

Lovell Partnerships

LAND AT CARMARTHEN WEST

Site Investigation Report

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PROJECT: Land at Carmarthen West

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1.0 INTRODUCTION

1.1 GENERAL

Lovell Partnerships are proposing to develop a site at Carmarthen West for residential end-use. The location of the site is shown in Figure 1.

Intégral Géotechnique (Wales) Limited have been appointed as the Geotechnical Engineers to undertake a site investigation to enable a geotechnical and geoenvironmental appraisal of the site and provide a basis for design.

This report presents the findings of the site investigation and gives recommendations for the design of foundations, floor slabs and other geotechnical and geoenvironmental aspects of the project.

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1.2 PROPOSED DEVELOPMENT

The proposed development will comprise the construction of a number of residential dwellings and associated infrastructure such as access roads, car parking areas and private driveways. The development will also include areas of landscaping and private gardens. There is a proposed attenuation area in the southern part of the site, as well as an existing drainage ditch/swale which runs parallel to the eastern boundary. An extract from the proposed masterplan is shown on Figure 2.

1.3 SCOPE OF WORKS

The work instructed included a desk study of available information, site reconnaissance and intrusive investigation. This was followed by laboratory testing, on site monitoring and geotechnical and geoenvironmental reporting.

The desk study comprised a review of:

- An Envirocheck Report obtained for the site

1.3 SCOPE OF WORKS (CONTINUED)

- Old Ordnance Survey maps covering the site, included within the Envirocheck Report,
- Geological maps of the area provided by the British Geological Survey,
- Natural Resources Wales groundwater vulnerability map and aquifer database for the area,
- Existing site investigation data (if available).

The desk study information was used to make an initial assessment of the site and to design an investigation to be carried out by Intégral Géotechnique. The site investigation was designed in accordance with BS 5930:2015+A1:2020, the Code of Practice for Site Investigations, BS10175:2011+A2:2017, the code of practice for investigation of potentially contaminated sites, and 'Development of Land Affected by Contamination: A Guide for Developers' prepared by Welsh Local Government Association (WLGA)/Natural Resources Wales (NRW) Land Contamination Working Group, 2023.

The site investigation included:

- 8 No. machine excavated trial pits,
- 5 No. dynamic windowless sampling boreholes,
- Sampling of soil for laboratory chemical and geotechnical testing.

1.4 LIMITATIONS

This document is intended to be a working document for further development in discussion with all concerned including the Local Planning Authority, Natural Resources Wales, and building control as appropriate.

"Contamination" is taken throughout the report to mean the "presence of one or more potentially harmful substances as a result of human activity". The use of the term in this way does not imply that harm is being or might be caused by the contamination. It should be noted that "contamination" can have different meanings under different regulatory regimes, for example, planning, building control and Part IIA of the Environmental Protection Act 1990. Naturally elevated concentrations of potentially harmful substances may also be of concern and the significance of any that have been found is also evaluated in this report.

1.4 LIMITATIONS (CONTINUED)

It is important to recognise that there may be areas of contamination that have not been found, or that contaminants are present at concentrations above those that have been found. It is also important to recognise that contamination may be localised and that no investigation, however comprehensive, is capable of finding such occurrences other than by chance.

It should also be noted that vertical and lateral changes in ground conditions may be present between exploratory hole locations.

2.0 THE SITE

2.1 SITE LOCATION AND DESCRIPTION

The site is located to the west of Ffordd Pendre, approximately 1.5km west of Carmarthen town centre, at a National Grid Reference of 238590, 219710, see Figure 1.

The site is roughly rectangular in shape and occupies an area of approximately 3.4 hectares. The boundaries of the site are defined by undeveloped fields to the north and west, an existing wooded track with residential development beyond to the south and Ffordd Pendre and associated roundabout to the east. A site plan is presented in Figure 3.

The site is situated on sloping ground which falls to the south and southeast from an approximate maximum elevation of 37m Above Ordnance Datum (AOD) in the northwest area of the site, falling to an approximate minimum elevation of 29m AOD in the southeast corner.

The site comprises a grassed undeveloped field with hedgerows forming the site boundaries. Access to the site is gained via a gateway from Ffordd Pendre to the east.

2.2 SITE OPERATIONS

The site is currently undeveloped and used for agricultural purposes.

2.3 SURROUNDING LAND USE

The surrounding areas mainly comprise undeveloped fields with residential development to the south.

2.4 AVAILABLE SITE INVESTIGATION DATA

There is no available site investigation data to our knowledge.

3.0 SITE HISTORY

The recent history of the site has been traced with the aid of an Envirocheck Report, a copy of which is included in Appendix A. The Envirocheck Report includes the following scaled historical maps:

Map Scale	Dates
1:2,500	1889-1890, 1906, 1936, 1969, 1973, 1977, 1987, 1990, 1993, 2000 (aerial photo)
1:10,560	1888, 1907, 1938-1953, 1952
1:10,000	1964, 1975, 1992, 2000, 2006, 2024

The earliest edition of the map dated 1889-1890 indicated the site to be part of a large undeveloped field. A small lane formed the southern boundary of the site. Only the eastern edge of the site was formed by a physical boundary. Occasional trees were indicated along the eastern boundary of the site, along the lane to the south and along the field boundaries in the vicinity of the site. There was no development within 250m of the site boundary. Tawelan Brook flowed in a south easterly direction approximately 125m to the northeast of the site.

The site and the immediate surrounding areas remained undeveloped over the subsequent years. Limited development had occurred by the edition of the map dated 1969 with the construction of a warehouse and kennels approximately 250m to the west and a cattle breeding centre approximately 160m to the south.

The 1977 edition of the map indicated that the site and the surrounding areas had remained undeveloped. The site had been separated into two areas with a field boundary indicated approximately through the centre of the site on a north to south orientation. A large mill had been constructed approximately 100m to the west of the site.

The year 2000 aerial photo indicated the site to be grass covered and there was no longer any evidence of the north to south orientated field boundary. There was now residential development indicated approximately 110m to the southeast.

The site has remained undeveloped up until the present day. Residential development continued to the south of the site by 2018 and Ffordd Pendre had been constructed to form the eastern boundary of the site by this time. A roundabout and future site access had also been constructed at the northeast corner of the site.

4.0 SITE ENVIRONMENTAL SETTING

4.1 PHYSICAL SETTING

The site is located within a mixed rural and residential setting on the western edge of Carmarthen.

The site is situated on sloping ground which falls to the south and east from an approximate maximum elevation of 37m Above Ordnance Datum (AOD) in the northwest area of the site, falling to an approximate minimum elevation of 29m AOD in the southeast corner.

4.2 GEOLOGY

The 1:50,000 scale geological map indicates the site to be underlain by the solid strata of the Tetraraptus Beds of the Ordovician Period. The Tetraraptus Beds typically comprise shales and mudstones.

Superficial Devensian Glaciofluvial Deposits of the Quaternary period are indicated to overlie the solid strata. These deposits are variable in nature but typically comprise sands and gravel.

Topsoil/subsoil would be anticipated across the site, and it is unlikely that made ground would be widespread. Localised made ground or reworked materials may be present on the field boundaries or in the gateway associated with agricultural use or associated with the road and roundabout construction to the east.

A summary of the anticipated geological succession is given below in Table 1.

Table 1: Summary of Anticipated Site Geology		
Geological unit	Horizon	Description
Recent	Topsoil/subsoil with possible localised areas of made ground/reworked materials	Various materials
Quaternary	Devensian Glaciofluvial Deposits	Variable sands and gravel.
Ordovician	Tetraraptus Beds	Shales and mudstones

4.3 RADON

Information with regard to Radon Protective Measures is provided within the Envirocheck Report as presented in Appendix A. The report states that the site is located within an intermediate probability area, as 3% to 5% of properties are above action level, and that therefore basic radon protective measures would be necessary in the construction of new buildings within the site.

4.4 MINING

The site is not located within an area that would be affected by past, present or future underground mining.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK

The Envirocheck Report indicates that the nearest surface water feature is located 93m to the north of the site. The OS Water Network Lines map indicates this to be an unnamed surface water feature. The nearest named feature is Tawelan Brook located 125m to the northeast.

The Natural Resources Wales groundwater vulnerability map and aquifer database classifies the bedrock beneath the site as a Secondary 'B' Aquifer. Secondary B Aquifers are predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering.

The Natural Resources Wales groundwater vulnerability map and aquifer database classifies the superficial deposits beneath the site as a Secondary 'A' Aquifer. 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.

The Envirocheck Report indicates that there are two effective discharge consents recorded within 250m of the site boundary. The nearest is recorded 119m to the southwest where a trade and other matter discharge was received by a tributary of Tawelan Brook. The next discharge is recorded 228m to the west where an unspecified discharge is received by Tawelan Brook.

The Envirocheck Report states that there are no groundwater or surface water abstractions recorded within 1km of the site boundary.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK (CONTINUED)

Tables 2 and 3 present a summary of the hydrological features and key hydrogeological nature of the site.

Feature	Distance from site	Flow	Classification	Abstraction	Discharge
Unnamed surface water feature	93m north	Easterly	Inland river	No	Tawelan Brook
Tawelan Brook	125m northeast	South easterly	Inland river	No	River Towy
Surface run-off	On-site	Flows into site drainage or infiltrates into site	N/A	No	Not known
Site Drainage	On-site	Not known	N/A	No	Not known

Geological Unit	Aquifer Classification	Aquifer Characteristics	Source Protection Zone	Groundwater Abstractions
Topsoil/subsoil with possible localised areas of made ground	Not classified	Highly variable permeability and porosity. Perched water may be present with variable flow directions.	No	None
Devensian Glaciofluvial Deposits	Secondary A Aquifer	Variable moderate permeability and porosity with intergranular flow possible. High clay content likely to restrict flow.	No	None
Tetragraptus Beds	Secondary B Aquifer	Variable low permeability shales and mudstones which may store and yield limited amounts of groundwater	No	None

The Groundwater Vulnerability map of the area indicates the secondary superficial aquifer to have a high vulnerability. The pollutant speed is high with well-connected fractures.

The Natural Resources Wales Flood Risk Map as presented within the Envirocheck Report indicates that the site is not at risk of extreme flooding from rivers or sea without defences.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK (CONTINUED)

The Natural Resources Wales Surface Water Flood Risk map as presented within the Envirocheck Report indicates that the site is not at a high-risk of surface water flooding (1 in 30-year flood extent).

The BGS Groundwater Flooding Susceptibility map as presented within the Envirocheck Report indicates that the site has limited potential for groundwater flooding to occur.

4.6 LANDFILL SITES

The Envirocheck Report indicates that there are no historical, BGS recorded or local authority landfill sites or any licensed waste management facilities located within 250m of the site boundary.

There are no areas of potentially infilled land (water or non-water) recorded within 250m of the site boundary.

4.7 POTENTIAL CONTAMINATION

4.7.1 *Previous Uses and Existing Uses*

The various activities in the vicinity of the site which may have resulted in ground or water resource contamination on this site are listed below in Tables 4 and 5.

Table 4: Potential Contaminants		
Land Use: Undeveloped field until present day		
Material/Process	Contamination/Hazard	Evidence
Agricultural land	No potential contaminants	Historical maps
Localised ground disturbance on field boundaries and in gateways associated with general agricultural use and potential disturbance associated with the construction of the road and roundabout to the east	Metals, semi metals, non-metals, PAH, asbestos	Aerial photos

4.7 POTENTIAL CONTAMINATION (CONTINUED)

4.7.2 Adjacent Site Uses

Table 5: Potential Contaminants: Adjacent Site Uses		
Potential Contamination Source	Boundary	Associated Contaminants and Hazards
Undeveloped fields	Northern and western	No potential contaminants
Access track with residential development beyond	Southern	No potential contaminants
Ffordd Pendre and roundabout	Eastern	No potential contaminants

4.8 OTHER ENVIRONMENTAL ISSUES

The Envirocheck Report indicates that environmentally sensitive land has not been identified within 500m of the site boundary.

The Envirocheck Report indicates that there have been no pollution incidents to controlled waters recorded on site but one within 500m of the site boundary. A Category 3-Minor Incident involving oils (fats and grease) was recorded 228m west of the site.

There have been no substantiated pollution incidents recorded on site or recorded within 500m of the site boundary.

There have been no prosecutions or historical prosecutions recorded within 1km of the site boundary.

The site is vegetated with more heavily vegetated field boundaries. It is not known if any invasive plants are present. It would be prudent to undertake a full vegetation survey prior to development.

5.0 PRELIMINARY CONCEPTUAL SITE MODEL

5.1 RISK ASSESSMENT FRAMEWORK

In order to be consistent with current UK government policies and legislation, it is necessary to identify, assess, estimate, evaluate, and take appropriate action to deal with land contamination, in accordance with the procedures specified in the Environment Agency guidance Land Contamination Risk Management (LCRM) published in October 2020. This replaces the now withdrawn 'Model Procedures for the Management of Land Contamination CLR-11' (Environment Agency 2004).

The risk assessment process is designed to provide a reasoned, structured and pragmatic mechanism for the identification of any potential human health and controlled waters risks associated with land contamination and where necessary to develop a robust remediation strategy to ensure protection of the sensitive receptors (human health of future residents, controlled waters, etc).

In accordance with LCRM, the term 'land contamination' is defined as:

- All land affected by contamination – land that might have contamination present which may, or may or may not, meet the statutory definition of contaminated land,
- Land determined as contaminated land under Part 2A of the Environmental Protection Act 1990.

LCRM provides a tiered approach to risk assessment, comprising a preliminary risk assessment (including the development of an initial conceptual site model), a generic quantitative risk assessment and a detailed quantitative risk assessment. For each tier of risk assessment, the following steps must be followed:

1. Identify the hazard - establish contaminant sources;
2. Assess the hazard – use a source-pathway-receptor linkage approach to determine if there is potential for unacceptable risk;
3. Estimate the risk – predict what degree of harm or pollution may result and how likely it is to occur;
4. Evaluate the risk – decide whether a risk is unacceptable.

LCRM also provides definitions of the following terms:

- Hazard – a property or situation that in particular circumstances could lead to harm or pollution;

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

- Risk – a combination of the probability, or frequency of occurrence of a defined hazard and the magnitude of the consequences of the occurrence,
- Risk assessment – the formal process of identifying, assessing and evaluating the health and environmental risks that may be associated with a hazard,
- Risk management – the formal process to identify, assess and determine the risks, and to select and take action to mitigate them.

The three essential elements to any risk are defined by LCRM as follows:

- A contaminant, or pollutant, that is in, on, or under the land and that has the potential to cause harm, or pollution (Source)
- A route by which a receptor is, or could be affected by a contaminant (Pathway)
- A receptor, i.e. something that could be adversely affected by a contaminant, for example a person, controlled waters, an organism, an ecosystem, or Part 2A receptors such as buildings, crops or animals (Receptor).

In order for there to be a potential risk, all three of the above elements must be present. If there is a source of contamination and a receptor (for example a resident or site user), then there is only a potential risk if there is a pathway linking the two. Such an active pathway is known as a relevant pollutant linkage. It is possible for the same contaminant to be linked to a receptor via a number of pathways, and hence it is important that all relevant pollutant linkages, to both human health and controlled waters, are separately identified on a site in order that a comprehensive conceptual model can be formed and ultimately a robust remediation strategy designed.

Current practice during Generic Quantitative Risk Assessment of land affected by contamination is to use generic soil screening values based on the appropriate proposed end use. These usually comprise risk-based Soil Guideline values (SGVs) or Generic Assessment Criteria (GACs) derived by the Environment Agency's Contaminated Land Exposure Assessment Model (CLEA). The SGVs and the supporting technical guidance were developed in order to assist in the assessment of long-term risk to human health from the exposure to contaminated soils.

Revised Statutory Guidance, published in 2012, to support Part 2A of the Environmental Protection Act 1990, introduced a new four category system for classifying land under Part 2A. Category 1 includes land where the level of risk is clearly unacceptable and Category 4 includes land where the level of risk posed is considered to be acceptably low. Under Part 2A, land would be determined as contaminated if it falls within Categories 1 or 2.

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

The revised Part 2A Statutory Guidance was accompanied by an Impact Assessment that identified a role for new 'Category 4 Screening Levels' (C4SLs) that would provide a simple test for determining when land is suitable for use and definitely not contaminated land. A Policy Companion Document including the C4SLs was published in March 2014 (England) and May 2014 (Wales).

The C4SLs have been based on the CLEA methodology and derived using the CLEA model, with modified toxicological and exposure parameters. To date, C4SLs have been released for six substances (arsenic, cadmium, chromium (VI), lead, benzo(a)pyrene and benzene).

The C4SLs have been derived on the assumption that where they exist, they will be used as generic screening criteria within generic quantitative risk assessment.

Following publication of the C4SLs, Land Quality Management (LQM), in conjunction with the Chartered Institute for Environmental Health (CIEH) released Suitable 4 Use Levels (S4ULs) in January 2015.

The S4ULs have been derived in accordance with UK legislation, and using a modified version of the Environment Agency's CLEA software. As such, the S4ULs are based on the concept of minimal or tolerable risk as described in Human Health Toxicological Assessment of Contaminants in Soil (Science Report SR2, Environment Agency 2009a).

S4ULs have been derived for a wider number of substances.

In addition to the existing SGVs, C4SLs and S4ULs, Atkins ATRISK^{soil} also provide a set of Soil Screening Values. These are currently intended to be used in conjunction with SGVs, although they intend to update these values in line with the C4SLs in due course.

We have reviewed all sets of values and intend to use the most appropriate assessment criteria as Tier 1 screening values in the first instance. Where a published S4UL is available, and considered appropriate, this will be used in the first instance.

5.2 CONCEPTUAL MODEL FRAMEWORK

The preliminary stage of the risk assessment process is to develop and define a conceptual site model, based on the desk study and any existing site investigation data. This is used to establish any potential contaminant sources, identify existing and future receptors and assess if there are any potentially active pathways by which a potential risk may be present.

5.2 CONCEPTUAL MODEL FRAMEWORK (CONTINUED)

The preliminary conceptual site model will be developed and refined as site specific data is gathered, such as actual ground conditions and chemical data, resulting in a more robust conceptual understanding of the site.

5.3 CRITICAL SENSITIVE RECEPTOR – HUMAN HEALTH

The proposed redevelopment of the site is for a residential end use. Therefore, the critical sensitive receptor from a human health perspective is an on-site residential receptor.

In accordance with S4UL/C4SL and CLEA guidance for a standard residential with homegrown produce scenario, the critical sensitive receptor for a residential end use risk assessment is a female child, with exposure from 0 to 6 years.

The standard residential with homegrown produce end use conceptual model defined by S4UL/C4SL and CLEA is assumed to be suitable for the purposes of this assessment.

5.4 CRITICAL SENSITIVE RECEPTOR – CONTROLLED WATERS

Based on the proposed redevelopment of the site for a residential end use, and the findings of the desk study, the critical sensitive receptor from a controlled water perspective is groundwater within the Secondary 'A' Aquifer of the Devensian Glaciofluvial Deposits.

By considering groundwater as the critical sensitive receptor for controlled waters, the groundwater/hydrogeological risk assessment will also be protective of any nearby surface water features.

5.5 POTENTIAL CONTAMINANT SOURCES

As identified in the desk study, the site has remained largely undeveloped and utilised as agricultural land up until the present day. Localised areas of made ground could be present on field boundaries and in gateways associated with general agricultural activity. There could be disturbed ground associated with the construction of the road.

Made ground would not be anticipated to be widespread but where any is encountered the potential types of contaminants of concern are listed below:

- Metals, semi-metals, and inorganics within the shallow made ground
- Polycyclic aromatic hydrocarbons (PAH) within the shallow made ground
- Asbestos within the shallow made ground.

5.5 POTENTIAL CONTAMINANT SOURCES (CONTINUED)

Additionally, it would be prudent to check topsoil/subsoil for reuse in gardens and landscaped areas.

5.6 POTENTIAL EXPOSURE PATHWAYS

Potential exposure pathways for the critical receptors (both human health and controlled waters) are listed below:

- Dermal contact with soil and/or soil derived dust,
- Ingestion of soil and/or soil attached to home-grown produce,
- Ingestion of home-grown produce,
- Inhalation of soil derived dust,
- Inhalation of vapours – indoor and outdoor air,
- Leaching of contaminants from made ground to groundwater,
- Transportation of contaminants within groundwater.

In addition, the following exposure pathways have also been considered:

- Ground gas generation and migration
- Building materials durability.

5.7 SUMMARY OF CONCEPTUAL EXPOSURE MODEL

A preliminary conceptual exposure model has been developed for the site. This is based on the findings of the desk study, historical review and site walk over and includes all potential sources, pathways and receptors that may be present on site. Those that have been identified as being potentially active require further investigation in the form of sampling and testing of soils and groundwater, followed by appropriate risk assessment.

The preliminary conceptual exposure model will be reviewed and refined following the completion of the site works and laboratory testing.

The preliminary conceptual exposure model is presented below in Table 6.

5.7 SUMMARY OF CONCEPTUAL EXPOSURE MODEL (CONTINUED)

Table 6: Preliminary Conceptual Exposure Model				
Source		Receptor	Pathway	Potentially Active Pathway?
Origin	Contaminant			
Made Ground of unknown origin and historical land uses and in-situ soils	Metals, semi-metals, non-metals, PAH, asbestos	Resident – human health	Dermal Contact with made ground/dust	✓
			Ingestion of soil and/or soil attached to home-grown produce	✓
			Ingestion of home-grown produce	✓
			Inhalation of dust	✓
			Inhalation of vapours – indoor/outdoor	✓
	Metals, semi-metals, inorganics, PAH	Groundwater quality	Leaching from made ground	✓
		Surface water quality	Transportation within groundwater	✓
Made Ground of unknown origin and natural ground	pH and water-soluble sulphate	Building Materials Durability	Direct contact	✓
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration off site, leading to asphyxiation, or risk of explosion	X Significant thickness of gas producing materials not anticipated on site. No off-site sources identified. Basic radon protection required

6.0 THE SITE INVESTIGATION

6.1 FIELDWORKS

A site investigation was undertaken in July 2025. The site investigation was designed in accordance with BS 5930:2015+A1:2020 (Code of Practice for Ground Investigations), BS 10175:2011+A2:2017 (Investigation of Potentially Contaminated Sites – Code of Practice), and Development of Land Affected by Contamination: A Guide for Developers, published by the Welsh Local Government Association (WLGA) and Natural Resources Wales (NRW) Land Contamination Working Group in 2023.

The fieldworks undertaken during July 2025 included:

- 8 No. machine excavated trial pits (TP01 to TP08), to a maximum depth of 2.40m;
- 5 No. windowless sample boreholes (WS01 to WS05), to a maximum depth of 2.50m.

Representative soil samples were taken from the trial pits for laboratory chemical and geotechnical testing and placed in the appropriate sample containers deemed suitable for the analysis required. Strict protocols were adopted during this process to limit the cross contamination of samples.

The fieldworks were supervised by a qualified Geotechnical Engineer from Intégral Géotechnique (Wales) Limited who also logged the trial pits and prepared their detailed engineering logs in accordance with the requirements of BS5930:2015+A1:2020. The engineering logs provide descriptions of the materials encountered in accordance with BSEN ISO 14688-1 (2002) and 14689-1 (2003) for soils and rocks respectively.

The approximate exploratory locations are shown in Figure 3.

The trial pit logs are presented in Appendix B. The windowless sample borehole logs are presented in Appendix C.

6.2 FIELD OBSERVATIONS

No visual or olfactory evidence of any contamination was observed during the site investigation works.

6.3 LABORATORY CHEMICAL TESTING

Representative soil samples were taken from the trial pits positioned across the site, stored at the appropriate temperature and dispatched to the UKAS and MCERTS accredited laboratories of i2 Analytical for laboratory chemical testing within 24 hours. The samples were tested for a range of contaminants that reflects the historical use of the site, the findings of the desk study and the preliminary conceptual site model/conceptual exposure model.

A list of the soil testing carried out is given below:

Beryllium	Cadmium
Total Chromium	Hexavalent Chromium (VI)
Copper	Lead
Mercury	Nickel
Vanadium	Zinc
Arsenic	Boron
Selenium	Elemental Sulphur
Total Cyanide	Total Sulphate
Sulphide	Water Soluble Sulphate
pH	Monohydric Phenol
Polyaromatic Hydrocarbons (PAH)	

Soil samples were also screened for asbestos.

The results of the laboratory soil testing are presented in Appendix D.

6.4 LABORATORY GEOTECHNICAL TESTING

Representative samples were taken from the trial pits across the site and dispatched to the UKAS accredited laboratories of GSTL and scheduled for Atterberg Limits and moisture content testing.

The results of the geotechnical testing are presented in Appendix E.

7.0 GROUND CONDITIONS

A summary of the ground conditions encountered across the site is presented below in Table 7.

Table 7 : Summary of Ground Conditions		
Depth (m)		Stratum
From	To	
G.L.	0.2	TOPSOIL: Soft brown gravelly sandy SILT with roots and rootlets
0.2	0.4/0.6	(Medium dense) brown gravelly silty SAND.
0.2/0.6	0.7/1.6	(Medium dense to dense) light brown clayey gravelly SAND with low cobble content.
0.4/1.6	>2.5	Dense to very dense light grey locally light brown clayey SAND and GRAVELS with a low cobble content.

The trial pits encountered some minor instability associated with the extraction of the sand and gravels.

7.1 TOPSOIL

A layer of topsoil was encountered within each trial pit and windowless sample borehole from ground level to a maximum depth of 0.4m below ground level (bgl).

The topsoil generally comprised firm brown sandy gravelly silt with frequent roots and rootlets. Gravels comprised fine to coarse rounded to sub-rounded siltstone.

7.2 GLACIOFLUVIAL SUPERFICIAL DEPOSITS

The topsoil was underlain by superficial granular soils indicative of glaciofluvial deposits.

The upper layer of Glaciofluvial soils comprised medium dense brown silty/clayey gravelly sand. Gravels comprised fine to coarse rounded to sub-rounded of siltstone.

The upper layer of Glaciofluvial soils were underlain by typically dense to very dense light grey locally light brown clayey sand and gravels with a low cobble content of rounded to sub-rounded siltstone, mudstone and quartz. Gravels comprised fine to coarse rounded to sub-rounded of siltstone, mudstone and quartz.

7.3 GROUNDWATER

No groundwater was encountered during the excavation any of the trial pits or during drilling of the windowless sample boreholes.

The groundwater conditions are based on observations made at the time of the fieldwork. It should be noted that groundwater levels may vary due to seasonal and other effects.

7.4 LABORATORY GEOTECHNICAL TEST RESULTS

Representative soil samples were taken from the trial pits during the site investigation and dispatched to the UKAS accredited laboratories of GSTL and scheduled for moisture content and Atterberg Limits testing.

The results of the laboratory geotechnical testing are presented in Appendix E.

A summary of the results is provided below in Table 8.

Table 8: Summary of Atterberg Limit Testing							
Location	Soil Description	Depth (m)	Moisture Content (%)	Plasticity Index (%)	% Passing 425mm	Modified Plasticity Index (%)	Volume Change Potential
TP01	Superficial Soils	1.20	12	23 (Intermediate)	89	20.47	Medium
TP04	Superficial Soils	1.40	5	Non-Plastic	-	-	-
TP05	Superficial Soils	1.10	3.3	Non-Plastic	-	-	-
TP07	Superficial Soils	1.10	14	13 (Intermediate)	84	10.92	Low
TP08	Superficial Soils	1.20	5.3	Non-Plastic	-	-	-

In accordance with NHBC standards, the modified plasticity indices indicate that the superficial deposits are regarded to be non-plastic, to low to medium volume change potential.

8.0 CONTAMINATION

8.1 AVERAGING AREAS

In order to assess the laboratory test results reliably and in context, the data have been grouped into an averaging area. An averaging area (or area of interest) is that area of soil to which a receptor is exposed, or which otherwise contributes to the creation of hazardous conditions. This may be an area of historical industrial usage, a soil type, or a specific proposed end use.

In the case of this analysis, the averaging area has been determined according to the proposed residential end use.

8.2 SOIL CONTAMINATION

The Suitable 4 Use Levels (S4ULs) published by LQM have been adopted as critical concentrations against which soil contaminant concentrations can be compared. In the absence of additional published S4ULs, the Category 4 Screening Levels (C4SLs) derived by DEFRA and Soil Screening Values (SSVs) derived by Atkins ATRISK^{soil} for a residential with home grown produce end use have been adopted, where considered appropriate.

Since the results of the testing indicate total organic carbon content (TOC) in the range of 1.2% to 4.3%, the results have been compared to the respective guidelines based on the lowest SOM content of 1%.

The soil test results have been summarised and are shown in Appendix F.

The results of the laboratory testing indicate that all of the analysed chemical elements or compounds are present at concentrations below the appropriate thresholds.

No asbestos was detected in the samples.

No visual or olfactory evidence of contamination was identified in the exploratory holes.

9.0 REVISED CONCEPTUAL EXPOSURE MODEL

The preliminary conceptual exposure model has been reviewed and revised to reflect the findings of the site investigation and the results of the laboratory testing of soils, soil leachate, groundwater and gas monitoring. Pathways identified as a relevant pollutant linkage require appropriate risk assessment or mitigation measures (see Section 10).

Source		Receptor	Pathway	Preliminary Active Pathway? (see Sect. 5.7)	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Topsoil and in-situ natural ground	Metals, semi-metals, non-metals, PAH, asbestos	Resident – human health	Dermal Contact with made ground/dust	✓	X	No elevated concentrations identified within the topsoil or in-situ natural ground.
			Ingestion of soil and/or soil attached to home-grown produce	✓	X	
			Ingestion of home-grown produce	✓	X	
			Inhalation of dust	✓	X	
			Inhalation of vapours – indoor/outdoor	✓	X	No sufficiently volatile contaminants identified.
	Metals, semi-metals, non-metals, PAH	Groundwater quality	Leaching from made ground	✓	X	No elevated soil concentrations identified.
	Metals, semi-metals, non-metals, PAH	Surface water quality	Transportation within groundwater	✓	X	
Made Ground of unknown origin and natural ground	pH and water-soluble sulphate	Building Materials Durability	Direct contact	✓	✓	Building materials will be in contact with made ground -risk assess

9.0 REVISED CONCEPTUAL EXPOSURE MODEL (CONTINUED)

Source		Receptor	Pathway	Preliminary Active Pathway?	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration off site, leading to asphyxiation, or risk of explosion	✓	X	No potential gas producing materials present. No landfills within influencing distance

10.0 RISK ASSESSMENT

10.1 METHODOLOGY

The risk of pollution, health effects or environmental harm occurring as a result of ground contamination is dependent upon three principal factors:

- The scale of the contamination sources;
- The presence of sensitive “receptors”, eg Humans: health of the general public, site occupiers, redevelopment workers. Environment: flora, fauna, etc;
- The existence of migration pathways by which contaminants can reach the sensitive receptors.

This section assesses each of these factors in order to evaluate the overall level of risk and potential harm to receptors. The receptor may be human, a water resource, an eco-system or construction materials. Pathways connecting a perceived hazard to a receptor are referred to as exposure pathways.

The sources of contamination and the links connecting the hazards to the sensitive receptors will represent the basis for the risk assessment.

10.2 SOURCE-PATHWAY-RECEPTOR MODEL

The preliminary conceptual site model was based on the findings of the desk study. This was later reviewed and refined according to the findings of the site investigation, allowing for the ground conditions encountered and the results of laboratory testing of soil and groundwater. Any pathways considered to be inactive were removed from the model and all remaining potentially active pathways require risk assessment.

The pathways shown as potentially active in the Revised Conceptual Site Model in Section 7.0 above have been assessed below.

10.3 HUMAN HEALTH RISK ASSESSMENT

10.3.1 *Site in its Present Condition*

The site does not pose any risks to casual visitors or trespassers.

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

10.3.2 Future Site Users

The results of the contamination testing have not recorded any elevated contaminant concentrations within the tested soil samples when considering the proposed residential with home grown produce end use.

Based on the results of the contamination testing and visual observations made during the site investigation the risk to future site end users from site sourced contamination is considered to be negligible.

No remedial mitigation measures to protect future site end users against site sourced contamination are considered necessary.

10.3.3 Construction Workers

Appropriate health and safety measures are recommended for construction works involving the soils beneath the site. Normal good hygiene practices should be adequate to protect the health and safety of redevelopment workers, and should include:

- Minimum handling of materials;
- Washing of hands prior to all meal breaks, which should be taken in a designated clean area;
- The use of standard protective clothing such as boots and overalls and gloves, where considered relevant.

In dry weather, inhalation of dust and gases should be avoided preferably by the use of dust suppression techniques to minimise fugitive emissions and minimisation of exposed materials at any particular time.

All excavations should be regularly checked for safe atmospheres.

Additionally, a system should be established by which any 'unusual' materials that may be encountered are reported rapidly to the site management, so that the appropriate action may be taken, following specialist advice if necessary. An unusual material may be identified on site by colour, odour or physical nature.

Reference should be made to the Health and Safety Executive document "Protection of Workers and the General Public during the development of contaminated land" for detailed guidance on these matters.

10.4 RISKS TO VEGETATION

The results of the contamination testing do not indicate the presence of phytotoxic contaminants at concentrations that would pose a risk to vegetation. As such, the potential for adverse effects on proposed landscaping or retained vegetation is considered to be negligible and no specific remedial mitigation measures are required.

10.5 CONTROLLED WATERS RISK ASSESSMENT

No potential sources of contamination were identified during the site investigation, and the results of soil chemical testing did not record any elevated concentrations of contaminants. On this basis, no potential contaminants of concern have been identified that may present risk to controlled waters.

The site has a long-standing undeveloped history and has remained in use as agricultural grazing land since at least the late 19th century. There is no evidence of historical industrial activity, and no indications of potential site sourced contamination observed during the walkover or in historical records.

Groundwater was not encountered in any of the windowless sample boreholes or trial pits, indicating deep or discontinuous groundwater presence within the shallow superficial deposits.

Given the absence of contamination, the lack of a credible contaminant linkage, and the historical undeveloped nature of the site, the controlled waters risk is considered to be negligible.

10.6 GROUND GAS RISK ASSESSMENT

10.6.1 *Methane and Carbon Dioxide*

The site has remained undeveloped throughout its recorded history and has predominantly comprised agricultural grazing land. No infilled land, made ground, or potentially gas-generating sources have been identified either on-site or within influencing distance.

No visual or olfactory evidence of organic or waste material was noted during the site investigation. No peat, organic deposits or anthropogenic materials were recorded in any exploratory hole.

10.6 GROUND GAS RISK ASSESSMENT (CONTINUED)

Based on the desk study, historical mapping, and the intrusive ground investigation, there is no credible source of ground gas and therefore no requirement for ground gas protection measures in the proposed development.

The site is considered to fall within Characteristic Situation 1 (CS1) under the NHBC and CIRIA guidance (C665), indicating very low gas risk.

10.6.2 Radon

The site lies within an intermediate probability radon area, where basic radon protective measures would be required in the construction of new buildings.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY

10.7.1 Concrete Classification

Laboratory chemical test results for the chemicals water soluble sulphate and pH, which may adversely affect the durability of building materials is presented in Appendix G.

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for natural ground locations, the laboratory chemical test results indicate a characteristic value (taking the mean of the highest two test results) for water soluble sulphate within the natural soils of 26.7mg/l. Using Table C1 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-1.

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the natural soils of 8 has been determined (adopting the mean of the lowest two test results). The Design Sulphate Class has been modified to give a site ACEC class of AC-1 for concrete structures constructed within the natural soils.

10.7.2 Water Services

Any new water supply pipes should be protected from potential contact with contaminated soils. While the risk of contamination is considered low, particularly with respect to organic compounds, suitable precautions should be adopted.

Based on the soil testing results and the history of the site, protection measures are expected to be limited to the use of clean backfill materials within service trenches. Considering the greenfield history of the site and the results of the contamination testing, the use of barrier pipe is not considered necessary.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY (CONTINUED)

The final specification for pipe materials and trench backfill should be agreed with the relevant water utility provider prior to installation.

10.8 WASTE DISPOSAL

Excavated materials generated during the development may be classified as waste and will therefore be subject to current environmental and waste management regulations.

Where re-use of excavated materials is proposed on-site, this should be carried out in accordance with relevant waste legislation and may require the preparation of a Materials Management Plan (MMP) in line with the CL:AIRE Definition of Waste: Code of Practice.

A sustainable approach is recommended to minimise the generation of surplus materials and reduce the need for off-site disposal. Priority should be given to segregation, recovery, and reuse over landfill disposal wherever practicable.

Based on the site investigation data, including laboratory chemical testing and visual inspection:

- No made ground was identified during the investigation;
- The natural soils are likely to be classified as non-hazardous waste.

This provisional classification is based on limited sample data and assumes that the materials tested are representative of future arisings. Final classification must be confirmed prior to off-site disposal through appropriate sampling and analysis.

If made ground is encountered during construction, this material will need to be separately assessed and classified, in accordance with current waste legislation and Environment Agency/Natural Resources Wales guidance.

In accordance with WM3 (2015) – Waste Classification: Guidance on the Classification and Assessment of Waste, all waste streams must be appropriately classified. Where necessary, Waste Acceptance Criteria (WAC) testing should be undertaken to determine suitability for disposal at specific classes of landfill.

It is recommended that test results are submitted to the intended licensed waste operator in advance to confirm both waste classification and acceptance criteria, thereby avoiding disposal delays.

10.9 UNCERTAINTIES

It is important to recognise that, as with any ground investigation, there remains a degree of uncertainty. There may be localised areas of contamination within the site that were not identified, or contaminants present at concentrations above those recorded.

Contamination can be spatially variable, and even comprehensive investigations may not detect all such occurrences unless encountered by chance.

11.0 ENGINEERING CONSIDERATIONS AND RECOMMENDATIONS

11.1 DETAILS OF PROPOSED DEVELOPMENT

The proposed development will comprise the construction of 82 residential dwellings, each with an adjoining garden. The majority will have adjoining driveways, with some sharing a parking area near the property. The access road to the site will connect to the roundabout from Ffordd Pendre to the northeast.

The following recommendations should be reviewed once development layout and engineering levels are confirmed.

11.2 SITE PREPARATION

11.2.1 *Buried Services*

Prior to construction works commencing, all existing buried services within the site area should be identified, with arrangements made for their diversion or protection as necessary. Any diversionary works must be undertaken under the supervision of, and to the specifications of, the relevant Statutory Authorities. Resulting service trenches should be backfilled using suitable structural fill material.

11.2.2 *Vegetation Clearance, and Site Strip*

The site comprises grass-covered agricultural fields with mature and densely vegetated field boundaries. No invasive plant species were observed during the site investigation; however, it is recommended that a comprehensive vegetation survey be completed prior to development to confirm the absence of invasive or protected species and enable appropriate management measures, where required.

Mature trees and hedgerows are present along the site's field boundaries. Where earthworks or foundation construction occurs in proximity to tree lines, allowances should be made for root removal, and such works should comply with the NHBC guidance for development near trees.

Any protection orders applicable to existing vegetation and ecological features must be fully adhered to throughout the development process.

11.2 SITE PREPARATION (CONTINUED)

All existing topsoil should be stripped from beneath proposed development areas and proposed earthworks zones and stockpiled on site for later re-use in garden and landscaping areas. Due to the fine-grained nature of the near-surface soils, the exposed formation will be prone to deterioration in poor weather and under trafficking. Strategic management of earthworks materials is therefore essential.

Exposure of stripped or worked areas should be minimised, and appropriate temporary protection (e.g. sheeting or matting) should be installed during periods of inclement weather.

Designated access routes should be established and maintained, and construction plant should operate only on suitably designed and maintained working platforms.

11.2.3 Unexpected Occurrences

A clear reporting protocol should be implemented for identifying and responding to any 'unusual' materials encountered during excavation, including any suspected made ground, staining, odorous soils, or other potentially contaminated material, such as asbestos-containing materials (ACM). Such findings should be reported to site management and evaluated by a suitably qualified environmental specialist before further action.

11.2.4 Cut and Fill Earthworks

Due to the site's variable topography, some degree of cut and fill earthworks is anticipated.

A site-specific Earthworks Specification should be developed once the proposed cut and fill strategy, and engineering levels have been confirmed. This should define material classifications, compaction requirements, acceptable moisture contents, and testing protocols tailored to the final development proposals.

Where fill is placed on sloping ground, the existing surface should be benched to avoid the risk of slippage along the fill–natural interface. All cut and fill operations should follow the principles of the DTp Specification for Highway Works and an agreed site-specific Earthworks Specification.

Subject to appropriate design stability checks by a Geotechnical Engineer, any proposed cut and/or fill slopes should be no steeper than 1v in 2h. Cut off drains should be provided at the top and French drains at the bottom of any cut and/or fill slopes.

In areas of cut and/or fill, the slopes should be topsoiled and seeded with grass, in order to minimise any future maintenance problems caused by surface water run-offs.

11.2 SITE PREPARATION (CONTINUED)

Where excavation results in cut faces, provisions should be made to manage possible perched water emerging from the exposed ground.

If site excavated materials are to be used as fill, then any generated cobbles/boulders should be processed/crushed to appropriate sizes, typically <125mm particle size.

Placed fill materials will need to be tested to verify compaction and performance. The testing should be carried out in accordance with the Earthworks Specification, and is likely to comprise plate load testing, probing and/or sand replacement testing.

Following completion of the cut and fill earthworks, and validation report will need to be provided.

11.3 FOUNDATIONS AND FLOOR SLABS

Based on the findings of the site investigation it is considered that traditional strip/trench fill foundations, bearing on the medium dense gravelly silty sand or light brown clayey gravelly sand, could be used across the site.

An allowable bearing pressure of 150kN/m² should be achievable and could be used for design purposes. At this intensity of loading total settlements should be less than 25mm, and any angular distortions caused by differential settlements should be less than 1:750.

All strip/trench fill foundations for individual buildings should be constructed within uniform strata in order to minimise the potential for differential settlement. There should be no spanning of foundations between soils of differential strengths. If there are significant changes in the bearing strata beneath the foundations, then footings should include suitably designed mesh reinforcement, both top and bottom, to mitigate the risks of relative deflection.

Foundations should penetrate the founding stratum by a minimum of 200mm and be at a minimum depth of 900mm below finished development levels to protect against the effects of frost heave and/or thermal shrinkage. If shallow bedrock is encountered, a limiting depth may be applicable.

Foundations should not be founded within any made ground, disturbed ground, fill materials or within any soft or loose natural soils. If encountered, foundations should be locally deepened into the medium dense gravelly silty sand or light brown clayey gravelly sand, as described above.

11.3 FOUNDATIONS AND FLOOR SLABS (CONTINUED)

Foundations may need to be locally deepened if any soft spots are encountered, or in the vicinity of mature trees in accordance with the NHBC recommendations for foundations within shrinkable soils of low to medium shrinkage potential.

