welsh Region Light Oil Not Supplied 18th February 1991 2480 Not Given Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	C3SW (SW)	896	3	264150 202500
	Prosecutions Relating to Authorised Processes					
10	Location: Prosecution Text: Prosecution Act: Hearing Date: Verdict: Fine: Costs: Positional Accuracy:	Felindre Water Treatment Works, Felindre Mis-handling sludge waste Epa90 S33(1)(C) 6th October 2006 Guilty 54000 2500 Manually positioned to the address or location	C3SE (SW)	504	3	264532 202414



## **Agency & Hydrological**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality					
	Name: GQA Grade: Reach: Estimated Distance (km):	Lliw River Quality B Conf.Nant Y Crimp - Conf Un Named Trib. 4.8	C8SW (NW)	714	3	264591 202891
	Flow Rate: Flow Type: Year:	Flow less than 0.62 cumecs River 2000				
	River Quality					
	Name: GQA Grade: Reach: Estimated Distance (km): Flow Rate: Flow Type:	Lliw River Quality B Conf Un Named Trib - Lower Lliw Res .5 Flow less than 0.31 cumecs River	C8SW (NW)	714	3	264591 202891
	Year:	2000				
	River Quality Biolog					
11	Year:	Located by supplier to within 100m 1990	C8SW (NW)	716	3	264600 202900
	GQA Grade: Year:	River Quality Biology GQA Grade B - Good 1995				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2000				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2002				
	GQA Grade: Year: GQA Grade:	River Quality Biology GQA Grade Not Supplied 2003 River Quality Biology GQA Grade A - Very Good				
	Year: GQA Grade: Year:	2004 River Quality Biology GQA Grade A - Very Good 2005				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2006				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2007				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2008				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2009				
	GQA Grade:	River Quality Biology GQA Grade B - Good				
12	Name: Reach: Estimated Distance:	Loughor Lliw Confluence Un Named Tributary To Lower Lliw Reservoir	C8NW (N)	964	3	264800 203300
	Year:	Located by supplier to within 100m 1990				
	GQA Grade: Year:	River Quality Biology GQA Grade B - Good 1995				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2000				
	GQA Grade: Year: GQA Grade:	River Quality Biology GQA Grade A - Very Good 2002 River Quality Biology GQA Grade Not Supplied				
	Year: GQA Grade:	2003 River Quality Biology GQA Grade A - Very Good				
	Year: GQA Grade: Year:	2004 River Quality Biology GQA Grade A - Very Good 2005				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2006				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2007				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2008				
	GQA Grade: Year:	River Quality Biology GQA Grade A - Very Good 2009				
	GQA Grade:	River Quality Biology GQA Grade B - Good				



## **Agency & Hydrological**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Substantiated Pollu					
13	Authority: Incident Date: Incident Reference: Water Impact: Air Impact: Land Impact: Positional Accuracy: Pollutant:	Natural Resources Wales 10th May 2007 493773 Category 2 - Significant Incident Category 4 - No Impact Category 4 - No Impact Located by supplier to within 10m Inert Materials And Wastes: Soils And Clay	C4SW (S)	205	2	264841 202246
	Water Abstractions					
14	Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr M Glasbrook 22/59/4/0003 100 Spring In Field No. 5700 At Lletty-Thomas Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Field No. 5700 At Lletty-Thomas Farm 01 January 31 December 1st December 1st December 1965 Not Supplied Located by supplier to within 100m	C8SW (N)	920	3	264580 203130
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Dwr Cymru Cyfyngedig 22/59/4/0065/01 2 Lower Lliw Reservoir - Point B Natural Resources Wales Public Water Supply: Potable Water Supply - Storage Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 March 9th July 2014 Not Supplied Located by supplier to within 10m	C8NE (N)	1034	2	264890 203440
	Water Abstractions					
	-	Dwr Cymru Cyfyngedig 22/59/4/0065 101 Lower Lliw Reservoir - Point B Natural Resources Wales Public Water Supply: Potable Water Supply - Storage Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied 01 January 31 December 1st April 2011 Not Supplied Located by supplier to within 10m	C8NE (N)	1034	2	264890 203440
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Dwr Cymru Cyf 22/59/4/0065 100 Lower Lliw Reservoir Environment Agency, Welsh Region Public Water Supply: Potable Water Supply - Storage Water may be abstracted from a single point Surface Not Supplied Not Supplied Lower Lliw Reservoir 01 January 31 December 1st April 2000 Not Supplied Located by supplier to within 100m	C8NE (N)	1034	3	264890 203440



## **Agency & Hydrological**

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lap ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Mr D Morgan 22/59/4/0005 100 Spring 1 At Pant Y Fallen Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring 1 At Pant Y Fallen Farm 01 January 31 December 1st December 1965 Not Supplied Located by supplier to within 100m	C12SW (N)	1439	3	264830 203860
	Groundwater Vulne Soil Classification:	Soils of Low Leaching Potential - Soils in which pollutants 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 elsewhere in the catchment Sheet 35 West Glamorgan	C4NW (SE)	0	3	264860 202592
	Scale:	1:100,000				
	Groundwater Vulne Soil Classification: Map Sheet: Scale:	Prability  Soils of High Leaching Potential (H2) - Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential Sheet 35 West Glamorgan 1:100,000	(SE)	0	3	265287 202367
	Groundwater Vulne Soil Classification: Map Sheet: Scale:	Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Sheet 35 West Glamorgan 1:100,000	(SE)	0	3	265994 201841
	Drift Deposits Drift Deposit:  Map Sheet: Scale:	Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000		0	3	265077 201596
	Drift Deposits Drift Deposit: Map Sheet: Scale:	Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000	C4NW (E)	0	3	264714 202741
	Bedrock Aquifer De Aquifer Designation:	esignations Secondary Aquifer - A	C4NW (E)	0	1	264714 202741
	Bedrock Aquifer De Aquifer Designation:	esignations Secondary Aquifer - A	C4NE (E)	0	1	265000 202741
	Superficial Aquifer Aquifer Designation:	<b>Designations</b> Secondary Aquifer - A	C4SE (SE)	0	1	265153 202345
	Superficial Aquifer Aquifer Designation:	<b>Designations</b> Secondary Aquifer - A	(SE)	0	1	265704 202282
	Superficial Aquifer Aquifer Designation:	<b>Designations</b> Secondary Aquifer - A	(S)	0	1	264391 201549
	Superficial Aquifer Aquifer Designation:	<b>Designations</b> Unproductive Strata	C4NE (E)	0	1	265000 202741
	None	rom Rivers or Sea without Defences				
	None	rs or Sea without Defences				
	Areas Benefiting fro	om Flood Defences				



## **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flood Water Storage Areas None				
	Flood Defences None				
	OS Water Network Lines				
15	Watercourse Form: Inland river Watercourse Length: 37.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C4SE (SE)	1	4	265065 202348
16	OS Water Network Lines  Watercourse Form: Inland river  Watercourse Length: 232.1  Watercourse Level: On ground surface  Permanent: True  Watercourse Name: Not Supplied  Catchment Name: Loughor  Primacy: 1	C4SE (SE)	2	4	264904 202305
17	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.2 Watercourse Level: Underground True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C4SE (SE)	3	4	265060 202346
18	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 144.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C4SE (SE)	56	4	264916 202458
19	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 134.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C4NE (E)	236	4	265205 202704
20	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 67.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C4NE (E)	331	4	265142 202785
21	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 166.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	331	4	265132 202947
22	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 237.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C4NW (SE)	448	4	264762 202691



# **Agency & Hydrological**

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	486	4	265161 202965
24	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	487	4	265130 202955
25	OS Water Network Lines  Watercourse Form: Lake Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	488	4	265189 202978
26	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C4NE (NE)	489	4	264917 202855
27	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 229.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	C8SE (NE)	493	4	264916 202936
28	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 34.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	510	4	265208 203030
29	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 97.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	549	4	265064 203028
30	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	552	4	264928 202894
31	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 42.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	559	4	264927 202901



# **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	562	4	265146 203052
33	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	590	4	265058 203031
34	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	C8SW (N)	593	4	264771 202903
35	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 310.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8NE (NE)	593	4	265198 203270
36	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 104.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	596	4	264984 203057
37	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C4NW (NE)	597	4	264781 202871
38	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 30.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C4NW (NE)	602	4	264779 202875
39	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 184.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	C8SW (N)	629	4	264715 202896
40	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 165.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	669	4	264952 203075



# **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: 9.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	688	4	264946 203065
42	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SE (NE)	690	4	264950 203069
43	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 408.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1	C4NW (NW)	716	4	264568 202874
44	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 106.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1	C8SW (NW)	726	4	264604 202915
45	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 403.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1	C8SW (N)	752	4	264685 202995
46	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 197.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SW (N)	771	4	264653 203001
47	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 18.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8SW (N)	779	4	264855 203116
48	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1	C3NE (W)	889	4	264310 202850
49	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 59.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C3NE (W)	889	4	264310 202850



# **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 472.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1	C3NE (W)	891	4	264304 202845
51	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 560.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 2	C3NE (W)	893	4	264305 202850
52	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 113.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C7SE (NW)	911	4	264326 202907
53	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 23.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C3SW (SW)	926	4	264105 202389
54	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 30.2  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8NE (NE)	943	4	265110 203433
55	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 64.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C3SW (SW)	944	4	264083 202393
56	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 20.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8NW (N)	945	4	264778 203262
57	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1	C8NW (N)	948	4	264773 203259
58	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 83.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C8NW (N)	948	4	264773 203259



# **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
59	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 72.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C3SW (SW)	949	4	264081 202396
60	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 213.7 Watercourse Level: On ground surface True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1	C8NW (N)	949	4	264777 203263
61	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 118.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Lliw Catchment Name: Loughor Primacy: 1	C8NE (N)	959	4	264926 203376
62	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 105.7 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C3SW (W)	975	4	264078 202541
63	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 192.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C3NW (W)	975	4	264083 202645
64	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C7SE (NW)	995	4	264295 203000
65	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 38.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	C7SE (NW)	1000	4	264294 203006

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## **Waste**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority La	ndfill Coverage				
	Name:	City and County of Swansea - Has no landfill data to supply		0	5	264714 202741
	Potentially Infilled	Land (Non-Water)			Contact	
66	Bearing Ref: Use: Date of Mapping:	NE Unknown Filled Ground (Pit, quarry etc) 1991	C8SE (NE)	629	10	264934 202979
	Potentially Infilled	Land (Non-Water)				
67	Bearing Ref: Use: Date of Mapping:	W Unknown Filled Ground (Pit, quarry etc) 1991	C3NW (W)	934	10	264173 202702
	Potentially Infilled	Land (Water)				
68	Use: Date of Mapping:	Unknown Filled Ground (Pond, marsh, river, stream, dock etc) 1938	C4NE (NE)	244	10	264939 202837

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## **Hazardous Substances**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Control of Major Ac	cident Hazards Sites (COMAH)				
69	Name: Location: Reference: Type: <b>Status:</b> Positional Accuracy:	Welsh Water / Dwr Cymru Felindre Water Treatment Works, Felindre, SWANSEA, West Glamorgan, SA5 7NP Not Supplied Lower Tier Active Manually positioned to the address or location	C3SE (SW)	491	6	264542 202392
	Control of Major Ac	cident Hazards Sites (COMAH)				
69	Name: Location: Reference: Type: Status: Positional Accuracy:	United Utilities Water Plc Felindre Water Treatment Works, Felindre, SWANSEA, West Glamorgan, SA5 7NP 20602 Lower Tier Record Ceased To Be Supplied Under COMAH Regulations Manually positioned to the address or location	C3SE (SW)	491	6	264542 202393
	Notification of Insta	Ilations Handling Hazardous Substances (NIHHS)				
70	Name: Location: <b>Status:</b> Positional Accuracy:	Welsh Water Development Authority Felindre Treatment Plant, SWANSEA, West Glamorgan, SA5 7NP Not Active Automatically positioned in the proximity of the address	C8SW (N)	842	6	264845 203181
	Planning Hazardous	s Substance Consents				
71	Name: Location:  Authority: Application Ref: Hazardous Substance: Maximum Quantity: Application date: Decision: Positional Accuracy:	Dwr Cymru - Welsh Water Felindre Water Treatment Works, Felindre, MORRISTON, West Glamorgan, SA5 7NP City and County of Swansea, Planning Department Hs 5/92 Part A, Toxic Substance, Chlorine, where amount held is greater than or equal to 10 tonnes 25 2nd September 1992 New application granted conditionallyGranted Manually positioned to the address or location	C8NW (N)	901	7	264830 203244

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
-	BGS 1:625,000 Solid Description:	d Geology South Wales Upper Coal Measures Formation	C4NW (E)	0	1	264714 202741
	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 25 - 35 mg/kg <1.8 mg/kg 60 - 90 mg/kg <100 mg/kg 15 - 30 mg/kg	C4NW (E)	0	1	264714 202741
72	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Gelli-Gron , Clydach, Swansea, Glamorgan British Geological Survey, National Geoscience Information Service 151728 Opencast Ceased Not Supplied Not Supplied Carboniferous Swansea Member Sandstone Located by supplier to within 10m	C8SE (NE)	621	1	264937 202972
73	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Waterworks Cottage , Clydach, Swansea, Glamorgan British Geological Survey, National Geoscience Information Service 151686 Opencast Ceased Not Supplied Not Supplied Carboniferous Swansea Member Sandstone Located by supplier to within 10m	C8NE (N)	893	1	264910 203289
74	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity:		C3NW (W)	976	1	264137 202724
	BGS Measured Urba No data available BGS Urban Soil Che	•				
	No data available  Coal Mining Affecte  Description:	d Areas  In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	C4NW (E)	0	8	264714 202741
	Mining Instability Mining Evidence: Source: Boundary Quality:	Inconclusive Coal Mining Ove Arup & Partners As Supplied	C4NW (E)	0	-	264714 202741
	Non Coal Mining Ar					
	Potential for Collaps Hazard Potential: Source:	sible Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service	C4NW (E)	0	1	264714 202741



# **Geological**

ap D		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Collap Hazard Potential: Source:	sible Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service	C4NE (E)	0	1	265000 20274
	Hazard Potential:	ressible Ground Stability Hazards No Hazard	C4NW	0	1	264714
	Potential for Compr Hazard Potential: Source:	British Geological Survey, National Geoscience Information Service  ressible Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service	(E) C4NE (E)	0	1	20274 ² 265000 20274 ²
		d Dissolution Stability Hazards	(L)			20274
	Hazard Potential: Source:	No Hazard British Geological Survey, National Geoscience Information Service	C4NW (E)	0	1	264714 20274
	Potential for Ground Hazard Potential: Source:	d Dissolution Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service	C4NE (E)	0	1	26500 20274
	Potential for Landsl Hazard Potential: Source:	ide Ground Stability Hazards  Very Low British Geological Survey, National Geoscience Information Service	C4NW (E)	0	1	26471- 20274
	Potential for Landsl Hazard Potential: Source:	ide Ground Stability Hazards  Very Low British Geological Survey, National Geoscience Information Service	C4NE (E)	0	1	26500 20274
	Potential for Runnin Hazard Potential: Source:	ng Sand Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	C4NW (E)	0	1	26471 20274
	Potential for Runnin	ng Sand Ground Stability Hazards				
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	C4NE (E)	0	1	265000 20274
	Potential for Shrink Hazard Potential: Source:	ing or Swelling Clay Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service	C4SE (SE)	0	1	26515 20234
	Potential for Shrink Hazard Potential: Source:	ing or Swelling Clay Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service	C4NW (E)	0	1	26471 20274
	Potential for Shrink	ing or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	C4NE (E)	0	1	265000 20274
	Potential for Shrink Hazard Potential: Source:	ing or Swelling Clay Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	C4SW (S)	200	1	26479 20231
	Radon Potential - R	adon Affected Areas				
	Affected Area: Source:	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).  British Geological Survey, National Geoscience Information Service	C4NE (E)	0	1	26499 20274
		adon Affected Areas				
	Affected Area: Source:	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).  British Geological Survey, National Geoscience Information Service	C4NW (E)	0	1	26471- 20274
		adon Protection Measures				
		No radon protective measures are necessary in the construction of new dwellings or extensions British Geological Survey, National Geoscience Information Service	C4NE (E)	0	1	26499 20274
	Radon Potential - R	adon Protection Measures  No radon protective measures are necessary in the construction of new dwellings or extensions  British Geological Survey, National Geoscience Information Service	C4NW (E)	0	1	26471 20274

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# **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
75	Name: Location: Category: Class Code:	Manufacturing and Production Jones Trevalyn, Felindre, Swansea, SA5 7NL Farming Poultry Farming, Equipment and Supplies Positioned to address or location	C4SW (S)	392	9	264664 202469
76	Name: Location: Category: Class Code:	Manufacturing and Production  Works SA5 Industrial Features Unspecified Works Or Factories Positioned to an adjacent address or location	C4SW (SW)	486	9	264561 202460
77	Name: Location: Category: Class Code:	Manufacturing and Production Sheep Wash SA5 Farming Sheep Dips and Washes Positioned to address or location	C3NE (W)	708	9	264425 202696
78	Name: Location: Category: Class Code:	Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	C3SE (SW)	560	9	264478 202225
78	Name: Location: Category: Class Code:	Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	C3SE (SW)	621	9	264418 202217
78	Name: Location: Category: Class Code:	Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	C3SE (SW)	644	9	264394 202217
79	Name: Location: Category: Class Code:	Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	C3SE (SW)	664	9	264373 202221
80	Name: Location: Category: Class Code:	Public Infrastructure Sludge Bed SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	C3SE (SW)	772	9	264264 202224
80	Name: Location: Category: Class Code:	Public Infrastructure Sludge Beds SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	C3SE (SW)	808	9	264222 202278
81	Name: Location: Category: Class Code:	Public Infrastructure Sludge Beds SA5 Infrastructure and Facilities Waste Storage, Processing and Disposal Positioned to an adjacent address or location	C3SW (SW)	832	9	264198 202361
82	Name: Location: Category: Class Code:	Public Infrastructure  Weir SA5 Water Weirs, Sluices and Dams Positioned to an adjacent address or location	C8NW (N)	928	9	264775 203238

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 20 of 29



# **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Gas Pipelines					
83	Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Felindre to Three Cocks Owned By National Grid 1200 132 Active 107292.6 Feeder 28	C4SW (S)	0	10	264867 202222
	Gas Pipelines					
84	Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Herbrandston to Felindre Owned By National Grid 1200 132 Active 104077.4 Feeder 28	C4SW (S)	0	10	264868 202233
	Gas Pipelines					
85	Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Felindre to Cilfrew Owned By National Grid 1200 132 Active 17048.8 Feeder 28	C4SE (SE)	0	10	265060 202293

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# **Sensitive Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
86	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7060 16001.14 Ancient and Semi-Natural Woodland	(SE)	0	2	265459 201573
87	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 882 7755.99 Ancient and Semi-Natural Woodland	C4SW (S)	207	2	264788 202499
88	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 880 5527.37 Ancient and Semi-Natural Woodland	(S)	463	2	264557 201982
89	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 878 4775.36 Ancient and Semi-Natural Woodland	(S)	576	2	264489 201782
90	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 887 3413.32 Ancient and Semi-Natural Woodland	C8SW (N)	722	2	264709 202980
91	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 879 19270.88 Ancient and Semi-Natural Woodland	(SW)	727	2	263670 201727
92	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 881 5855.63 Ancient and Semi-Natural Woodland	C3SW (SW)	972	2	264051 202234
93	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 883 5980.93 Ancient and Semi-Natural Woodland	C3NW (W)	972	2	264183 202806

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 22 of 29



Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
City and County of Swansea - Environmental Health Department	January 2015	Annual Rolling Update
Carmarthenshire County Council - Environmental Health Department	October 2014	Annual Rolling Update
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Natural Resources Wales	August 2017	Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	As notified
	Water 2013	As notined
Integrated Pollution Controls	0.11.0000	N A P I.
Environment Agency - Welsh Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control		
Natural Resources Wales	August 2017	Quarterly
Environment Agency - Welsh Region	July 2017	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Updat
Carmarthenshire County Council - Environmental Health Department	March 2015	Annual Rolling Updat
Local Authority Pollution Prevention and Controls		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Updat
Carmarthenshire County Council - Environmental Health Department	March 2015	Annual Rolling Updat
Local Authority Pollution Prevention and Control Enforcements		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Updat
Carmarthenshire County Council - Environmental Health Department	September 2013	Annual Rolling Updat
Nearest Surface Water Feature	·	
Ordnance Survey	May 2017	
Pollution Incidents to Controlled Waters		
Environment Agency - Welsh Region	December 1998	Not Applicable
• • •	2000111201 1000	110t / tppiloubio
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region	March 2013	As notified
Natural Resources Wales	March 2013	As notified
	Water 2013	As notined
Prosecutions Relating to Controlled Waters	Marris 2010	A = va = CC = vl
Environment Agency - Welsh Region	March 2013	As notified
Natural Resources Wales	March 2013	As notified
Registered Radioactive Substances		
Natural Resources Wales	January 2015	As notified
Environment Agency - Welsh Region	January 2015	
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points	luk: 0040	App 11.
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Natural Resources Wales	August 2018	Quarterly
Environment Agency Wales - South West Area	July 2017	Quarterly
Water Abstractions		
Environment Agency - Welsh Region	July 2017	Quarterly
Natural Resources Wales	July 2017	Quarterly
Water Industry Act Referrals		
Natural Resources Wales	August 2017	Quarterly
Environment Agency - Welsh Region	July 2017	Quarterly

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 23 of 29



Agency & Hydrological	Version	Update Cycle
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	August 2015	As notified
Superficial Aquifer Designations		
British Geological Survey - National Geoscience Information Service	August 2015	As notified
Source Protection Zones		
Natural Resources Wales	November 2016	As notified
Extreme Flooding from Rivers or Sea without Defences	A 4.00:-	
Natural Resources Wales	August 2017	Quarterly
Flooding from Rivers or Sea without Defences	A	Overstant.
Natural Resources Wales	August 2017	Quarterly
Areas Benefiting from Flood Defences Natural Resources Wales	August 2017	Quartarly
	August 2017	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2017	Quarterly
Flood Defences	August 2017	Quarterly
Natural Resources Wales	August 2017	Quarterly
OS Water Network Lines	7.tagust 2017	Quarterly
Ordnance Survey	July 2017	6 Weekly
Surface Water 1 in 30 year Flood Extent		
Natural Resources Wales	October 2013	As notified
Surface Water 1 in 100 year Flood Extent		
Natural Resources Wales	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent		
Natural Resources Wales	October 2013	As notified
Surface Water Suitability		
Natural Resources Wales	October 2013	As notified
BGS Groundwater Flooding Susceptibility		
British Geological Survey - National Geoscience Information Service	May 2013	Annually

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 24 of 29



Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Natural Resources Wales	May 2017	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency Wales - South West Area	May 2017	Quarterly
Natural Resources Wales	May 2017	Quarterly
Licensed Waste Management Facilities (Locations)	4 .0047	
Natural Resources Wales	August 2017	Quarterly
Environment Agency Wales - South West Area	July 2017	Quarterly
Local Authority Landfill Coverage	Ma 0000	Not Applicable
Carmarthenshire County Council City and County of Swansea - Environmental Health Department	May 2000 May 2000	Not Applicable Not Applicable
	Iviay 2000	Not Applicable
Local Authority Recorded Landfill Sites Carmarthenshire County Council	May 2000	Not Applicable
City and County of Swansea - Environmental Health Department	May 2000	Not Applicable
Potentially Infilled Land (Non-Water)	May 2000	140t Applicable
Landmark Information Group Limited	December 1999	Not Applicable
·	December 1999	1401 Арріїсавіс
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	Not Applicable
	December 1999	140t Applicable
Registered Landfill Sites Environment Agency Wales - South West Area	March 2003	Not Applicable
	IVIAICIT 2003	140t Applicable
Registered Waste Transfer Sites Environment Agency Wales - South West Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites	Maron 2000	140t Applicable
Environment Agency Wales - South West Area	March 2003	Not Applicable
Hazardous Substances	Version	Update Cycle
nazardous Substances	Version	Opuate Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	September 2017	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Carmarthenshire County Council - Area Planning Office (East Area)	February 2016	Annual Rolling Updat
Carmarthenshire County Council - Area Planning Office (South Area)	February 2016	Annual Rolling Updat
Carmarthenshire County Council - Environment Department (West Area)	February 2016	Annual Rolling Updat
City and County of Swansea - Planning Department	January 2016	Annual Rolling Updat
Planning Hazardous Substance Consents	F.1 0046	Assessed B. W. H. C.
Carmarthenshire County Council - Area Planning Office (East Area)	February 2016	Annual Rolling Updat
Cormorthopolita County Council Area Planning Office (Court Area)		
Carmarthenshire County Council - Area Planning Office (South Area)  Carmarthenshire County Council - Environment Department (West Area)	February 2016 February 2016	Annual Rolling Updat  Annual Rolling Updat

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 25 of 29



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	October 2015	As notified
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	April 2017	Bi-Annually
CBSCB Compensation District		
Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas		
The Coal Authority - Property Searches	March 2014	As notified
Mining Instability		
Ove Arup & Partners	October 2000	Not Applicable
	00(000) 2000	140t Applicable
Non Coal Mining Areas of Great Britain	Mov 2015	Not Applicable
British Geological Survey - National Geoscience Information Service	May 2015	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
	00 20.10	7
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
	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	September 2017	Quarterly
Fuel Station Entries		
Catalist Ltd - Experian	August 2017	Quarterly
Gas Pipelines		
National Grid	July 2014	Quarterly
Points of Interest - Commercial Services		
PointX	September 2017	Quarterly
Points of Interest - Education and Health	·	-
PointX	September 2017	Quarterly
	Coptombol 2011	Quartony
Points of Interest - Manufacturing and Production	Contomb == 0047	O
PointX	September 2017	Quarterly
Points of Interest - Public Infrastructure		
PointX	September 2017	Quarterly
Points of Interest - Recreational and Environmental		
	September 2017	Quarterly
PointX	Ocptomber 2017	
PointX  Underground Electrical Cables	Ocptember 2017	,

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Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural Resources Wales	May 2017	Bi-Annually
Areas of Adopted Green Belt		
City and County of Swansea	May 2017	As notified
Areas of Outstanding Natural Beauty		
Natural Resources Wales	August 2017	Bi-Annually
Environmentally Sensitive Areas		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Carmarthenshire County Council	August 2017	Bi-Annually
City and County of Swansea	August 2017	Bi-Annually
Marine Nature Reserves		
Natural Resources Wales	August 2017	Bi-Annually
National Nature Reserves		
Natural Resources Wales	August 2017	Bi-Annually
National Parks		
Natural Resources Wales	August 2017	Annually
Nitrate Vulnerable Zones		
Natural Resources Wales	June 2017	Bi-Annually
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	
Ramsar Sites		
Natural Resources Wales	August 2017	Bi-Annually
Sites of Special Scientific Interest		
Natural Resources Wales	August 2017	Bi-Annually
Special Areas of Conservation		
Natural Resources Wales	August 2017	Bi-Annually
Special Protection Areas		
Natural Resources Wales	August 2017	Bi-Annually

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# **Data Suppliers**

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Map data
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SEPA Scotlish Environment Protection Agency
The Coal Authority	The Coal Authority
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	Cyfoeth Naturiol Cymru Natural Resources Wales
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE 단구하
Natural England	NATURAL ENGLAND
Public Health England	Public Health England
Ove Arup	ARUP
Peter Brett Associates	peterbrett



## **Useful Contacts**

Contact	Name and Address	Contact Details
1	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
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC)	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
	PO Box 544, Templeborough, Rotherham, S60 1BY	
4	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 023 8079 2000 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	City and County of Swansea - Environmental Health Department	Telephone: 01792 636000 extn 5651 Fax: 01792 635719
	The Guildhall, Swansea, West Glamorgan, SA1 4PE	
6	Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
7	City and County of Swansea - Planning Department The Guildhall, Swansea, West Glamorgan, SA1 4PE	Telephone: 01792 636000 Fax: 01792 635709
8	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
9	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
10	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards  Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

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## **Geology 1:50,000 Maps Legends**

#### **Artificial Ground and Landslip**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SLIP	Landslide Deposit	Unknown/Unclassif ied Entry	Quaternary - Quaternary

#### **Superficial Geology**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	TILLD	Till, Devensian	Diamicton	Devensian - Devensian
	HMGDD	Hummocky (Moundy) Glacial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	GFICD	Glaciofluvial Ice Contact Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quaternary - Quaternary
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Quaternary
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Quaternary - Quaternary

#### **Bedrock and Faults**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	GDB	Grovesend Formation	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Ħ	Hughes Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Н	Hughes Member	Sandstone	Westphalian D - Westphalian D
		Faults		
/		Rock Segments		

# **Envirocheck**®

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#### Geology 1:50,000 Maps

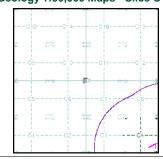
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

#### Geology 1:50,000 Maps Coverage

Map ID: Map Sheet No: Map Name: Ammanford 1977 Map Date: Available Superficial Geology Artificial Geology: Not Supplied Landslip: Available Not Supplied

#### Geology 1:50,000 Maps - Slice C





#### **Order Details:**

Order Number: 142844199_1_1 Customer Reference: 60542910 National Grid Reference: 264710, 202740 C 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

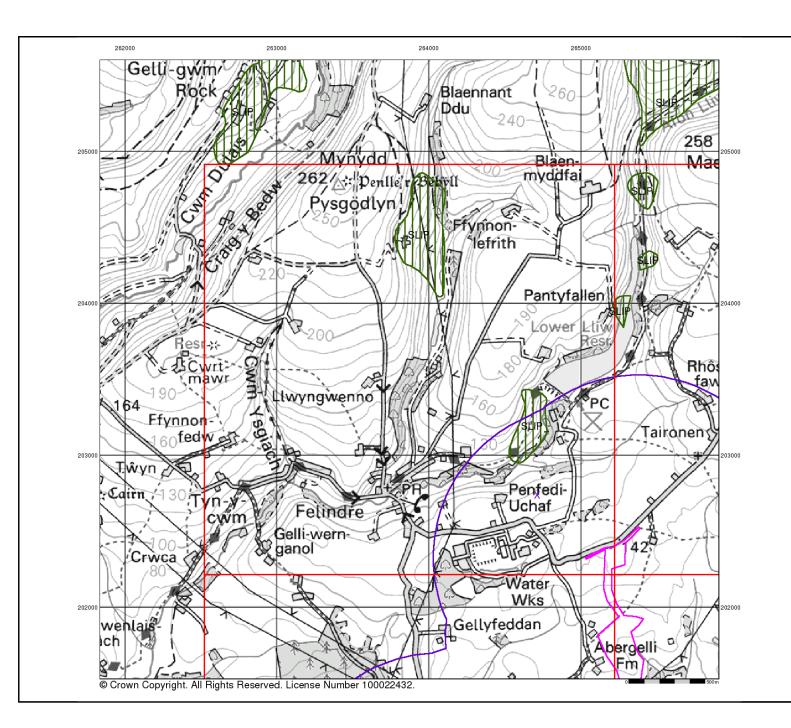
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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#### **Artificial Ground and Landslip**

Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

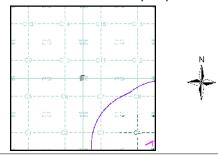
Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.

  - Worked ground - areas where the ground has been cut away such as
- quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground areas where the surface has been reshaped.
   Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

#### Artificial Ground and Landslip Map - Slice C



#### **Order Details:**

Order Number: Customer Reference: 142844199 1 1 60542910 National Grid Reference: 264710, 202740 C 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

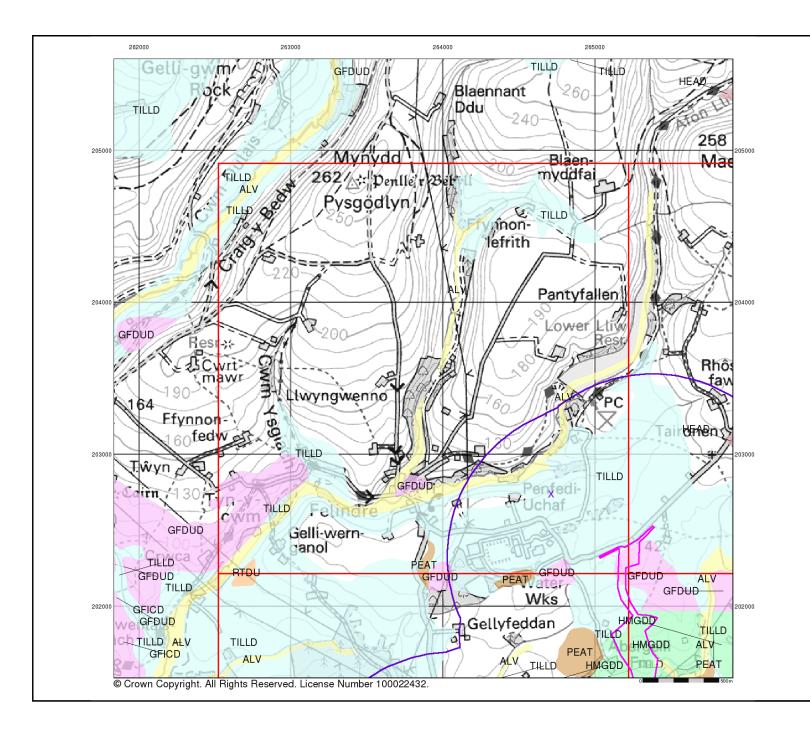
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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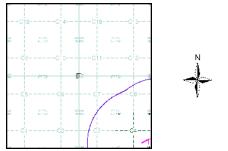
#### **Superficial Geology**

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

#### Superficial Geology Map - Slice C



#### **Order Details:**

Order Number: Customer Reference: 142844199_1_1 60542910 National Grid Reference: 264710, 202740 C 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

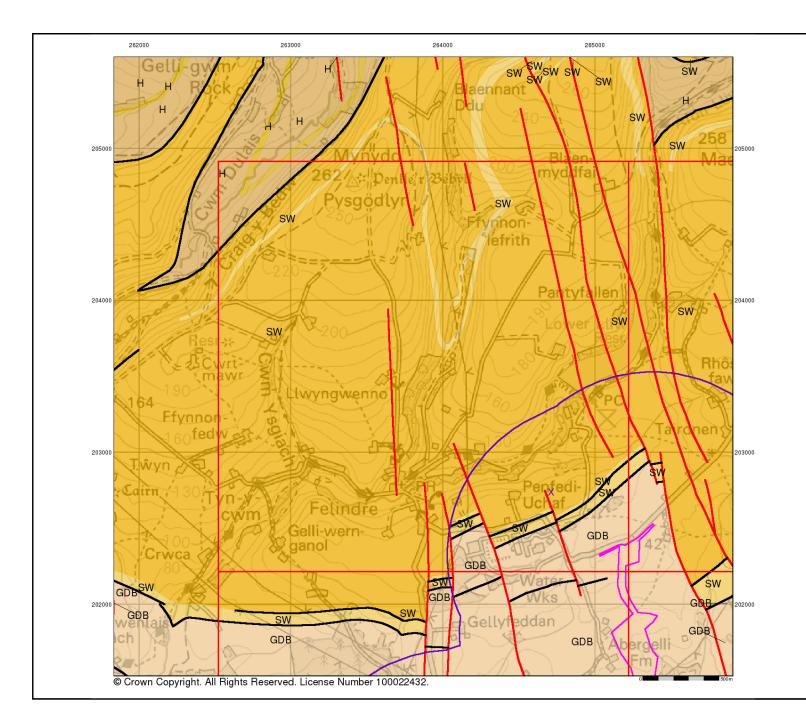
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952 0844 844 9951

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#### **Bedrock and Faults**

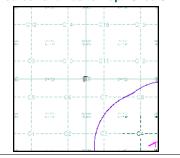
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

#### Bedrock and Faults Map - Slice C



#### **Order Details:**

Order Number: Customer Reference: 142844199_1_1 60542910 National Grid Reference: 264710, 202740 C 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

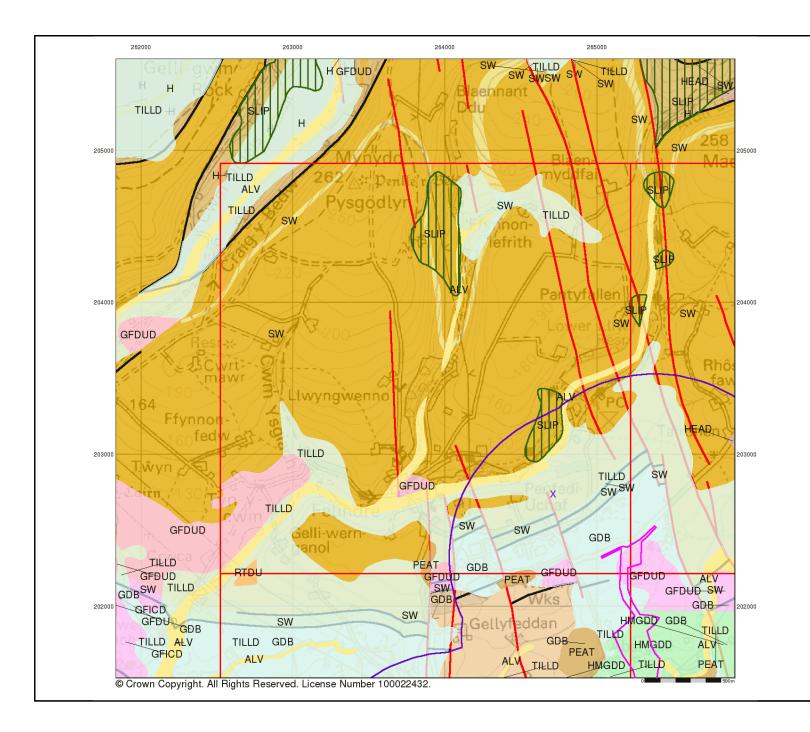
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952 0844 844 9951

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#### **Combined Surface Geology**

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

#### **Additional Information**

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS

#### Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

#### Combined Geology Map - Slice C





#### **Order Details:**

Order Number: Customer Reference: 142844199 1 1 60542910 National Grid Reference: 264710, 202740 C 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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v15.0 13-Oct-2017

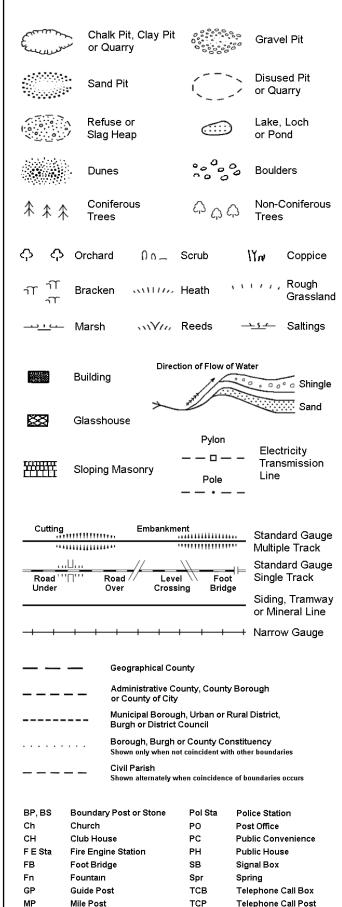
Page 5 of 5

# **Historical Mapping Legends**

## **Ordnance Survey County Series 1:10,560** Other Gravel Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Station Site of Antiquities Bench Mark Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** ·285 Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Sunken Road Raised Road Railway over Road over Ri∨er Railway Railway over Level Crossing Road Road over Road over Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Co. Burgh Bdy. Rural District Boundary RD. Bdy.

Civil Parish Boundary

## Ordnance Survey Plan 1:10,000



## 1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders	<i>a o</i>	Boulders (scattered)
	Shingle	Mud	Mud
Sand	Sand		Sand Pit
********	Slopes		Top of cliff
	General detail		Underground detail
	- Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)	• • • • •	Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
۵ ^۵	Area of wooded vegetation	۵ ^۵	Non-coniferous trees
$C_{i,\lambda}$	Non-coniferous trees (scattered)	**	Coniferous trees
<b>*</b>	Coniferous trees (scattered)	Ö	Positioned tree
\$ \$ \$ \$	Orchard	* *	Coppice or Osiers
wīti.	Rough Grassland	www.	Heath
On_	Scrub	7 <u>₩</u> ۲	Marsh, Salt Marsh or Reeds
4	Water feature	←	Flow arrows
MHW(S)	Mean high water (springs)	MLW(S)	Mean low water (springs)
	Telephone line (where shown)	<b></b> -	Electricity transmission line (with poles)
← BM 123.45 m	Bench mark (where shown)	Δ	Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)	$\boxtimes$	Pylon, flare stac or lighting tower
•‡•	Site of (antiquity)		Glasshouse
	General Building		Important Building

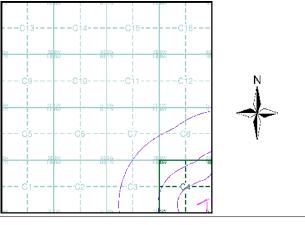
# **Envirocheck®**

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## **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1883 - 1884	3
Glamorganshire	1:10,560	1900	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1938	6
Glamorganshire	1:10,560	1952 - 1953	7
Ordnance Survey Plan	1:10,000	1964	8
Ordnance Survey Plan	1:10,000	1976	9
Swansea	1:10,000	1976	10
Ordnance Survey Plan	1:10,000	1991	11
10K Raster Mapping	1:10,000	1999	12
10K Raster Mapping	1:10,000	2006	13
VectorMap Local	1:10,000	2017	14

## **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

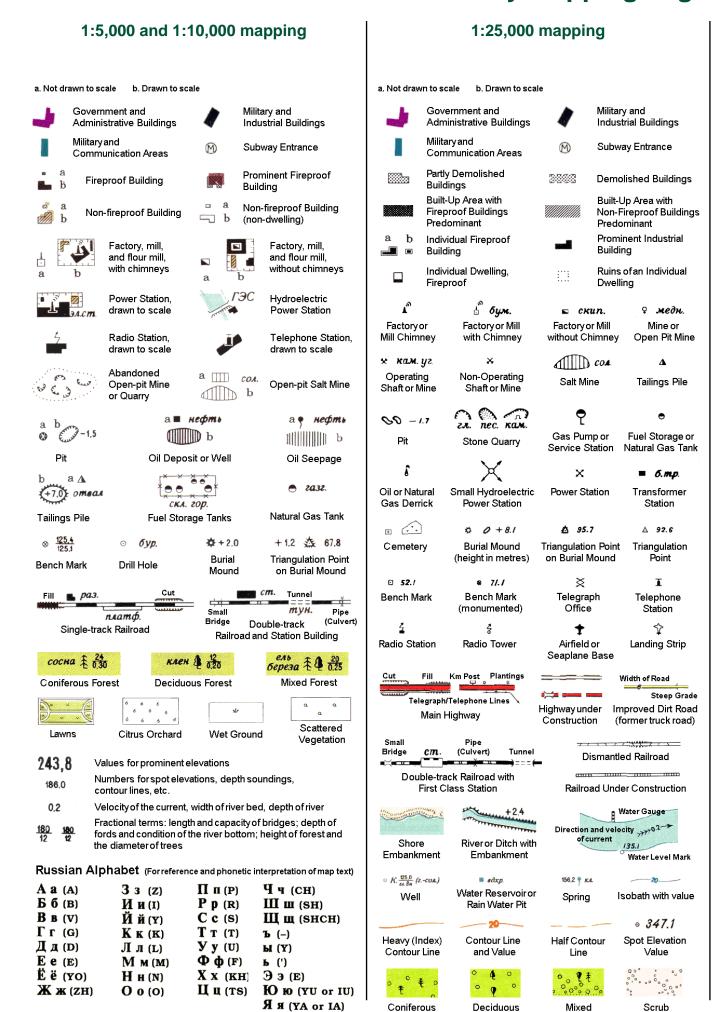
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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# **Russian Military Mapping Legends**



#### **Key to Numbers on Mapping**

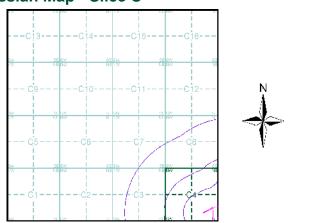
# **Envirocheck®**

LANDMARK INFORMATION GROUPS

### **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1883 - 1884	3
Glamorganshire	1:10,560	1900	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1938	6
Glamorganshire	1:10,560	1952 - 1953	7
Ordnance Survey Plan	1:10,000	1964	8
Ordnance Survey Plan	1:10,000	1976	9
Swansea	1:10,000	1976	10
Ordnance Survey Plan	1:10,000	1991	11
10K Raster Mapping	1:10,000	1999	12
10K Raster Mapping	1:10,000	2006	13
VectorMap Local	1:10,000	2017	14

### Russian Map - Slice C



#### **Order Details** Order Number:

142844199_1_1 60542910 Customer Ref: National Grid Reference: 264710, 202740 Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

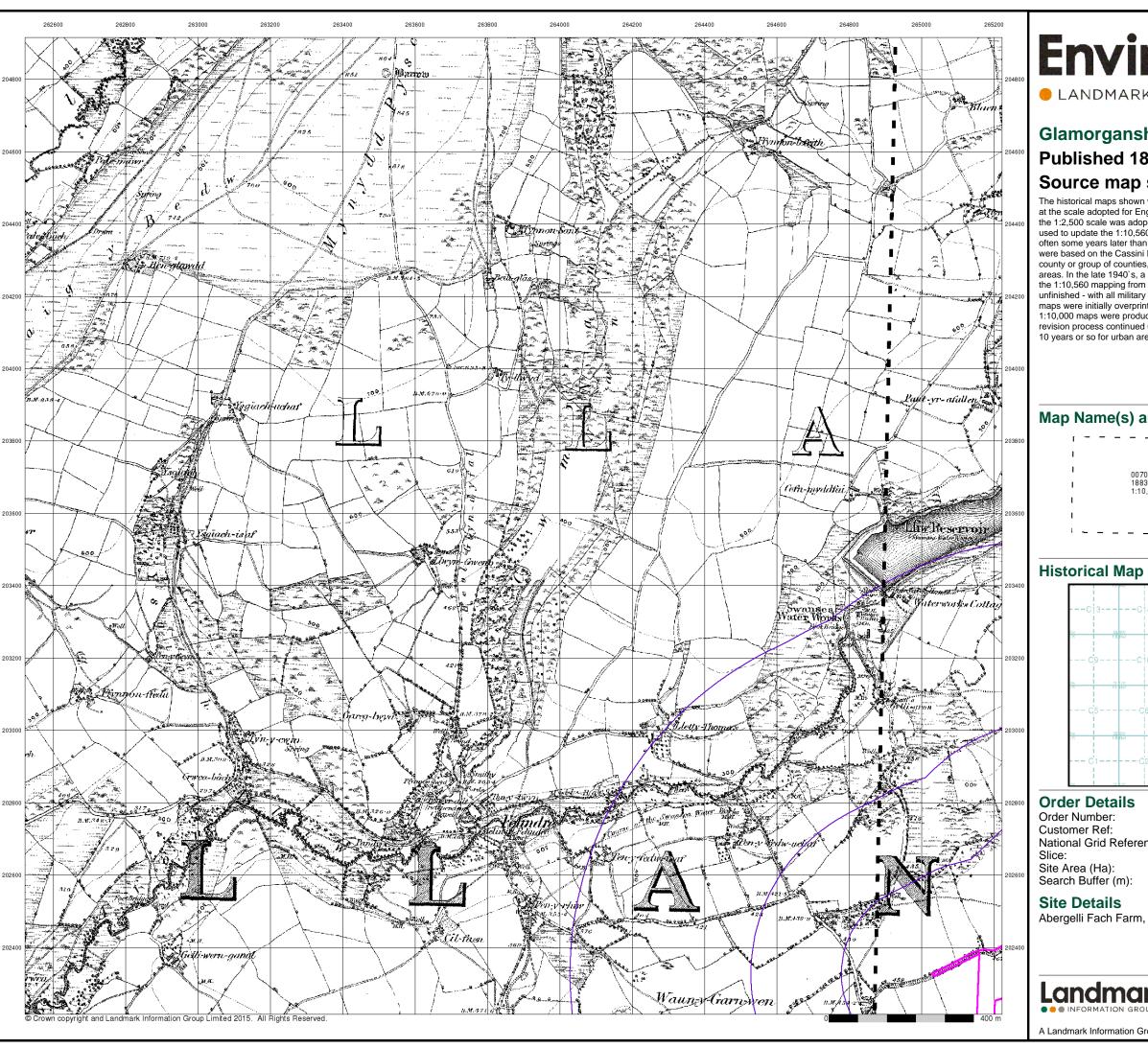
## **Site Details**

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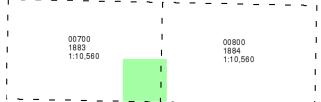
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## Glamorganshire

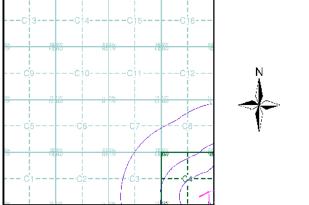
## Published 1883 - 1884 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



### **Historical Map - Slice C**



142844199_1_1 60542910 National Grid Reference: 264710, 202740

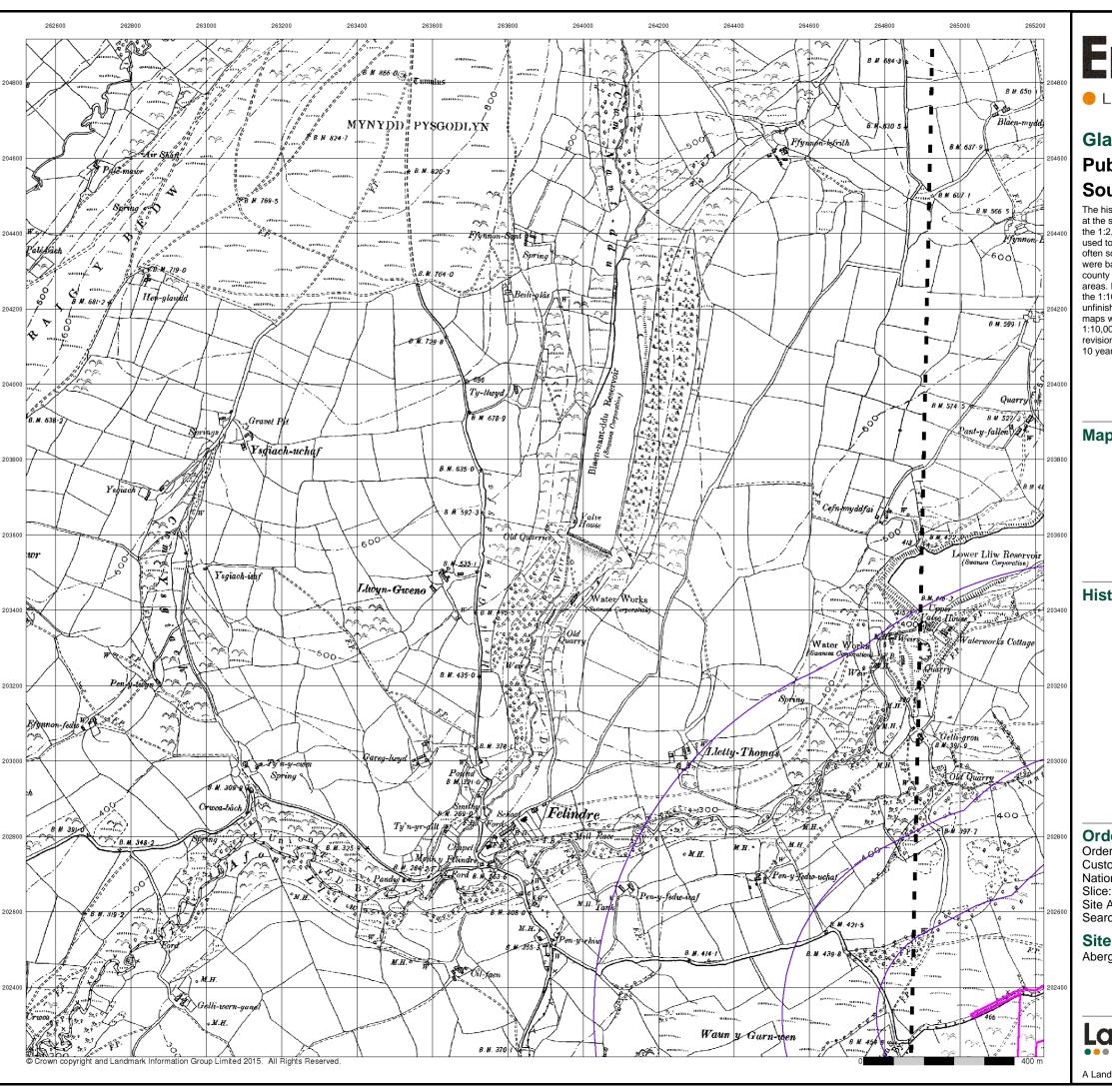
32.39

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Landmark

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## Glamorganshire

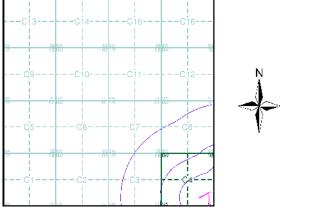
## **Published 1900** Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Site Area (Ha): 32.39 Search Buffer (m): 1000

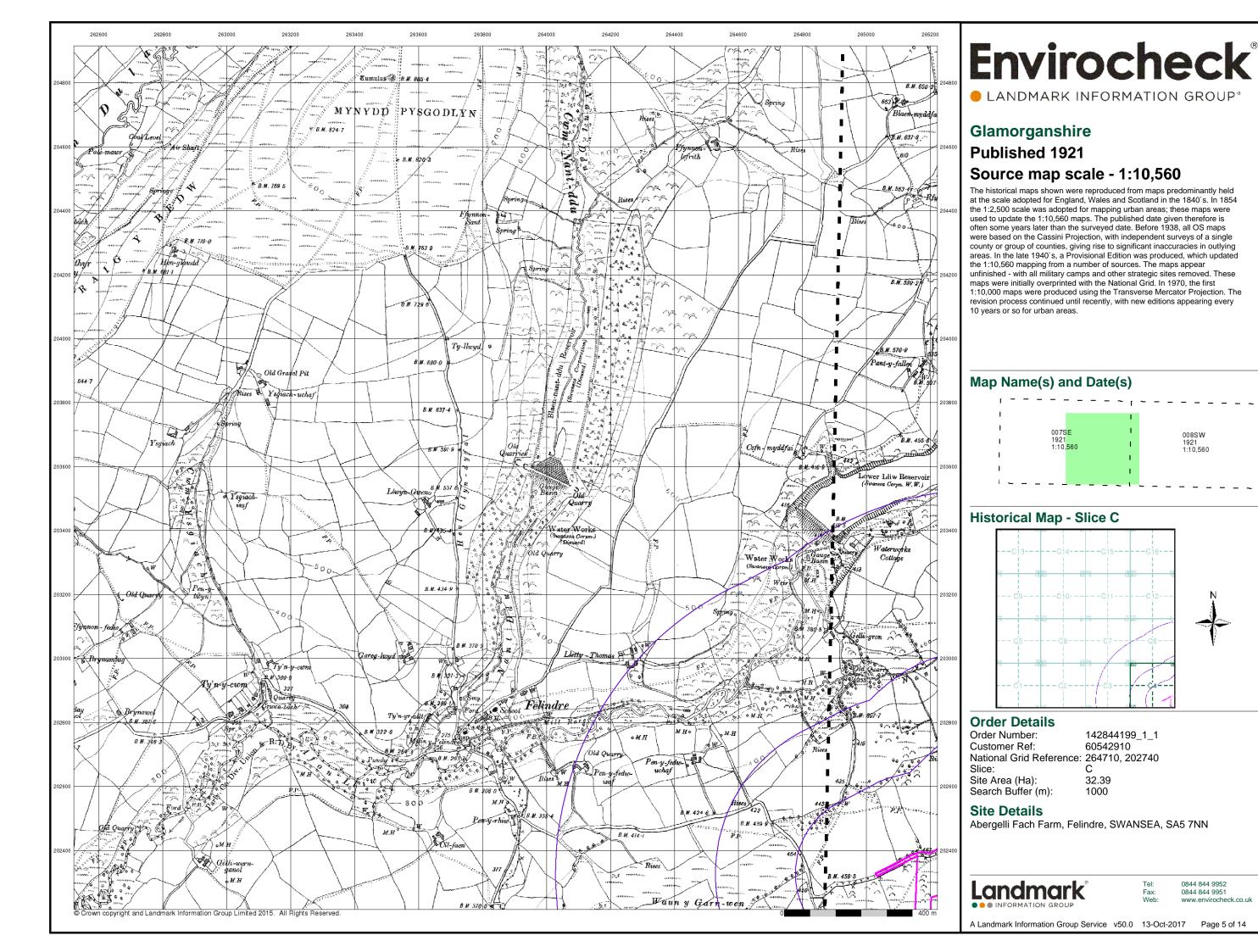
#### **Site Details**

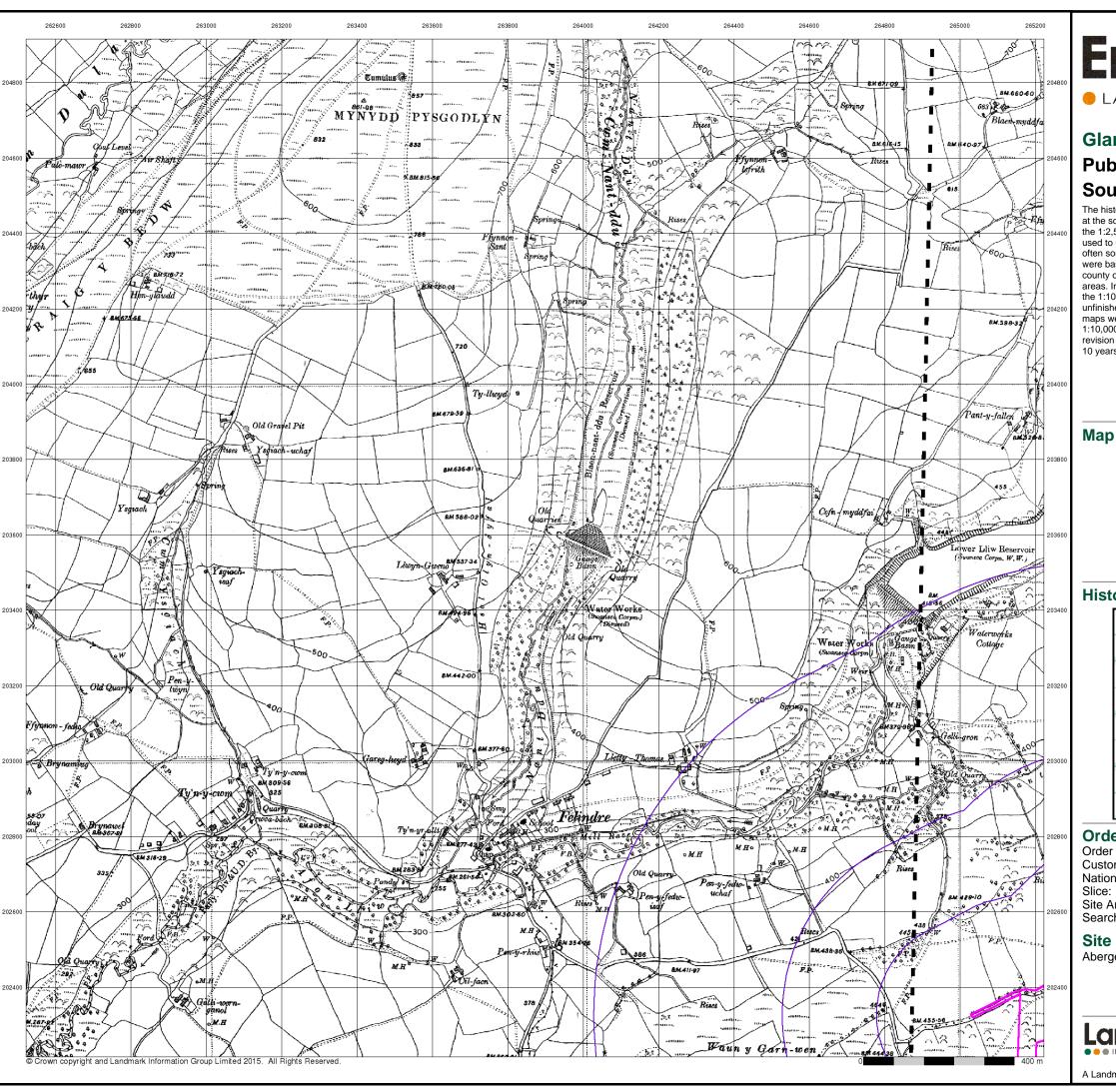
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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A Landmark Information Group Service v50.0 13-Oct-2017 Page 4 of 14





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## Glamorganshire

# **Published 1938**

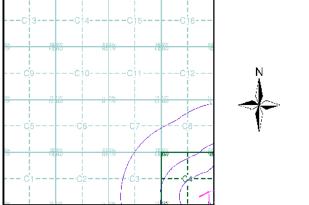
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The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Site Area (Ha): 32.39 Search Buffer (m): 1000

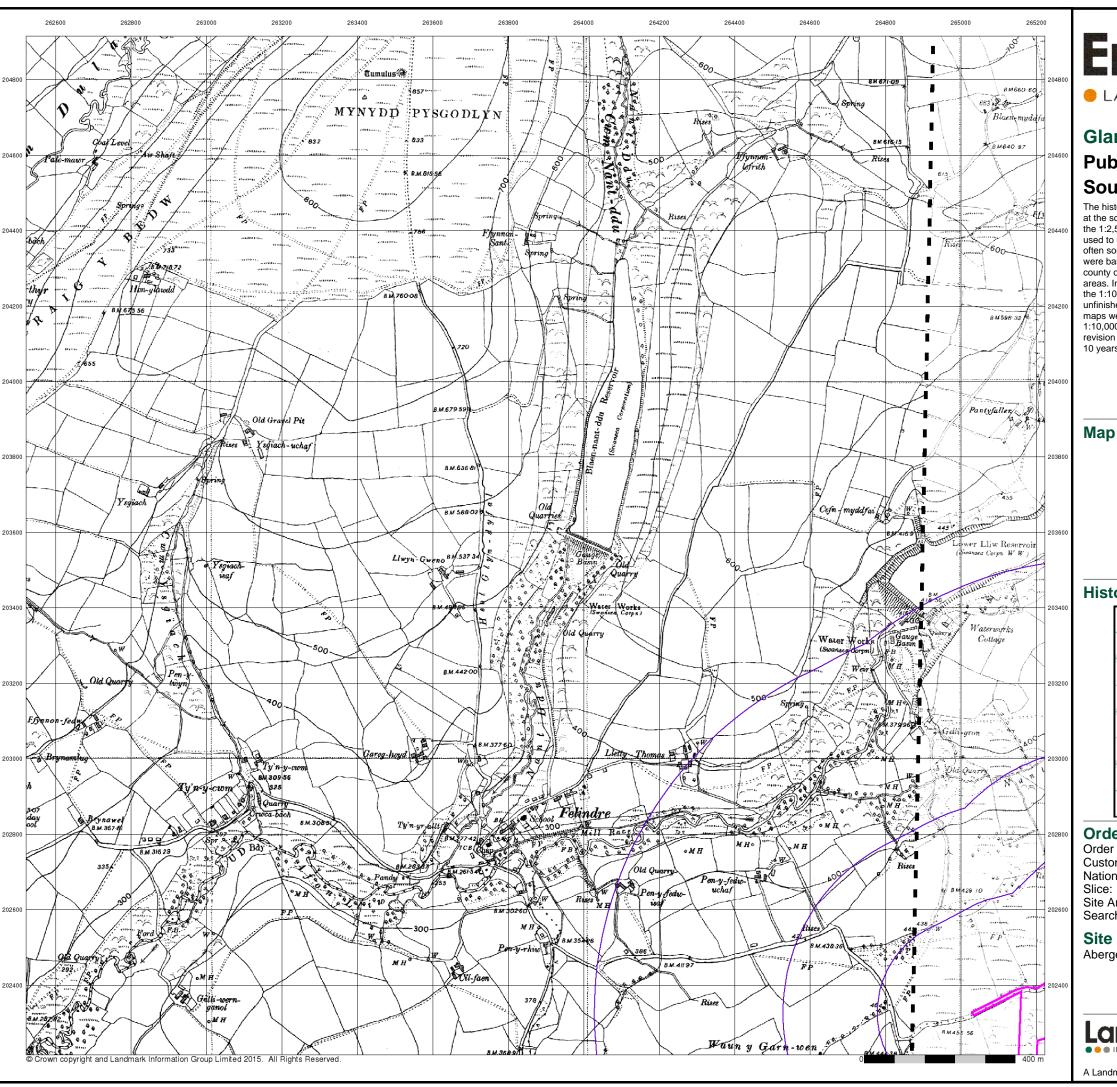
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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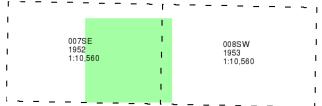
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## Glamorganshire

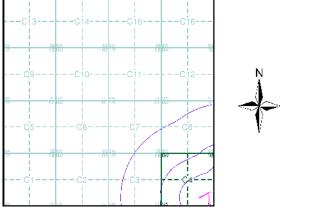
## **Published 1952 - 1953** Source map scale - 1:10,560

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## Map Name(s) and Date(s)



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

Site Area (Ha): 32.39 Search Buffer (m): 1000

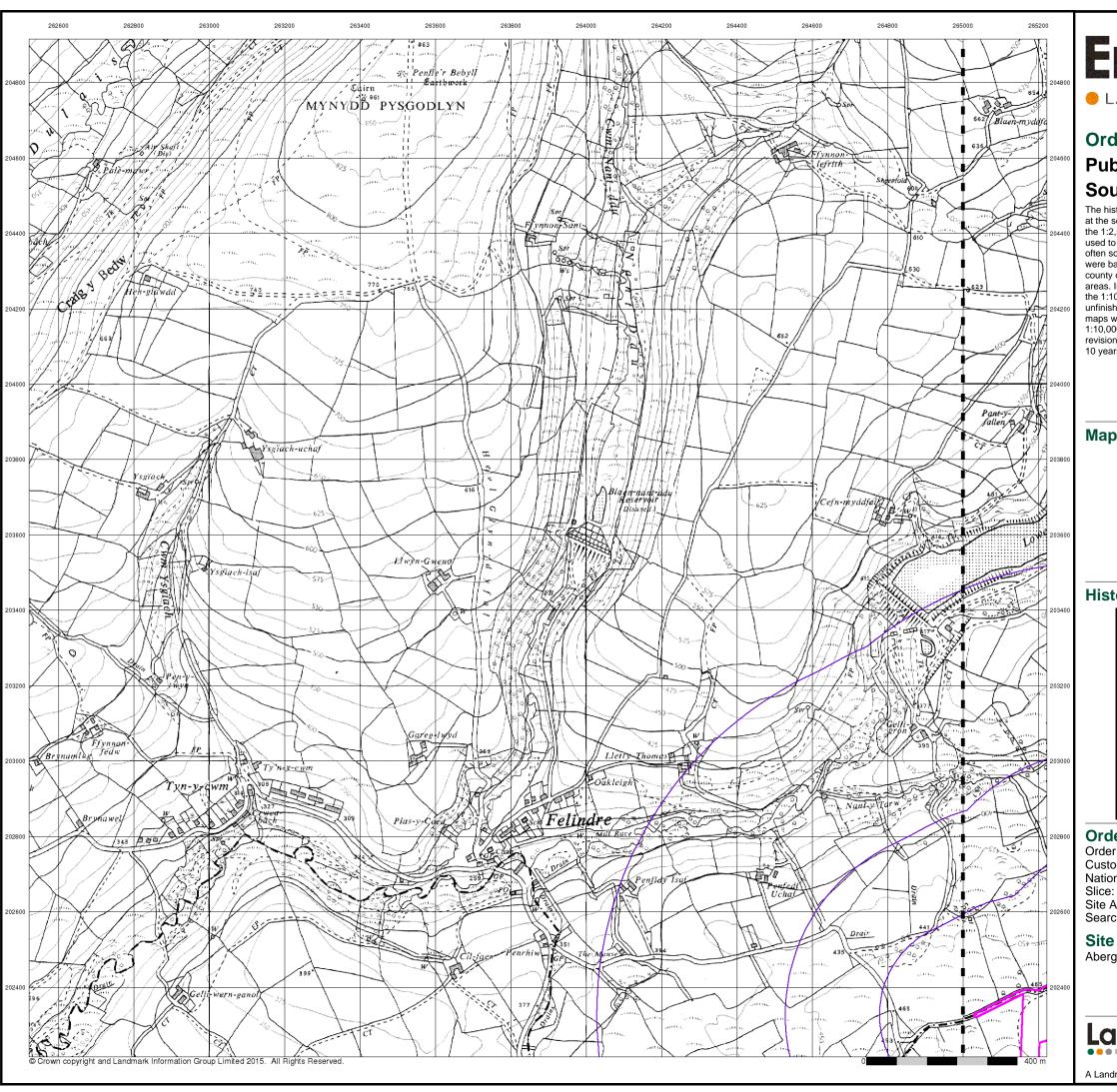
### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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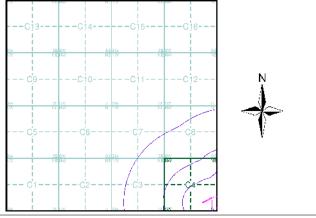
# **Ordnance Survey Plan Published 1964** Source map scale - 1:10,000

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## Map Name(s) and Date(s)



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

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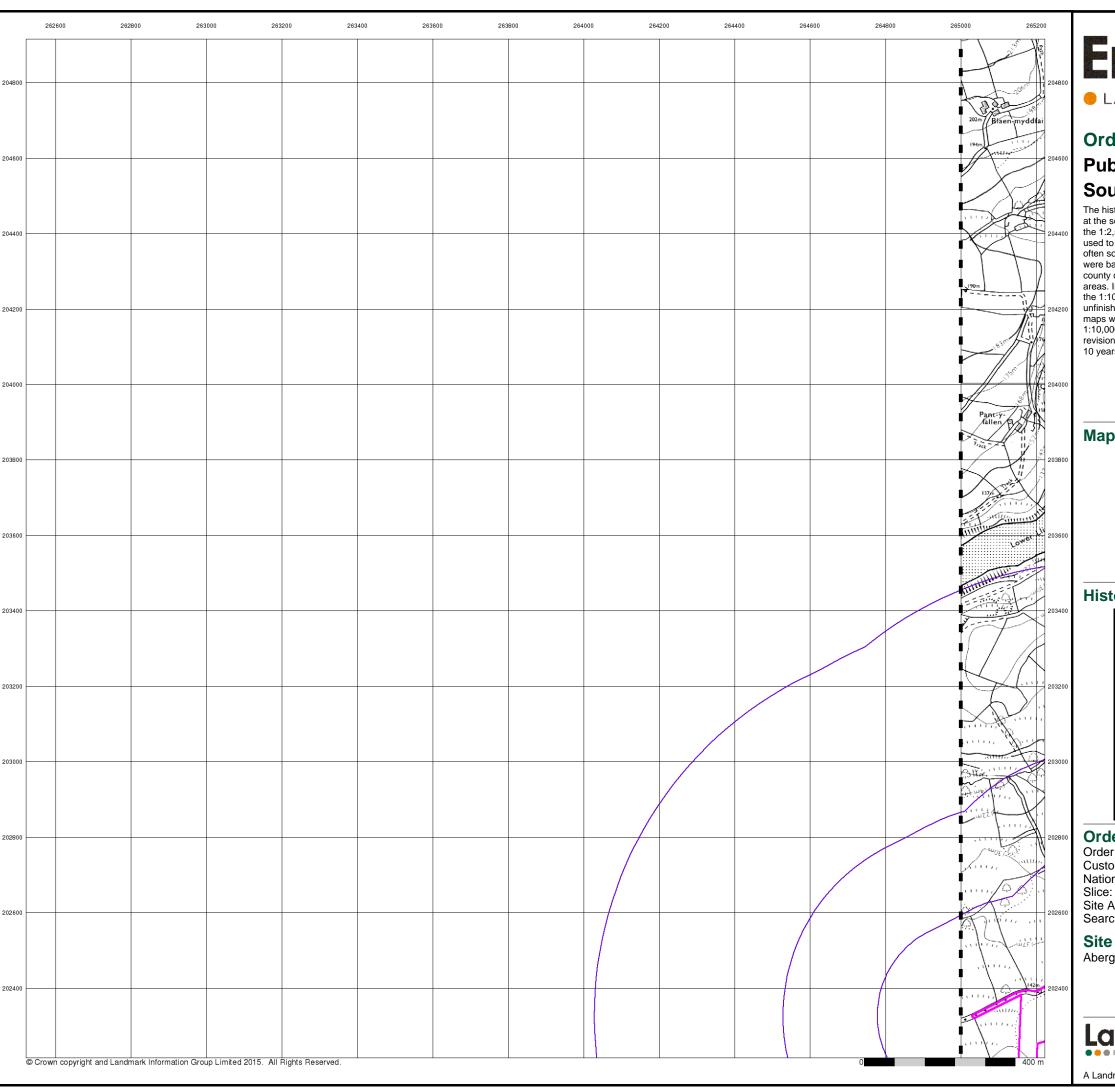
#### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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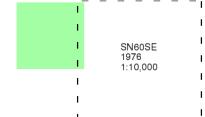


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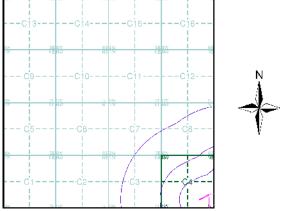
# **Ordnance Survey Plan Published 1976** Source map scale - 1:10,000

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## Map Name(s) and Date(s)



### **Historical Map - Slice C**



## **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

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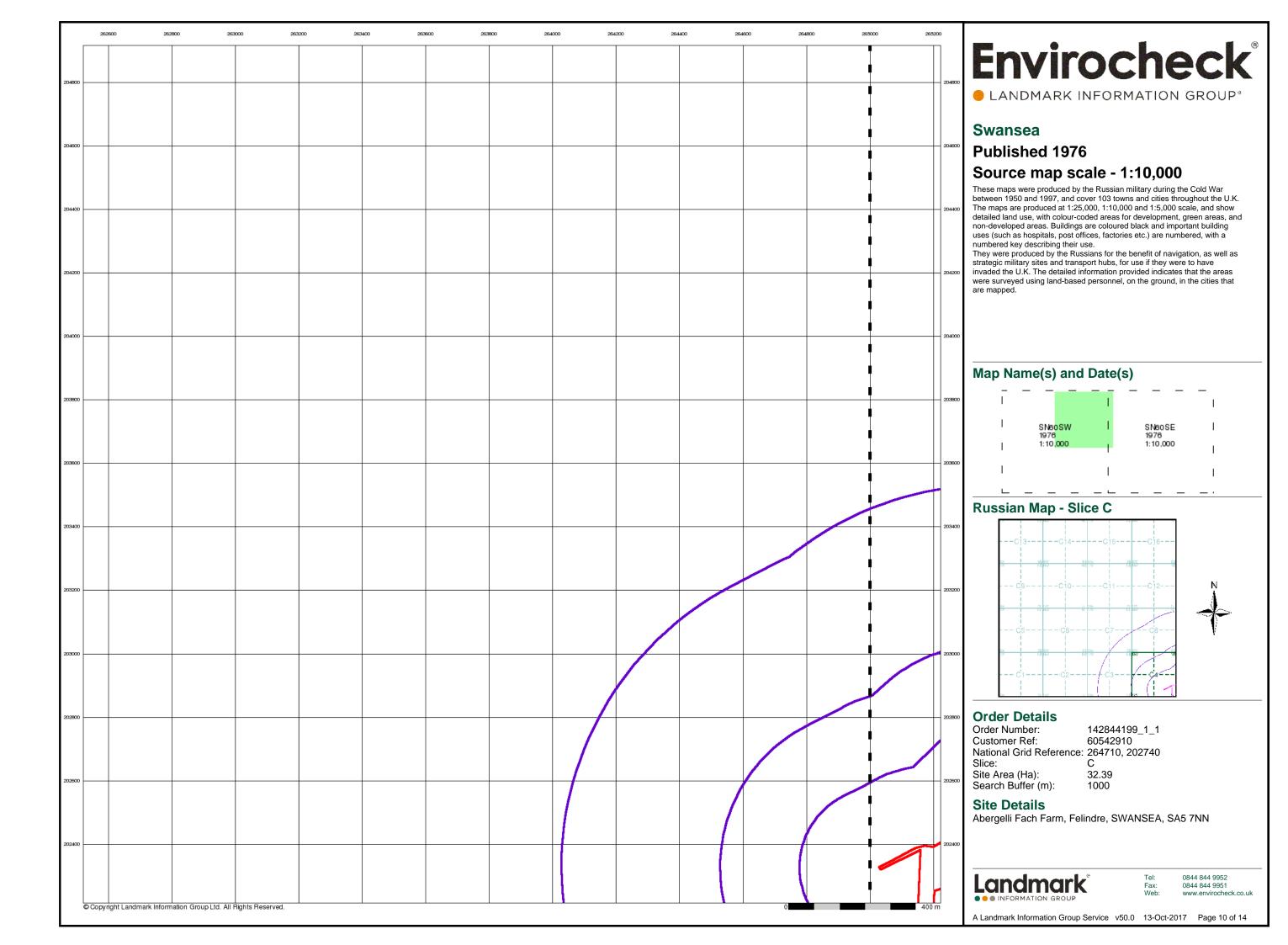
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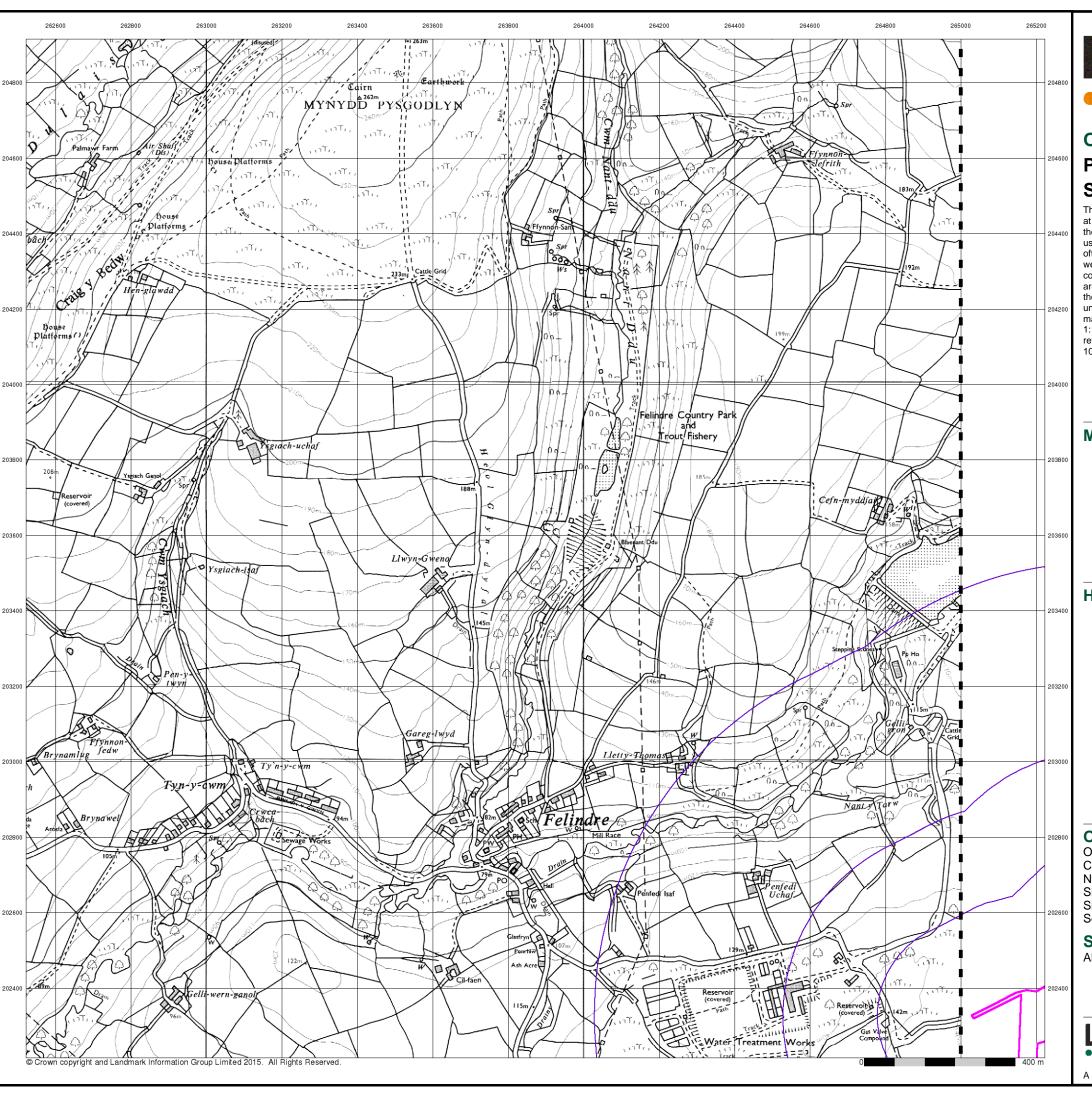
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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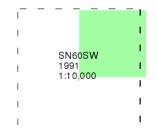
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# Ordnance Survey Plan Published 1991

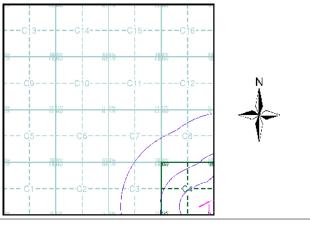
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## Map Name(s) and Date(s)



### **Historical Map - Slice C**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 264710, 202740

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Site Area (Ha): 32.39 Search Buffer (m): 1000

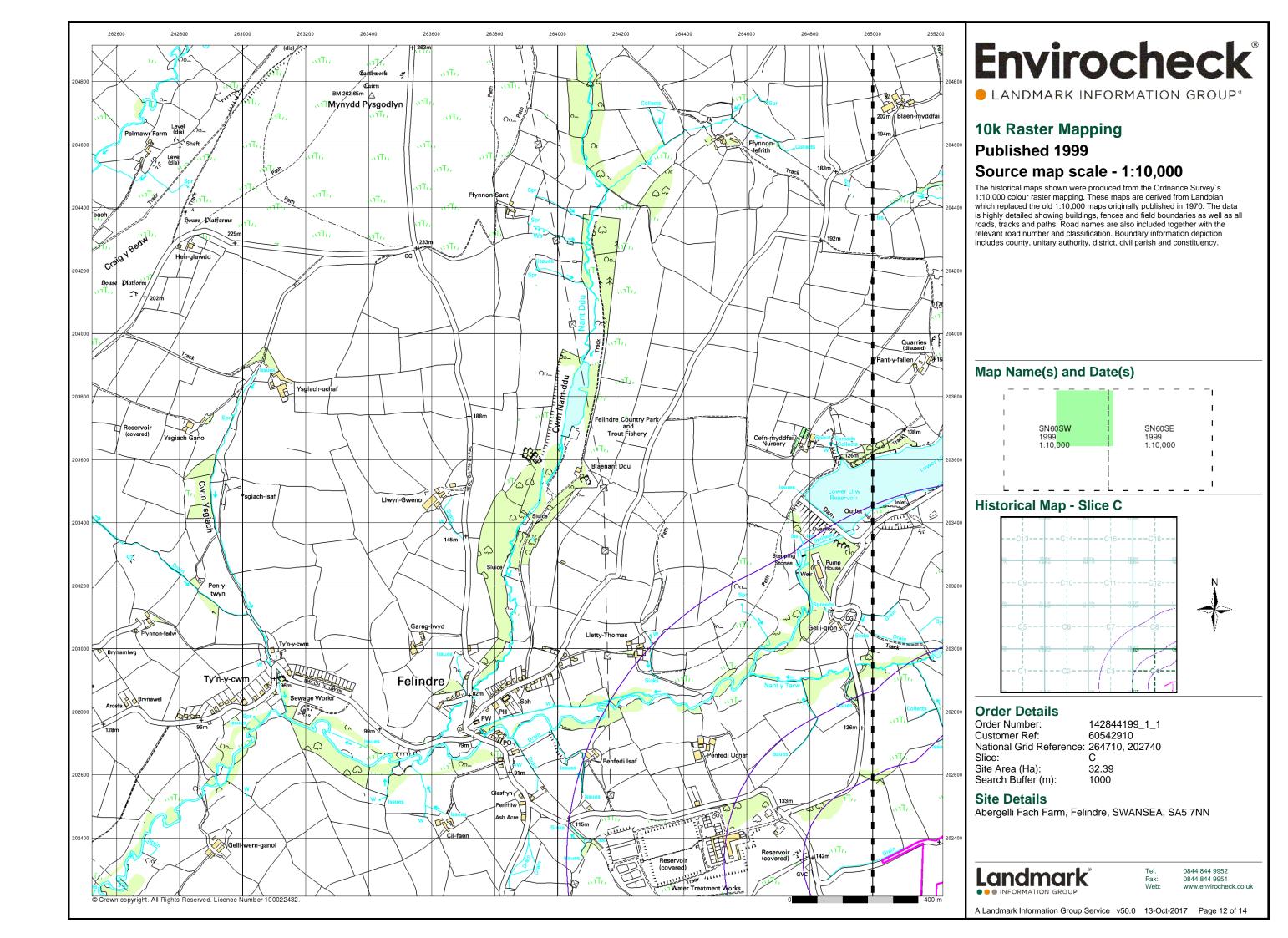
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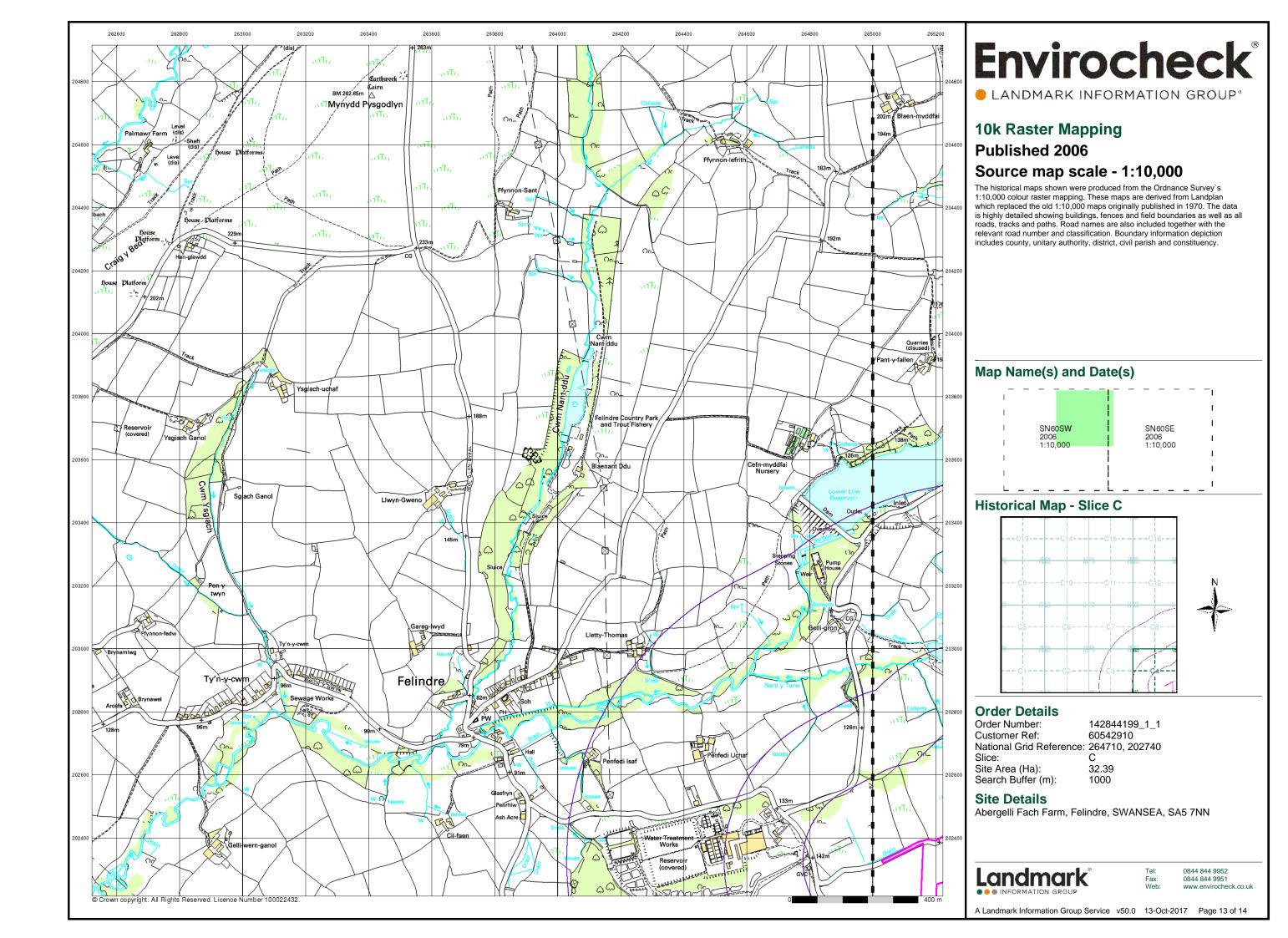
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

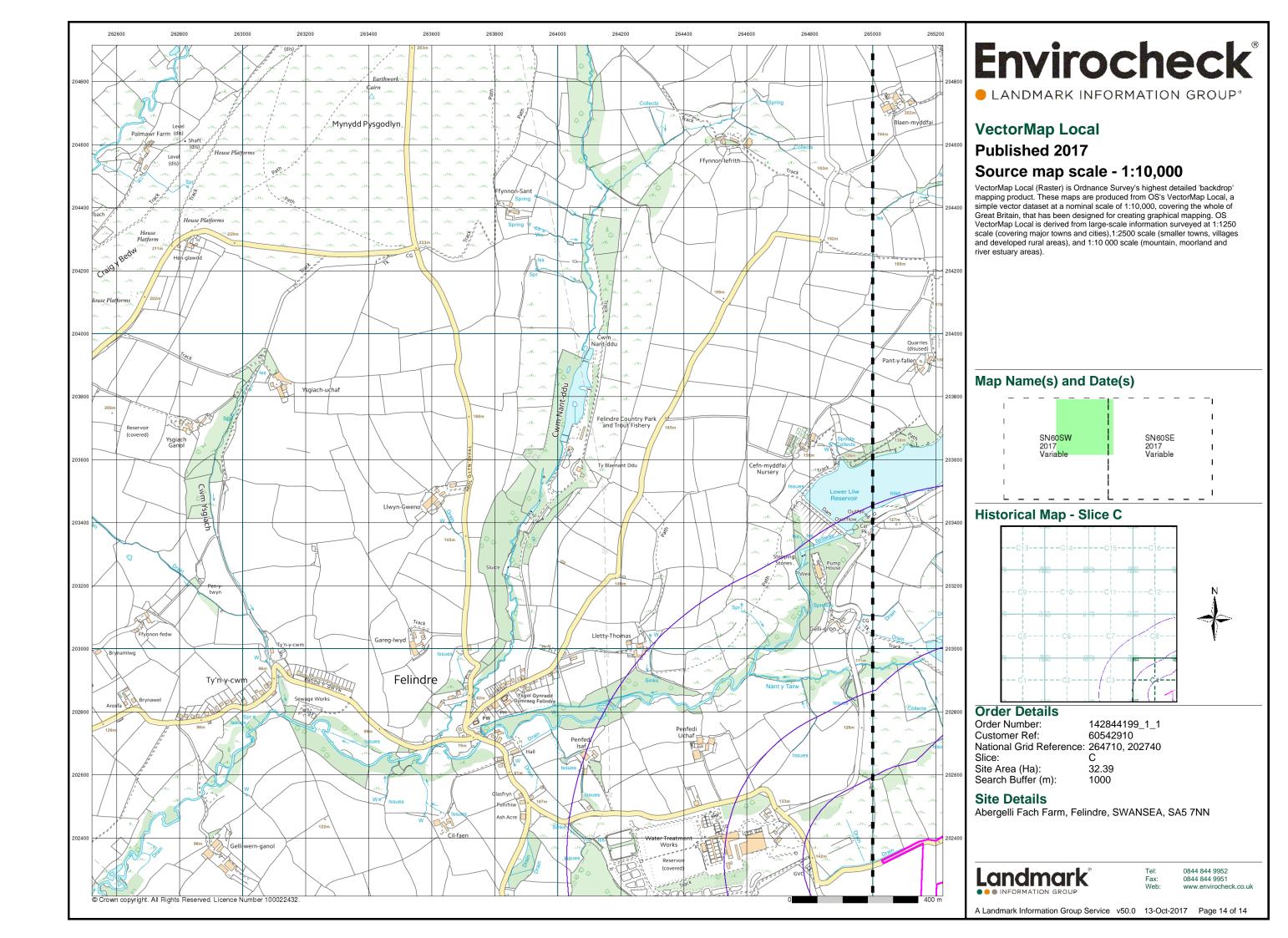
Landmark*

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

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Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202740

Slice:

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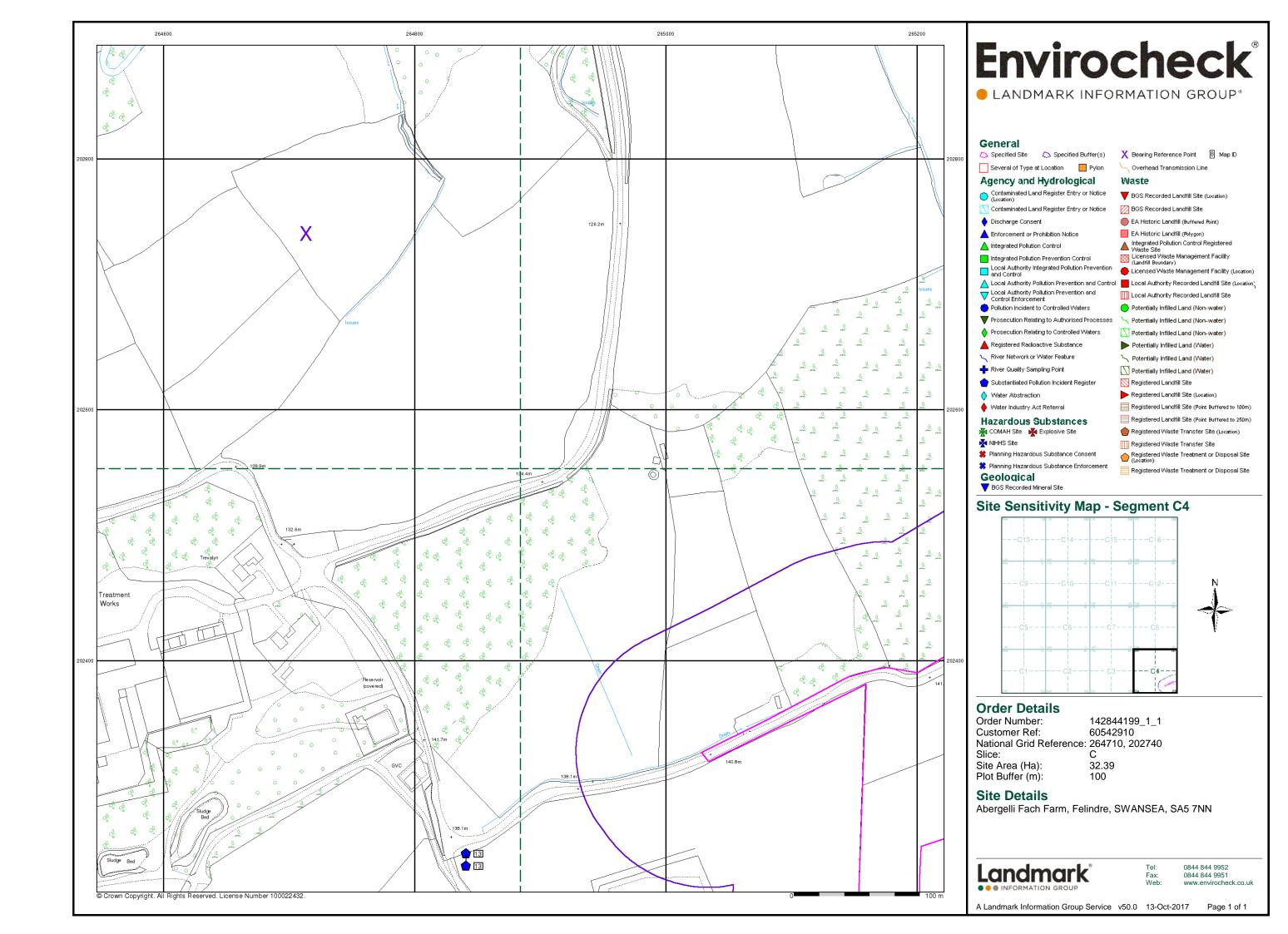
142844195 VectorMar

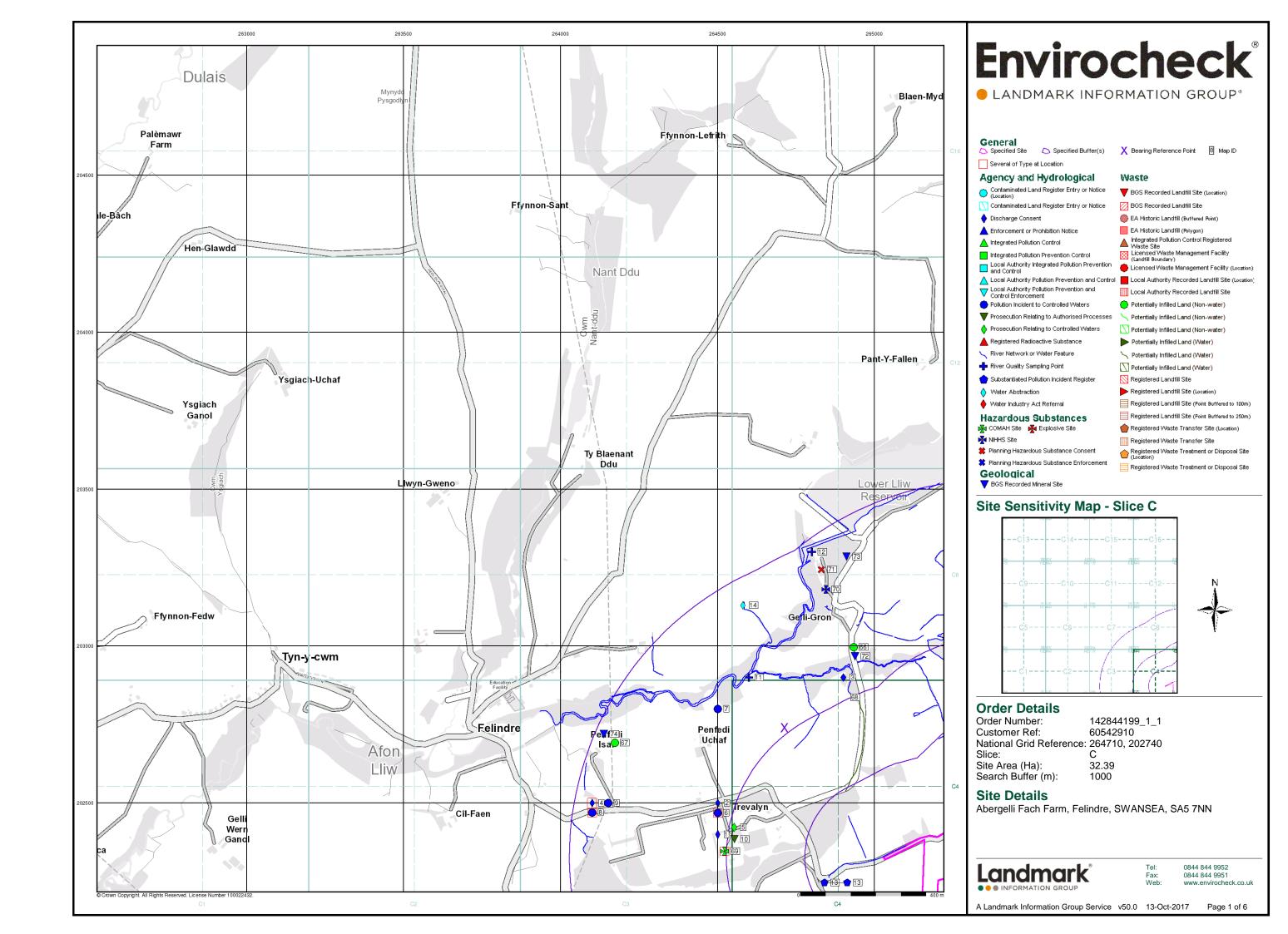
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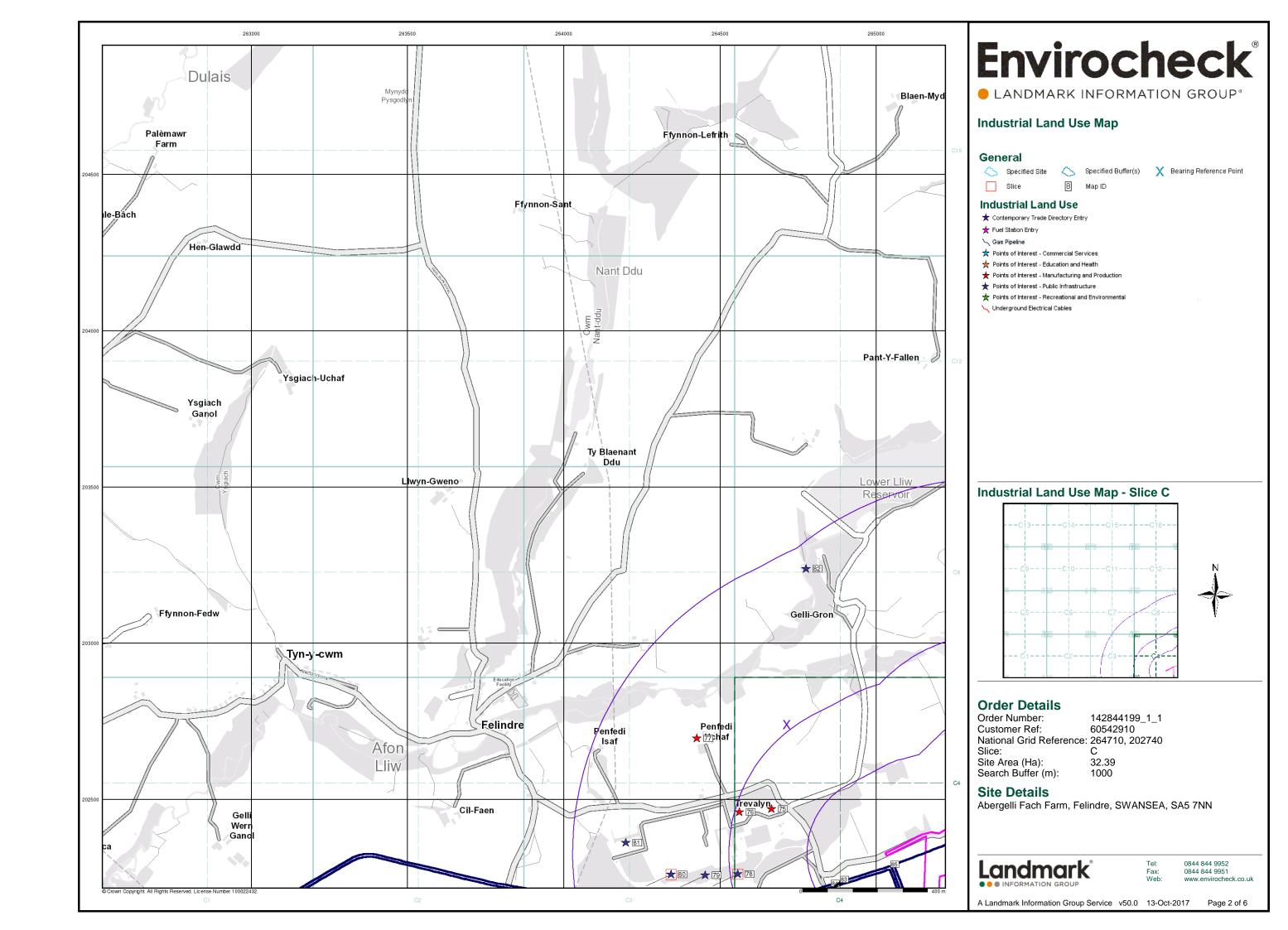
Abergelli F Felindre SWANSEA SA5 7NN

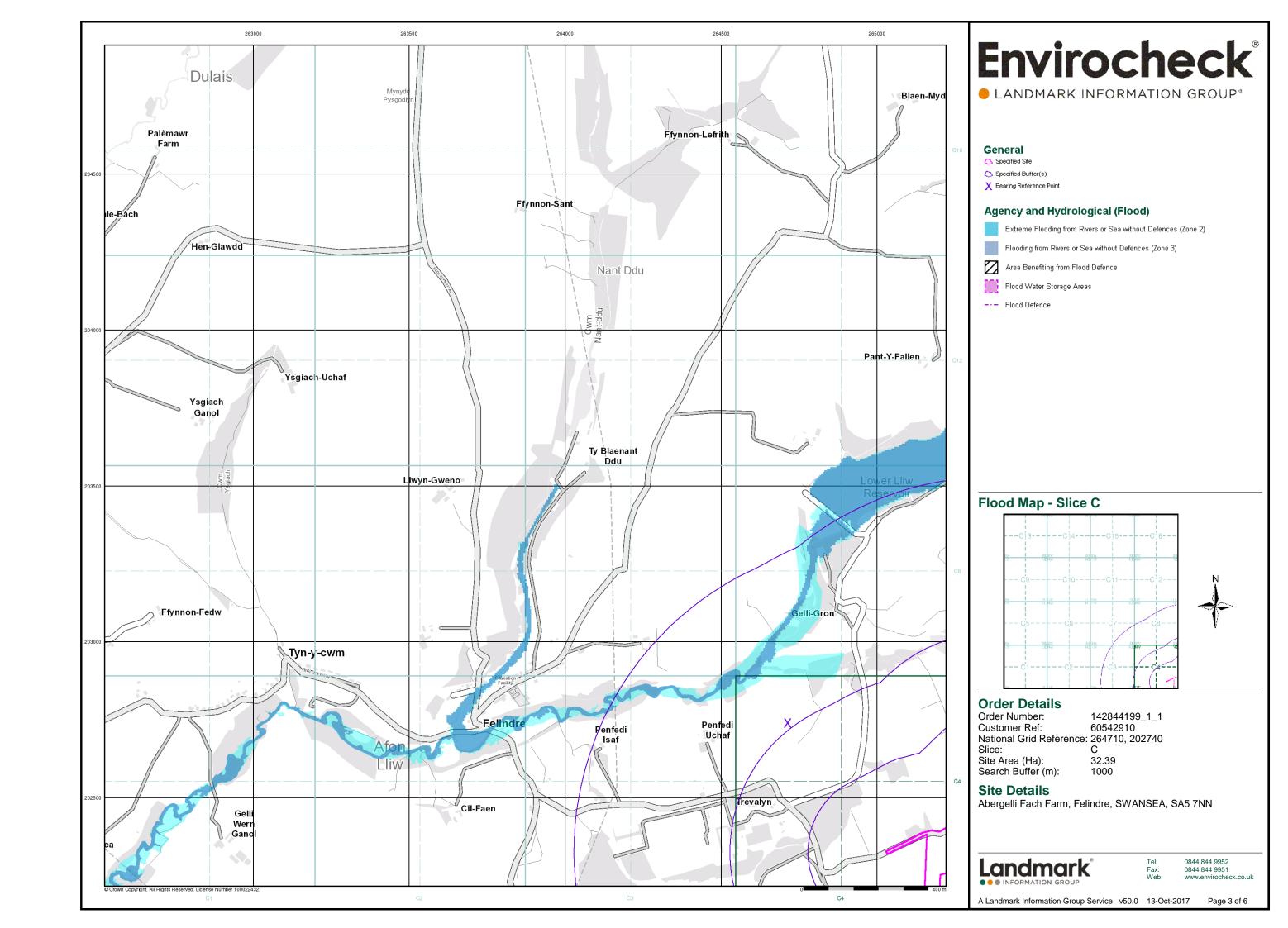
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142844199 Glamorgan	1900 1:10,560	1876-1876 1897-1897	1900-1900
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142844199 Glamorgan 195	2-1953 1:10,560	1875-1876	1948-1948 1913-1913 1952-1953
142844199 Ordnance 9	1976 1:10,000	) 1974 1975	1976
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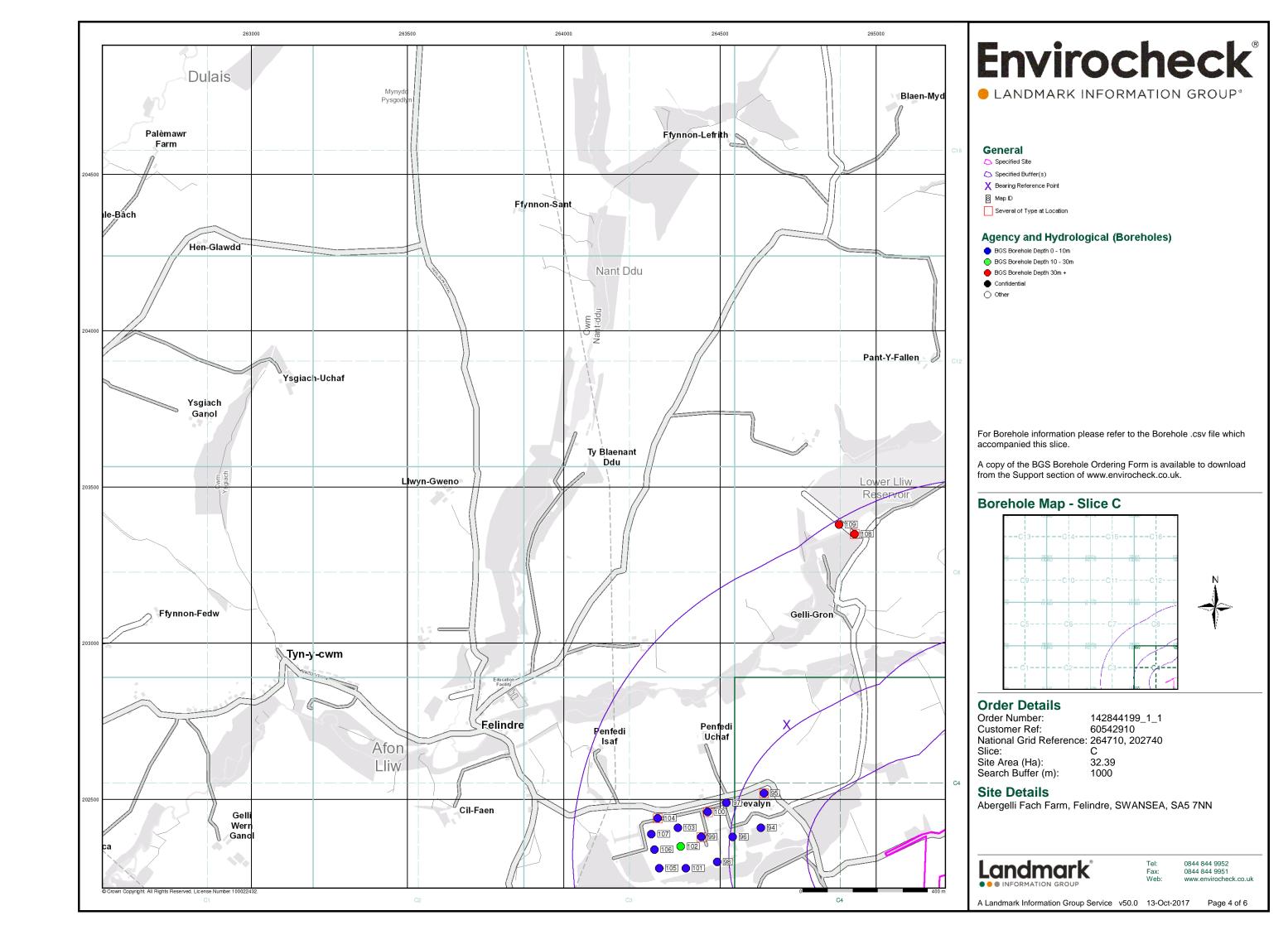
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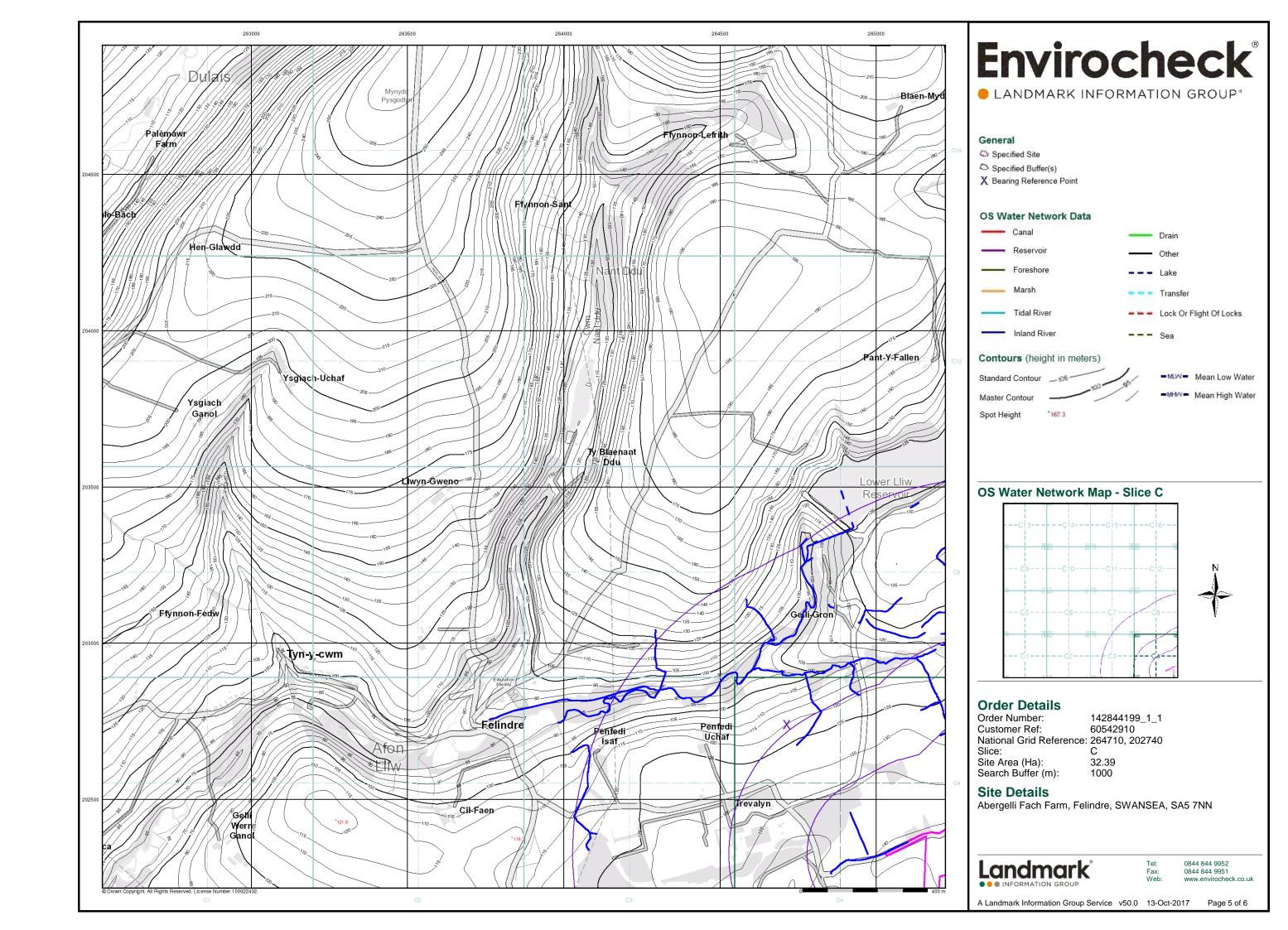


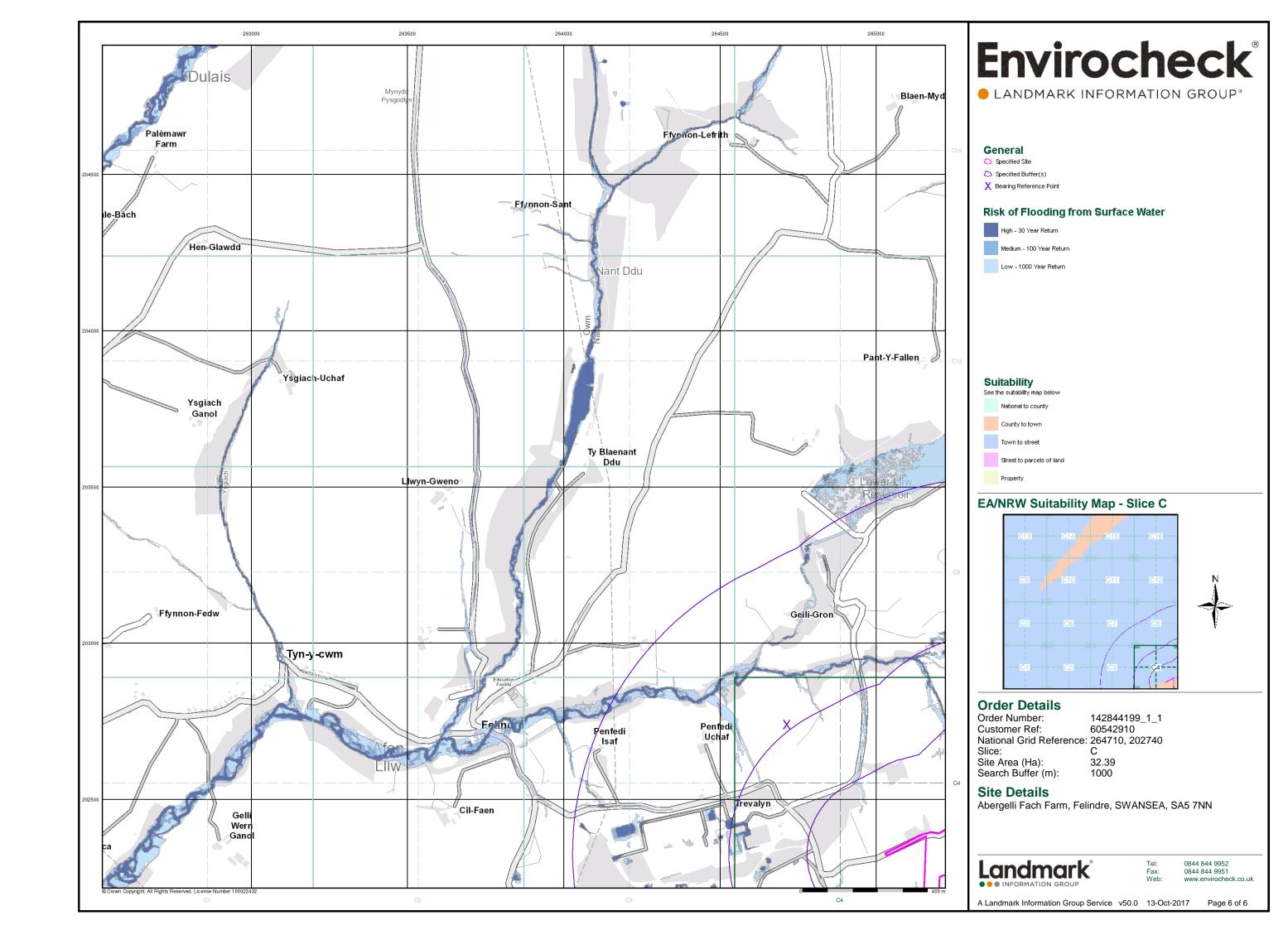


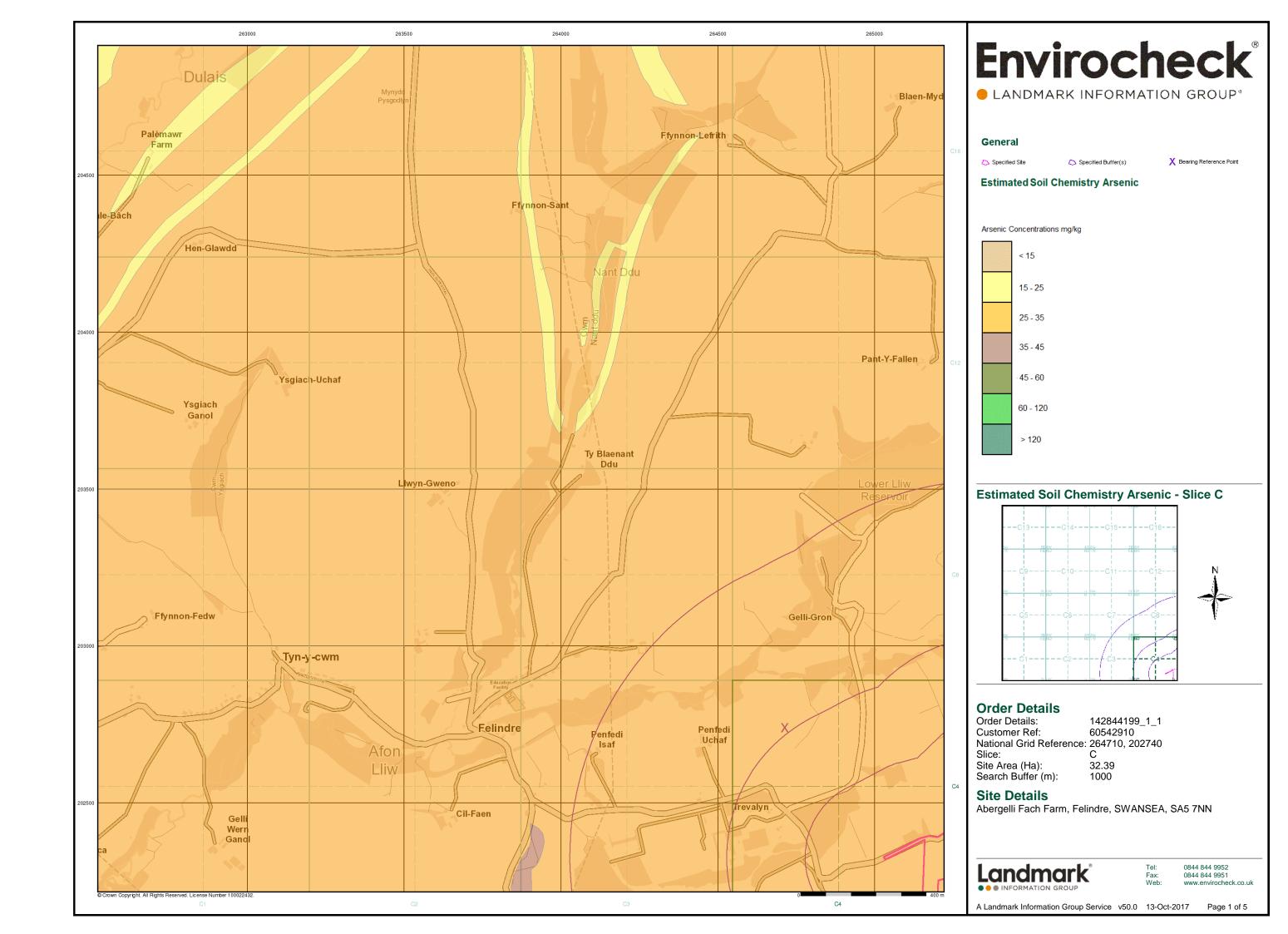


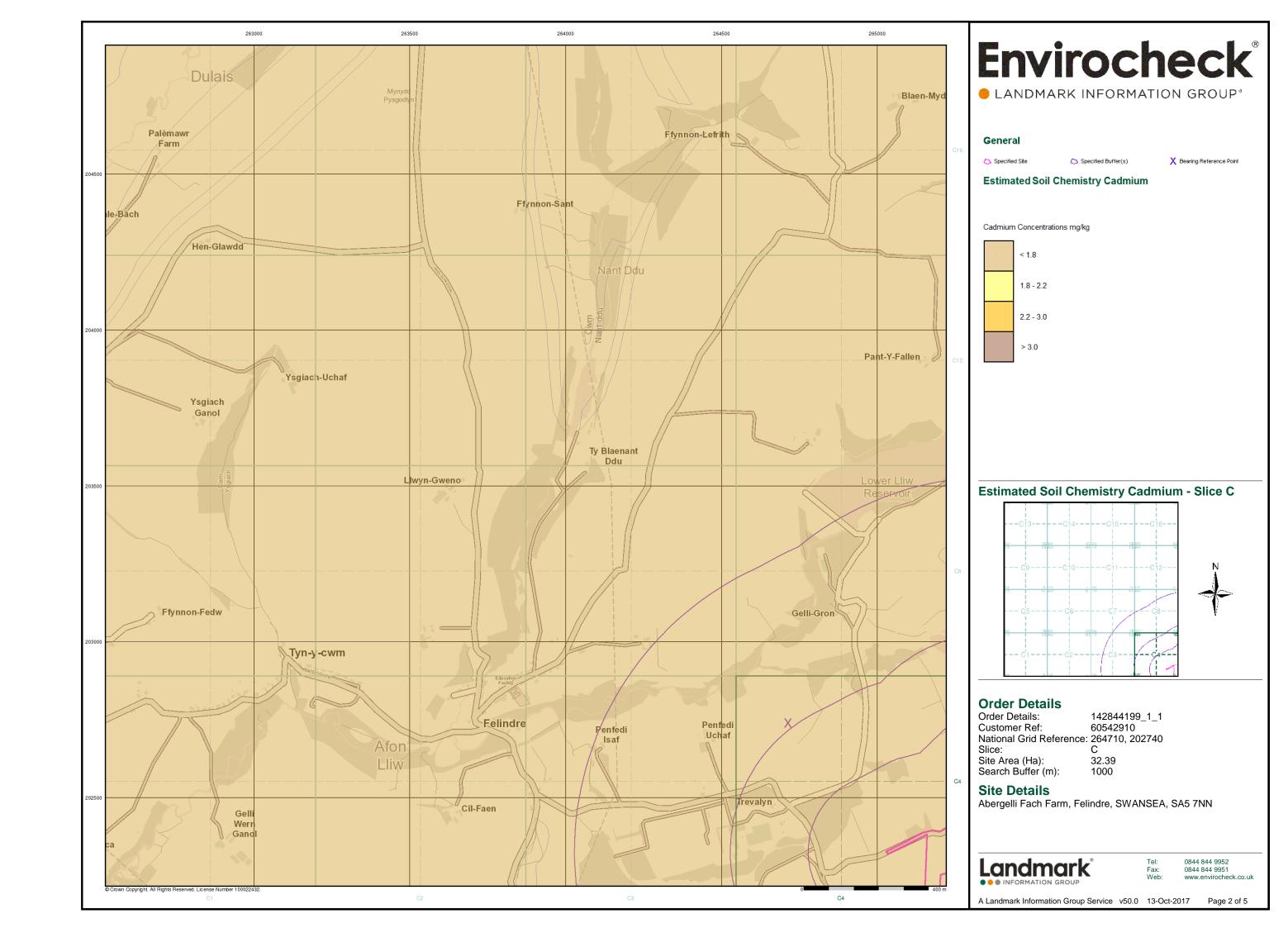


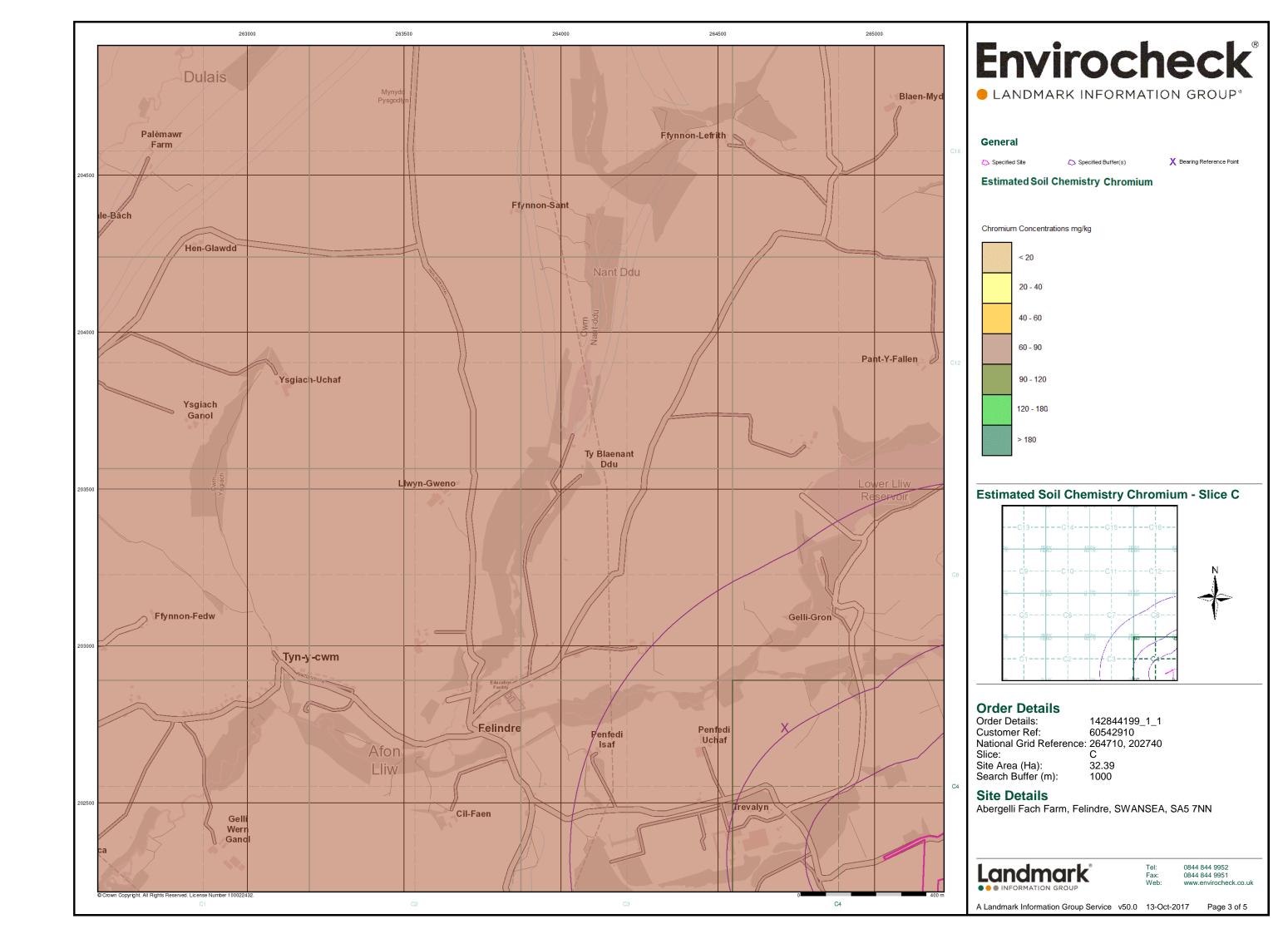


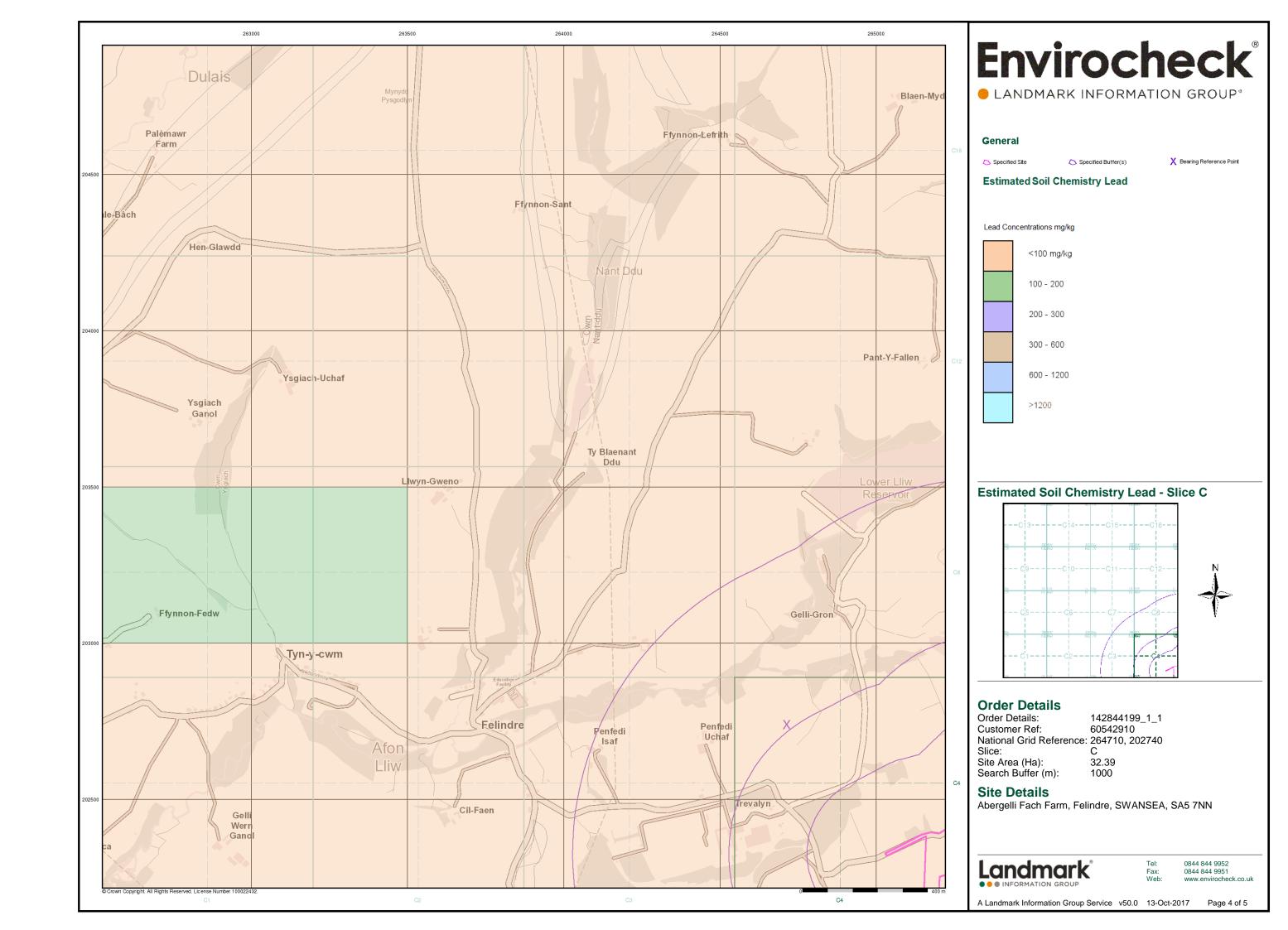


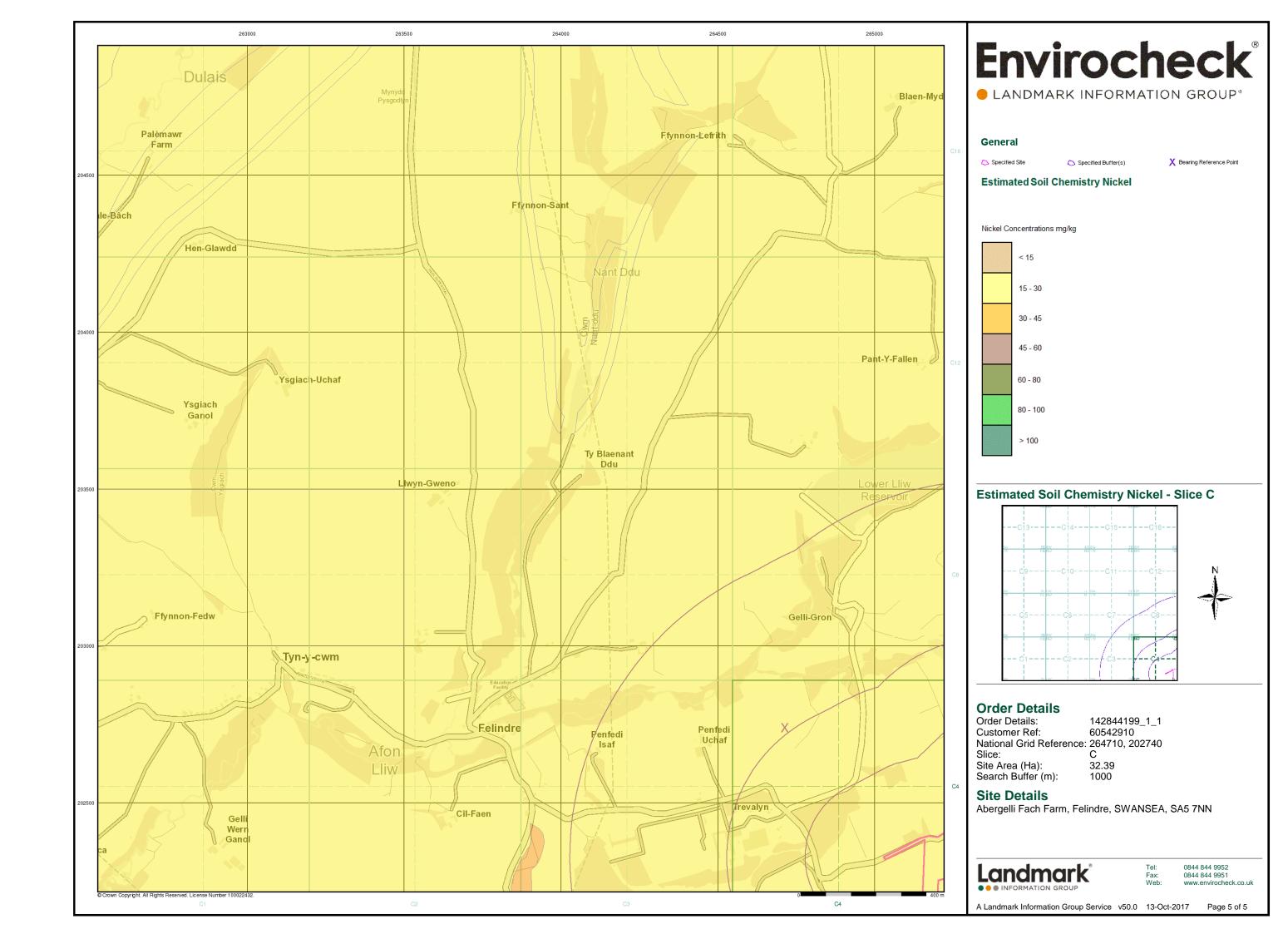












Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202740

Slice: C

Site Area (Ha): 1000

Search Buffer:

Site Details Felindre SWANSEA SA5 7NN

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.enviroche BGS Boreholes

Map ID:	Easting:	Northing:	Distance:	Quadrant	F Quadrant	f Bearing Re	BGS Refere Drille	ed Len Borehole N
94	264630	202410	407	C4	SW	S	Sn60sw63	1.98 River Towr
95	264650	202520	425	C4	SW	S	Sn60sw62	5.03 River Towr
95	264640	202520	434	C4	SW	S	Sn60sw61	1.37 River Towr
96	264540	202380	492	C3	SE	SW	Sn60sw64	0.76 River Towr
97	264520	202490	534	C3	SE	SW	Sn60sw60	4.5 River Towr
98	264490	202300	540	C3	SE	SW	Sn60sw58	4.57 River Towr
99	264470	202390	562	C3	SE	SW	Sn60sw86	7.92 Felindre 4
99	264440	202380	591	C3	SE	SW	Sn60sw85	9.45 Felindre 3
100	264460	202430	578	C3	SE	SW	Sn60sw87	7.32 Felindre 5
100	264460	202470	587	C3	SE	SW	Sn60sw57	4.11 River Towr
100	264430	202430	608	C3	SE	SW	Sn60sw93	7.01 Felindre 11
101	264390	202280	641	C3	SE	SW	Sn60sw89	4.27 Felindre 7
102	264370	202360	660	C3	SE	SW	Sn60sw84	10.67 Felindre 2
103	264360	202410	674	C3	SE	SW	Sn60sw92	7.01 Felindre 10
104	264350	202440	688	C3	SE	SW	Sn60sw88	4.57 Felindre 6
104	264320	202450	719	C3	SE	SW	Sn60sw90	7.62 Felindre 8
104	264300	202440	738	C3	SE	SW	Sn60sw56	3.35 River Towr
105	264320	202280	710	C3	SE	SW	Sn60sw59	3.73 River Towr
106	264290	202340	739	C3	SE	SW	Sn60sw83	5.18 Felindre 1
107	264280	202390	752	C3	SE	SW	Sn60sw91	4.57 Felindre 9
108	264970	203320	890	C8	NE	NE	Sn60sw54	31.39 River Towr
108	264930	203350	935	C8	NE	N	Sn60sw49	59.74 River Towr
109	264880	203370	977	C8	NW	N	Sn60sw50	54.25 River Towr

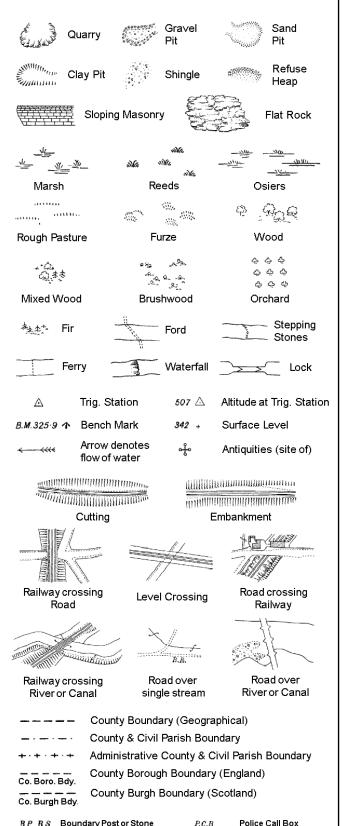
#### eck.co.uk.

#### Link to Borehole Scan:

http://scans.bgs.ac.uk/sobi scans/boreholes/256272/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256271/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256270/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256273/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256269/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256267/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256295/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256294/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256296/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256266/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256302/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256298/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256293/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256301/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256297/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256299/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256265/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256268/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256292/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256300/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256263/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256258/ http://scans.bgs.ac.uk/sobi_scans/boreholes/256259/

# **Historical Mapping Legends**

### **Ordnance Survey County Series and** Ordnance Survey Plan 1:2,500



Pump

Sluice

Spring

Trough Well

Signal Post

Telephone Call Box

S.P

T.C.B

Sl.

 $T_T$ 

B.R.

E.P

F.B.