If proposed ground levels are to be raised, or in areas of fill following completion of cut and fill earthworks, where the depth to the founding stratum becomes unviable for trench fill foundations, consideration may be given to using raft foundations, constructed upon re-engineered structural fill. In this instance it will be necessary to provide an earthworks specification for the preparatory works. The earthworks will require monitoring and physical validation testing prior to the construction of the raft foundations, as described above in Section 11.2.

Raft foundations on engineered fill may be designed for a bearing pressure of 50kN/m², subject to the results of the earthworks validation testing.

Ground bearing floor slabs may be used where less than 600mm of structural make-up is present beneath the slab, otherwise suspended floor slabs will be required.

As discussed in the desk study, the site has been classified as requiring basic radon protective measures across the site.

11.4 EXCAVATIONS AND FORMATIONS

Excavations to the reported depths of the trial pits should be possible with normal soil excavating machinery. However, allowances should be made for the use of pneumatic breaker attachments, or similar tools, should shallow bedrock or any large obstructions, e.g., boulders, be encountered. Below the depths of the trial pits ground conditions may vary. The potential for hard dig conditions and ground water levels should be established by further investigation should excavation deeper than the depth of the trial pits become required, however hard dig/breaker conditions should be anticipated.

Significant groundwater infiltrations are not anticipated at shallow depths across the site. During excavation works, it is considered that any groundwater inflows together with rainfall infiltration could be controlled by using conventional pumping techniques to sumps.

The sides of the excavations deeper than 1.0m should be supported by trench boxes if access is required. Excavations within the granular soils could be susceptible to instability and collapse and allowances should be made for the control of excavation sides in order to minimise over pour of concrete.

11.5 ACCESS ROADS AND CAR PARKING AREAS

Following site strip there are likely to be variations in the strength of the materials at formation levels. For preliminary design purposes a California Bearing ratio (CBR) value of between 2% and 4% could be assumed for design purposes within the natural deposits.

After proof rolling the formations, any 'soft spots/areas' should be removed and replaced with well compacted imported granular materials. Such materials should be to the approval of the local Highway Authority and should be compacted in layers, in accordance with the DTp Specification for Highways Works.

Formations should be regarded as frost susceptible.

It should be noted that field CBR tests should be carried out in order to confirm the above assumptions. Depending on the outcome of such field tests, the above recommendations may need to be revised.

11.6 DRAINAGE

Soil infiltration testing was outside the scope of works.

APPENDIX A

ENVIROCHECK REPORT

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

373601466_1_1

Customer Reference:

14439/LP

National Grid Reference:

238590, 219710

Slice:

A

Site Area (Ha):

3.39

Search Buffer (m):

1000

Site Details:

Land at Carmarthen West

Carmarthen

SA31 3BW

Client Details:

MR H Pritchard

Integral Geotechnique

Integral House

7 Beddau Way

Castlegate Business Park

Caerphilly

CF83 2AX

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Sensitive Land Use	40
Data Currency	41
Data Suppliers	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 this 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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Information supplied from a joint dataset compiled by The British Geological Survey and Public Health England. The probability result is only valid for properties above ground. All basement and cellar areas are considered to be at additional risk from high radon levels. If an underground room such as a cellar or basement makes up part of the living or working accommodation, the property should be tested regardless of Radon Affected Area status.

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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 3		5	1	4
Prosecutions					
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 5			2	1
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 6		1		4
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 6		Yes		
Pollution Incidents to Controlled Waters	pg 7		1		22
Historical Prosecutions					
Registered Radioactive Substances					
Substantiated Pollution Incident Register	pg 10				3
Water Abstractions	pg 11				(*8)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 13	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 13	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 13	Yes	n/a	n/a	n/a
Source Protection Zones	pg 13				1
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		10	10	57
Water Framework Directive - Catchment	pg 22	Yes			
Water Framework Directive - Groundwater	pg 22	Yes			
Water Framework Directive - Surface Waters	pg 22		Yes		

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	pg 23			1	
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 23				6
Local Authority Landfill Coverage	pg 24	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 24			1	2
Potentially Infilled Land (Water)	pg 24				7
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 25				2
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 26	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 26	Yes			
BGS Recorded Mineral Sites	pg 26				4
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 27	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 27		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 28	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 28	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 28	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 29			3	55
Fuel Station Entries					
Points of Interest - Commercial Services	pg 34				16
Points of Interest - Education and Health	pg 35				2
Points of Interest - Manufacturing and Production	pg 35		8	3	18
Points of Interest - Public Infrastructure	pg 38				13
Points of Interest - Recreational and Environmental	pg 39		1	2	5
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 40				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	pg 40				1
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: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	0	1	238650 219750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (S)	0	1	238594 219650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (NW)	0	1	238594 219706
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	46	1	238600 219900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	48	1	238700 219750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	49	1	238700 219800
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (NE)	55	1	238700 219850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (N)	58	1	238650 219900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	98	1	238750 219750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (N)	106	1	238650 219950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (S)	117	1	238594 219450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (S)	121	1	238700 219450
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	132	1	238594 220000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (N)	143	1	238600 220000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	152	1	238800 219706
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (N)	155	1	238650 220000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (S)	168	1	238550 219400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NE (N)	168	1	238700 220000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	183	1	238850 219700
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	185	1	238450 219400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	190	1	238800 219950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	210	1	238400 219400

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	A13NE (NE)	213	1	238850 219900
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	217	1	238900 219650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	222	1	238800 220000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	233	1	238850 219950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	234	1	238750 220050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	251	1	238900 219850
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	252	1	238650 220100
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	260	1	238850 220000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	260	1	238800 220050
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A8NW (S)	268	1	238550 219300
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (NE)	278	1	238900 219950
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	298	1	238950 219800
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	301	1	238650 220150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14NW (NE)	345	1	238950 220000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	345	1	238800 220150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	348	1	239000 219750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14SW (SE)	361	1	239000 219400
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (E)	398	1	239050 219750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (N)	398	1	238650 220250
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (NE)	413	1	238850 220200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A12SE (W)	481	1	238050 219700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p>Discharge Consents</p> <p>Operator: Wynnstay Group Plc Property Type: Not Supplied Location: Llysonnen Mill Travellers Rest Car, Travellers Rest Carmarthen Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: BN0243101 Permit Version: Not Supplied Effective Date: 5th October 1993 Issued Date: 5th October 1993 Revocation Date: Not Supplied Discharge Type: Trade And Other Matter Discharge Discharge: Freshwater Stream/River Environment: Receiving Water: A Tributary Of The Tawelan Bro Status: Effective Positional Accuracy: Located by supplier to within 100m</p>	A13SW (SW)	119	2	238410 219600
1	<p>Discharge Consents</p> <p>Operator: Dalgety Agriculture Ltd Property Type: Animal Foodstuffs Location: Llysonnen Mill Travellers Rest Car, Travellers Rest Carmarthen Authority: Natural Resources Wales Catchment Area: River Tywi Reference: Bn0243101 Permit Version: 1 Effective Date: 11th March 1981 Issued Date: 11th March 1981 Revocation Date: 4th October 1993 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: A Tributary Of The Tawelan Bro Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m</p>	A13SW (SW)	119	2	238410 219600
2	<p>Discharge Consents</p> <p>Operator: Dalgety Agriculture Ltd Property Type: Animal Foodstuffs Location: Dalgety Agriculture Llysonnen Mill, Llysonnen Mill Travellers Rest C, Travellers Rest Carmarthen Authority: Natural Resources Wales Catchment Area: River Tywi Reference: Bn0243102 Permit Version: 1 Effective Date: 11th March 1981 Issued Date: 11th March 1981 Revocation Date: 5th October 1993 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Tawelan Brook Status: Consent expired Positional Accuracy: Located by supplier to within 10m</p>	A13SW (W)	182	2	238350 219650
3	<p>Discharge Consents</p> <p>Operator: Dalgety Agriculture Ltd Property Type: Animal Foodstuffs Location: Welsh Feed Producers, Septic Tank, Llysonnen Mill, Carmarthen Authority: Natural Resources Wales Catchment Area: River Tywi Reference: Bn0247301 Permit Version: 1 Effective Date: 25th August 1981 Issued Date: 25th August 1981 Revocation Date: 5th October 1993 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Unnamed Trib Tawelan Brook Status: Consent expired Positional Accuracy: Located by supplier to within 100m</p>	A13SW (W)	228	2	238300 219600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p>Discharge Consents</p> <p>Operator: Welsh Feed Producers Ltd Property Type: Not Supplied Location: Welsh Feed Producers, Septic Tank, Llysonnen Mill, Carmarthen Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: BN0128901 Permit Version: Not Supplied Effective Date: 19th December 1975 Issued Date: 19th December 1975 Revocation Date: Not Supplied Discharge Type: Not Supplied Discharge: Freshwater Stream/River Environment: Receiving Water: Tawelon Brook Status: Effective Positional Accuracy: Located by supplier to within 100m</p>	A13SW (W)	228	2	238300 219600
4	<p>Discharge Consents</p> <p>Operator: Jones D Property Type: Domestic Property (Single) Location: Trebersed St. Peters Carmarthen Dyf, St. Peters Carmarthen Dyfed. Authority: Natural Resources Wales Catchment Area: River Tywi Reference: Bp0066701 Permit Version: 1 Effective Date: 16th October 1987 Issued Date: 16th October 1987 Revocation Date: 29th April 1994 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: To Land Status: Consent expired Positional Accuracy: Located by supplier to within 10m</p>	A12NE (NW)	398	2	238180 220050
5	<p>Discharge Consents</p> <p>Operator: Mr H Bassett Property Type: Domestic Property (Single) Location: House At Pentremeurig Road Authority: Natural Resources Wales Catchment Area: River Tywi Reference: Bn0043401 Permit Version: 1 Effective Date: 28th July 1971 Issued Date: 28th July 1971 Revocation Date: 31st October 1996 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Tawelan Brook Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m</p>	A18NE (N)	676	2	238800 220500
6	<p>Discharge Consents</p> <p>Operator: Dwr Cymru Cyfyngedig Property Type: Undefined Or Other Location: Llanllwch Stw Authority: Natural Resources Wales Catchment Area: River Tywi Reference: Bj0087101 Permit Version: 1 Effective Date: 19th November 1981 Issued Date: 19th November 1981 Revocation Date: 23rd October 1992 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Not Supplied Environment: Receiving Water: Unnamed Trib Of Tawelon Brook Status: Consent expired Positional Accuracy: Located by supplier to within 100m</p>	A3NW (S)	869	2	238500 218700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	<p>Discharge Consents</p> <p>Operator: Hanson Aggregates Property Type: Extraction Of Stone, Gravel Etc. Location: Plt 11 Cillefwr Batch Plt Johnstown, Plot 11 Cillefwr Batching Plant, Cillefwr Road East (Ind Estate), Johnstown Carmarthen, Sa31 3ja</p> <p>Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp028210101 Permit Version: 1 Effective Date: 30th June 2000 Issued Date: 30th June 2000 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Tawelan Brook Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A14SE (E)	888	2	239570 219600
7	<p>Discharge Consents</p> <p>Operator: Hanson Aggregates Property Type: Not Supplied Location: Plt 11 Cillefwr Batch Plt Johnstown, Plot 11 Cillefwr Batching Plant, Cillefwr Road East (Ind Estate), Johnstown Carmarthen, Sa31 3ja</p> <p>Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0282101 Permit Version: Not Supplied Effective Date: 30th June 2000 Issued Date: 30th June 2000 Revocation Date: Not Supplied Discharge Type: Trade Discharges - Site Drainage Discharge: Freshwater Stream/River Environment: Receiving Water: Tawelan Brook Status: Effective Positional Accuracy: Located by supplier to within 10m</p>	A14SE (E)	888	2	239570 219600
8	<p>Integrated Pollution Prevention And Control</p> <p>Name: Llysonnen Mill Location: Llysonnen Mill Ea/Epr/Ep3034gs/A001, Llysonnen Mill, Travellers Rest,, CARMARTHEN, Dyfed, SA31 3SG</p> <p>Authority: Natural Resources Wales Permit Reference: EP3034GS Original Permit Ref: Not Supplied Effective Date: 4th January 2024 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Automatically positioned to the address Activity Code: 6.8 PART A (1) D) (II) Activity Description: Not Supplied Primary Activity: Y</p>	A12SE (SW)	280	2	238249 219533
8	<p>Integrated Pollution Prevention And Control</p> <p>Name: Wynnstay Group Plc Location: Llysonnen Mill Ea/Epr/Ep3034gs/V002, Llysonnen Mill, Travellers Rest,, CARMARTHEN, Dyfed, SA31 3SG</p> <p>Authority: Natural Resources Wales Permit Reference: UP3735HF Original Permit Ref: Ep3034gs Effective Date: 5th October 2010 Status: Effective Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 6.8 A(1) (D) (II) Activity Description: Animal, Vegetable & Food; Treating Etc. Vegetable Raw Materials For Food Greater Than 300T/Day Primary Activity: Y</p>	A12SE (SW)	280	2	238249 219533

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	<p>Integrated Pollution Prevention And Control</p> <p>Name: Carmarthen Epr/Bv9667iv Location: BOCM Pauls - Carmarthen, ALLTYCNAP ROAD, JOHNSTOWN, CARMARTHEN, Dyfed, SA31 3RD Authority: Natural Resources Wales Permit Reference: Bv9667iv Original Permit Ref: Not Supplied Effective Date: 11th April 2022 Status: Effective Application Type: Bespoke App. Sub Type: Not Supplied Positional Accuracy: Automatically positioned to the address Activity Code: 6.8 PART A (1) D) (II) Activity Description: Not Supplied Primary Activity: Y</p>	A9NE (SE)	905	2	239453 219098
10	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Wynnstay Group Plc Location: Llysonnen Mill, Travellers Rest, CARMARTHEN, Dyfed, SA31 3RP Authority: Carmarthenshire County Council, Environmental Health Department Permit Reference: PPC/40673/Carms/6.8/03.06 Dated: 30th June 1994 Process Type: Local Authority Pollution Prevention and Control Description: PG6/26 Animal feed compounding Status: Authorisation certificate surrendered by operator Positional Accuracy: Manually positioned to the address or location</p>	A13SW (SW)	233	3	238293 219563
11	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: J Bibby Agriculture Ltd Location: Carmarthen Mill, Cillefwr Industrial Estate, Johnstone, CARMARTHEN, Dyfed, SA31 3RB Authority: Carmarthenshire County Council, Environmental Health Department Permit Reference: B3/AF/3/94 Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/26 Animal feed compounding Status: Authorised Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	743	3	239326 219202
12	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Pioneer Concrete UK Ltd Location: Unit 11, Cillefwr Road East, Cillefwr Industrial Est Authority: Carmarthenshire County Council, Environmental Health Department Permit Reference: NOT GIVEN Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Authorisation revoked Positional Accuracy: Manually positioned to the address or location</p>	A9NE (SE)	795	3	239426 219290
12	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Hanson Premix Location: Unit 11 Cillefwr Industrial Estate, Johnstown, CARMARTHEN, Carmarthenshire, SA31 3RU Authority: Carmarthenshire County Council, Environmental Health Department Permit Reference: EP/32/3.1(655) Dated: 25th January 1999 Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Authorised Positional Accuracy: Manually positioned to the address or location</p>	A9NE (SE)	827	3	239461 219292
13	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Bibby Feedmill Location: Cillefwr, Johnstown, Carmarthen Authority: Carmarthenshire County Council, Environmental Health Department Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Pollution Prevention and Control Description: PG6/26 Animal feed compounding Status: Authorisation certificate surrendered by operator Positional Accuracy: Manually positioned within the geographical locality</p>	A9NE (SE)	903	3	239505 219199
	<p>Nearest Surface Water Feature</p>	A13NW (N)	93	-	238568 219960

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Llysonnen Mill, Crmarthen Authority: Environment Agency, Welsh Region Pollutant: Oils - Fats And Grease Note: Accident Incident Date: 6th May 1997 Incident Reference: 32222 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Burst Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A13SW (W)	228	4	238300 219595
15	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Water Company Sewage: Surface Water Outfall Location: Pontgarreg Farm Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 16th January 1996 Incident Reference: 27225 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	560	4	239100 219200
15	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Near Pontgarreg Farm Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 16th January 1996 Incident Reference: 27225 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	563	4	239100 219195
15	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Poor Management; Nantyci Incident Date: 13th November 1998 Incident Reference: 37338 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Spillage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	587	4	239100 219160
16	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Cattle Beef Farming: Yards Location: JOHNSTOWN Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Neglect Incident Date: 5th April 1995 Incident Reference: 23127 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A14SE (E)	622	4	239300 219500
17	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Glantawelan Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 26th September 1996 Incident Reference: 30208 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	631	4	239100 219100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Passes Above Shallows, Isgraig Housing Estate, CARMARTHEN Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 26th September 1996 Incident Reference: 30208 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	631	4	239105 219105
17	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Parc Next To Poplars Public House, JOHNSTOWN Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 26th September 1996 Incident Reference: 30208 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	634	4	239105 219100
17	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Bottom Bridge, JOHNSTOWN Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 26th September 1996 Incident Reference: 30208 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	635	4	239100 219095
17	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: By Pant Garreg Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 26th September 1996 Incident Reference: 30208 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	638	4	239105 219095
18	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: At S & E Ltd, Cillefwr Industrial Estate Authority: Environment Agency, Welsh Region Pollutant: Heavy Fuel Oil Note: River Towy Tributary Tawelan Brook; Spillage Incident Date: 5th November 1997 Incident Reference: 34187 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Accidental Spillage/Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A9NW (SE)	701	4	239200 219100
19	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Poor Management Incident Date: 20th May 1997 Incident Reference: 32297 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A14SE (E)	817	4	239500 219595

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Water Company Sewage: Surface Water Outfall Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Farm Land Run-Off Note: Not Supplied Incident Date: 3rd June 1995 Incident Reference: 24301 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A14SE (E)	818	4	239500 219600
19	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Storm Drain, With Ffynnon Trading Estate Authority: Environment Agency, Welsh Region Pollutant: Sewage - Septic Tank Effluent Note: Poor Management Control Incident Date: 14th October 1996 Incident Reference: 30199 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A14SE (E)	838	4	239520 219600
20	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Algae Note: Neglect Incident Date: 5th September 1994 Incident Reference: 20770 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 100m</p>	A18NE (N)	843	4	238700 220695
20	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Cattle Beef Farming: Yards Location: Road Bridge, Below, Pentremeurig Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Weather Incident Date: 24th February 1995 Incident Reference: 22711 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A18NE (N)	848	4	238700 220700
21	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Tawelan Brook, JOHNSTOWN Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: River Towy Tributary Tawelan Brook; Spillage Incident Date: 28th May 1998 Incident Reference: 35825 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Poor Management Control Incident Severity: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 100m</p>	A19NW (NE)	891	4	239250 220495
21	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Pollution Appears To Be, Occuring Upstream, Pontcarreg Farm Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: River Towy Tributary Tawelan Brook; Spillage Incident Date: 28th May 1998 Incident Reference: 35825 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Poor Management Control Incident Severity: Category 1 - Major Incident Positional Accuracy: Located by supplier to within 100m</p>	A19NW (NE)	895	4	239250 220500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
22	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Water Company Sewage: Surface Water Outfall Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Weather Incident Date: 12th April 1996 Incident Reference: 28023 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A14SE (E)	917	4	239600 219595
22	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Warehouses Location: Johnstown, CARMARTHEN Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Neglect Incident Date: 13th February 1991 Incident Reference: 2160 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Leakage Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m</p>	A14SE (E)	918	4	239600 219600
22	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Water Company Sewage: Surface Water Outfall Location: Location Description Not Available Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Inadequate Design/Capacity Incident Date: 17th September 1995 Incident Reference: 25877 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A14SE (E)	922	4	239605 219595
22	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Surface Water Outfall Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Weather Incident Date: 12th April 1996 Incident Reference: 28023 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A14SE (E)	923	4	239605 219600
23	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Not Given Location: Surface Water Drain, From Cillefwr Industrial Estate Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: Not Supplied Incident Date: 16th August 1996 Incident Reference: 29836 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A14SE (E)	920	4	239600 219500
24	<p>Substantiated Pollution Incident Register</p> <p>Authority: Natural Resources Wales Incident Date: 2nd October 2008 Incident Reference: 625633 Water Impact: Category 2 - Significant Incident Air Impact: Category 3 - Minor Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Oils - Diesel (Including Agricultural)</p>	A14SE (E)	651	2	239334 219587

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	<p>Substantiated Pollution Incident Register</p> <p>Authority: Natural Resources Wales Incident Date: 9th September 2002 Incident Reference: 106507 Water Impact: Category 2 - Significant Incident Air Impact: Category 3 - Minor Incident Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Organic Chemicals/Products: Hydrocarbons</p>	A8SW (S)	831	2	238571 218736
26	<p>Substantiated Pollution Incident Register</p> <p>Authority: Natural Resources Wales Incident Date: 13th March 2009 Incident Reference: 661205 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Inert Materials And Wastes: Soils And Clay</p>	A15SW (E)	964	2	239646 219615
	<p>Water Abstractions</p> <p>Operator: Mekatek Ltd Licence Number: 22/60/3/0022 Permit Version: 100 Location: Well In The Community Of Johnstown Used For Bottling Authority: Natural Resources Wales Abstraction: Food And Drink: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Well Used For Bottling Water For Resale Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A10NE (E)	1412	2	240060 219260
	<p>Water Abstractions</p> <p>Operator: Mekatek Ltd Licence Number: 22/60/3/0022 Permit Version: 100 Location: Well In The Community Of Johnstown Used For Bottling Authority: Natural Resources Wales Abstraction: Food & Drink: Effluent/Slurry Dilution Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2007 Permit End Date: Not Supplied Positional Accuracy: Approximate location provided by supplier</p>	A10NE (E)	1418	2	240065 219255
	<p>Water Abstractions</p> <p>Operator: Mekatek Ltd Licence Number: 22/60/3/0021 Permit Version: 100 Location: Tawelan Brook Authority: Natural Resources Wales Abstraction: Food & Drink: Effluent/Slurry Dilution Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Tawelan Brook Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A15SE (E)	1449	2	240130 219500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Water Abstractions</p> <p>Operator: Mekatek Ltd Licence Number: 22/60/3/0021 Permit Version: Not Supplied Location: Effluent Dilution Authority: Natural Resources Wales Abstraction: Other Industrial/Commercial/Public Services: Effluent/Slurry Dilution Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 1491.09 Yearly Rate (m3): 340956 Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A15SE (E)	1449	2	240130 219500
	<p>Water Abstractions</p> <p>Operator: Mekatek Ltd Licence Number: 22/60/3/0022 Permit Version: 100 Location: Well In The Community Of Johnstown Authority: Natural Resources Wales Abstraction: Food And Drink: Water Bottling Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Well Usedfor Vegetable/Food Washing And Processing Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A10NE (E)	1471	2	240120 219260
	<p>Water Abstractions</p> <p>Operator: Mekatek Ltd Licence Number: 22/60/3/0022 Permit Version: 100 Location: Well In The Community Of Johnstown Authority: Natural Resources Wales Abstraction: Food & Drink: Effluent/Slurry Dilution Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st January 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A10NE (E)	1471	2	240120 219260
	<p>Water Abstractions</p> <p>Operator: Mekatek Ltd Licence Number: 22/60/3/0022 Permit Version: Not Supplied Location: Land At Castle Merlin Food Park Authority: Natural Resources Wales Abstraction: Food And Drink: Water Bottling Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 1391.1 Yearly Rate (m3): 318226 Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A10NE (E)	1471	2	240120 219260

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mekatek Ltd Licence Number: 22/60/3/0022 Permit Version: Not Supplied Location: Land At Castle Merlin Food Park Authority: Natural Resources Wales Abstraction: Other Industrial/Commercial/Public Services: Effluent/Slurry Dilution Abstraction Type: Not Supplied Source: Groundwater Daily Rate (m3): 1391.1 Yearly Rate (m3): 318226 Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (E)	1471	2	240120 219260
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: >70% Superficial Patchiness: <90% Superficial Thickness: 3-10m Superficial Recharge: No Data	A13SW (NW)	0	2	238594 219706
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - B	A13SW (NW)	0	2	238594 219706
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (NW)	0	2	238594 219706
27	Source Protection Zones Name: Not Supplied Source: Natural Resources Wales Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	A9NE (SE)	745	2	239382 219313
	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	A13NE (NE)	120	2	238762 219874
	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	A13NE (NE)	122	2	238765 219877
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
28	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 65.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A13NW (N)	93	5	238568 219960

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 464.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A13NW (N)	97	5	238583 219961
30	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 151.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A13NW (N)	102	5	238583 219961
31	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 729.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A13NE (NE)	125	5	238764 219879
32	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 114.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A13NE (NE)	142	5	238766 219921
33	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 52.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A13NE (NE)	146	5	238766 219921
34	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 244.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A13NE (N)	169	5	238678 220008
35	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 20.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A13NE (N)	192	5	238717 220019
36	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 92.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A13NE (NE)	198	5	238816 219938
37	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 591.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A13NE (NE)	198	5	238737 220017

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A13NE (NE)	282	5	238882 219993
39	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 70.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A13NE (NE)	322	5	238905 220030
40	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 23.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18SE (NE)	373	5	238916 220096
41	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7NE (SW)	377	5	238240 219322
42	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 456.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18SE (NE)	393	5	238922 220119
43	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 48.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A8NE (SE)	446	5	238870 219169
44	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 187.0 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A8NE (SE)	457	5	238912 219178
45	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 62.4 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A14SW (SE)	485	5	239130 219385
46	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 306.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A14SW (SE)	485	5	239132 219390

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A9NW (SE)	493	5	239109 219326
48	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 19.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A9NW (SE)	531	5	239091 219233
49	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 286.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A9NW (SE)	547	5	239097 219214
50	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 136.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A8SE (SE)	642	5	238938 218984
51	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 502.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A9SW (SE)	650	5	238951 218982
52	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.8 Watercourse Level: Underground Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A14SE (E)	652	5	239335 219587
53	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 131.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A14SE (E)	665	5	239348 219570
54	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 70.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	694	5	238107 219015
55	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 75.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	704	5	238732 220544

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 112.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	706	5	238737 220546
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.5 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A8SE (S)	708	5	238864 218886
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 145.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A8SE (S)	722	5	238787 218854
59	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A14SE (E)	727	5	239406 219651
60	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 15.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A14SE (E)	749	5	239429 219640
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	755	5	238043 218989
62	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 47.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	761	5	238038 218985
63	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: Tywi and Cothi Primacy: 1	A14SE (E)	762	5	239442 219632
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.3 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A14SE (E)	779	5	239461 219612

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 55.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	785	5	238682 220639
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 66.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	785	5	238682 220639
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A14SE (E)	786	5	239469 219599
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 312.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A14SE (E)	789	5	239471 219597
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	793	5	238629 220656
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 120.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	795	5	238625 220658
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	808	5	238004 218952
72	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 30.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18NW (N)	812	5	238500 220680
73	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 58.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	813	5	238000 218949

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
74	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 260.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A12NW (W)	817	5	237718 219889
75	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 37.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A8SW (S)	819	5	238550 218748
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 513.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A12NW (W)	825	5	237713 219944
77	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 24.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A12NW (W)	825	5	237710 219920
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 242.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18NW (N)	832	5	238520 220701
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 94.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A9NE (SE)	835	5	239455 219254
80	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 7.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	848	5	238699 220700
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 115.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	848	5	238699 220700
82	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 303.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A8SW (S)	852	5	238564 218716

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
83	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 249.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	853	5	238695 220707
84	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 201.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A18NE (N)	854	5	238621 220718
85	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 44.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	866	5	237992 218887
86	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A12SW (W)	871	5	237662 219685
87	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.8 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	871	5	237963 218904
88	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 477.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A12SW (W)	876	5	237656 219678
89	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: Tywi and Cothi Primacy: 1	A7SE (SW)	903	5	237949 218874
90	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 90.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A14NE (E)	910	5	239565 219796
91	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 78.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A17NW (NW)	918	5	237787 220402

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
92	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 8.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A23SE (N)	928	5	238779 220764
93	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 108.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A23SE (N)	928	5	238779 220764
94	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 116.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A23SE (N)	929	5	238787 220763
95	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 102.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A14NE (E)	937	5	239596 219782
96	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 6.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	965	5	237937 218804
97	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 33.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	968	5	237940 218798
98	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 92.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A17NW (NW)	970	5	237836 220541
99	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	988	5	237950 218766
100	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 167.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A17NW (NW)	990	5	237709 220415

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
101	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 190.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A23SE (N)	992	5	238874 220807
102	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Tawelan Brook Catchment Name: Tywi and Cothi Primacy: 1	A23SE (N)	992	5	238874 220807
103	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 228.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A7SE (SW)	993	5	237957 218755
104	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 207.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Tywi and Cothi Primacy: 1	A3NW (S)	999	5	238326 218589
	Water Framework Directive - Catchment Class Code: River Catchment WaterBody Name: Tawelon - headwaters to tidal limit WaterBody ID: GB110060029320 Operational Catchment: Tywi Management: Carmarthen Bay and the Gower Catchment Name: Not Supplied	A13SW (NW)	0	2	238594 219706
	Water Framework Directive - Groundwater Waterbody Name: Tywi, Taf and Gwendraeths Waterbody ID: GB41002G200500 URL Address: Not Available Overall Rating: Poor Chemical Rating: Poor Quantitative Measure: Good Year: 2023	A13SW (NW)	0	2	238594 219706
105	Water Framework Directive - Surface Waters Class Code: River Waterbody Name: Tawelon - headwaters to tidal limit Waterbody ID: GB110060029320 URL Address: Not Supplied Overall Rating: Moderate Chemical Rating: High Classification Year: 2023	A13NE (NE)	134	2	238773 219882

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
106	<p>Historical Landfill Sites</p> <p>Licence Holder: Ffynnon Plant Crymuch Location: Llanllwach, Carmarthen, Carmarthenshire Name: Glyn Siw Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD14439 First Input Date: 31st December 1989 Last Input Date: 31st December 1992 Specified Waste Type: Deposited Waste included Inert, Industrial and Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 6825/0081 BGS Ref: Not Supplied Other Ref: Not Supplied</p>	A8NW (SW)	456	2	238353 219147
107	<p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: CB3297HZ Location: Cillefwr Road West, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Operator Name: Airfield Metals Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Metal recycling, vehicle storage, depollution Licence Status: Effective Issued: 26th October 2021 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9SW (SE)	661	2	239044 219020
108	<p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: ZP3298FV Location: Johnstown, Carmarthen, Carmarthenshire, SA31 3RB Operator Name: Carmarthen Recycling & Environmental Services Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 18th October 2000 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9SW (SE)	704	2	238980 218935
108	<p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: ZP3298FV Location: Johnstown, Carmarthen, Carmarthenshire, SA31 3RB Operator Name: Carmarthen Recycling & Environmental Services Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 18th October 2000 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9SW (SE)	704	2	238980 218935

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
109	<p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: CB3698FY Location: Plot 7 Cillefwr Road West, Alltynap, Johnstown, Carmarthen, SA31 3RB Operator Name: TD Tyre Recycling Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 14th October 2022 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9SW (SE)	828	2	239097 218856
109	<p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: CB3698FY Location: Plot 7 Cillefwr Road West, Alltynap, Johnstown, Carmarthen, , SA31 3RB Operator Name: TD Tyre Recycling Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 14th October 2022 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9SW (SE)	828	2	239097 218856
110	<p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: VP3698FD Location: Johnstown, Carmarthen, Carmarthenshire, SA31 3RA Operator Name: Carmarthenshire Recycling Company Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Material Recycling Treatment Facilities Licence Status: Effective Issued: 18th February 2004 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A9NE (SE)	948	2	239557 219206
	<p>Local Authority Landfill Coverage</p> <p>Name: Carmarthenshire County Council - Has no landfill data to supply</p>		0	6	238594 219706
111	<p>Potentially Infilled Land (Non-Water)</p> <p>Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992</p>	A8NE (SE)	482	-	238920 219154
112	<p>Potentially Infilled Land (Non-Water)</p> <p>Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992</p>	A14NE (E)	708	-	239372 219734
113	<p>Potentially Infilled Land (Non-Water)</p> <p>Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992</p>	A14NE (E)	729	-	239390 219750
114	<p>Potentially Infilled Land (Water)</p> <p>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964</p>	A8NW (SW)	509	-	238303 219111
115	<p>Potentially Infilled Land (Water)</p> <p>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964</p>	A9NW (SE)	560	-	239111 219213
116	<p>Potentially Infilled Land (Water)</p> <p>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964</p>	A14SW (E)	566	-	239244 219496

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
117	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A8SE (S)	704	-	238806 218876
118	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14SE (E)	797	-	239480 219594
119	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14SE (E)	911	-	239593 219530
120	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A15SW (E)	984	-	239666 219583
121	Registered Waste Transfer Sites Licence Holder: Carmarthen Recclng & Environmental Ltd Licence Reference: 34181 Site Location: C R E S Ltd, Plot 1 Cillefwr Industrial Estate, Johnstown, Carmarthen, Carmarthenshire, Sa31 3rb Operator Location: C R E S Ltd, Plot 1 Cillefwr Industrial Estate, Johnstown, Carmarthen, Carmarthenshire, Sa31 3rb Authority: Environment Agency Wales, South West Area Site Category: Transfer Max Input Rate: Undefined Waste Source: No known restriction on source of waste Restrictions: Licence Status: Operational as far as is knownOperational Dated: 18th October 2000 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Household/Commercial/Industrial Waste (As In Post'98 E.A.Lics And Equivalent To 22.09.00) New Licence, Wastes Not To Hand	A9NW (SE)	652	4	239210 219190
122	Registered Waste Transfer Sites Licence Holder: P J Burt & W E Husband Licence Reference: TFR/STN1 Site Location: County Motor Factor, 2 Cillefwr Industrial Estate, Carmarthen, Carmarthenshire Operator Location: As Site Address Authority: Environment Agency Wales, South West Area Site Category: Transfer Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Site exempt from licenceExempt Dated: 1st August 1991 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Cleaning Solvents Contam. Car Refinishing Paints Max.Storage	A9NW (SE)	652	4	239170 219140

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Arenig Rocks (Undifferentiated)	A13SW (NW)	0	1	238594 219706
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (NW)	0	1	238594 219706
123	BGS Recorded Mineral Sites Site Name: Mill Pond Location: Llanllwch, Carmarthen, Carmarthenshire Source: British Geological Survey, National Geoscience Information Service Reference: 100370 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Deposits, Devensian Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A8SE (S)	575	1	238757 218998
124	BGS Recorded Mineral Sites Site Name: Dawelan Location: Carmarthen, Carmarthenshire Source: British Geological Survey, National Geoscience Information Service Reference: 102283 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Ordovician Geology: Tetragraptus Beds Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A18NE (N)	677	1	238676 220530
125	BGS Recorded Mineral Sites Site Name: Pentre-Sil Location: Carmarthen, Carmarthenshire Source: British Geological Survey, National Geoscience Information Service Reference: 100371 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Deposits, Devensian Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A14NE (E)	719	1	239381 219746
126	BGS Recorded Mineral Sites Site Name: Trebersed Location: Carmarthen, Carmarthenshire Source: British Geological Survey, National Geoscience Information Service Reference: 102282 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Ordovician Geology: Tetragraptus Beds Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A17NW (NW)	943	1	237857 220524
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	124	1	238791 219848
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	171	1	238814 219883
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	179	1	238727 220000
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	210	1	238781 220000
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	124	1	238791 219848
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	171	1	238814 219883
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	179	1	238727 220000
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	210	1	238781 220000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	143	1	238372 219557
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	124	1	238791 219848

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	143	1	238372 219557
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	171	1	238814 219883
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	179	1	238727 220000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	210	1	238781 220000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	238632 219694
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
	Radon Potential - Radon Affected Areas Affected Area: The property is an Intermediate probability radon area (3 to 5% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706

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127	<p>Contemporary Trade Directory Entries</p> <p>Name: Wynnstay Group Plc Location: Llysonnen Mill, Llysonnen Road, Carmarthen, Dyfed, SA31 3SG Classification: Agricultural Merchants Status: Active Positional Accuracy: Automatically positioned to the address</p>	A12SE (SW)	280	-	238249 219533
127	<p>Contemporary Trade Directory Entries</p> <p>Name: Celtic Pride Location: Llysonnen Mill, Llysonnen Road, Carmarthen, Dyfed, SA31 3SG Classification: Meat - Wholesale Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SE (SW)	280	-	238249 219533
128	<p>Contemporary Trade Directory Entries</p> <p>Name: Celtic Pride Location: Llysonnen Rd, Carmarthen, Dyfed, SA31 3RP Classification: Meat - Wholesale Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A8NW (SW)	420	-	238339 219192
129	<p>Contemporary Trade Directory Entries</p> <p>Name: Wayne Evans Domestic Appliances Location: 4, MANOR CRESCENT, LLANLLWCH, CARMARTHEN, SA31 3RJ Classification: Domestic Appliances - Servicing, Repairs & Parts Status: Active Positional Accuracy: Automatically positioned to the address</p>	A8SW (S)	567	-	238576 219001
130	<p>Contemporary Trade Directory Entries</p> <p>Name: South West Electro Diesel Ltd Location: Unit 5-6, Anthony Way, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Diesel Fuel Injection Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	616	-	239137 219157
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Gordon'S Garage Location: Carmarthen, SA31 3RB Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	616	-	239136 219156
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Welsh Auto Painters Location: Unit 7, Anthony Way, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Paint Spraying Equipment & Accessories Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	617	-	239146 219166
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Hargreaves Engineering Location: Unit 6/8, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Engine Rebuilding & Reconditioning Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	617	-	239146 219166
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Cutting Edge Mechanics Location: UNIT 8, ANTHONY WAY, CILLEFWR INDUSTRIAL ESTATE, JOHNSTOWN, CARMARTHEN, SA31 3RB Classification: Lawnmowers & Garden Machinery - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	619	-	239153 219171
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Gower Fasteners Location: Unit 3, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Fasteners & Fixing Devices Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	652	-	239163 219133
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Motobiker Ltd Location: Unit 2, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Motor Cycle Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	653	-	239170 219139

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Hargreaves Engineering Location: Unit 1, Anthony Way, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Engine Rebuilding & Reconditioning Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	654	-	239177 219144
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Carmarthen Recycling & Environmental Services Ltd Location: Unit 1, Cillefwr Ind Est, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A9NW (SE)	654	-	239176 219144
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Countrywide Farmers Location: Unit 21/23, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A9NW (SE)	657	-	239137 219099
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Glofire Stove Installations Ltd Location: Cambrian Park, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Fireplaces & Mantelpieces Status: Active Positional Accuracy: Manually positioned within the geographical locality</p>	A9NW (SE)	684	-	239204 219131
130	<p>Contemporary Trade Directory Entries</p> <p>Name: C W M Environmental Location: Alitycnap Road, Johnstown, CARMARTHEN, Dyfed, SA31 3RA Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	695	-	239196 219105
131	<p>Contemporary Trade Directory Entries</p> <p>Name: Jenkins Refrigeration Location: Unit 10-10c, Cillefwr Road East, Johnstown, Carmarthen, SA31 3RU Classification: Refrigeration Equipment - Commercial Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	627	-	239180 219192
131	<p>Contemporary Trade Directory Entries</p> <p>Name: A & A Cane Location: Unit 10C, Cillefwr Road East, Cillefwr Industrial Estate Johnstown, Carmarthen, Dyfed, SA31 3RU Classification: Soft Furnishings - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	627	-	239181 219193
132	<p>Contemporary Trade Directory Entries</p> <p>Name: L B S Builders Merchants Ltd Location: Unit 12, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	630	-	239199 219211
132	<p>Contemporary Trade Directory Entries</p> <p>Name: V S G Europe Location: Unit 17, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Cycle Accessories, Manufacturers & Wholesalers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	664	-	239232 219201
132	<p>Contemporary Trade Directory Entries</p> <p>Name: T D Tyre Recycling Ltd Location: Plot 7 Cillefwr Road West, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Tyre Disposal Status: Active Positional Accuracy: Manually positioned within the geographical locality</p>	A9NW (SE)	669	-	239209 219160
132	<p>Contemporary Trade Directory Entries</p> <p>Name: Serck Inter Truck Location: Unit 19, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	669	-	239209 219161

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
132	<p>Contemporary Trade Directory Entries</p> <p>Name: Serck Intertruck Location: Unit 19, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	669	-	239209 219161
132	<p>Contemporary Trade Directory Entries</p> <p>Name: P A G Consultancy Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address</p>	A9NW (SE)	672	-	239220 219169
132	<p>Contemporary Trade Directory Entries</p> <p>Name: Carmarthen Cars Location: Unit 18, Anthony Way, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	675	-	239239 219192
133	<p>Contemporary Trade Directory Entries</p> <p>Name: Carmarthen Recycling & Environmental Services Ltd Location: Cillefwr Industrial Estate, Johnstown, CARMARTHEN, Dyfed, SA31 3RB Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	669	-	238975 218972
133	<p>Contemporary Trade Directory Entries</p> <p>Name: Cres Ltd Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	669	-	238975 218972
133	<p>Contemporary Trade Directory Entries</p> <p>Name: Carmarthen Recycling & Environmental Services Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Classification: Recycling Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	670	-	238975 218971
134	<p>Contemporary Trade Directory Entries</p> <p>Name: Four Counties Discount Office Furniture Ltd Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Office Furniture & Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	672	-	239014 218989
134	<p>Contemporary Trade Directory Entries</p> <p>Name: B T Jones & Son Location: The Coal Yard, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Coal & Smokeless Fuel Merchants & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	675	-	239049 219006
135	<p>Contemporary Trade Directory Entries</p> <p>Name: Hazel Valley Packaging Location: Unit 10, Cillefwr Rd East, Cillefwr Ind Est, Johnstown, Carmarthen, Dyfed, SA31 3QY Classification: Packaging Materials Manufacturers & Suppliers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A9NW (SE)	687	-	239222 219148
136	<p>Contemporary Trade Directory Entries</p> <p>Name: E P L A Location: Glien House, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Veterinary Pharmacies Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	716	-	239266 219158
136	<p>Contemporary Trade Directory Entries</p> <p>Name: Ats Euromaster Ltd Location: A T S House, Glien Road, Johnstown, Carmarthen, Dyfed, SA31 3RX Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	759	-	239291 219120

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
137	<p>Contemporary Trade Directory Entries</p> <p>Name: City Heating Spares Location: Unit 1-2, Cillefwr Road East, Johnstown, Carmarthen, SA31 3RU Classification: Central Heating Supplies & Equipment Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	730	-	239299 219181
137	<p>Contemporary Trade Directory Entries</p> <p>Name: Ingram Tribology Ltd Location: Unit 1-2, Cillefwr Road East, Johnstown, Carmarthen, SA31 3RU Classification: Engineering Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	730	-	239299 219181
137	<p>Contemporary Trade Directory Entries</p> <p>Name: A T B Davies Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	743	-	239326 219202
137	<p>Contemporary Trade Directory Entries</p> <p>Name: Carmarthen Cars Location: Cambrian Park, Cillefwr Ind Est, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A9NE (SE)	749	-	239344 219222
137	<p>Contemporary Trade Directory Entries</p> <p>Name: Screwfix Carmarthen Location: Cillefwr Industrial Estate, 4-5 Alltynap Road, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Builders' Merchants Status: Active Positional Accuracy: Manually positioned to the address or location</p>	A9NE (SE)	769	-	239335 219165
138	<p>Contemporary Trade Directory Entries</p> <p>Name: Gordons Garage Ltd Location: Unit B, Cillefwr Road West, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Classification: Car Breakdown & Recovery Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	733	-	239021 218923
139	<p>Contemporary Trade Directory Entries</p> <p>Name: Camarthen Automotive Repair & Supplies Ltd Location: Unit 9, Cambrian Park, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Classification: Car Radiator Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	752	-	239372 219272
139	<p>Contemporary Trade Directory Entries</p> <p>Name: Carmarthen Automotive Repairs & Supplies Ltd Location: Unit 9, Cambrian Park, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Classification: Car Radiator Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	752	-	239372 219272
139	<p>Contemporary Trade Directory Entries</p> <p>Name: Quickies Logistics Location: Unit 2/3, Cambrian Park, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RB Classification: Freight Forwarders Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A9NE (SE)	778	-	239390 219248
139	<p>Contemporary Trade Directory Entries</p> <p>Name: Carmarthen Refrigeration Ltd T/A Jenkins Refrigeration & Air Cond Location: Unit 10, Cillefwr Road East, Johnstown, Carmarthen, Dyfed, SA31 3RU Classification: Refrigeration Equipment - Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	780	-	239399 219262
140	<p>Contemporary Trade Directory Entries</p> <p>Name: Parc Dewi Sant Location: Building 3, Parc Dewi Sant, Job's Well Road, Carmarthen, SA31 3HB Classification: Catering Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A19SE (NE)	813	-	239384 220177

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
141	<p>Contemporary Trade Directory Entries</p> <p>Name: A H Bassett Location: Long Reach, Pentremeurig Road, Carmarthen, Dyfed, SA31 3QS Classification: Scrap Metal Merchants Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A18NE (N)	813	-	238703 220663
142	<p>Contemporary Trade Directory Entries</p> <p>Name: Pioneer Concrete (Uk) Ltd Location: Unit 11, Cillefwr Road East, Johnstown, Carmarthen, Dyfed, SA31 3RU Classification: Concrete & Mortar Ready Mixed Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	825	-	239450 219270
142	<p>Contemporary Trade Directory Entries</p> <p>Name: Hanson Ready-Mixed Concrete Location: Unit 11, Cillefwr Road East, Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RU Classification: Concrete & Mortar Ready Mixed Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	825	-	239450 219270
143	<p>Contemporary Trade Directory Entries</p> <p>Name: L S & J M Davies Location: Pentremeurig Farm, Pentremeurig Road, Carmarthen, Dyfed, SA31 3ET Classification: Dairies Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A19NW (NE)	828	-	239133 220510
144	<p>Contemporary Trade Directory Entries</p> <p>Name: Harris Slate & Stone Uk Ltd Location: Alltynap Road, Johnstown, Carmarthen, Dyfed, SA31 3QX Classification: Slate & Slate Products Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	835	-	239334 219051
145	<p>Contemporary Trade Directory Entries</p> <p>Name: Roy Thomas Farm Supplies Ltd Location: LLANLLWCH, CARMARTHEN, SA33 5DR Classification: Agricultural Merchants Status: Active Positional Accuracy: Automatically positioned to the address</p>	A7SW (SW)	848	-	237909 218987
146	<p>Contemporary Trade Directory Entries</p> <p>Name: West Wales Lubricants Location: Alltynap Road, Johnstown, Carmarthen, SA31 3RY Classification: Lubrication Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	860	-	239463 219211
146	<p>Contemporary Trade Directory Entries</p> <p>Name: Agressol Location: Alltynap Rd, Johnstown, Carmarthen, Dyfed, SA31 3RY Classification: Reclaiming - Waste Products Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A9NE (SE)	860	-	239463 219212
146	<p>Contemporary Trade Directory Entries</p> <p>Name: Carmarthenshire Tyre Services Ltd Location: Alltynap Road, Johnstown, Carmarthen, SA31 3RY Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	891	-	239504 219228
147	<p>Contemporary Trade Directory Entries</p> <p>Name: For Farmers Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RD Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	905	-	239453 219098
147	<p>Contemporary Trade Directory Entries</p> <p>Name: For Farmers Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, Dyfed, SA31 3RD Classification: Pet Foods & Animal Feeds Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (SE)	905	-	239453 219098

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
147	Contemporary Trade Directory Entries Name: For Farmers Location: Alltynap Road, Johnstown, Carmarthen, Dyfed, SA31 3RD Classification: Pet Foods & Animal Feeds Status: Active Positional Accuracy: Automatically positioned to the address	A9NE (SE)	905	-	239453 219098
147	Contemporary Trade Directory Entries Name: Penllain Garage Location: Alltynap Road, Johnstown, Carmarthen, Dyfed, SA31 3RD Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	905	-	239453 219098
148	Contemporary Trade Directory Entries Name: A B S Carmarthen Location: 10, Heol Mair, Carmarthen, Dyfed, SA31 3EN Classification: Firefighting Equipment Status: Active Positional Accuracy: Automatically positioned to the address	A19NE (NE)	985	-	239280 220593
149	Points of Interest - Commercial Services Name: Hargreaves Engineering Location: Unit 6/8, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	617	7	239146 219166
149	Points of Interest - Commercial Services Name: A P Motorcycles Location: Unit 7 Anthony Way, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	617	7	239146 219166
149	Points of Interest - Commercial Services Name: Motobiker Ltd Location: Unit 2, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	653	7	239170 219139
149	Points of Interest - Commercial Services Name: Serck Intertruck Location: Unit 19, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	669	7	239209 219161
150	Points of Interest - Commercial Services Name: Carmarthen Cars Location: Unit 18 Anthony Way, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	674	7	239239 219192
150	Points of Interest - Commercial Services Name: South West Electro Diesel Ltd Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NW (SE)	688	7	239268 219211
150	Points of Interest - Commercial Services Name: A T B Davies Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A9NE (SE)	743	7	239326 219202
150	Points of Interest - Commercial Services Name: Camarthen Automotive Repair & Supplies Ltd Location: 9 Cambrian Park, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NE (SE)	752	7	239372 219272

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
150	Points of Interest - Commercial Services Name: A T B Davies Location: 9 Cambrian Park, Johnstown, Carmarthen, SA31 3RB Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A9NE (SE)	752	7	239372 219272
150	Points of Interest - Commercial Services Name: Gordons Garage Ltd Location: Unit 4 to 5, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NE (SE)	769	7	239335 219165
150	Points of Interest - Commercial Services Name: Carmarthen Automotive Repairs Location: Unit 9 Cambrian Park, Anthony Way, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NE (SE)	795	7	239391 219213
150	Points of Interest - Commercial Services Name: Hargreaves Engineering Location: Unit 1, Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A9NE (SE)	807	7	239365 219143
151	Points of Interest - Commercial Services Name: Scrap Yard Location: SA31 Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A18NE (N)	707	7	238761 220541
151	Points of Interest - Commercial Services Name: Scrap Yard Location: Not Supplied Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to an adjacent address or location	A18NE (N)	720	7	238761 220554
152	Points of Interest - Commercial Services Name: T D Tyre Recycling Ltd Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A9SW (SE)	753	7	239067 218926
153	Points of Interest - Commercial Services Name: A H Bassett Location: Long Reach, Pentremeurig Road, Carmarthen, SA31 3QS Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A18NE (N)	813	7	238703 220663
154	Points of Interest - Education and Health Name: St. Davids Hospital (Carmarthen) Location: SA31 Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A19SE (NE)	898	7	239470 220194
154	Points of Interest - Education and Health Name: Hafan Derwen Location: Cwm Seren, Jobs Well Rd, Carmarthen, Dyfed, SA31 3BB Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A19SE (NE)	953	7	239518 220220
155	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	90	7	238489 219486
156	Points of Interest - Manufacturing and Production Name: Tanks Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	159	7	238367 219572

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
156	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13SW (SW)	165	7	238361 219569
156	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13SW (SW)	165	7	238362 219561
156	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13SW (SW)	166	7	238361 219576
156	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13SW (W)	172	7	238357 219610
156	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A13SW (W)	180	7	238349 219609
156	Points of Interest - Manufacturing and Production Name: Tanks Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	182	7	238348 219615
157	Points of Interest - Manufacturing and Production Name: Tanks Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A12SE (W)	292	7	238239 219633
157	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	293	7	238238 219638
157	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A12SE (W)	298	7	238233 219639
158	Points of Interest - Manufacturing and Production Name: D H Davies Location: Redcourt Farm, Llysonnen Road, Carmarthen, SA33 5DR Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A7NW (SW)	655	7	237904 219365
158	Points of Interest - Manufacturing and Production Name: D Hugh Davies Location: Redcourt Farm, Llysonnen Road, Carmarthen, SA33 5DR Category: Farming Class Code: Livestock Farming Positional Accuracy: Positioned to address or location	A7NW (SW)	655	7	237904 219365
159	Points of Interest - Manufacturing and Production Name: Cillefwr Industrial Estate Location: SA31 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	722	7	239275 219161

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
160	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A19SE (NE)	755	7	239301 220213
160	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A19SE (NE)	756	7	239304 220210
160	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A19SE (NE)	759	7	239305 220213
160	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A19SE (NE)	766	7	239312 220216
160	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A19SE (NE)	769	7	239315 220216
160	Points of Interest - Manufacturing and Production Name: Tanks Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	776	7	239322 220219
161	Points of Interest - Manufacturing and Production Name: Concrete Works Location: SA31 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	794	7	239420 219277
161	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A9NE (SE)	830	7	239466 219299
161	Points of Interest - Manufacturing and Production Name: Tanks Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	833	7	239468 219295
161	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A9NE (SE)	834	7	239470 219299
161	Points of Interest - Manufacturing and Production Name: West Wales Lubricants Location: Alltynap Road, Johnstown, Carmarthen, SA31 3RY Category: Extractive Industries Class Code: Oil and Gas Extraction, Refinery and Product Manufacture Positional Accuracy: Positioned to address or location	A9NE (SE)	860	7	239463 219211
162	Points of Interest - Manufacturing and Production Name: Harris Slate & Stone Ltd Location: Alltynap Road, Johnstown, Carmarthen, SA31 3QX Category: Extractive Industries Class Code: Stone Quarrying and Preparation Positional Accuracy: Positioned to address or location	A9NE (SE)	835	7	239334 219051

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
162	Points of Interest - Manufacturing and Production Name: Tank Location: SA31 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	870	7	239407 219091
163	Points of Interest - Manufacturing and Production Name: Redcourt Farm - Solar Photovoltaics (BEIS) Location: Redcourt Farm, Llysonnen Road, Carmarthen, SA33 5DR Category: Industrial Features Class Code: Energy Production Positional Accuracy: Positioned to address or location	A7NW (SW)	943	7	237624 219294
164	Points of Interest - Manufacturing and Production Name: Cillefwr Industrial Estate Location: SA31 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A9NE (SE)	995	7	239603 219196
165	Points of Interest - Public Infrastructure Name: Electric Bus Depot Location: SA33 Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to an adjacent address or location	A8NW (SW)	546	7	238277 219082
166	Points of Interest - Public Infrastructure Name: Sewage Pumping Station Location: SA31 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A9NW (SE)	598	7	239096 219141
167	Points of Interest - Public Infrastructure Name: Slurry Bed Location: SA31 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A12NW (NW)	642	7	237907 220006
168	Points of Interest - Public Infrastructure Name: Carmarthen Recycling & Environmental Services Ltd Location: Unit 1, Cillefwr Ind Est, Johnstown, Carmarthen, Dyfed, SA31 3RB Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A9NW (SE)	654	7	239176 219144
168	Points of Interest - Public Infrastructure Name: Cwm Environmental Ltd Location: Alltynap Road, Johnstown, Carmarthen, SA31 3RA Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A9NW (SE)	695	7	239196 219105
169	Points of Interest - Public Infrastructure Name: Cres Ltd Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A9SW (SE)	669	7	238975 218972
169	Points of Interest - Public Infrastructure Name: C R E S Ltd Location: Cillefwr Industrial Estate, Johnstown, Carmarthen, SA31 3RB Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A9SW (SE)	670	7	238975 218971
170	Points of Interest - Public Infrastructure Name: Slurry Bed Location: SA31 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A17NE (NW)	748	7	238114 220487
171	Points of Interest - Public Infrastructure Name: Outfall Location: SA31 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	891	7	239573 219603

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
171	Points of Interest - Public Infrastructure Name: Outfall Location: SA31 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	896	7	239578 219602
171	Points of Interest - Public Infrastructure Name: Outfall Location: SA31 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A15SW (E)	955	7	239637 219611
171	Points of Interest - Public Infrastructure Name: Outfall Location: SA31 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A15SW (E)	960	7	239642 219613
172	Points of Interest - Public Infrastructure Name: C W M Environmental Location: Alltynap Road, Johnstown, Carmarthen, SA31 3RA Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A9NE (SE)	952	7	239530 219139
173	Points of Interest - Recreational and Environmental Name: Play Area Location: SA31 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SE (S)	24	7	238639 219541
174	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SW (SE)	272	7	238950 219520
174	Points of Interest - Recreational and Environmental Name: Playground Location: (Parc Y Ffordd), SA31 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14SW (SE)	298	7	238976 219520
175	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	748	7	239424 219475
175	Points of Interest - Recreational and Environmental Name: Playground Location: (Parc Cilddewi), SA31 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	748	7	239424 219475
176	Points of Interest - Recreational and Environmental Name: Playground Location: (Maes Y Wennol), SA31 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A19NW (NE)	880	7	239250 220479
177	Points of Interest - Recreational and Environmental Name: Playground Location: (Heol Dyfnallt), SA31 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A14NE (E)	942	7	239593 219826
177	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	943	7	239594 219826

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
178	Ancient Woodland Name: Not Supplied Reference: 3406 Area(m ²): 9464.39 Type: Restored Ancient Woodland Site	A14SE (E)	708	2	239388 219653
179	Ancient Woodland Name: Not Supplied Reference: 4568 Area(m ²): 39343.69 Type: Restored Ancient Woodland Site	A9SW (SE)	842	2	239147 218872
180	Ancient Woodland Name: Not Supplied Reference: 38794 Area(m ²): 38876.76 Type: Plantation on Ancient Woodland	A9SE (SE)	924	2	239349 218933
181	Ancient Woodland Name: Not Supplied Reference: 38800 Area(m ²): 3644.22 Type: Plantation on Ancient Woodland	A3NW (S)	1000	2	238577 218567
182	Sites of Special Scientific Interest Name: Maesyrior Multiple Areas: Y Total Area (m2): 439880.07 Source: Natural Resources Wales Reference: 37532wvn Designation Details: Geological Designation Date: 22nd July 1988 Date Type: Notified	A11NE (W)	984	2	237565 220044

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Natural Resources Wales Carmarthenshire County Council - Environmental Health Department	November 2023 September 2017	Annually Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 January 2025	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control Natural Resources Wales Environment Agency - Welsh Region	January 2025 July 2024	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Carmarthenshire County Council - Environmental Health Department	March 2015	Variable
Local Authority Pollution Prevention and Controls Carmarthenshire County Council - Environmental Health Department	March 2015	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Carmarthenshire County Council - Environmental Health Department	March 2015	Variable
Nearest Surface Water Feature Ordnance Survey	January 2025	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Historical Prosecutions Environment Agency, Welsh Region Natural Resources Wales	March 2013 March 2013	Not Applicable Not Applicable
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	
Substantiated Pollution Incident Register Natural Resources Wales Environment Agency Wales - South West Area	December 2024 January 2021	Quarterly Quarterly
Water Abstractions Natural Resources Wales Environment Agency - Welsh Region	February 2025 October 2024	Quarterly Quarterly
Water Industry Act Referrals Environment Agency - Welsh Region Natural Resources Wales	October 2017 October 2022	
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	As notified
Superficial Aquifer Designations Natural Resources Wales	January 2018	As notified
Source Protection Zones Natural Resources Wales	July 2022	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	

Agency & Hydrological	Version	Update Cycle
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	
OS Water Network Lines Ordnance Survey	January 2025	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water Suitability Natural Resources Wales	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified
Water Framework Directive - Catchment Natural Resources Wales	July 2024	Annually
Water Framework Directive - Groundwater Natural Resources Wales	July 2024	Annually
Water Framework Directive - Surface Waters Natural Resources Wales	November 2024	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Natural Resources Wales	March 2023	As notified
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Natural Resources Wales Environment Agency Wales - South West Area	August 2024 January 2023	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Natural Resources Wales Environment Agency Wales - South West Area	January 2025 July 2024	Quarterly Quarterly
Local Authority Landfill Coverage Carmarthenshire County Council	February 2003	Not Applicable
Local Authority Recorded Landfill Sites Carmarthenshire County Council	October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency Wales - South West Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South West Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South West Area	June 2015	
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	September 2024	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Carmarthenshire County Council - Area Planning Office (East Area) Carmarthenshire County Council - Area Planning Office (South Area) Carmarthenshire County Council - Environment Department (West Area)	August 2023 August 2023 August 2023	Variable Variable Variable
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)	August 2023 August 2023 August 2023	Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	March 2024	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	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	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	November 2024	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	November 2024	Annually
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	December 2024	Quarterly
Fuel Station Entries Green Street Advisor (UK) Ltd	December 2024	Quarterly
Points of Interest - Commercial Services PointX	March 2025	Quarterly
Points of Interest - Education and Health PointX	March 2025	Quarterly
Points of Interest - Manufacturing and Production PointX	March 2025	Quarterly
Points of Interest - Public Infrastructure PointX	March 2025	Quarterly
Points of Interest - Recreational and Environmental PointX	March 2025	Quarterly
Underground Electrical Cables National Grid	January 2024	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	October 2024	Bi-Annually
Areas of Adopted Green Belt Carmarthenshire County Council	July 2024	Quarterly
Areas of Unadopted Green Belt Carmarthenshire County Council	July 2024	Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	November 2024	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	May 2023	Not Applicable
Local Nature Reserves Carmarthenshire County Council	February 2025	Bi-Annually
Marine Nature Reserves Natural Resources Wales	February 2025	Bi-Annually
National Nature Reserves Natural Resources Wales	January 2025	Bi-Annually
National Parks Natural Resources Wales	September 2024	Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 November 2024	Annually
Ramsar Sites Natural Resources Wales	February 2025	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	November 2024	Bi-Annually
Special Areas of Conservation Natural Resources Wales	February 2025	Bi-Annually
Special Protection Areas Natural Resources Wales	November 2024	Bi-Annually

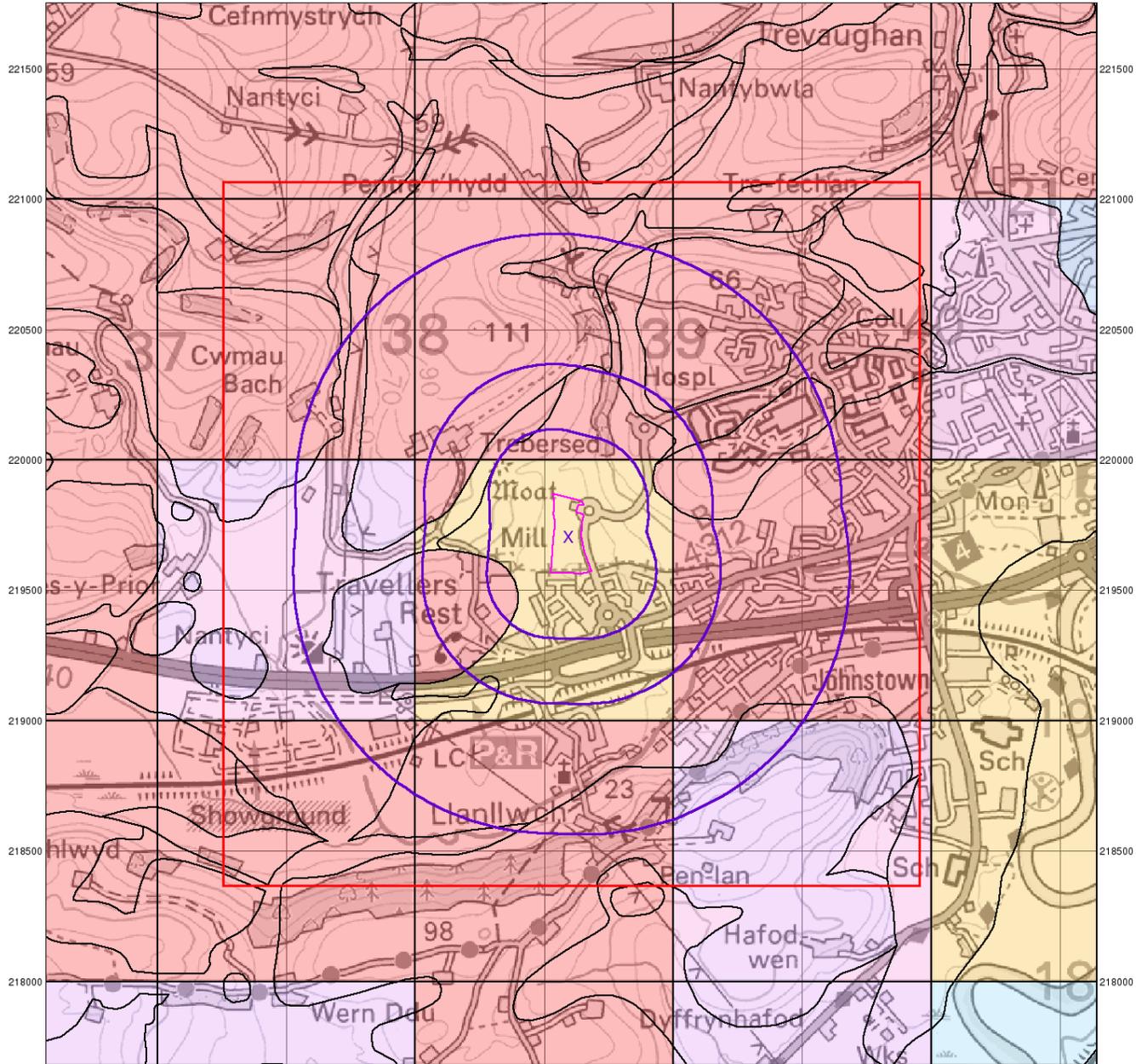
A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	 British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Centre for Ecology and Hydrology	 Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science 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	Carmarthenshire County Council - Environmental Health Department 3 Spillman Street, Carmarthen, Dyfed, SA31 1LE	Telephone: 01267 234567 Fax: 01267 238326 Website: www.carmarthenshire.gov.uk
4	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.co.uk
6	Carmarthenshire County Council County Hall, Carmarthen, Dyfed, SA31 1JP	Telephone: 01267 234567 Fax: 01267 238326 Website: www.carmarthenshire.gov.uk
7	PointX 5-6 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.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 Landmark Information Group, Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0330 036 6618 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk

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

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Intégral Géotechnique

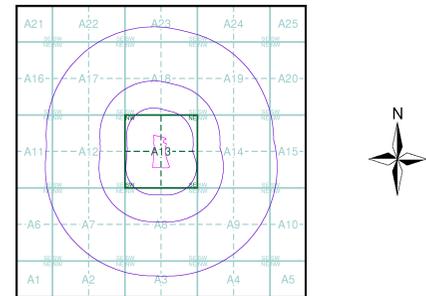
Groundwater Vulnerability

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID

Agency and Hydrological

- | Bedrock Aquifers | Superficial Aquifers |
|---|---|
| High Vulnerability, Principal Aquifer | High Vulnerability, Principal Aquifer |
| High Vulnerability, Secondary Aquifer | High Vulnerability, Secondary Aquifer |
| Medium Vulnerability, Principal Aquifer | Medium Vulnerability, Principal Aquifer |
| Medium Vulnerability, Secondary Aquifer | Medium Vulnerability, Secondary Aquifer |
| Low Vulnerability, Principal Aquifer | Low Vulnerability, Principal Aquifer |
| Low Vulnerability, Secondary Aquifer | Low Vulnerability, Secondary Aquifer |
| Unproductive Aquifer | |
| Soluble Rock | |

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

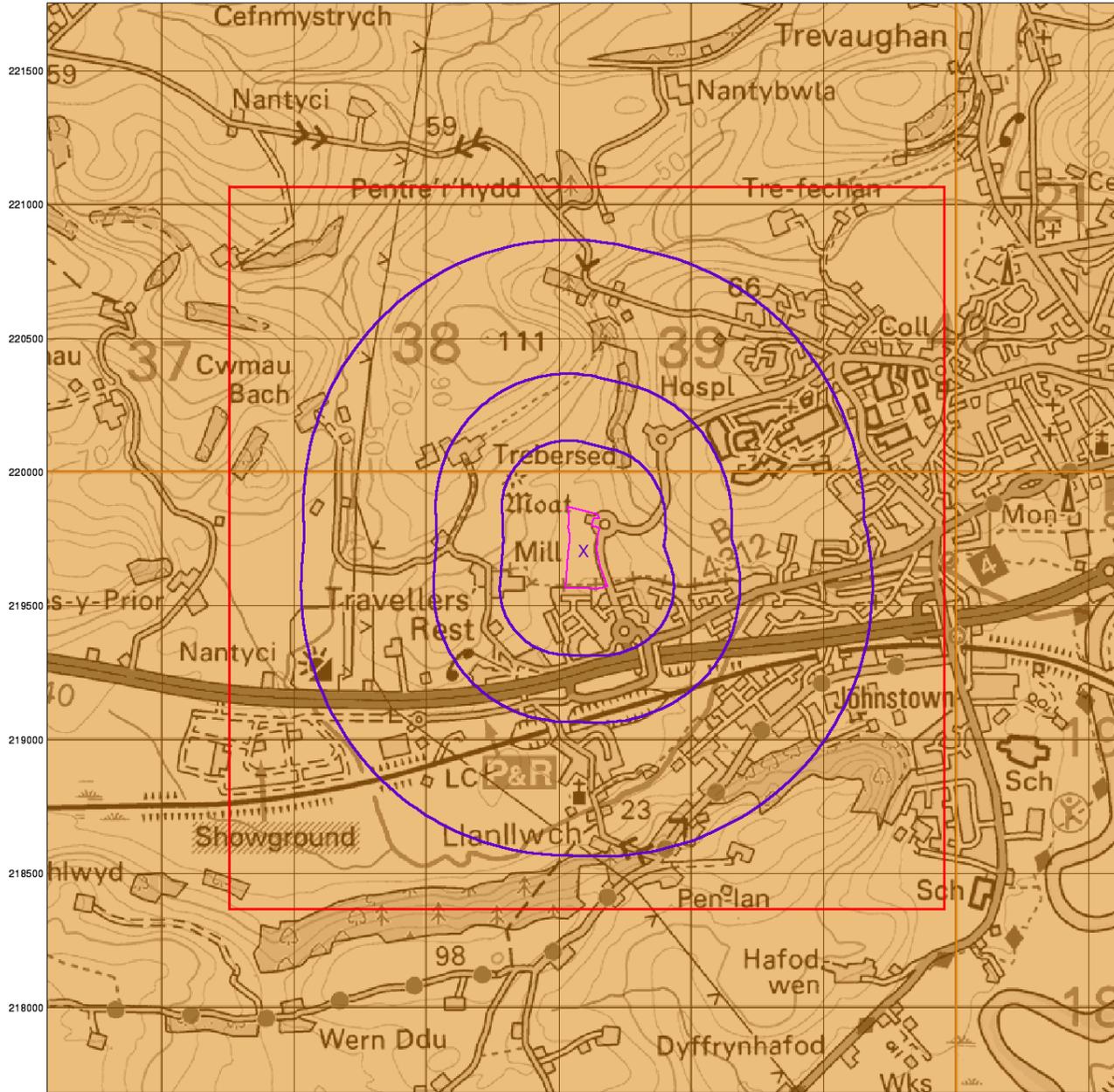
Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

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INFORMATION GROUP

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0 1 km

Intégral Géotechnique

Bedrock Aquifer Designation

General

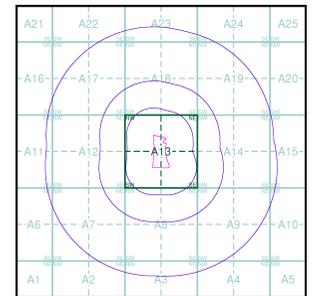
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



Order Details

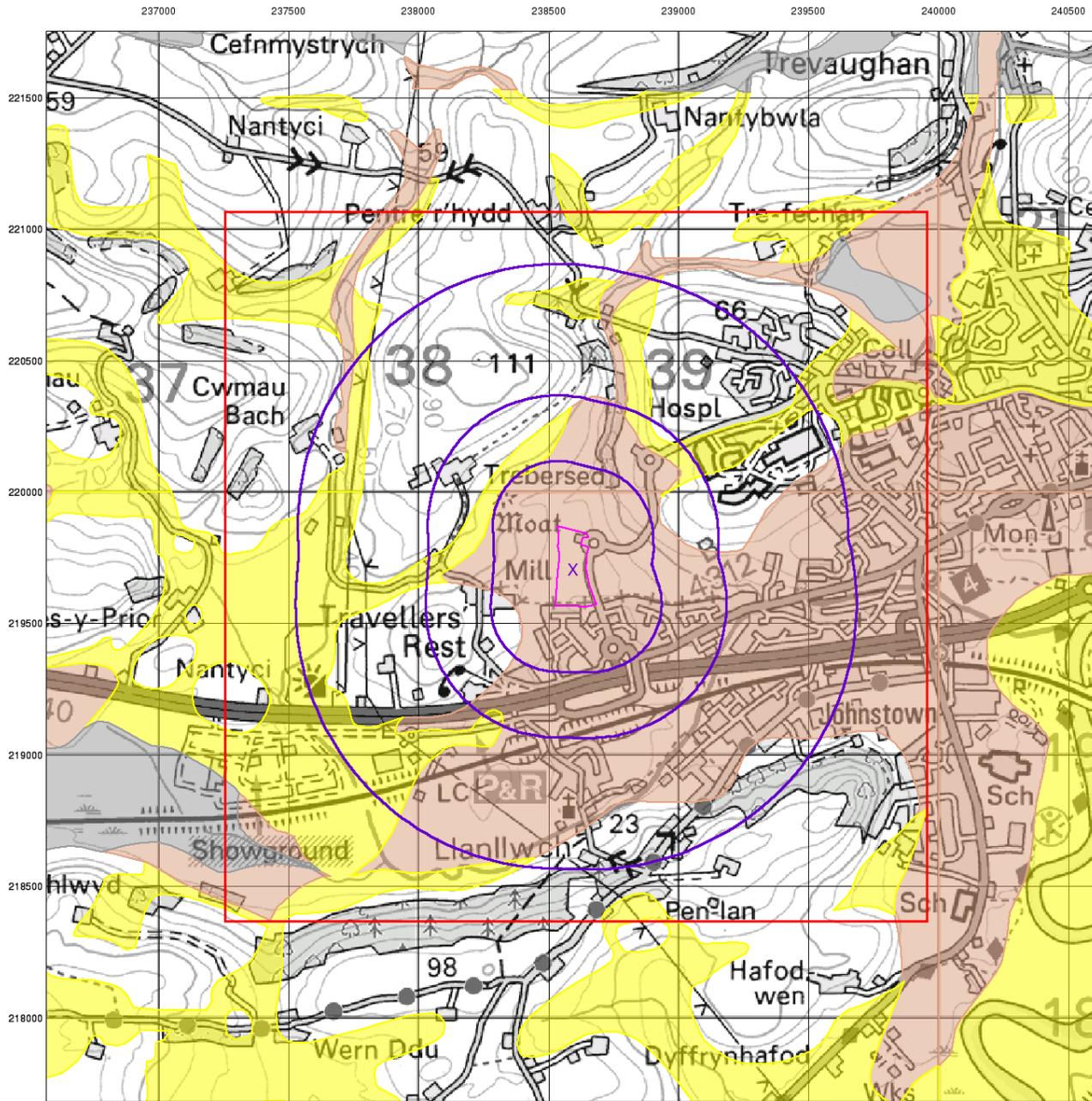
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 Site Area (Ha): 3.39
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Site Details

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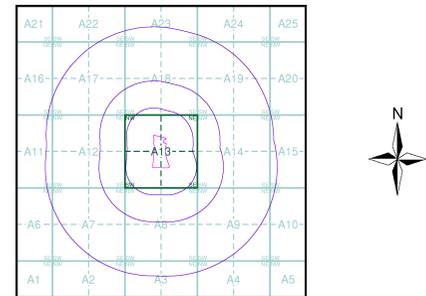
Intégral Géotechnique

Superficial Aquifer Designation

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID

- Agency and Hydrological**
- Geological Classes**
- Principal Aquifer
 - Secondary A Aquifer
 - Secondary B Aquifer
 - Secondary Undifferentiated
 - Unproductive Strata
 - Unknown
 - Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A



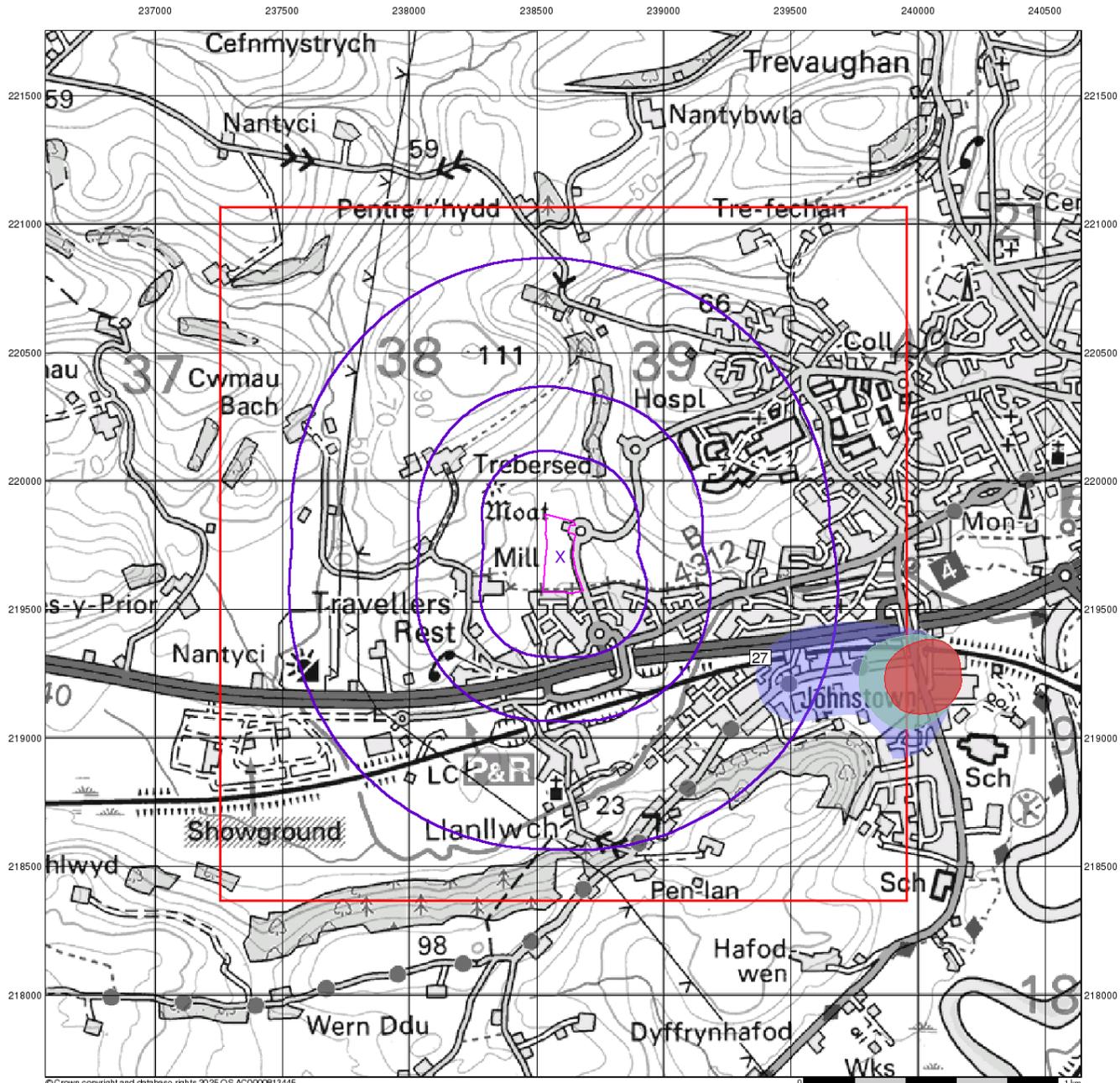
Order Details

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 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details
 Land at Carmarthen West, Carmarthen, SA31 3BW

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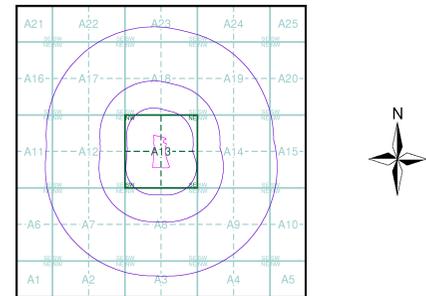
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Intégral Géotechnique

Source Protection Zones

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Agency and Hydrological**
- Inner zone (Zone 1)
 - Inner zone - subsurface activity only (Zone 1c)
 - Outer zone (Zone 2)
 - Outer zone - subsurface activity only (Zone 2c)
 - Total catchment (Zone 3)
 - Total catchment - subsurface activity only (Zone 3c)
 - Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

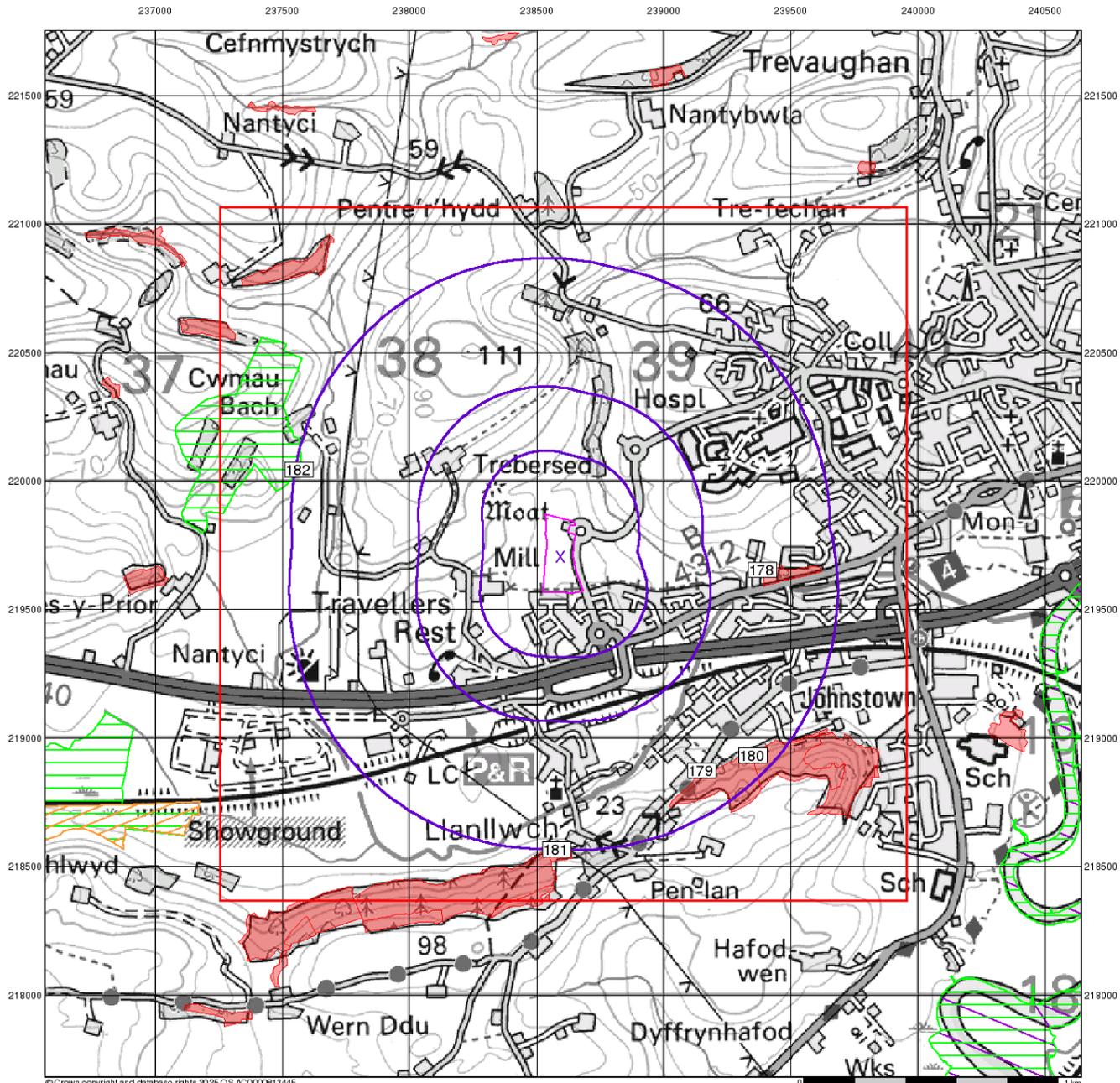
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 Site Area (Ha): 3.39
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Site Details

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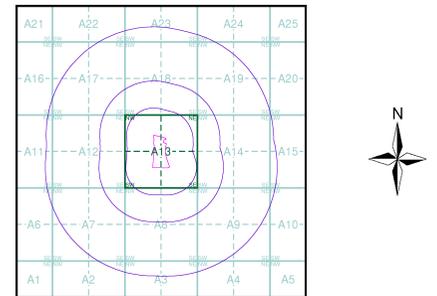
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Intégral Géotechnique

Sensitive Land Uses

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Sensitive Land Uses**
- Ancient Woodland
 - Area of Adopted Green Belt
 - Area of Unadopted Green Belt
 - Area of Outstanding Natural Beauty
 - Environmentally Sensitive Area
 - Forest Park
 - Local Nature Reserve
 - Marine Nature Reserve
 - National Nature Reserve
 - National Park
 - Nitrate Sensitive Area
 - Nitrate Vulnerable Zone
 - Ramsar Site
 - Site of Special Scientific Interest
 - Special Area of Conservation
 - Special Protection Area
 - World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