M.S

Bridle Road

Foot Bridge

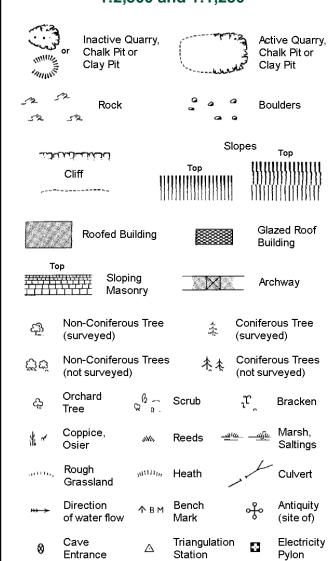
Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Guide Post or Board

Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



**Electricity Transmission Line** County Boundary (Geographical) County & Civil Parish Boundary Civil Parish Boundary Admin. County or County Bor. Boundary L B Bdy London Borough Boundary Symbol marking point where boundary mereing changes

вн	Beer House	Р	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

GVC

Gas Governer

Mile Post or Mile Stone

**Guide Post** 

Manhole

Wd Pp

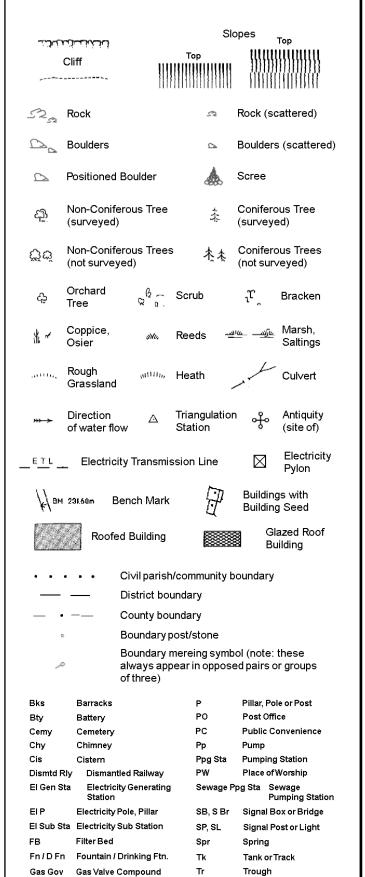
Wks

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

# 1:1,250



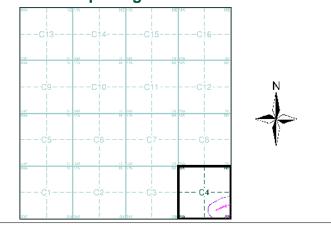
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### **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1876 - 1877	2
Glamorganshire	1:2,500	1898 - 1899	3
Glamorganshire	1:2,500	1916 - 1918	4
Ordnance Survey Plan	1:2,500	1961	5
Ordnance Survey Plan	1:2,500	1961	6
Supply of Unpublished Survey Information	1:2,500	1975	7
Additional SIMs	1:2,500	1986 - 1992	8
Additional SIMs	1:2,500	1989	9
Large-Scale National Grid Data	1:2,500	1993	10
Historical Aerial Photography	1:2,500	2000	11
	•		

## **Historical Map - Segment C4**



### **Order Details**

Order Number: 142844199_1_1 60542910 Customer Ref: National Grid Reference: 264710, 202740 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 100

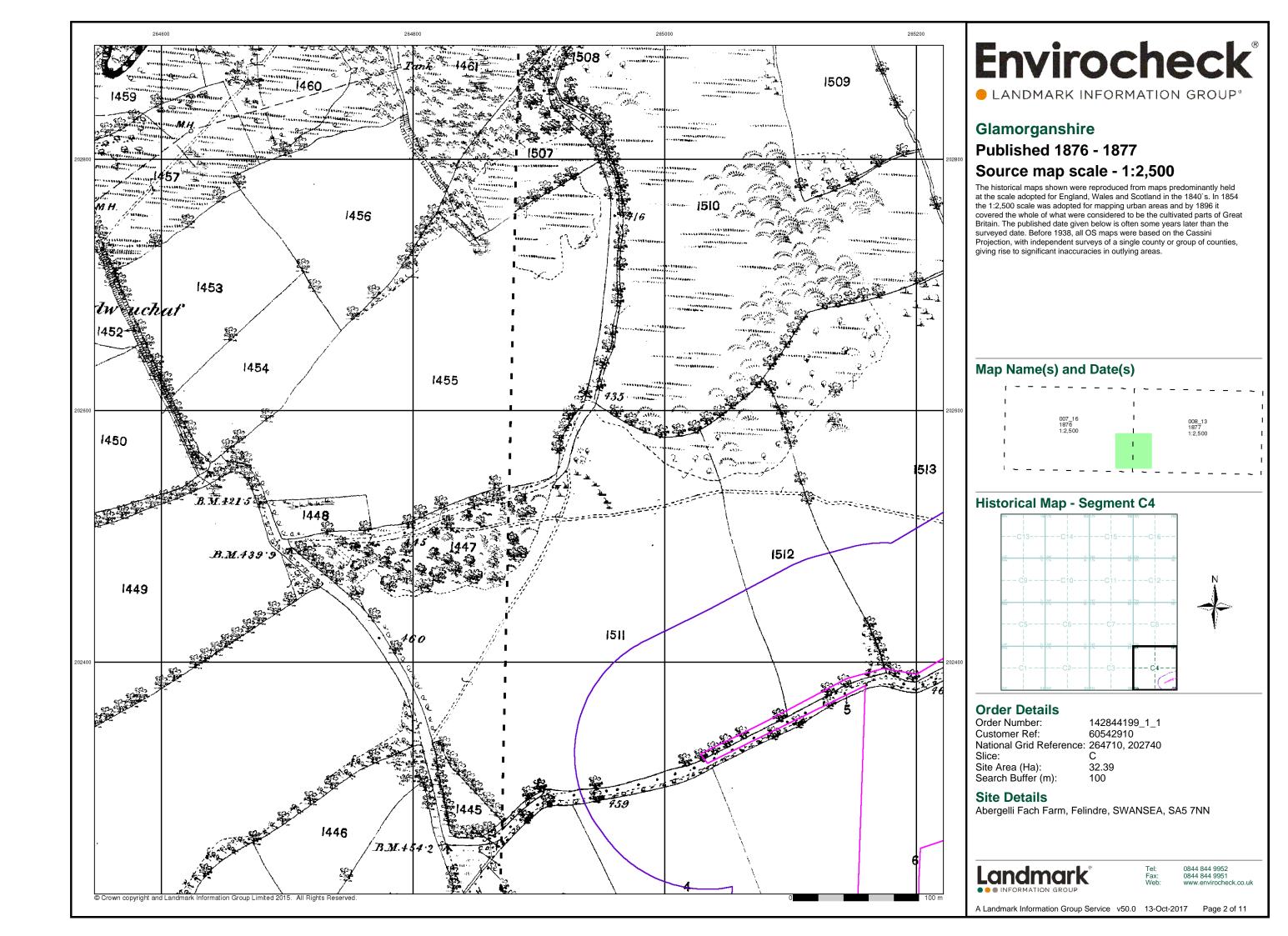
#### Site Details

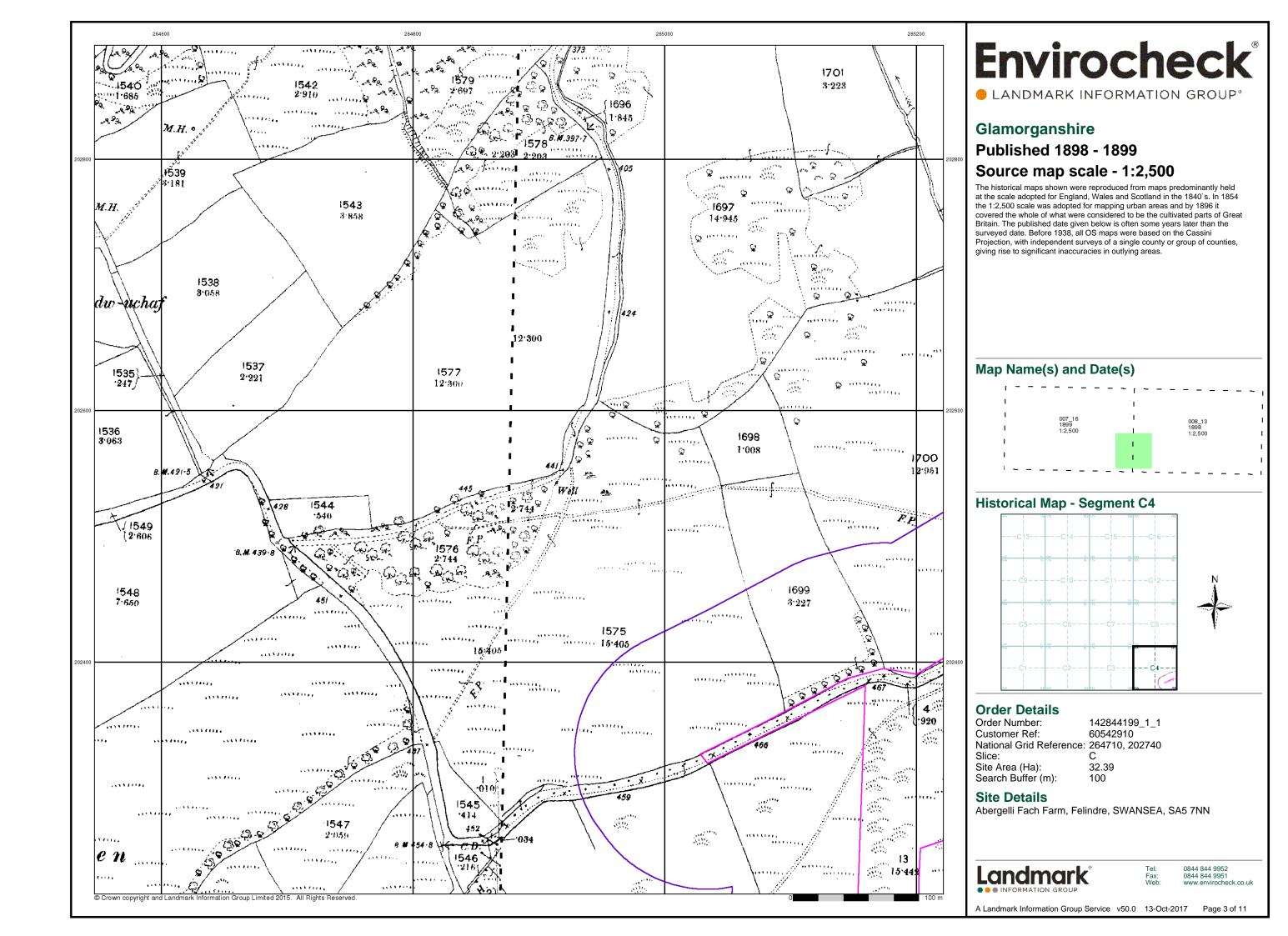
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

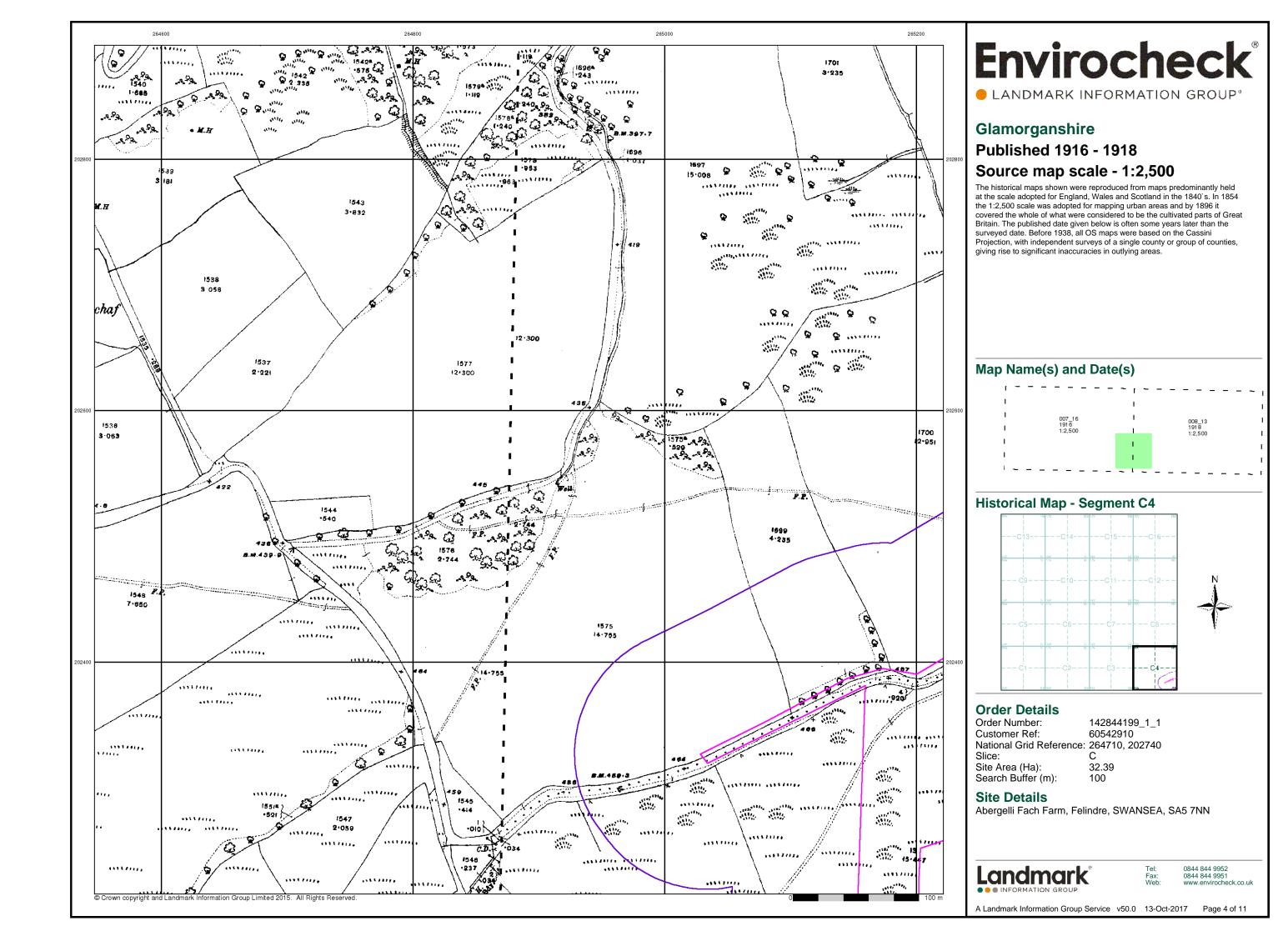


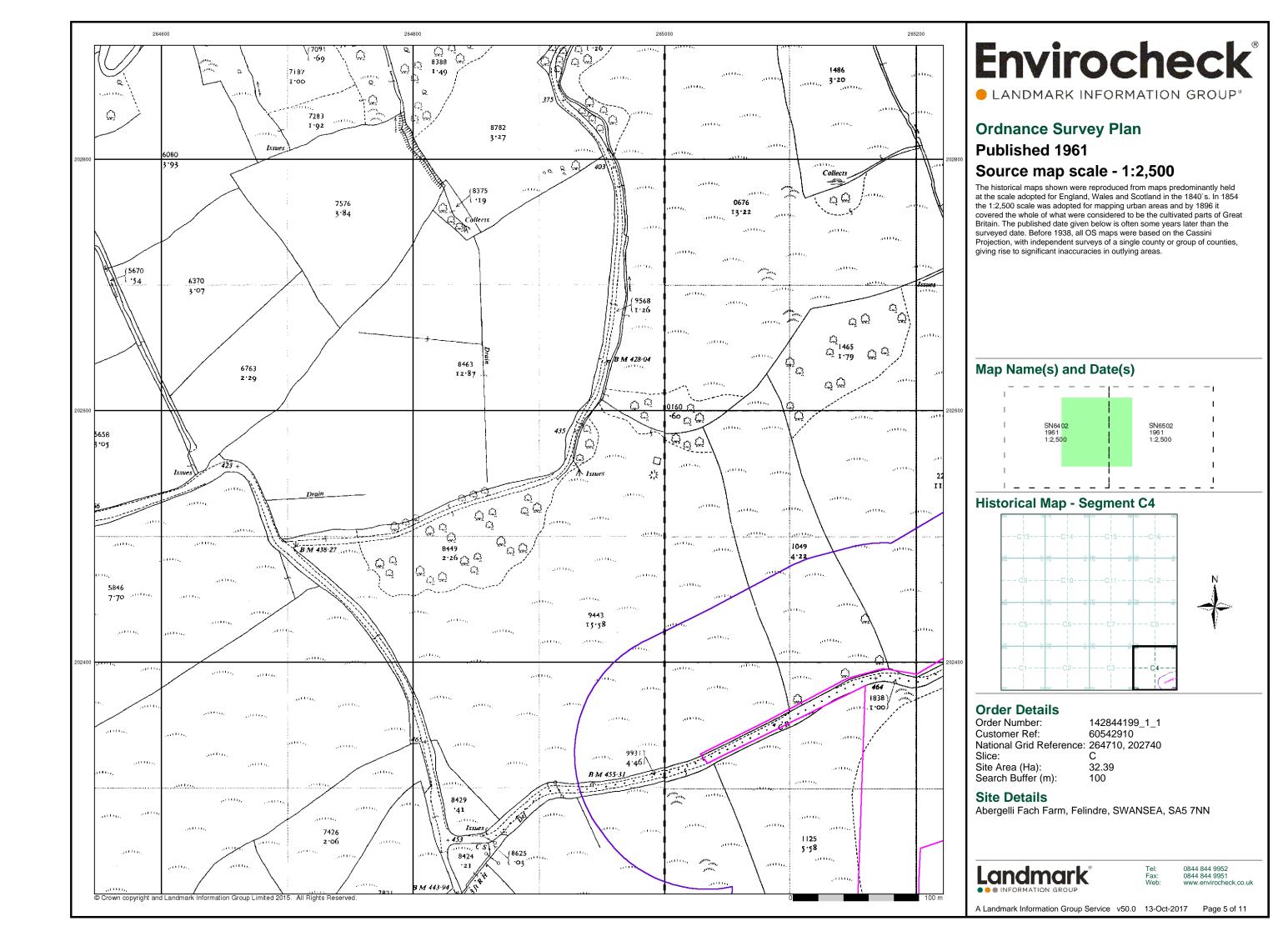
0844 844 9952 0844 844 9951

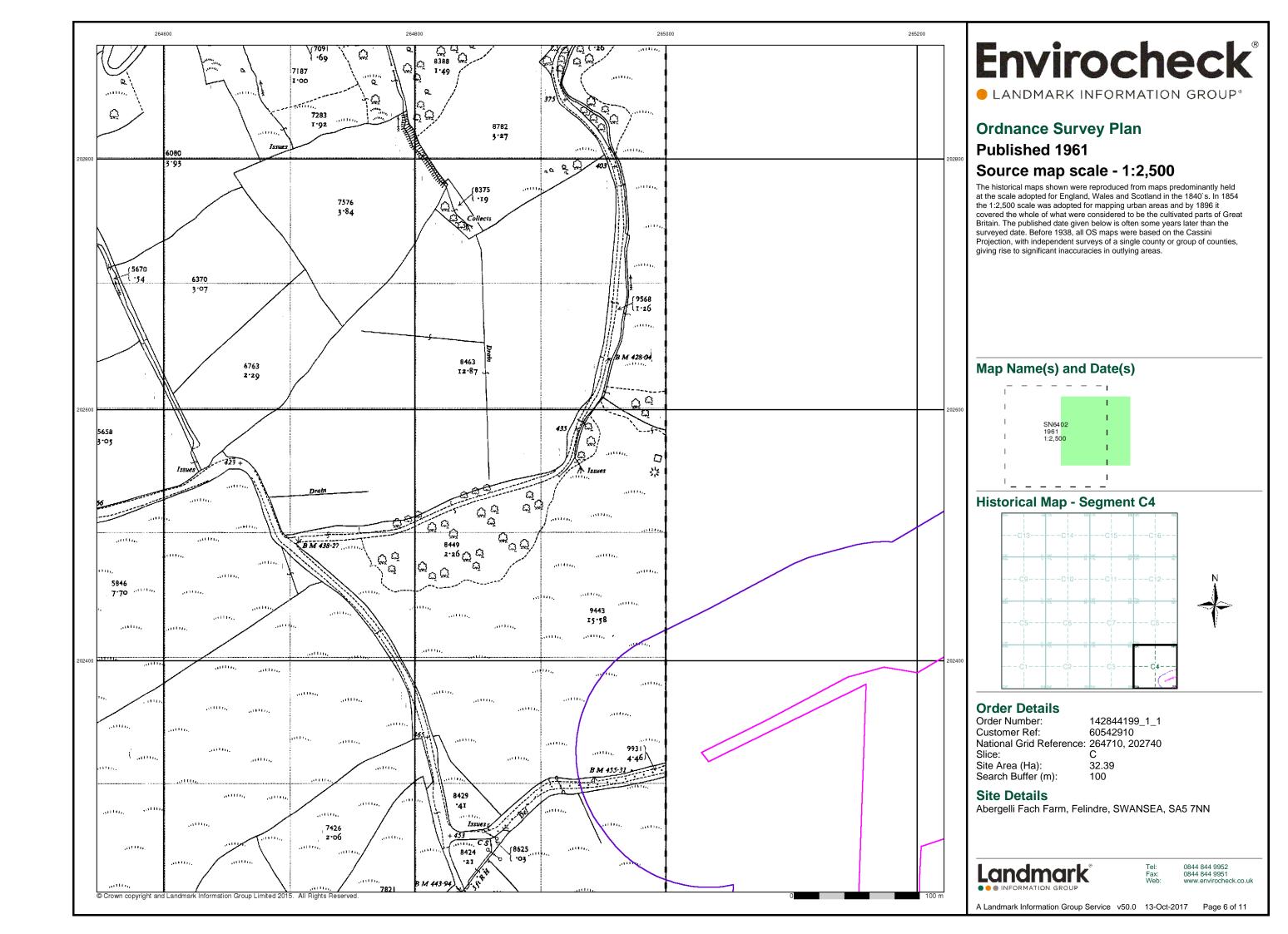
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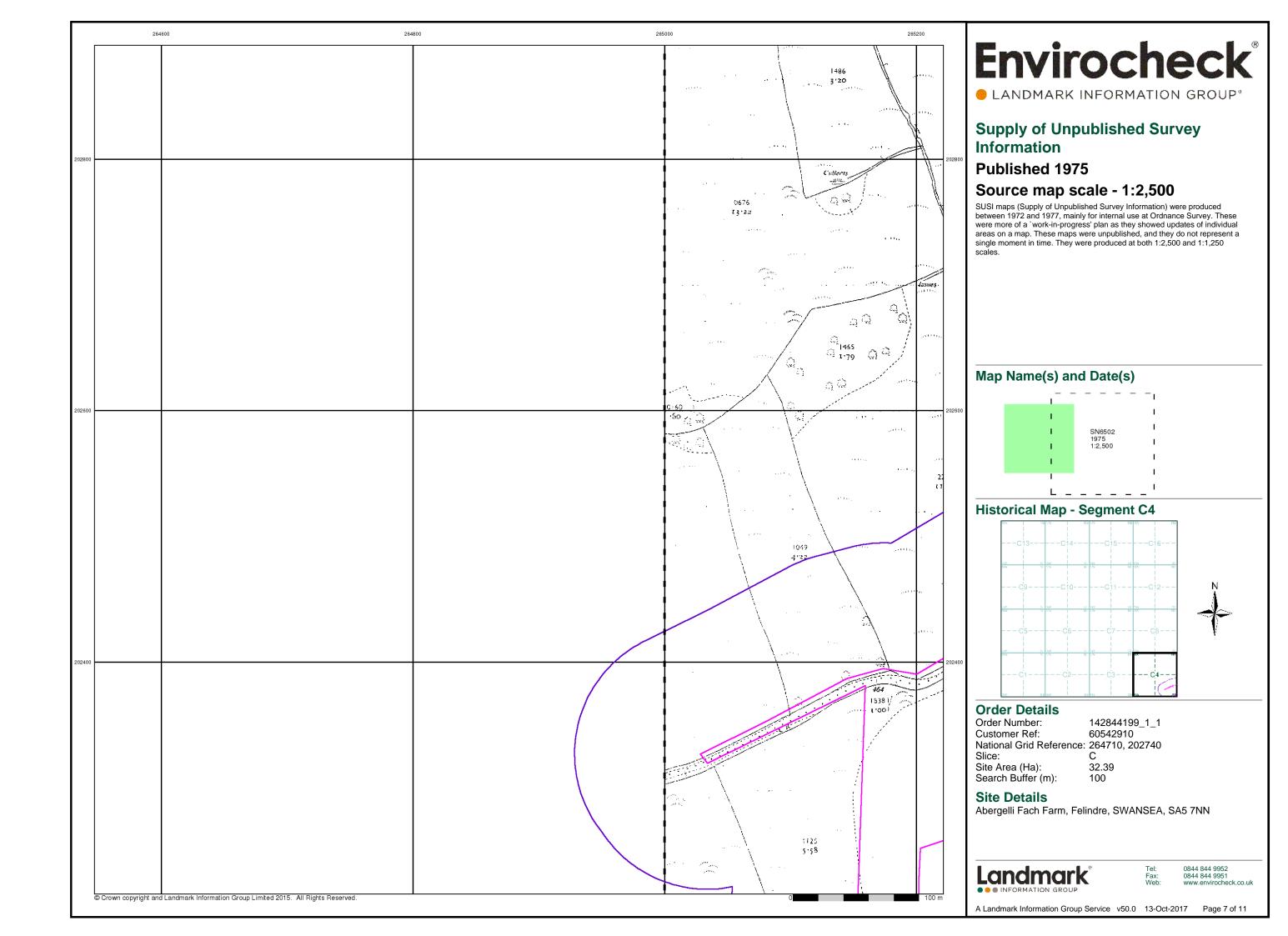


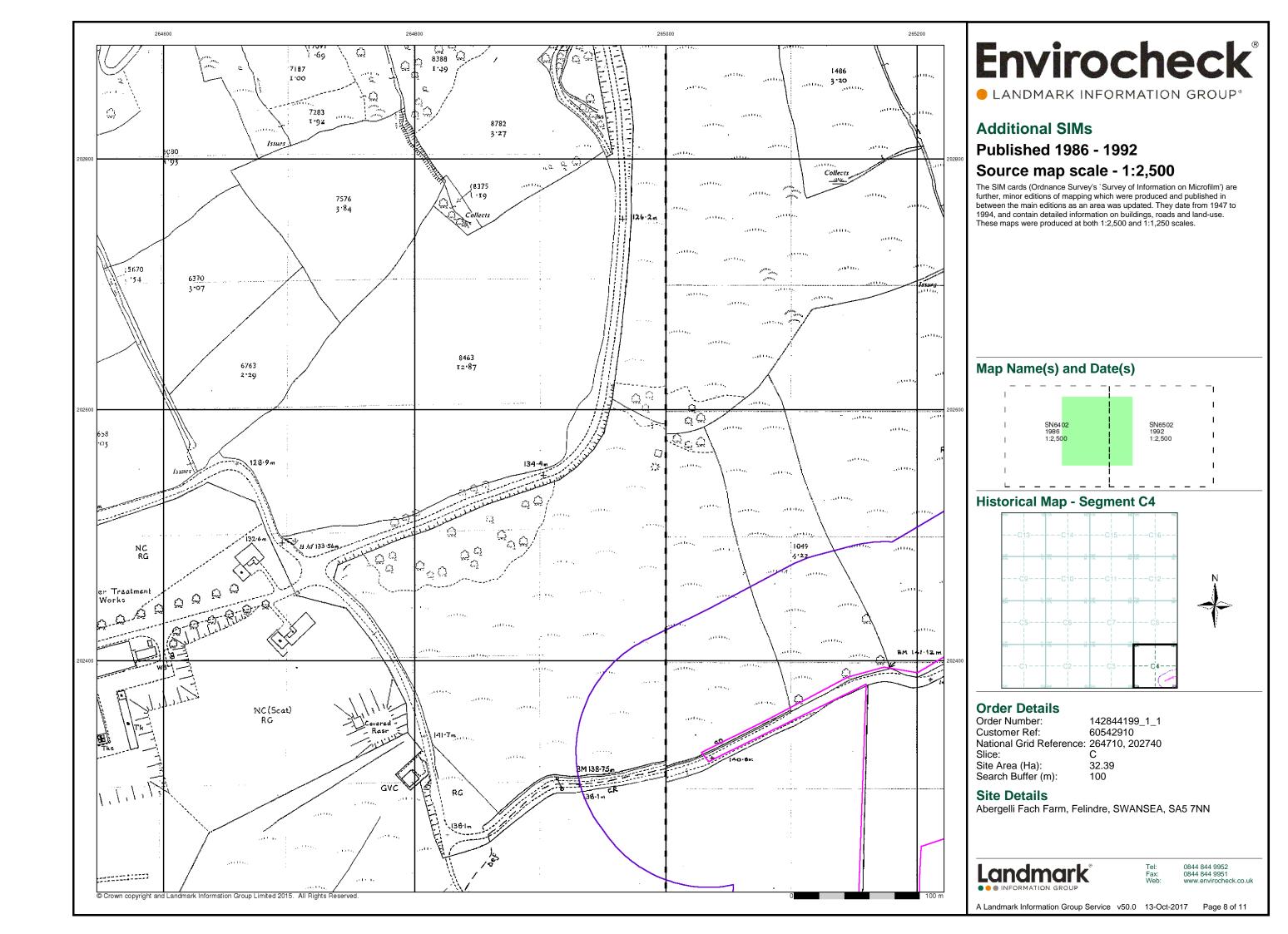


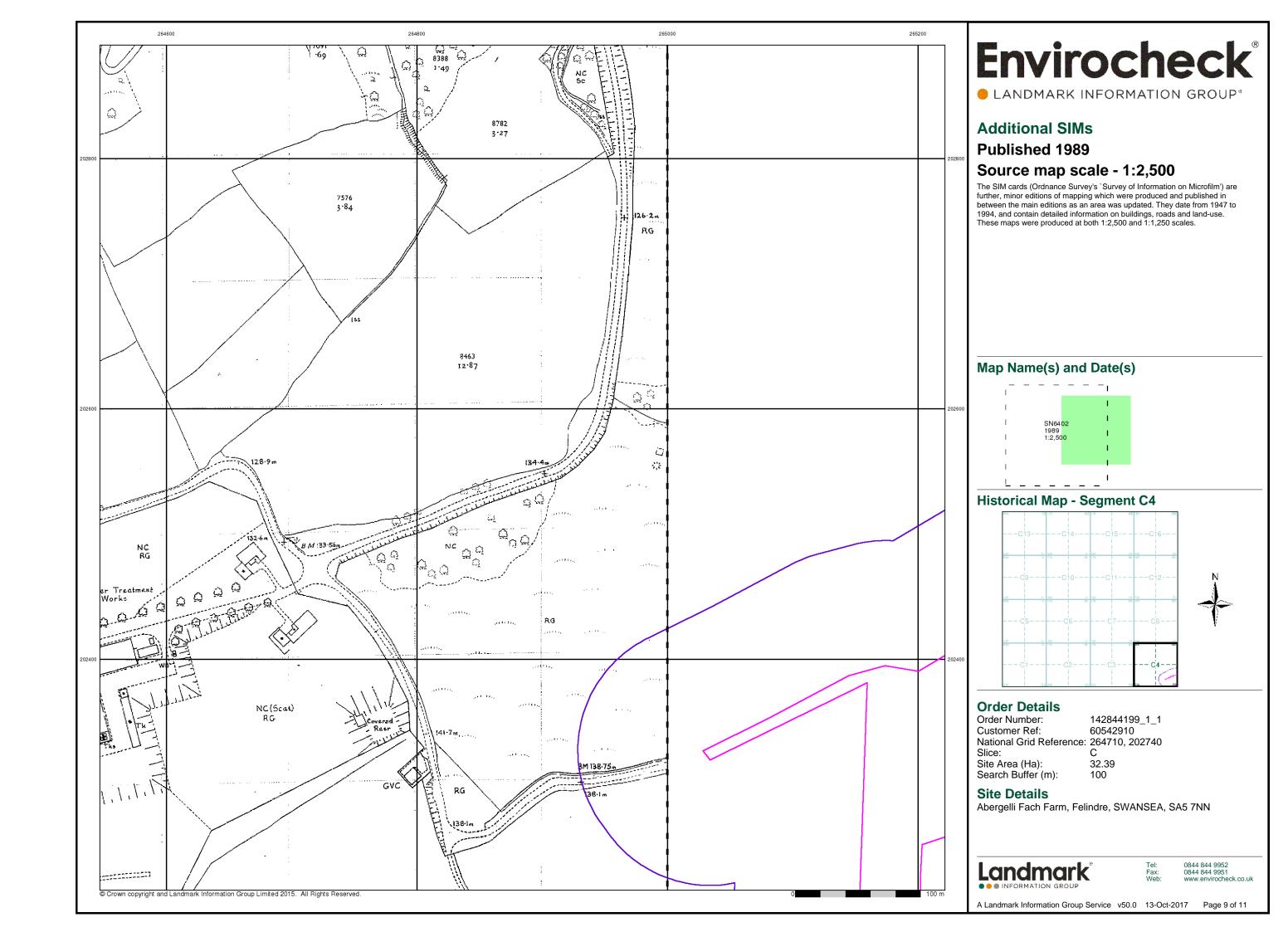


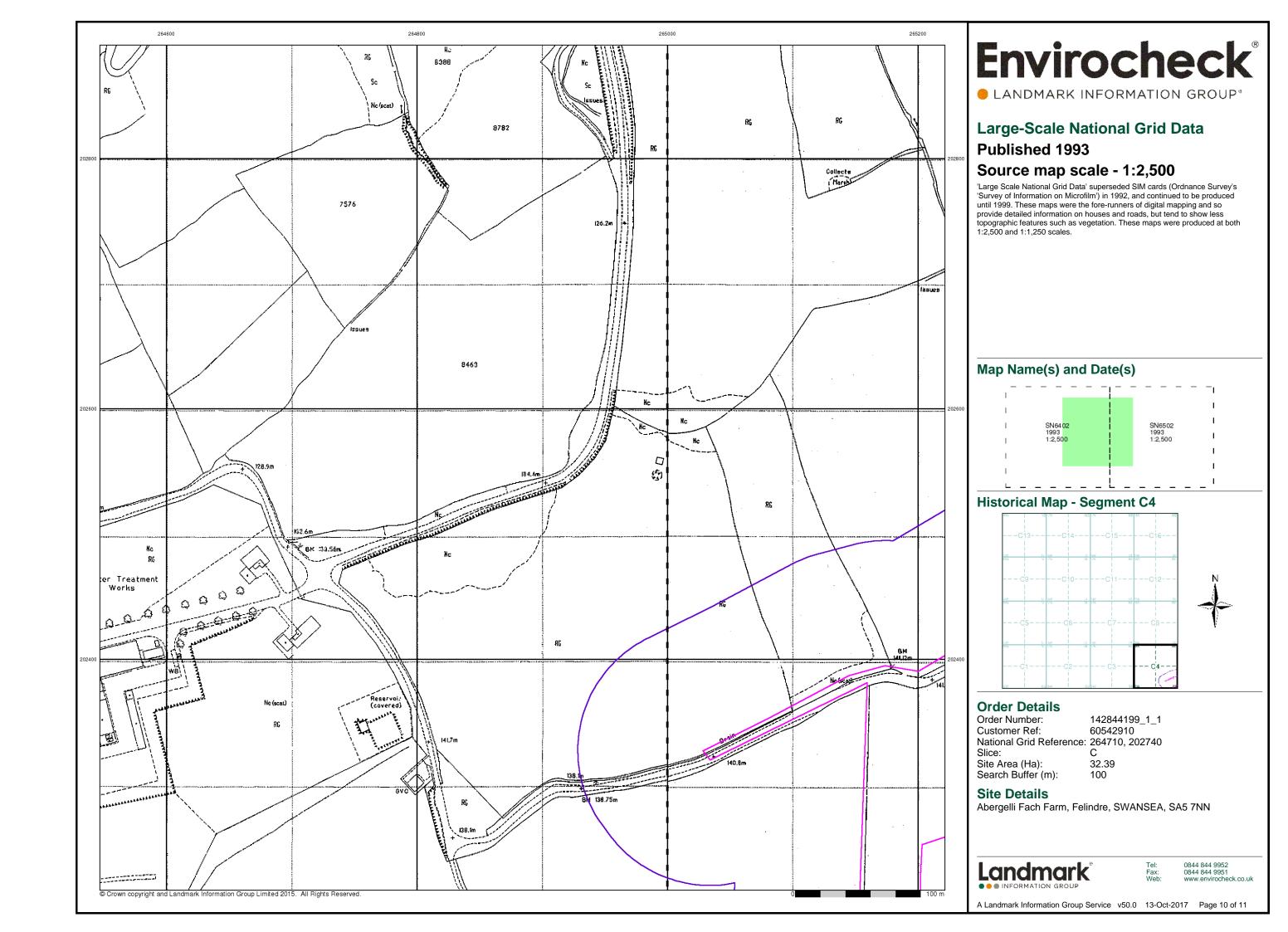


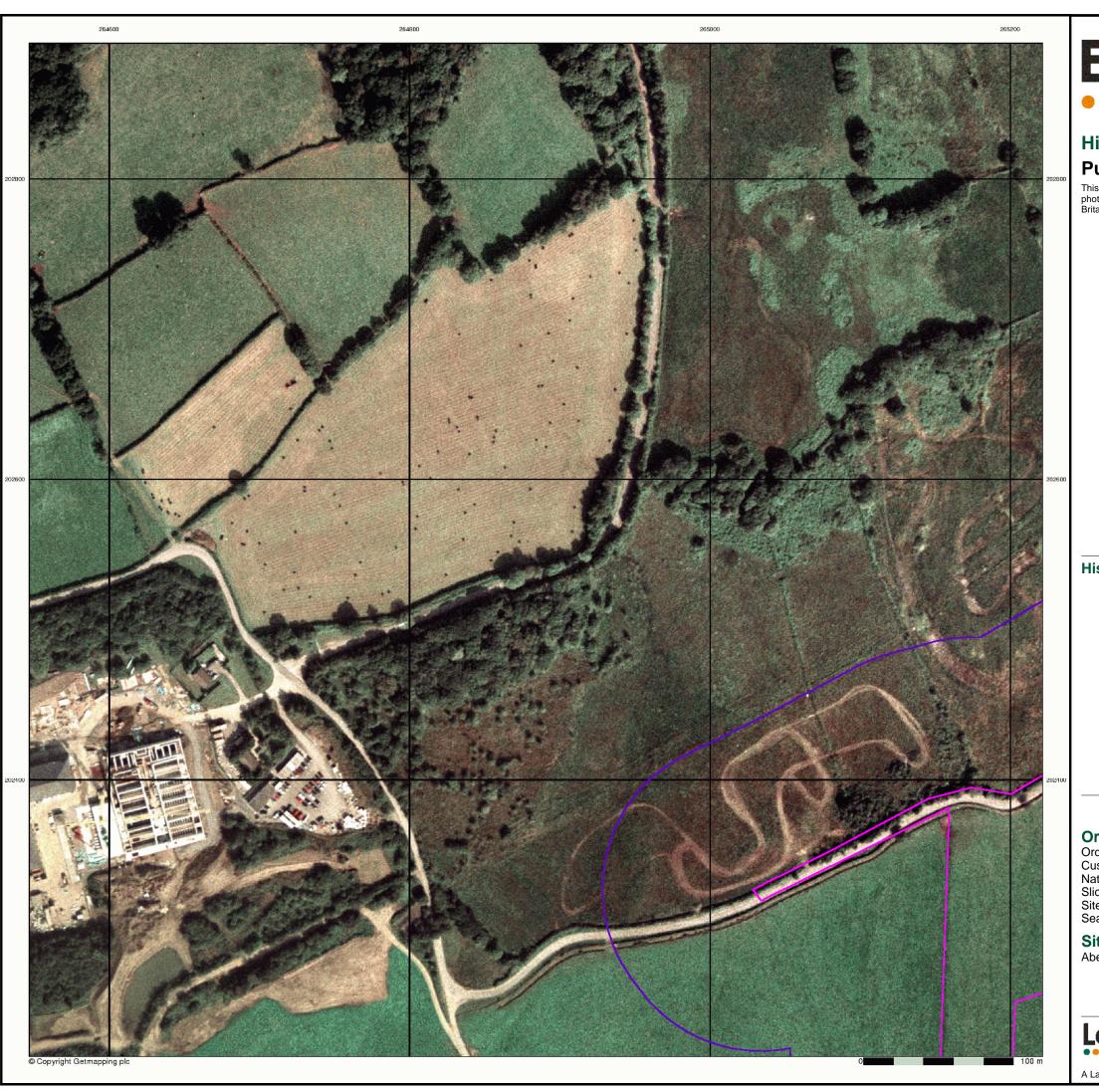










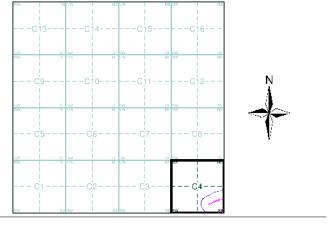


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# **Historical Aerial Photography** Published 2000

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 C4**



### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 264710, 202740

Slice:

32.39 100 Site Area (Ha): Search Buffer (m):

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202740

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F: Felindre SWANSEA SA5 7NN

File Name Map Series Published I Source Scale

142844195 Ordnance : 1961 1:2,500
142844195 Glamorgan 1876-1877 1:2,500
142844195 Ordnance : 1961 1:2,500
142844195 Glamorgan 1916-1918 1:2,500
142844195 Glamorgan 1898-1899 1:2,500
142844195 Additional 1986-1992 1:2,500
142844195 Additional 1989 1:2,500
142844195 Supply of L 1975 1:2,500
142844195 Large-Scale 1993 1:2,500





# **Geology 1:10,000 Maps Legends**

### **Artificial Ground and Landslip**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	LSGR	Landscaped Ground (Undivided)	Unknown/Unclassifie d Entry	Holocene - Holocene
	WMGR	Infilled Ground	Artificial Deposit	Holocene - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassifie d Entry	Quaternary - Quaternary

### **Superficial Geology**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Pleistocene
	TILLD	Till, Devensian	Diamicton	Devensian - Ipswichian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Ipswichian
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Ryazanian
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Quaternary - Ryazanian
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quaternary - Ryazanian

### **Bedrock and Faults**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	GDB	Grovesend Formation	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Н	Hughes Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Fault			
	Rock			

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### Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

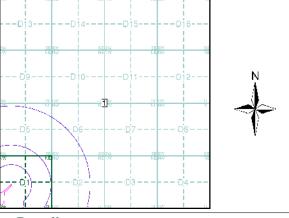
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

### Geology 1:10,000 Maps Coverage

Map ID:1Map Name:SN60SEMap Date:1972Bedrock Geology:AvailableSuperficial Geology:AvailableArtificial Geology:AvailableFaults:AvailableLandslip:AvailableRock Segments:Available

### Geology 1:10,000 Maps - Slice D



### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

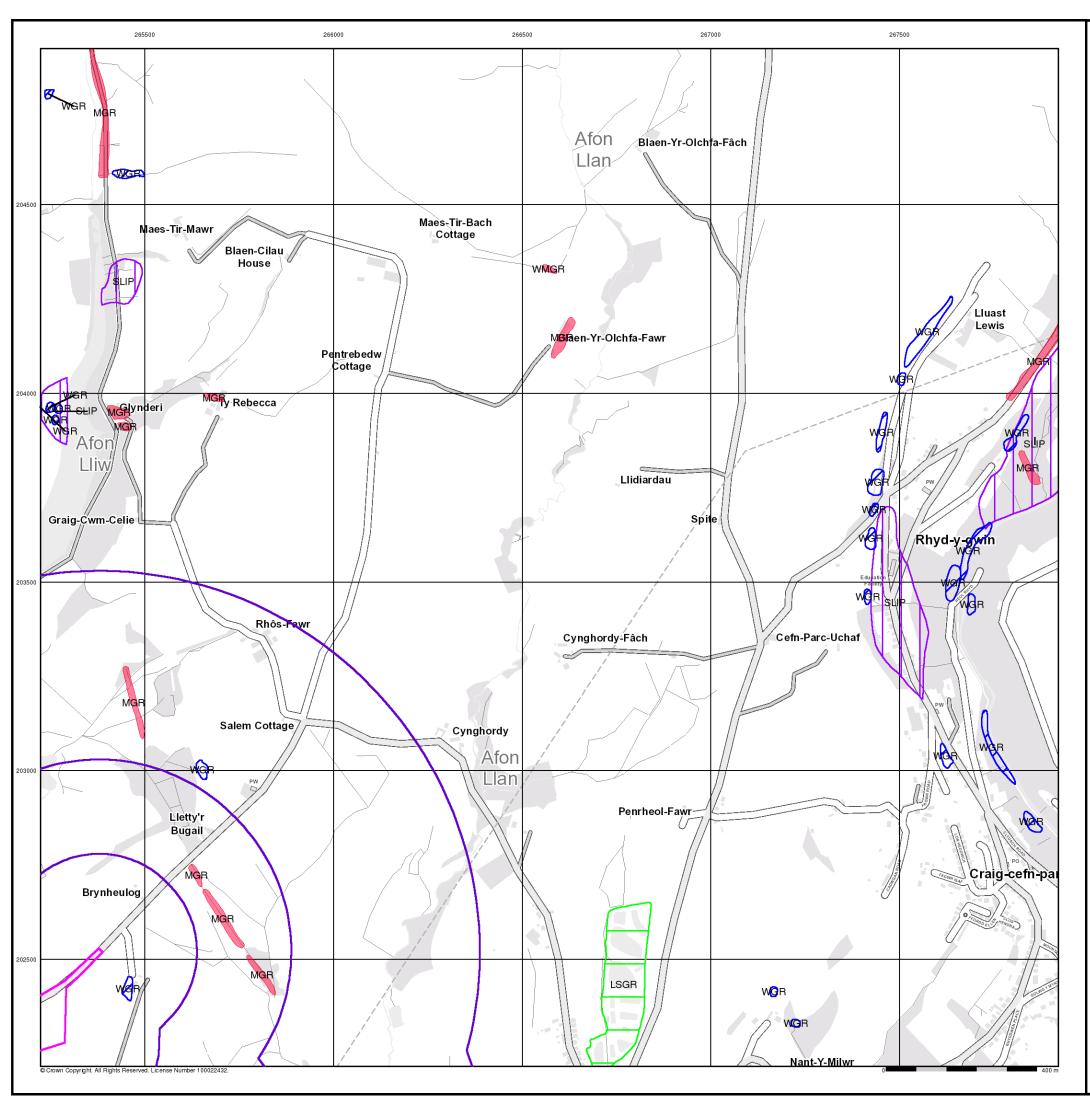
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### **Artificial Ground and Landslip**

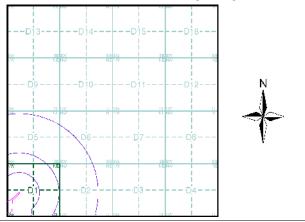
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable

#### Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground areas where the surface has been reshaped.
- Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

### **Artificial Ground and Landslip Map - Slice D**



### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

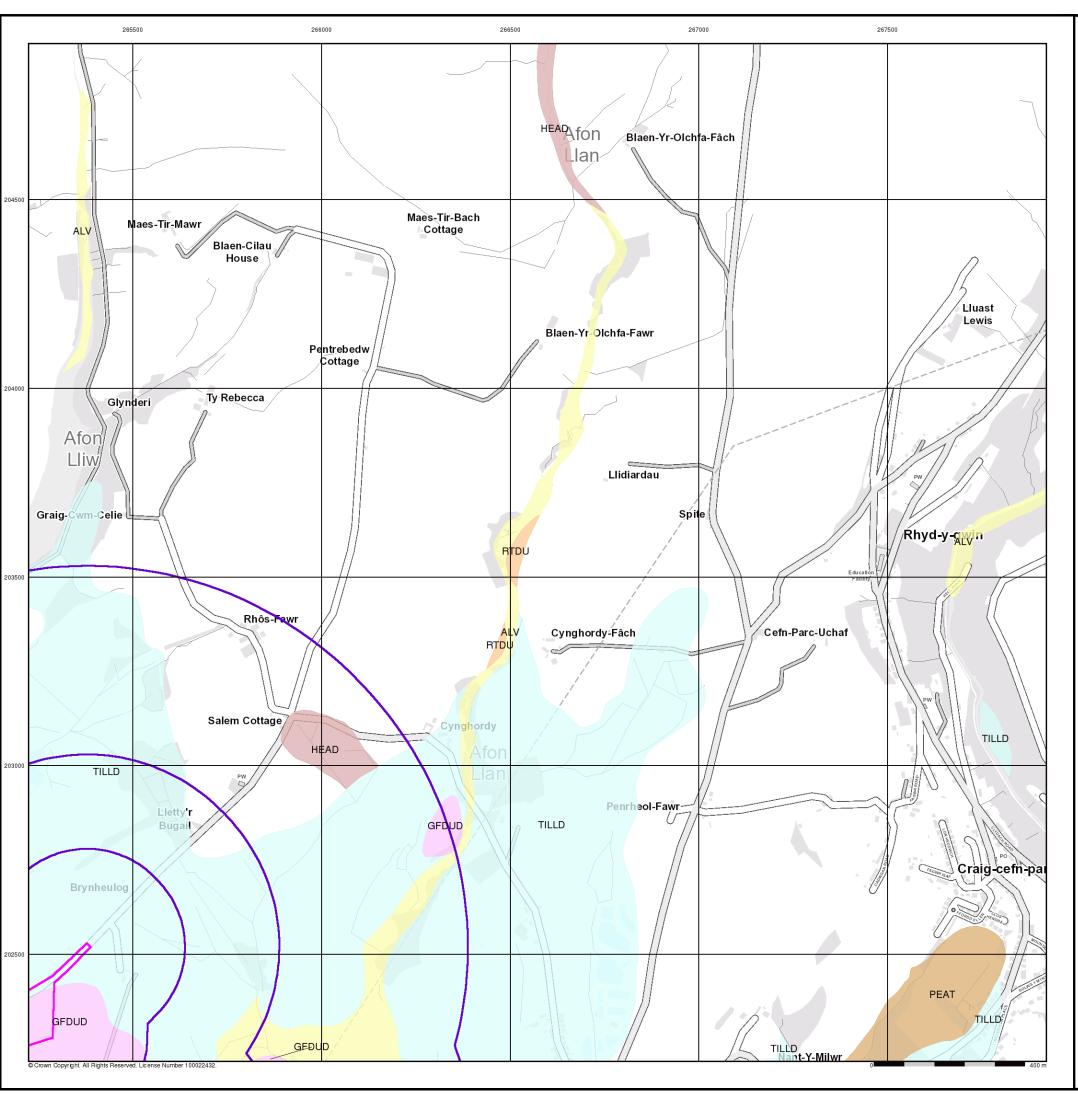
### **Site Details**

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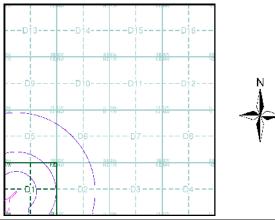
# **Superficial Geology**

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

### **Superficial Geology Map - Slice D**



### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

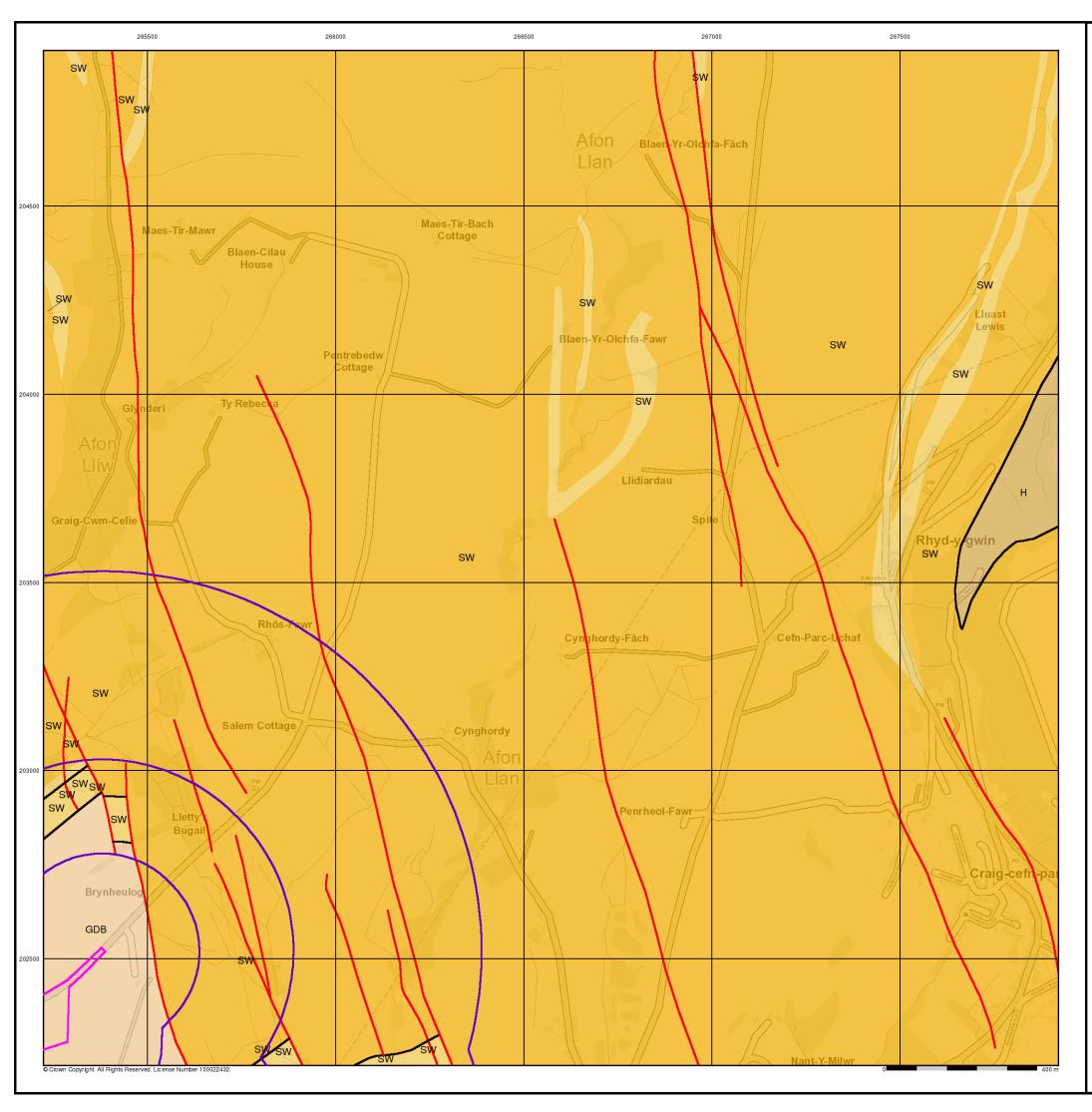
### **Site Details**

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### **Bedrock and Faults**

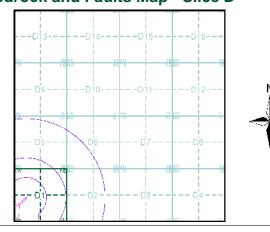
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

### **Bedrock and Faults Map - Slice D**





Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

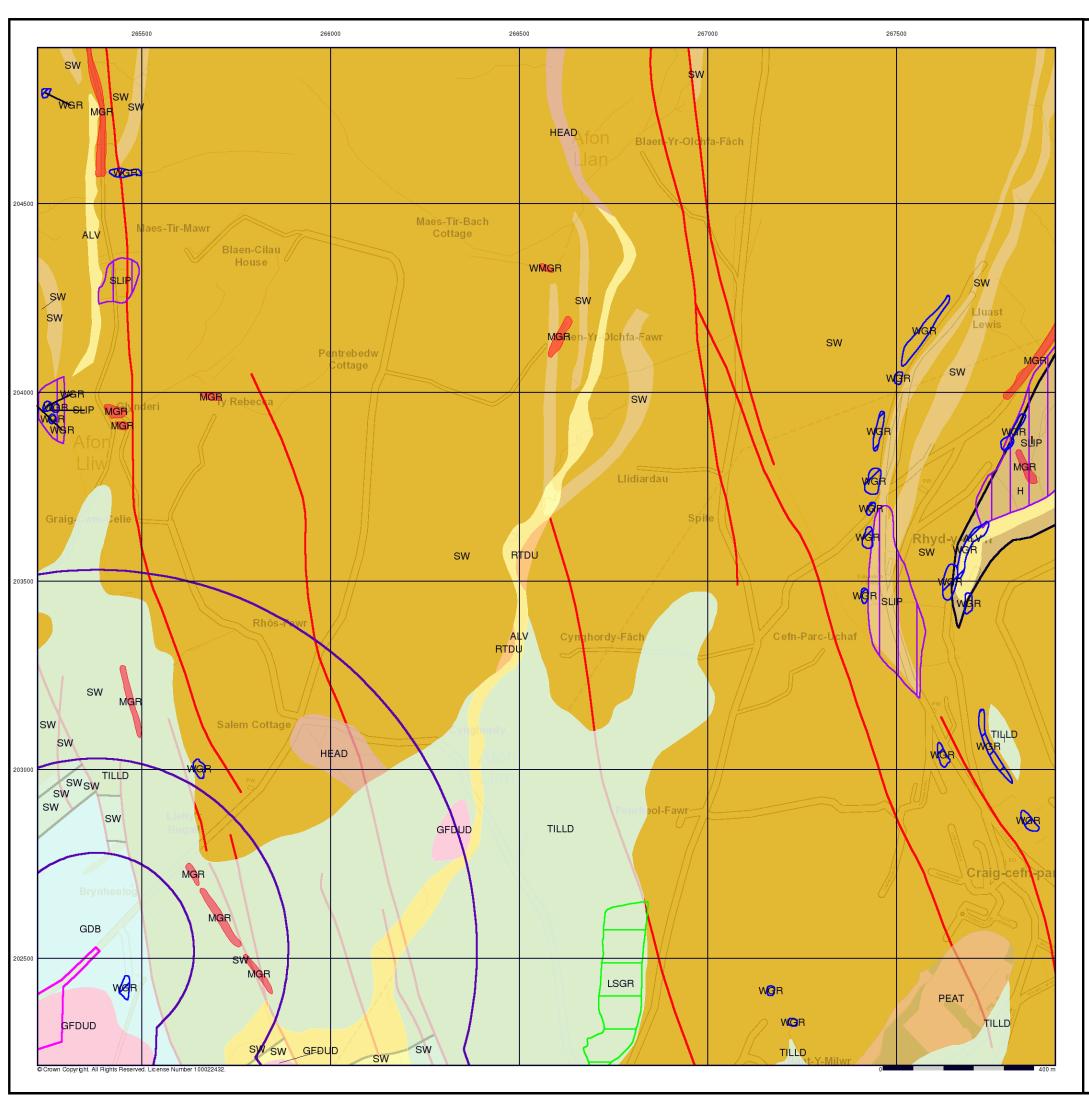
### **Site Details**

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## **Combined Surface Geology**

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

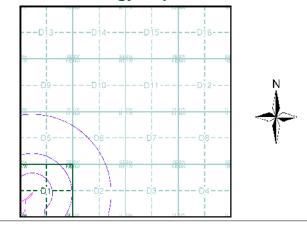
### **Additional Information**

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

### **Combined Geology Map - Slice D**



### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

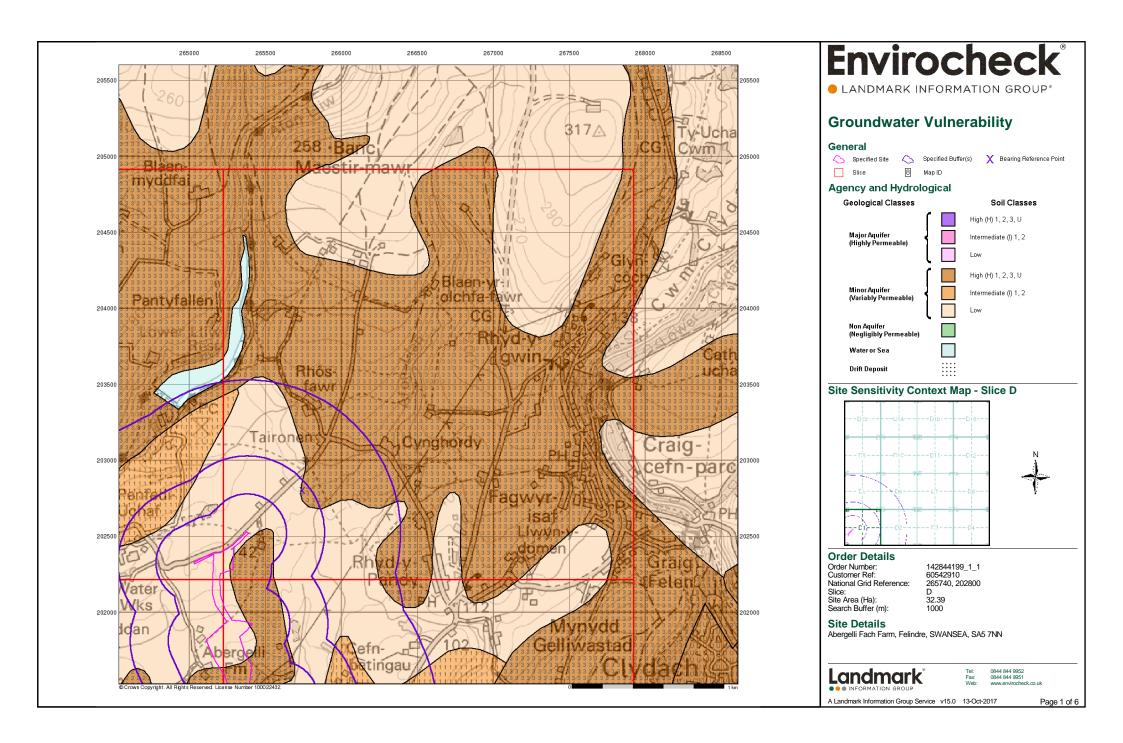
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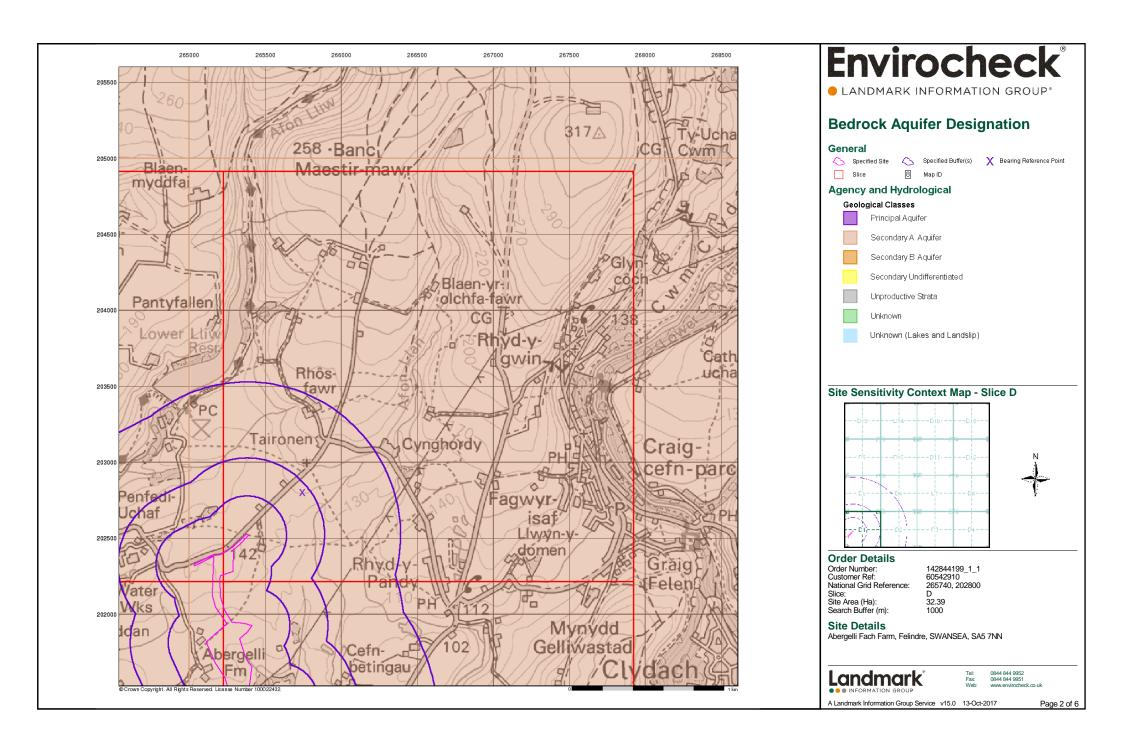
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

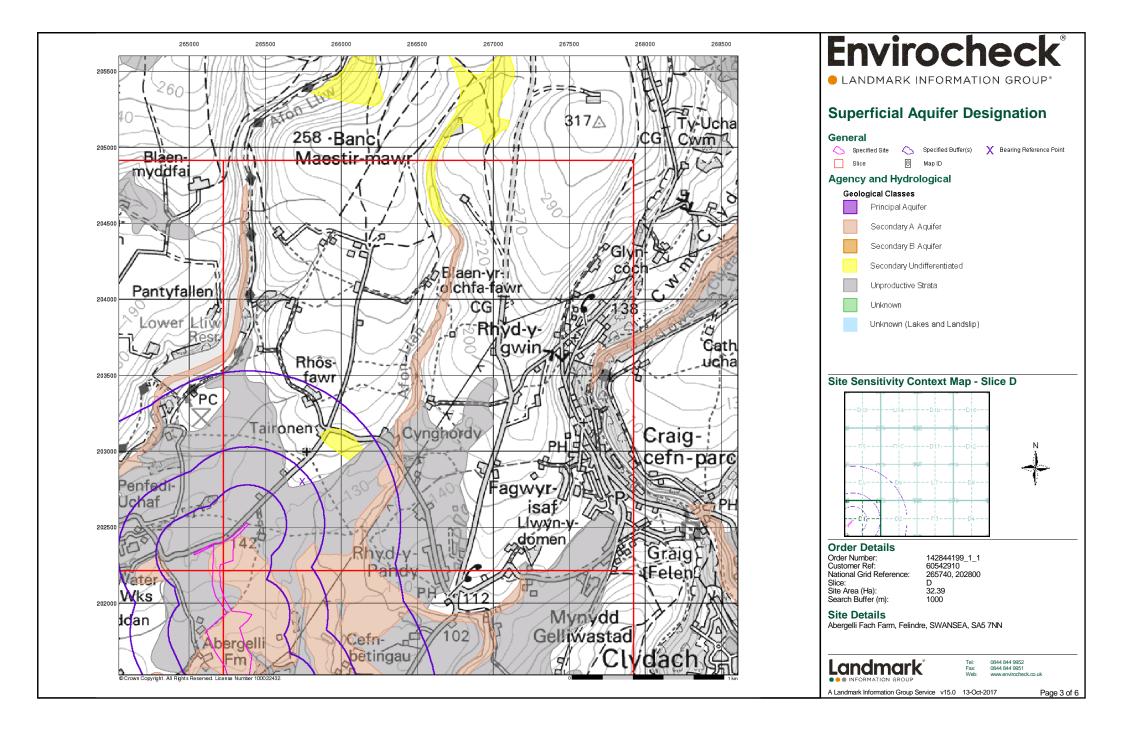


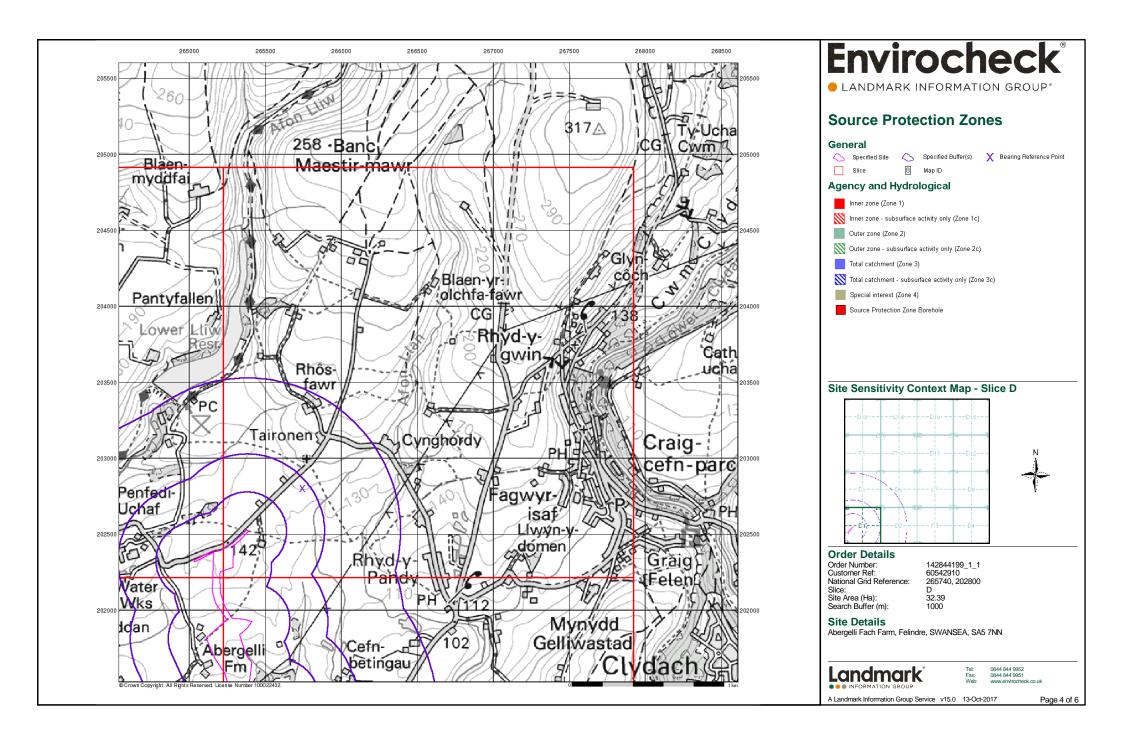
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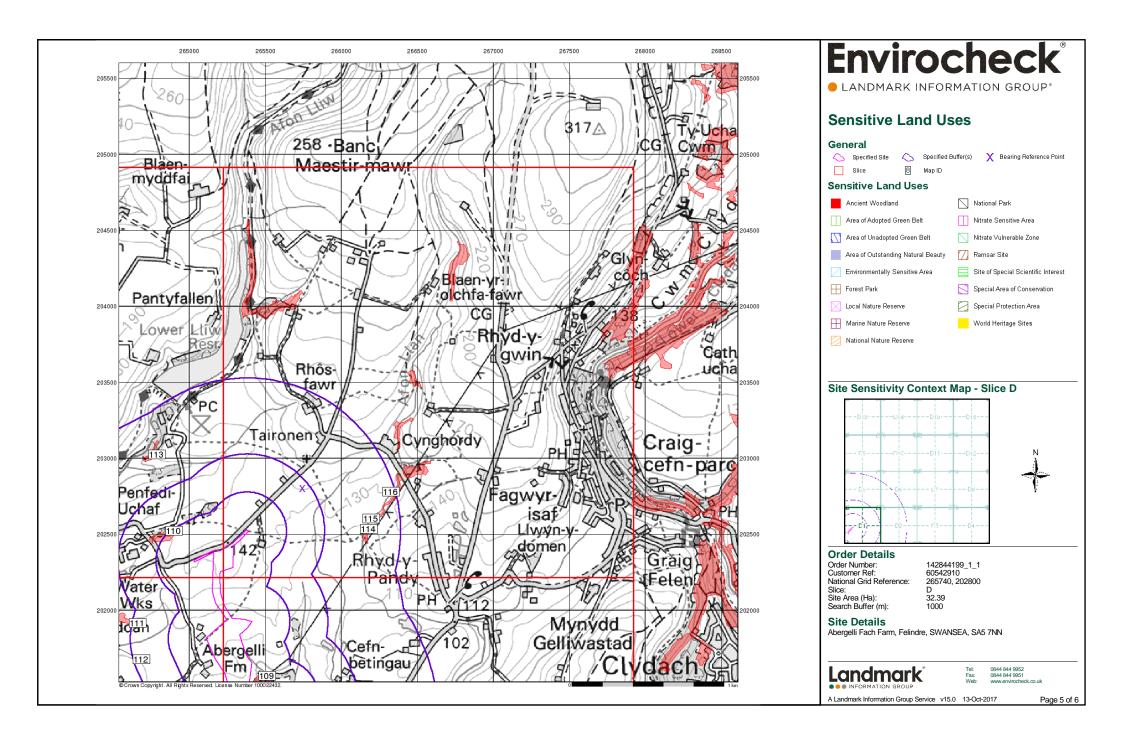
A Landmark Information Group Service v50.0 13-Oct-2017

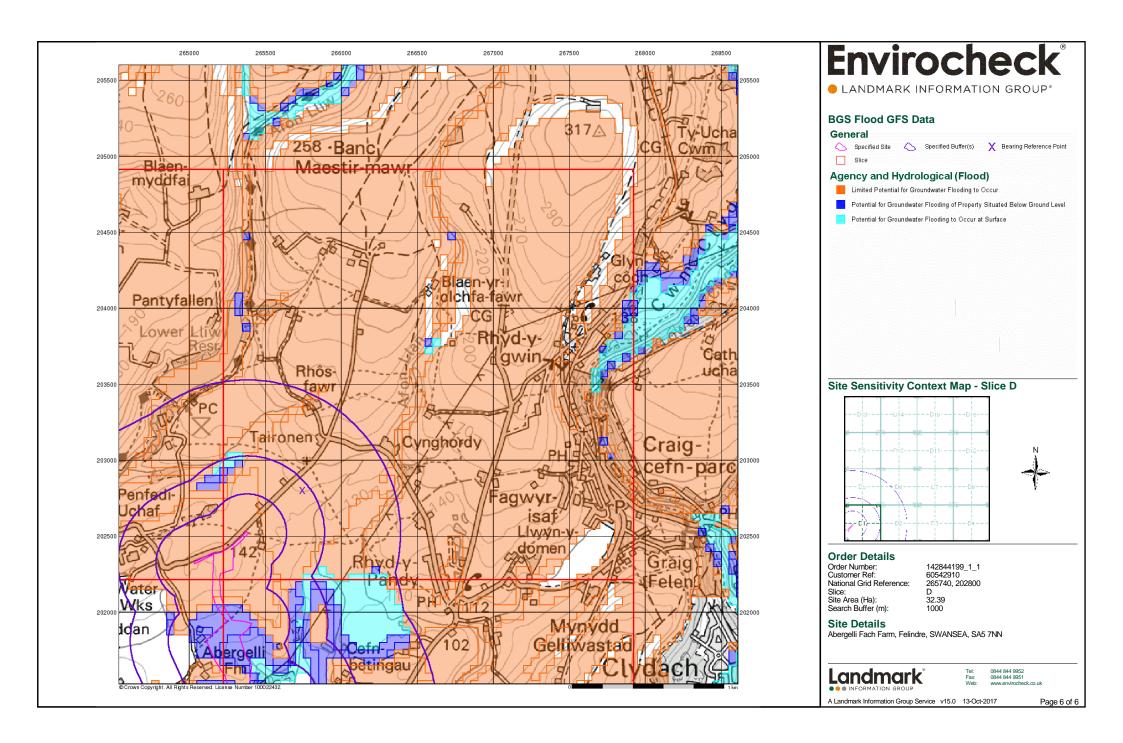














### **Envirocheck® Report:**

### **Datasheet**

#### **Order Details:**

**Order Number:** 

142844199_1_1

**Customer Reference:** 

60542910

**National Grid Reference:** 

265740, 202800

Slice:

D

Site Area (Ha):

32.39

Search Buffer (m):

1000

#### Site Details:

Abergelli Fach Farm Felindre SWANSEA SA5 7NN

### **Client Details:**

MS J Foy Aecom Infrastructure & Environment UK Ltd Longcross Court 47 Newport Road Cardiff CF24 0AD

#### **Prepared For:**

Abergelli Power Station Project







Report Section	Page Number
Summary	-
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Hazardous Substances	-
Geological	21
Industrial Land Use	24
Sensitive Land Use	25
Data Currency	26
Data Suppliers	31
Useful Contacts	32

#### 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 Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological 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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Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 4		1		
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 4		Yes		
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 4				1
River Quality Biology Sampling Points					
Substantiated Pollution Incident Register					
River Quality Chemistry Sampling Points					
Water Abstractions	pg 4				1 (*11)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 7	Yes	n/a	n/a	n/a
Drift Deposits	pg 7	2	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 8		4	36	60



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 20	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 20				1
Potentially Infilled Land (Water)					
Registered Landfill Sites					
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					



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 21	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 21	Yes			Yes
BGS Recorded Mineral Sites	pg 22				1
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 22	Yes	n/a	n/a	n/a
Mining Instability	pg 22	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 22	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 22	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 22	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 22	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 22	Yes		n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 24				1
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 24				1
Points of Interest - Public Infrastructure	pg 24				1
Points of Interest - Recreational and Environmental					
Gas Pipelines	pg 24	1			
Underground Electrical Cables					



Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland	pg 25	1	1	1	5
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
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					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

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# **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	0	1	265200 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	0	1	265400 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	0	1	265150 201900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	0	1	265350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	0	1	202100
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	0	1	201550 265350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	0	1	202050 265350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(S)	0	1	201650 265743
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	0	1	201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	0	1	201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	0	1	201900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	0	1	201550 265450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	D1NW	0	1	201600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW) (S)	1	1	202650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	21	1	201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	22	1	202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	29	1	202050 265000 203750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	41	1	202750 265600 202200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	48	1	202200 265500 201000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	58	1	201900 265400 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	D1NE	113	1	202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	115	1	202802 264950 202050



# **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	117	1	265550 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	132	1	265050 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	139	1	265650 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	139	1	265650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	140	1	265000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	168	1	201550 265600 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SW)	172	1	265050 201550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	199	1	265750 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	212	1	264900 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	228	1	265700 201800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	241	1	265700 202150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(SW)	249	1	264900 202000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	D1NW (W)	255	1	265250 202802
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	264	1	265900 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(S)	291	1	265743 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	292	1	265743 201900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	292	1	265743 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	311	1	265900 201700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	324	1	265200 202802
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	D1NW (W)	330	1	265300 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(SE)	335	1	266450 201850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	339	1	265743 202200



## **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	341	1	265750 201950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	D1NW (W)	346	1	265250 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	347	1	265000 202802
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	D1SE (S)	349	1	265850 202300
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(W)	367	1	265200 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	D5SW (W)	372	1	265350 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	375	1	265950 201650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	D5SW (W)	379	1	265300 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(S)	391	1	265850 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	D5SW (W)	392	1	265250 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	398	1	265800 202150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	(W)	412	1	265200 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	D5SW (W)	422	1	265350 202950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	423	1	265100 202850
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	D2NW (E)	424	1	266050 202700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	D5SW (NW)	428	1	265350 203000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	436	1	265150 202900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	450	1	265800 202200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	(W)	457	1	265200 202950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	(S)	479	1	265950 202050
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	D5SW (NW)	488	1	265450 203050



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Mr W B Llewellyn Domestic Property (Single) Abergelli Farm Felindre Swansea Natural Resources Wales River Loughor Bp0051701 1 14th August 1987 14th August 1987 14th November 1996 Unspecified Not Supplied  To Land Consent expired Located by supplier to within 100m	D1SW (SW)	114	2	265500 202500
	Nearest Surface Wa	,	D1NW	172	-	265376
	River Quality Name: GQA Grade: Reach: Estimated Distance (km): Flow Rate: Flow Type: Year:	Llan River Quality B Felin-Wen - Cynghordy 2.8  Flow less than 0.31 cumecs River 2000	D2SW (SE)	615	3	202723 266124 202457
2	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	M.E & D.G Thomas 22/59/4/0024 100 Well At Rhosfawr Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Not Supplied Well At Rhosfawr Farm 01 January 31 December 1st February 1993 Not Supplied Located by supplier to within 100m	D5NE (N)	938	3	265750 203390
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr M Jones 22/59/4/0066 1 Un-Named Trib Of Afon Llan Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied Ot Supplied Ot January 10 July 1st April 2005 Not Supplied Located by supplier to within 10m	D3SW (E)	1323	2	266710 202510



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions		D3SW	1222	2	266710
	Operator: Licence Number: Permit Version: Location:	Mr M Jones 22/59/4/0066 1 Un-Named Trib Of Afon Llan	D3SW (E)	1323	2	266710 202510
		Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied 11 January 03 July 1st April 2005 Not Supplied Located by supplier to within 10m				
	Water Abstractions Operator: Licence Number: Permit Version:	Mr M Jones 22/59/4/0066 1	D3SW (E)	1323	2	266710 202510
	Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3):	Un-Named Trib Of Afon Llan Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied				
	Yearly Rate (m3): Details: Authorised Start: Authorised End:	Not Supplied Unnamed Stream (B) At Maesgwyn Trout Farm 01 April 31 October				
	-	1st April 2005 Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Water Abstractions		D3SW (E)	1323	2	266710 202510
	Operator: Licence Number: Permit Version: Location:	Mr M Jones 22/59/4/0066 1 Un-Named Trib Of Afon Llan	D3SW (SE)	1354	2	266720 202280
	Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	On-Named Tilb Of Aron Lian Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 April 31 October 1st April 2005 Not Supplied Located by supplier to within 10m				



Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions	Dacw	1354	2	200720	
	Operator: Licence Number: Permit Version:	Mr M Jones 22/59/4/0066 1	D3SW (SE)	1354	2	266720 202280
	Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details:	Un-Named Trib Of Afon Llan Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Unnamed Stream (A) At Maesgwyn Trout Farm				
	Authorised Start: Authorised End: Permit Start Date: Permit End Date:	11 January 03 July 1st April 2005 Not Supplied Located by supplier to within 10m				
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:  Water Abstractions	Mr M Jones 22/59/4/0066 1 Un-Named Trib Of Afon Llan Natural Resources Wales Amenity: Lake And Pond Throughflow Water may be abstracted from a single point Surface Not Supplied Not Supplied Not Supplied O1 November 31 March 1st April 2005 Not Supplied Located by supplier to within 10m	D3SW (SE)	1354	2	266720 202280
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:  Water Abstractions	Mr D Thomas 22/59/4/0039 100 Well At Cwmcile Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring Adjacent To Pentre Bedw Cottage 01 January 31 December 30th March 1966 Not Supplied Located by supplier to within 100m	D9NE (N)	1600	3	265730 204090
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised End: Permit Start Date: Permit End Date:	Mr D Thomas 22/59/4/0039 100 Spring Adjacent To Pentre Bedw Cottage Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Well At Cwmcile Farm 01 January 31 December 30th March 1966 Not Supplied Located by supplier to within 100m	D10NW (N)	1748	3	266080 204130



## **Agency & Hydrological**

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions					
	Operator: Licence Number: Permit Version: Location: Authority: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr J Williams 22/59/4/0040 100 Spring In Enc. No. 847 At Maestir Mawr Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring In Enc. No. 847 At Maestir Mawr Farm 01 January 31 December 30th March 1966 Not Supplied Located by supplier to within 100m	D13SW (N)	1875	3	265500 204400
	Water Abstractions Operator: Licence Number: Permit Version: Location: Authority: Abstraction: Abstraction Type: Source: Daily Rate (m3): Yearly Rate (m3): Details: Authorised Start: Authorised Start: Authorised End: Permit Start Date: Permit End Date: Positional Accuracy:	Mr D Morgan 22/59/4/0005 100 Spring 2 At Pant Y Fallen Farm Environment Agency, Welsh Region General Farming And Domestic Water may be abstracted from a single point Groundwater Not Supplied Not Supplied Spring 2 At Pant Y Fallen Farm 01 January 31 December 1st December 1st December 1965 Not Supplied Located by supplier to within 100m	D13SW (N)	1965	3	265250 204490
	Groundwater Vulne Soil Classification: Map Sheet: Scale:	Soils of Low Leaching Potential - Soils in which pollutants 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 elsewhere in the catchment Sheet 35 West Glamorgan 1:100,000	D1NE (W)	0	3	265735 202802
		,				
	Groundwater Vulne Soil Classification:  Map Sheet: Scale:	rability  Soils of High Leaching Potential (H2) - Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential Sheet 35 West Glamorgan 1:100,000	D1SW (SW)	0	3	265538 202540
	Groundwater Vulne	· · · · · · · · · · · · · · · · · · ·				
	Groundwater Vulne Soil Classification: Map Sheet: Scale:	Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants Sheet 35 West Glamorgan 1:100,000	(S)	0	3	265994 201841
	Drift Deposits Drift Deposit:  Map Sheet: Scale:	Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan 1:100,000		0	3	265745 201652
	Drift Deposits					
	Drift Deposits Drift Deposit: Map Sheet:	Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Sheet 35 West Glamorgan		0	3	265743 202802
	Scale:	1:100,000				
	Bedrock Aquifer De		(\A/\	0	1	265000
		Secondary Aquifer - A	(W)	U	1	265000 202802
	Bedrock Aquifer De Aquifer Designation:	signations Secondary Aquifer - A	D1NE (SW)	0	1	265743 202802
	Superficial Aquifer	<b>Designations</b> Secondary Aquifer - A	D1SW	0	1	265397



## **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	D1SE (S)	0	1	265820 202400
	Superficial Aquifer Designations Aquifer Designation: Unproductive Strata	D1NE (S)	0	1	265750 202777
	Extreme Flooding from Rivers or Sea without Defences None	(c)			202111
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
3	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 83.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (SW)	133	4	265577 202541
4	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 167.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	191	4	265719 202508
5	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 105.1  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D1SE (S)	191	4	265679 202523
6	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 134.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NW (W)	236	4	265237 202721
7	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 131.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NE (SW)	298	4	265666 202627
8	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 273.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NE (SW)	315	4	265649 202695



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NE (SW)	322	4	265666 202717
10	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 164.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	332	4	265719 202508
11	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 30.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	357	4	265654 202282
12	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 35.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NE (W)	362	4	265599 202817
13	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 58.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NE (W)	375	4	265579 202846
14	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 96.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D1NE (NW)	375	4	265617 202855
15	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 6.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	377	4	265664 202254
16	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 74.5  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	380	4	265666 202248
17	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 75.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SE (NW)	416	4	265566 202901



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D5SE (NW)	416	4	265594 202909
19	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 55.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (W)	417	4	265335 202944
20	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 19.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (W)	421	4	265285 202940
21	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 100.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (W)	422	4	265257 202969
22	OS Water Network Lines  Watercourse Form: Marsh Watercourse Length: 38.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	422	4	265807 202472
23	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 149.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D1SE (S)	426	4	265826 202255
24	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 142.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	428	4	265835 202293
25	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 133.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NE (S)	434	4	265817 202584
26	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 89.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NE (SE)	435	4	265853 202663



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D5SE (NW)	437	4	265594 202909
28	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 33.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (W)	440	4	265282 202959
29	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	457	4	265830 202393
30	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 54.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	458	4	265840 202452
31	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 49.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	460	4	265527 202965
32	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	460	4	265837 202395
33	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	467	4	265844 202399
34	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 106.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NE (SE)	468	4	265794 202752
35	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 64.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (W)	473	4	265271 202989



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 31.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (W)	473	4	265271 202989
37	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 352.7  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1NE (SE)	487	4	265880 202701
38	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 53.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (W)	488	4	265229 203001
39	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 68.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	489	4	265548 203014
40	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 189.8  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	490	4	265498 203004
41	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 15.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (W)	493	4	265245 203004
42	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 9.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	D5SW (W)	495	4	265229 203001
43	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 10.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	D5SW (NW)	503	4	265237 203019
44	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 34.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	510	4	265237 203019



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
45	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 32.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	D5SW (NW)	510	4	265258 203043
46	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	D5SW (NW)	527	4	265333 203091
47	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	527	4	265556 203025
48	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 35.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SE (NW)	527	4	265590 203014
49	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SE (NW)	529	4	265593 203014
50	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 35.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SE (NW)	530	4	265626 203002
51	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 226.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D1SE (S)	542	4	265858 202251
52	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 157.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	560	4	265479 203138
53	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 182.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	562	4	265307 203087



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
54	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 40.0  Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	D5SW (NW)	565	4	265360 203121
55	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 77.9  Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	D5SW (NW)	593	4	265366 203128
56	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 310.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	593	4	265360 203121
57	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 7.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	617	4	265486 203140
58	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 41.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	620	4	265499 203146
59	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 117.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D5SE (NW)	638	4	265577 203145
60	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 18.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	649	4	265520 203162
61	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 62.4  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	655	4	265435 203199
62	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 73.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Nant y Tarw Catchment Name: Loughor Primacy: 1	D5SW (NW)	655	4	265407 203183



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
63	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 24.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	665	4	265534 203175
	OS Water Network Lines				
64	Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	665	4	265534 203175
	OS Water Network Lines				
65	Watercourse Form: Inland river Watercourse Length: 363.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D2NW (SE)	692	4	266106 202636
	OS Water Network Lines				
66	Watercourse Form: Inland river Watercourse Length: 8.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	694	4	265457 203219
	OS Water Network Lines				
67	Watercourse Form: Inland river Watercourse Length: 10.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D5SE (NW)	695	4	265573 203196
	OS Water Network Lines				
68	Watercourse Form: Inland river Watercourse Length: 8.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D5SE (NW)	698	4	265576 203198
	OS Water Network Lines				
69	Watercourse Form: Inland river Watercourse Length: 0.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	701	4	265463 203225
	OS Water Network Lines				
70	Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5NW (NW)	701	4	265535 203262
	OS Water Network Lines				
71	Watercourse Form: Inland river Watercourse Length: 20.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5SW (NW)	701	4	265463 203225



## **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
72	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D5SE (NW)	706	4	265575 203207
73	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 54.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D5SE (N)	709	4	265574 203211
74	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5NW (NW)	720	4	265459 203245
75	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5NW (NW)	720	4	265459 203245
76	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 66.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	D2SW (SE)	753	4	266143 202493
77	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 280.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	D2SW (SE)	756	4	266141 202413
78	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 5.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D5NE (N)	760	4	265571 203265
79	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 72.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5NE (N)	765	4	265570 203270
80	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	D2NW (SE)	771	4	266182 202596



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
81	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D2SW (SE)	772	4	266153 202421
82	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 12.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	D2SW (SE)	772	4	266159 202433
83	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 2	D2SW (SE)	772	4	266158 202454
84	OS Water Network Lines  Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	D2SW (SE)	773	4	266158 202454
85	OS Water Network Lines  Watercourse Form: Lake Watercourse Length: 27.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D2SW (SE)	788	4	266162 202376
86	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 201.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D6SW (NE)	793	4	266014 203006
87	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 50.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D6SW (NE)	798	4	265971 203063
88	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 56.3  Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D6SW (NE)	798	4	265971 203063
89	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 217.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D6SW (E)	803	4	266093 202903



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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
90	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 43.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5NE (N)	823	4	265618 203316
91	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 45.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D5NE (N)	823	4	265641 203317
92	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 116.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 2	D2NW (E)	838	4	266202 202752
93	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 3.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D6SW (NE)	844	4	265990 203109
94	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D6SW (NE)	847	4	265992 203113
95	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 93.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5NE (N)	849	4	265658 203331
96	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 122.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D2NW (E)	852	4	266228 202721
97	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 419.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Llan Catchment Name: Loughor Primacy: 1	D2NW (E)	852	4	266234 202616
98	OS Water Network Lines  Watercourse Form: Inland river Watercourse Length: 63.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D2NW (E)	861	4	266224 202754



## **Agency & Hydrological**

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	OS Water Network Lines				
99	Watercourse Form: Inland river Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D2NW (E)	861	4	266224 202723
	OS Water Network Lines				
100	Watercourse Form: Inland river Watercourse Length: 77.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D2NE (E)	892	4	266240 202781
	OS Water Network Lines				
101	Watercourse Form: Inland river Watercourse Length: 250.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D5NW (N)	913	4	265476 203470
	OS Water Network Lines				
102	Watercourse Form: Inland river Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Loughor Primacy: 1	D2SE (SE)	943	4	266309 202243



**Waste** 

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority La Name:	ndfill Coverage City and County of Swansea - Has no landfill data to supply		0	5	265743 202802
103	Potentially Infilled Bearing Ref: Use: Date of Mapping:	Land (Non-Water) NW Unknown Filled Ground (Pit, quarry etc) 1976	D5SE (NW)	544	8	265647 203003





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Description:	d Geology South Wales Upper Coal Measures Formation	D1NE (SW)	0	1	265743 202802
	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 25 - 35 mg/kg  <1.8 mg/kg 60 - 90 mg/kg	D1NE (SW)	0	1	265743 202802
	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 <100 mg/kg 15 - 30 mg/kg	D2NW (E)	613	1	266000 202802
	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 35 - 45 mg/kg  <1.8 mg/kg 60 - 90 mg/kg	D6SW (E)	719	1	266000 202897
	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	D2SW (SE)	778	1	266190 202507
	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 35 - 45 mg/kg  <1.8 mg/kg 60 - 90 mg/kg	D2SW (SE)	845	1	266192 202261
	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 35 - 45 mg/kg  <1.8 mg/kg 60 - 90 mg/kg	D6SW (NE)	871	1	266000 203139





Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soi Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	British Geological Survey, National Geoscience Information Service Sediment 25 - 35 mg/kg  <1.8 mg/kg 60 - 90 mg/kg	D2NE (E)	900	1	266240 202808
104	BGS Recorded Min- Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology: Commodity: Positional Accuracy:	Waun-Fach , Clydach, Swansea, Glamorgan British Geological Survey, National Geoscience Information Service 151707 Opencast Ceased Not Supplied Not Supplied Carboniferous Swansea Member Sandstone Located by supplier to within 10m	D5SE (NW)	539	1	265652 202994
	BGS Measured Urb	an Soil Chemistry				
	No data available  BGS Urban Soil Ch  No data available	emistry Averages				
	Coal Mining Affects Description:	d Areas  In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	D1NE (SW)	0	6	265743 202802
	Mining Instability Mining Evidence: Source: Boundary Quality:	Inconclusive Coal Mining Ove Arup & Partners As Supplied	D1NE (SW)	0	-	265743 202802
	Non Coal Mining Ar No Hazard	reas of Great Britain				
	Potential for Collap Hazard Potential: Source:	sible Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service	D1NE (SW)	0	1	265743 202802
	Potential for Collap Hazard Potential: Source:	sible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	D1SE (S)	0	1	265820 202400
	Potential for Complete Hazard Potential: Source:	ressible Ground Stability Hazards  Moderate  British Geological Survey, National Geoscience Information Service	D1SE (S)	0	1	265820 202400
	Hazard Potential: Source:	ressible Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service	D1NE (SW)	0	1	265743 202802
	Potential for Groun Hazard Potential: Source:	d Dissolution Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service	D1NE (SW)	0	1	265743 202802
	Potential for Lands Hazard Potential: Source:	lide Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service	D1NE (SW)	0	1	265743 202802
	Potential for Runnin Hazard Potential: Source:	ng Sand Ground Stability Hazards  Low  British Geological Survey, National Geoscience Information Service	D1SE (S)	0	1	265820 202400
	Potential for Runnin Hazard Potential: Source:	ng Sand Ground Stability Hazards  Very Low  British Geological Survey, National Geoscience Information Service	D1NE (S)	0	1	265750 202777
	Potential for Shrink Hazard Potential: Source:	ing or Swelling Clay Ground Stability Hazards  No Hazard  British Geological Survey, National Geoscience Information Service	D1SW (SW)	0	1	265397 202422



## **Geological**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrink	ring or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	D1NE (S)	0	1	265750 202777
	Radon Potential - Radon Affected Areas					
	Affected Area: Source:	The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).  British Geological Survey, National Geoscience Information Service	D1NE (SW)	0	1	265743 202802
	Radon Potential - R	adon Protection Measures				
	Protection Measure: Source:	No radon protective measures are necessary in the construction of new dwellings or extensions British Geological Survey, National Geoscience Information Service	D1NE (SW)	0	1	265743 202802



### **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Contemporary Trad	e Directory Entries				
105	Name: Location: Classification: <b>Status:</b> Positional Accuracy:	Thomas M E & D G & E A Rhosfawr Farm, Morriston, Swansea, SA6 6PF Dairies Inactive Automatically positioned to the address	D5NE (N)	943	-	265844 203349
	Points of Interest - I	Manufacturing and Production				
106	Name: Location: Category: Class Code: Positional Accuracy:	Tank SA6 Industrial Features Tanks (Generic) Positioned to an adjacent address or location	D5NE (N)	917	7	265794 203346
	Points of Interest - I	Public Infrastructure				
107	Name: Location: Category: Class Code: Positional Accuracy:	Sluice SA6 Water Weirs, Sluices and Dams Positioned to an adjacent address or location	D5SE (N)	709	7	265585 203207
	Gas Pipelines					
108	Name: Nat Grid: Diameter (mm): Building Proximity Distance (m): Status: Pipe Length (m): Pipe Number:	FM28 - Felindre to Cilfrew Owned By National Grid 1200 132  Active 17048.8 Feeder 28	D1NE (NW)	0	8	265738 202807



### **Sensitive Land Use**

Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
109	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7060 16001.14 Ancient and Semi-Natural Woodland	(S)	0	2	265510 201569
110	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 882 7755.99 Ancient and Semi-Natural Woodland	(W)	207	2	264897 202524
111	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 880 5527.37 Ancient and Semi-Natural Woodland	(SW)	463	2	264658 201916
112	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 878 4775.36 Ancient and Semi-Natural Woodland	(SW)	576	2	264530 201768
113	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 887 3413.32 Ancient and Semi-Natural Woodland	(W)	722	2	264784 203025
114	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7139 2605.61 Ancient and Semi-Natural Woodland	D2NW (SE)	750	2	266179 202558
115	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7140 3219.21 Ancient and Semi-Natural Woodland	D2NW (SE)	812	2	266195 202602
116	Ancient Woodland Name: Reference: Area(m²): Type:	Not Supplied 7141 3530.41 Ancient and Semi-Natural Woodland	D2NE (E)	974	2	266326 202779



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## **Data Currency**

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
City and County of Swansea - Environmental Health Department	January 2015	Annual Rolling Update
Neath Port Talbot County Borough Council - Environmental Health Department	March 2015	Annual Rolling Updat
Carmarthenshire County Council - Environmental Health Department	October 2014	Annual Rolling Updat
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Natural Resources Wales	August 2017	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Welsh Region	March 2013	As notified
ntegrated Pollution Controls		
Environment Agency - Welsh Region	October 2008	Not Applicable
ntegrated Pollution Prevention And Control		
Natural Resources Wales	August 2017	Quarterly
Environment Agency - Welsh Region	July 2017	Quarterly
ocal Authority Integrated Pollution Prevention And Control		
Swansea Bay Port Health Authority	April 2014	Annually
Neath Port Talbot County Borough Council - Environmental Health Department	August 2012	Annual Rolling Update
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Updat
Carmarthenshire County Council - Environmental Health Department	March 2015	Annual Rolling Updat
ocal Authority Pollution Prevention and Controls		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Updat
Neath Port Talbot County Borough Council - Environmental Health Department	March 2014	Annual Rolling Updat
Carmarthenshire County Council - Environmental Health Department	March 2015	Annual Rolling Updat
ocal Authority Pollution Prevention and Control Enforcements		
Swansea Bay Port Health Authority	April 2014	Annually
City and County of Swansea - Environmental Health Department	June 2014	Annual Rolling Updat
Neath Port Talbot County Borough Council - Environmental Health Department	March 2014	Annual Rolling Updat
Carmarthenshire County Council - Environmental Health Department	September 2013	Annual Rolling Updat
Nearest Surface Water Feature		
Ordnance Survey	May 2017	
Pollution Incidents to Controlled Waters		
Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - Welsh Region	March 2013	As notified
Natural Resources Wales	March 2013	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - Welsh Region	March 2013	As notified
Natural Resources Wales	March 2013	As notified
Registered Radioactive Substances		
Natural Resources Wales	January 2015	As notified
Environment Agency - Welsh Region	January 2015	
River Quality	,	
Environment Agency - Head Office	November 2001	Not Applicable
Substantiated Pollution Incident Register		
Natural Resources Wales	August 2018	Quarterly
Environment Agency Wales - South West Area	July 2017	Quarterly
Nater Abstractions		-
Environment Agency - Welsh Region	July 2017	Quarterly
Natural Resources Wales	July 2017	Quarterly
Vater Industry Act Referrals	, -	
	August 2017	Quarterly
Vatural Resources Wales		

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service



## **Data Currency**

Agency & Hydrological	Version	Update Cycle	
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	August 2015	As notified	
Superficial Aquifer Designations			
British Geological Survey - National Geoscience Information Service	August 2015	As notified	
Source Protection Zones			
Natural Resources Wales	November 2016	As notified	
Extreme Flooding from Rivers or Sea without Defences			
Natural Resources Wales	August 2017	Quarterly	
Flooding from Rivers or Sea without Defences			
Natural Resources Wales	August 2017	Quarterly	
Areas Benefiting from Flood Defences			
Natural Resources Wales	August 2017	Quarterly	
Flood Water Storage Areas			
Natural Resources Wales	August 2017	Quarterly	
Flood Defences			
Natural Resources Wales	August 2017	Quarterly	
OS Water Network Lines			
Ordnance Survey	July 2017	6 Weekly	
Surface Water 1 in 30 year Flood Extent			
Natural Resources Wales	October 2013	As notified	
Surface Water 1 in 100 year Flood Extent			
Natural Resources Wales	October 2013	As notified	
Surface Water 1 in 1000 year Flood Extent			
Natural Resources Wales	October 2013	As notified	
Surface Water Suitability			
Natural Resources Wales	October 2013	As notified	
BGS Groundwater Flooding Susceptibility			
British Geological Survey - National Geoscience Information Service	May 2013	Annually	

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 27 of 32



## **Data Currency**

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Natural Resources Wales	May 2017	Quarterly
ntegrated Pollution Control Registered Waste Sites		
Environment Agency - Welsh Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency Wales - South West Area	May 2017	Quarterly
Natural Resources Wales	May 2017	Quarterly
Licensed Waste Management Facilities (Locations)		
Natural Resources Wales	August 2017	Quarterly
Environment Agency Wales - South West Area	July 2017	Quarterly
Local Authority Landfill Coverage		
Carmarthenshire County Council	May 2000	Not Applicable
City and County of Swansea - Environmental Health Department	May 2000	Not Applicable
Neath Port Talbot County Borough Council - Environmental Health Department	May 2000	Not Applicable
ocal Authority Recorded Landfill Sites		
Carmarthenshire County Council	May 2000	Not Applicable
City and County of Swansea - Environmental Health Department	May 2000	Not Applicable
Neath Port Talbot County Borough Council - Environmental Health Department	September 2003	Not Applicable
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
_andmark Information Group Limited	December 1999	Not Applicable
<u> </u>	Describer 1999	140t / tppilodolo
Registered Landfill Sites	March 2003	Not Applicable
Environment Agency Wales - South West Area	Water 2003	Not Applicable
Registered Waste Transfer Sites	Marrala 0000	Not Applicable
Environment Agency Wales - South West Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites	Marrah 0000	Not Applicable
Environment Agency Wales - South West Area	March 2003	Not Applicable
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		5
Health and Safety Executive	September 2017	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Carmarthenshire County Council - Area Planning Office (East Area)	February 2016	Annual Rolling Updat
Carmarthenshire County Council - Area Planning Office (South Area)	February 2016	Annual Rolling Updat
Carmarthenshire County Council - Environment Department (West Area)	February 2016	Annual Rolling Updat
City and County of Swanson Planning Donartment	January 2016	Annual Rolling Updat
	October 2015	Annual Rolling Updat
	00.000.20.0	
Neath Port Talbot County Borough Council - Planning Department	33333.23.3	
Neath Port Talbot County Borough Council - Planning Department  Planning Hazardous Substance Consents	February 2016	Annual Rolling Updat
Neath Port Talbot County Borough Council - Planning Department  Planning Hazardous Substance Consents  Carmarthenshire County Council - Area Planning Office (East Area)		Annual Rolling Updat Annual Rolling Updat
City and County of Swansea - Planning Department  Neath Port Talbot County Borough Council - Planning Department  Planning Hazardous Substance Consents  Carmarthenshire County Council - Area Planning Office (East Area)  Carmarthenshire County Council - Area Planning Office (South Area)  Carmarthenshire County Council - Environment Department (West Area)	February 2016	Annual Rolling Updat
Planning Hazardous Substance Consents Carmarthenshire County Council - Area Planning Office (East Area) Carmarthenshire County Council - Area Planning Office (South Area)	February 2016 February 2016	

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page



## **Data Currency**

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology	January 2000	Niet Anglieghie
British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2017	Bi-Annually
CBSCB Compensation District	7,0111 2017	Di / timaany
Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas		
The Coal Authority - Property Searches	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	May 2015	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
	70.000	opuato cycle
Contemporary Trade Directory Entries		
Thomson Directories	September 2017	Quarterly
Fuel Station Entries		
Catalist Ltd - Experian	August 2017	Quarterly
Gas Pipelines		
National Grid	July 2014	Quarterly
Points of Interest - Commercial Services PointX	September 2017	Quarterly
Points of Interest - Education and Health	,	,
PointX	September 2017	Quarterly
Points of Interest - Manufacturing and Production	·	
PointX	September 2017	Quarterly
Points of Interest - Public Infrastructure	,	,
PointX	September 2017	Quarterly
Points of Interest - Recreational and Environmental	,	,
PointX	September 2017	Quarterly
Underground Electrical Cables		,
National Grid	December 2015	Bi-Annually
national Office	December 2013	Di-Ailliually

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service



## LANDMARK INFORMATION GROUP®

## **Data Currency**

Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural Resources Wales	May 2017	Bi-Annually
Areas of Adopted Green Belt		
City and County of Swansea	May 2017	As notified
Areas of Outstanding Natural Beauty		
Natural Resources Wales	August 2017	Bi-Annually
Environmentally Sensitive Areas		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Carmarthenshire County Council	August 2017	Bi-Annually
City and County of Swansea	August 2017	Bi-Annually
Neath Port Talbot County Borough Council	August 2017	Bi-Annually
Marine Nature Reserves		
Natural Resources Wales	August 2017	Bi-Annually
National Nature Reserves		
Natural Resources Wales	August 2017	Bi-Annually
National Parks		
Natural Resources Wales	August 2017	Annually
Nitrate Vulnerable Zones		
Natural Resources Wales	June 2017	Bi-Annually
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	
Ramsar Sites		
Natural Resources Wales	August 2017	Bi-Annually
Sites of Special Scientific Interest		
Natural Resources Wales	August 2017	Bi-Annually
Special Areas of Conservation		
Natural Resources Wales	August 2017	Bi-Annually
Special Protection Areas		
Natural Resources Wales	August 2017	Bi-Annually

Order Number: 142844199_1_1 Date: 13-Oct-2017 rpr_ec_datasheet v53.0 A Landmark Information Group Service Page 30 of 32



## **Data Suppliers**

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Map data
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SEPA
The Coal Authority	The Coal Authority
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Natural Resources Wales	Cyfoeth Naturiol Cymni Naturol Resources Wules
Scottish Natural Heritage	SCOTTISH NATITAGE WASA
Natural England	NATURAL ENGLÅND
Public Health England	Public Health England
Ove Arup	ARUP
Peter Brett Associates	peterbrett



## **Useful Contacts**

Contact	Name and Address	Contact Details
1	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
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Ordnance Survey  Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 023 8079 2000 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	City and County of Swansea - Environmental Health Department The Guildhall, Swansea, West Glamorgan, SA1 4PE	Telephone: 01792 636000 extn 5651 Fax: 01792 635719
6	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
7	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9966 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

## **Geology 1:50,000 Maps Legends**

#### **Artificial Ground and Landslip**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassif ied Entry	Quaternary - Quaternary

#### **Superficial Geology**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	TILLD	Till, Devensian	Diamicton	Devensian - Devensian
	HMGDD	Hummocky (Moundy) Glacial Deposits, Devensian	Sand and Gravel	Devensian - Devensian
	PEAT	Peat	Peat [Unlithified Deposits Coding Scheme]	Quaternary - Quaternary
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Quaternary

#### **Bedrock and Faults**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	GDB	Grovesend Formation	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Sandstone	Westphalian D - Westphalian D
	SW	Swansea Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Н	Hughes Member	Mudstone, Siltstone and Sandstone	Westphalian D - Westphalian D
	Н	Hughes Member	Sandstone	Westphalian D - Westphalian D
		Faults		
		Rock Segments		

## **Envirocheck**®

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#### Geology 1:50,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

### Geology 1:50,000 Maps Coverage

 Map ID:
 1

 Map Sheet No:
 230

 Map Name:
 Ammanford

 Map Date:
 1977

 Bedrock Geology:
 Available

 Superficial Geology:
 Available

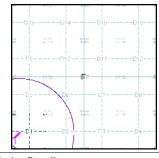
 Artificial Geology:
 Available

 Faults:
 Not Supplied

 Landslip:
 Available

 Rock Segments:
 Not Supplied

#### Geology 1:50,000 Maps - Slice D





#### Order Details:

Order Number: 142844199_1_1
Customer Reference: 60542910
National Grid Reference: 265740, 202800
Slice: D
Site Area (Ha): 32.39
Search Buffer (m): 1000

Site Details:

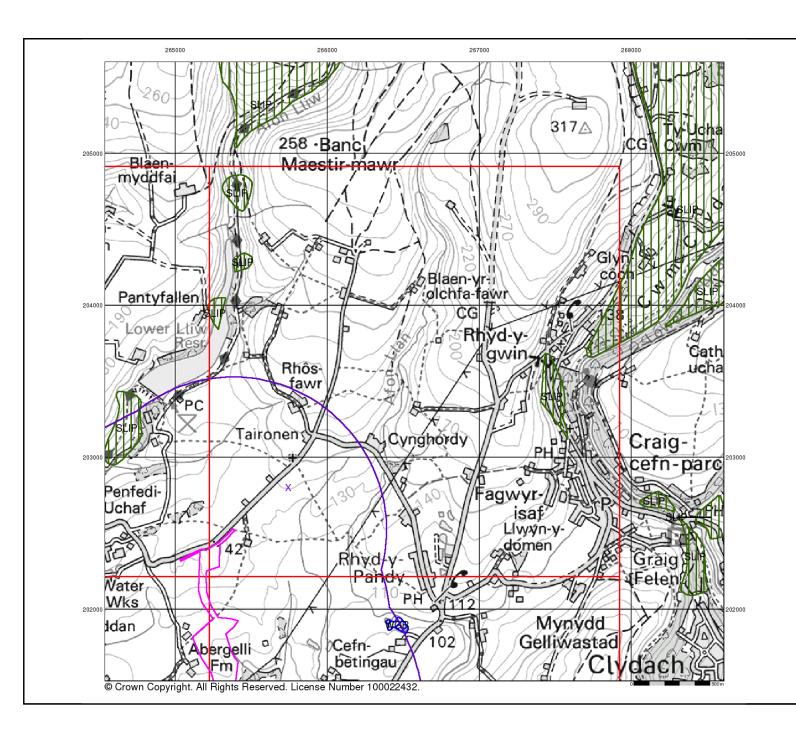
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



Tel: 0844 844 9952 Tax: 0844 844 9951 Veb: www.envirocheck.c

v15.0 13-Oct-2017

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#### **Artificial Ground and Landslip**

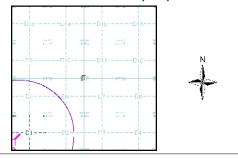
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.
   Worked ground - areas where the ground has been cut away such as
- Worked ground areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground areas where the surface has been reshaped.
   Disturbed ground areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes foundered strata, where the ground has collapsed due to subsidence.

#### Artificial Ground and Landslip Map - Slice D



#### **Order Details:**

Order Number: 142844199_1_1
Customer Reference: Actional Grid Reference: 265740, 202800
Slice: D
Site Area (Ha): 32.39

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### Site Details:

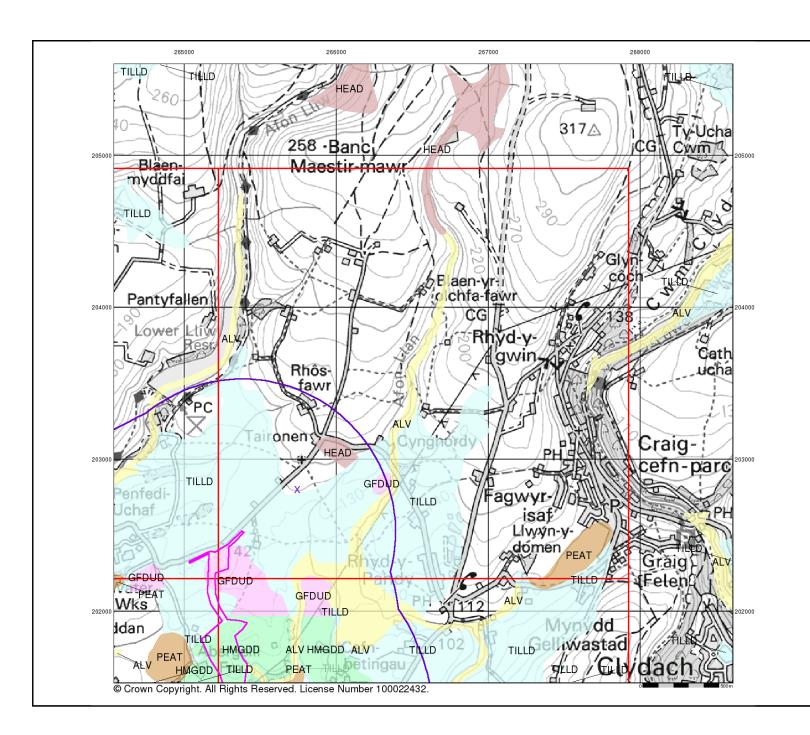
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



iel: 0844 844 9952 ax: 0844 844 9951 Veb: www.envirocheck.

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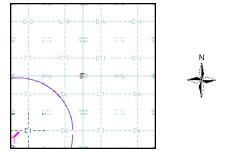
#### **Superficial Geology**

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

### Superficial Geology Map - Slice D



#### **Order Details:**

Order Number: Customer Reference: 142844199_1_1 60542910 National Grid Reference: 265740, 202800 D 32.39

Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

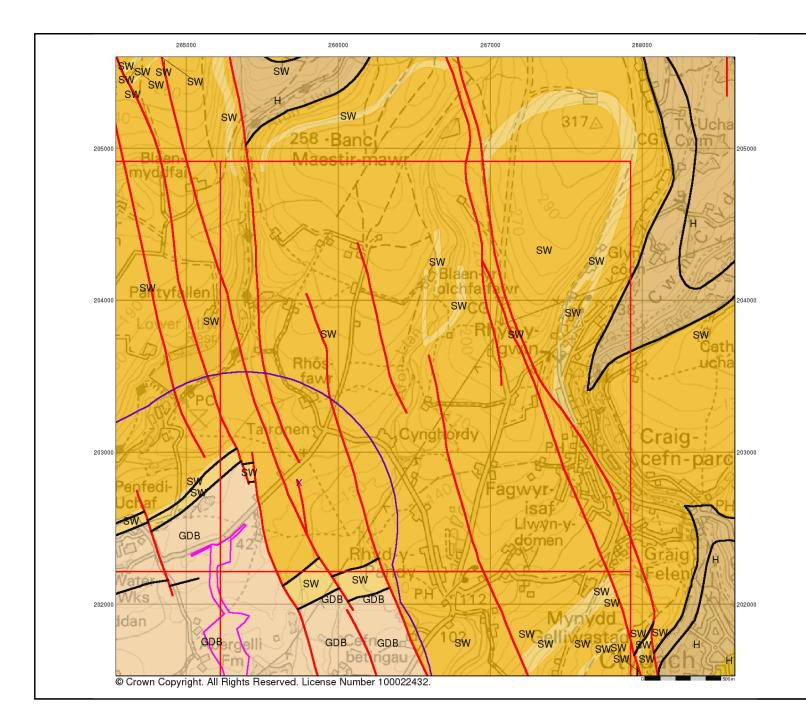
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



0844 844 9952 0844 844 9951

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#### **Bedrock and Faults**

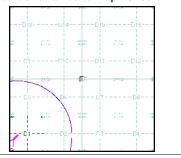
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or lader, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

#### Bedrock and Faults Map - Slice D



#### **Order Details:**

Order Number: 142844199_1_1
Customer Reference: 60542910
National Grid Reference: 265740, 202800
Slice: D
Site Area (Ha): 32.39
Search Buffer (m): 1000

Site Details:

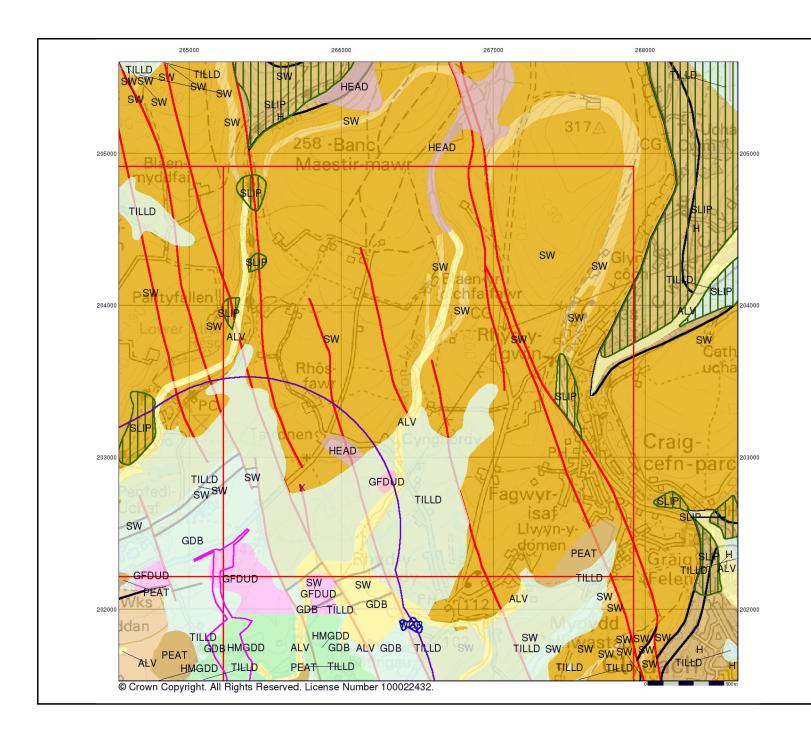
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN



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#### **Combined Surface Geology**

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

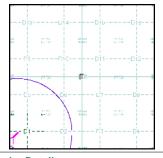
#### **Additional Information**

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

#### Contact

British Geological Survey Kingsley Dunham Centre Keyworth Nottingham NG12 5GG Telephone: 0115 936 3143 Fax: 0115 936 3276 email: enquiries@bgs.ac.uk website: www.bgs.ac.uk

#### Combined Geology Map - Slice D



#### **Order Details:**

Order Number: 142844199_1_1
Customer Reference: 60542910
National Grid Reference: 265740, 202800
Slice: D
Site Area (Ha): 32.39
Search Buffer (m): 1000

#### Site Details:

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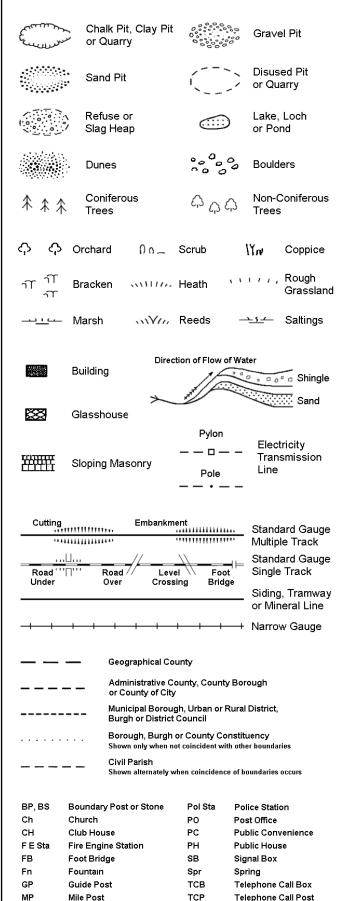
## **Historical Mapping Legends**

## Other Gravel Orchard Mixed Wood Deciduous Brushwood Furze Rough Pasture Arrow denotes Trigonometrical flow of water Station Site of Antiquities Bench Mark Pump, Guide Post, Well, Spring, Signal Post **Boundary Post** ·285 Surface Level Sketched Instrumental Contour Contour Fenced Main Roads Minor Roads Un-Fenced Sunken Road Raised Road Railway over Road over Ri∨er Railway Railway over Level Crossing Road Road over Road over Road over County Boundary (Geographical) County & Civil Parish Boundary Administrative County & Civil Parish Boundary County Borough Boundary (England) Co. Boro. Bdy. County Burgh Boundary (Scotland) Co. Burgh Bdy. Rural District Boundary RD. Bdy.

Civil Parish Boundary

**Ordnance Survey County Series 1:10,560** 

## Ordnance Survey Plan 1:10,000



## 1:10,000 Raster Mapping

	Gravel Pit		Refuse tip or slag heap
	Rock	3 3	Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle	Mud	Mud
Sand	Sand		Sand Pit
********	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)	• • • • •	Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
۵ ^۵	Area of wooded vegetation	۵ ^۵	Non-coniferous trees
$\Diamond$	Non-coniferous trees (scattered)	**	Coniferous trees
* *	Coniferous trees (scattered)	ĊΘ	Positioned tree
4 4 4 4	Orchard	* *	Coppice or Osiers
.ជា .ជា	Rough Grassland	www.	Heath
On_	Scrub	7 <u>₩</u> ۲	Marsh, Salt Marsh or Reeds
5	Water feature	<b>← ←</b>	Flow arrows
MHW(S)	Mean high water (springs)	MLW(S)	Mean low water (springs)
	Telephone line (where shown)	<b></b>	Electricity transmission line (with poles)
← BM 123.45 m	Bench mark (where shown)	Δ	Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)	$\boxtimes$	Pylon, flare stack or lighting tower
+	Site of (antiquity)		Glasshouse
	General Building		Important

Building

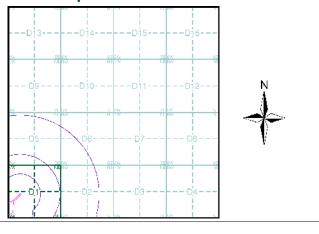
## **Envirocheck®**

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## **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1884	3
Glamorganshire	1:10,560	1900	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1938	6
Glamorganshire	1:10,560	1953	7
Ordnance Survey Plan	1:10,000	1964	8
Ordnance Survey Plan	1:10,000	1976	9
Swansea	1:10,000	1976	10
10K Raster Mapping	1:10,000	1999	11
10K Raster Mapping	1:10,000	2006	12
VectorMap Local	1:10,000	2017	13

## **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265740, 202800
Slice: D

Slice: Site Area

Site Area (Ha): 32.39 Search Buffer (m): 1000

#### **Site Details**

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l: 0844 844 9952 x: 0844 844 9951 eb: www.envirocheck

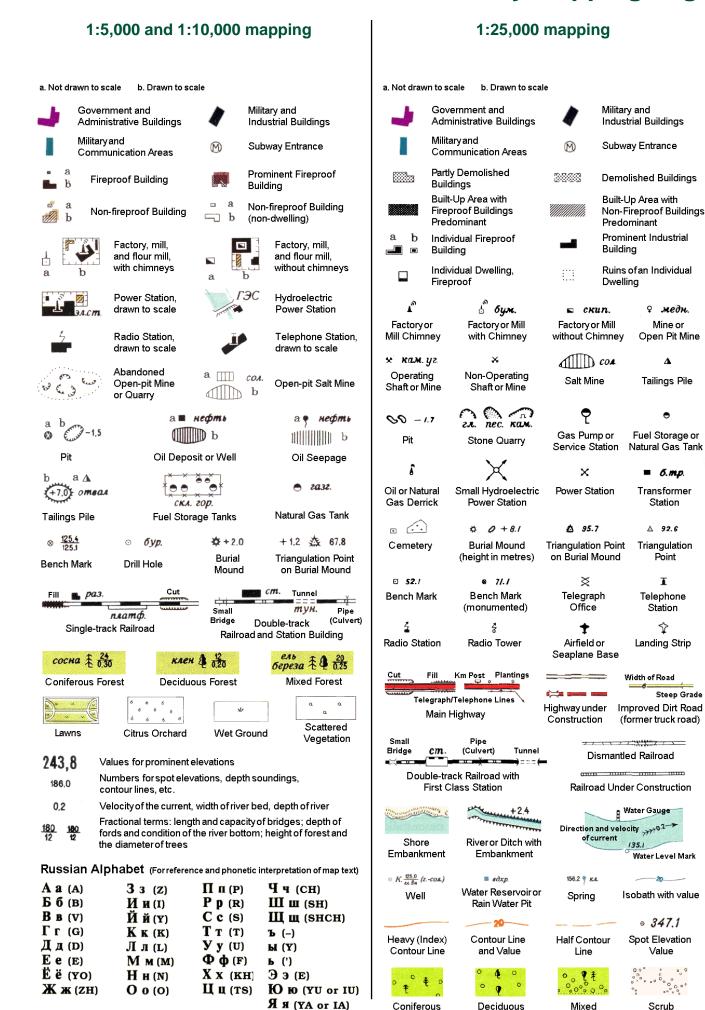
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 13

## **Russian Military Mapping Legends**

Deciduous

Mixed

Scrub



### **Key to Numbers on Mapping**

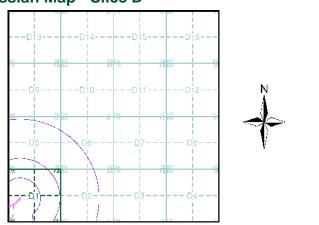
# **Envirocheck®**

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### **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1884	3
Glamorganshire	1:10,560	1900	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1938	6
Glamorganshire	1:10,560	1953	7
Ordnance Survey Plan	1:10,000	1964	8
Ordnance Survey Plan	1:10,000	1976	9
Swansea	1:10,000	1976	10
10K Raster Mapping	1:10,000	1999	11
10K Raster Mapping	1:10,000	2006	12
VectorMap Local	1:10,000	2017	13

## Russian Map - Slice D



#### **Order Details** Order Number:

142844199_1_1 60542910 Customer Ref: National Grid Reference: 265740, 202800 Slice:

Site Area (Ha):

32.39 Search Buffer (m): 1000

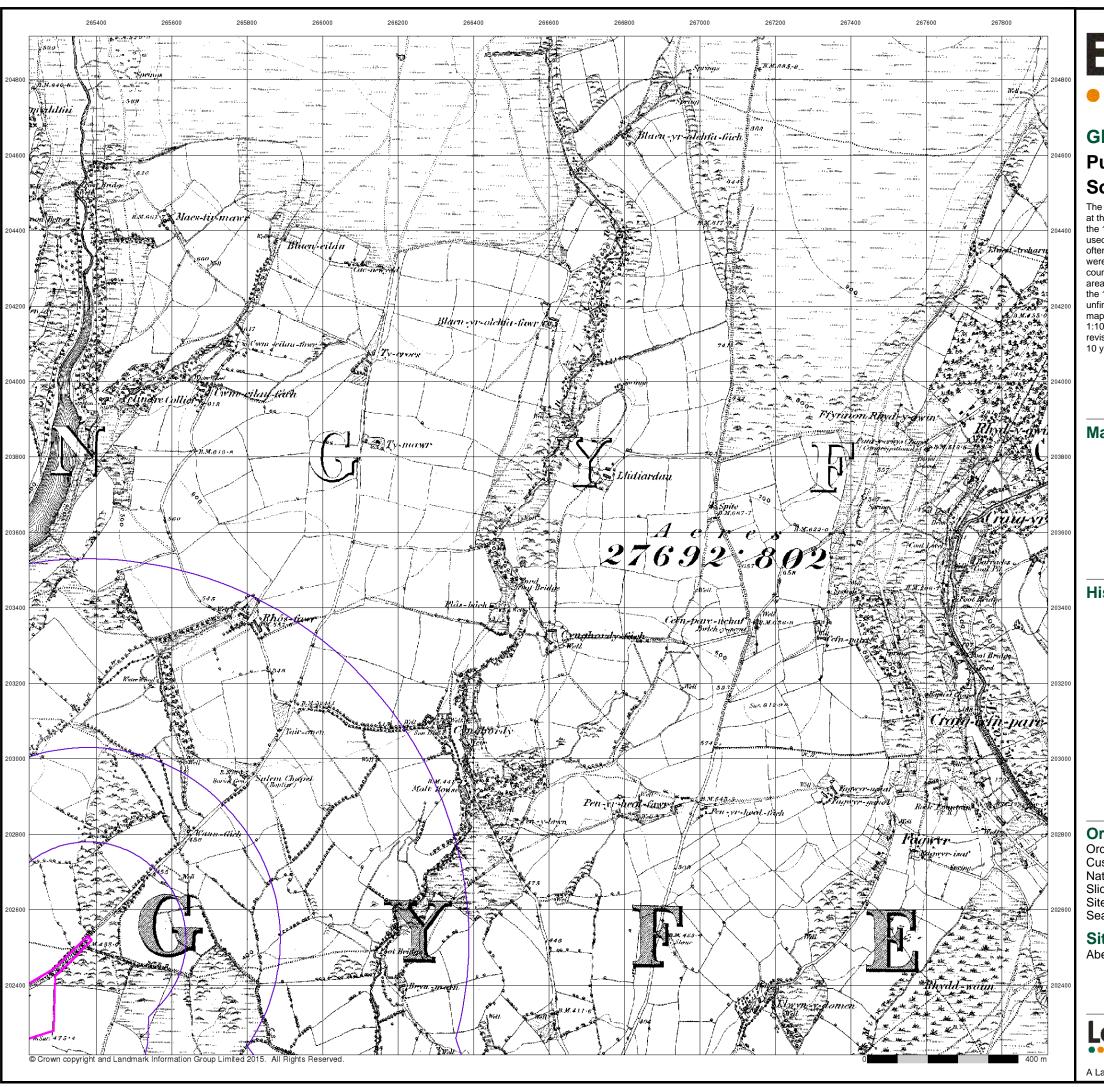
**Site Details** 

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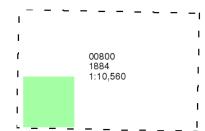
## **Glamorganshire**

## Published 1884

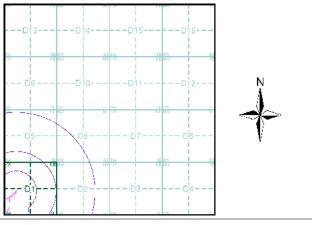
## Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



### **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

olice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

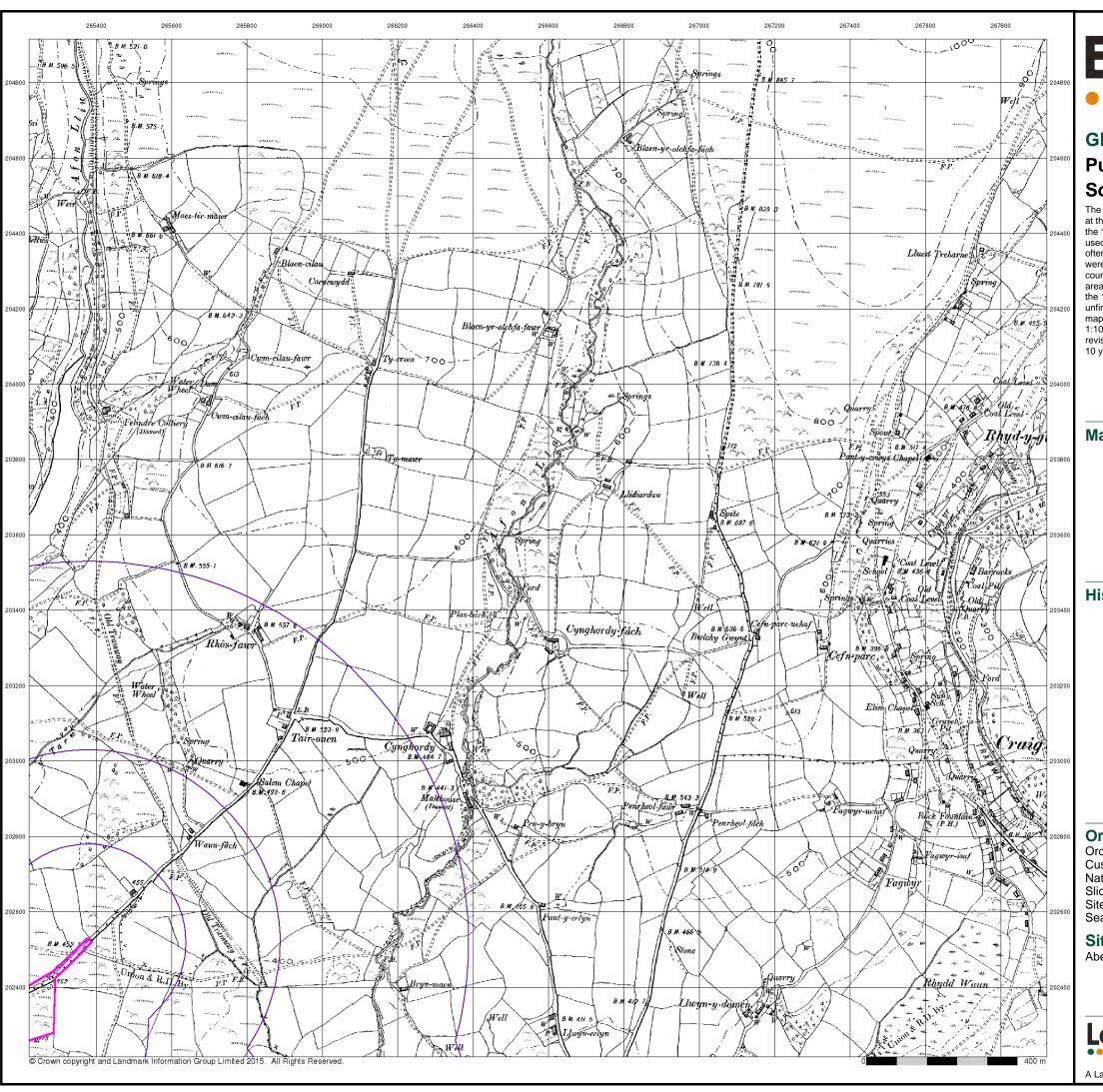
### **Site Details**

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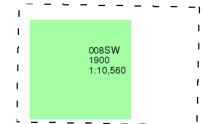
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## **Glamorganshire**

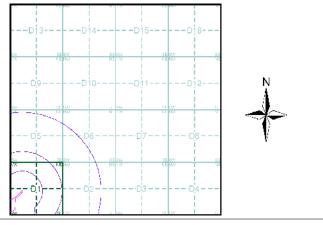
## Published 1900 Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

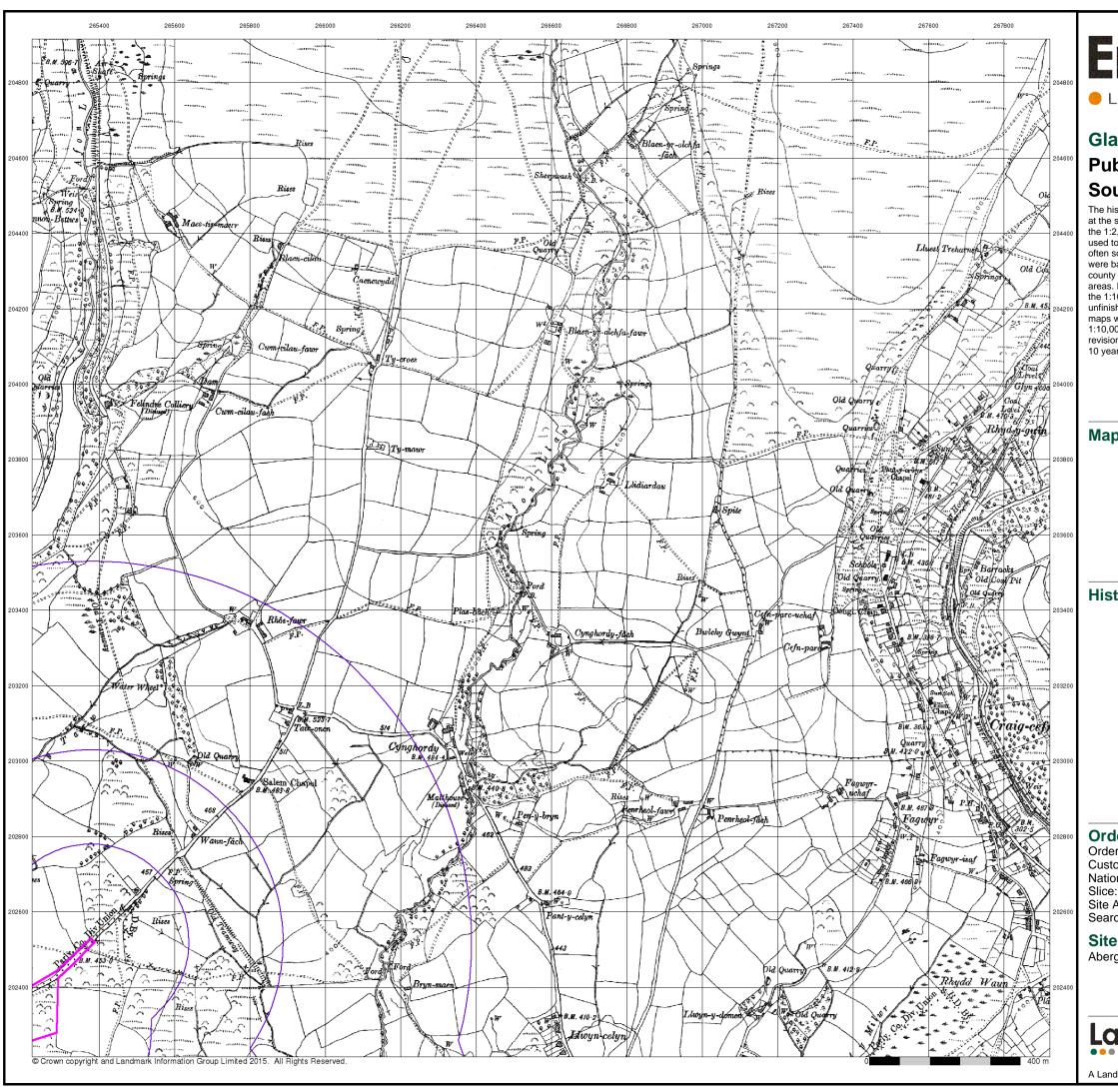
### **Site Details**

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## Glamorganshire

## **Published 1921**

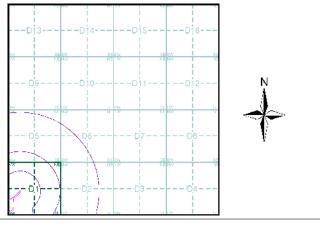
## Source map scale - 1:10,560

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; these maps were used to update the 1:10,560 maps. The published date given therefore 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. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

## Map Name(s) and Date(s)



## **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Site Area (Ha): 32.39 Search Buffer (m): 1000

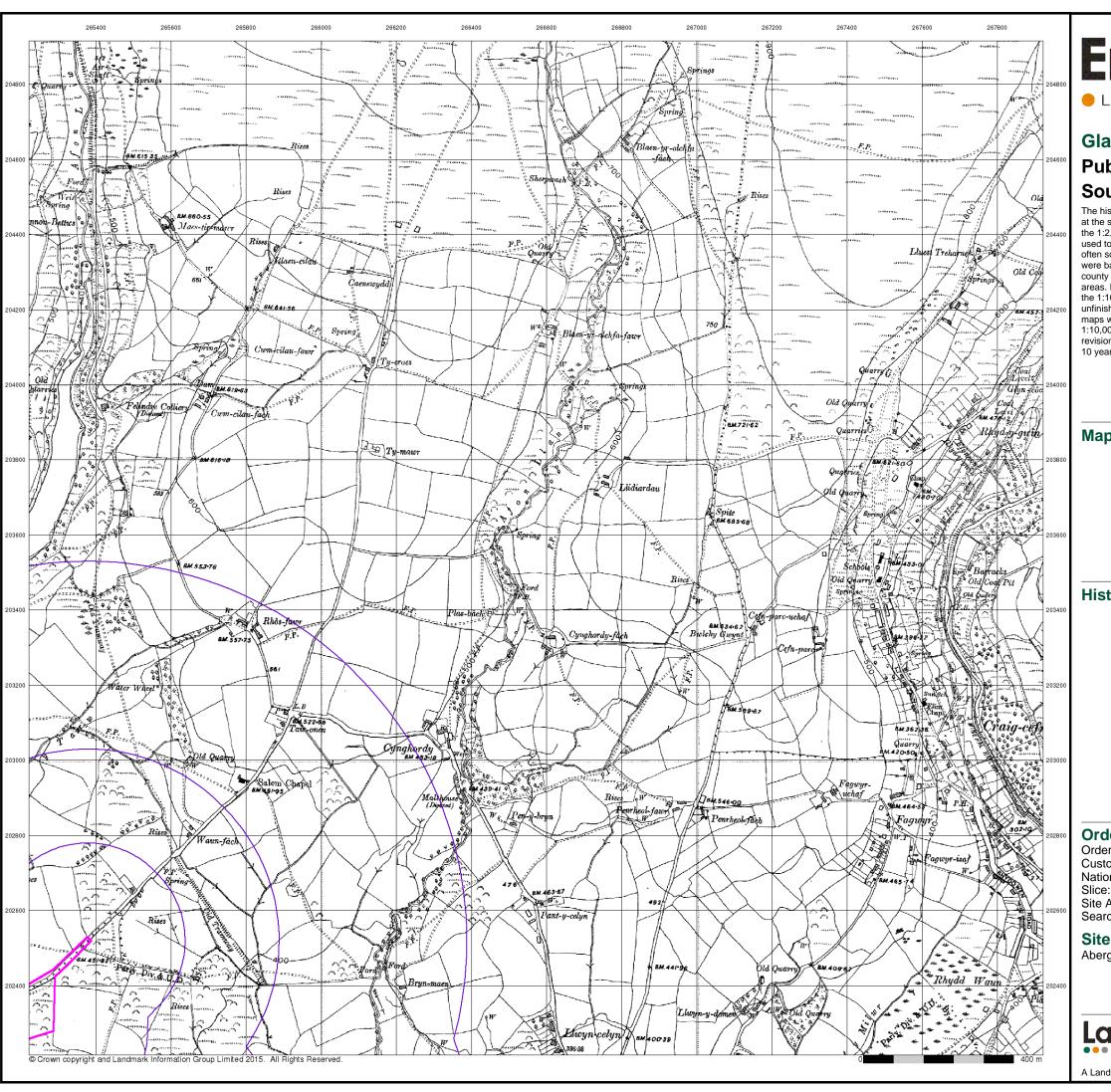
### **Site Details**

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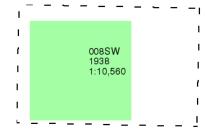
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## Glamorganshire

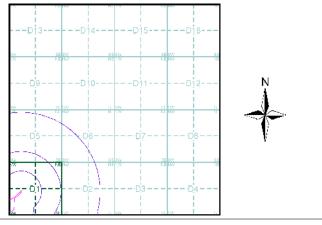
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## Map Name(s) and Date(s)



### **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Site Area (Ha): 32.39 Search Buffer (m): 1000

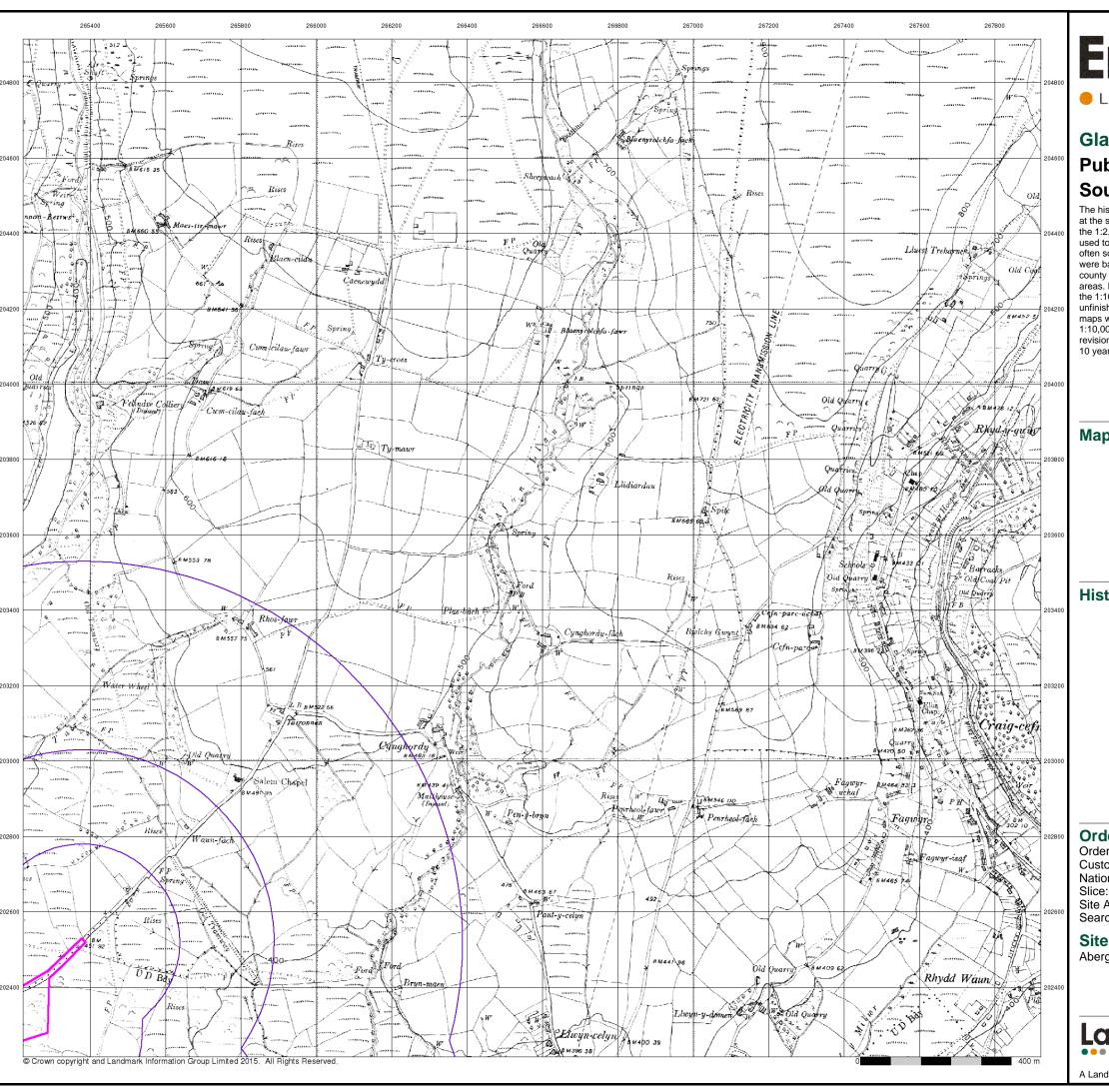
#### **Site Details**

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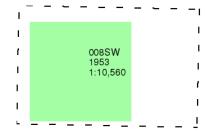
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## Glamorganshire **Published 1953**

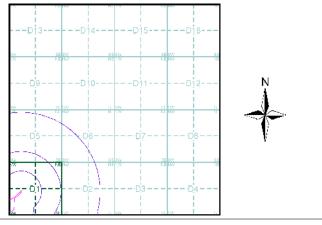
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## Map Name(s) and Date(s)



## **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Site Area (Ha): 32.39 Search Buffer (m): 1000

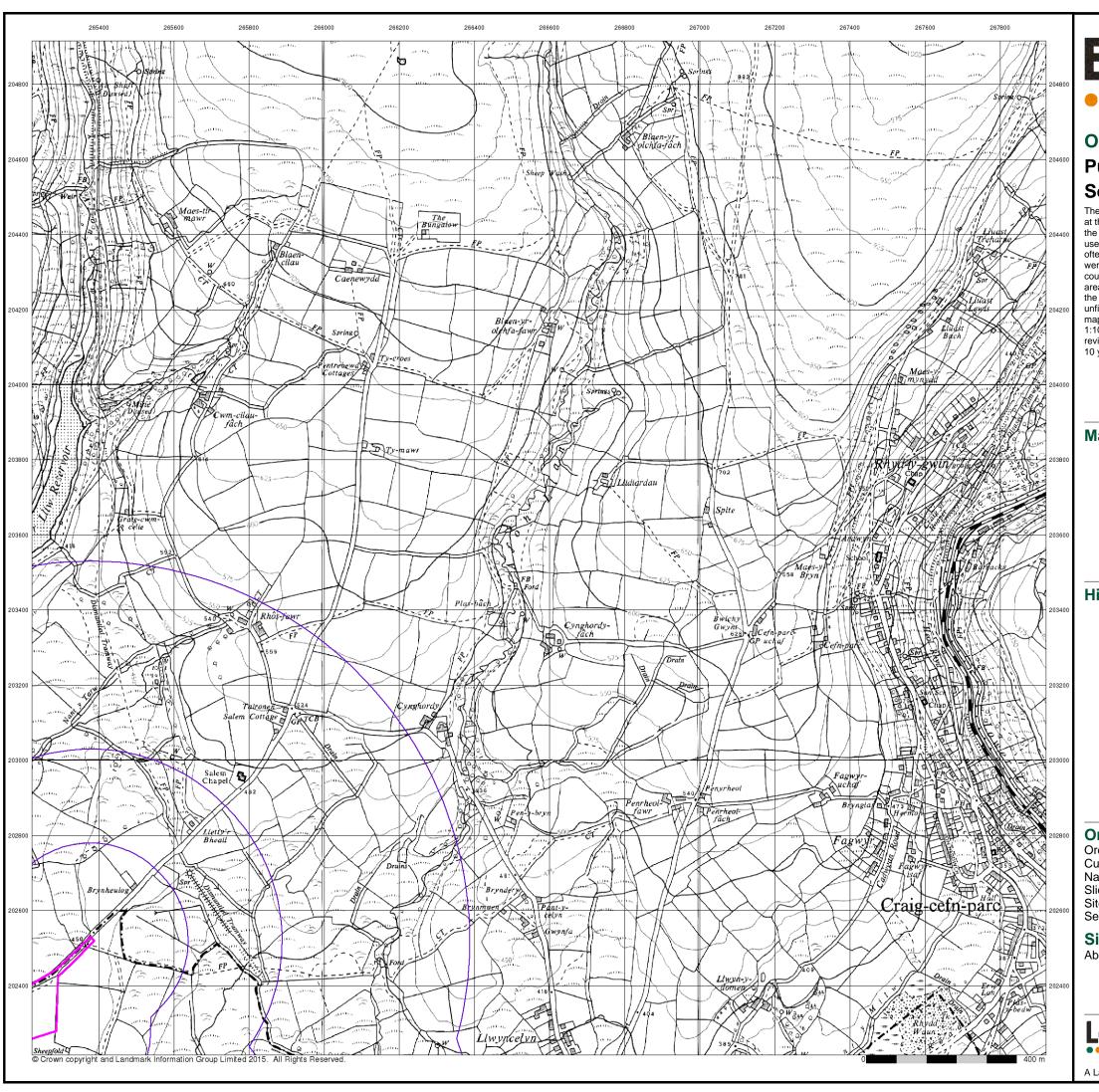
### **Site Details**

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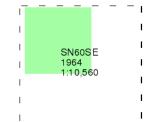


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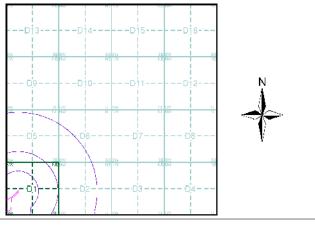
# Ordnance Survey Plan Published 1964 Source map scale - 1:10,000

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## Map Name(s) and Date(s)



### **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

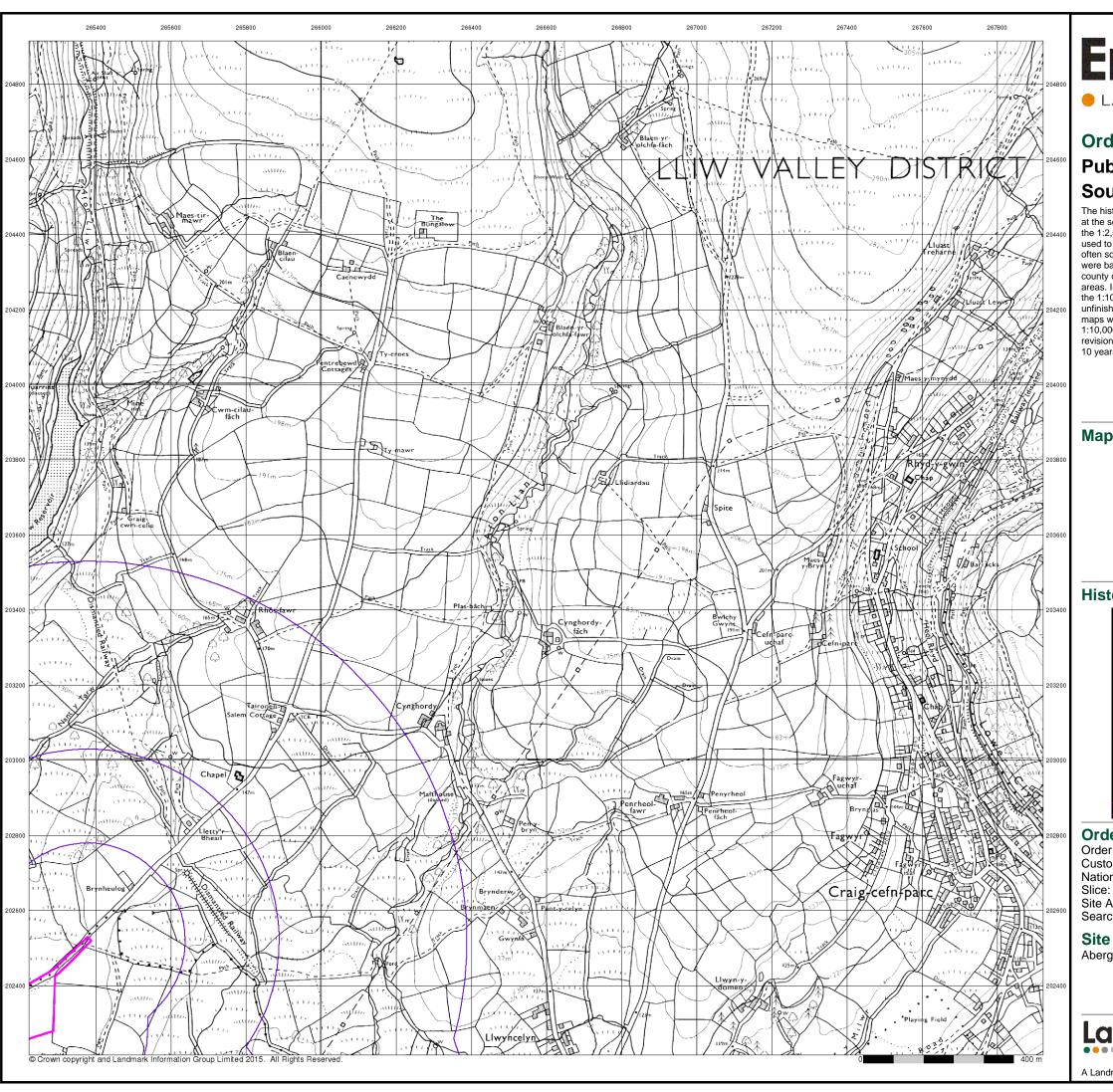
### **Site Details**

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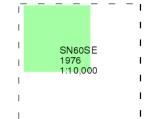


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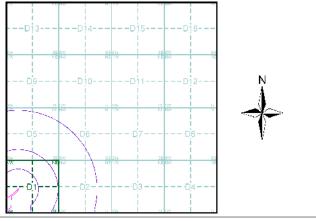
## **Ordnance Survey Plan Published 1976** Source map scale - 1:10,000

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## Map Name(s) and Date(s)



### **Historical Map - Slice D**



#### **Order Details**

Order Number: 142844199_1_1 Customer Ref: 60542910 National Grid Reference: 265740, 202800

Site Area (Ha): 32.39 Search Buffer (m): 1000

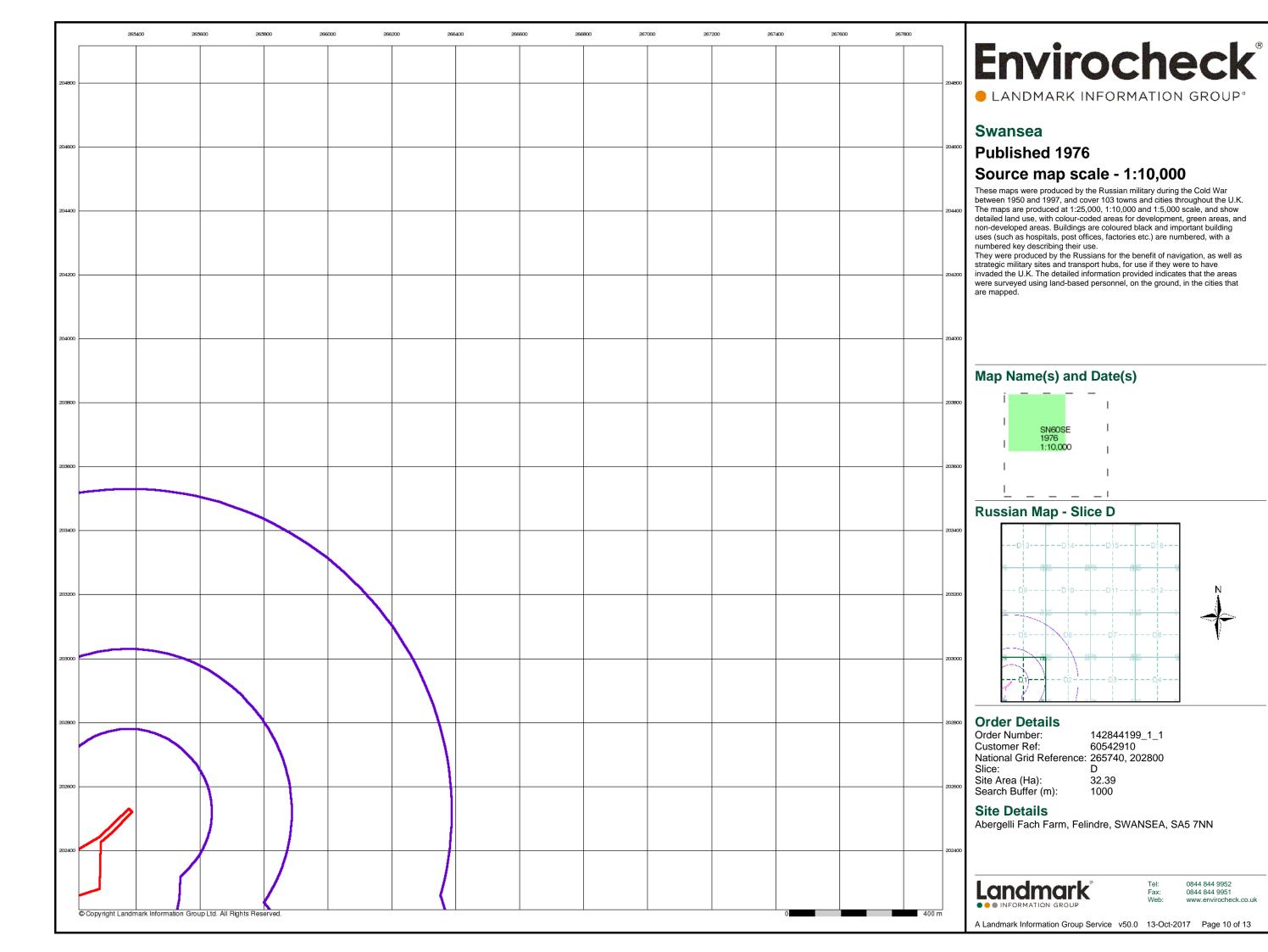
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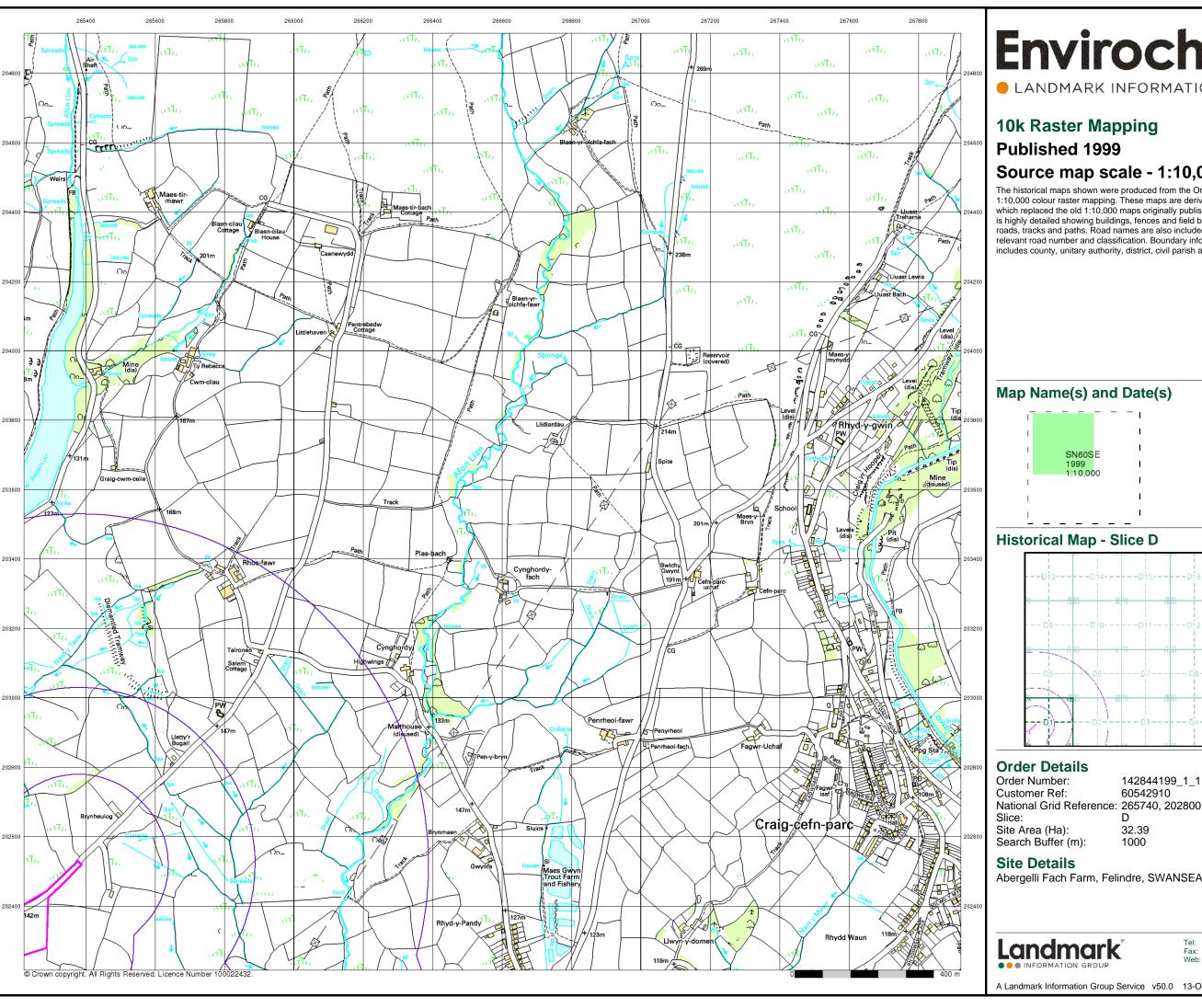
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark

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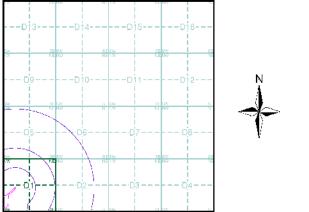




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# Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

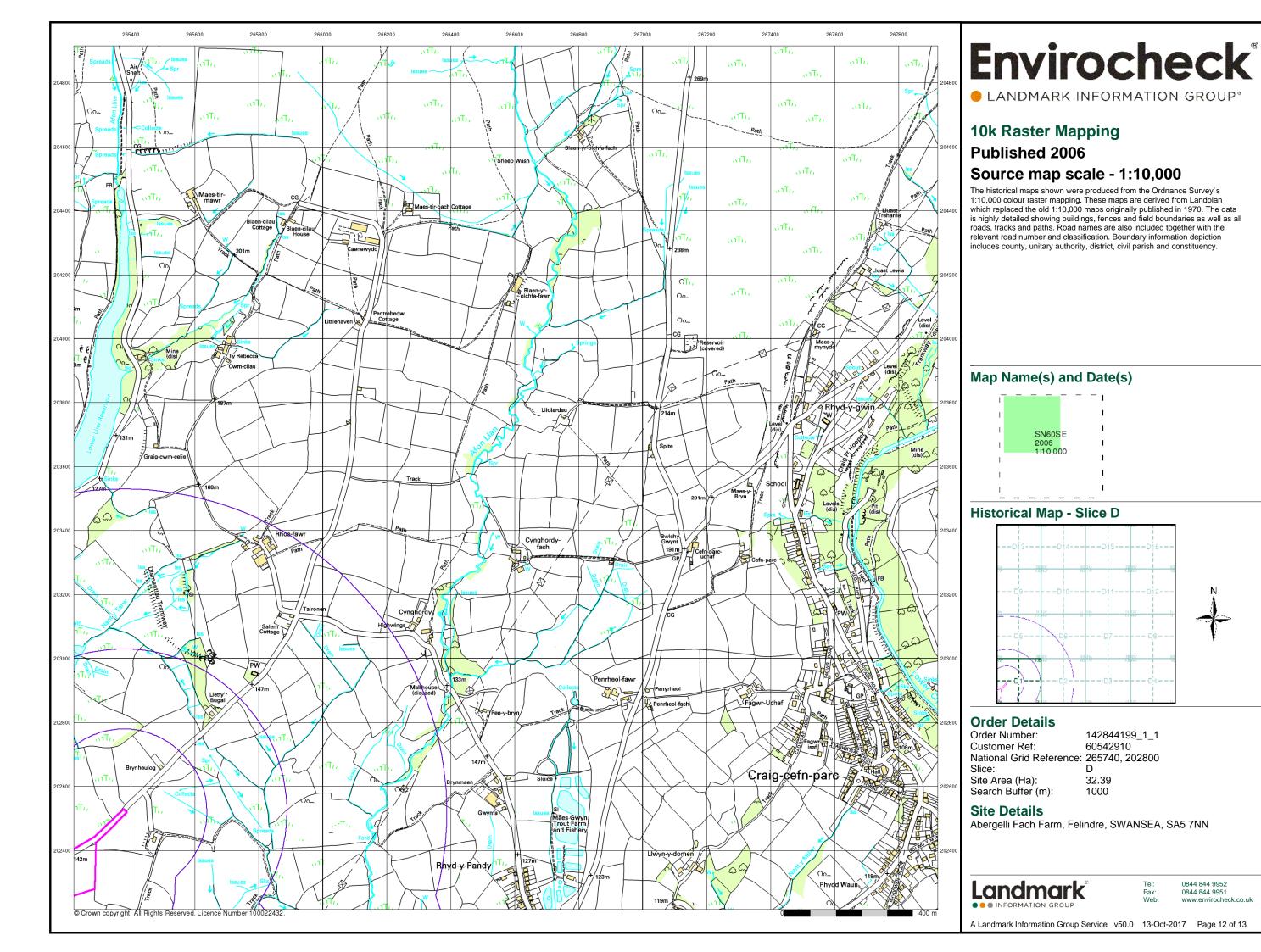


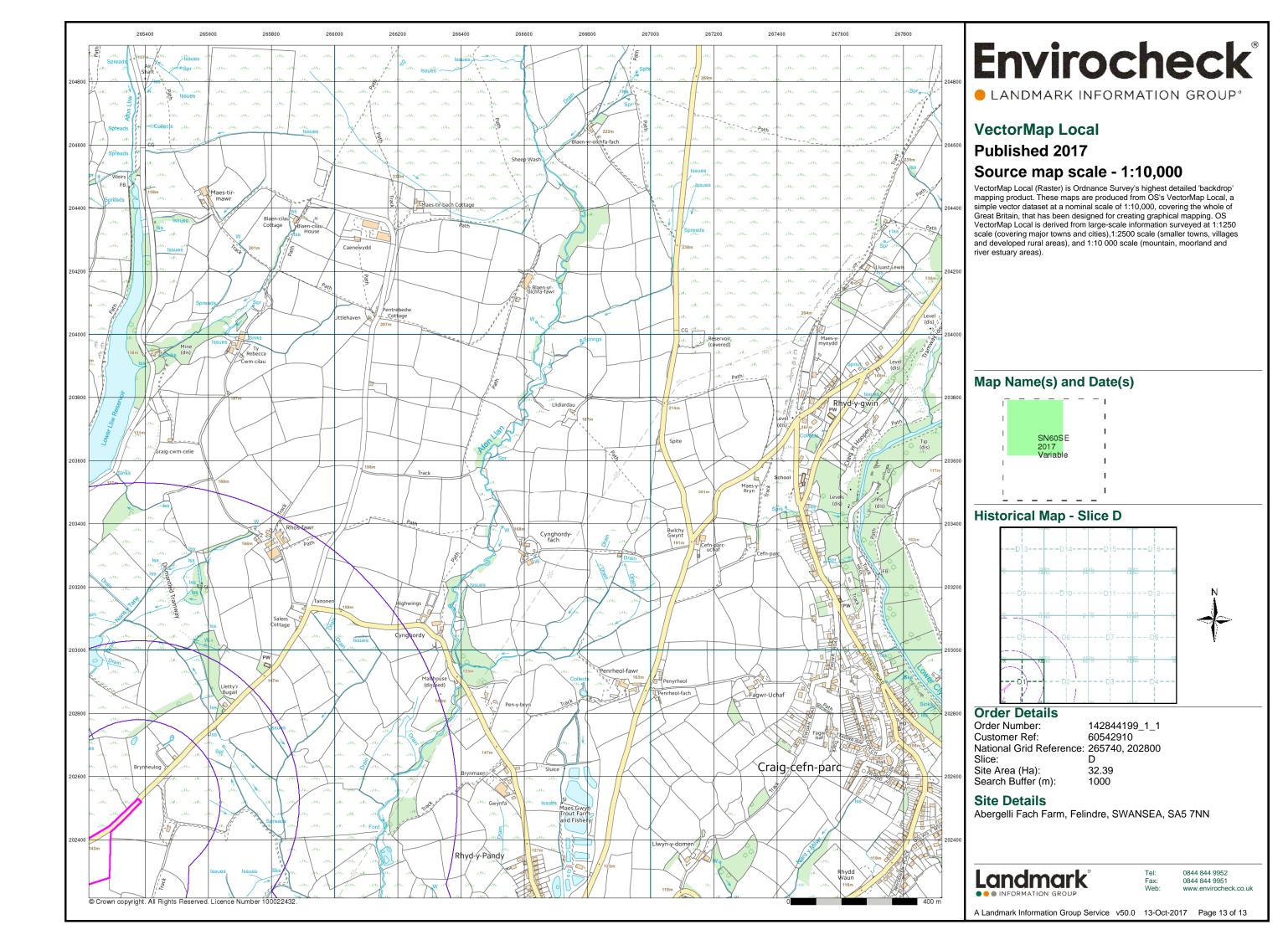
National Grid Reference: 265740, 202800

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Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202800

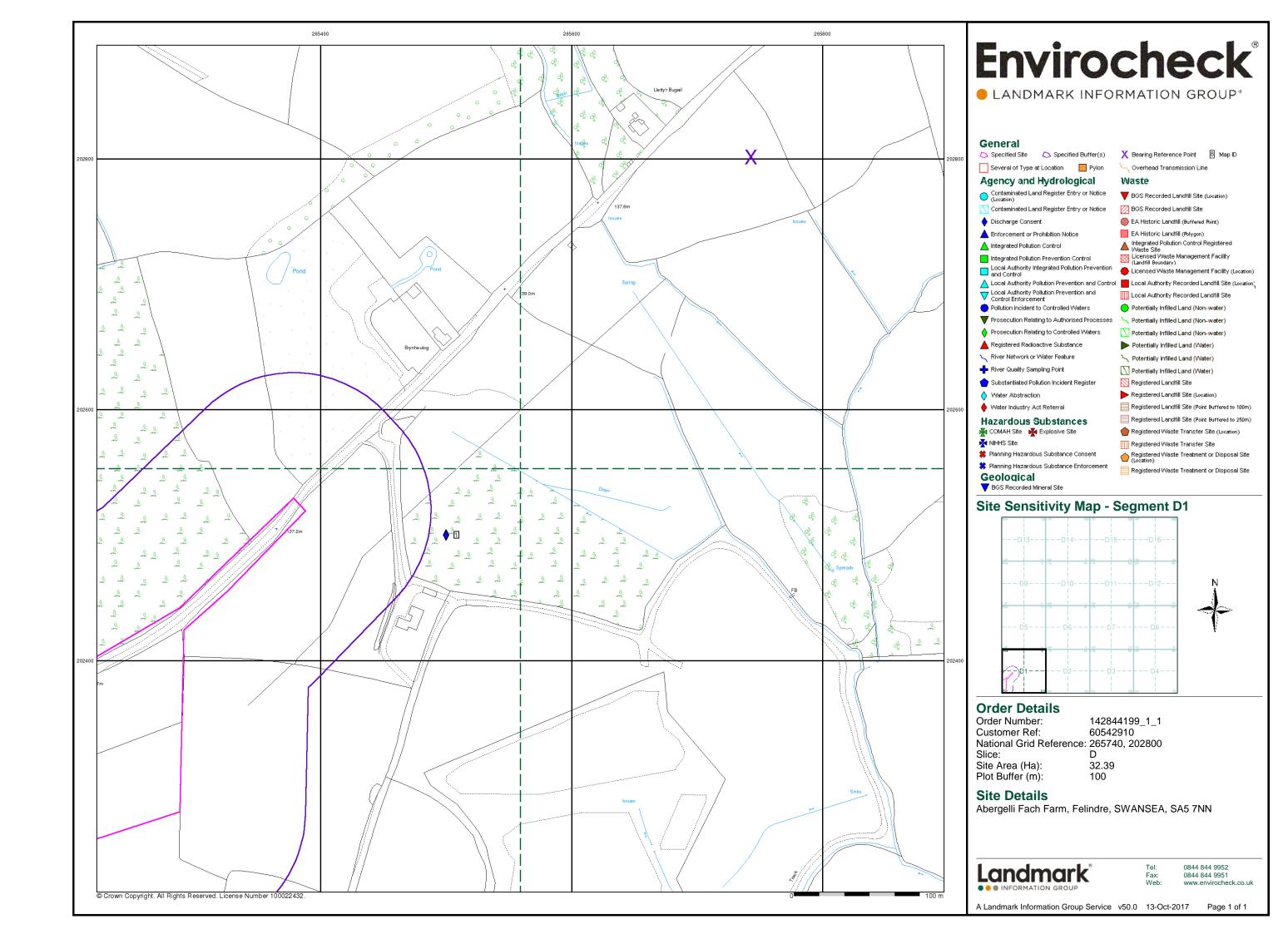
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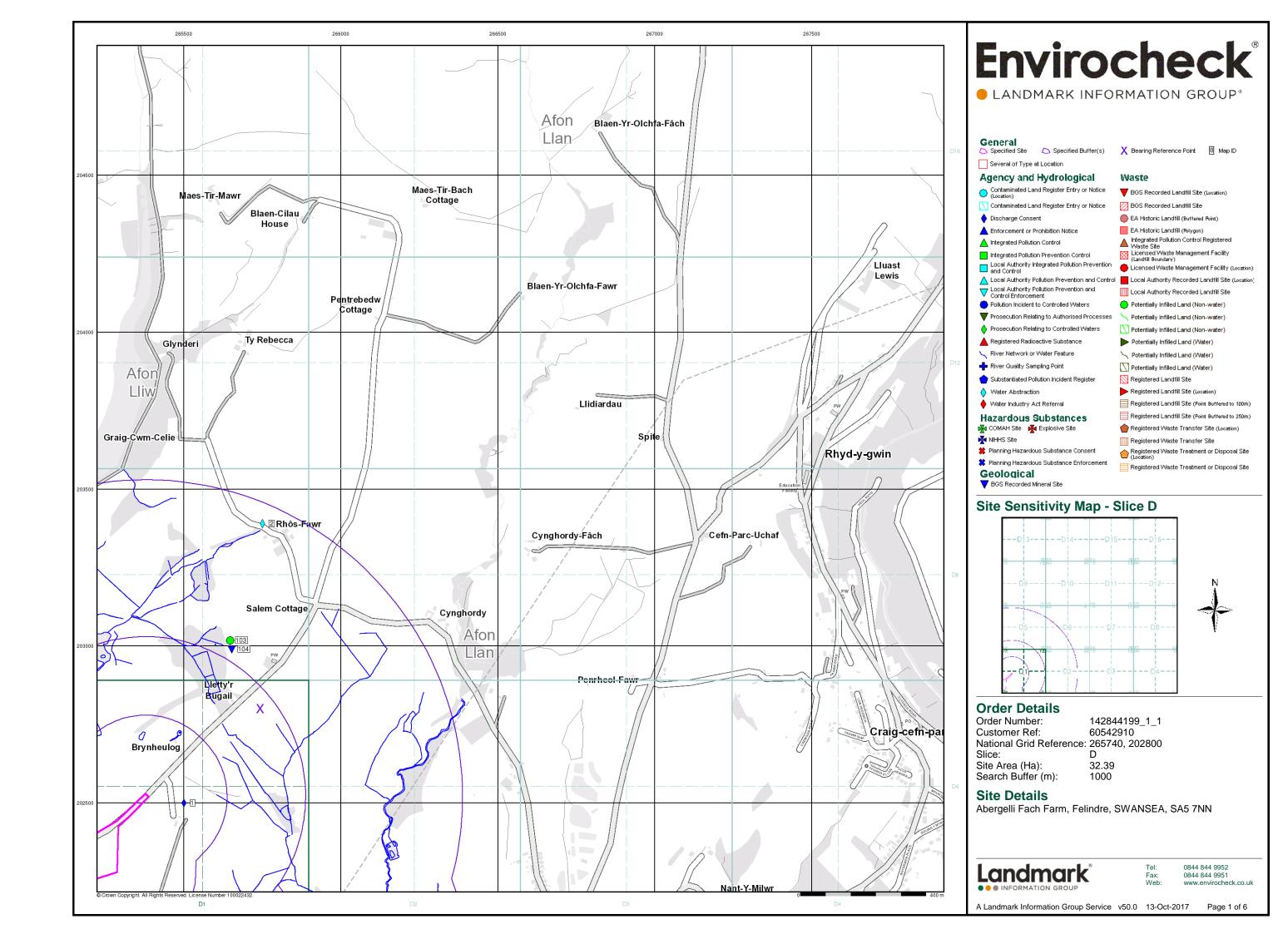
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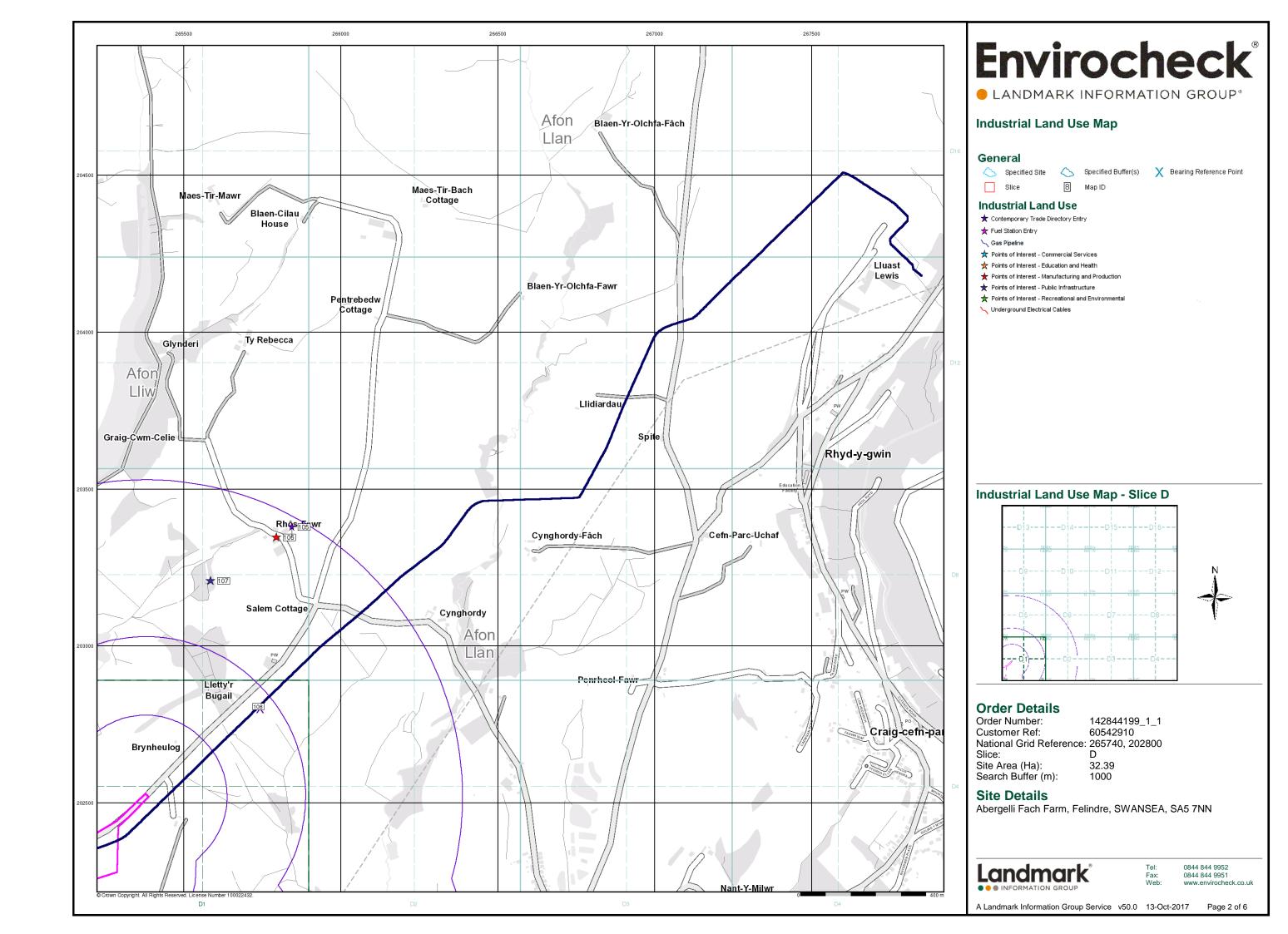
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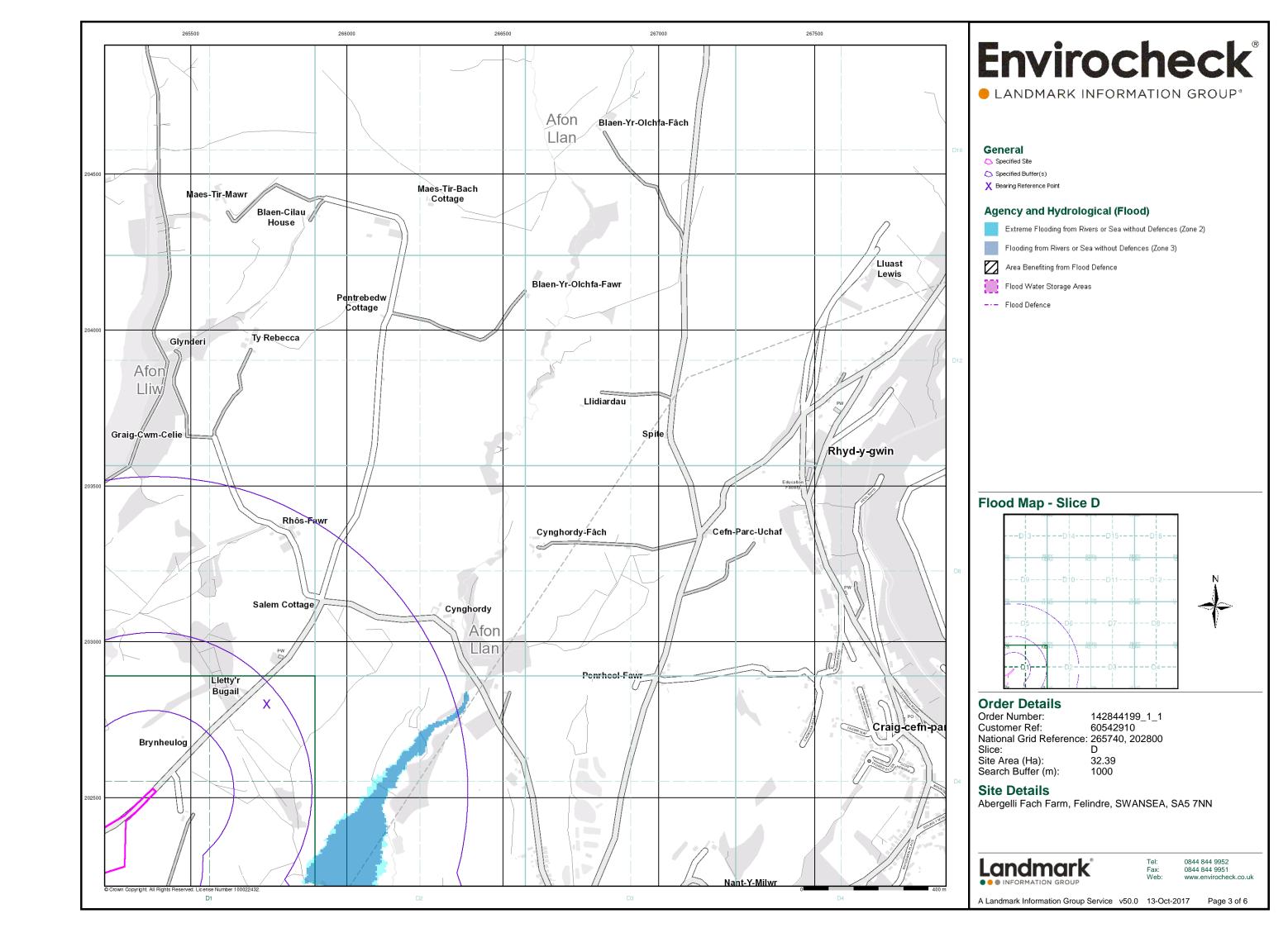
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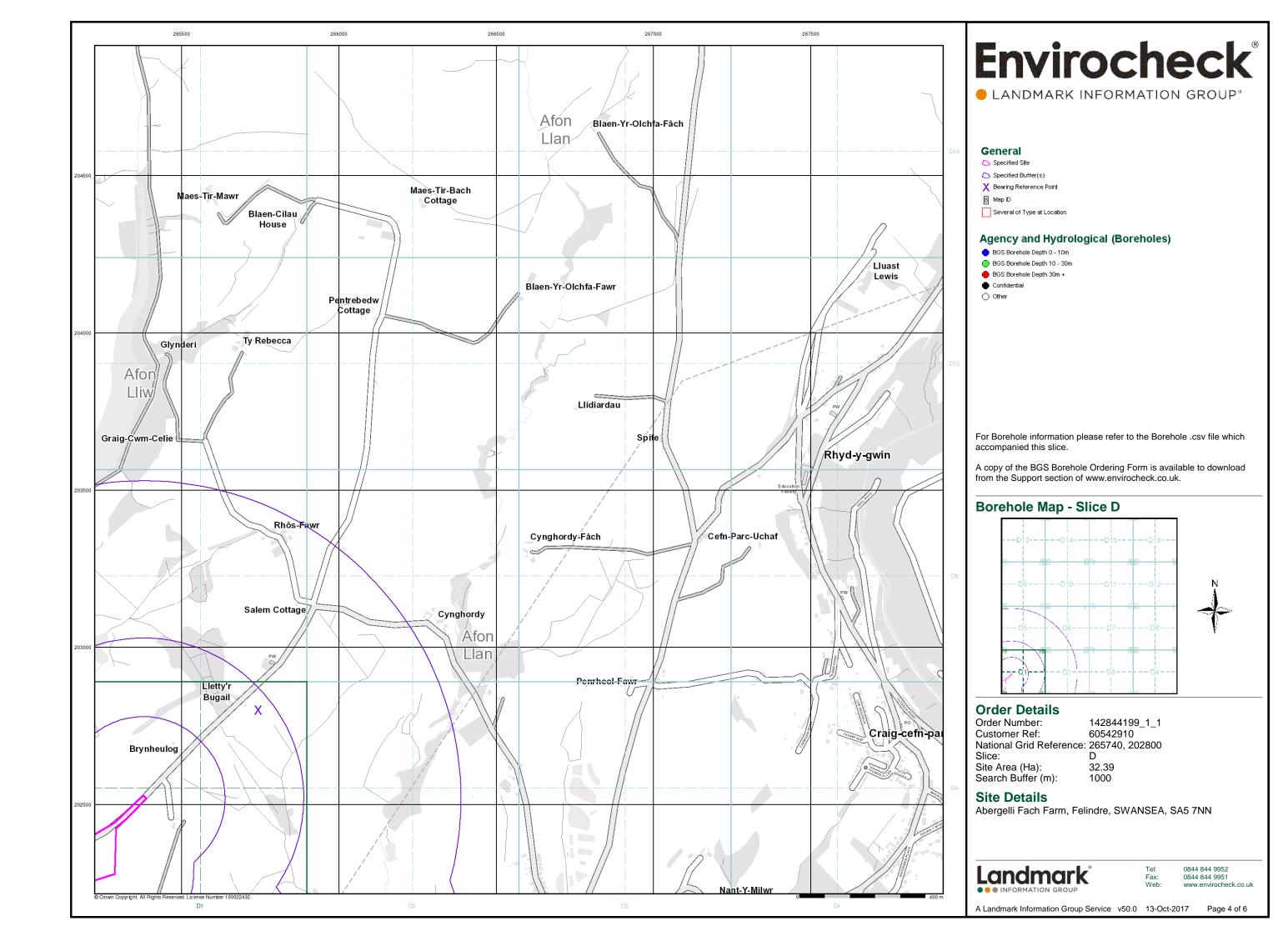
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142844199 Glamorgan	1921 1:10,560	1876	1913		1921			
142844199 Glamorgan	1900 1:10,560	1876	1897		1900			
142844199 Glamorgan	1884 1:10,560	1877				1884		
142844199 Glamorgan	1953 1:10,560	1876		1948	1913	1953		
142844199 Ordnance 9	1976 1:10,000	1974	1975			1976		
142844199 Ordnance 9	1964 1:10,560	1961				1964		
14284419 [§] Swansea	1976 1:10,000							
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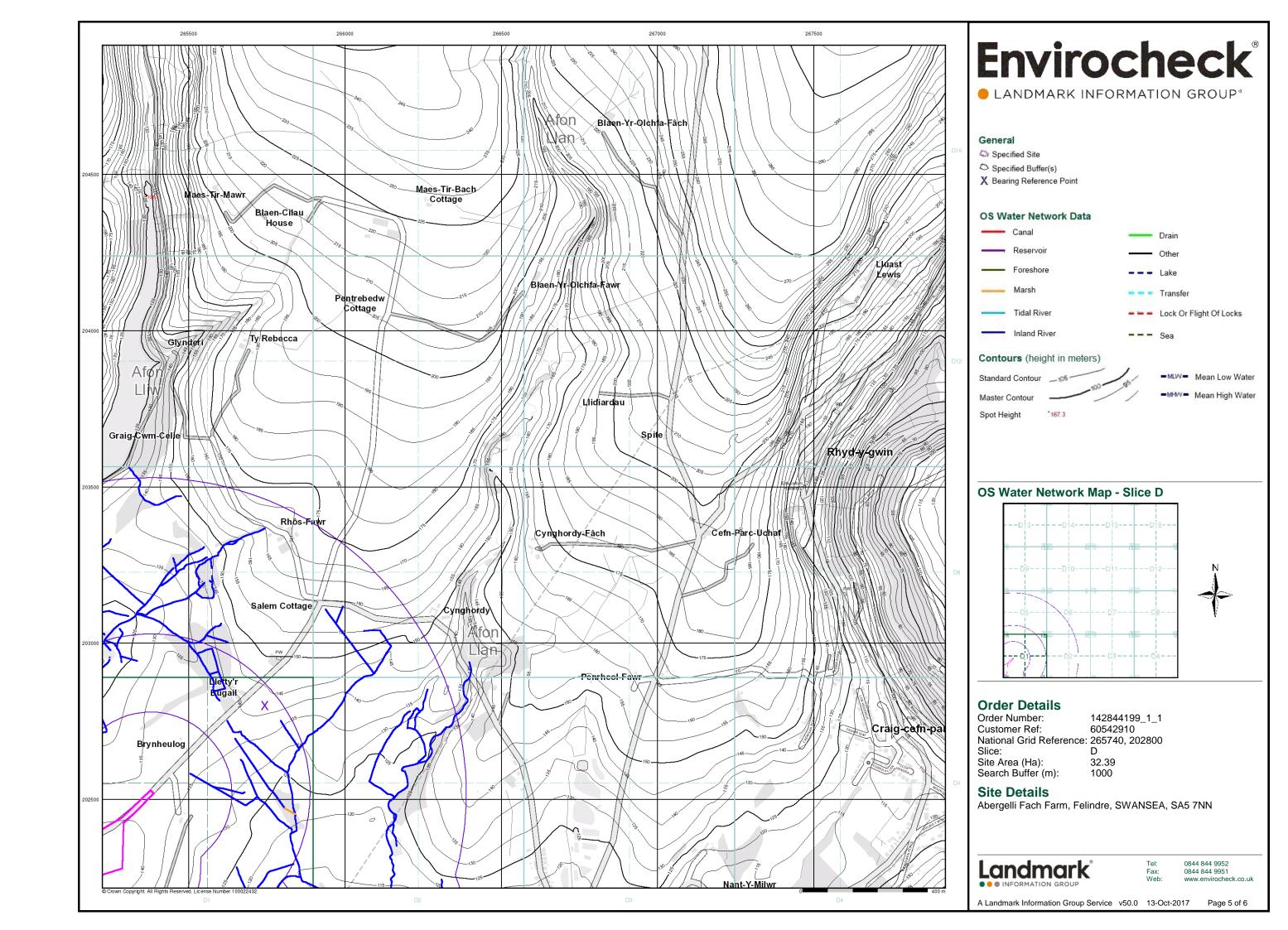