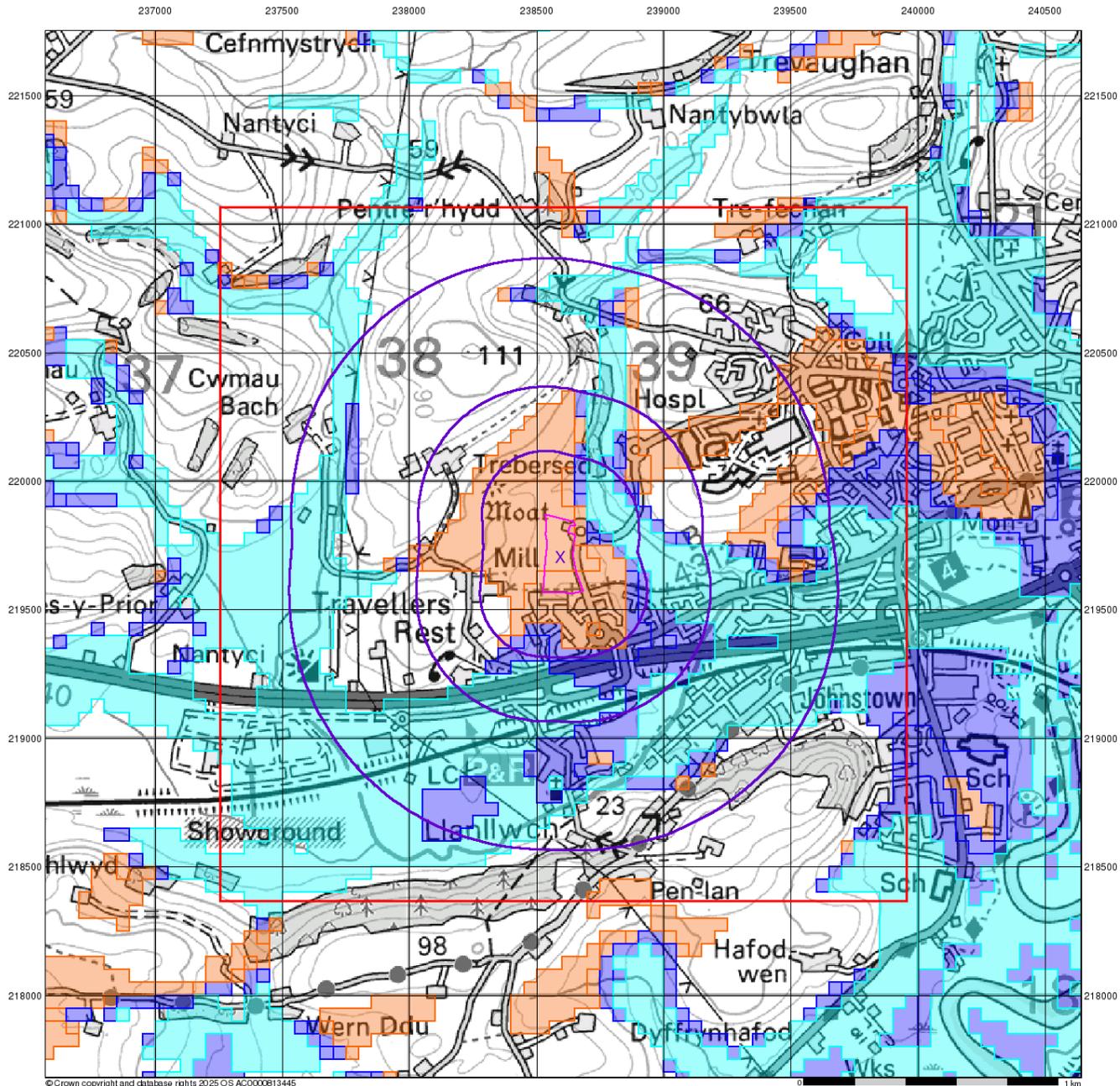
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 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

BGS Flood GFS Data

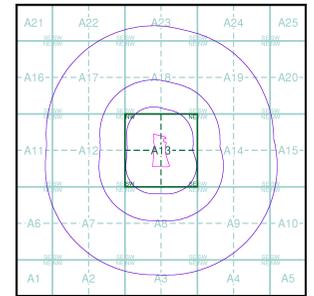
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

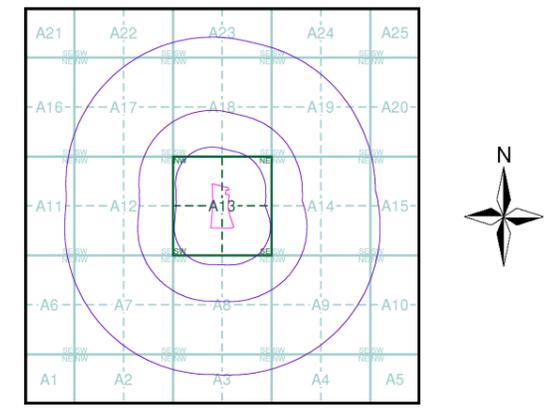


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Intégral Géotechnique

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Historical Prosecutions
 - Prosecutions
 - Registered Radioactive Substance
 - River Network or Water Feature
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHNS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
 - BGS Recorded Mineral Site

Site Sensitivity Map - Slice A



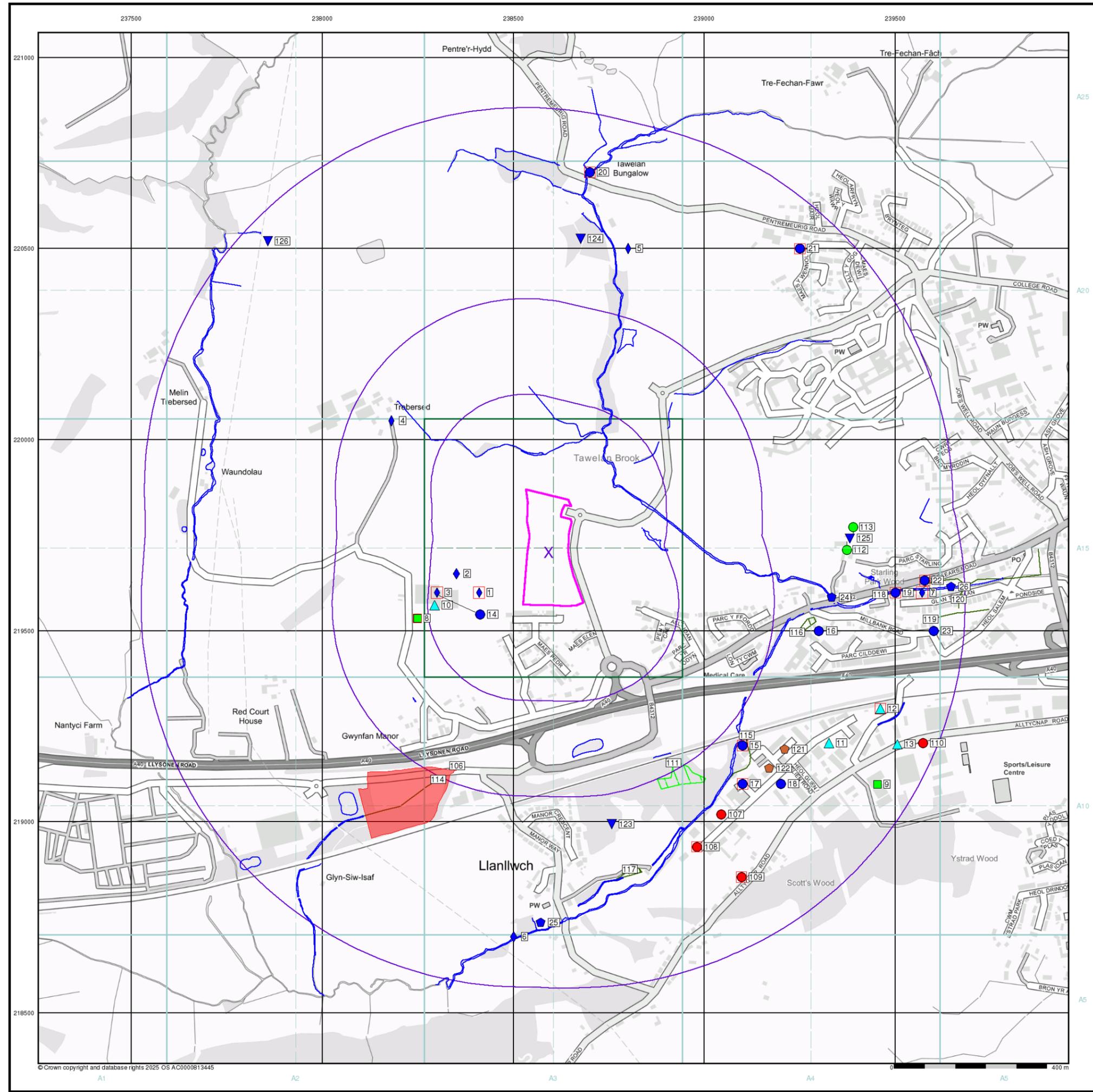
Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details
 Land at Carmarthen West, Carmarthen, SA31 3BW

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Intégral Géotechnique

Industrial Land Use Map

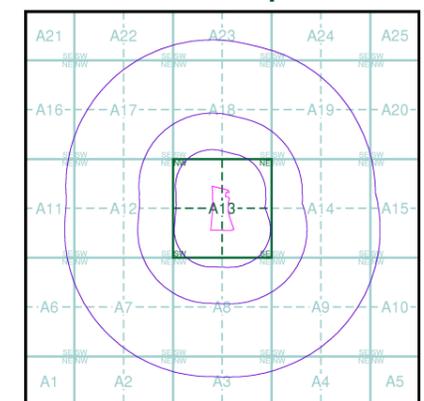
General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Slice
-  Map ID

Industrial Land Use

-  Contemporary Trade Directory Entry
-  Fuel Station Entry
-  Points of Interest - Commercial Services
-  Points of Interest - Education and Health
-  Points of Interest - Manufacturing and Production
-  Points of Interest - Public Infrastructure
-  Points of Interest - Recreational and Environmental
-  Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

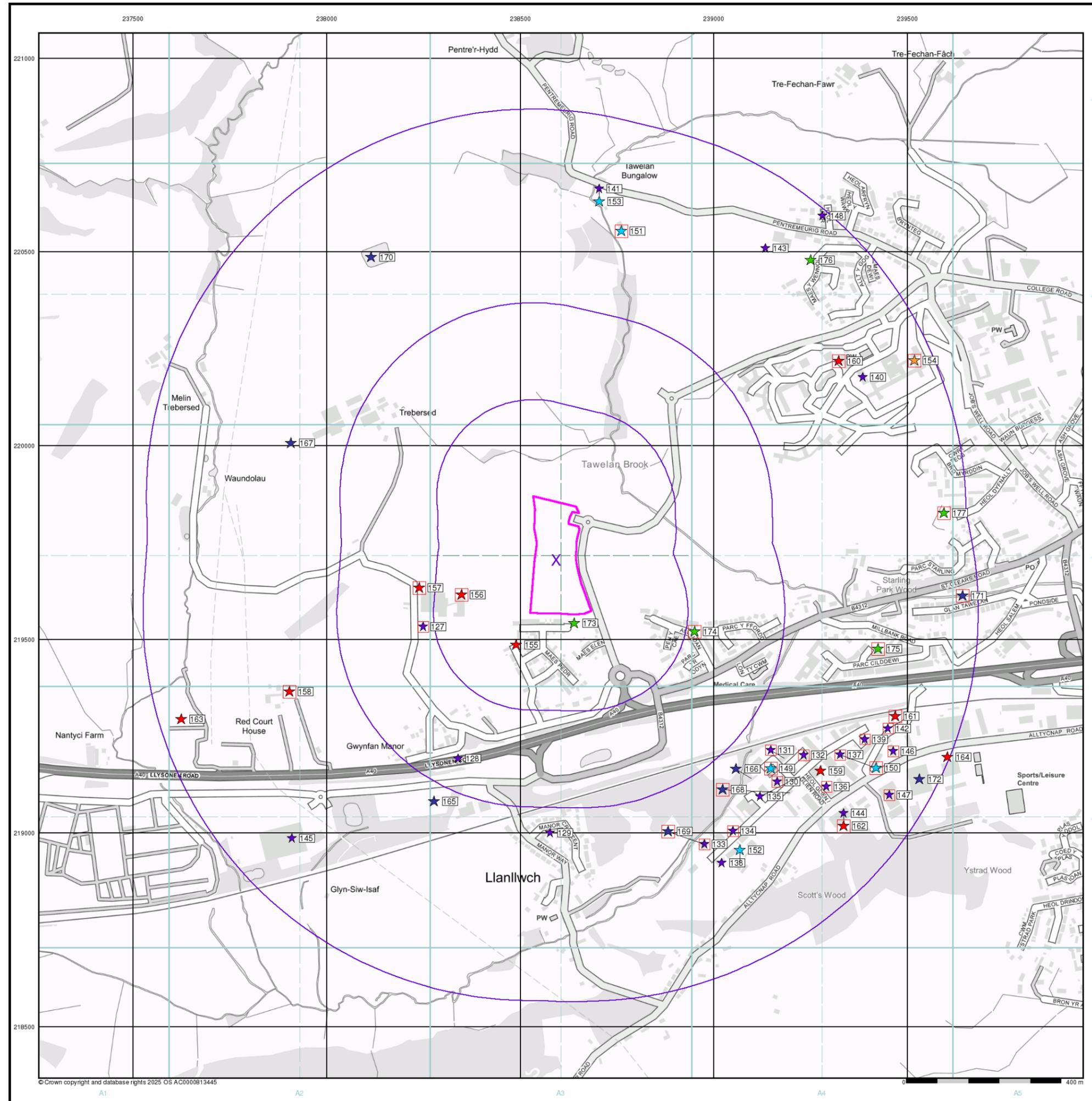
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 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

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Landmark
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Intégral Géotechnique

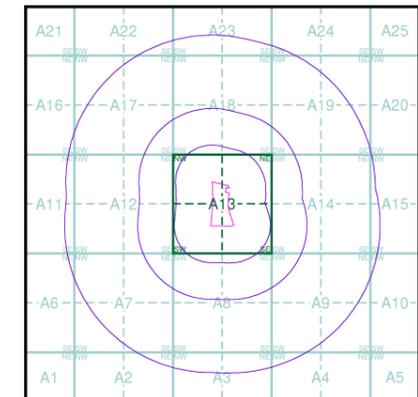
General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

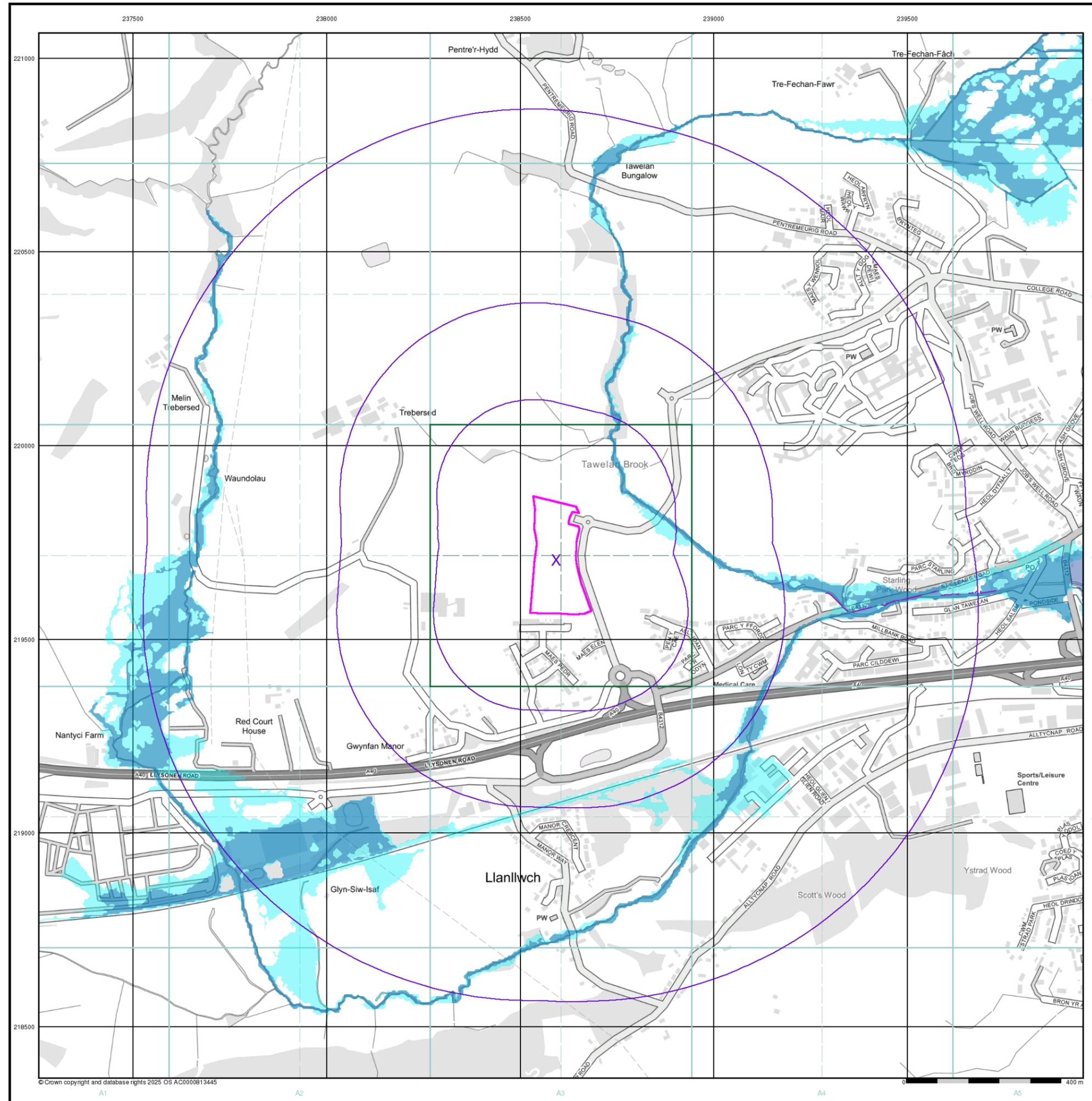
Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

Landmark
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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

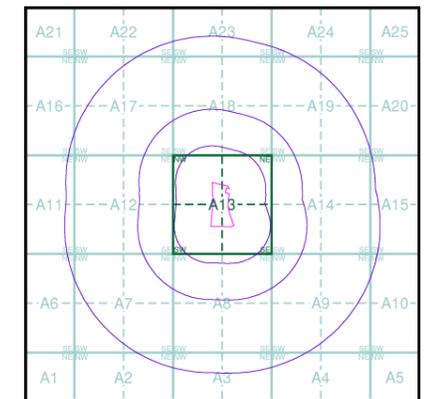
Agency and Hydrological (Boreholes)

- 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 A

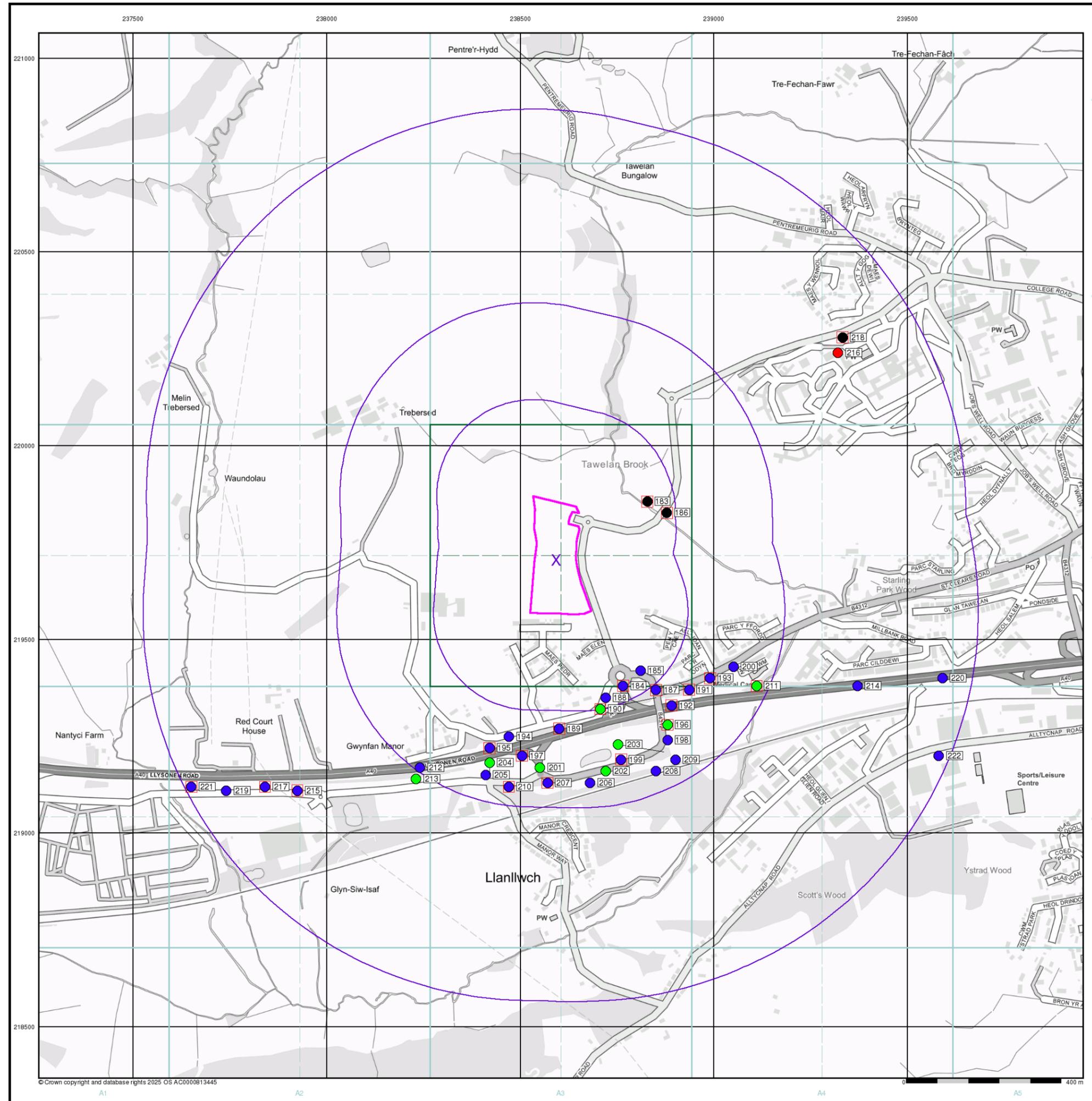


Order Details

Order Number: 373601466_1_1
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 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

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Intégral Géotechnique

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

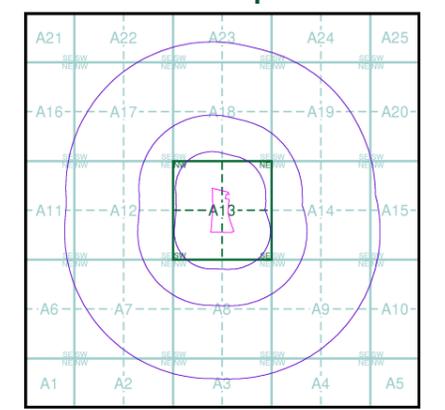
OS Water Network Data

- | | | | |
|--|--------------|--|-------------------------|
| | Canal | | Drain |
| | Reservoir | | Other |
| | Foreshire | | Lake |
| | Marsh | | Transfer |
| | Tidal River | | Lock Or Flight Of Locks |
| | Inland River | | Sea |

Contours (height in meters)

- Standard Contour
- Master Contour
- Spot Height
- Mean Low Water
- Mean High Water

OS Water Network Map - Slice A



Order Details

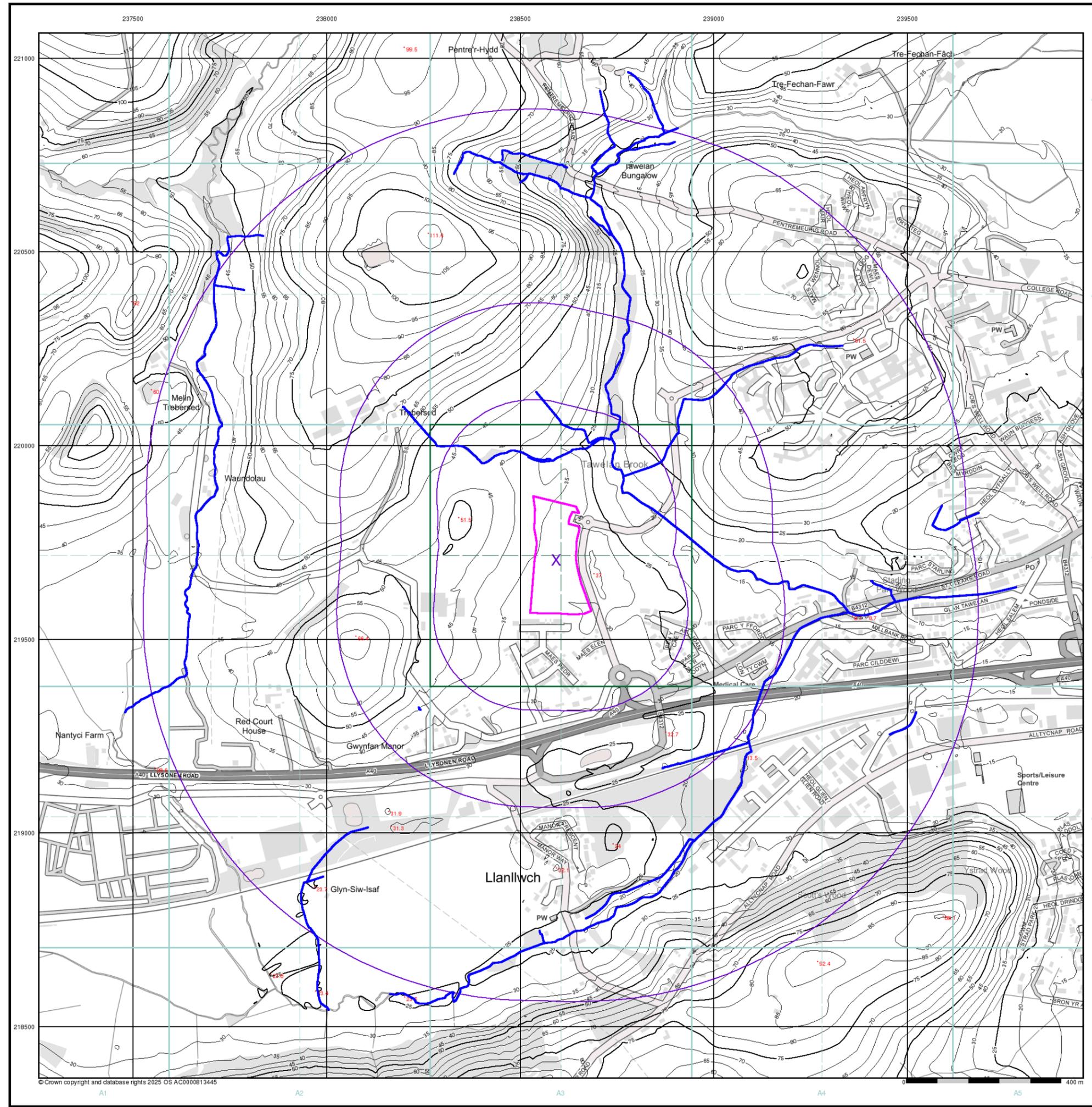
Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Risk of Flooding from Surface Water

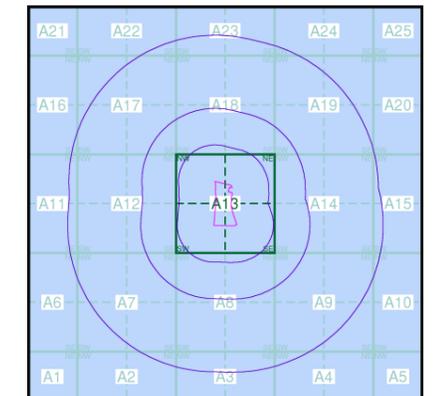
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EANRW Suitability Map - Slice A

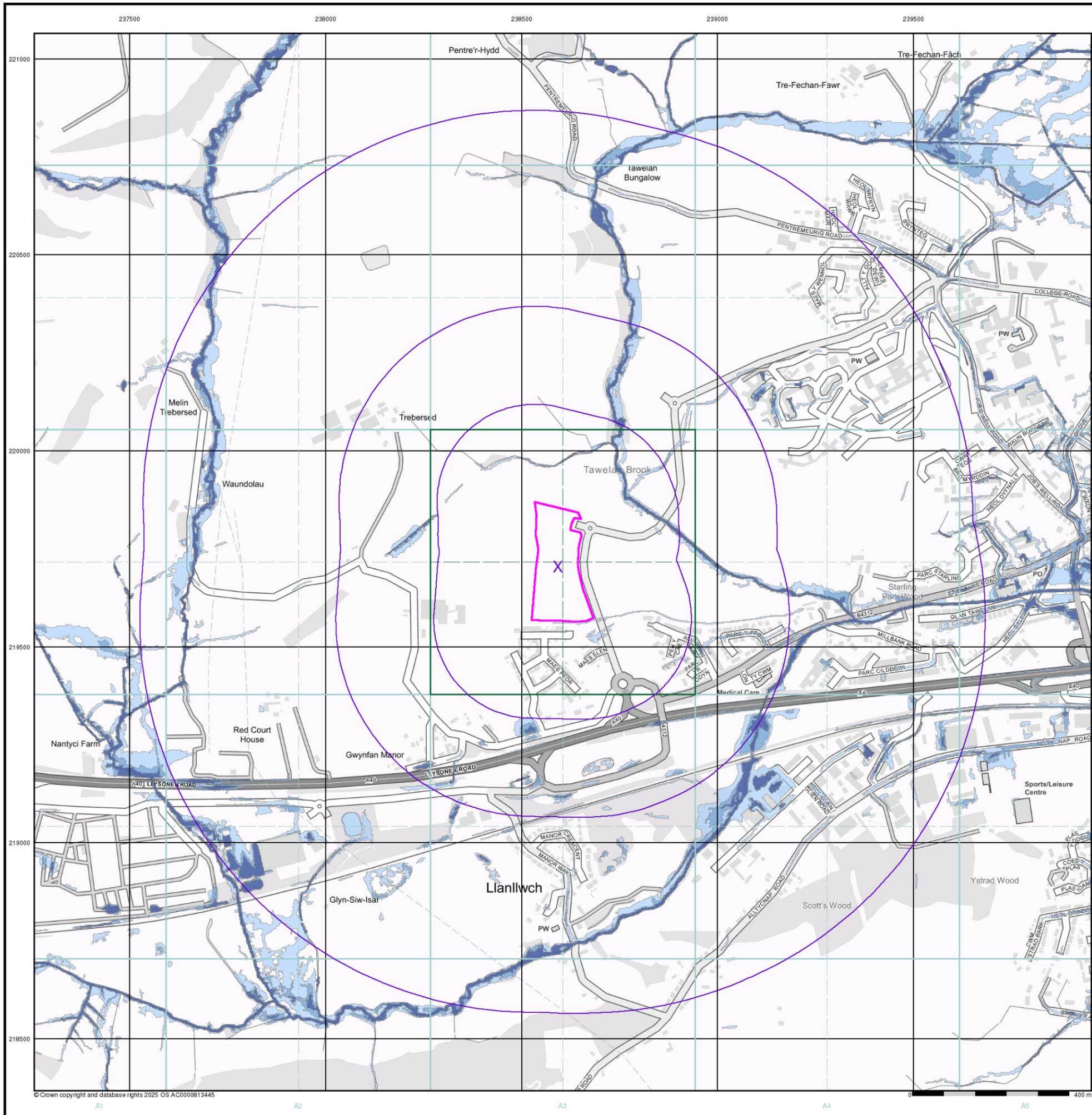


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

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Intégral Géotechnique

WFD Surface Waters Map

General

-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point
-  Slice
-  Map ID

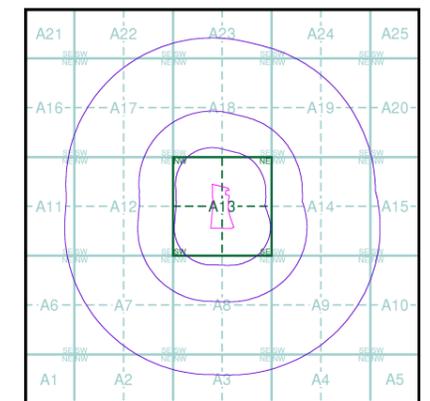
Water Framework Directive - Surface Water Quality

-  High
-  Good
-  Moderate
-  Poor
-  Bad

Contours (height in meters)

- Standard Contour   Mean Low Water
- Master Contour   Mean High Water
- Spot Height  *167.3

WFD Surface Waters Map - Slice A



Order Details

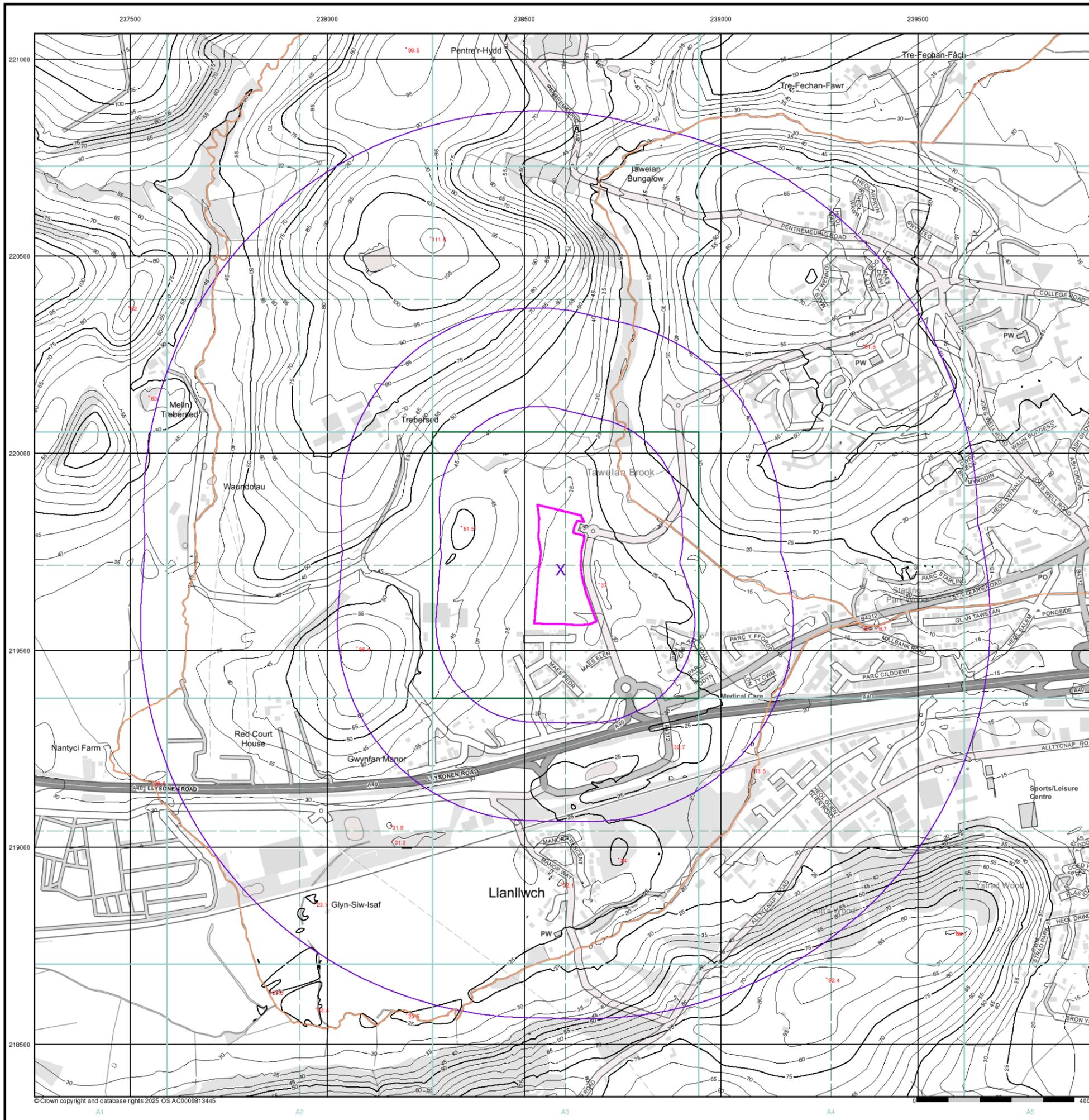
Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
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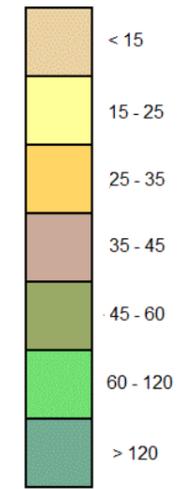
Intégral Géotechnique

General

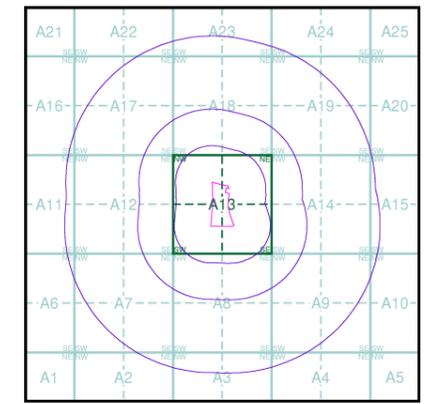
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

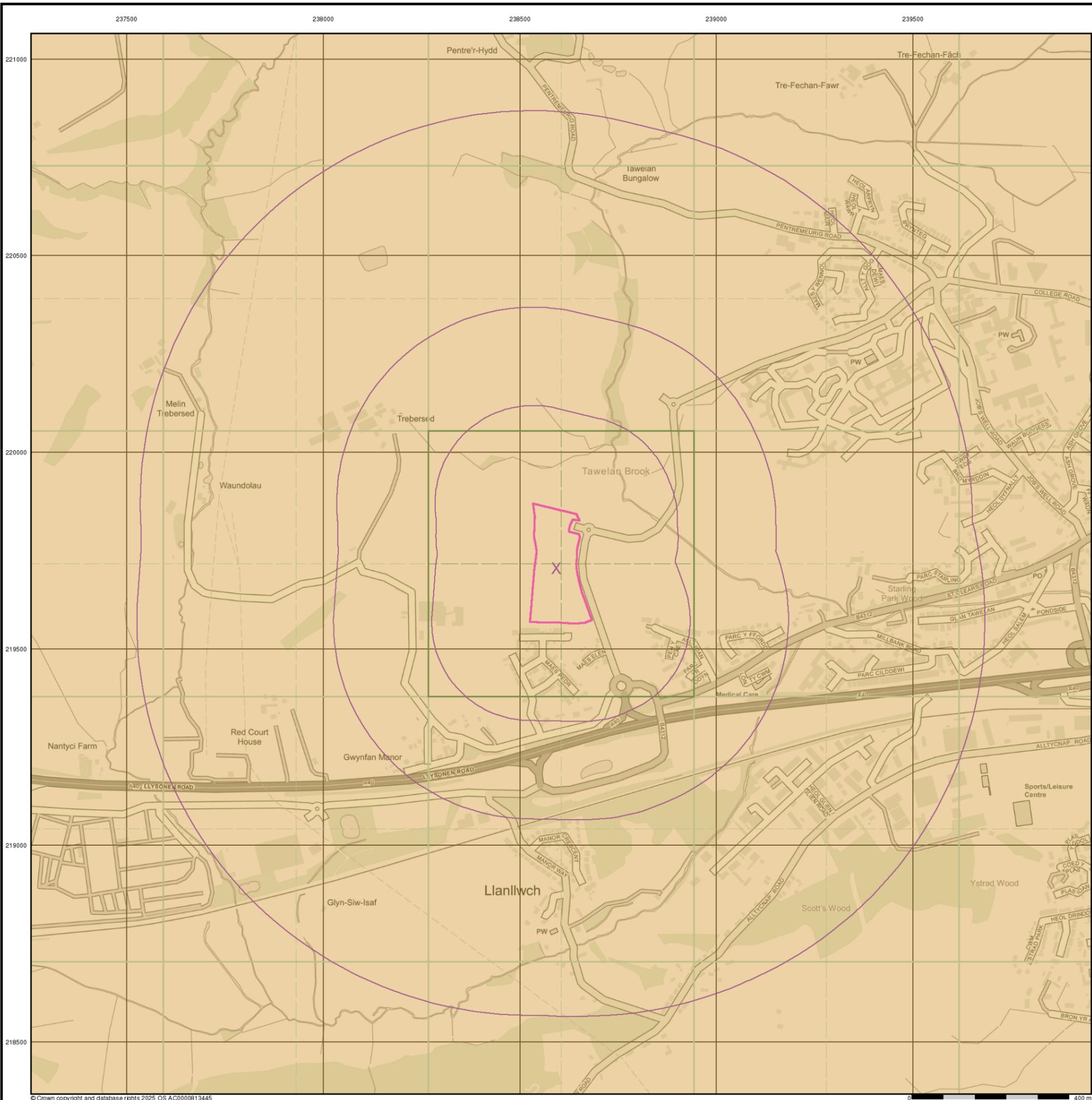
Order Details: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
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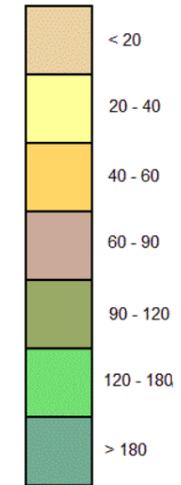
Intégral Géotechnique

General

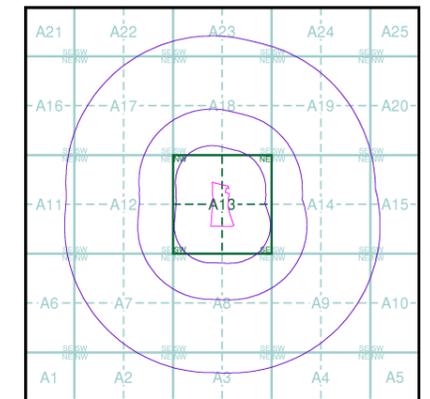
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