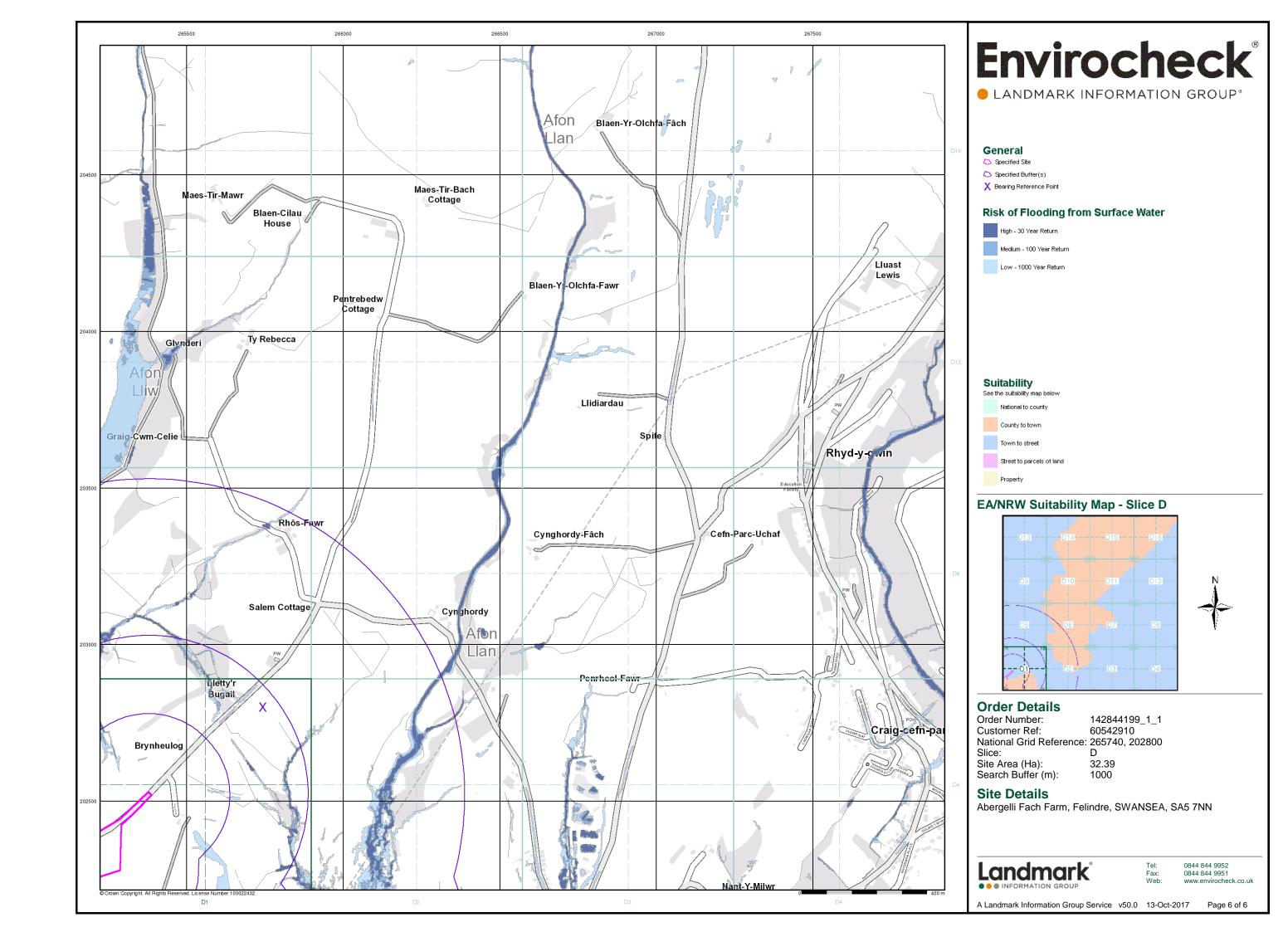


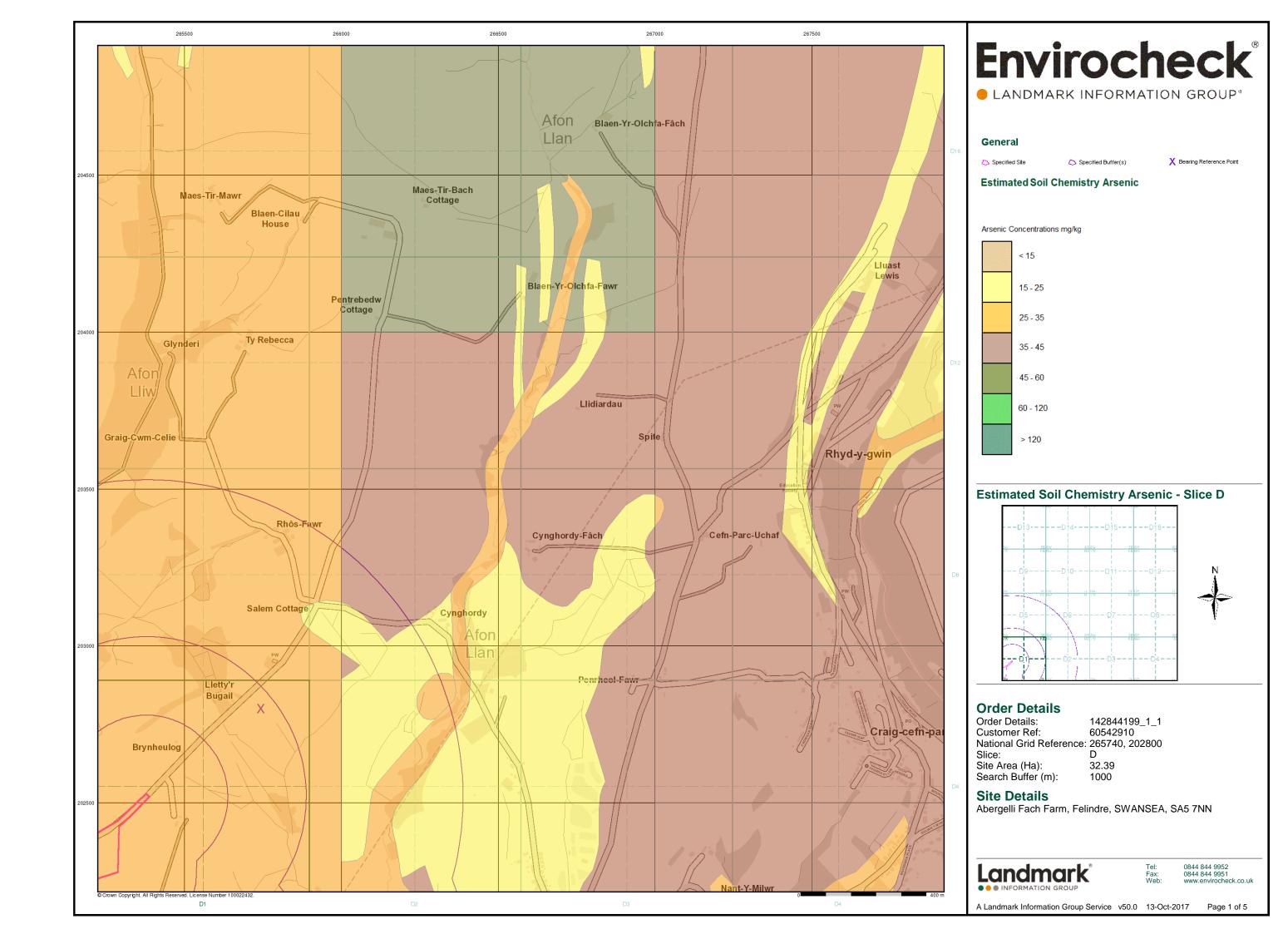


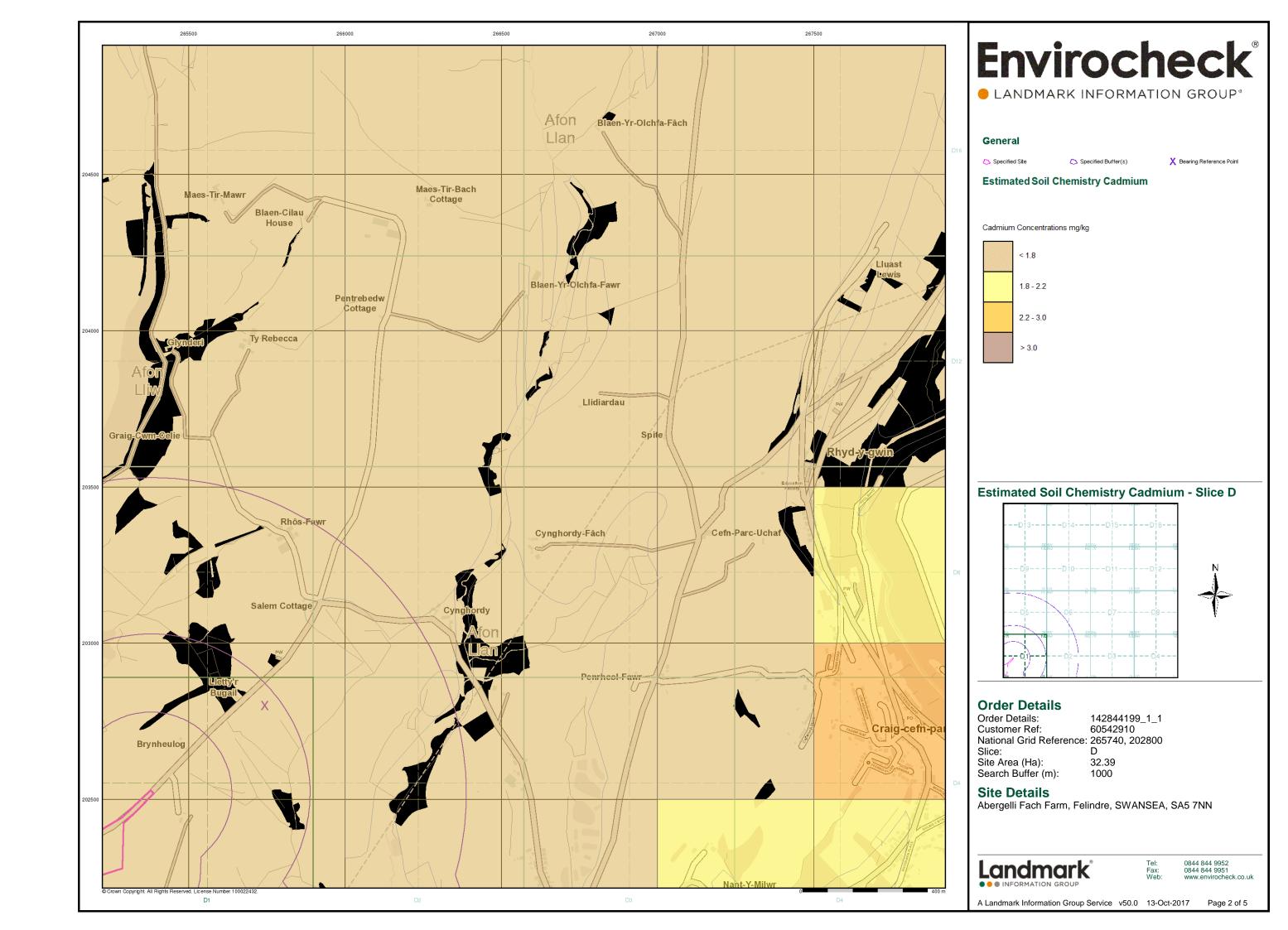


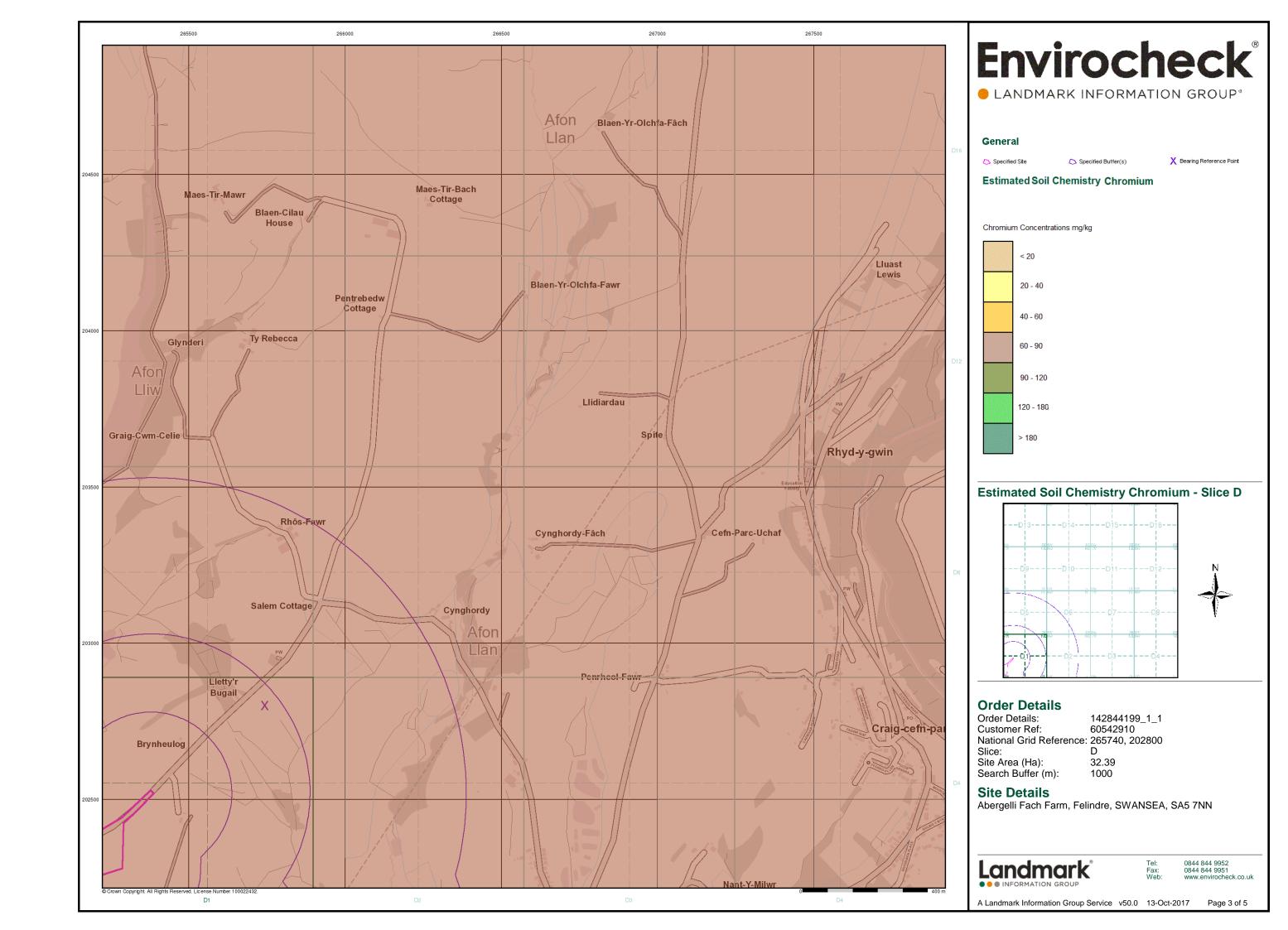


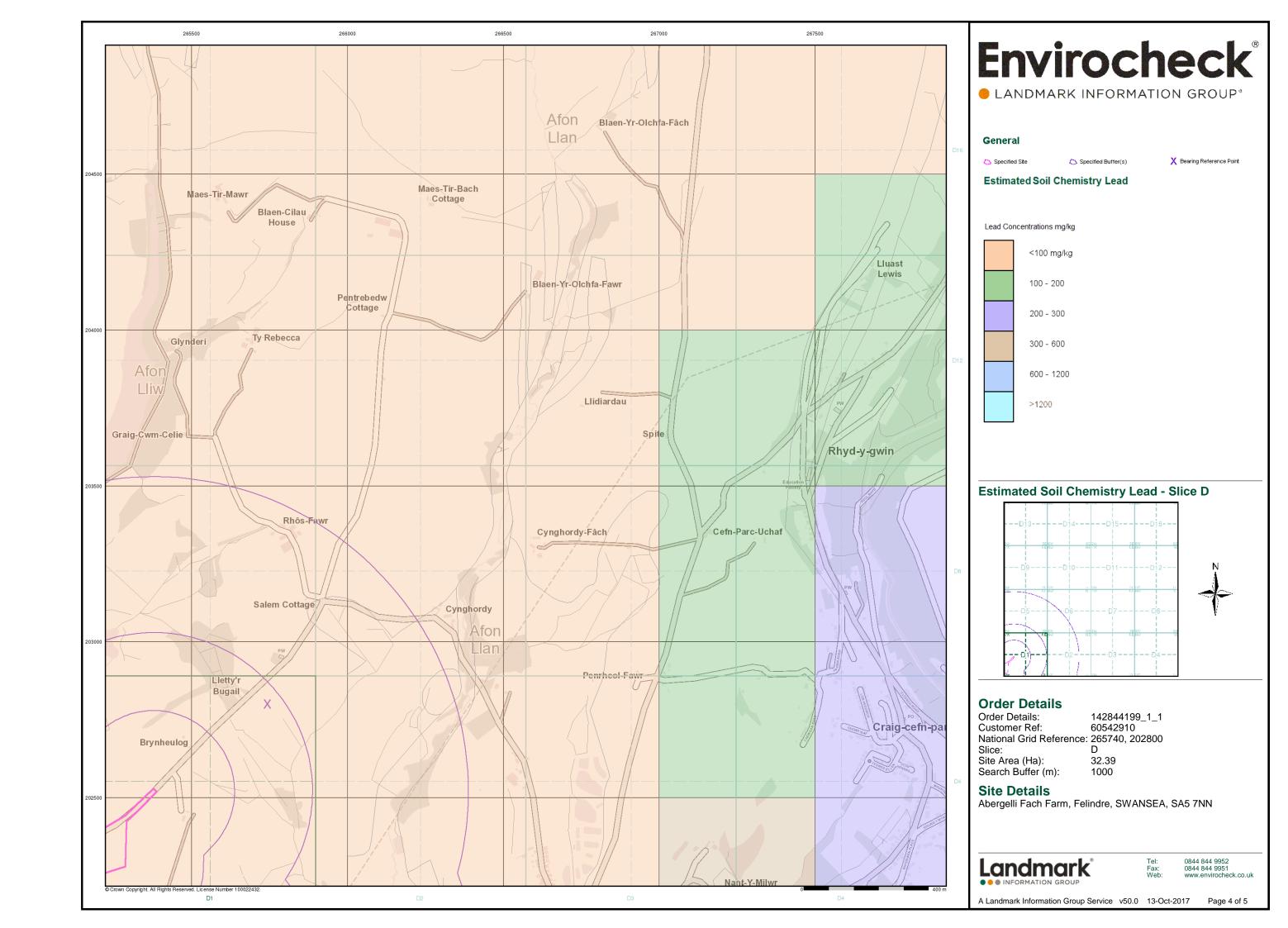


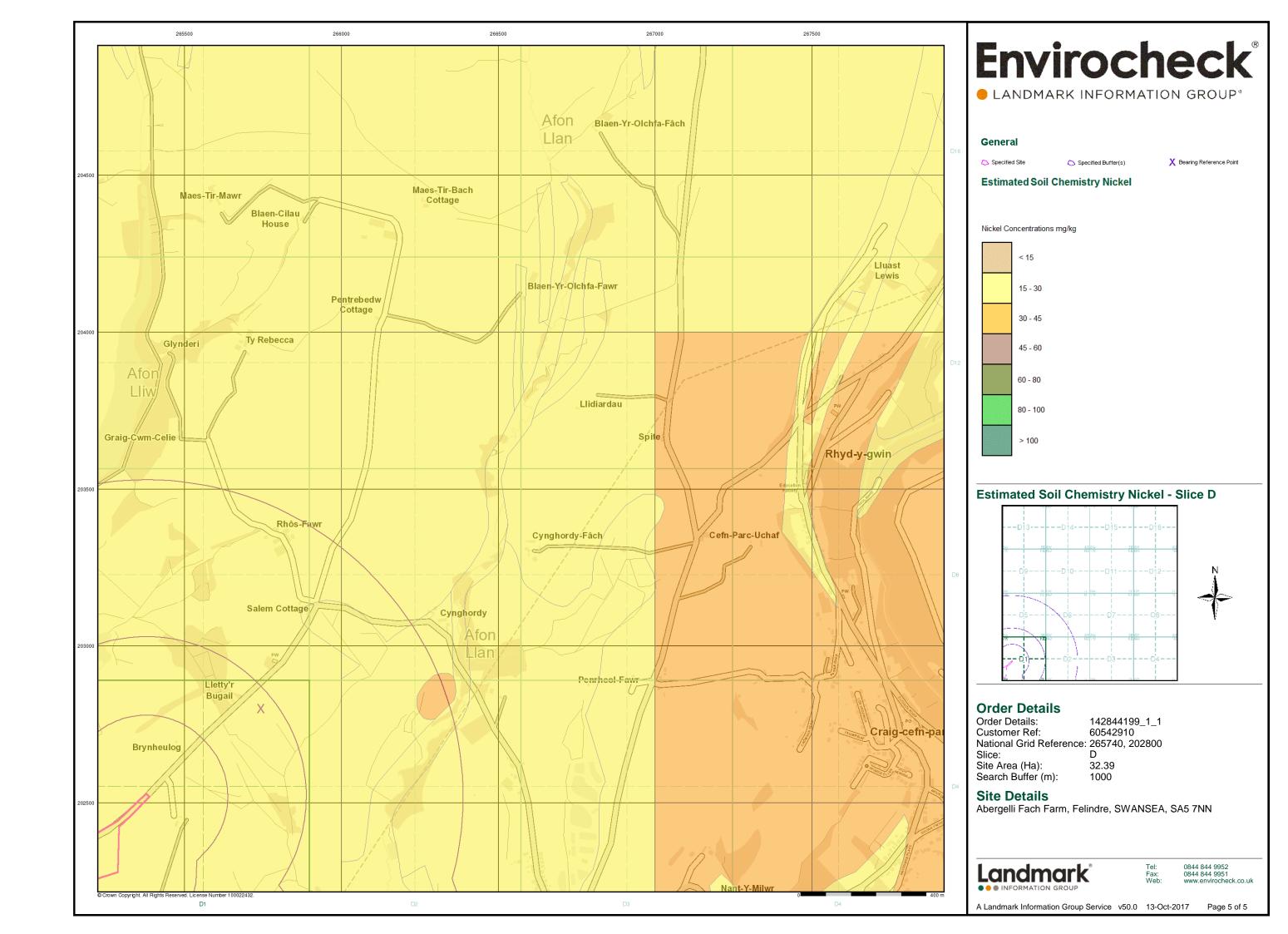












Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202800

Slice: D

Site Area (Ha): 1000

Search Buffer:

Site Details Felindre SWANSEA SA5 7NN

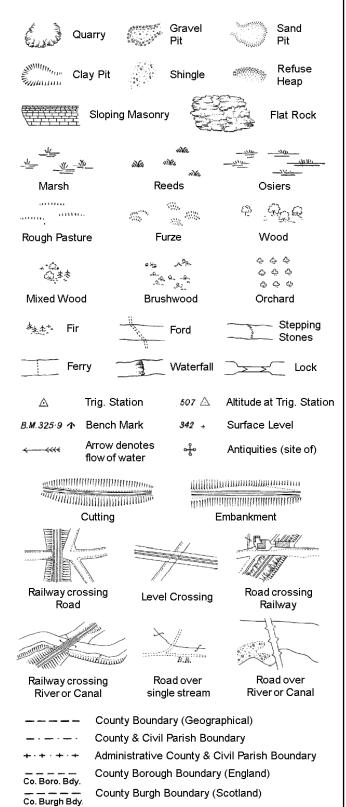
A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.enviroche

**BGS** Boreholes

eck.co.uk.

### **Historical Mapping Legends**

### **Ordnance Survey County Series and** Ordnance Survey Plan 1:2,500



B.R.

E.P

F.B.

Bridle Road

Foot Bridge

Mile Stone

M.P.M.R. Mooring Post or Ring

Electricity Pylor

Police Call Box

Telephone Call Box

Signal Post

Pump

Sluice

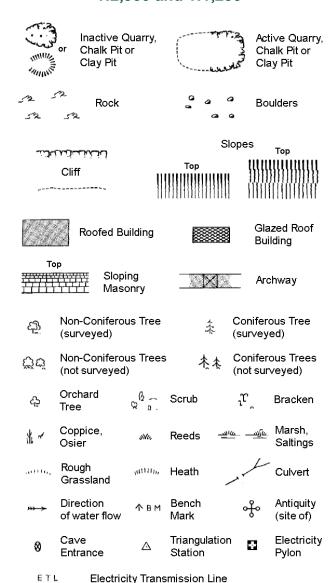
Spring

Trough Well

S.P

Sl.

### Ordnance Survey Plan, Additional SIMs and Large-Scale National Grid Data 1:2,500 and **Supply of Unpublished Survey Information** 1:2,500 and 1:1,250



		County Bo	County Boundary (Geographical)		
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		Civil Parish Boundary			
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LBB0	ly_ <del>-e</del>	London Borough Boundary			
**************************************		Symbol marking point where boundary mereing changes			
вн	Beer House		Р	Pillar, Pole or Post	
BP, BS	Boundary Post or Stone Capstan, Crane		PO	Post Office	
Cn, C			PC	Public Convenience	
Chy	Chimney		PH	Public House	
D Fn	Drinking Fou	ıntain	Pp	Pump	

ВН	Beer House	Р	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
EIP	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
Н	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	WrPt,WrT	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

## 1:1,250

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	Cliff	*******	Гор			
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Bks	Barracks		Р	Pillar, Pole or Post		
Bty	Battery		PO	Post Office		
Cemy	Cemetery		PC	Public Convenience		
Chy	Chimney		Рр	Pump		
Cis	Cistern		Ppg Sta	Pumping Station		
Dismtd F	Rly Dismar	itled Railway	PW	Place of Worship		
El Gen S	ta Electric Station	city Generating	Sewage P	pg Sta Sewage Pumping Station		
EIP	Electricity	Pole, Pillar	SB, S Br	Signal Box or Bridge		
El Sub S	ta Electricity	Sub Station	SP, SL	Signal Post or Light		

Filter Bed

Fn / D Fn Fountain / Drinking Ftn.

Gas Governer

**Guide Post** 

Manhole

Gas Valve Compound

Mile Post or Mile Stone

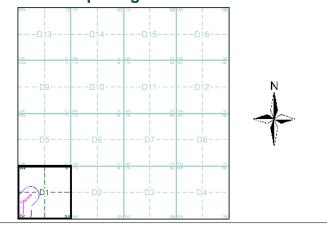
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### **Historical Mapping & Photography included:**

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1877	2
Glamorganshire	1:2,500	1898	3
Glamorganshire	1:2,500	1918	4
Ordnance Survey Plan	1:2,500	1961	5
Supply of Unpublished Survey Information	1:2,500	1975	6
Additional SIMs	1:2,500	1992	7
Large-Scale National Grid Data	1:2,500	1993	8
Historical Aerial Photography	1:2,500	2000	9

### **Historical Map - Segment D1**



### **Order Details**

Order Number: 142844199_1_1 **Customer Ref:** 60542910 National Grid Reference: 265740, 202800 Slice: Site Area (Ha): 32.39

Search Buffer (m): **Site Details** 

Tank or Track

Trough

Wind Pump

Wr Pt. Wr T Water Point, Water Tap

Works (building or area)

Tr

Wd Pp

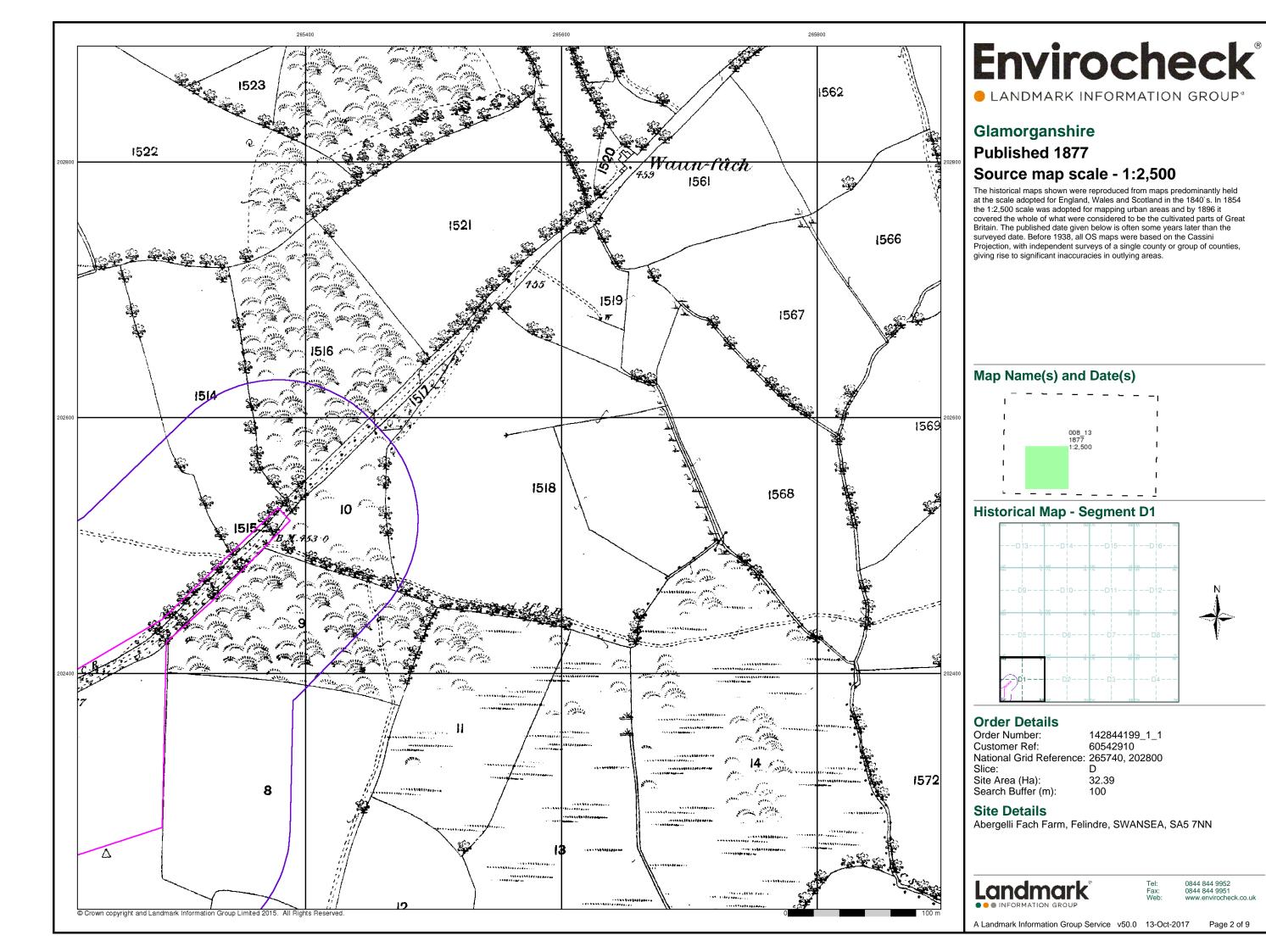
Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

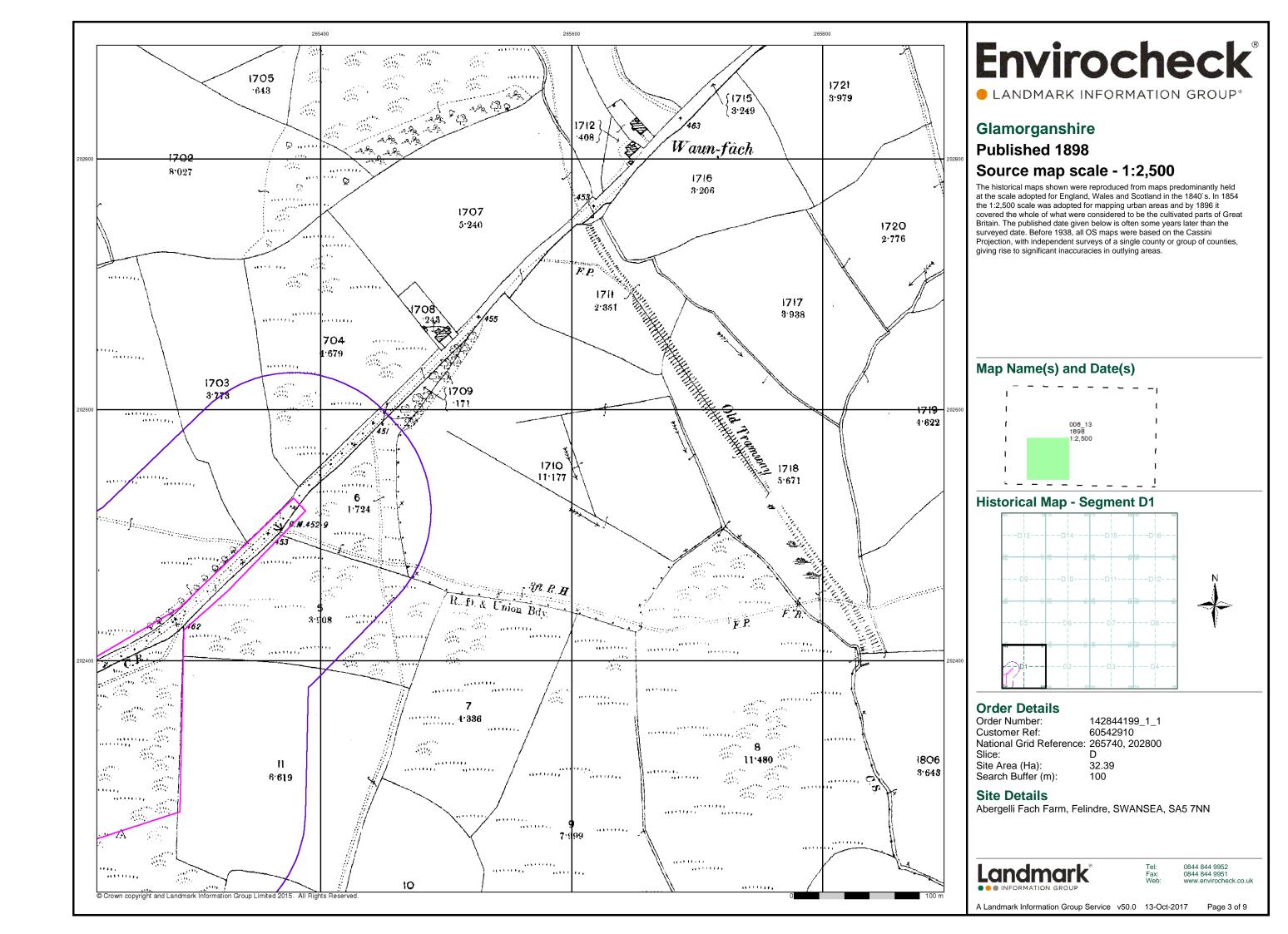
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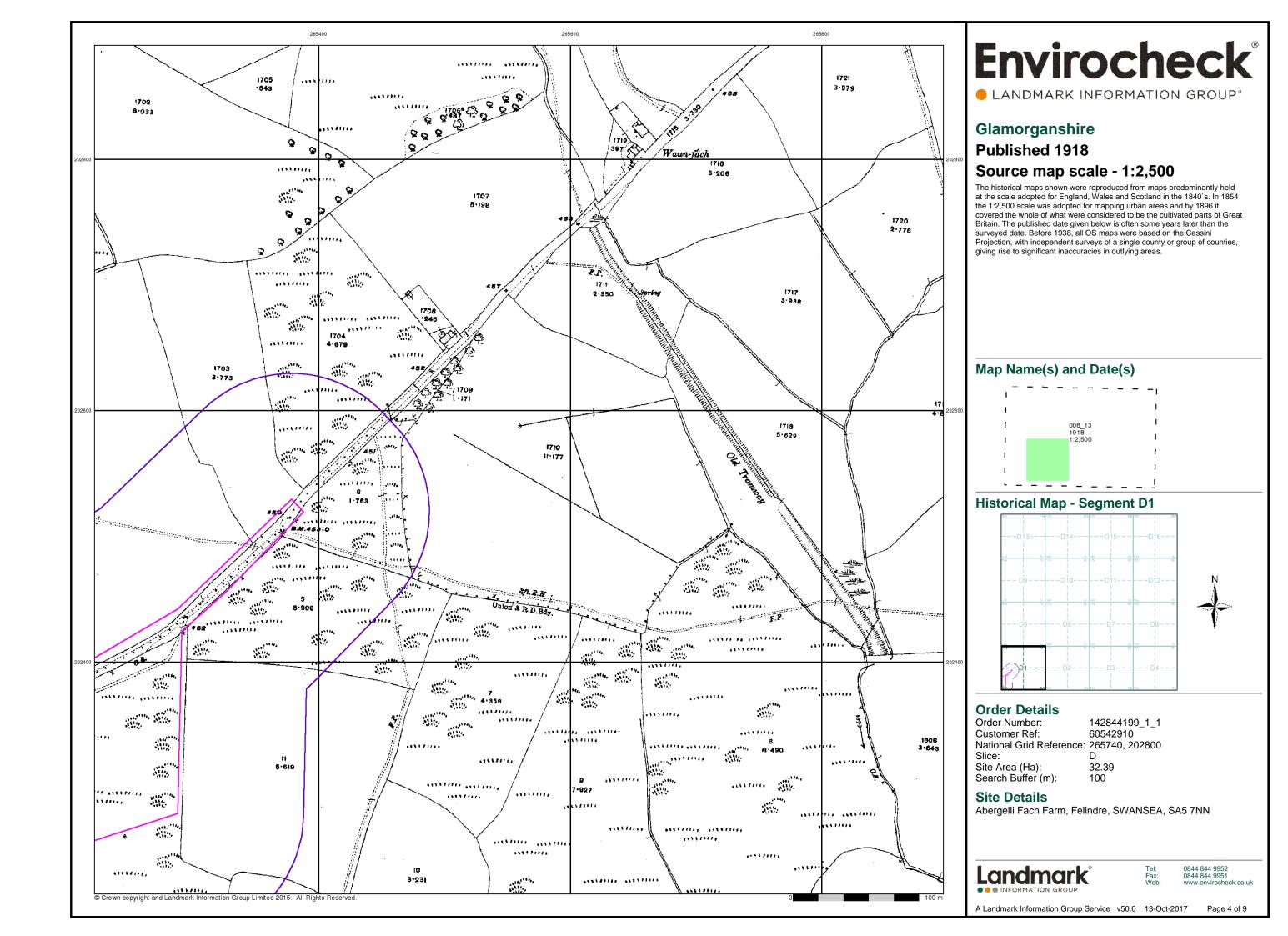


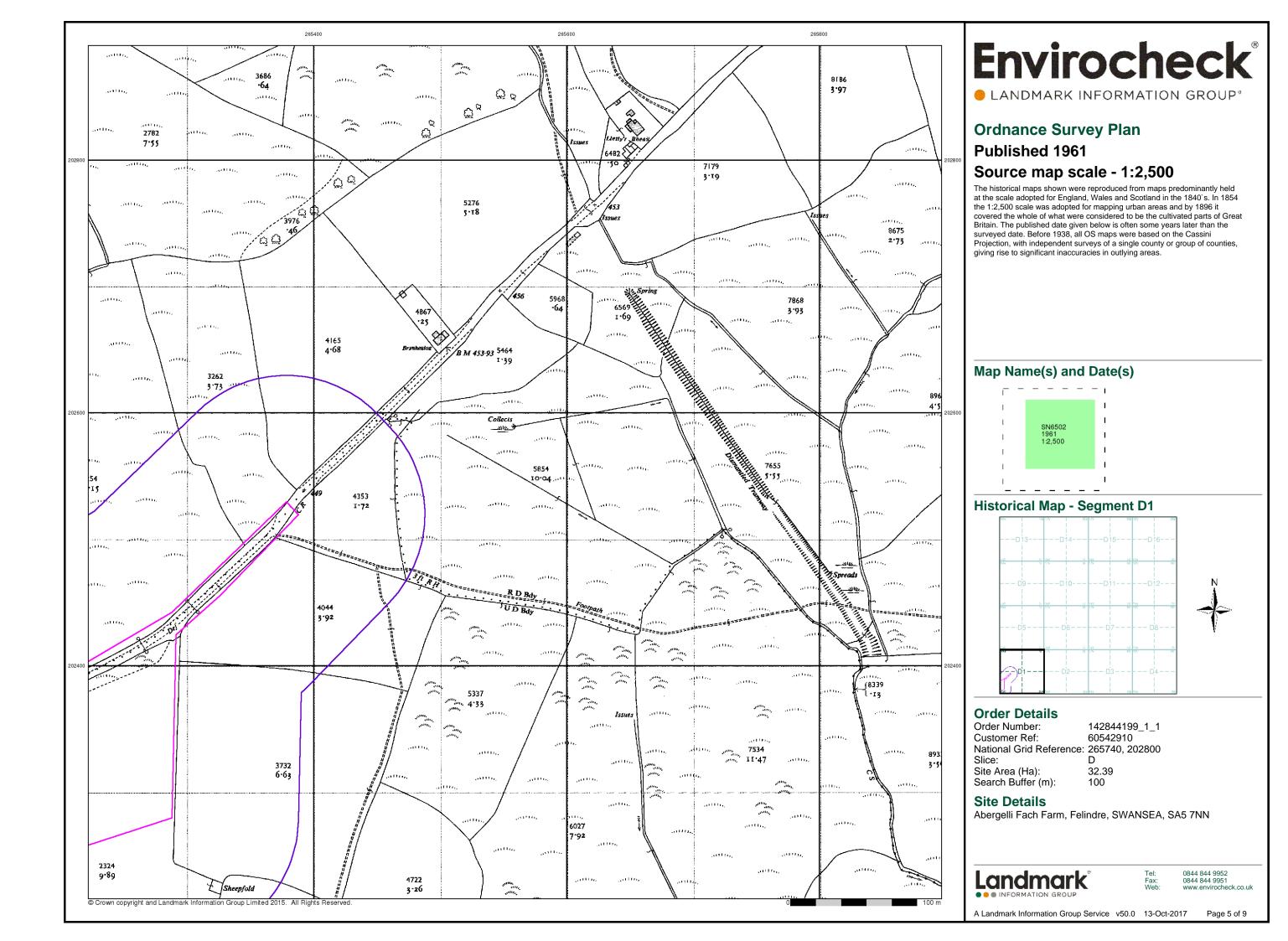
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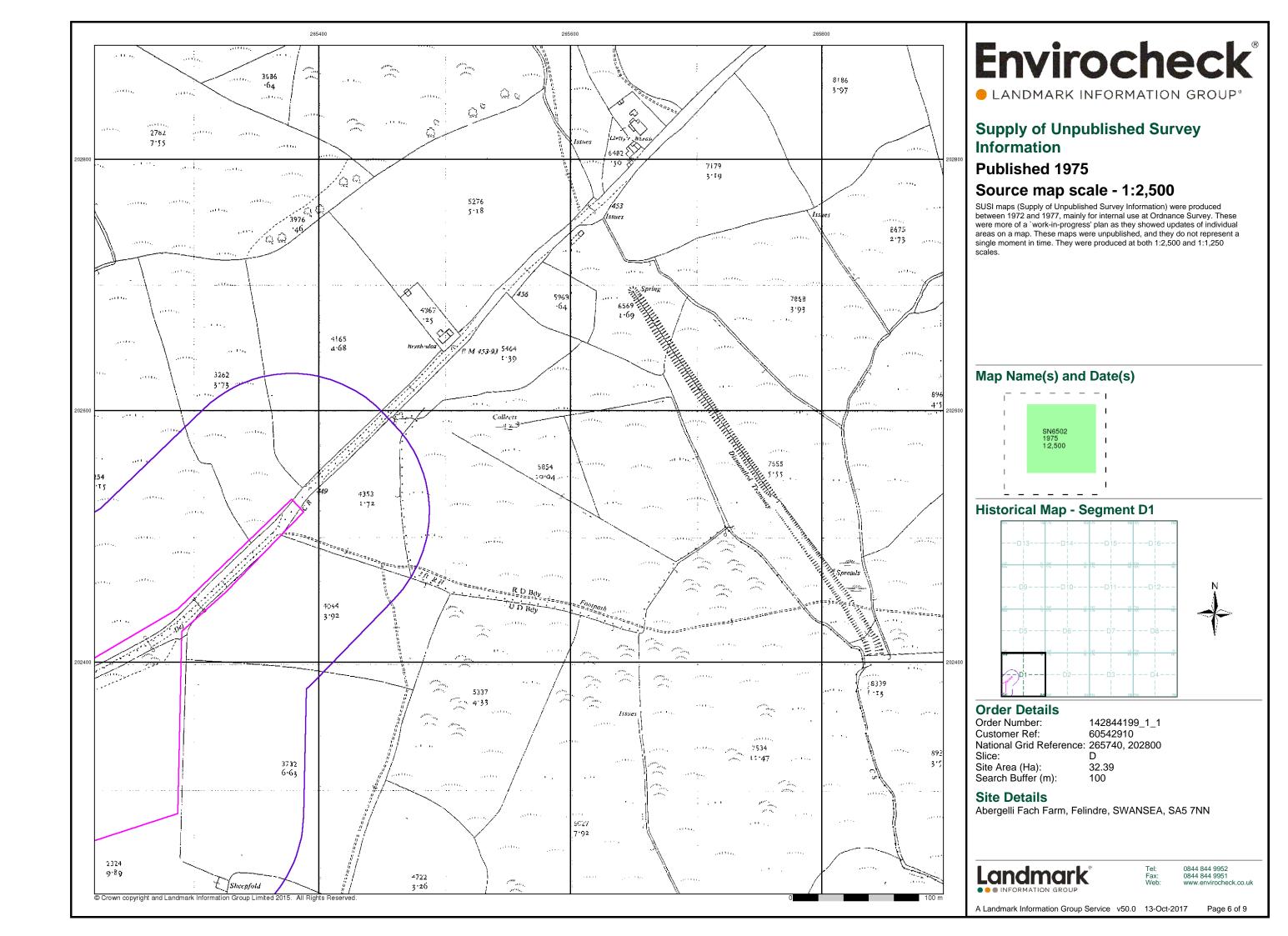
A Landmark Information Group Service v50.0 13-Oct-2017 Page 1 of 9

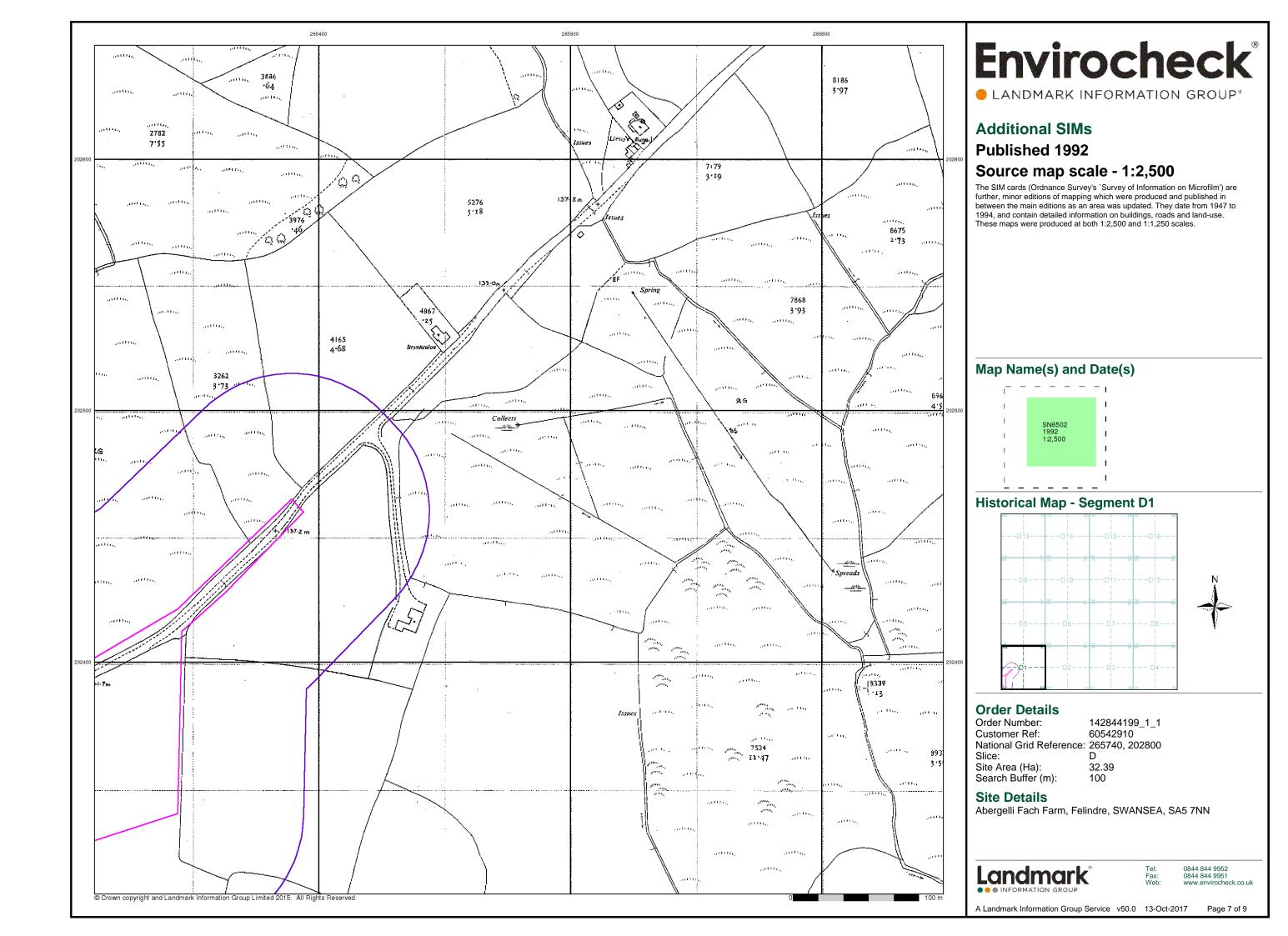


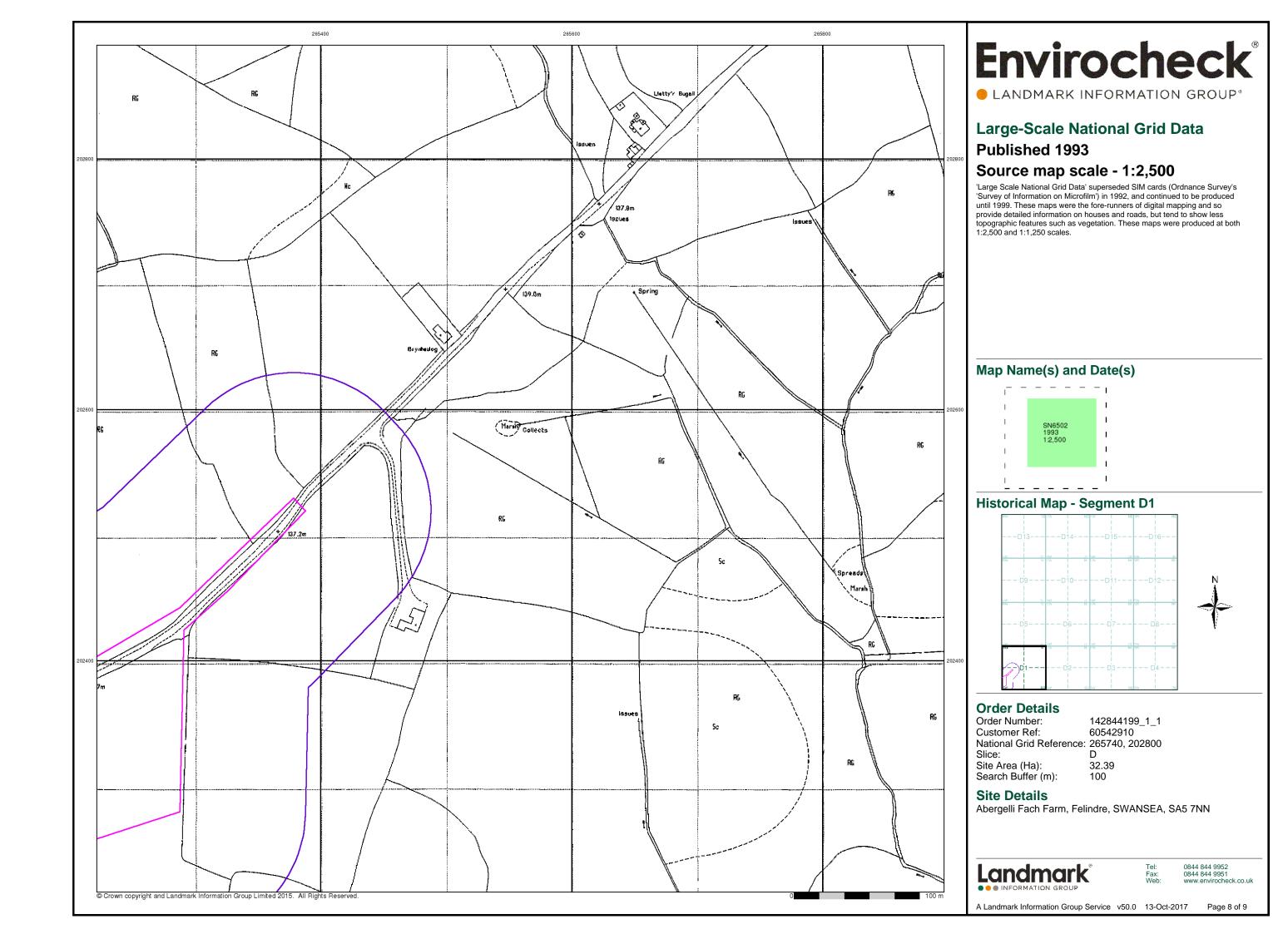














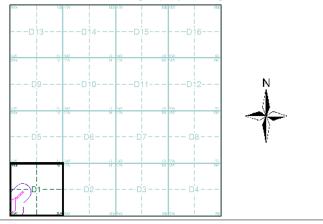
# **Envirocheck®**

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## 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 D1**



### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265740, 202800

e:

Site Area (Ha): 32.39 Search Buffer (m): 100

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

Landmark*

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

A Landmark Information Group Service v50.0 13-Oct-2017

Order Details:

Order Number: 142844199 Customer Ref: 60542910 National G 202800

Slice:

Site Area (Ha): 32.39 Search Buffer (m): 1000

Site Details:

Abergelli F Felindre SWANSEA SA5 7NN

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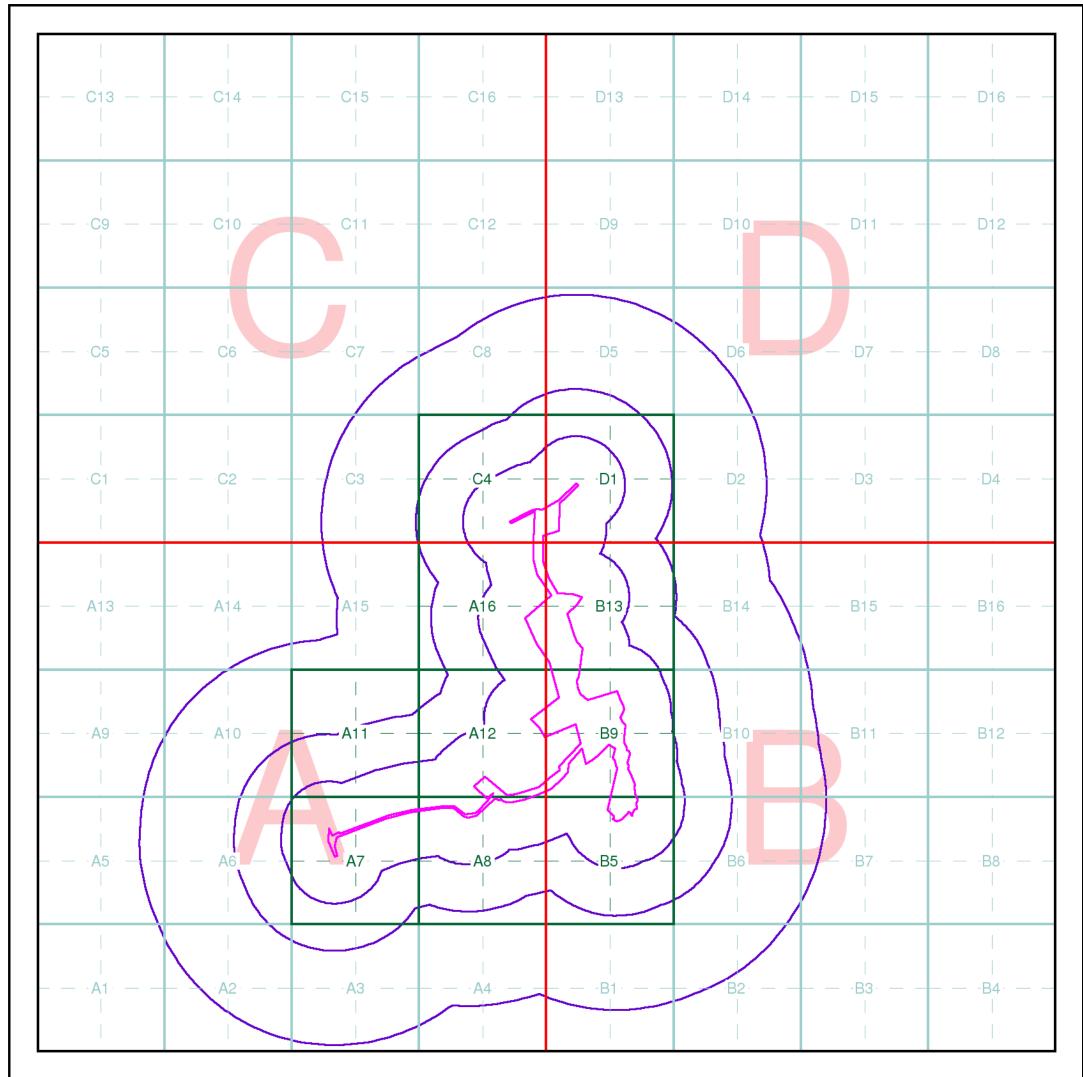
 14284419£Glamorgar
 1898 1:2,500

 14284419£Glamorgar
 1918 1:2,500

 14284419£Additional
 1992 1:2,500

 14284419£Supply of L
 1975 1:2,500

 14284419£Large-Scale
 1993 1:2,500



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### **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.

#### Slic

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.

#### Seamen

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.

### **Prepared For**

Abergelli Power Station Project

### **Client Details**

MS J Foy, Aecom Infrastructure & Environment UK Ltd, Longcross Court, 47 Newport Road, Cardiff, CF24 0AD

### **Order Details**

Order Number: 142844199_1_1
Customer Ref: 60542910
National Grid Reference: 265310, 201420

Site Area (Ha): 32.39 Search Buffer (m): 1000

### **Site Details**

Abergelli Fach Farm, Felindre, SWANSEA, SA5 7NN

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



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

A Landmark Information Group Service v50.0 13-Oct-2017 Page 1

Appendix 8.2

Preliminary Geo-Environmental Risk
Assessment

## PRELIMINARY GEO-ENVIRONMENTAL RISK ASSESSMENT

ABERGELLI POWER PROJECT

for Abergelli Power Ltd

Applicant Reference: 287521A

### Preliminary Geo-Environmental Risk Assessment for Abergelli Power Project

**Applicant Reference: 287521A** 

**Prepared for** Abergelli Power Ltd

## Prepared by Parsons Brinckerhoff

29 Cathedral Road Cardiff CF11 9HA

Tel: 02920 827000 www.pbworld.com



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Figure 1.1 – Site Location Plan

Figure 10.1 – Potential Sources of Contamination and Locations of Interest

### **APPENDICES**

Appendix A – GroundSure Reports

Appendix B - BGS Borehole Logs

Appendix C - Coal Authority Mining Report

Appendix D - Landfill Working Plan Records from NRW



### **EXECUTIVE SUMMARY**





Conceptual Site	The identified potential sources include the waste in the landfill and landfill extension,
Model	Abergelli Colliery, and water treatment processes that took place where the landfill is now located, and landfill and ground gases associated with these historic land uses. Other possible on Project Site sources include possible fertilisers from agricultural practises, and leaks and spills from associated machinery. Human receptors have been identified based on the proposed current and end land use including residents of dwellings within the vicinity of the Project Site, site workers and construction workers during the Project construction works. Controlled water receptors have been identified as both the bedrock and superficial deposits that underlie the Project Site that are classified as Secondary A aquifers. The abstraction well on the Project Site for Abergelli Farm, and the various surface water bodies across the Project Site are also considered controlled water receptors. Potential pathways have been identified from these sources to residents, workers and controlled waters.
Conclusions and	In order to provide further information to assess the potential 'pollutant linkages', a
Recommendations	ground investigation will be carried out at detailed design stage to assess soil, ground gas and groundwater conditions at the Project Site.
	Analytical data will then be used to undertake risk assessments to assess potential risks to human health and controlled waters. The ground investigation will obtain information on ground instability hazards, including the depth and extent of any peat horizons. It will also focus on potential underground mine workings using mine abandonment plans. This information will then be used to complete a mining risk assessment and interpretative geotechnical report.
This sheet is intended a	s a summary only



**SECTION 1** 

**INTRODUCTION** 



### 1 INTRODUCTION

### 1.1 Context and Objectives

- 1.1.1 Abergelli Power Ltd (APL) (the 'Client') has commissioned Parsons Brinckerhoff Ltd to undertake a Preliminary Geo-Environmental Risk Assessment (desk study) of the Abergelli Power Project (the Project Site). The Project Site location is shown on Figure 1.1.
- 1.1.2 The principal objectives of the study were:
  - To provide baseline information for the Geology, Ground Conditions and Hydrogeology Chapter 10 of the Environmental Statement (ES) for the Project Site;
  - To detail the geo-environmental setting of the Project Site to include the surrounding land use, historical land use, geology, hydrology and hydrogeology;
  - To assess the potential for pollutant linkages based on current and future land uses: and
  - To provide recommendations for further investigations or assessments if considered necessary.
- 1.1.3 The report has been completed to reflect the requirements of Preliminary Risk Assessments as outlined in Environment Agency document CLR11 'Model Procedures for the Management of Land Contamination'; which emphasises the use of conceptual site models and the identification of "source-pathway-receptor" pollutant linkages.
- 1.1.4 In addition the key geo-environmental characteristics of the Project Site and the surrounding area will be described to identify any key constraints, resources and assets that could affect or be affected by the Project.
- 1.1.5 The Project comprises:
  - A new Power Generation Plant in the form of a Simple Cycle Gas Turbine (SCGT) peaking power generating station fuelled by natural gas and capable of providing a rated electrical output of up to 299 Megawatts (MW) comprising:
    - The Generating Equipment including between one and five Gas Turbine Generators and Balance of Plant which are located on the "Generating Equipment Site";
    - A new Access Road to the Generating Equipment Site from the B4489, formed by upgrading an existing Access Road between the B4489 junction and the Swansea North Substation and



- constructing a new section of Access Road from the Swansea North Substation to the Generating Equipment site; and
- During construction and decommissioning, a temporary construction compound (the Laydown Area).
- A new Gas Connection to bring natural gas to the Generating Equipment from the National Transmission System; and
- A new Electrical Connection to export power from the Generating Equipment to the National Grid Electricity Transmission System (NGETS).
- 1.1.6 The Generating Equipment, Access Road, and Laydown Area are together known as the Power Generation Plant, and are located within the Power Generation Plant Site.
- 1.1.7 The current proposed layout of the scheme is presented on Figure 1.2.

### 1.2 Scope of Work

- 1.2.1 The preliminary geo-environmental risk assessment collates and presents factual information available for the Project Site from the following sources:
  - GroundSure Geolnsight Report (geological conditions, hazards and mining hazards) (GS-1587648 29th July 2014) (Appendix A);
  - GroundSure EnviroInsight Report (groundwater vulnerability, landfills and pollution incident records, and sensitive land uses within the vicinity of the Project) (GS-158647, 29th July 2014) (Appendix A),
  - The GroundSure MapInsight Report (historical maps) (GS-1587646 30th July 2014) (Appendix A),
  - Soilscape Website (Cranfield University) via http://www.landis.org.uk//soilscapes (viewed 30th July 2014);
  - Review of available BGS information via http://mapapps2.bgs.ac.uk/geoindex/home.html (viewed 30th July 2014) (Selected information reproduced in Appendix B);
  - Review of Geological Survey Maps, scale 1:10,560 Glamorgan Sheet SN60SE, 1964, 1971, and Provisional Edition Sheet SN60SW 1961;
  - Review of EA Groundwater Vulnerability 1:10,000 Map Series, West Glamorgan, Sheet 35, 1996.



- Review of EA, 'What's in your backyard?' Website: http://maps.environment-agency.gov.uk/wiyby/ (viewed 30th July 2014);
- Consultation information from National Resources Wales (NRW);
- Consultation information from the City and County of Swansea Council (CCS);
- Coal Authority Mining Report, 1st August 2014 (Appendix C); and
- Google Earth Pro imagery (viewed 28th November 2014).
- 1.2.2 Parsons Brinckerhoff has reviewed planning applications submitted within the vicinity of the Project Site, but they did not include any information not already publicly available.
- 1.2.3 This report includes a review of the geological, hydrological and hydrogeological information, recorded mining/mineral extraction activities, pollution incidents, landfills, pollution controls, hazardous substance registrations and the historical development of the Project Site and up to a 1 km radius surrounding the Project Site.
- 1.2.4 Based on this information, a preliminary conceptual site model has been produced through a tabular description of identified potential sources of contamination, pathways for contaminant migration and potential receptors for current and proposed future end uses.
- 1.2.5 The conceptual site model identifies complete source pathway receptor pollutant linkages that could affect human health and controlled waters, and highlights gaps and uncertainties in the available information.

### 1.3 Limitations

- 1.3.1 Parsons Brinckerhoff has prepared this report for the sole use of the Client in accordance with generally accepted consulting practices and for the intended purposes as stated in the agreement under which this work was completed. This report may not be relied upon by any other party without the explicit written agreement of Parsons Brinckerhoff. No other third party warranty, expressed or implied, is made as to the professional advice included in this report. This report must be used in its entirety.
- 1.3.2 The records search was limited to information available in a confidential manner from the Client, GroundSure Ltd and public sources including regulatory authorities.



1.3.3 Unless Parsons Brinckerhoff has actual knowledge to the contrary, information obtained from interviews or provided to Parsons Brinckerhoff by site personnel and other information sources has been assumed to be correct. Parsons Brinckerhoff does not assume any liability for misrepresentation of information or for items not visible, accessible, or present on the subject Project Site at the time of the site reconnaissance.

### 1.4 Business Management System Control

1.4.1 Parsons Brinckerhoff operates under a Business Management System. The Management System comprises the processes necessary for effective operation of the business and is designed to meet the requirements of BS OHSAS 18001:2007, ISO 9001:2008 and ISO 14001:2004.

### Safety Management

1.4.2 Site activities, as well as office based work, has been undertaken in accordance with Parsons Brinckerhoff's Integrated Management System – Safety Management Series which operates within the standard outlined in BS OHSAS 18001:2007 (Certificate of Registration: 81259-2010-AHSO-GBR-UKAS).

### **Quality Control**

1.4.3 Work on this project and the preparation of this report has been undertaken in accordance with PB's Integrated Management System – Quality Control Series which operates within the standard outlined in ISO 9001:2008 (Certificate registration No 81255-2010-AQ-GBR-UKAS).

### **Environmental Management**

1.4.4 The design and implementation of this project has been undertaken in accordance with Parsons Brinckerhoff's Integrated Management System - Environmental Management System Series that has been developed in line with ISO 14001:2004 (Certificate registration No. 81257-2010-AE-GBR-UKAS).



SECTION 2

PRELIMINARY GEO-ENVIRONMENTAL RISK ASSESSMENT



### 2 PRELIMINARY GEO-ENVIRONMENTAL RISK ASSESSMENT

### 2.1 Site Referencing Information

2.1.1 Site referencing information is provided within Table 2.1 Error! Reference source not found. and the Project Site location is illustrated on Figure 1.1.

**Table 2.1: Site Description** 

Name of Site	Abergelli Power Project
Site Location	Abergelli Farm.
	The Project Site is 2 km north of junction 46 of the M4, approximately 1.4 km south east of Felindre, 1.2 km west of Llwyncelyn and 1.6 km north of Llangyfelach.
Size and Shape of Site	The site is an irregular shape in plan with an approximate total area of 30 ha.
NGR / Latitude and Longitude	Approximate centre of the site at: NGR 265284, 201431;
	Latitude: 51°41'52.92 Longitude: 3°57'12.95
Current Site Use	The land use is predominantly agricultural, used for sheep and horse grazing.
	Within the Project Site there is a small historic landfill and the remains of Abergelli Colliery, both of which are located north of Abergelli Farmhouse.

### 2.1 Site Setting and Surrounding Environment

2.1.1 The site setting and surrounding environment is described in Table 2.2.

**Table 2.2 Site Setting and Surrounding Environment** 

Site Access	Site access will commence from the west via the B4489 utilising the existing National Grid road and then extends (via current agricultural land) to the west of the Generating Equipment Site and along the southern boundary of the Gas Compressor Station.
Ground Cover	Ground cover at the Power Generation Plant Site primarily comprises fields used for grazing, bounded by drainage ditches, fencing and hedgerows. The Generating Equipment Site and Laydown Area are divided into two areas by a soft surface horse training track known as 'the gallops' with a block of broadleaved woodland to the east classified as Ancient Woodland and a Site of Importance for Nature Conservation (SINC).
Site Topography & Elevation	The land within the proposed Generating Equipment Site is at approximately 90 m above Ordnance Datum (AOD) and gently slopes down towards the south.



Surrounding Area	The area surrounding the Project Site is, at present, predominantly rural in character, although there is a park and ride facility to the south and a substantial amount of utilities infrastructure in the area, some of which cross the Project Site		
	A Gas National Transmission System Pipeline (Feeder 28), and a Welsh Water Main pipeline cross the Project Site and there is also a network of electricity pylons and overhead lines which lead to and from National Grid's Swansea North substation. Furthermore a Water Treatment Works is located to the north west while the Cefn Betingau Solar Park is located to the east of Project Site.		
	The closest residential dwellings are detailed in Chapter 3, the closest 440m south of the Generating Equipment Site, and Abergelli Farmhouse approximately 620m north of the Generating Equipment Site.		
Environmentally Sensitive Areas	A block of broadleaved woodland to the east of the existing Generating Equipment Site is classified as Ancient Woodland and a Site of Importance for Nature Conservation (SINC). Further Ancient Woodland is also present to the south of the National Grid Access Road.		

### 2.2 Geological Information

- 2.2.1 The geology of the Project Site has been reviewed with reference to the following sources:
  - BGS Digital Geological map of Great Britain at 1:50,000 scale www.bgs.ac.uk/geoindex; viewed on 30th July 2014;
  - The GroundSure GeoInsight Report (geological conditions, hazards and mining hazards) (GS-1587648 29th July 2014), Appendix A;
  - BGS archive borehole log: SN60SE24, Appendix B;
  - Review of Geological Survey Maps, scale 1:10,560 Glamorgan Sheet SN60SE, 1964, 1971, and Provisional Edition Sheet SN60SW 1961; and
  - Coal Authority Mining Report, Appendix C.
- 2.2.2 On the basis of the above, the ground conditions beneath the Project Site are likely to comprise the following:

### Made Ground

2.2.3 Made Ground is not indicated on BGS records. It is only likely to be present in areas where there are structures and hardstanding associated with previous development, i.e. the landfill and surrounding the colliery farm buildings within the vicinity of the Project Site.



2.2.4 If present, the stratum would be of unknown provenance and could include a range of materials such as colliery spoil.

### Superficial Deposits

- 2.2.5 The superficial deposits located across the Project Site comprise predominantly of glacial till (a diamicton; predominantly clay) and glaciofluvial deposits of sand and gravel. There are also pockets of alluvium and peat present locally within the Project Site boundary. The mapped peat is located north west of Abergelli Farm, and within the north eastern corner of the Generating Equipment Site and Laydown Area, see the excerpt of a superficial geology map in Appendix A. The likely permeability of the superficial deposits range from very low (within the clays) to very high (within the sand and gravel) across the Project Site.
- 2.2.6 There are records of three boreholes formed within the Project Site boundary held by the British Geological Survey (BGS); only one of these is currently available for viewing online¹ and presented in Appendix B. The record has a reference of SN60SE24 and is located east of Abergelli Farm (NGR 265200, 201600), in an area mapped as being underlain by Devensian glaciofluvial deposits of sand and gravel.
- 2.2.7 The superficial deposits recorded on the log comprise yellow brown gravelly clay down to 6 metres below ground level (m bgl), overlying a grey brown clayey gravelly sand, clayey sand and sandy clay down to 15.8 m bgl of likely glaciofluvial deposits that is underlain by firm yellow clay becoming stiff grey gravelly clay that is likely to be glacial till; proven to a maximum depth of 16.8 m bgl. Traces of coal were identified at 10.7 m bgl within the clayey sand.

### Bedrock Geology

- 2.2.8 The bedrock geology underlying the Project Site consists of the Grovesend Formation from the Westphalian stage of the Carboniferous period, comprising "argillaceous mudstones and siltstones, with well-developed coals, and minor lithic sandstones". This is the youngest unit in the South Wales coalfields. The lower boundary "is placed at the base of the Swansea Four Fee Coal of the Swansea district" "where it overlies mudstone seatearth" at the top of the Swansea Member.
- 2.2.9 The north eastern corner of the Project Site consists of the Swansea Member, also from the Westphalian stage, comprising "green-grey pennant sandstone, with thin mudstone / siltstone and seat earth interbeds and mainly thin coals". The lower boundary of the Swansea

¹http://scans.bgs.ac.uk/sobi_scans/boreholes/256144/images/10509869.html

http://www.bgs.ac.uk/lexicon/lexicon.cfm?pub=GDB



Member "is placed at the base of the Golden Seam (Swansea Three Feet or Graigola) (Woodland et al., 1957), where the coal rests on mudstone seatearth within the Pennant Sandstone Formation". This geological formation is overlain conformably by the Grovesend Formation.

- 2.2.10 There are many faults identified within the region of the Project Site. The faults predominantly run from north west to south east, with the downthrow (displacement) noted to the west-south west. There is no information of the dip angle on the geological maps.
- 2.2.11 There was a 'Slant' identified at Abergelli Colliery, which provided access to both the Graigola and Swansea Four feet coal seams. At a slightly higher latitude than Abergelli Colliery the Swansea Four Feet and Brynwhilach Two Feet seams are identified with fault offsetting both seams.
- 2.2.12 The permeability of the bedrock geology ranges from low to high, depending on the degree of fracturing. There are nine faults across the Project Site, two of which have been observed, according to BGS records, and the others inferred either as a normal fault or along a coal seam. An excerpt from the geology map is provided in Appendix A.

### Soils and Agriculture

- 2.2.13 There are two different soil classification areas across the Project Site. The predominant soil classification is described as "slowly permeable." wet, very acidic upland soils with a peaty surface". The soils are described as "low fertility" and land cover is described as "moorland rough grazing and forestry". The precipitation "drains to the stream network". It is noted in the source information that overgrazing of this unit could lead to accelerated run-off and soil erosion³.
- 2.2.14 Through the centre and north eastern section of the Project Site, the soils are described as "freely draining, slightly acid loamy soils". The soils are of "low fertility", with "arable and grassland" land cover and precipitation "drains to local groundwater and rivers". There is potential for groundwater contamination with these soils, comprising nitrate, siltation and nutrient enrichment of streams from soil erosion.
- 2.2.15 The agricultural land classification for the land within and surrounding the Project Site is grade 4 ("poor quality agricultural land")⁴ "with severe limitations which significantly restricts the range of crops and / or level

³ http://www.landis.org.uk/soilscapes/index.cfm

⁴ Ministry of Agriculture, Fisheries and Food Welsh Office Agricultural Department (1975) Agricultural Land Classification of England and Wales Map, Scale 1:2,000,000.



of yields, mainly suited to grass with occasional arable crops"⁵. The Project Site is known to be utilised as improved grazing for sheep and horses, with small areas of marshy grassland and woodland copses interspersing the improved grassland to the north and east. The importance of this resource is considered low.

#### **Ground Workings and Mineral Resources**

- 2.2.16 According to the GroundSure GeoInsight Report (Appendix A), based on historical mapping there have been a number of historical surface ground working features on the Project Site. These comprise refuse heaps, a colliery, old gravel pits, unspecified pits and a pond.
- 2.2.17 The GroundSure Geolnsight Report has identified a gravel pit at Abergelli Fach that produced sand and gravel. There are also a number of surface mineral workings, including sand and gravel, sand, sandstone and one underground deep coal working within 1km of the Project Site. All operations have a "ceased" status (i.e. they are no longer active workings).
- 2.2.18 The Project Site is not within an area of tin or clay mining, or brine or gypsum extraction.

#### **Underground Coal Mining**

- 2.2.19 A review of the GroundSure GeoInsight Report identified Abergelli Colliery which is located adjacent to the Project Site approximately 500 m north of Abergelli Farm. A coal pit, shaft, colliery, and mine spoil heap have all been identified on historical mapping at locations extending to between 480 m and 1 km from the Project Site boundary (i.e. off-Project Site).
- 2.2.20 Further details on Abergelli Colliery are presented in the Coal Authority Mining Report (Appendix C) and are summarised below.
- 2.2.21 The Project Site is in the likely zone of influence from workings in three seams of coal, from shallow to a depth of 380 m. The Coal Mining Report indicates the coal seams were last worked in 1986⁶.
- 2.2.22 There are two mine entries close to the Project Site, one of which is located in the vicinity of Abergelli Colliery (north of Abergelli Fach Farm). The other is located south of the National Grid's 'Swansea North' electrical substation at NGR 264970, 200800. There is no record of any treatment to the mine entries.

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⁵ Ministry of Agriculture, Fisheries and Food Welsh Office Agricultural Department (October 1988) Agricultural Land Classification of England and Wales, Revised guidelines and criteria for grading the quality of agricultural land.
⁶ Non-Residential Coal Authority Report, 01/08/14



2.2.23 The Project Site is currently not in an area for which the Coal Authority is determining to grant a licence to remove coal using underground methods, where a licence has been granted or in an area that is likely to be affected at the surface from any planned future workings. However, reserves of coal exist and could be worked in the future.

#### **Opencast Coal Mining**

2.2.24 The Coal Authority report states that the Project Site is not within the boundary of an opencast site from which coal has been removed by opencast methods, and does not lie within 200 m of a boundary of an opencast site. It also states that the Project Site is not within 800 m of the boundary of an opencast site for which the Coal Authority are determining whether to grant a licence to remove coal by opencast methods, or for which a licence to remove coal has been granted.

#### Ground Stability / Subsidence

- 2.2.25 The Coal Authority Mining Report (Appendix C) indicates that no notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.
- 2.2.26 Abergelli Farm has been subject to remedial works, by or on behalf of the Coal Authority under its emergency surface hazard call out procedures. No further information was provided, however two damage notices or claims for alleged subsidence damage were made in June 1995 and November 1996.
- 2.2.27 Geological hazards at the site identified in the GroundSure Geolnsight Report are detailed within Table 2.3.

Table 2.3 Geological Hazards

Stability	Collapsible ground	Negligible to very low		
	Compressible ground	Negligible to <u>high</u>		
	Ground dissolution	Null to negligible		
	Landslide	Very low to low		
	Running sand	Negligible to low		
	Shrinking or Swelling Clay	Negligible to very low		
Radon hazards		The Project Site is in a Radon Affected Area, as between 3-5% of properties are above the Action Level. Radon protective measures may be necessary in the Project.		



- 2.2.28 The high hazard associated with compressible ground is mapped and presented within the GroundSure GeoInsight Report and is presumably associated with the peat. One of the high hazard areas is situated in the location of the Generating Equipment Site, along the eastern boundary, and the other to the west and north west of Abergelli Farm.
- 2.2.29 Consideration of this hazard will be made in the design of any ground works (including site investigation, earthworks, de-watering) and foundation design.
- 2.3 Hydrogeological Information
- 2.3.1 The hydrogeology of the site has been reviewed with reference to the following sources:
  - GroundSure EnviroInsight report dated 29th July 2014 (Appendix A); and
  - Environment Agency Website 'What's in your backyard' (<a href="http://www.environment-agency.gov.uk/">http://www.environment-agency.gov.uk/</a>) 30th July 2014.
- 2.3.2 The aquifer classifications associated with the superficial geology comprise "unproductive strata" for the glacial till and "secondary A aquifer" for the glaciofluvial deposits.
- 2.3.3 The bedrock geology has been classified as a Secondary A aquifer.
- 2.3.4 Unproductive strata are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.
- 2.3.5 Secondary A aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
- 2.3.6 The BGS archived borehole log identified a water strike at 10.7m bgl (ground level was 113m AOD). However, there was no information regarding the resting water level in this borehole.
- 2.3.7 The GroundSure Envirolnsight Report has identified areas susceptible to groundwater flooding within 50 m of the Project Site. This is associated with superficial deposits, where shallow unconsolidated sedimentary aquifers overlie unproductive strata. The susceptibility to groundwater flooding is potentially at the surface, which means that given the geological conditions in the area, groundwater flooding hazard should be considered in all land-use planning decisions. The



BGS confidence rating of this groundwater flooding is classified as 'high'.

2.3.8 Groundwater quality in the study area has been assessed against the objectives of the Water Framework Directive (WFD). According to the EA website the current quantitative quality is good and is predicted to remain so in 2015. The current chemical quality is poor and expected to remain so in 2015.

#### **Licenced Groundwater Abstractions**

- 2.3.9 The GroundSure Envirolnsight Report has identified one groundwater abstraction licence on the Project Site, associated with Abergelli Farm. The licence number is 22/59/4/0027 with groundwater used for general farming and domestic purposes. The version start date was 01/02/1993, as there is no end date, it has been assumed to be still active.
- 2.3.10 There are an additional 16 No. groundwater abstraction licences within 2 km of the Project Site all used for general farming and domestic purposes. The location of licensed groundwater abstractions within the vicinity of the site are presented in Figure 10.1 of the Environmental Statement.

#### **Groundwater Vulnerability**

- 2.3.11 The Project Site does not lie within a groundwater Source Protection Zone (SPZ).
- 2.3.12 Groundwater vulnerability has been identified from the GroundSure Envirolnsight Report with a varying classification across the Project Site; i.e. from low to high leaching potential.
- 2.3.13 Low soil vulnerability is described as soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants. High soil vulnerability is described as coarse or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.

#### Discharge Consents to Groundwater

- 2.3.14 There have been three discharge consents on the Project Site, all now expired or revoked:
  - Discharging to land associated with Abergelli Farm in 1987;



- The National Grid Gas Compressor Station, discharging sewage to an unnamed land drain, effective between 2007 and 2010; and
- Trade discharges (site drainage) to the Afon Llan, revoked in 2011.
- 2.3.15 Further details of other discharge consents within 500 m of the Project Site boundary is presented in the GroundSure Envirolnsight Report.
- 2.4 Hydrological and Drainage Information
- 2.4.1 There are a number of small watercourses within the vicinity of the Project Site that drain to the Afon Llan, along with a number of springs and small ponds.
- 2.4.2 The Afon Llan flows in a south westerly direction to the west and south of the Project Site, discharging into the Loughor Estuary. In addition, another watercourse, the Afon Lliw is located approximately 1.3 km north of the Project Site and also discharges into the Loughor Estuary.
- 2.4.3 Artificial water features include the Felindre water treatment works with covered reservoir situated immediately north of the Project Site, and the Lower Lliw reservoir situated approximately 1.1 km north of the Project Site.
- 2.4.4 The closest potable water supply is from the Lower Lliw Reservoir approximately 1 km north west of the Project Site. The original start date of abstraction was 09/08/1989.

#### Flood Risk

- 2.4.5 The GroundSure EnviroInsight Report indicates that the southern tip of the scoping boundary is located in an area at risk from flooding with an estimated annual probability of between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers (i.e. Flood Zone 2 and 3). However, the Project Site is not located within an area at risk from flooding.
- 2.4.6 According to the British Geological Survey (BGS) there are areas within 50 m of the Project Site that are susceptible to groundwater flooding. This is associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits flooding).

#### Licensed Surface Water Abstractions

2.4.7 According to the GroundSure EnviroInsight Report there are no surface water abstractions within the Project Site boundary. However, there is one licensed surface water abstraction within 825 m east of the Project Site used for "lake and pond throughflow", sourced from the Afon Llan.



Discharge Consents to Surface Water

2.5 There are no active discharge consents to surface water; however there are seven consents which have either expired or have been surrendered.

#### Recorded Pollution Incidents

2.5.2 According to the GroundSure Envirolnsight Report there have been three pollution incidents within the Project Site. Two were related to atmospheric pollutants and effects, causing a minor impact to air in 2002 situated in the National Grid Gas Plc. The third was related to inert materials and wastes described as soils and clay causing a significant impact to the water environment. The incident was dated May 2007 and located on the northern boundary of the Project Site.

#### 2.6 Recorded Landfill Sites

- 2.6.1 The GroundSure EnviroInsight Report and Environmental Agency data indicate one authorised landfill and an adjacent historic "Landfill Extension" located within the Project Site boundary, presented in Figure 10.1. This is named the Abergelli Fach Farm landfill and its current status is 'closed'. The total void space was calculated at 75,000m³, with a total tonnage of 142,500t. The landfill was only able to accept non-biodegradable wastes.
- 2.6.2 The Landfill Extension is reported to have accepted inert waste. The planning application for this extension was granted in 1997. National Resources Wales (NRW) have provided the Working Plan and associated drawings for the landfill which were dated March 1994 (Appendix D). The total void space was calculated at 99,898m³, with a total tonnage of 179,816t.
- 2.6.3 The Working Plan described the land as low lying, and poorly drained. Approximately three quarters of the landfill area was covered by a mine soil dump from Abergelli Colliery. This mine waste was removed leaving a layer of well compacted mine waste over the majority of the landfill area. The area of ground that was covered by the mine spoil was used for drying out of water treatment sludge (aluminium sulphate) though ceased when the landfill became operational. No further information on this operation is known.

#### 2.7 Recorded Animal Burial Grounds

2.7.1 Information obtained from CCS indicates there was no local cull of animals in Swansea, Neath Port Talbot or Carmarthenshire during the



Foot and Mouth outbreak in 2001. No mass burial of animals have been recorded at the Project Site.

#### 2.8 Pollution Controls

2.8.1 There is one Integrated Pollution Prevention and Control (IPPC) permit located within the Project Site boundary. This is for the Gas Compressor Station for the combustion of any fuel held by National Grid Gas Plc.

#### 2.9 Sensitive Land Uses

2.9.1 There are two areas of ancient woodland within the Project Site. One area of ancient woodland is located north east of the Generating Equipment Site and another to the south of the Access Road. Further detail is provided within the Ecology Chapter of the Environmental Statement (Chapter 8).

#### 2.10 Historical Development & Potentially Contaminative Land Uses

2.10.1 Historical maps are provided in the GroundSure MapInsight Report in Appendix A, Google Earth was also used to view satellite imagery of more recent land uses. The historic development of the Project Site is summarised within Table 2.4.

**Table 2.4 Historical Map Summary** 

Dates/Sources	On Project Site	Off Project Site
1876-1878 1:10,560 1:2,500	The Project Site is predominantly agricultural fields and tracks, with areas of woodland and marshland.  There are a number of buildings associated with Abergelli Fach and Abergelli Fawr in the central region of the Project Site, and Bryn Mawr along the north western corner of the Project Site.	The land is predominantly agricultural.  A lime kiln is identified to the south east of the Project Site; west of the Maes-eglwys development.
1896 – 1897 1:10,560 1898 – 1899 1:2,500	A gravel pit is identified to the west of Abergelli Fach. The woodland in the south of the Project Site has now been identified as Abergelli Fach Plantation and Lletty Morfil Plantation.	An old gravel pit is identified to the south of the Project Site that was not previously identified.  An old tramway is identified to the north of the Project Site, which was not previously identified on the older map.



Dates/Sources	On Project Site	Off Project Site
1913-1914 1:10,560 1913-1918 1:2,500	The gravel pit is now identified as old. Rises and streams are now indicated on the map.	Two old quarries have been identified. One approximately 500 m west and one approximately 750 m north west of the Project Site.  A tank is identified next to a spring just off Project Site, north of Abergelli Fach Plantation.  The limekiln previously identified is now labelled as old limekiln.
1921 1:10,560	No significant changes.	No significant changes.
1935-1938 1:10,560 1935 1:2,500	Abergelli Colliery, associated buildings, engine houses, railway sidings, slant (loading bay) and tank are identified on the map, north of Abergelli Fach.	No significant changes.
1948 1:10,560	The buildings associated with Abergelli Colliery have changed slightly but still appear to be operational.	No significant changes.
1964 1:10,560 1960 1:2,500 1958 1:2,500	The colliery is now identified as disused.  A spoil heap/tip adjacent to the colliery is identified to the north west of the mine with a routeway into the centre of the tip. Railway sidings tracks run through the colliery and ends at the edge of the spoil heap/tip.	The tank next to Abergelli Plantation and the previously identified spring are no longer identified.  The old tramway is now labelled as dismantled.
1975 1:10,000 1974 1:2,500	The railway sidings and one building associated with the Abergelli Colliery are no longer identified.  Electricity pylons are identified across the site, towards the central section of the Project Site, running in a north east to south west direction.	A tip is labelled approximately 300 m to the south of the Project Site.



Dates/Sources	On Project Site	Off Project Site
1991 1:10,000 1989-1:2,500	An electrical substation is present in the south western corner of the Project Site, adjacent to Lletty-morfil Plantation.	A gas valve compound is shown adjacent to the north western Project Site boundary. Beyond the gas valve compound are covered
1989-1992	A large warehouse building is now present in this area.	reservoirs and associated water treatment works.
1992-1993 1:2,500 1999 Google Earth Pro imagery	Abergelli Fach is now labelled as Abergelli Farm and looks to have been redeveloped.  Abergelli Fawr is now labelled as ruins.  From the earliest imagery available on Google Earth Pro the old gravel pit does not look to be backfilled. The landfill looks to be backfilled and the slope graded. The majority of the landfill extension is vegetated.	The tip to the south of the Project Site is no longer identified.
2002 1:10,000 2002 Google Earth Pro imagery	An embankment previously identified as a spoil heap or similar is present to the north west of the former mine. Two buildings associated with the colliery remain.  The landfill is becoming vegetated. The northern part of the landfill extension looks to be currently worked	No significant changes.
2006 and 2008 Google Earth Pro imagery	The eastern part of the landfill is under hardstanding for units and vehicles associated with current landfilling operations. There is a large trench through the landfill extension running south east to north west.	No significant changes.
2010 1:10,000 2010 Google Earth Pro imagery	The previous track across the site to Abergelli Farm is now developed into a roadway.  Vegetation is developing on the eastern part of the old gravel pit. The landfills no longer look operational. There are no vehicles or units remaining, although the trench is still present. Vegetation is maturing.	No significant changes.



Dates/Sources	On Project Site	Off Project Site
2013 Google Earth Pro imagery	Vegetation is becoming well developed on the eastern part of the old gravel pit and over the landfill and landfill extension areas.	No significant changes.

#### 2.11 Potentially Contaminative Land Uses

2.11.1 Table 2.5 and Figure 10.1 of the Environmental Statement presents potentially contaminative land uses identified on-Project Site and within 500m of the Project Site boundaries. It also details contaminant groups potentially present as a result of these land uses.

**Table 2.5 Potentially Contaminative Land Uses** 

Process/ Land use	Location	Contaminant Groups Potentially Present on-site	
Abergelli Colliery, engine houses, tanks, railway sidings/conveyor belt and spoil heap	North of Abergelli Fach (Farm) on the Project Site.	Metals and metalloids, polycyclic aromatic hydrocarbons (PAHs), hydrocarbons, lubricating oils, sulphates, asbestos, ground gas including coal bed methane.	
Drying out of water treatment sludges (aluminium sulphate)  Abergelli Colliery and location of historic landfill.		Aluminium sulphate and heavy metals	
Historic Landfill and Landfill Extension	North west of Abergelli Colliery (north of Abergelli Fach) on the Project Site.	Hydrocarbons, asbestos and unknown contaminants associated with the waste, landfill gas.	
Gas Compressor Station and electricity pylons	Western part of the Project Site – Operated by National Grid Gas Plc. Electricity pylons traverse across the Project Site	Polychlorinated biphenyls (PCB's), other transformer oils and solvents	
Agricultural land and plantations	Across the majority of site including plantations to the south of the Project Site.	Fertilisers, hydrocarbons and lubricating oils associated with machinery.	

#### 2.12 Sources of Contamination

2.12.1 The most likely sources of contamination for the Project Site are:



- Contamination associated with the historic landfill and landfill extension;
- Contamination associated with the historic colliery, including aluminium sulphate sludge; and
- Contamination from agricultural land use including leaks/spills from machinery.

#### 2.13 Preliminary Conceptual Site Model

- 2.13.1 On the basis of the information summarised above, a preliminary conceptual site model (CSM) has been developed for the Project Site. The CSM identifies potential contaminants, receptors (both on and offsite) and exposure pathways that may be present. The identification of such potential "pollutant linkages" is a key aspect of the evaluation of potentially contaminated land.
- 2.13.2 An approach based on CIRIA report C552 has been adopted within this report. For each of the pollutant linkages, an estimate is made of;
  - The potential severity of the risk; and
  - The likelihood of the risk occurring.
- 2.13.3 Table 2.6 presents the classification of the severity of the risk.

Table 2.6: Severity of Risk

Severe	Acute risks to human health; Major pollution of controlled waters(watercourses or
	groundwater)
Medium	Chronic (long-term) risk to human health; Pollution of sensitive controlled waters (surface waters or
	aquifers)
Minor	Requirement for protective equipment during site works to migrate health effects;
	Damage to non-sensitive ecosystems or species

2.13.4 The probability of the risk occurring is classified according to criteria given in Table 2.7.

Table 2.7: Probability of Risk Occurring

High Likelihood	Pollutant linkage may be present, and risk is almost certain to occur in the long term, or there is evidence of harm to the receptor.
Likely	Pollutant linkage may be present, and it is probable that the



	risk will occur over the long term.			
Low Likelihood	Pollutant linkage may be present and there is a possibility of the risk occurring, although there is no certainty that it will do so.			
Unlikely	Pollutant linkage may be present but the circumstances under which harm would occur are improbable.			

2.13.5 An overall evaluation of the level of risk is gained from a comparison of the severity and probability as presented in Table 2.8.

**Table 2.8: Comparison of Severity and Probability** 

		Severity				
		Severe	Medium	Minor		
lity	High Likelihood	Very high risk	High Risk	Moderate / low risk		
<u>ত</u>	Likely	High risk	Moderate risk	Low risk		
Proba	Low Likelihood	Moderate risk	Moderate/ low risk	Very low risk		
	Unlikely	Moderate / low risk	Low risk	Very low risk		

- 2.13.6 Potential "pollutant linkages" associated with the Project are detailed within Table 2.9.
- 2.13.7 It should be noted that the identification of potential "pollutant linkages" does not indicate that they are significant in any way or that the Project Site is unsuitable for its current/proposed use. It does however act as a way of focusing future data collection at the Project Site and identifying any key potential risks associated with the Project Site.
- 2.13.8 The risks to construction workers associated with the Project Site are considered negligible with embedded mitigation taken into consideration, such as PPE and following best practice procedures.
- 2.13.9 The current conservative assessment is based on a desk study and will be confirmed through intrusive investigation prior to detailed design.
- 2.13.10 It should also be noted that potential risks associated with ground instability are not incorporated into the assessment.



Table 2.9 Potential Pollutant Linkages Associated with the Future Development and their Preliminary Risk Rating

Source	Pathway	Receptor	Scale	Risk	Comment
Waste within the historic landfill and landfill extension  (Including the process of drying out water treatment sludge)	Direct contact with shallow groundwater impacted with landfill leachates.	Construction Workers Very localised small scal areas	localised small scale	Low	The majority of the development area will comprise hardstanding; therefore the risk of exposure is negligible. Regular contact with this potential contaminative source is unlikely. The presence of vegetation across the majority of the Project Site limits exposure via the direct contact pathway. Also, the potential sources of contamination cover a small area of the land within the Project Site. The risk associated with this S-P-R is irrespective of the Project going ahead.
		Human Health: Future workers on the Generating Equipment		Low	As above. In addition, the exposure durations are limited and the receptor class is less sensitive. Regular contact with site soils is unlikely.
	Cross contamination via piling during the development works.	Controlled Waters: Secondary A superficial and bedrock aquifers and an abstraction well		Low	Whilst a pathway could be created via such a means, the area which will require piling is on greenfield land and therefore the probability of the risk occurring is unlikely; therefore the risk is considered low.  Groundwater flow direction is currently unconfirmed.
	Landfill gas generation	Construction Workers		Low	There is potential for landfill gases to be present within the landfill and landfill extension. The gas generation
		Human Health: Future workers on the Generating Equipment			is anticipated to be low as the landfill was licenced to only receive inert and nonbiodegradeable waste. This needs to be considered as buried structures will be constructed to the east of the landfills. The exposure durations are limited and the receptor class is less sensitive; the generating equipment site is relatively distant from the landfill hence the "Low" classification.



Source	Pathway	Receptor	Scale	Risk	Comment
	Mine gas generation	Human Health: Residents of dwellings within the study area	Extent of mine workings is unknown	High	During the construction works there is a likelihood that ground gas from coal bed methane or mine workings may be disturbed.
		Human Health: Future workers on the Generating Equipment		High	
Agricultural land use	Surface run-off	Controlled waters, drainage ditches within the Project Site boundary	Wide spread across land, but very low frequency use	Low	Sprayed fertilisers could be washed into receiving surface waters. Drainage ditches run across the Project Site and may transport contaminants. The farming practices and potential use of chemicals is unknown but as the land is predominantly used for grazing the risk is considered low. The risk associated with this S-P-R is irrespective of the Project going ahead.
Natural gas from potential peat stratum	Natural ground gas generation	Human Health: Future workers on the Generating Equipment	One area of mapped peat identified	Moderate / Low	There is potential for natural ground gases to be present within the peat stratum mapped in localised areas within the Project Site. The gas generation is anticipated to be moderate to low in these areas and this currently vents naturally.
		Construction workers		Moderate / Low	Construction workers may potentially disturb the peat habitat during the construction works; this is particularly relevant with sub-surface construction activities where ground gas may accumulate.



**SECTION 3** 

**CONCLUSIONS AND RECOMMENDATIONS** 



#### 3 CONCLUSIONS AND RECOMMENDATIONS

#### 3.1 Conclusions

- 3.1.1 APL commissioned Parsons Brinckerhoff to undertake a preliminary risk assessment (desk study) as part of the geology, ground conditions and hydrogeology chapter for the Environmental Statement of Abergelli Power Project.
- 3.1.2 The geological and hydrogeological conditions have been investigated and described on the basis of the available published information.
- 3.1.3 Following a review of information relating to the site and surrounding area, a number of discrete potential 'pollutant linkages' have been identified at the Project Site.
- 3.1.4 Potential sources from the previous use of the site are localised and include an historic landfill and landfill extension, a colliery and historic water treatment processes associated with the mine, a potentially backfilled gravel pit, and agricultural use including potential animal burials.

#### 3.2 Recommendations

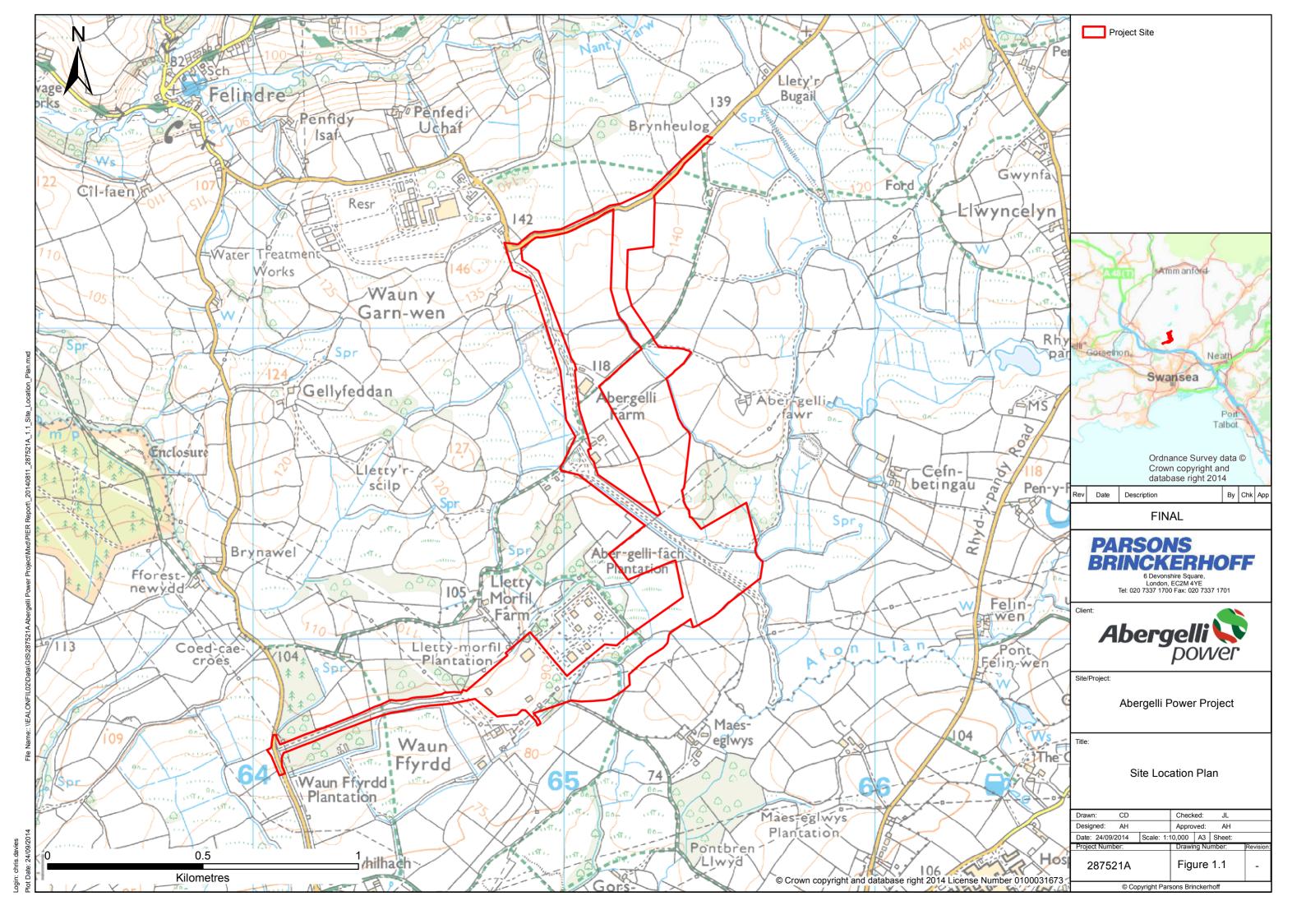
- 3.2.1 In order to provide further information for this assessment to assess the potential 'pollutant linkages', a focused intrusive ground investigation is recommended.
- 3.2.2 This would likely be incorporated into the site-wide ground investigation and include exploratory holes (boreholes and trial pits) to investigate soil and groundwater conditions at the Project Site, and to characterise the deposits in each of the areas identified as a potential source of contamination.
- 3.2.3 The ground investigation would also obtain information on ground instability hazards, including the depth and extent of any peat horizons. It will also focus on potential underground mine workings using mine abandonment plans. This information will then be used to complete a mining risk assessment and interpretative geotechnical report.
- 3.2.4 Sampling of soils, groundwater and surface water will be carried out for chemical analysis to establish the presence/absence of any contamination and allow the assessment of the significance through the completion of a risk assessment.
- 3.2.5 Ground gas monitoring will also be required in the area due the increased potential for gas generation from coal workings, the landfill or peat areas.

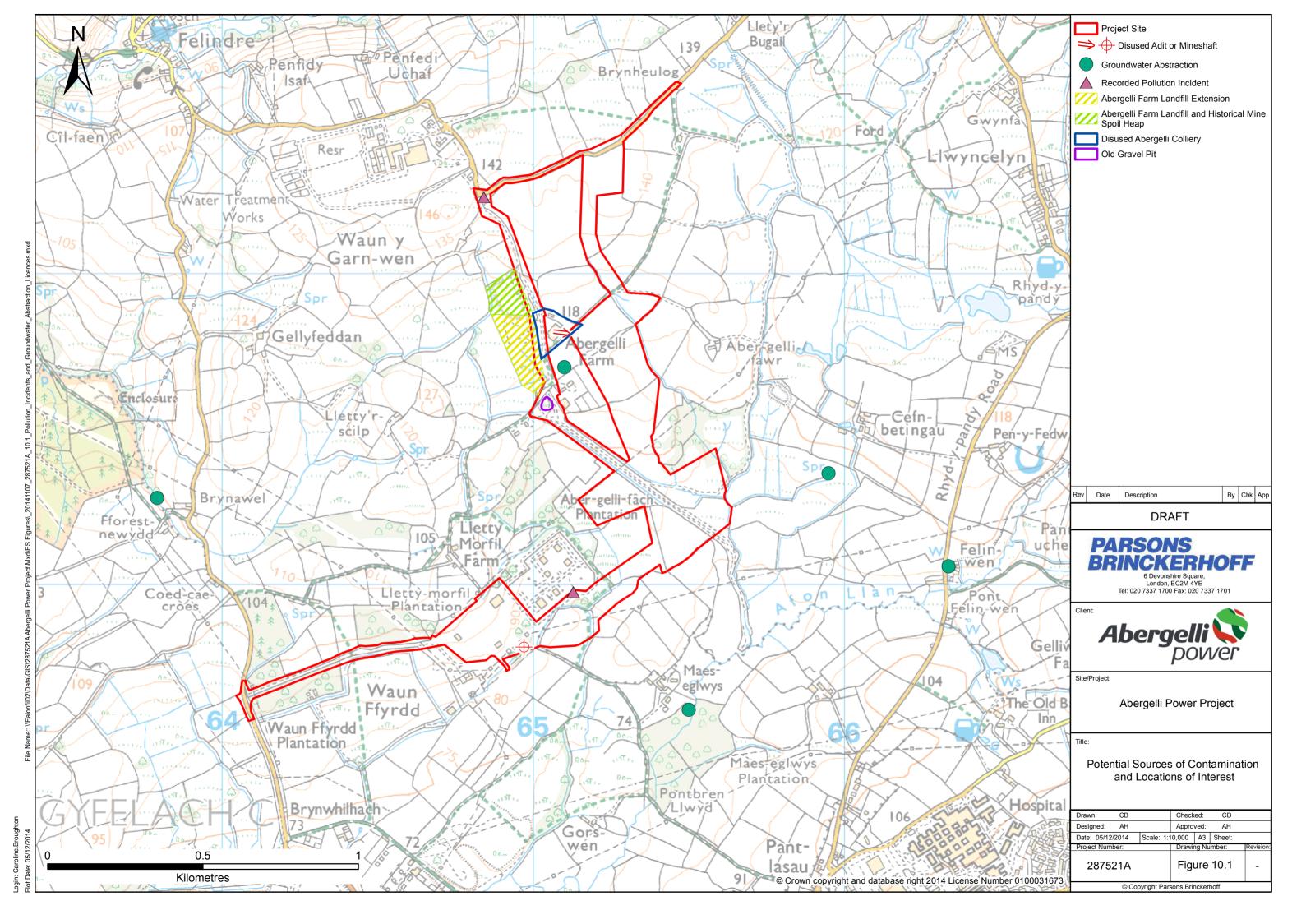






**FIGURES** 







APPENDIX A

**GROUNDSURE REPORTS** 



APPENDIX B

**BGS BOREHOLE LOG** 

British Ge

#### **BOREHOLE RECORD**

BOREHOLE NUMBER P4

S Wales Sand and Gravel Assessment Contract:

Aber-gelli-fach Farm Locality: SN 65200160 Grid Ref:

Client: **Drilling Contractor:** 

Welsh Office and Dept of Environment **Exploration Associates** 

Ground Level:

Drilling Method: Shell and Auger 200 mm

113 m SNOOSE 21 Date Commenced 07:10:91

	GL	WATER LEVEL	DEPTH (M)	THICKNESS (M)	SAM	PLES TO	REF NO	DESCRIPTION	LEGEND
	— t	British Ge	<b>0.3</b> al	urve <b>0.3</b>				Brown sandy clayey TOPSOIL	XXXXX
	1							Firm yellow brown sandy very gravelly CLAY with occasional cobbles	
British Geold	<b>2</b> Jica Sun	ey					British Ge	ological Survey British Geological Survey	
	3								10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	_4	3ritish Ge	ological (	6.1 Jurvey				British Geological Survey Brit	
	5								
British Geolo	ical Surv	ey ,					British Go	eological Survey British Geological Survey	
	7		6.4	0.1	6.4 6.5	6.5 7.4	P4/01 P4/02	Grey brown very clayey pebbly fine SAND	
	8	ritish Ge	ogical t	1.5 Strvey	7.4	8.4	P4/03	Grey brown very clayey fine SAND	SCHOOL
	9			1.7	8.4	9.7	P4/04	Grey brown clayey gravelly SAND	
iritish Geolo	og cal Surv	el/	9.7				British Ge	eological Survey British Geological Survey  Grey brown clayey SAND	
	10	$\vdash$			1	1		City diown daysy date	**************************************
		,	V WA	TER STE	IKE		<b>▼</b> WA	ATER LEVEL ENGINEER NCH	

British Geo

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Drilling Contractor : Exploration Associates
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Grid Ref: SN 65200160

**Ground Level** 113 m Date Commenced 07:10:91

SN60SE 2

	GL	WATER LEVEL	DEPTH (M)	THICKNESS (M)	SAM	IPLES TO	REF NO	DESCRIPTION	LEGEND
¥		iritish Geo	logical S 10.7	urvey <b>1.0</b>				British Geological Survey Britis	Geological Survey
	_11				10.7	11.7	P4/05	Grey brown very clayey fine SAND. Trace of coal	
British Geolog	12 Ical Surv	У			12.0	13.0	P4/06	Iogray brown very clayey fine SAND  British Geological Survey	
•	<u>1</u> 3			3.3	13.0	14.0	P4/07	grading into  Grey brown sandy CLAY	
	14	eritish Ged	14.0	nev .	14.0	15.0	P4/08	British Geological Survey  Grey brown clayey fine SAND	<b>454 433</b> 443 144 1 <b>4</b> 424 14
	<u>1</u> 5		15.1	1.1					
British Geolog	ical Surv 16		15.8	0.7			British Geo		*****
			16.8	1.0				Firm yellow CLAY becoming stiff grey gravelly CLAY (possible BOULDER CLAY)	
	<u>1</u> 7							End of hole	
	18	Buitish Geo	ogical S	uvey				British Geological Survey British	Geological Survey
	19								
British Geolog		e					ritish Geo	ogical Survey British Geological Survey	
	20	▼ WATER STRIKE ▼ WATER LEVEL ENGINEER NCH							



APPENDIX C

COAL AUTHORITY MINING REPORT - see ES Appendix 10.4



APPENDIX D

LANDFILL WORKING PLAN RECORDS FROM NRW







# Proposed Inert Landfill, Abergelli Farm, Felindre



**WORKING PLAN** 

Mr. W.B. Llewellyn, Aberfelli Fach Farm, Felindre, Swansea West Glam 17 March, 1994

099

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#### INTRODUCTION

This statement forms part of the outline working/operational plan, relating to proposed landfilling operations at Abergelli Farm, Felindre, Swansea. The various other details referenced within this operational statement are contained in the appendices to this Statement.

The licence application relates to approximately 1.9 ha of land located adjacent to Abergelli Farm, near the village of Felindre, Swansea. The location of the site is indicated in the Ordnance Survey extract at Figure 1. The land is generally low-lying and in its lowermost parts is poorly drained, with gentle cross-falls. Approximately three quarters of the site was at one time covered by a mine spoil dump from the nearby Abergelli Colliery. The mine waste has now been removed leaving a layer of well compacted mine waste over the majority of the site. The area of ground currently covered by mine spoil has been used for the drying out of water treatment (aluminium sulphate) sludges though with the development of the landfill this operation will cease.

It is proposed to import inert, "Category A" waste material, and deposit it on the site, in the manner indicated in the accompanying plans and sections. The proposed after use is agricultural with phased restoration returning the landfill area to grazing land.

Planning permission for the proposed tipping operations is currently being determined. Planning Permission documents will be forwarded to the Disposal Authority when permission has been granted.

The site approaches overhead electricity services but sufficient stand-off has been allowed to comply with SWALEC's conditions. No other services cross the site.

## **1** INFRASTRUCTURE

#### 2.1 Site Access

Access to the site will be via an unclassified road leading northwards from Llangafelach to the village of Felindre. Approximately 2km north of the junction of the unclassified road with the A48 the site road bears off to the east. The site road which measures 1.4km will be an upgrade of the existing access track to Abergelli Fach Farm. The site road is to be surfaced with tarmacadam for its entire length and single track incorporates passing places at 100m intervals. Further details on the nature and design of the access road can be found at Appendix I.

#### 2.2 Fencing

The landfill site does not have a boundary that is common with any public access area, the site lying entirely within the land holding of Abergelli Fach Farm. However, in recognising that vehicles can gain relatively easy access to the landfill, it is proposed to construct a 1.2m agricultural 'pigwire' type fence along the landfill's boundary with the access road. The fence will be topped with a double strand of plain wire, and will extend over the length shown on the attached plan (Figure 5).

#### 2.3 Gates

The existing access road passes through landfilling area and continues to meet the Felindre to Tyronnen Road. At the junction of the site access road with the public highway, the entrance gate will be permanently locked. In order that security can be maintained if this gate were to be secondvented by travelling through Welsh Water Authority Plant, a new security gate will be installed at the Felindre side of the site to form a secure boundary when the gate is closed against the existing hedgeline and fenceline (Figure 5). With alternative access to the landfill closed, all vehicles will have to pass Abergelli Fach Farm and from there travel to the site control office. Beside the site control office, a lockable gate will be installed to provide out of hours security. The gates will be traditional five bar agricultural gates, fabricated from galvanised steel. When the site is not manned, all gates will be padlocked.

#### 2.4 Car Parking

An area immediately adjacent to the gatehouse will be surfaced with hardcore and reserved for visitor and operator parking. Two spaces will be provided and these will be indicated to by appropriate signs.

#### 2.5 Gatehouse

A gatehouse comprising a portacabin type building will be situated adjacent to the access track close to the site entrance, so that incoming and outgoing vehicles can be controlled. There will be no facilities at the gatehouse other than portable (gas) lighting and heating, as comfort facilities are available at Abergelli Fach Farm. A first aid box will be clearly identified in the cabin.

#### 2.6 Site Notice

The site notice board will be situated immediately adjacent to the site gate. It will display the following information:-

Name of Facility
Categories of Acceptable Wastes
Name, Address and Telephone number of site operator

Emergency Telephone number of site operator

Hours of Operation

Name, Address and Telephone number of Waste

Regulatory Authority

#### 2.7 Hardstanding

An area of hardstanding will be provided for lorries to turn and queue at the position shown on the Operational Plans (Figure 5).

#### 2.8 Lorry Parking

An area of hardstanding will be provided for lorry parking, immediately adjacent to the gatehouse.

#### 2.9 Haul Roads

Haul roads will be constructed during tipping operations by selectively using free draining materials delivered to the site. The site roads will be maintained to a standard to prevent vehicle bogging and to ensure access to the tipping face under all weather conditions. The site roads will be inspected during each working day, to ensure their operational standard. The Phase I haul road will be ripped up and incorporated into the Phase II wastes immediately prior to Phase I restoration. With progressive restoration envisaged, Phase I restoration will be completed prior to Phase II tipping completion.

#### 2.10 Wheelwashing Facilities

The use of properly designed site haul roads should minimise the requirement for wheelwashing. However, a portable jet wash system will be kept on site so that any vehicles that require cleaning prior to using the 1.4km site access road can be washed down. Waste water arising from the wheel cleaning operation will be picked up in the perimeter drain and taken along this for settlement prior to discharge.

#### 2.11 Compactor/Grader Parking

When not in use the dozer will be parked in the designated lorry parking area.

## 2 LANDFILLING OPERATIONS

#### 3.1 <u>Preparation Works</u>

Prior to landfilling the site access and waste reception facilities will be provided, as shown on the Operational Plans (Figure 5) and the site will be enclosed within a security fence. In accordance with the good surface water management practice, settling lagoons will be constructed at the locations shown on the Phase I diagram.

#### 3.2 Phasing

The site will operate as a phased landfill, with each phase running concurrently with the restoration of the previous phase. The site has been divided into three phases which each phase being bounded by permanent or temporary drainage ditches.

#### 3.3 Void Space

The void space of the site has been calculated by integrating the existing ground surface (Figure 2) and the restoration surface (Figure 3). The void space of the site is summarised below:-

Total Void	75,000m³	Total Tonnage	142,500t
Phase 1 Void	16,600m³	Phase 1 Tonnage	31,540t
Phase 2 Void	33,300m ³	Phase 2 Tonnage	63,270t
Phase 3 Void	25,100m ³	Phase 3 Tonnage	47,690t

#### 3.4 Acceptable Wastes

The site will accept only Category A wastes, as designated by the South West Wales Waste Management Group Classification.

#### 3.5 Phase 1

Phase 1 operations will commence with the excavation of a perimeter drain and temporary drain which will contain all waters arising from operations within Phase 1. Both drains will discharge into a settling lagoon before final discharge into the existing drainage ditch. Preparation works will comprise the removal of any sludge wastes that are currently drying out to expose a formation of either compact colliery shale or peat.

Tipping operations will commence with the construction of the access road, formed of selected hardcore. The tipping face, which will achieve a maximum height of approximately 4m will be bladed out with a small dozer to maintain a gradient of 1 in 3 or less. During the tipping operations imported topsoil will be selectively deposited against the access road to await final spreading over the completed phase. The tipping face will advance downslope.

#### 3.6 Phase 2

Phase 2 operations will commence with the excavation of a temporary drain which will trap surface water runoff from the operational phase. The phase will be bounded by two temporary drains with the one bounding Phase 1 progressively overtipped as the tipping face advances. Both drains will continue to discharge to settling tagoons. The site haul road will be moved to provide easy access for Phase 2 and like Phase 1 the tipping face will advance downslope. During the operational phase, topsoil will be selectively stored

adjacent to the main site road used during the progressive restoration of Phase 2. Whilst Phase 2 is being actively tipped, Phase 1 will be regraded to final profile and restored.

#### 3.7 Phase 3

The infilling of Phase 3 completes the site operations. Access to the area will be made by a diverted haul road as shown on Figure 5. Operations will commence with the excavation of a perimeter surface water drain so that the phase is completely encircled by drainage ditches discharging to settling lagoons. The tipping face will advance downhill as it does for Phase 1 and 2. During the tipping operations existing ditches will be overtipped but dirty water arising from these operations will be settled out in the lagoon.

#### 3.8 Restoration Phase

When the importation of Category A materials is complete, the phase will be restored and the site will be decommissioned, having changed virtually unuseable marshy area into suitable agricultural land.

#### 3.9 <u>Tipping Operations</u>

Vehicles depositing wastes at the site will pass through the reception area and travel along the site roads to the tipping face. They will back up toward the tipping face under the direction of a member of site staff. When the vehicle has discharged its load and left the face area the wastes will be pushed over with a small dozer. The tipping face will have an angle no steeper than 1:3, which is the maximum practical gradient for dozer operations.

## WASTE RECEPTION PROCEDURES

#### 4.1 Entry to Site

The site entrance will be securely locked outside normal opening hours. During opening hours vehicles will enter the site by the only entrance and immediately report to the site office, which is located adjacent to the entrance and site identification board (Figure 5).

#### 4.2 Hours of Operation

The landfill will be operational between 08.30 and 16.30 during weekdays, and between 08.30 and 13.30 during Saturday. There will be no Sunday working.

#### 4.3 Daily Input

A daily maximum of 35 vehicle movements is anticipated depositing a daily maximum of 490 tonnes (272m³ per day). This amounts to 1 tipping cycle per 14 minutes. A normal

days operation is likely to involve 10 vehicle movements depositing 140 tonnes (78m³) of wastes, with a turnaround time of 45 minutes.

#### 4.4 Inspection

All site users will be aware of the acceptable wastes having read the site identification board. Despite this the site supervisor will make a visual inspection of loads entering the site to see that the wastes fall within the licensed waste category.

#### 4.5 Deposition of Wastes

When the wastes are confirmed to be acceptable by the visual inspection the details of the waste consignment will be recorded in the site diary. This will log the following details:-

- i) Transferring Company/Organisation
- ii) Vehicle Registration
- iii) General Origin of Wastes
- iv) Date and Time of Delivery
- v) Volume/Tonnage of Waste
- vi) Drivers Signature

Copies of transfer notes raised by the depositing organisation will also be kept.

#### 4.6 3 Monthly Returns

At 3 monthly intervals the licensing authority will be supplied with void use returns. An equivalent tonnage will also be supplied. The returns can be 'audited' annually by land survey if required.

#### 4.7 Unacceptable Wastes

In the event that a consignment of waste arrives which contains or is composed of wastes outside the licensed category the load will be refused entry to the site. The location of nearby sites which can accept other categories of waste will be kept on record at the site office to assist the driver of the rejected load.

## 4.8 <u>Identification of Unacceptable Wastes at the Tipping</u> <u>Face</u>

Should unacceptable wastes pass through the checking-in system their composition will be clearly identifiable at the tipping face. The site supervisor will collect the wastes and load them into an appropriate receptacle for transport to a suitably licensed facility. The WRA will be informed of all such events and they will be recorded in the site diary.

# THE CONTROL OF MUD, DUST AND WATER

#### 5.1 Mud

A daily inspection will be made to evaluate the need for wheel washing. If mud is picked up from the tipping face and has not been shaken off within the site (early stages of Phase I and 2) wheelwashing facilities will be used. The decision on wheelwashing will be made daily by the site operator.

If mud has been deposited on the public highway the site operator will ensure a road sweeper is used to remove all traces.

#### 5.2 <u>Dust</u>

In very dry weather certain inert wastes generate significant amounts of dust when being tipped and bladed. Under these circumstances water suppression will be used to keep dust levels down. The water will be provided by bowser brought to the tipping face for damping down. Site roads will be sprayed at regular intervals to suppress dust.

#### 5.3 Surface Water Control

Surface water will be controlled by the provision of perimeter drains and temporary internal drains. The perimeter will be retained to take direct surface runoff from the restored landfill.

# <u>MANNING</u>

The site will be manned by three employees of the licence holder during is opening hours. The three members of staff will have the following responsibilities:-

#### 6.1 Site Supervisor

Daily inspection of infrastructure Routine maintenance of plant and equipment Load Inspections Liaison with WRA Inspection of Mud and Dust suppression Water Quality Monitoring

#### 6.2 Machine Driver/Banksman

Directing lorries at the tipping face Maintaining face and site road in usable condition General maintenance

#### 6.3 Records Clerk

Recording of waste input and transfer note filing Liasion with Waste Regulation Authority

#### 6.4 <u>Licence Holder</u>

Overall co-ordination of disposal activities

#### 6.5 Out of Hours Manning

The licence applicant lives at Abergelli Fach Farm which lies immediately adjacent to the site. The supervisor will be at hand to deal with any out of hours emergency. The telephone number displayed on the Site Identification Board will be the telephone number of Abergelli Fach Farm.

# **MONITORING**

The only routine monitoring envisaged at the site will be surface water quality monitoring.

#### 7.1 Surface Water Monitoring

The surface water settling lagoon outfall to be constructed will be formed so as to allow surface water sampling. The sampling routine will comprise suspended solids monitoring only, initially at 2 monthly intervals. Analytical results will be forwarded to the WRA when available.

# **RESTORATION**

Progressive restoration will ensure that only a single phase is operational at any one time. Selected topsoil, stockpiled at the edge of each phase will be pulled over the profiled wastes to a depth of 150mm as the tipping face progresses. Before topsoiling the wastes will be compacted to give an even surface profile.

When placed to the appropriate level the topsoil will be fertilised and seeded, following guidelines published by the Countryside Commission.

#### Typical Restoration Seeding Plan

Meadow Grass	30%
Fesce	40%
White Clover	15%
Ryegrass	15%

Sown at a density of 80 kg/ha

The restored landfill is slightly domed to allow surface water runoff into the perimeter drains and drainage ditches (Figure 3). The landfill will be used for general agricultural purposes.

•	
	APPENDIX 1 - SITE ACCESS ROAD DETAILS

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# TOWN AND COUNTRY PLANNING ACT 1990 APPLICATION FOR PLANNING PERMISSION

APPLICATION BY:

Hr W B Llewellyn for land-fill tipping at Abergelli Fach Farm, Felindre, Swansea

# ACCESS ROUTE PROPOSALS

Our Ref: CN/ELN/92/108 CARLISLE, DAVIES & NORTH Local Planning Authority Ref: 2/2/93/0231/03 DECEMBER 1993

- 1. Access to the application site is to be derived via the existing private access road, from the public highway near "Coed-cae-croes", as indicated on the 1:10000 scale O.S extract which accompanied the original planning application. The route is shown in greater detail, in the 1:2500 scale plan attached to this statement at Appendix 1.
- 2. The existing road currently serves as the principal means of access to Penywaun Fach Cottage and to Lletty'r Morfil Farm, and is a secondary access to Abergelli Fach Farm.

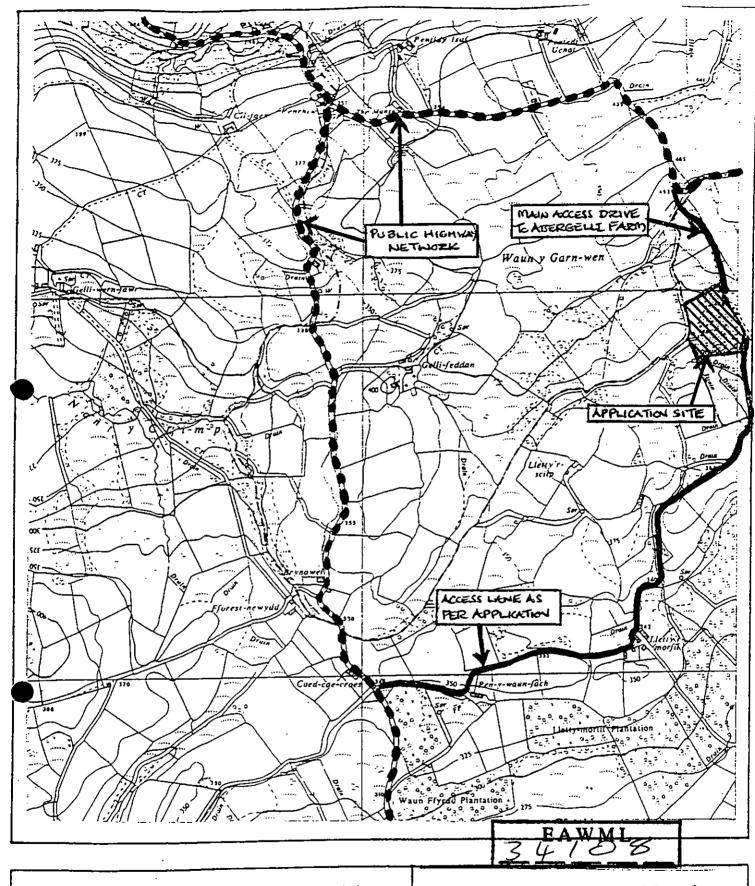
  The road was, in fact, the main access to the former Abergelli Colliery, the surface area of which was located on and adjacent to the present application site. In its heyday, the colliery access road daily carried coallorries and buses transporting miners to and from work.

  In recognition of its usage, the road was constructed with a substantial sub-base of well-compacted, graded stone and hardcore.
- 3. From its junction with the public highway to the Lletty'r Morfil farm-yard, the general condition of the existing road remains excellent. For part of its length beyond Lletty'r Morfil, its condition has deteriorated in more recent times, due mainly to the fact that it has been little used and, thus, only infrequently maintained. The vast bulk of the sub-base, however, remains, and it is proposed to utilise this along the complete length of the access, in conjunction with works of repair and improvement, to provide the access route for the application site.

- It is proposed, in the first instance, to clean the surface of the existing road for the whole of its length, and this will include, where necessary, the blading of extraneous material, to create a clean surface and expose the top layer of the existing sub-base. All irregularities in the existing road, in terms of its surface condition, carriageway width, etc., will be made good by filling and levelling with imported stone and hardcore. Existing road-side ditches and culverts passing alongside or under the roadway will be cleaned, checked and repaired as necessary, to maintain the existing storm-water regime.
- 5. The developer's original intention had been to then surface the complete route in concrete or hard bituminous material, laid to suitable falls, to direct surface-water run-off to the existing drainage channels. He is still prepared to do this if the local planning authority requires it. In any event, it is still proposed that the first 240 metres of the route (between points A and B on the plan), should be constructed in this way, and that the proposed diverted length of roadway in the vicinity of Lletty'r Morfil (between points C and D) should be similarly constructed. A typical cross-section is illustrated in Appendix 2 herewith.

- 6. However, as an alternative option, it is suggested that for the remaining lengths of the route (B to C, and D to E), a suitable road-surface can be provided by topping with a 100 mm blinding layer of graded stone/dust, as shown in the typical sections at Appendix 3. This method of construction may well be considered to be more acceptable and also, of course, would be self-draining.
- 7. It is also proposed to provide purpose-built passing bays at various locations along the route, as illustrated in the plan at Appendix 1. The positions indicated have been selected so as to avoid any necessity for tree-removal and are, for the most part, in situations where they can be accommodated within verge areas, so that excessive intrusion into adjacent land is avoided. There are other locations along the route where additional bays can be constructed, if it should be considered necessary. The bays will, of course, be constructed to the same specification as the carriageway.
- 8. Where any drainage channels pass under the route, or the bays, they will be piped in accordance with the details shown at Appendix 4 to this statement. As indicated above, existing open channels will be initially cleaned out and thereafter maintained in functionable condition.

9. It is not considered that any trees need to be lost, in using the route shown. The length of new road that will provide the diversion by-passing the Lletty'r Morfil farmyard (C to D), has been positioned so as to, firstly, facilitate a route between existing trees flanking the road to the north of the farm buildings and, secondly, to avoid the existing telegraph poles in field parcel number 6612 and give the necessary clearance under the overhead phone-wires.



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Dated: -21 /4/93

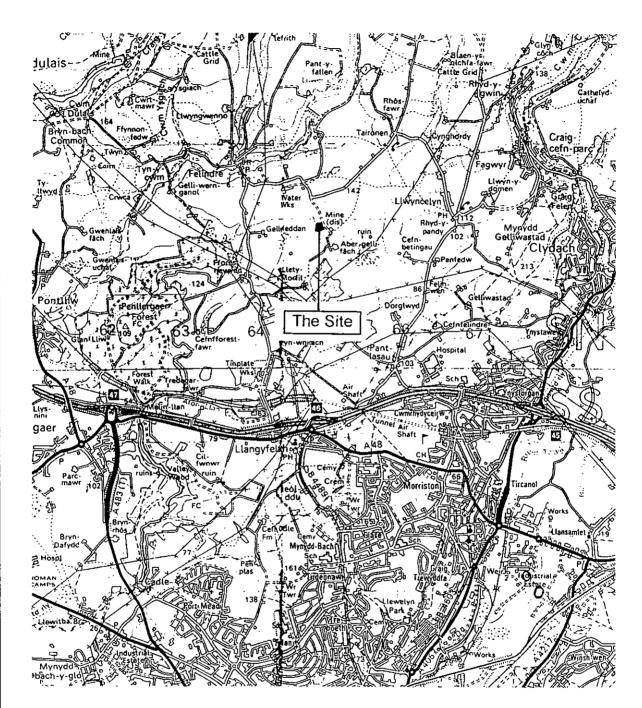
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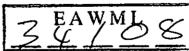
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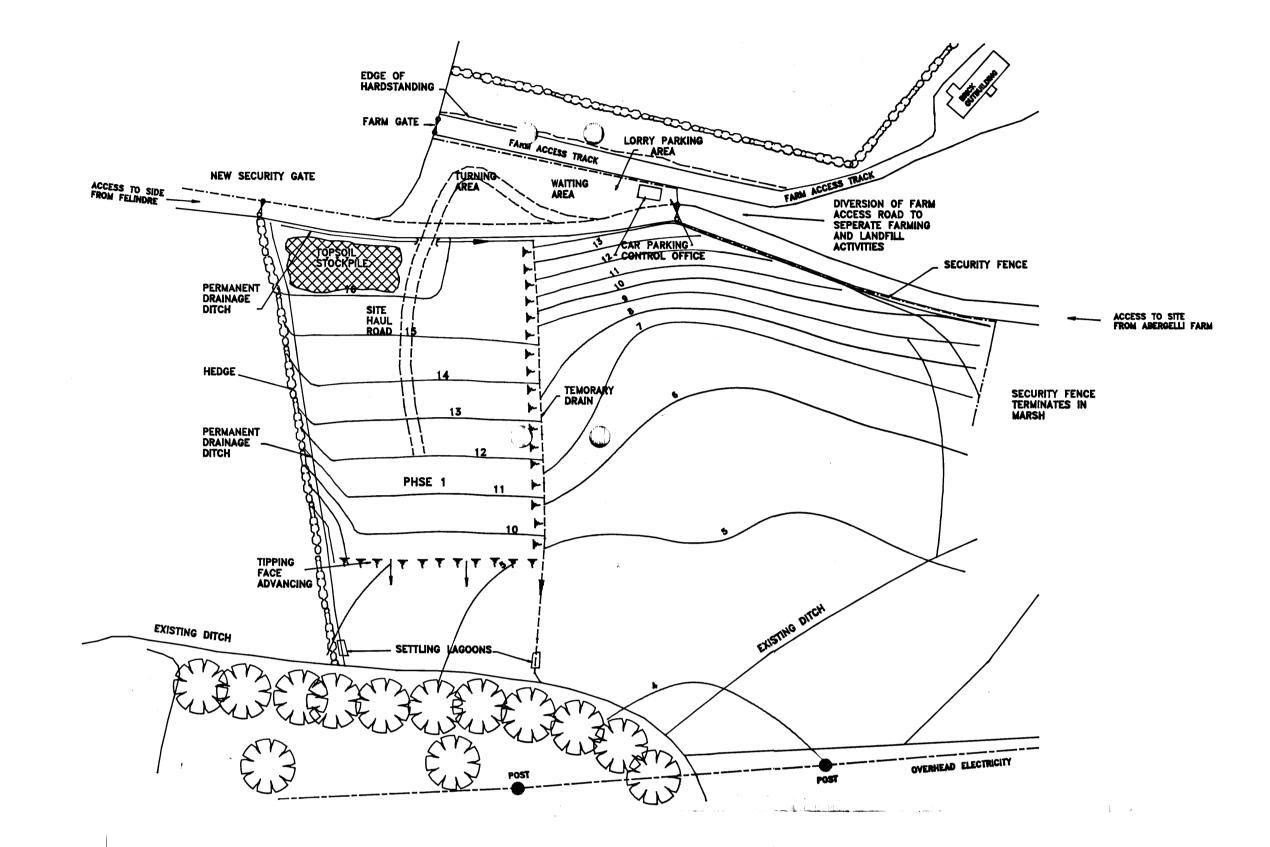
Access plan

Scale 1:10000

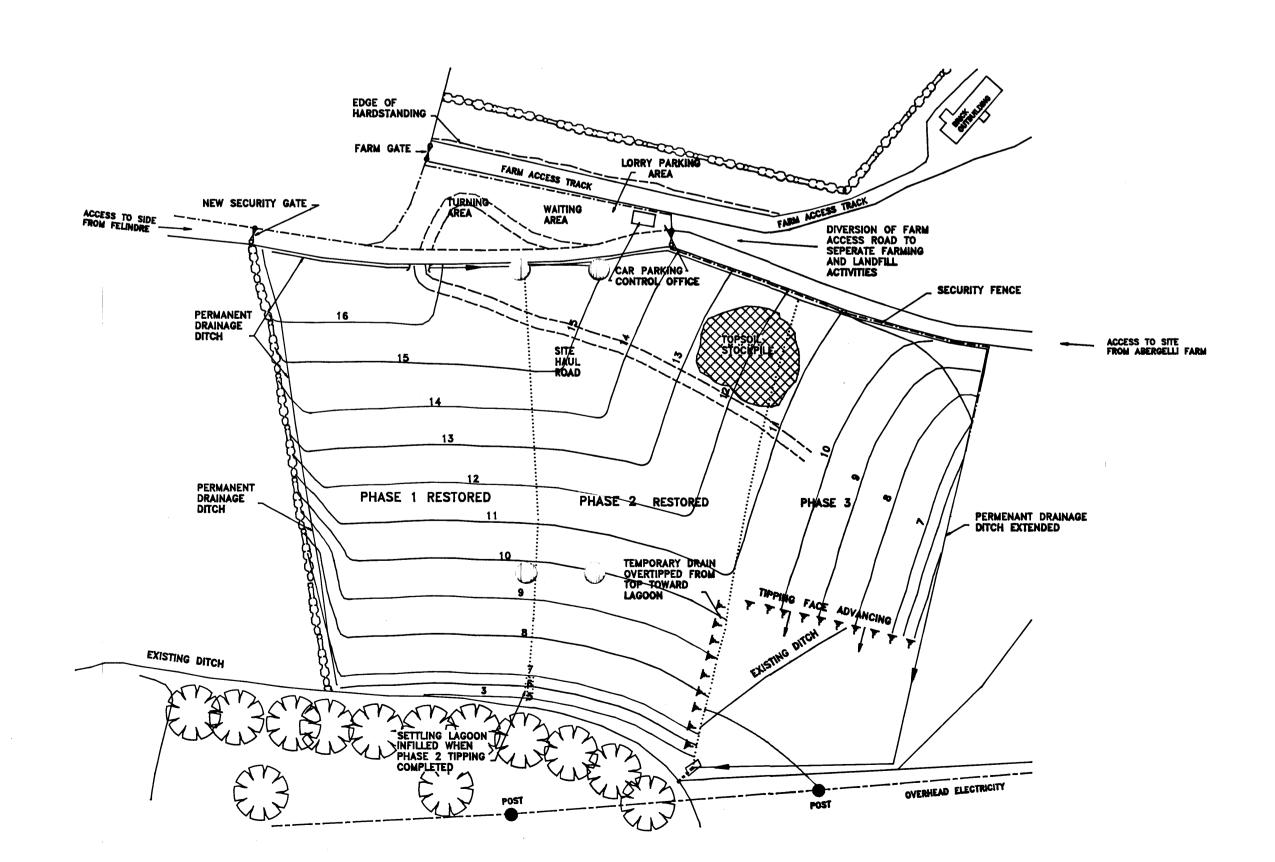




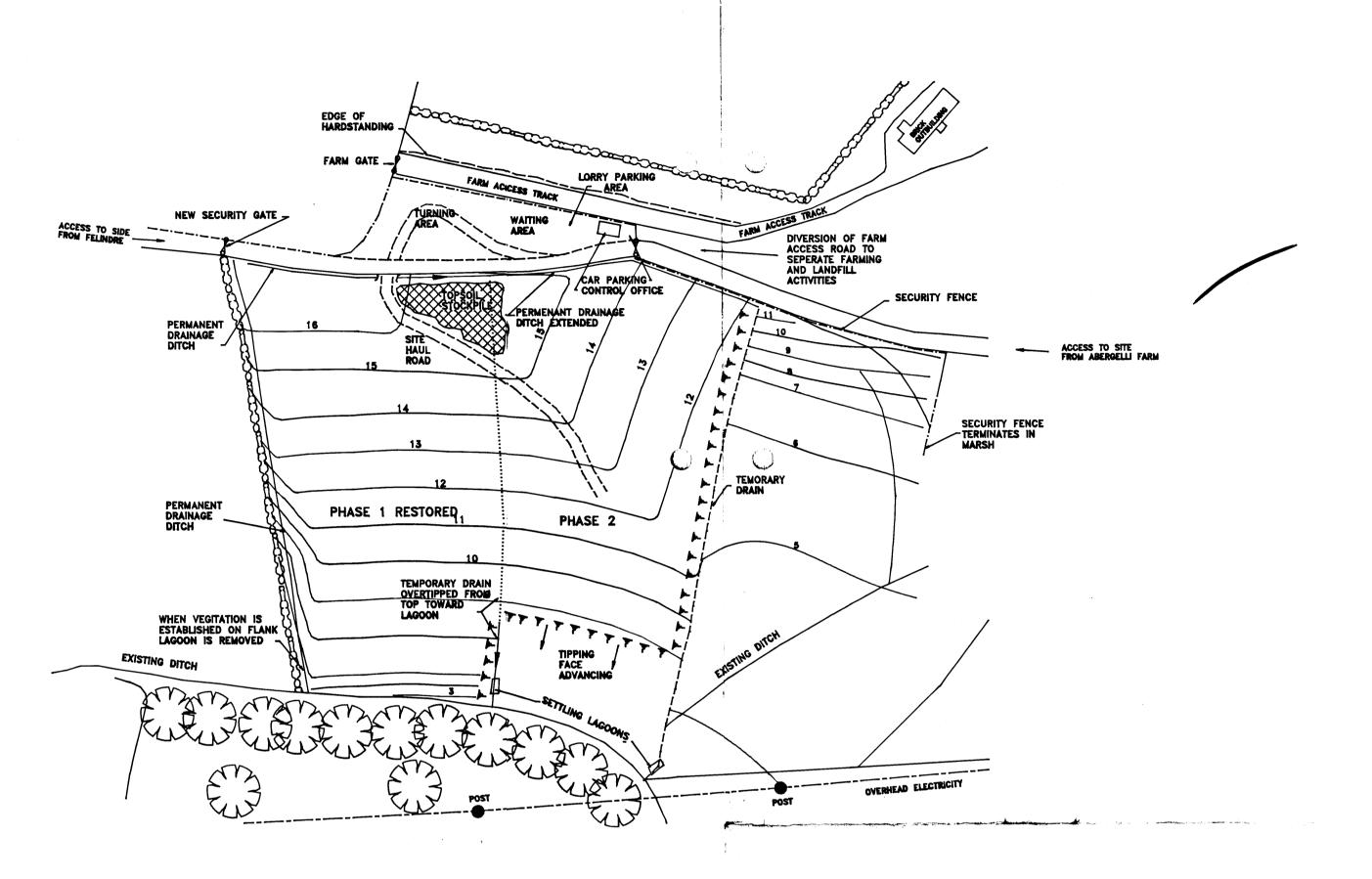
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PHASE 1

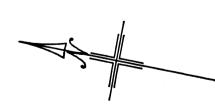


PHASE 3



PHASE 2

SCALE 1:1000





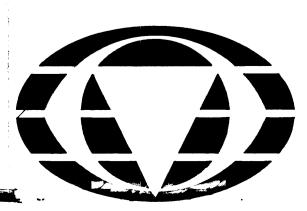
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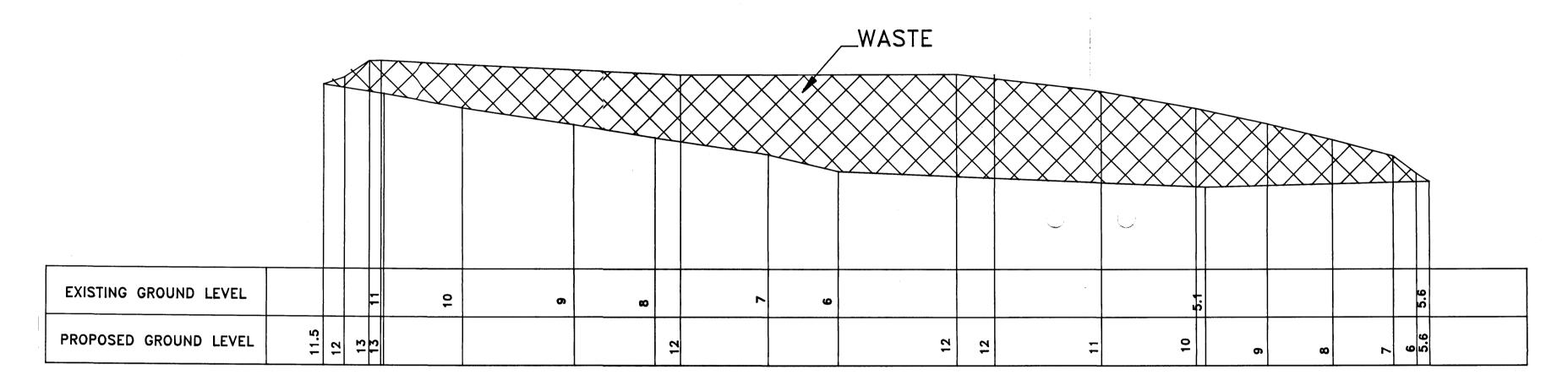
WORKING PLAN

PROPOSED LANDFILL, FELINDRE

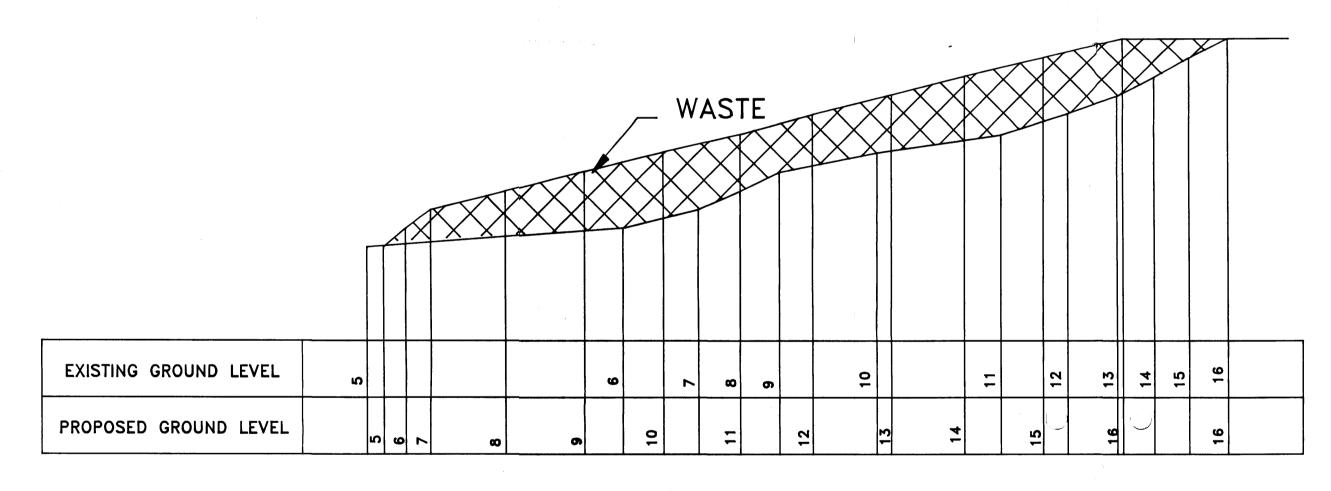
MR B LLEWELYN



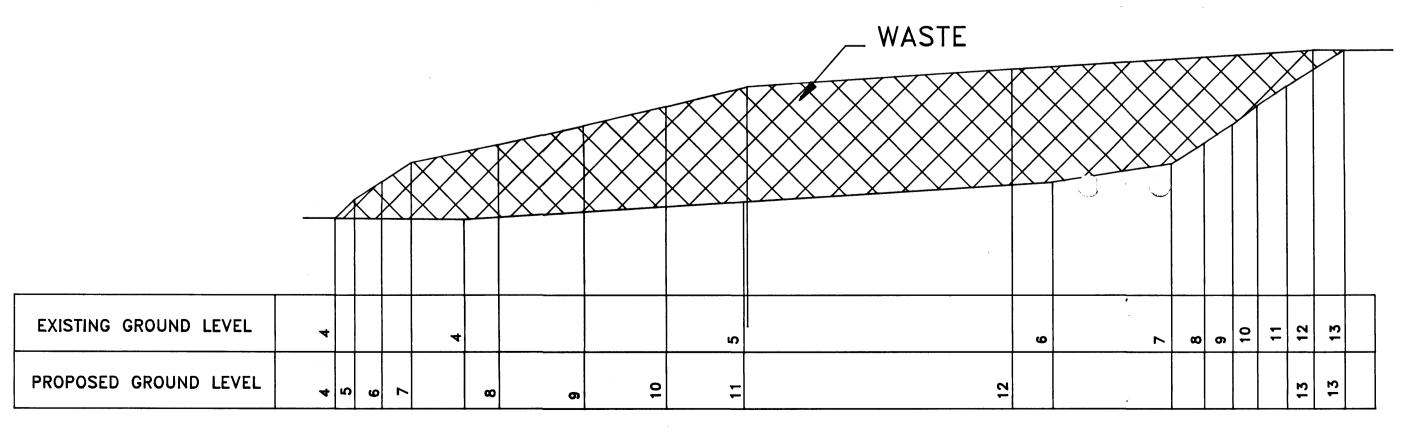




SECTION A:A



SECTION B:B



SECTION C:C

VERTICAL SCALE 1:200 HORIZONTAL SCALE 1:500



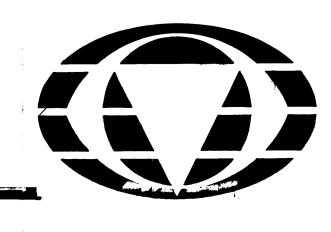
3 BAWML

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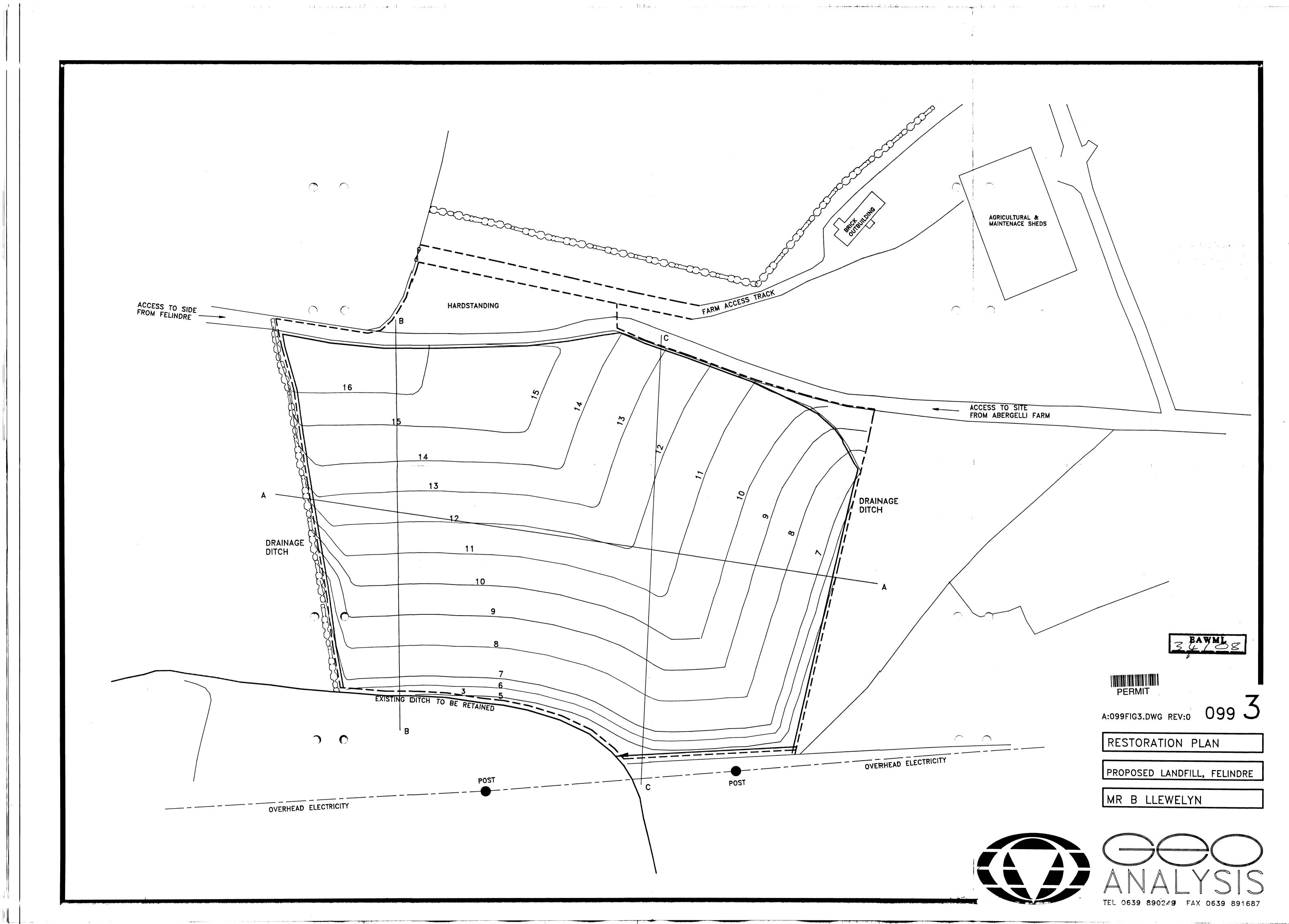
CROSS SECTIONS

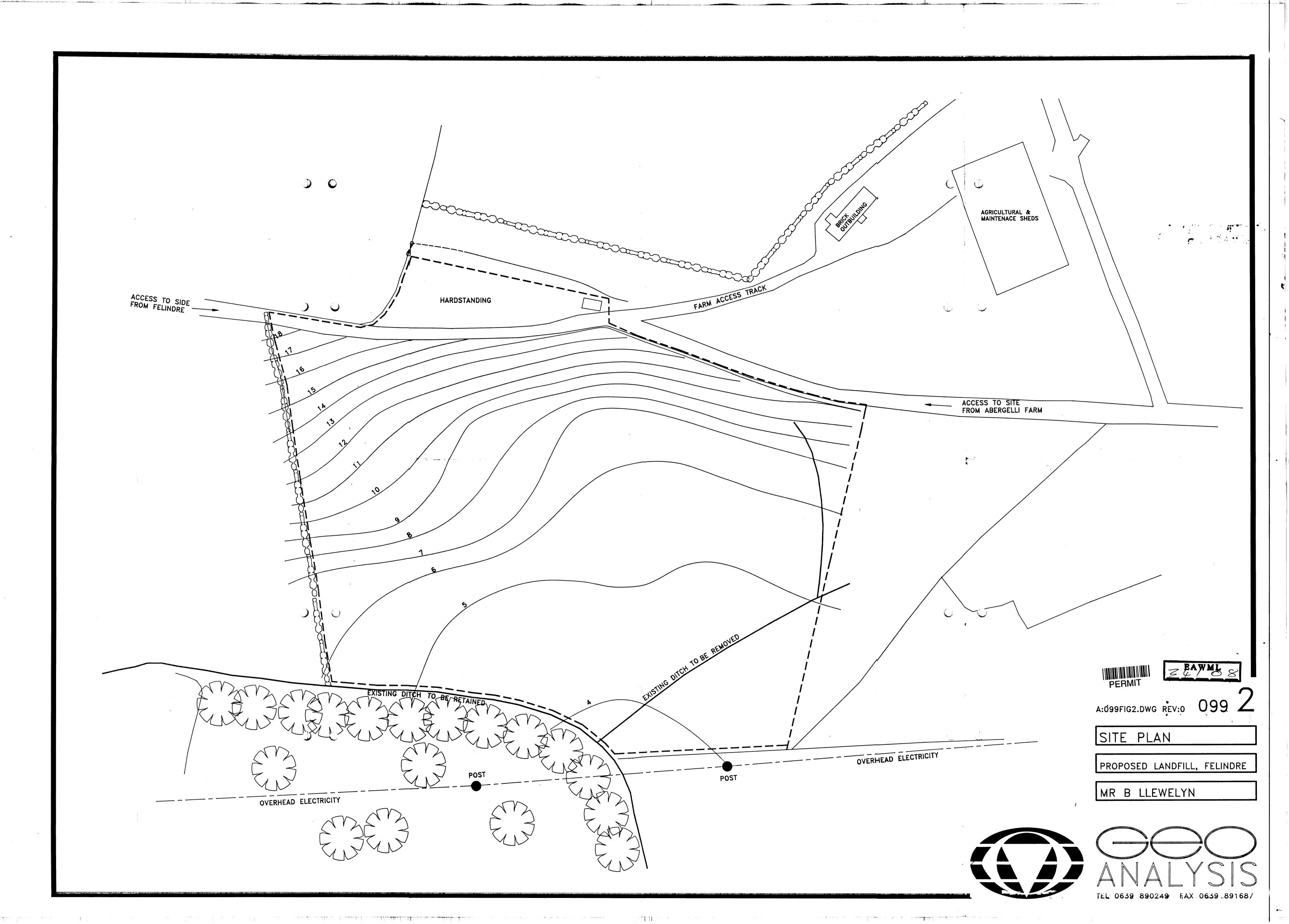
PROPOSED LANDFILL, FELINDRE

MR B LLEWELYN









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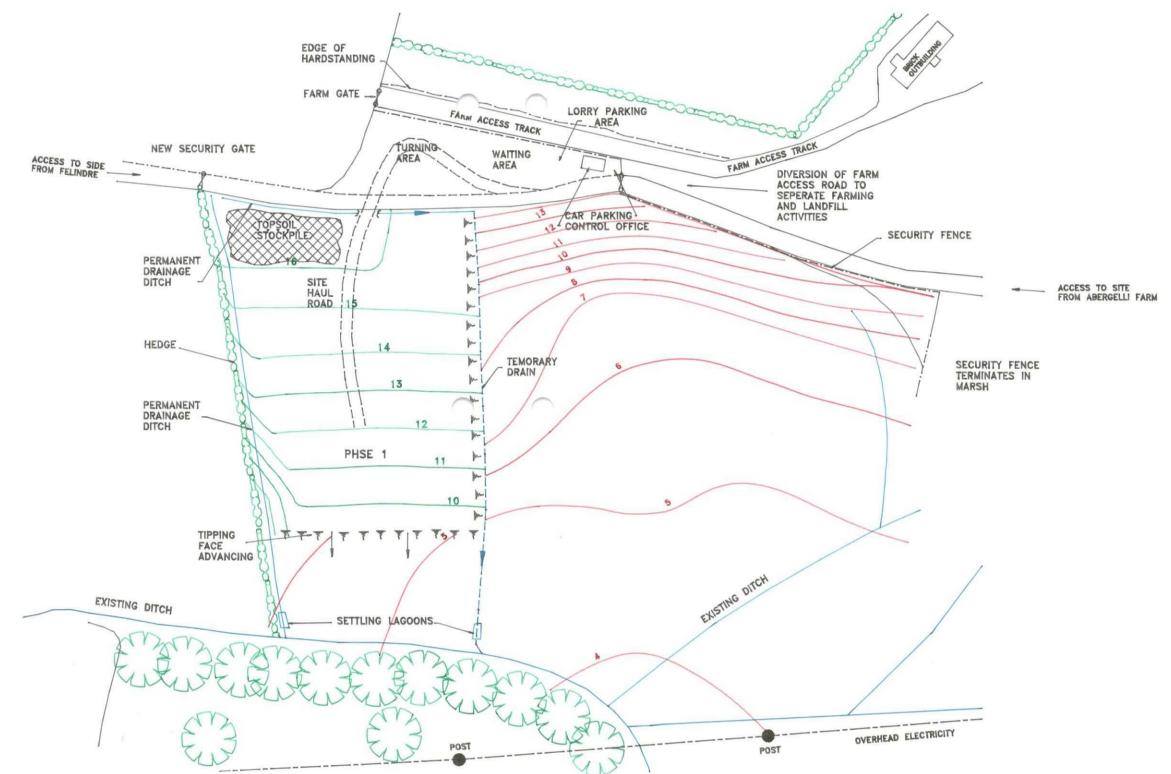
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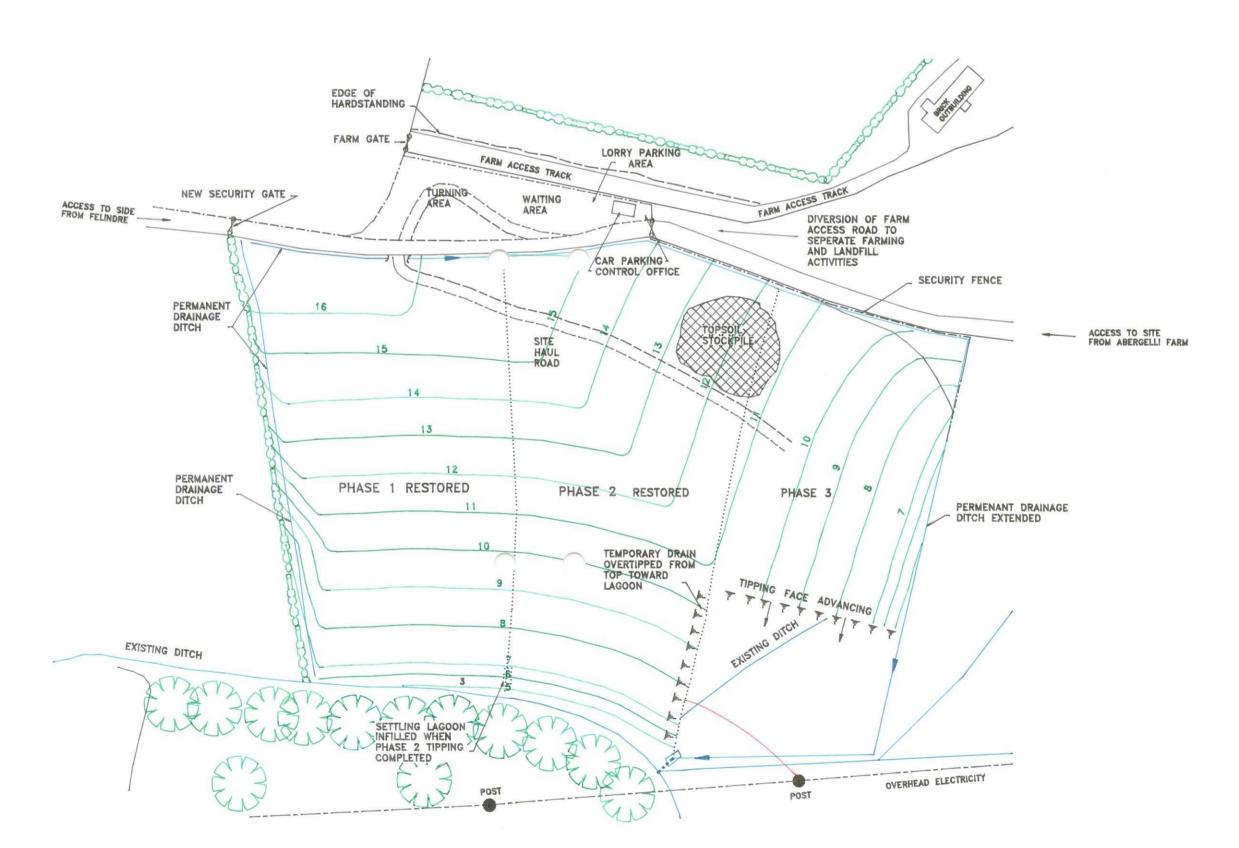
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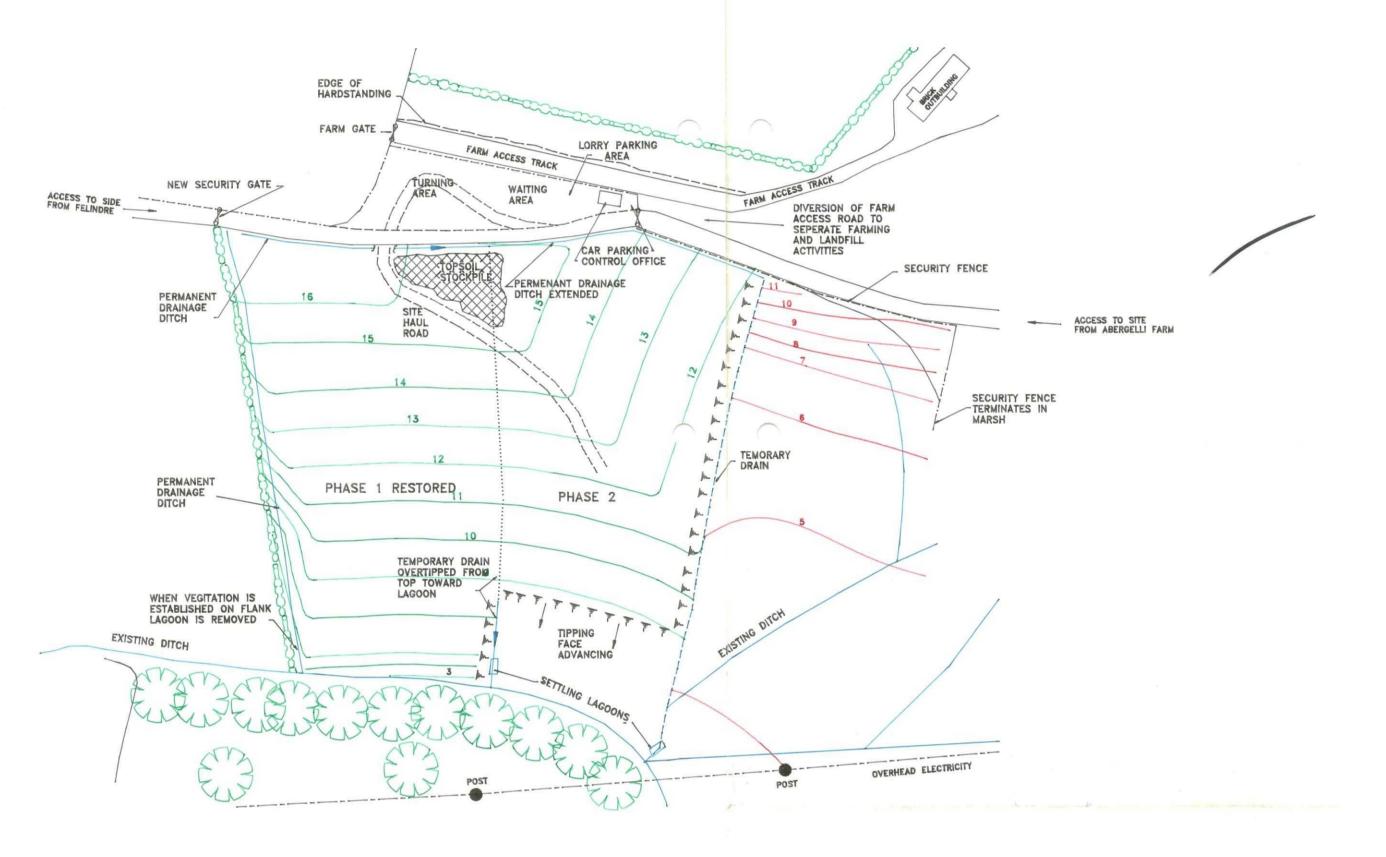
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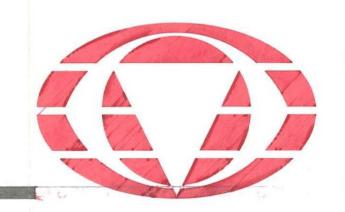
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WORKING PLAN

PROPOSED LANDFILL, FELINDRE

MR B LLEWELYN









# Abergelli Farm Landfill

WORKING PLAN Report Number 058.1/0/0298

Commissioned by
Mr. W.B. Llewellyn
Abergelli Fach Farm
Felindre
Swansea

Geotechnology
Ty Coed
Cefn-yr-Allt
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#### 1. INTRODUCTION

This statement forms part of the outline working/operational plan, relating to a proposed extension to current landfilling operations at Abergelli Farm, Felindre, Swansea. Various other details referenced to within this operational statement are contained in the appendices.

The licence application relates to approximately 1.4 ha of land located adjacent to Abergelli Farm, near the village of Felindre, Swansea. This is in addition to the current licensed landfill which covers an area of approximately 1.9 ha. The location of the site is indicated in the Ordnance Survey extract at Figure 1. The land is generally low-lying and in its lowermost parts is poorly drained, with gentle cross-falls. The extension area as with the current landfill is owned by Mr. W.B. Llewellyn.

It is proposed to import inert waste material, and deposit it on the proposed site extension indicated in the accompanying plans and sections. The proposed after use for the extension area is agricultural with phased restoration returning the landfill area to grazing land.

Planning permission for the proposed extension area was determined on 8th December, 1997 and a copy of the Planning Consent No. 97/1065 is included as Appendix 1.

The site approaches overhead electricity services but sufficient stand-off has been allowed to comply with SWALEC's conditions. No other services cross the site.

The proposed licenced area boundary is indicated as a red line on the site plan in Appendix 2.

# 2. INFRASTRUCTURE

#### 2.1 Site Access

Access to the site will be via an unclassified road leading northwards from Llangafelach to the village of Felindre. Approximately 2km north of the junction of the unclassified road with the A48 the site road bears off to the east. The site road which measures 1.4km is an upgrade of the existing access track to Abergelli Fach Farm. The site road is surfaced with asphalt along its entire length and incorporates passing places at 100m intervals.

# 2.2 Fencing

The extension area landfill site does not have a boundary that is common with any public access area, the site lying entirely within the land holding of Abergelli Fach Farm. However, as with the existing landfill, it is proposed to construct a 1.2m agricultural 'pigwire' type fence along the landfill's boundary with the access road. The fence will be topped with a double strand of plain wire, and will extend over the length shown on the attached plan (Figure 5).

#### 2.3 Gates

The existing access road passes through landfilling area and continues to meet the Felindre to Tyronnen Road. At the junction of the site access road with the public highway, the entrance gate as is now will be permanently locked. In order that security can be maintained if this gate were to be circumvented by travelling through the Welsh Water Authority Plant, the new security gate installed at the Felindre side of the site forms a secure boundary when the gate is closed against the existing hedgeline and fenceline (Figure 5). With alternative access to the landfill closed, all vehicles as now will have to pass Abergelli Fach Farm and from there travel to the site control office. Beside the site control office, the lockable gate will provide out of hours security. The gates are traditional five bar agricultural gates, fabricated from galvanised steel. When the site is not manned, all gates will be padlocked.

#### 2.4 Car Parking

An area immediately adjacent to the gatehouse is surfaced with hardcore and reserved for visitor and operator parking. Two spaces are provided and these will be indicated by appropriate signs. The existing car parking spaces will also be used by the extension area landfilling operation.

#### 2.5 Gatehouse

The current gatehouse comprising a portacabin type building which is situated adjacent to the access track close to the site entrance, will as with the existing landfill control vehicle movements. There are no facilities at the gatehouse other than portable (gas) lighting and heating, as comfort facilities are available at Abergelli Fach Farm. A first aid box is clearly identified in the cabin. These facilities will be used for the extension area.

# 2.6 Site Notice

The site notice board is be situated immediately adjacent to the site gate and displays the following information:-

- . Name of Facility
- Categories of Acceptable Wastes
- Name, Address and Telephone number of site operator
- Emergency Telephone number of site operator
- . Hours of Operation
- Name, Address and Telephone number of Waste
  - Regulatory Authority

# 2.7 Hardstanding

An area of hardstanding will be provided for lorries to turn and queue at the position shown on the Phasing Plans (Figure 5).

# 2.8 Lorry Parking

An area of hardstanding is already provided for long parking, immediately adjacent to the gatehouse.

# 2.9 Haul Roads

Haul roads will be constructed during tipping operations by selectively using free draining materials delivered to the site. The site roads will be maintained to a standard to prevent vehicle bogging and to ensure access to the tipping face under all weather conditions. The site roads will be inspected during each working day, to ensure their operational standard. The Phase I haul road will be ripped up and incorporated into the Phase II wastes immediately prior to Phase I restoration. With progressive restoration envisaged, Phase I restoration will be completed prior to Phase II tipping completion.

# 2.10 Wheelwashing Facilities

The use of properly designed site haul roads should minimise the requirement for wheelwashing. However, as per the existing landfill site practice a portable jet wash system will be kept on site so that any vehicles that require cleaning prior to using the 1.4km site access road can be washed down. Waste water arising from the wheel cleaning operation will be picked up in the perimeter drain and taken along this for settlement prior to discharge.

# 2.11 Compactor/Grader Parking

When not in use the dozer will be parked in the designated forry parking area.

# 2.12 Maintenance and Refuelling Facilities

All plant and machinery will be maintained and refuelled off site in the agricultural maintenance sheds nearby.

#### 3. LANDFILLING OPERATIONS

#### 3.1 Preparation Works

Prior to landfilling the site access and waste reception facilities will be provided, as shown on the Operational Plans (Figure 5) and the site will be enclosed within a security fence. In accordance with the good surface water management practice, settling lagoons will be constructed at the locations shown on the Phase I diagram.

# 3.2 Phasing

The site will operate as a phased landfill, with each phase running concurrently with the restoration of the previous phase. The site has been divided into two phases which each phase being bounded by permanent or temporary drainage ditches.

# 3.3 Void Space

The void space of the site has been calculated by integrating the existing ground surface (Figure 2) and the restoration surface (Figure 3). The void space of the site is summarised below:-

Total Void	99,898m [°]	Total Tonnage	179,816t
Phase 1 Void	49,909m ³	Phase 1 Tonnage	89,836t
Phase 2 Void	49,989m ³	Phase 2 Tonnage	89,980t

#### 3.4 <u>Acceptable Wastes</u>

The site will accept only inert wastes, as designated by the South West Wales Waste Management Group Classification. The site will not accept liquid wastes or wastes containing liquids.

#### 3.5 Waste Placement

Wastes will be deposited on the working layer close to the top edge of the working face, but no closer than 5m. The tip will have two layers, with each of these achieving a maximum height of 3m. Wastes deposited on the working layer will be bladed over the working face by site plant. Generally, the face will achieve a slope of no greater than 1:3.

#### 3.6 Phase 1

Once all operatives associated with the existing landfill are completed Phase 1 operations will commence with the excavation of a perimeter drain and temporary drain which will contain all waters arising from operations within Phase 1. Both drains will discharge into a temporary settling lagoon before final discharge into the existing drainage ditch. Preparation works will also involve the removal of in-

situ peat which will also be included into Phase 1. A total tonnage of 15,412t of peat will be incorporated.

Tipping operations will commence with the continuation of the haul road, formed of selected hardcore. The tipping face, which will achieve a maximum height of approximately 4m will be bladed out with a small dozer to maintain a gradient of 1 in 3 or less. During the tipping operations imported topsoil will be selectively deposited against the access road to await final spreading over the completed phase. The tipping face will advance downslope.

#### 3.7 Phase 2

Phase 2 operations will commence with the excavation of a temporary drain which will trap surface water runoff from the Phase 2 operation. The phase will be bounded by two temporary drains with the one bounding Phase 1 progressively overtipped as the tipping face advances. Both drains will continue to discharge to settling lagoons until the first phase lagoon is infilled. All discharges will then be diverted into the Phase 2 settling lagoon. The site haul road will be moved to provide easy access for Phase 2 and like Phase 1 the tipping face will advance downslope. During the operational phase, topsoil will be selectively stored adjacent to the main site road used during the progressive restoration of Phase 2. Whilst Phase 2 is being actively tipped, Phase 1 will be re-graded to final profile and restored. The infilling of Phase 2 completes the site operations.

#### 3.8 Restoration Phase

When the importation of inert materials is complete, the phase will be restored and the site will be decommissioned, having changed virtually unusable marshy area into suitable agricultural land. Provision will be made to ensure that as previously all run off from the restored landfill is diverted into the existing drainage ditches.

#### 3.9 Restoration Soils

Soils which are brought to the site for disposal but are deemed to be suitable to form a restoration topsoil will be spread directly onto the completed parts of the landfill. Should any surplus soils be delivered these will be stored on the most recently restored parts of the landfill to depths of no greater than 1m to avoid overcompaction. If it is anticipated that the soil stockpile will be in being for longer than 1 month it will be lightly compacted by tracking to reduce rainwater infiltration and saturation. It is not anticipated that peat would be stripped in advance of the landfilling to provide a topsoil.

#### 3.10 Tipping Operations

Vehicles depositing wastes at the site will pass through the current reception area and travel along the site roads to the tipping face. They will back up toward the tipping face under the direction of a member of site staff. When the vehicle has discharged its load and left the face area the wastes will be pushed over with a small dozer. The tipping face will have an angle no steeper than 1:3, which is the maximum practical gradient for dozer operations.

# 4. WASTE RECEPTION PROCEDURES

# 4.1 Entry to Site

The site entrance will be securely locked outside normal opening hours. During opening hours vehicles will enter the site by the only entrance and immediately report to the site office, which is located adjacent to the entrance and site identification board (Figure 5).

# 4.2 Hours of Operation

The landfill will be operational between 08.30 and 16.30 during weekdays, and between 08.30 and 13.30 during Saturday. There will be no Sunday working.

#### 4.3 Daily Input

As with the existing licensed landfill a daily maximum of 35 vehicle movements is anticipated depositing a daily maximum of 490 tonnes (257m³ per day). This amounts to 1 tipping cycle per 14 minutes. A normal days operation is likely to involve 10 vehicle movements depositing 140 tonnes (74m³) of wastes, with a turnaround time of 45 minutes.

#### 4.4 Inspection

All site users will be aware of the acceptable wastes having read the site identification board. Despite this the site supervisor will make a visual inspection of loads entering the site to see that the wastes fall within the licensed waste category.

#### 4.5 Unauthorised Wastes

It is possible that even with the most rigorous inspection system small amounts of waste materials falling outside the permissible categories will be deposited and subsequently identified at the working face. If these wastes are easily picked from the waste mass they will be removed by hand and loaded into a skip kept at the working face. The unauthorised waste skip will be removed to a suitably licenced landfill when full or at fortnightly intervals, whichever is the soonest.

Where the unauthorised wastes are disseminated throughout an incoming load, making hand picking too time consuming the entire load will be re-loaded onto the delivery wagon and sent to a suitably licenced landfill. The site record book will record these facts.

Where the unauthorised wastes has a particular potential for environmental harm, the following procedures will be followed:

- 1. Visually examine objects or materials.
- 2. Contact Waste Regulator for handling and disposal advice.

- 3. If the materials can be moved safely to secure storage don appropriate PPE for the substance or materials and transfer these from the waste mass into a secure container.
- 4. If the materials cannot be moved safely, isolate the area and act upon external agency (EA, Fire Service, HSE) advice.
- 5. Materials placed into secure storage should be removed to a disposal site with the consent of the Waste Regulators.

# 4.6 Deposition of Wastes

When the wastes are confirmed to be acceptable by the visual inspection the details of the waste consignment will be recorded in the site diary. This will log the following details:-

- i) Transferring Company/Organisation
- ii) Vehicle Registration
- iii) General Origin of Wastes
- iv) Date and Time of Delivery
- v) Volume/Tonnage of Waste
- vi) Drivers Signature

Copies of transfer notes raised by the depositing organisation will also be kept.

### 4.7 Waste Input Recording

As the site is without a weighbridge, waste input will be recorded either by multiplying vehicle volumes by 1.5 tonnes/m³ or by taking maximum net load of the vehicle. These methods comply with Appendix B of "A General Guide to Landfill Tax" published by HM Customs & Excise, 1997.

#### 4.8 3 Monthly Returns

At 3 monthly intervals the licensing authority will be supplied with void use returns. An equivalent tonnage will also be supplied. The returns can be 'audited' annually by land survey if required.

#### 4.9 <u>Unacceptable Wastes</u>

In the event that a consignment of waste arrives which contains or is composed of wastes outside the licensed category the load will be refused entry to the site. The location of nearby sites which can accept other categories of waste will be kept on record at the site office to assist the driver of the rejected load.

# 4.10 Identification of Unacceptable Wastes at the Tipping Face

Should unacceptable wastes pass through the checking-in system their composition will be clearly identifiable at the tipping face. The site supervisor will collect the wastes and load them into an appropriate receptacle for transport to a suitably licensed facility. The WRA will be informed of all such events and they will be recorded in the site diary.

### 4.11 Record Keeping

All of the records kept at the site, including transfer notes, tipping records, visitor and accident books together with environmental monitoring and site inspection notices will be kept at the site office and will be available for inspection by the Agency during normal working hours.

# 5. THE CONTROL OF MUD, DUST AND WATER

#### 5.1 Mud

A daily inspection will be made to evaluate the need for wheel washing. If mud is picked up from the tipping face and has not been shaken off within the site (early stages of Phase I and 2) wheelwashing facilities will be used. The decision on wheelwashing will be made daily by the site operator.

If mud has been deposited on the public highway the site operator will ensure a road sweeper is used to remove all traces.

#### 5.2 <u>Dust</u>

In very dry weather certain inert wastes generate significant amounts of dust when being tipped and bladed. Under these circumstances water suppression will be used to keep dust levels down. The water will be provided by bowser brought to the tipping face for damping down. Site roads will be sprayed at regular intervals to suppress dust.

#### 5.3 Surface Water Control

Surface water will be controlled by the provision of perimeter drains and temporary internal drains. The perimeter will be retained to take direct surface runoff from the restored landfill. Contaminated water running directly off the landfill will be diverted to temporary settlement lagoons. The calculation of settling lagoon dimensions and attenuation pond dimensions has been undertaken in accordance with "Technical Management of Water in the Coal Mining Industry" published by NCB, 1982. Calculations can be found at Appendix 3.

The effectiveness of the attenuation and settling pond system will be monitored by visual observation on a daily basis. Each of the perimeter drains will be inspected daily to ensure they remain free flowing.

#### 6. MANNING

The site will be manned by three employees of the licence holder during is opening hours. The three members of staff will have the following responsibilities:-

#### 6.1 Site Supervisor

Daily inspection of infrastructure
Routine maintenance of plant and equipment
Load Inspections
Liaison with WRA
Inspection of Mud and Dust suppression
Water Quality Monitoring

#### 6.2 <u>Machine Driver/Banksman</u>

Directing lorries at the tipping face Maintaining face and site road in usable condition General maintenance

#### 6.3 Records Clerk

Recording of waste input and transfer note filing Liaison with Waste Regulation Authority

#### 6.4 Licence Holder

Overall co-ordination of disposal activities

#### 6.5 Out of Hours Manning

The licence applicant lives at Abergelli Fach Farm which lies immediately adjacent to the site. The supervisor will be at hand to deal with any out of hours emergency. The telephone number displayed on the Site Identification Board will be the telephone number of Abergelli Fach Farm.

#### 6.6 Technically Competent Site Management

The site falls outside the scope of the WAMITAB scheme as it is an inert site with a capacity of below 50,000m³. The management, comprising the licence holder and an employee will be assessed for technical competence by the Environment Agency. One of these two site managers will be available at all times, and holiday cover will be scheduled between them.

#### 7. MONITORING

A programme of environmental monitoring will take place at the site commencing before the site accepts wastes and terminating when agreement has been reached with the Agency that completion criteria have been met. The monitoring programme can be broken into three elements, as detailed below:

#### 7.1 Pre-Construction Monitoring

Landfill gas will be sampled at the locations shown on Figure 6. The natural background levels of methane, carbon dioxide, oxygen and hydrogen sulphide will be measured at ten locations across the site of the proposed landfill. Gas concentrations will be measured using an Analox 1200 portable infra-red gas analyser connected to a 1m perforated steel gas spike. As the site is underlain by peat deposits it is possible that methane gas will be detectable before filling commences.

Surface water will be sampled at the location shown on Figure 6. The sample will be submitted to a NAMAS accredited laboratory for the determination of:

pH, Conductivity, Suspended Solids, Ammonical Nitrogen, COD, Cu, Cr, Cd, Ni, Pb, Zn, Fe and As

Pre-construction monitoring will be undertaken twice before the commencement of filling, but in the event of a significant difference between concentrations a third series of tests will be undertaken.

#### 7.2 Operational Monitoring

Monitoring during the operational phase of the landfill will comprise of the same determinands as described in section 7.1 for pre-construction monitoring and at the same locations for both gas and surface water. The frequency during the operational phase will however be on a quarterly basis. The operational monitoring will continue during the landfilling period.

#### 7.3 Post Closure Monitoring

Post closure monitoring will comprise of the same determinands as for both the pre-construction and operational phases, again at the same locations. The frequency of the monitoring will be 6 monthly for a period of two years. Once this is completed the data will be scrutinised to see whether completion criterion will be met for the landfill.

#### 8. **RESTORATION**

Progressive restoration will ensure that only a single phase is operational at any one time. Selected topsoil, stockpiled at the edge of each phase will be pulled over the profiled wastes to a depth of 150mm as the tipping face progresses. Before topsoiling the wastes will be compacted to give an even surface profile.

When placed to the appropriate level the topsoil will be fertilised and seeded, following guidelines published by the Countryside Commission.

#### Typical Restoration Seeding Plan

Meadow Grass	30%
Fescue	40%
White Clover	15%
Ryegrass	15%

Sown at a density of 80 kg/ha

The restored landfill is slightly domed to allow surface water runoff into the perimeter drains and drainage ditches (Figure 3). The landfill will be used for general agricultural purposes.

# 9. COMPLETION AND LICENCE SURRENDER

When tipping operations have ceased and the restoration has become established the licence holder will wish to surrender his Waste Management Licence. The Environment Agency will require substantiated evidence that the site is not and will not pose a risk to the environment or to human health. The general strategy in demonstrating that completion criteria have been met is to provide a sequence of monitoring data over an appropriately long timescale. Monitoring will generally commence before landfilling operations begin (background monitoring), will continue through the operational period of the landfill and will conclude sometime after restoration is complete when the data shows that the site poses no further risk.

This landfill is sited in a low lying area which is known to be underlain by several metres of peat. The near surface deposits have been partly obscured by overtipping which was undertaken when the site was used as a coal mining waste dump. Beneath the peat the ground is believed to comprise colluvial clays which give way at depth to boulder clay.

The solid geology beneath the site comprises fine grained sedimentary strata belonging to the Grovesend Beds of the Upper Coal Measures. The strata contain undifferentiated siltstones and mudstones and a number of workable coal seams which dip gently towards the south. Several north-south trending faults are indicated on the published geological plans with one projected to run directly beneath the site.

Surface water from the vicinity of the site drains westwards to eventually join Nant y Crimp which drains into Afon Lliw. The landfill will encroach into the eastern edge of a peat bog which has a standing water level approximately 700mm below ground level. The peat bog drains into a stream which runs approximately 400m to the west of the site.

Currently, there are two potential sources of methane gas at the site, these being biodegradation in the peat bog and coal bed methane from the underlying strata. If completion criteria are to be met the applicant will have to demonstrate that the waste materials are not contributing methane due to the degradation of organic materials. This will be achieved by undertaking a series of gas tests at monthly intervals. The tests will comprise measuring the concentration of methane, oxygen carbon dioxide and atmospheric pressure in accordance with Waste Management Paper No. 27 at four locations as shown on Figure 6. The gas monitoring installations will be simple gas spikes. Gas monitoring will commence prior to landfilling and will continue until the Agency is satisfied that completion criteria have been met.

Background water quality monitoring will commence prior to landfilling and will continue until the Agency is satisfied that completion criteria have been met.

It is anticipated that two years of post-closure monitoring will be required to demonstrate completion.

# 10. EMERGENCY PLAN

This emergency plan is generic and covers emergencies which could occur at Abergelli Landfill falling within three broad categories, medical, fire and environmental emergencies.

#### 10.1 Medical

In the event of medical emergency -

- 1. Check and maintain airway.
- 2. Establish breathing.
- 3. Control bleeding.
- 4. If possible send for help and remain with casualty. If not go to site cabin, call 999 ask for ambulance. State the following:

Emergency at Abergelli Farm Landfill Site.

Describe the nature of the emergency.

Describe the cause of the emergency.

Give the site telephone number and directions to the site off the A48.

Inform whether the telephone will be manned.

In the event of requiring medical treatment when the casualty is capable of being moved safely and comfortably the nearest accident and emergency hospital is Morriston Hospital. In the event that the site supervisor leaves the site the landfill must be secured to prevent disposal of loads which have not been inspected.

#### 10.2 Fire

In the event of fire within the site cabin it should be immediately evacuated if an initial attempt at fire fighting within an extinguisher is unsuccessful. The fire service should be called and the following information should be stated:

Fire at Abergelli Farm Landfill Site.

Describe the nature of the fire.

Inform the service that bottled gas is used within the site cabin.

Give the site telephone number and directions to the site off the A48.

Inform whether the telephone will be manned.

In the event of a fire on the landfill site all personnel should be moved to a mustering point close to the site cabins. If the fire is small the site dozer should cover it over by pushing soils to smother it. If the fire is too large to safely extinguish the fire service should be called and the information above should be stated, with the exception of the bottled gas details.

In the event of a fire within the unauthorised waste skip an attempt should be made to extinguish it by either soil covering or using the site extinguisher. As the skip is water-tight residue from the burning will remain contained, and will be disposed in the normal way. The Environment Agency shall be informed as soon as is practical and in any event within 1 hour of the fire.

In the event of a fire at the base of the tip which could potentially ignite peat deposits the fire service shall be called immediately, as shall the Environment Agency.

There are two fire extinguishers kept at the site, these being behind the door and on the far wall of the site office. These extinguishers will be inspected at the frequency recommended by the manufacturer/supplier and will be certified as such on the extinguisher.

#### 10.3 Environmental

An environmental emergency at this inert landfill site is extremely unlikely due to the benign nature of the waste materials. Excess suspended solids if discharged would not immediately impact upon surface water courses but would be retained in the peat bog for some considerable time.

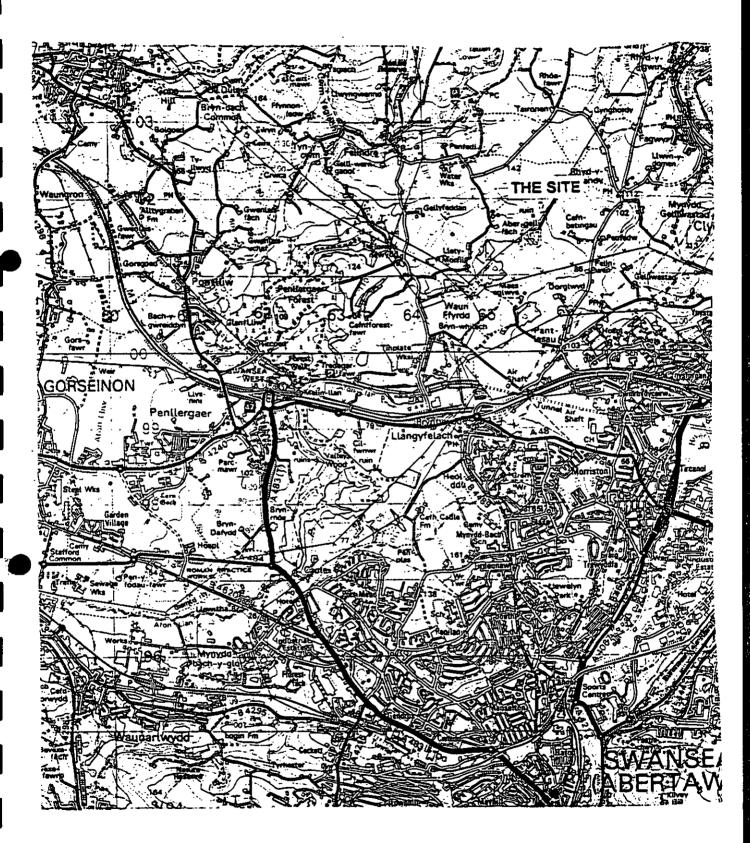
Refuelling and maintenance will occur off site and liquids are specifically prohibited by the terms of the licence. Any conceivable liquid spillage at the site therefore would be from a vehicle breakdown and would comprise lubricant oils leaking from the vehicles. In the event of such a breakdown the site plant will recover the vehicle to a safe position and will immediately scrape up the contaminated soil and load this into the unauthorised waste skip. A record of this operation will be made in the site diary.

In the event that an unidentifiable substance is present within an incoming load, the load shall be treated as being out of compliance with the licence. The Environment Agency shall be consulted so that the substance can be identified and can be re-routed to an appropriately licenced landfill site. The vehicle carrying the load shall be held on the yard in front of the site office and will not be permitted to move onto the landfill site.



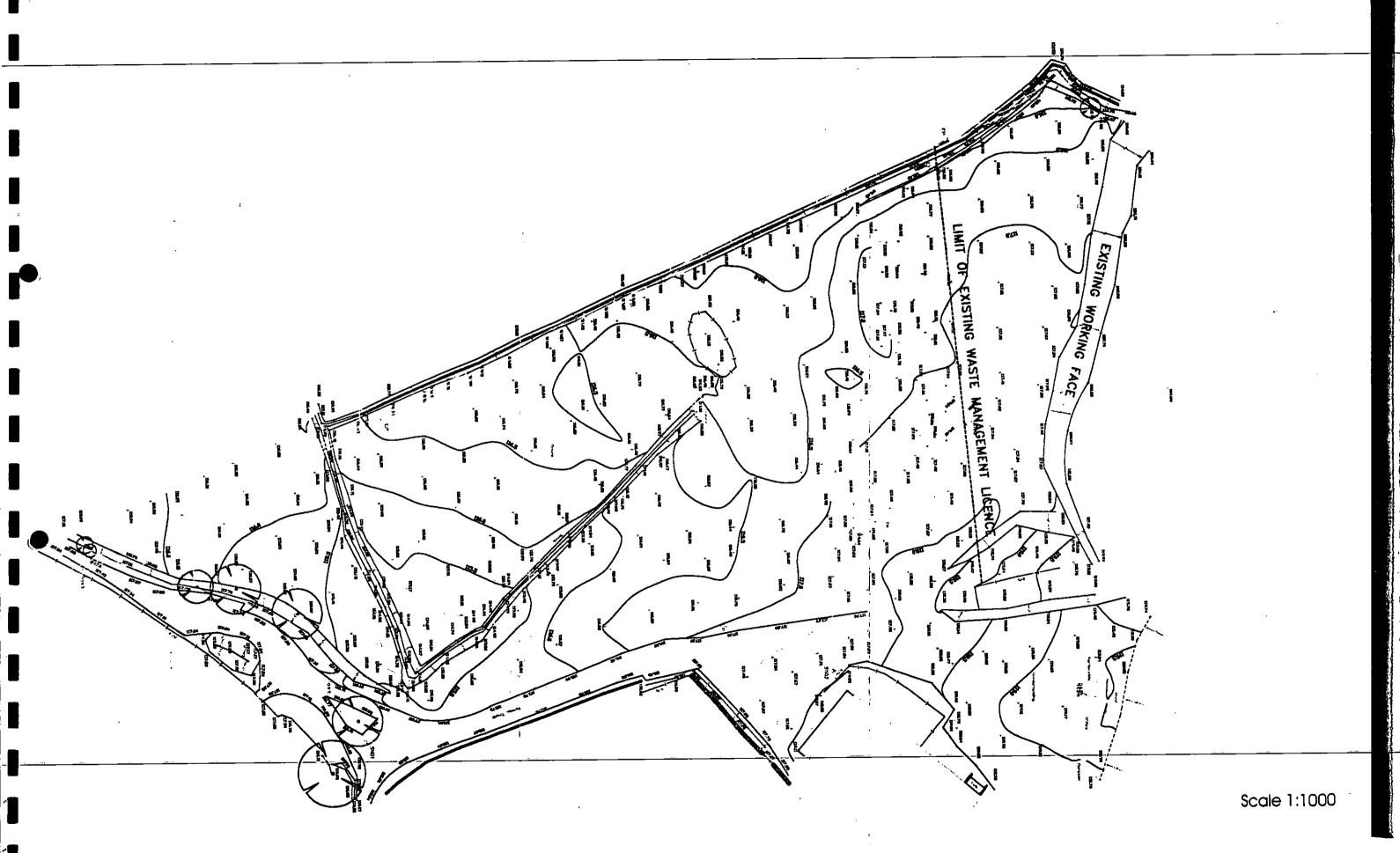
### Figure 1 Site Location Plan

SCALE 1:50,000 at A4

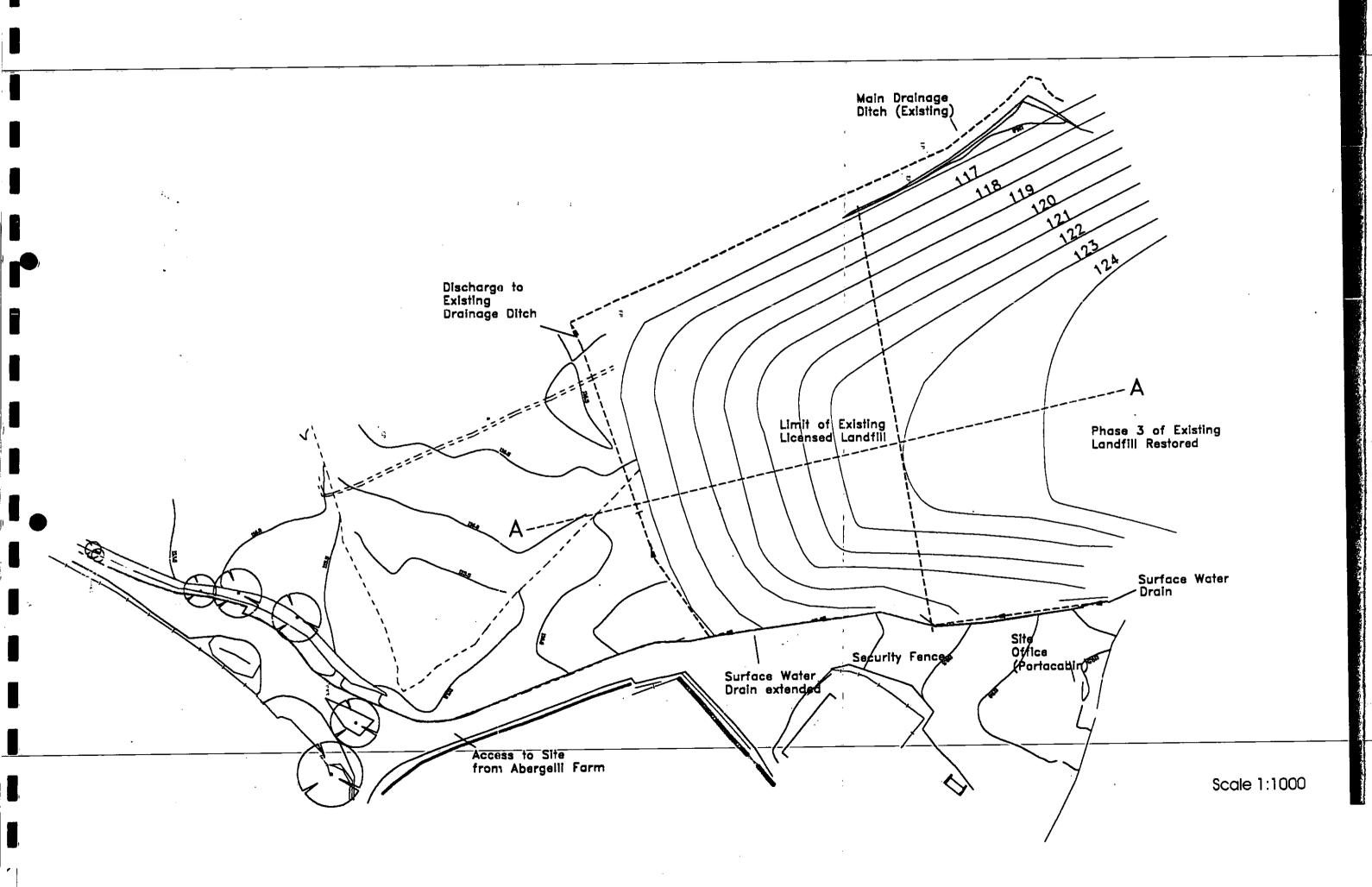


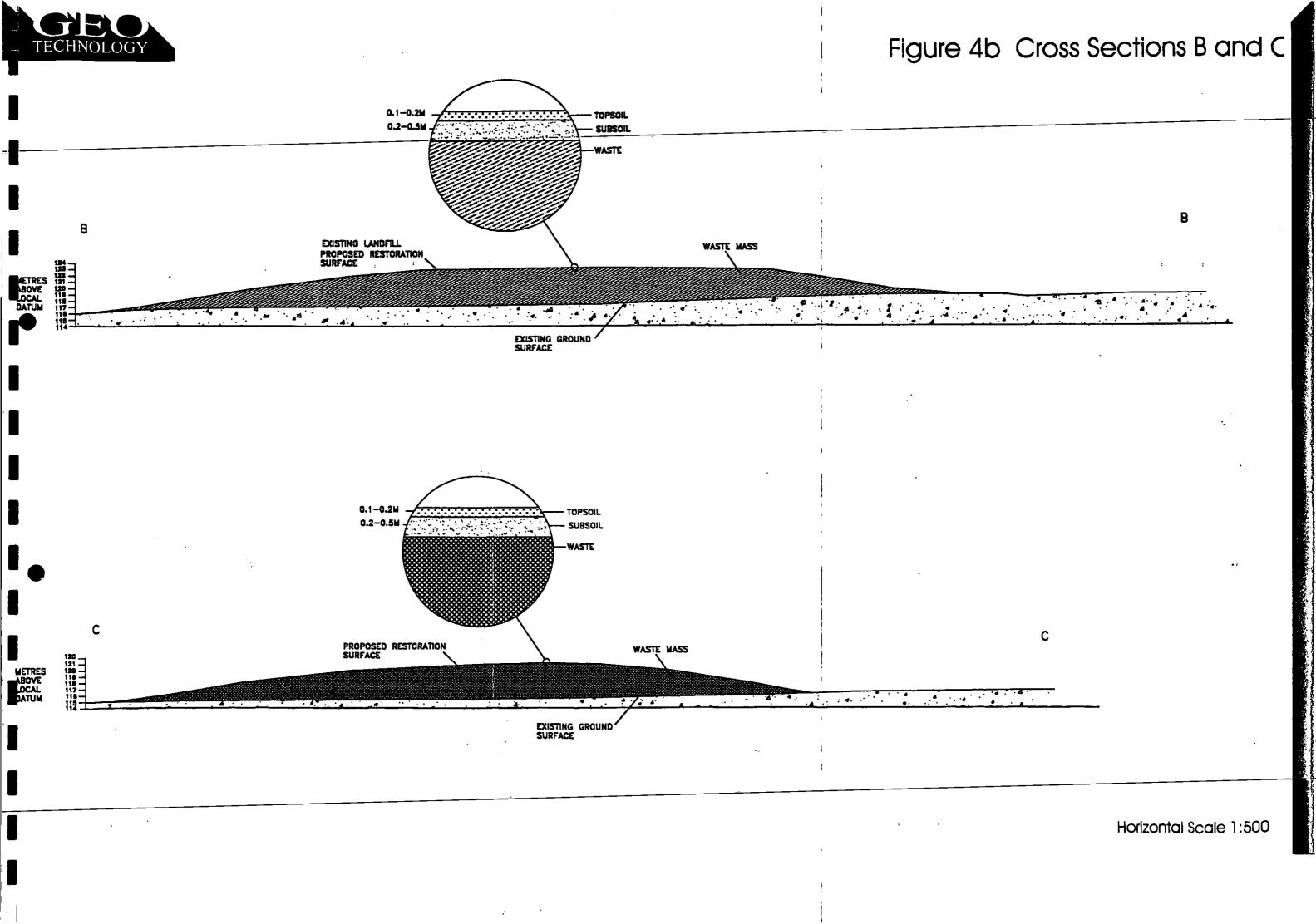
Based upon the 1995 Ordnance Survey 1:50,000 scale Landranger Map with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright, Geotechnology SA10 8HE No. AL 50598A

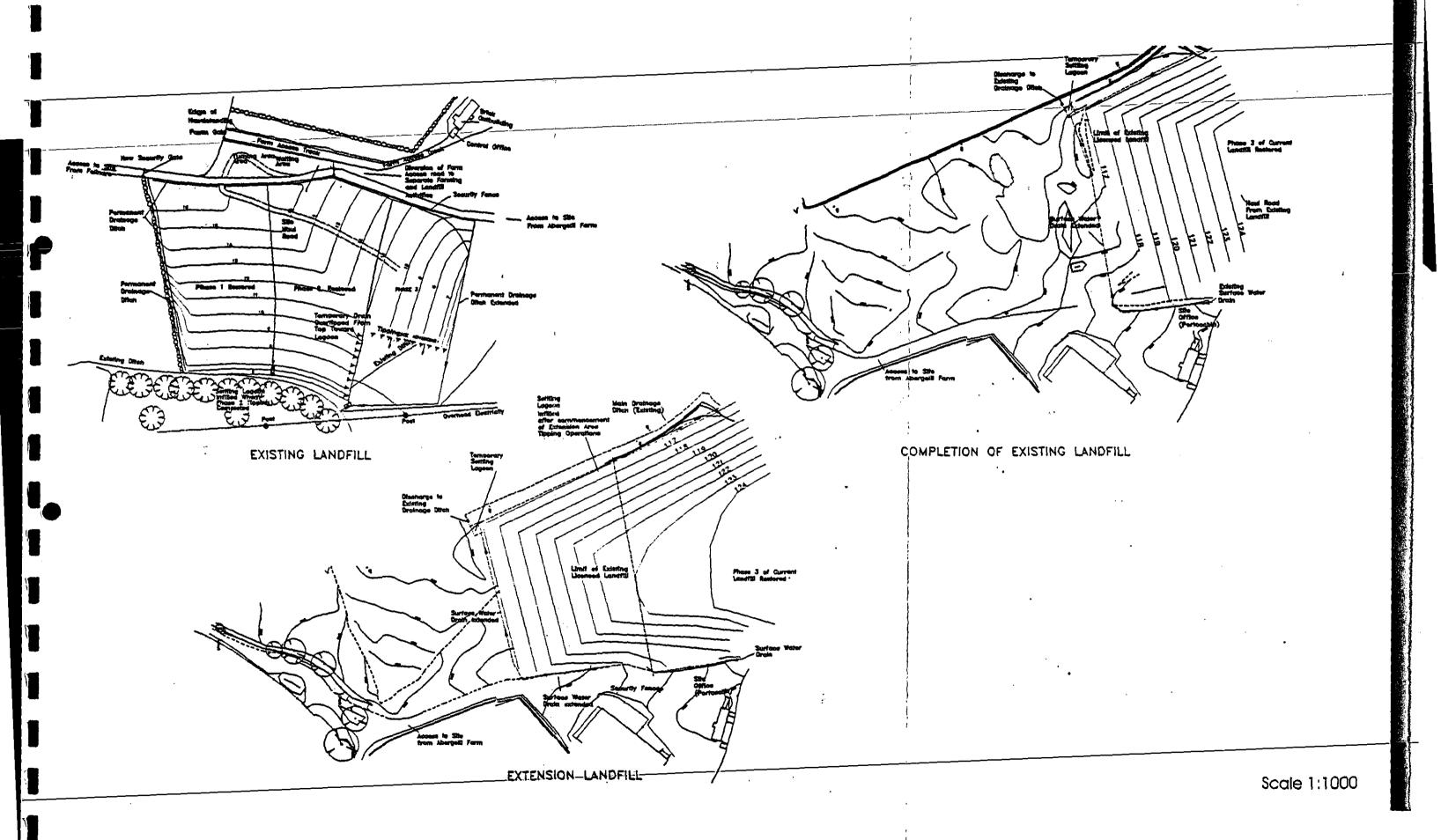




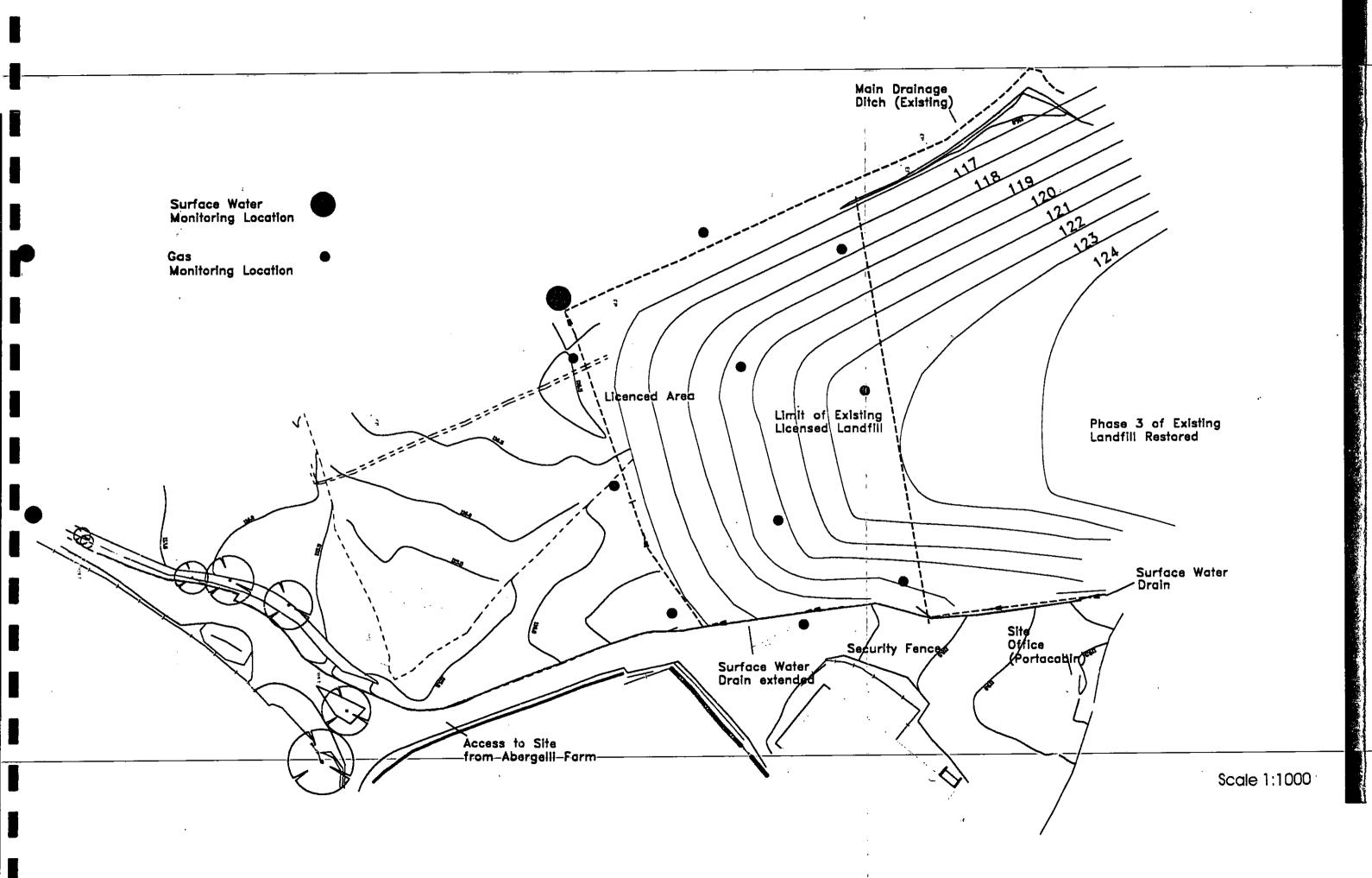












## Appendix 1

**PLANNING CONSENT** 

### CITY AND COUNTY OF SWANSEA

### **TOWN AND COUNTRY PLANNING ACT 1990**

#### **GRANT OF PLANNING PERMISSION**

To:

CARL'ISLE DAVIES & NORTH 77, HERBERT STREET PONTARDAWE SWANSEA SA8 4ED

PLANNING APPLICATION NO. 97/1065

DATE REGISTERED: 30th July 1997

APPLICANT: R W B LLEWELLYN

The City and County of Swansea, in exercise of its powers under the above ACT, hereby GRANTS planning permission for:-

EXTENSION TO INERT LANDFILL TIPPING SITE FOR AGRICULTURAL LAND RECLAMATION

at:-

ABERGELLI FARM - FELINDRE SWANSEA SA5 7NN

as referred to in your application and shown on the accompanying plan(s), subject to the following condition(s):-

01

This consent shall enure for a period of 5 years only from the date of this consent. At the expiration of 5 years, the tipping operations shall have ceased and the landscaping of the site completed.

02

No development shall take place without the prior written approval of the Local Planning Authority of a scheme for the phased landscaping of the site. The landscaping scheme shall be carried out within 12 months from the cessation of tipping. Any trees or shrubs planted in accordance with this condition which are removed, die, become seriously diseased within two years of planting shall be replaced by trees or shrubs of similar size and species to those originally required to be planted.

03

Access and egress to the application site, for vehicles tipping at the site, shall be via the existing access road approved under previous planning permission 2/2/93/0231/03 only. No access for vehicles using the tip shall be obtained via the existing northern access to Abergelli Farm.

04

Inert waste only must be used as fill material (see definition at Informative No. 02).

05

Prior to any development being commenced in respect of this proposal, details of a lagoon system must be submitted to the Local Planning Authority for consideration. The approved system must be installed prior to any tipping being commenced in respect of this proposal.

06

Within one month of the completion of the landscaping operations, the site control office shall be removed from the site and the area reinstated in accordance with a scheme to be submitted to and approved in writing by the Local Planning Authority.

07

There shall be no crushing or screening of any materials on the site whatsoever.

80

No processing, sorting or re-excavation of any waste shall take place within the application site without the prior written consent of the Local Planning Authority.

09

No materials shall be burnt within the boundaries of application site whatsoever.

10

Details of wheel washing equipment shall be submitted to the Local Planning Authority prior to any tipping operations on this site being commenced. The approval details shall be installed prior to the tipping operations commencing.

1 1

All vehicles leaving the waste facility shall use the wheel cleaning apparatus required by condition 10 above.

The reasons for the Council's decision to GRANT permission for the development, subject to compliance with the conditions specified are:-

01

The Local Planning Authority considers that a 5 year period is appropriate in this instance in order to complete the works referred to in the application.

02

To ensure that the site is satisfactorily landscaped having regard to its location and the nature of the proposed development and to accord with Section 197 of the Town and Country Planning act 1990.

03

To prevent heavy lorries using the narrow roads in the Felindre area.

04

To prevent pollution.

05

To prevent pollution.

06

In the interests of visual amenity.

07

Permission is granted for landfill operations only.

08

To ensure that the minimum amount of processing, sorting or re-excabation is undertaken and to prevent the creation of a waste transfer station being established at the facility.

09

In the interest of environmental amenity.

10

To ensure no mud or other debris is carried onto public highways.

1 1

To ensure no mud or other debris is carried onto public highways.

#### INFORMATIVES:

01

The drawing numbers/description to which this decision refers are as follows:

Drawing(s) No(s): Figs. 2, 3.1, 3.2, 4a.1, 4a.2, 4b1, 4b2, 5.1, 5.2 dated/received 25th July 1997.

02

INERT WASTE shall mean solid or granular dry materials, free from any naxious, poisonous or polluting substances, which does not decompose or for which the environmental impact of decomposition is less than, or comparable with, that of topsoil and is virtually insoluable in water. It includes such inert wastes as topsoil, subsoil, brickwork, stone, concrete, clay, sand, silica (excluding finely powdered waste) glass.

03

The site operator should ensure that there is no possibility of contaminated water entering and polluting surface or underground waters.

04

Any culverting of a watercourse requires the prior written approval of the Local Authority under the terms of the Public Health Act 1936, and the prior written consent of the Agency under the terms of the Land Drainage Act 1991/Water Resources Act 1991. The Agency seeks to avoid culverting, and its consent for such works will not normally be granted except for access crossings.

05

The developer must not, in any way, create an obstruction or a restriction to the flow of a watercourse under normal or flood flow conditions.

06

The Agency and the Local Authority have permissive powers to maintain watercourses depending on the watercourse's definition as 'Main River' or 'Ordinary Watercourse'. The responsibility for general maintenance of the river and its banks rests with the riparian owners.

07

Any modification to the working plan agreed with the Waste Regulation Authority which constitutes development shall be subject to a further planning application to the Local Planning Authority, which will be considered on its individual merits at that time.

08

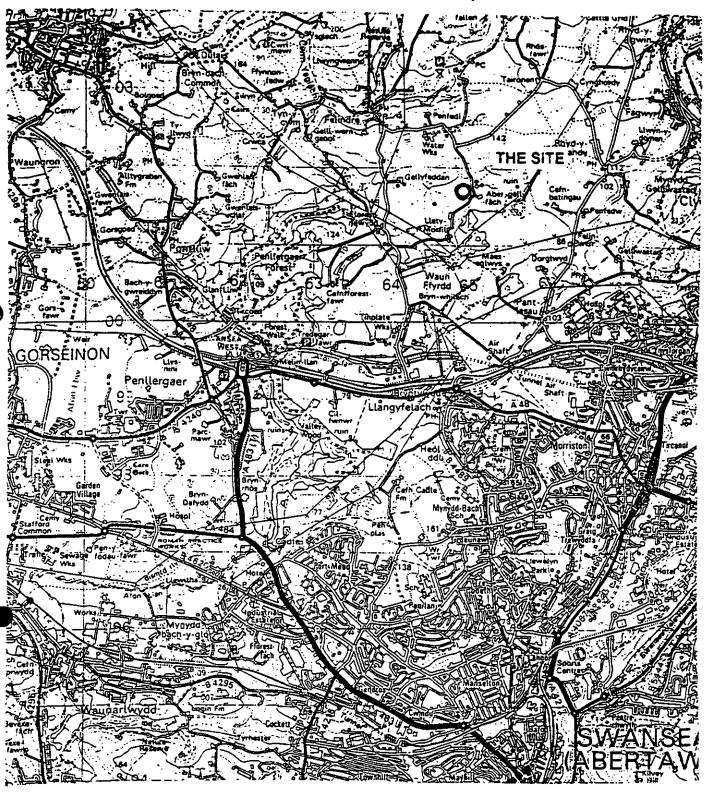
The applicant is requested to investigate the possibility of installing a direction sign to the site from the public highway.

Dated: 8th December 1997

DIRECTOR OF PLANNING The Guildhall, Swansea

PLEASE NOTE - Your attention is drawn to the attached notes which explain, amongst other things, your right of appeal against this decision.

97/103.



Based upon the Ordnance Survey's 1:50,000 map of 1995 with the permission of the Controller of Her Majesty's Stationary Office, (c) Crown copyright.

GEOANALYSIS LTD GROVE HOUSE GROVE PLACE POR! [JABO] SA:3 IXA



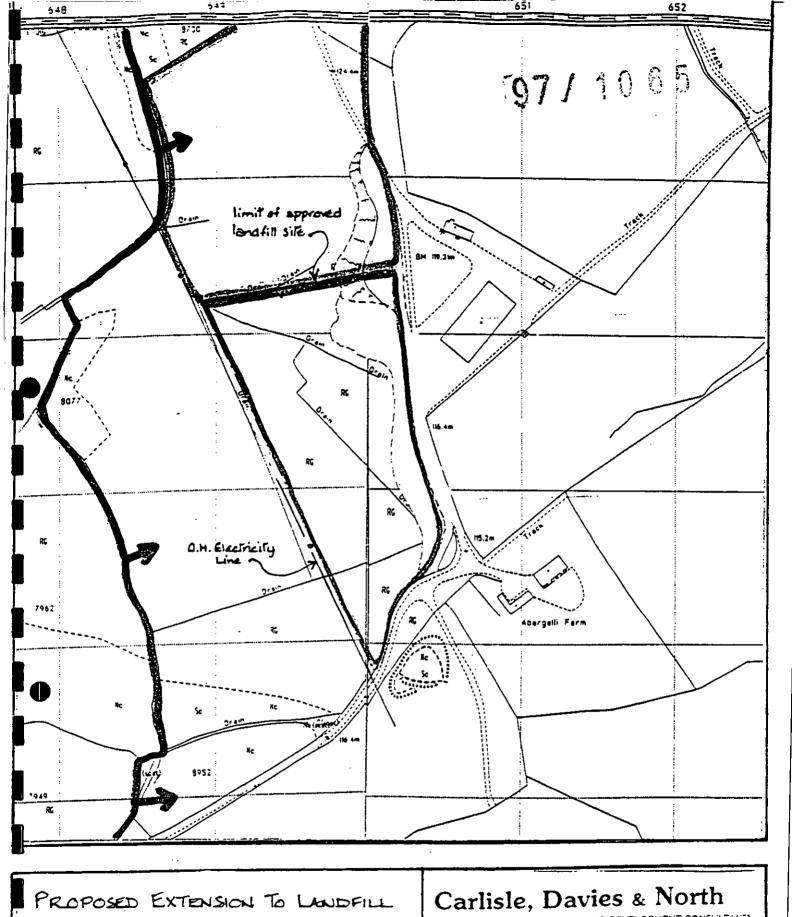
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SITE LOCATION PLAN

PROJECT: ABERGELLI FARM, PHASE II

ag

1



PROPOSED EXTENSION TO LANDFILL TIPPING OPERATIONS AT ABERGELLI FARM, FELINDRE, SHANSEA, FOR MR. W.B. LLEWELLYN.

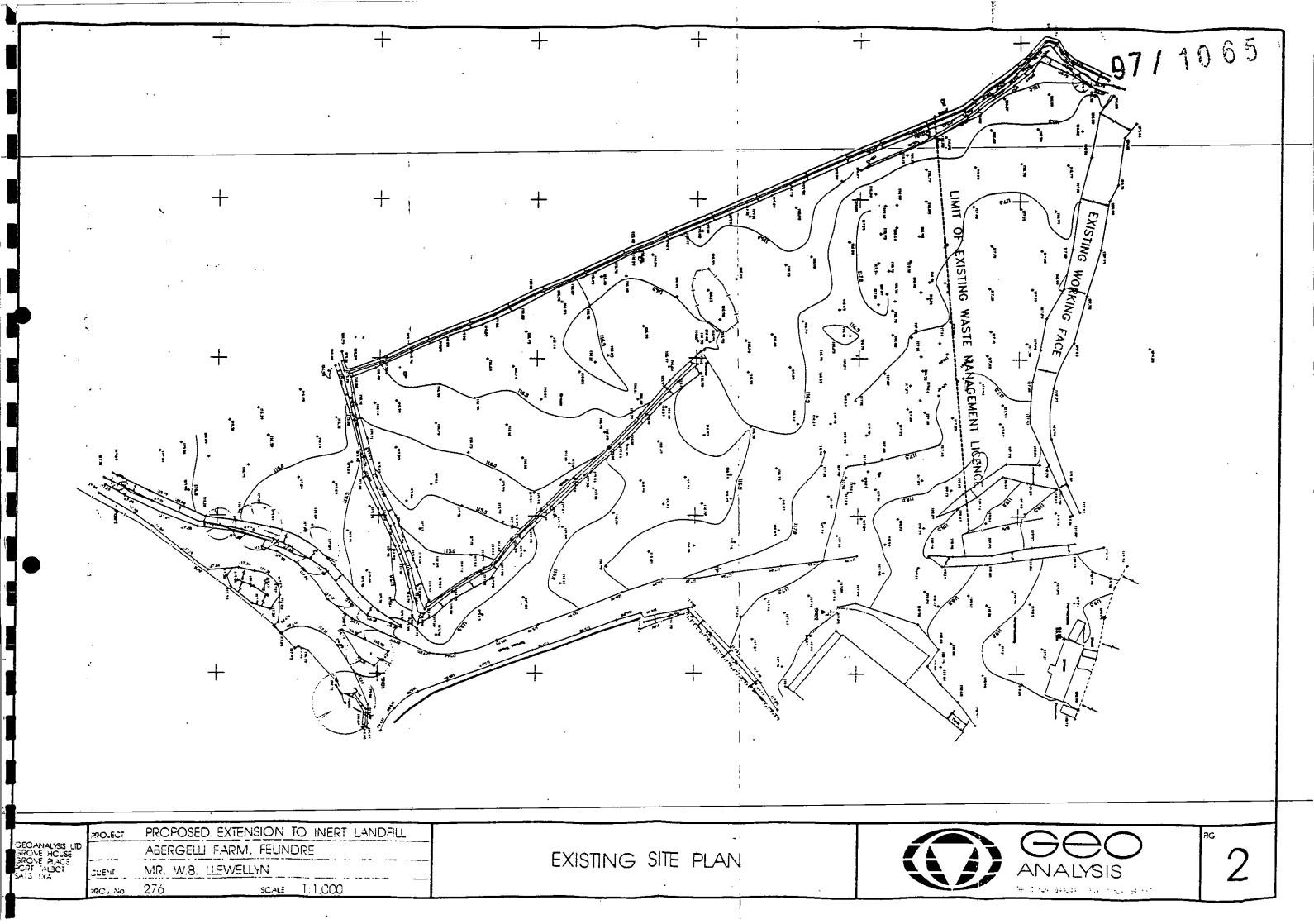
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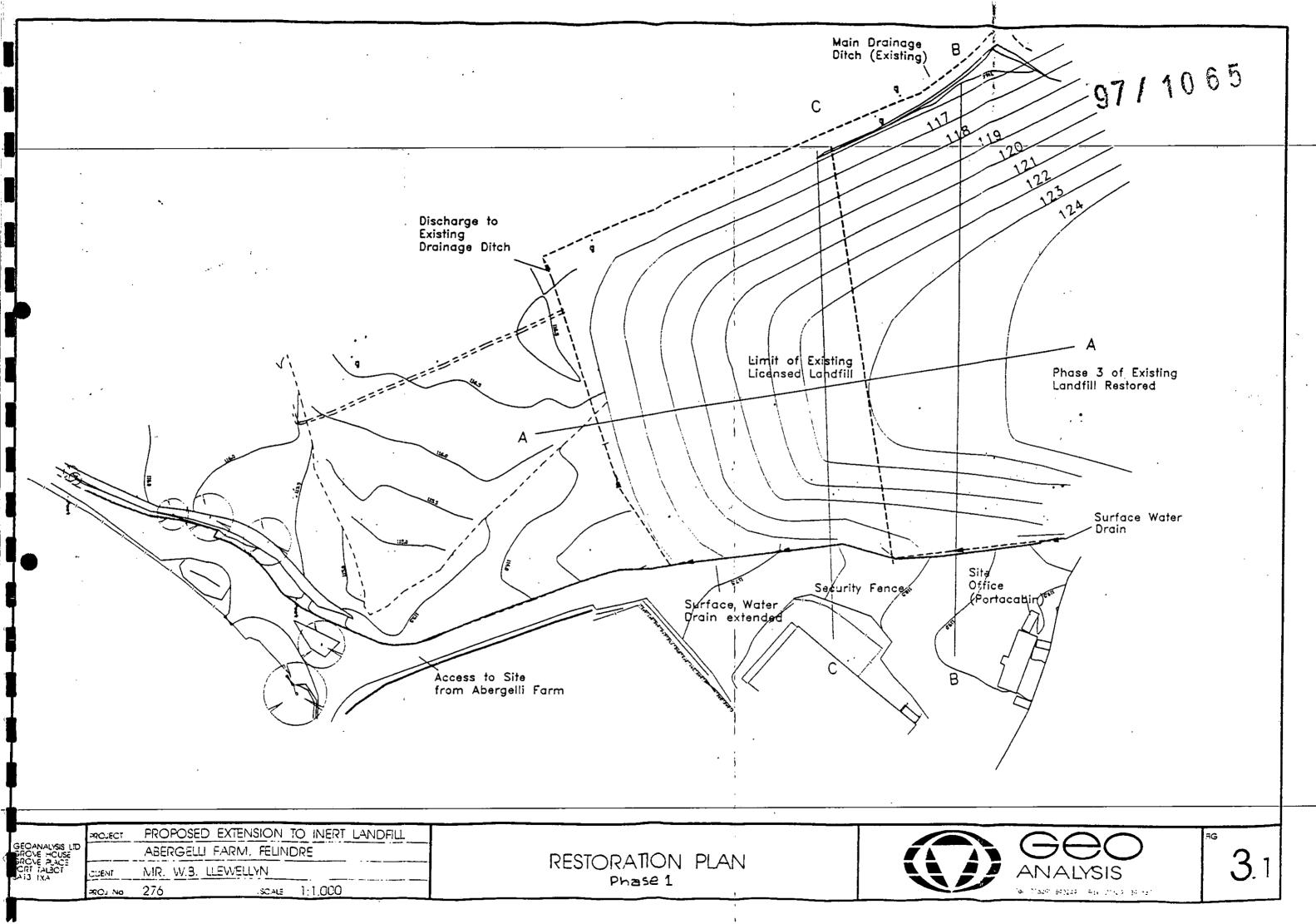
77 Stryd Herbert

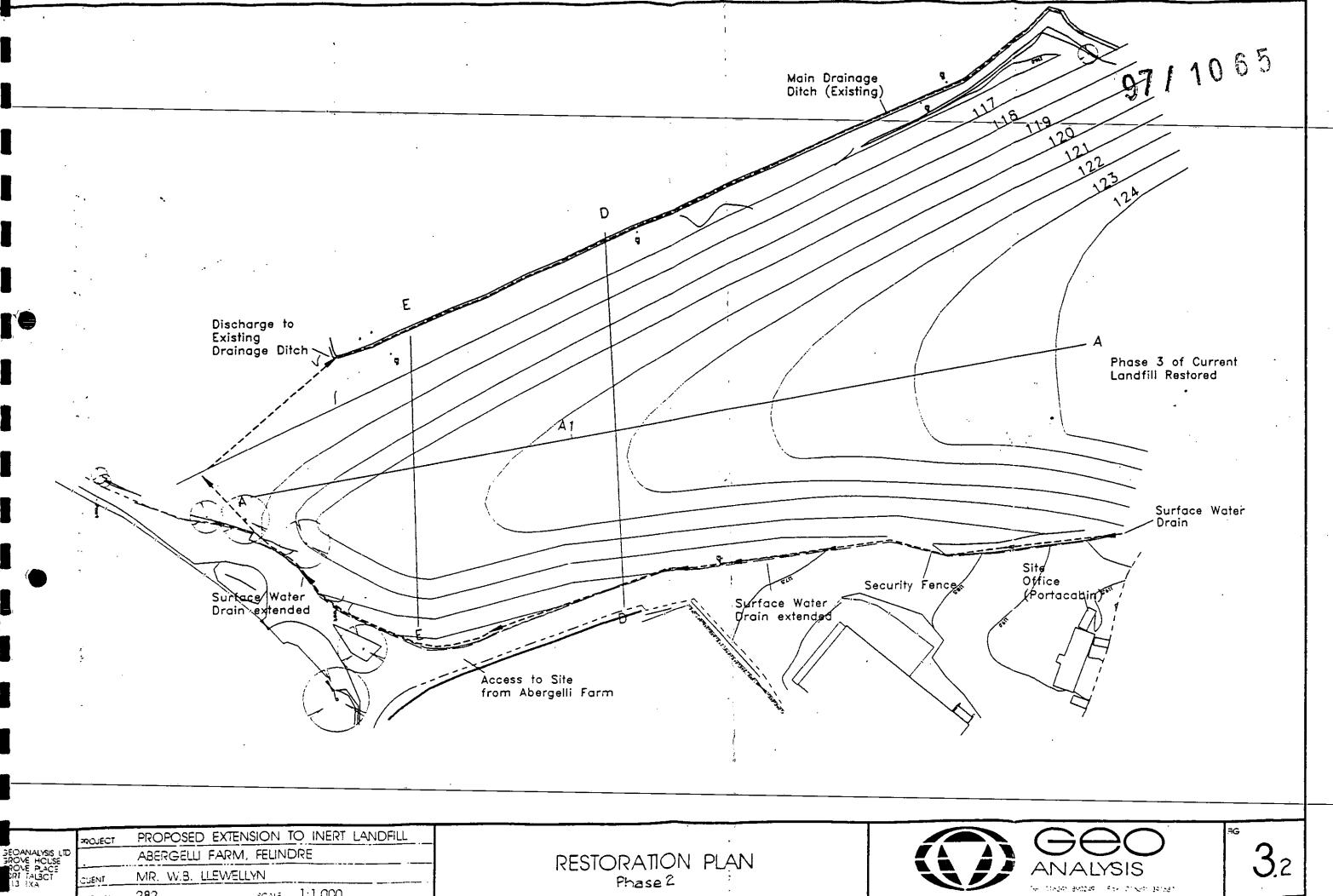
CHARTERSO TOWN RUANNERS AND DEVELOPMENT CONSULTANTS YMCHNGHORWYR CHNULUNG A ĐATSUNGU

77 Herbert Smeet Pontardawi Fortiardawic Swenses West Gamorgan SAS 4ET Tel: 0792 930238 (2 tines) Fax: 0792 363890

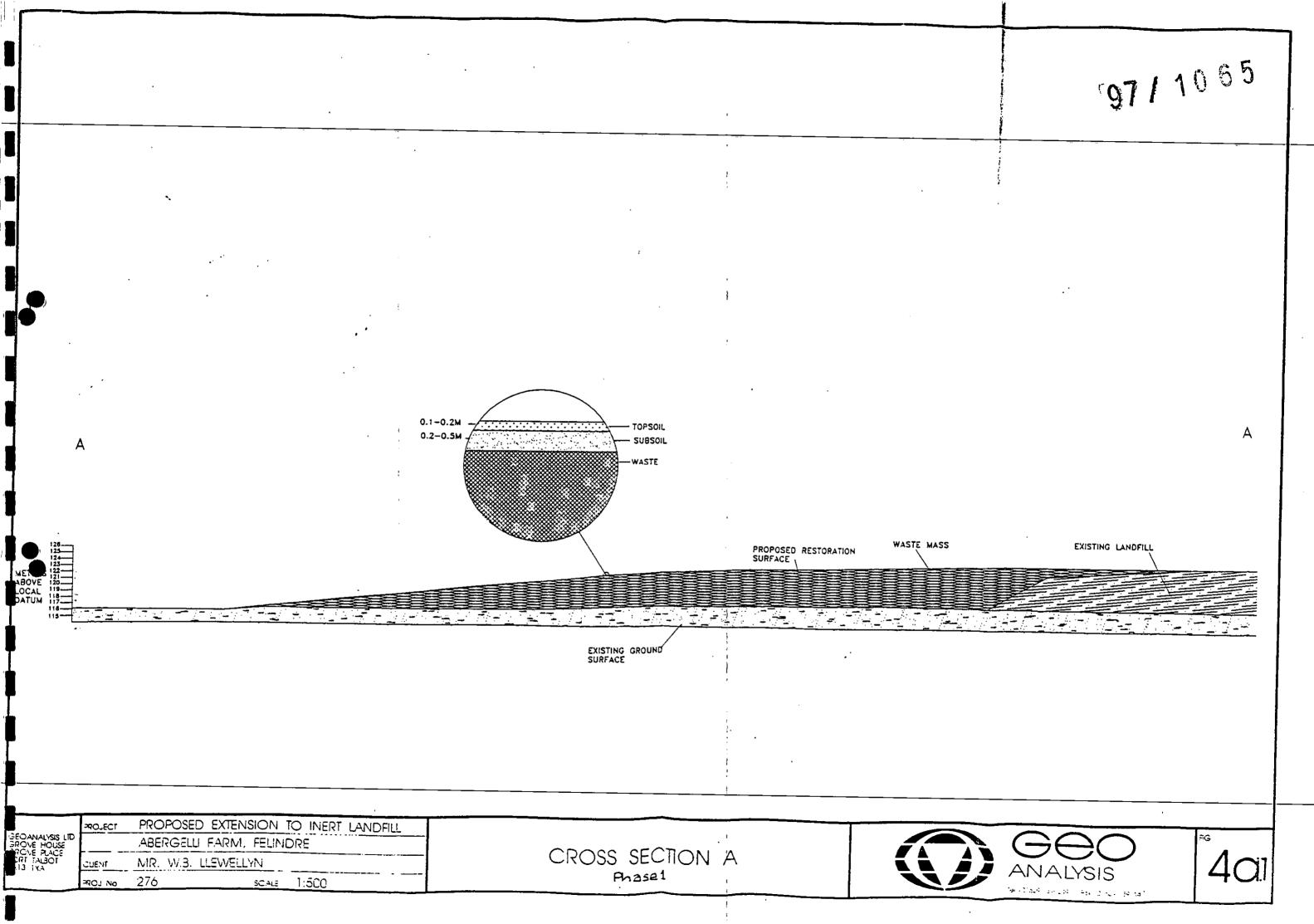
SITE IDENTIFICATION PLAN - Scale 1: 2500

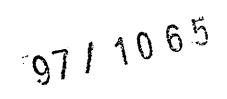


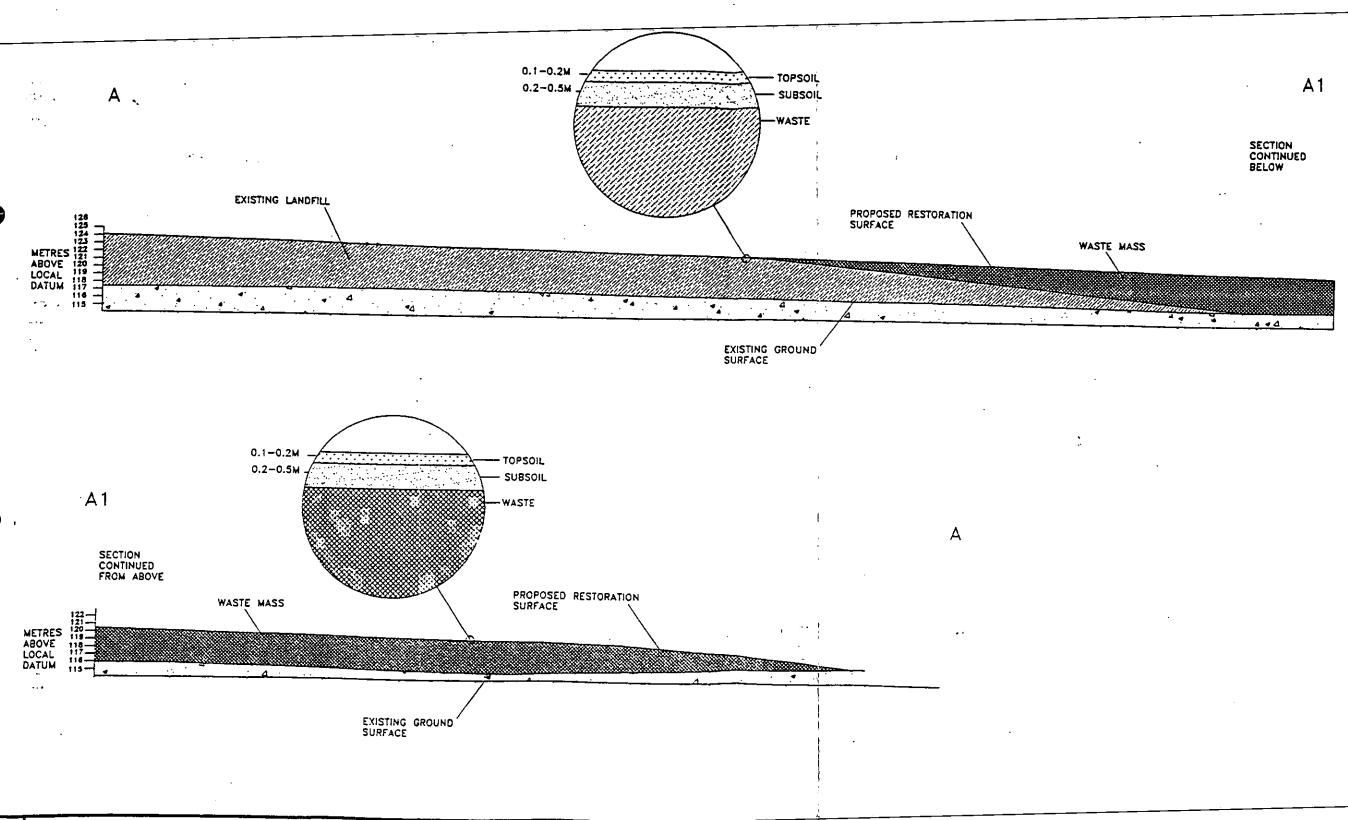




SCALE 1:1.000 282







PROPOSED_EXTENSION_TO_INERT_LANDFILL

ABERGELLI FARM, FELINDRE

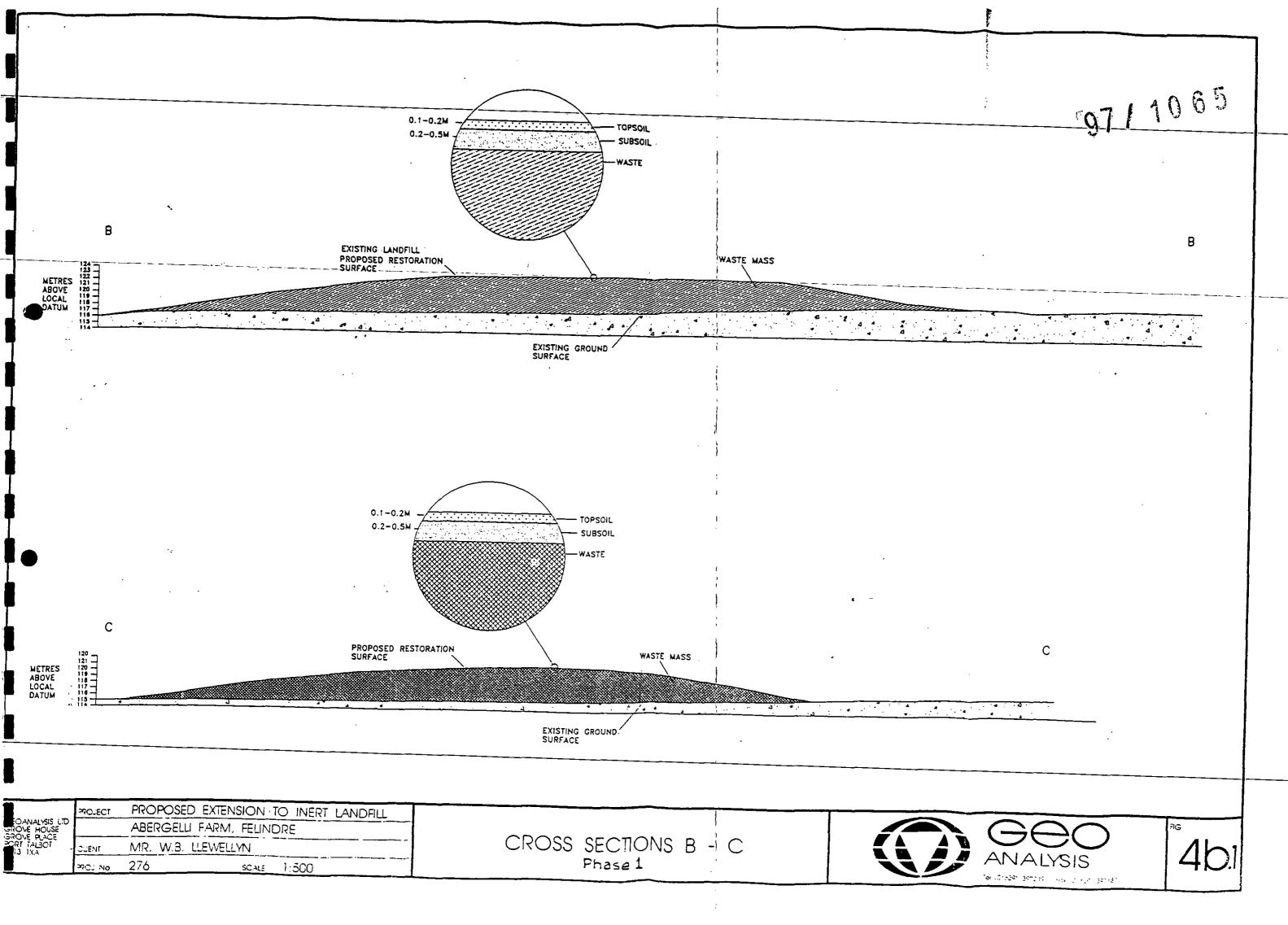
CUENT MR. W.B. LLEWELLYN

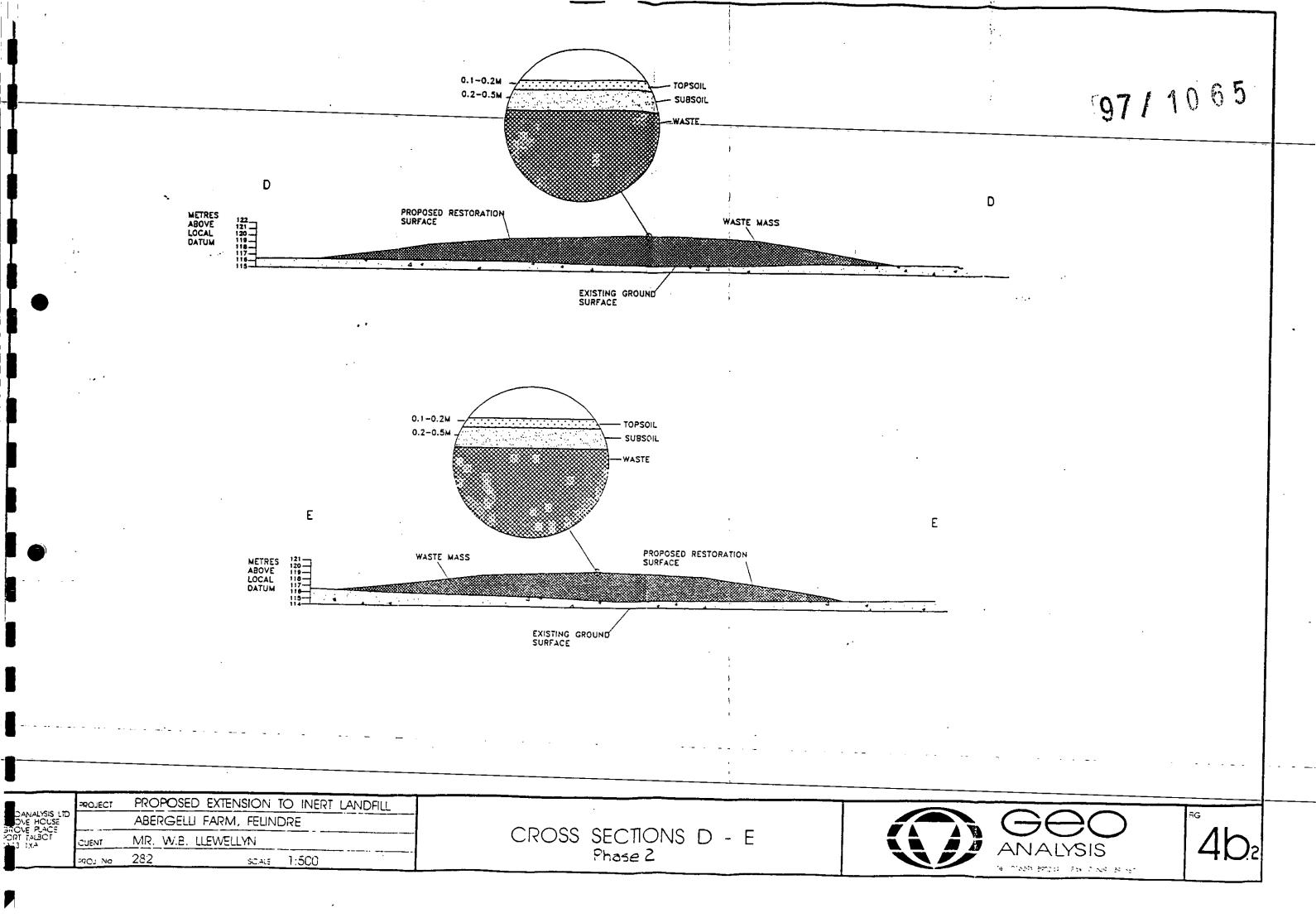
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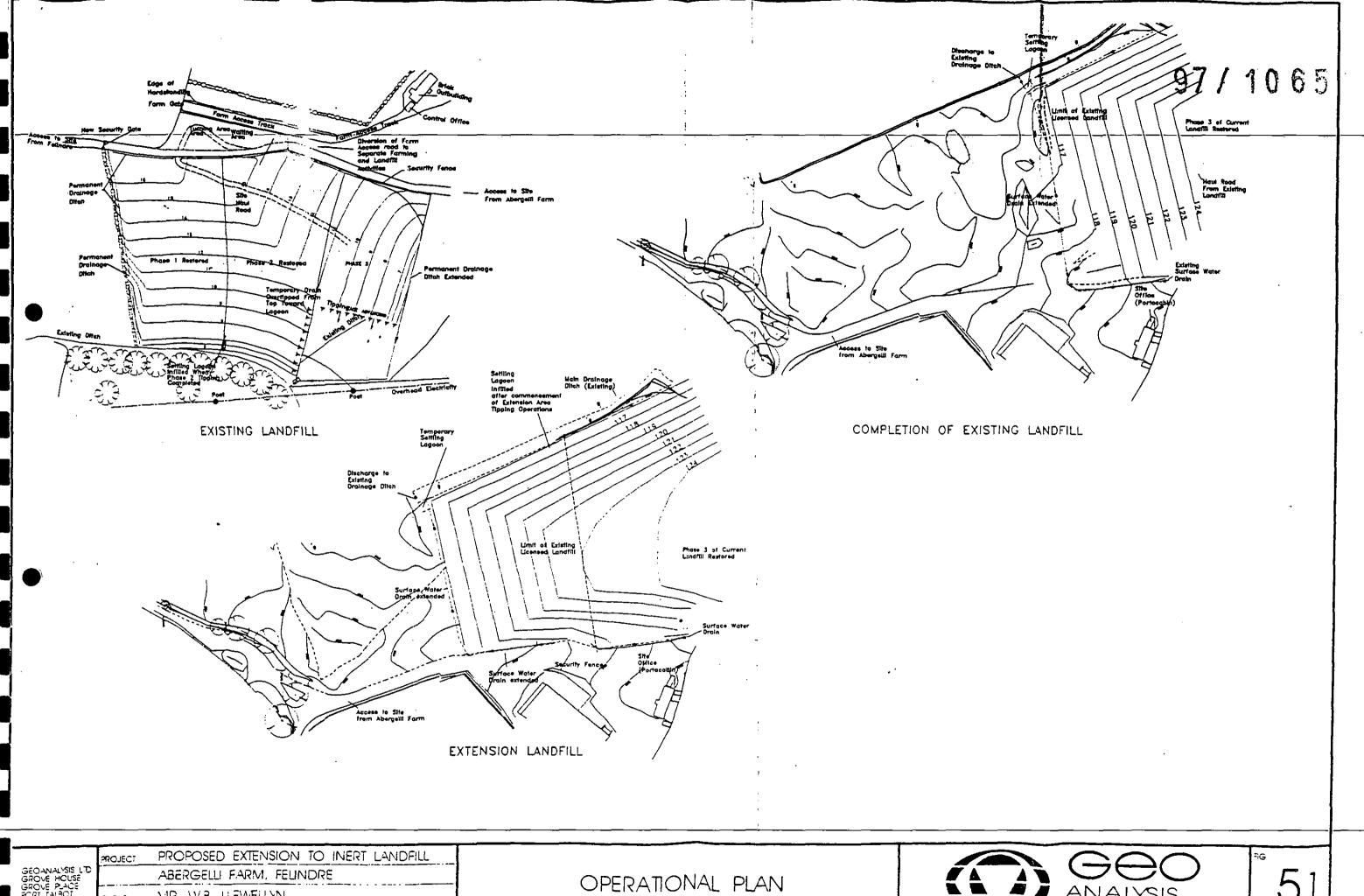
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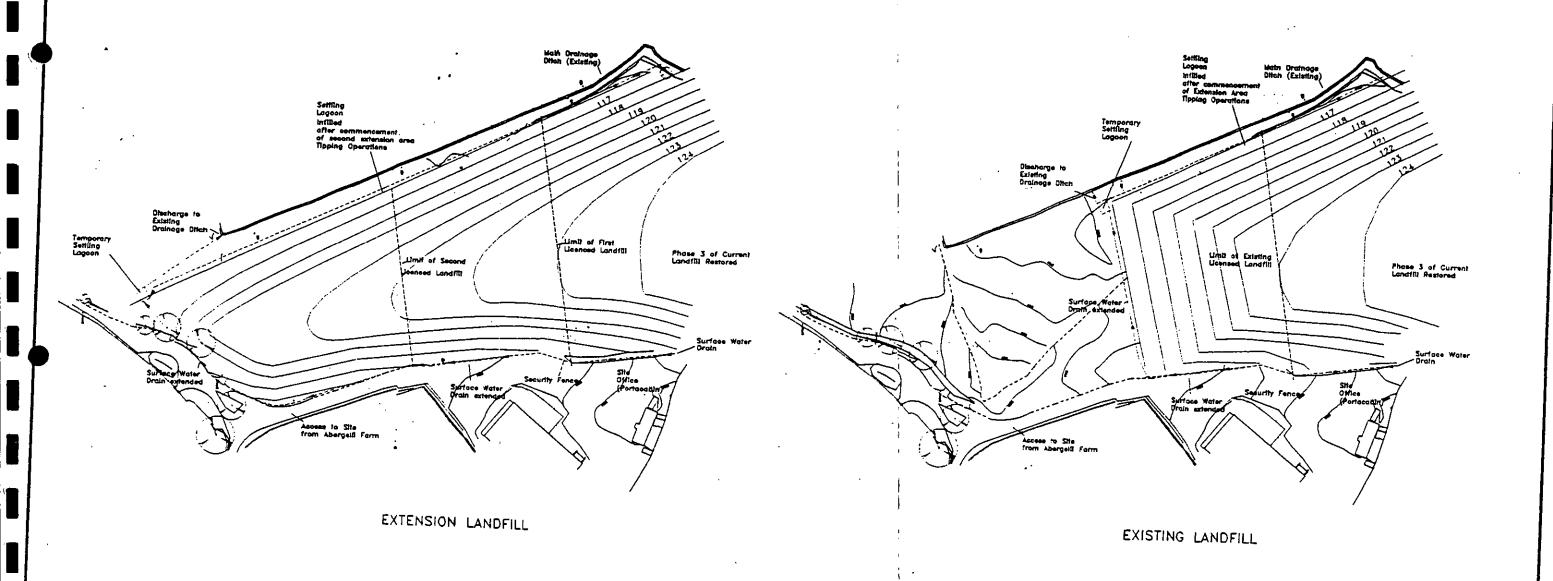




MR. W.B. LLEWELLYN 276 SCALE 1:2000

OPERATIONAL PLAN Phase 1





ANTARE FL

PROPOSED EXTENSION TO INERT LANDFILL ABERGELLI FARM, FEUNDRE

CUENT MR. W.B. LLEWELLYN
ROJ No. 282 SCALE 1:2.000

OPERATIONAL PLAN Phase 2



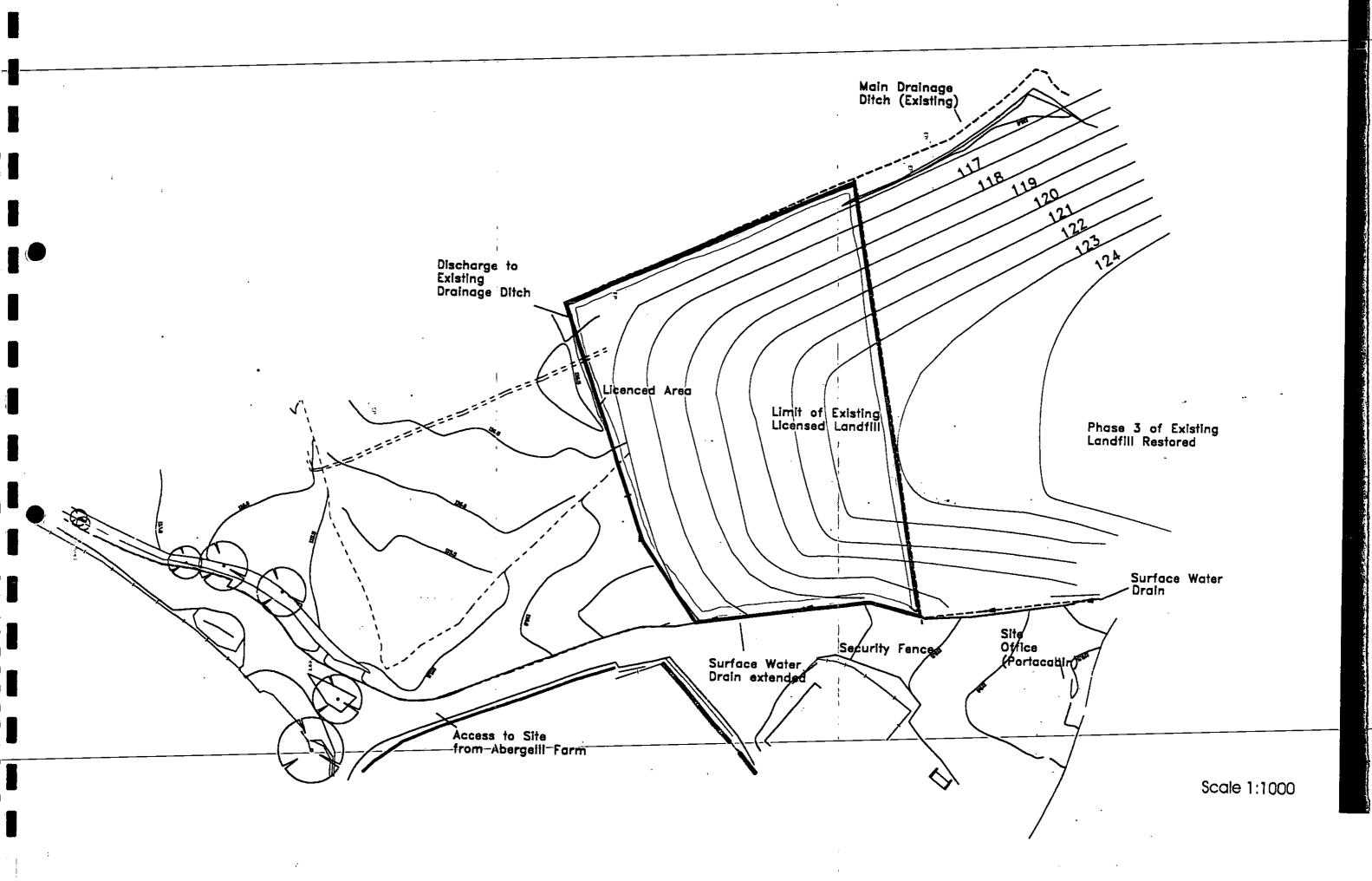
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Lysis 0.2

## Appendix 2

LICENCED AREA LIMITS





Appendix 3

SURFACE WATER MANAGEMENT CALCULATIONS

	ABERGELLI FARM 1/4.
	ARCHOSED EXTENSION TO INSERT LANDFILLING.
	DRAWAGE/SETTLEMENT LAGOON CALLULATIONS.
	Reference: Technical Management of water in the Coal  Mining Industry.
	A. First phase of extension (See autoched Figure)
)	Area of extension 8,800 m² Restoration signes 1 in 10 (01)
• •	Vanage Channel Signer 0.05.
	Maximum Dianage care ~ 80M overland flaw axl 60M channel flaw to reach settlement lagourn.
	Renoft Coefficient Sandy Icam soils representative of mert landfilled materials;  K = 0.55
ı	Peak rate of discharge taken place when the whole area contributes to the flaw is dwarten of Horry is sufficiently
	kno to allaw water for the furthers part of the
	kng to allow water from the furthert point of the catcherent to reach the discharge point is Time of Concentration (te)
	te = 7 (Ln)06 5-0.3 I-04
	te time g arotan / their
	Likength of aretard flav
	A: Manning Kaighnen Cooth sent
	S: Overland Flaw Skpe  T: Raintall Toterate
	I : Kanfall Intersity

.

4

te ter arotand from a solved iteratively using the rantall intersity/duration/prequency relationship
Phone 1 extension around than te = 4 runintes.
Manny quation is subrequestry used to calculate the additional tore of faw in the drainings ditch:
V = R 0.67 5 0.5 V: Vel. of Mass
N = ROOF SO'S V: Vel. of Mas  R: Hydraulic Mean Dorth
S: Skped are land from
n: Manning Langunen Coef.
V = 4:39 m/sec
unch are a 60m leigth ~ 1 rivute
Total time of concentration: ~ 5 runites for design rangall intersity of 38 mm/how.
Peak flow Late $Q = 2.78$ A K I (Rational Formula) $= 51 \text{ L/second}.$
Outlow/duchage from lagon = 21/rec. Therefore Regieved Storage Volume:-

tom watien_	_	Ravitall Infosity				at at	Storoge Roquired
(h)	(m)	(mm/h)				2 e/sec_	(M3)
0.5	12	20	055	0-88	<u>'</u>	(M ² )	44.4
1	12		055_	0.88		<del>7</del> .2	50.8
2	12	7.5	055	_0.88_	73	144	(586)
4	12	3.5	0.55	B.88	68	28.8	39.2
	May 2 h	stroge dwat	Rogui	red s	58M-	3 for ste	ing_
	Lagoo		6 m x	6m;	× 1.61	n deep.	

# B/ Phane 2 extension.

Area 10,700 m²
Maxww aread daing ~ 60m and 110m duained frew.

Baselos sare site parameter as detailed above, the time of concentration is calculated as

4 minutes in total with the same vebuly of trav

of 479 m/sec within the drainage channel.

Design rangell interiorly for it runute duration on a year return period ~ 55 mm/hair.

Peak How Rate ther > Q = 90 l/second.

Maximum storage requirement occurs again with a

storm divation of 2 hours (I 7.5mm/hr).	
Volume of rawfall runoff = 88 m3	
outhor topon = 2 l/sec	
Therefore storage of 74 M3 required.	
Lagour propared at 7m x 7m x 1.5 m deep.	
SUMMARY	
<u> </u>	
Mase 1 Ostension.	
Area 088 ha	
Stepen 1:10 (oveland drawing), 1:20 (drawings channel)	
Time of Concentration. 5 runutes	
Time of Concentration 5 runutes frak Flas 58 l/sec	<b></b> .
Outhow of lagan restricted to 21/sec. Storage / volume required to lagaon/retherest port 58 Lagoon: - 6m x 6m x 1.6m	
Storage / volume required to lagcon / retherest port 50	W
Lagoon: - 6m x bm x 1.6n	
Phane 2 extension.	
Area 1.07 ha.	
Skren: an abare	
Stepen: an abare  Total time of concentration 4 minutes  Peak Haw 90 l/sec	
Peak Hav 90 l/sec	
aut nav 2 l/sec	•
Volume required for settlement lagour to accordate	 <b>7</b>
Volume required for settlement lagran to accordate  Peak flow of annual return penad storm 74 m  Lagran For x For x 1.5m	٠.
1 Comm For t 1.5M	

### Sedimentation Logions.

Research from the Chited States

(US EPA - 600/2-76-117, 1976)

recommends that providing the creftow rate

does not exceed 1 × 10⁻⁵ m/s, 95% of

intuent solids are reserved.

Orefrow Rate is defined an author three

lagoon (m³/s) divided by the panel surface area (m²).

If is analysis to using a softing rate of 1×10-5 m/s

which from Stoken Law is the rate at which a 4 mm

diarrete particle would rettle.

### Mare 1/Mare 2.

In both phanes the attenuation logicons alkew an authorized of 2 l/sec (0.002 m³/s)

 $\frac{1 \times 10^{-5} \, \text{M/s}}{A REA \, M^2} = \frac{0.002 \, \text{m}^3 / \text{s}}{A REA \, M^2}.$ 

Required area = 200 m² is 20 mx 10 m.

The settlement/redimentation lagorns will be constructed downstream of the attenuation lagorns.



APPENDIX A

**GROUNDSURE REPORTS** 



Parsons Brinckerhoff

27-29 PARSONS BRINCKERHOFF LTD, CATHEDRAL ROAD, CARDIFF, CF11 9HA GroundSure

GS-1587647

Reference:

Your Reference: PB84891

Report Date 2

29 Jul 2014

Report Delivery

Method:

Email - pdf

### **GroundSure Envirolnsight**

Address: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Dear Sir/ Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure Enviroinsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above GroundSure reference number.

Yours faithfully,

Managing Director Groundsure Limited

Enc.

GroundSure EnviroInsight



# GroundSure **Envirolnsight**

Address: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Date: 29 Jul 2014

GS-1587647 Reference:

Client: Parsons Brinckerhoff



Aerial Photograph Capture date: 22-May-2010 **Grid Reference:** 265243,201702

Site Size: 146.24ha

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7.6 Records of Ancient Woodland within 2000m of the study site:	
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7.8 Records of World Heritage Sites within 2000m of the study site:	
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# **Overview of Findings**

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1: Environmental Permits, Incidents and Registers	On-sit	e	0-50m	51-25	0 29	51-500
1.1 Industrial Sites Holding Environmental Permits and/or Authorisations						
1.1.1 Records of historic IPC Authorisations	0		0	0		0
1.1.2 Records of Part A(1) and IPPC Authorised Activities	2		0	0		0
1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0		0	0		0
1.1.4 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0		0	0		0
1.1.5 Records of List 1 Dangerous Substances Inventory sites	0		0	0		0
1.1.6 Records of List 2 Dangerous Substances Inventory sites	0		0	0		0
1.1.7 Records of Part A(2) and Part B Activities and Enforcements	0		0	0		0
1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations	0		0	0		0
1.1.9 Records of Licensed Discharge Consents	3		0	2		3
1.1.10 Records of Planning Hazardous Substance Consents and Enforcements	0		0	0		1
1.2 Records of COMAH and NIHHS sites	0		0	2		0
1.3 Environment Agency Recorded Pollution Incidents						
1.3.1 National Incidents Recording System, List 2	3		0	0		2
1.3.2 National Incidents Recording System, List 1	0		0	0		0
1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0		0	0		0
Section 2: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 5000
2.1 Landfill Sites						
2.1.1 Environment Agency Registered Landfill Sites	1	0	0	0	0	Not searched
2.1.2 Environment Agency Historic Landfill Sites	1	0	2	1	0	0
2.1.3 BGS/DoE Landfill Site Survey	0	0	0	1	0	0
2.1.4 GroundSure Local Authority Landfill Sites Data	0	0	0	0	0	0
2.2 Landfill and Other Waste Sites Findings						
2.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	2	0	0	0	Not searched	Not searched
2.2.2 Environment Agency Licensed Waste Sites	2	0	0	0	2	4

Section 3: Current Land Use	On-site	0-50m	51-250	251-500
3.1 Current Industrial Sites Data	14	6	6	Not searched
3.2 Records of Petrol and Fuel Sites	0	0	0	0
3.3 Underground High Pressure Oil and Gas Pipelines	0	0	0	0
Section 4: Geology				
4.1 Are there any records of Artificial Ground and Made Ground		1	No	

Section 4: Geology	
4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	Yes
4.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 5: Hydrogeology and Hydrology 0-500m						
5.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?  Yes						
5.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?	Yes					
	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
5.3 Groundwater Abstraction Licences (within 2000m of the study site)	1	0	1	1	5	10
5.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	2	3
5.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	2
5.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
5.7 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	4	0	2	1	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000- 1500
5.8 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	Yes	Yes
5.9 Detailed River Network entries within 500m of the site	47	19	72	82	Not searched	Not searched
5.10 Surface water features within 250m of the study site	Yes	Yes	Yes	Not searched	Not searched	Not searched

#### Section 6: Flooding 6.1 Are there any Environment Agency Zone 2 floodplains within Yes 250m of the study site? 6.2 Are there any Environment Agency Zone 3 floodplains within Yes 250m of the study site? 6.3 Are there any Flood Defences within 250m of the study site? No $6.4\,$ Are there any areas benefiting from Flood Defences within 250m No of the study site? $6.5\,$ Are there any areas used for Flood Storage within 250m of the No study site? 6.6 What is the maximum BGS Groundwater Flooding susceptibility Potential at Surface within 50m of the study site? 6.7 What is the BGS confidence rating for the Groundwater Flooding High susceptibility areas?

<ul><li>7.1 Records of Sites of Special Scientific Interest (SSSI)</li><li>7.2 Records of National Nature Reserves (NNR)</li></ul>	0	0	0			
7.2 Records of National Nature Reserves (NNR)			U	0	0	2
	0	0	0	0	0	0
7.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
7.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
7.5 Records of Ramsar sites	0	0	0	0	0	0
7.6 Records of Ancient Woodlands	1	0	0	0	1	6
7.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
7.8 Records of World Heritage Sites	0	0	0	0	0	0
7.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
7.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
7.11 Records of National Parks	0	0	0	0	0	0
7.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
7.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0

#### Section 8: Natural Hazards

8.1 What is the maximum risk of natural ground subsidence?

High

Section 9: Mining	
9.1 Are there any coal mining areas within 75m of the study site?	Yes
9.2 What is the risk of subsidence relating to shallow mining within 150m of the study site?	Low
9.3 Are there any brine affected areas within 75m of the study site?	No

### Using this report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between GroundSure and the Client. The document contains the following sections:

#### 1. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

#### 2. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

#### 3. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure underground oil and gas pipelines.

#### 4. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

#### 5. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

#### 6. Flooding

Provides information on surface water flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

#### 7. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

#### 8. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence.

#### 9. Mining

Provides information on areas of coal and shallow mining.

#### 10. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, GroundSure provide a free Technical Helpline (08444 159000) for further information and guidance.

#### **Note: Maps**

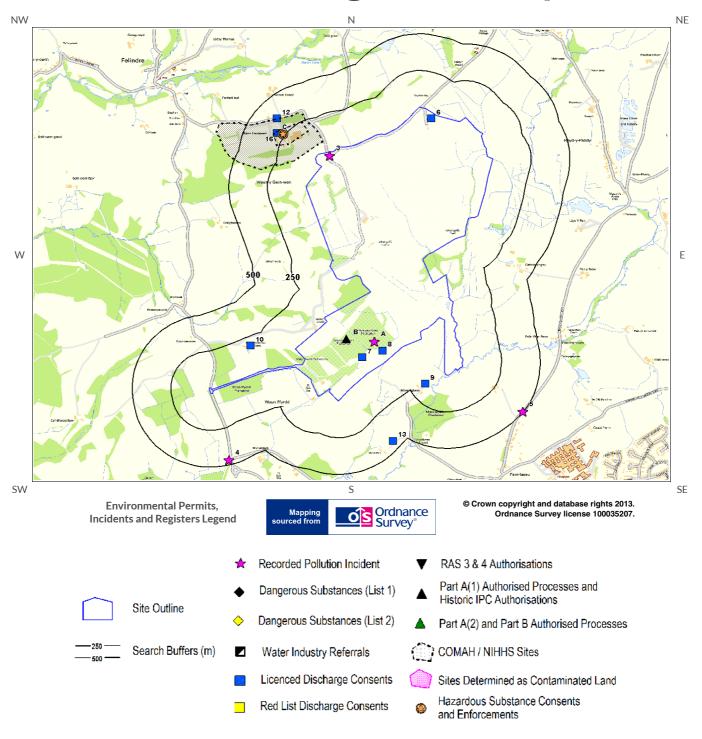
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -ld: 1, ld: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.



# 1. Environmental Permits, Incidents and Registers Map







# 1. Environmental Permits, Incidents and Registers

#### 1.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

1.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

1.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

2

The following Part A(1) and IPPC Authorised Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details			
19B	0.0	On Site	264950 200990	Operator: National Grid Gas Plc Installation Name: Felindre, Gas Compressor Station Process: COMBUSTION; ANY FUEL =>50MW	Permit Number: RP3232LD Original Permit Number: RP3232LD EPR Reference: - Issue Date: 2/7/2007 Effective Date: 2/7/2007 Last date noted as effective: 2014-04-01 Status: Superceded		
20B	0.0	On Site	264950 200990	Operator: National Grid Gas Plc Installation Name: Felindre, Gas Compressor Station Process: COMBUSTION; ANY FUEL =>50MW	Permit Number: WP3230TU Original Permit Number: RP3232LD EPR Reference: - Issue Date: 29/3/2010 Effective Date: 29/3/2010 Last date noted as effective: 2014-04-01 Status: Effective		

1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.



1.1.4 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:	
	0
Database searched and no data found.	
1.1.5 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:	0
Database searched and no data found.	
1.1.6 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:	0
Database searched and no data found.	
1.1.7 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:	0
Database searched and no data found.	
1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations:	0
Database searched and no data found.	
1.1.9 Records of Licensed Discharge Consents within 500m of the study site:	8

The following Licensed Discharge Consents records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	NGR	]	Details
6	0.0	On Site	265500 202500	Address: Abergelli Farm Felindre Swansea, Abergelli Farm Felindre Swansea, Felindre Swansea, Swansea, Swansea, SWANSEA Effluent Type: Unspecified Permit Number: BP0051701 Permit Version: 1	Receiving Water: To Land Status: Consent Expired - Time Limit Issue date: 14/8/1987 Effective Date: 14/8/1987 Revocation Date: -



ID	Distance	Direction	NGR	Det	tails
7	0.0	On Site	265052 200870	Address: Nat'l Grid Compressor Sta Swansea, Nat'l Grid Newb'd Compressor Sta, Felindre, Swansea, SA5 7LU Effluent Type: Sewage Discharges - Final/treated Effluent - Not Water Company Permit Number: BP0370301 Permit Version: 1	Receiving Water: Unnamed Land Drain Status: Surrendered Under Epr 2010 Issue date: 2/11/2007 Effective Date: 2/11/2007 Revocation Date: 26/8/2010
8	0.0	On Site	265183 200917	Address: National Grid Site Llangyfelach, National Grid Site, Llangyfelach, Felindre, Swansea Effluent Type: Trade Discharges - Site Drainage Permit Number: BP0361101 Permit Version: 1	Receiving Water: Afon Llan Status: Surrendered Under Epr 2010 Issue date: - Effective Date: - Revocation Date: 16/6/2011
9	146.0	SW	265460 200690	Address: Maes Eglwys Farm Pantlasau Morristo, Maes Eglwys Farm Pantlasau Morri, Pantlasau Morriston, Morriston Effluent Type: Unspecified Permit Number: BF0214701 Permit Version: 1	Receiving Water: To Land Nr. River Llan Status: Consent Expired - Time Limit Issue date: 1/2/1979 Effective Date: 1/2/1979 Revocation Date: 22/4/1994
10	188.0	N	264330 200950	Address: Penywaun Fach Cottages Felindre Swa, Penywaun Fach Cottages Felindre, Felindre Swansea., Swansea. Effluent Type: Unspecified Permit Number: BP0108201 Permit Version: 1	Receiving Water: To Land Status: Consent Expired - Time Limit Issue date: - Effective Date: - Revocation Date: -
11 C	302.0	NW	264500 202400	Address: Felindre Chlor.overflow, Felindre Chlor.overflow Effluent Type: Unspecified Permit Number: BP0180001 Permit Version: 1	Receiving Water: To Land Status: Consent Expired - Time Limit Issue date: 2/10/1989 Effective Date: 2/10/1989 Revocation Date: 14/3/1994
12	365.0	NW	264500 202500	Address: Felindre Wtw (septic Tank Disc, Felindre Wtw (septic Tank Disc Effluent Type: Unspecified Permit Number: BC0011901 Permit Version: 1	Receiving Water: Unnamed Trib. River Lliw Status: Consent Expired - Time Limit Issue date: 22/5/1970 Effective Date: 22/5/1970 Revocation Date: -
13	442.0	SE	265250 200300	Address: Bungalow At Gorswen Farm Pontlasse, Bungalow At Gorswen Farm Pontlas, Pontlasse Swansea, Swansea, Swansea, Effluent Type: Unspecified Permit Number: BP0011401 Permit Version: 1	Receiving Water: To Land Status: Consent Expired - Time Limit Issue date: 7/2/1986 Effective Date: 7/2/1986 Revocation Date: -

 ${\bf 1.1.10}\ Records\ of\ Planning\ Hazardous\ Substance\ Consents\ and\ Enforcements\ within\ 500m\ of\ the\ study\ site:$ 

1

The following records are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	Application Reference Number	NGR	Application Status	Application Date	Address	Details	Details of Enforcement Action
21C	265.0	NW	HAZ 5/92	264539 202392	Approved	No details.	Felindre Waterworks, Felindre, Welsh Water, Swansea, West Glamorgan, SA5 7NP	Storage of chlorine.	Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified



#### 1.2 Dangerous or Hazardous Sites

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

2

The following COMAH & NIHHS Authorisation records provided by the Health and Safety Executive are represented as polygons or buffered points on the Environmental Permits, Incidents and Registers Map:

ID	Distance	Direction	Company	Address	Operational Status	Tier
16	58.0	NW	Dwr Cymru / Welsh Water	Dwr Cymru / Welsh Water, Felindre Water Treatment Works, Felindre, Swansea, Sa5 7np	Current COMAH Site	COMAH Lower Tier Operator
17C	168.0	NW	Welsh Water Development Authority	Welsh Water Development Authority(glamorgan Water Division), Felindre Treatment Plant, Felindre, Sa5 7np	Historical NIHHS Site	-

#### 1.3 Environment Agency Recorded Pollution Incidents

1.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

5

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

ID	Distance	Direction	NGR	De	etails
1A	0.0	On Site	265129 200977	Incident Date: 25/06/2002 Incident Identification: 87384 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
2A	0.0	On Site	265129 200977	Incident Date: 25/06/2002 Incident Identification: 87384 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
3	0.0	On Site	264841 202246	Incident Date: 10/05/2007 Incident Identification: 493773 Pollutant: Inert Materials and Wastes Pollutant Description: Soils and Clay	Water Impact: Category 2 (Significant) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
4	467.0	S	264189 200169	Incident Date: 16/08/2002 Incident Identification: 100861 Pollutant: Oils and Fuel Pollutant Description: Mixed/Waste Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
5	496.0	SE	266090 200500	Incident Date: 10/05/2001 Incident Identification: 5132 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)



1.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

#### 1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

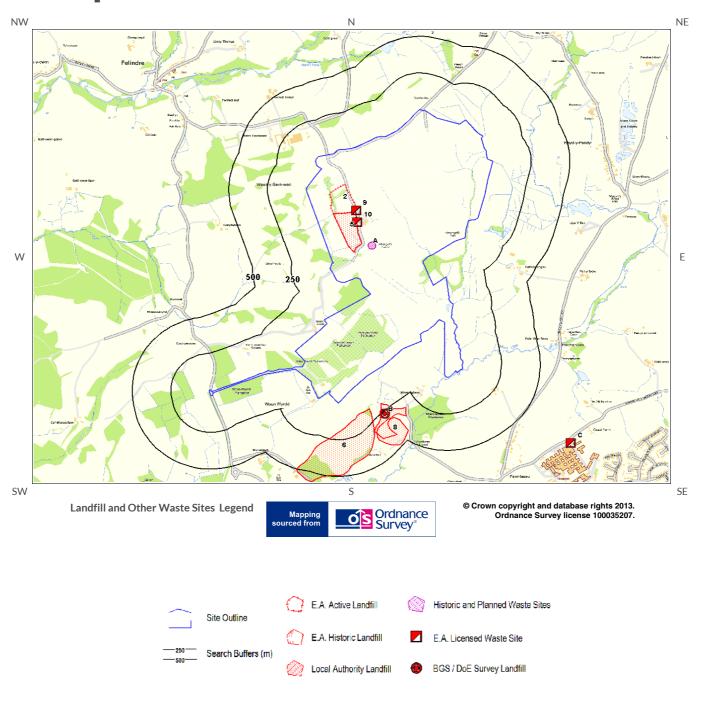
How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site?

0

Database searched and no data found.



## 2. Landfill and Other Waste Sites Map







## 2. Landfill and Other Waste Sites

#### 2.1 Landfill Sites

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

1

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

ID	Distance (m)	Direction	NGR		Details
2	0.0	On Site	265014 201890	Address: Abergelli Fach Farm, Felindre, Swansea, SA5 7NN Landfill Reference: 34108.0 Environmental Permitting Regulations (Waste) Reference: LLE001 Landfill Type: A5: Landfill taking Non- Biodegradeable Wastes	Operator: Llewellyn Bryn Status: Closure IPPC Reference: EPR Reference:

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

4

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

ID	Distance (m)	Direction	NGR	Details	
5	5 0.0		265020 201808	Site Address: Abergelli Fach Farm Landfill Extension, Felindre Waste Licence: Yes Site Reference: - Waste Type: Inert Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 06-Sep-1999 Licence Surrendered: Licence Hold Address: Felindre Operator: Abergelli Fach Farm Landfill Extension
6	147.0	SE	264900 200200	Site Address: British Steel Corporation, Velindre, Pant-lasau, Swansea Waste Licence: Yes Site Reference: - Waste Type: Industrial, Household, Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: 21-Jun-1991 Licence Surrendered: 20-Jun-1994 Licence Hold Address: Velindre, Swansea Operator: -
7B	200.0	SE	265200 200400	Site Address: Gorswen Farm, Pontdassau, Llangyfelach, Glamorgan Waste Licence: - Site Reference: - Waste Type: - Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -



ID	Distance (m)	Direction	NGR	Details	
8	302.0	SE	265200 200300	Site Address: Gors Wen, Felindre Waste Licence: - Site Reference: - Waste Type: Inert, Industrial, Special, Environmental Permitting Regulations (Waste) Reference: -	Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: -

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

1

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

ID	Distance (m)	Direction	NGR		Details
1B	266.0	SE	26520 0.0 20050 0.0	Address: Gorswen Farm, Pontdassau, Llangyfelach, Glam BGS Number: 1208.0	Risk: No risk to aquifer Waste Type: N/A

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

0

Database searched and no data found.

#### 2.2 Other Waste Sites

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

2

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

ID	Distance (m)	e Direction	n NGR			Details
3A	0.0	On Site	265117 201648	Type of Site: Recycling Facility Site Address: Abergelli Fach Farm, Felindre, SWANSEA, West Glamorgan, SA5 7NN	Planning Application Reference: 2008/0827 Date: -	Further Details: Scheme comprises change of use from agricultural land to recycling of green waste and composting treatment. An application (ref: 2008/0827) for detailed planning permission was refused by Swansea C.C. A detailed planning application has been refused.  Data Source: Historic Planning Application Data Type: Point



ID	Distance (m)	Direction	NGR			Details
4A	0.0	On Site	265117 201648	Type of Site: Waste Transfer Station Site Address: Landfill Site, Abergelli Fach Farm, Felindre, SWANSEA, West Glamorgan, SA5 7NN	Planning Application Reference: 2002/0312 Date: -	Further Details: Scheme comprises provision of a waste transfer station together with the removal of inert material and engineering works at Abergelli tip. An application (ref: 2002/0312) for Detailed Planning permission was submitted to Swansea C.C. on 22nd February 2002.  Data Source: Historic Planning Application Data Type: Point

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

8

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

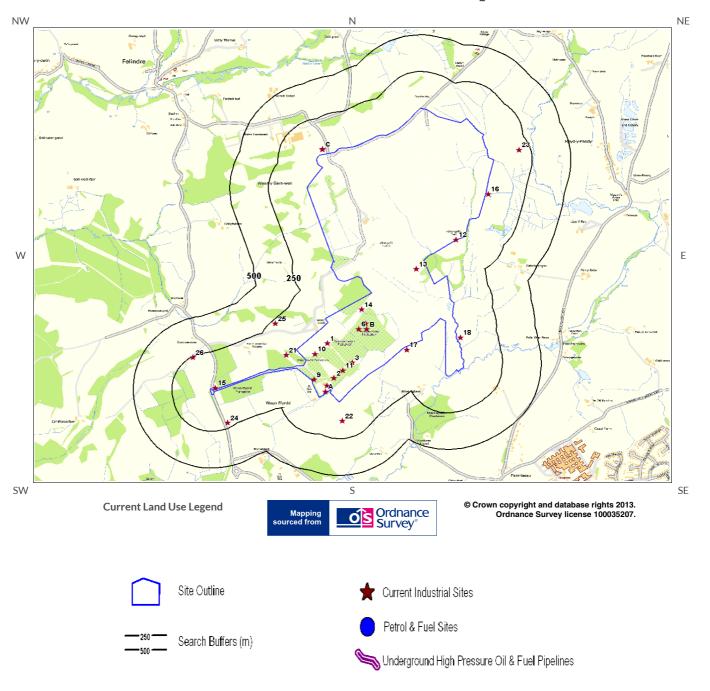
ID	Distance (m)	Direction	NGR	De	tails
9	0.0	On Site	265014 201890	Site Address: Abergelli Fach Farm, Felindre, Swansea, SA5 7NN Type: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LLE001 EPR reference: EA/EPR/XP3198FC/A001 Operator: Llewellyn Bryn Waste Management licence No: 34108 Annual Tonnage: 82628.0	Issue Date: 29/09/1994 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Closure Site Name: Abergelli Fach Farm Correspondence Address: -, -
10	0.0	On Site	265020 201808	Site Address: - Type: Landfill taking Non-Biodegradeable Wastes Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LLE002 EPR reference: EA/EPR/CP3098FZ/V002 Operator: Llewellyn William Bryn Waste Management licence No: 34165 Annual Tonnage: 35000.0	Issue Date: 06/09/1999 Effective Date: - Modified: 10/10/2003 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired Site Name: Abergelli Fach Farm Landfill Extension Correspondence Address: -, -
11C	864.0	SE	266400 200300	Site Address: Morriston Hospital, Heol Maes Eglwys, Morriston, Swansea, SA6 6NL Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MOR003 EPR reference: EA/EPR/TP3598FV/S002 Operator: Morriston Hospital NHS Trust Waste Management licence No: 34135 Annual Tonnage: 1606.0	Issue Date: 30/03/1996 Effective Date: - Modified: - Surrendered Date: 11/04/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Morriston Hospital Correspondence Address: -, -
12C	864.0	SE	266400 200300	Site Address: Morriston Hospital, Heol Maes Eglwys, Morriston, Swansea, SA6 6NL Type: Clinical Waste Transfer Station Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MOR003 EPR reference: - Operator: Morriston Hospital N H S Trust Waste Management licence No: 34135 Annual Tonnage: 0.0	Issue Date: 30/03/1996 Effective Date: - Modified: - Surrendered Date: 11/04/2001 Expiry Date: - Cancelled Date: - Status: Surrendered Site Name: Morriston Hospital Correspondence Address: -, Morriston Hospital, Heol Maes Eglwys, Morriston, Swansea, SA6 6NL



ID	Distance (m)	Direction	NGR	De	tails
Not shown	1209.0	S	263976 199417	Site Address: Jr Works, Bryntywod, Swansea, SA5 7LE Type: - Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GAV004 EPR reference: EA/EPR/EB3397TU/A001 Operator: Mr Gavin Griffiths Waste Management licence No: 900031 Annual Tonnage: 0.0	Issue Date: 09/09/2013 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Griffiths Recycling Correspondence Address: -, -
Not shown	1209.0	S	263976 199417	Site Address: Jr Works, Bryntywod, Langyfelach, Swansea, SA5 7LE Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GAV004 EPR reference: EA/EPR/EB3397TU/A001 Operator: Mr Gavin Griffiths Waste Management licence No: 900031 Annual Tonnage: 75000.0	Issue Date: 09/09/2013 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Griffiths Recycling Correspondence Address: -, -
Not shown	1222.0	S	263865 199418	Site Address: J R Works, Bryntywod Llangyfellach, Swansea, W Glamorgan, SA5 7LE Type: Household, Commercial & Industrial Waste T Stn Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRI015 EPR reference: DP3193SR/V002 Operator: Griffiths Pallet Services Ltd Waste Management licence No: 100069 Annual Tonnage: 0.0	Issue Date: 08/04/2008 Effective Date: - Modified: 29/01/2010 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: Griffiths Pallet Services Correspondence Address: -, -
Not shown	1222.0	S	263865 199418	Site Address: Former J R Works, Bryntywod, Llangyfellach, Swansea, West Galmorgan, SA5 7LE Type: Material Recycling Treatment Facility Size: < 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRI039 EPR reference: EA/EPR/NP3699VX/T001 Operator: Griffiths Waste Management Ltd Waste Management licence No: 100069 Annual Tonnage: 24999.0	Issue Date: 08/04/2008 Effective Date: 23/12/2010 Modified: 29/01/2010 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: Former J R Steelworks Correspondence Address: -, -



### 3. Current Land Use Map







### 3. Current Land Uses

#### 3.1 Current Industrial Data

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

26

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	0.0	On Site	Pylon	264821 200971	SA5	Electrical Features	Infrastructure and Facilities
2	0.0	On Site	Pylon	264863 200735	SA5	Electrical Features	Infrastructure and Facilities
3	0.0	On Site	Pylon	264980 200840	SA5	Electrical Features	Infrastructure and Facilities
4A	0.0	On Site	Pylon	264807 200643	SA5	Electrical Features	Infrastructure and Facilities
5A	0.0	On Site	Electricity Sub Station	264817 200683	SA5	Electrical Features	Infrastructure and Facilities
6	0.0	On Site	Chimney	265024 201070	SA5	Chimneys	Industrial Features
7B	0.0	On Site	Gas Compressor Station	265075 201068	SA5	Gas Features	Infrastructure and Facilities
8B	0.0	On Site	Chimney	265068 201107	SA6	Chimneys	Industrial Features
9	0.0	On Site	Pylon	264733 200726	SA5	Electrical Features	Infrastructure and Facilities
10	0.0	On Site	Pylon	264742 200899	SA5	Electrical Features	Infrastructure and Facilities
11	0.0	On Site	Pylon	264922 200788	SA5	Electrical Features	Infrastructure and Facilities
12	0.0	On Site	Pylon	265653 201680	SA6	Electrical Features	Infrastructure and Facilities
13	0.0	On Site	Pylon	265395 201479	SA6	Electrical Features	Infrastructure and Facilities
14	0.0	On Site	Pylon	265041 201203	SA5	Electrical Features	Infrastructure and Facilities
15	12.0	Ν	Pylon	264095 200669	SA5	Electrical Features	Infrastructure and Facilities
16	14.0	Е	Pylon	265860 201991	SA6	Electrical Features	Infrastructure and Facilities
17	21.0	SE	Pylon	265335 200929	SA6	Electrical Features	Infrastructure and Facilities
18	25.0	NE	Pylon	265681 201011	SA6	Electrical Features	Infrastructure and Facilities
19C	36.0	N	Gas Valve Compound	264788 202296	SA5	Gas Features	Infrastructure and Facilities
20C	38.0	N	Gas Valve Compound	264788 202298	SA5	Gas Features	Infrastructure and Facilities
21	76.0	SW	Pylon	264554 200892	SA5	Electrical Features	Infrastructure and Facilities



ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
22	130.0	S	Pylon	264918 200442	SA6	Electrical Features	Infrastructure and Facilities
23	178.0	NE	Pylon	266060 202293	SA6	Electrical Features	Infrastructure and Facilities
24	217.0	SE	Pylon	264177 200429	SA5	Electrical Features	Infrastructure and Facilities
25	224.0	NW	Pylon	264485 201107	SA5	Electrical Features	Infrastructure and Facilities
26	243.0	NW	Pylon	263952 200875	SA5	Electrical Features	Infrastructure and Facilities

#### 3.2 Petrol and Fuel Sites

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

0

Database searched and no data found.

#### 3.3 Underground High Pressure Oil and Gas Pipelines

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

0

Database searched and no data found.





### 4. Geology

#### 4.1 Artificial Ground and Made Ground

Database searched and no data found.

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

#### 4.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
PEAT-P	PEAT	PEAT
TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
PEAT-P	PEAT	PEAT
GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL

#### 4.3 Bedrock and Solid Geology

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

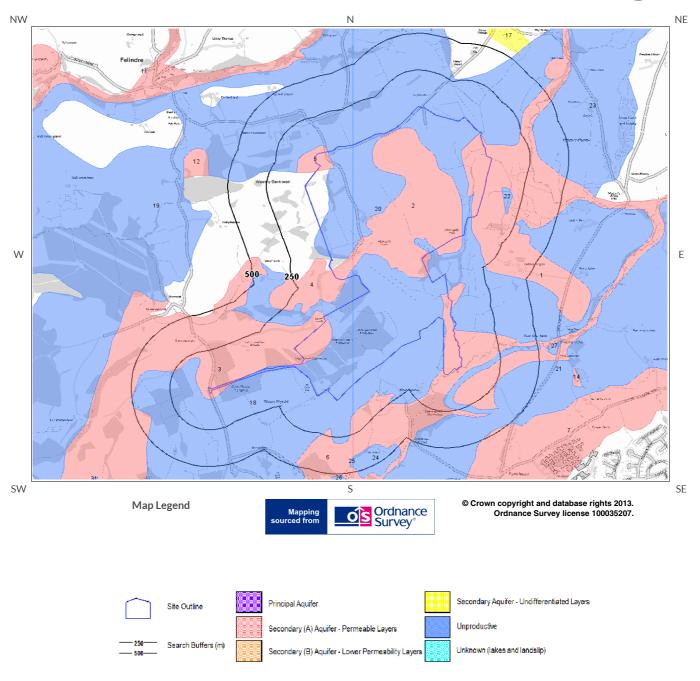
	Lex Code	Description	Rock Type
	GDB-MDSS	GROVESEND FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
	GDB-MDSS	GROVESEND FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
	SW-SDST	SWANSEA MEMBER	SANDSTONE
(	GDB-MDSS	GROVESEND FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
	GDB-MDSS	GROVESEND FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE
	SW-MDSS	SWANSEA MEMBER	MUDSTONE, SILTSTONE AND SANDSTONE
	SW-SDST	SWANSEA MEMBER	SANDSTONE



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

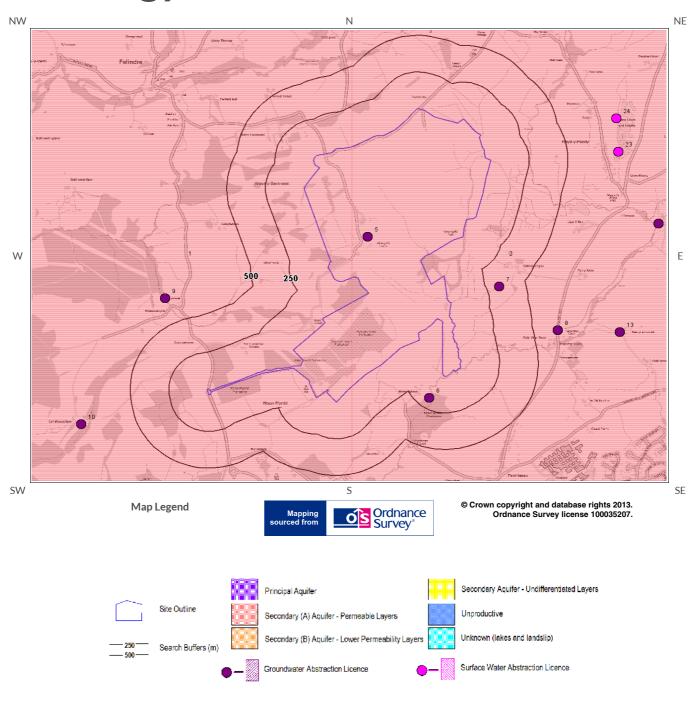


# 5. Hydrogeology and Hydrology5a. Aquifer Within Superficial Geology



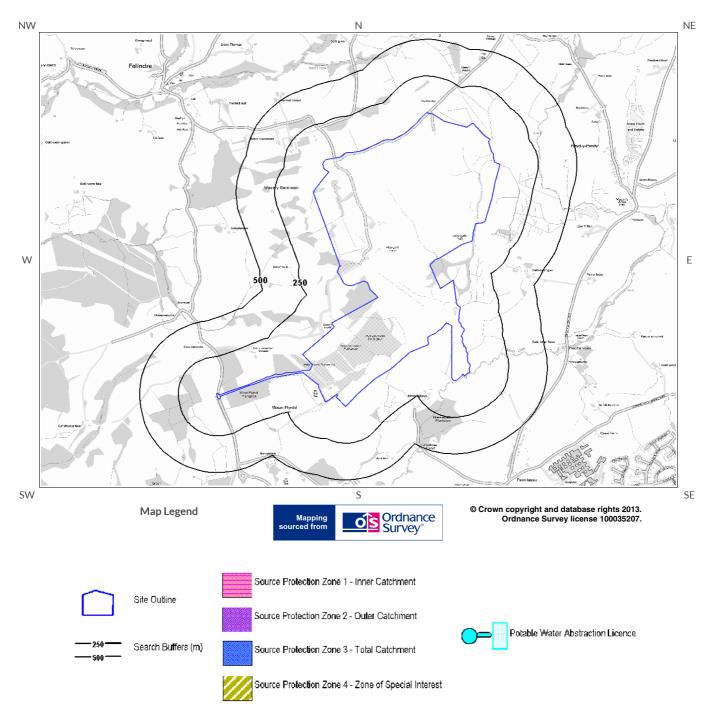


# 5b. Aquifer Within Bedrock Geology and Abstraction Licenses



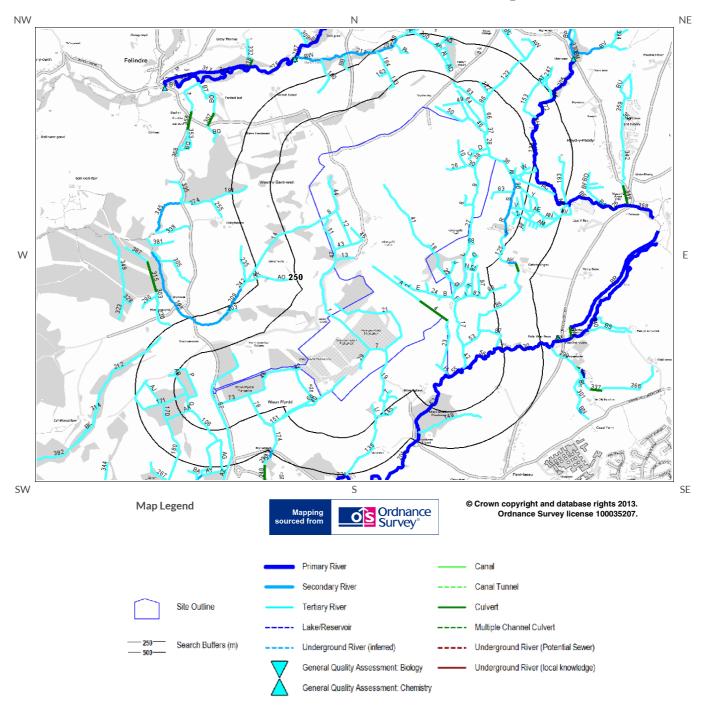


### 5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses





### 5d. Hydrology – Detailed River Network and River Quality







#### 5.1 Aquifer within Superficial Deposits

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

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

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

ID	Distance (m)	Direction	Designation	Description
1	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
3	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
18	0.0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
19	0.0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
20	0.0	On Site	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
21	51.0	SE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
22	108.0	Е	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
6	137.0	SE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
23	296.0	E	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow



ID	Distance (m)	Direction	Designation	Description
24	376.0	SE	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
25	401.0	S	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
7	476.0	SE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

#### 5.2 Aquifer within Bedrock Deposits

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

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

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

ID	Distance (m)	Direction	Designation	Description
1	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	0.0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

#### 5.3 Groundwater Abstraction Licences

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

Yes

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

ID	Distance (m)	Direction	NGR	Details	
5	0.0	On Site	265100 201700	Licence No: 22/59/4/0027 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well In Enclosure 481 At Abergelli Farm, Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: 5/3596 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:



ID	Distance (m)	Direction	NGR	Details			
6	179.0	SW	265500 200600	Licence No: 22/59/4/0013 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well On Land Belonging To Maeseglwys Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3627 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:		
7	328.0	E	265950 201360	Licence No: 22/59/4/0022 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring At Cwfn Betinge Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3625 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:		
8	655.0	E	266330 201060	Licence No: 22/59/4/0008  Details: General Farming & Domestic  Direct Source: Eaw Groundwater  Point: Well At Felin Wen Court  Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/809 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:		
9	678.0	NW	263790 201280	Licence No: 22/59/4/0011 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring At Fforest Newydd Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/267 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 26/3/1999 Version End Date:		
10	848.0	W	263250 200420	Licence No: 22/59/4/0016 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring In Field 830,cefn Fforest Fawr Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3595 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date:		
Not shown	870.0	N	265750 203390	Licence No: 22/59/4/0024 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well At Rhosfawr Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3495 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:		
Not shown	888.0	N	264580 203130	Licence No: 22/59/4/0003 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring In Field No. 5700 At Lletty-thomas Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date:		
13	1045.0	E	266730 201050	Licence No: 22/59/4/0006  Details: General Farming & Domestic  Direct Source: Eaw Groundwater  Point: Spring In Field No. 586 At Gelliwastad Farm  Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3534 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date:		



ID	Distance (m)	Direction	NGR	Details		
14	1151.0	E	266980 201790	Licence No: 22/59/4/0025 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring In Enc. South West Of Pontycoedcae Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3613 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:	
Not shown	1363.0	E	267260 202190	Licence No: 22/59/4/0019 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well In Field No. 437 At Nantymilwr Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3473 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/2/1993 Version End Date:	
Not shown	1413.0	NW	264830 203860	Licence No: 22/59/4/0005 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring 1 At Pant Y Fallen Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3471 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date:	
Not shown	1539.0	E	267200 200460	Licence No: 22/59/1/0057 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well & Reservoir In Enc. No. 2047 Nr Wernfadog Cottage Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3514 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 30/3/1966 Version End Date:	
Not shown	1543.0	N	265730 204090	Licence No: 22/59/4/0039 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Well At Cwmcile Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR3576 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 30/3/1966 Version End Date:	
Not shown	1661.0	N	266080 204130	Licence No: 22/59/4/0039 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring Adjacent To Pentre Bedw Cottage Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR3576 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 30/3/1966 Version End Date:	
Not shown	1824.0	N	265500 204400	Licence No: 22/59/4/0040 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring In Enc. No. 847 At Maestir Mawr Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR3614 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 30/3/1966 Version End Date:	
Not shown	1906.0	E	267610 200910	Licence No: 22/59/1/0013  Details: General Farming & Domestic  Direct Source: Eaw Groundwater  Point: Well In Field No. 349 At Penrhiwgwysfa  Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3580 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date:	



ID	Distance (m)	Direction	NGR	Detai	ls
Not shown	1920.0	N	265250 204490	Licence No: 22/59/4/0005 Details: General Farming & Domestic Direct Source: Eaw Groundwater Point: Spring 2 At Pant Y Fallen Farm Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: WR5/3471 Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/12/1965 Version End Date:

#### 5.4 Surface Water Abstraction Licences

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

Yes

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

ID	Distance (m)	Direction	NGR	Details	
23	825.0	E	266720 202280	Licence No: 22/59/4/0066 Details: Lake & Pond Throughflow Direct Source: Eaw Surface Water Point: Un-named Trib Of Afon Llan Data Type: Point	Annual Volume (m³): 469612 Max Daily Volume (m³): 2730 Application No: - Original Start Date: 17/4/1990 Expiry Date: - Issue No: 1 Version Start Date: 1/4/2005 Version End Date:
24	862.0	E	266710 202510	Licence No: 22/59/4/0066 Details: Lake & Pond Throughflow Direct Source: Eaw Surface Water Point: Un-named Trib Of Afon Llan Data Type: Point	Annual Volume (m³): 469612 Max Daily Volume (m³): 2730 Application No: - Original Start Date: 17/4/1990 Expiry Date: - Issue No: 1 Version Start Date: 1/4/2005 Version End Date:
Not shown	1014.0	NW	264890 203440	Licence No: 22/59/4/0065 Details: Potable Water Supply - Storage Direct Source: Eaw Surface Water Point: Lower Lliw Reservoir Data Type: Point	Annual Volume (m³): 82964500 Max Daily Volume (m³): 227300 Application No: - Original Start Date: 9/8/1989 Expiry Date: - Issue No: 101 Version Start Date: 18/9/2003 Version End Date:
Not shown	1014.0	NW	264890 203440	Licence No: 22/59/4/0065 Details: Potable Water Supply - Storage Direct Source: Eaw Surface Water Point: Lower Lliw Reservoir - Point B Data Type: Point	Annual Volume (m³): 82964500 Max Daily Volume (m³): 454600 Application No: - Original Start Date: 9/8/1989 Expiry Date: - Issue No: 101 Version Start Date: 1/4/2011 Version End Date:



ID	Distance (m)	Direction	NGR	Details	
Not shown	1951.0	S	266130 198870	Licence No: 22/59/1/0083 Details: Spray Irrigation - Direct Direct Source: Eaw Surface Water Point: Unnamed Stream Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: - Expiry Date: - Issue No: 100 Version Start Date: 1/4/2001 Version End Date:

#### 5.5 Potable Water Abstraction Licences

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

Yes

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

ID	Distance (m)	Direction	NGR	R Details		
Not shown	1014.0	NW	264890 203440	Licence No: 22/59/4/0065 Details: Potable Water Supply - Storage Direct Source: Eaw Surface Water Point: Lower Lliw Reservoir Data Type: Point	Annual Volume (m³): 82964500 Max Daily Volume (m³): 227300 Original Application No: - Original Start Date: 9/8/1989 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:	
Not shown	1014.0	NW	264890 203440	Licence No: 22/59/4/0065 Details: Potable Water Supply - Storage Direct Source: Eaw Surface Water Point: Lower Lliw Reservoir - Point B Data Type: Point	Annual Volume (m³): 82964500 Max Daily Volume (m³): 454600 Original Application No: - Original Start Date: 9/8/1989 Expiry Date: - Issue No: 101 Version Start Date: Version End Date:	

#### 5.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.



#### 5.7 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site?

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Minor Aquifer/High Leaching Potential	H2	Deep, permeable, coarse textured soils which readily transmit a wide range of pollutants because of their rapid drainage and low attenuation potential.
0	On Site	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.
0	On Site	Minor Aquifer/Intermediate Leaching Potential	I1	Soils which can possibly transmit a wide range of pollutants.
0	On Site	Minor Aquifer/High Leaching Potential	H1	Soils which readily transmit liquid discharges because they are shallow or susceptible to rapid flow directly to rock, gravel or groundwater.
194	N	Minor Aquifer/High Leaching Potential	НЗ	Coarse textured or moderately shallow soils which readily transmit non-adsorbed pollutants and liquid discharges but have some ability to attenuate adsorbed pollutants because of their clay or organic matter content.
243	NW	Minor Aquifer/Intermediate Leaching Potential	I1	Soils which can possibly transmit a wide range of pollutants.
440	S	Minor Aquifer/Low Leaching Potential	L	Soils in which pollutants are unlikely to penetrate the soil layer because either water movement is largely horizontal, or they have the ability to attenuate diffuse pollutants.

#### 5.8 River Quality

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

Yes



#### 5.8.1 Biological Quality:

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

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

ID	Distance	Diti	NCD	Pi a Qualita Guala		Biological Quality Grade				
ID	(m)	Direction	NGR	River Quality Grade -	2005	2006	2007	2008	2009	
399BW	667.0	N	264600 202900	River Name: Loughor Lliw Reach: Conf.nant Y Crimp - Conf Un Named Trib. End/Start of Stretch: Start of Stretch NGR	А	А	А	А	В	
400BW	667.0	N	264600 202900	River Name: Loughor Lliw Reach: Conf Un Named Trib - Lower Lliw Res End/Start of Stretch: End of Stretch NGR	А	А	А	А	В	
Not shown	954.0	NW	264800 203300	River Name: Loughor Lliw Reach: Conf Un Named Trib - Lower Lliw Res End/Start of Stretch: Start of Stretch NGR	А	А	А	А	В	
Not shown	1333.0	S	263900 199300	River Name: Llan Reach: Melin Llan Br Llangafelach - Cuckoo Mill End/Start of Stretch: Start of Stretch NGR	В	В	В	В	В	
Not shown	1333.0	S	263900 199300	River Name: Llan Reach: Cuckoo Mill - Felin-wen End/Start of Stretch: End of Stretch NGR	В	В	В	В	В	



#### 5.8.2 Chemical Quality:

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

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

				_		Chem	ical Quality	Grade	
ID	Distance (m)	Direction	NGR	River Quality Grade	2005	2006	2007	2008	2009
404BX	614.0	E	266300 201000	River Name: Llan Reach: Cuckoo Mill - Felin-wen End/Start of Stretch: Start of Stretch NGR	А	А	А	А	-
405BX	614.0	Е	266300 201000	River Name: Llan Reach: Felin-wen - Cynghordy End/Start of Stretch: End of Stretch NGR	А	А	А	А	-
406BW	667.0	N	264600 202900	River Name: Lliw Reach: Conf.nant Y Crimp - Conf Un Named Trib. End/Start of Stretch: Start of Stretch NGR	А	А	А	А	-
407BW	667.0	N	264600 202900	River Name: Lliw Reach: Conf Un Named Trib - Lower Lliw Res End/Start of Stretch: End of Stretch NGR	А	А	А	А	-
408BM	759.0	NE	266400 202900	River Name: Llan Reach: Felin-wen - Cynghordy End/Start of Stretch: Start of Stretch NGR	А	А	А	А	-
Not shown	954.0	NW	264800 203300	River Name: Lliw Reach: Conf Un Named Trib - Lower Lliw Res End/Start of Stretch: Start of Stretch NGR	А	А	А	А	-
410BY	1097.0	NW	263760 202700	River Name: Lliw Reach: Conf.nant Y Crimp - Conf Un Named Trib. End/Start of Stretch: Sample Point NGR	А	А	А	А	-
411BY	1097.0	NW	263760 202700	River Name: Lliw Reach: Conf Un Named Trib - Lower Lliw Res End/Start of Stretch: Sample Point NGR	А	А	А	А	-
Not shown	1333.0	S	263900 199300	River Name: Llan Reach: Cuckoo Mill - Felin-wen End/Start of Stretch: End of Stretch NGR	А	А	А	А	-
Not shown	1333.0	S	263900 199300	River Name: Llan Reach: Melin Llan Br Llangafelach - Cuckoo Mill End/Start of Stretch: Start of Stretch NGR	А	А	А	А	-



#### 5.9 Detailed River Network

Are there any Detailed River Network entries within 500m of the study site?

Yes

The following Detailed River Network records are represented on the Hydrology Map (5d):



ID	Distance (m)	Direction	rection Details				
1	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
2	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
3	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
4	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined			
5B	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
6	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
7	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
8	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
9	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
10	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
11	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
12	0.0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
13	0.0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
14	0.0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
15 A	0.0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
16 A	0.0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
17	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
18	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
19	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
20 E	0.0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
21	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			



ID	Distance (m)	Direction	ction Details				
22	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
23	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
24	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
25 B	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
26	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
27	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
28	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
29	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
30	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
31 C	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
32	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
33 C	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
34 D	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
35 D	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
36	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
37	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
38	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
39 E	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
40	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
41	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			
42	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined			



ID	Distance (m)	Direction	Details	
43	0.0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
44	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
45	0.0	On Site	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
46	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
47	0.0	On Site	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
48	2.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
49	2.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
50	2.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
51 F	2.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
52 F	2.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
53	3.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
54 B	3.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
55	3.0	SE	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
56	3.0	SE	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
57	4.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
58 H	8.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
59 G	9.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
60	14.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
61 G	24.0	E	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
62	26.0	SW	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
63	31.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined



ID	Distance (m)	Direction	Details	
64	40.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
65 H	41.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
66	50.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
67 L	52.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
68	52.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
691	52.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
701	52.0	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
71J	68.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
72J	68.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
73	76.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
74 K	96.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
75 K	98.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
76 K	98.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
77 K	99.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
78	102.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
79 P	108.0	W	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
80 N	109.0	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
81 K	112.0	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
82	112.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
83	116.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
84 L	118.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined



ID	Distance (m)	Direction	ı	Details
85	119.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
86	122.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
87	136.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
88 M	136.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
89 M	136.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
90	139.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
91 N	147.0	E	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
92	147.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
93 M	149.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
94 O	151.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
95 L	152.0	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
96	155.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
97	155.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
98 O	156.0	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
99 S	158.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
10 0R	158.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
10 1U	160.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10 2V	164.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10 3P	165.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10 4Q	165.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10 5T	170.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined



ID	Distance (m)	Direction	1	Details
10 6Y	172.0	E	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10 7M	175.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10 8	180.0	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10 9Q	182.0	W	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 OR	184.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 1M	185.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 2S	189.0	E	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 3A A	190.0	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 4T	191.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 5T	191.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 6M	196.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 7W	196.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 8U	198.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
11 9A C	199.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
12 0X	200.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
12 1V	200.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
12 2	203.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
12 3	203.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
12 4W	203.0	E	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
12 5	204.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
12 6X	208.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined



ID	Distance (m)	Direction	Details		
12 7X	208.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined	
12 8Y	208.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
12 9X	209.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined	
13 0	214.0	Е	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined	
13 1R	214.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
13 2V	220.0	Е	River Name: Drains Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
13 3	230.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
13 4Z	232.0	E	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
13 5	234.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
13 6U	234.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
13 7Z	244.0	E	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
13 8	249.0	Е	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined	
13 9A A	253.0	SW	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
14 0A B	256.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
14 1A B	256.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
14 2Z	258.0	Е	River Name: Drains Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
14 3A C	264.0	E	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined	
14 4Z	264.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
14 5	267.0	SE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
14 6A O	276.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
14 7Y	277.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	



ID	Distance (m)	Direction	С	Details
14 8A D	282.0	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
14 9	283.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 0A F	290.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 1	290.0	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 2Z	291.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 3	294.0	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 4A D	301.0	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 5A D	301.0	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 6A E	303.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 7A E	310.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 8A F	310.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15 9A F	311.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16 0A K	315.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
16 1A H	317.0	Е	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
16 2A G	320.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16 3	320.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16 4	320.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16 5A F	321.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16 6A F	322.0	Е	River Name: Drains Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16 7A G	322.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
16 8A H	324.0	E	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined



ID	Distance (m)	Direction	Ε	Details
16 9A H	324.0	Е	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
17 0	328.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17 1	328.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17 2	342.0	Е	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined
17 3A F	343.0	Е	River Name: Drains Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17 4	345.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17 5AI	348.0	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17 6AI	348.0	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17 7A F	348.0	Е	River Name: Drains Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17 8A J	350.0	W	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
17 9A J	350.0	W	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 0	354.0	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 1A K	359.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
18 2AI	365.0	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 3A F	366.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 4A M	372.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 5A N	375.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 6A L	376.0	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 7A L	388.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 8A M	391.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
18 9A P	400.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined



ID	Distance (m)	ance (m) Direction	Details		
19 0	403.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
19 1	403.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
19 2A L	406.0	N	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
19 3	411.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
19 4A N	413.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
19 5	423.0	N	River Name: Nant y Crimp Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined	
19 6A O	423.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined	
19 7A X	430.0	W	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
19 8A R	430.0	Е	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined	
19 9A P	431.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
20 0	433.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
20 1	439.0	SW	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined	
20 2A N	439.0	Е	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
20 3	453.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
20 4	455.0	NW	River Name: Nant y Tarw Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined	
20 5	456.0	NE	River Name: Afon Llan Welsh River Name: - Alternative Name: -	River Type: Primary River Main River Status: Currently Undefined	
20 6	456.0	NE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
20 7A Q	463.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	
20 8A S	464.0	NW	River Name: Nant y Tarw Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined	
20 9	464.0	NW	River Name: Nant y Crimp Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined	
21 0A Q	466.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined	



ID	Distance (m)	Direction	D	etails
21 1	478.0	NW	River Name: Nant y Tarw Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
21 2	479.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
21 3	481.0	SW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
21 4A R	485.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
21 5B B	488.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
21 6A N	492.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
21 7A S	493.0	N	River Name: Nant y Tarw Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
21 8A T	495.0	NE	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
21 9A V	495.0	Е	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
22 0	499.0	NW	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined



# 5.10 Surface Water Features

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

Yes

The following surface water records are not represented on mapping:



Distance (m)	Direction
0.0	On Site
	On Site
0.0	
0.0	On Site
0.0	On Site On Site
0.0	On Site
1.0	SE



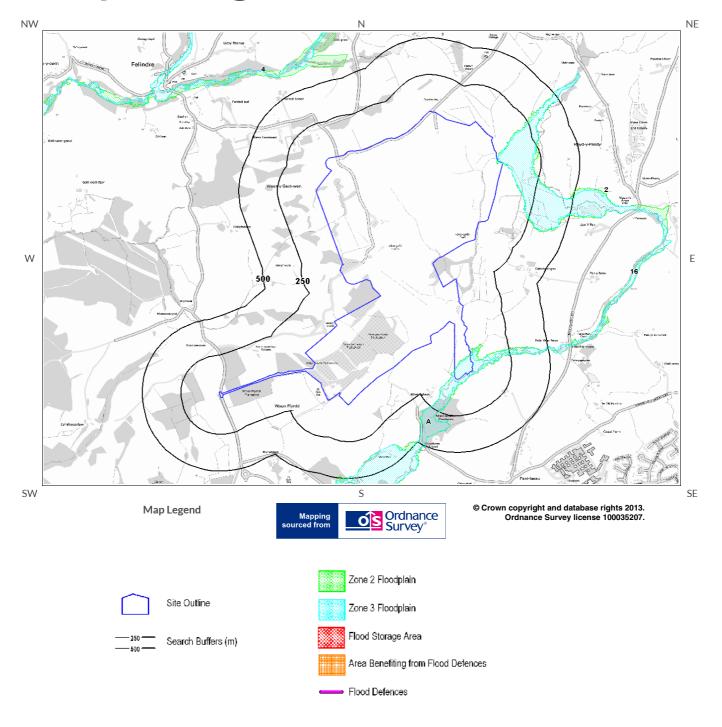
Distance (m)	Direction
1.0	SE
2.0	NW
2.0	NW
2.0	NE
2.0	NE
2.0	S
3.0	
3.0	NE
4.0	W
8.0	W
9.0	
11.0	NE
13.0	N
14.0	S
24.0	E
28.0	 N
31.0	E
40.0	NE
41.0	W
52.0	S
52.0	
52.0	NE
52.0	NE C
57.0	<u>\$</u>
64.0	SW
65.0	SW
68.0	N
68.0	N
76.0	S
91.0	SE
95.0	NW
95.0	SW
96.0	E
98.0	SE
98.0	E
98.0	E
99.0	E
102.0	S
105.0	NW
108.0	W
109.0	NE
112.0	NE
112.0	NE
117.0	NE
117.0	W
118.0	S
119.0	E
121.0	
122.0	NE
136.0	E
136.0	E E
147.0	E E
147.0	E
147.0	E
151.0	
131.0	<u> </u>



Distance (m)	Direction
152.0	S
155.0	E
155.0	E
156.0	S
160.0	SE
161.0	E
165.0	W
165.0	W
166.0	E
169.0	W
170.0	SE
172.0	
175.0	E
180.0	SW
182.0	W
184.0	
185.0	
189.0	
190.0	SW
191.0	SE
191.0	SE
196.0	E
196.0	E
197.0	NW
198.0	SE
199.0	E
200.0	
203.0	NE
203.0	NE
203.0	
205.0	SE
207.0	W
208.0	
214.0	
220.0	 E
232.0	NW
232.0	E
234.0	SE
234.0	SE SE
239.0	W
244.0	
247.0	
217.0	



# 6. Environment Agency Flood Map for planning (from rivers and the sea)







# 6.1 Zone 2 Flooding

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning:

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

Yes

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

ID	Distance (m)	Direction	Update	Туре
1A	0.0	On Site	10-Jun-2014	Zone 2 - (Fluvial Models )
2	0.0	On Site	10-Jun-2014	Zone 2 - (Fluvial Models )

# 6.2 Zone 3 Flooding

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning.