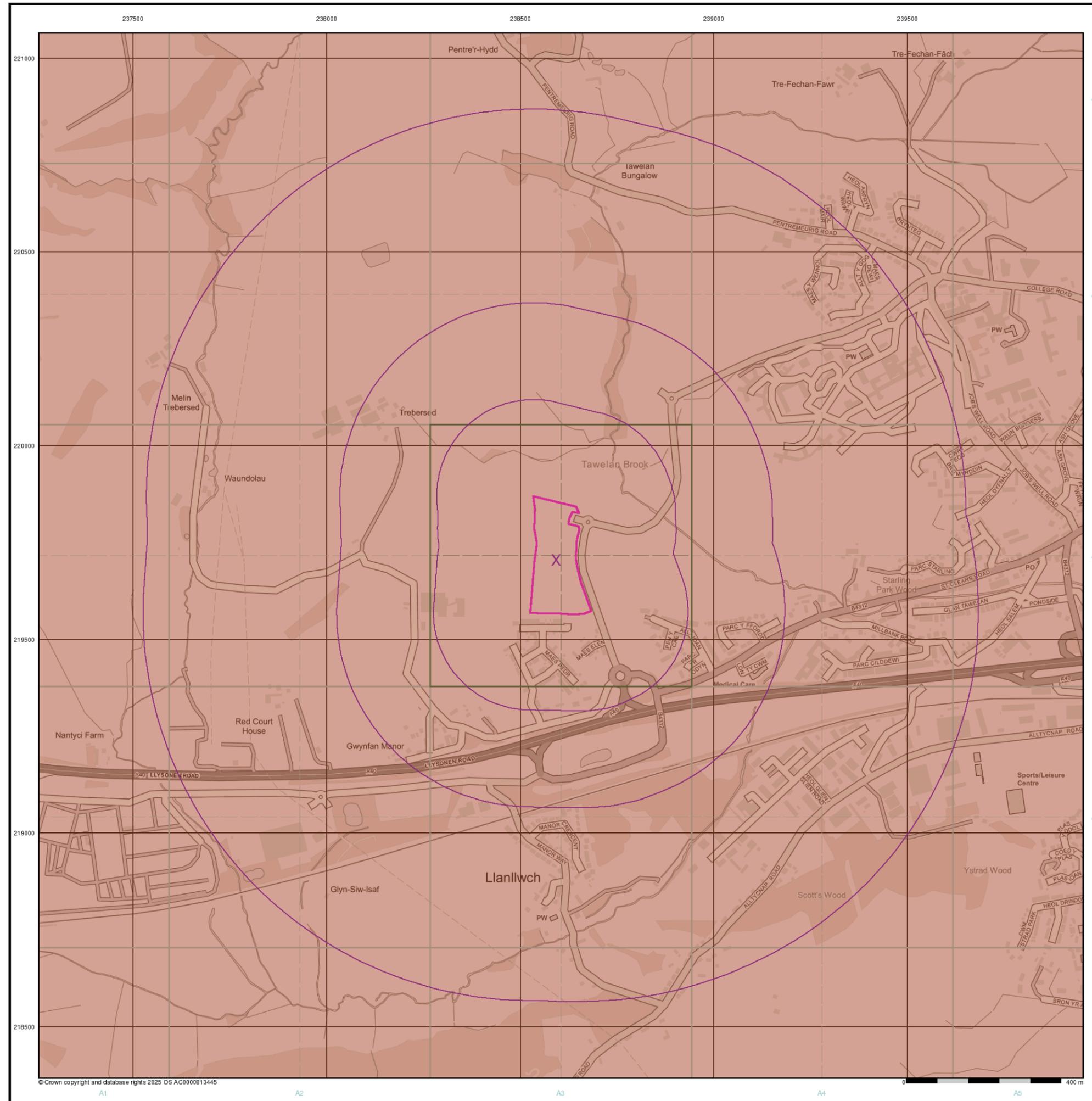
Order Details: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
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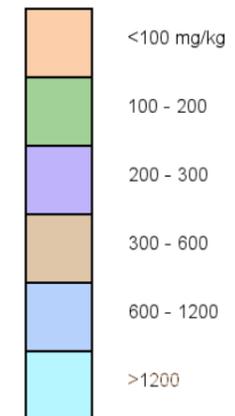
Intégral Géotechnique

General

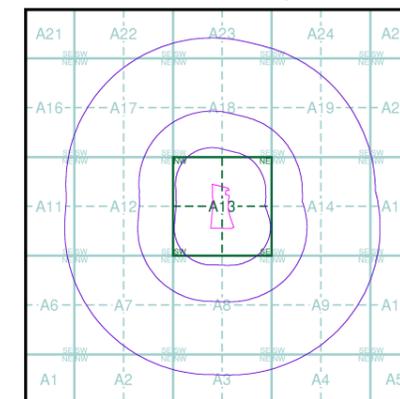
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

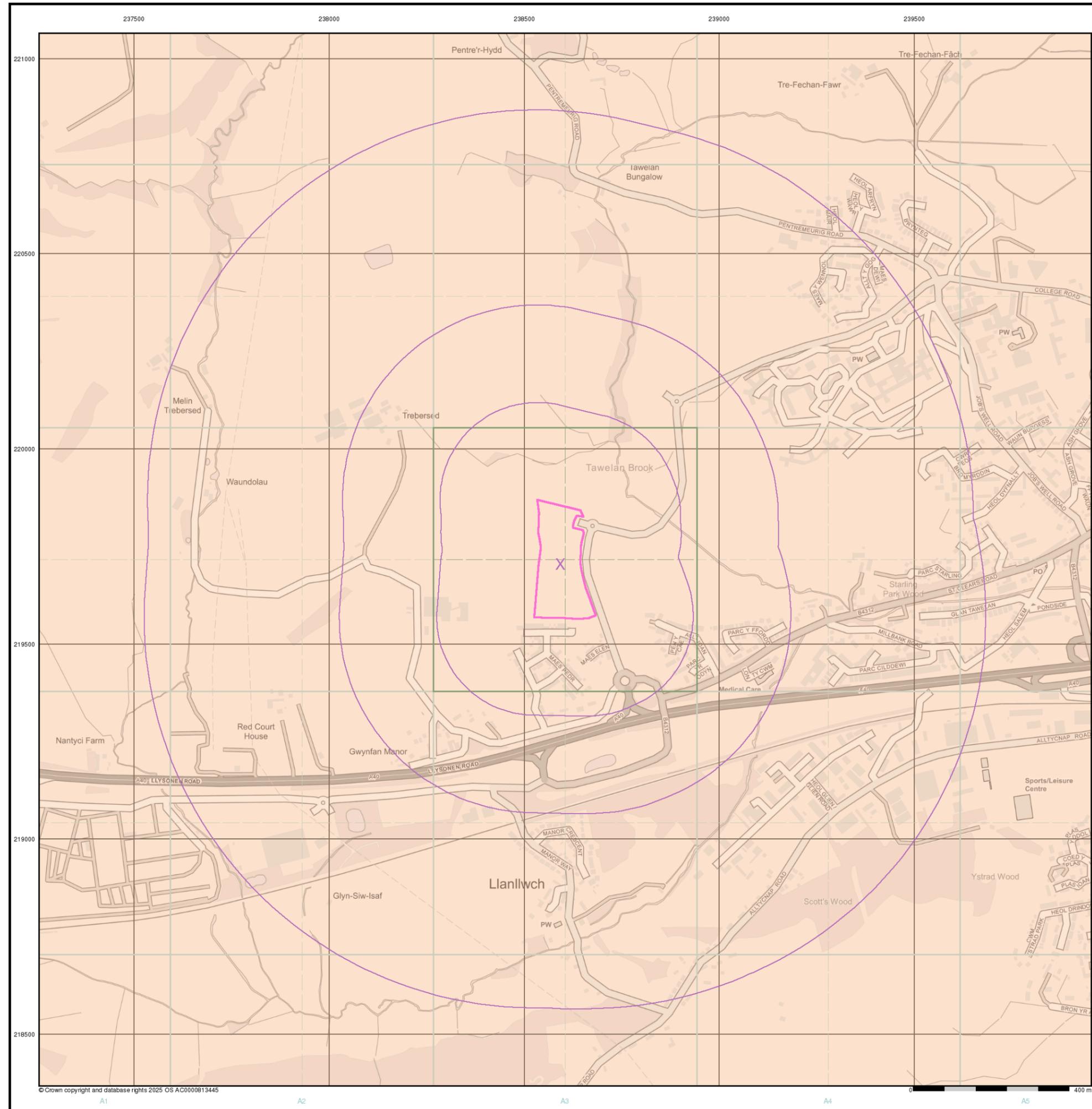
Order Details: 373601466_1_1
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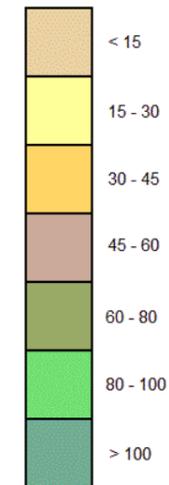
Intégral Géotechnique

General

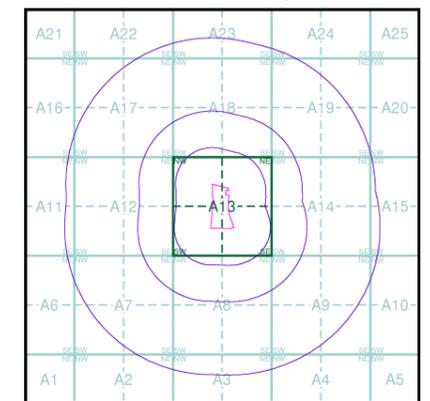
- Specified Site
- Specified Buffer(s)
- X Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

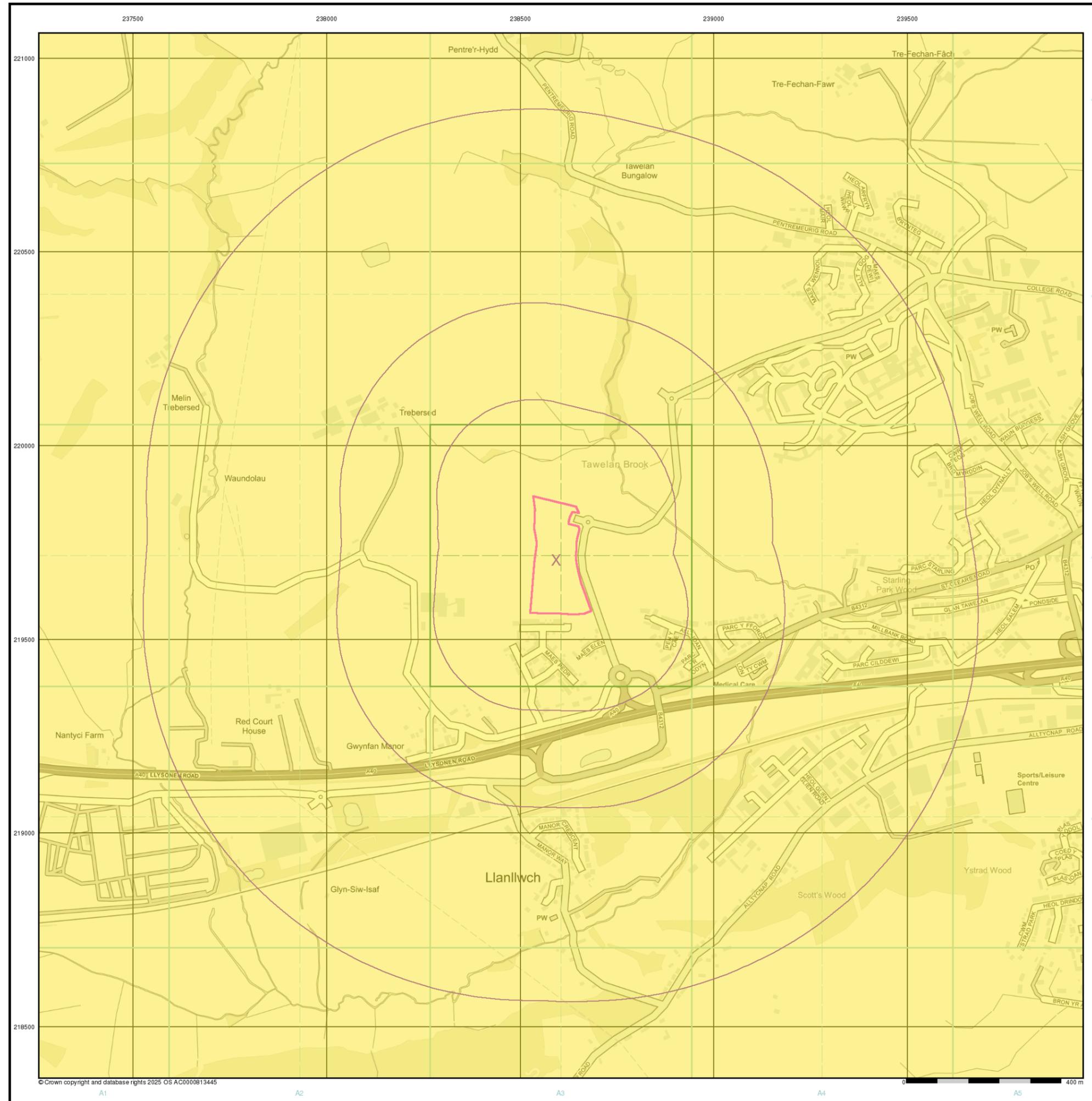
Order Details: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
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 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

Landmark
 INFORMATION GROUP

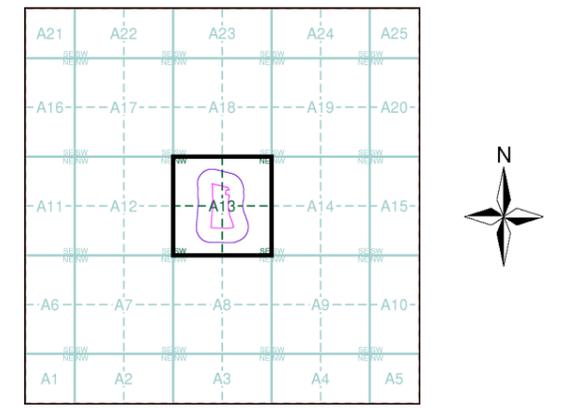
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- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
 - Pylon
 - Overhead Transmission Line
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Historical Prosecutions
 - Prosecutions
 - Registered Radioactive Substance
 - River Network or Water Feature
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Non-water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Potentially Infilled Land (Water)
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site

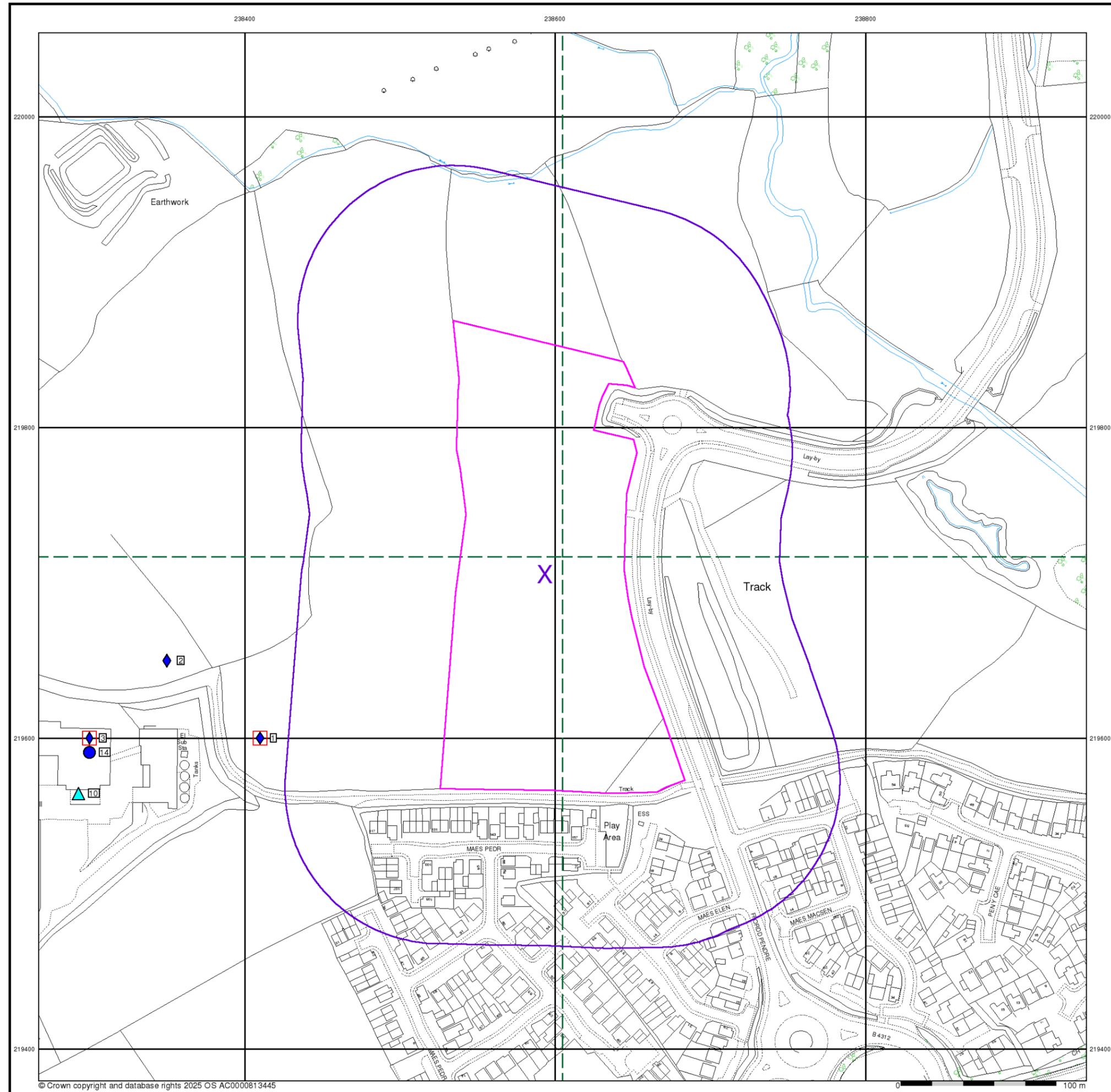
Site Sensitivity Map - Segment A13



Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Plot Buffer (m): 100

Site Details
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Geology 1:50,000 Maps Legends

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Not Supplied - Holocene
	TFD	Tidal Flat Deposits	Sand, Silt and Clay	Not Supplied - Holocene
	ALV	Alluvium	Gravel, Sand, Silt and Clay	Not Supplied - Holocene
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	TILDW	Till, Devensian (Welsh Ice)	Diamicton	Not Supplied - Devensian
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Not Supplied - Quaternary
	PEAT	Peat	Peat	Not Supplied - Quaternary
	ALF	Alluvial Fan Deposits	Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	DBB	Didymograptus Bifidus Beds	Mudstone	Not Supplied - Aberiddian
	DBB	Didymograptus Bifidus Beds	Tuffaceous-sandstone	Not Supplied - Aberiddian
	ABGW	Abergwilli Formation	Mudstone	Not Supplied - Llanvirn
	FW	Felin-wen Formation	Mudstone	Not Supplied - Llanvirn
	ABGW	Abergwilli Formation	Tuff, Felsic	Not Supplied - Llanvirn
	TTRA	Tetragraptus Beds	Mudstone	Not Supplied - Arenig
	TTRA	Tetragraptus Beds	Sandstone	Not Supplied - Arenig
	PELP	Peltura Punctata Beds	Mudstone and Sandstone	Not Supplied - Arenig
		Faults		

Intégral Géotechnique

Geology 1:50,000 Maps

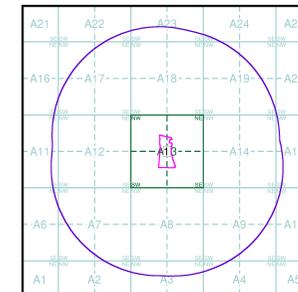
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published 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:	229
Map Name:	Carmarthen
Map Date:	1967
Bedrock Geology:	Available
Superficial Geology:	Available
Artificial Geology:	Available
Faults:	Not Supplied
Landslip:	Available
Rock Segments:	Not Supplied

Geology 1:50,000 Maps - Slice A

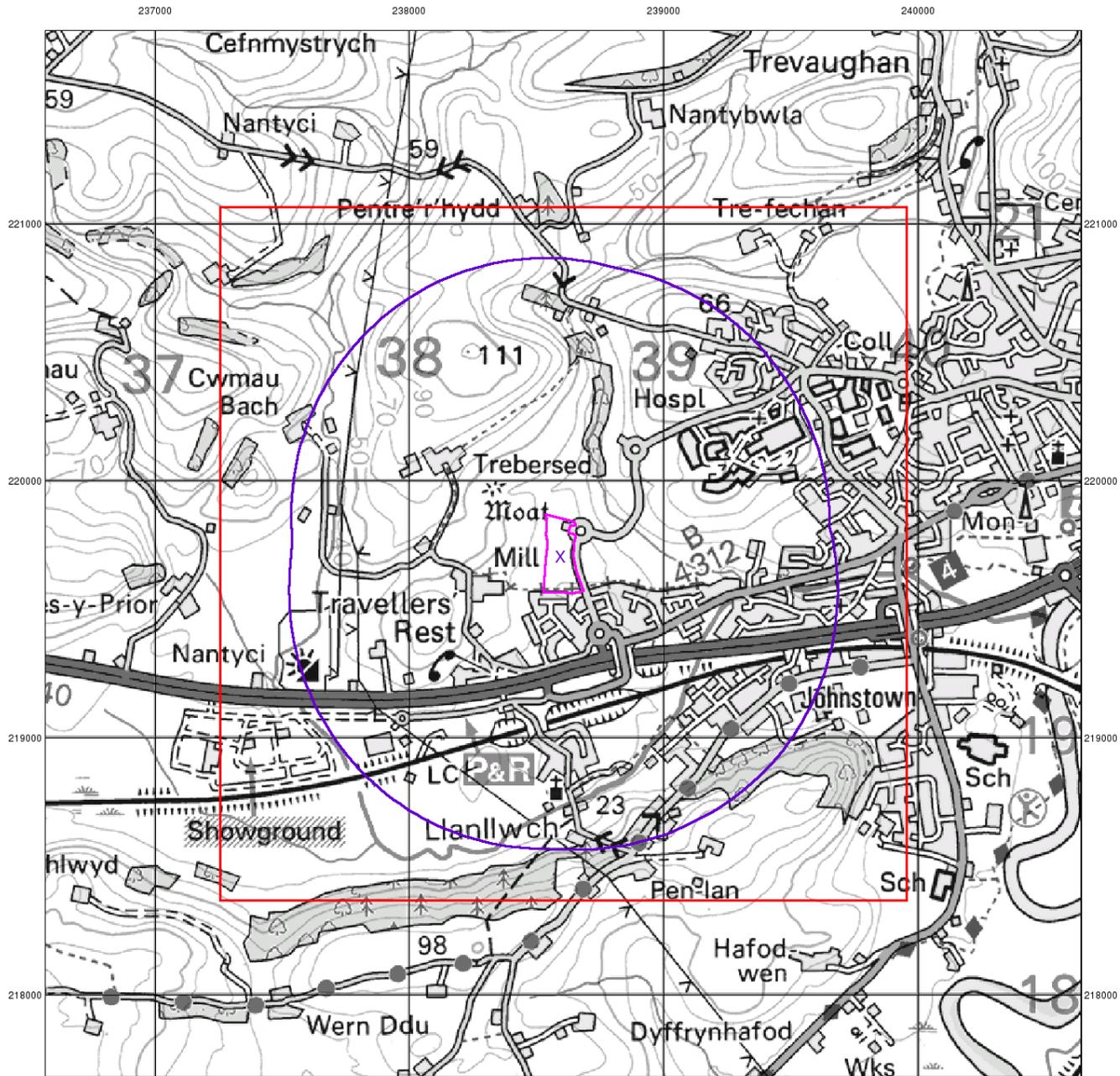


Order Details:

Order Number:	373601466_1_1
Customer Reference:	14439/LP
National Grid Reference:	238590, 219710
Slice:	A
Site Area (Ha):	3.39
Search Buffer (m):	1000

Site Details:

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Intégral Géotechnique

Artificial Ground and Landslip

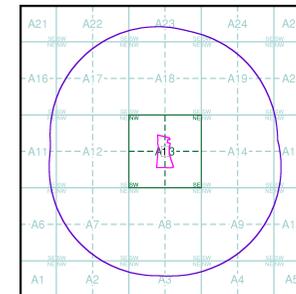
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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



Order Details:

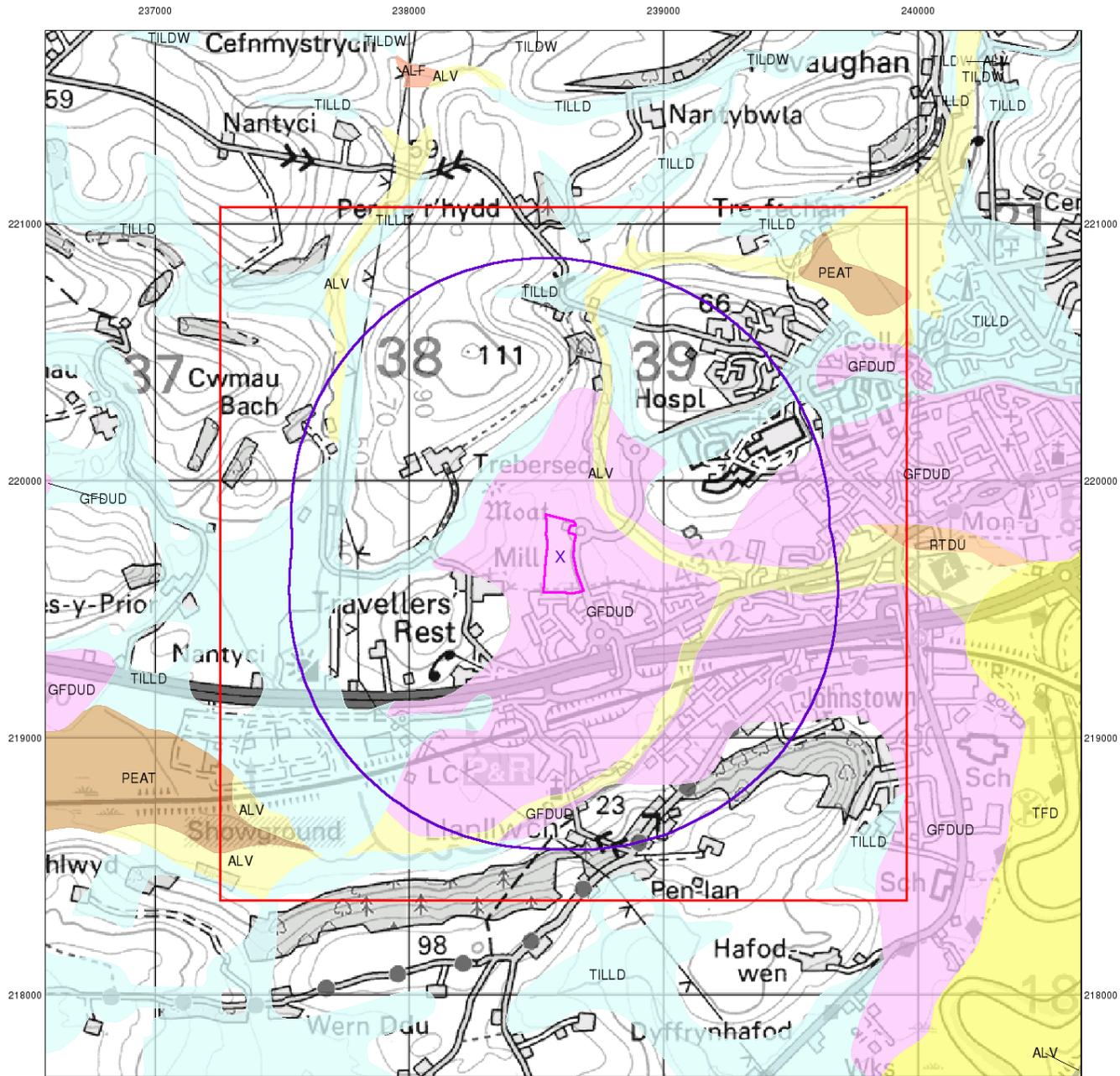
Order Number: 373601466_1_1
 Customer Reference: 14439/LP
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 Slice: A
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Intégral Géotechnique

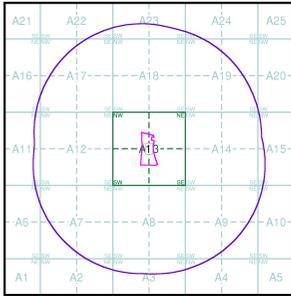
Superficial Geology

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:

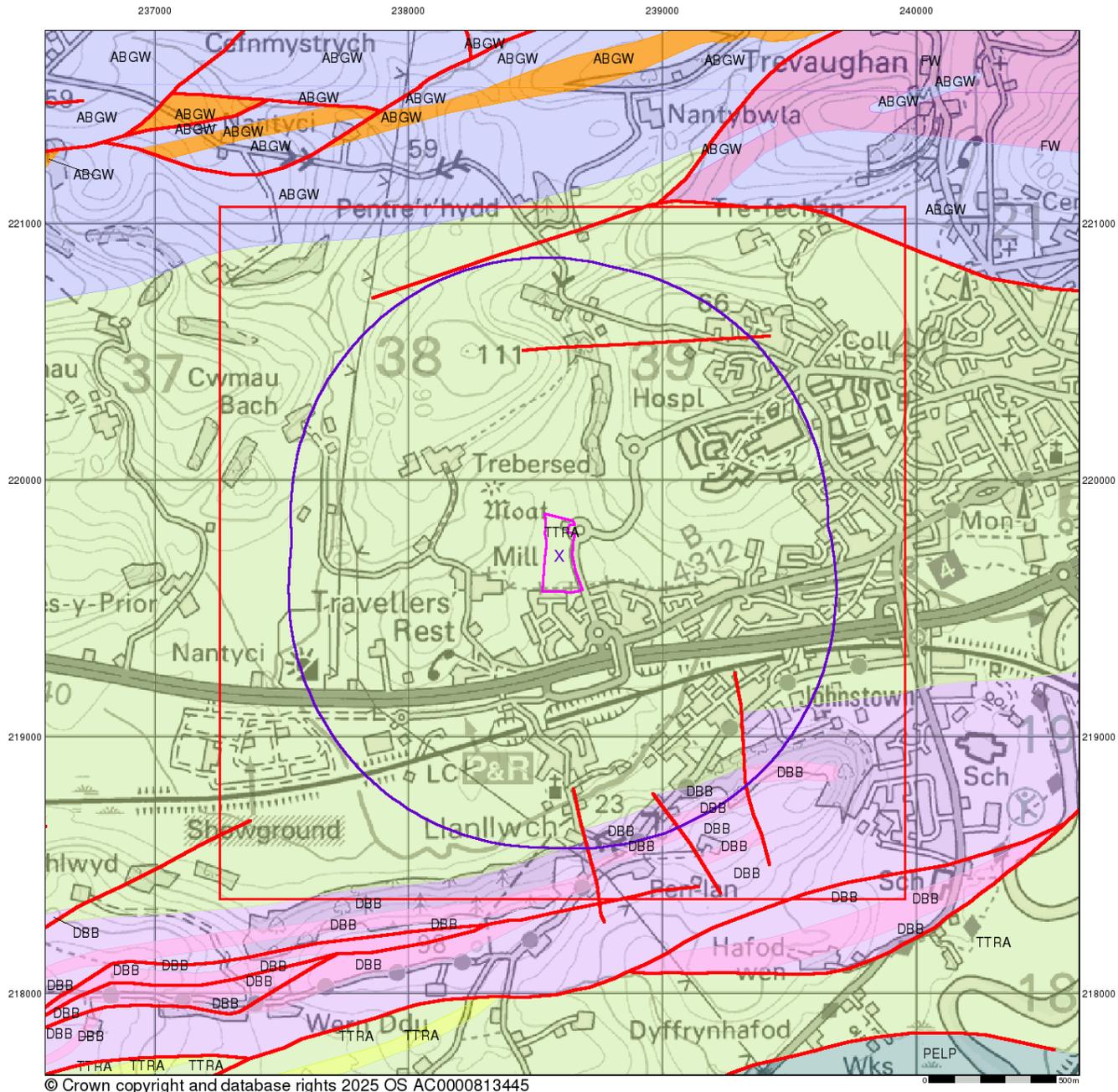
Order Number: 373601466_1_1
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Intégral Géotechnique

Bedrock and Faults

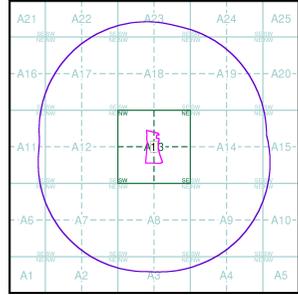
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

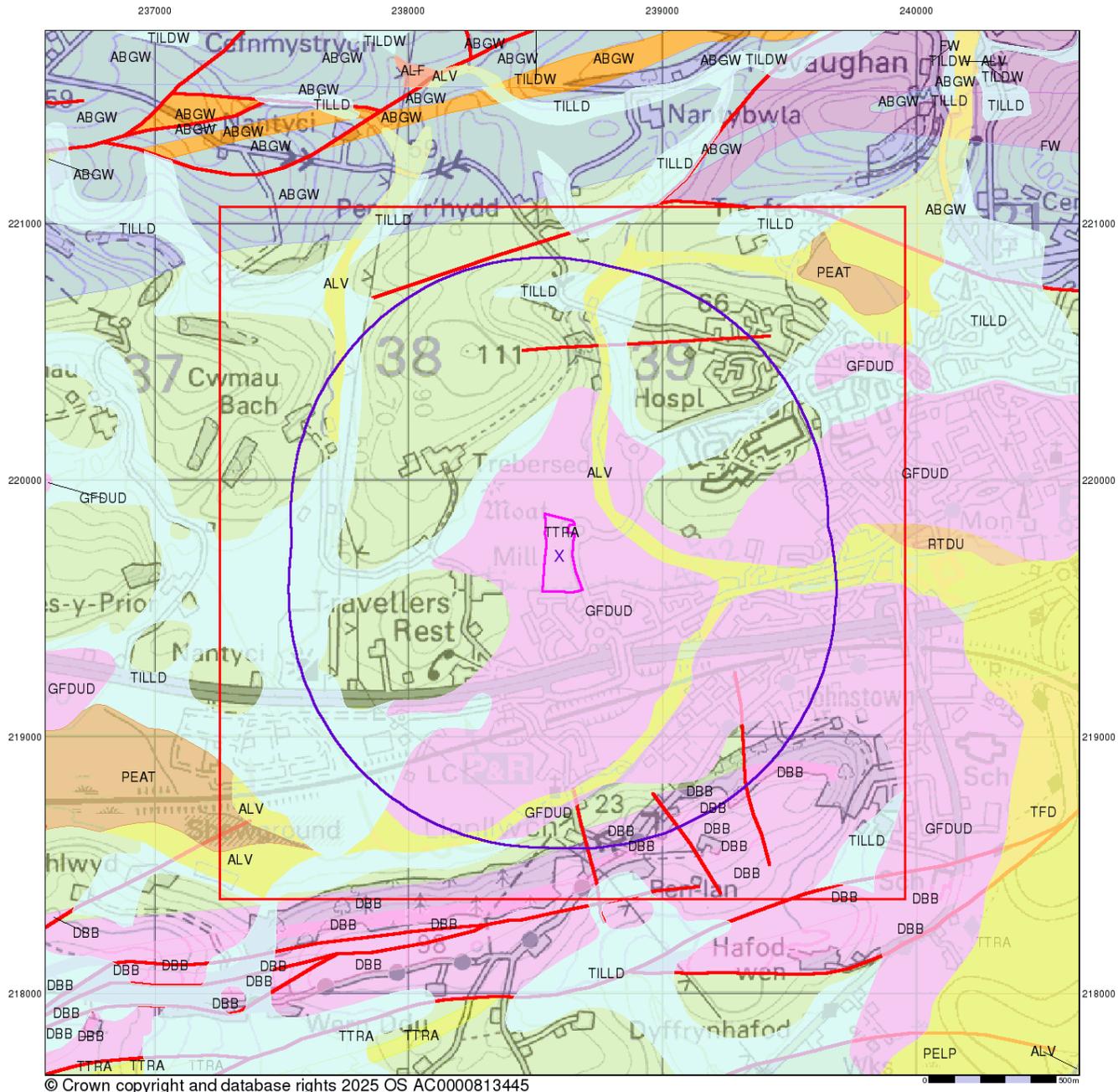


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Site Details:

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Intégral Géotechnique

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.

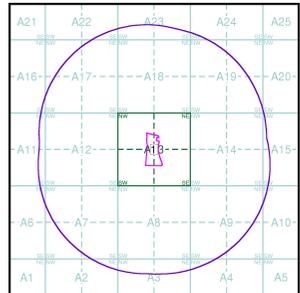
Additional Information

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:

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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

	Gravel Pit		Sand Pit		Other Pits
	Quarry		Shingle		Orchard
	Osiers		Reeds		Marsh
	Mixed Wood		Deciduous		Brushwood
	Fir		Furze		Rough Pasture
	Arrow denotes flow of water		Trigonometrical Station		
	Site of Antiquities		Bench Mark		
	Pump, Guide Post, Signal Post		Well, Spring, Boundary Post		
	-285 Surface Level				
	Sketched Contour		Instrumental Contour		
	Main Roads		Minor Roads		
	Sunken Road		Raised Road		
	Road over Railway		Railway over River		
	Railway over Road		Level Crossing		
	Road over River or Canal		Road over Stream		
	Road over Stream				
	County Boundary (Geographical)				
	County & Civil Parish Boundary				
	Administrative County & Civil Parish Boundary				
	County Borough Boundary (England)				
	County Burgh Boundary (Scotland)				
	Rural District Boundary				
	Civil Parish Boundary				

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Coppice		
	Bracken		Heath
	Rough Grassland		
	Marsh		Reeds
	Saltings		
	Building		Glasshouse
	Sloping Masonry		Pylon
	Electricity Transmission Line		Pole
	Cutting		Embankment
	Standard Gauge Multiple Track		
	Standard Gauge Single Track		
	Siding, Tramway or Mineral Line		
	Narrow Gauge		
	Geographical County		
	Administrative County, County Borough or County of City		
	Municipal Borough, Urban or Rural District, Burgh or District Council		
	Borough, Burgh or County Constituency Shown only when 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		PH Public House
	FB Foot Bridge		SB Signal Box
	Fn Fountain		Spr Spring
	GP Guide Post		TCB Telephone Call Box
	MP Mile Post		TCP Telephone Call Post
	MS Mile Stone		W Well

1:10,000 Raster Mapping

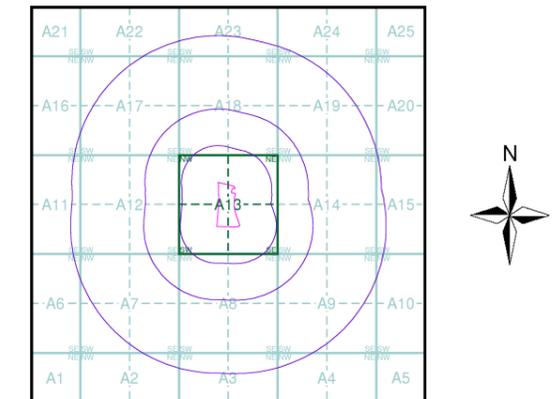
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil, parish or community boundary
	District, Unitary, Metropolitan, London Borough boundary		Constituency boundary
	Area of wooded vegetation		Non-coniferous trees
	Non-coniferous trees (scattered)		Coniferous trees
	Coniferous trees (scattered)		Positioned tree
	Orchard		Coppice or Osiers
	Rough Grassland		Heath
	Scrub		Marsh, Salt Marsh or Reeds
	Water feature		Flow arrows
	MHW(S) Mean high water (springs)		MLW(S) Mean low water (springs)
	Telephone line (where shown)		Electricity transmission line (with poles)
	Bench mark (where shown)		Triangulation station
	Point feature (e.g. Guide Post or Mile Stone)		Pylon, flare stack or lighting tower
	Site of (antiquity)		Glasshouse
	General Building		Important Building



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Carmarthenshire	1:10,560	1888	2
Carmarthenshire	1:10,560	1907	3
Carmarthenshire	1:10,560	1938 - 1953	4
Carmarthenshire	1:10,560	1952	5
Ordnance Survey Plan	1:10,000	1964	6
Ordnance Survey Plan	1:10,000	1975	7
Ordnance Survey Plan	1:10,000	1992	8
10K Raster Mapping	1:10,000	2000	9
10K Raster Mapping	1:10,000	2006	10
VectorMap Local	1:10,000	2024	11

Historical Map - Slice A



Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW



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

Intégral Géotechnique

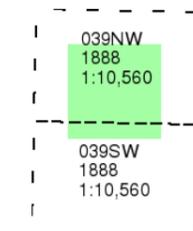
Carmarthenshire

Published 1888

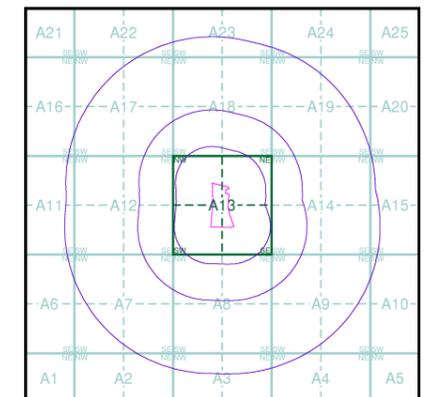
Source map scale - 1:10,560

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

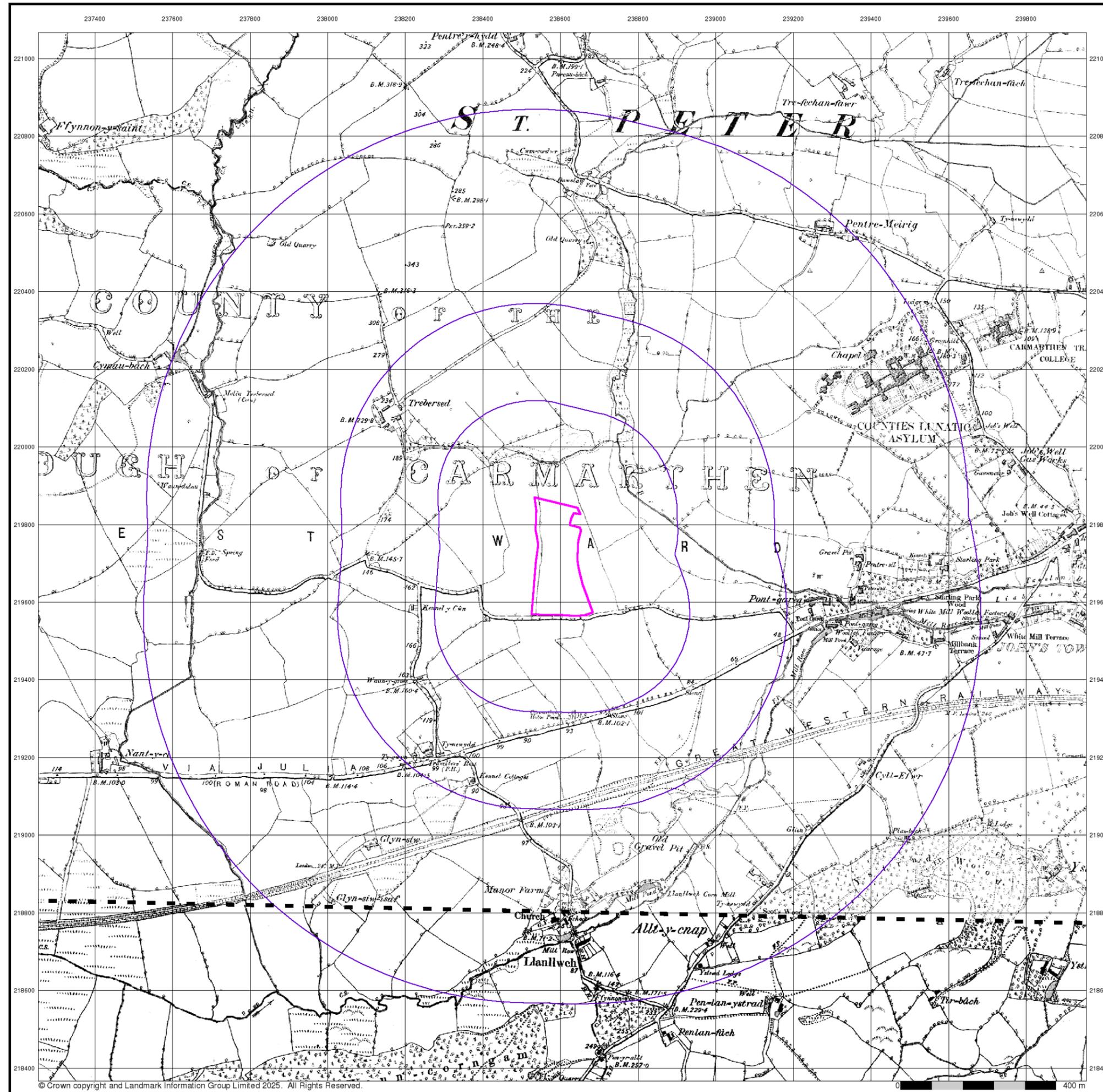
Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
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Landmark
 INFORMATION GROUP