Is the site within 250m of an Environment Agency Zone 3 floodplain?

Yes

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

ID	Distance (m)	Direction	Update	Туре
9A	0.0	On Site	10-Jun-2014	Zone 3 - (Fluvial Models )
10	0.0	On Site	10-Jun-2014	Zone 3 - (Fluvial Models )

# 6.3 Flood Defences

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

No

Database searched and no data found.



# 6.4 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site?

No

# 6.5 Areas benefiting from Flood Storage

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

No

# 6.6 Groundwater Flooding Susceptibility Areas

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

Yes

Does this relate to Clearwater Flooding or Superficial Deposits Flooding?

Superficial Deposits Flooding

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

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

Potential at Surface

Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

# 6.7 Groundwater Flooding Confidence Areas

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

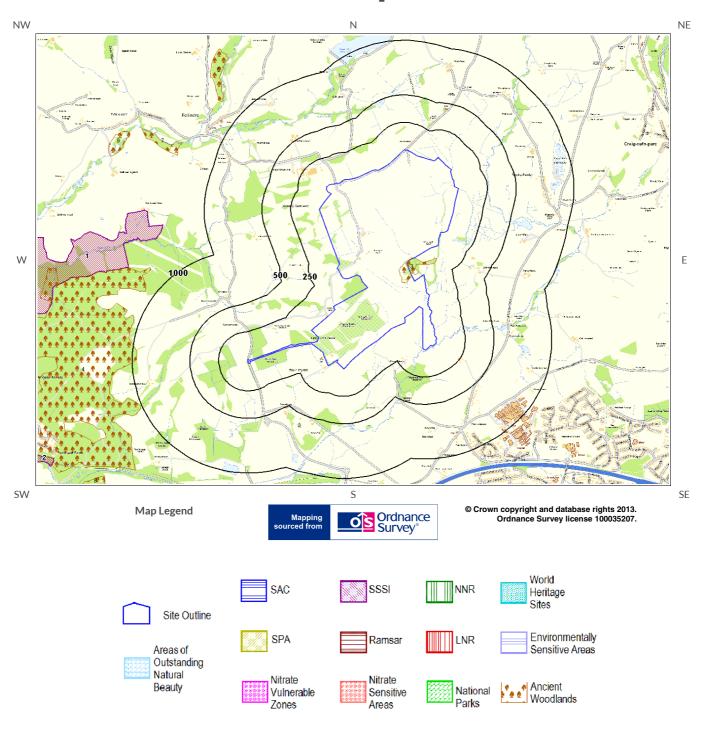
High

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

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



# 7. Designated Environmentally Sensitive Sites Map





No



# 7. Designated Environmentally Sensitive Sites

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

	_			
7.:	1 Record	s of Sites of S	Special Scientific Interest (SSSI) within 2000m of the study site:	2
			Special Scientific Interest (SSSI) records provided by Natural England/ nd Scottish Natural Heritage are represented as polygons on the	
			ive Sites Map:	Designated
	Distance (m)	Direction	SSSI Name	Data Source
L	1334.0	NW	Nant Y Crimp Countrys	ide Council for Wale
)	1897.0	SW	Penllergaer Railway Cutting Countrys	ide Council for Wale
7.2	_ 2 Record	s of National	I Nature Reserves (NNR) within 2000m of the study site:  Database searched and no data found.	0
7.:	- 3 Record	s of Special <i>A</i>	Areas of Conservation (SAC) within 2000m of the study site:	0
			Database searched and no data found.	
7.4	4 Record	s of Special F	Protection Areas (SPA) within 2000m of the study site:	0
	_		Database searched and no data found.	
7.5	5 Record	s of Ramsar s	sites within 2000m of the study site:	0
			Database searched and no data found.	



7.6 Records of Ancient Woodland within 2000m of the study site:

8

The following Ancient Woodland records are supplied by English Nature/Scottish Natural Heritage/Countryside Council for Wales and are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	Ancient Woodland Name	Data Source
3	0.0	On Site	Unknown	Ancient and Semi-Natural Woodland
4	962.0	W	PENLLERGAER FOREST	Ancient and Semi-Natural Woodland
5	1196.0	NW	LLWYN-GWENO WOOD	Ancient and Semi-Natural Woodland
Not shown	1235.0	S	Unknown	Ancient and Semi-Natural Woodland
7	1319.0	W	Unknown	Ancient and Semi-Natural Woodland
8	1616.0	SW	TIR-FFORDD WOOD	Ancient and Semi-Natural Woodland
9	1774.0	W	TYN-Y-CWM WOOD	Ancient and Semi-Natural Woodland
Not shown	1989.0	SW	VALLEY WOOD	Ancient Replanted Woodland

7.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:	_
Database searched and no data found.	
7.8 Records of World Heritage Sites within 2000m of the study site:	_
Database searched and no data found.	
7.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	_
Database searched and no data found.	
7.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	_
Database searched and no data found.	



7.11 Records of National Parks (NP) within 2000m of the study site:	(
Database searched and no data found.	
7.12 Records of Nitrate Sensitive Areas within 2000m of the study site:	(
Database searched and no data found.	
7.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:	(
Database searched and no data found.	





# 8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a **GroundSure GeoInsight**, available from **our website**. The following information has been found:

# 8.1.1 Shrink Swell

What is the maximum Shrink-Swell* hazard rating identified on the study site?

Very Low

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

### Hazard

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

# 8.1.2 Landslides

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

Low

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

# Hazard

Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property no significant increase in insurance risk due to natural slope instability problems.

# 8.1.3 Soluble Rocks

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

Null - Negligible

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

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



# 8.1.4 Compressible Ground

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

High

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

#### Hazard

Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly.

# 8.1.5 Collapsible Rocks

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

Very Low

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

#### Hazard

Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.

# 8.1.6 Running Sand

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

Low

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

# Hazard

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

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





# 9. Mining

# 9.1 Coal Mining

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

Yes

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

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

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

Low

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

# 9.3 Brine Affected Areas

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

No

Guidance: No Guidance Required.



# **Contact Details**

GroundSure Helpline Telephone: 08444 159 000 info@groundsure.com



**British Geological Survey Enquiries** 

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276. Email: enquiries@bgs.ac.uk Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries



National Customer Contact Centre, PO Box 544 Rotherham, S60 1BY Tel: 08708 506 506

Web:www.environment-agency.gov.uk Email:enquiries@environment-agency.gov.uk



Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

https://www.gov.uk/government/organisations/public-healthengland

Email:enquiries@phe.gov.uk Main switchboard: 020 7654 8000

The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk

Ordnance Survey

Adanac Drive, Southampton SO16 0AS Tel: 08456 050505

Local Authority
Authority: Swansea City and Borough Council
Phone: 01792 636000
Web: www.swansea.gov.uk
Address: County Hall, Oystermouth Road, Swansea, SA1 3SN

**Gemapping PLC** 

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















Acknowledgements: Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, English Nature who retain the Copyright and Intellectual Property Rights for the data. PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

## **Standard Terms and Conditions**

#### 1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with GroundSure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

- (i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and
- (ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by GroundSure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

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

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028.

"GroundSure Materials" means all materials prepared by GroundSure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from GroundSure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by GroundSure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by GroundSure.

**"Services"** means any Report, Mapping and/or Support Services which GroundSure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested GroundSure to provide the Services.

**"Third Party Content"** means data, database information or other information which is provided to GroundSure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from GroundSure and on the website (www.GroundSure.com) and forming part of this Contract.

# 2 Scope of Services, terms and conditions, requests for insurance and quotations

- 2.1 GroundSure agrees to provide the Services in accordance with the Contract.
- 2.2 GroundSure shall exercise reasonable skill and care in the provision of the Services
- 2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.
- 2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions

implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. In addition you acknowledge and agree that GroundSure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 GroundSure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by GroundSure. GroundSure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by GroundSure. GroundSure's acceptance of an Order shall be binding only when made in writing and signed by GroundSure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

- (i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and
- (ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.
- 3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.
- 3.3 The Client shall supply to GroundSure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as GroundSure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.
- 3.4 Where the Client's approval or decision is required to enable GroundSure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the GroundSure Materials, or use the GroundSure Materials in a manner for which they were not intended. The Client may make the GroundSure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that GroundSure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

## 4 Reliance

4.1The Client acknowledges that the Services provided by GroundSure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by GroundSure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

 $\mbox{(v)}$  the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by GroundSure. Any party considering such Reports and Services does so at their own risk.

# 5 Fees and Disbursements

5.1GroundSure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by GroundSure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

- 5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.
- 5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

## 6 Intellectual Property and Confidentiality

#### 6.1 Subject to

- (i) full payment of all relevant Fees and
- (ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.
- 6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.
- 6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
- $6.4\ \mbox{The Client shall,}$  and shall procure that any recipients of the GroundSure Materials shall:
- (i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services:
- (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;
- (iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
- (v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- (vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- (vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,
- 6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the GroundSure Materials in order to advise the Beneficiary in a professional capacity. However, GroundSure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
- 6.6 The Client shall procure that any person to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

## 7. Liability: Particular Attention Should Be Paid To This Clause

- 7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:
  - (i) any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents or subcontractors:
  - (ii) any use made of the Reports, Services, Materials or any part of them; and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.
- 7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
- 7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death

or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 GroundSure shall not be liable for

- (i) loss of profits;
- (ii) loss of business;
- (iii) depletion of goodwill and/or similar losses;
- (iv) loss of anticipated savings;
- (v) loss of goods;
- (vi) loss of contract;
- (vii) loss of use;
- (viii) loss or corruption of data or information;
- (ix) business interruption;
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- (xi) loss or damage that arise as a result of the use of all or part of the GroundSure Materials in breach of the Contract;
- (xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- $\mbox{(xiii)} \qquad \mbox{loss or damage to a computer, software, modem, telephone or other property; and} \\$
- (xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
- 7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

# 8 GroundSure's right to suspend or terminate

- 8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:
- (i) the Client fails to pay any sum due to GroundSure within 30 days of the Payment Date; or
- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

### 9. Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
- 9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:
- (i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and
  - (ii) the Reports and/or Mapping provided under this Contract are
    - (a) supplied to the Client's specification(s) and in any event
    - (b) by their nature cannot be returned.

# 10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in

GroundSure's possession or control; and

(ii) the Client shall pay to GroundSure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination or suspension of the Contract.

### 11 Anti-Bribery

11.1 The Client warrants that it shall:

- (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010:
- (ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and
- (iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.
- 11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

#### 12 General

- 12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
- 12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure.
- 12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.
- 12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
- 12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information:
  - (ii) fire, storm, flood, tempest or epidemic;
  - (iii) Acts of God or the public enemy;
  - (iv) riot, civil commotion or war;
  - (v) strikes, labour disputes or industrial action;
  - (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
  - (viii) changes in law; or
  - (ix) any other reason beyond GroundSure's reasonable control.

In the event that GroundSure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then GroundSure shall be entitled to terminate this Contract immediately on written notice to the Client.

- 12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.
- 12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.
- 12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 12.12 This Contract shall be governed by and construed in accordance with English

law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

- 12.13 GroundSure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.
- 12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at GroundSure who will respond in a timely manner.
- 12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law. © GroundSure Limited June 2013



Parsons Brinckerhoff

27-29 PARSONS BRINCKERHOFF LTD, CATHEDRAL ROAD, CARDIFF, CF11 9HA GroundSure Reference:

GS-1587648

Your Reference:

PB84891

Report Date

29 Jul 2014

Report Delivery

Method:

Email - pdf

# **GroundSure Geoinsight**

Address: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Dear Sir/ Madam,

Thank you for placing your order with GroundSure. Please find enclosed the **GroundSure GeoInsight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above GroundSure reference number.

Yours faithfully,

Managing Director Groundsure Limited

Enc.

GroundSure GeoInsight



# GroundSure GeoInsight

Address: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Date: 29 Jul 2014

Reference: GS-1587648

Client: Parsons Brinckerhoff

NW NE



SW SE

Aerial Photograph Capture date: 22-May-2010 Grid Reference: 265243,201702 Site Size: 146.24ha

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# **Overview of Findings**

The GroundSure GeoInsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and GroundSure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Section 1:Geology									
1.1 Artificial Ground	1.1.1 Is there any Artificial Ground/ Made the study site?	Ground preser	nt beneath	No					
	1.1.2 Are there any records relating to per ground within the study site* boundary?	meability of ar	tificial	No					
1.2 Superficial Geology and Landslips	1.2.1 Is there any Superficial Ground/Drift beneath the study site?	Geology prese	ent	Yes	Yes				
	1.2.2 Are there any records relating to per geology within the study site boundary?	meability of su	perficial	Yes	Yes				
1.2.3 Are there any records of landslip within 500m of the study site boundary? $Nc$				No					
	1.2.4 Are there any records relating to permeability of landslips within the study site boundary?					No			
1.3 Bedrock, Solid Geology & Faults	1.3.1 For records of Bedrock and Solid Geo site* see the detailed findings section.	ology beneath	the study						
1.3.2 Are there any records relating to permeabil within the study site boundary?			drock	Yes					
	1.3.3 Are there any records of faults within boundary?	n 500m of the s	tudy site	Yes					
1.4 Radon data	1.4.1 Is the property in a Radon Affected A Health Protection Agency (HPA) and if so homes are above the Action Level?			The property is in a Radon Affected Area, as between 3 and 5% of properties are above the Action Level					
	1.4.2 Is the property in an area where Radare required for new properties or extensi described in publication BR211 by the Bui Establishment?	ons to existing	ones as	Basic radon pi necessary	otective meas	ures are			
Section 2: <b>Ground V</b>	Vorkings	On-site	0-50m	51-250	251-500	501-1000			
2.1 Historical Surface G Mapping	iround Working Features from Small Scale	13	10	9	Not Searched	Not Searched			
2.2 Historical Undergro	ound Workings from Small Scale Mapping	4	0	0	1	10			
2.3 Current Ground Wo	orkings	1	0	0	3	8			
Section 3:Mining, E	extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000			
3.1 Historical Mining		4	0	0	1	4			

Report Reference: GS-1587648

PB84891



Section 3:Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
3.2 Coal Mining	1	0	0	0	0
3.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
3.4 Non-Coal Mining	0	0	0	0	0
3.5 Non-Coal Mining Cavities	0	0	0	0	0
3.6 Natural Cavities	0	0	0	0	0
3.7 Brine Extraction	0	0	0	0	0
3.8 Gypsum Extraction	0	0	0	0	0
3.9 Tin Mining	0	0	0	0	0
3.10 Clay Mining	0	0	0	0	0
Section 4:Natural Ground Subsidence	On-si	ite			
4.1 Shrink Swell Clay	Very L	OW			
4.2 Landslides	Low	1			
4.3 Ground Dissolution of Soluble Rocks	Null				
4.4 Compressible Deposits	High				
4.5 Collapsible Deposits	Very Low				
4.6 Running Sand	Low				,
Section 5:Borehole Records	On-site	0-50m	51-250		
5 BGS Recorded Boreholes	3	0	2		
Section 6:Estimated Background Soil Chemistry	On-site	0-50m	51-250		
6 Records of Background Soil Chemistry	43	3	34		
Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.1 Tunnels	0	0	0	Not Searched	
7.2 Historical Railway and Tunnel Features	9	2	0	Not Searched	
7.3 Historical Railways	0	0	0	Not Searched	
7.4 Active Railways	0	0	0	Not Searched	

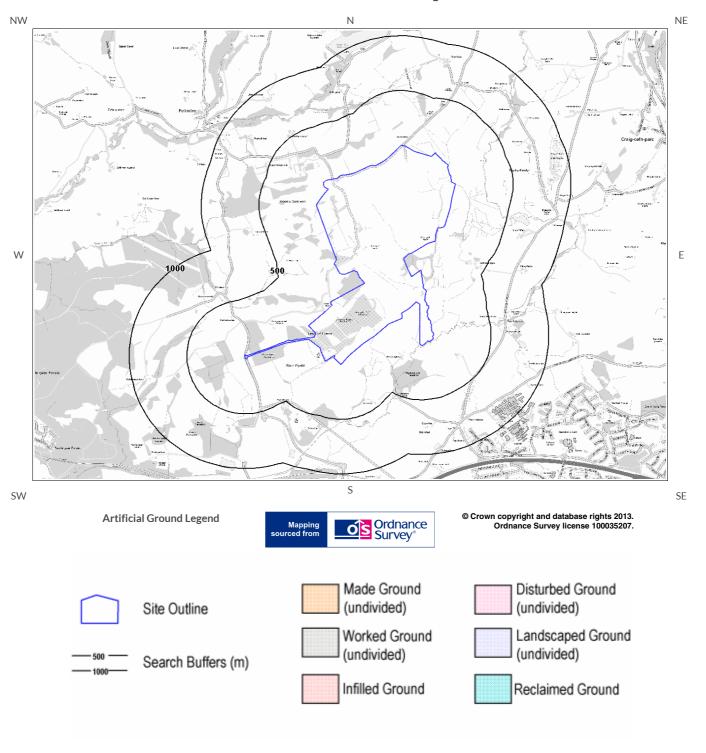


Section 7:Railways and Tunnels	On-site	0-50m	51-250	251-500	
7.5 Railway Projects	0	0	0	0	



# 1 Geology

# 1.1 Artificial Ground Map







# 1 Geology1.1 Artificial Ground

# 1.1.1Artificial/ Made Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:247

Are there any records of Artificial/Made Ground within 500m of the study site boundary?

No

Database searched and no data found.

# 1.1.2 Permeability of Artificial Ground

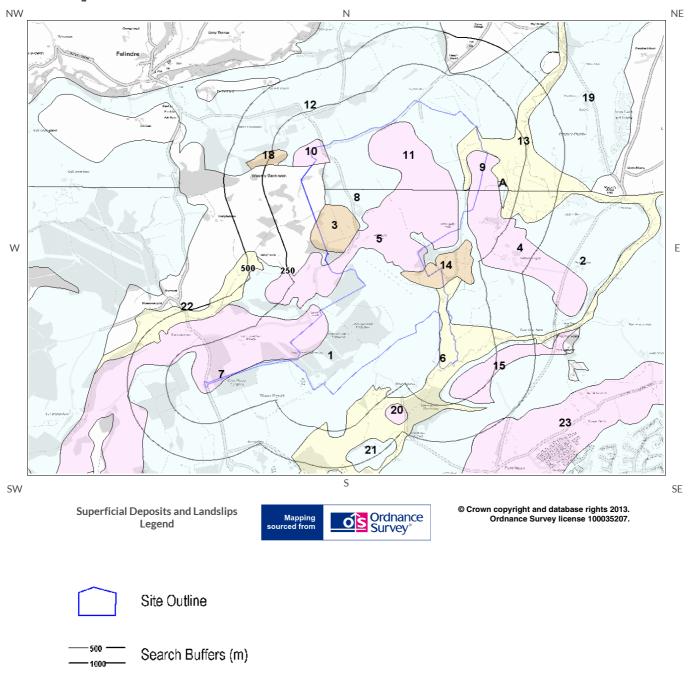
Are there any records relating to permeability of artificial ground within the study site boundary?

No

Database searched and no data found.



# 1.2 Superficial Deposits and Landslips Map





# 1.2 Superficial Deposits and Landslips

# 1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary?

Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	0.0	On Site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
2	0.0	On Site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
3	0.0	On Site	PEAT-P	PEAT	PEAT
4	0.0	On Site	GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
5	0.0	On Site	GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
6	0.0	On Site	ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
7	0.0	On Site	GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
8	0.0	On Site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
9	0.0	On Site	GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
10	0.0	On Site	GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
11	0.0	On Site	GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
12	0.0	On Site	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
13	0.0	On Site	ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
14	0.0	On Site	PEAT-P	PEAT	PEAT
15	93.0	SE	GFSDD-SAGR	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
16A	108.0	E	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
17A	130.0	E	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
18	153.0	W	PEAT-P	PEAT	PEAT
19	296.0	Е	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
20	311.0	SE	GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
21	376.0	SE	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
22	400.0	NW	ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND ANI GRAVEL
23	476.0	SE	GFDUD-SAGR	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL



## 1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary?

Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Very High	High
0.0	On Site	Mixed	High	Low
0.0	On Site	Intergranular	Very High	High
0.0	On Site	Intergranular	Very High	High
0.0	On Site	Mixed	Low	Very Low
0.0	On Site	Intergranular	Very High	High
0.0	On Site	Mixed	Low	Very Low
0.0	On Site	Mixed	Low	Very Low
0.0	On Site	Intergranular	Very High	High
0.0	On Site	Mixed	High	Low
0.0	On Site	Mixed	High	Low
0.0	On Site	Intergranular	High	Very Low
0.0	On Site	Mixed	High	Low

## 1.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary?

No

## Database searched and no data found.

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

## 1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site** boundary?

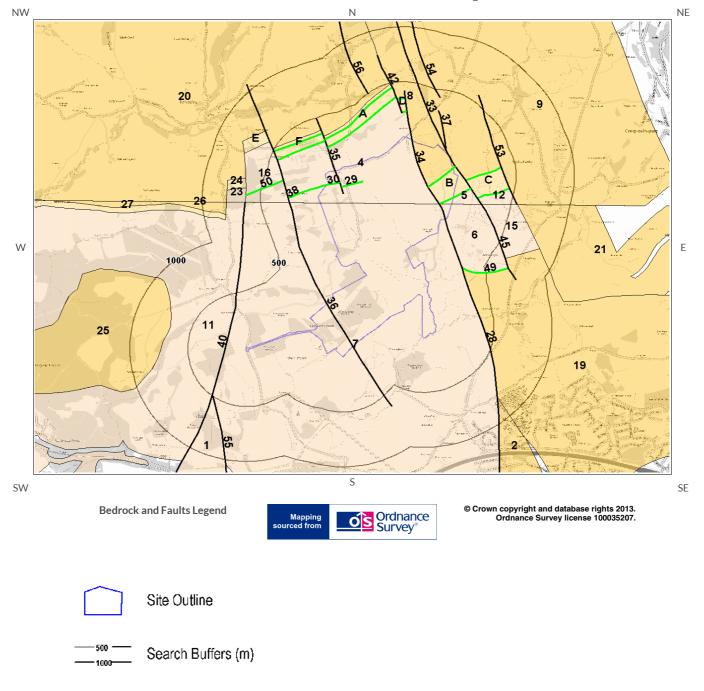
No

Database searched and no data found.

^{*} This includes an automatically generated 50m buffer zone around the site



# 1.3 Bedrock and Faults Map





# 1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:247

## 1.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	492.0	SW	GDB-MDSS	Grovesend Formation - Mudstone, Siltstone And Sandstone	Westphalian D
3В	0.0	On Site	SW-MDSS	Swansea Member - Mudstone, Siltstone And Sandstone	Westphalian D
4	0.0	On Site	GDB-MDSS	Grovesend Formation - Mudstone, Siltstone And Sandstone	Westphalian D
5	0.0	On Site	GDB-MDSS	Grovesend Formation - Mudstone, Siltstone And Sandstone	Westphalian D
6	0.0	On Site	GDB-MDSS	Grovesend Formation - Mudstone, Siltstone And Sandstone	Westphalian D
7	0.0	On Site	GDB-MDSS	Grovesend Formation - Mudstone, Siltstone And Sandstone	Westphalian D
8	0.0	On Site	SW-SDST	Swansea Member - Sandstone	Westphalian D
9	0.0	On Site	SW-SDST	Swansea Member - Sandstone	Westphalian D
10C	70.0	E	SW-MDSS	Swansea Member - Mudstone, Siltstone And Sandstone	Westphalian D
11	170.0	W	GDB-MDSS	Grovesend Formation - Mudstone, Siltstone And Sandstone	Westphalian D
12	207.0	E	GDB-MDSS	Grovesend Formation - Mudstone, Siltstone And Sandstone	Westphalian D
13A	218.0	NW	SW-MDSS	Swansea Member - Mudstone, Siltstone And Sandstone	Westphalian D
14D	224.0	Ν	SW-MDSS	Swansea Member - Mudstone, Siltstone And Sandstone	Westphalian D
15	249.0	E	GDB-MDSS	Grovesend Formation - Mudstone, Siltstone And Sandstone	Westphalian D
16	253.0	W	GDB-MDSS	Grovesend Formation - Mudstone, Siltstone And Sandstone	Westphalian D
17F	271.0	N	SW-MDSS	Swansea Member - Mudstone, Siltstone And Sandstone	Westphalian D
18A	294.0	NW	SW-MDSS	Swansea Member - Mudstone, Siltstone And Sandstone	Westphalian D
19	312.0	Е	SW-SDST	Swansea Member - Sandstone	Westphalian D
20	325.0	NW	SW-SDST	Swansea Member - Sandstone	Westphalian D



## 1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site *boundary?

Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Moderate	Low
0.0	On Site	Fracture	Moderate	Low
0.0	On Site	Fracture	Moderate	Low
0.0	On Site	Fracture	High	Moderate

## 1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary?

Yes

ID	Distance (m)	Direction	Category Description	Feature Description
28	0.0	On Site	FAULT	Normal fault, inferred
29	0.0	On Site	ROCK	Coal seam, inferred
30	0.0	On Site	ROCK	Coal seam, inferred
31B	0.0	On Site	ROCK	Coal seam, inferred
32B	0.0	On Site	ROCK	Coal seam, inferred
33	0.0	On Site	FAULT	Normal fault, observed
34	0.0	On Site	FAULT	Normal fault, observed
35	0.0	On Site	FAULT	Normal fault, inferred
36	0.0	On Site	FAULT	Normal fault, inferred
37	18.0	NE	FAULT	Normal fault, observed
38	29.0	NW	ROCK	Coal seam, inferred
39C	70.0	E	ROCK	Coal seam, inferred
40	170.0	W	FAULT	Normal fault, inferred
41C	207.0	Е	ROCK	Coal seam, inferred
42	215.0	N	FAULT	Normal fault, observed
43A	218.0	NW	ROCK	Coal seam, inferred
44D	224.0	Ν	ROCK	Coal seam, observed
45	249.0	Е	FAULT	Normal fault, inferred
46E	253.0	W	FAULT	Normal fault, inferred
47F	271.0	Ν	ROCK	Coal seam, inferred
48A	294.0	NW	ROCK	Coal seam, inferred
49	319.0	NE	ROCK	Coal seam, inferred
50	335.0	NW	ROCK	Coal seam, inferred
51F	344.0	N	ROCK	Coal seam, inferred
52D	344.0	N	ROCK	Coal seam, observed
53	373.0	E	FAULT	Normal fault, inferred
54	427.0	N	FAULT	Normal fault, observed
55	492.0	SW	FAULT	Normal fault, inferred

^{*} This includes an automatically generated 50m buffer zone around the site



ID	Distance (m)	Direction	Category Description	Feature Description
56	495.0	NW	FAULT	Normal fault, inferred

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.



## 1.4 Radon Data

## 1.4.1 Radon Affected Areas

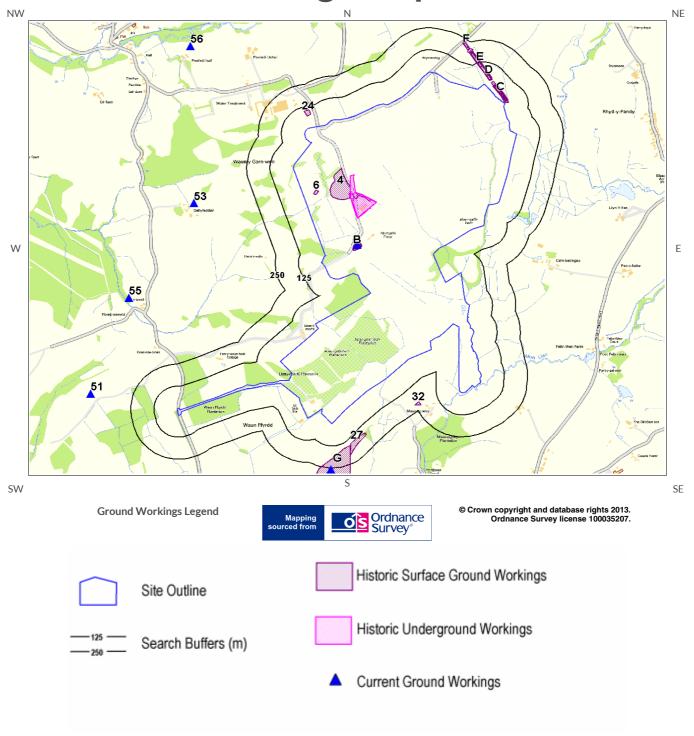
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is in a Radon Affected Area, as between 3 and 5% of properties are above the Action Level

## 1.4.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? Basic radon protective measures are necessary



# 2 Ground Workings Map







# 2 Ground Workings

## 2.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on GroundSure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary?

Yes

The following Historical Surface Ground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
1A	0.0	On Site	265024 201864	Refuse Heap	1936
2A	0.0	On Site	265070 201821	Colliery	1936
3B	0.0	On Site	265033 201582	Unspecified Pit	1936
4	0.0	On Site	264946 201939	Refuse Heap	1964
5B	0.0	On Site	265034 201586	Old Gravel Pit	1913
6	0.0	On Site	264815 201891	Pond	1914
7A	0.0	On Site	265029 201871	Refuse Heap	1948
8B	0.0	On Site	265033 201582	Unspecified Pit	1948
9A	0.0	On Site	265070 201821	Colliery	1948
10B	0.0	On Site	265040 201589	Gravel Pit	1897
11B	0.0	On Site	265036 201585	Unspecified Pit	1975
12B	0.0	On Site	265027 201591	Unspecified Pit	1964
13B	0.0	On Site	265035 201587	Old Gravel Pit	1921
14C	4.0	NE	265807 202454	Cuttings	1921
15C	8.0	NE	265813 202453	Unspecified Ground Workings	1921
16C	17.0	NE	265814 202455	Unspecified Pit	1964
17C	17.0	NE	265814 202455	Unspecified Pit	1975
18C	18.0	NE	265800 202473	Cuttings	1897
19D	33.0	NE	265743 202550	Cuttings	1921
20D	36.0	NE	265750 202546	Cuttings	1921
21E	36.0	NE	265698 202621	Cuttings	1975



ID	Distance (m)	Direction	NGR	Use	Date
22E	36.0	NE	265698 202621	Cuttings	1964
23D	37.0	NE	265701 202614	Cuttings	1897
24	69.0	N	264769 202343	Covered Reservoir	1991
25E	98.0	N	265680 202646	Cuttings	1921
26E	101.0	N	265677 202648	Cuttings	1921
27	150.0	SE	265020 200459	Refuse Heap	1975
28G	154.0	SE	264905 200262	Refuse Heap	1991
29F	202.0	N	265622 202725	Cuttings	1921
30F	205.0	N	265625 202726	Cuttings	1921
31F	211.0	NE	265621 202730	Cuttings	1897
32	215.0	SE	265363 200689	Pond	1913

## 2.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the GroundSure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary?

Yes

The following Historical Underground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
33A	0.0	On Site	265070 201869	Unspecified Disused Mine	1964
34A	0.0	On Site	265070 201869	Unspecified Disused Mine	1975
35A	0.0	On Site	265070 201821	Colliery	1948
36A	0.0	On Site	265070 201821	Colliery	1936
Not showr	480.0	S	264756 200086	Old Coal Pit	1914
Not showr	515.0	S	264707 200029	Coal Pit	1878
Not showr	า 536.0	S	264701 200070	Unspecified Shaft	1878
Not showr	787.0	S	264931 199675	Colliery	1948
Not showr	/8/()	S	264931 199675	Colliery	1936
Not showr	992.0	S	264918 199568	Tunnel	1964



ID	Distance (m)	Direction	NGR	Use	Date
Not shown	993.0	S	265755 199362	Tunnel	1913
Not shown	993.0	S	264918 199568	Tunnel	1994
Not shown	993.0	S	264918 199568	Tunnel	1980
Not shown	993.0	S	264918 199568	Tunnel	1968
Not	998.0	S	265739 199358	Tunnel	1921

## 2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

Are there any BGS Current Ground Workings within 1000m of the study site boundary?

Yes

The following Current Ground Workings information is provided by British Geological Survey:

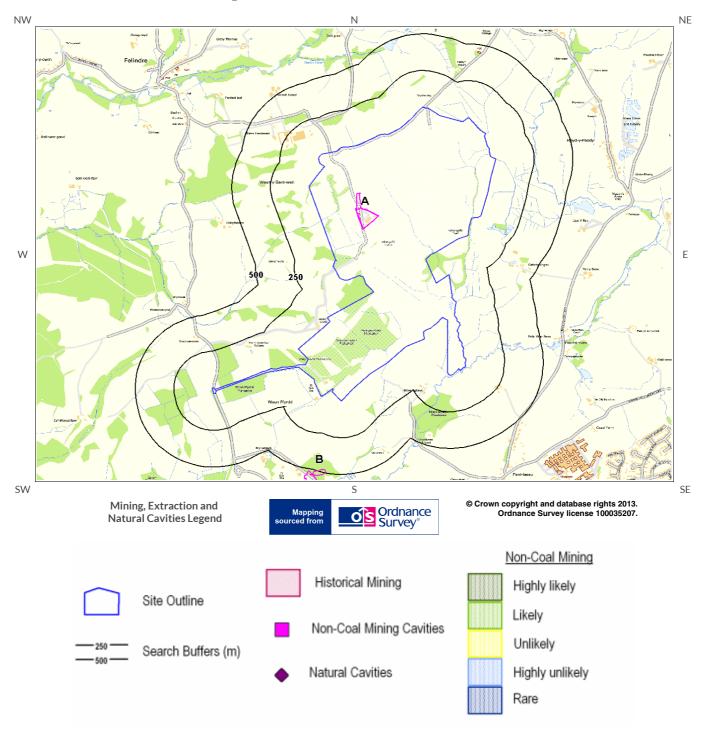
ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
48B	0.0	On Site	265036 201591	Sand & Gravel	Aber-gelli-fach Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
49G	261.0	S	264893 200311	Sand & Gravel	Bryn-whilach Plantation Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	465.0	NE	265652 202994	Sandstone	Waun-fach	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
51	476.0	W	263598 200743	Sand	Waen Ffyrdd Plantation Sand Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	507.0	S	264757 200086	Coal, Deep	Bryn-whilach	Working is wholly underground, access by shaft, adit or drift. Working may be termed Colliery, Mine, Drift Mine, Slant, Level, Adit or Ingoing Eye (Ingaun Ee - Scots)	Ceased
53	573.0	W	264154 201828	Sandstone	Gelli-feddan	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	620.0	N	264937 202972	Sandstone	Gelli-gron	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
55	681.0	NW	263805 201290	Sandstone	Llidiard -y-cleders	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
56	786.0	NW	264137 202724	Sandstone	Pen-y-fedw-isaf	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	874.0	S	264288 199775	Sand	Nant-y-ganol Wood Sand Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased
Not shown	877.0	NW	264910 203289	Sandstone	Waterworks Cottage	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased



ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	958.0	E	266801 201886	Sandstone	Rhyd-y-pandy	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased



# 3 Mining, Extraction & Natural Cavities Map







## 3.1 Historical Mining

This dataset is derived from GroundSure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary?

Yes

The following Historical Mining information is provided by GroundSure:

ID	Distance (m)	Direction	NGR	Details	Date
1A	0.0	On Site	265070 201869	Unspecified Disused Mine	1975
2A	0.0	On Site	265070 201869	Unspecified Disused Mine	1964
ЗА	0.0	On Site	265070 201821	Colliery	1936
4A	0.0	On Site	265070 201821	Colliery	1948
5B	480.0	S	264756 200086	Old Coal Pit	1914
6B	515.0	S	264707 200029	Coal Pit	1878
7B	536.0	S	264701 200070	Unspecified Shaft	1878
Not shown	787.0	S	264931 199675	Colliery	1936
Not shown	787.0	S	264931 199675	Colliery	1948

## 3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary?

Yes

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

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



## 3.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary?

No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

## 3.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.7 Brine Extraction

This dataset provides information from the Brine Compensation Board which has been discontinued and is now covered by the Coal Authority.

Are there any Brine Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.



## 3.8 Gypsum Extraction

 $This \ dataset \ provides \ information \ on \ Gypsum \ extraction \ from \ British \ Gypsum \ records.$ 

Are there any Gypsum Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level.

Are there any Tin Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

## 3.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

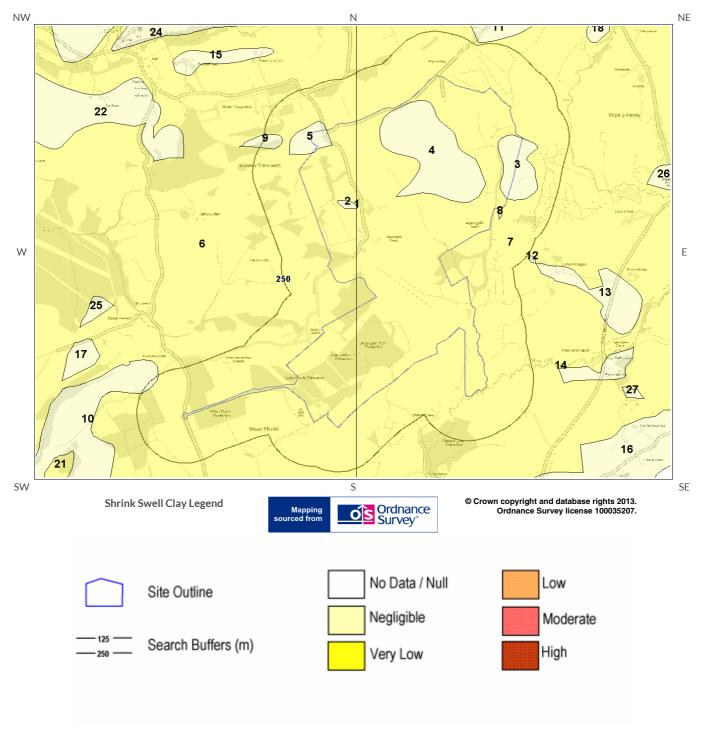
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

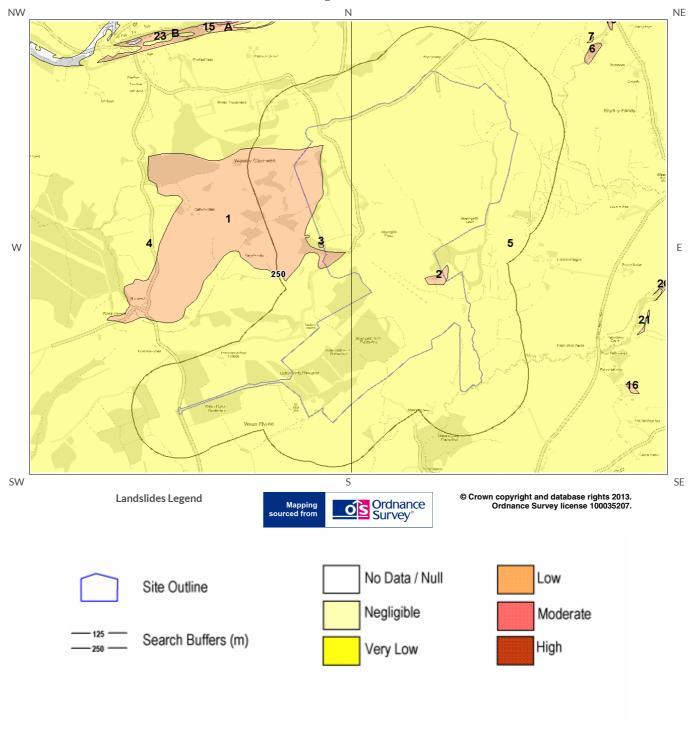


# 4 Natural Ground Subsidence 4.1 Shrink-Swell Clay Map



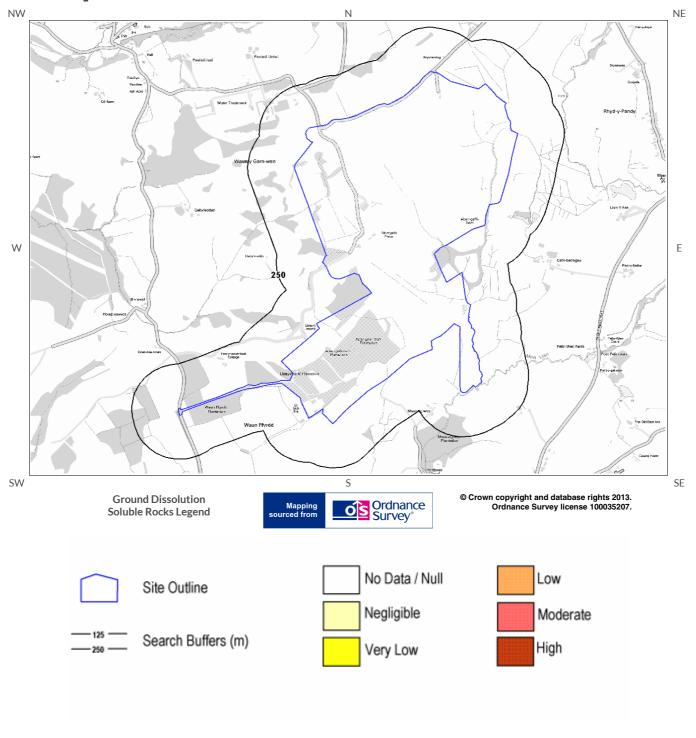


# 4.2 Landslides Map



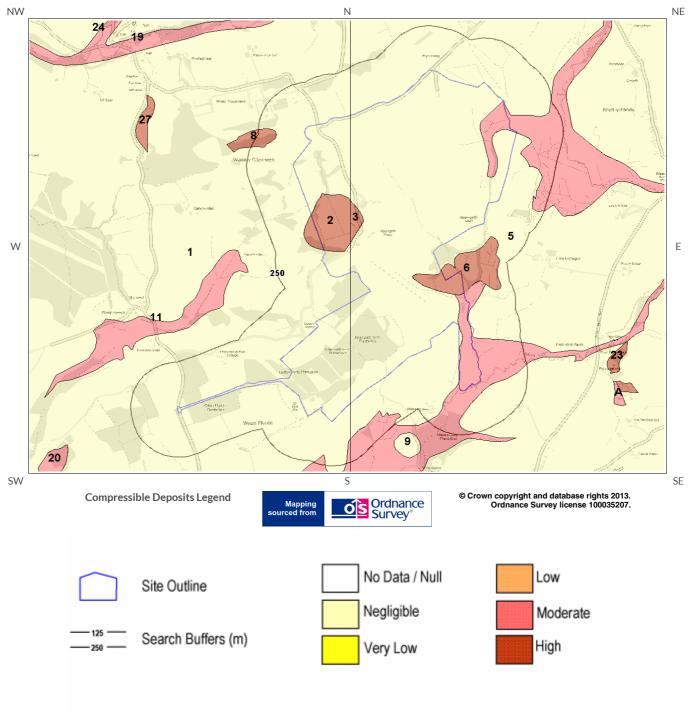


# 4.3 Ground Dissolution Soluble Rocks Map



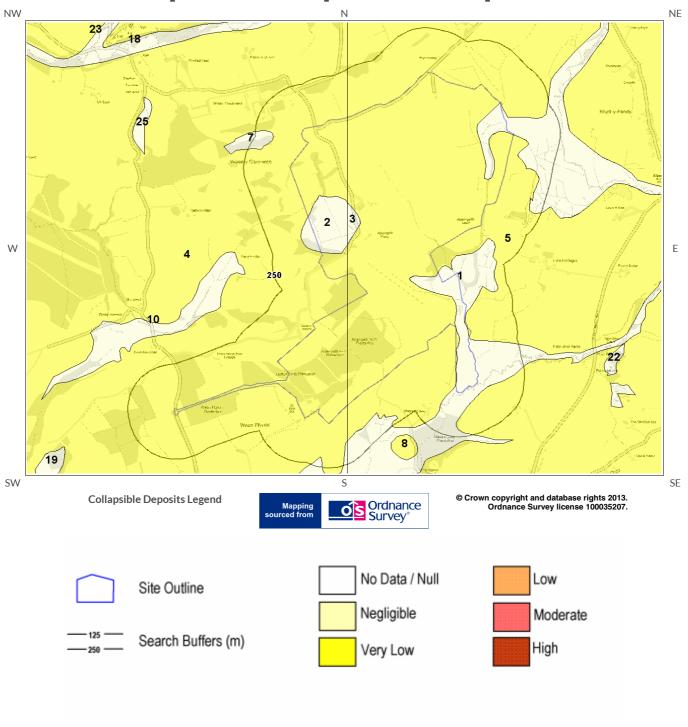


# 4.4 Compressible Deposits Map



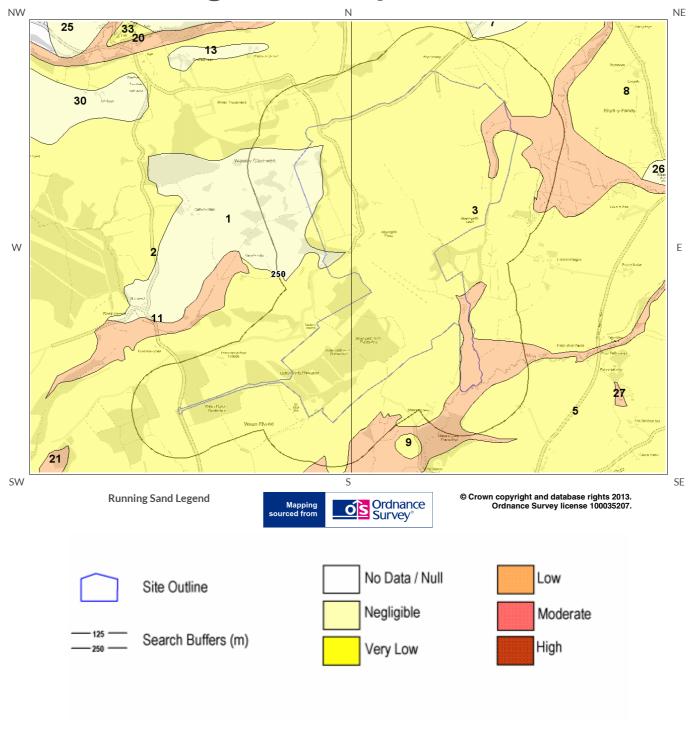


# 4.5 Collapsible Deposits Map





# 4.6 Running Sand Map







## 4 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site* boundary?

High

## 4.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
2	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
3	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
4	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
5	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
6	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
7	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.
8	10.0	S	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.

^{*} This includes an automatically generated 50m buffer zone around the site



## 4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Possibility of slope instability problems after major changes in ground conditions.  Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property - no significant increase in insurance risk due to natural slope instability problems.
2	0.0	On Site	Low	Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property - no significant increase in insurance risk due to natural slope instability problems.
3	0.0	On Site	Low	Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property - no significant increase in insurance risk due to natural slope instability problems.
4	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.
5	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

## 4.3 Ground Dissolution of Soluble Rocks

The following Compressible Deposits information provided by the British Geological Survey:

Distance (m)	Direction	Hazard Rating	Details
0	On site	Null-Negligible	Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

## 4.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.



ID	Distance (m)	Direction	Hazard Rating	Details
2	0.0	On Site	High	Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly.
3	0.0	On Site	High	Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly.
4	0.0	On Site	Moderate	Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property - possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.
5	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.
6	0.0	On Site	High	Very significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build - consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Construction may not be possible at economic cost. For existing property probable increase in insurance risk from compressibility especially if water conditions or loading of the ground change significantly.

## 4.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
2	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
3	0.0	On Site	Negligible	No indicators for collapsible deposits identified. No actions required to avoid problems due to collapsible deposits. No special ground investigation required, or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
4	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.
5	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.



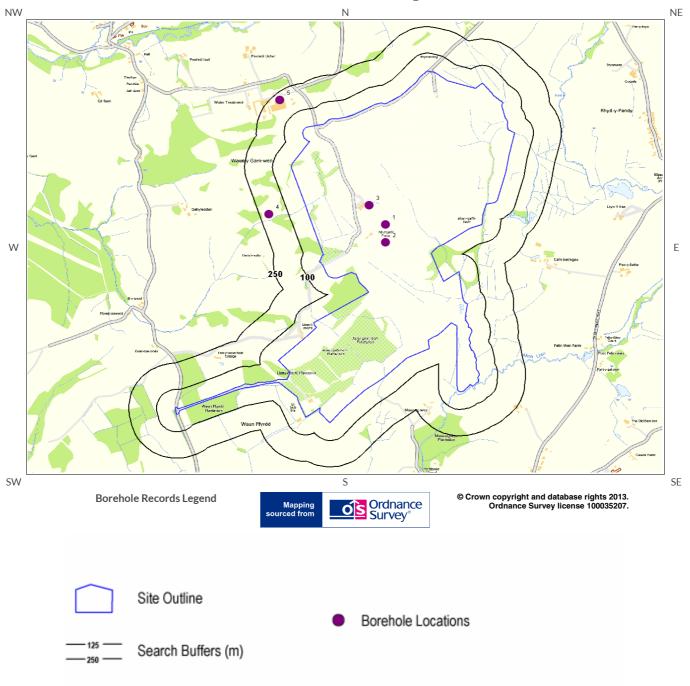
## 4.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
2	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand.  No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
3	0.0	On Site	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. No special actions required, to avoid problems due to running sand.  No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.
4	0.0	On Site	Low	Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build - consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property - no significant increase in insurance risk due to running sand problems is likely.



# 5 Borehole Records Map







## **5 Borehole Records**

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

5

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	0.0	On Site	265200 201700	SN60SE16	-1.0	ABERGELLI SLANT, BRYN WHILACH. 2FT V WORKINGS PLAN
2	0.0	On Site	265200 201600	SN60SE24	16.0	ABERGELLI-FACH FARM P4
3	0.0	On Site	265110 201810	SN60SE15	-1.0	ABERGELLI COLLIERY
4	203.0	W	264570 201760	SN60SW68	7.92	ABERGELLI. BOREHOLES
5	210.0	NW	264630 202410	SN60SW63	1.98	RIVER TOWN SCHEME, LOWER LLIW RESERVOIR, TP.10

Additional online information is available for the following boreholes listed above:

#1: scans.bgs.ac.uk/sobi_scans/boreholes/256136

#2: scans.bgs.ac.uk/sobi_scans/boreholes/256144

#3: scans.bgs.ac.uk/sobi_scans/boreholes/256135

#4: scans.bgs.ac.uk/sobi_scans/boreholes/256277

#5: scans.bgs.ac.uk/sobi_scans/boreholes/256272





# 6 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

80

For further information on how this data is calculated and limitations upon its use, please see the GroundSure GeoInsight User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	15 - 25 mg/kg	< 1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg

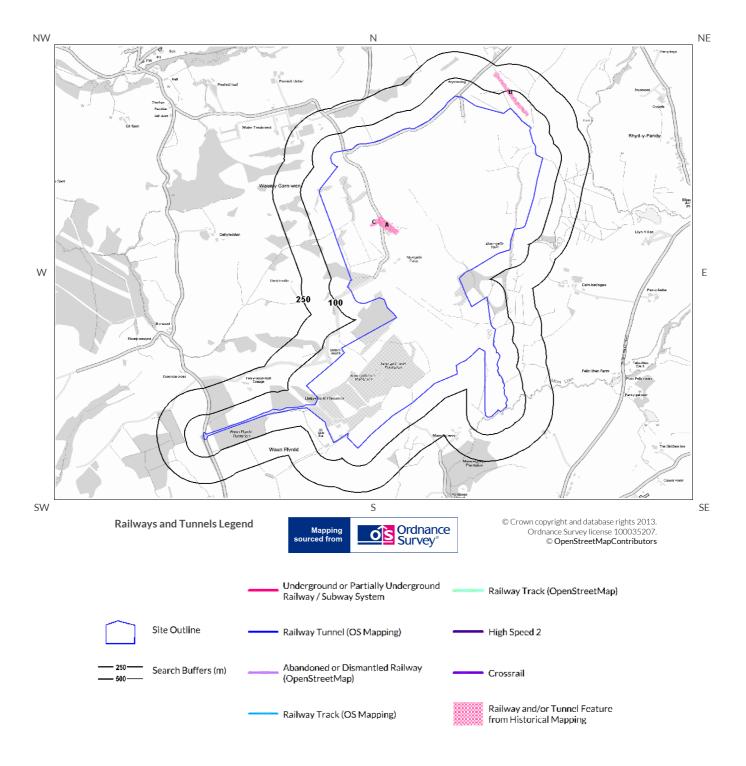


Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
12.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
19.0	NE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
49.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
51.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<150 mg/kg
56.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
67.0	W	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<150 mg/kg
67.0	W	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
70.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
77.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
78.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
93.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
103.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
106.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
108.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
115.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
126.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
129.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
130.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
137.0	NE	Sediment	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
137.0	SE	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
146.0	Е	Sediment	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
149.0	Е	Sediment	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
153.0	W	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
156.0	Е	Sediment	35 - 45 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
156.0	NW	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<150 mg/kg
168.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
170.0	W	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<150 mg/kg
173.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
179.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
207.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
208.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
214.0	N	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
218.0	NW	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
221.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
224.0	NW	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
224.0	N	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg
249.0	Е	Sediment	25 - 35 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<150 mg/kg

 $^{^*}$ As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.



# 7 Railways and Tunnels Map







# 7 Railways and Tunnels

## 7.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary?

No

Have any underground railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary?

No

Have any other railway tunnels been identified within 250m of the site boundary?

Nο

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

## 7.2 Historical Railway and Tunnel Features

This data is derived from GroundSure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

 $Have any \ historical \ railway \ or \ tunnel \ features \ been \ identified \ within \ the \ study \ site \ boundary?$ 

Yes

Have any historical railway or tunnel features been identified within 250m of the study site boundary?

Yes

ID	Distance (m)	Direction	NGR	Details	Date
1C	0	On Site	264984 201852	Railway Sidings	1964
2A	0	On Site	265040 201842	Railway Sidings	1948
3A	0	On Site	265058 201840	Railway Sidings	1964
4A	0	On Site	265040 201842	Railway Sidings	1936
5A	0	On Site	265043 201843	Railway Sidings	1938
8A	0	On Site	264970 201835	Railway Sidings	1960
9C	0	On Site	264992 201849	Railway Sidings	1989
10C	0	On Site	264992 201850	Railway Sidings	1958



ID	Distance (m)	Direction	NGR	Details	Date
11A	0	On Site	265034 201845	Railway Sidings	1935
6B	36	NE	265728 202586	Tramway Sidings	1975
7B	36	NE	265728 202586	Tramway Sidings	1964

Any records that have been identified are represented on the Railways and Tunnels Map.

## 7.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary?

No

Have any historical railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above

Any records that have been identified are represented on the Railways and Tunnels Map.

## 7.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary?

No

Have any active railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Note: multiple sections of the same track may be listed in the detail above Any records that have been identified are represented on the Railways and Tunnels Map.

## 7.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail.

Is the study site within 5km of the route of the High Speed 2 rail project?

No

Is the study site within 500m of the route of the Crossrail rail project?

No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a **GroundSure HS2** and **Crossrail Report**.

## **Contact Details**



GroundSure Helpline Telephone: 08444 159 000 info@groundsure.com



#### **B**ritish Geological Survey Enquiries

Kingsley Dunham Centre Keyworth, Nottingham NG12 5GG Tel: 0115 936 3143. Fax: 0115 936 3276.

Email:enquiries@bgs.ac.uk Web:www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries



## **British Gypsum**

British Gypsum Ltd East Leake Loughborough Leicestershire LE12 6HX



## The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk



## **Public Health England**

Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

 $\label{lem:https://www.gov.uk/government/organisations/public-health-england } Email: enquiries@phe.gov.uk$ 

Main switchboard: 020 7654 8000



## Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettel Lane Brierley Hill, West Midlands DY5 3LH Tel: +44 (0) 1384 262 000 Email:enquiries.gs@jpb.co.uk Website: www.jpb.co.uk



## Ordnance Survey

Adanac Drive, Southampton SO16 0AS

Tel: 08456 050505

Website: http://www.ordnancesurvey.co.uk/





## Getmapping PLC

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

Website:http://www1.getmapping.com/



## Peter Brett Associates

Caversham Bridge House Waterman Place Reading Berkshire RG18DN Tel: +44 (0)118 950 0761 E-mail:reading@pba.co.uk Website:http://www.peterbrett.com/home



Acknowledgements: Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

#### Standard Terms and Conditions

### 1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with GroundSure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

- (i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and
- (ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by GroundSure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

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

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028.

"GroundSure Materials" means all materials prepared by GroundSure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from GroundSure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by GroundSure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by GroundSure.

"Services" means any Report, Mapping and/or Support Services which GroundSure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested GroundSure to provide the Services.

**"Third Party Content"** means data, database information or other information which is provided to GroundSure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from GroundSure and on the website (www.GroundSure.com) and forming part of this Contract.

## 2 Scope of Services, terms and conditions, requests for insurance and quotations

 $2.1\,Ground Sure\,agrees\,to\,provide\,the\,Services\,in\,accordance\,with\,the\,Contract.$ 

2.2 GroundSure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. In addition you acknowledge and agree that GroundSure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 GroundSure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by GroundSure. GroundSure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by GroundSure. GroundSure's acceptance of an Order

shall be binding only when made in writing and signed by GroundSure's authorised representative or when accepted through the Order Website.

#### 3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to GroundSure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as GroundSure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable GroundSure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the GroundSure Materials, or use the GroundSure Materials in a manner for which they were not intended. The Client may make the GroundSure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that GroundSure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

## 4 Reliance

4.1The Client acknowledges that the Services provided by GroundSure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by GroundSure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

 $\mbox{(v)}$  the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by GroundSure. Any party considering such Reports and Services does so at their own risk.

## 5 Fees and Disbursements

5.1GroundSure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by GroundSure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

## 6 Intellectual Property and Confidentiality

6.1 Subject to

full payment of all relevant Fees and

(ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.

6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

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

- $6.4\ {\rm The}\ {\rm Client}\ {\rm shall},$  and shall procure that any recipients of the GroundSure Materials shall:
- (i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;
- (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;
- (iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
- (iv) not combine the Services with or incorporate such Services into any other information data or service;
- (v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- (vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- (vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,
- 6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the GroundSure Materials in order to advise the Beneficiary in a professional capacity. However, GroundSure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
- 6.6 The Client shall procure that any person to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

## 7. Liability: Particular Attention Should Be Paid To This Clause

- 7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:
  - (i) any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents or subcontractors:
  - (ii) any use made of the Reports, Services, Materials or any part of them: and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.
- 7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
- 7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.
- 7.4 GroundSure shall not be liable for
  - (i) loss of profits;
  - (ii) loss of business;
  - (iii) depletion of goodwill and/or similar losses;
  - (iv) loss of anticipated savings;
  - (v) loss of goods;
  - (vi) loss of contract;
  - (vii) loss of use;
  - (viii) loss or corruption of data or information;
  - (ix) business interruption;
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- (xi) loss or damage that arise as a result of the use of all or part of the GroundSure Materials in breach of the Contract;
- (xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- $\mbox{(xiii)} \qquad \mbox{loss or damage to a computer, software, modem, telephone or other property; and} \\$
- (xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
- 7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

## 8 GroundSure's right to suspend or terminate

- 8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:
  - (i) the Client fails to pay any sum due to GroundSure within 30

days of the Payment Date; or

- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

### 9. Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
- 9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:
- (i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and
  - (ii) the Reports and/or Mapping provided under this Contract are (a) supplied to the Client's specification(s) and in any event
    - (b) by their nature cannot be returned.

## 10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

- (i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in GroundSure's possession or control; and
- (ii) the Client shall pay to GroundSure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination or suspension of the Contract.

## 11 Anti-Bribery

11.1 The Client warrants that it shall:

- (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010:
- (ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and
- (iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.
- 11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

## 12 General

- 12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
- 12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure.
- 12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.
- 12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
- 12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information;
  - (ii) fire, storm, flood, tempest or epidemic;
  - (iii) Acts of God or the public enemy;
  - (iv) riot, civil commotion or war;
  - (v) strikes, labour disputes or industrial action;
  - (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
  - (viii) changes in law; or
- (ix) any other reason beyond GroundSure's reasonable control. In the event that GroundSure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then GroundSure shall be entitled to terminate this Contract immediately on written notice to the Client.
- 12.8 Any notice provided shall be in writing and shall be deemed to be properly

given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

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

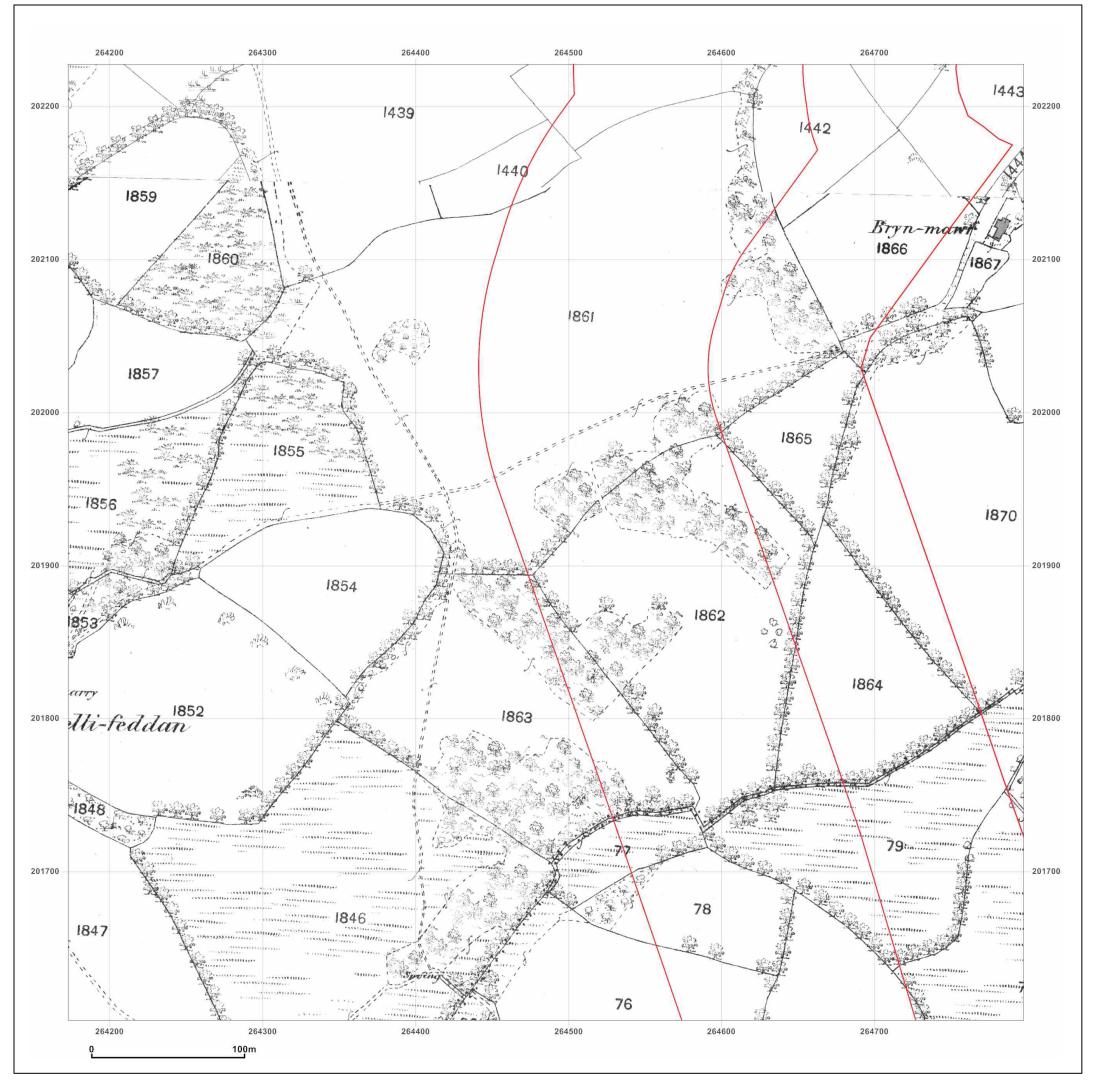
12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 GroundSure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

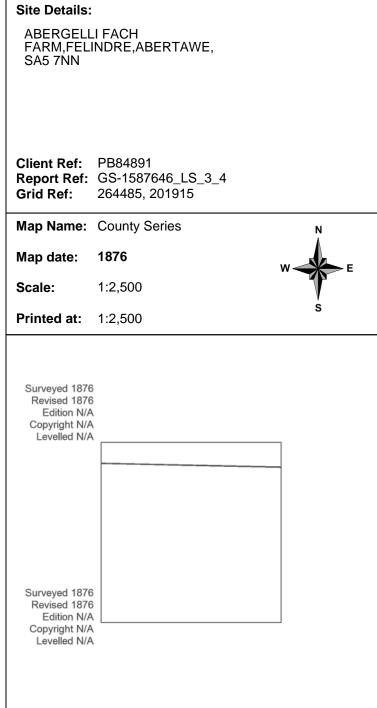
12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at GroundSure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law

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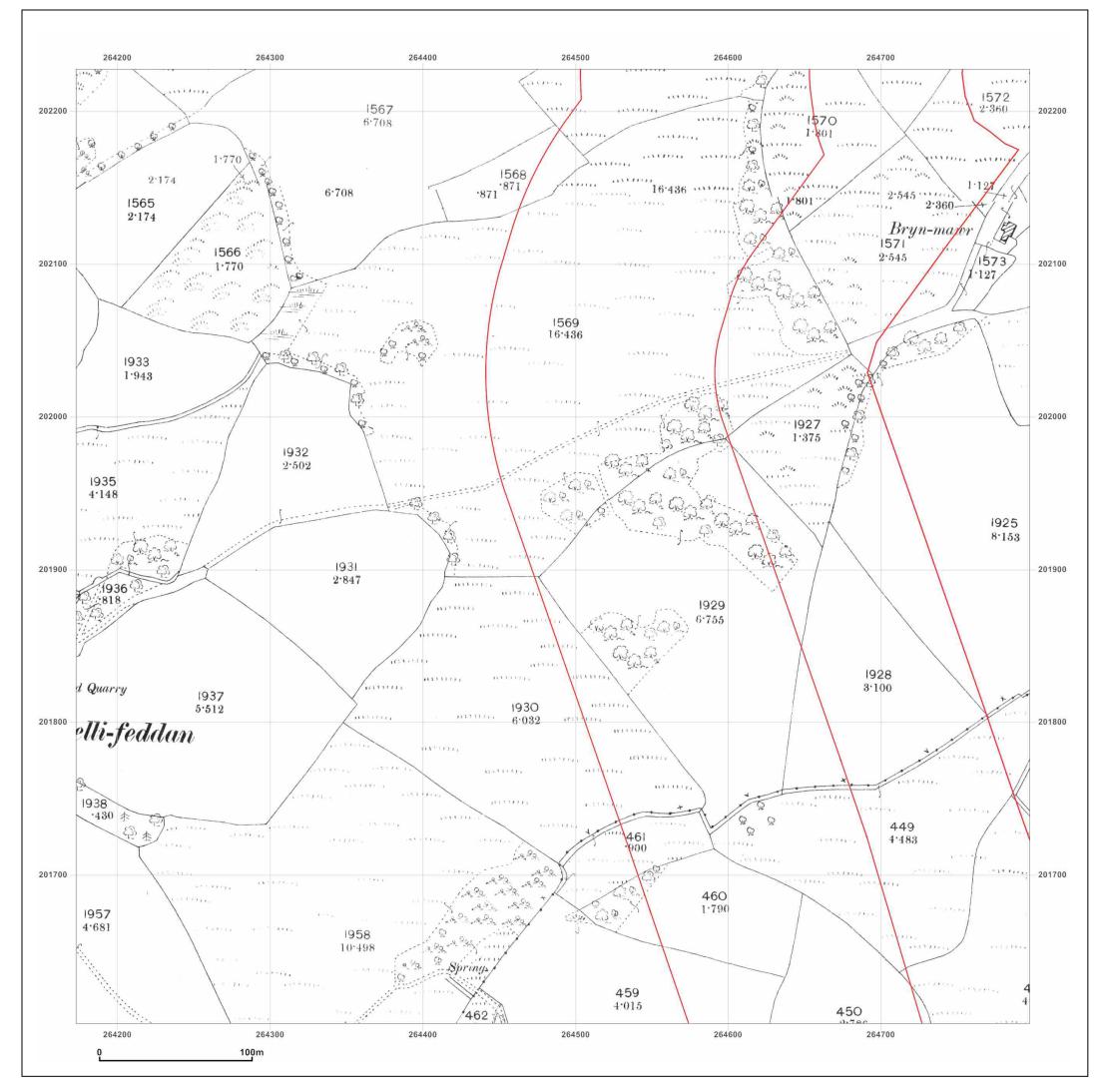


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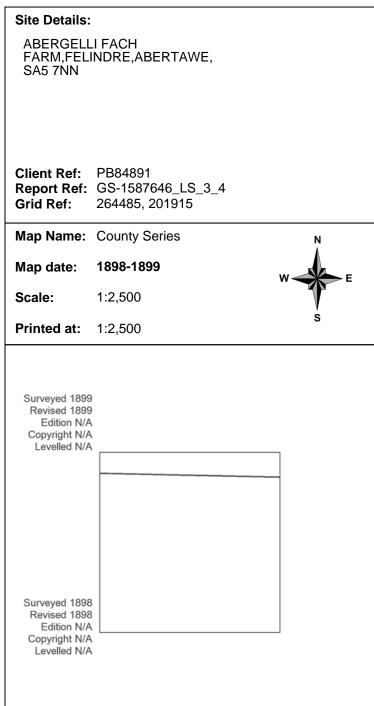
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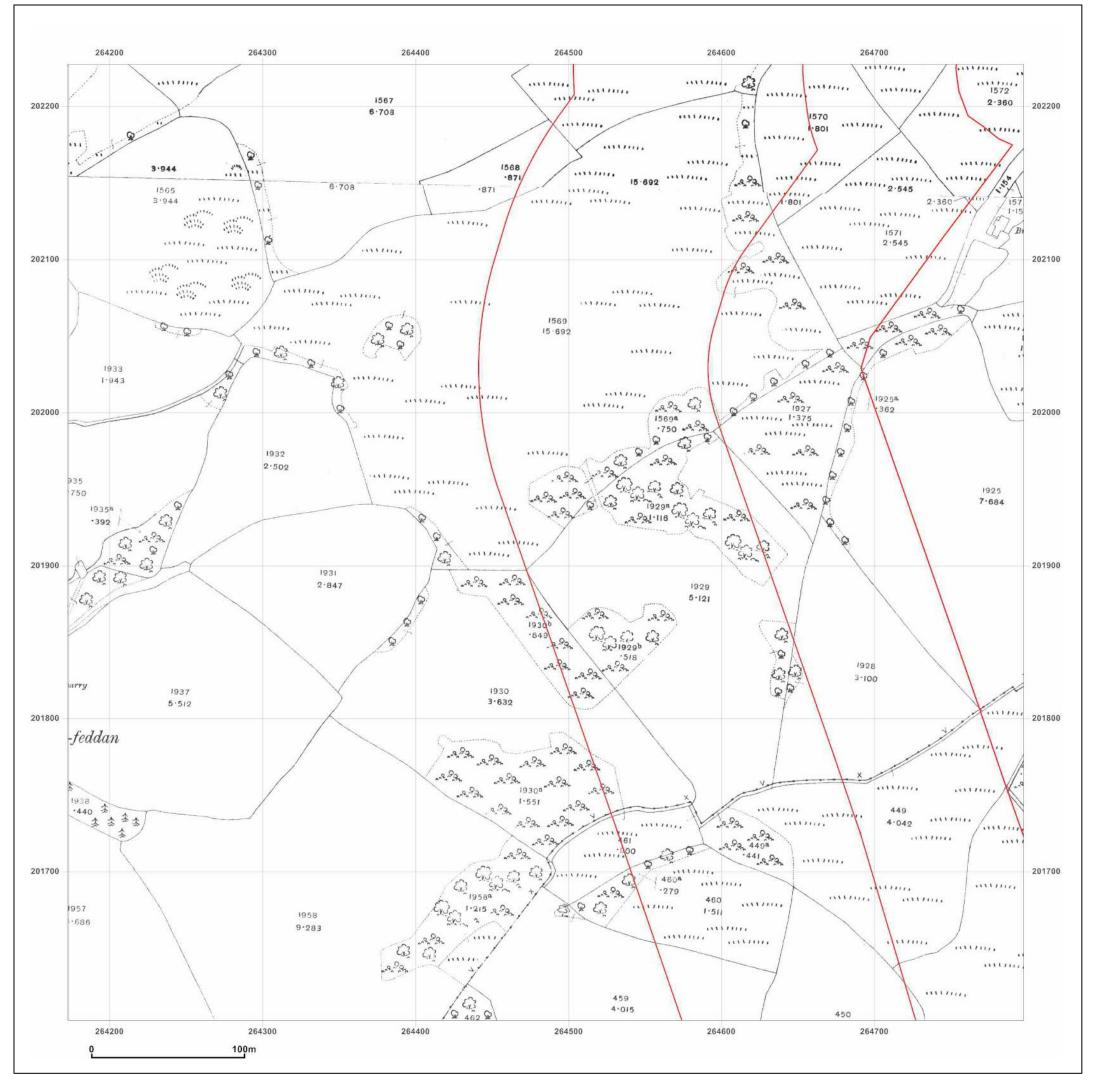


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E: <a href="mailto:info@groundsure.com">info@groundsure.com</a>
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Site Details:			
ABERGELL FARM,FEL SA5 7NN	LI FACH INDRE,ABERTAWE,		
Client Ref: Report Ref: Grid Ref:	PB84891 GS-1587646_LS_3_4 264485, 201915		
Map Name:	County Series	N	
Map date:	1916	W E	
Scale:	1:2,500		
Printed at:	1:2,500	S	
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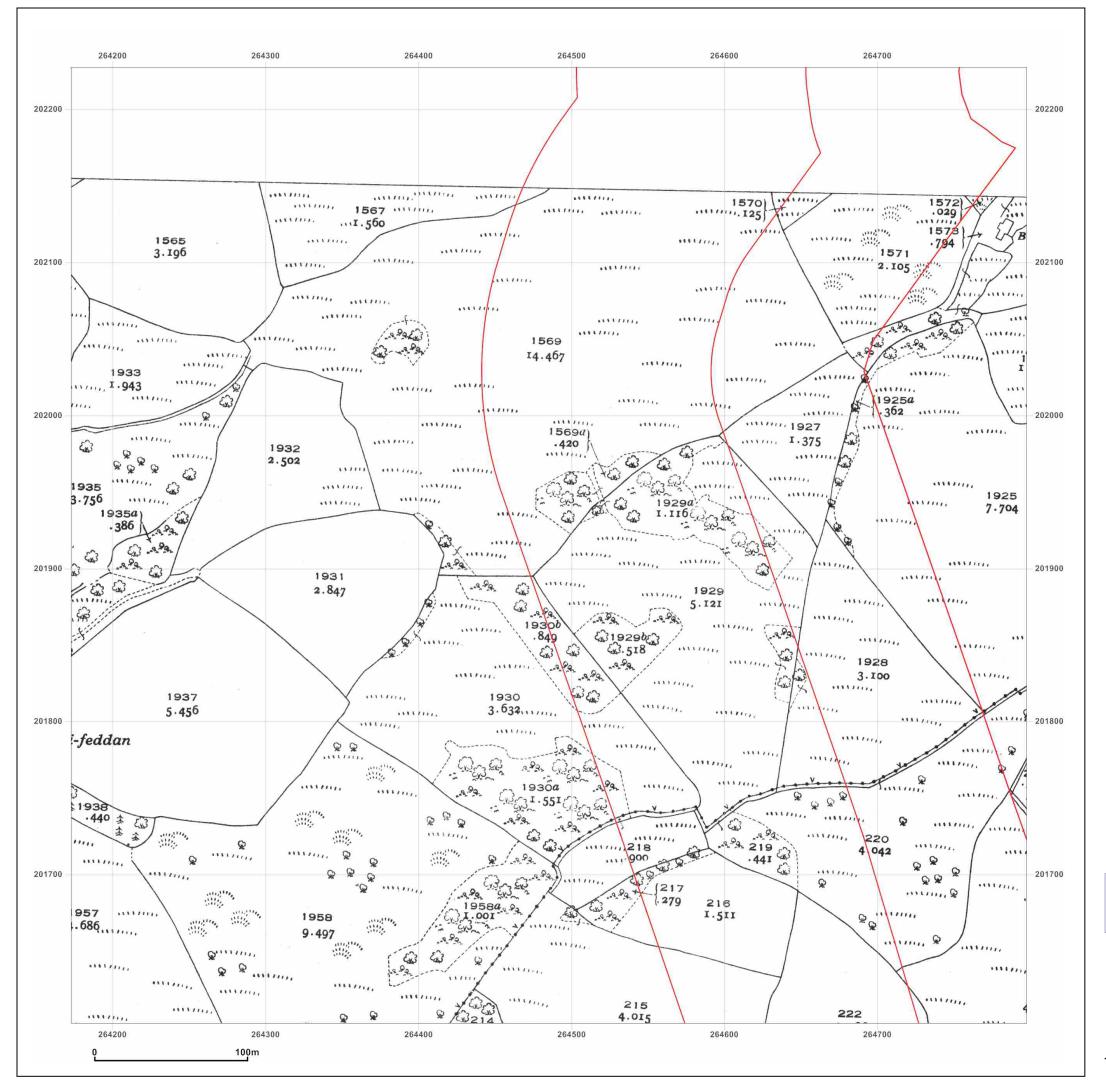


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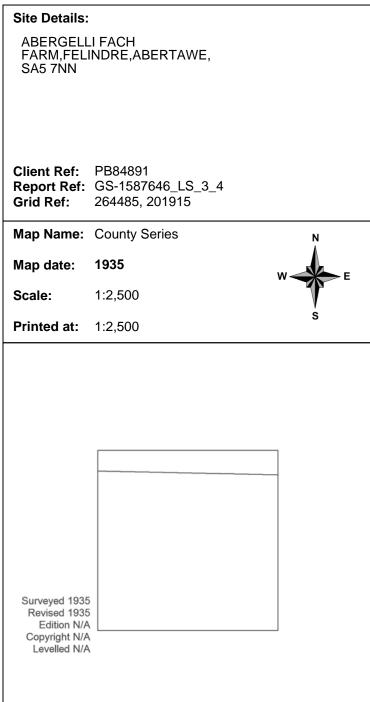
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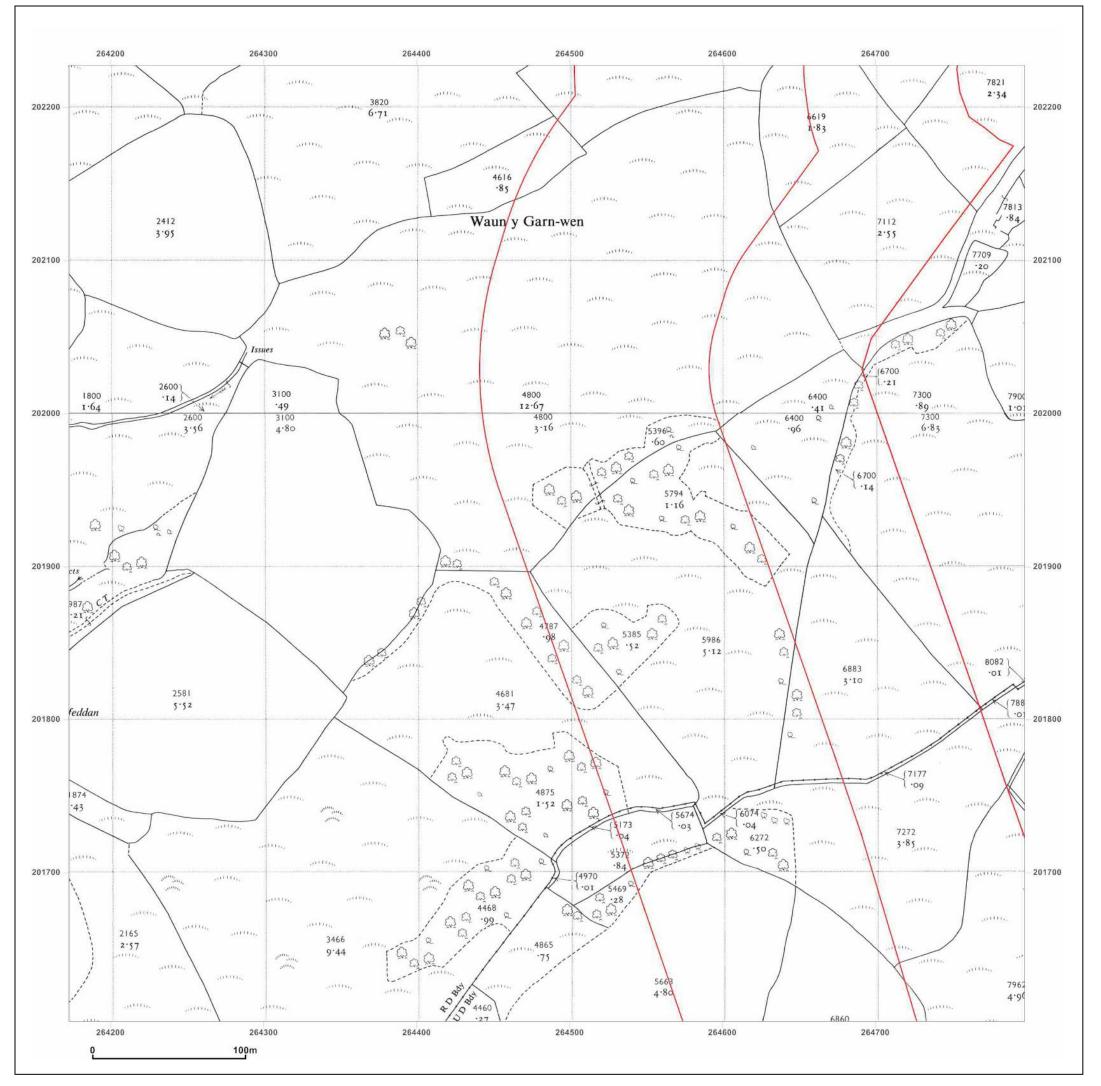


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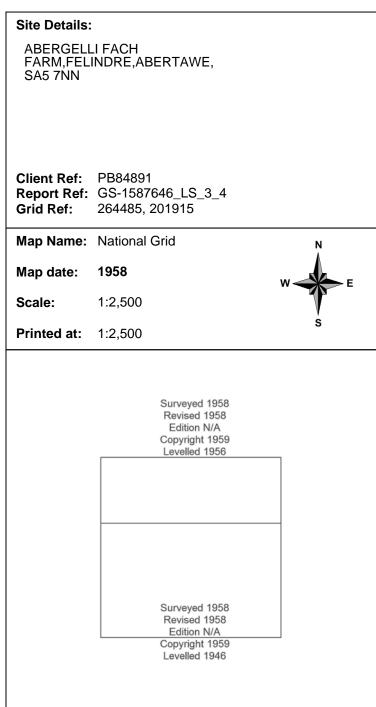
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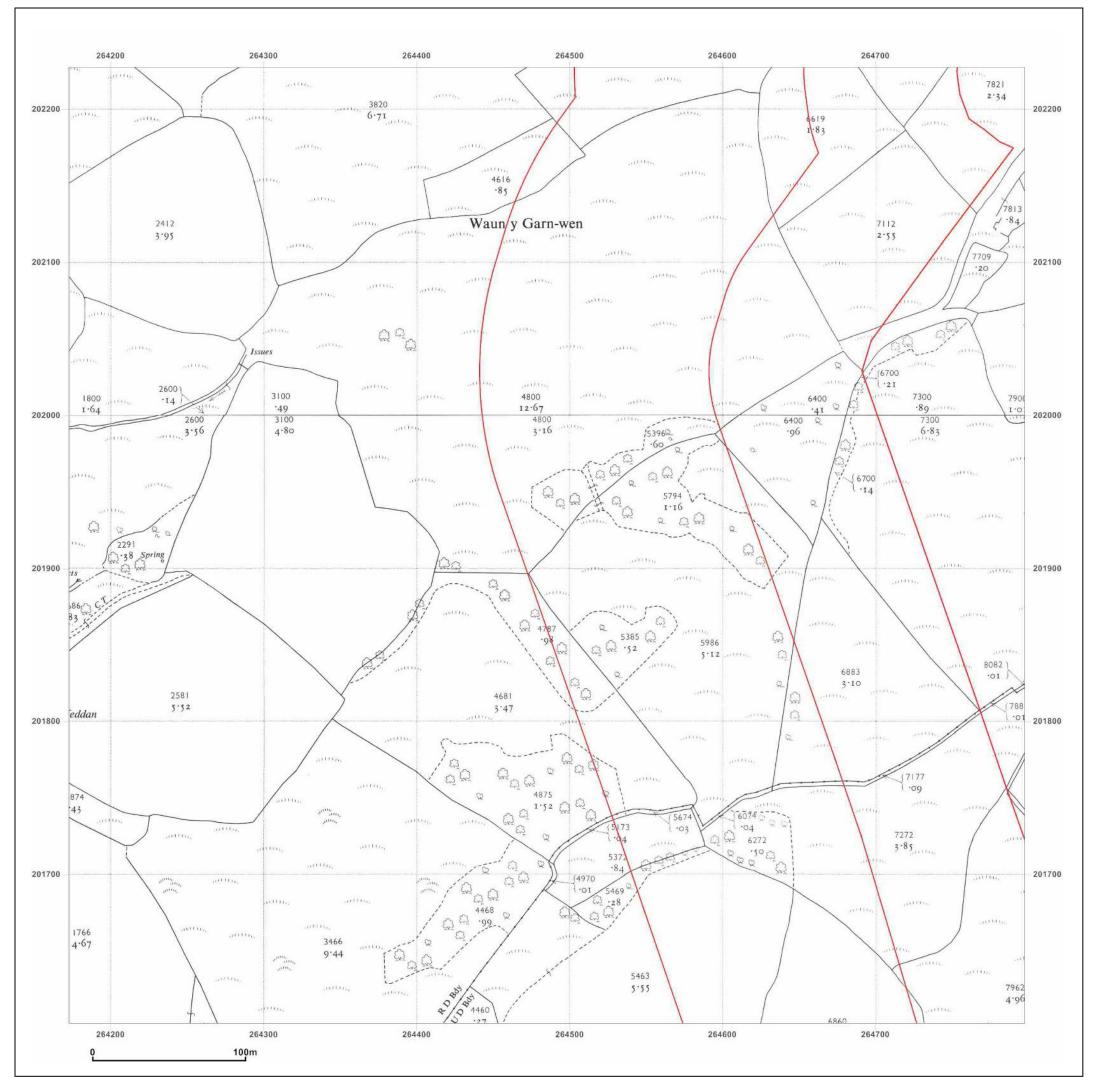
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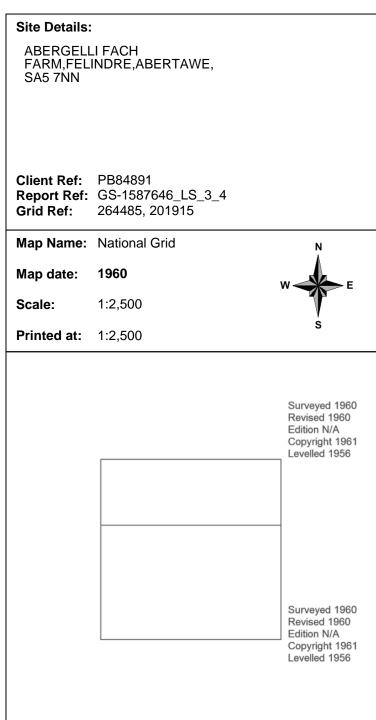
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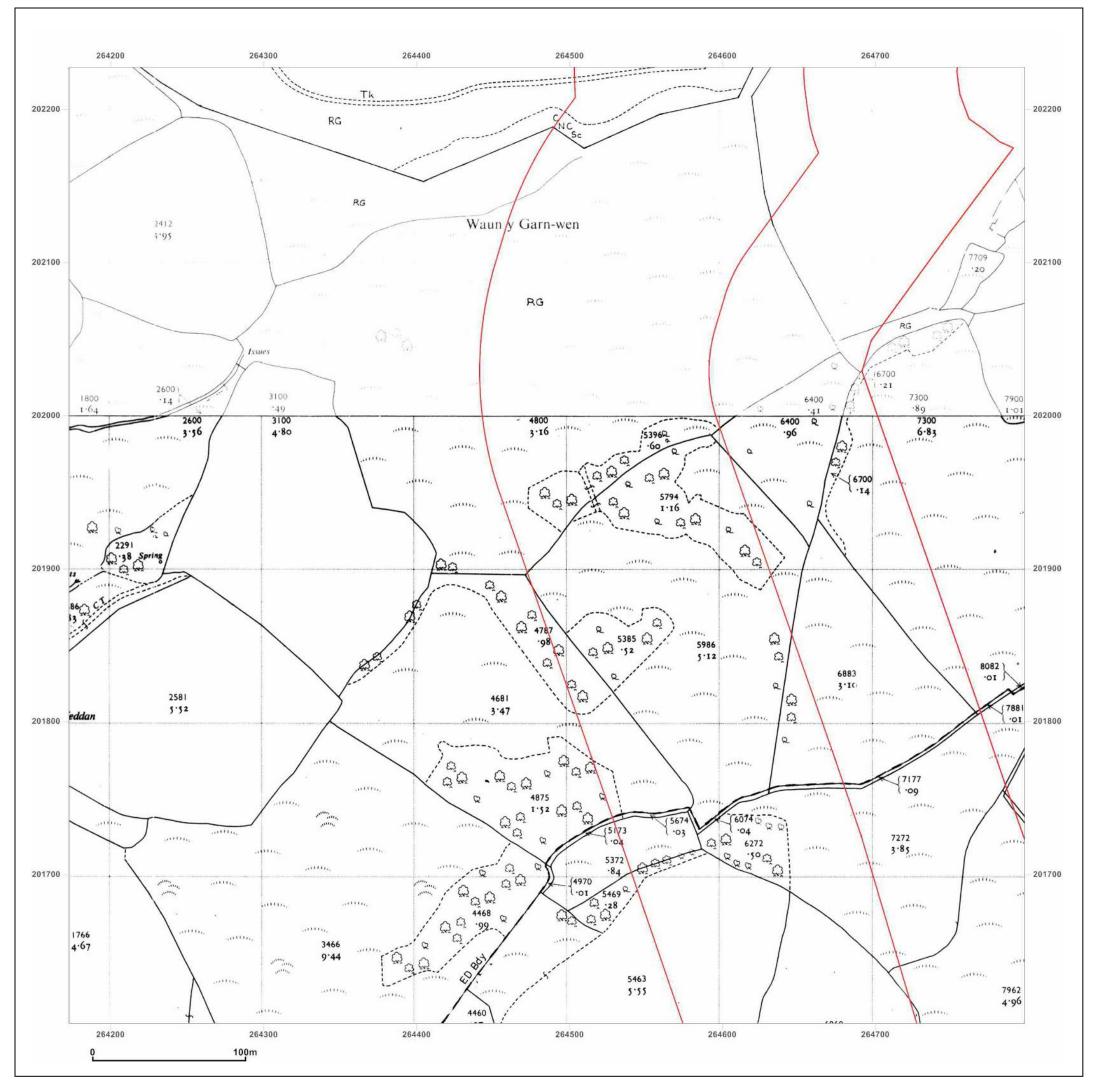


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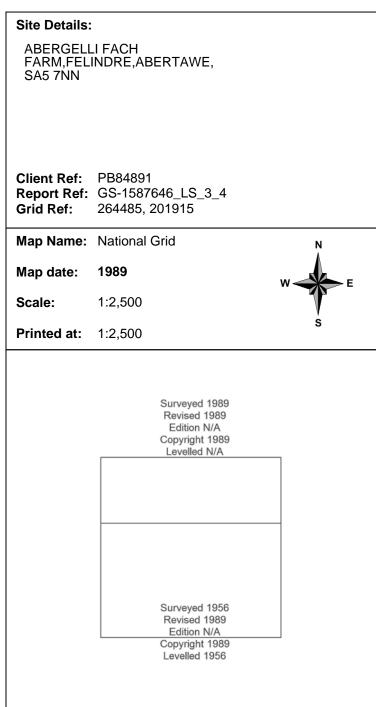
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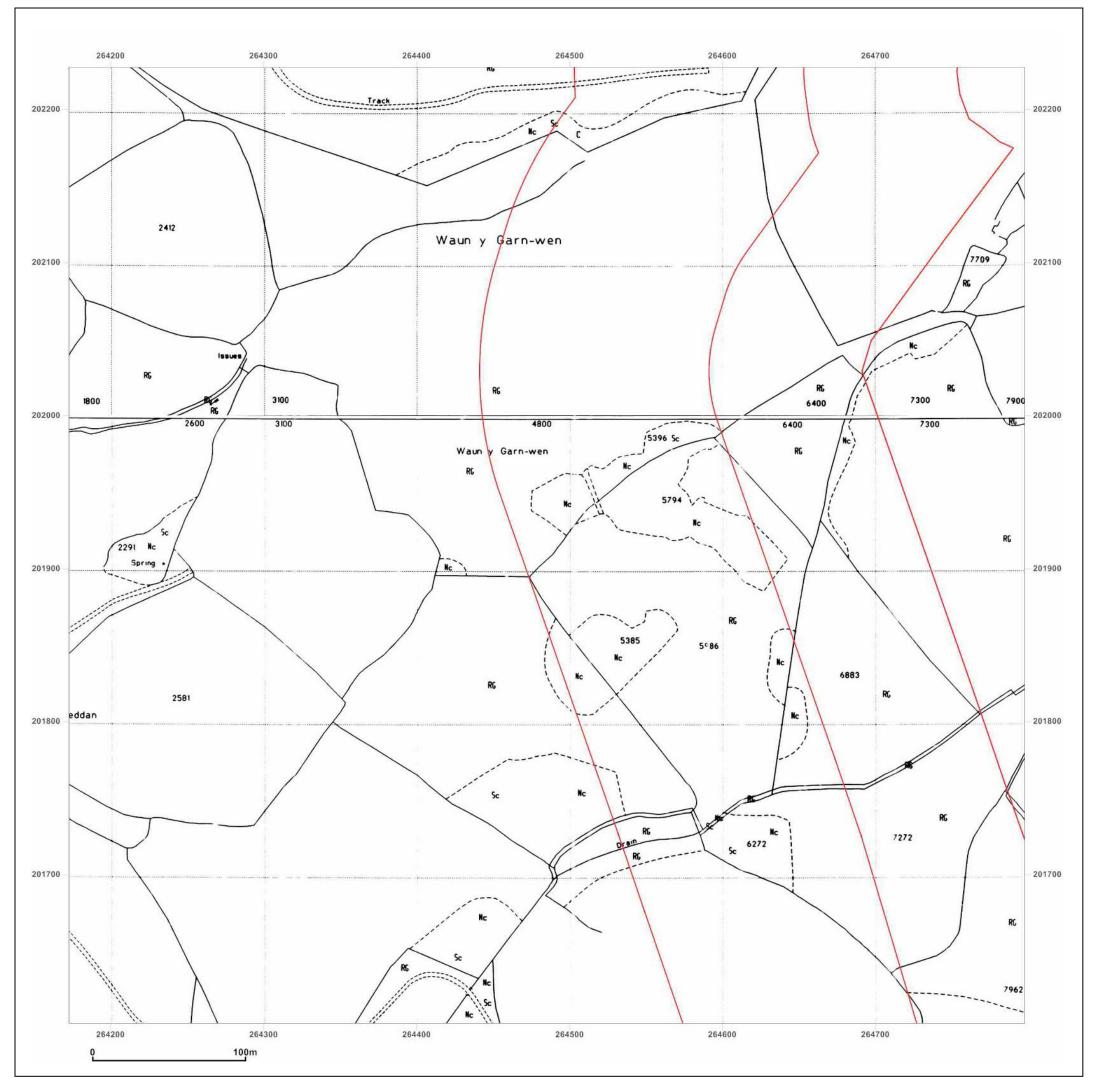
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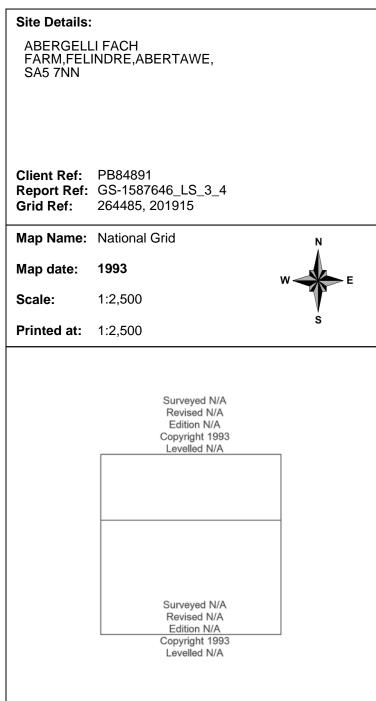
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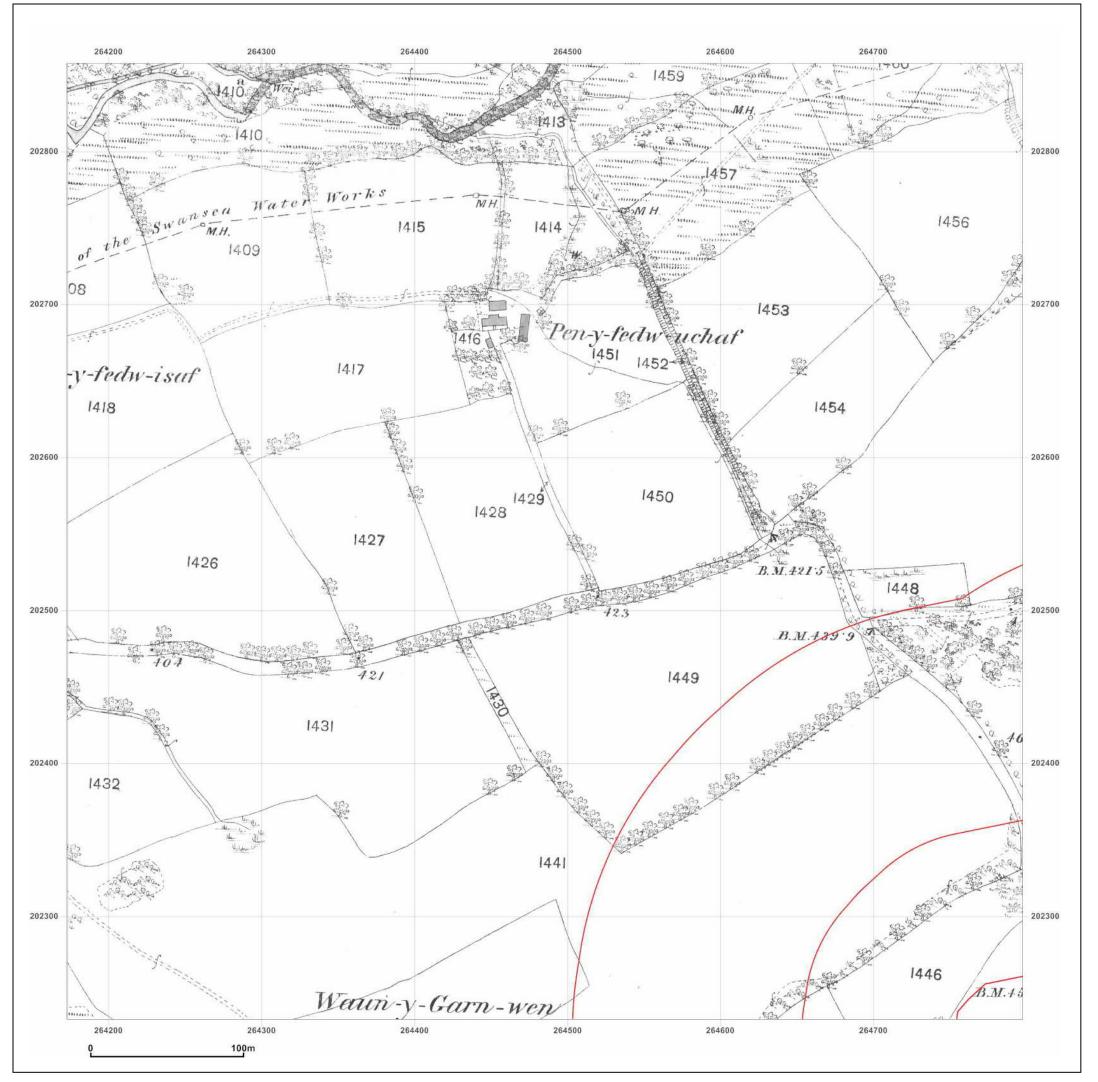
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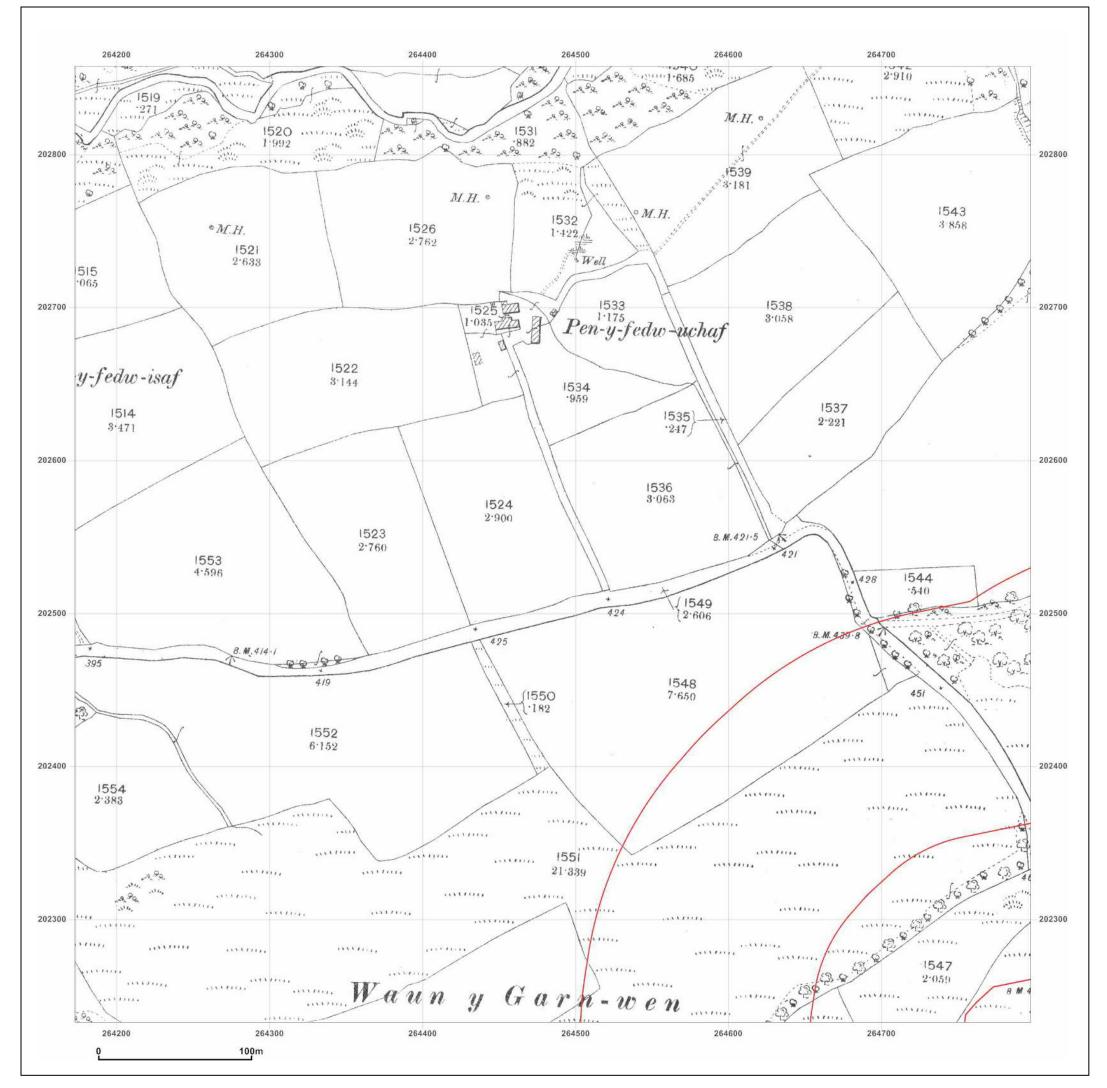
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ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN			
PB84891 GS-1587646_LS_3_5 264485, 202545			
County Carino			
County Series	N		
1876	W E		
1:2,500	A.		
1:2,500	S		
	PB84891 GS-1587646_LS_3_5 264485, 202545  County Series 1876 1:2,500 1:2,500		



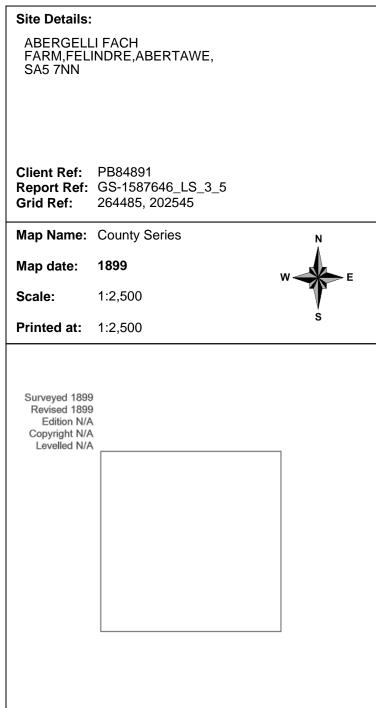
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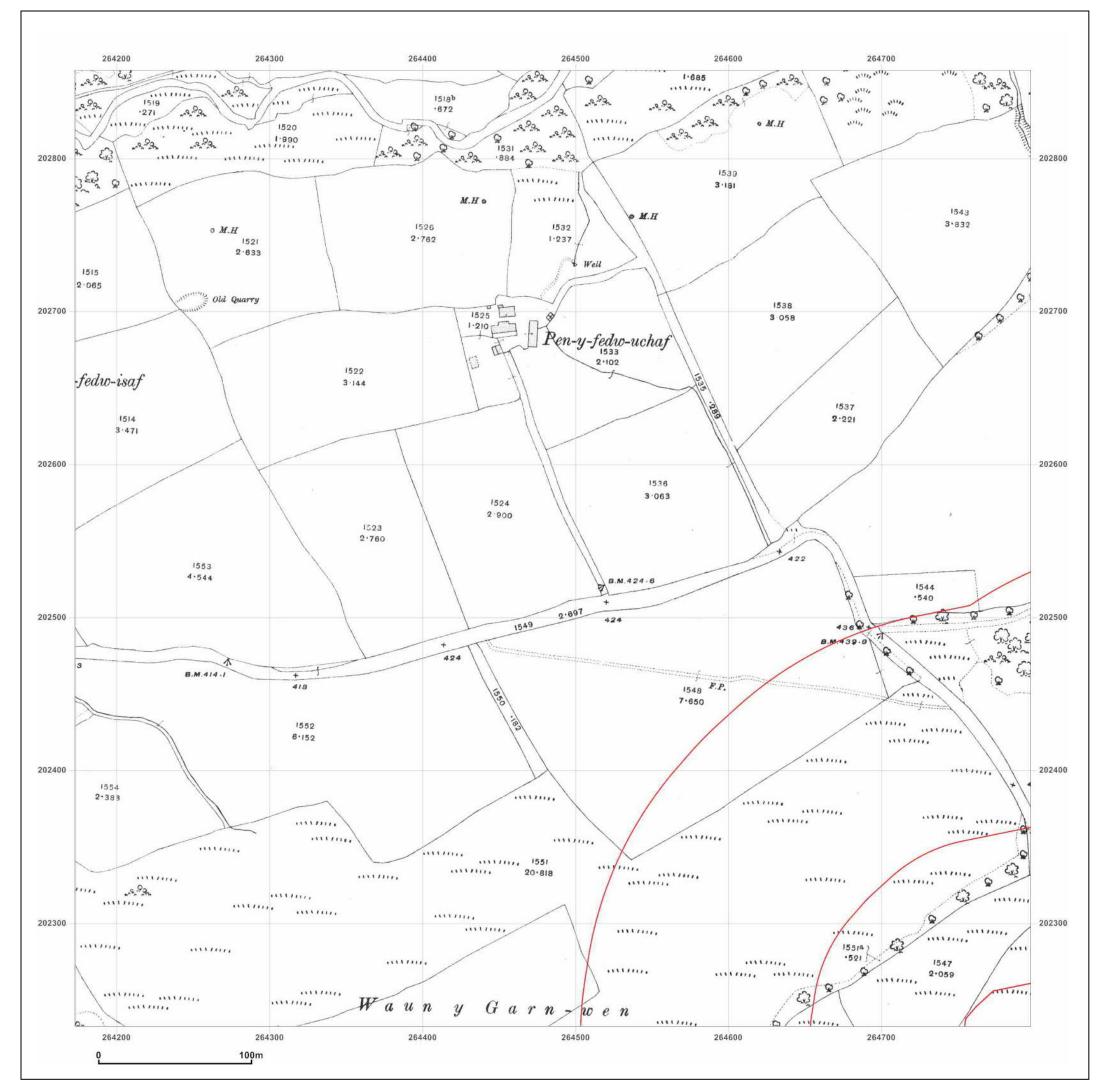


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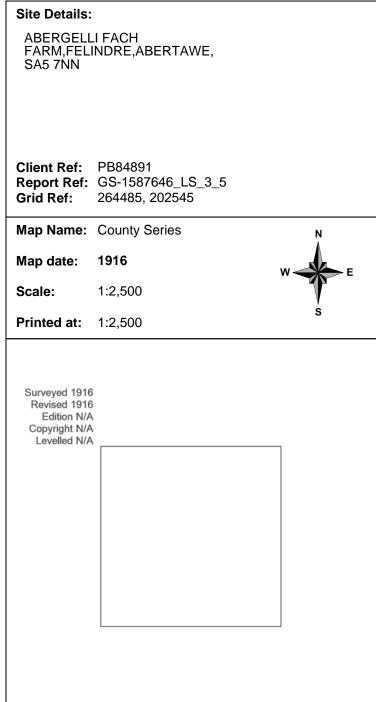
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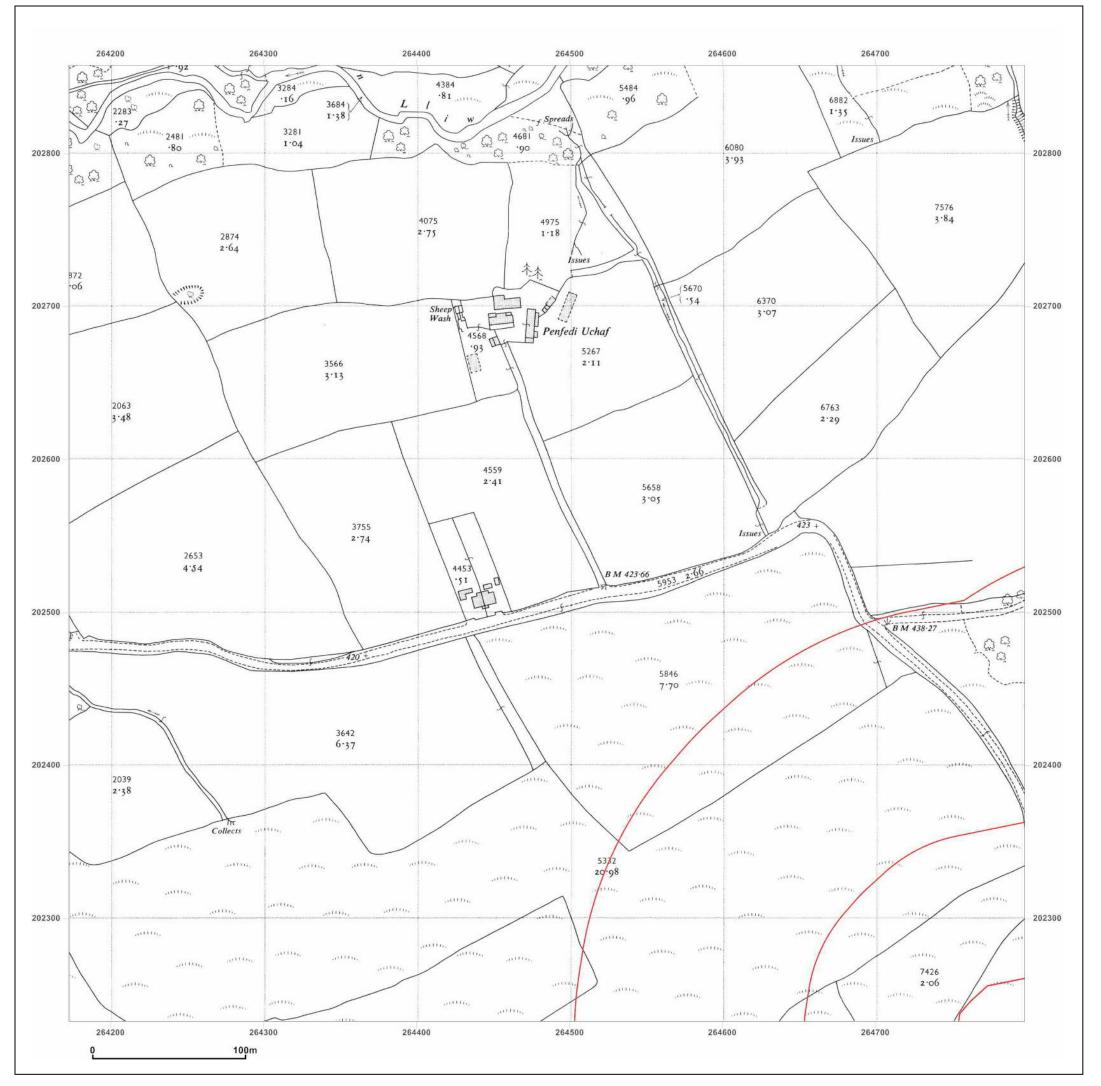


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Site Details:

ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_3_5 Grid Ref: 264485, 202545

Map Name: National Grid

1958 Map date:

Scale: 1:2,500

**Printed at:** 1:2,500

Surveyed 1958 Revised 1958 Edition N/A Copyright 1959 Levelled 1956



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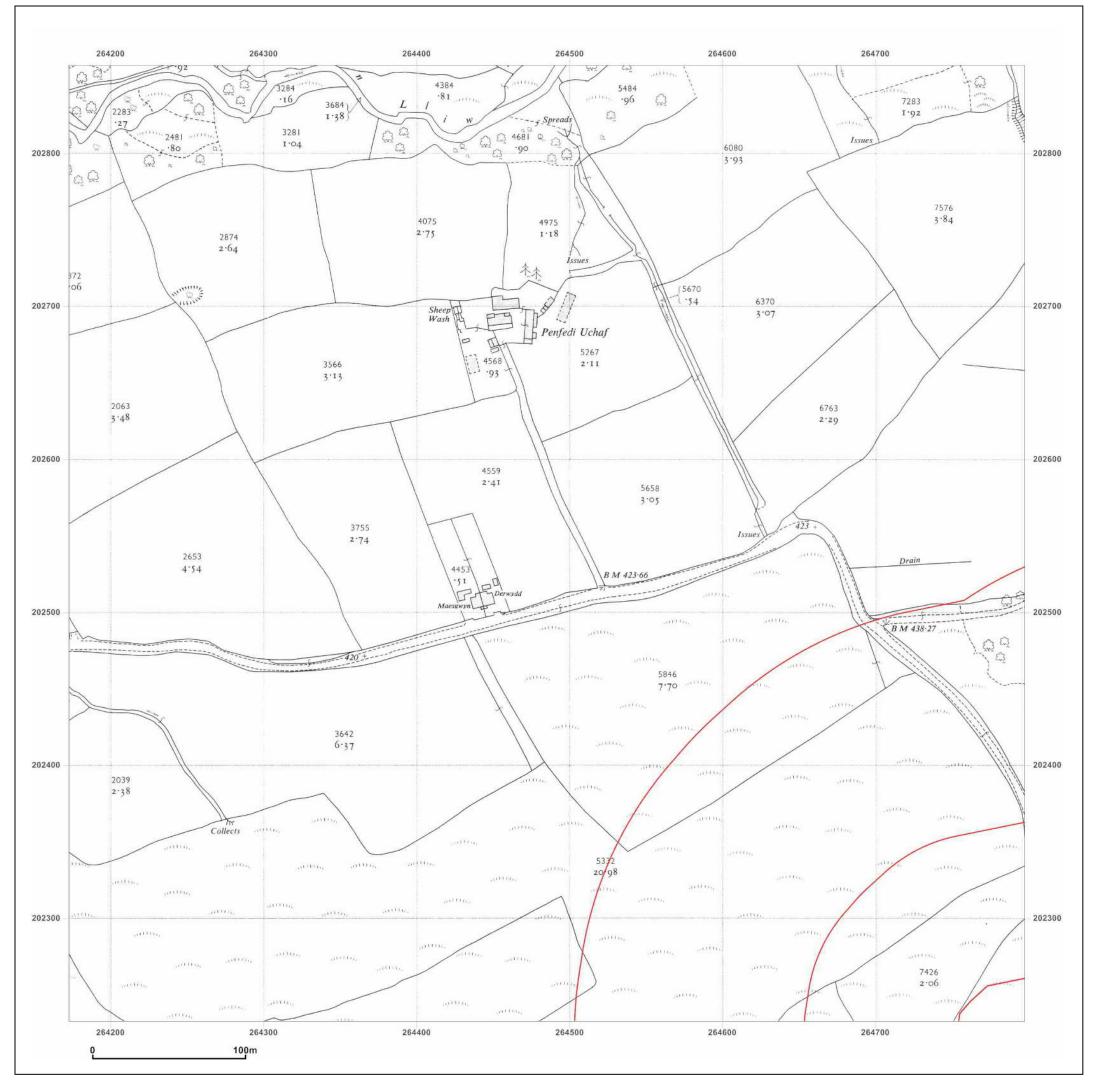
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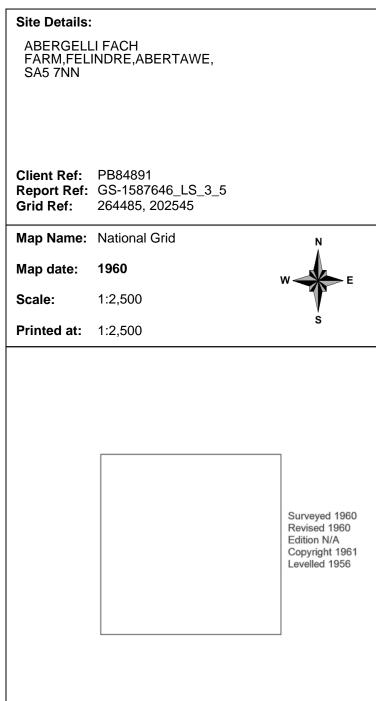
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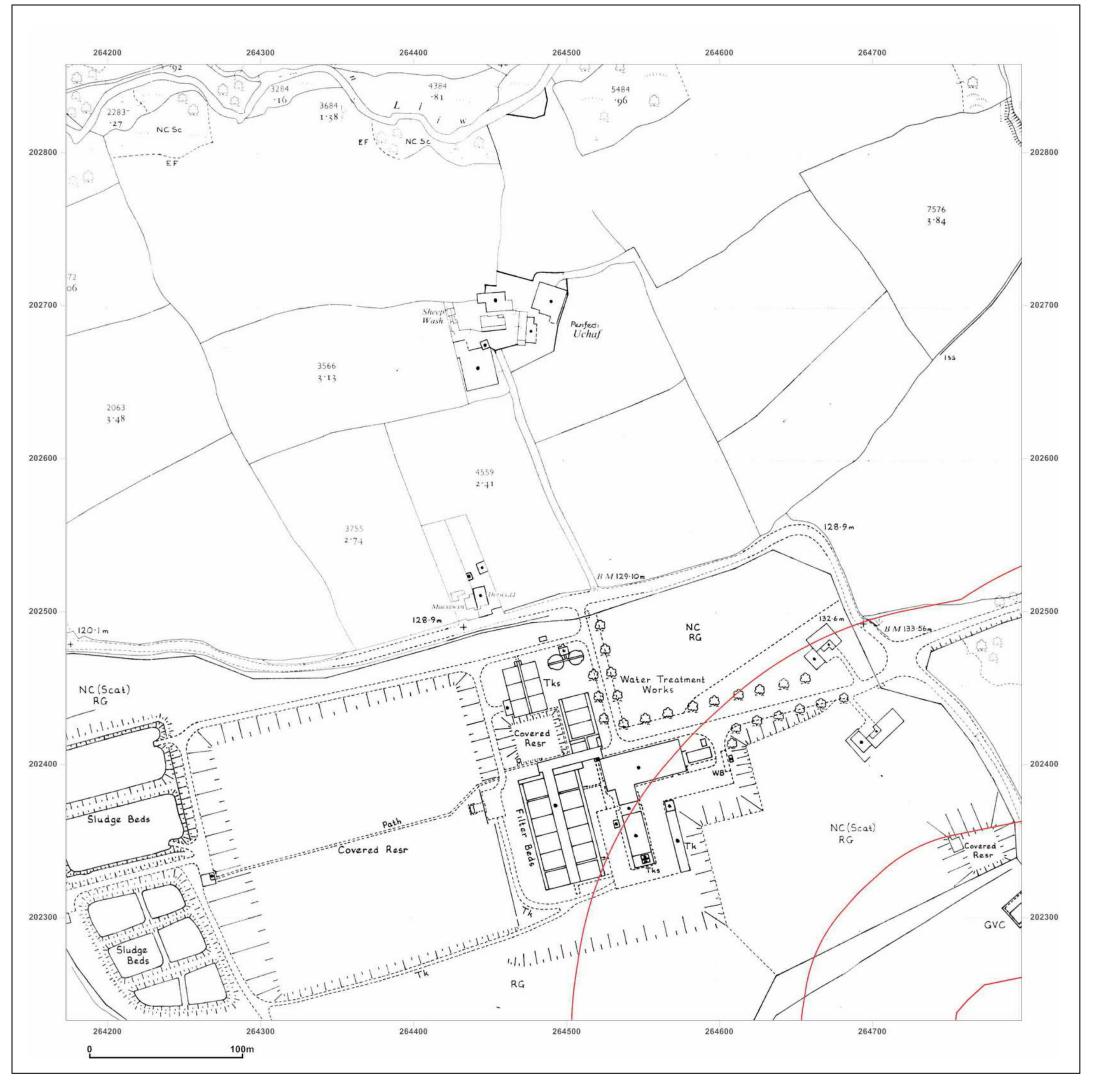
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ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_3_5 264485, 202545 Grid Ref:

Map Name: National Grid

1989 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1989 Revised 1989 Edition N/A Copyright 1989 Levelled N/A



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ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_3_5 Grid Ref: 264485, 202545

Map Name: National Grid

1993 Map date:

Scale: 1:2,500

**Printed at:** 1:2,500

Surveyed N/A Revised N/A Edition N/A Copyright 1993 Levelled N/A



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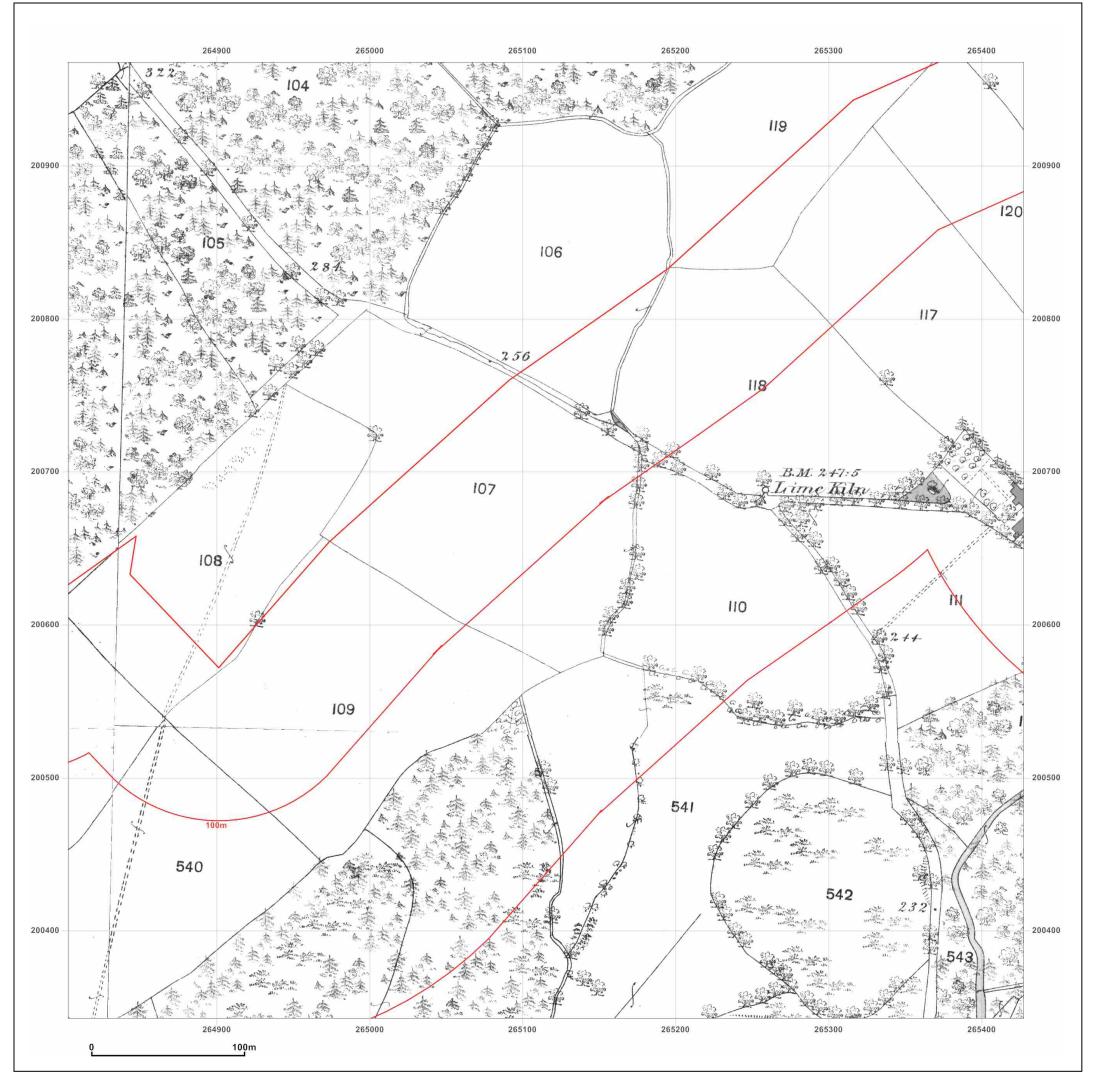
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## Site Details:

ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_4_2

Grid Ref: 265115, 200655

Map Name: County Series

Map date: 1876-1878

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1876 Revised 1876 Edition N/A Surveyed 1876 Revised 1876 Edition N/A
Copyright N/A
Levelled N/A Copyright N/A Levelled N/A Surveyed 1878 Revised 1878 Surveyed 1876 Revised 1876 Edition N/A Copyright N/A Levelled N/A Copyright N/A Levelled N/A

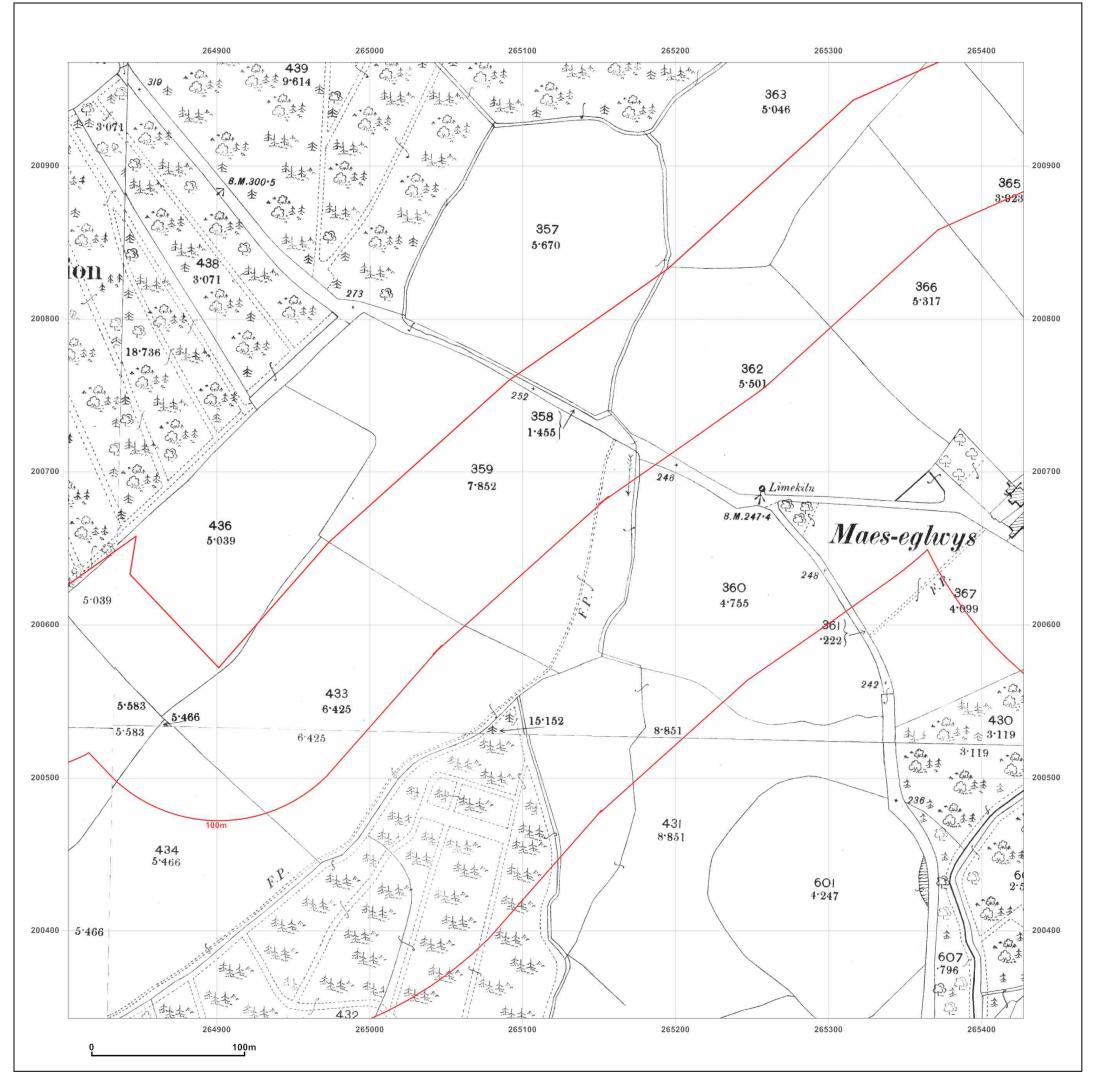


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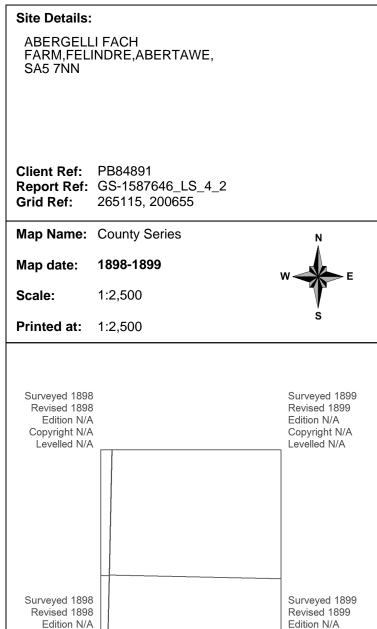
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Levelled N/A

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Levelled N/A

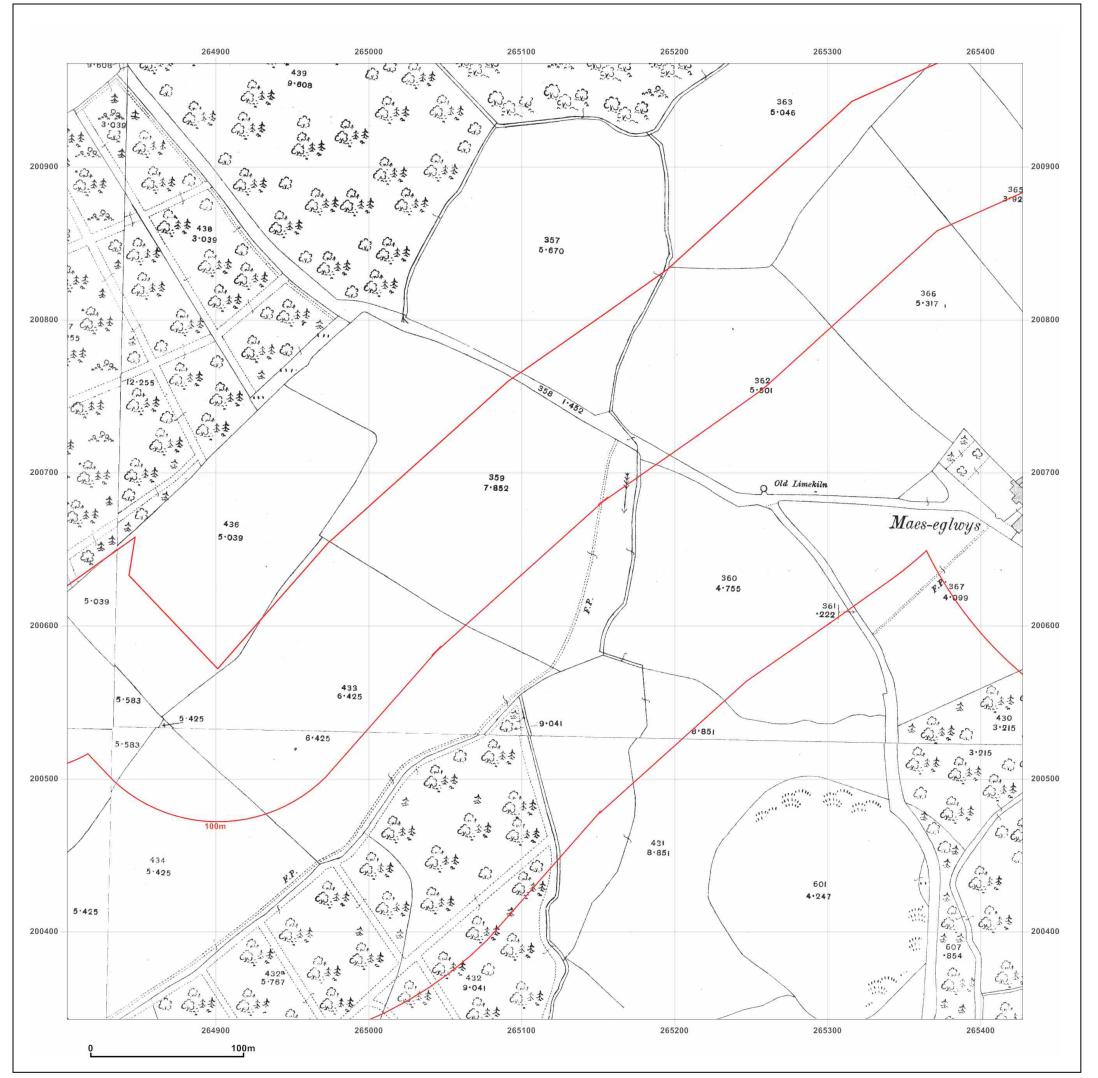
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## Site Details:

ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_4_2 Grid Ref: 265115, 200655

Map Name: County Series

1916-1918 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500



Surveyed 1916 Surveyed 1918 Revised 1916 Revised 1918 Edition N/A Edition N/A Copyright N/A Copyright N/A Levelled N/A Levelled N/A Surveyed 1916 Surveyed 1917 Revised 1916 Revised 1917 Edition N/A Copyright N/A Copyright N/A Levelled N/A Levelled N/A



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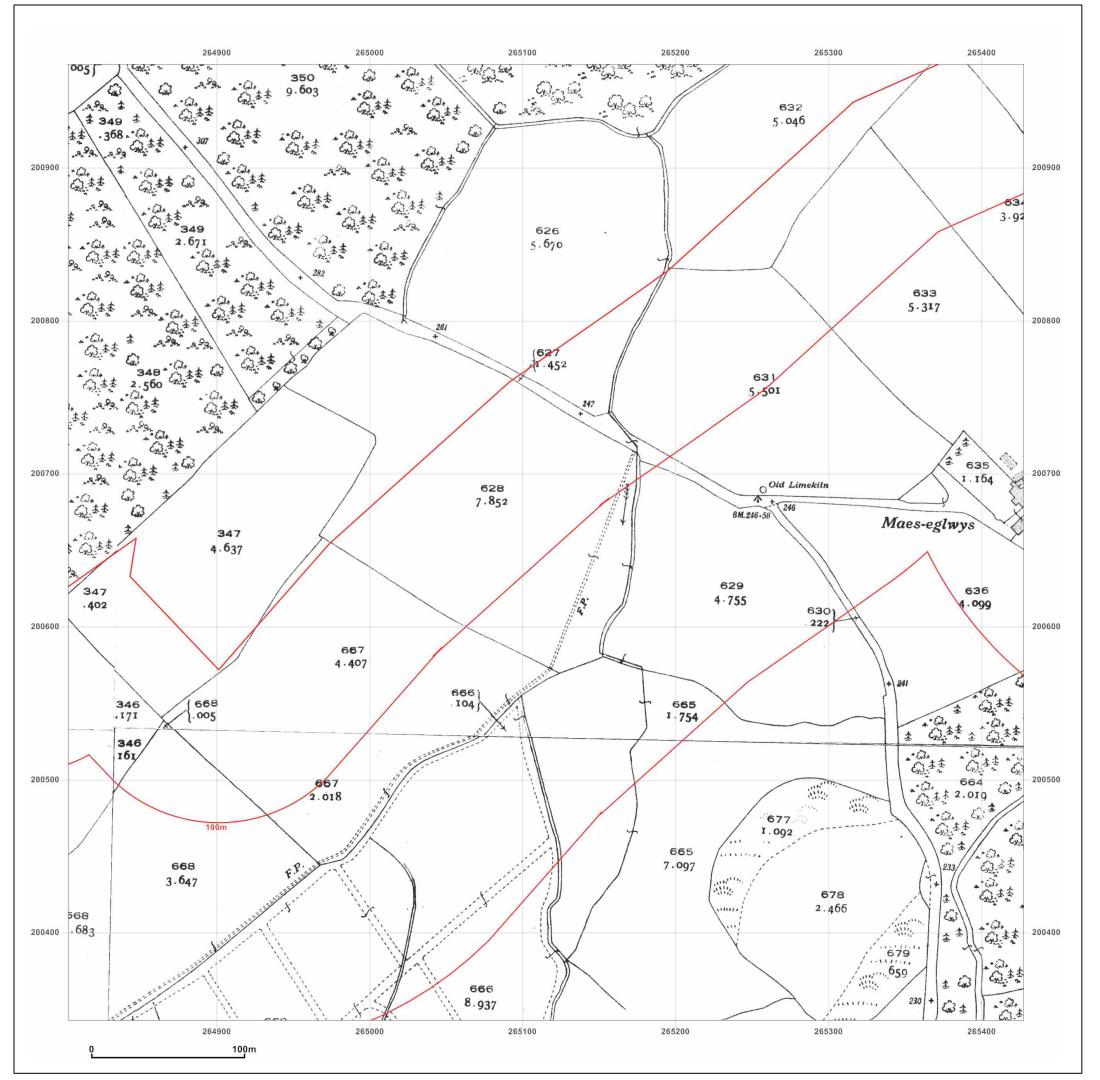
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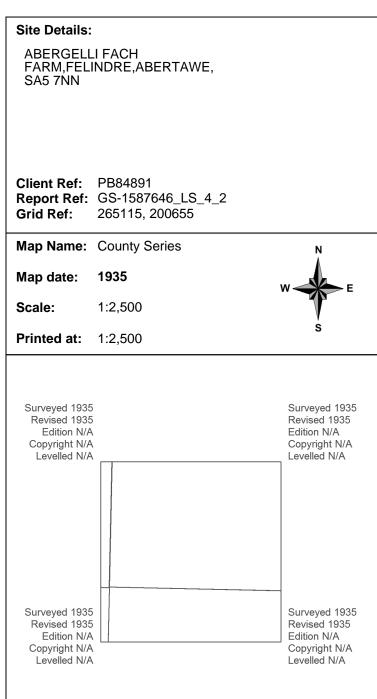
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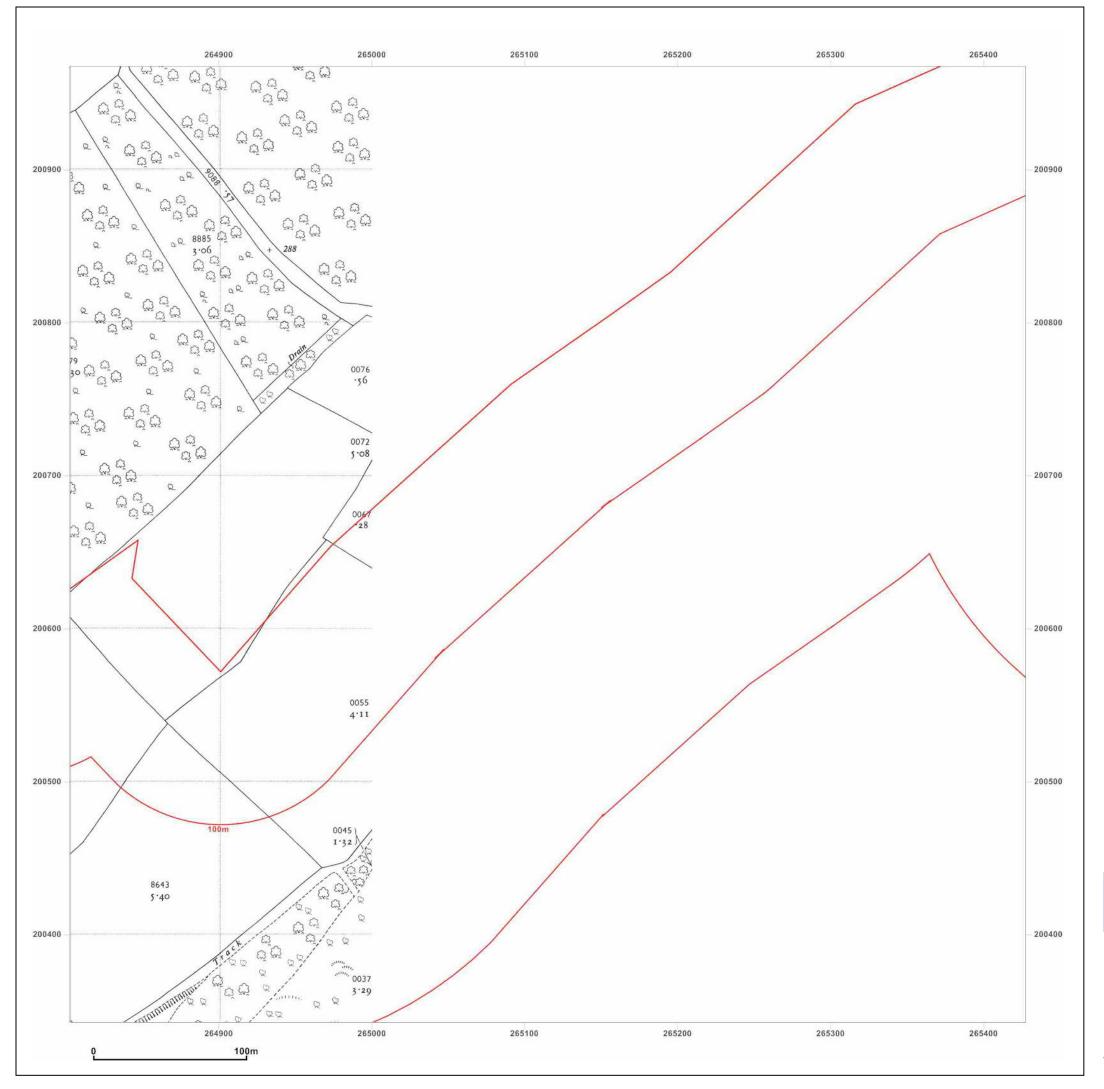
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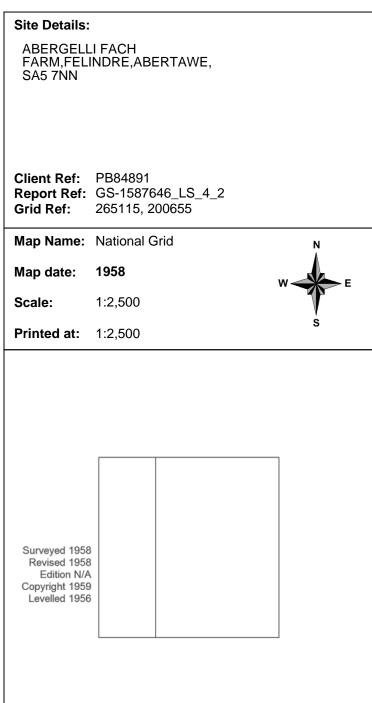
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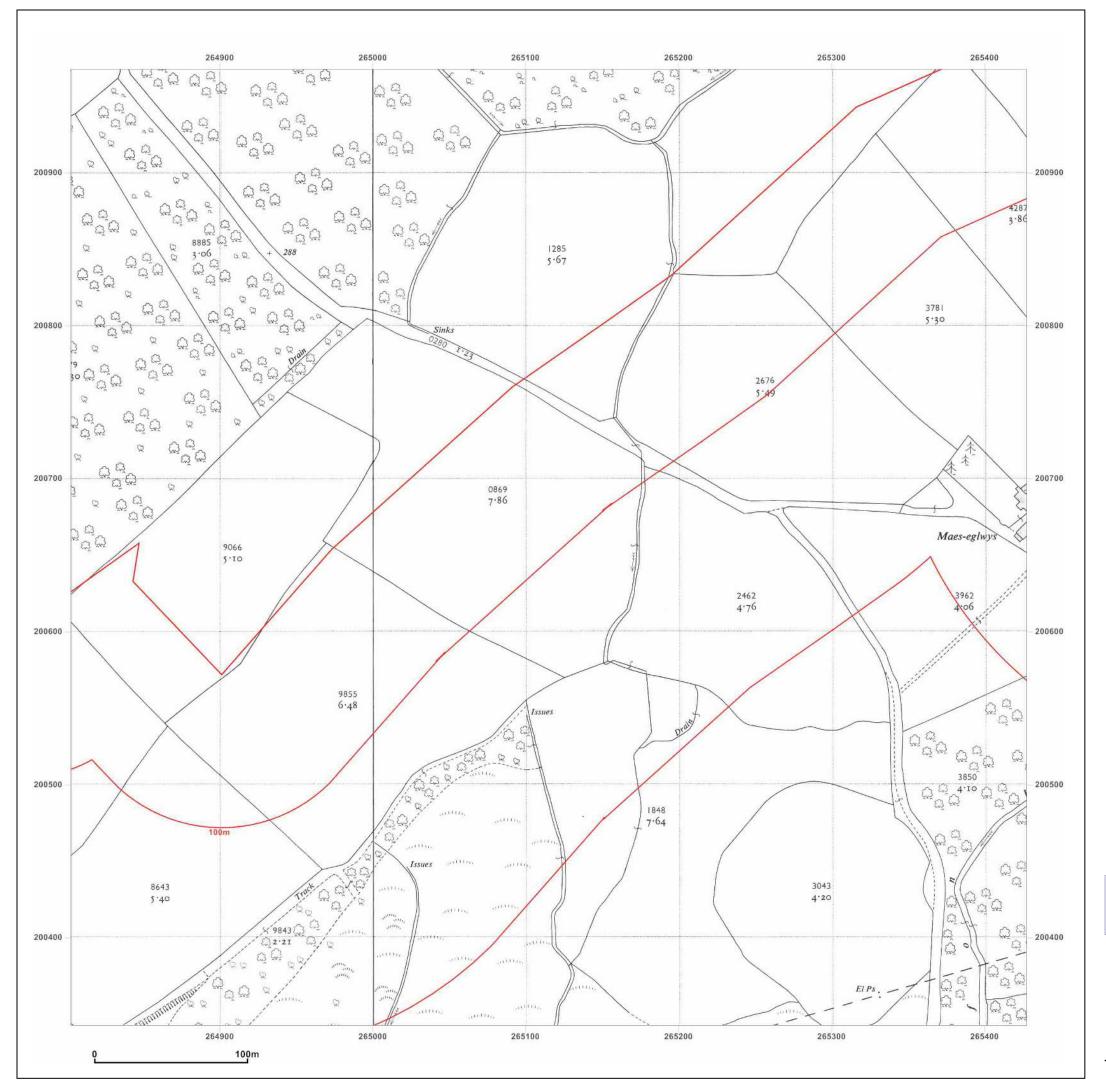
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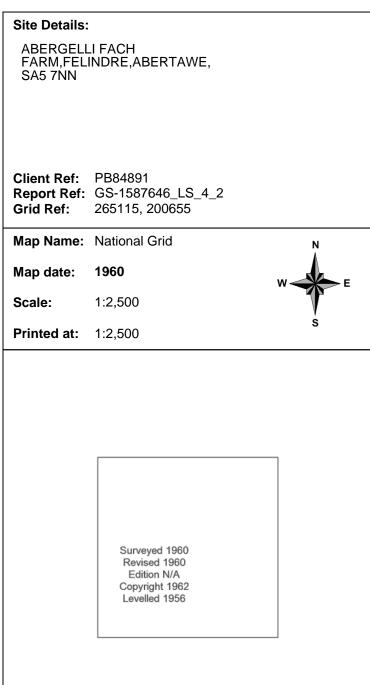
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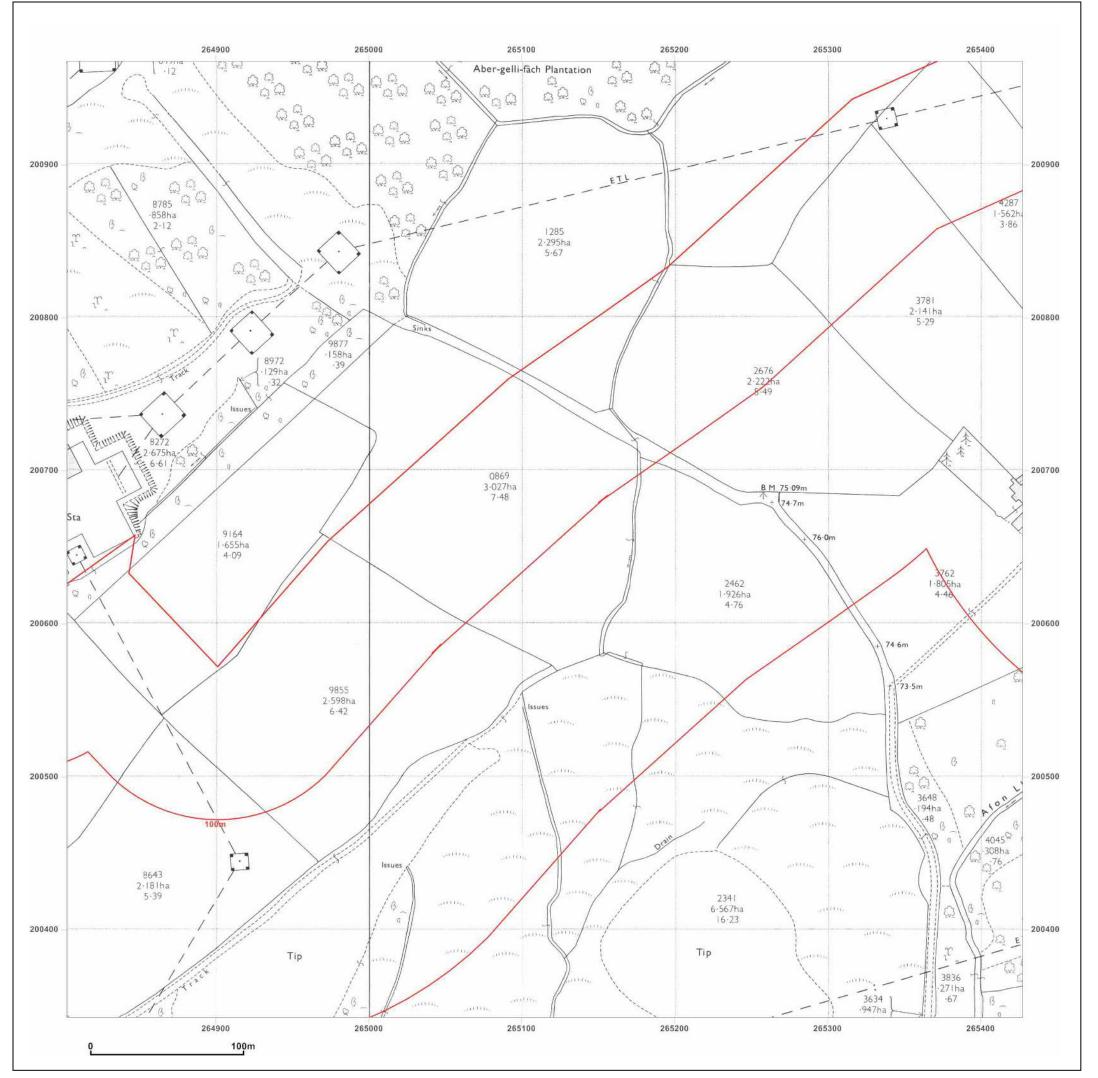


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Site Details:

ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_4_2 Grid Ref: 265115, 200655

Map Name: National Grid

Map date: 1974

Scale: 1:2,500

**Printed at:** 1:2,500

Surveyed 1974 Revised 1974 Edition N/A Copyright 1975 Levelled 1963



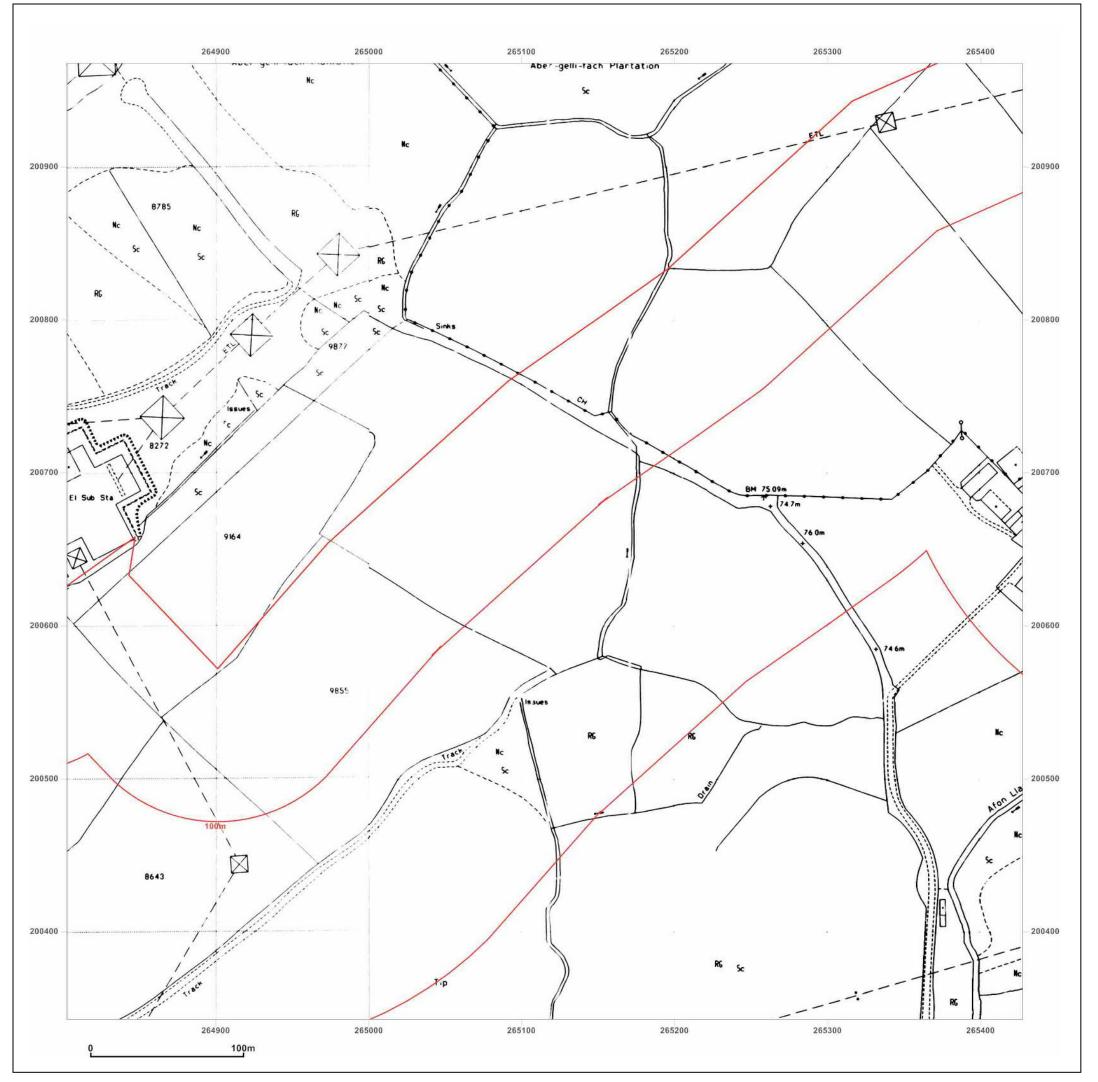
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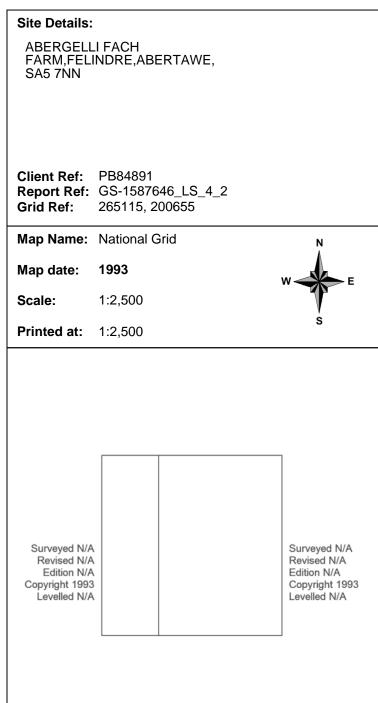
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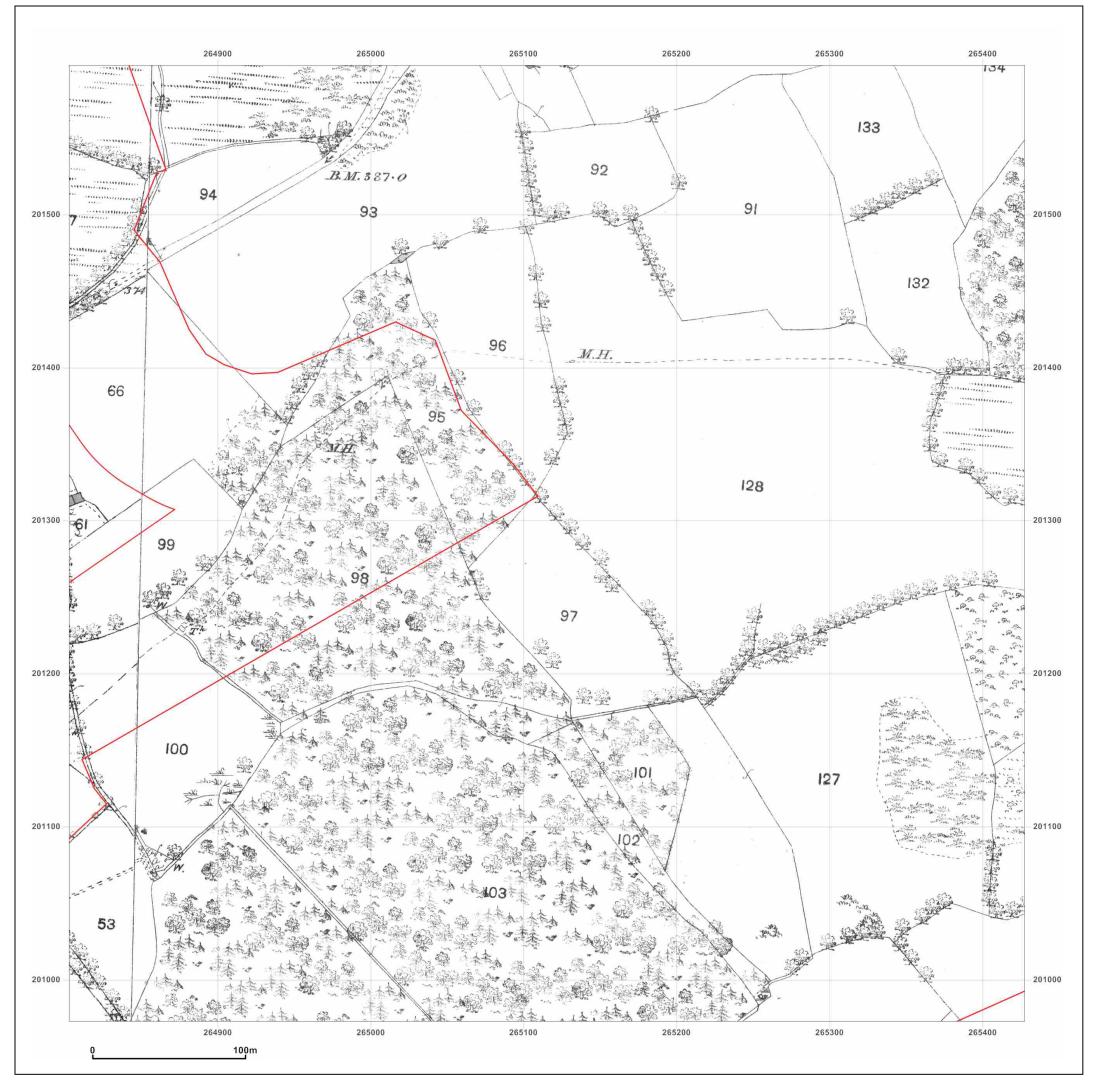




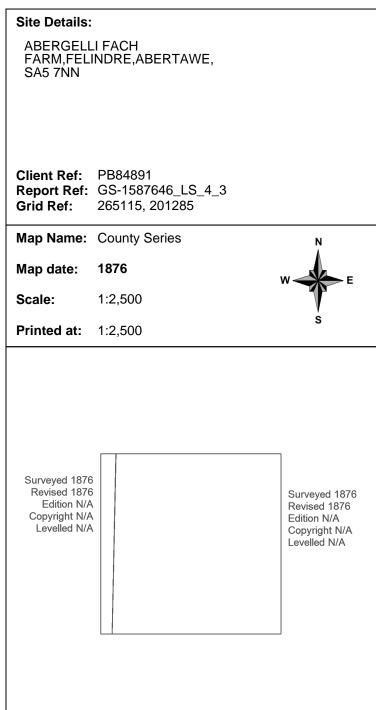
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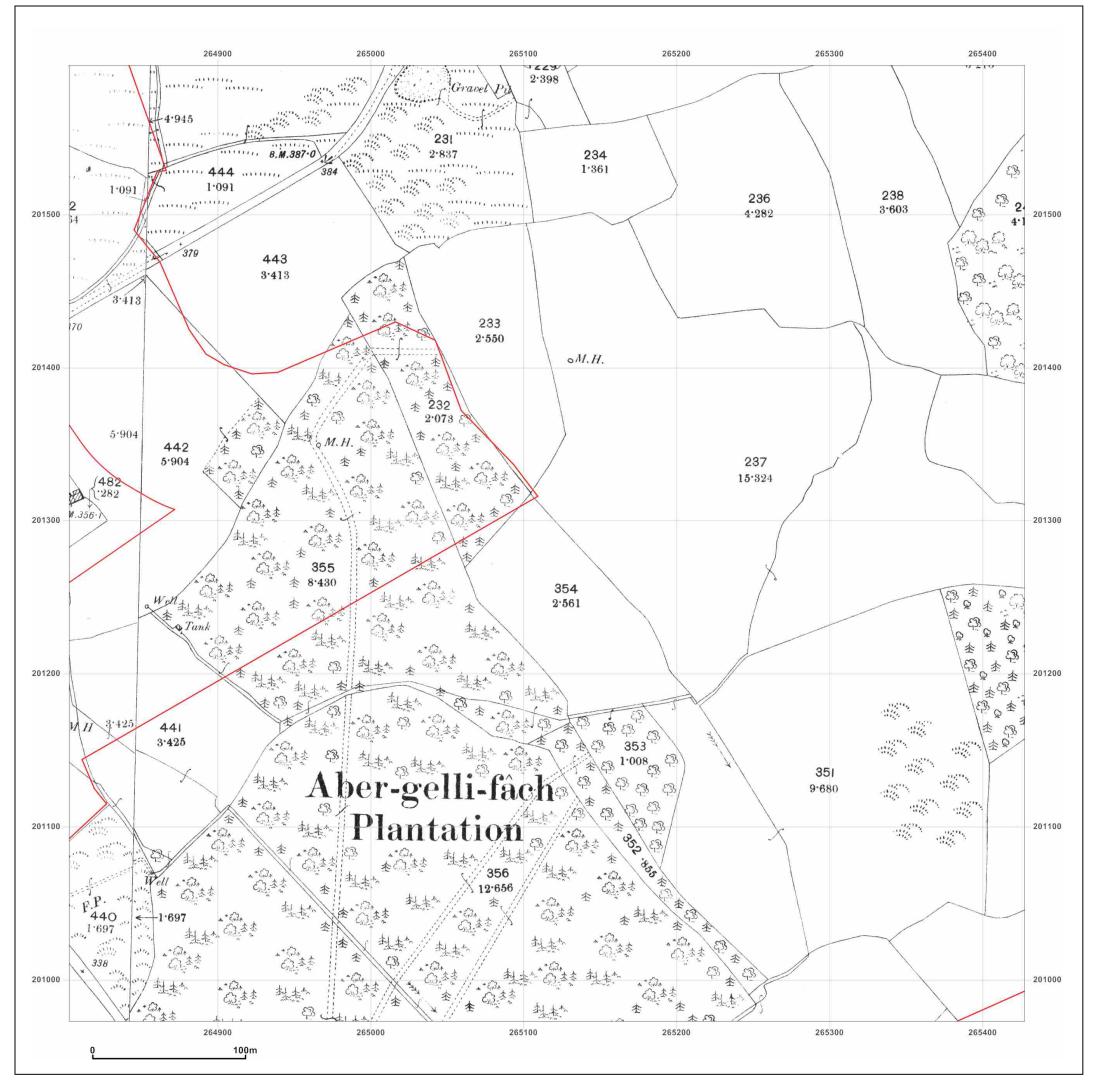




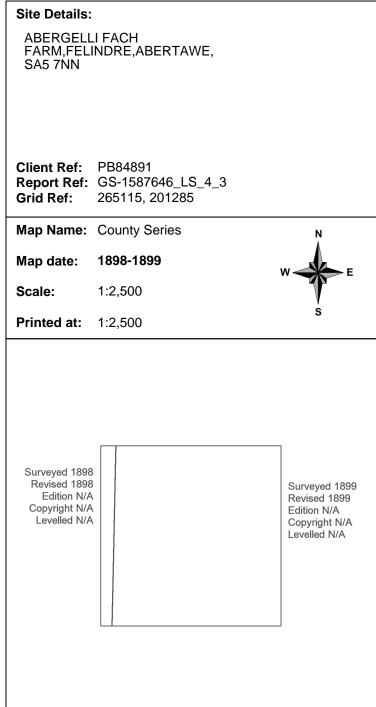
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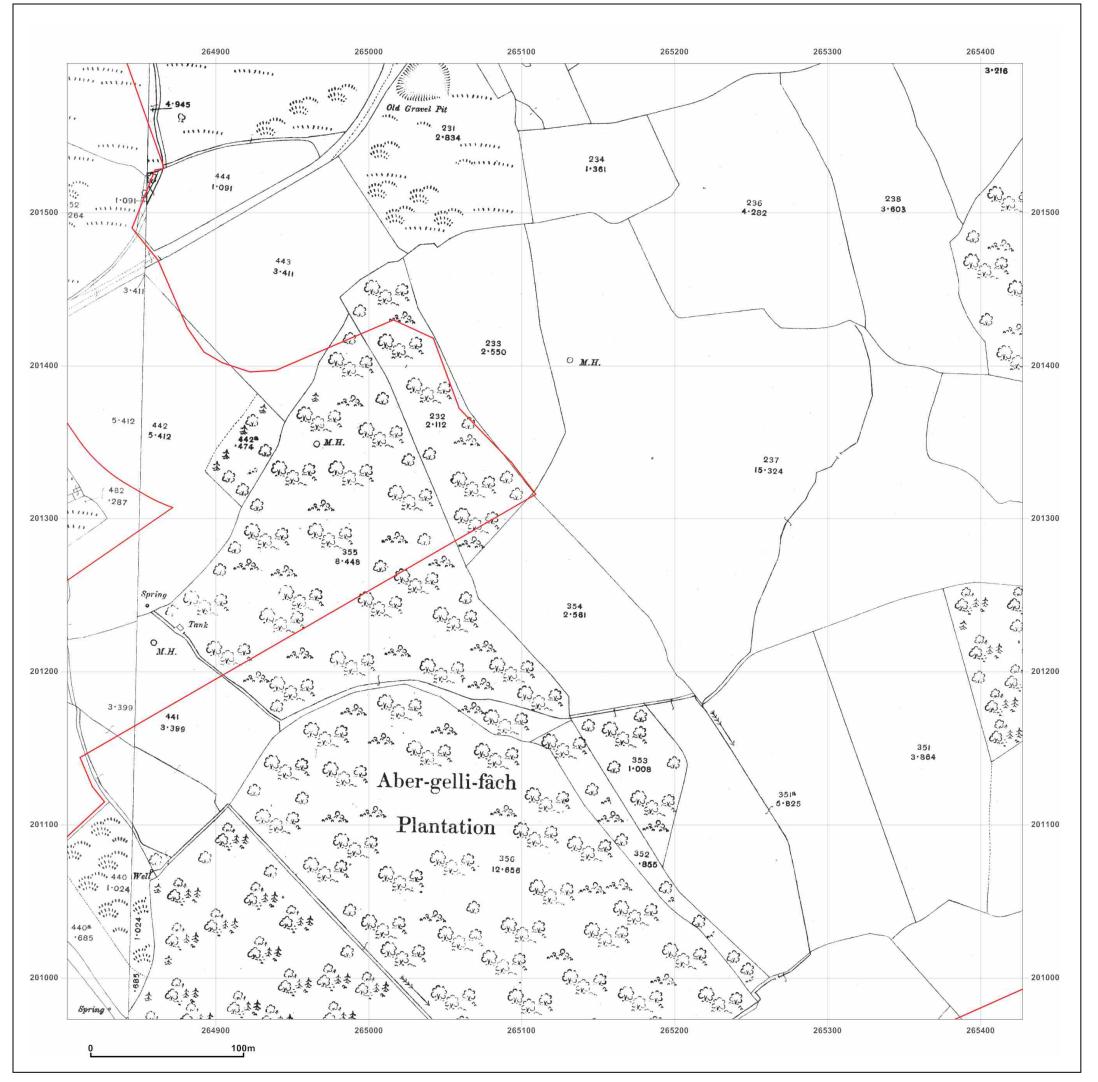
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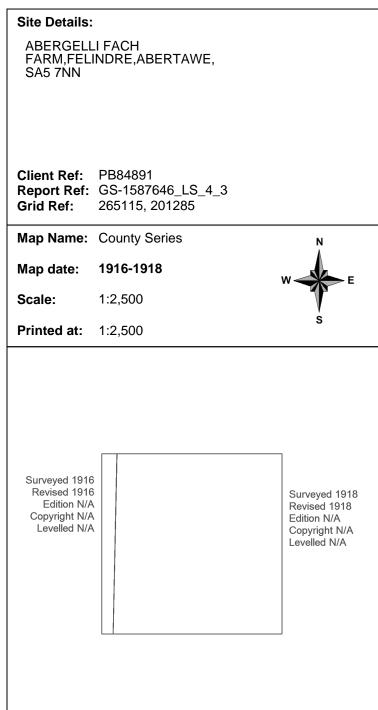
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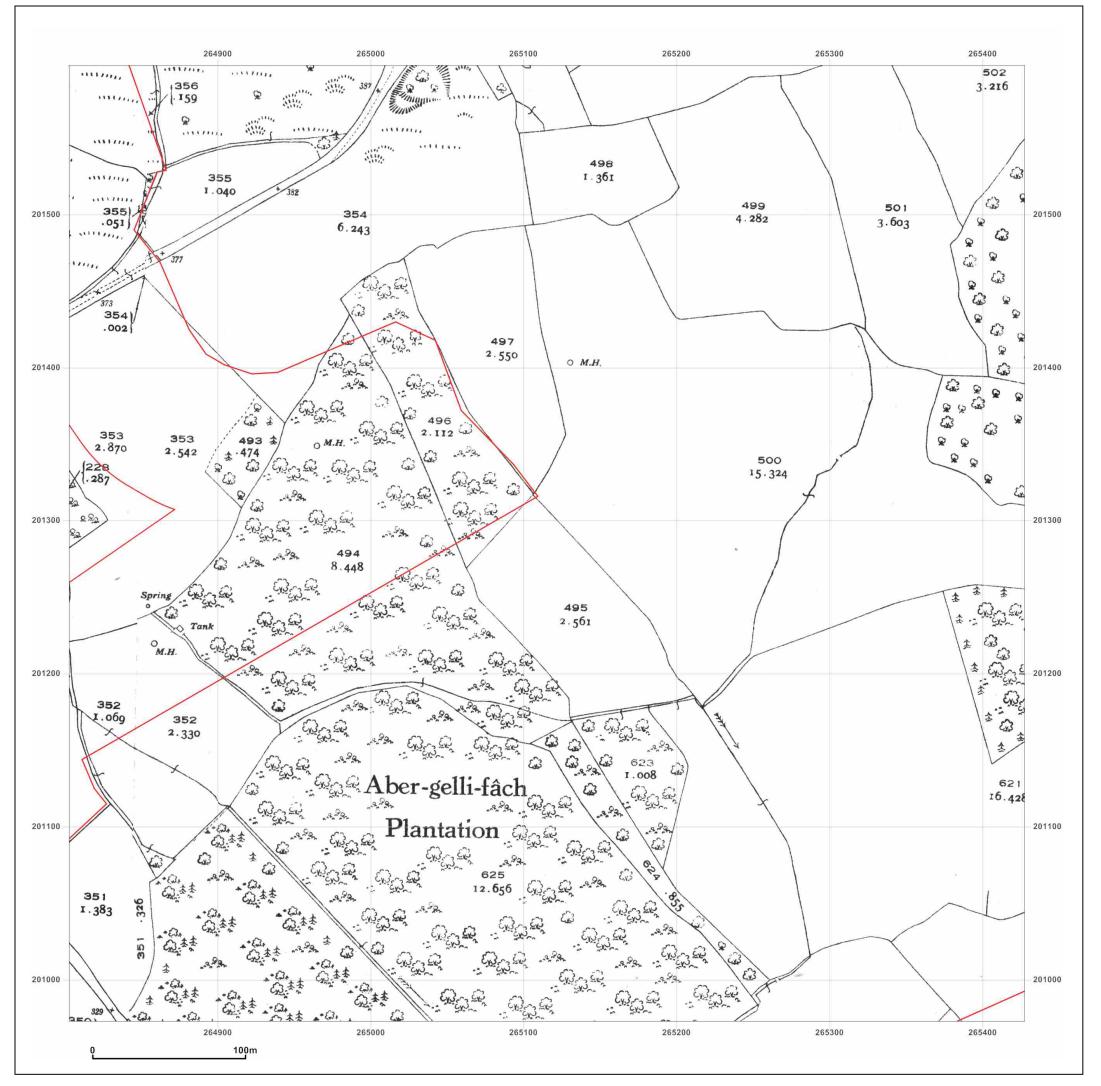
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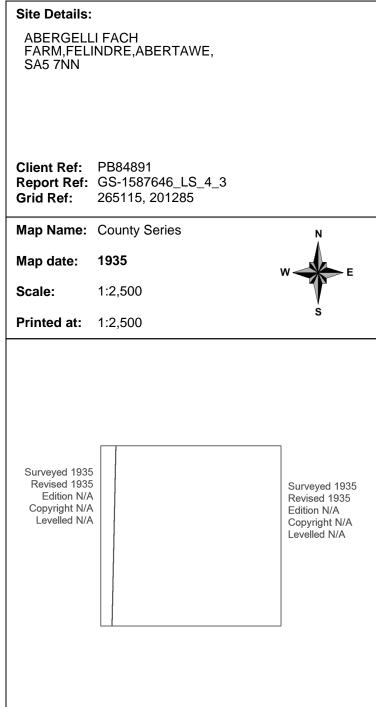
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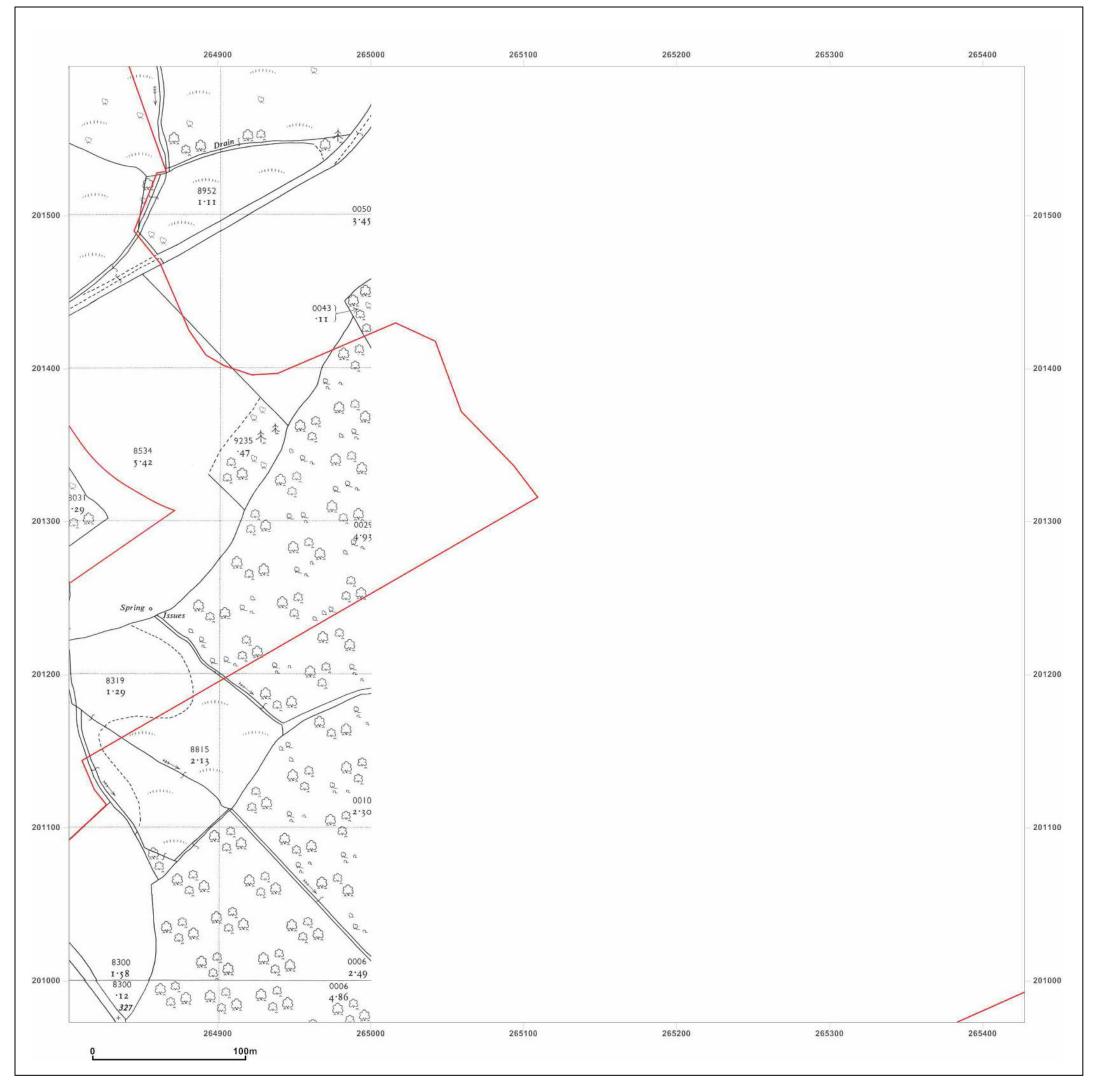
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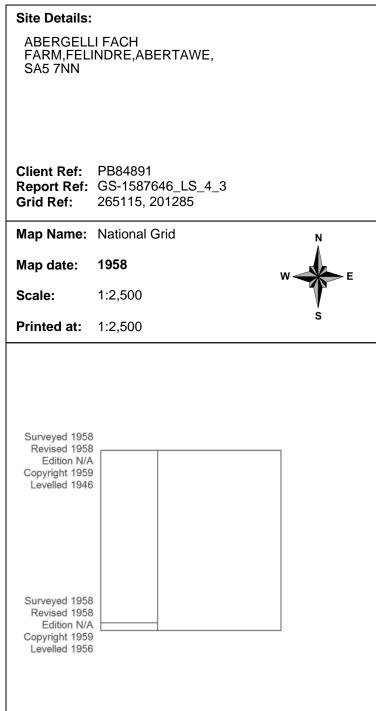
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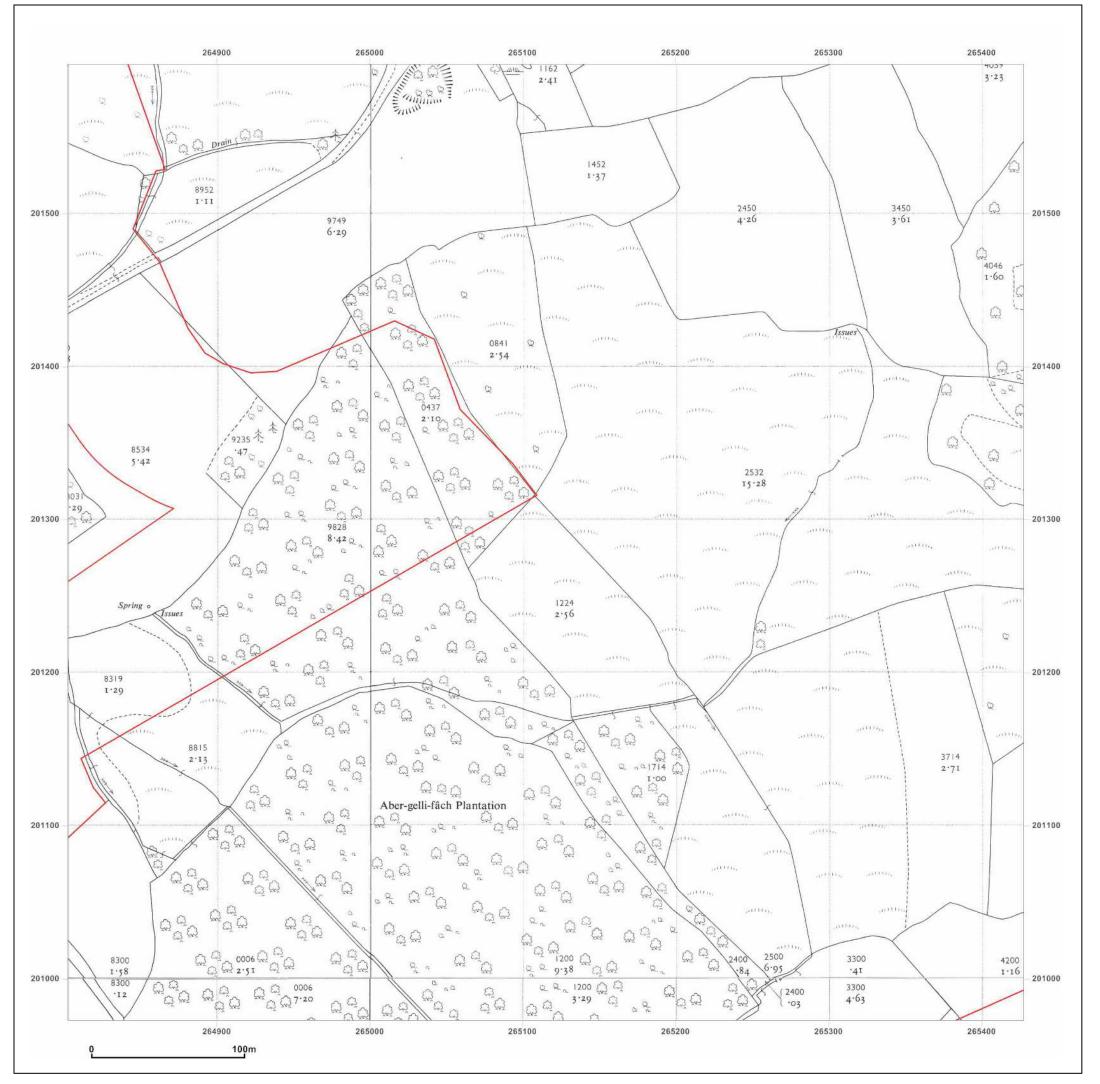
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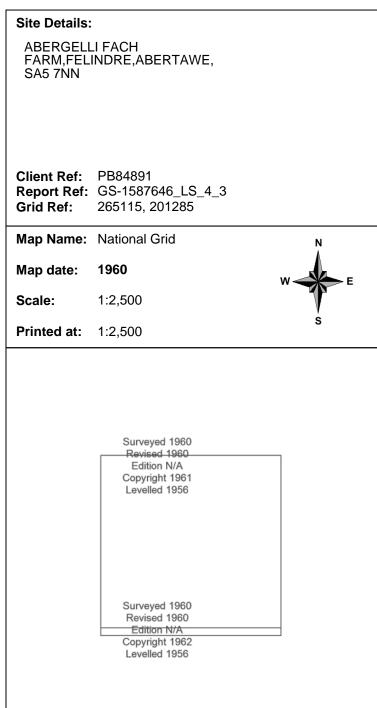
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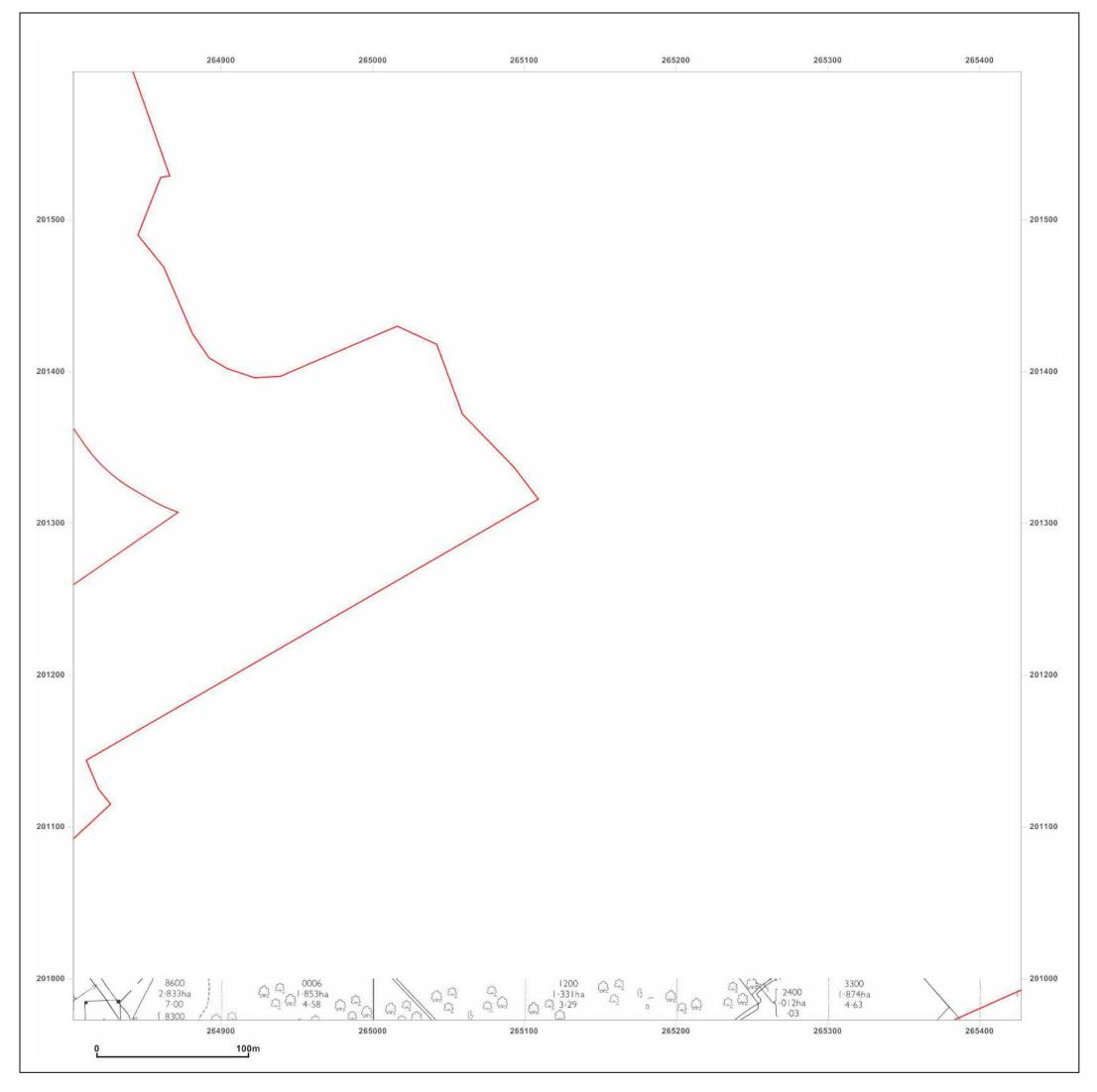
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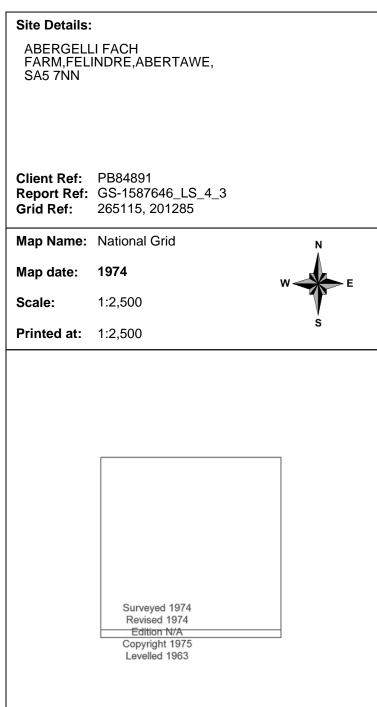
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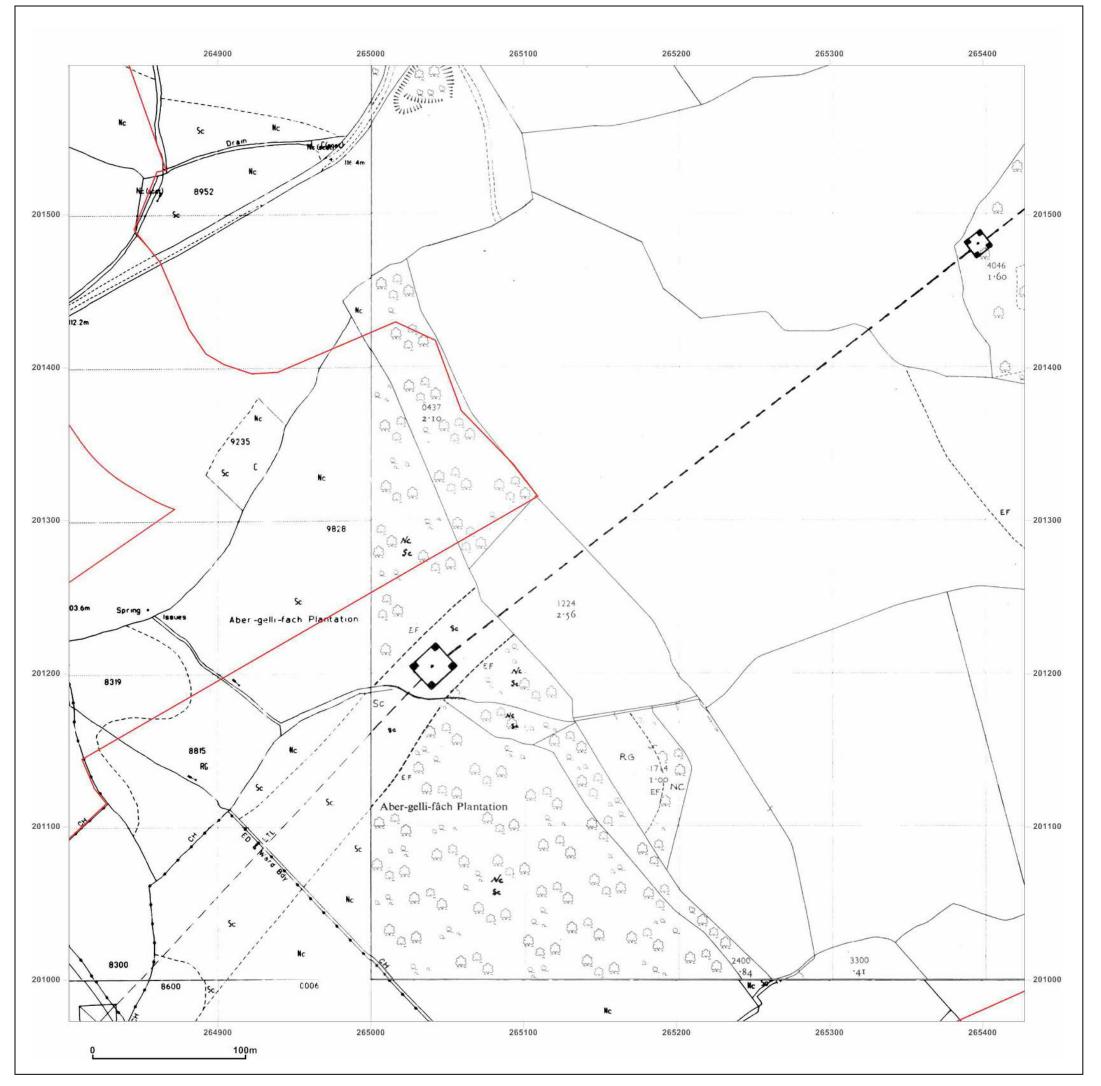
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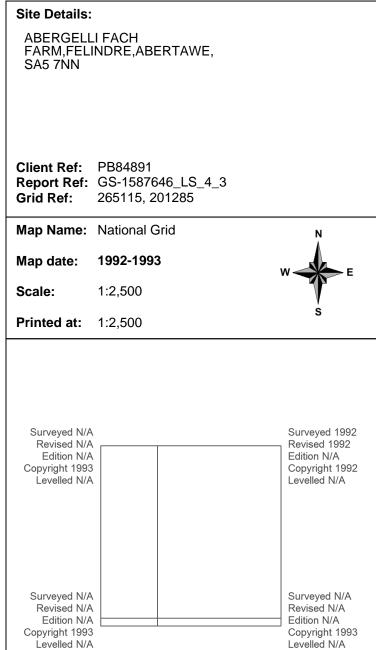
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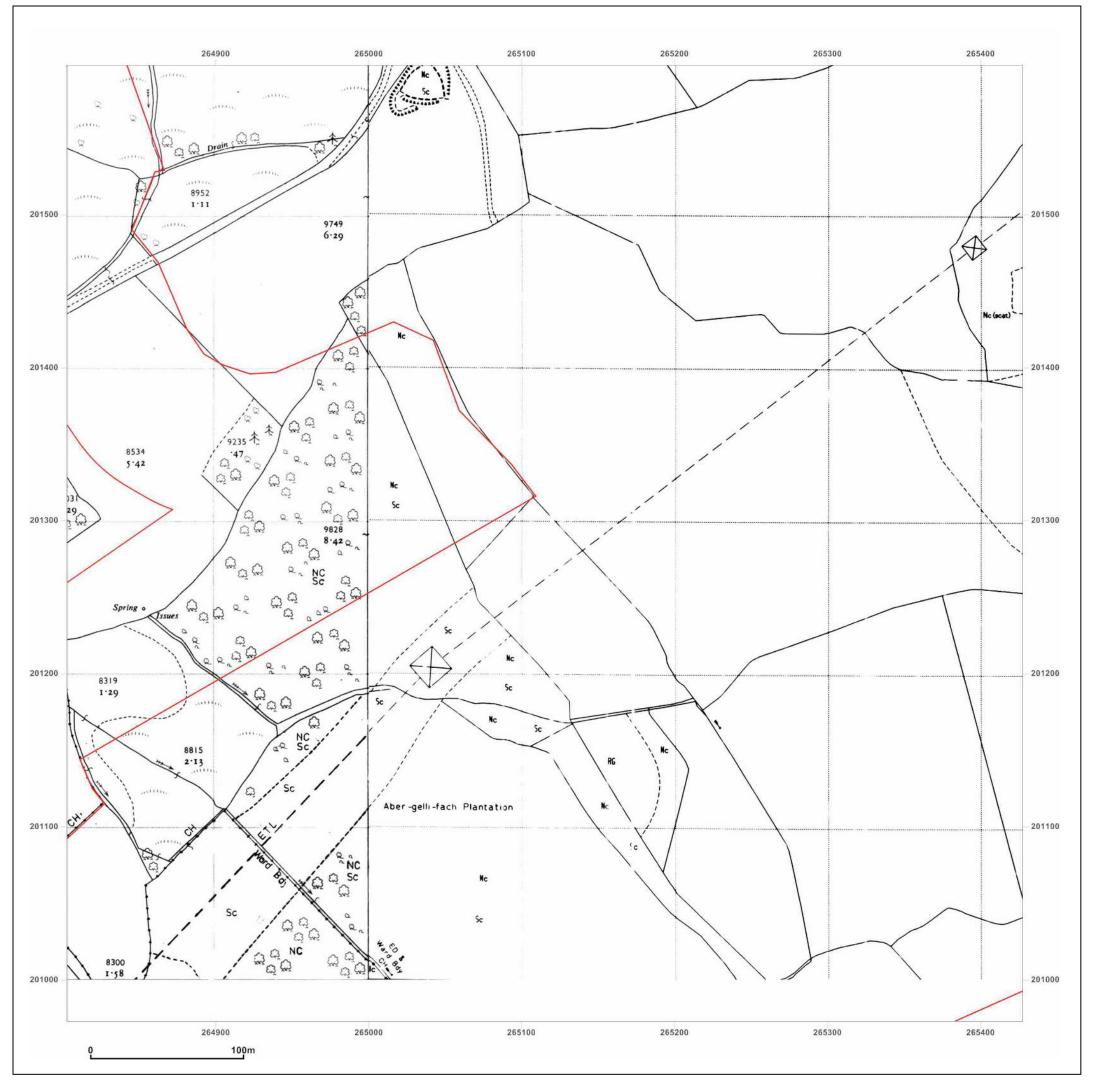
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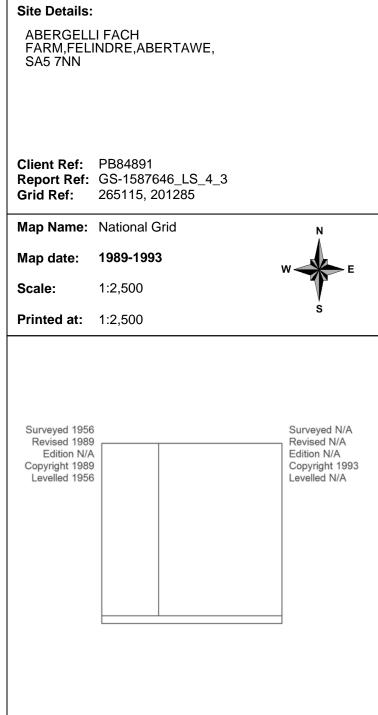
W: www.groundsure.com

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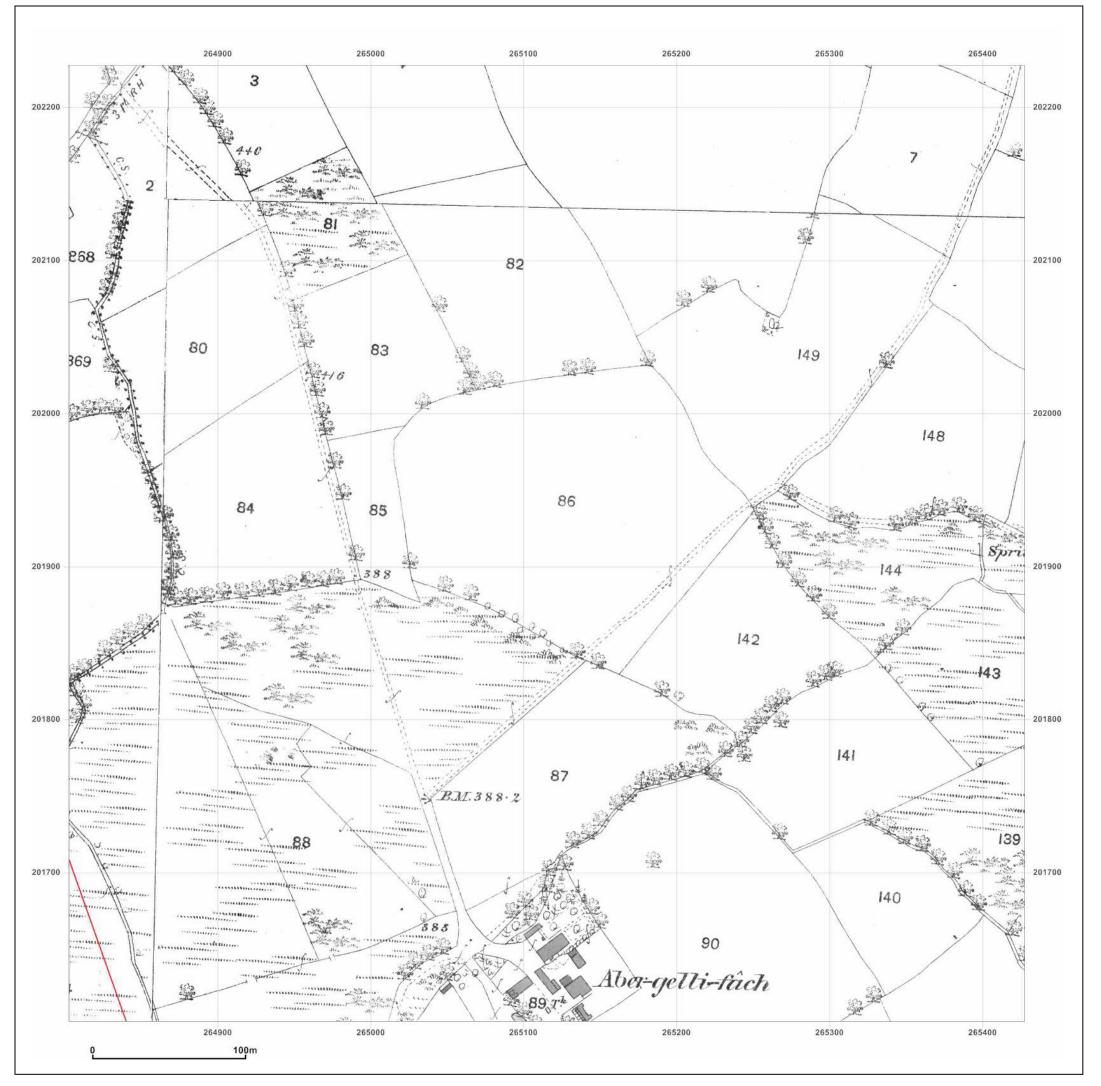
T: 08444 159000

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Site Details:

SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_4_4 Grid Ref: 265115, 201915

Map Name: County Series

Map date: 1876

1:2,500 Scale:

**Printed at:** 1:2,500



Surveyed 1876 Revised 1876 Surveyed 1876 Revised 1876 Edition N/A
Copyright N/A
Levelled N/A Edition N/A Copyright N/A Levelled N/A Surveyed 1876 Revised 1876 Surveyed 1876 Revised 1876 Edition N/A Copyright N/A Copyright N/A Levelled N/A Levelled N/A



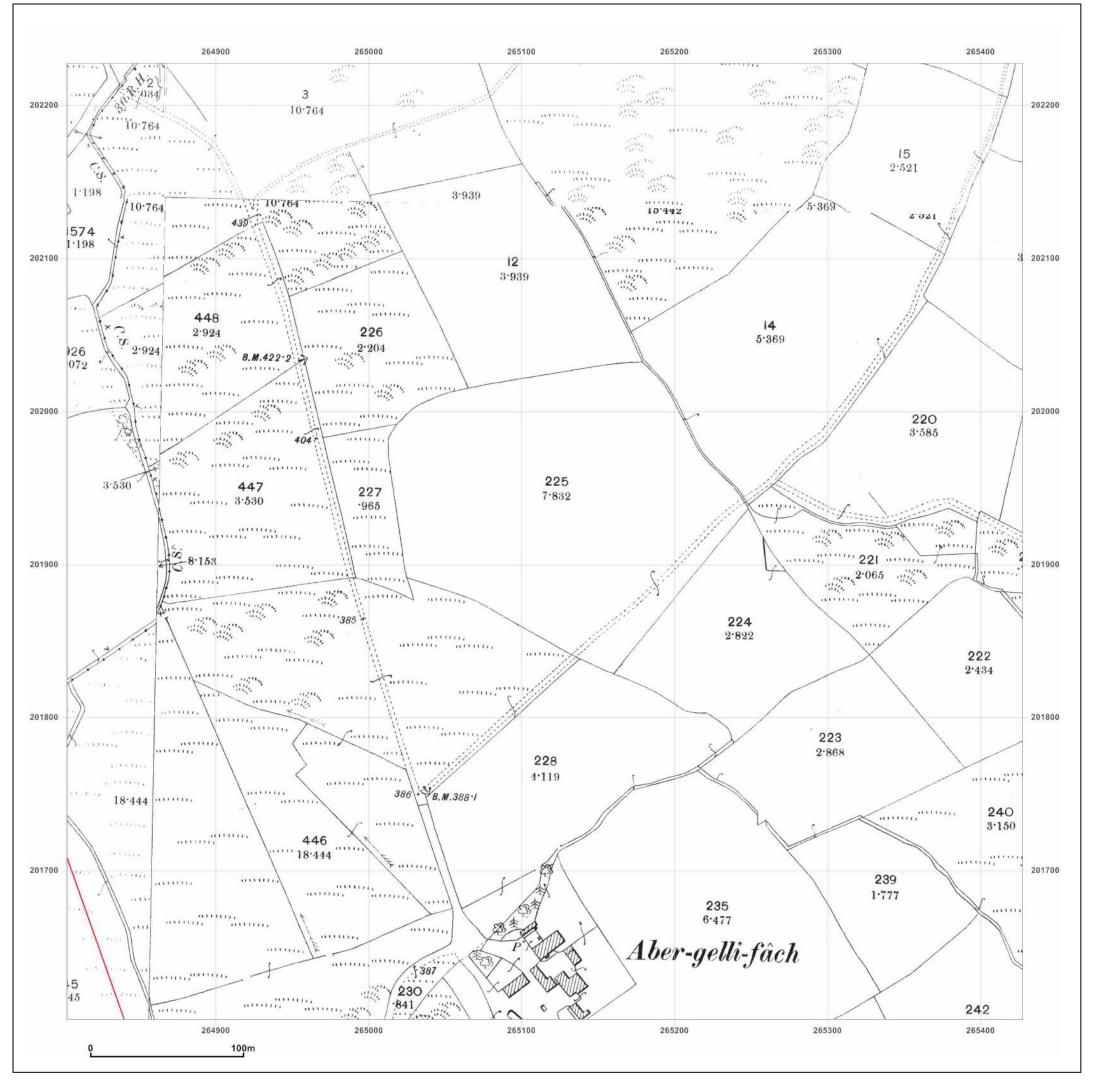
Produced by GroundSure Environmental Insight T: 08444 159000

E: info@groundsure.com

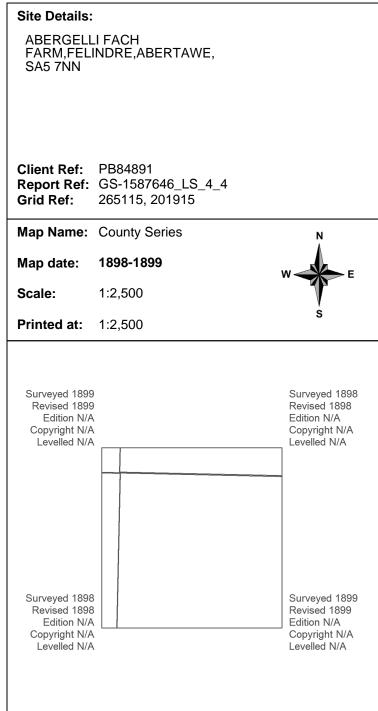
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Production date: 30 July 2014









GroundSure Environmental Insight

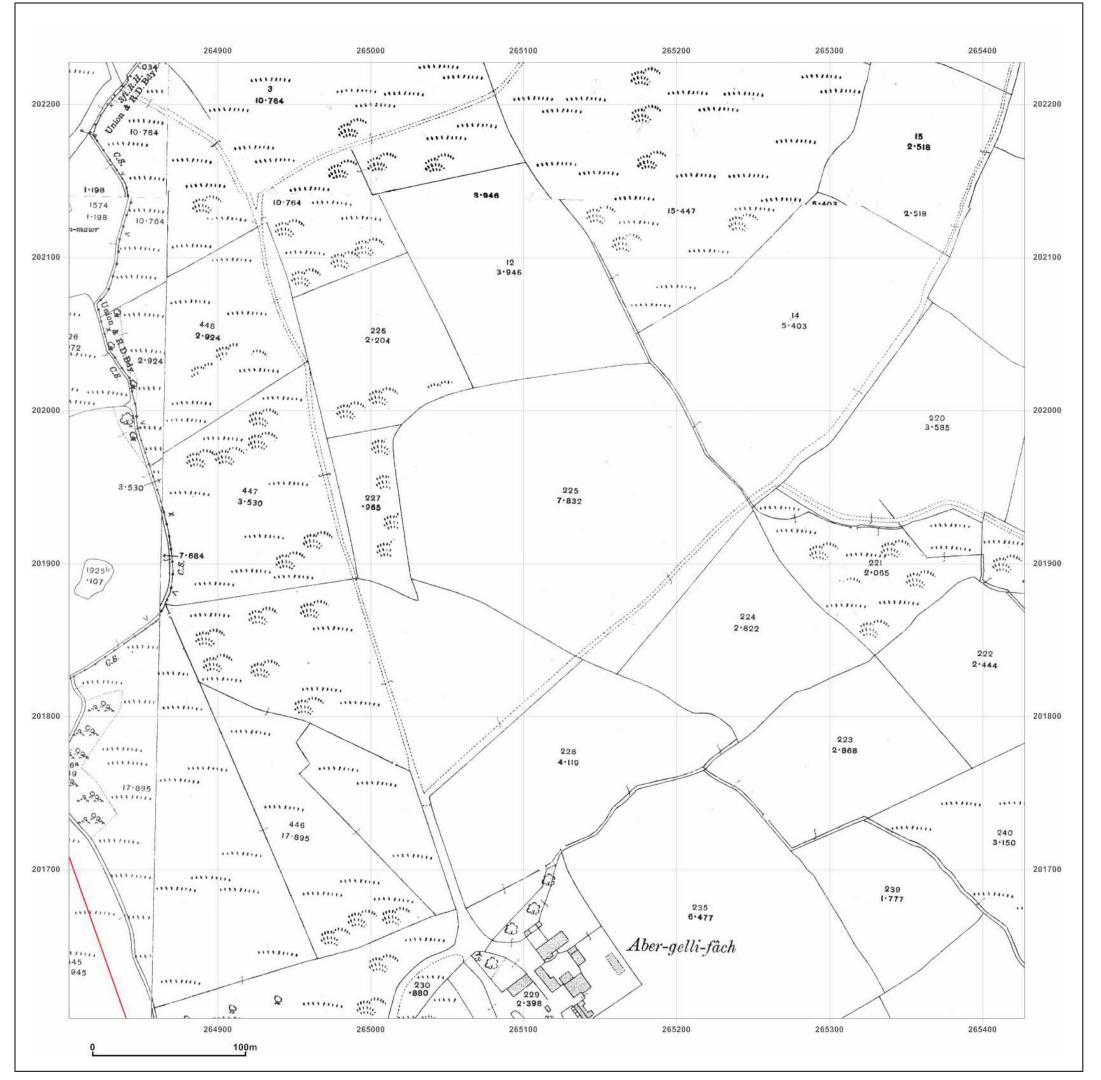
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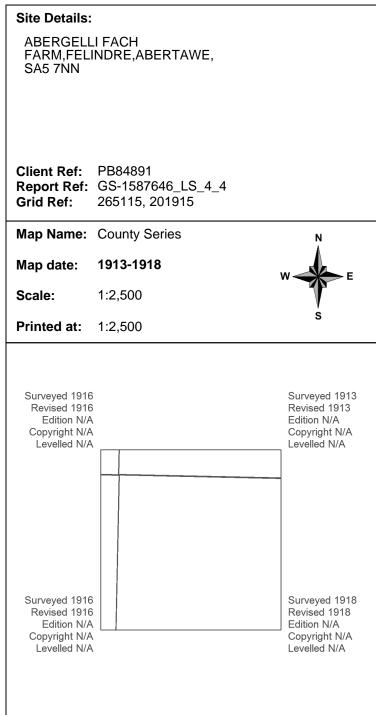
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Production date: 30 July 2014









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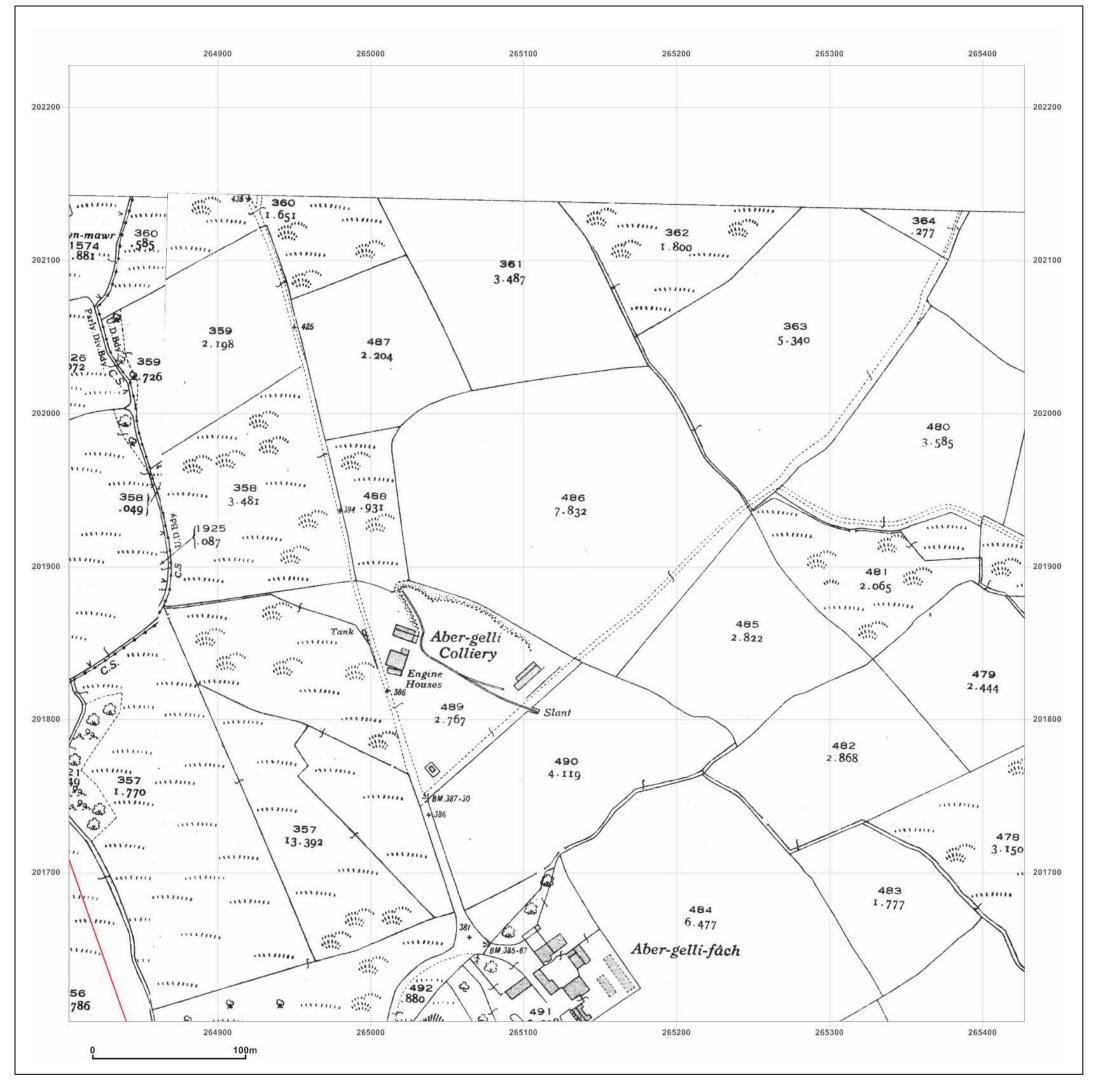
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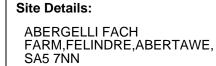
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Client Ref: PB84891

**Report Ref:** GS-1587646_LS_4_4 **Grid Ref:** 265115, 201915

Map Name: County Series

Map date: 1935

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1935
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1935
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A



Produced by GroundSure Environmental Insight

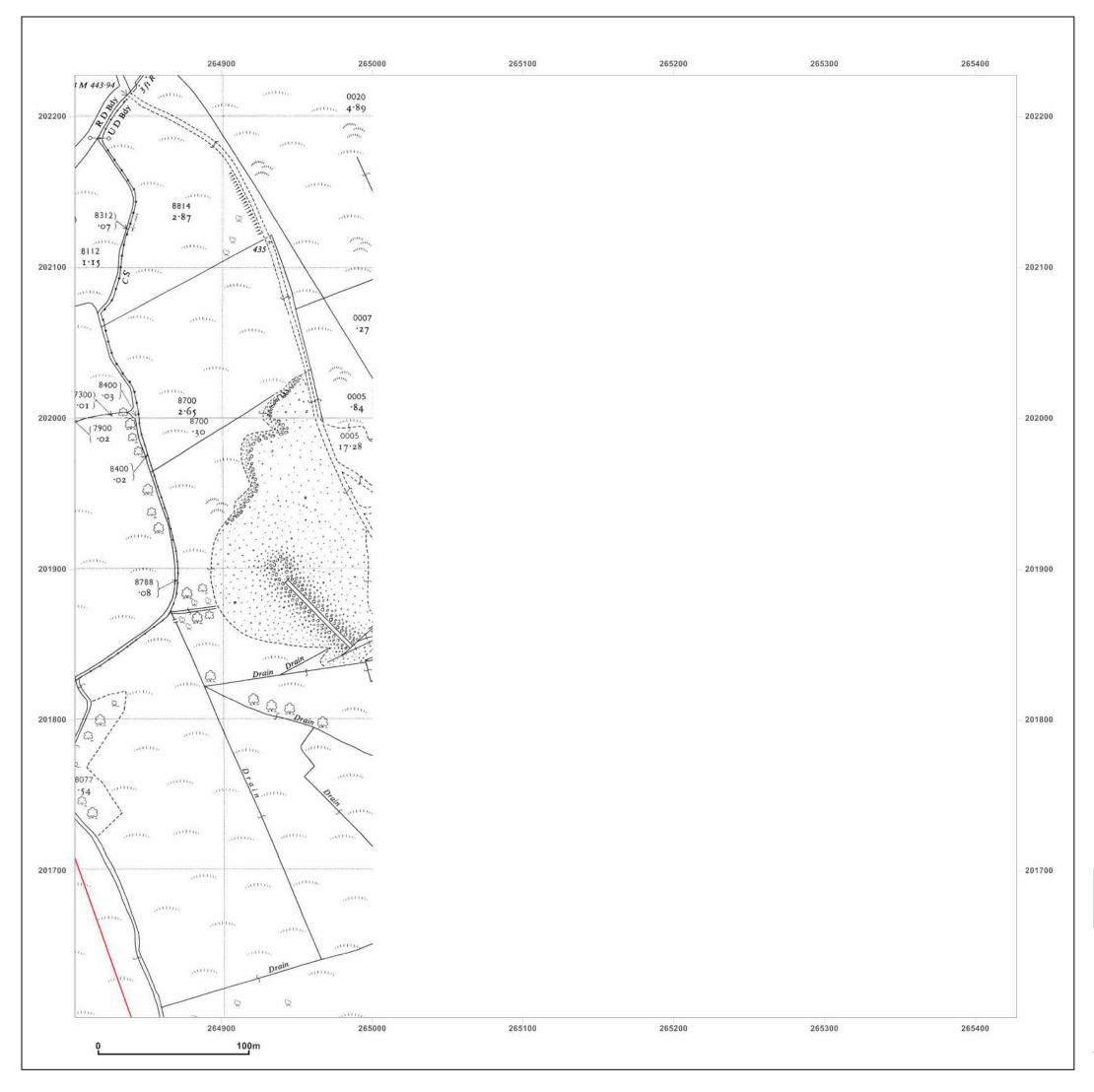
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Production date: 30 July 2014





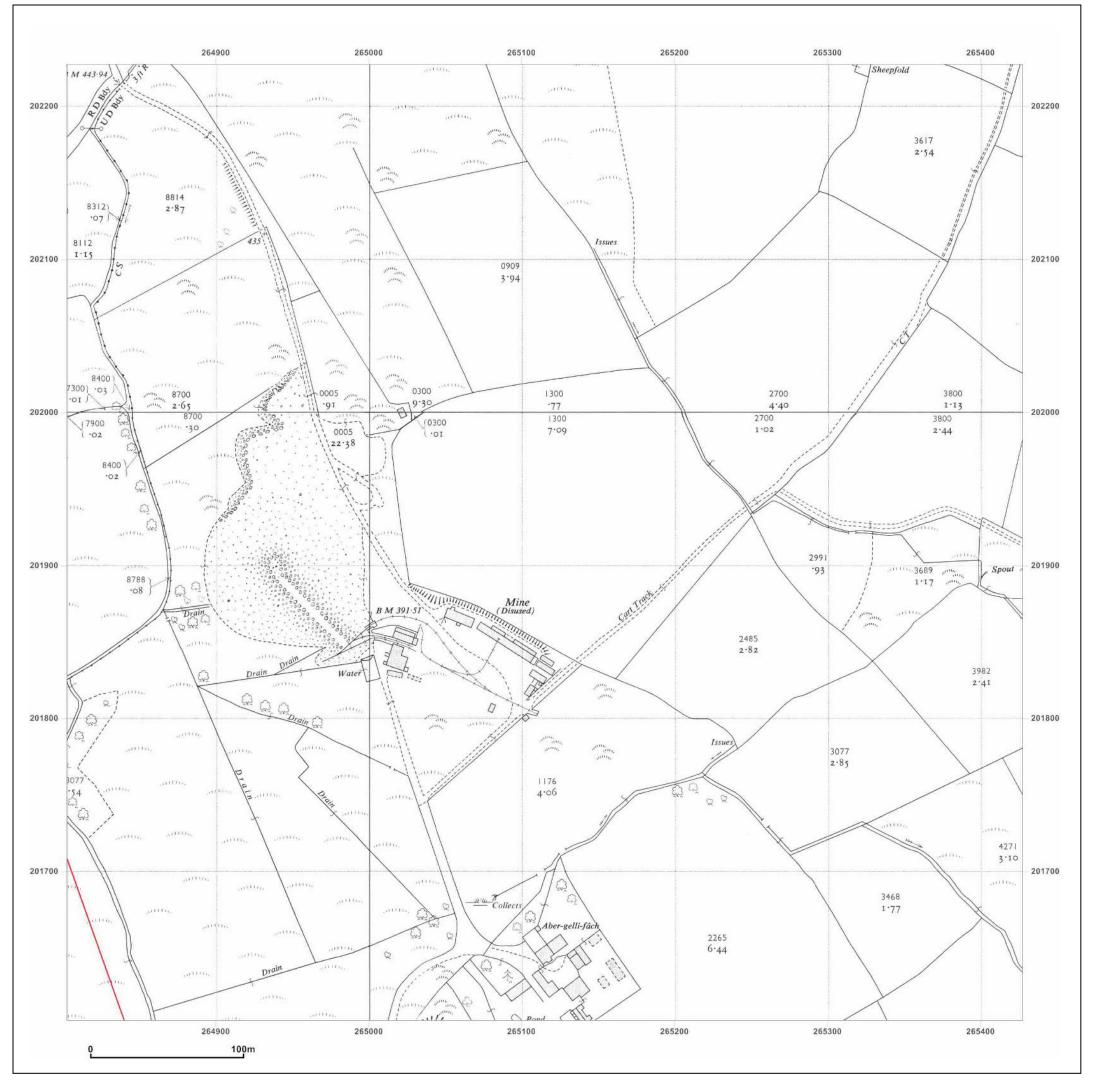
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	GS-1587646_LS_4_4		
Grid Ref:	265115, 201915		
Map Name:	National Grid	N A	
Map date:	1958	W E	
Scale:	1:2,500		
Printed at:	1:2,500	S	
Surveyed 1958 Revised 1958 Edition N/A Copyright 1959 Levelled 1956			
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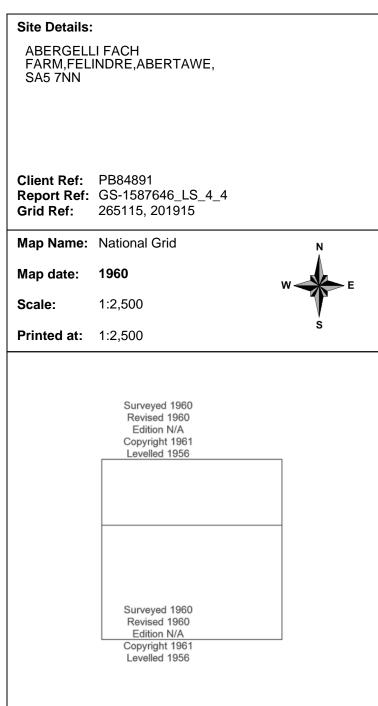
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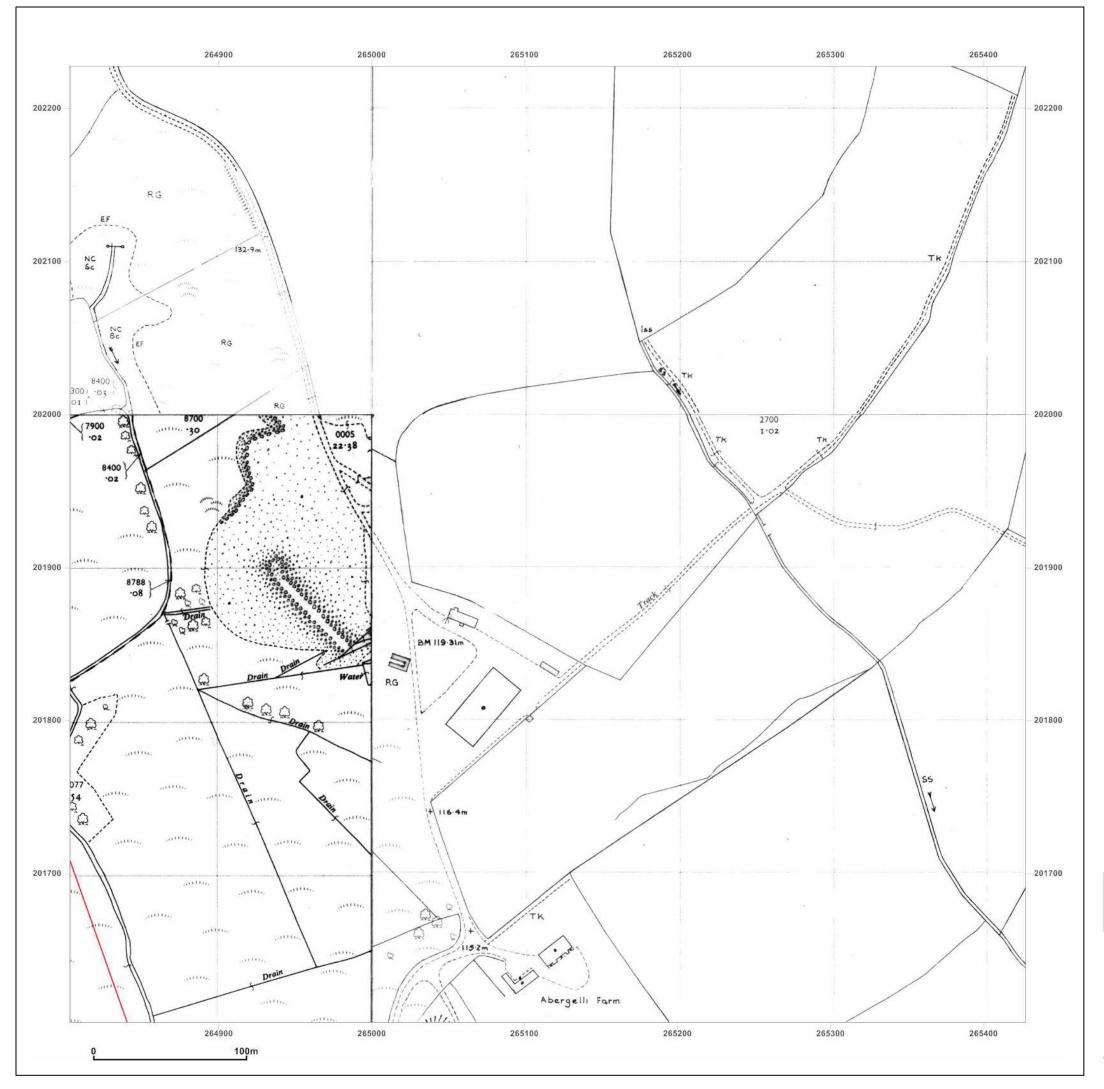
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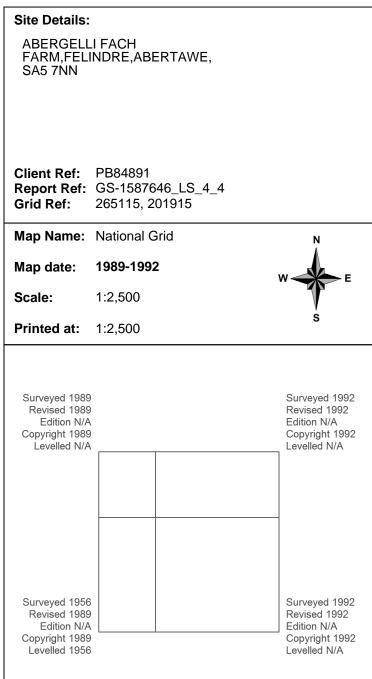
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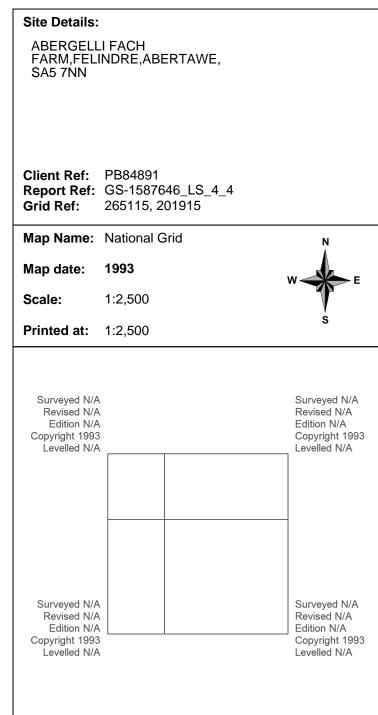
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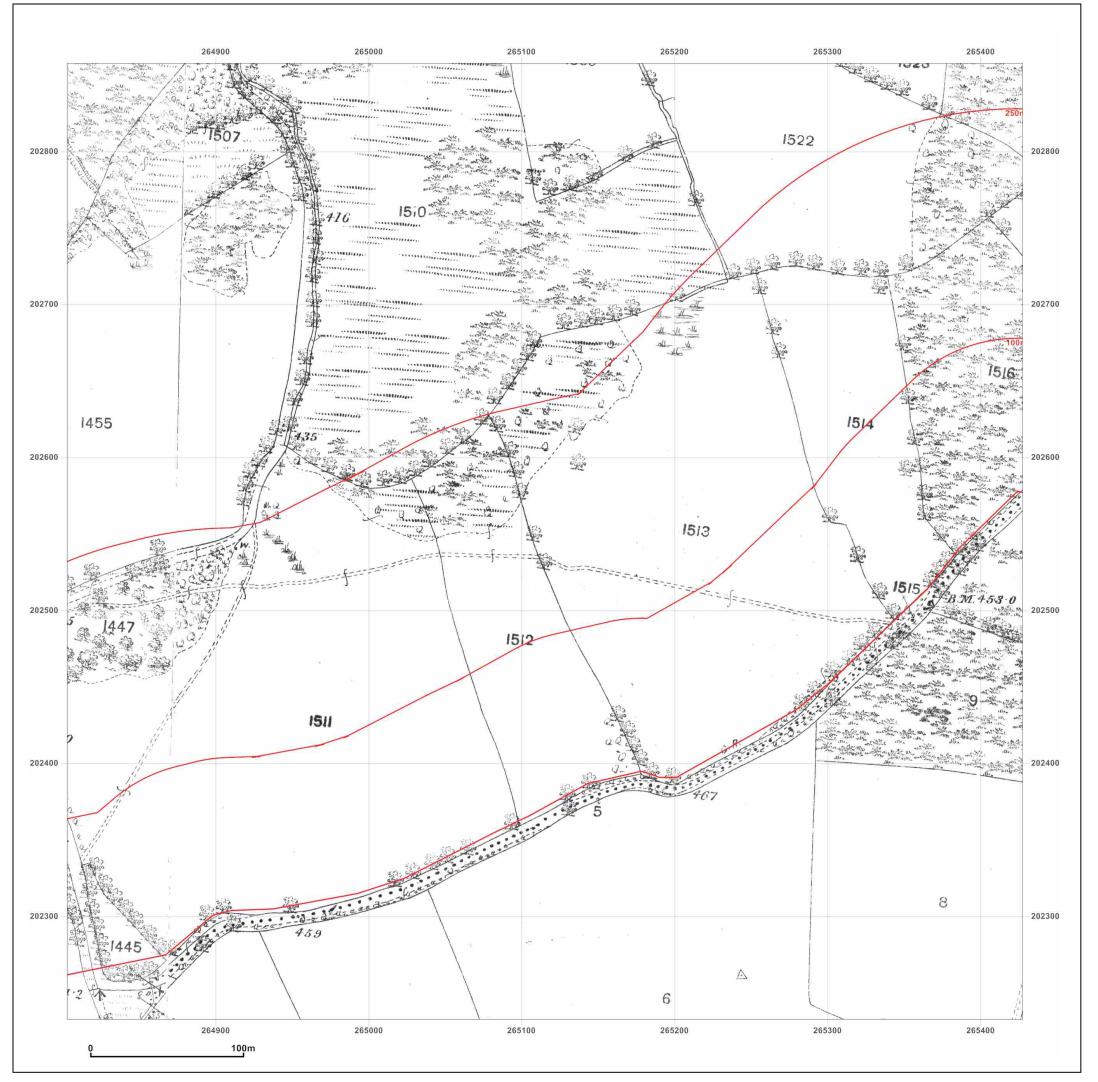
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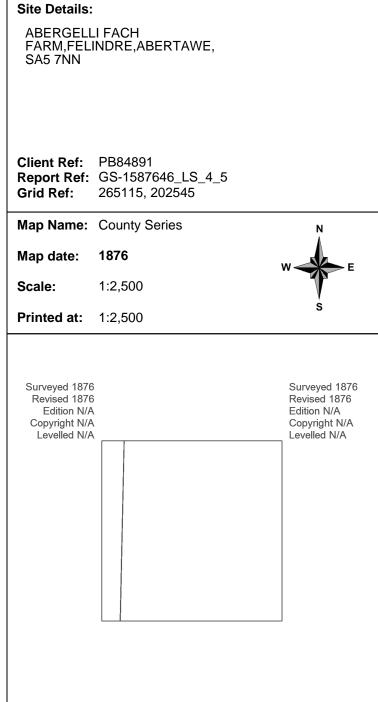
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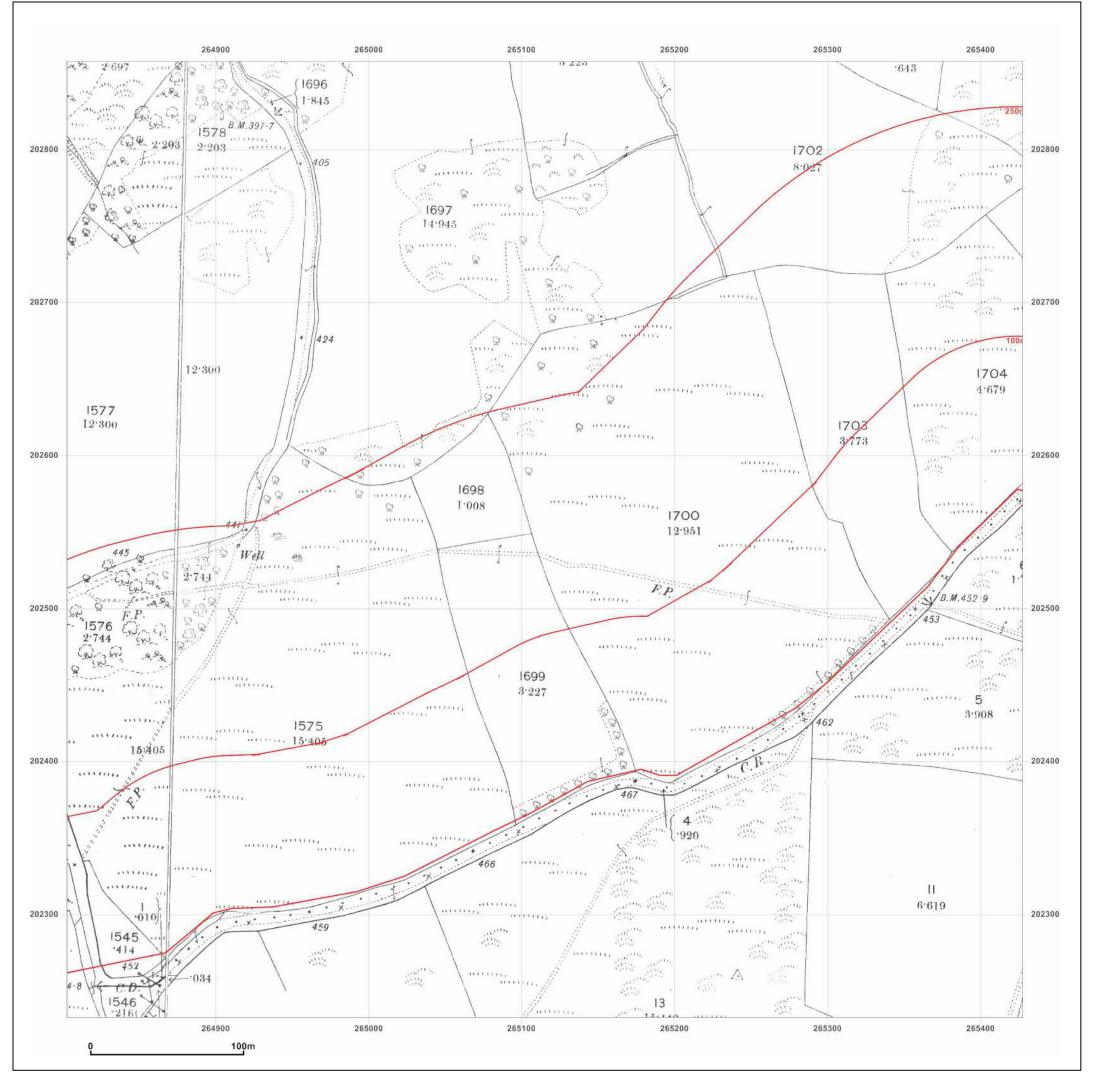




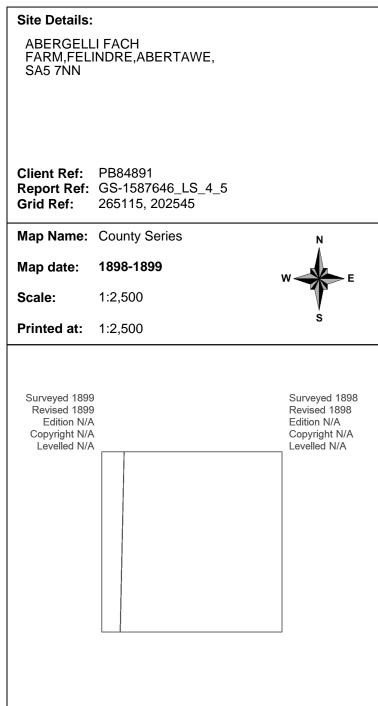
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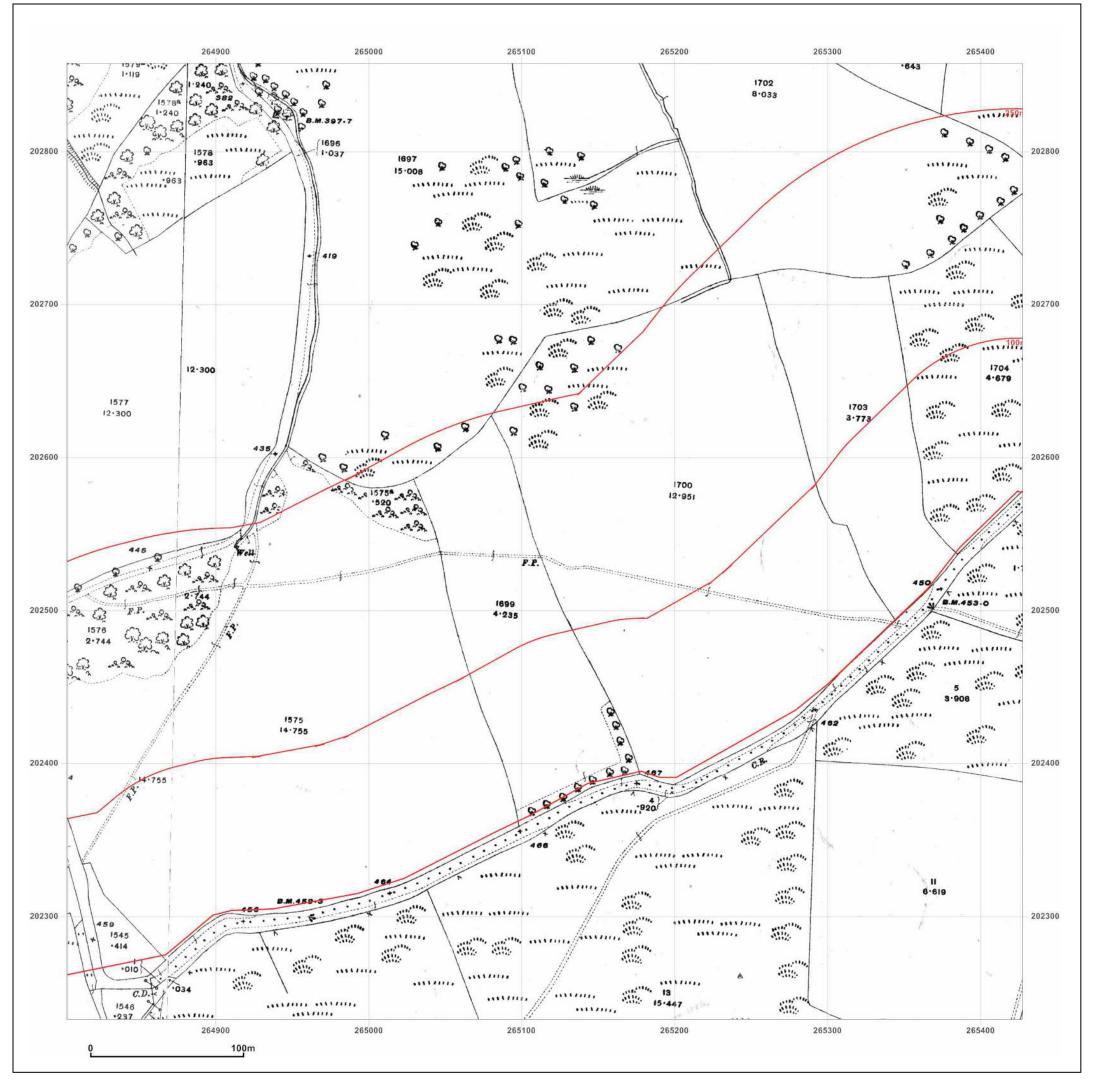


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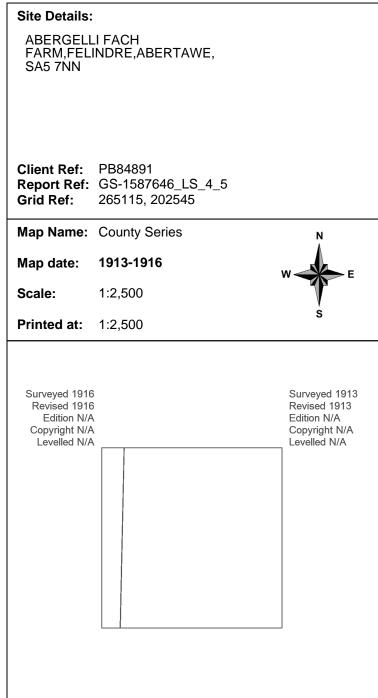
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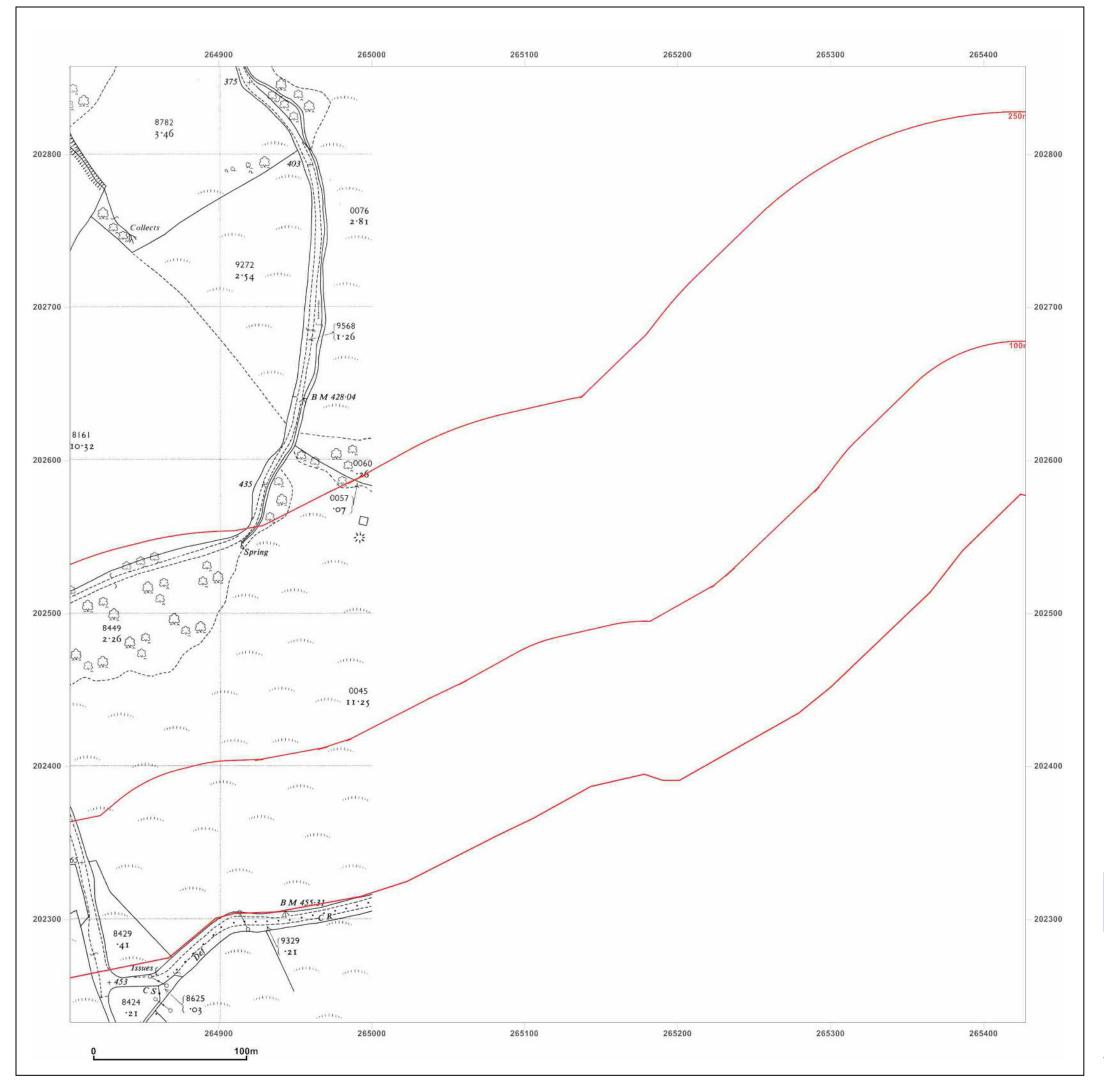


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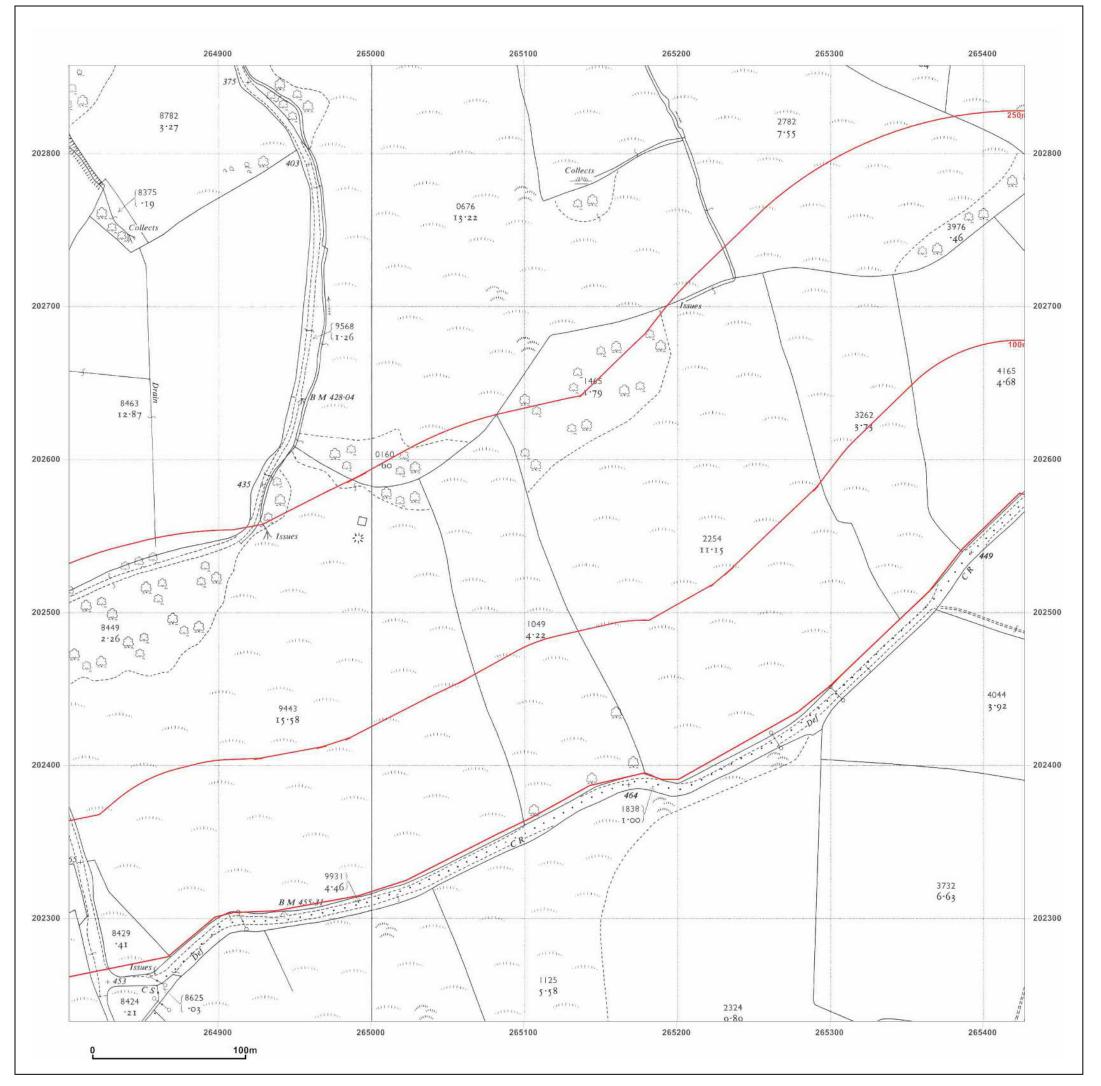
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ABERGELL FARM,FEL SA5 7NN	LI FACH INDRE,ABERTAWE,		
	PB84891 GS-1587646_LS_4_5 265115, 202545		
Map Name:	National Grid		
Map date:	1958 W E		
Scale:	1:2,500		
Printed at:	1:2,500 s		
Surveyed 1958 Revised 1958 Edition N/A Copyright 1959 Levelled 1956			



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Production date: 30 July 2014





Site Details:

ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_4_5 Grid Ref: 265115, 202545

Map Name: National Grid

1960 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1960 Revised 1960 Edition N/A Copyright 1961 Levelled 1956



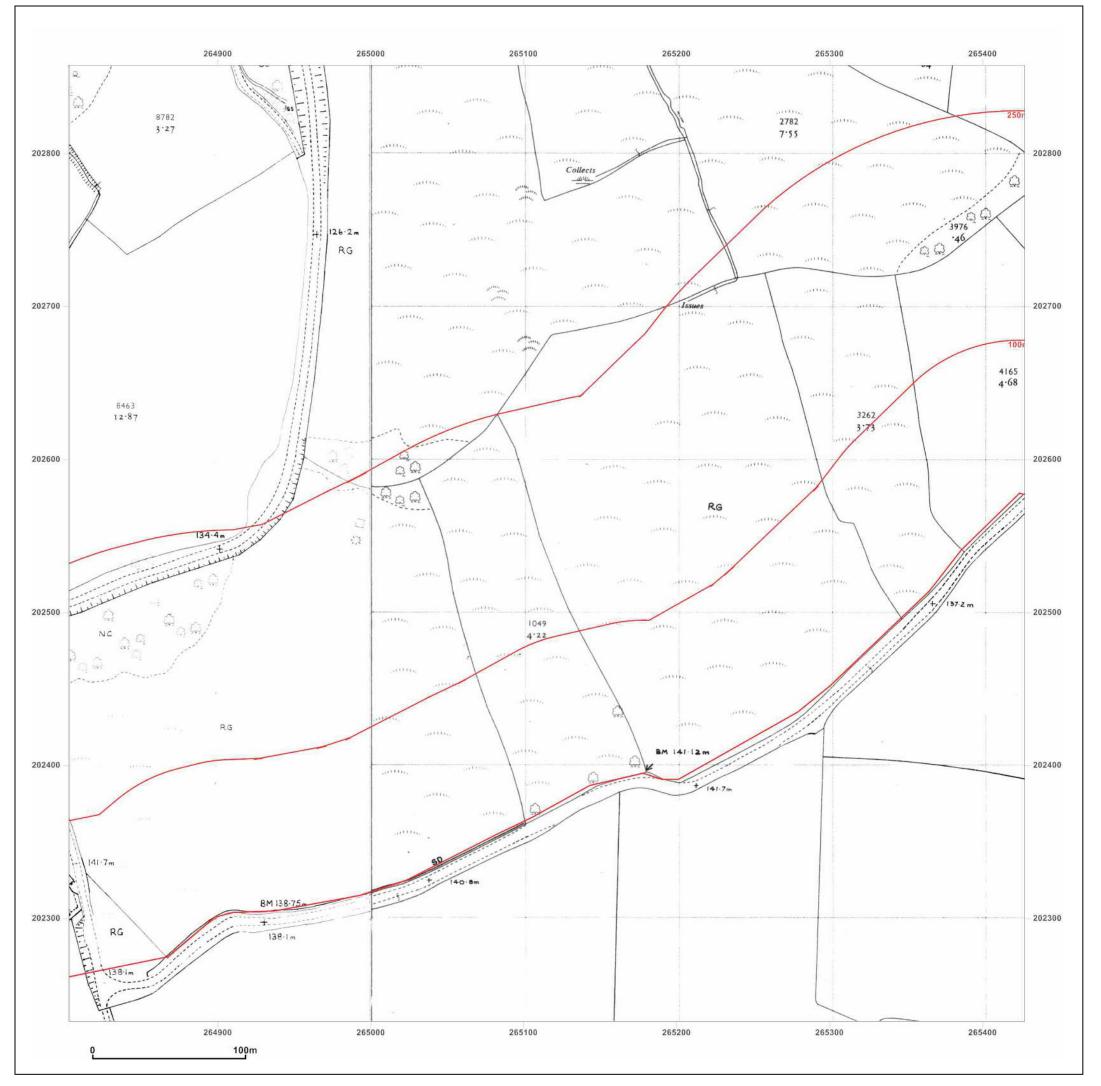
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Site Details:

ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_4_5 Grid Ref: 265115, 202545

Map Name: National Grid

1989-1992 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1989 Revised 1989 Surveyed 1992 Revised 1992 Edition N/A Edition N/A Copyright 1989 Levelled N/A Copyright 1992 Levelled N/A



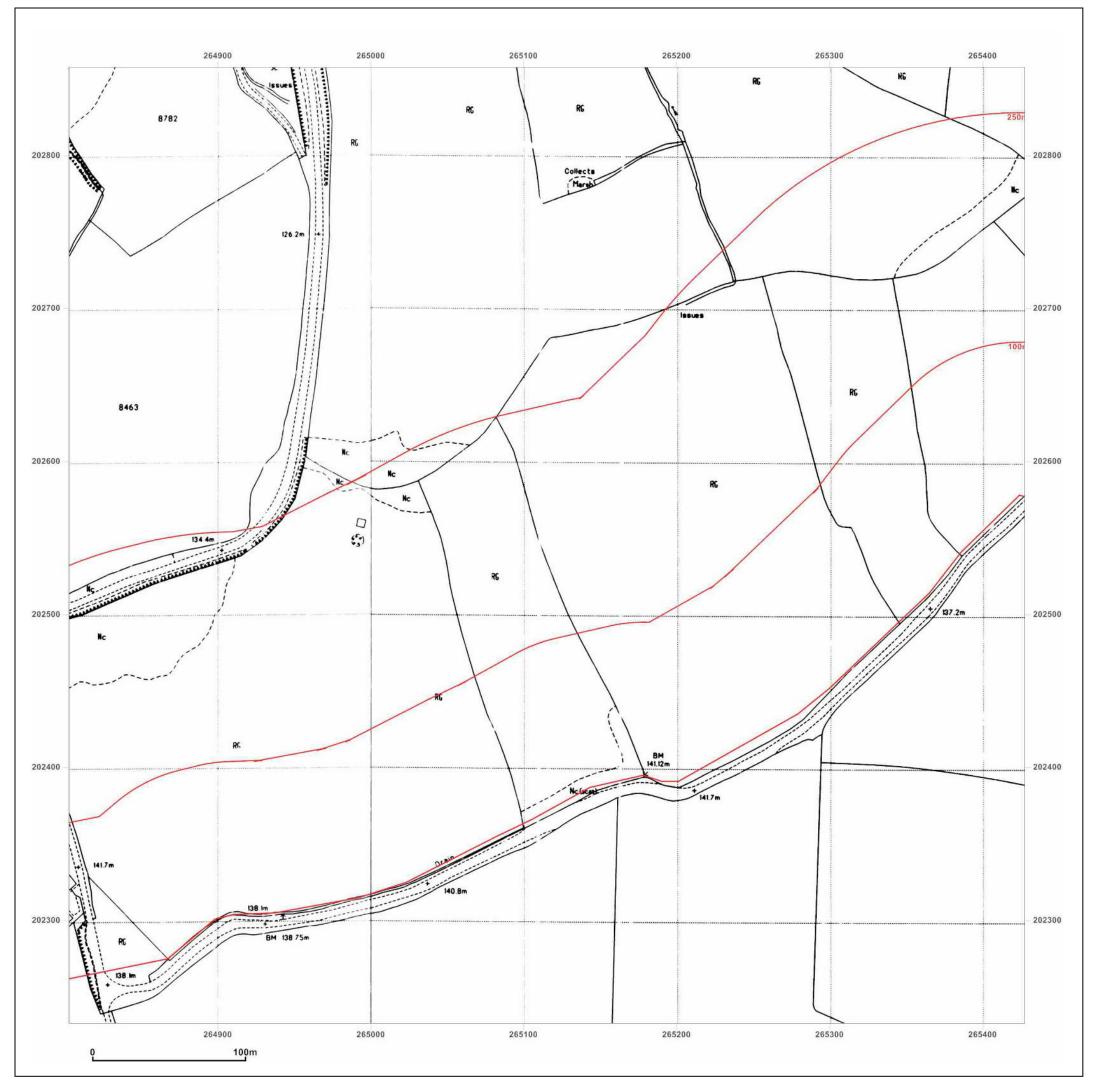
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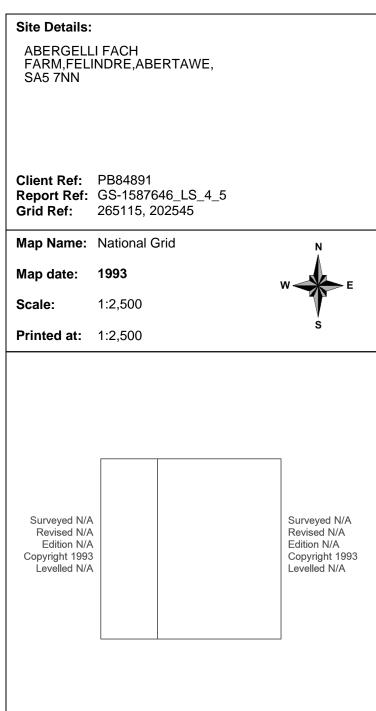
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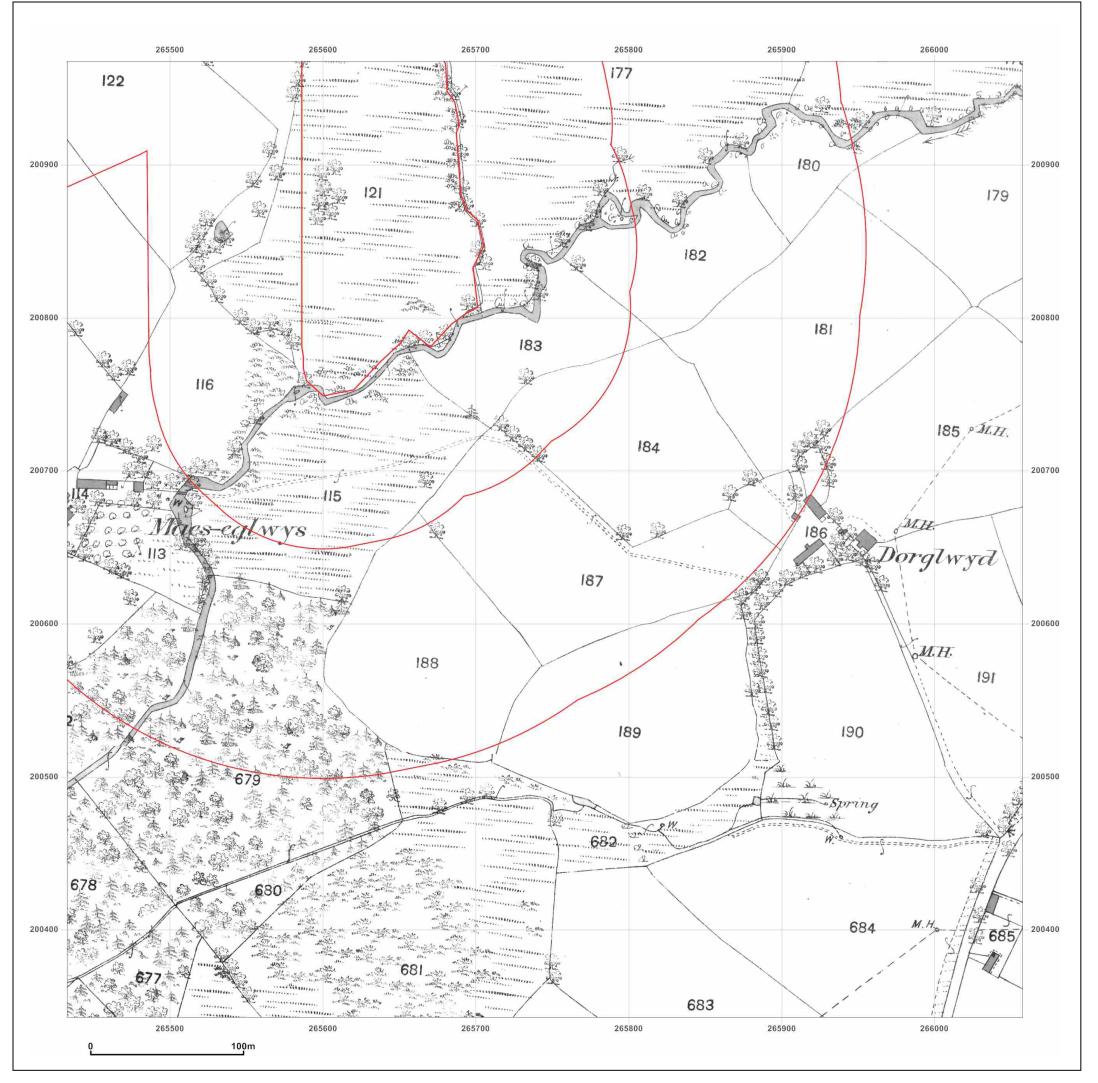




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## ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Site Details:

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_5_2 Grid Ref: 265745, 200655

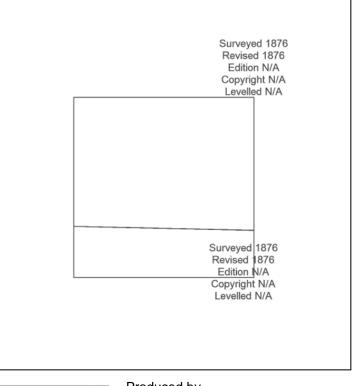
Map Name: County Series

Map date: 1876

1:2,500 Scale:

**Printed at:** 1:2,500





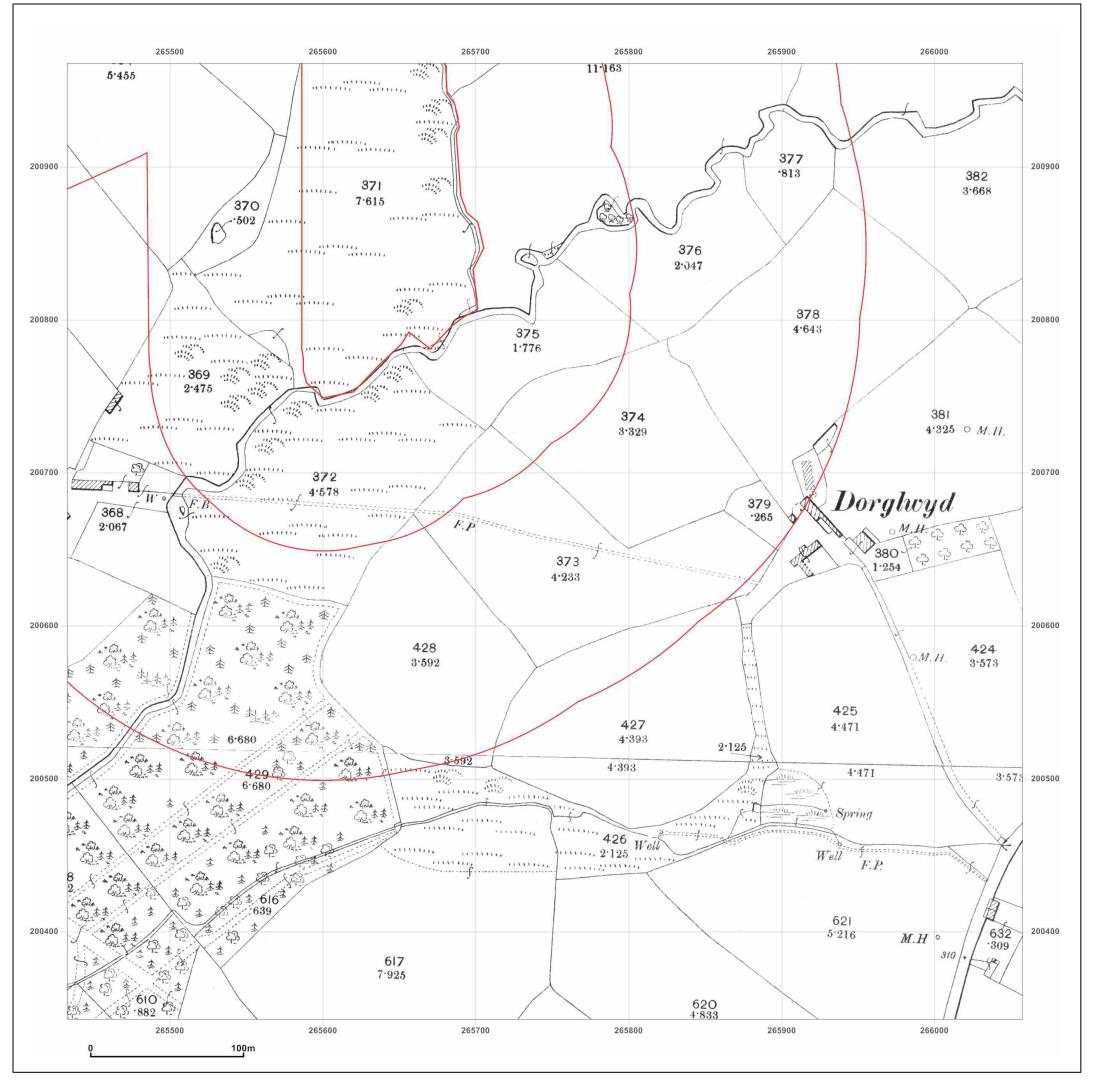


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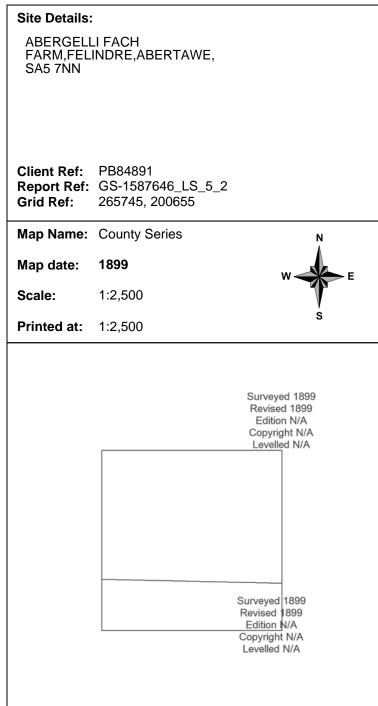
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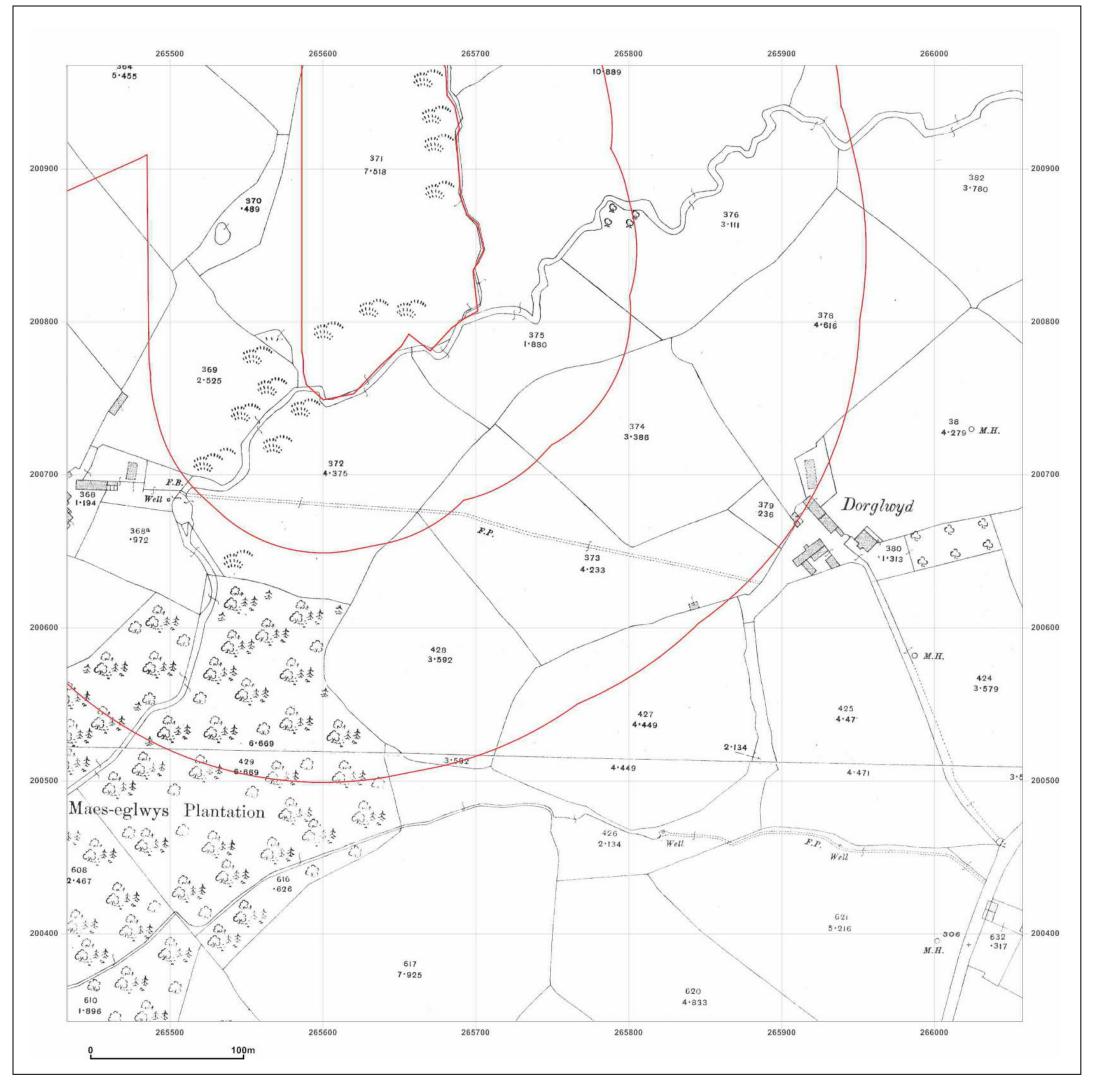


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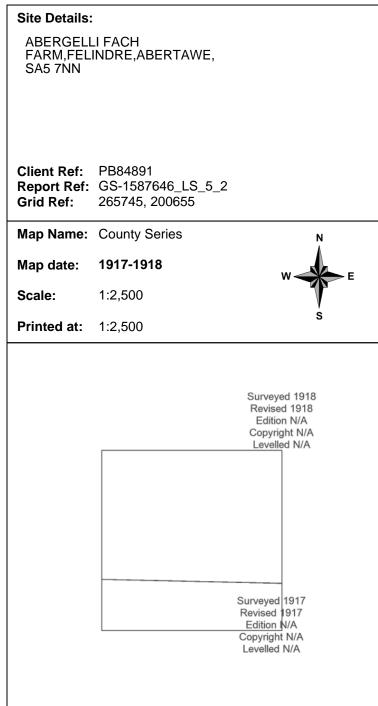
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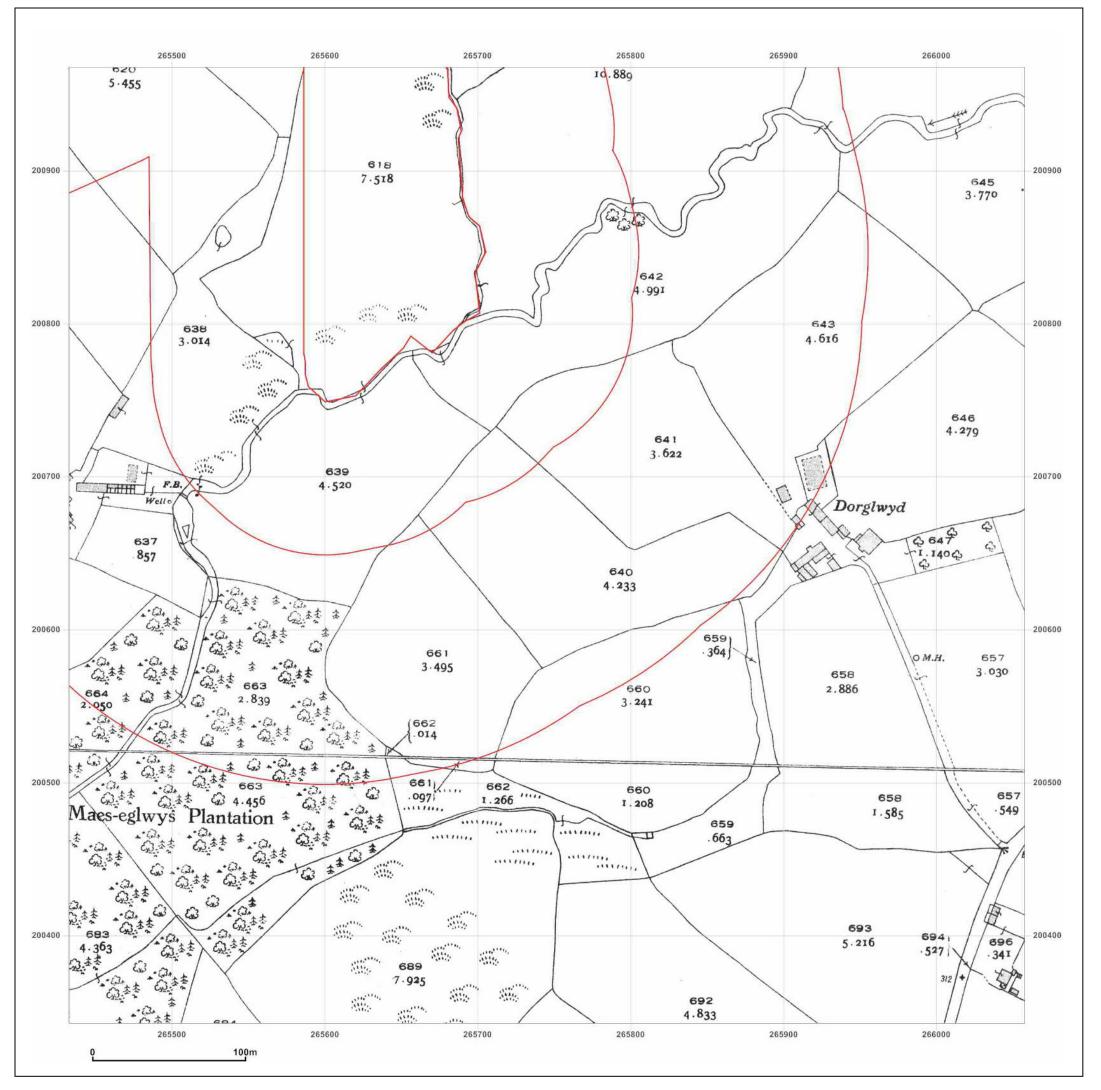


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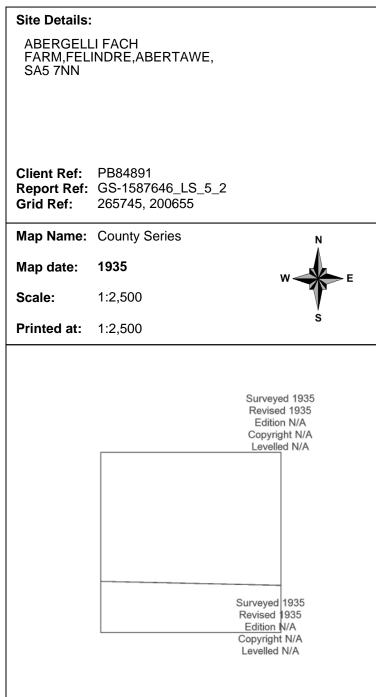
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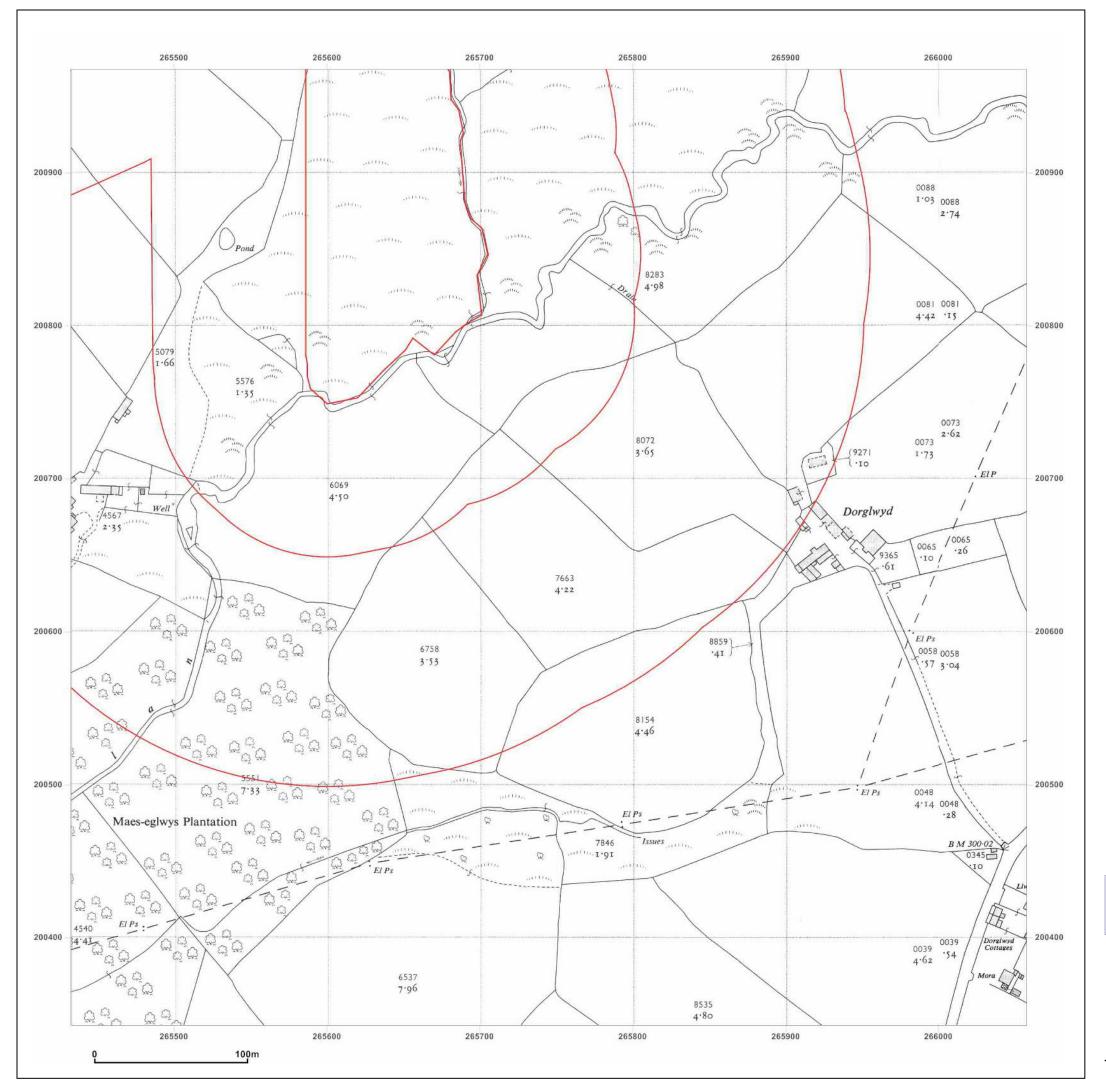
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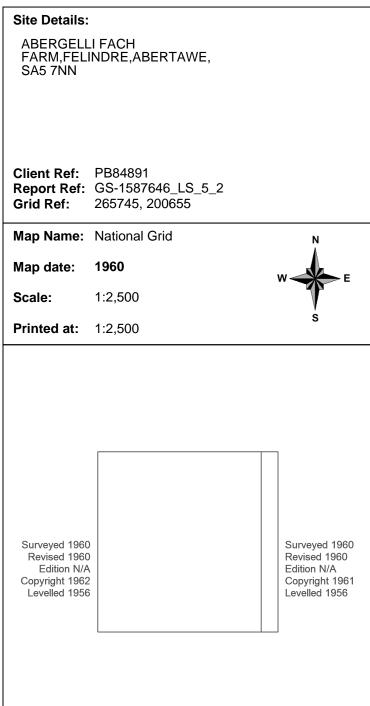
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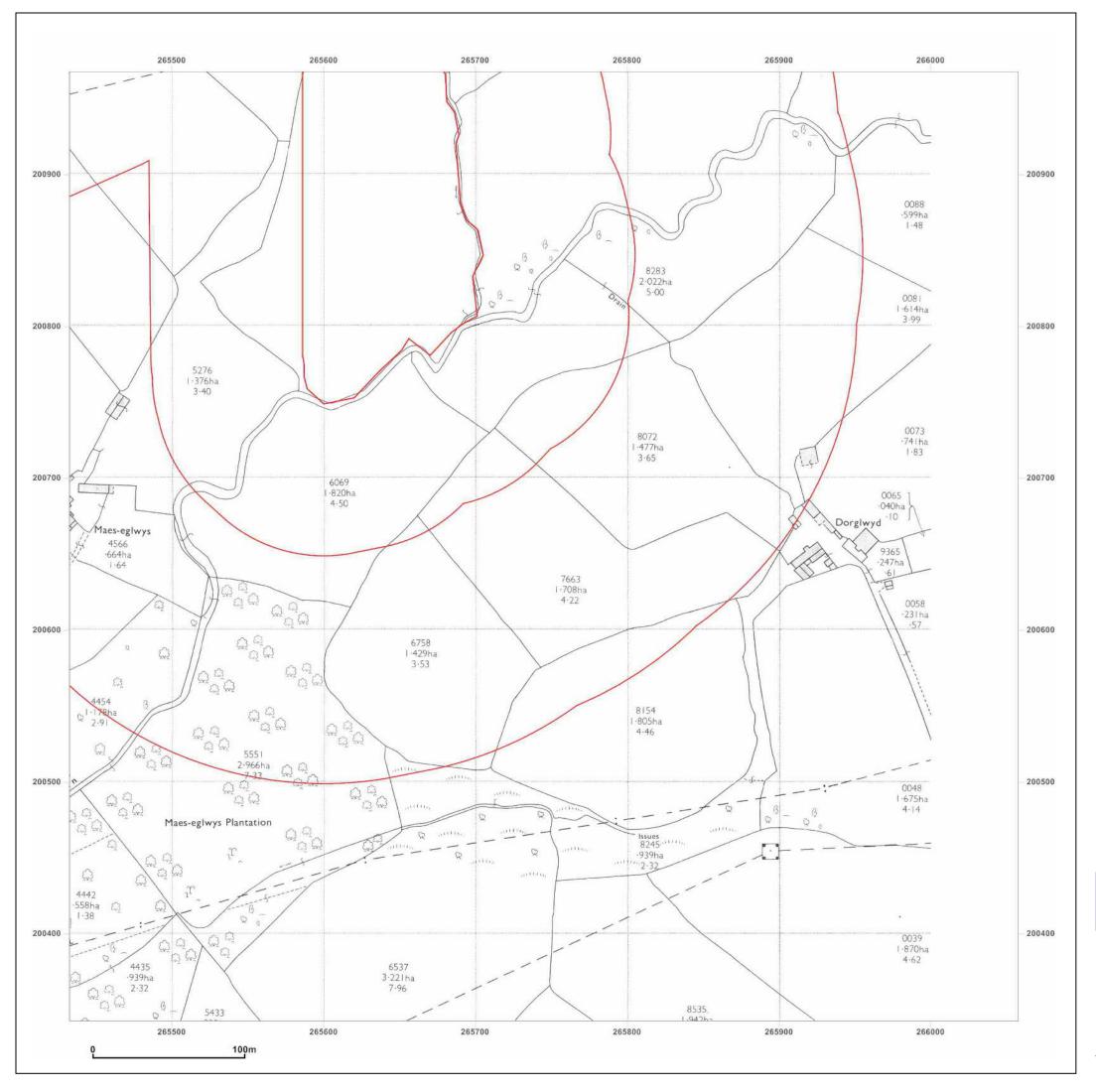
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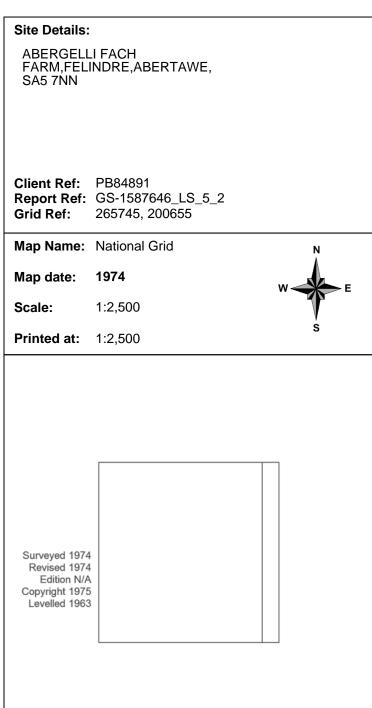
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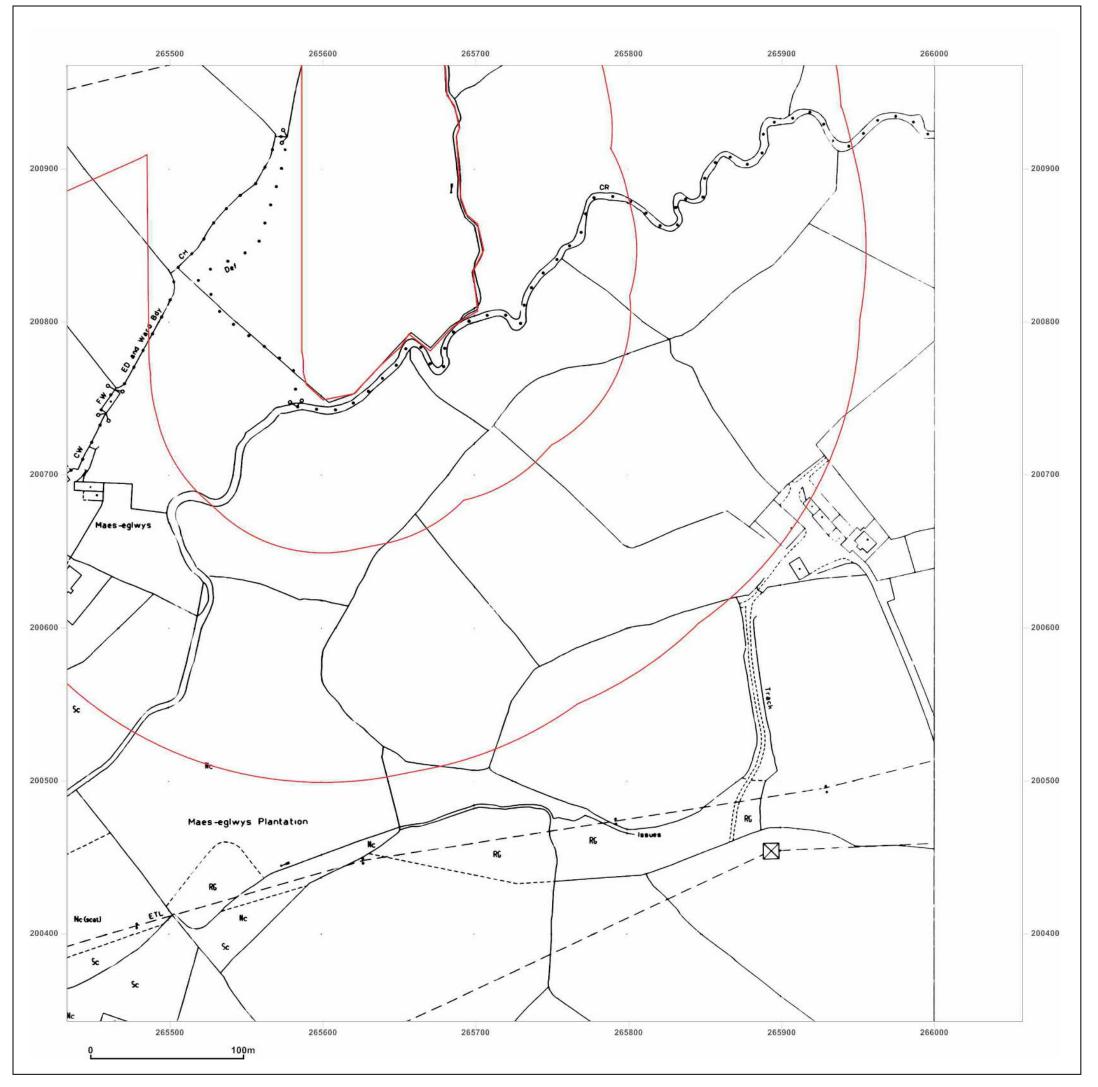
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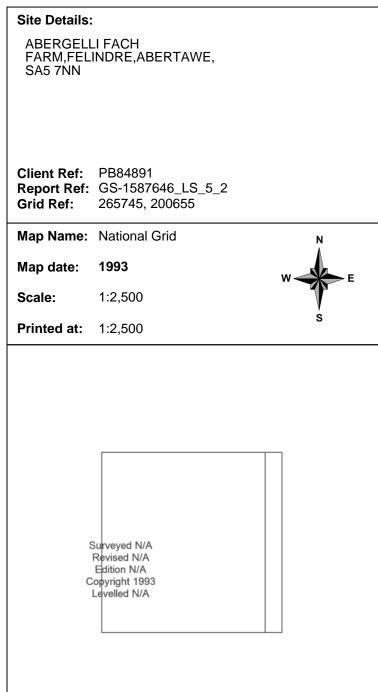
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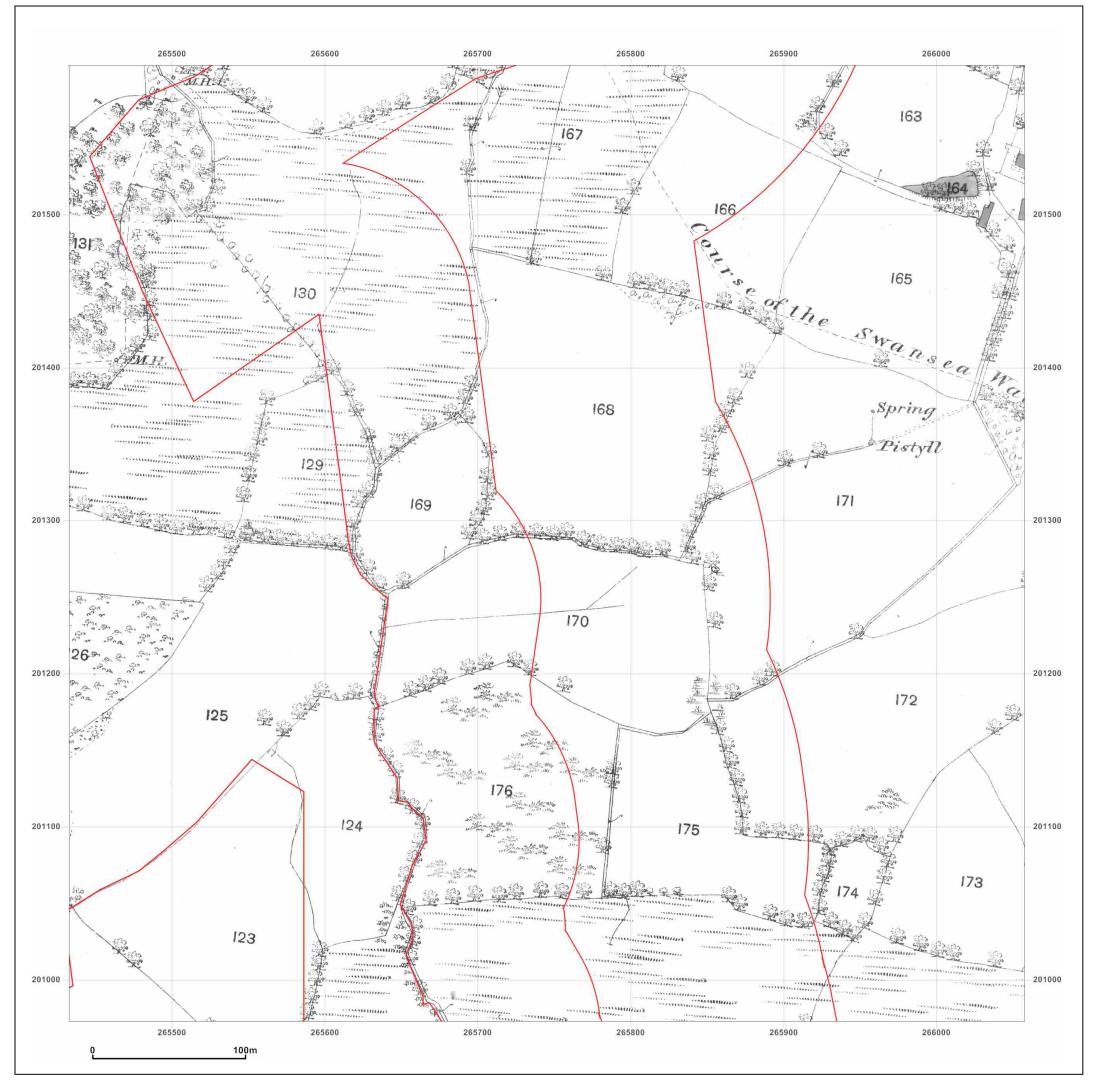




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## Site Details:

ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Client Ref: PB84891

Report Ref: GS-1587646_LS_5_3
Grid Ref: 265745, 201285

Map Name: County Series

Map date: 1876

1:2,500 Scale:

**Printed at:** 1:2,500



Surveyed 1876 Revised 1876 Edition N/A Copyright N/A Levelled N/A

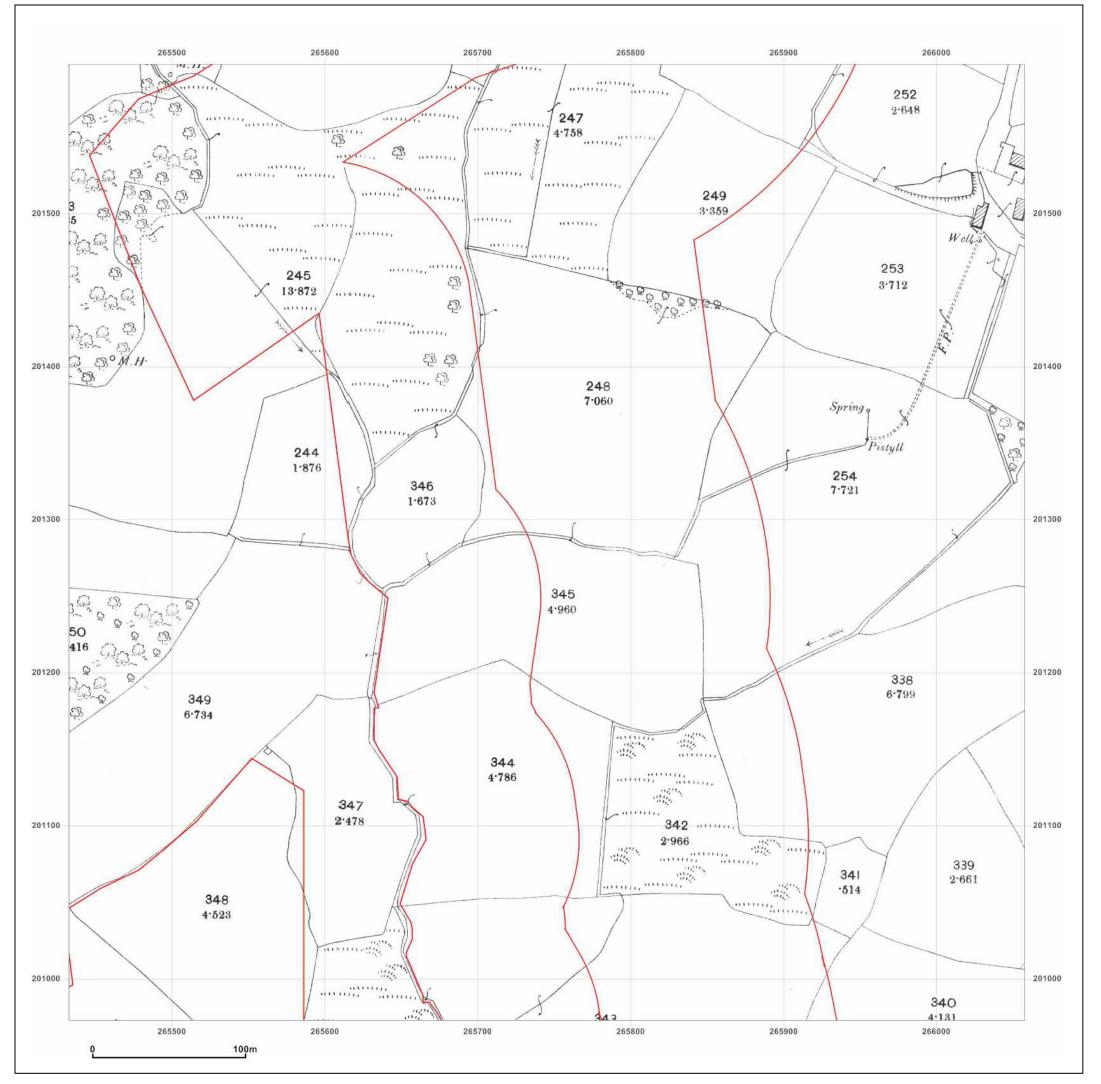


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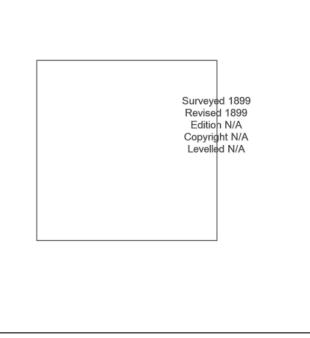
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Map Name: County Series

Map date: 1899

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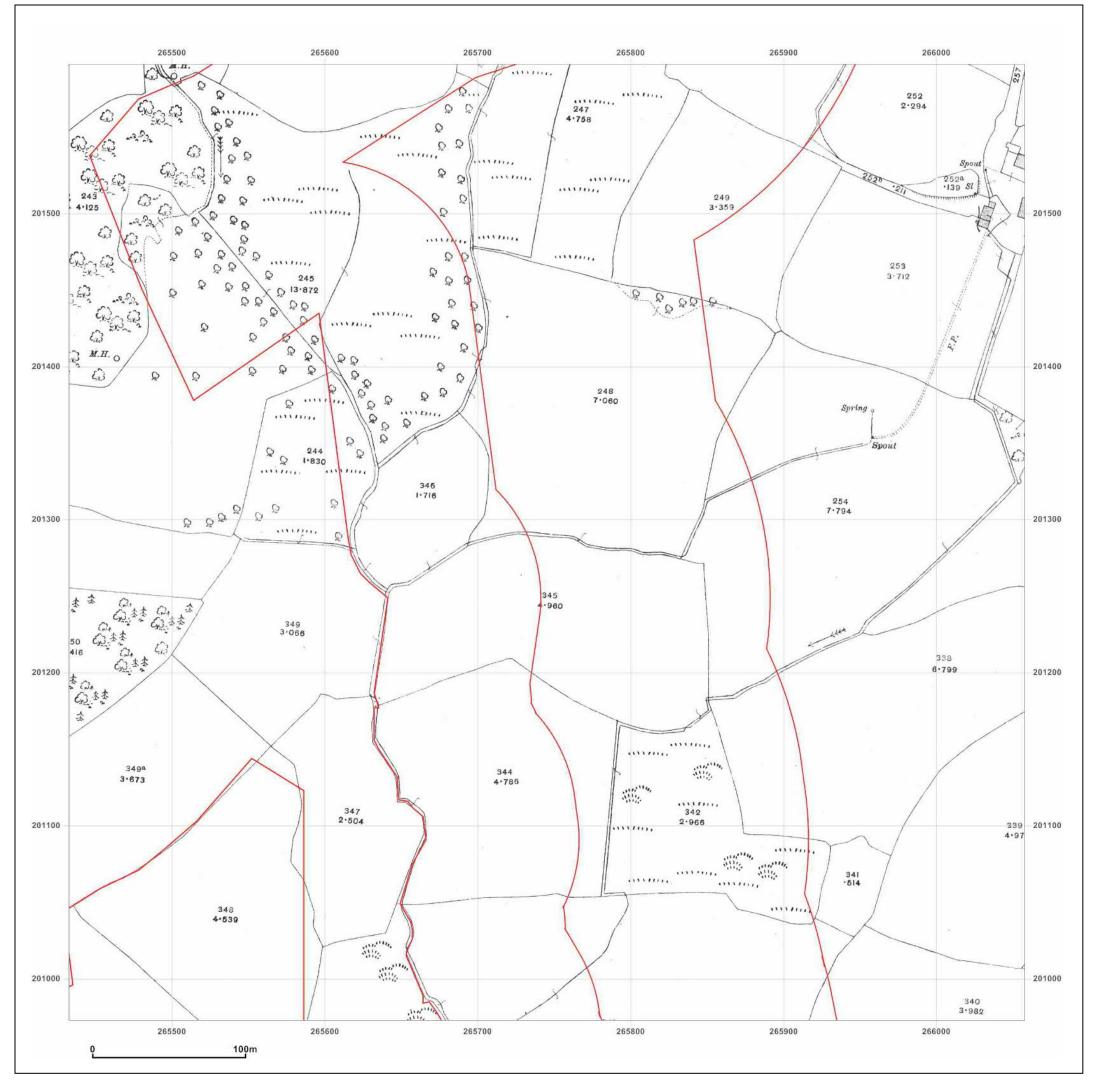
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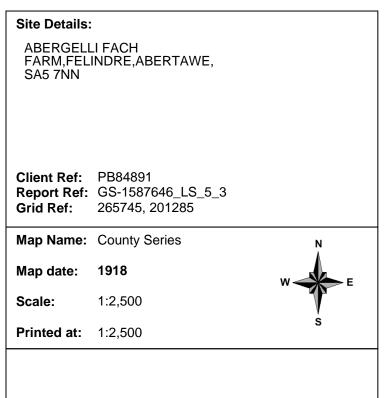
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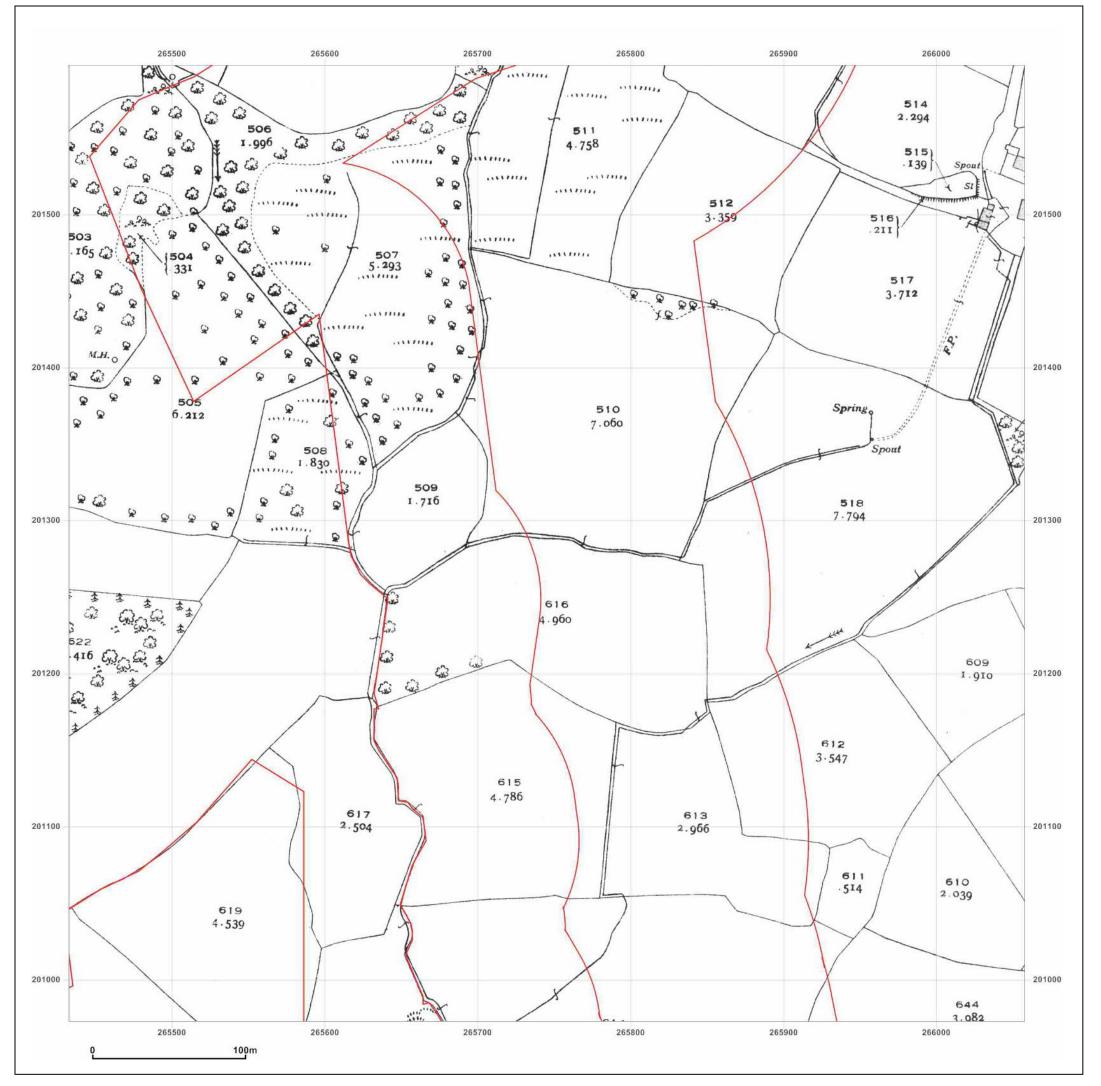
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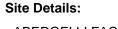
Surveyed 1918 Revised 1918 Edition N/A Copyright N/A Levelled N/A

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ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_5_3 **Grid Ref:** 265745, 201285

Map Name: County Series

Map date: 1935

**Scale:** 1:2,500

**Printed at:** 1:2,500



Surveyed 1935 Revised 1935

Edition N/A Copyright N/A Levelled N/A



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GroundSure Environmental Insight

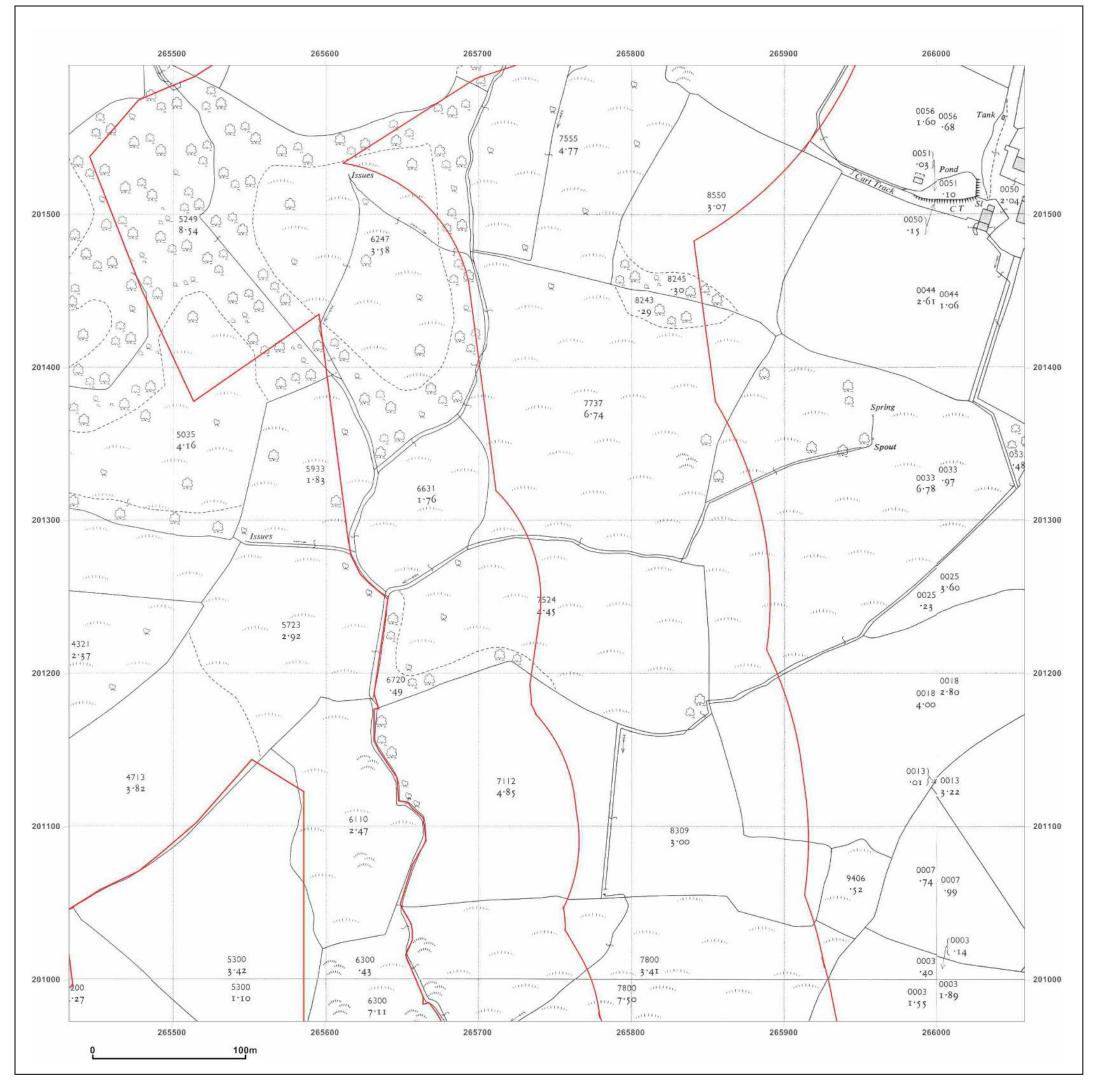
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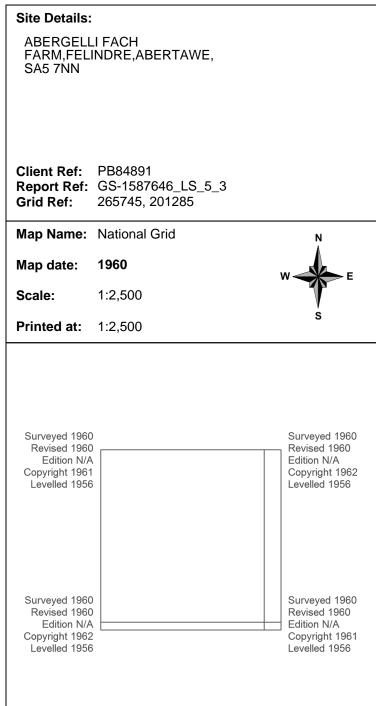
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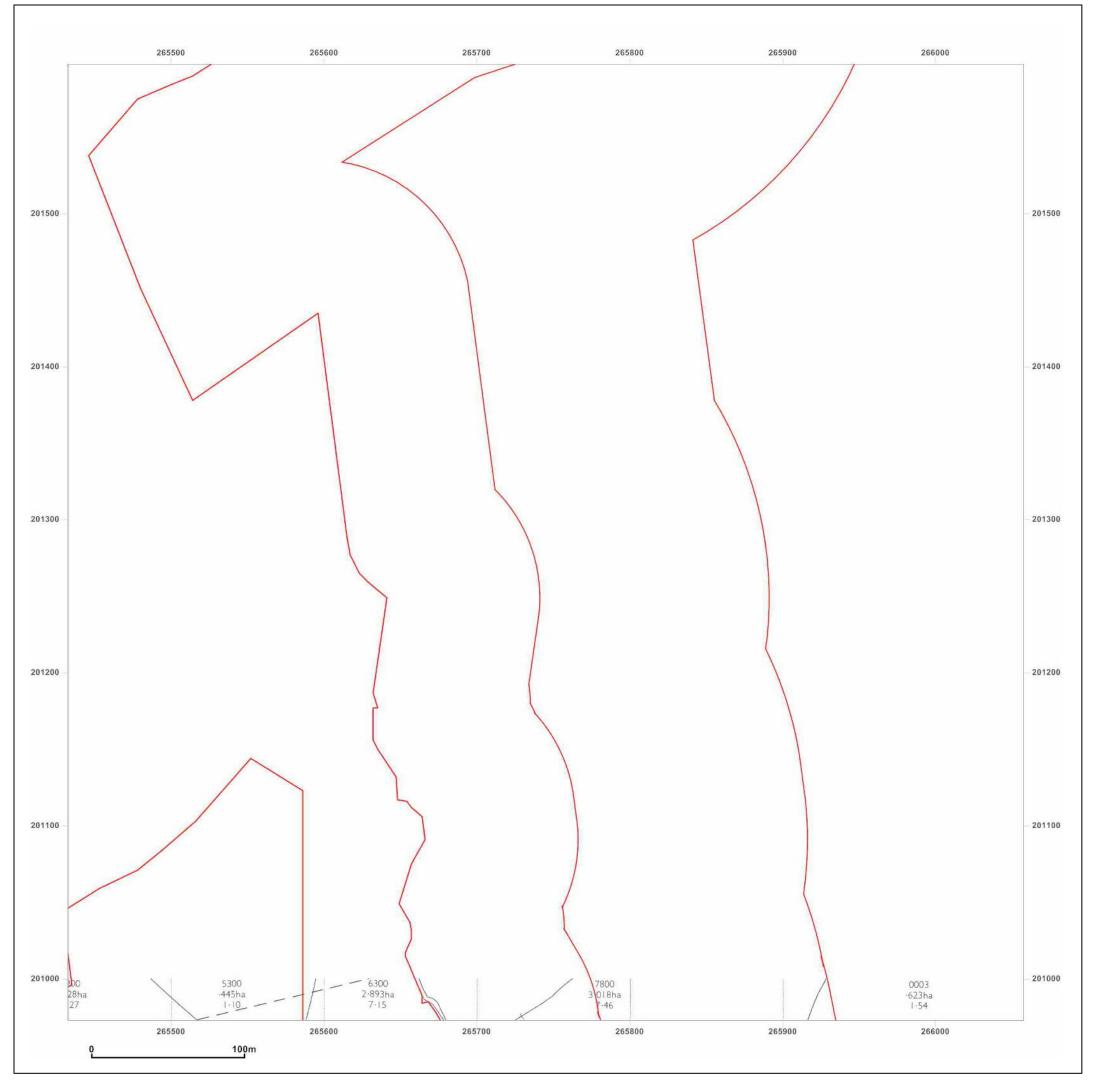
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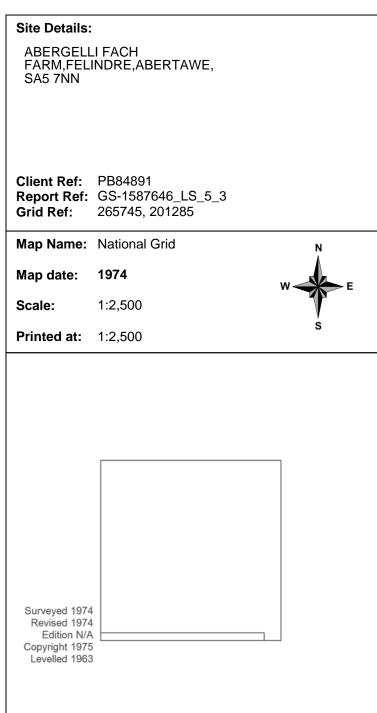
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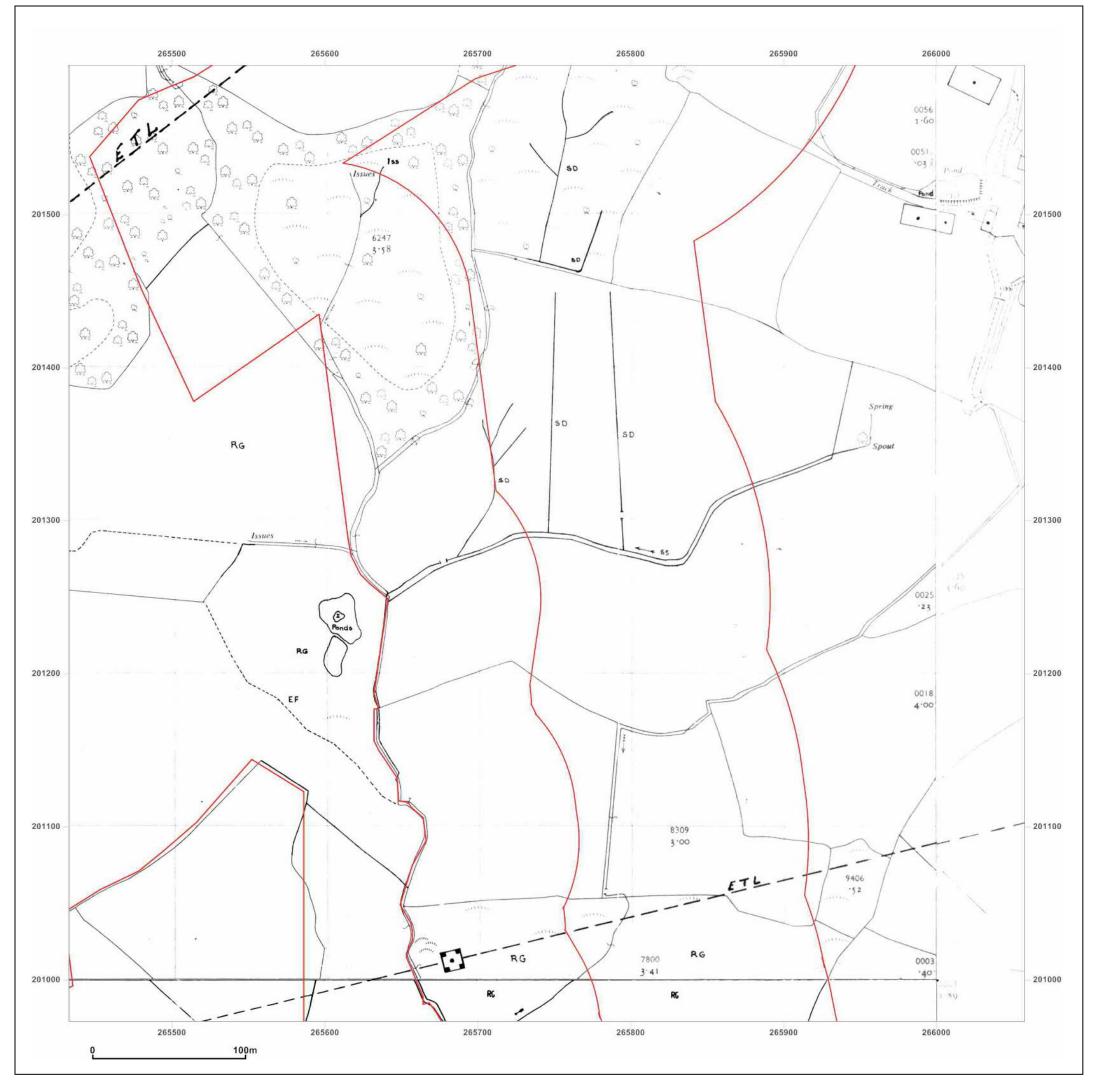
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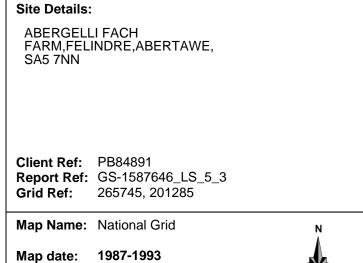
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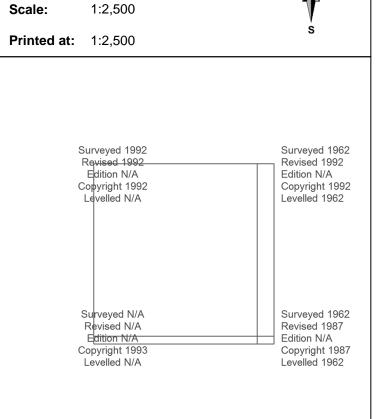
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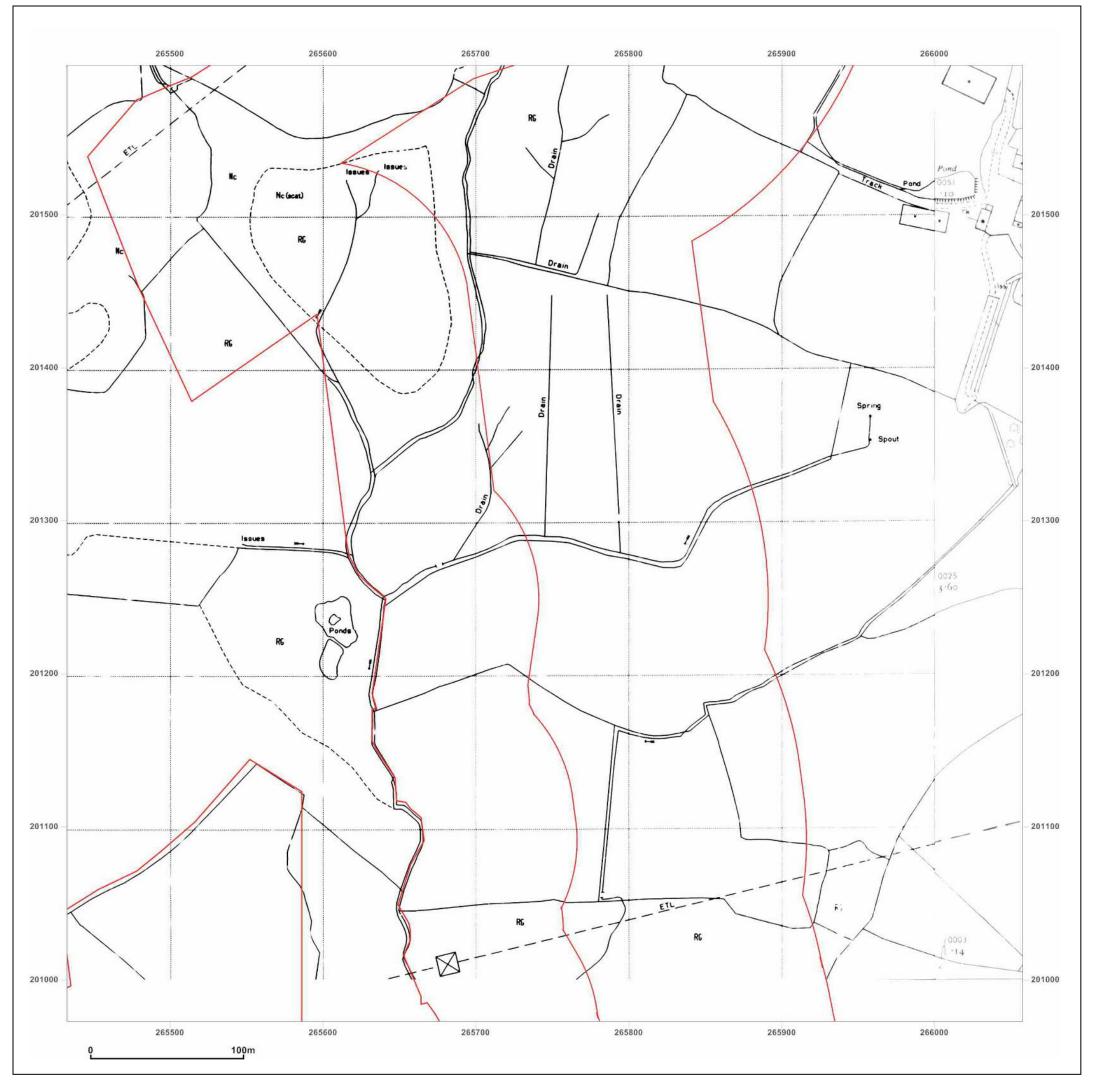
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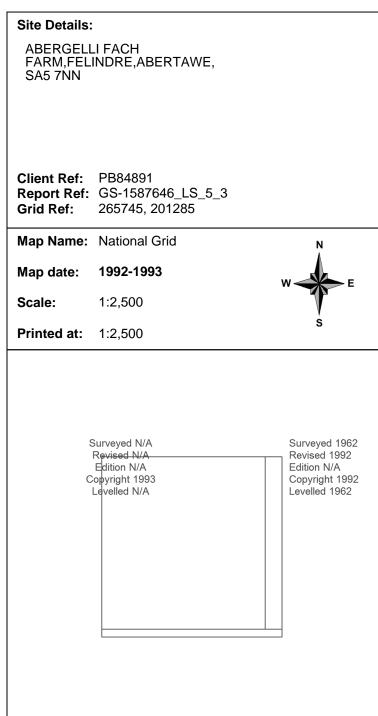
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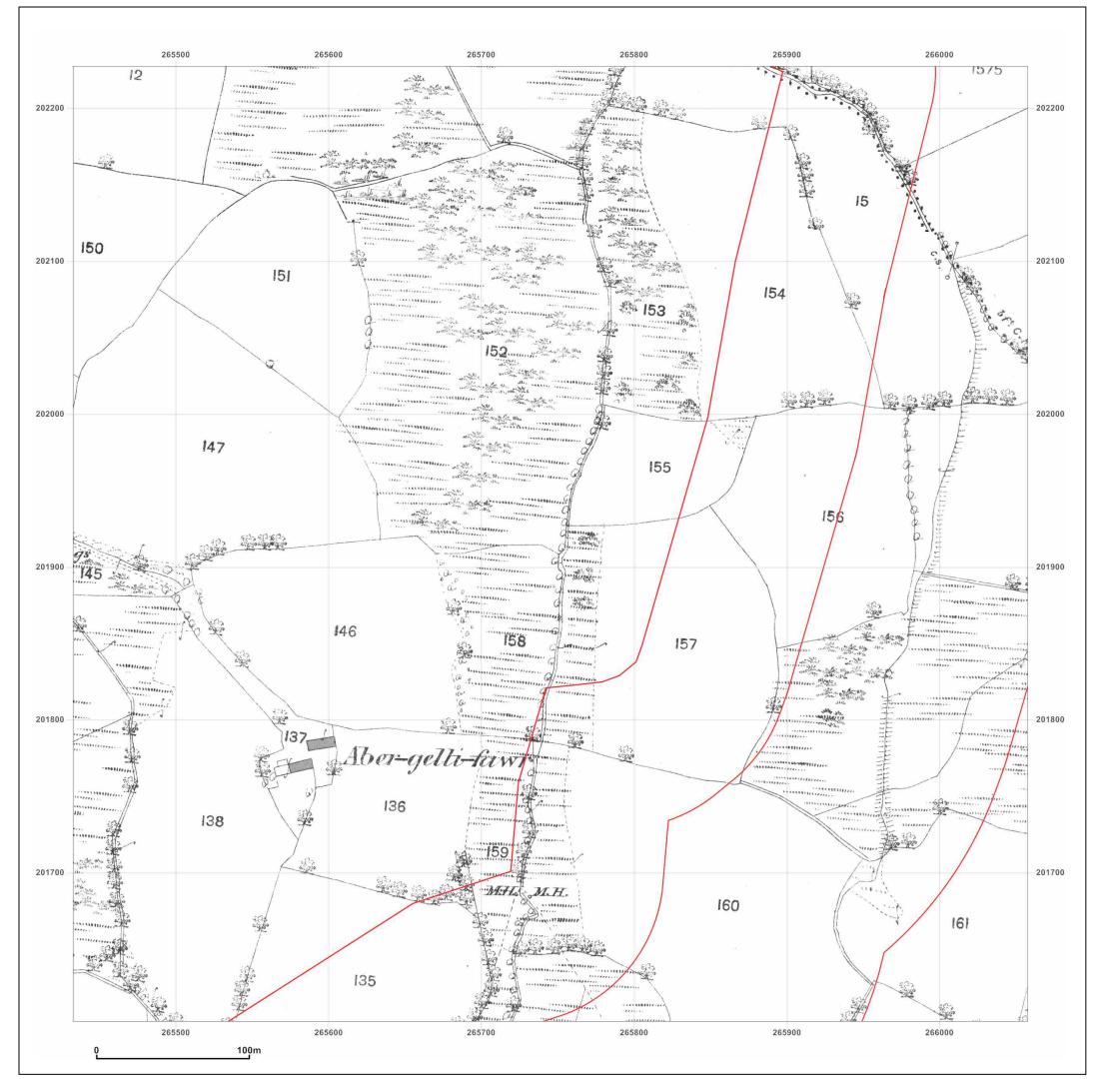