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Intégral Géotechnique

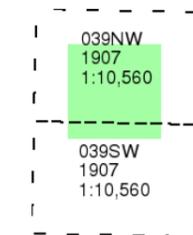
Carmarthenshire

Published 1907

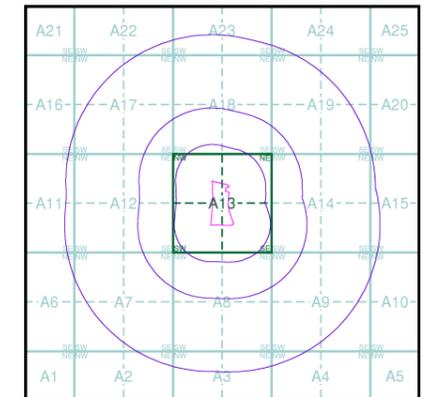
Source map scale - 1:10,560

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

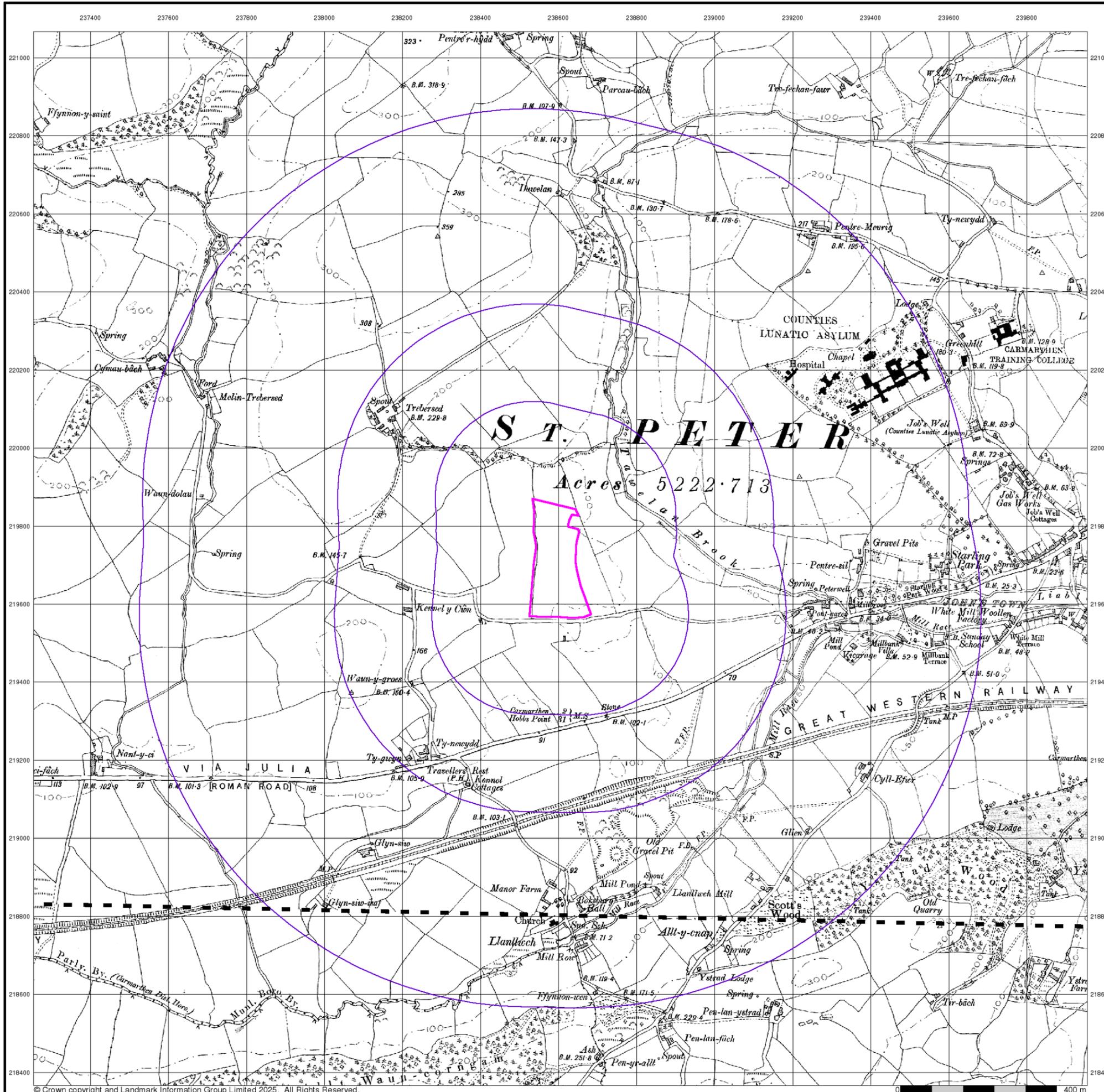
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 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

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Intégral Géotechnique

Carmarthenshire

Published 1938 - 1953

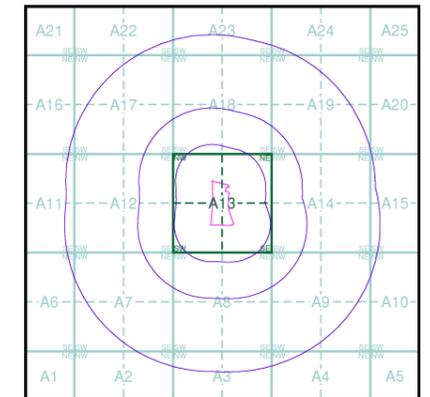
Source map scale - 1:10,560

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)

039NW	1938	1:10,560
039SW	1953	1:10,560

Historical Map - Slice A



Order Details

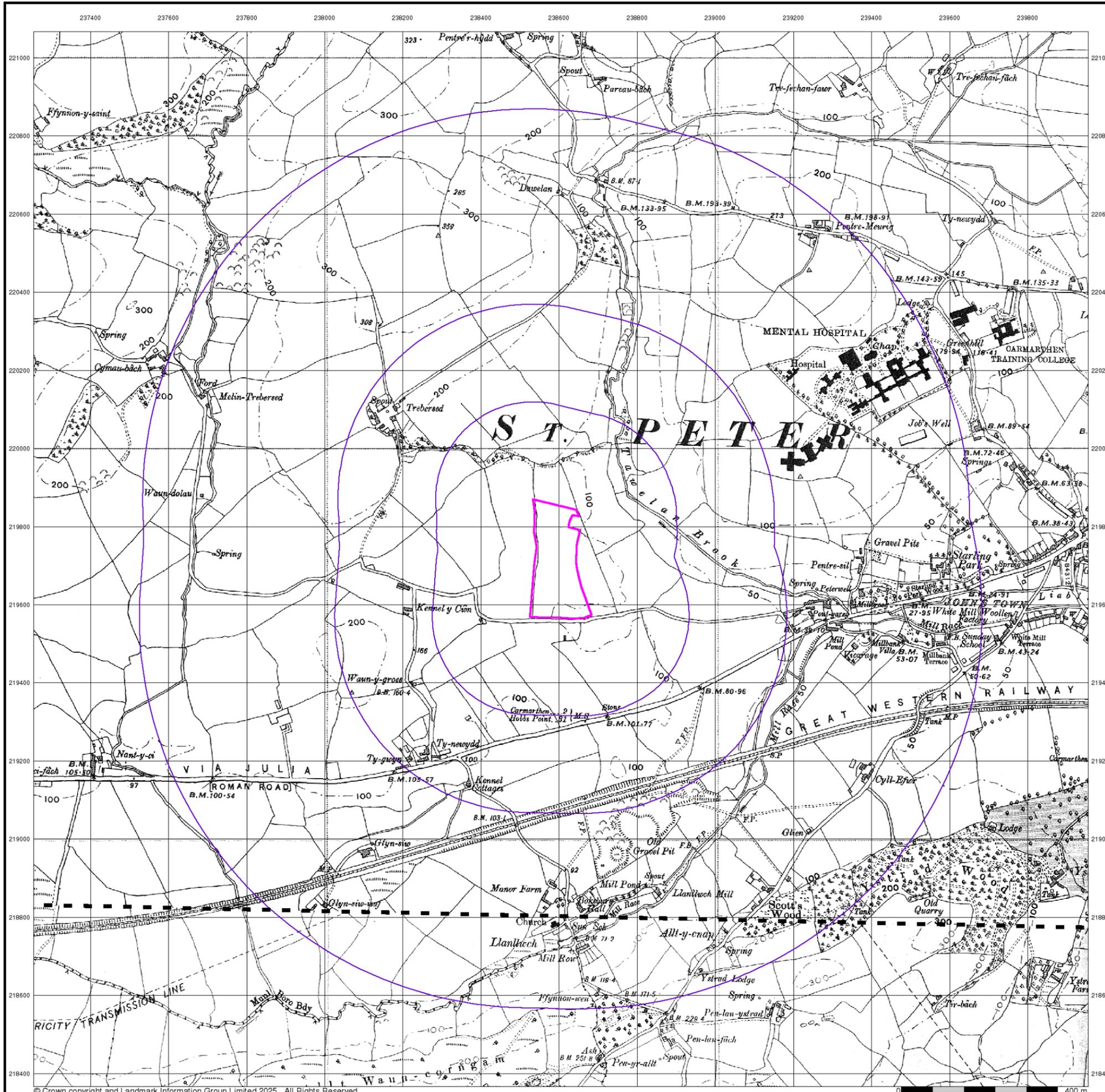
Order Number: 373601466_1_1
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Intégral Géotechnique

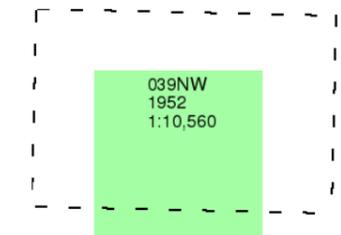
Carmarthenshire

Published 1952

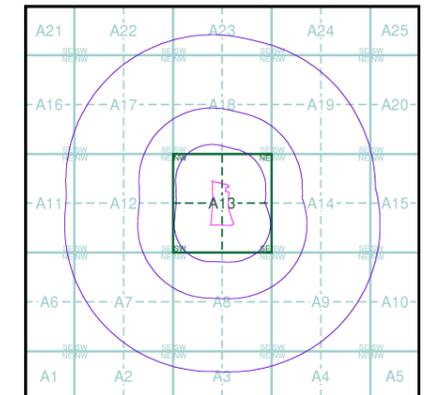
Source map scale - 1:10,560

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

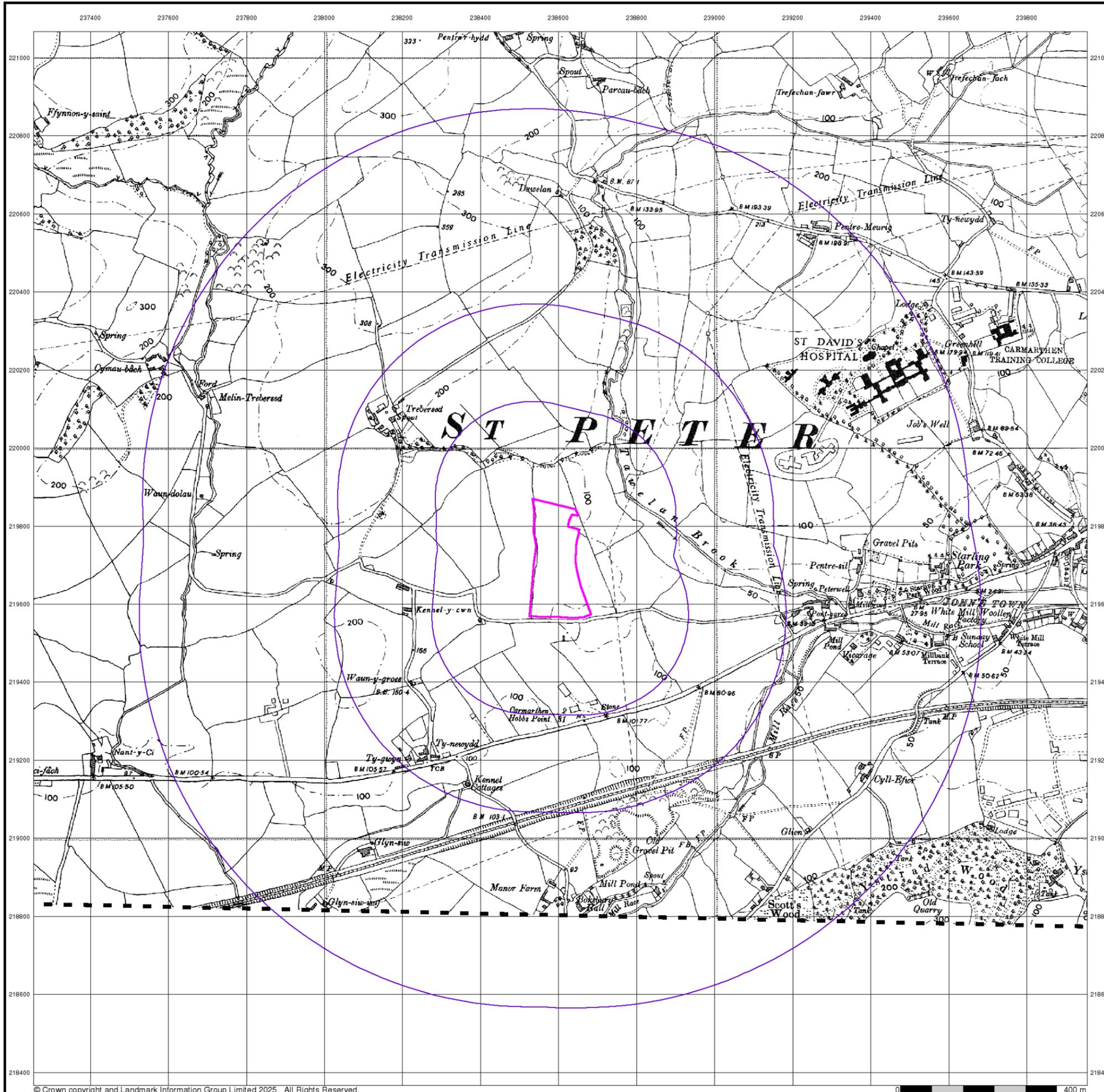
Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
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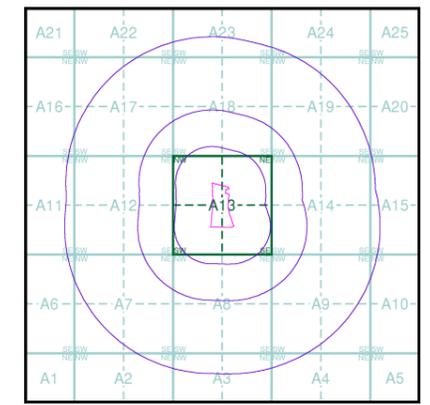


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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)

SN32SE	1964	1:10,560
SN31NE	1964	1:10,560

Historical Map - Slice A

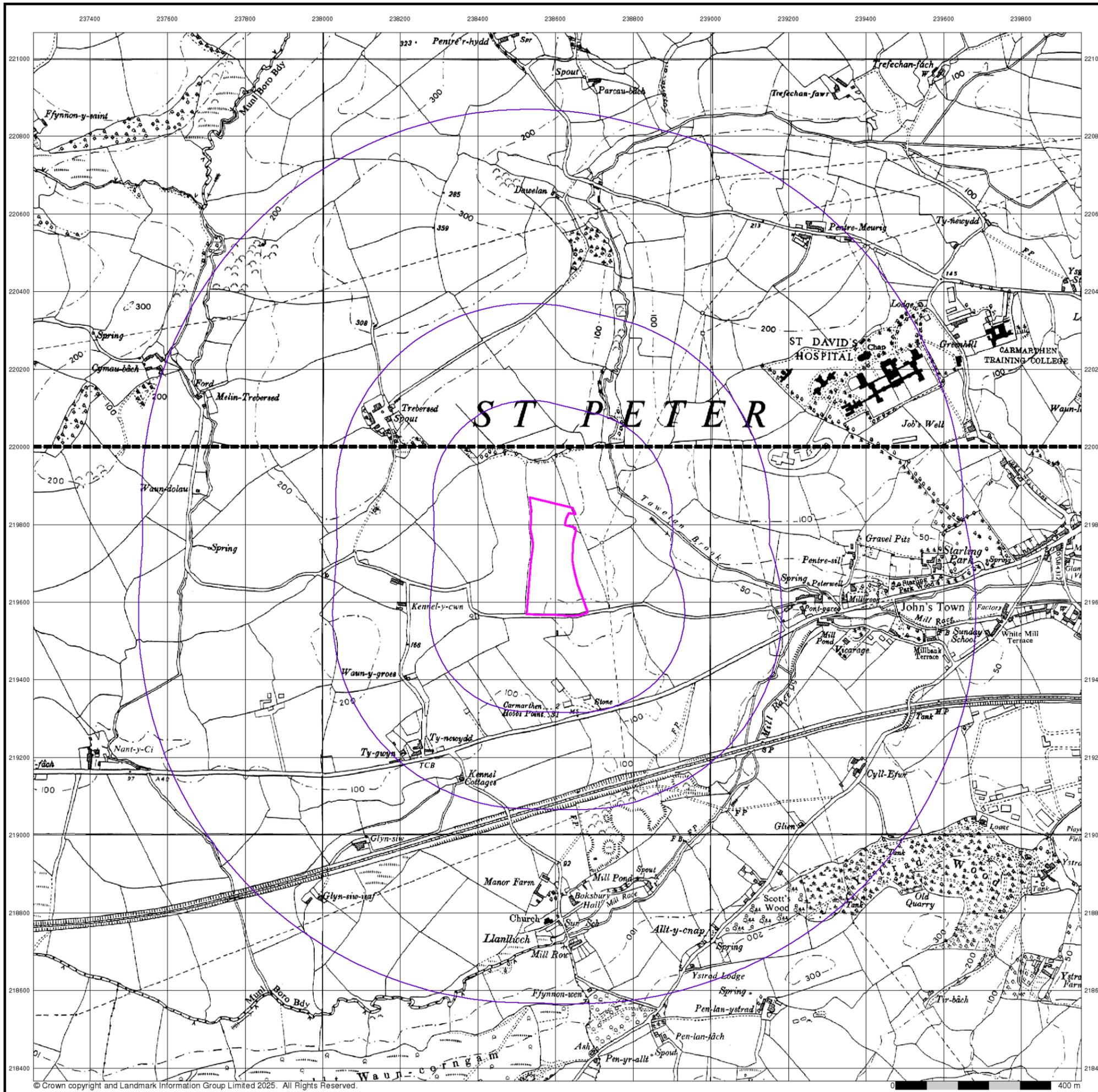


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW





Ordnance Survey Plan

Published 1975

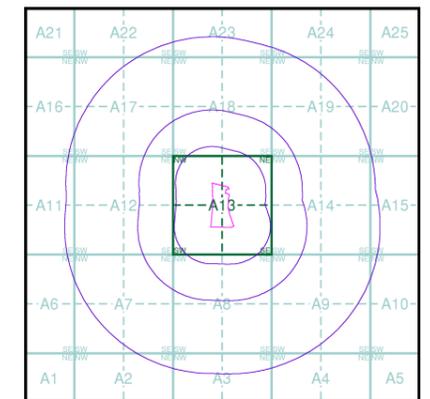
Source map scale - 1:10,000

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)

SN32SE	1975	1:10,000
SN31NE	1975	1:10,000

Historical Map - Slice A



Order Details

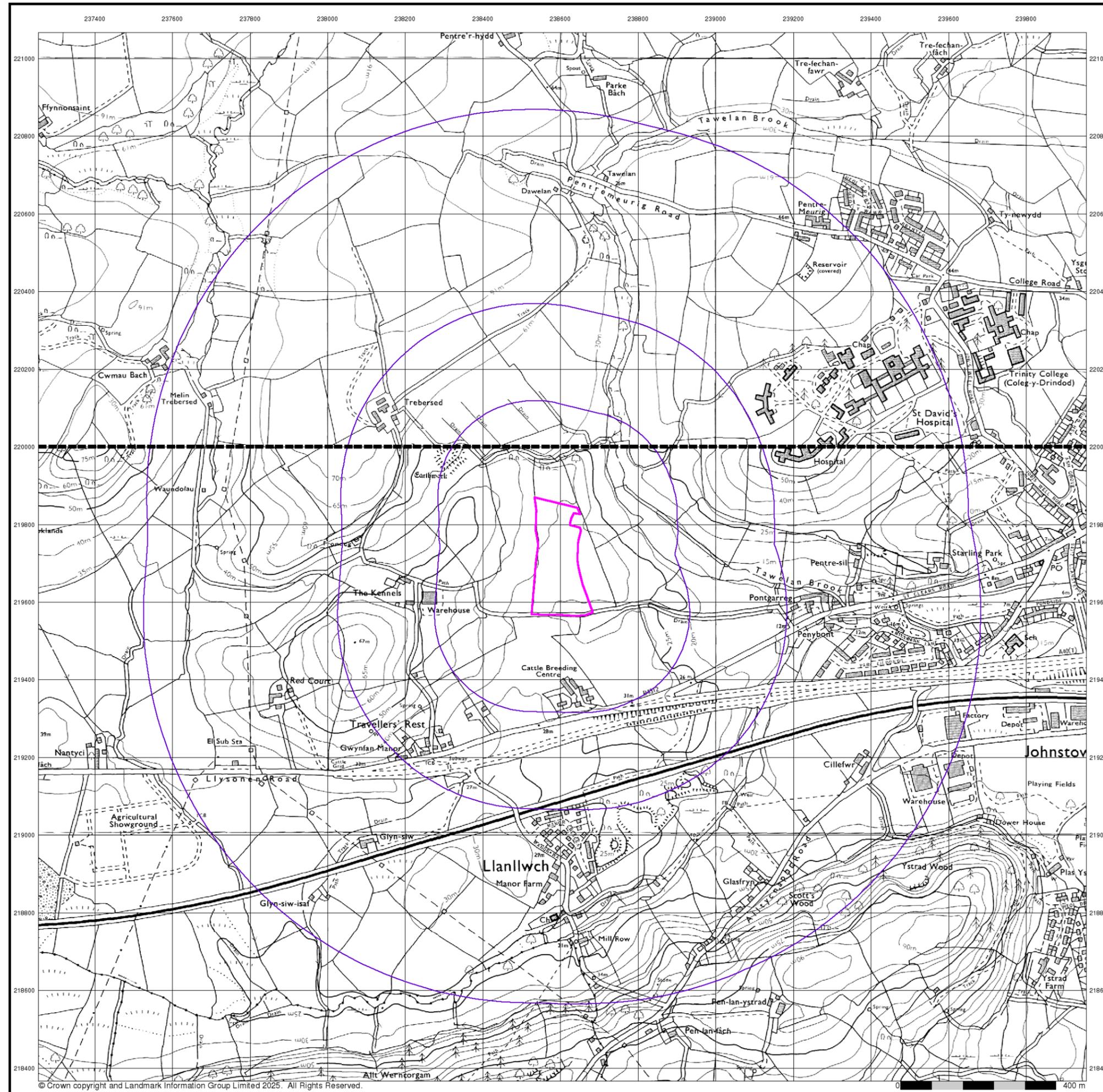
Order Number: 373601466_1_1
 Customer Ref: 14439/LP
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 Slice: A
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 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

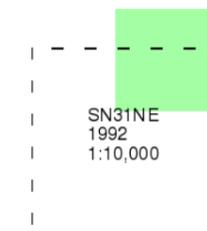


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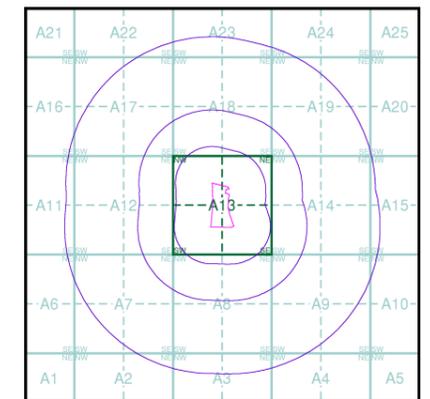


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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 A

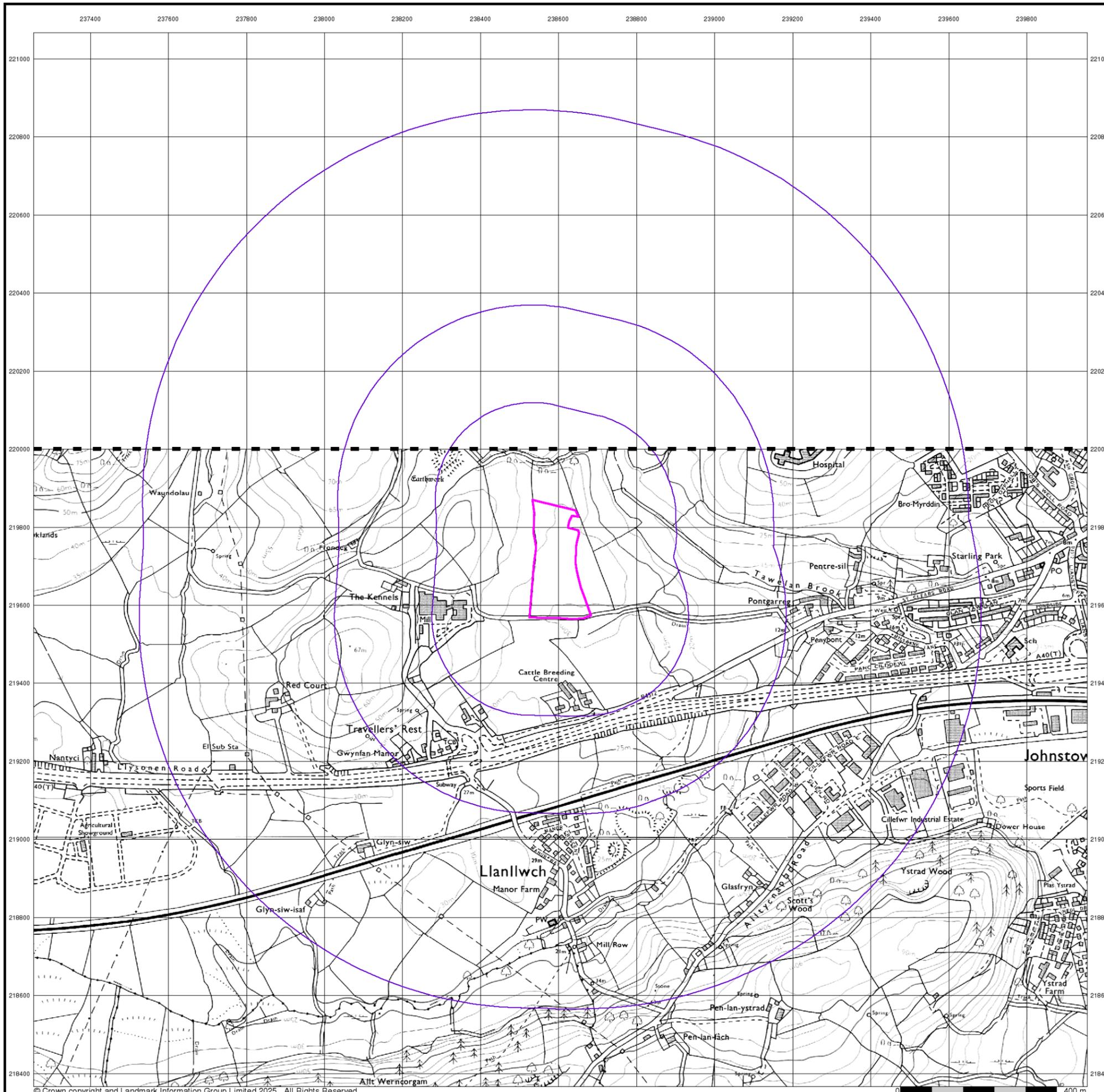


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

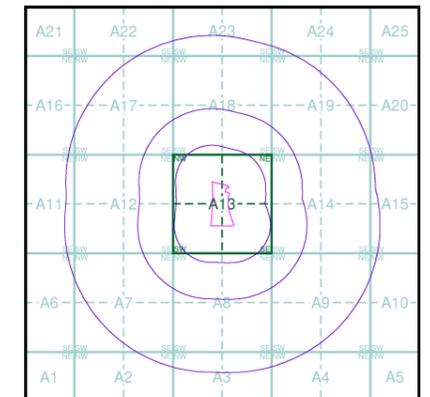


The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks 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.

Map Name(s) and Date(s)

- SN32SE | 2000 | 1:10,000
- SN31NE | 2000 | 1:10,000

Historical Map - Slice A

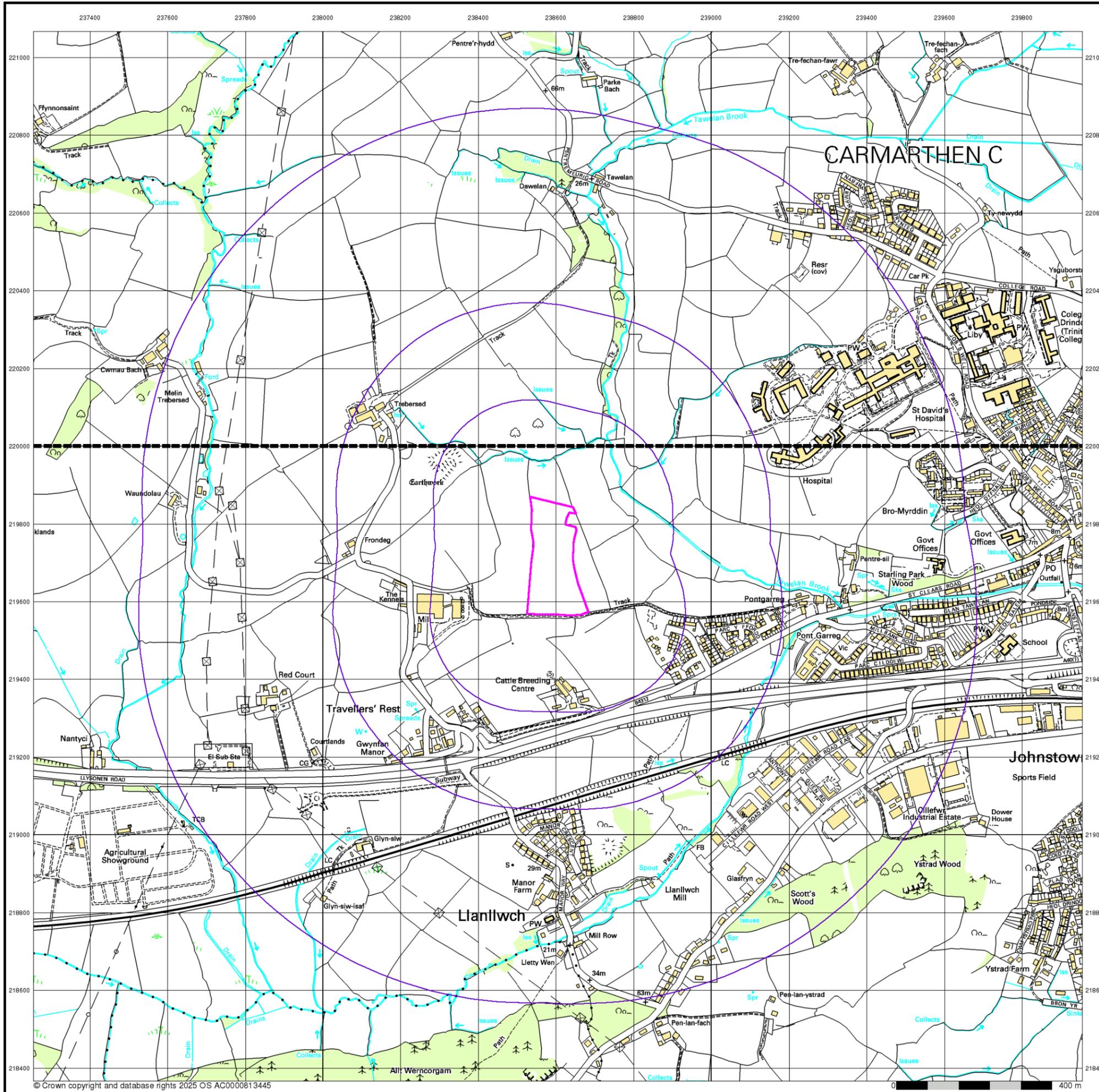


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

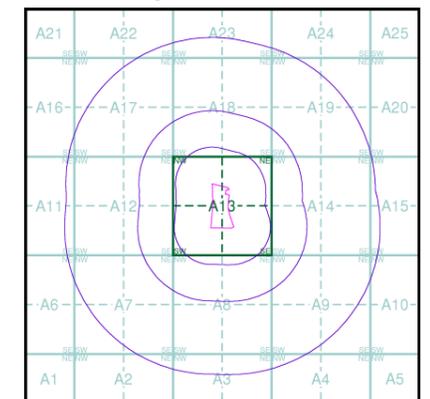


The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks 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.

Map Name(s) and Date(s)

- SN32SE | 2006 | 1:10,000
- SN31NE | 2006 | 1:10,000

Historical Map - Slice A

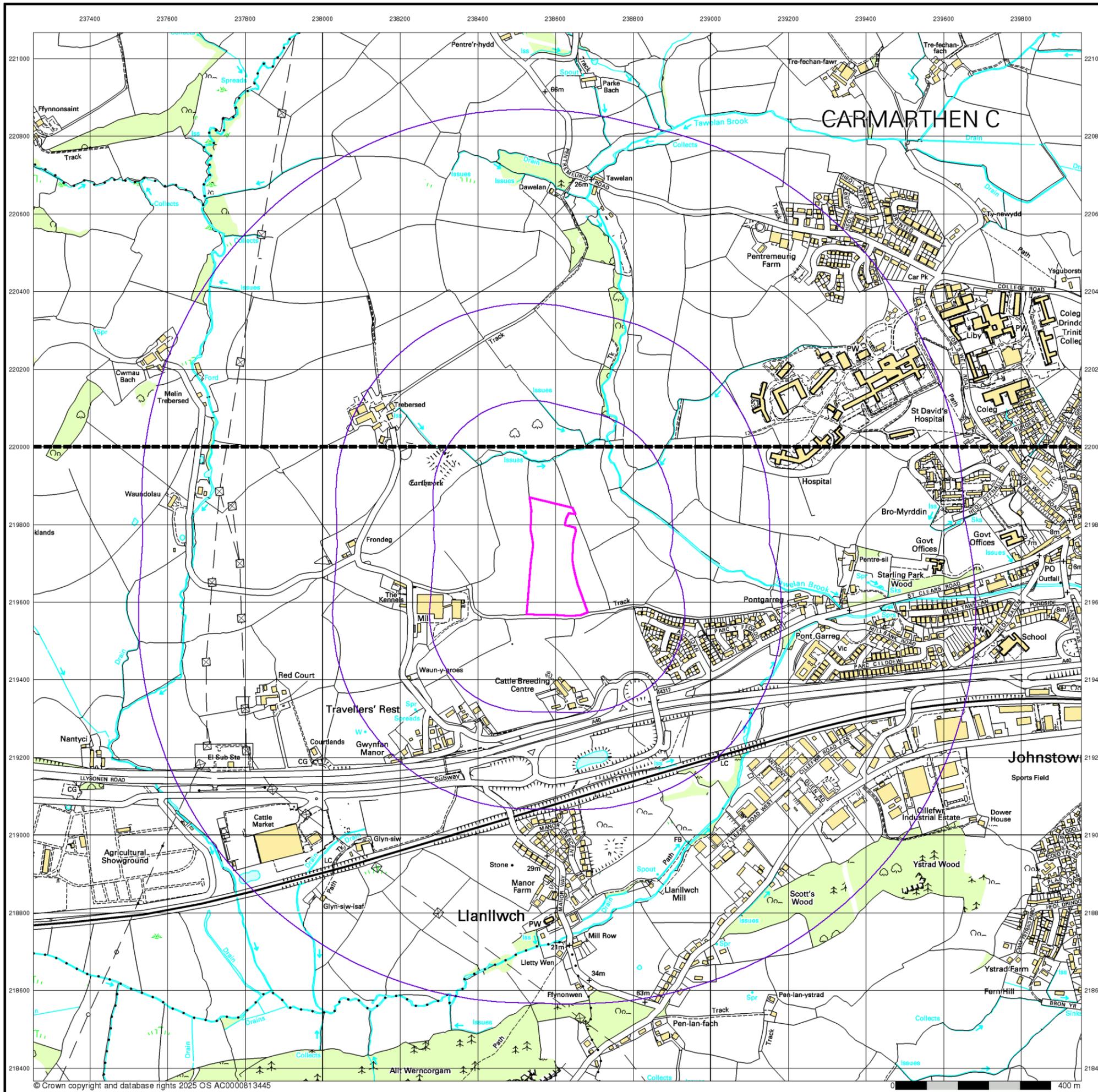


Order Details

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 National Grid Reference: 238590, 219710
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 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW





VectorMap Local

Published 2024

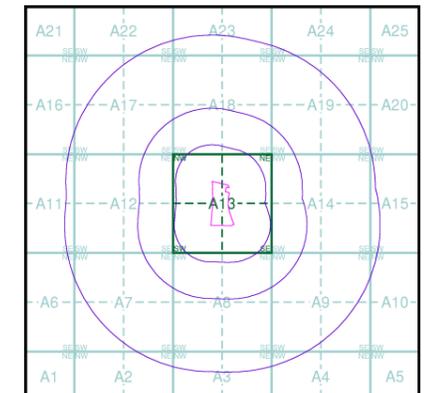
Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities), 1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

- SN32SE | 2024 | Variable
- SN31NE | 2024 | Variable

Historical Map - Slice A



Order Details

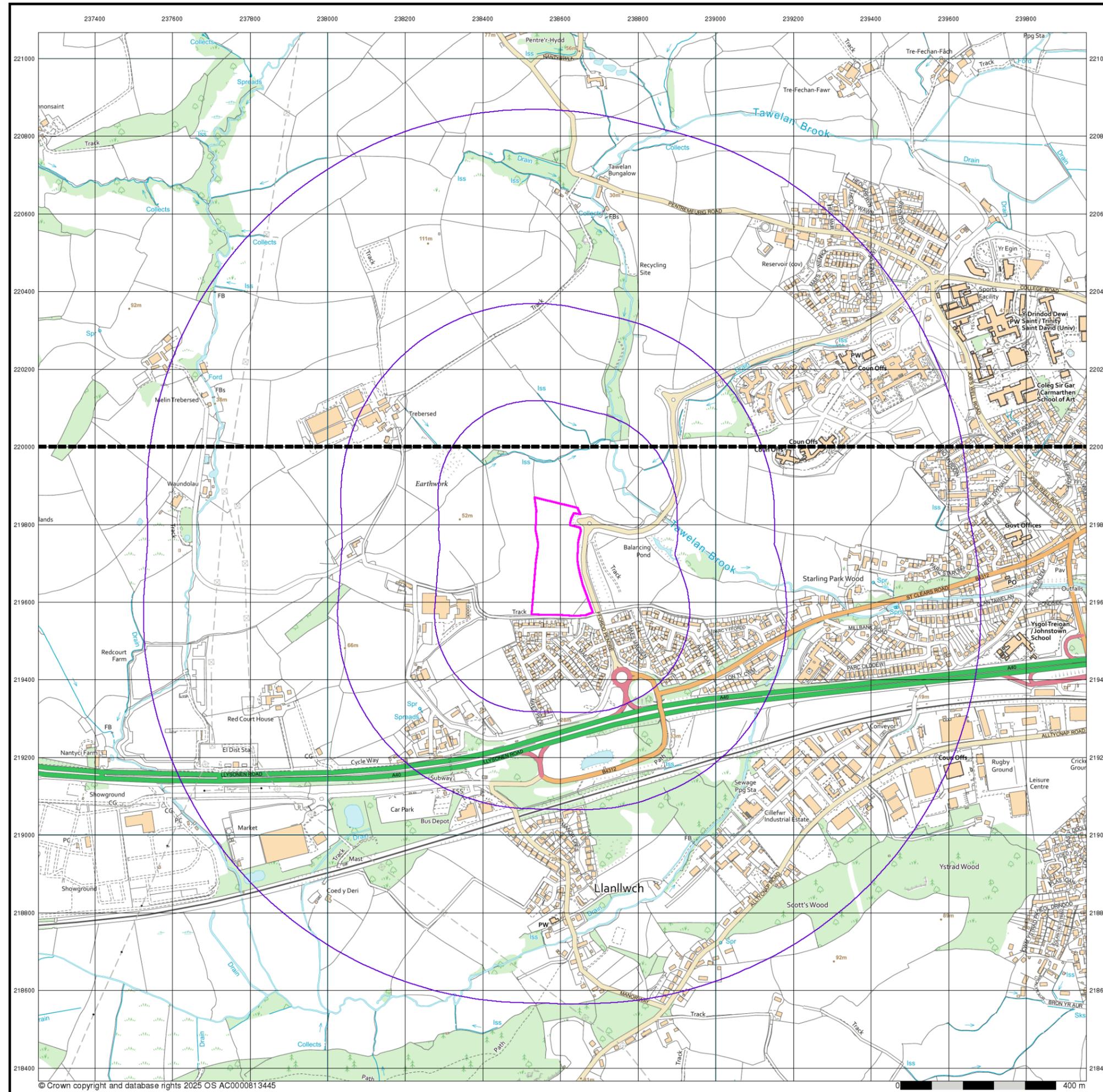
Order Number: 373601466_1_1
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 Site Area (Ha): 3.39
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Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS Boundary Post or Stone **P.C.B** Police Call Box
B.R. Bridle Road **P** Pump
E.P Electricity Pylon **S.P** Signal Post
F.B. Foot Bridge **SL** Sluice
F.P. Foot Path **Sp.** Spring
G.P Guide Post or Board **T.C.B** Telephone Call Box
M.S Mile Stone **Tr.** Trough
M.P M.R Mooring Post or Ring **W** Well