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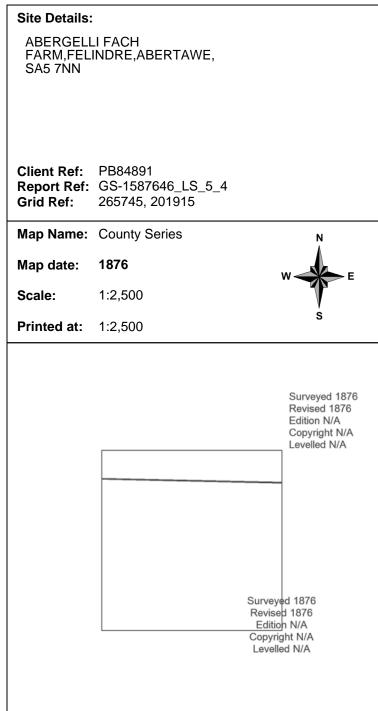
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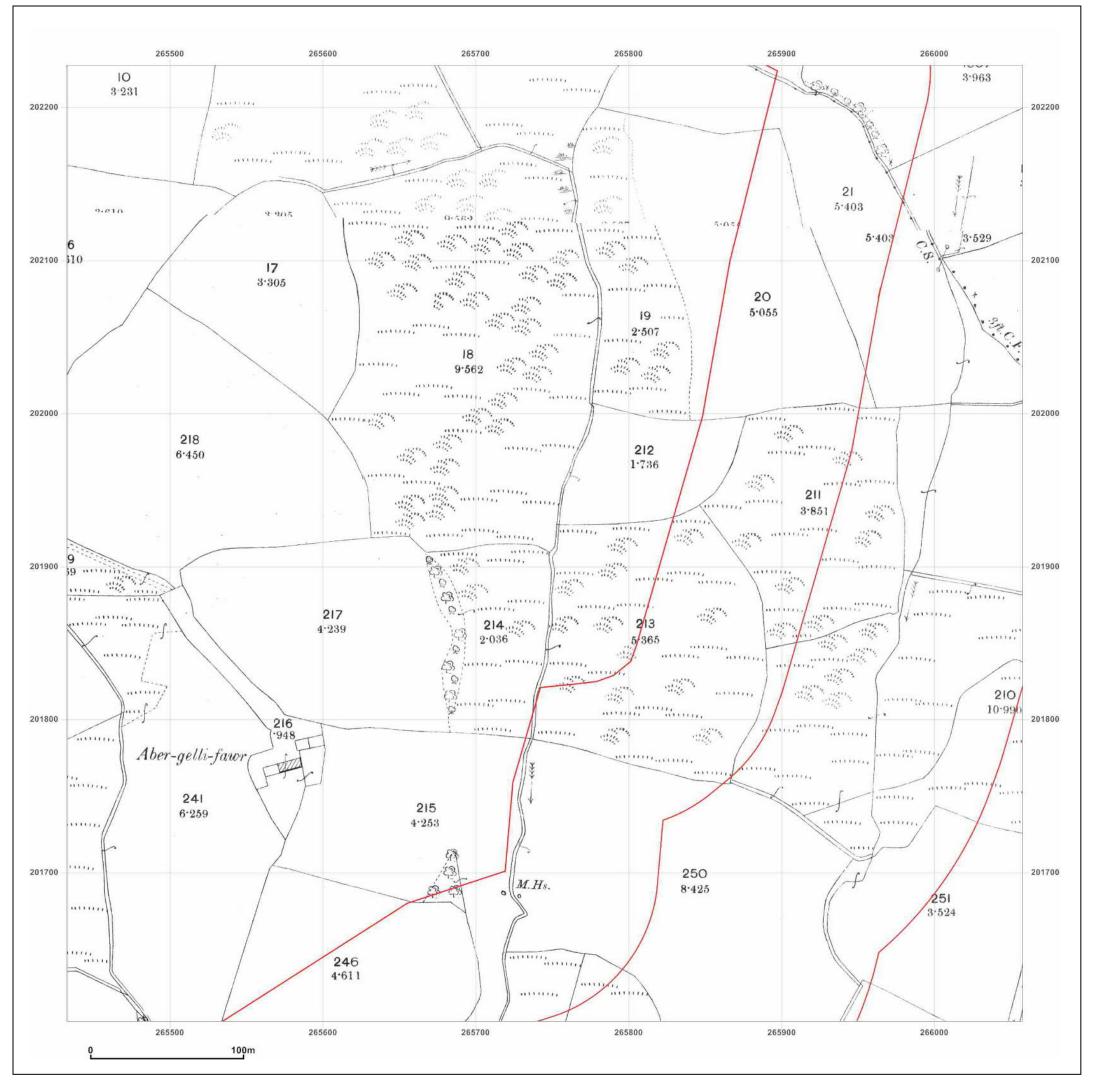




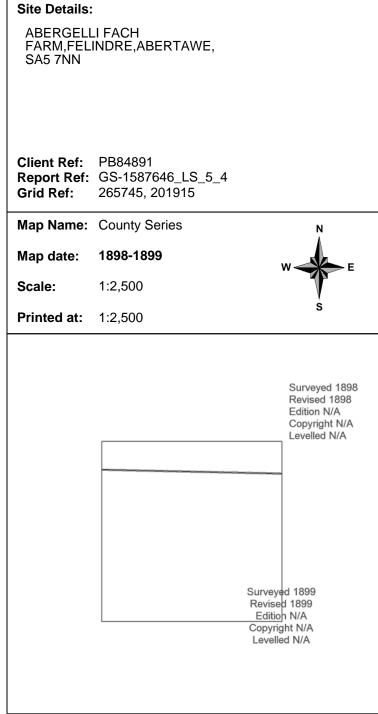
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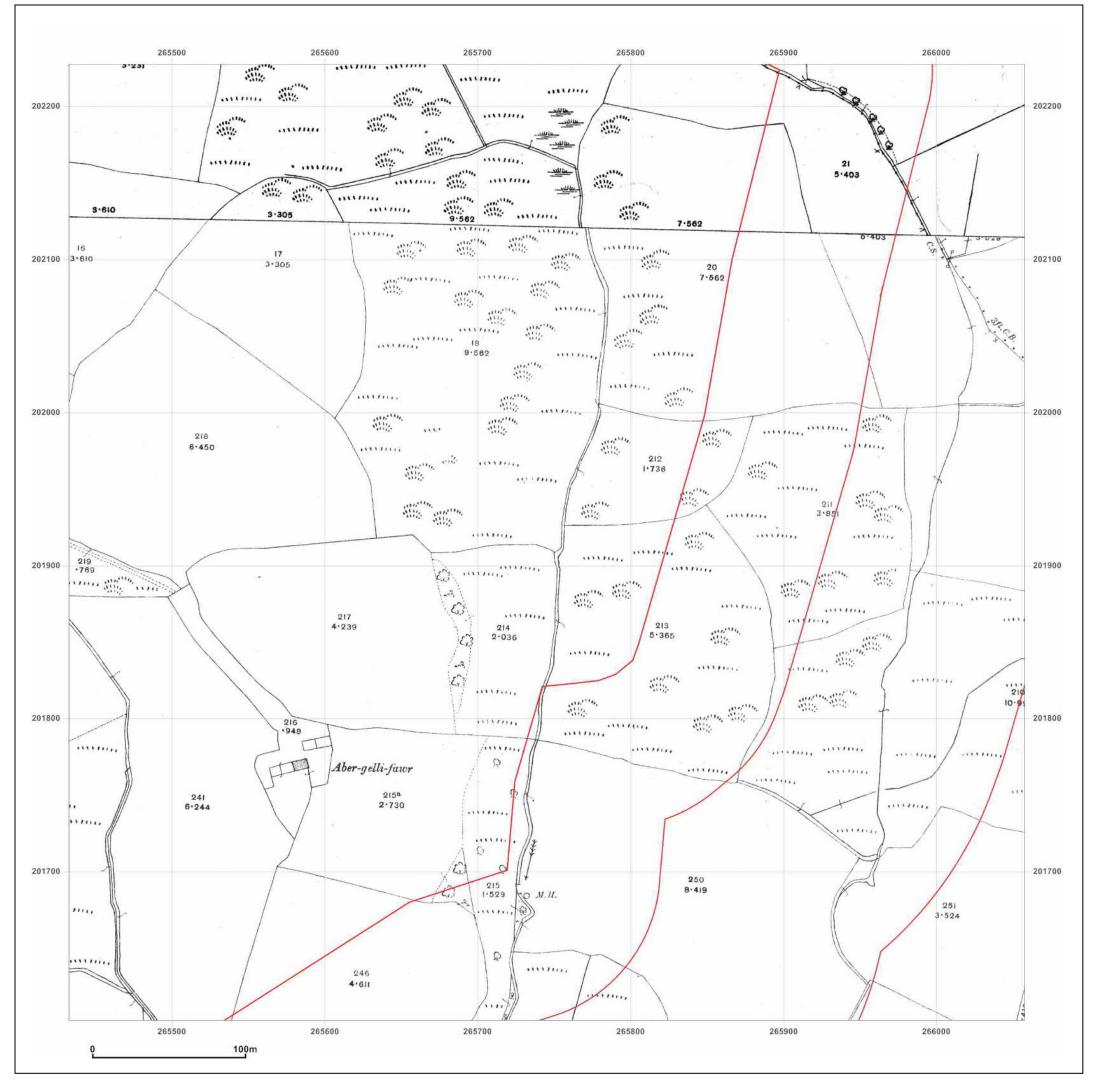
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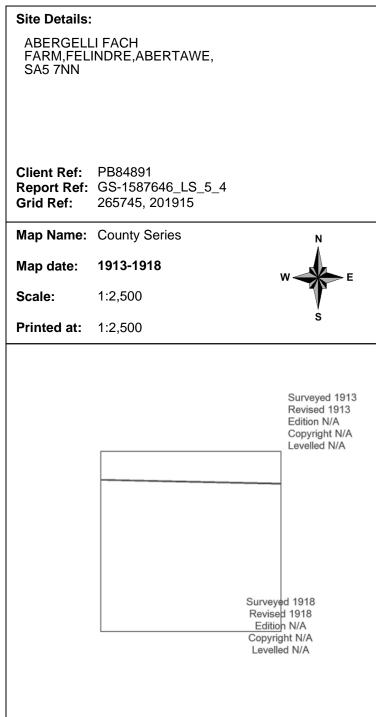
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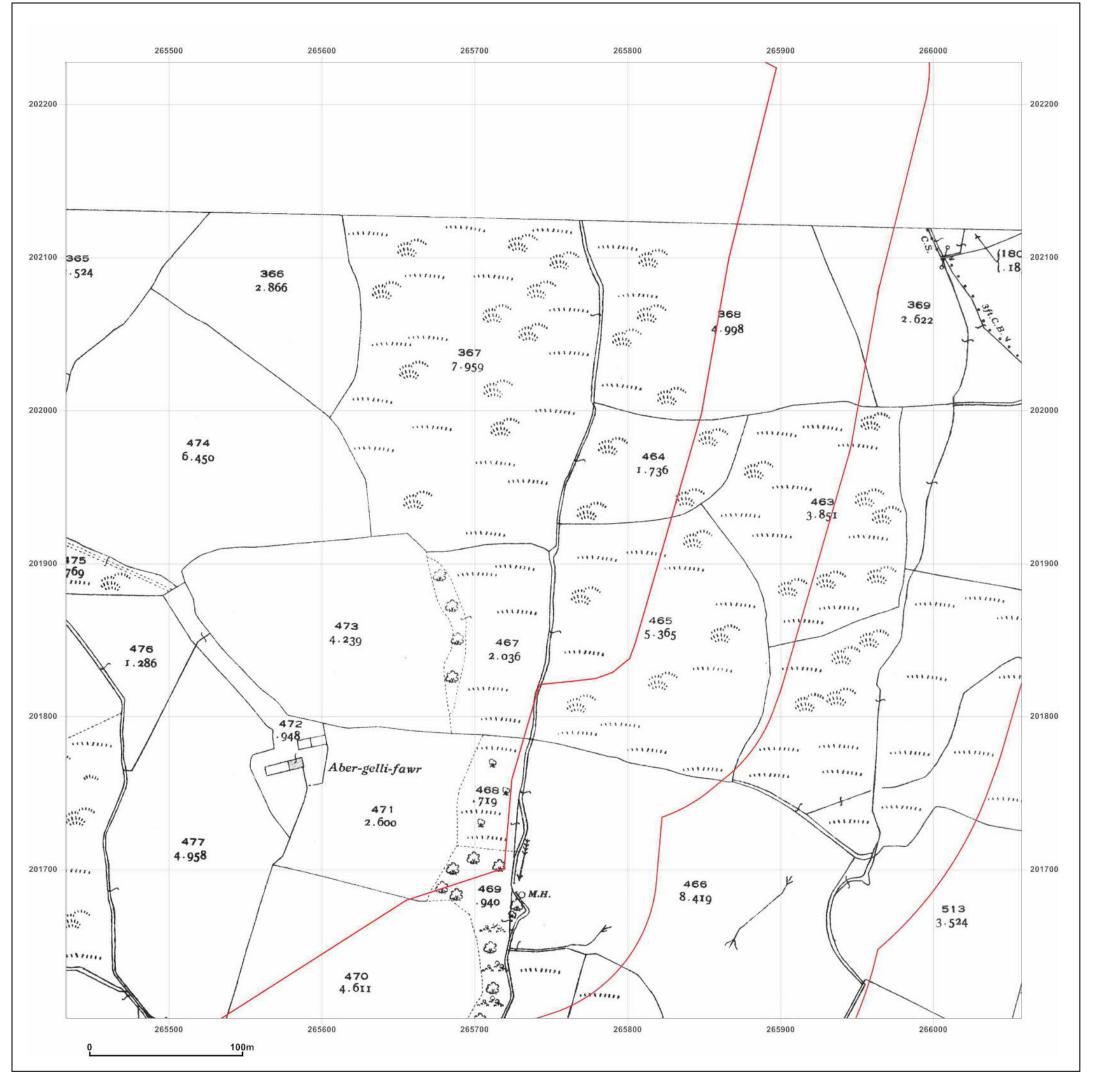


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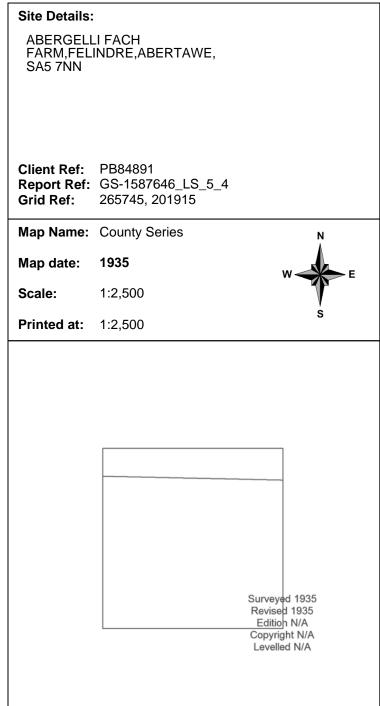
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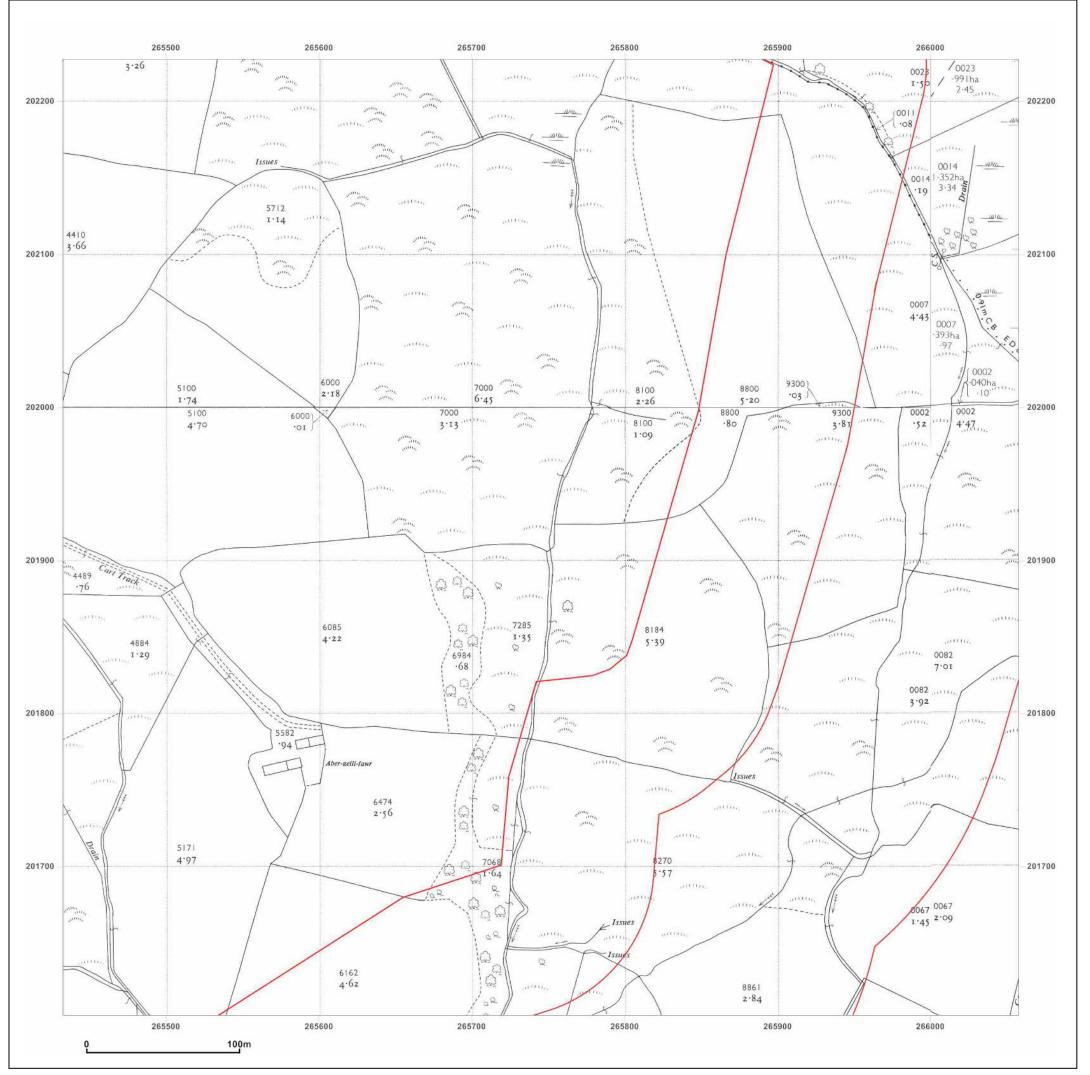
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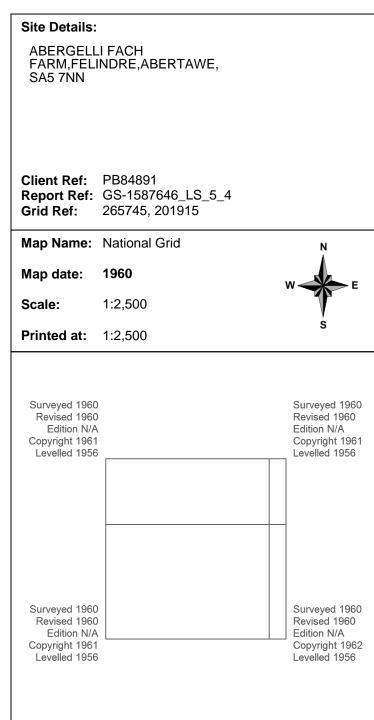
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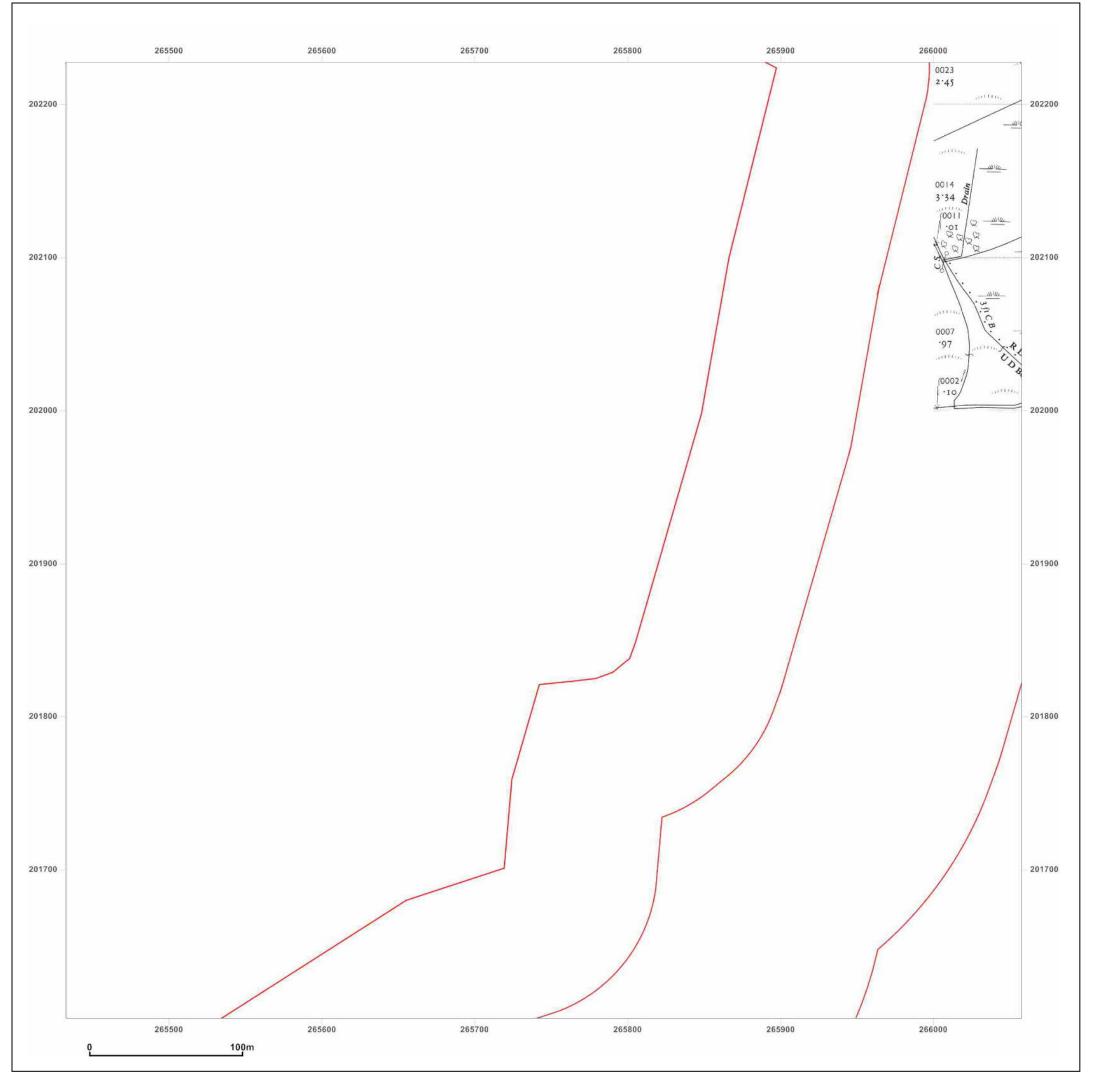
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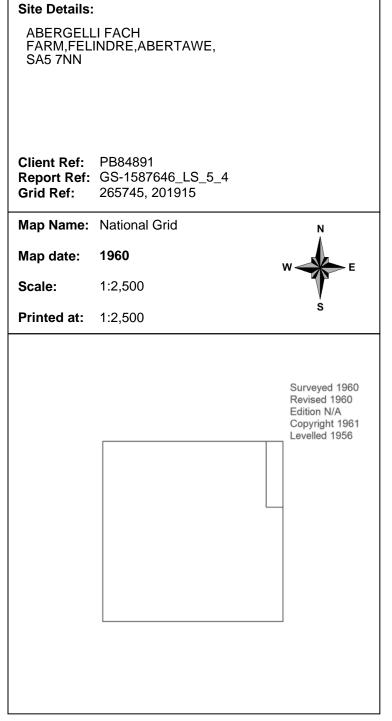
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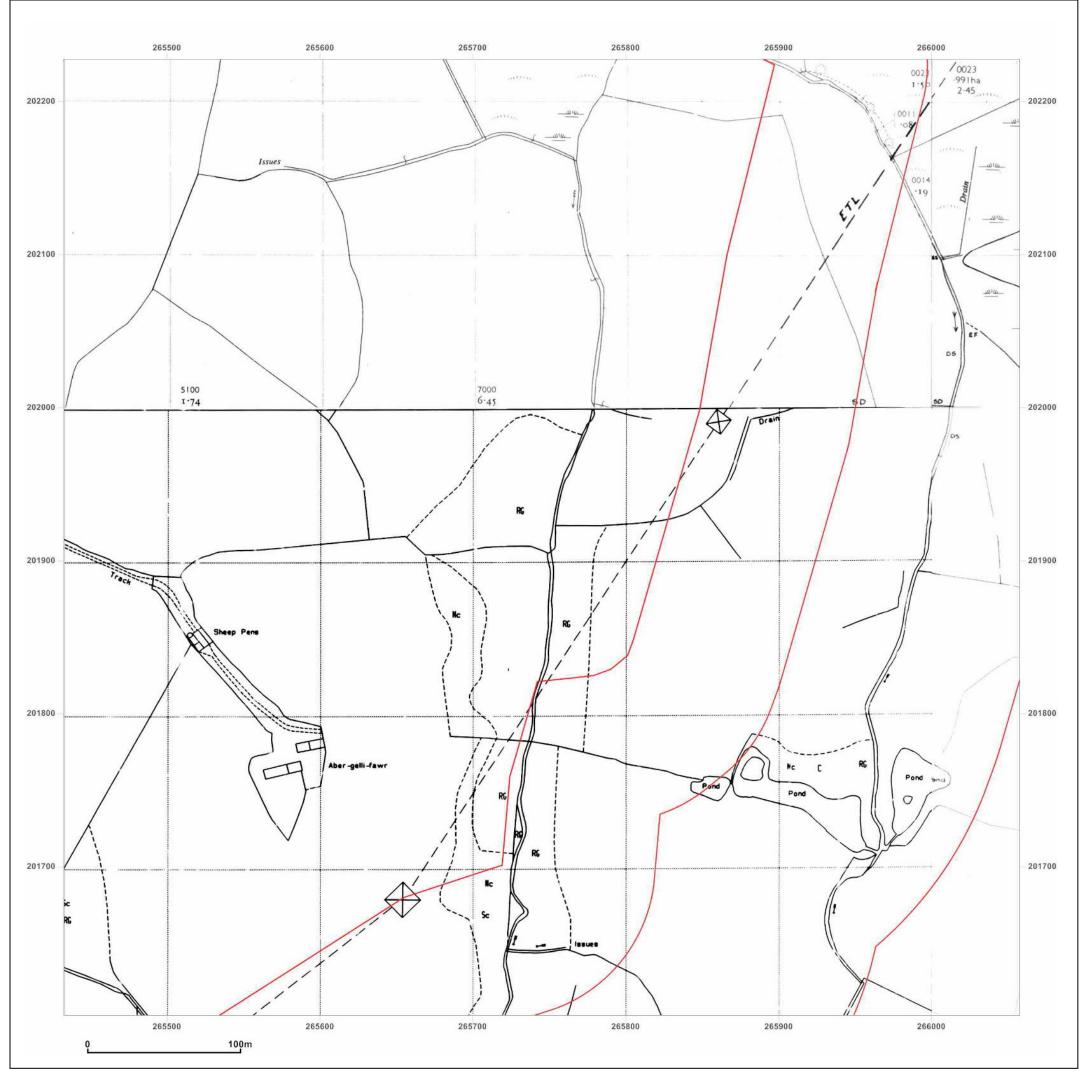


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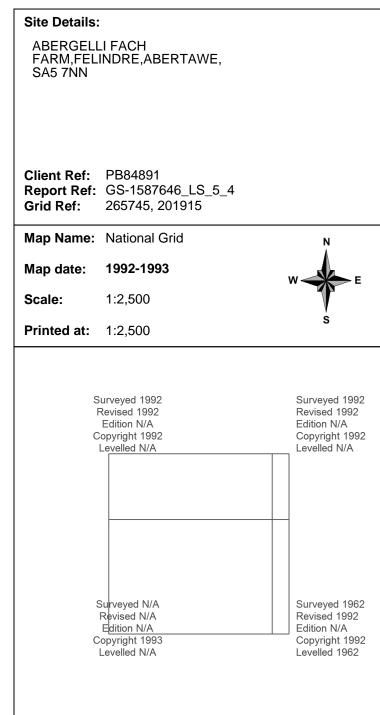
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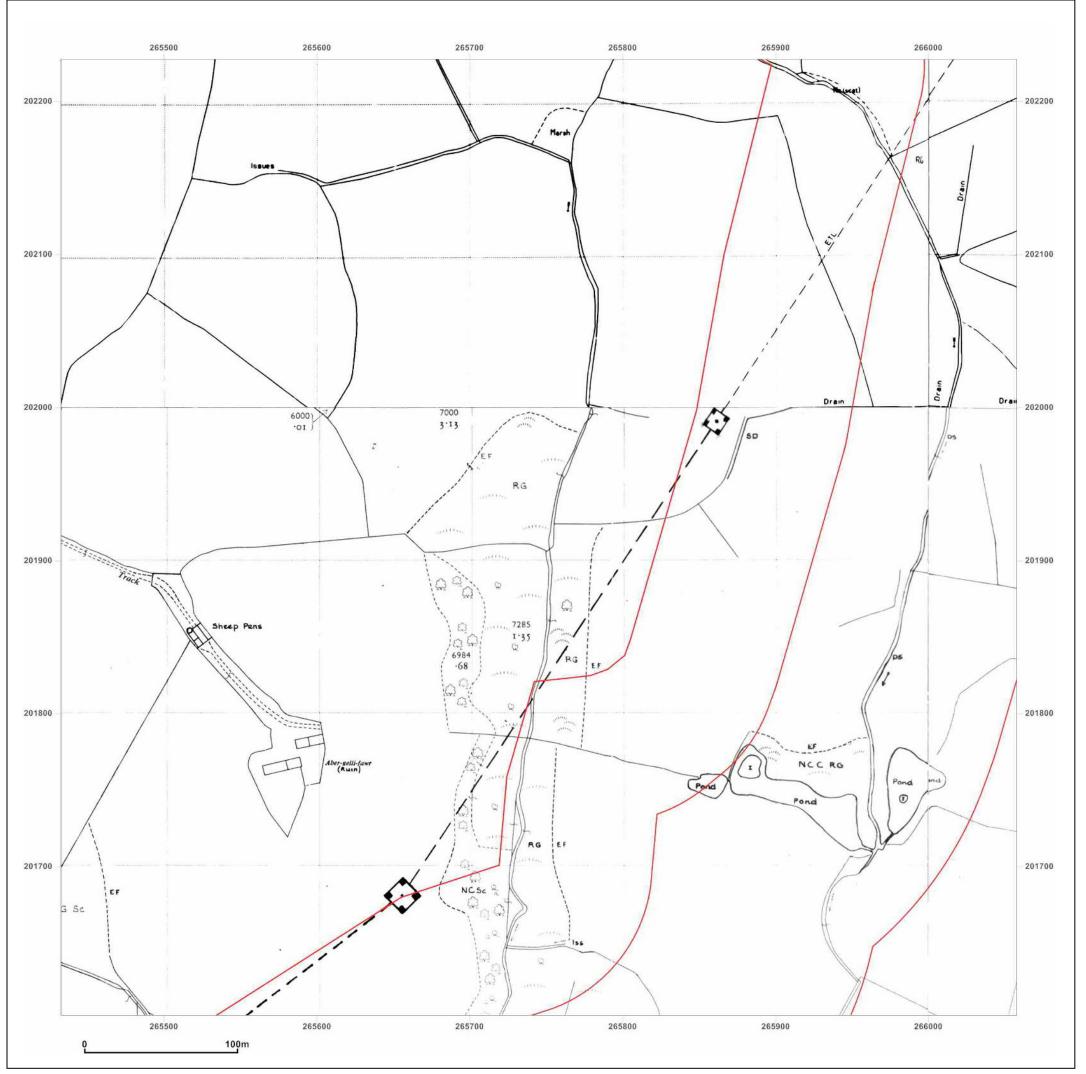
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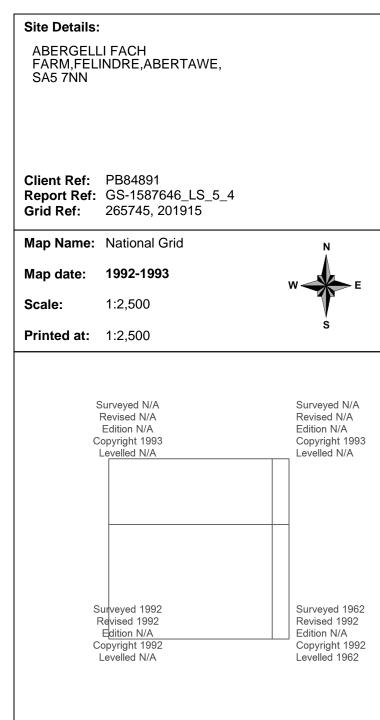
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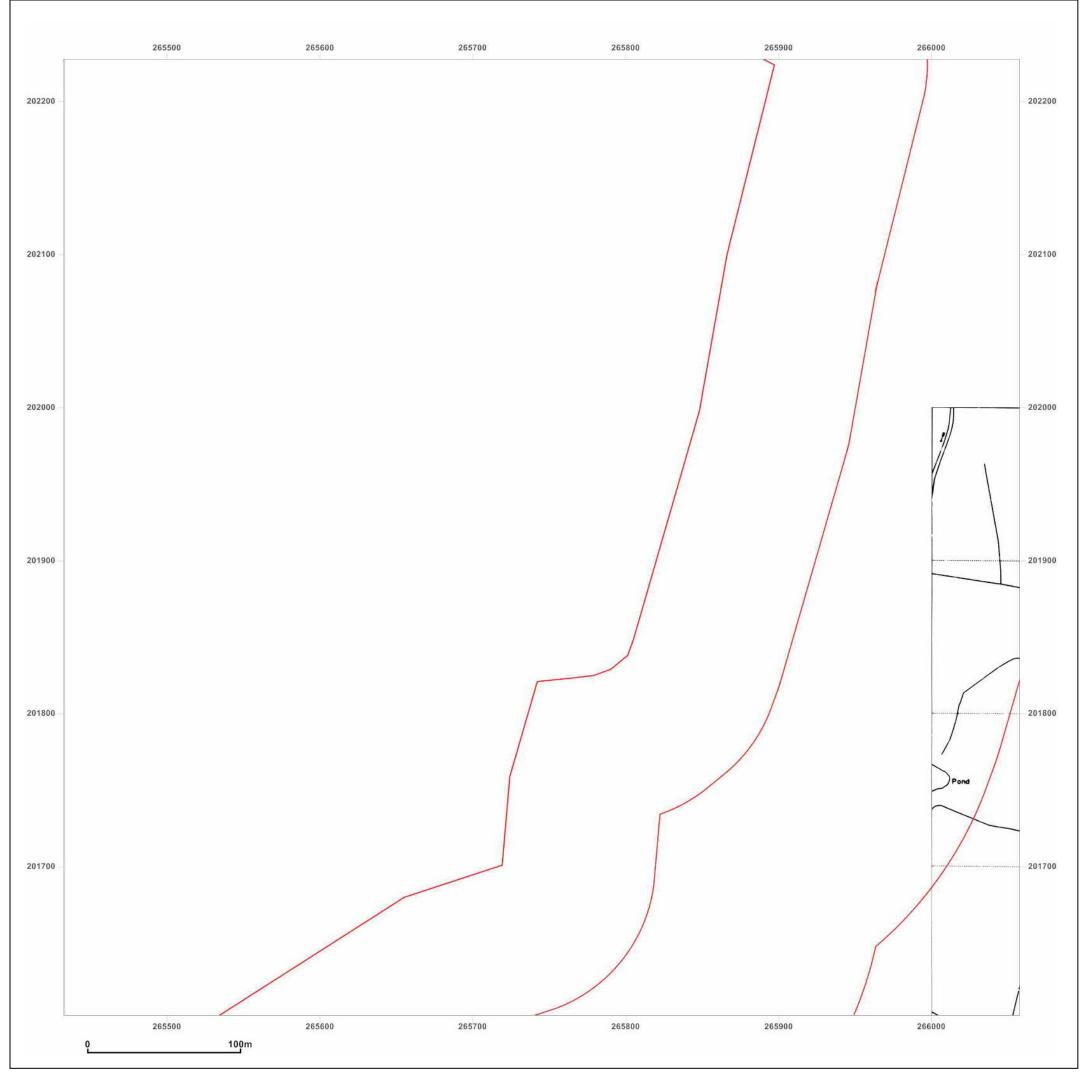
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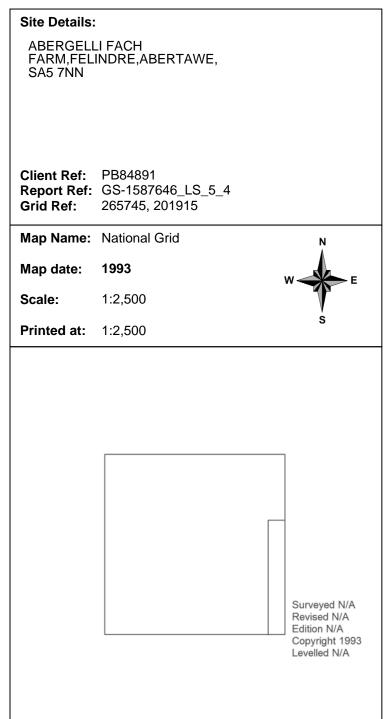
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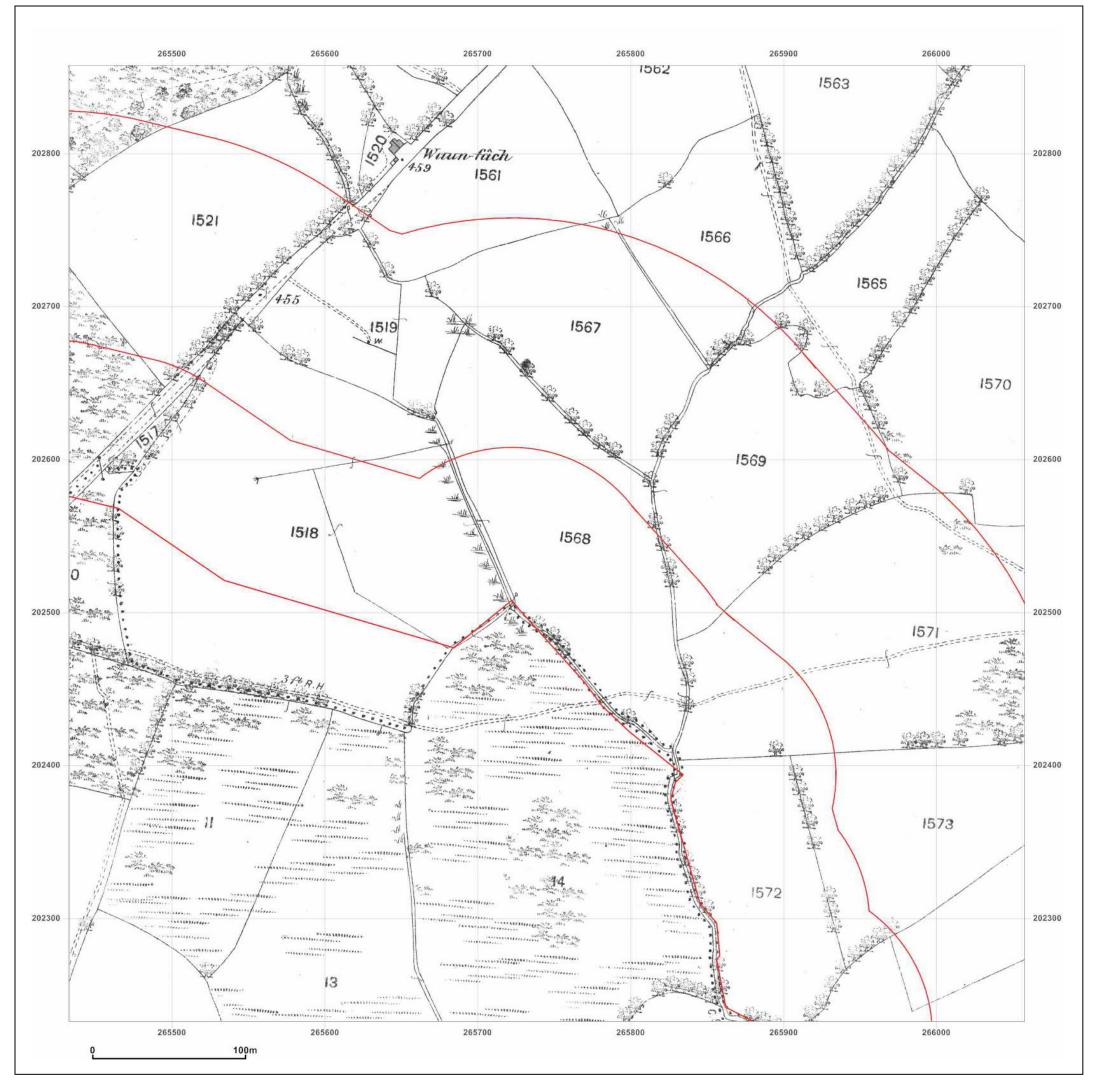


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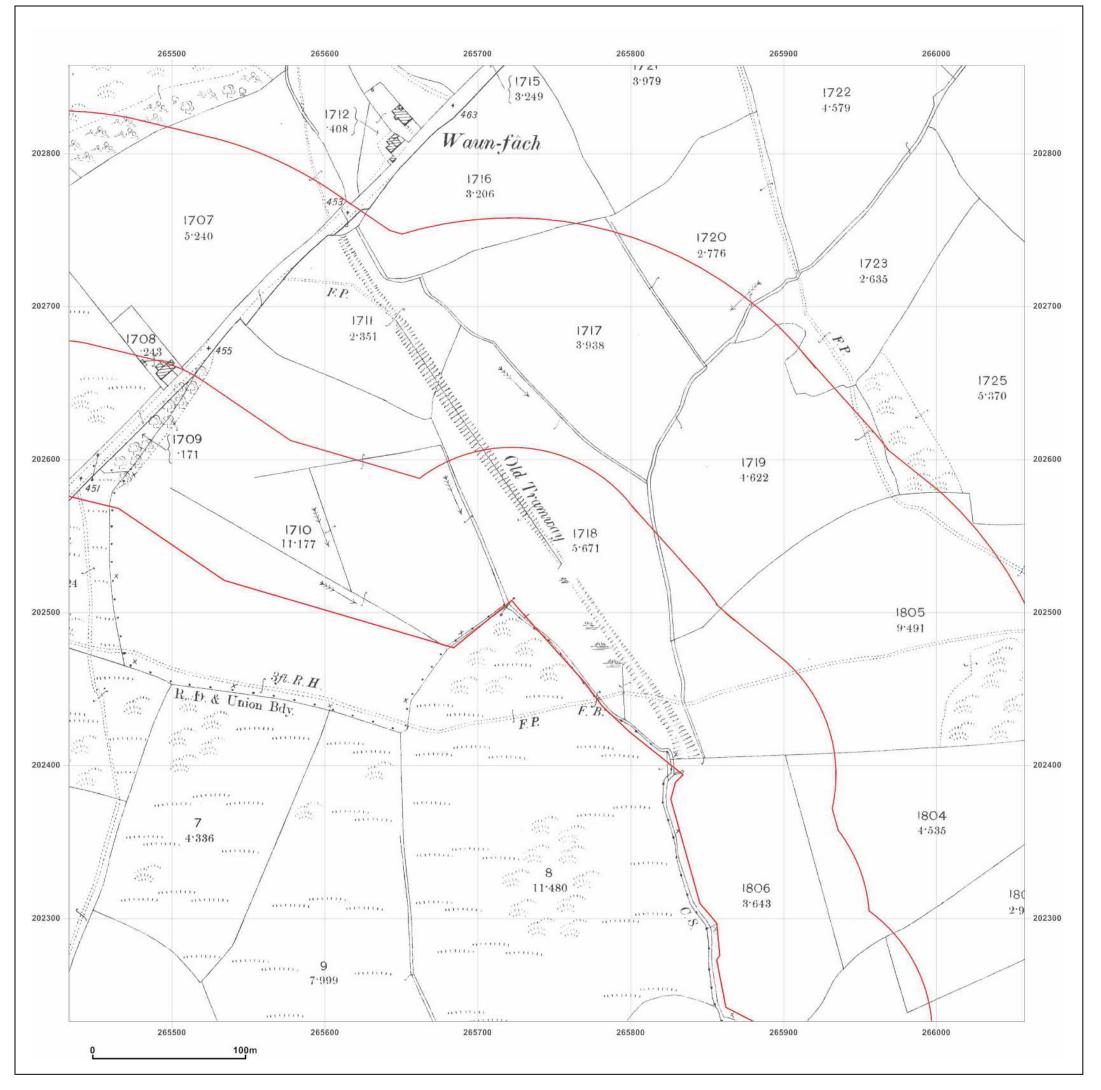
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Scale:	1:2,500	<b>*</b>		
Printed at:	1:2,500	S		
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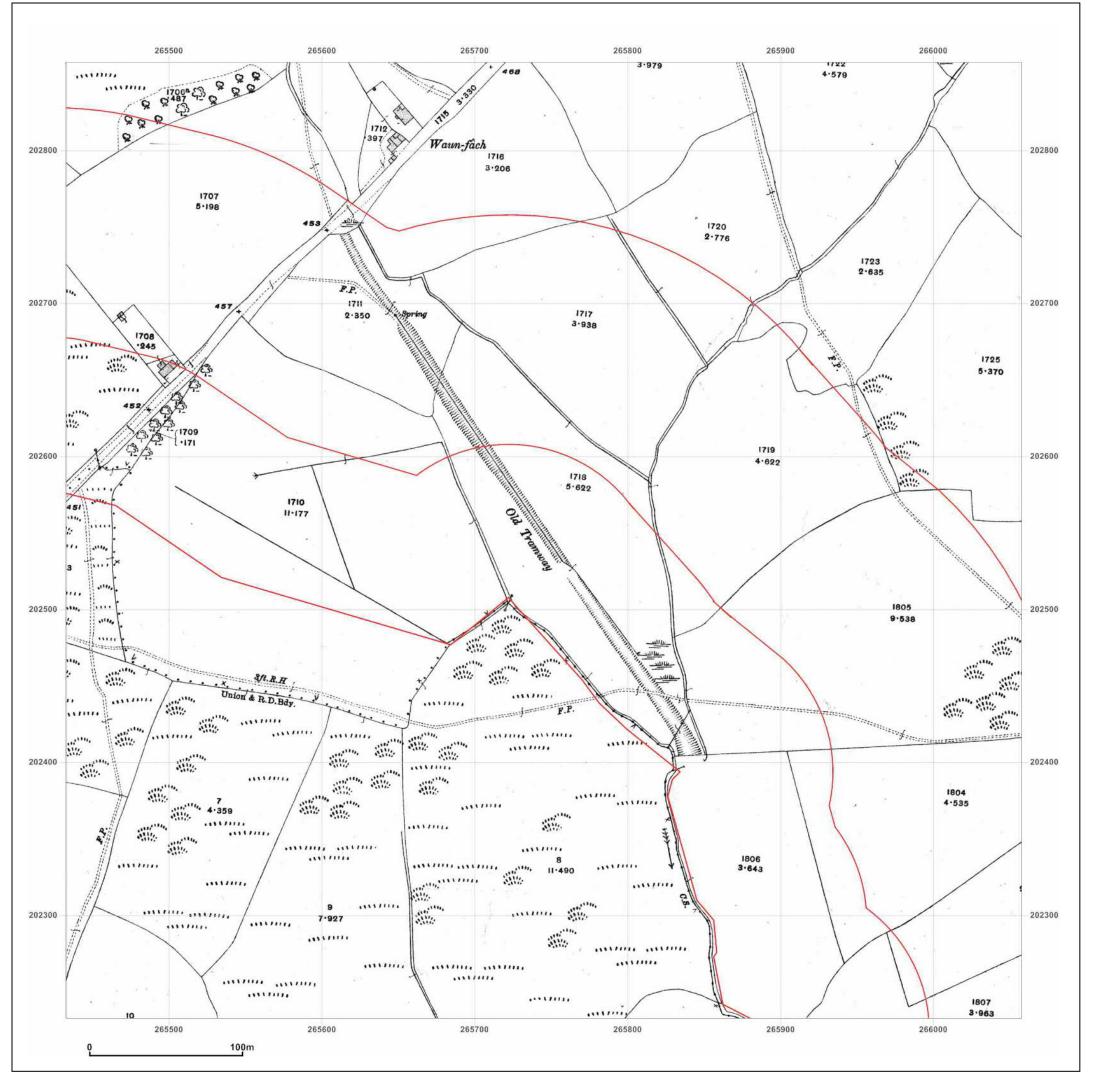


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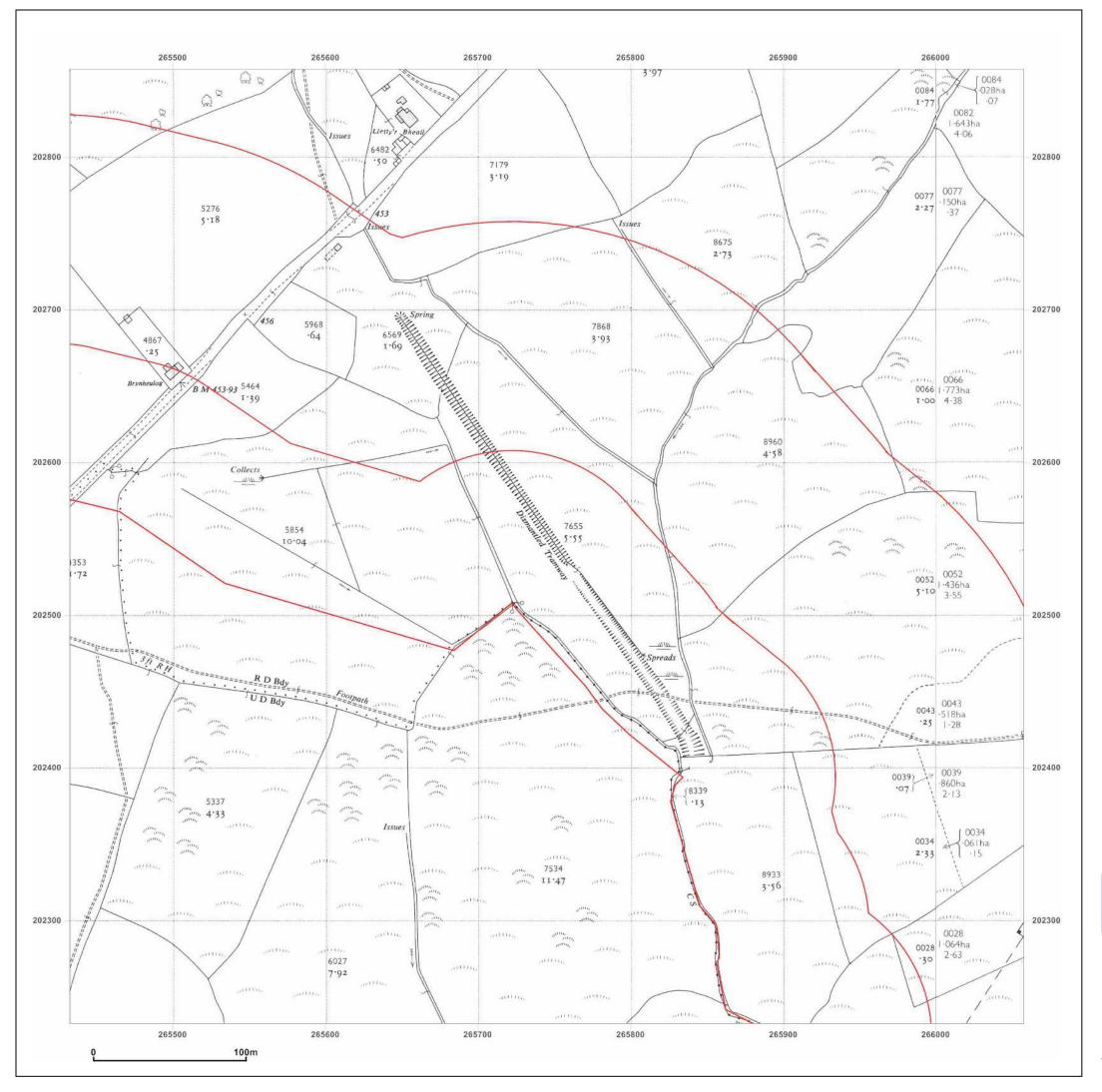
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SA5 7NN

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1960 Map date:

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Surveyed 1960 Revised 1960 Edition N/A Copyright 1961 Levelled 1956

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Surveyed 1960

Revised 1960

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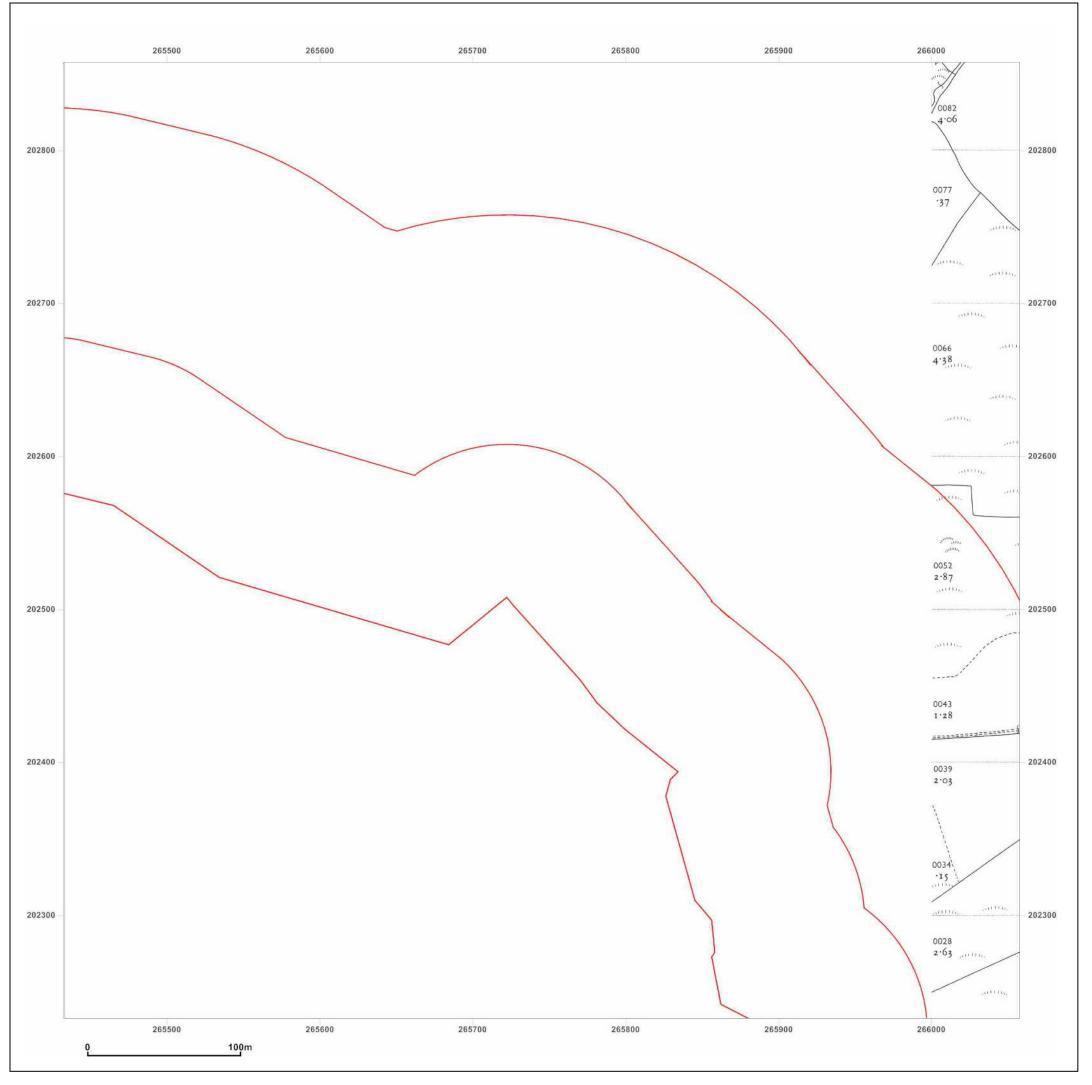
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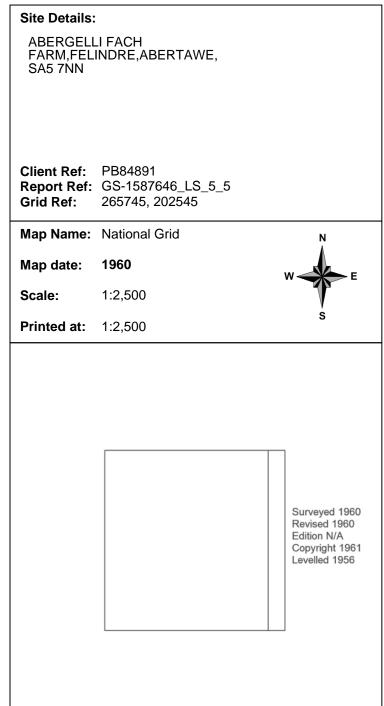
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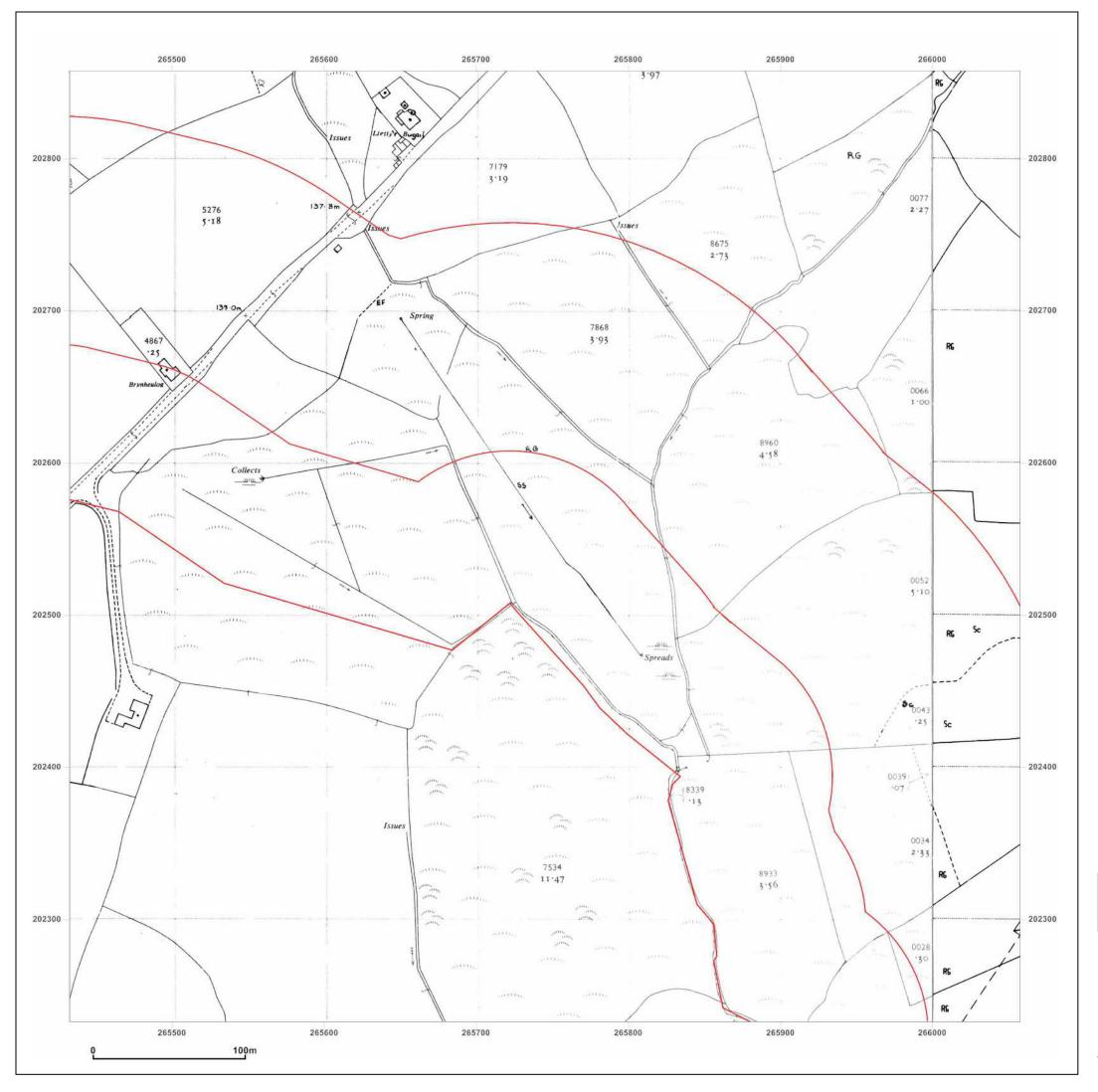
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1992-1993 Map date:

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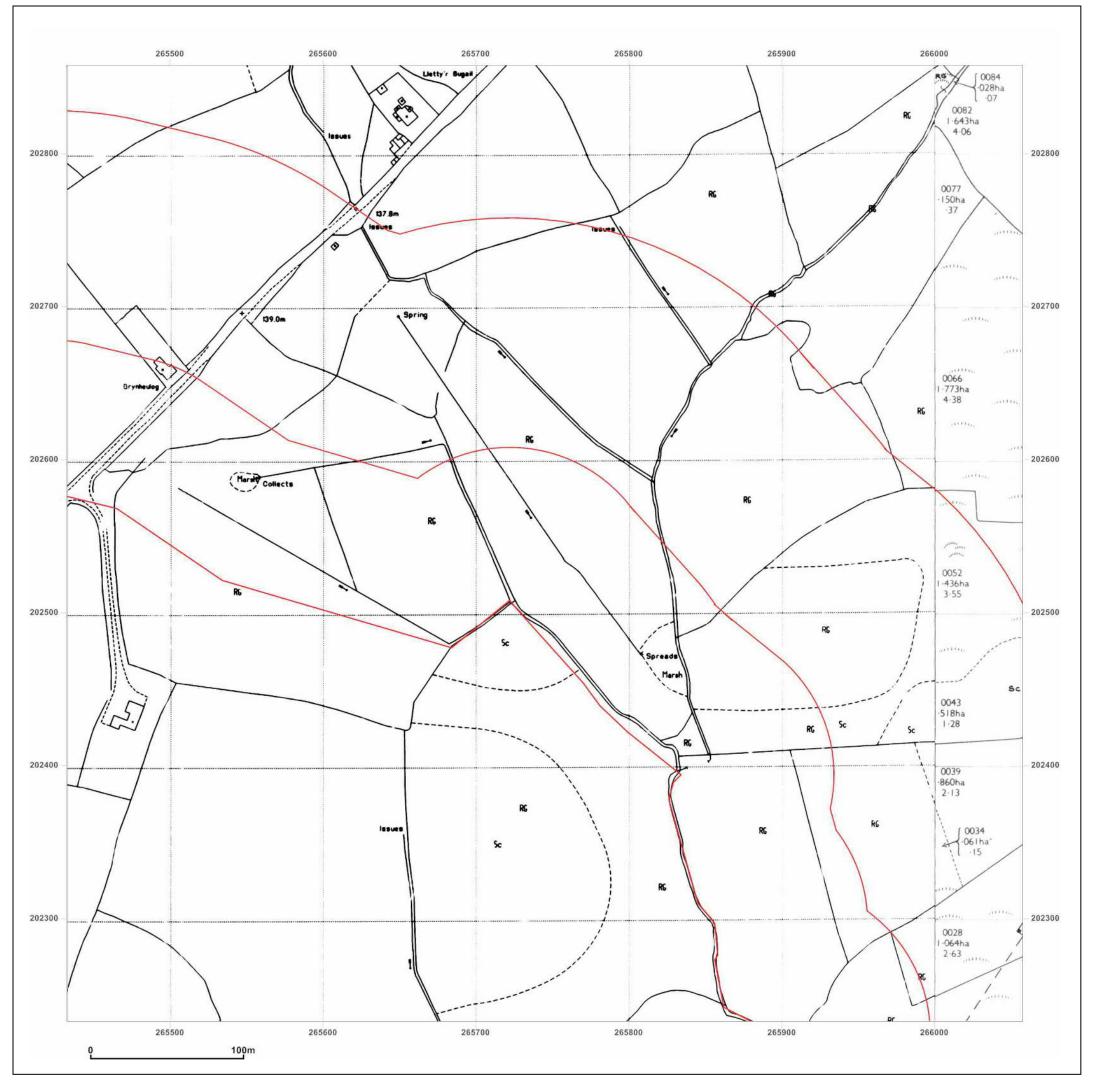
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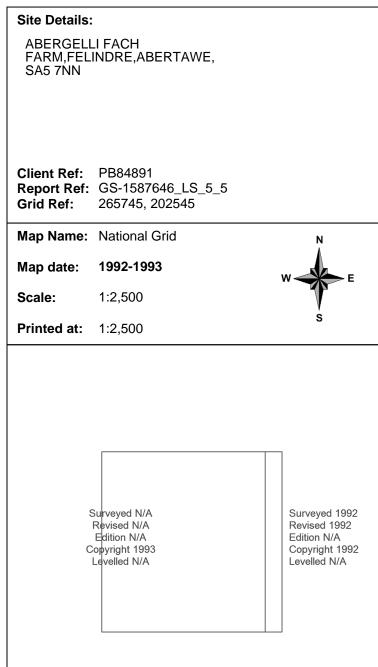
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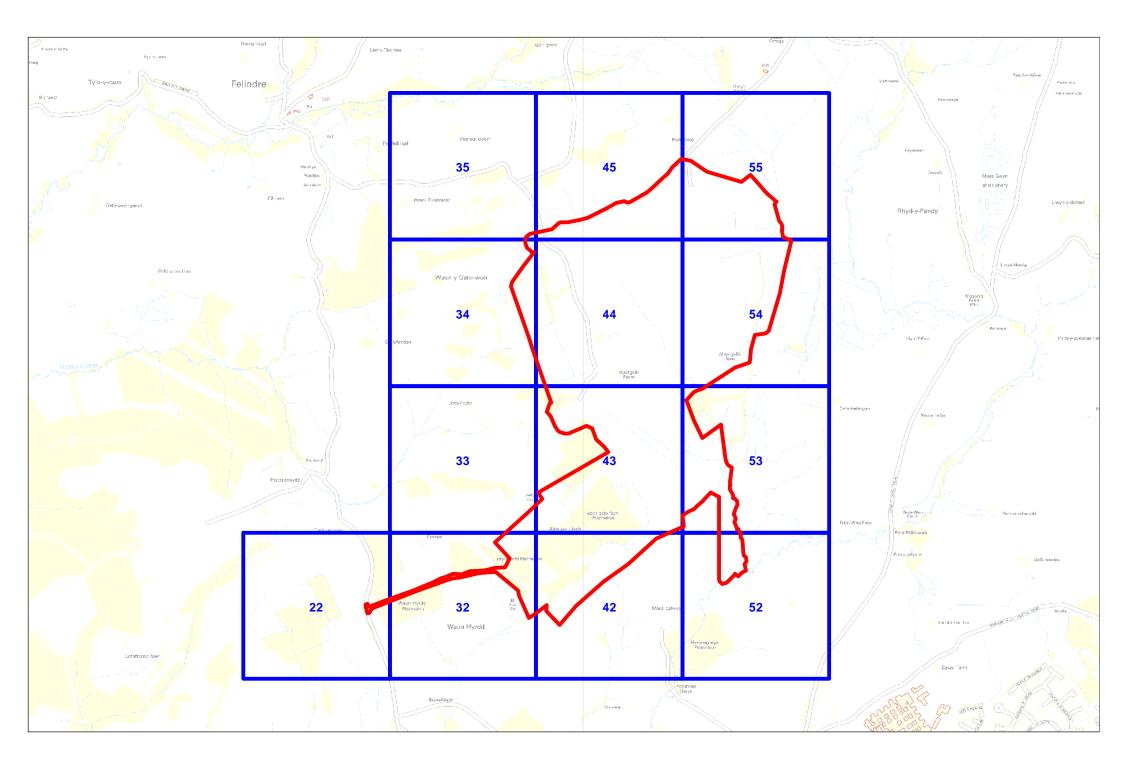
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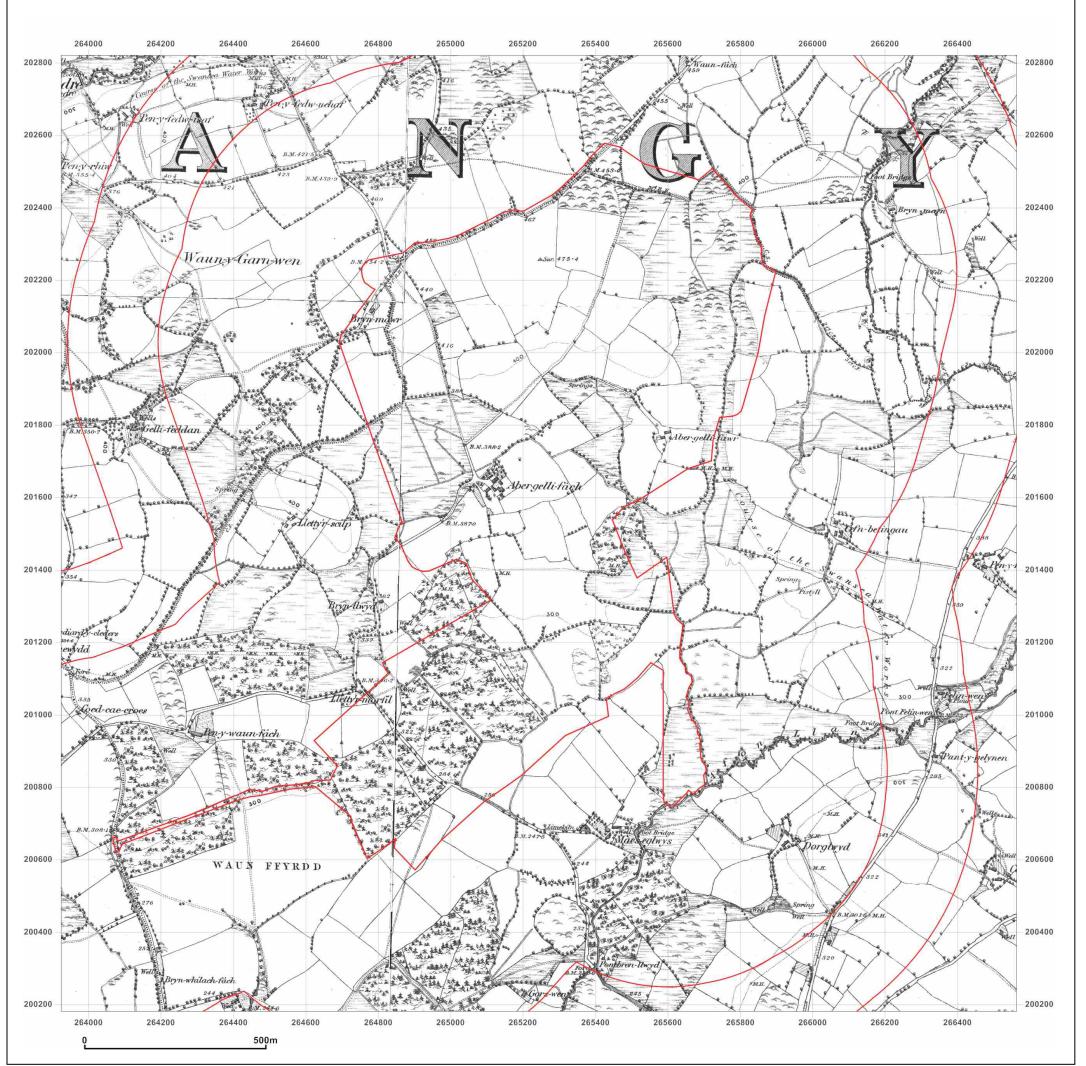
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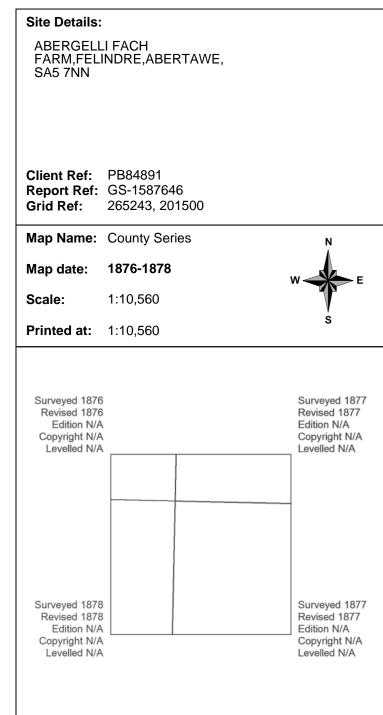


APPENDIX A

**GROUNDSURE REPORTS** 









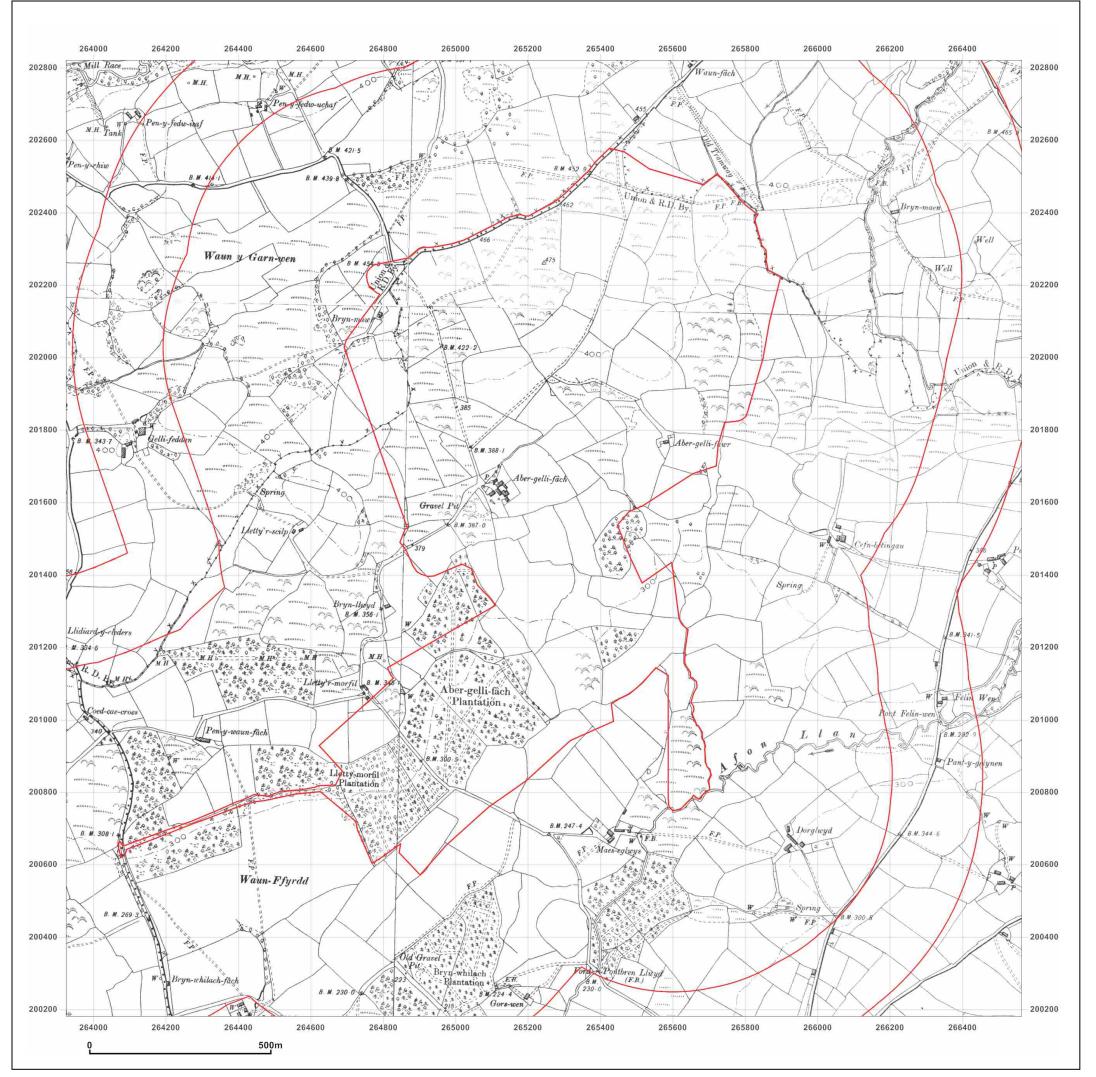
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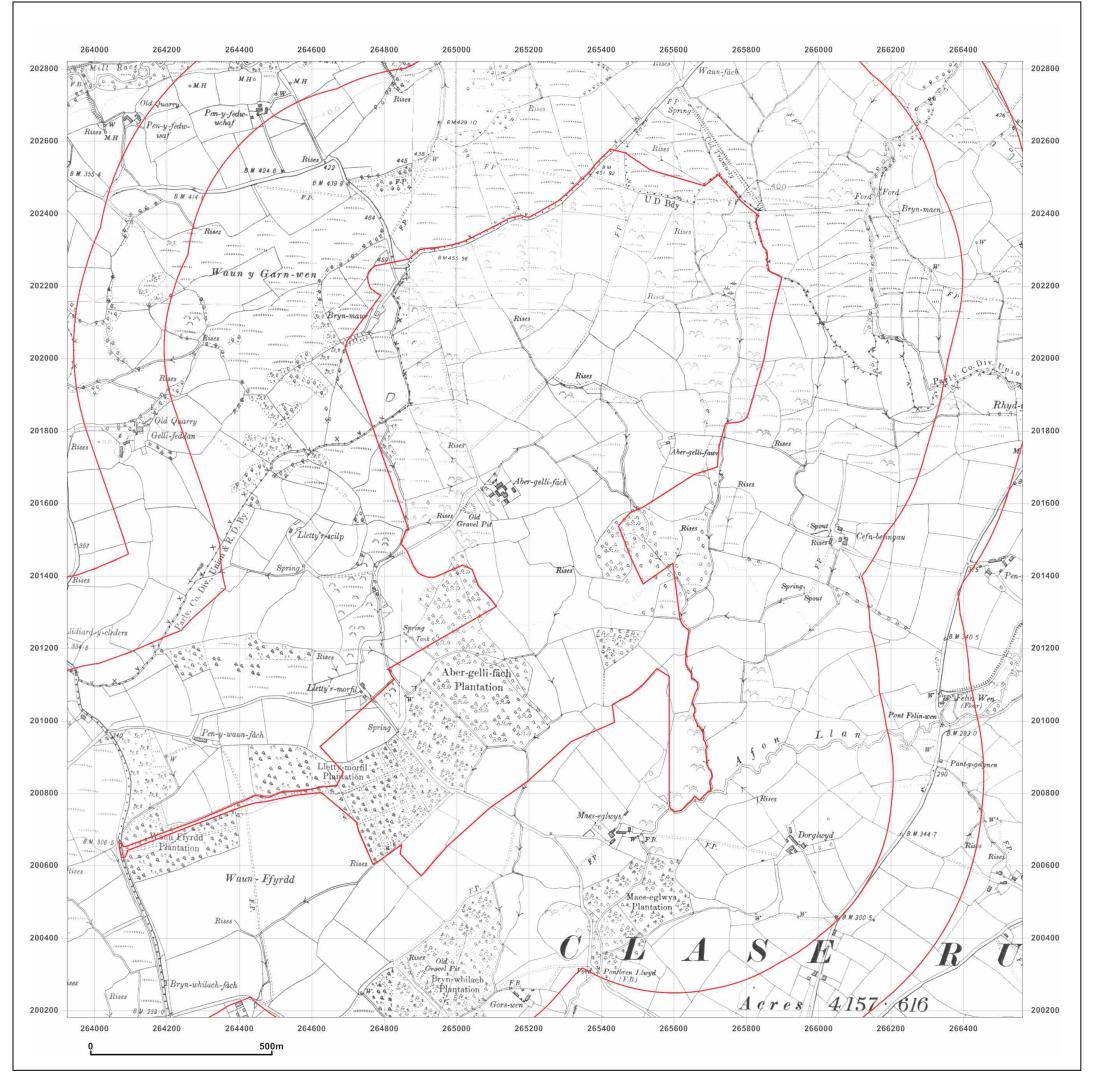
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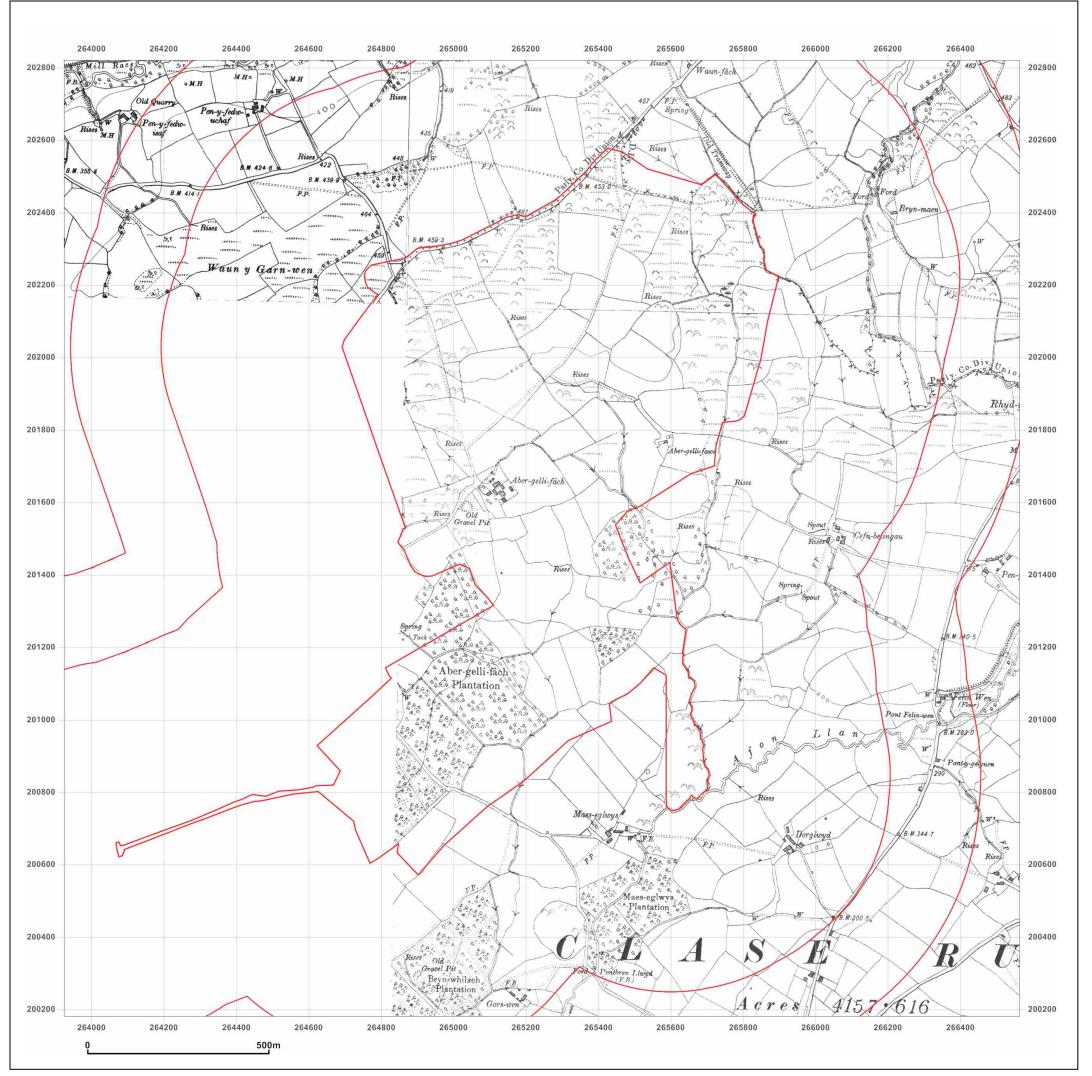
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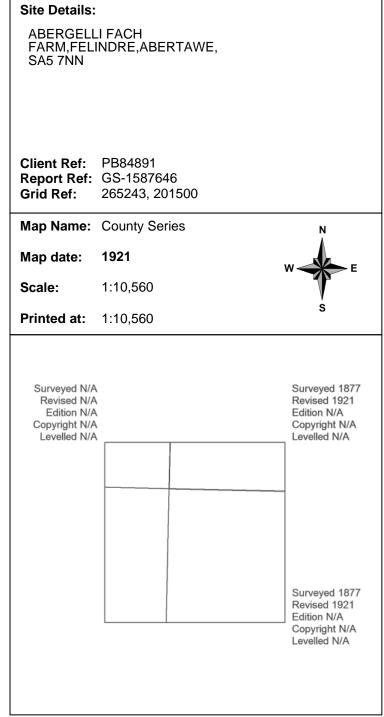
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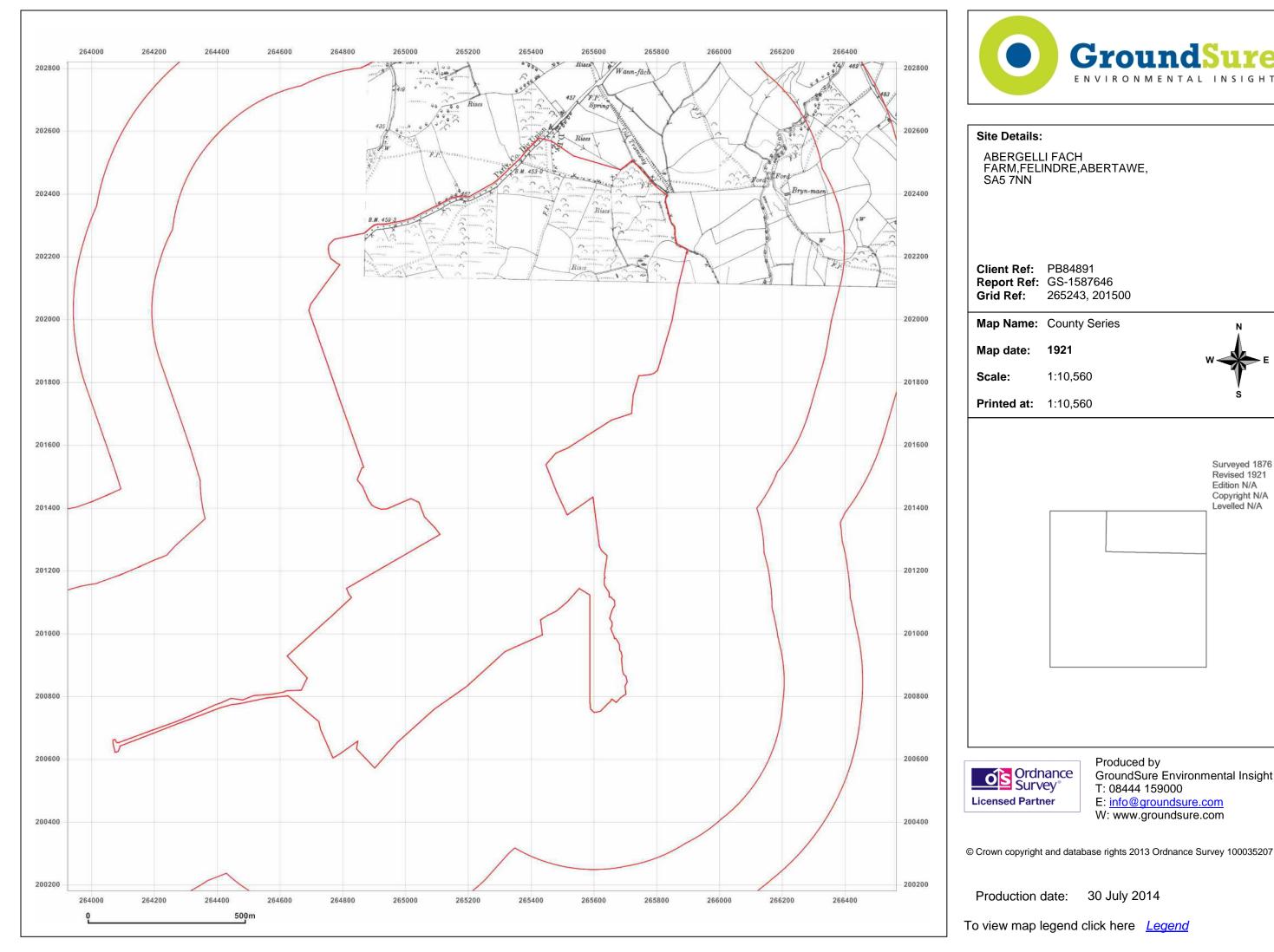
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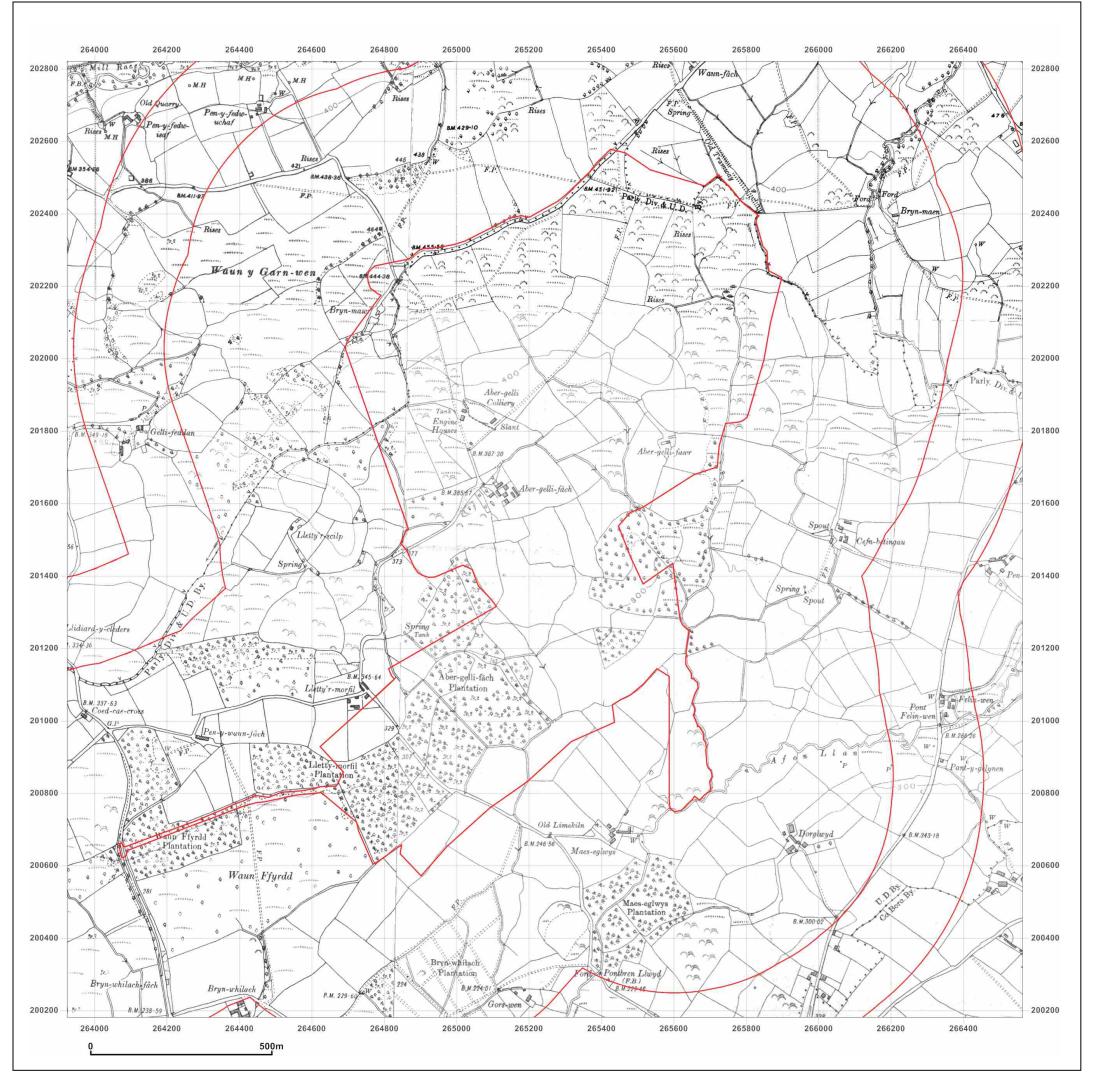
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E: info@groundsure.com W: www.groundsure.com

Production date: 30 July 2014





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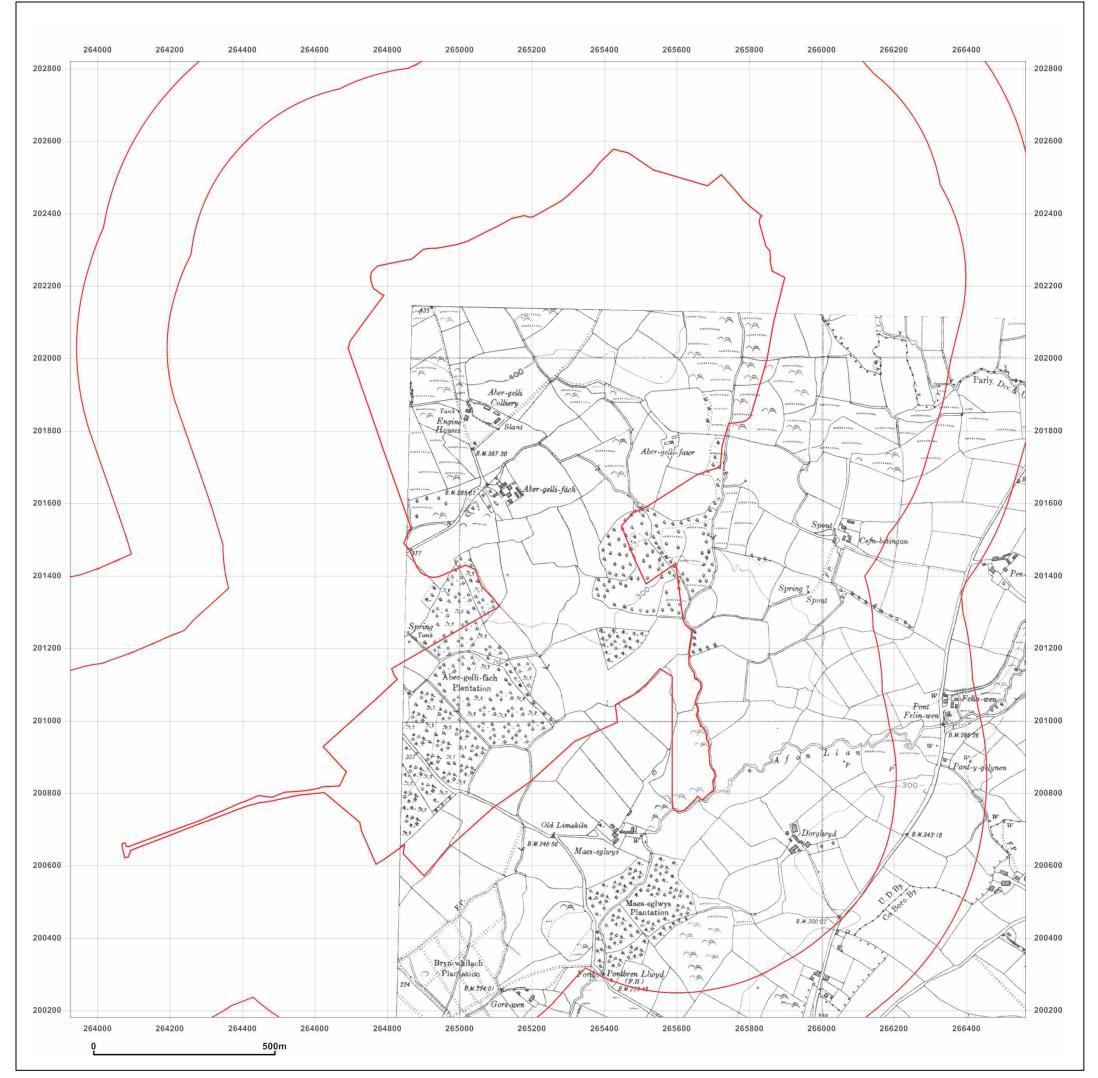
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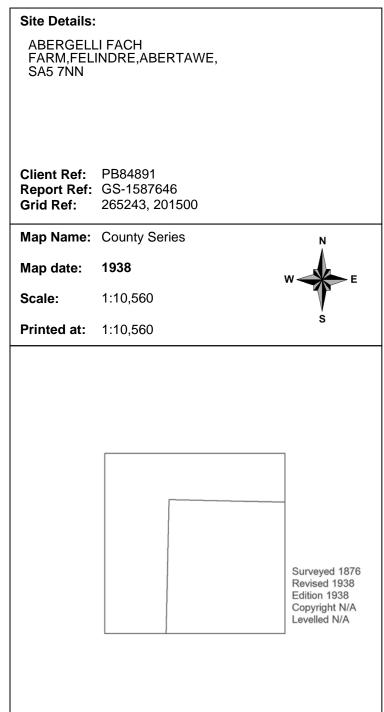
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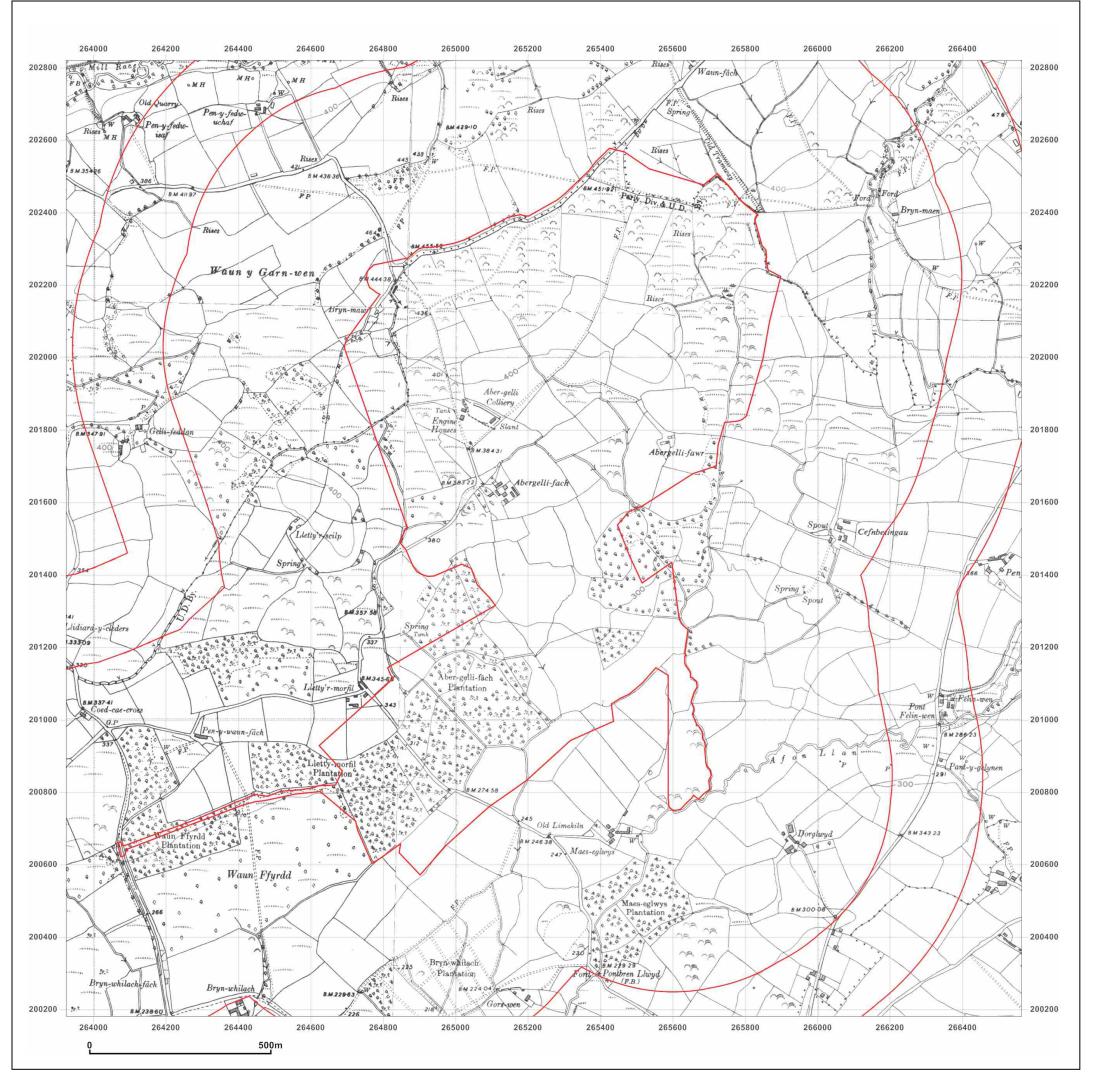
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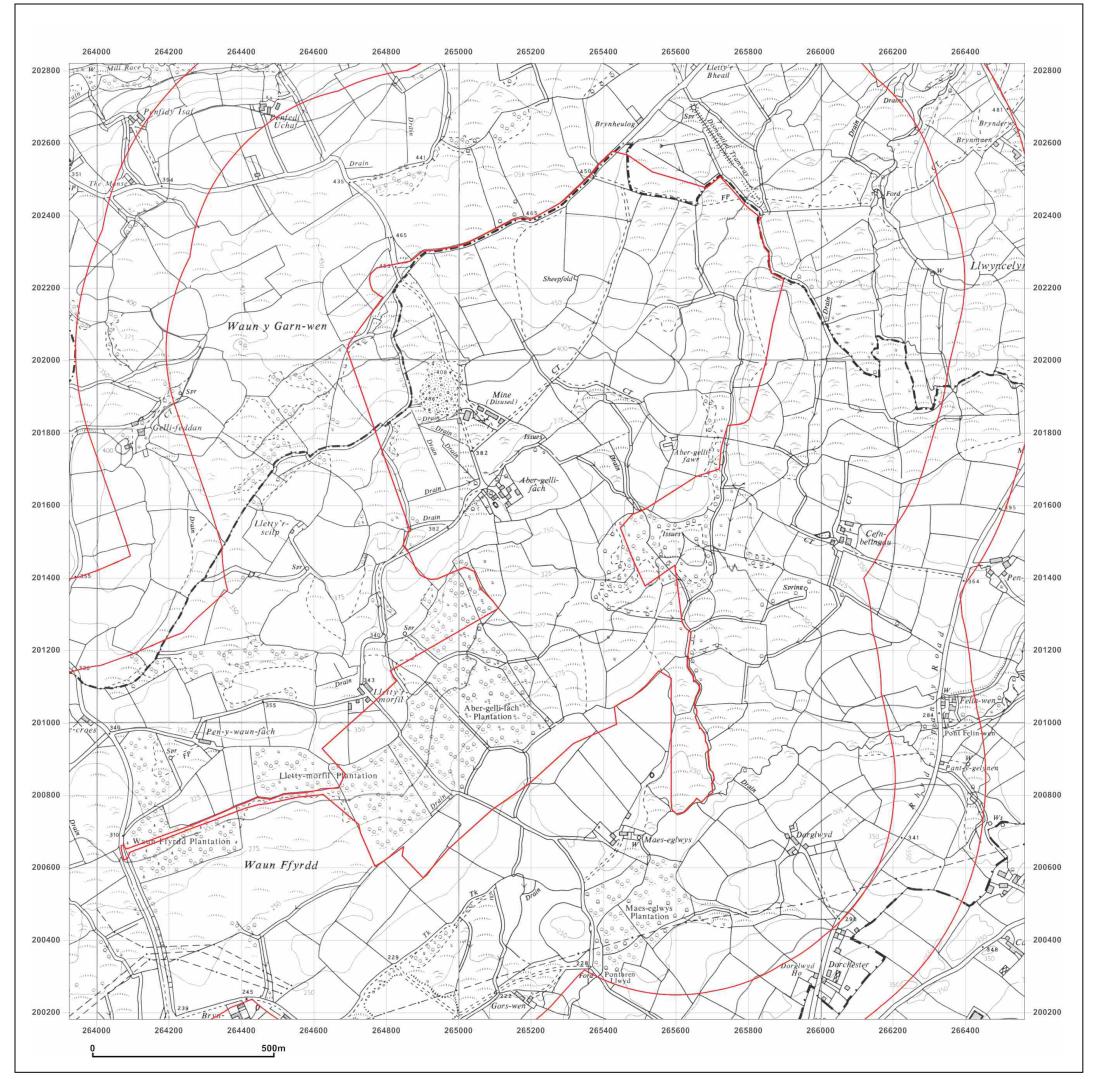
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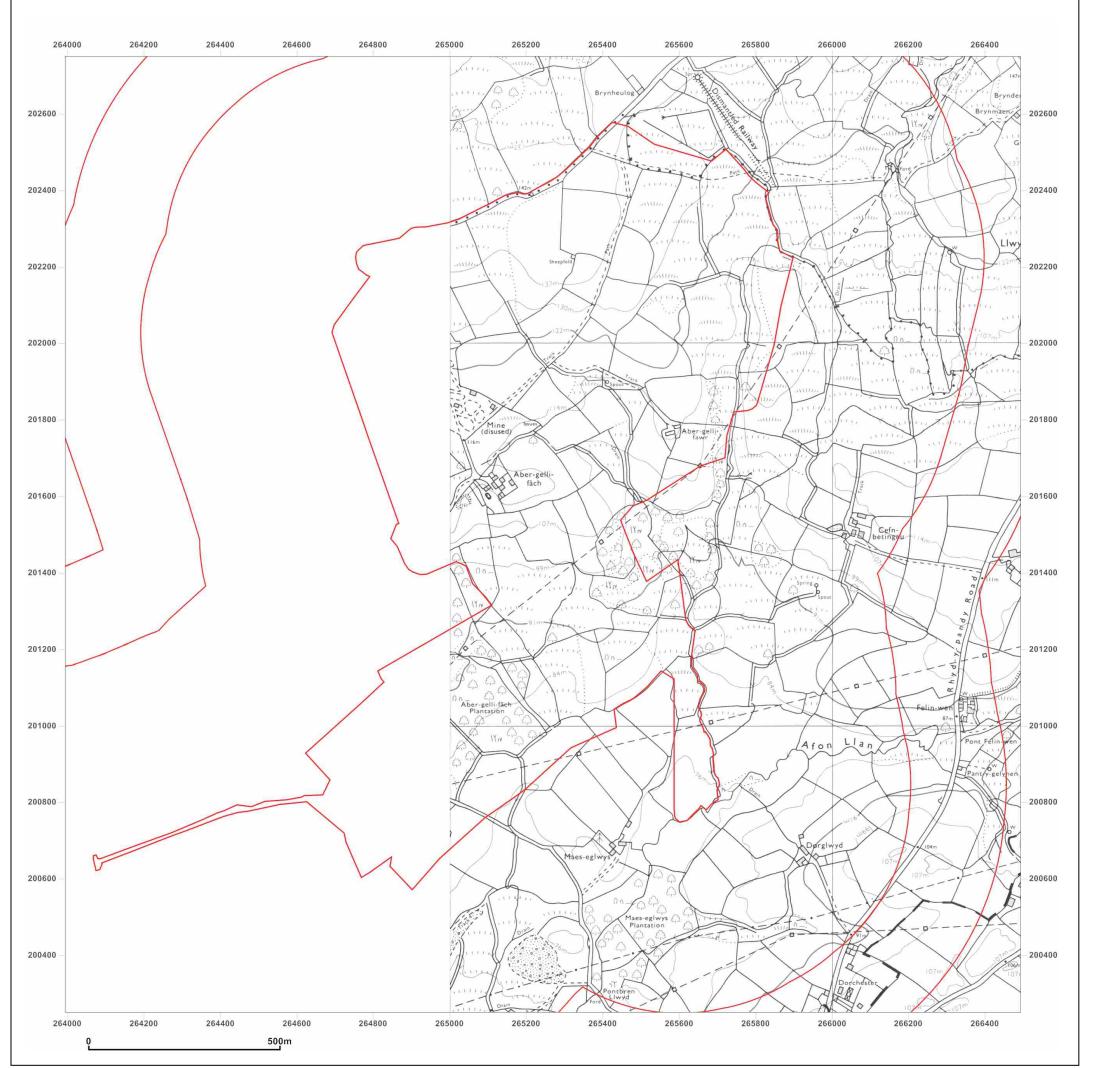


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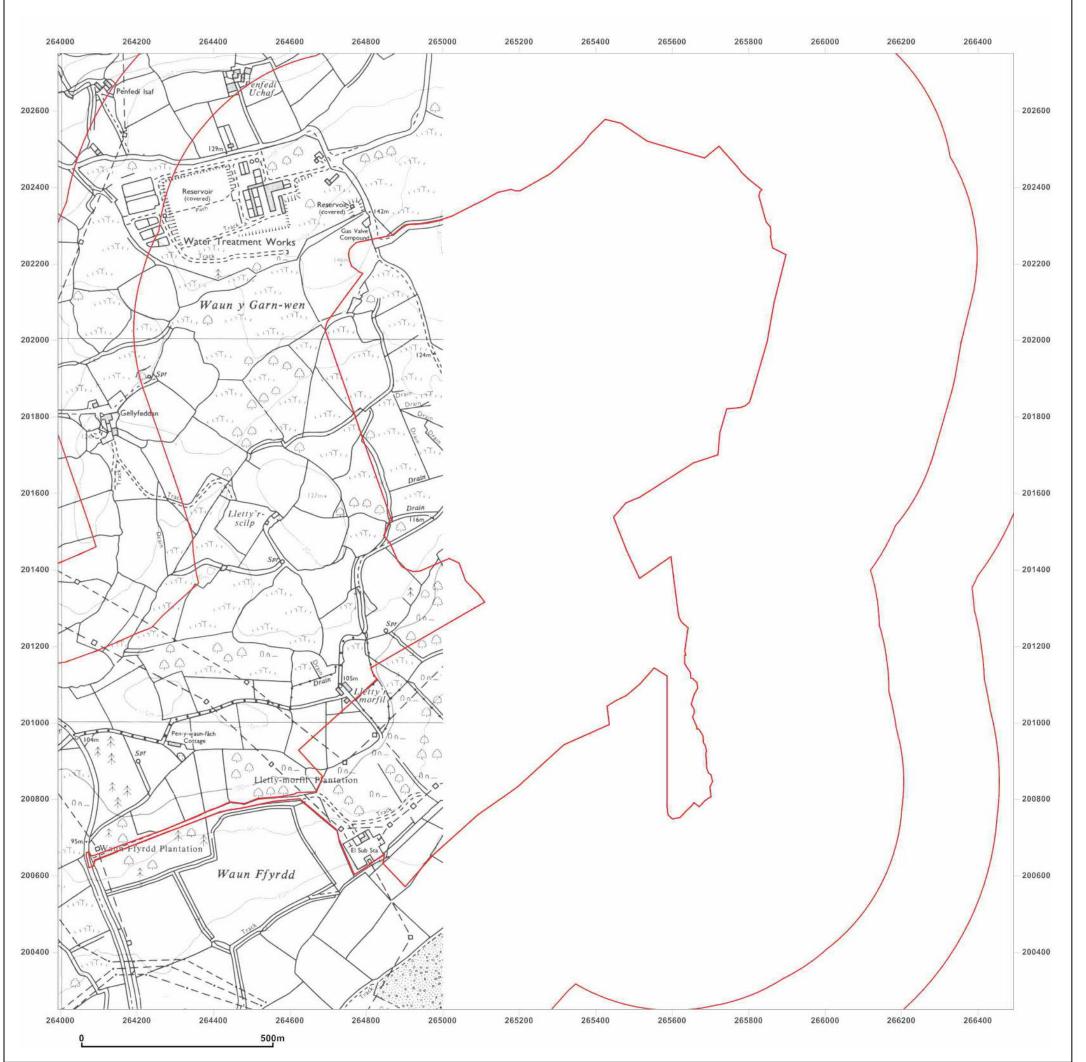


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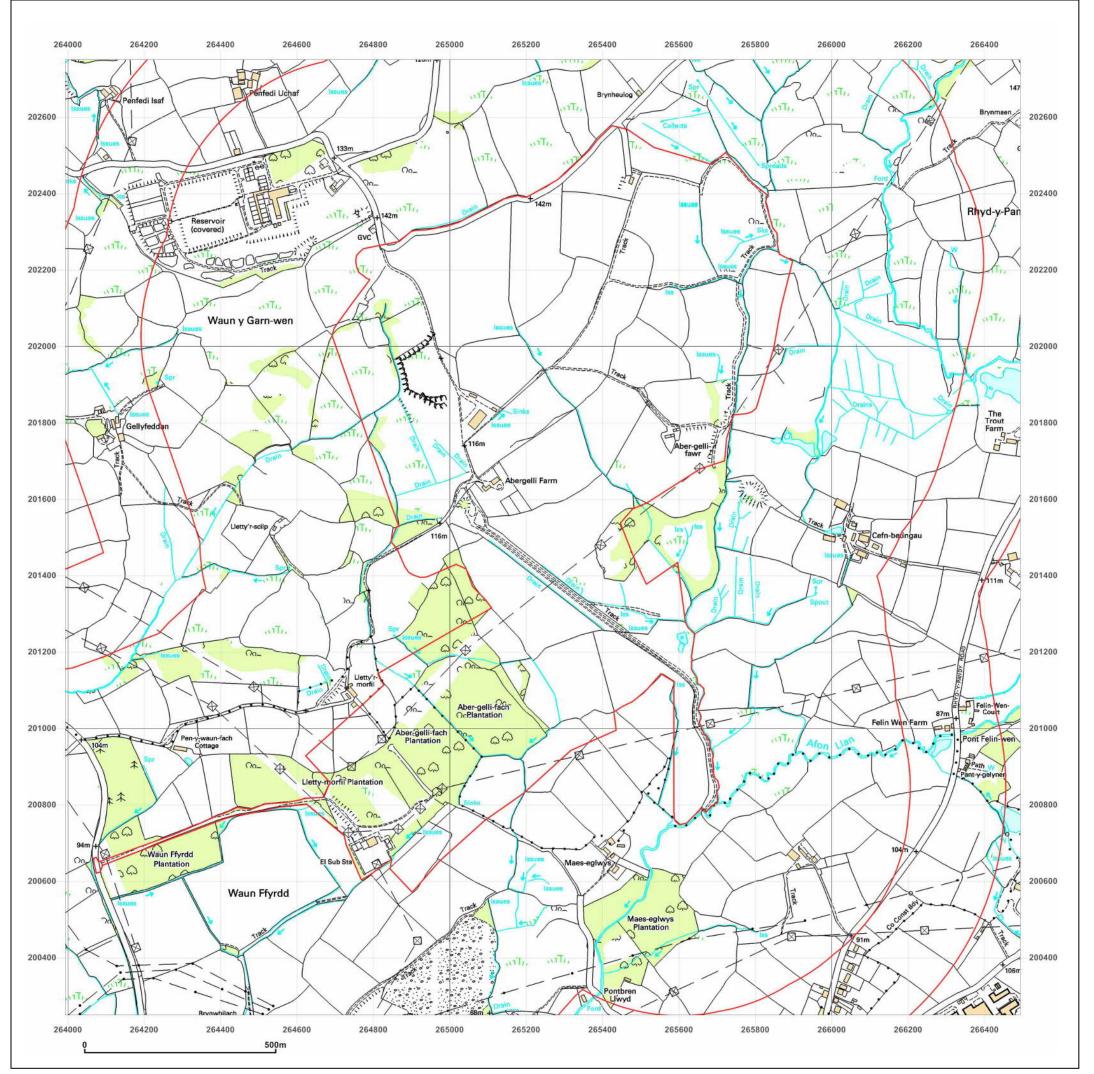
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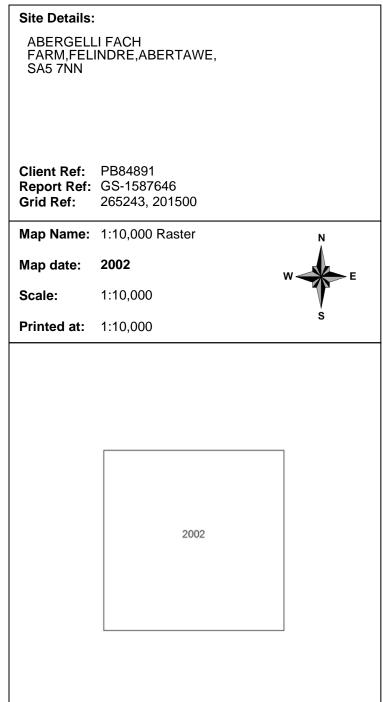
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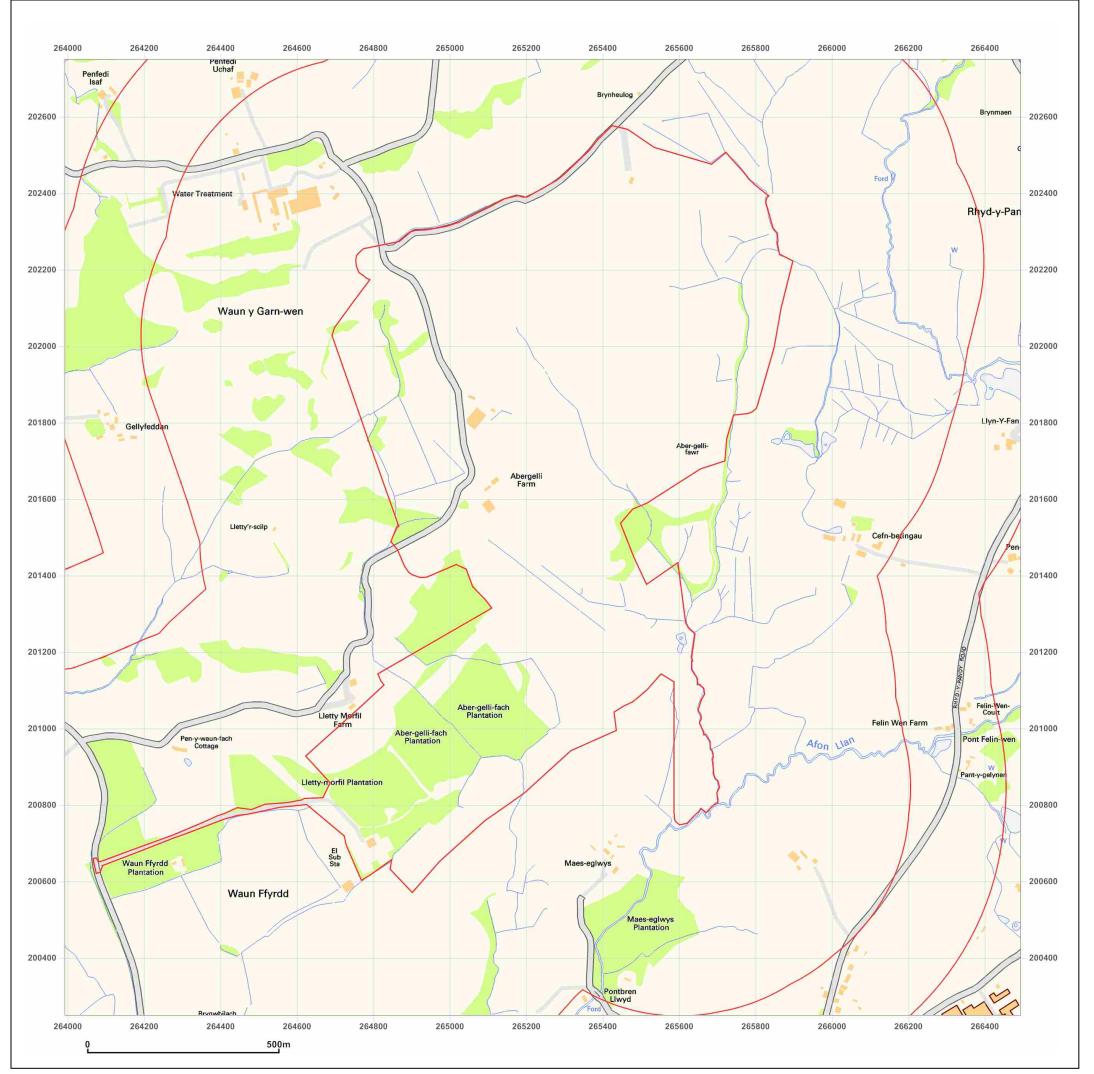
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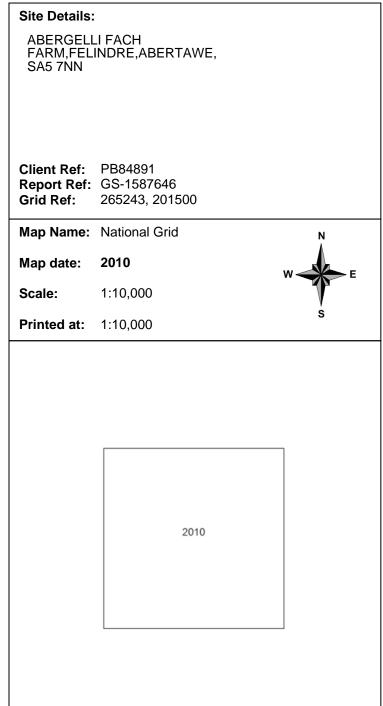
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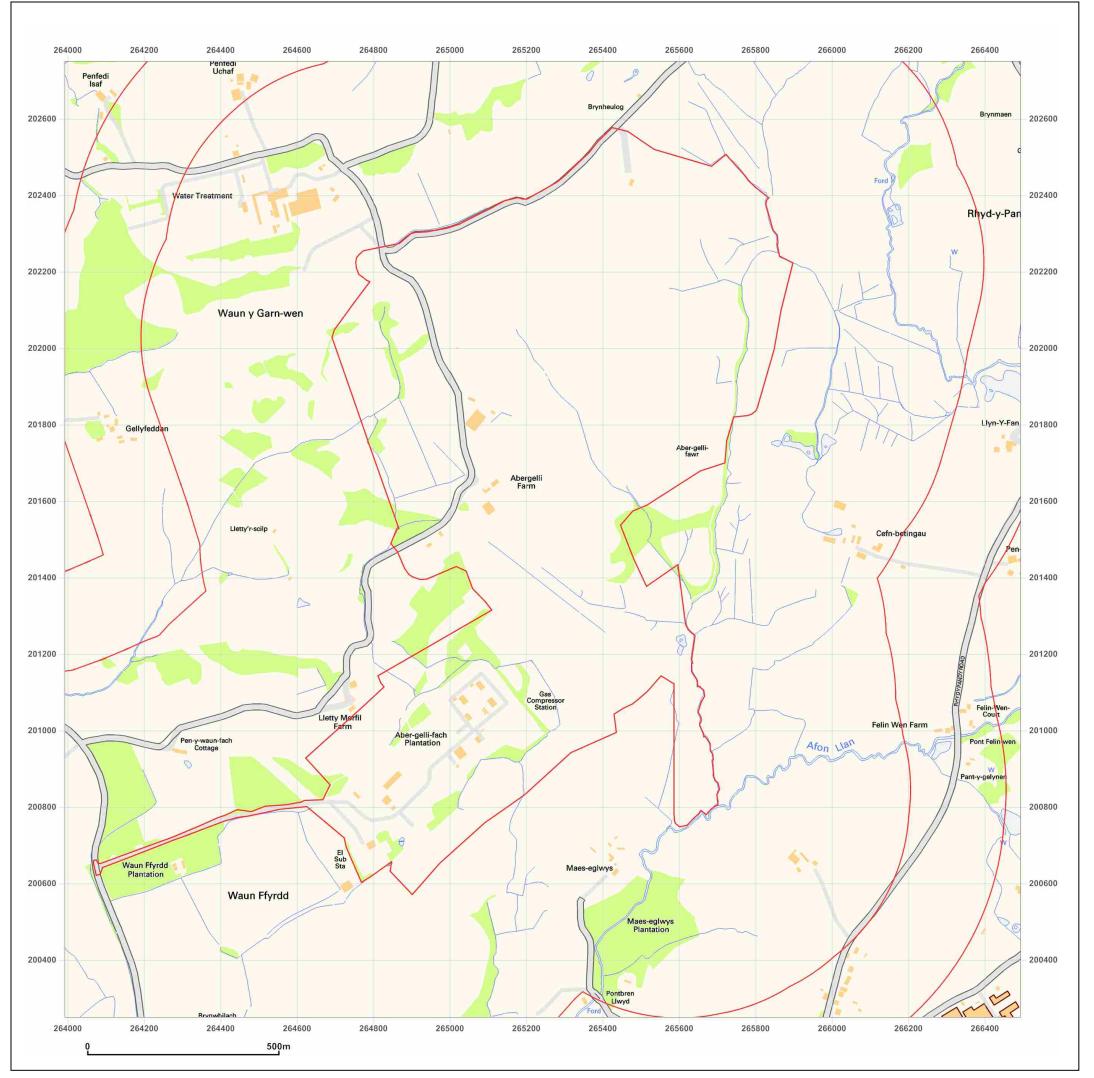
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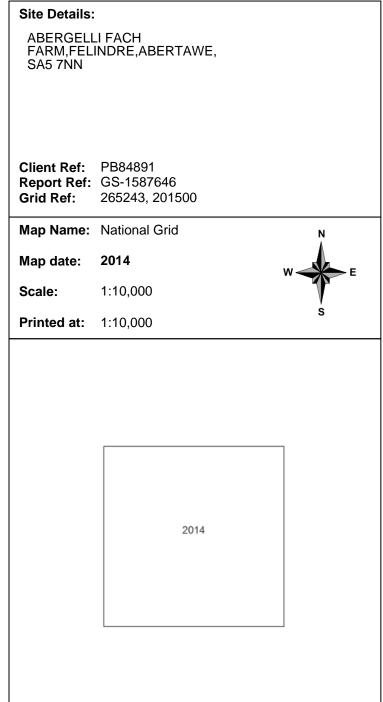
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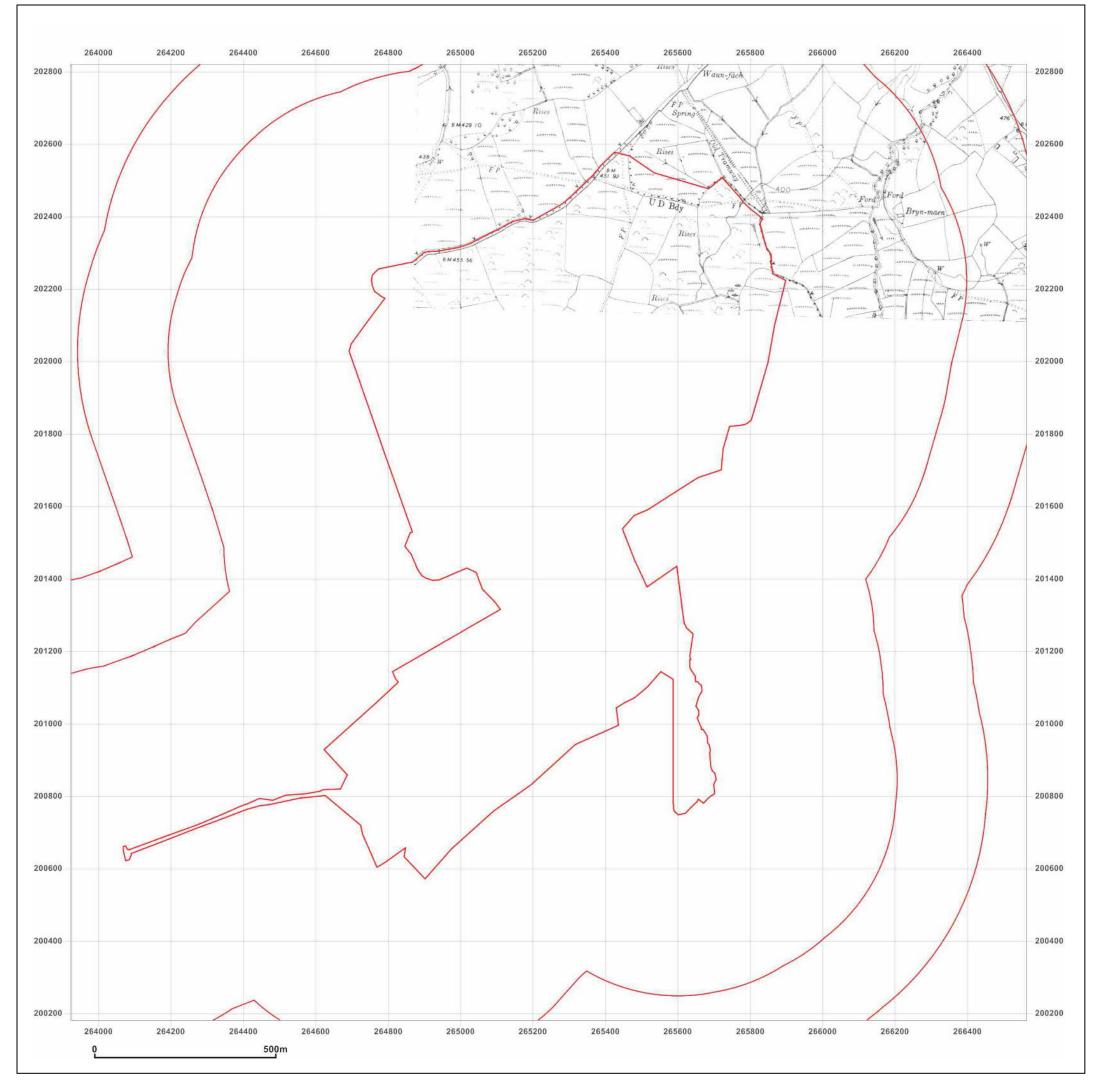
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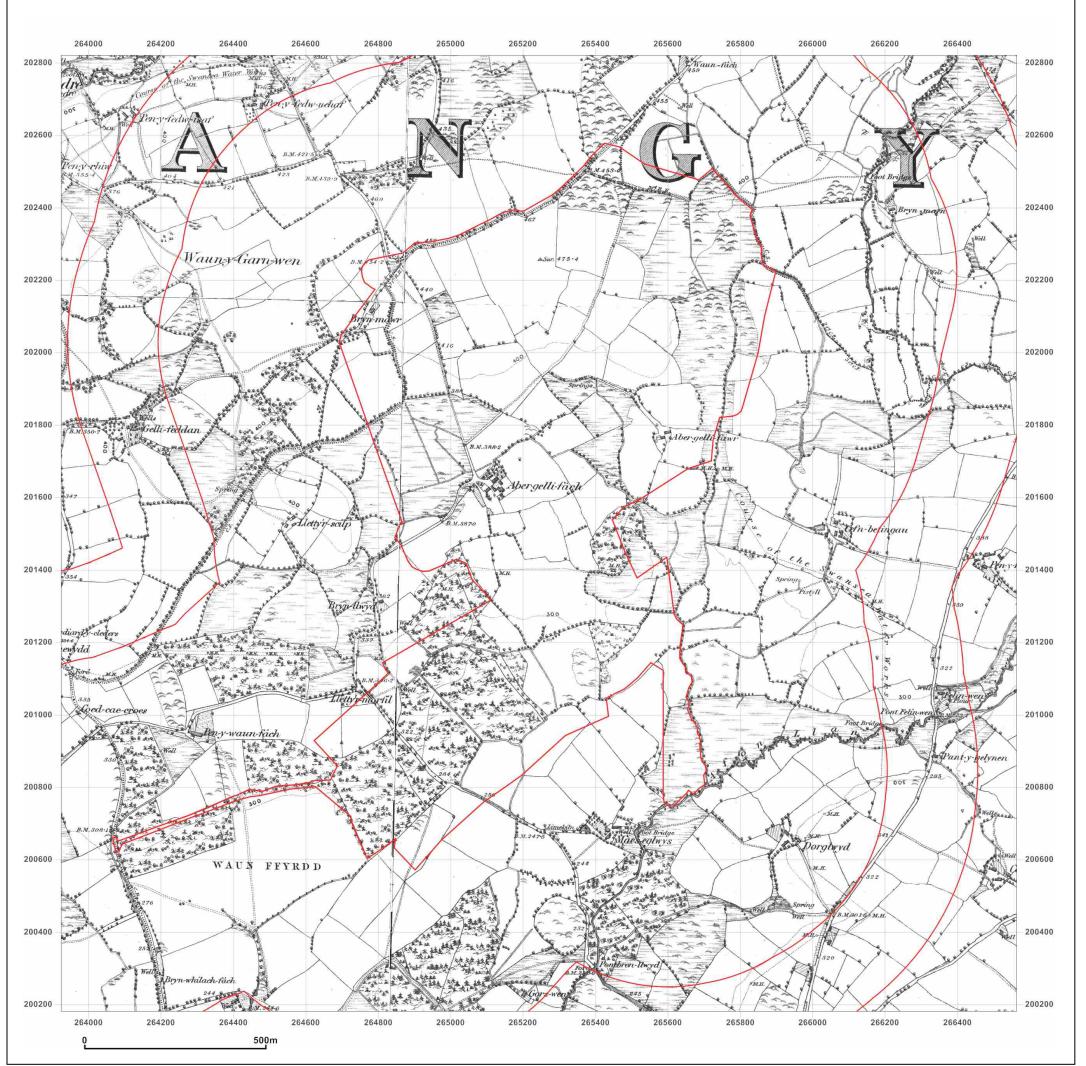


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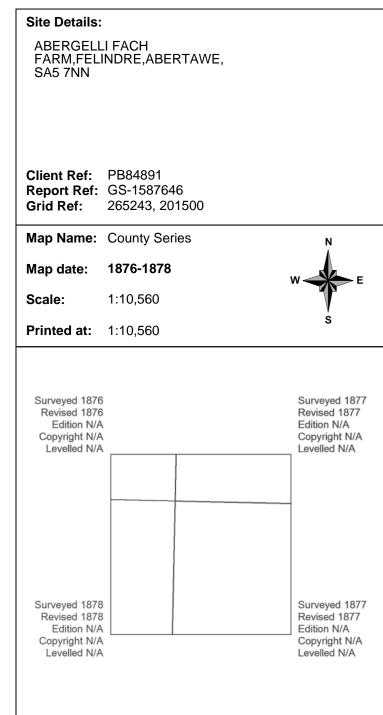
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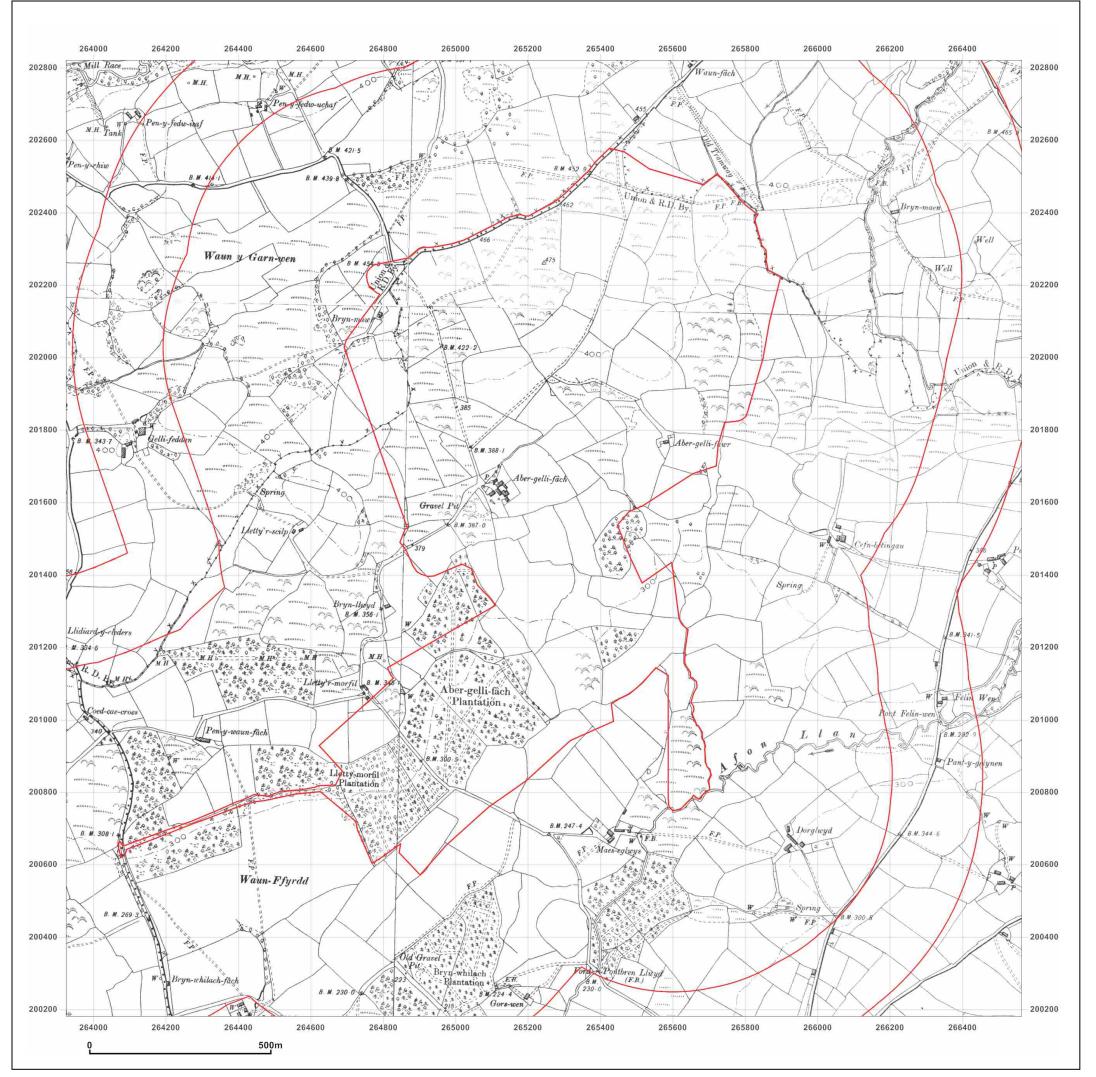
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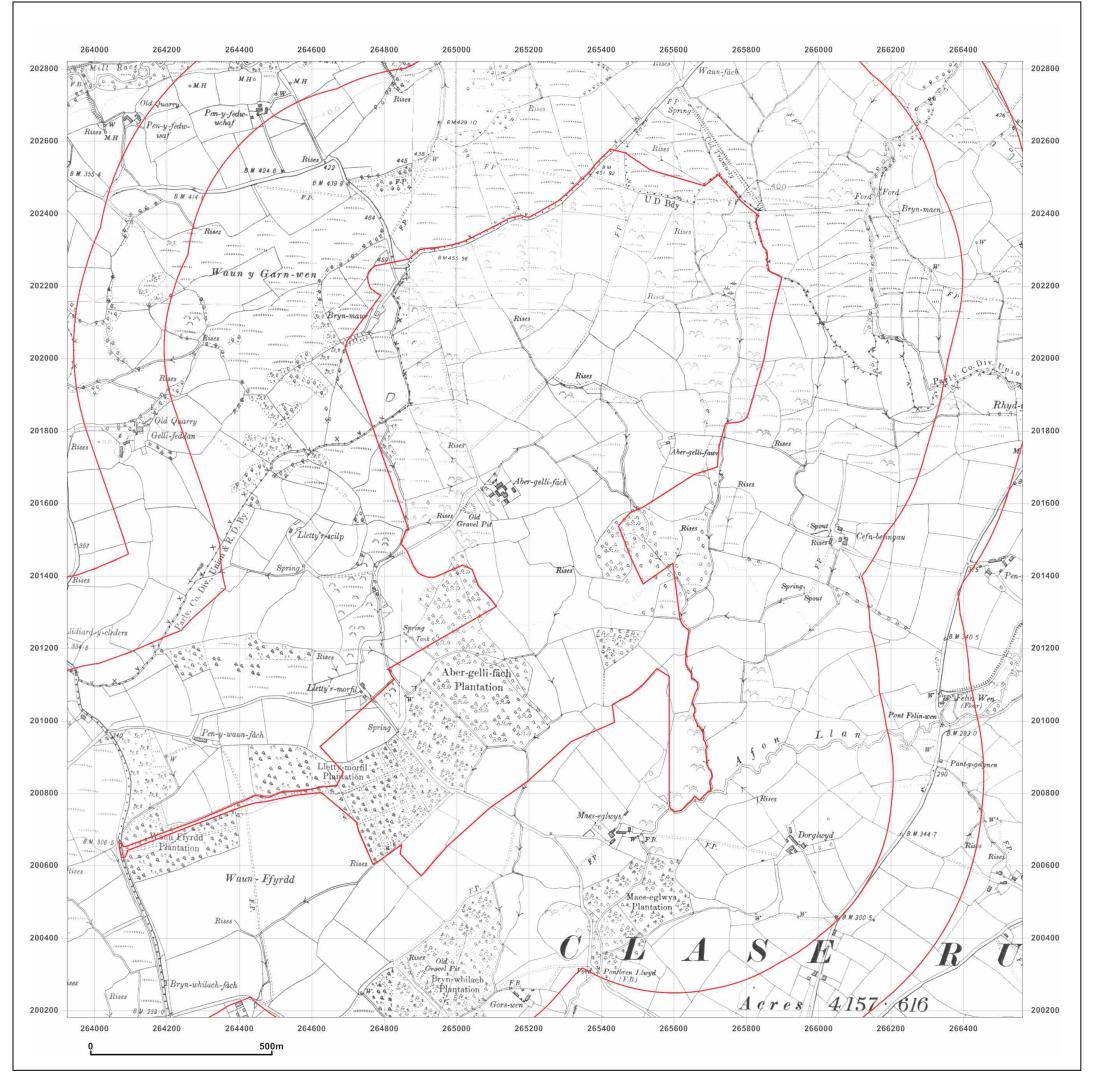
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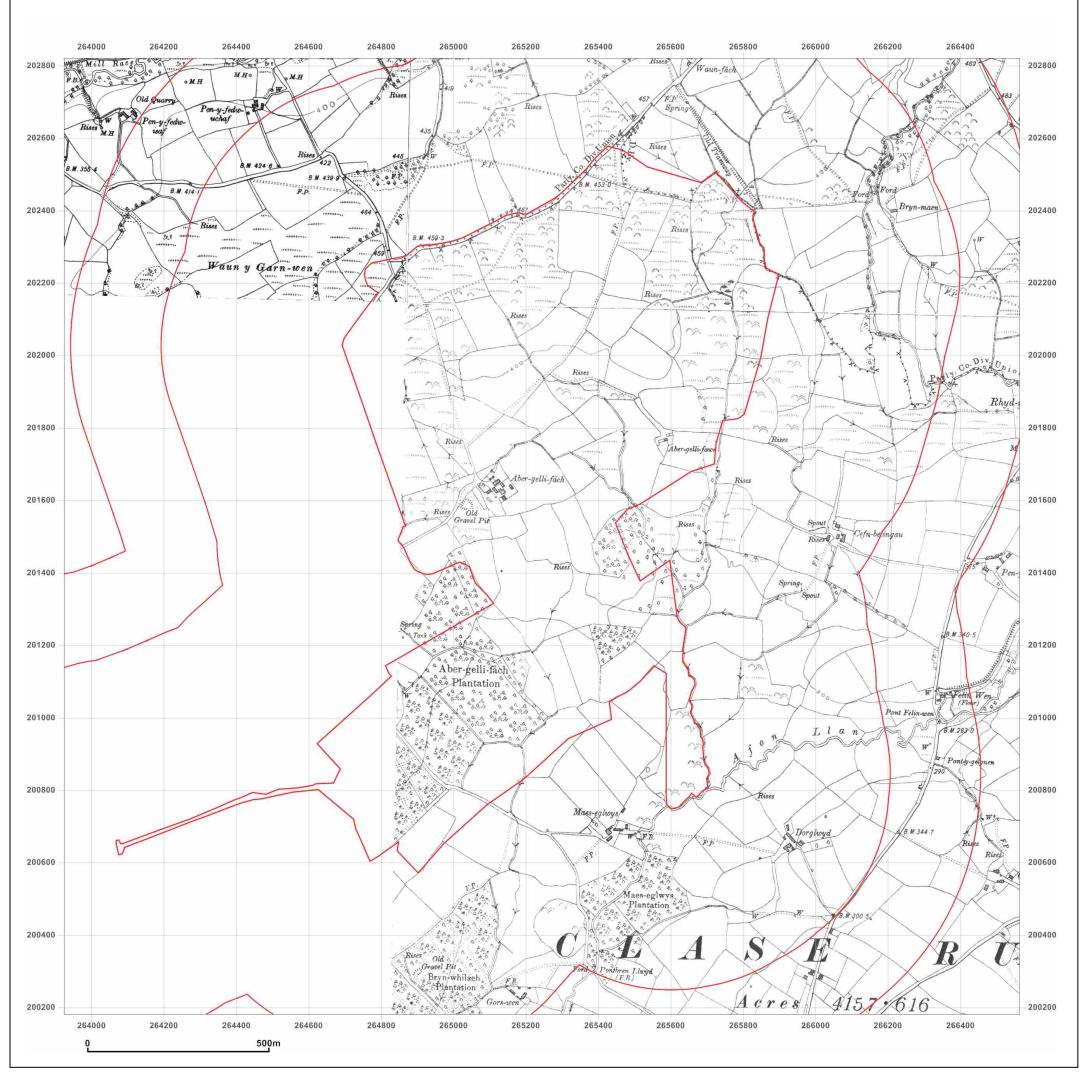
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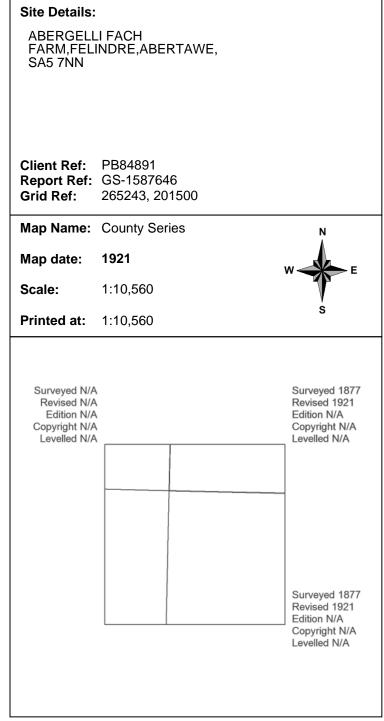
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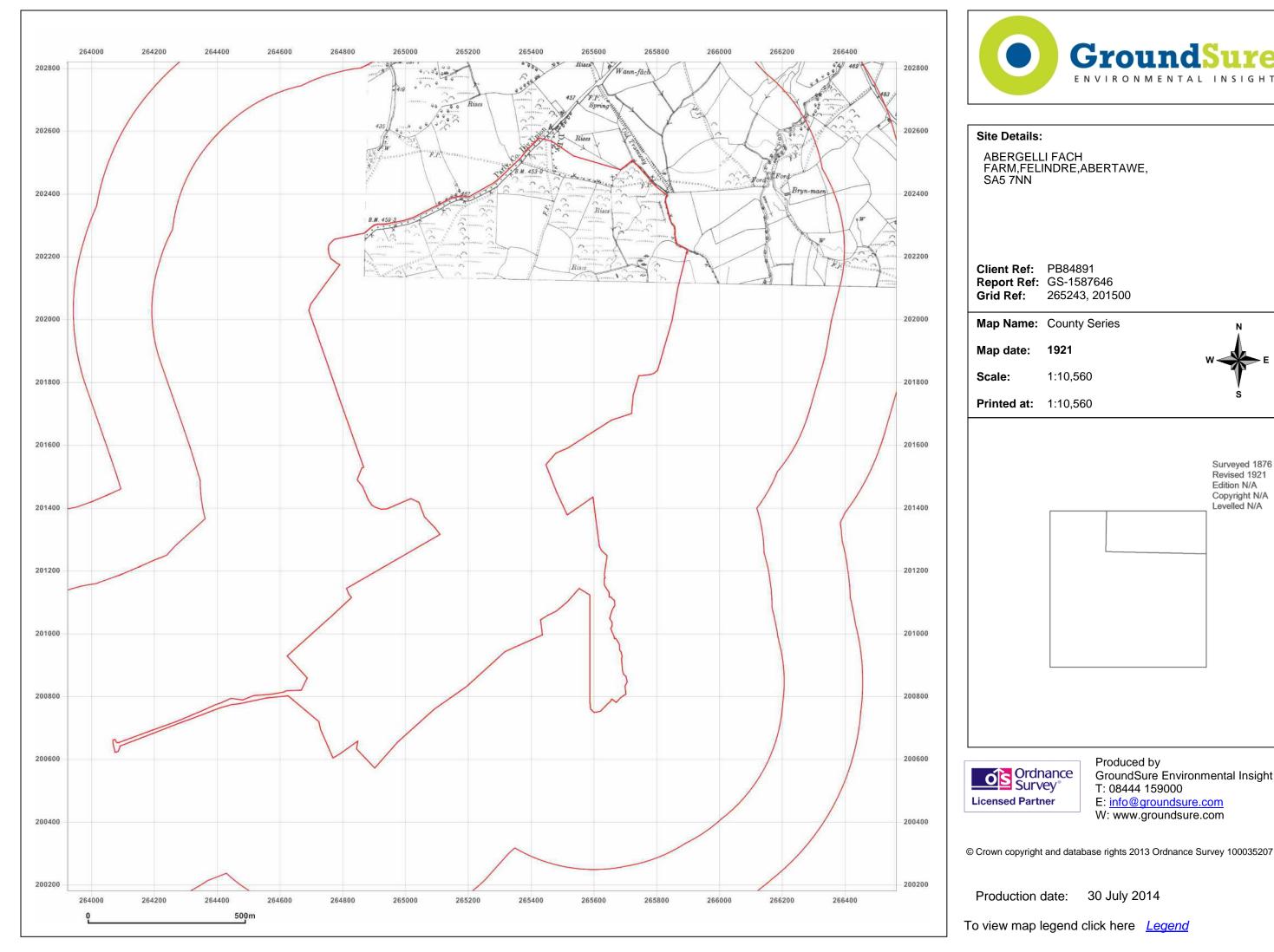
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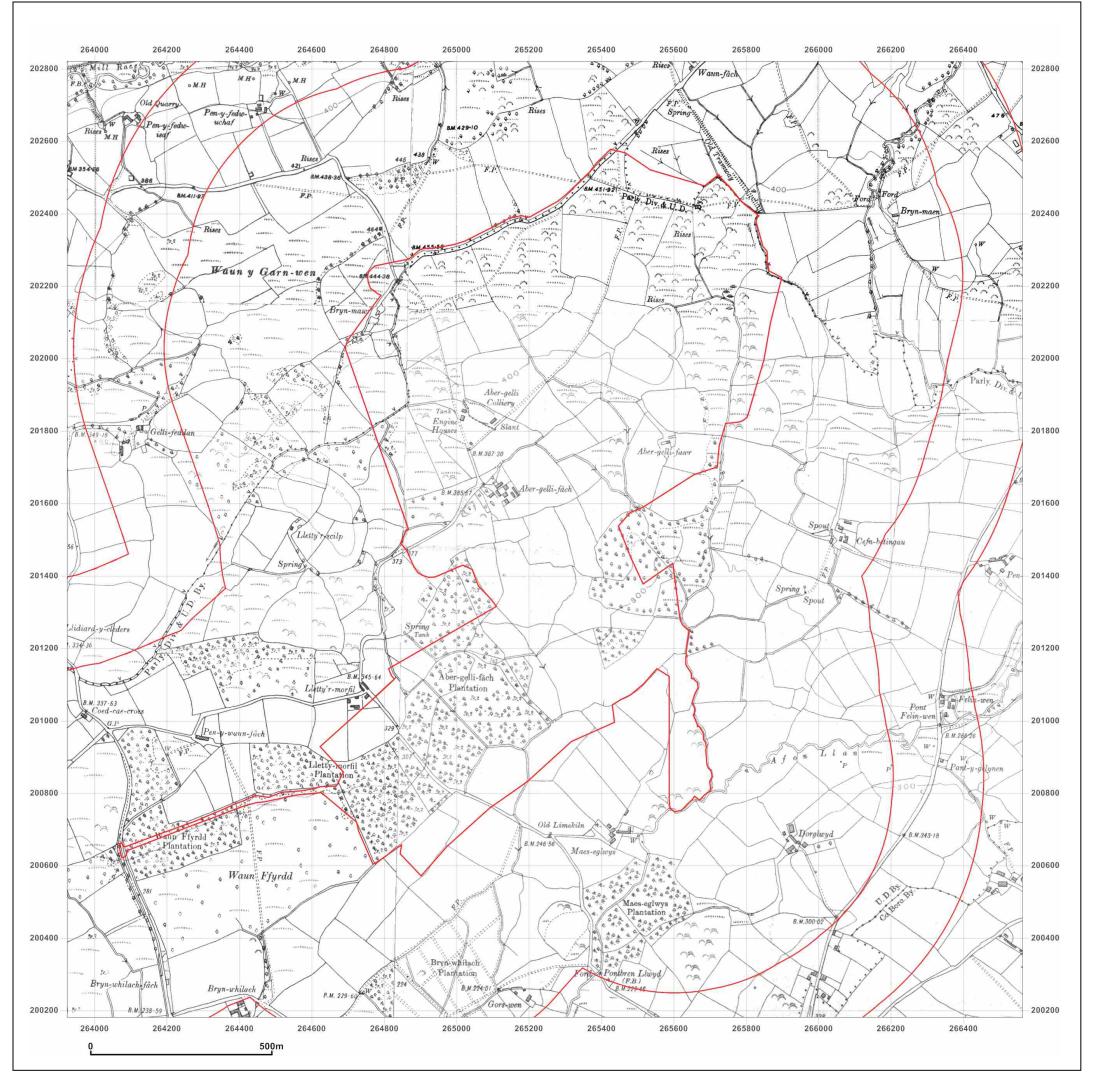
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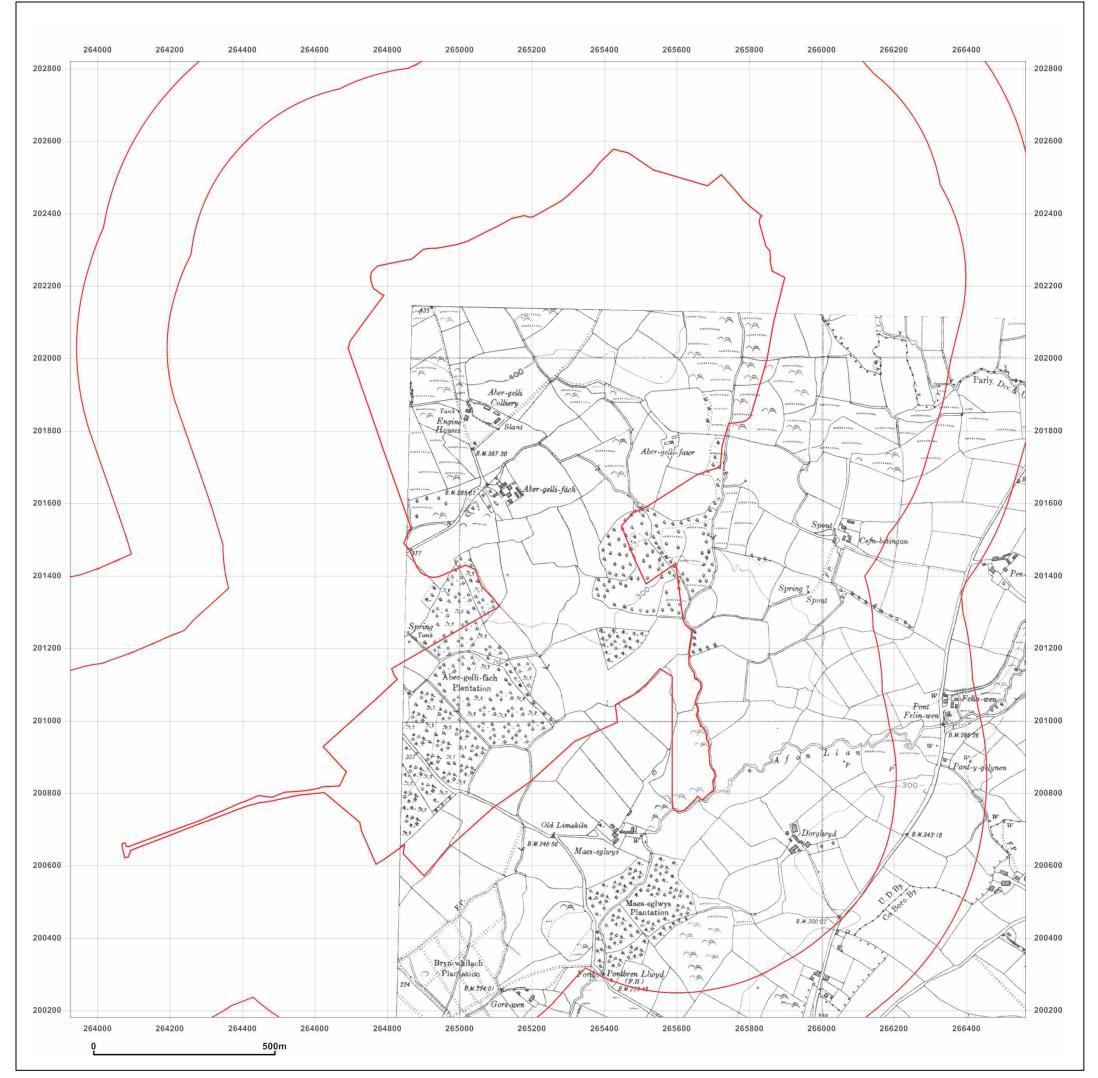
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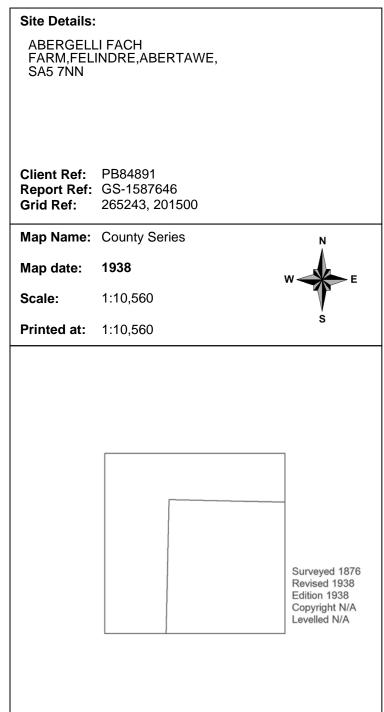
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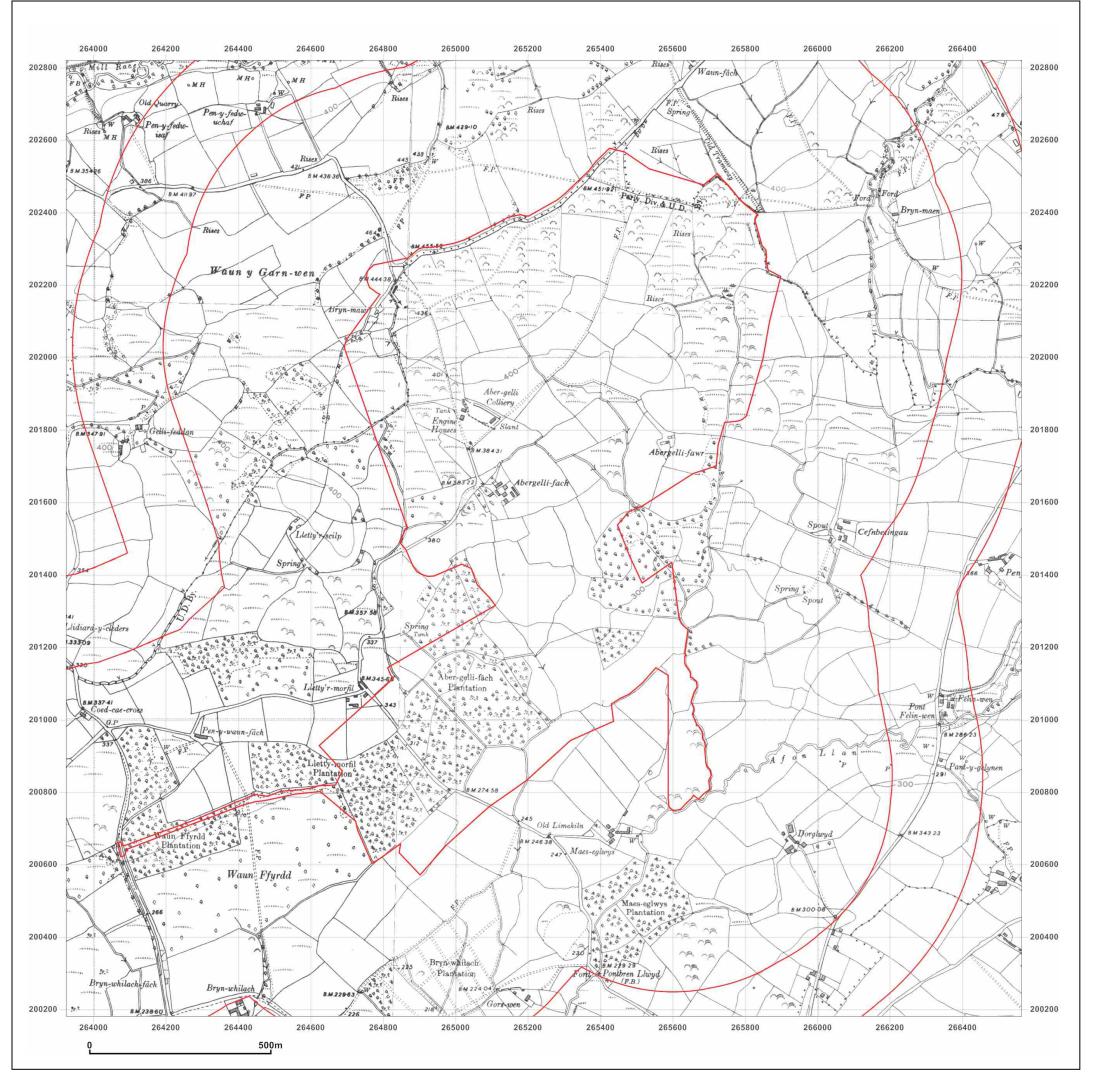
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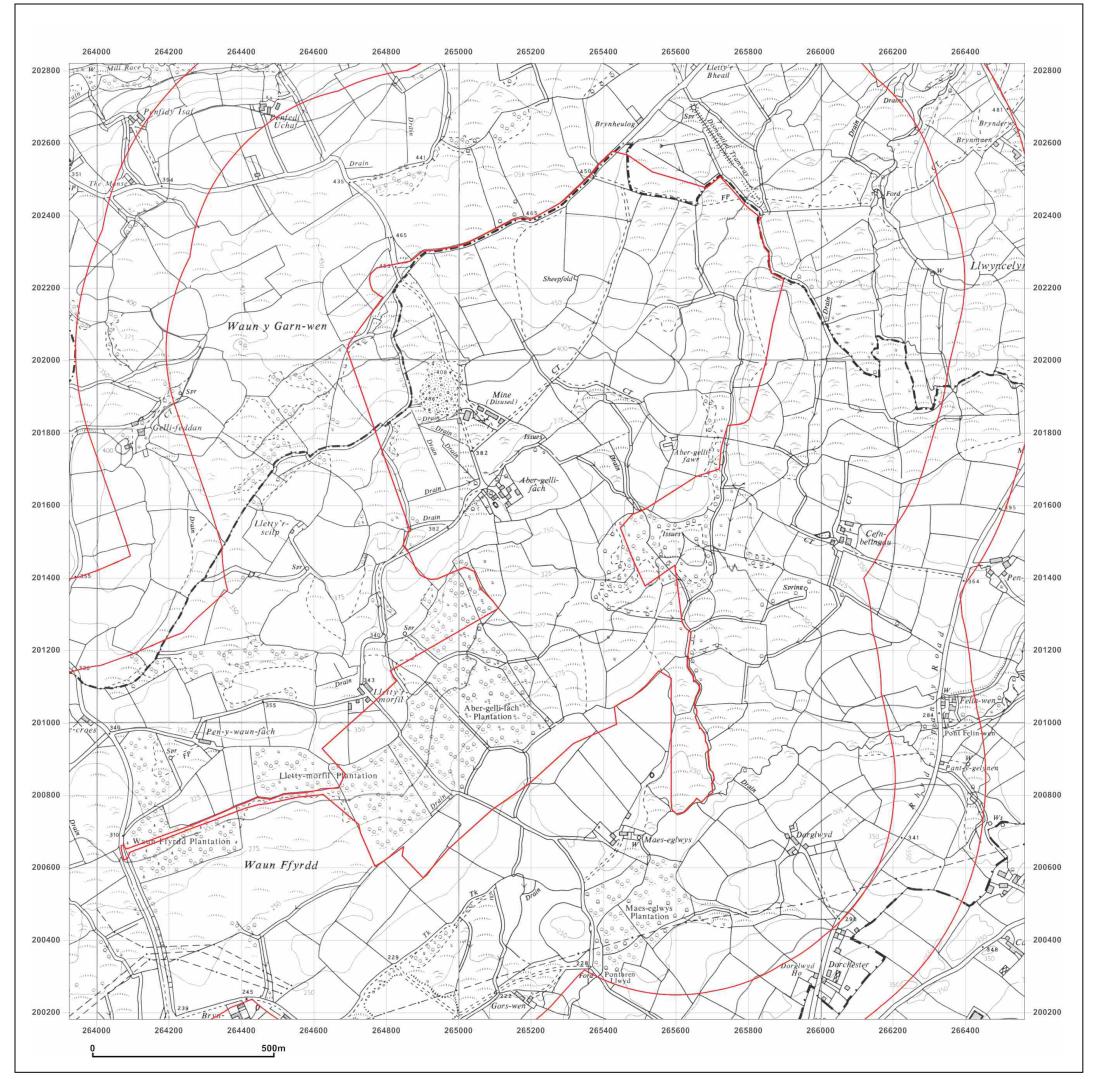
GroundSure Environmental Insight

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E: <a href="mailto:info@groundsure.com">info@groundsure.com</a>
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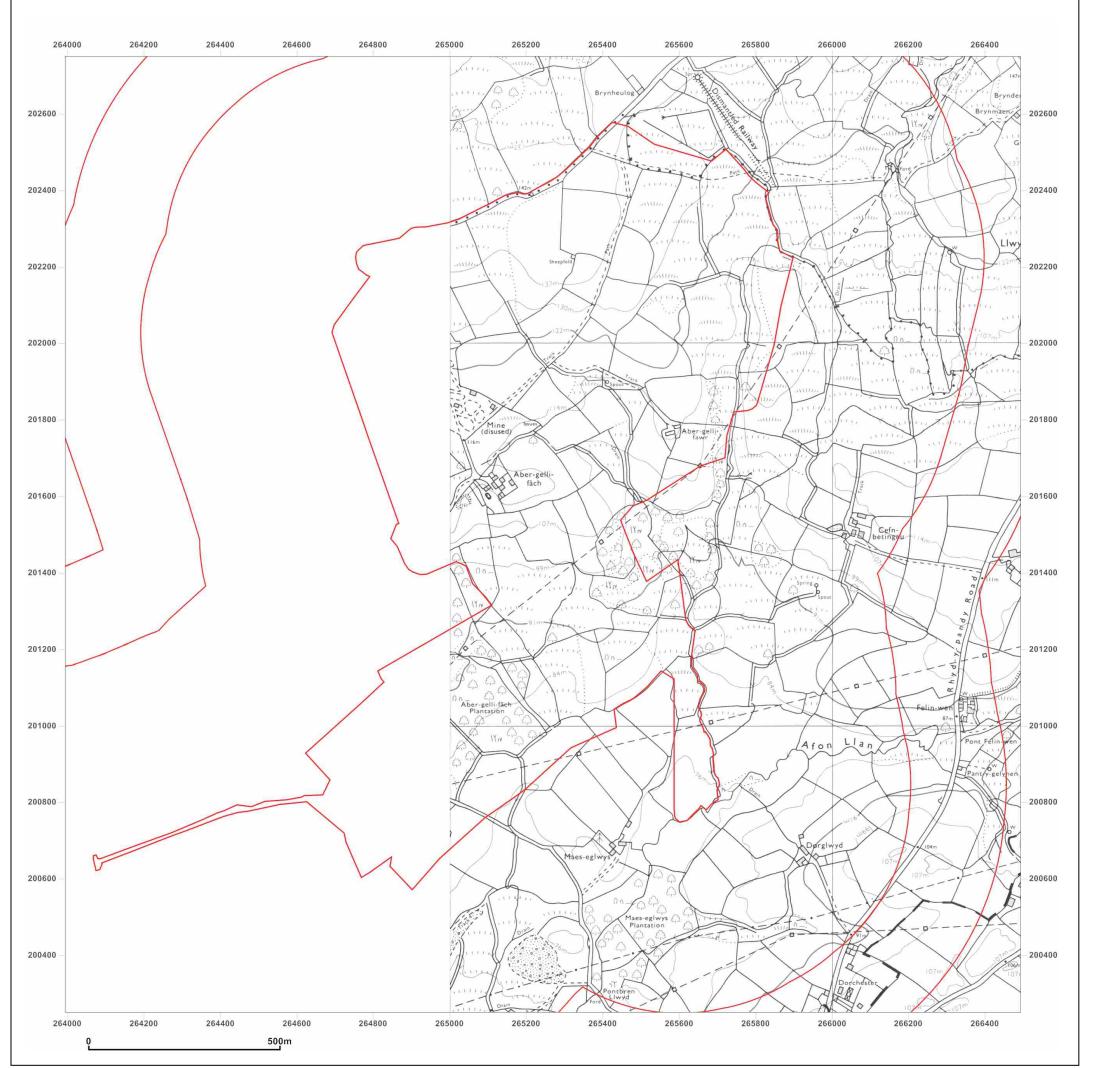


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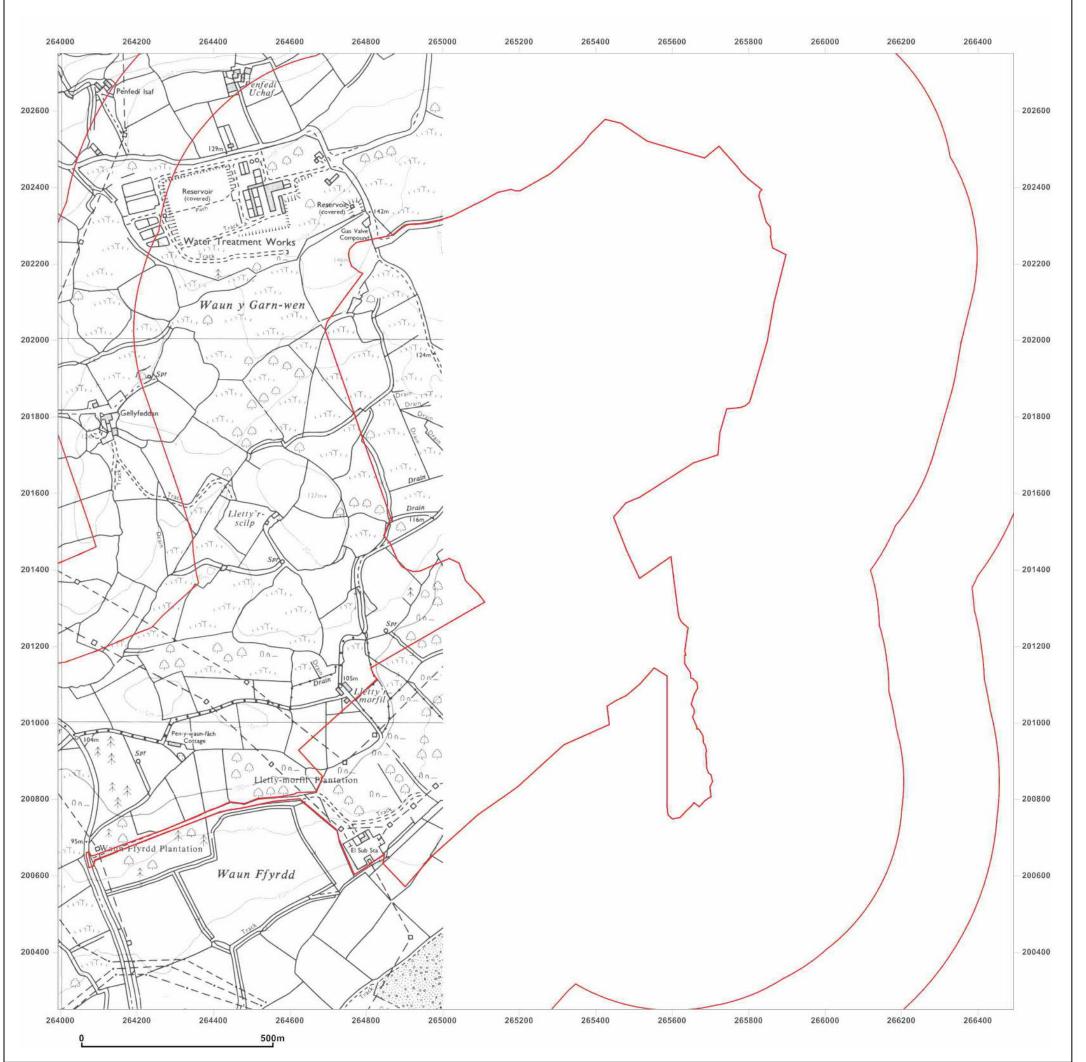


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Copyright N/A Levelled N/A	



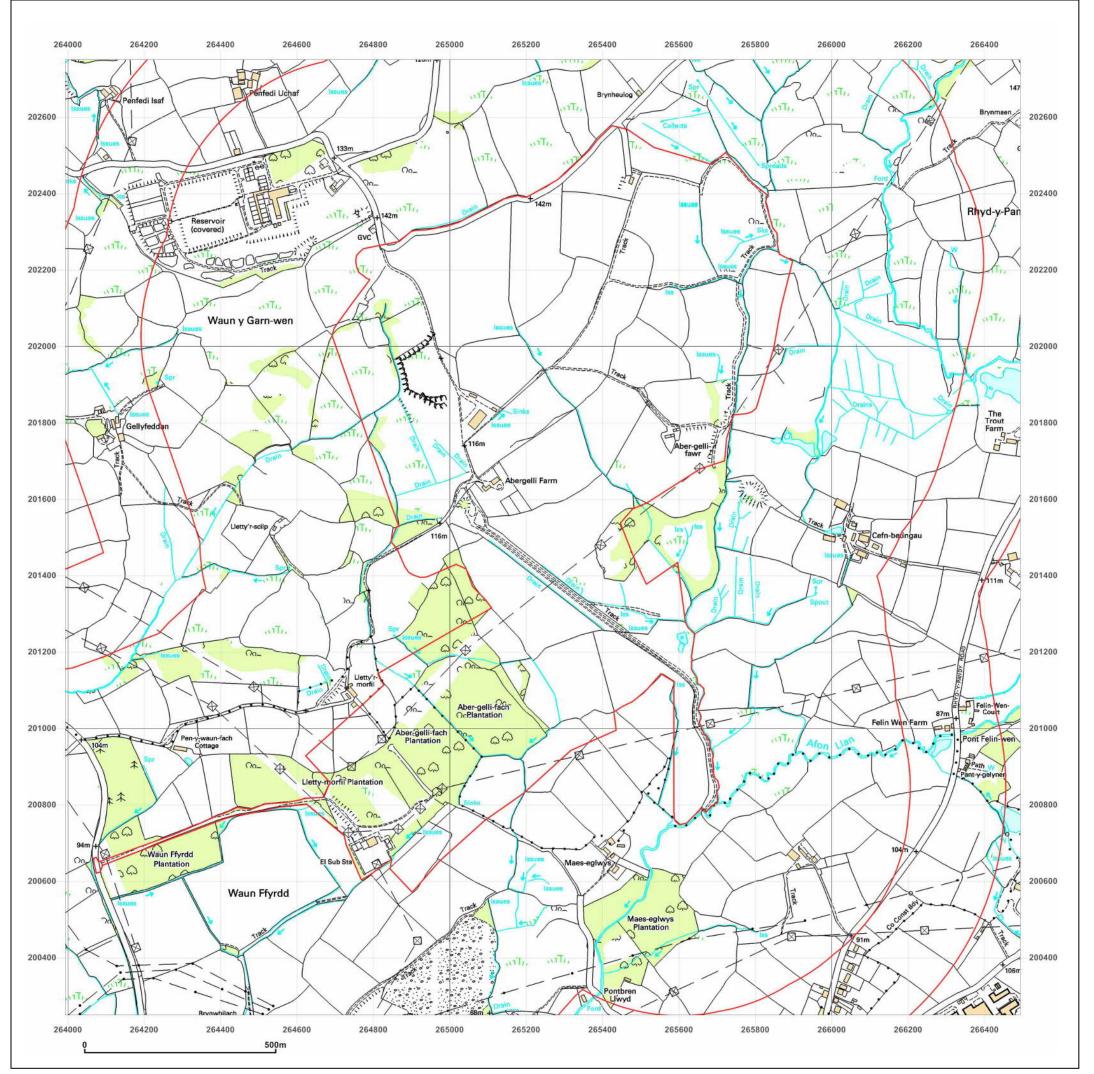
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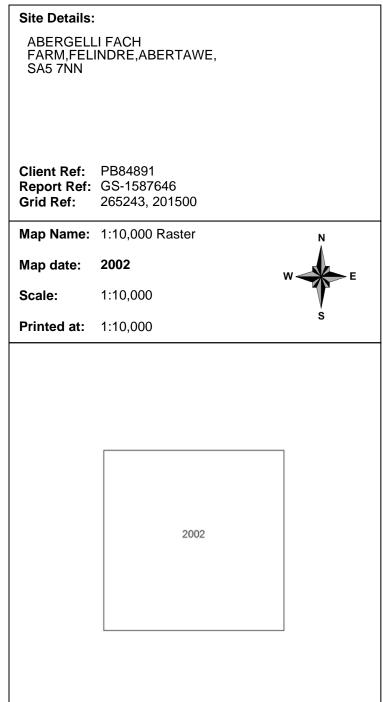
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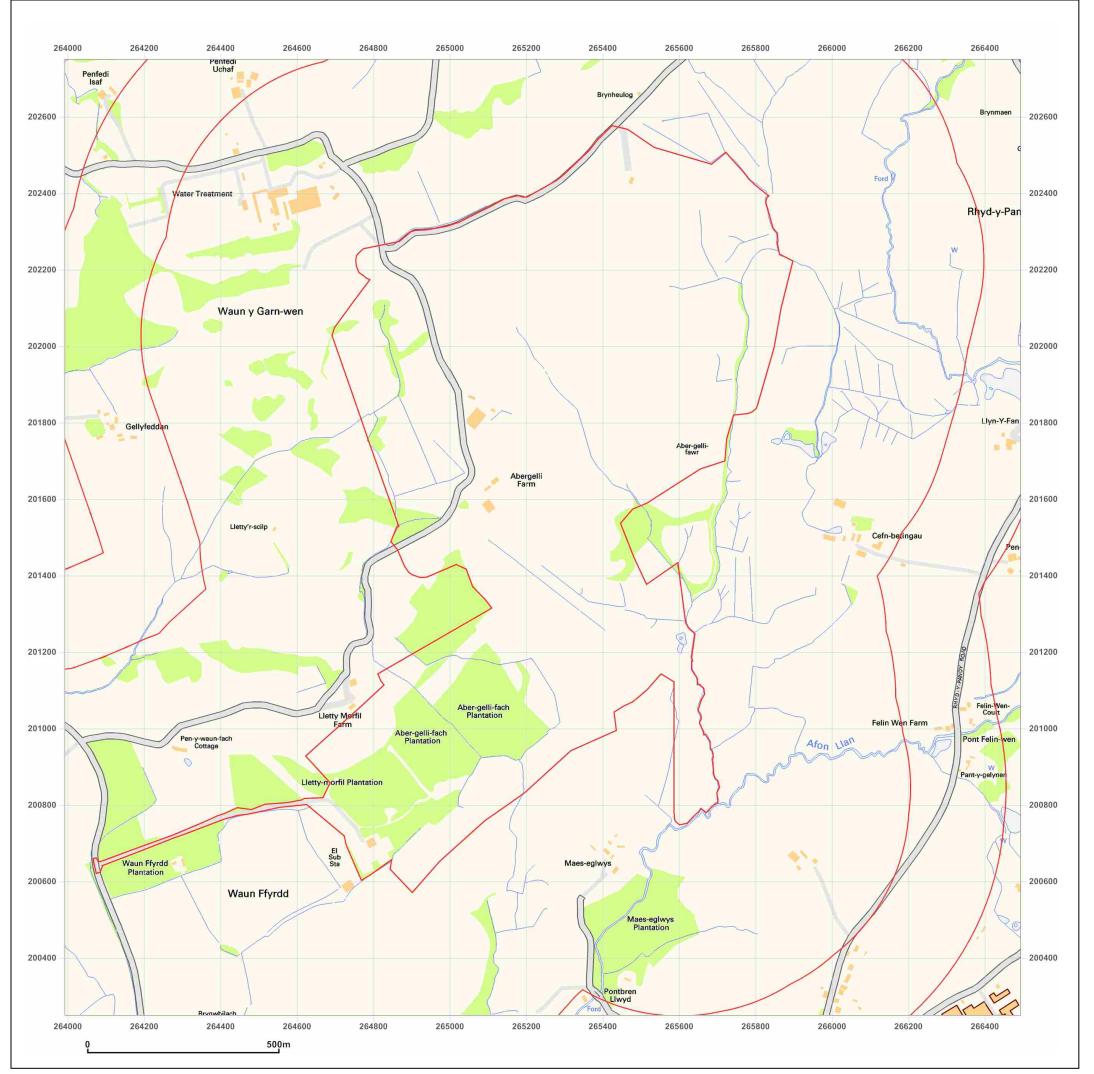
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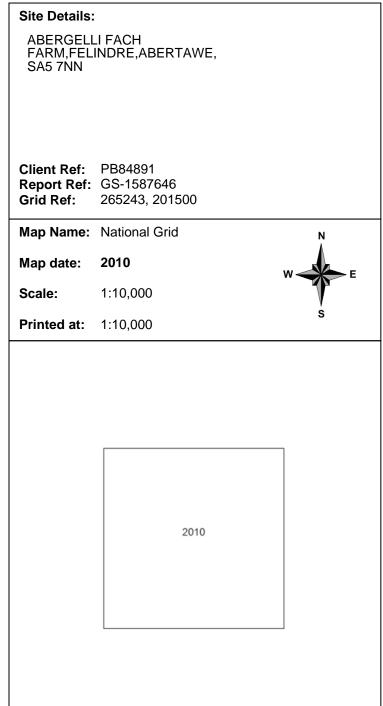
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Production date: 30 July 2014









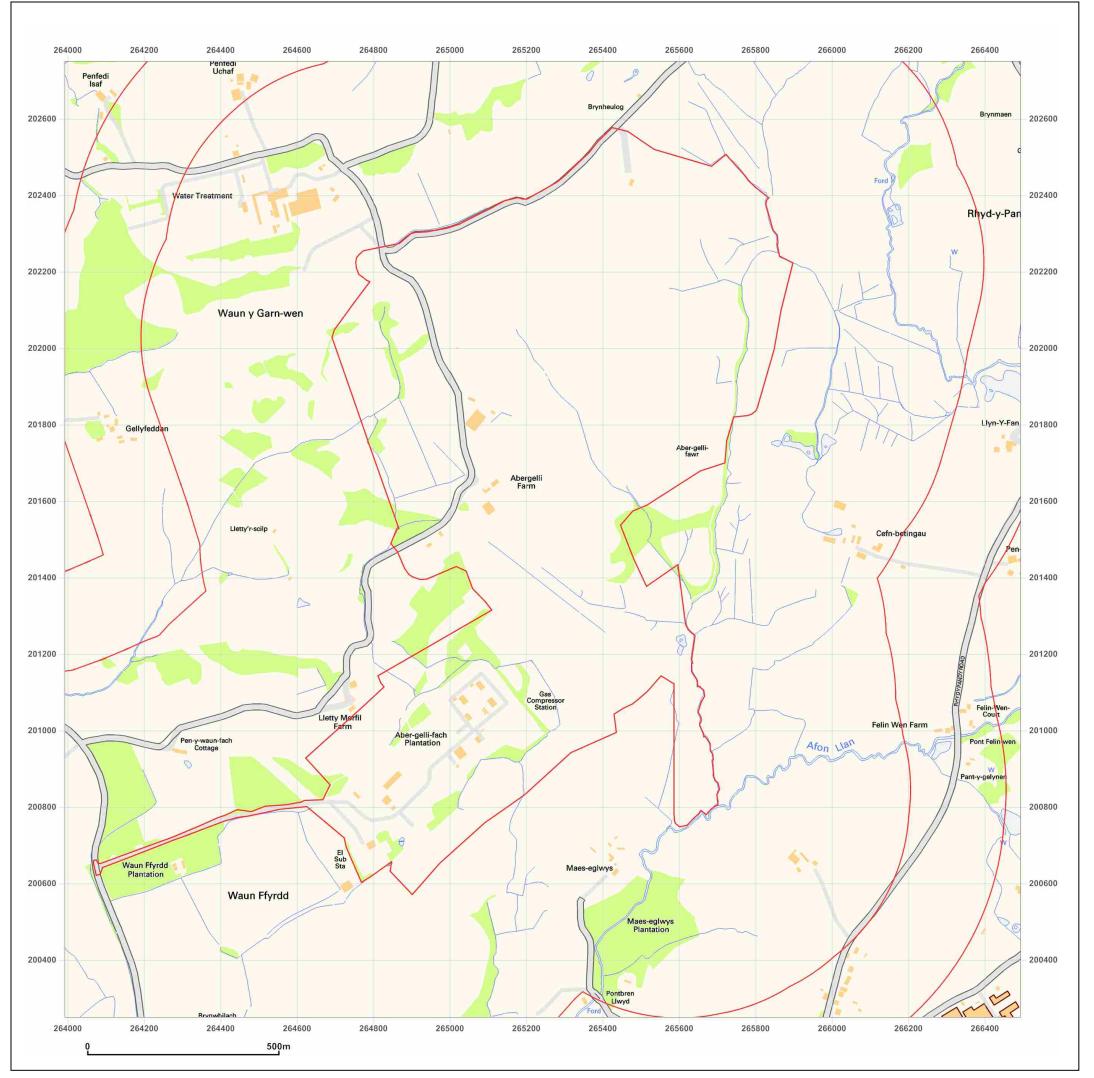
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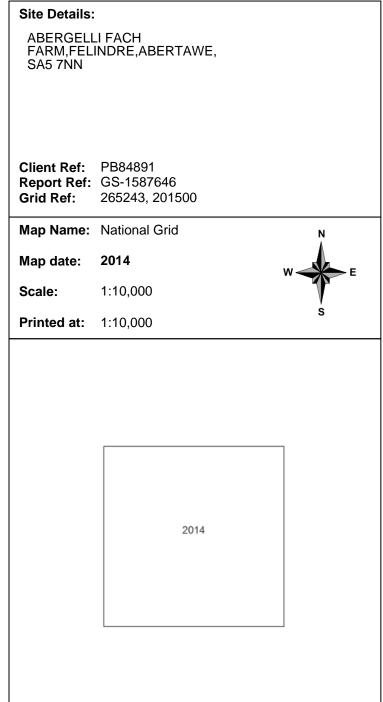
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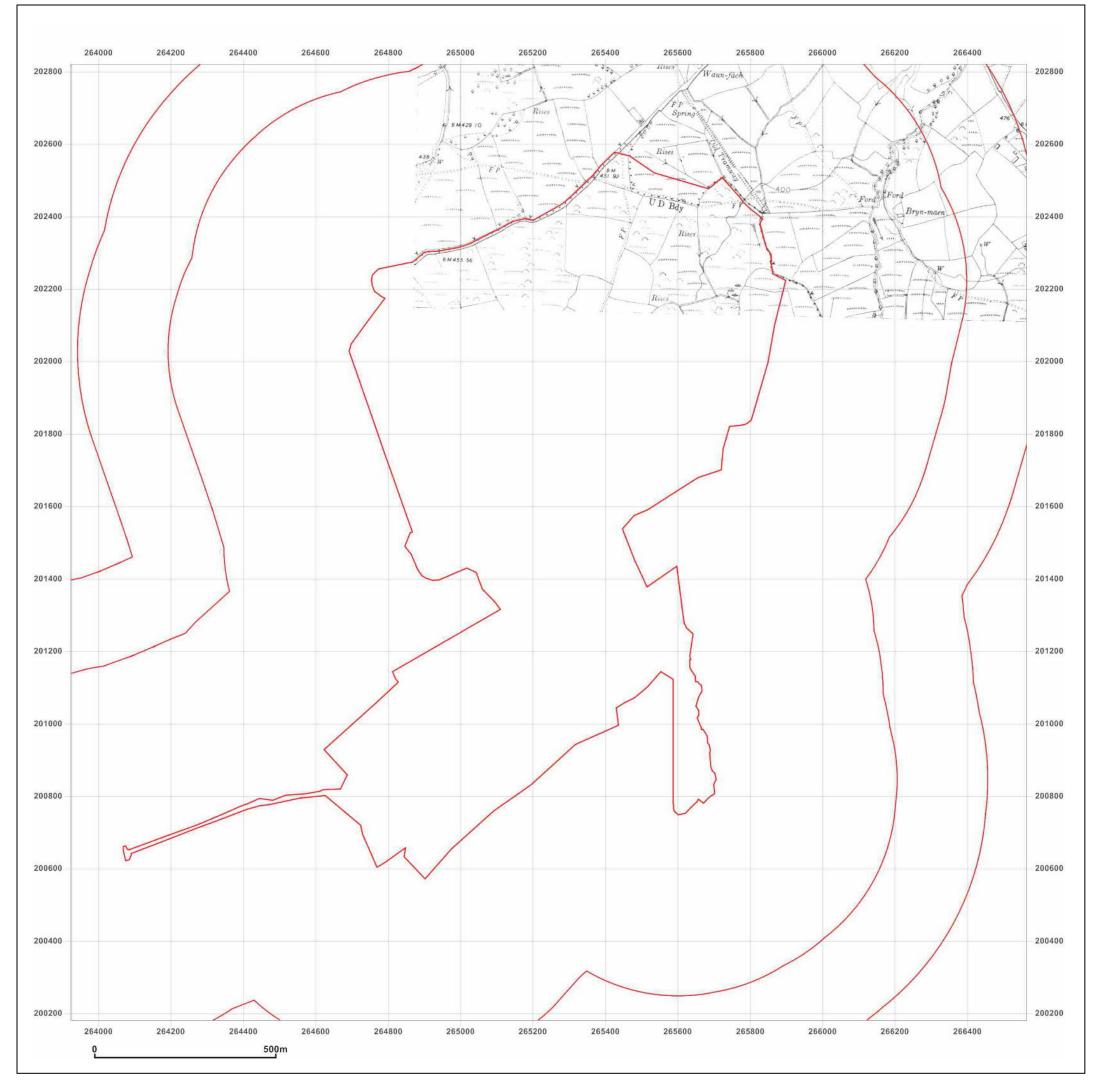
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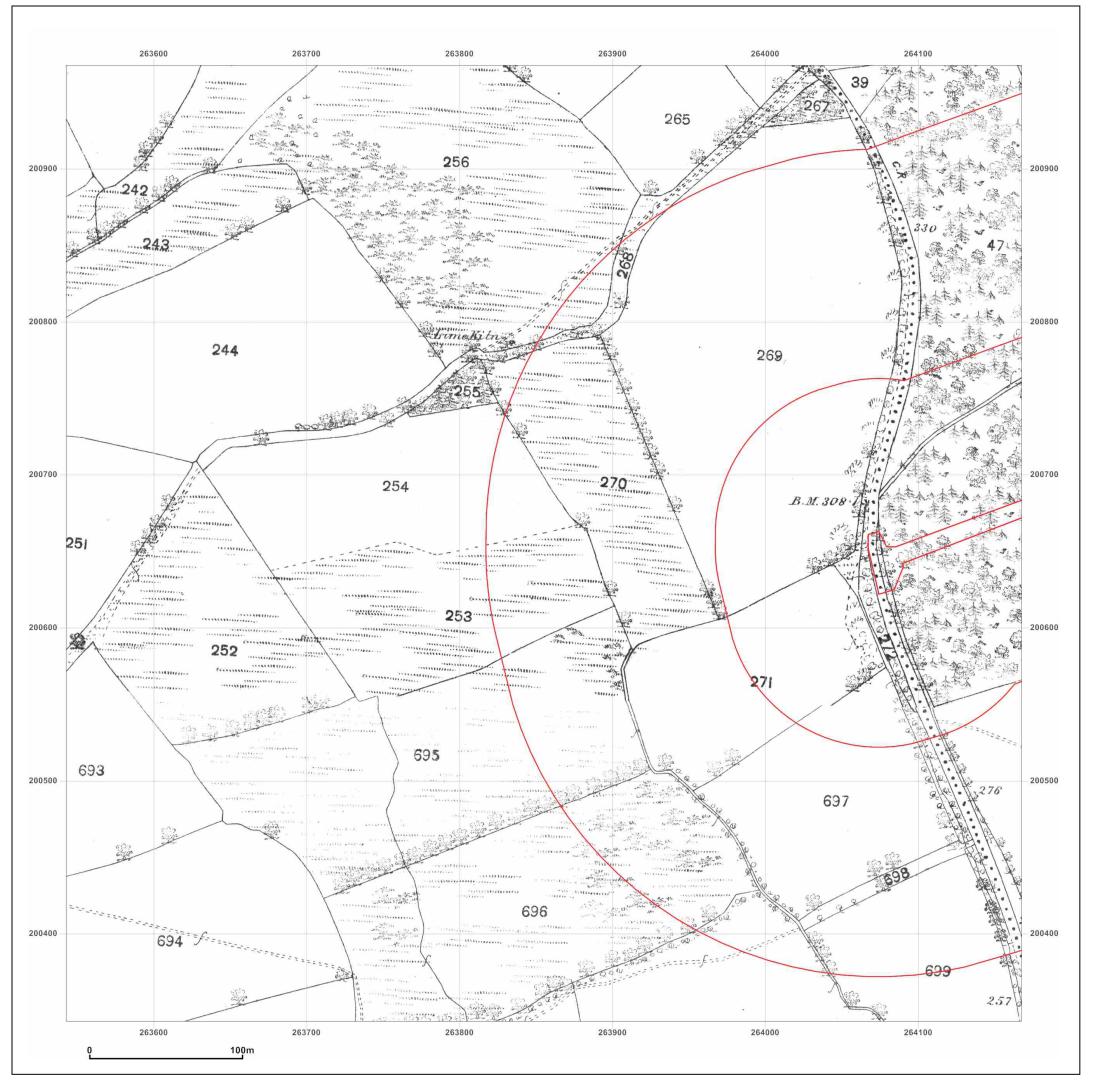


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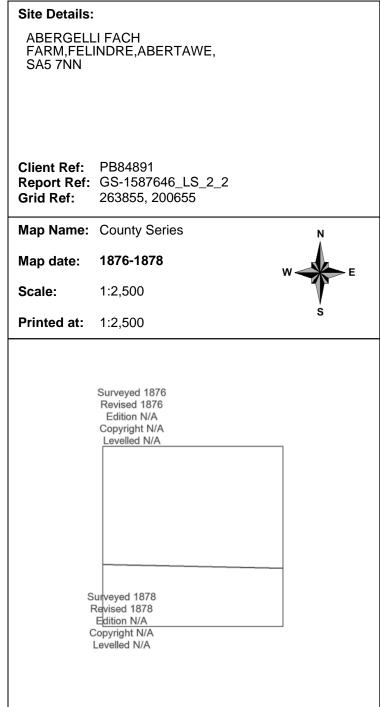
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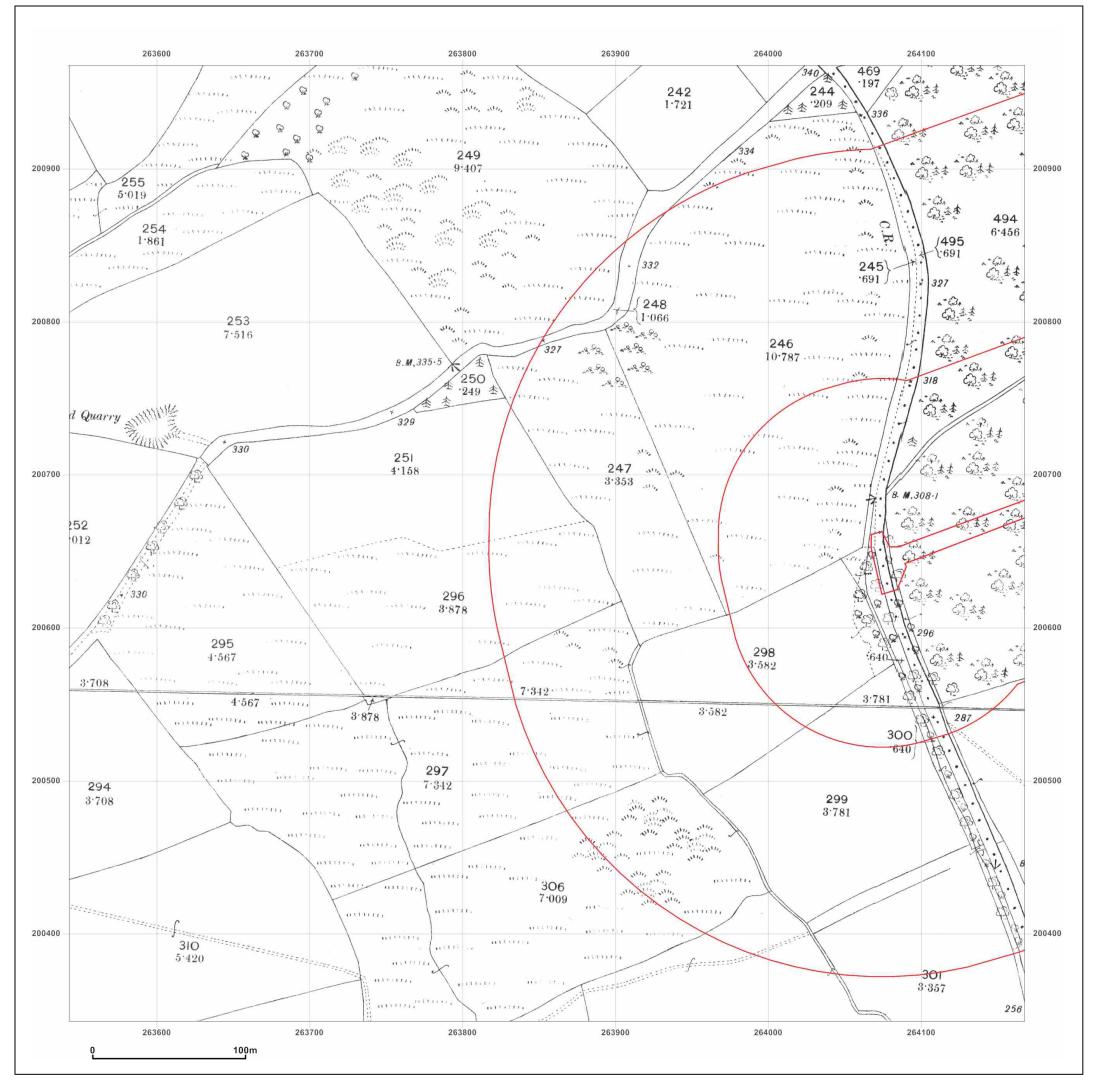


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Map Name:	County Series	N Å						
Map date:	1898	W E						
Scale:	1:2,500	*						
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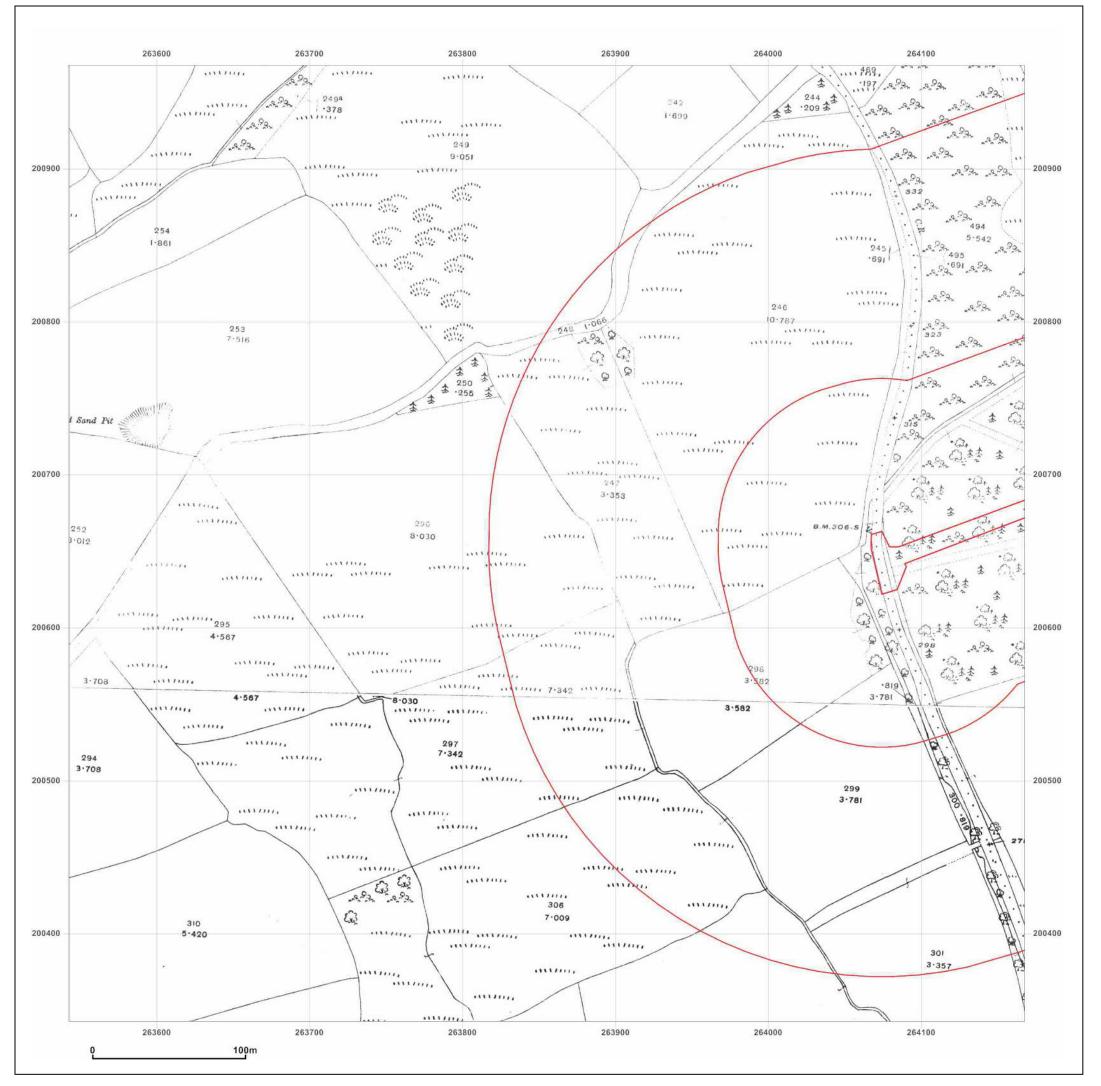
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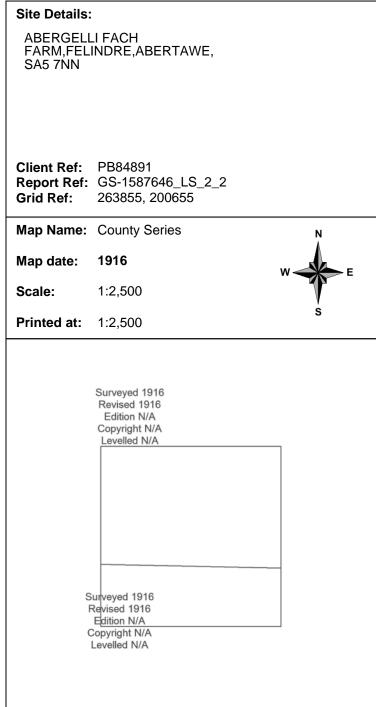
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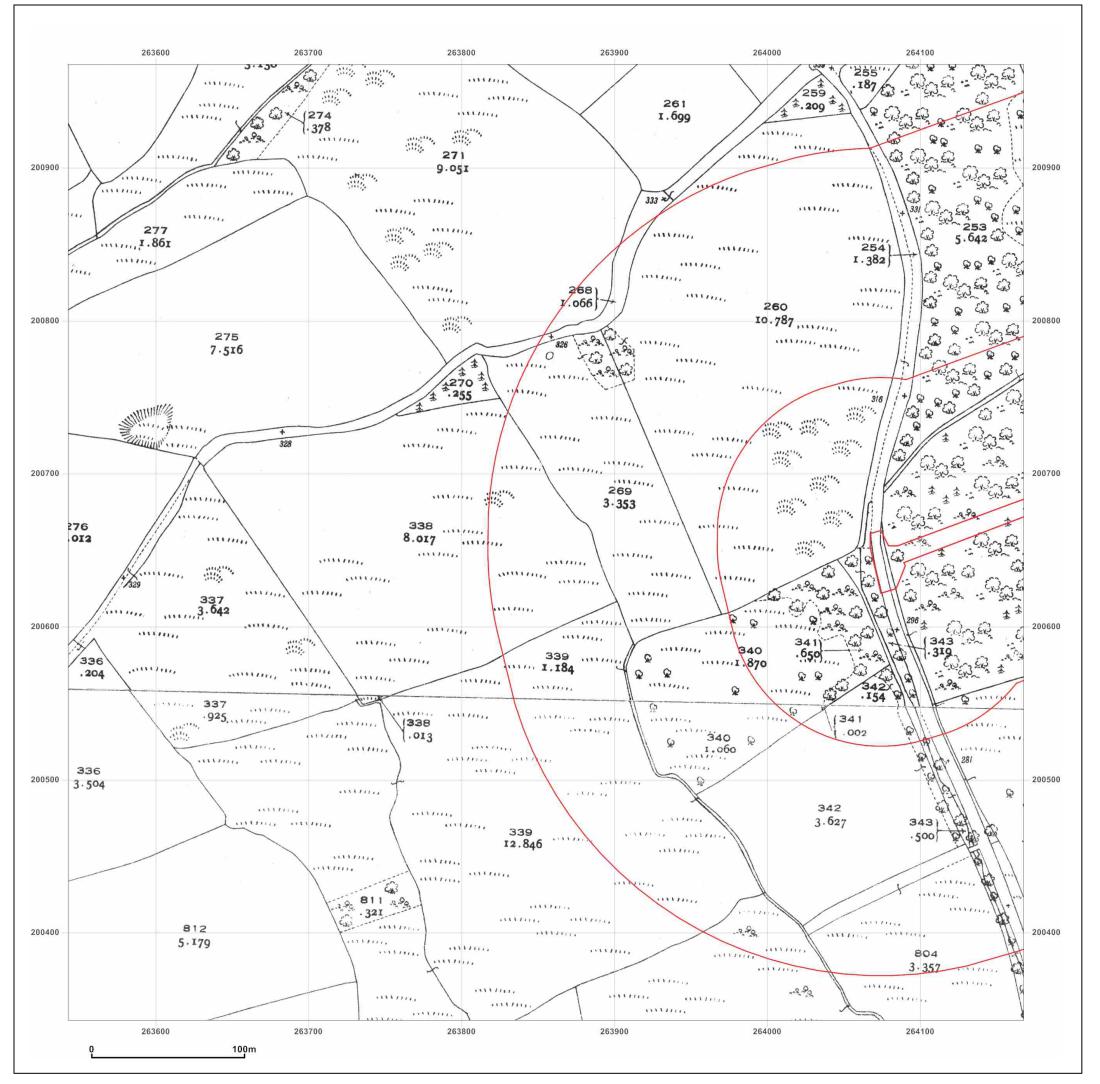
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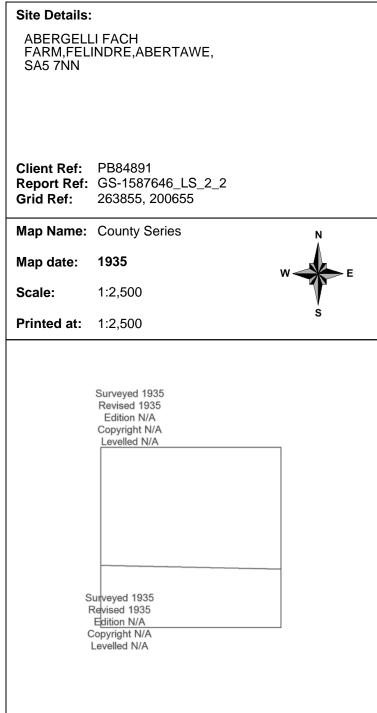
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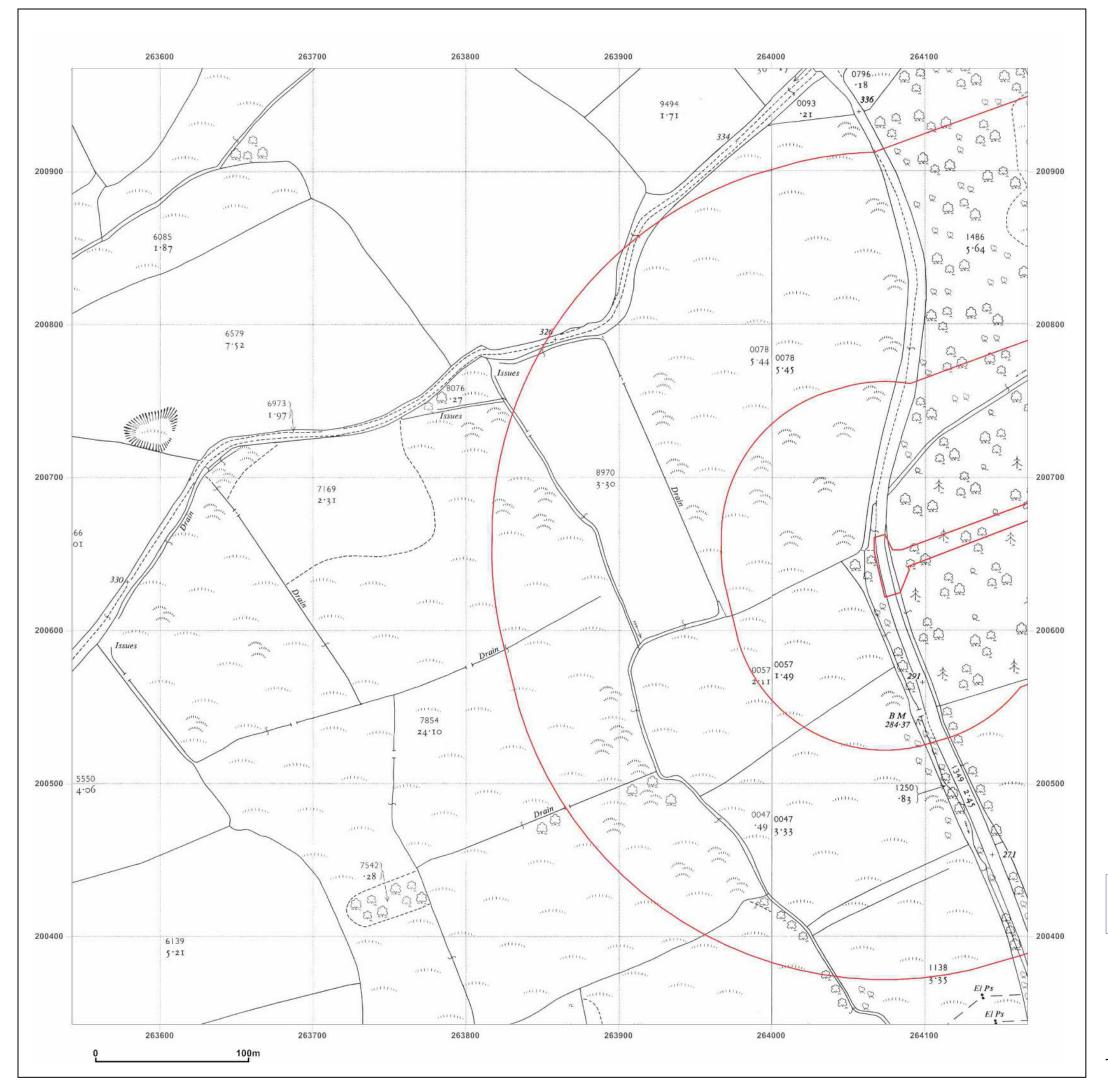


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Site Details: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN Client Ref: PB84891 Report Ref: GS-1587646_LS_2_2 Grid Ref: 263855, 200655 Map Name: National Grid 1958 Map date: 1:2,500 Scale: **Printed at:** 1:2,500 Surveyed 1958 Revised 1958 Surveyed 1958 Revised 1958 Edition N/A Edition N/A Copyright 1959 Copyright 1959 Levelled 1956 Levelled 1956



Produced by GroundSure Environmental Insight

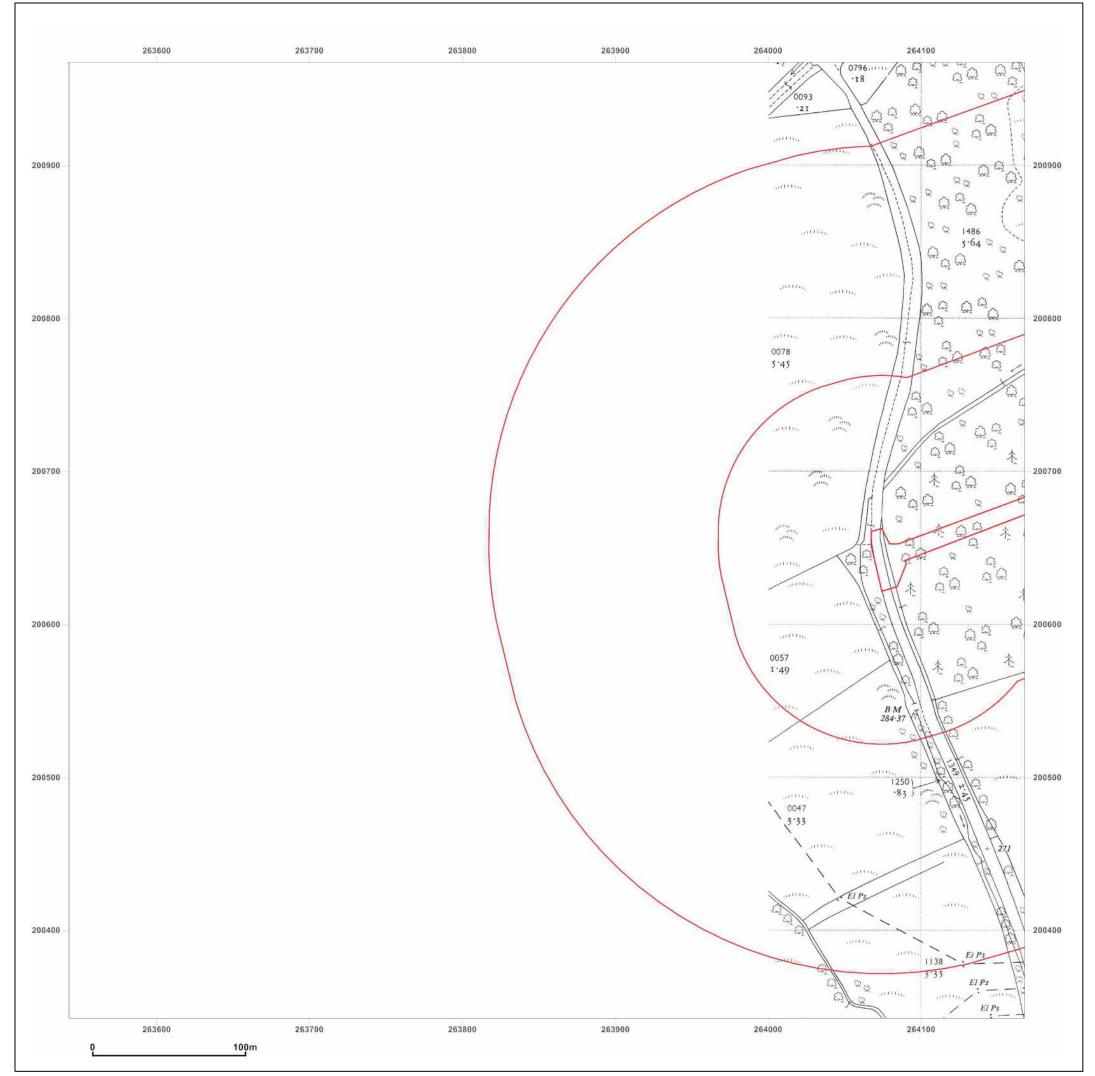
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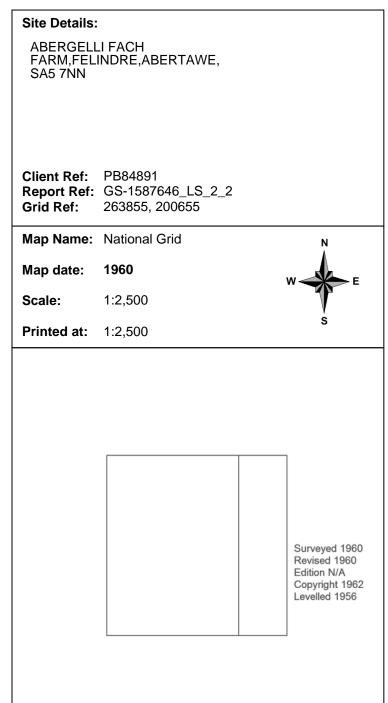
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Production date: 30 July 2014







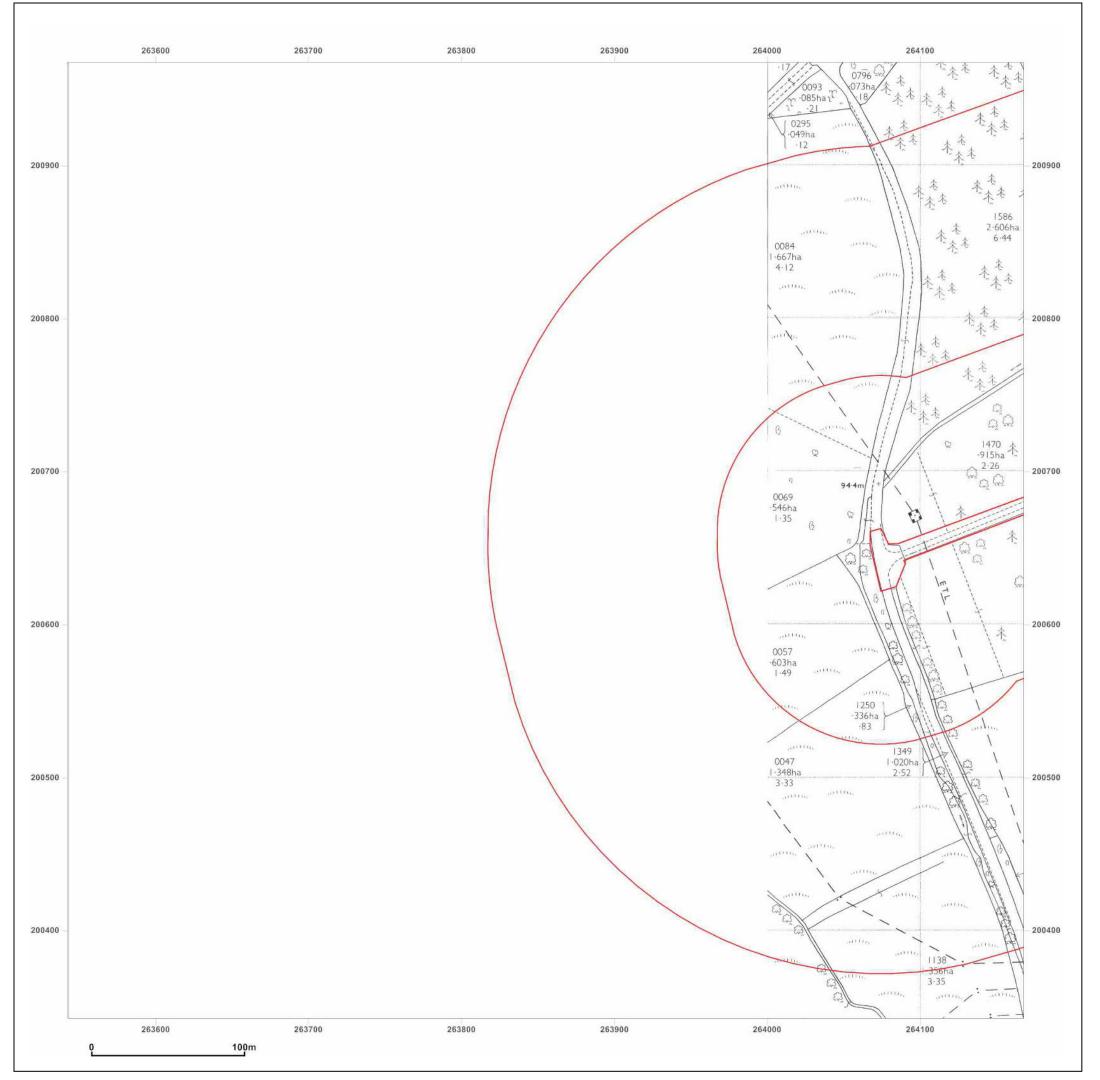


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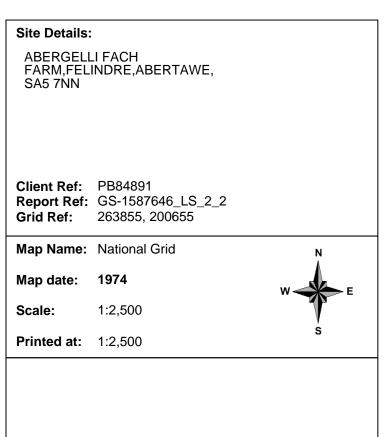
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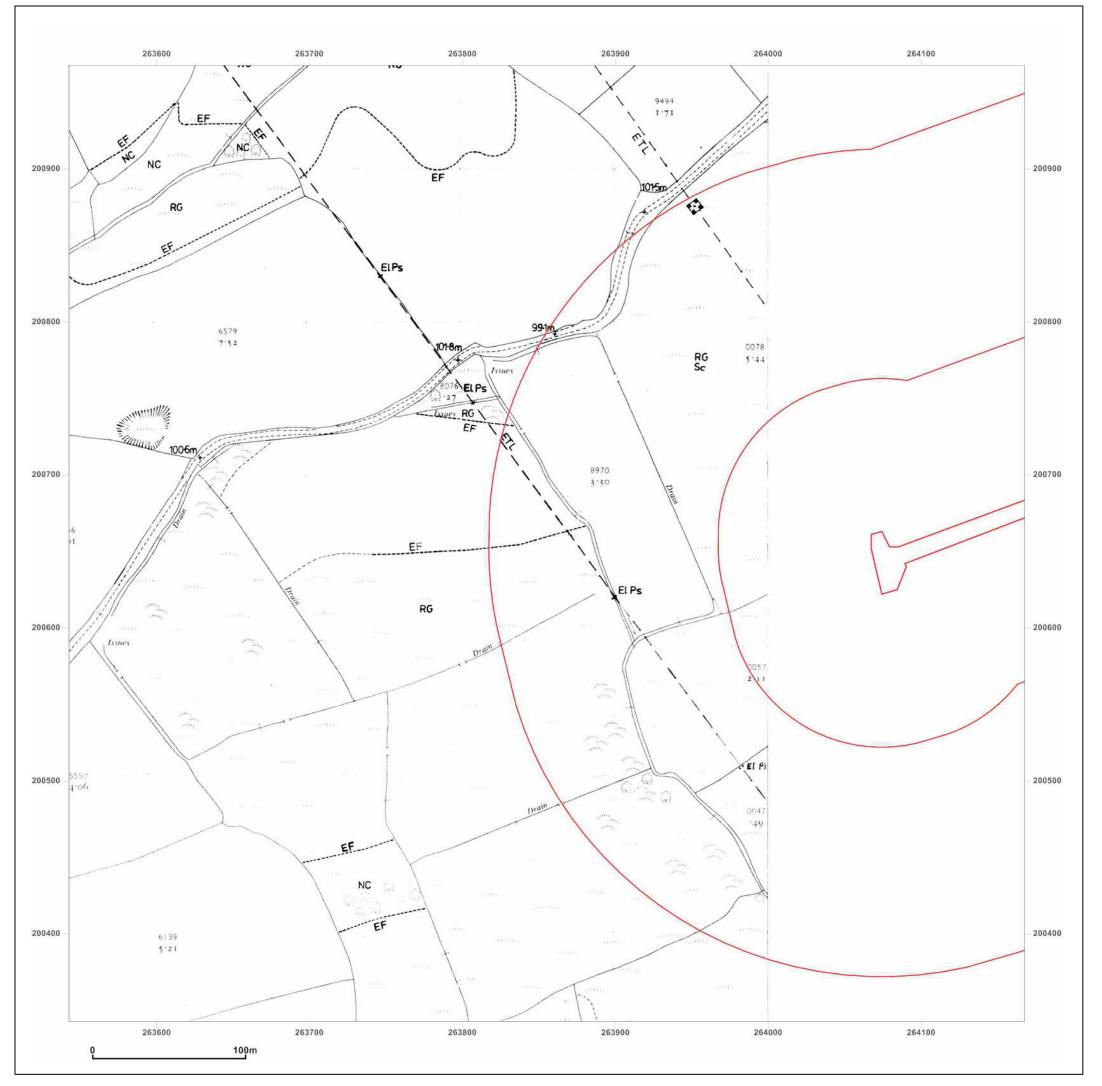
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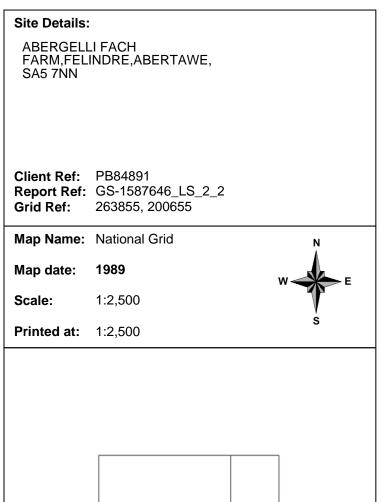
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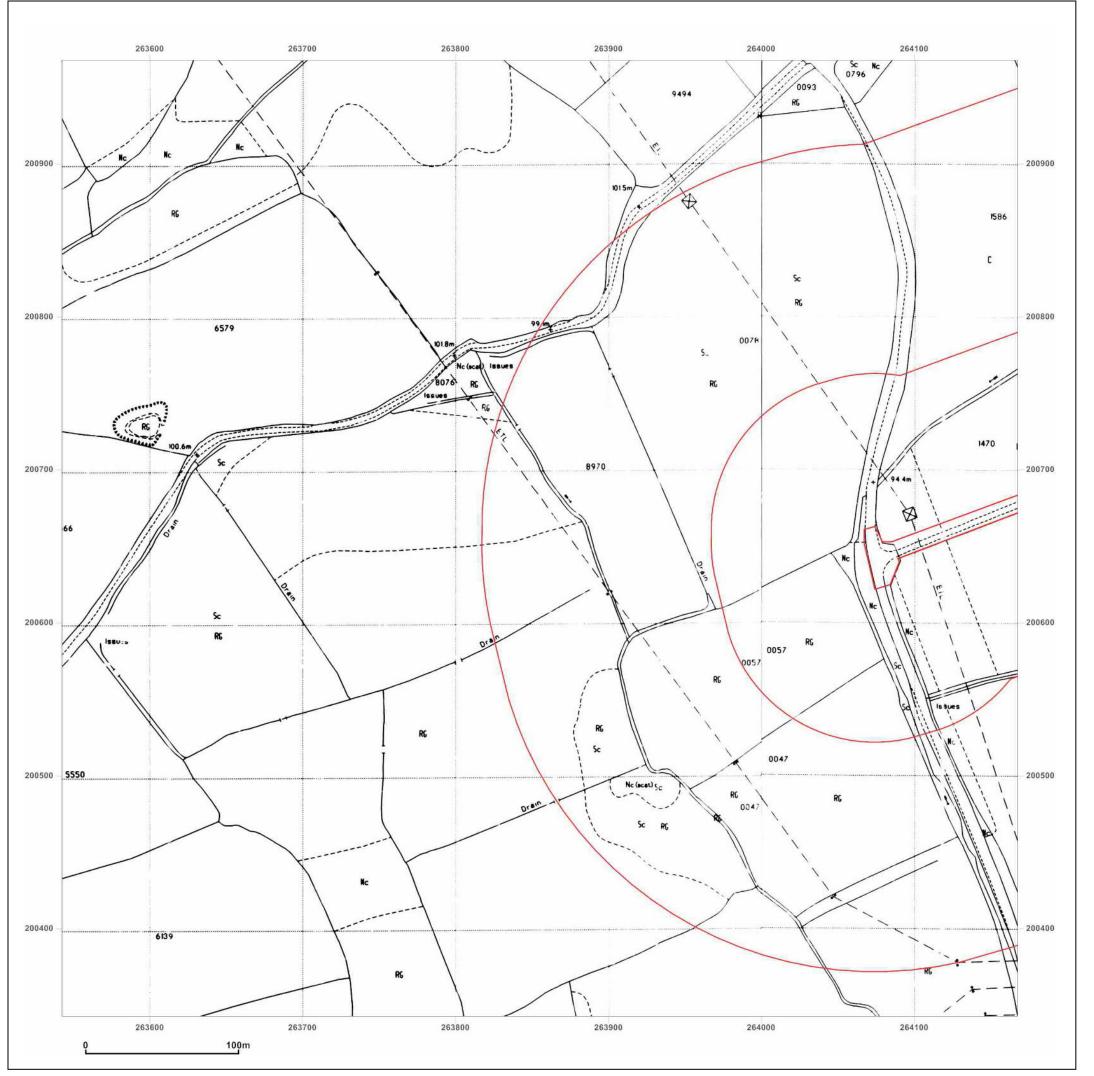
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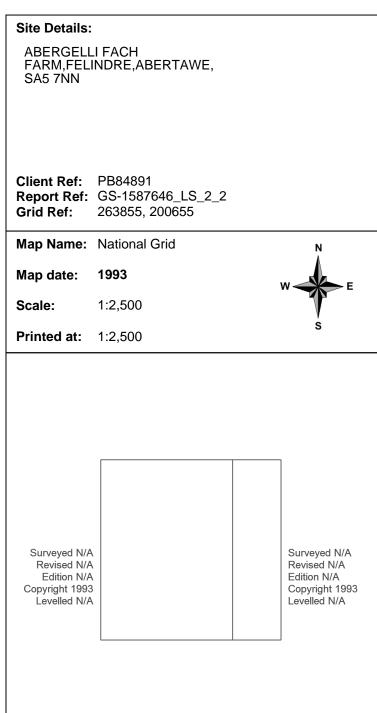
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Production date: 30 July 2014







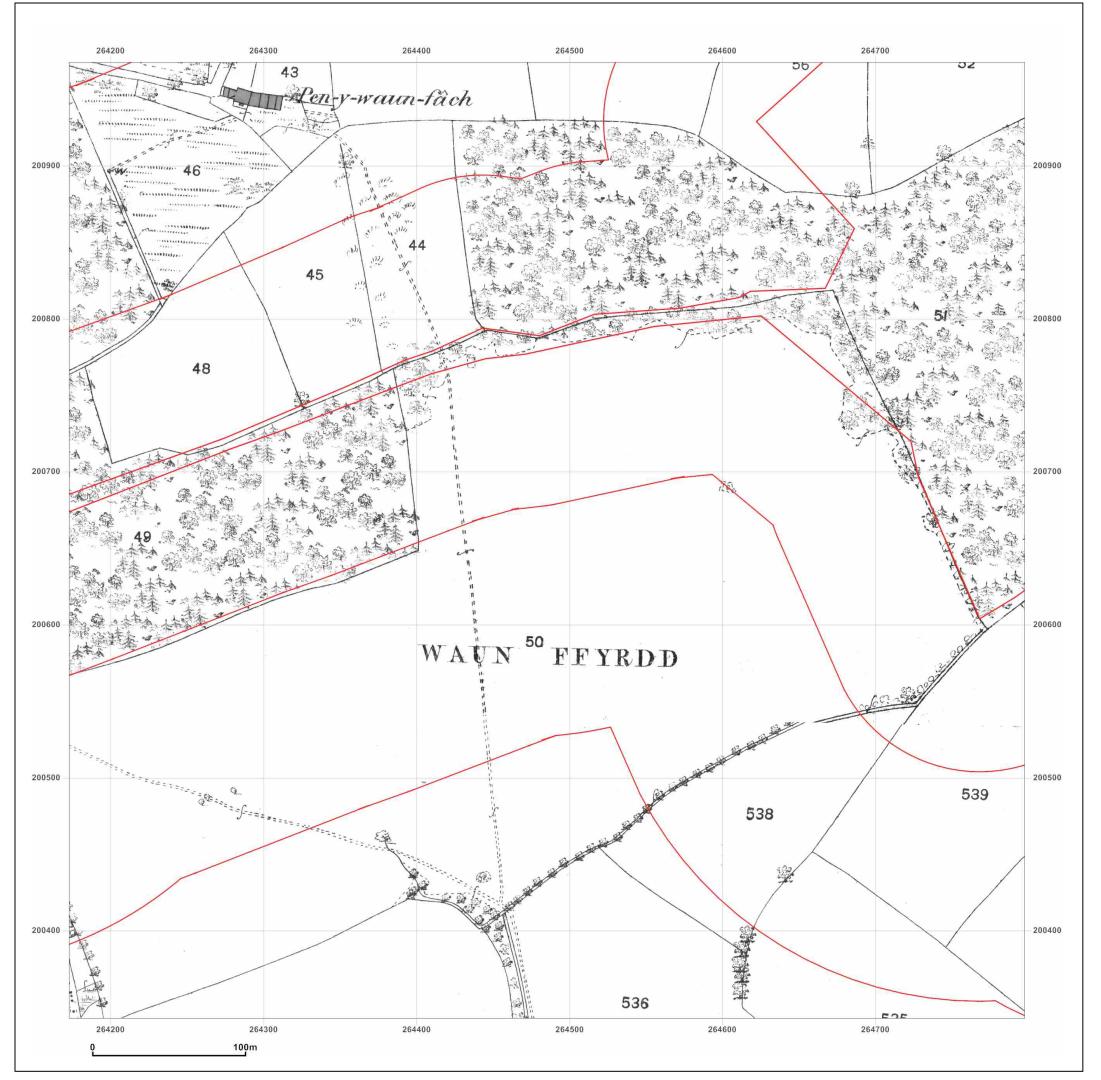


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Production date: 30 July 2014





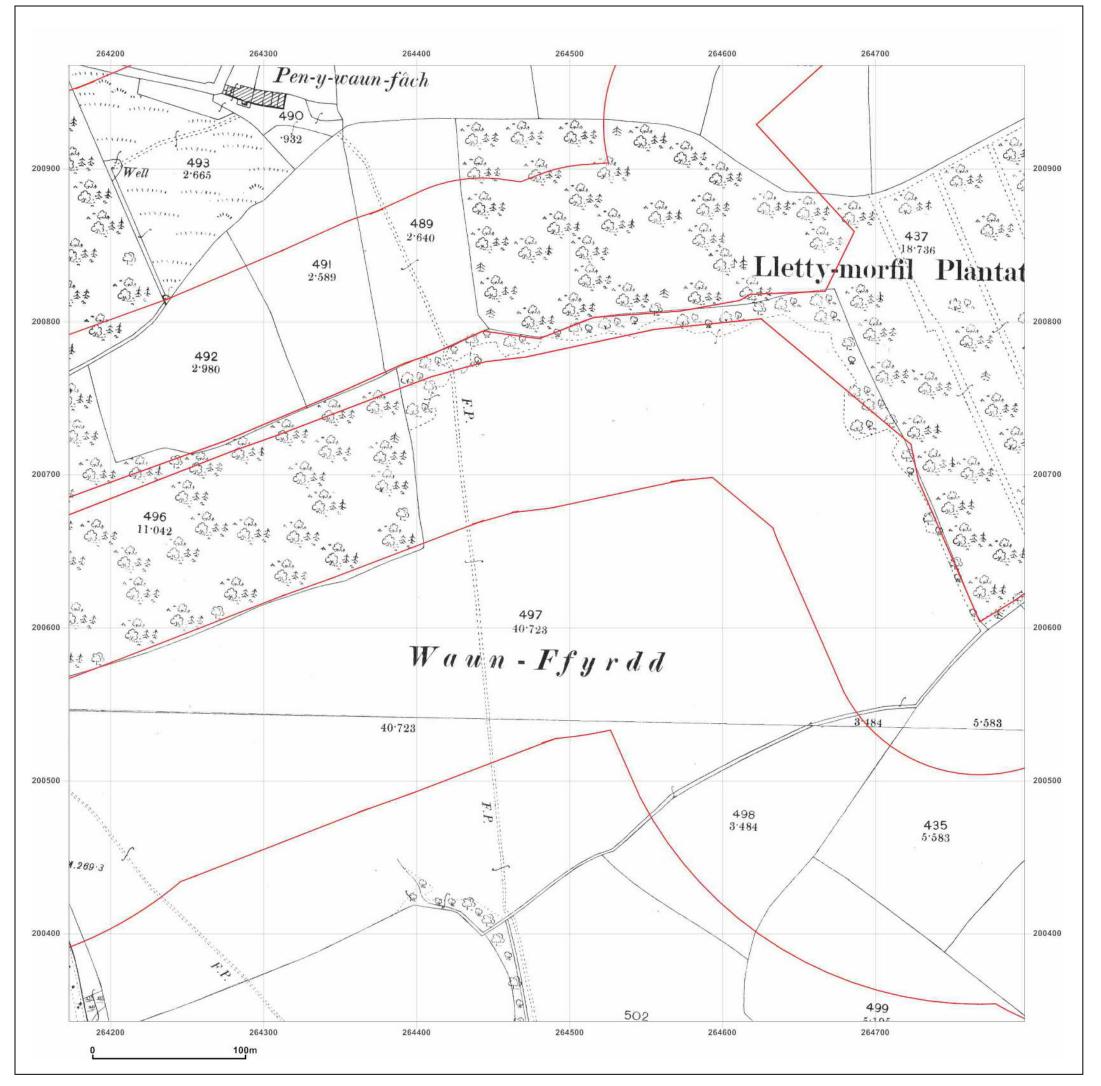
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Map Name:	County Series	N Å								
Map date:	1876-1878	W E								
Scale:	1:2,500									
Printed at:	1:2,500	S								
Surveyed 1876 Revised 1876 Edition N/A Copyright N/A Levelled N/A	) \									
Surveyed 1878 Revised 1878 Edition N/A Copyright N/A Levelled N/A	3 L									



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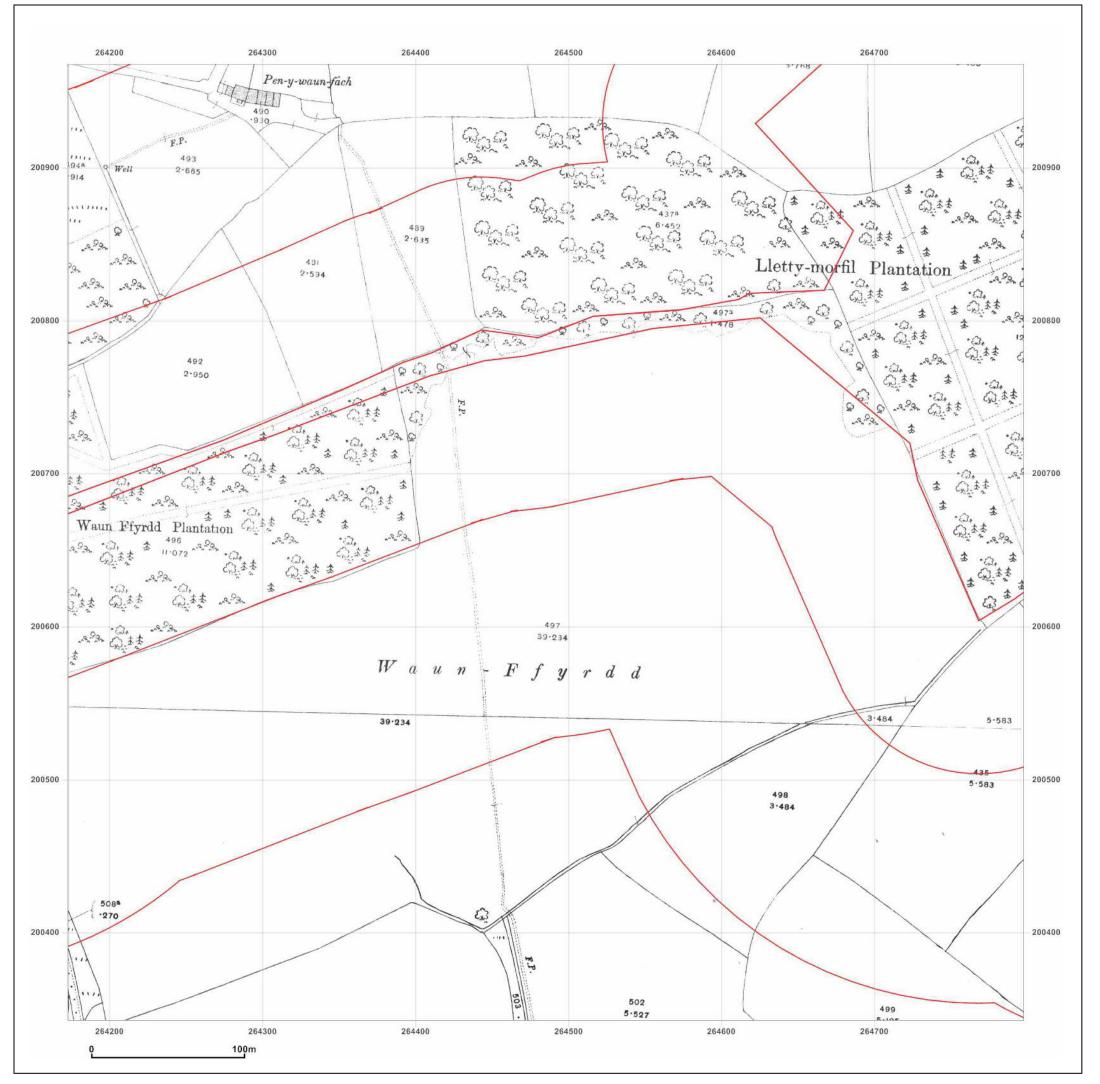


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Map date:	1916	W E							
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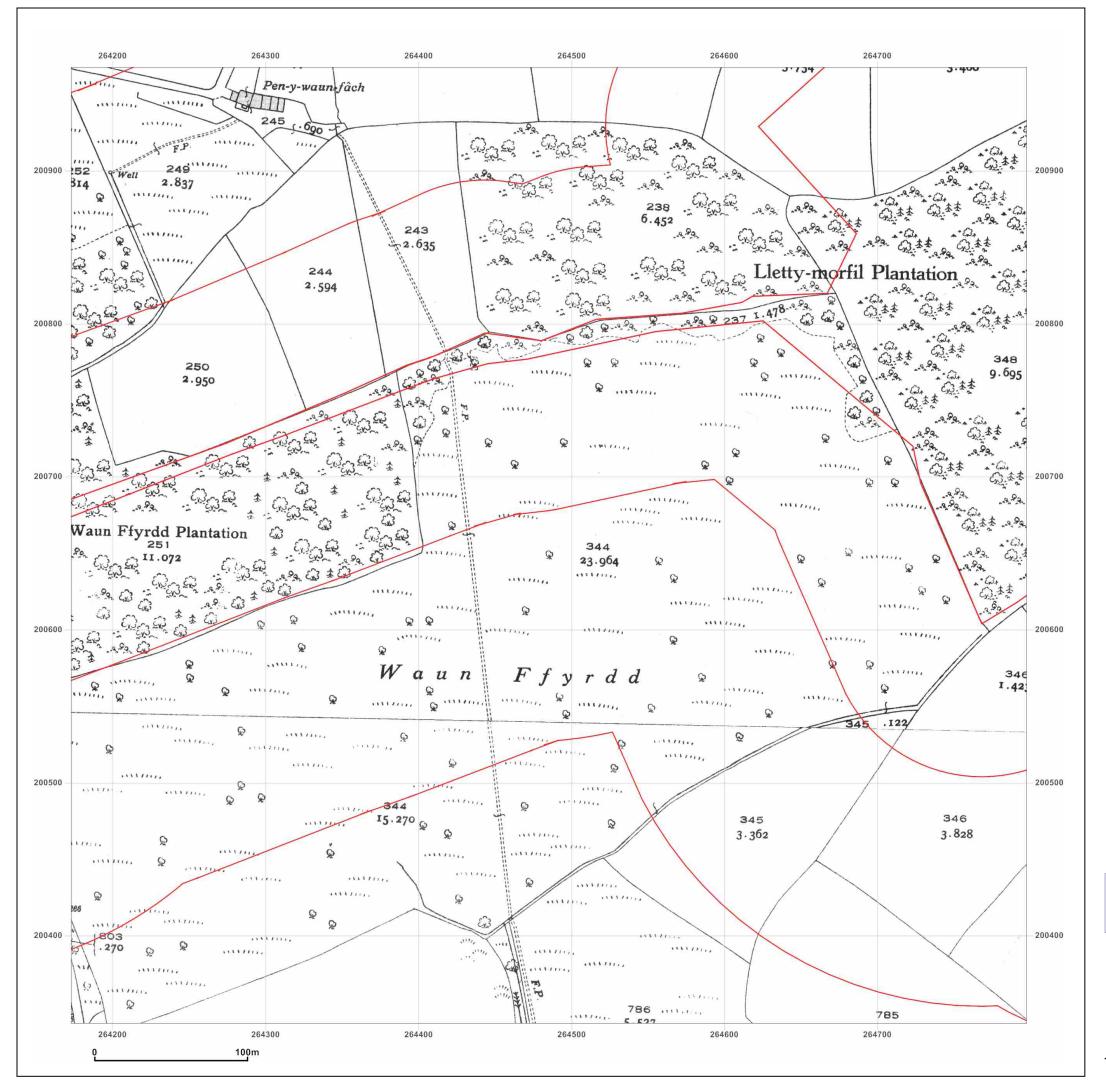


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Map date:	1935	W E
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Printed at:	1:2,500	S
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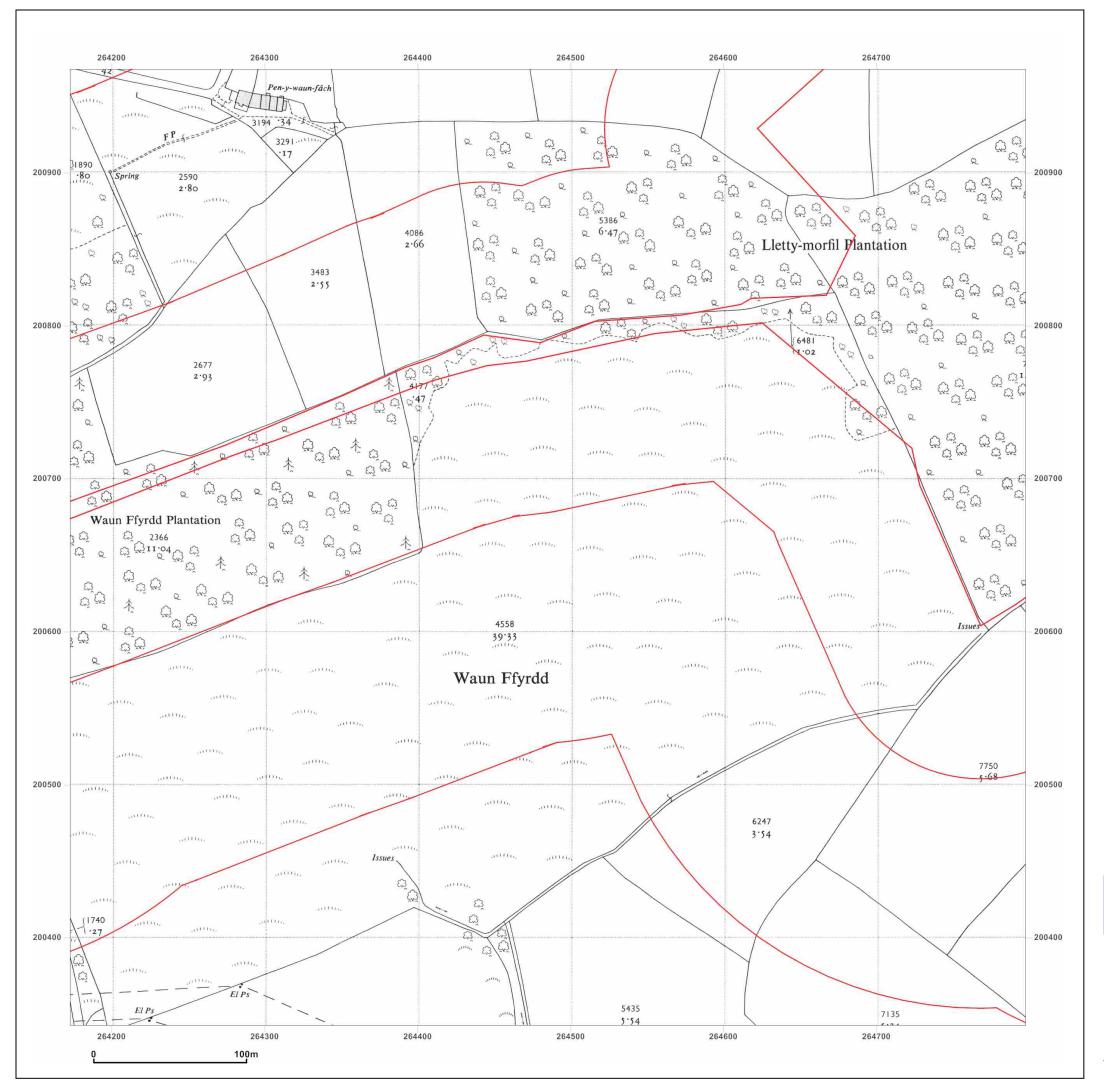
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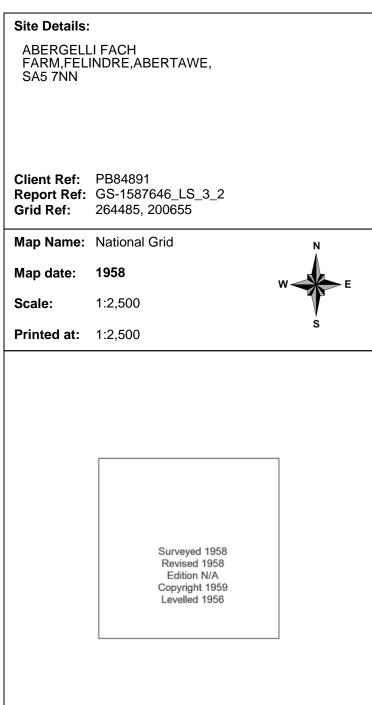
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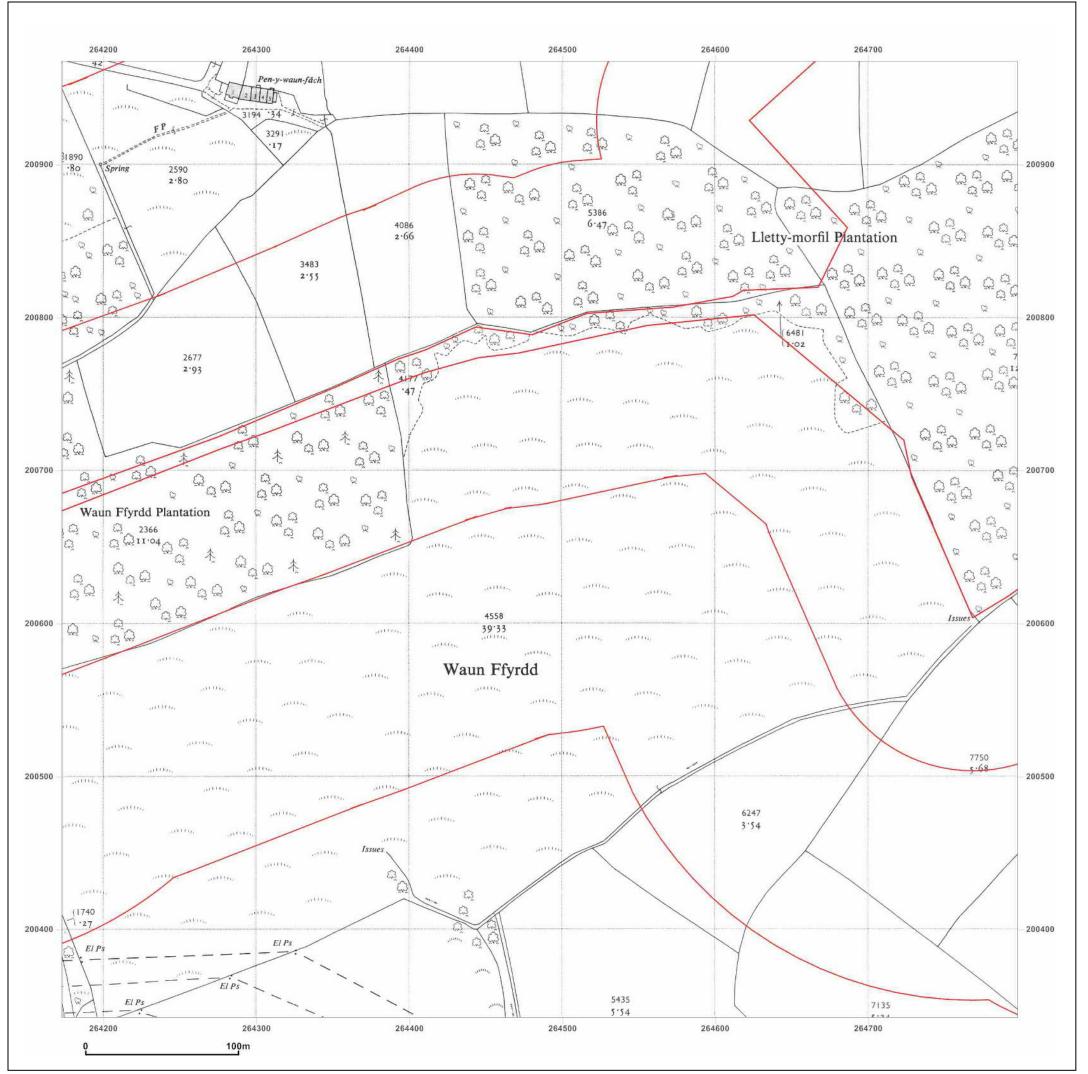
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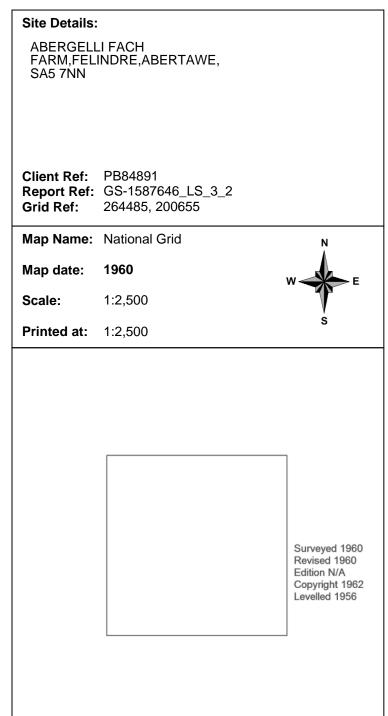
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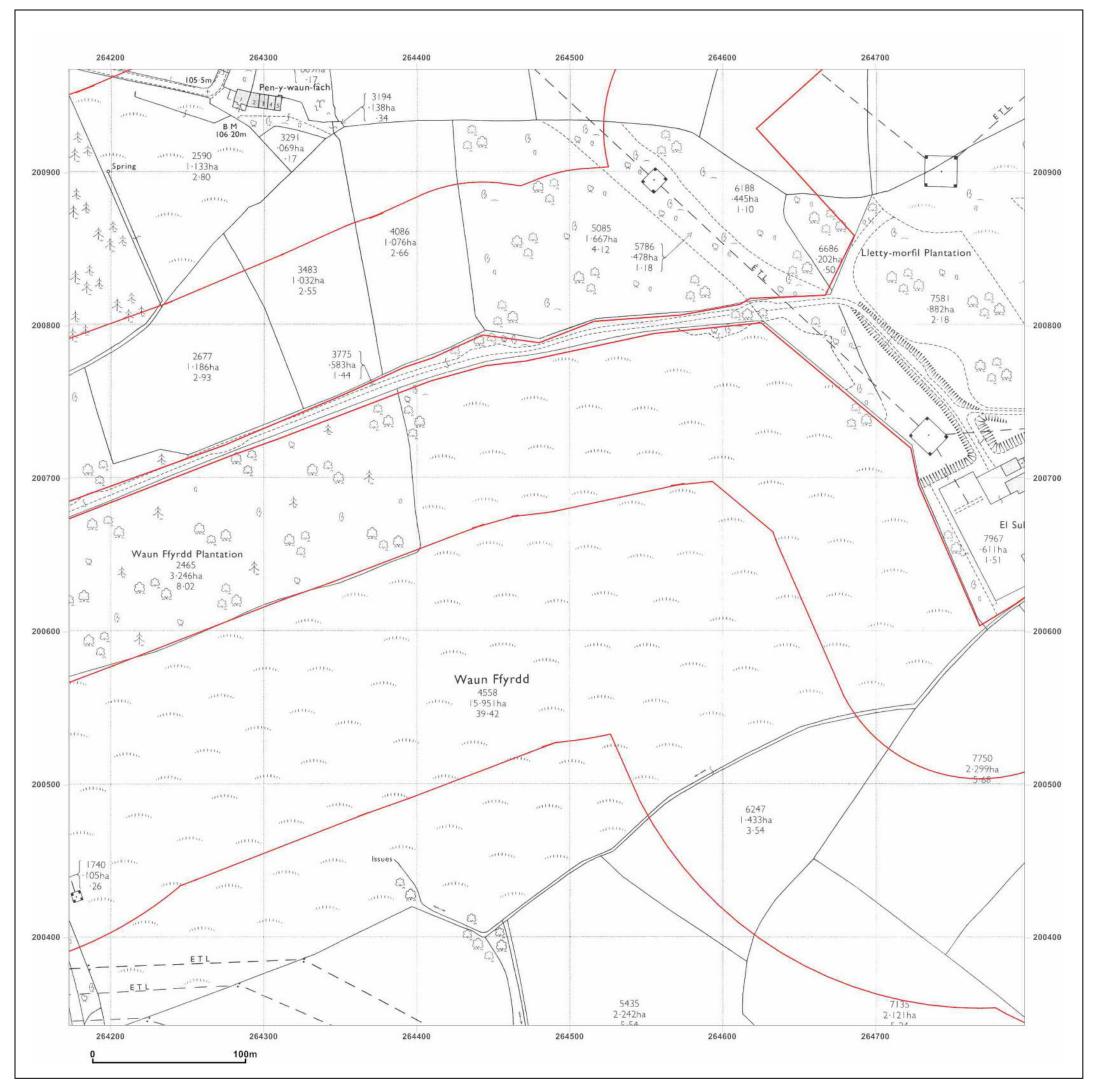
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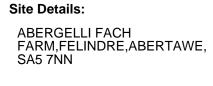
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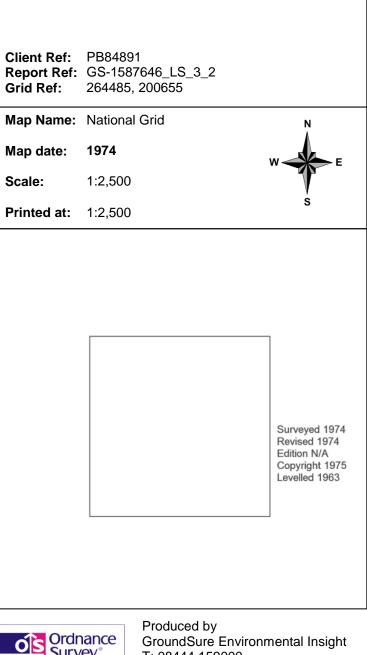
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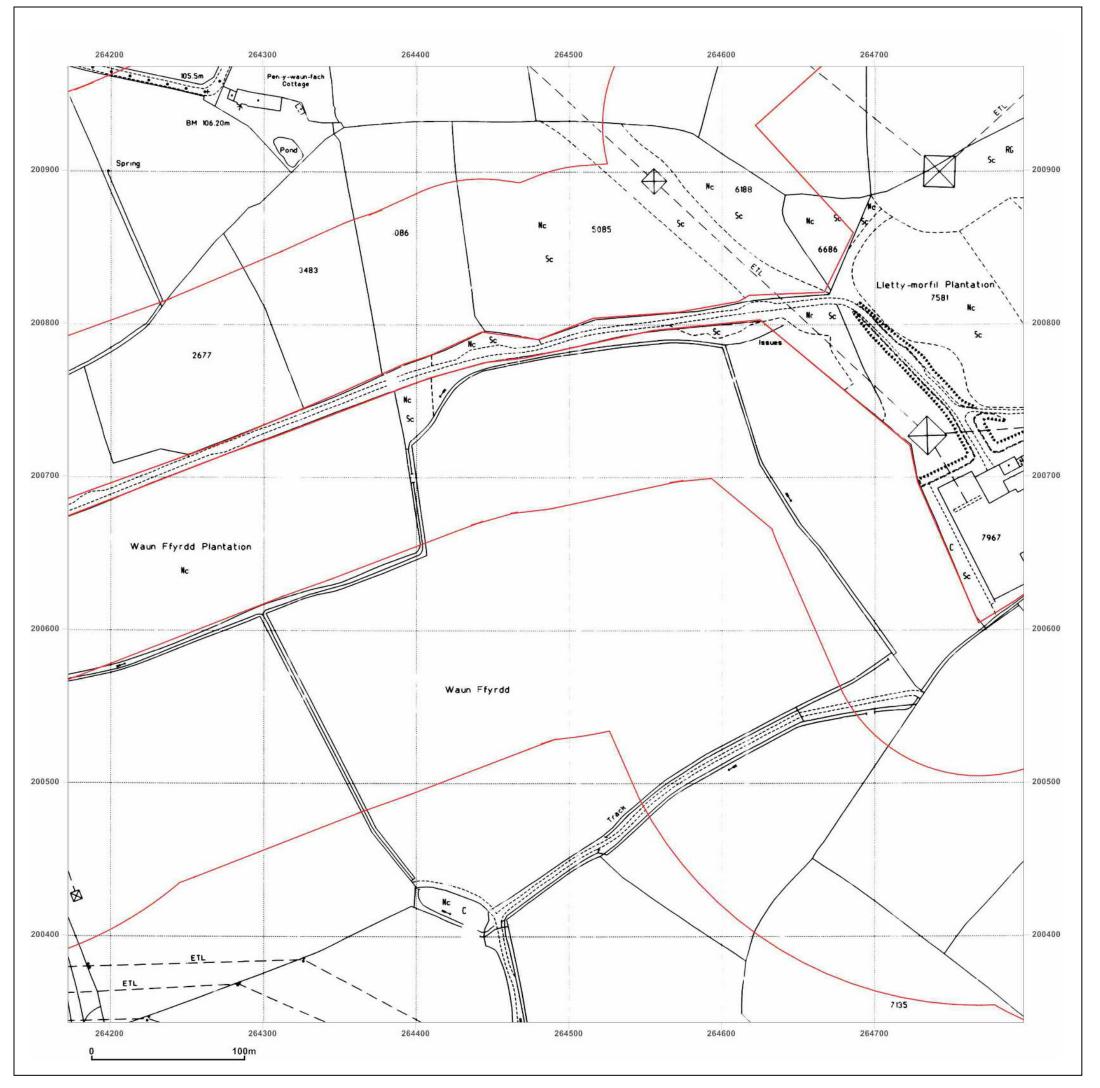


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Client Ref: PB84891

Report Ref: GS-1587646_LS_3_2 Grid Ref: 264485, 200655

Map Name: National Grid

Map date: 1993

1:2,500 Scale:

**Printed at:** 1:2,500



Surveyed N/A Revised N/A Edition N/A Copyright 1993 Levelled N/A

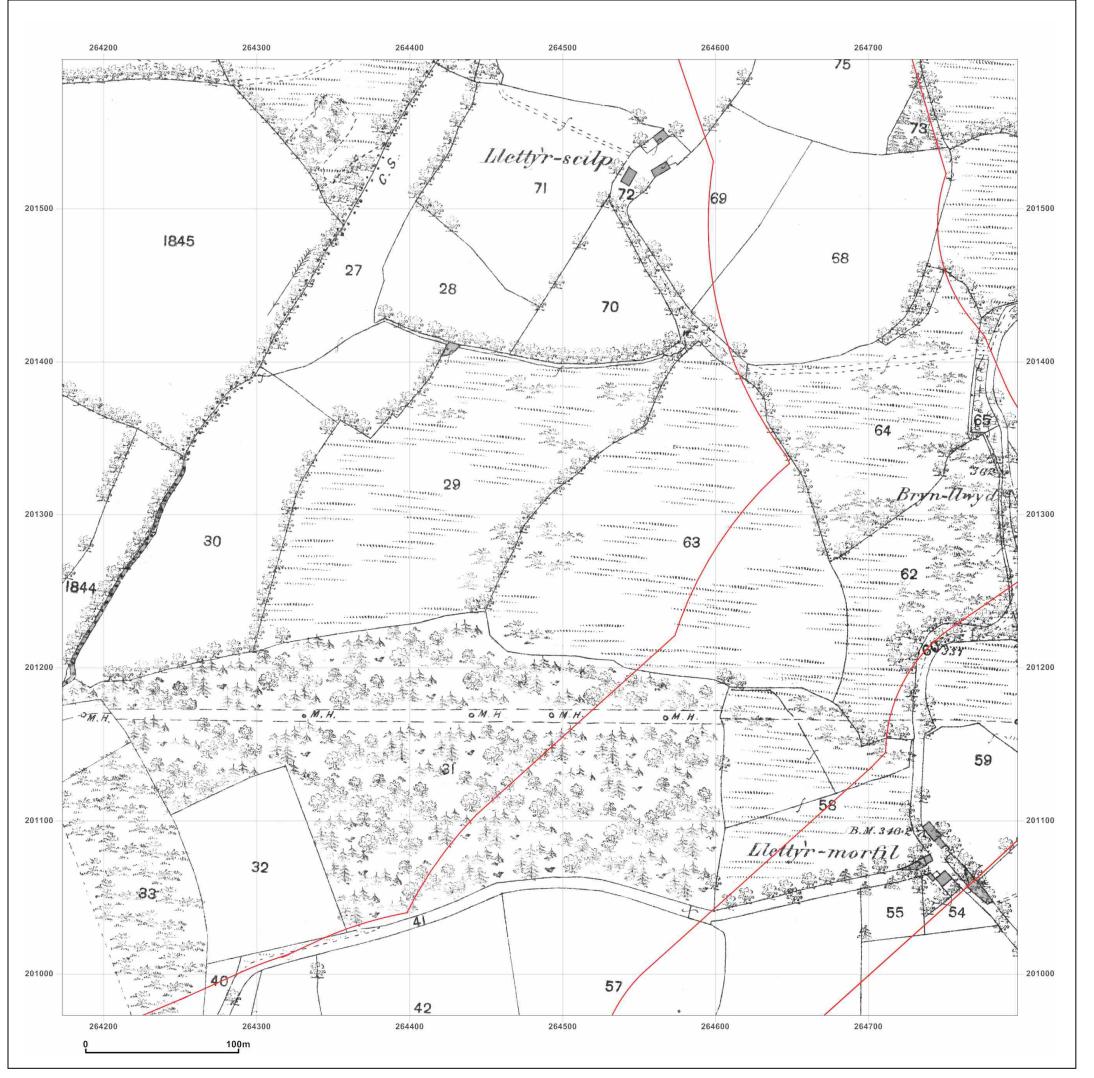


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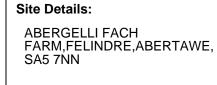
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Map Name: County Series

Map date: 1876

1:2,500 Scale:

**Printed at:** 1:2,500

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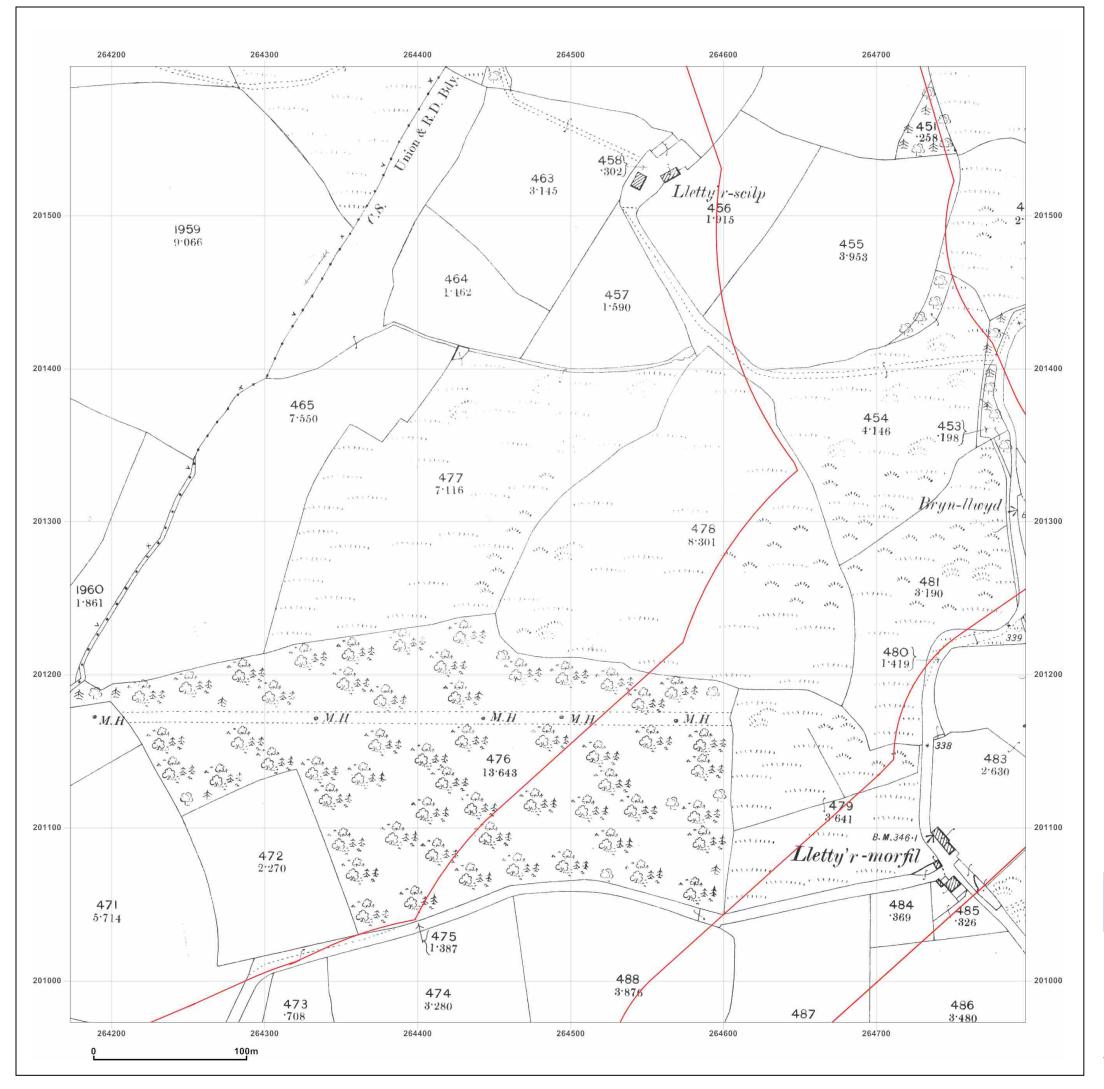


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Site Details: ABERGELLI FACH FARM,FELINDRE,ABERTAWE, SA5 7NN Client Ref: PB84891 **Report Ref:** GS-1587646_LS_3_3 Grid Ref: 264485, 201285 Map Name: County Series Map date: 1898 1:2,500 Scale: **Printed at:** 1:2,500 Surveyed 1898 Revised 1898 Edition N/A Copyright N/A Levelled N/A



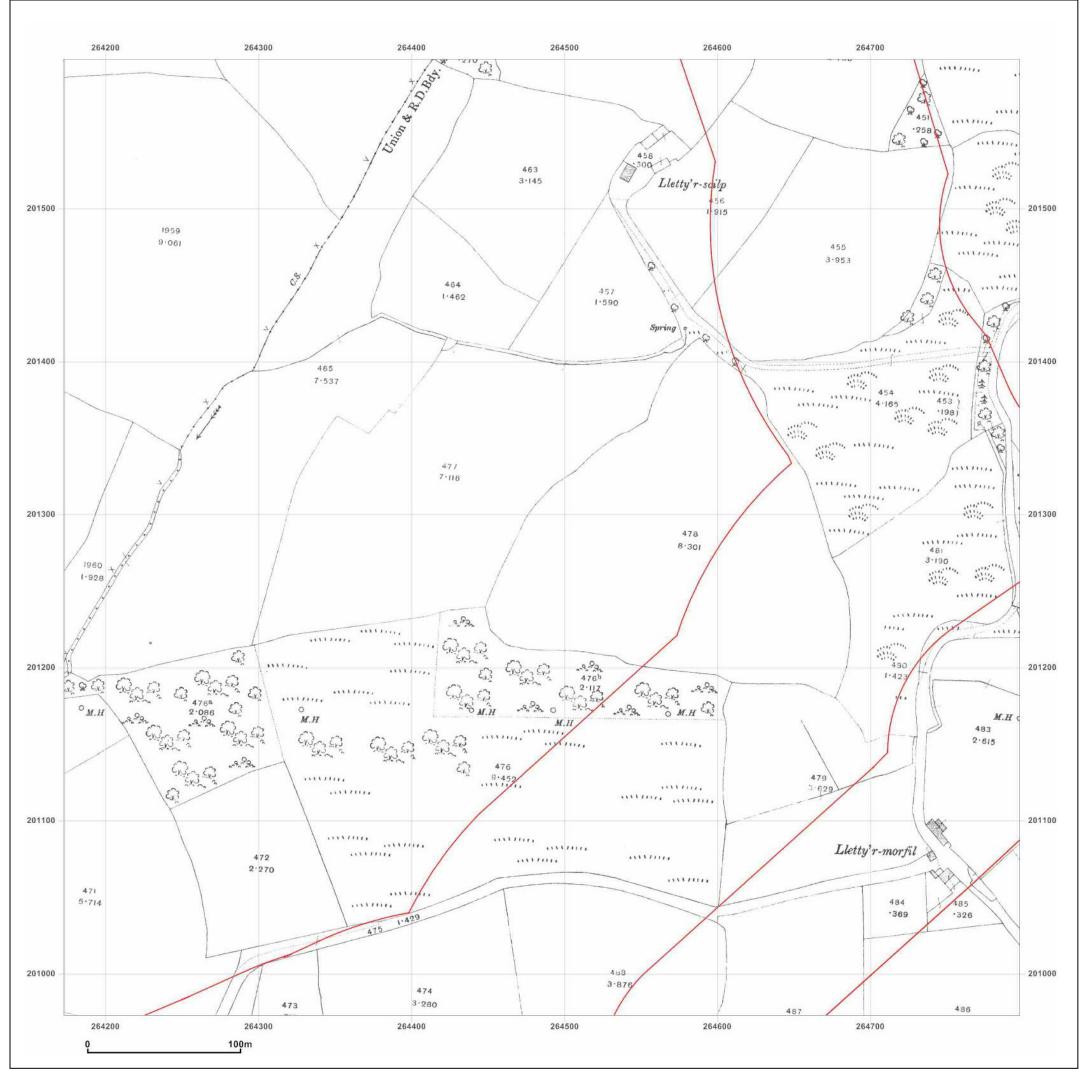
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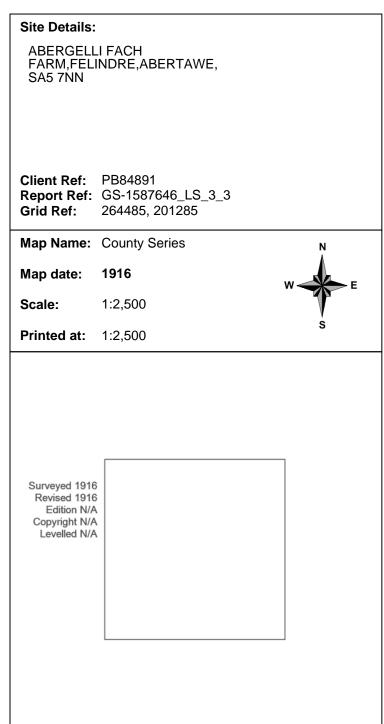
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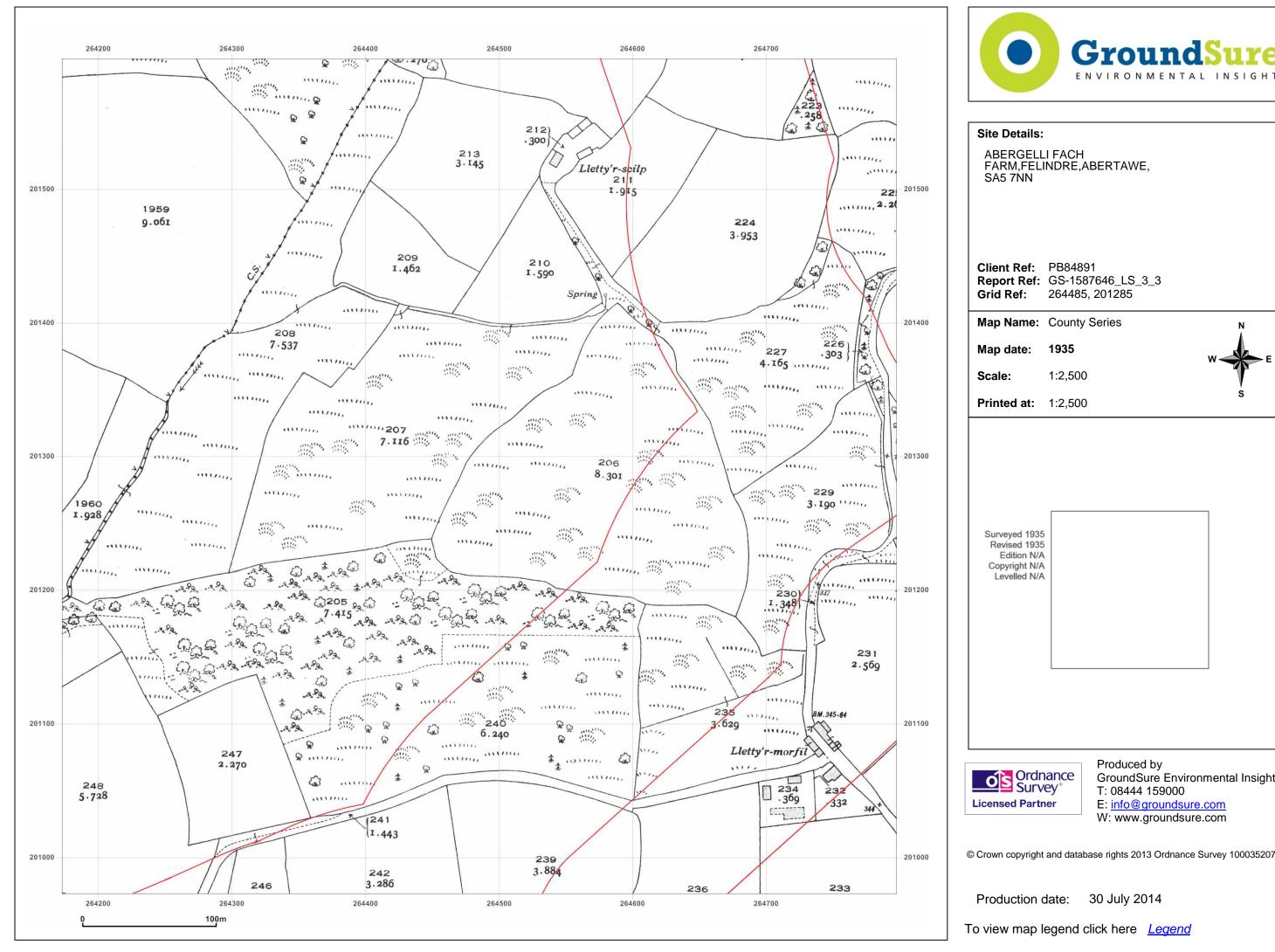


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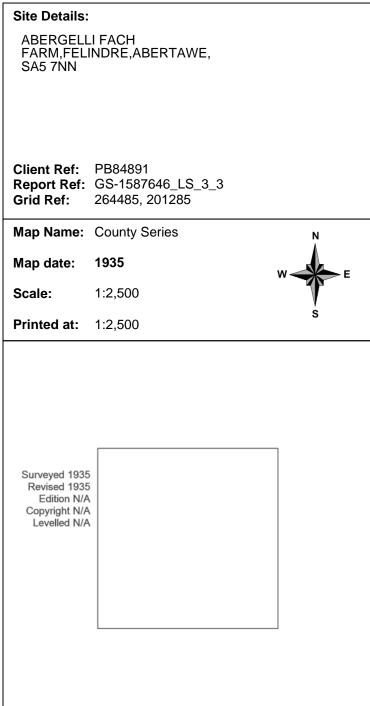
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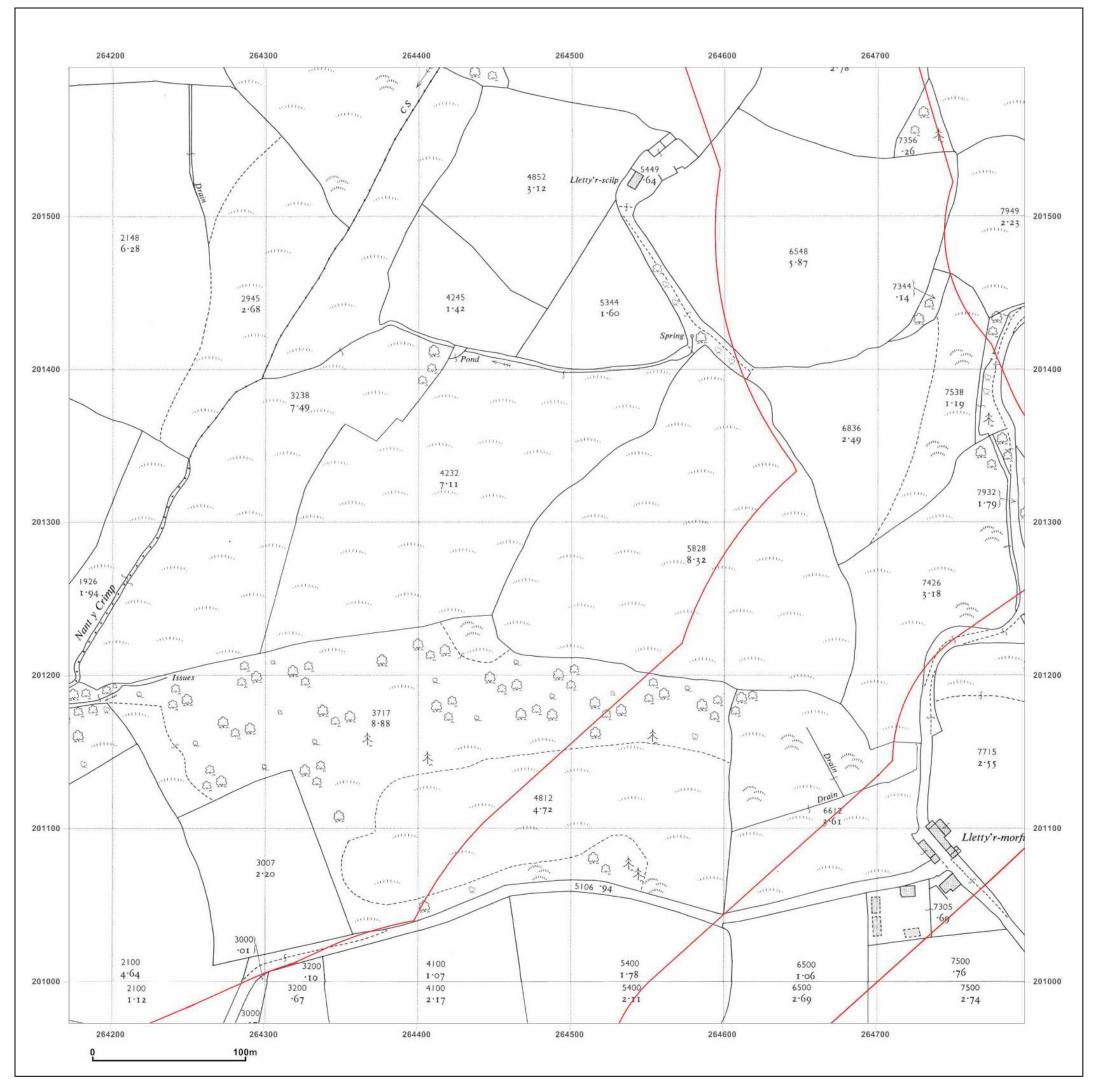




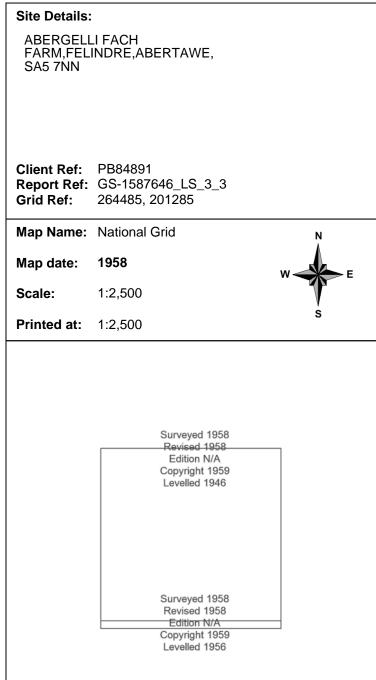
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E: info@groundsure.com W: www.groundsure.com

Production date: 30 July 2014









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GroundSure Environmental Insight

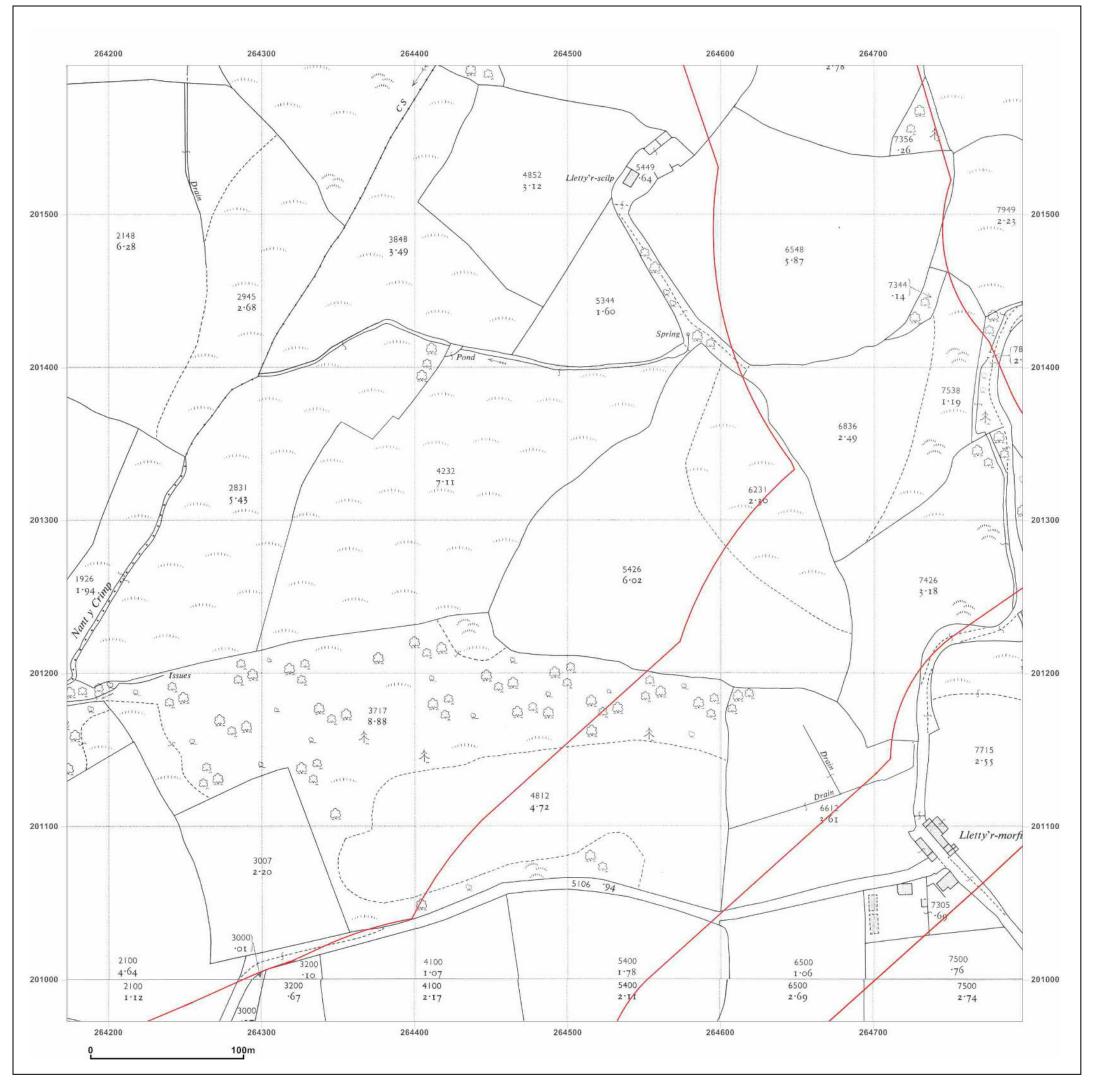
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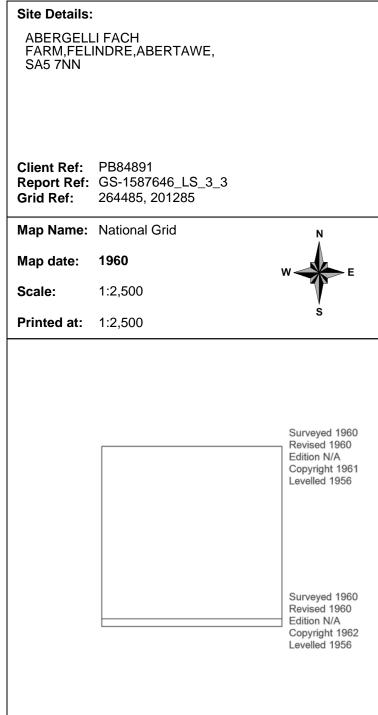
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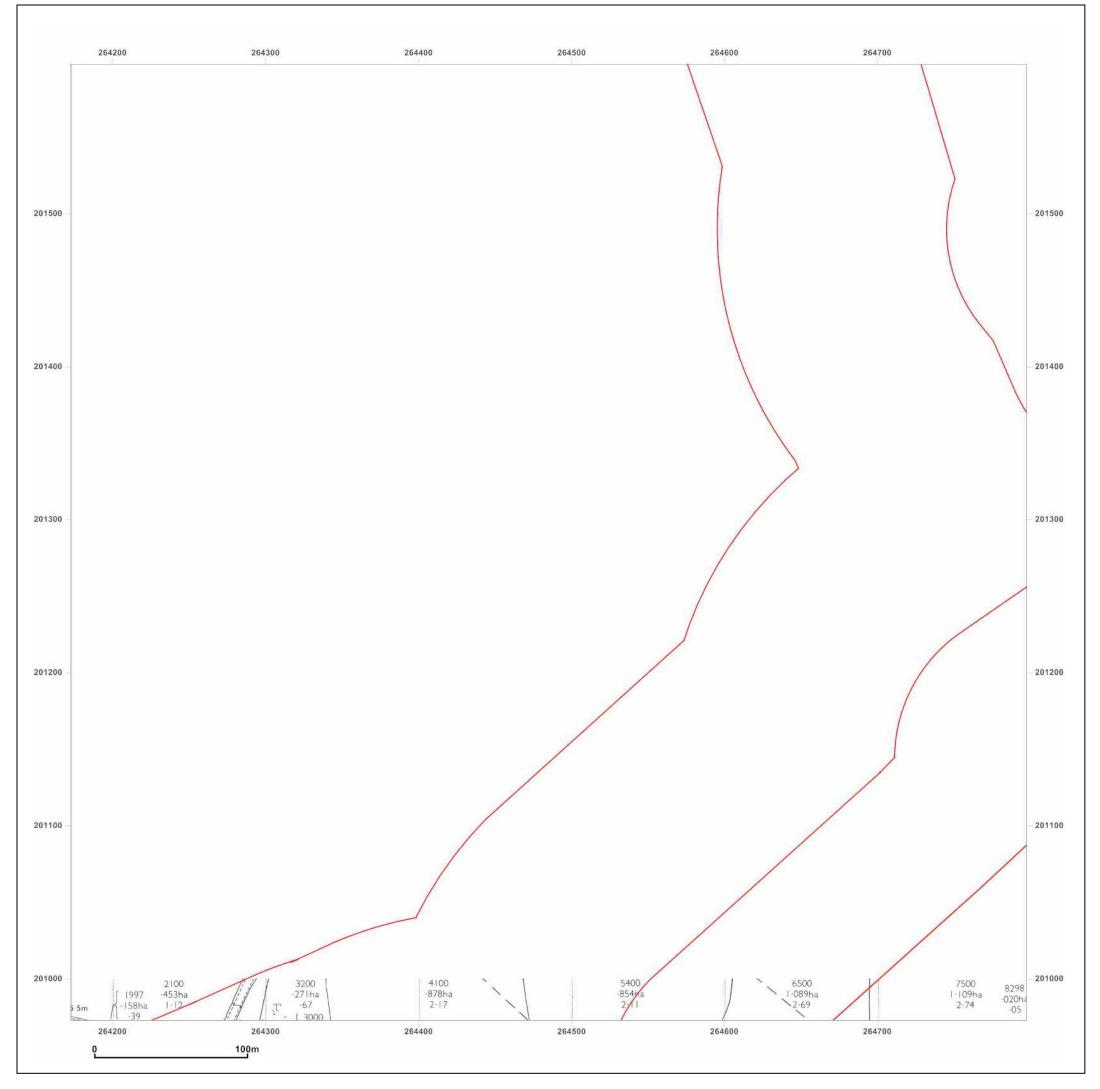
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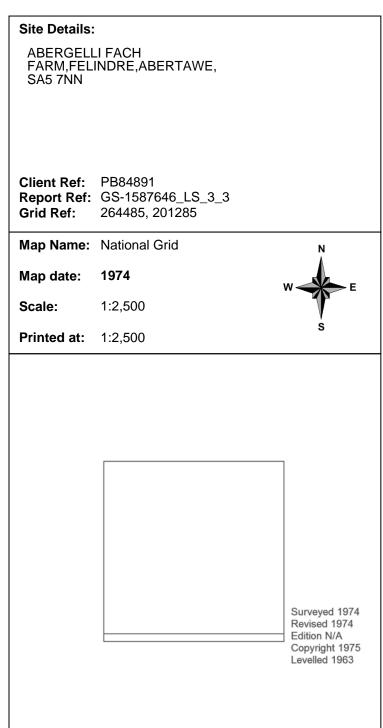
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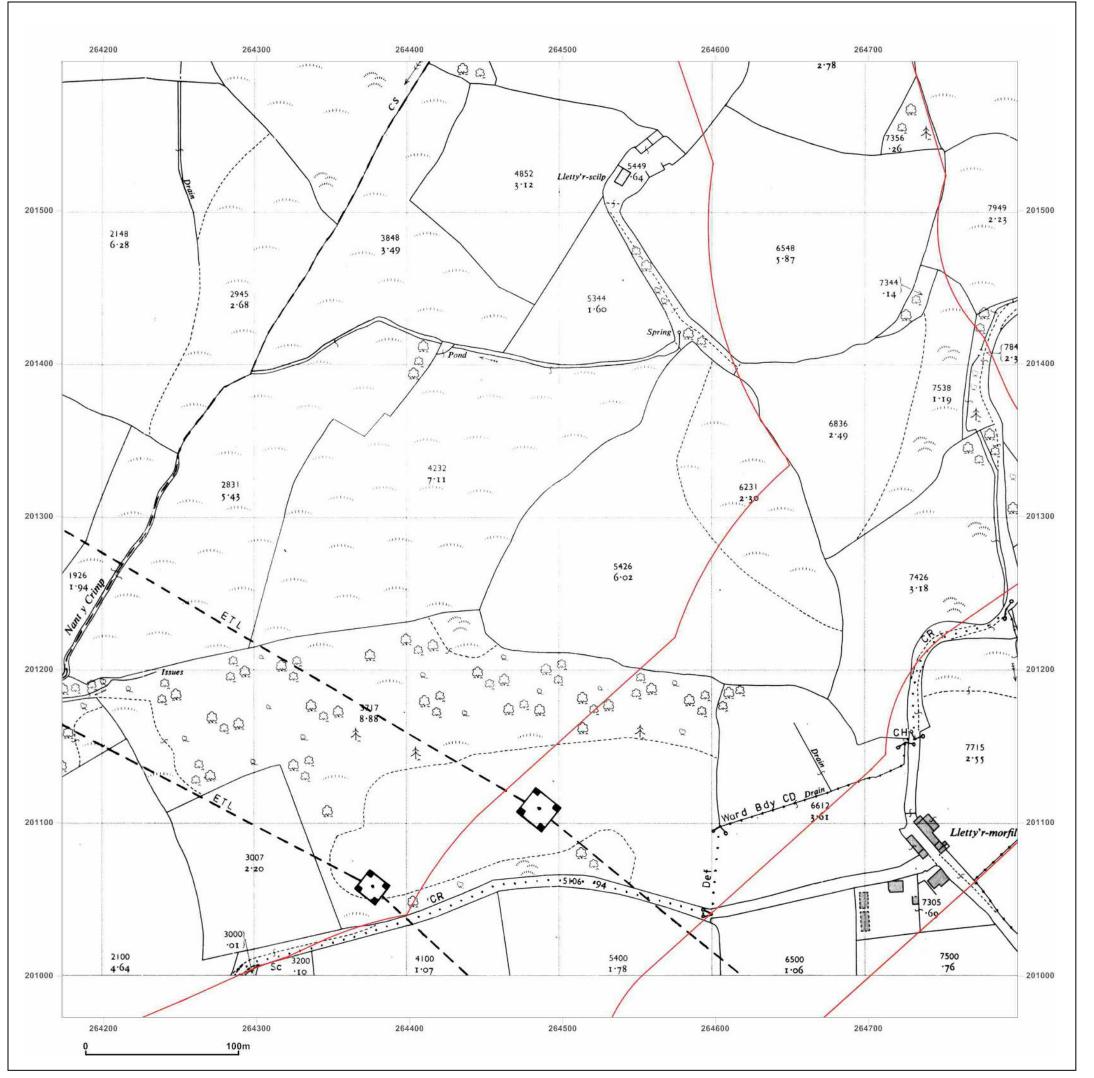


T: 08444 159000

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Site Details: ABERGELLI FACH FARM, FELINDRE, ABERTAWE, SA5 7NN

Client Ref: PB84891

**Report Ref:** GS-1587646_LS_3_3 Grid Ref: 264485, 201285

Map Name: National Grid

1989 Map date:

1:2,500 Scale:

**Printed at:** 1:2,500

Surveyed 1956 Revised 1989 Edition N/A Copyright 1989 Levelled 1956



Produced by GroundSure Environmental Insight

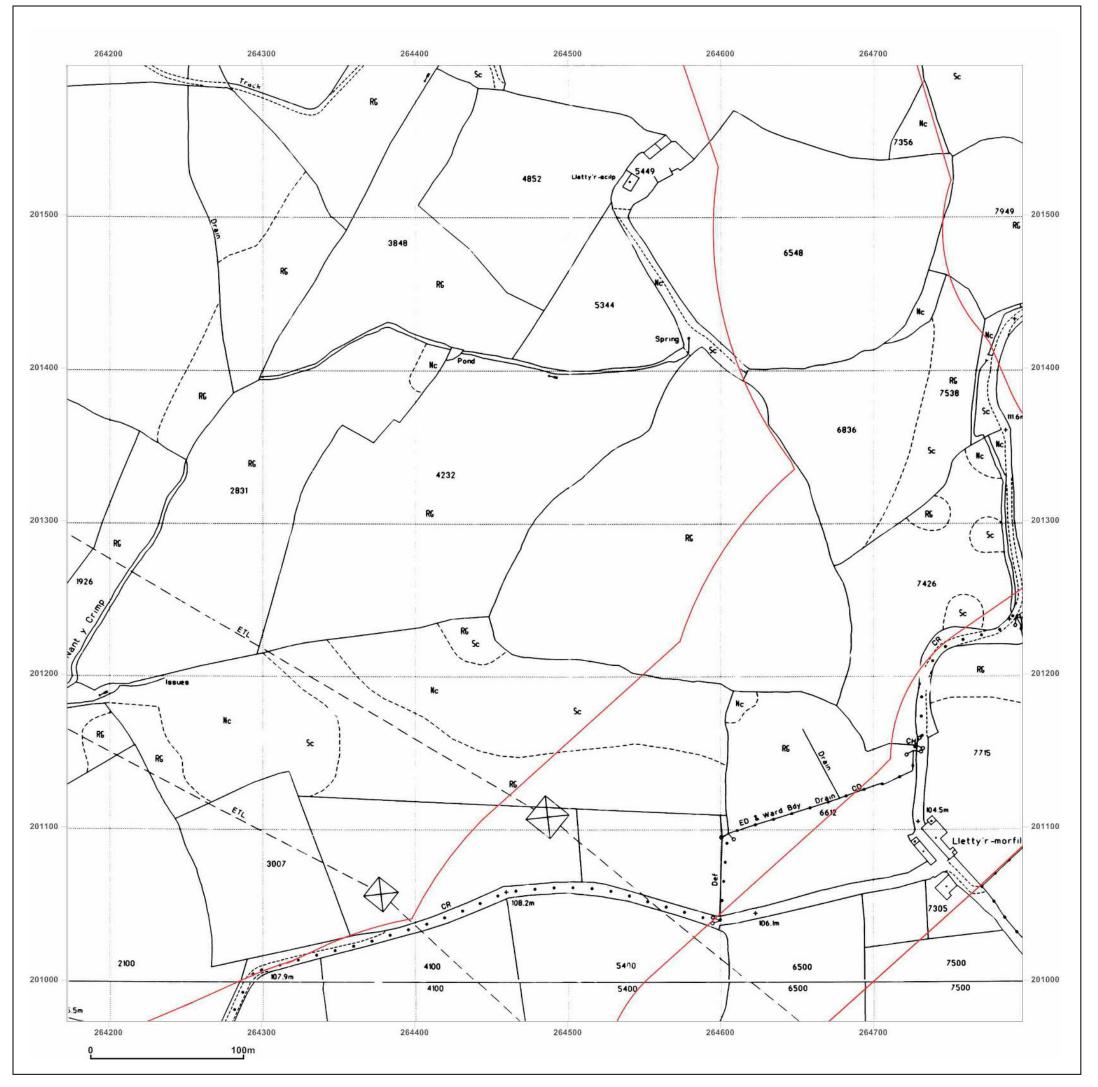
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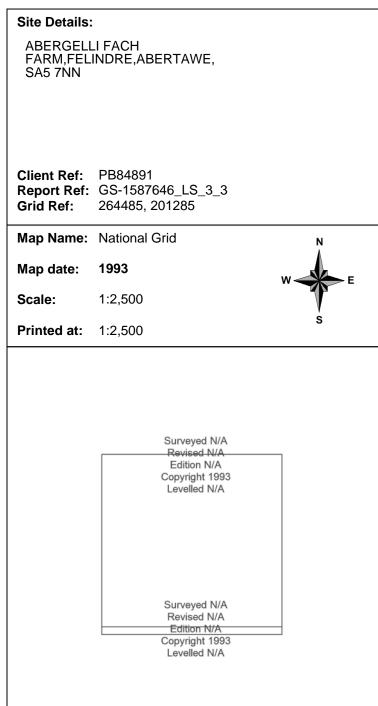
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Appendix 8.3

British Geological Survey Borehole Log SN65200160 Abergelli-fach Farm Engineering Geology Unit Department of Earth Sciences British Geology Liverpool

# BOREHOLE RECORD

British Geological Survey

Sheet 1 of 2

BOREHOLE NUMBER P4
British Geological

Contract: S Wales Sand and Gravel Assessment Locality: Aber-gelli-fach Farm Client: Welsh Office and Dept of Environment Grid Ref: SN 65200160

Drilling Contractor: Exploration Associates

Ground Level: 113 m

Drilling Method: Shell and Auger 200 mm Date Commenced 07:10:91 SN 605€ 24

	GL	WATER LEVEL	DEPTH (M)	THICKNESS (M)	SAM	PLES TO	REF NO	DESCRIPTION	LEGEND
		British Ge	o <b>0 ₀3</b> :al	surve <b>Q.3</b>				Brown sandy clayay: TORSOIL Brit	XXXXX
	1							Firm yellow brown sandy very gravelly CLAY with occasional cobbles	
British Geold	<b>2</b> gital Sur	tey					British G	ological Survey British Geological Survey	
•	<u>3</u>	British Ge	ological S	<b>6.1</b> urvey				British Geological Survey Brit	I S Polonical Surv
British Geold	5 ical Sun	, sv					British Ge	ological Survey British Geological Survey	
	7		6.4	1.5	6.5	6.5 7.4	P4/01 P4/02	Grey brown very clavey SAND  Grey brown very clayey pebbly fine SAND	
	8	Fritish Ge	8.0	Sirvey	7.4	8.4	P4/03	Grey brown very clayey fine SAND  British Geological Survey	is deniogral Sin
	9			1.7	8.4	9.7	P4/04	Grey brown clayey gravelly SAND	
British Geolo	ogical Sun	vey	9.7				British Ge	Grey brown clayey SAND	
			V wA	TER ST	RIKE		<b>▼</b> WA	TER LEVEL ENGINEER NCH	

# **BOREHOLE RECORD**

Sheet 2 of 2 BOREHOLE NUMBER P4

Contract: S Wales Sand and Gravel Assessment Locality: Aber-gelli-fach Farm

Client: Welsh Office and Dept of Environment Grid Ref: SN 65200160
Drilling Contractor: Exploration Associates Ground Level 113 m

Drilling Contractor: Exploration Associates

Drilling Method: Shell and Auger 200 mm

Ground Level 113 m

Date Commenced 07:10:91

_	GL	WATER LEVEL	DEPTH (M)	THICKNESS (M)	SAM	PLES TO	REF NO	DESCRIPTION	LEGEND
		British Geo	logical S 10.7	urvey <b>1.0</b>				British Geological Survey Britis	i Geological Surve
,	_11				10.7	11.7	P4/05	Grey brown very clayey fine SAND. Trace of coal	
British Geolog	<b>12</b> ical Survi	у			12.0	13.0	P4/06	Grey brown very clayey fine SAND  British Geological Survey	
•	<u>1</u> 3			3.3	13.0	14.0	P4/07	grading into Grey brown sandy CLAY	
	_14	ritish Geo	14.0		14.0	15.0	P4/08	British Geological Survey  Grey brown clayey fine SAND	e S.L. as de projektaj kaj de je je je
	<u>1</u> 5		15.1	'.'					
British Geolog	ical Surve	<b>.</b>	15.8	0.7			British Ged	Grey brown sandy CLAY	******
			16.8	1.0				Firm yellow CLAY becoming stiff grey gravelly CLAY ( possible BOULDER CLAY)	
	17							End of hole	
	18	itish Geo	logical Si	utvey				British Geological Survey British	Geological Surve
	19								
British Geolog	1	3					British Geo	ogical Survey British Geological Survey	
	<u>2</u> 0	7	<b>V</b> wa	TER STR	IKE	I	₩ WA	TER LEVEL ENGINEER NCH	

Appendix 8.4

Coal Authority Mining Report



APPENDIX C

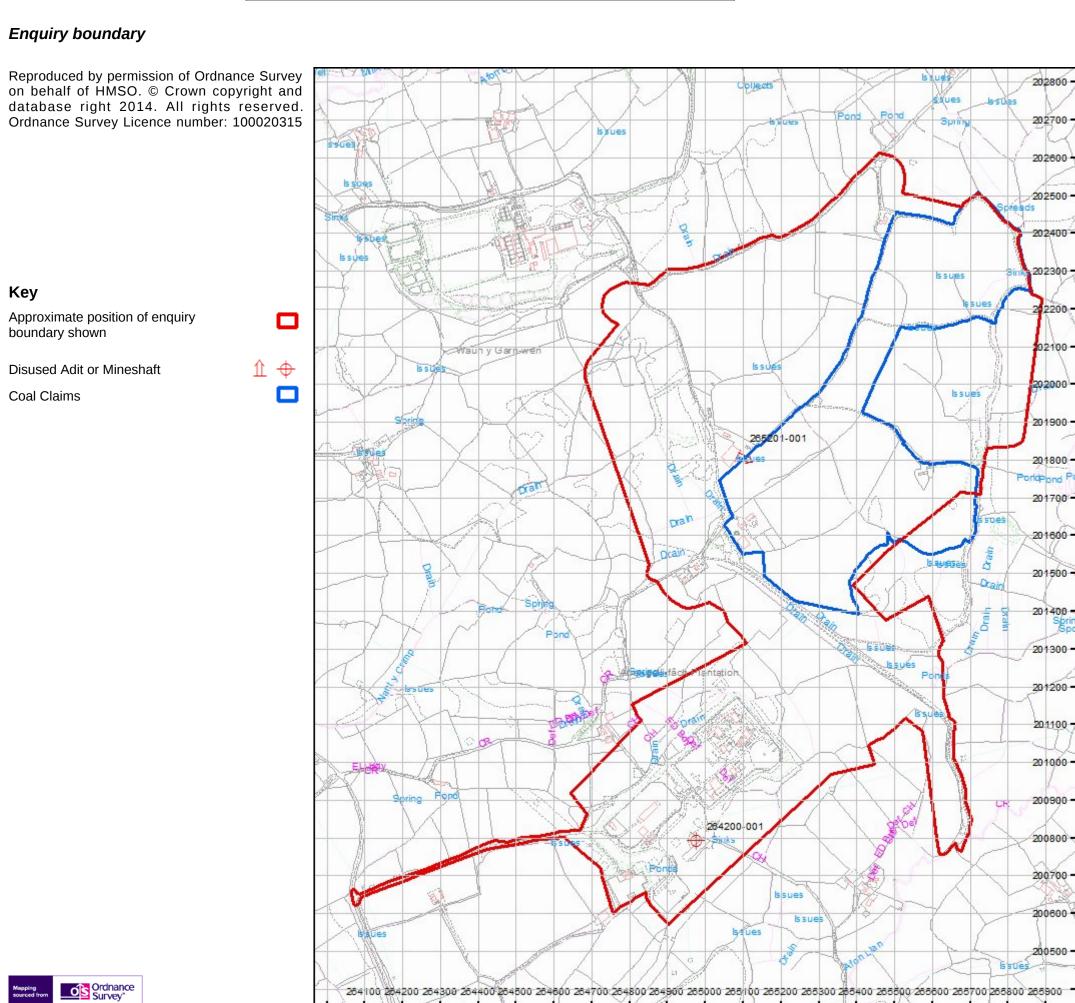
**COAL AUTHORITY MINING REPORT** 

# Location map



Approximate position of property







Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG Website: www.groundstability.com Phone: 0845 762 6848 DX 716176 MANSFIELD 5

PARSONS BRINCKERHOFF 27-29 CATHEDRAL ROAD CARDIFF CF11 9HA Our reference: 51000592880001
Your reference: QUOTE ONLY
Date of your enquiry: 30 July 2014
Date we received your enquiry: 30 July 2014

Date of issue: **01 August 2014** 

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

# **Non-Residential Coal Authority Mining Report**

## ABERGELLI FACH FARM, FELINDRE, SWANSEA, SA5 7NN

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

Coal mining	See comments below
Brine Compensation District	No

# Information from the Coal Authority

#### **Underground coal mining**

## **Past**

The property is in the likely zone of influence from workings in 3 seams of coal at shallow to 380m depth, and last worked in 1986.

#### **Present**

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

#### Future

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

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

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

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

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

# Mine entries

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Within, or within 20 metres of, the boundary of the property there are 2 mine entries, the approximate positions of which are shown on the attached plan.

There is no record of what steps, if any, have been taken to treat the mine entries.

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

For an additional fee, the Coal Authority will provide a supplementary Mine Entry Interpretive Report. The report will provide a separate assessment for the mine entry (entries) referred to in this report. It will give details based on information in the Coal Authority's possession, together with an opinion on the likelihood of mining subsidence damage arising from ground movement as a consequence of the existence of the mine entry/entries. It will also give details of the remedies available for subsidence damage where the mine entry was sunk in connection with coal mining. Please note that it may not be possible to produce a report if the main building to the property cannot be identified from Coal Authority plans (ie. for development sites and new build).

For further advice on how to order this additional information visit www.groundstability.com or telephone 0845 7626 848.

## Coal mining geology

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

# **Opencast coal mining**

#### **Past**

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

#### Present

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

#### **Future**

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

#### Coal mining subsidence

A damage notice or claim for alleged subsidence damage was made in November 1996 for ABERGELLI FARM, FELINDRE, SWANSEA, SA5 7NN. However, the claim was rejected. There is no current Stop Notice delaying the start of remedial works or repairs to the property. A damage notice or claim for alleged subsidence damage was made in June 1995 for ABERGELLI FARM, FELINDRE, SWANSEA, WEST GLAMORGAN, SA5 7NN. However, the claim was rejected.

There is no current Stop Notice delaying the start of remedial works or repairs to the property. The Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

If further subsidence damage claims information is required in addition to that provided in this report, the Authority need to manually search their records. For further advice on how to order this additional information visit www.groundstability.com or telephone 0845 7626 848.

#### Mine gas

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

#### Hazards related to coal mining

The property has been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

.**-**

#### Withdrawal of support

The property is in an area for which notices of entitlement to withdraw support were published in 1943, 1945, 1976, 1977.

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

# Working facilities orders

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

## Payments to owners of former copyhold land

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

## **Comments on Coal Authority information**

The attached plan shows the approximate location of the disused mine entry/entries referred to in this report. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

Property owners have the benefit of statutory protection (under the Coal Mining Subsidence act 1991*). This contains provision for the making good, to the reasonable satisfaction of the owner, of physical damage from disused coal mine workings including disused coal mine entries. A leaflet setting out the rights and the obligations of either the Coal Authority or other responsible persons under the 1991 Act can be obtained by telephoning 0845 762 6848 or online at www.coal.decc.gov.uk/en/coal/cms/services/claims.

If you wish to discuss the relevance of any of the information contained in this report you should seek the advice of a qualified mining engineer or surveyor. If you or your adviser wish to examine the source plans from which the information has been taken these are normally available at our Mansfield office, free of charge, by prior appointment, telephone 01623 637235. Should you or your adviser wish to carry out any physical investigations that may enter, disturb or interfere with any disused mine entry the prior permission of the owner must be sought. For coal mine entries the owner will normally be the Coal Authority.

The Coal Authority, regardless of responsibility and in conjunction with other public bodies, provide an emergency call out facility in coalfield areas to assess the public safety implications of mining features (including disused mine entries). Our emergency telephone number at all times is 01623 646333.

*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.

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

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

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## Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

#### **Additional Remarks**

This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006. The Coal Authority owns the copyright in this report. The information we have used to write this report is protected by our database right. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

Issued by: The Coal Authority, 200 Lichfield Lane,

Mansfield, Nottinghamshire, NG18 4RG

Tax Point Date: 30 July 2014

Issued to: PARSONS BRINCKERHOFF

27-29 CATHEDRAL ROAD

CARDIFF CF11 9HA

Property Search for: ABERGELLI FACH FARM, FELINDRE,

SWANSEA, SA5 7NN

Reference Number: 51000592880001

Date of Issue: 01 August 2014

Cost: £414.00

VAT @ 20%: £82.80

Total Received: £496.80

VAT Registration 598 5850 68

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Map images are being sent under separate cover

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#### Issued by:

The Coal Authority, Property Search Services, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire, NG18 4RG Website: www.groundstability.com Phone: 0845 762 6848 DX 716176 MANSFIELD 5

CHARLES ADEGITEOur reference:51000588204001OXFORD HOUSEYour reference:Mine entryOXFORD ROADDate of your enquiry:17 July 2014MANCHESTERDate we received your enquiry:17 July 2014M1 7EDDate of issue:21 July 2014

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

#### **Shaft Plan and Data Sheets**

#### ABERGELLI FACH FARM, FELINDRE, SWANSEA, SA5 7NN

I refer to the enquiry dated 17 July 2014, received 17 July 2014, in connection with the above.

As requested I enclose the mine entry data sheet(s) held for the mine entry/entries referred to.

-

# Mine Entry Data

Shaft/adit: Adit

Reference: 265201-001

Source: 1/2500 O.S Sheet Glam 15:1 1935 Ed Ab plans SW154 SW514

SWR666 SWA1795. Other: AG1 PD110 Abergelli No.1

Geological Sheet SN60SE N.G Ed 1/10560 O.S Sheet SN60SE

N.G Ed - site of

Colliery name: Unknown

Entry name: Aber Gelli Colliery

Date abandoned: Unknown
Depth of superficial deposits (m): Unknown
Depth of shaft (m): Unknown

Diameter of shaft (m): Unknown

Probable adit azimuth: 115

Treatment details: Unknown

Conveyance: Not Applicable

Easting: 265091
Northing: 201811
Other information: None

Issued by: The Coal Authority, 200 Lichfield Lane,

Mansfield, Nottinghamshire, NG18 4RG

Tax Point Date: 17 July 2014

Issued to: CHARLES ADEGITE

OXFORD HOUSE OXFORD ROAD MANCHESTER

M1 7ED

Property Search for: ABERGELLI FACH FARM, FELINDRE,

SWANSEA, SA5 7NN

Reference Number: 51000588204001

Date of Issue: 21 July 2014

Cost: £35.00

VAT @ 20%: £7.00

Total Received: £42.00

VAT Registration 598 5850 68

## Location map

Approximate position of enquiry





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This plan shows the approximate location of the disused mine entry / entries referred to in the attached mining report. For reasons of clarity, mine entry symbols may not be drawn to the same scale as the plan.

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Our emergency telephone number at all times is 01623 646333.

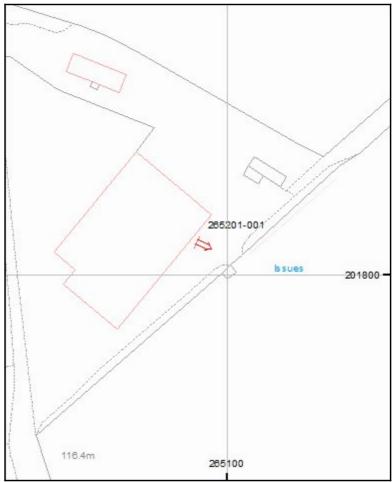
#### Key

Disused Adit or Mineshaft









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Page 4 of 4

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