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
London Borough Boundary
Symbol marking point where boundary mereing changes
BH 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
EI P 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
H 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

Large-Scale National Grid Data 1:2,500 and 1:1,250

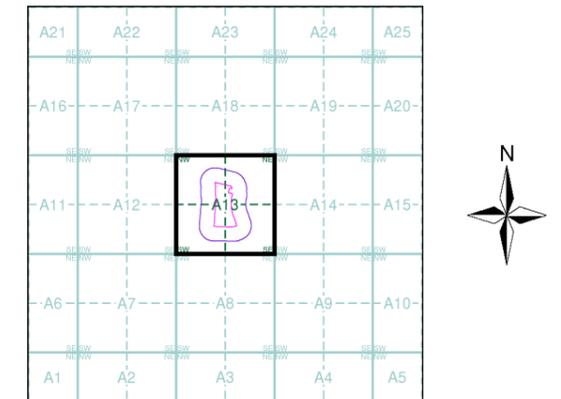
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
Civil parish/community boundary
District boundary
County boundary
Boundary post/stone
Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)
Bks Barracks **P** 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 Rly Dismantled Railway **PW** Place of Worship
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI Sub Sta Electricity Sub Station **SP, SL** Signal Post or Light
FB Filter Bed **Spr** Spring
Fn / D Fn Fountain / Drinking Ftn. **Tk** Tank or Track
Gas Gov Gas Valve Compound **Tr** Trough
GVC Gas Governor **Wd Pp** Wind Pump
GP Guide Post **Wr Pt, Wr T** Water Point, Water Tap
MH Manhole **Wks** Works (building or area)
MP, MS Mile Post or Mile Stone **W** Well

Intégral Géotechnique

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Carmarthenshire	1:2,500	1889 - 1890	2
Carmarthenshire	1:2,500	1906	3
Carmarthenshire	1:2,500	1936	4
Ordnance Survey Plan	1:2,500	1969	5
Supply of Unpublished Survey Information	1:2,500	1973	6
Ordnance Survey Plan	1:2,500	1977	7
Additional SIMs	1:2,500	1987	8
Additional SIMs	1:2,500	1990	9
Large-Scale National Grid Data	1:2,500	1993	10
Historical Aerial Photography	1:2,500	2000	11

Historical Map - Segment A13



Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 100

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

Landmark
 INFORMATION GROUP

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

Intégral Géotechnique

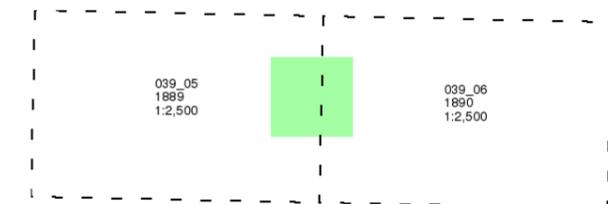
Carmarthenshire

Published 1889 - 1890

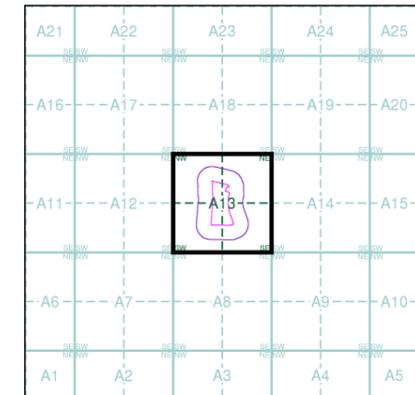
Source map scale - 1:2,500

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 A13



Order Details

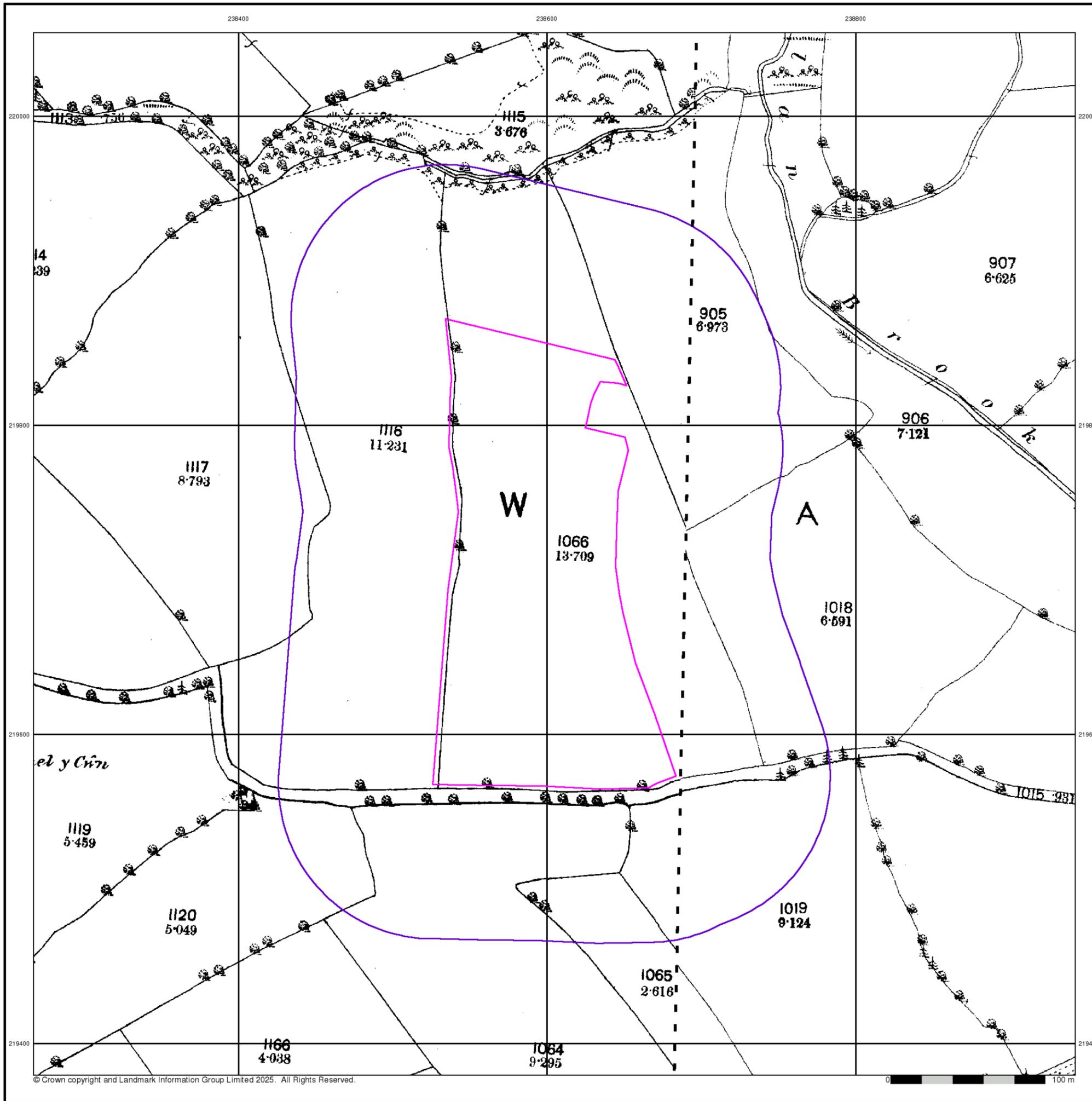
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 Customer Ref: 14439/LP
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 Slice: A
 Site Area (Ha): 3.39
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Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

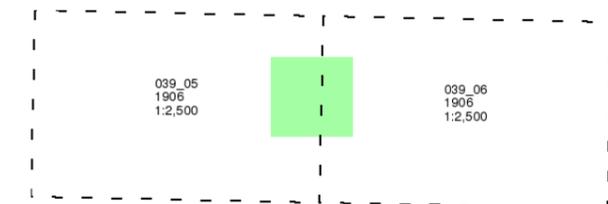
Landmark
 INFORMATION GROUP

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

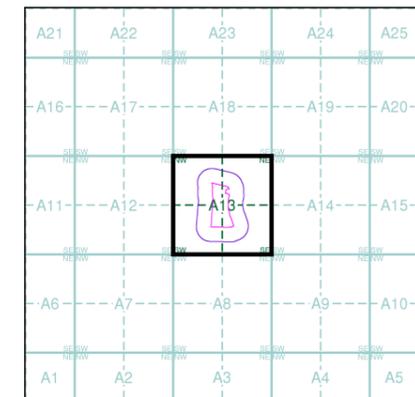


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A13

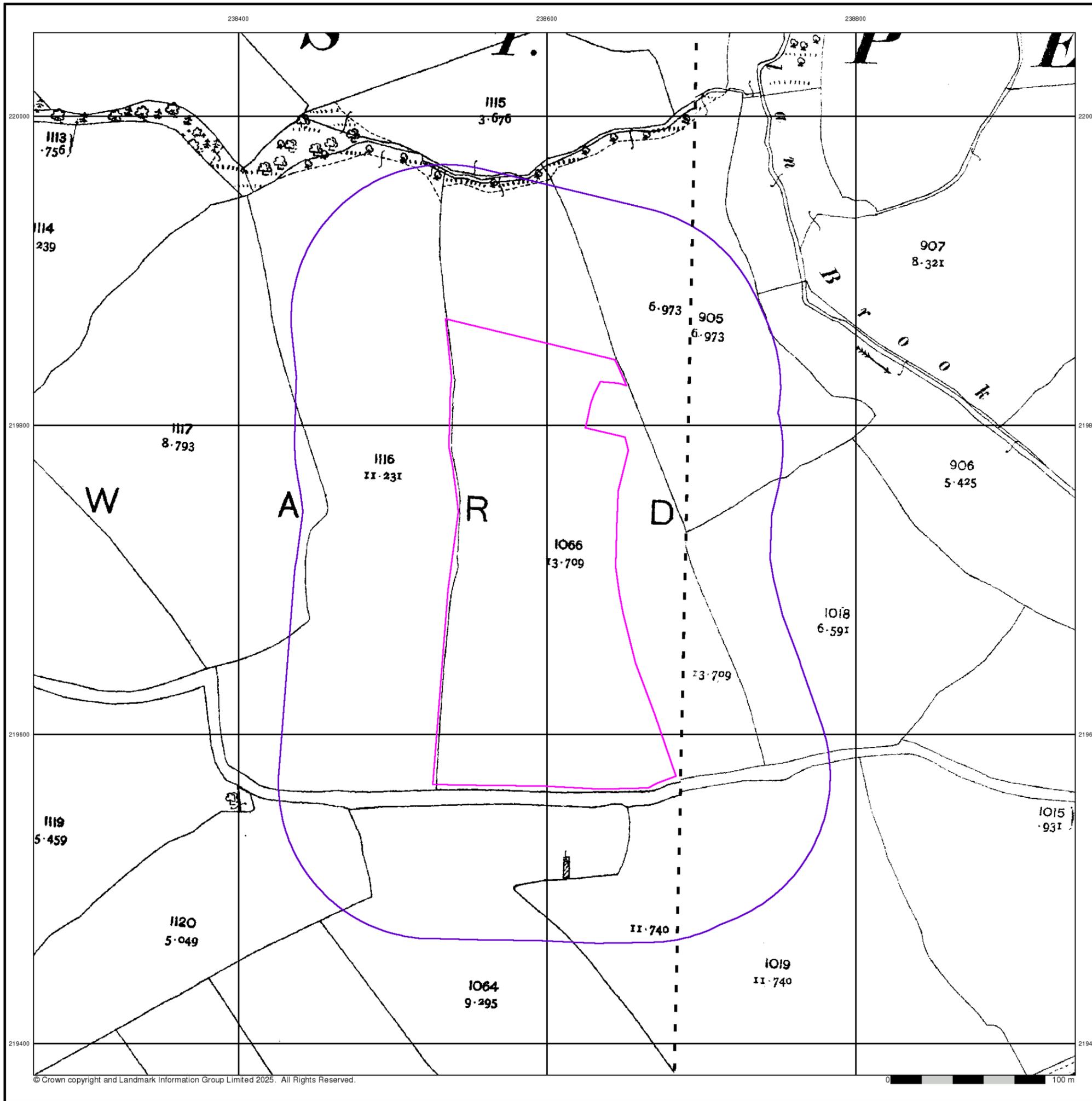


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 100

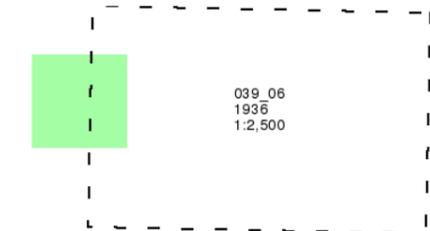
Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

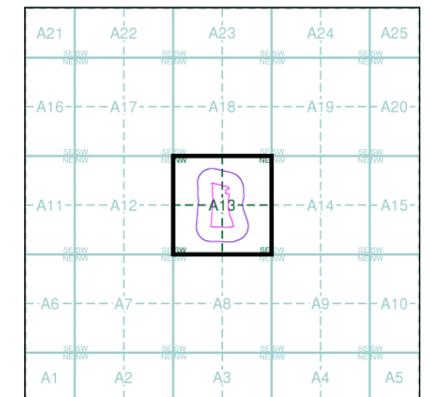


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A13

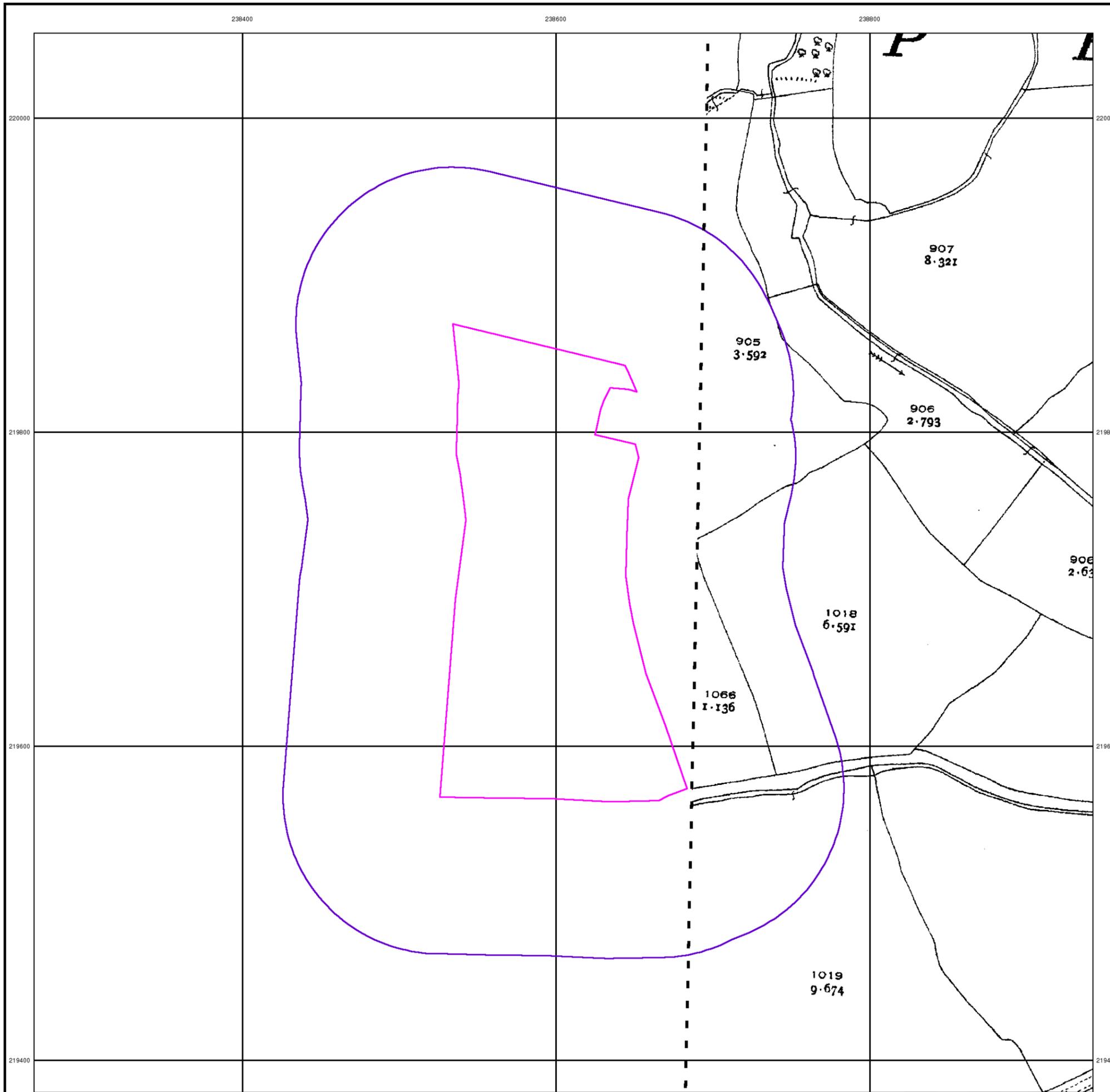


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 100

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW





Ordnance Survey Plan

Published 1969

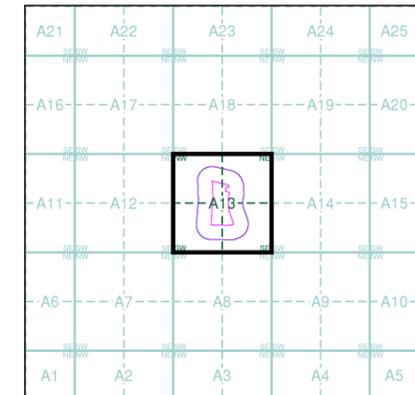
Source map scale - 1:2,500

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)

SN3820	1969	1:2,500
SN3819	1969	1:2,500

Historical Map - Segment A13



Order Details

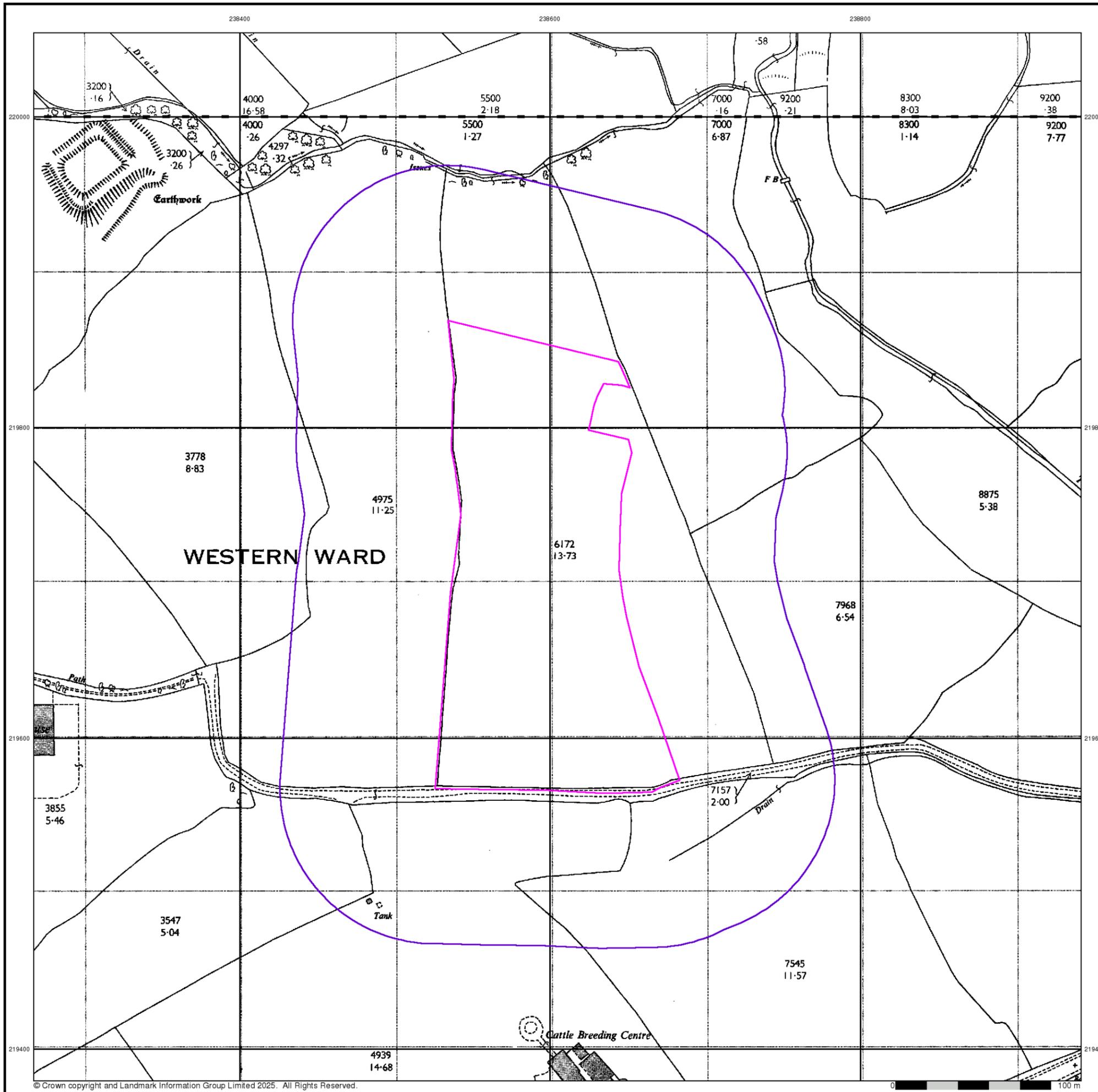
Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
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Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW



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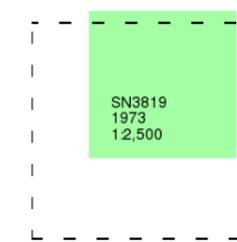
Supply of Unpublished Survey Information

Published 1973

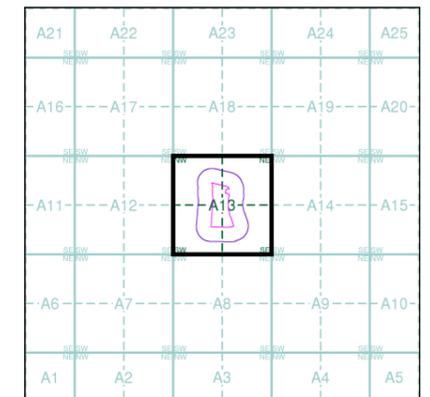
Source map scale - 1:2,500

SUSI maps (Supply of Unpublished Survey Information) were produced between 1972 and 1977, mainly for internal use at Ordnance Survey. These were more of a 'work-in-progress' plan as they showed updates of individual areas on a map. These maps were unpublished, and they do not represent a single moment in time. They were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13

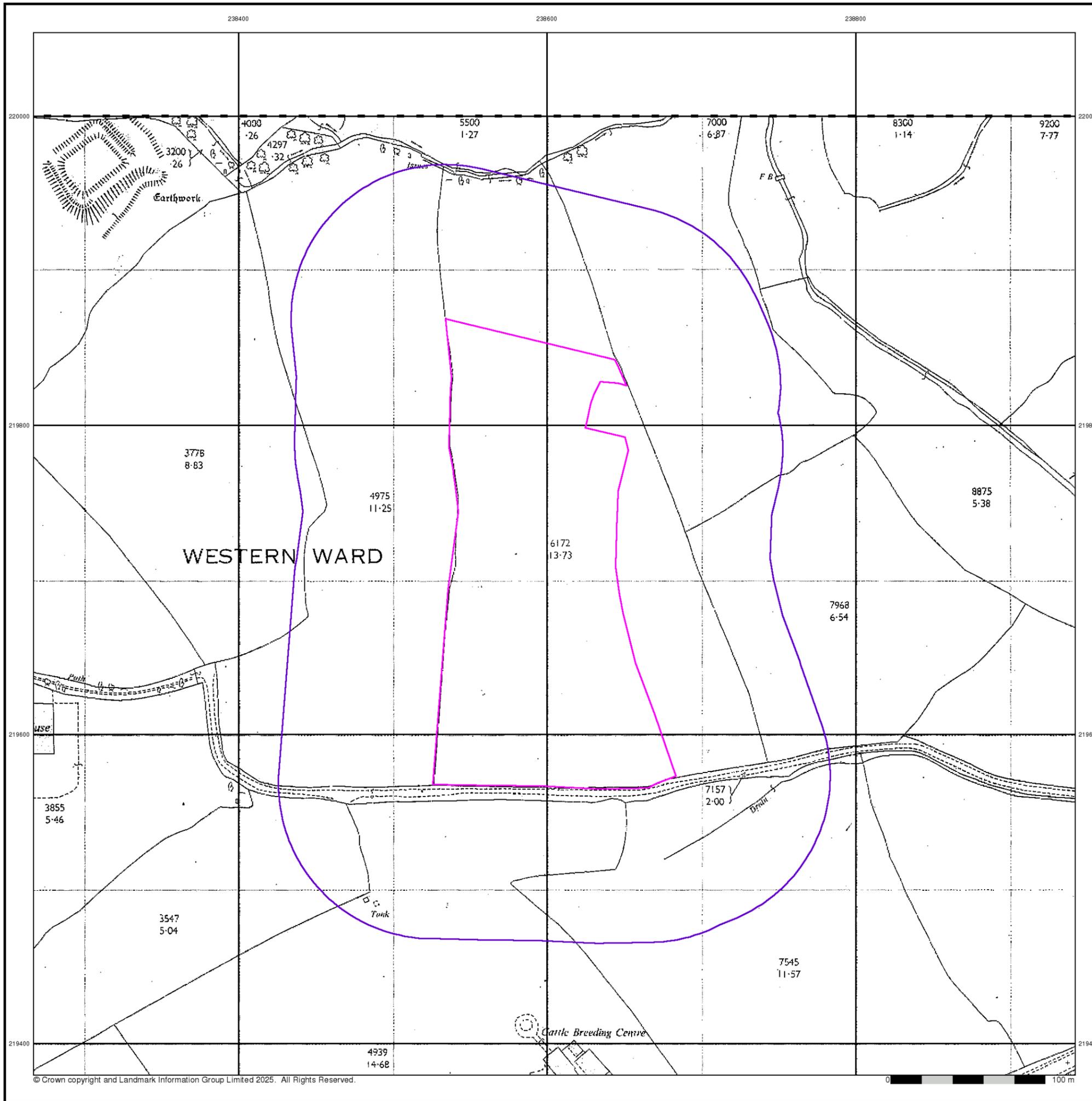


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 100

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW



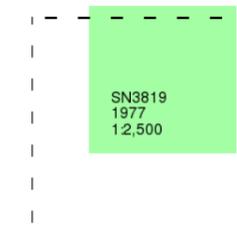
Ordnance Survey Plan

Published 1977

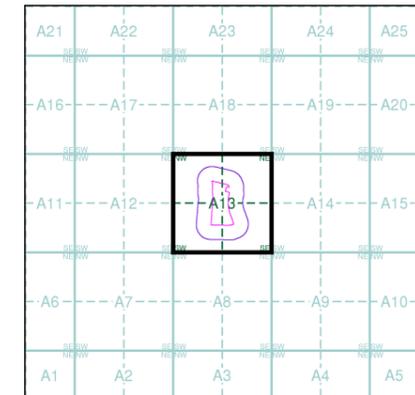
Source map scale - 1:2,500

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 A13

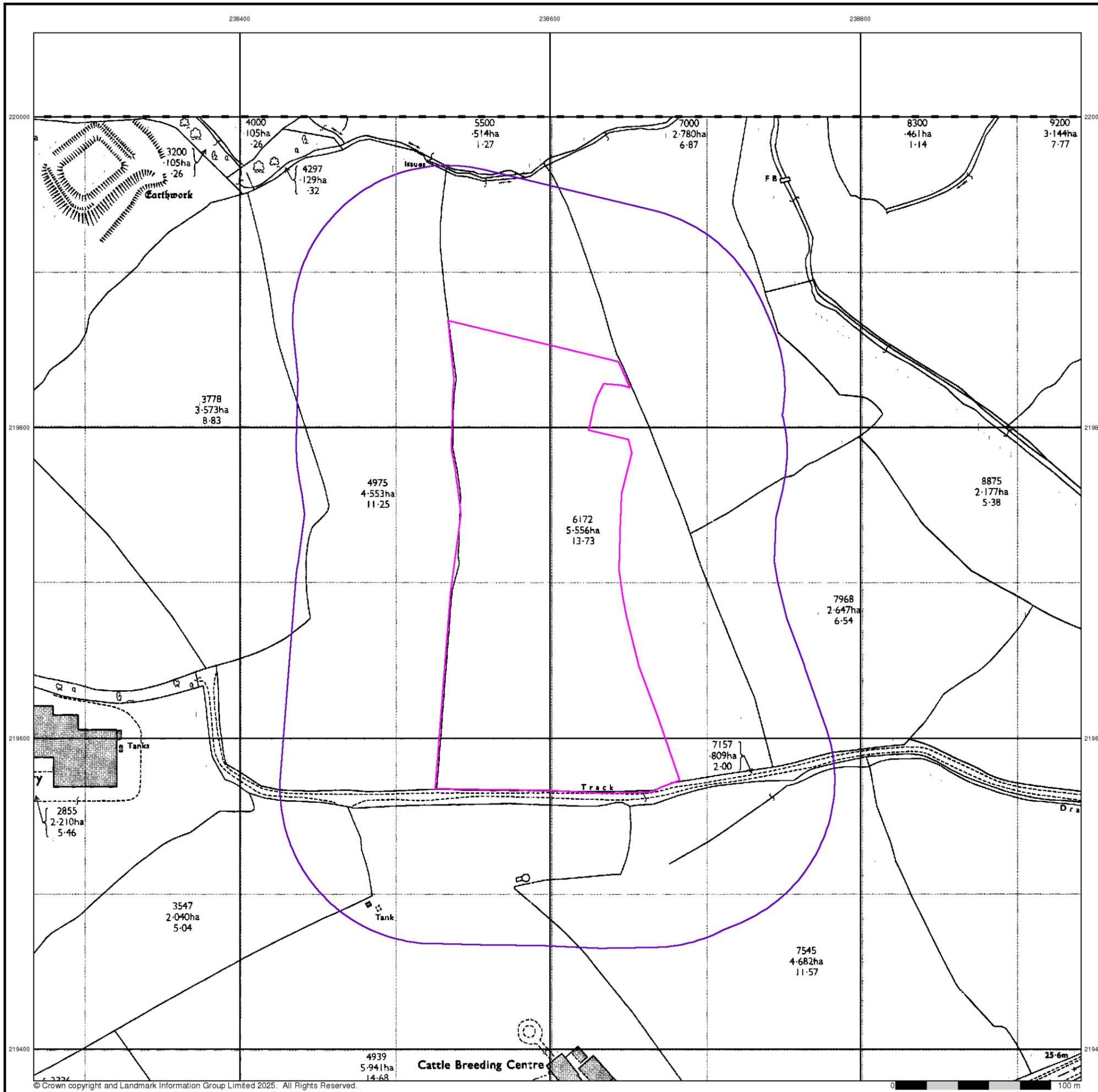


Order Details

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 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
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Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW



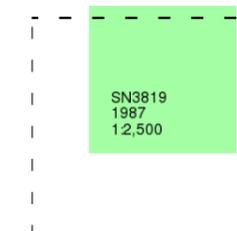
Additional SIMs

Published 1987

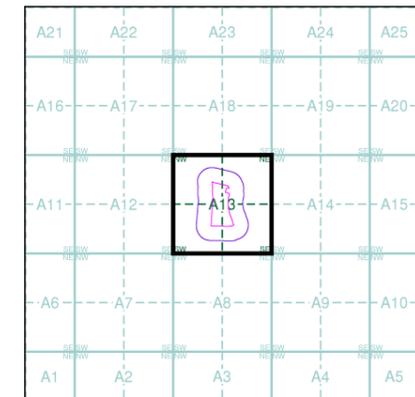
Source map scale - 1:2,500

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 A13

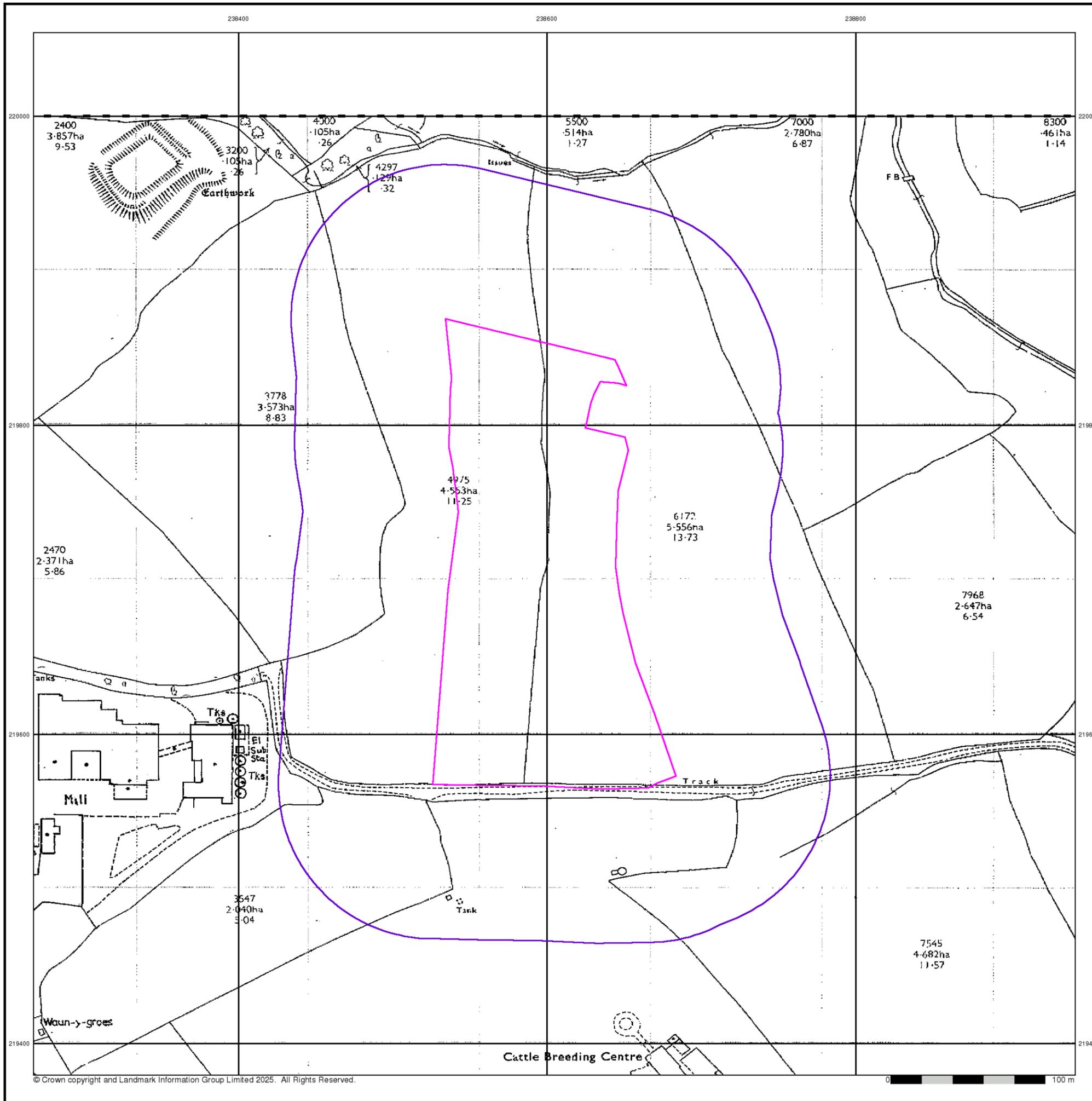


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 100

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW



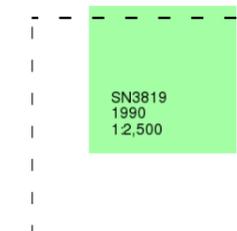
Additional SIMs

Published 1990

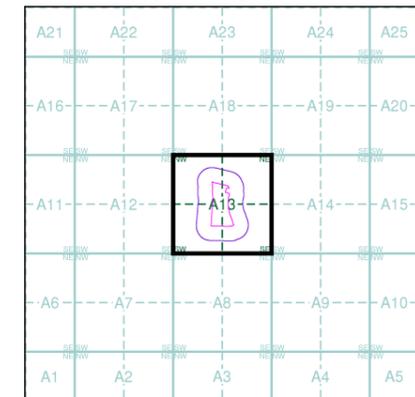
Source map scale - 1:2,500

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 A13

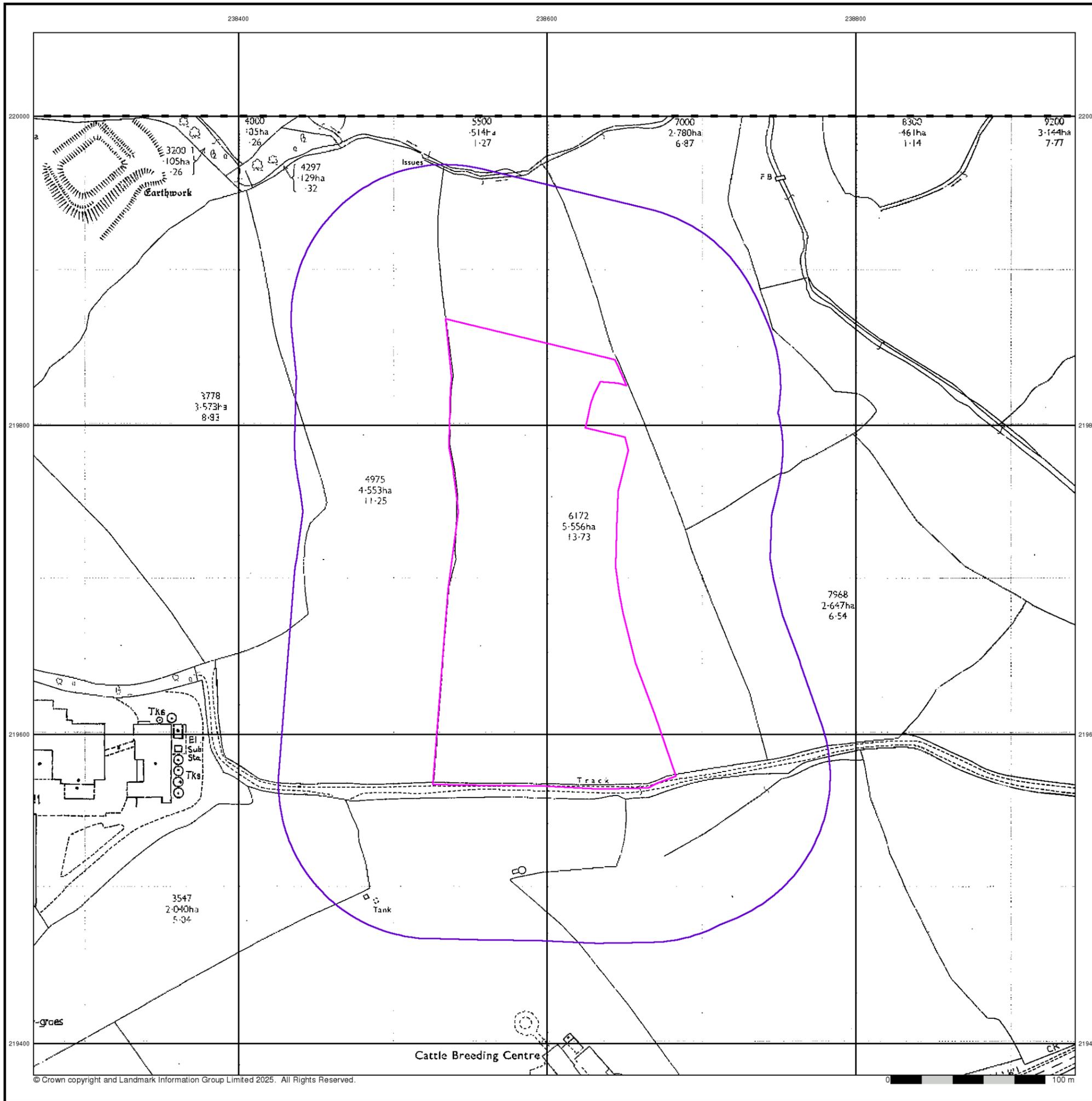


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 100

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

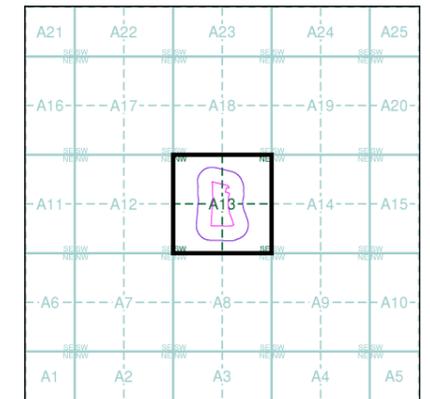


'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic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

Map Name(s) and Date(s)

SN3820	1993	1:2,500
SN3819	1993	1:2,500

Historical Map - Segment A13

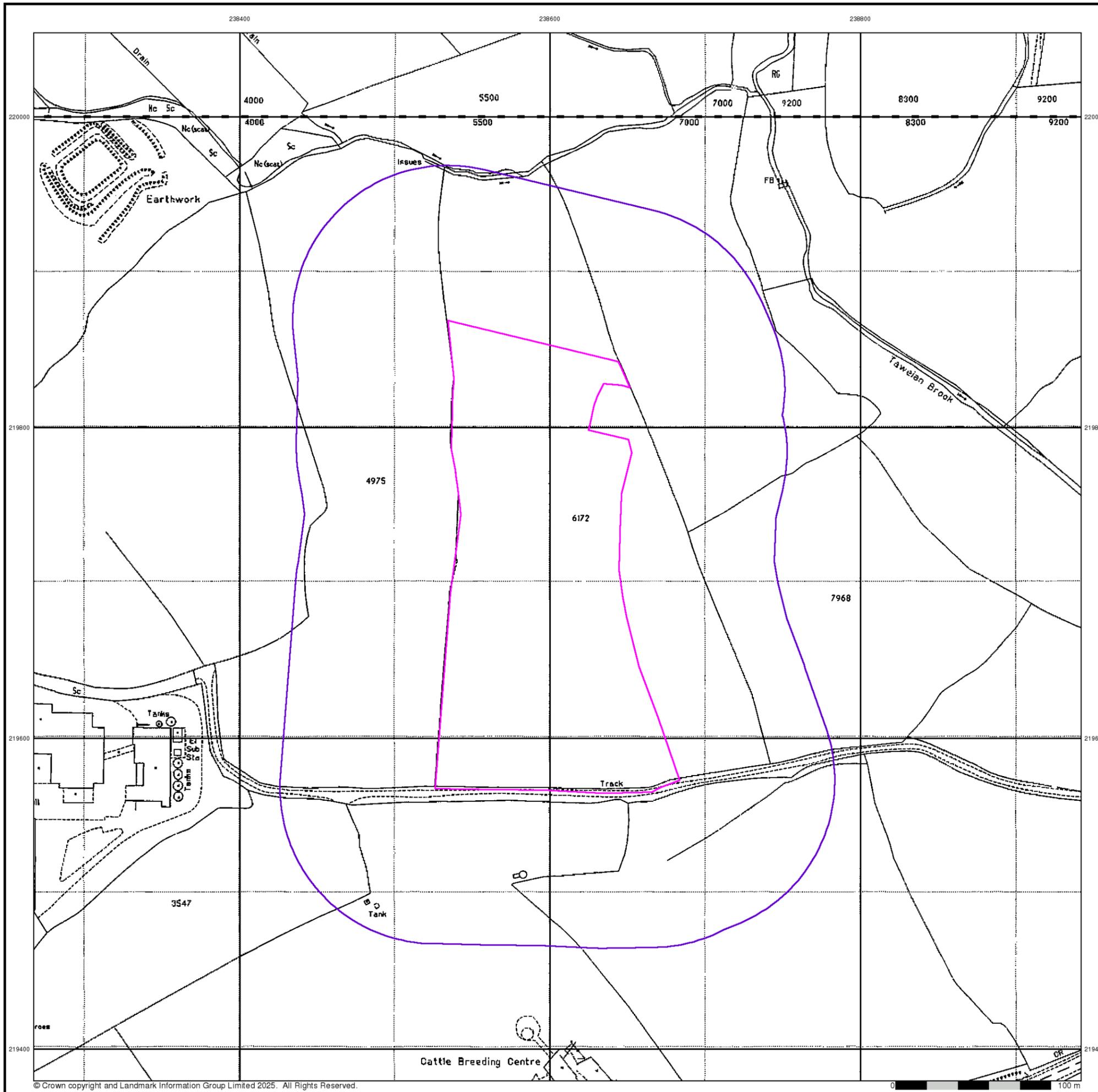


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 100

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW



238400

238600

238800



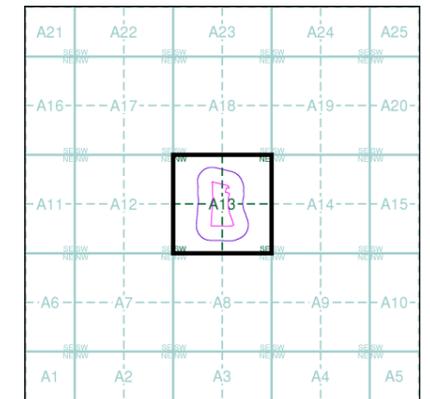
Historical Aerial Photography

Published 2000

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



Historical Aerial Photography - Segment A13



Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 100

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW



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

Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

373601466_1_1

Customer Reference:

14439/LP

National Grid Reference:

238590, 219710

Slice:

A

Site Area (Ha):

3.39

Search Buffer (m):

1000

Site Details:

Land at Carmarthen West

Carmarthen

SA31 3BW

Client Details:

MR H Pritchard

Integral Geotechnique

Integral House

7 Beddau Way

Castlegate Business Park

Caerphilly

CF83 2AX

Report Section and Details	Page Number
Summary	-
<p>The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected.</p> <p>For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).</p>	
Mining and Natural Cavities Data	1
<p>The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities.</p> <p>Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.</p>	
Historical Land Use Information (1:2,500)	-
<p>The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative.</p> <p>For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.</p>	
Historical Land Use Information (1:10,000)	2
<p>The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses.</p> <p>For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.</p>	
Ground Stability Data (1:50,000)	3
<p>The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.</p>	
Historical Map List	5
<p>The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.</p>	
Data Currency	6
Data Suppliers	7
Useful Contacts	8

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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1				4
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability			n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 1	Yes	Yes	n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)				n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying	pg 2				2
Heap, unknown constituents					
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits	pg 2			1	2
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 2			1	2
Potentially Infilled Land (Water)	pg 2				7
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 3	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 4	Yes	Yes	n/a	n/a
Salt Mining Related Features					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Mill Pond Location: Llanllwch, Carmarthen, Carmarthenshire Source: British Geological Survey, National Geoscience Information Service Reference: 100370 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Deposits, Devensian Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m</p>	A8SE (S)	575	1	238757 218998
2	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Dawelan Location: Carmarthen, Carmarthenshire Source: British Geological Survey, National Geoscience Information Service Reference: 102283 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Ordovician Geology: Tetragraptus Beds Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m</p>	A18NE (N)	677	1	238676 220530
3	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Pentre-Sil Location: Carmarthen, Carmarthenshire Source: British Geological Survey, National Geoscience Information Service Reference: 100371 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Deposits, Devensian Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m</p>	A14NE (E)	719	1	239381 219746
4	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Trebersed Location: Carmarthen, Carmarthenshire Source: British Geological Survey, National Geoscience Information Service Reference: 102282 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Ordovician Geology: Tetragraptus Beds Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m</p>	A17NW (NW)	943	1	237857 220524
	<p>Coal Mining Affected Areas</p> <p>In an area which may not be affected by coal mining</p>				
	<p>Non Coal Mining Areas of Great Britain</p> <p>Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service</p>	A13SW (NW)	0	1	238594 219706
	<p>Non Coal Mining Areas of Great Britain</p> <p>Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service</p>	A13NW (N)	132	1	238594 220000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	General Quarrying Use: Not Supplied Date of Mapping: 1891	A18NE (N)	679	-	238670 220534
6	General Quarrying Use: Not Supplied Date of Mapping: 1891	A17NW (NW)	957	-	237843 220530
7	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1891	A8NE (S)	467	-	238769 219110
8	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1891	A14NE (E)	708	-	239372 219734
9	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1907 - 1964	A14NE (E)	716	-	239378 219743
10	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A8NE (SE)	482	-	238920 219154
11	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14NE (E)	708	-	239372 219734
12	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992	A14NE (E)	729	-	239390 219750
13	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A8NW (SW)	509	-	238303 219111
14	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A9NW (SE)	560	-	239111 219213
15	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14SW (E)	566	-	239244 219496
16	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A8SE (S)	704	-	238806 218876
17	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14SE (E)	797	-	239480 219594
18	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A14SE (E)	911	-	239593 219530
19	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A15SW (E)	984	-	239666 219583

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
20	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
21	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
22	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	171	1	238814 219883
23	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	210	1	238781 220000
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	124	1	238791 219848
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	179	1	238727 220000
24	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	124	1	238791 219848
25	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	179	1	238727 220000
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	171	1	238814 219883
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	210	1	238781 220000
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
26	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
27	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
28	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	143	1	238372 219557
29	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
30	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	124	1	238791 219848

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
32	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	171	1	238814 219883
33	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	179	1	238727 220000
34	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	210	1	238781 220000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (SW)	143	1	238372 219557
35	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	0	1	238594 219706
36	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	132	1	238594 220000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	238632 219694

The following mapping has been analysed for Historical Land Use Information (1:2,500):

1:2,500	Mapsheet	Published Date
Carmarthenshire	039_06	1890
Carmarthenshire	039_06	1906
Carmarthenshire	039_06	1936
Ordnance Survey Plan	SN3819	1969
Ordnance Survey Plan	SN3820	1969

The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheet	Published Date
Carmarthenshire	039_NW	1891
Carmarthenshire	039_SW	1891
Carmarthenshire	039_NW	1907
Carmarthenshire	039_SW	1907
Carmarthenshire	039_NW	1938
Carmarthenshire	039_SW	1953
Ordnance Survey Plan	SN31NE	1964
Ordnance Survey Plan	SN32SE	1964
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	SN32SE	1975
Ordnance Survey Plan	SN31NE	1992

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	March 2024	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Man Made Mining Cavities Stantec UK Ltd	December 2023	Bi-Annually
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Natural Cavities Stantec UK Ltd	December 2023	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	July 2023	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Brine Subsidence Solution Area Johnson Poole & Bloomer	December 2020	

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	 British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small>
The Coal Authority	
Ove Arup	
Stantec UK Ltd	
Wardell Armstrong	
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	Landmark Information Group Limited Landmark Information Group, Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0330 036 6618 Fax: 0844 844 9951 Email: helpdesk@landmark.co.uk Website: www.landmark.co.uk

General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

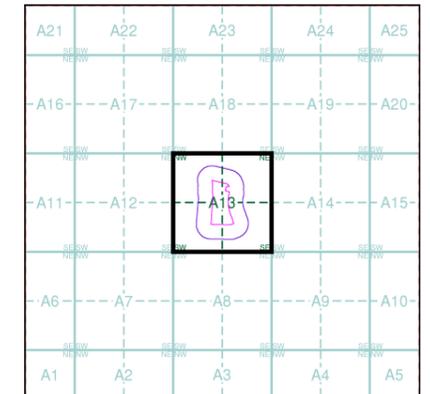
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

	Point	Line	Polygon
Extractive Industries Activity from 1855 - 1909			
Extractive Industries Activity from 1893 - 1915			
Extractive Industries Activity from 1906 - 1937			
Extractive Industries Activity from 1924 - 1949			
Extractive Industries Activity from 1950 - 1980			

Subterranean Features

	Point	Line	Polygon
Subterranean Features			

Mining and Ground Stability - Segment A13

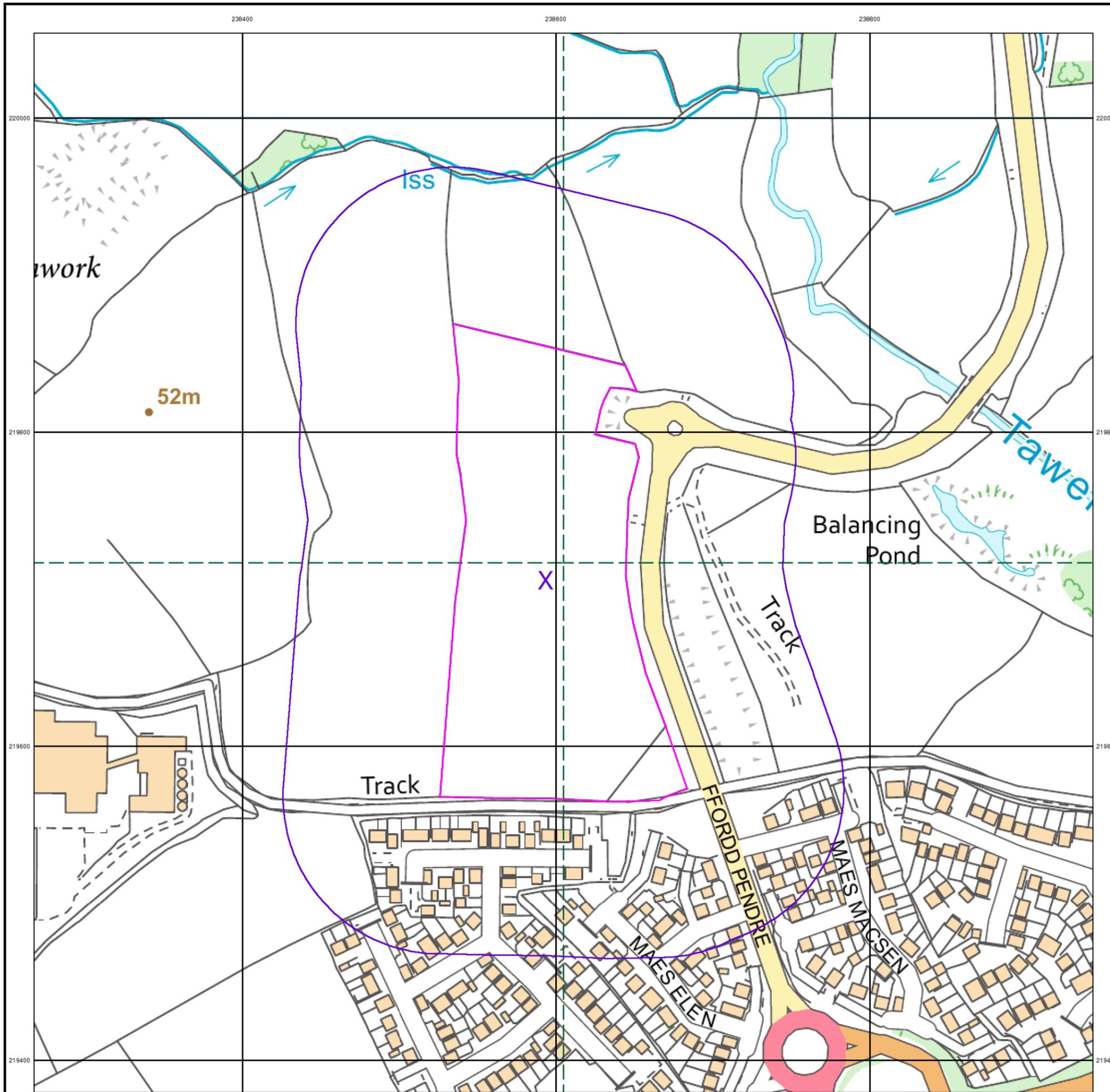


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Plot Buffer (m): 100

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW



Historical Land Use Information (1:10,000)

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

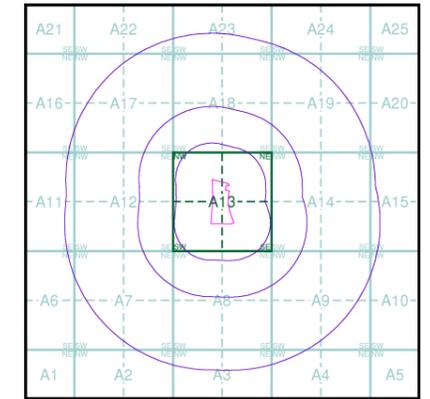
	Point	Line	Polygon
Air Shafts			
Disturbed Ground			
General Quarrying			
Heap, unknown constituents			
Mineral Railway			
Mining and Quarrying General			
Mining of Coal & Lignite			
Quarrying of Sand and Clay, Operation of Sand and Gravel Pits			

Historical Land Use

	Point	Line	Polygon
Potentially Infilled Land (Non-Water)			
Potentially Infilled Land (Water)			
Former Marsh			

- ### Mining Data
- Potential Mining Area
 - BGS Recorded Mineral Site

Mining and Ground Stability - Slice A

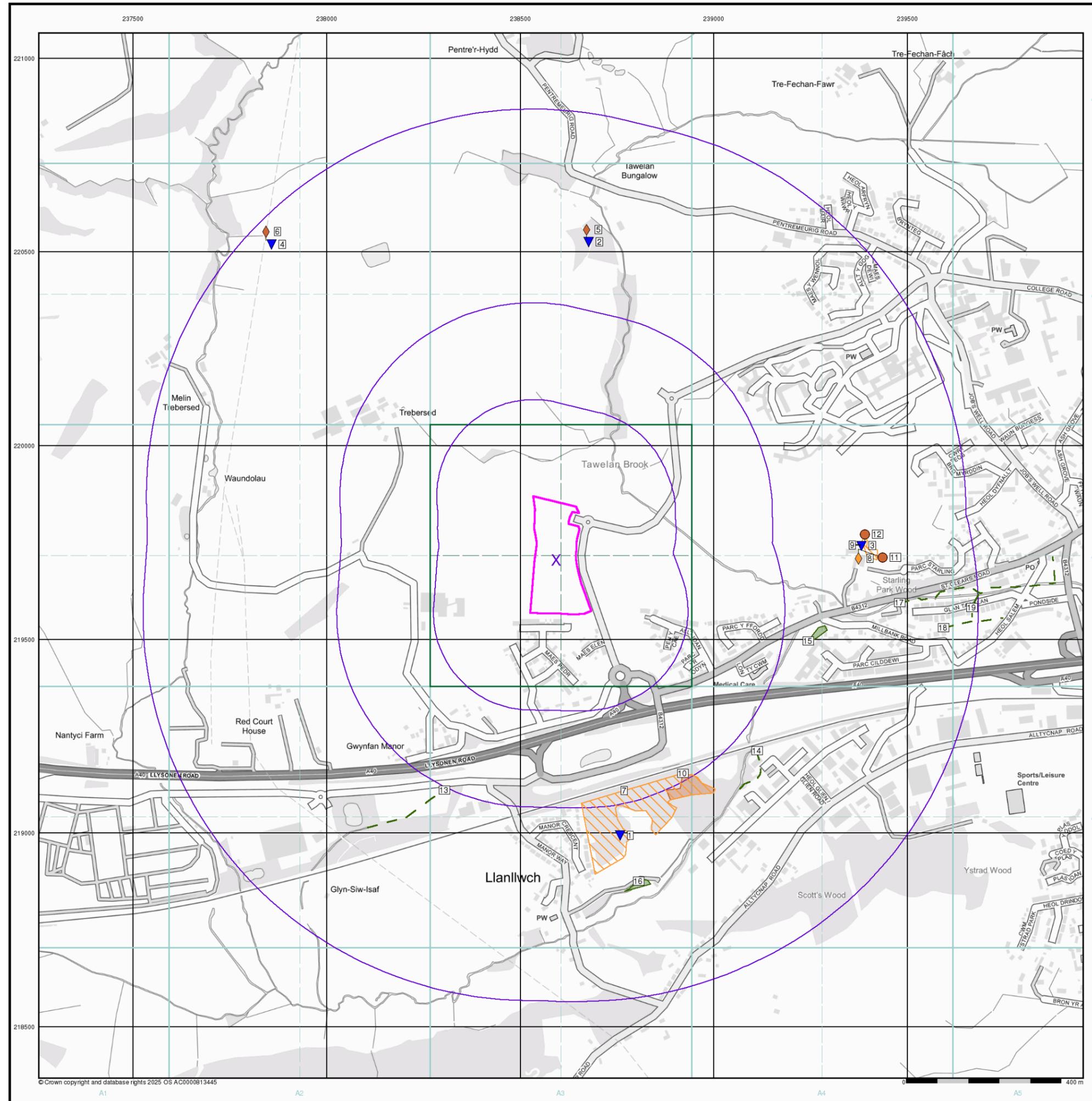


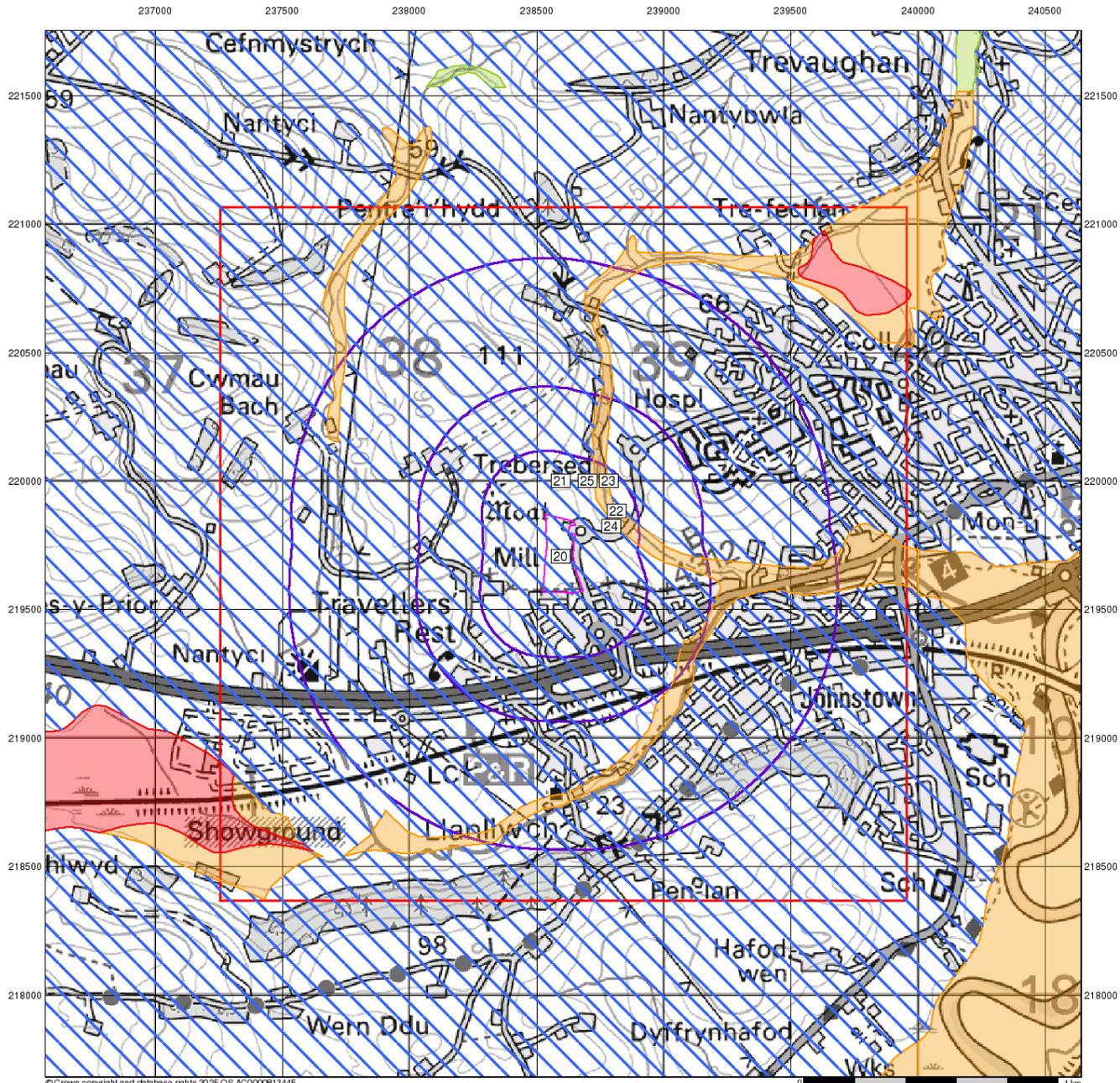
Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW





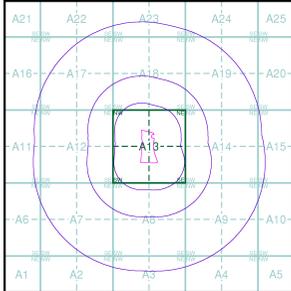
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Intégral Géotechnique

Ground Stability Data (1:50,000)

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Potential for Compressible Ground Stability Hazards**
- High
 - Moderate
 - Low
 - Very Low
- Potential for Collapsible Ground Stability Hazards**
- High
 - Moderate
 - Low
 - Very Low
- Brine Pumping and Salt Mining**
- Brine Pumping Related Feature
 - Salt Mining Related Feature
- Point Polygon**
- ▲
 - ▲
 - ▭
 - ▭

Mining and Ground Stability - Slice A



Order Details

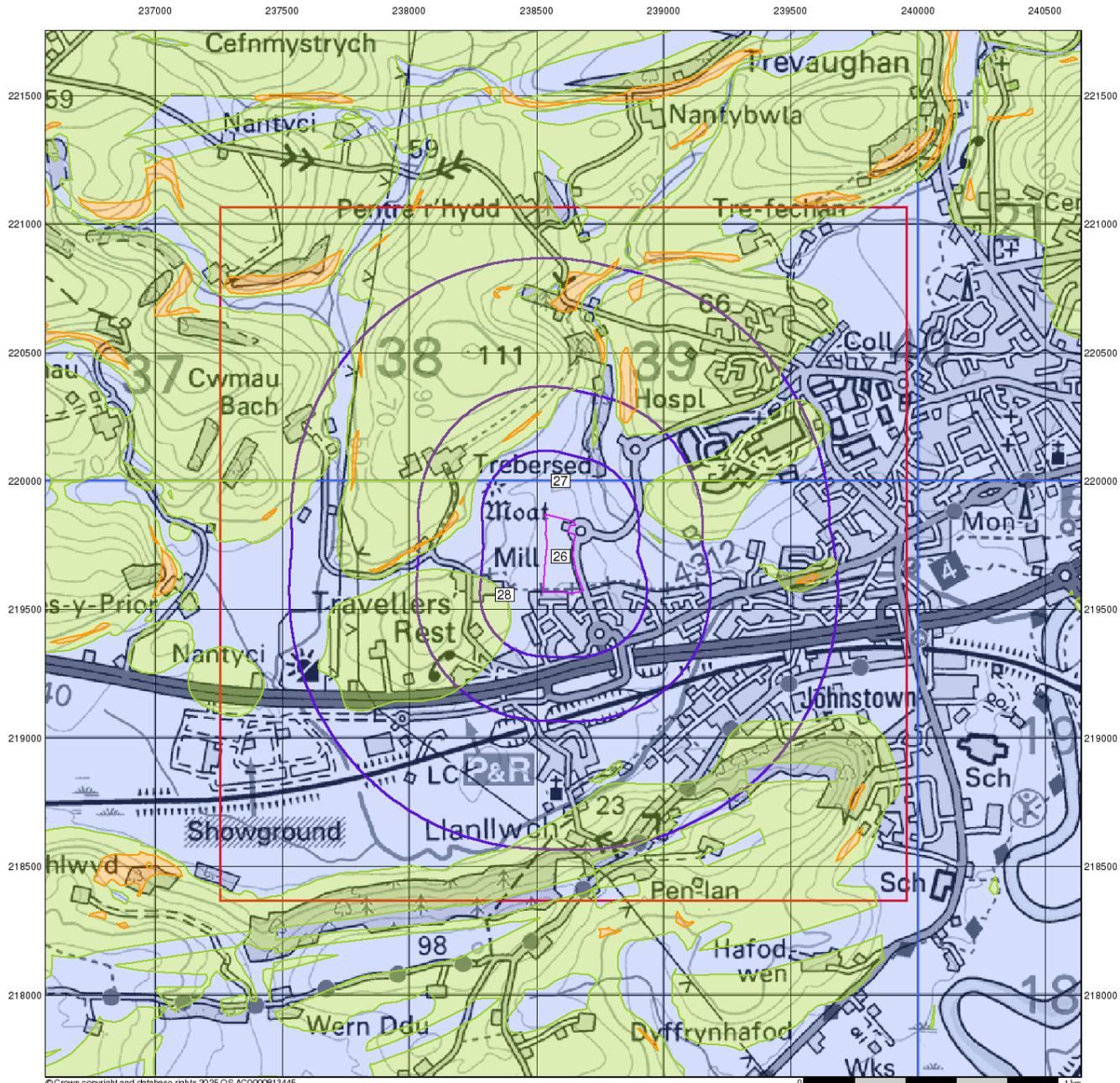
Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

Landmark
 INFORMATION GROUP

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



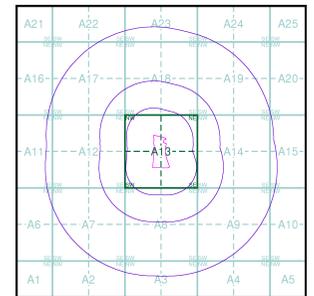
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Intégral Géotechnique

Ground Stability Data (1:50,000)

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Slice
 - Map ID
- Potential for Landslide Ground Stability Hazards**
- High
 - Moderate
 - Low
 - Very Low
- Potential for Ground Dissolution Stability Hazards**
- High
 - Moderate
 - Low
 - Very Low

Mining and Ground Stability - Slice A

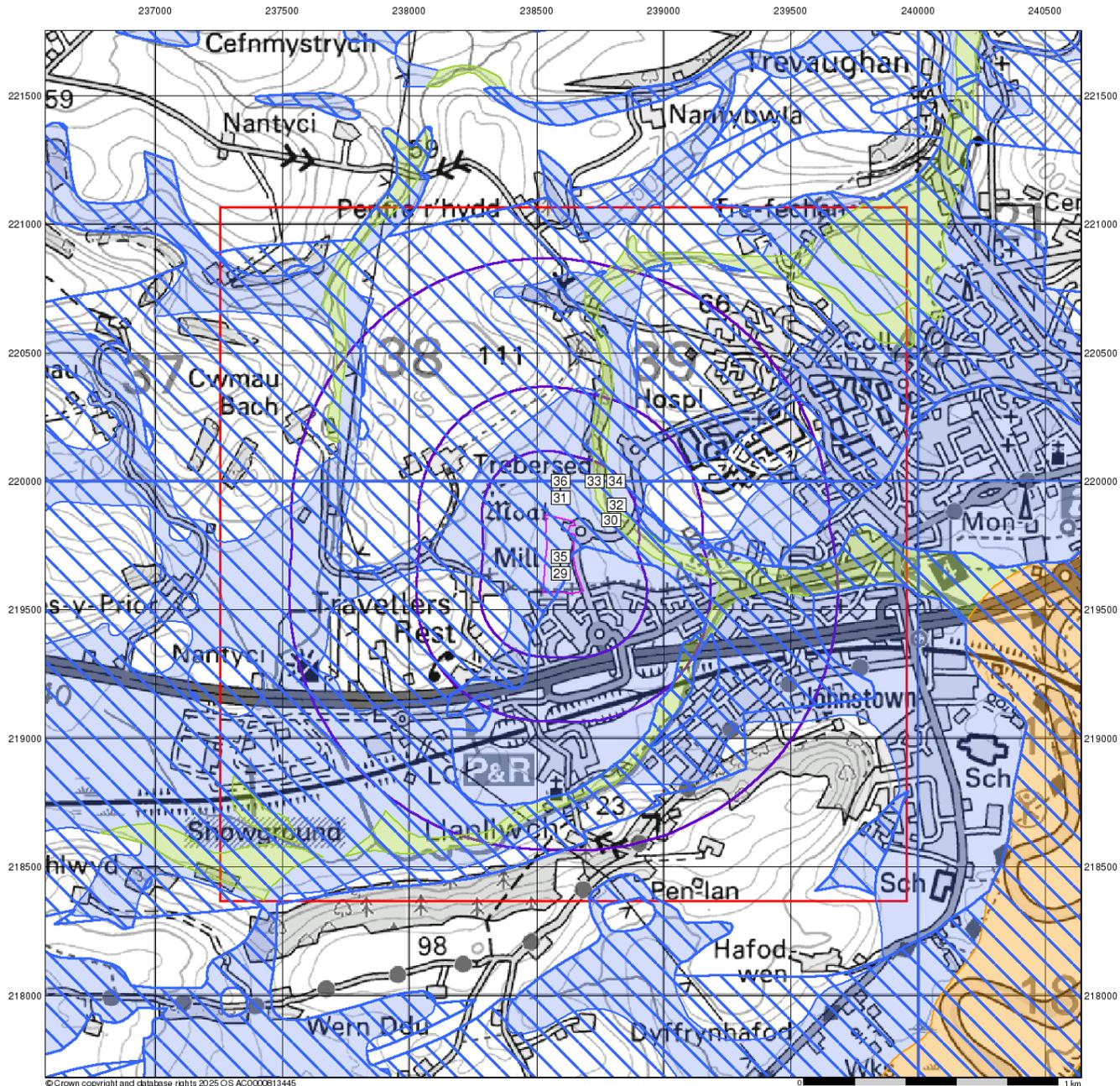


Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW



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Intégral Géotechnique

Ground Stability Data (1:50,000)

- General**
- ◇ Specified Site
 - Specified Buffer(s)
 - X Bearing Reference Point
 - Slice
 - Map ID

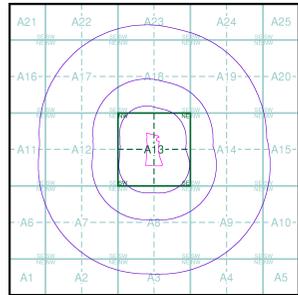
Potential for Running Sand Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Low
- Moderate
- Very Low

Mining and Ground Stability - Slice A



Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219710
 Slice: A
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details
 Land at Carmarthen West, Carmarthen, SA31 3BW

Landmark
 INFORMATION GROUP

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

Index Map

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

Slice

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

Segment

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

Quadrant

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

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

MR H Pritchard, Integral Geotechnique, Integral House, 7 Beddau Way, Castlegate Business Park, Caerphilly, CF83 2AX

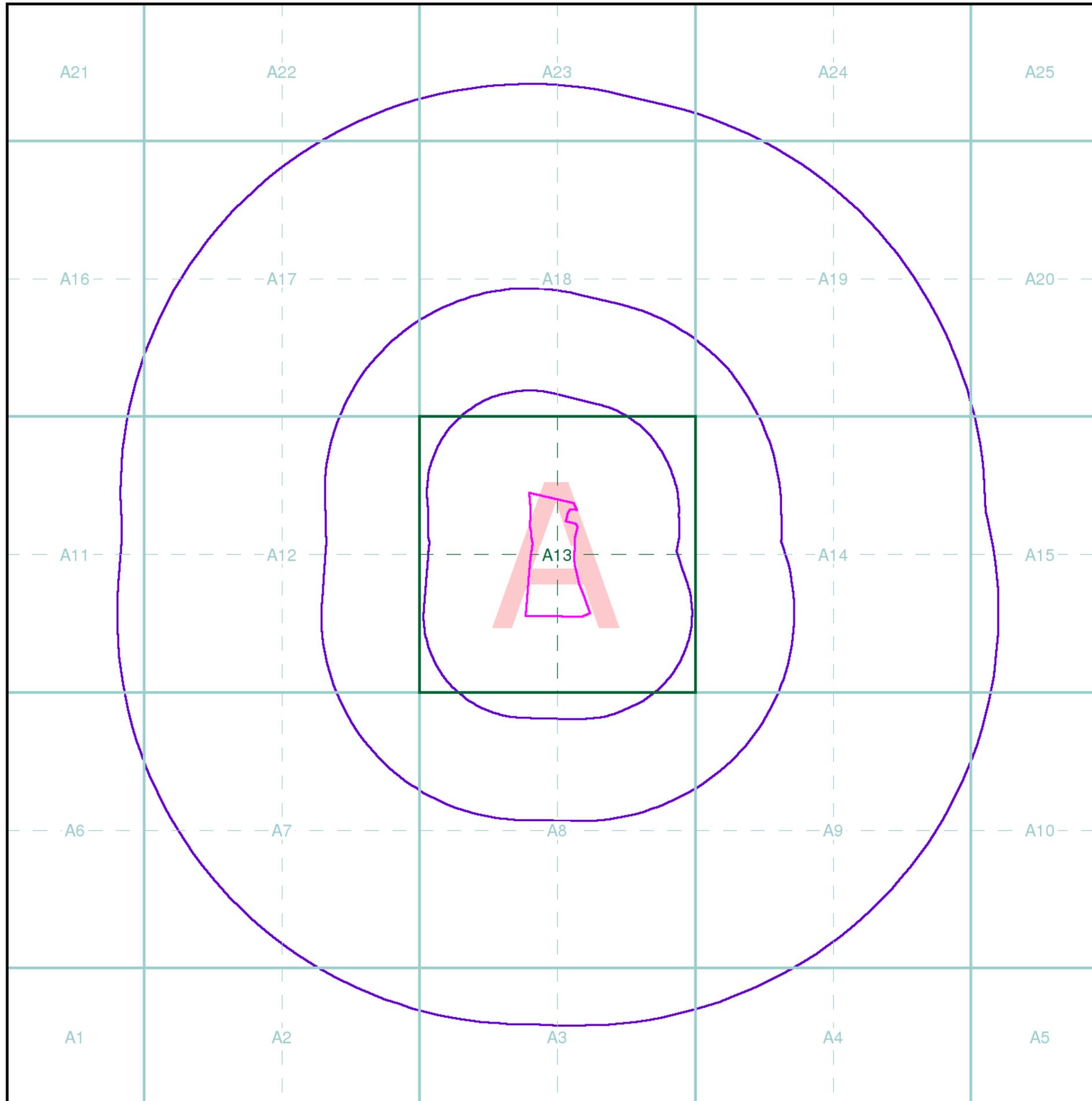
Order Details

Order Number: 373601466_1_1
 Customer Ref: 14439/LP
 National Grid Reference: 238590, 219700
 Site Area (Ha): 3.39
 Search Buffer (m): 1000

Site Details

Land at Carmarthen West, Carmarthen, SA31 3BW

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



APPENDIX B

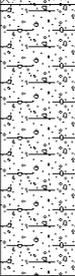
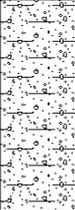
TRIAL PIT LOGS

	Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	Project Name: Land at Carmarthen West	Project No.: 14439	Trial Pit No.: TP01 Sheet 1 of 1
--	--	--	-------------------------------------	--

Location: Carmarthen West	Client: Lovell Partnership	Logged By: JM	Scale: 1:25
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Equipment: JCB 3CX	Coordinates:	Dimensions: 3.50m
---------------------------	---------------------	-----------------------------

Date Excavated: 10/07/2025	Level:	Depth: 2.20m 0.70m
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Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.10	ES		0.20			Grass over soft brown gravelly sandy SILT with roots and rootlets. Gravel is rounded to sub-rounded of siltstone (TOP SOIL).	
			0.60			(Medium dense) brown gravelly silty SAND. Gravel is angular to sub-rounded siltstone.	
			1.20			(Medium dense to dense) light brown clayey gravelly SAND with low cobble content of rounded to sub-rounded siltstone. Gravel is fine to coarse rounded to sub-rounded of siltstone.	1
	D		1.50			(Dense to very dense) light grey locally light brown clayey SAND and GRAVELS with a low cobble content of rounded to sub-rounded siltstone and mudstone. Gravel is fine to coarse rounded to sub-rounded of siltstone, mudstone and quartz.	2
			2.20			End of Trialpit at 2.20 m	3
							4
							5

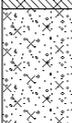
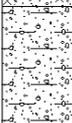
Remarks: 1. Terminated at 2.2m bgl due to hard dig.	Groundwater: 1. No groundwater encountered.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample	
	Stability: 1. Minor instability associated with excavation of sand and gravel.		

	Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	Project Name: Land at Carmarthen West	Project No.: 14439	Trial Pit No.: TP02 Sheet 1 of 1
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Location: Carmarthen West	Client: Lovell Partnership	Logged By: JM	Scale: 1:25
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Equipment: JCB 3CX	Coordinates:	Dimensions: 3.50m
---------------------------	---------------------	-----------------------------

Date Excavated: 10/07/2025	Level:	Depth: 1.80m 0.70m
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Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.20						Grass over soft brown gravelly sandy SILT with roots and rootlets. Gravel is rounded to sub-rounded of siltstone (TOP SOIL).
0.50	ES					(Medium dense) brown gravelly silty SAND. Gravel is angular to sub-rounded siltstone.
0.60						(Medium dense to dense) light brown clayey gravelly SAND with low cobble content of rounded to sub-rounded siltstone. Gravel is fine to coarse rounded to sub-rounded of siltstone.
1.10	D					(Dense to very dense) light grey locally light brown clayey SAND and GRAVELS with a low cobble content of rounded to sub-rounded siltstone and mudstone. Gravel is fine to coarse rounded to sub-rounded of siltstone, mudstone and quartz.
1.80						End of Trialpit at 1.80 m

Remarks: 1. Terminated at 1.8m bgl due to hard dig.	Groundwater: 1. No groundwater encountered.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample	
	Stability: 1. Minor instability associated with excavation of sand and gravel.		

	Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	Project Name: Land at Carmarthen West	Project No.: 14439	Trial Pit No.: TP03 Sheet 1 of 1
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Location: Carmarthen West	Client: Lovell Partnership	Logged By: JM	Scale: 1:25
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Equipment: JCB 3CX	Coordinates:	Dimensions: 3.50m
---------------------------	---------------------	-----------------------------

Date Excavated: 10/07/2025	Level:	Depth: 2.30m 0.70m
-----------------------------------	---------------	------------------------------

Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	ES		0.20			Grass over soft brown gravelly sandy SILT with roots and rootlets. Gravel is rounded to sub-rounded of siltstone (TOP SOIL).
			0.40			(Medium dense) brown gravelly silty SAND. Gravel is angular to sub-rounded siltstone.
						(Dense to very dense) light grey locally light brown clayey SAND and GRAVELS with a low cobble content of rounded to sub-rounded siltstone and mudstone. Gravel is fine to coarse rounded to sub-rounded of siltstone, mudstone and quartz.
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						
						

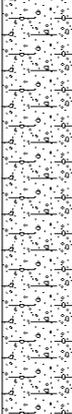
Remarks: 1. Terminated at 2.3m bgl due to hard dig.	Groundwater: 1. No groundwater encountered,	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample	
	Stability: 1. Minor instability associated with excavation of sand and gravel.		

	Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	Project Name: Land at Carmarthen West	Project No.: 14439	Trial Pit No.: TP04 Sheet 1 of 1
--	--	--	-------------------------------------	--

Location: Carmarthen West	Client: Lovell Partnership	Logged By: JM	Scale: 1:25
-------------------------------------	-----------------------------------	-------------------------	-----------------------

Equipment: JCB 3CX	Coordinates:	Dimensions: 3.50m
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Date Excavated: 10/07/2025	Level:	Depth: 1.90m 0.70m
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Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
Depth (m)	Type	Results					
0.40	ES		0.20			Grass over soft brown gravelly sandy SILT with roots and rootlets. Gravel is rounded to sub-rounded of siltstone (TOP SOIL).	
			0.50			(Medium dense) brown gravelly silty SAND. Gravel is angular to sub-rounded siltstone.	
1.40	D		1.90			(Dense to very dense) light grey locally light brown clayey SAND and GRAVELS with a low cobble content of rounded to sub-rounded siltstone and mudstone. Gravel is fine to coarse rounded to sub-rounded of siltstone, mudstone and quartz.	
						End of Trialpit at 1.90 m	

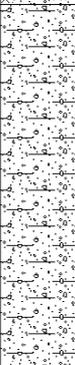
Remarks: 1. Terminated at 1.9m bgl due to hard dig.	Groundwater: 1. No groundwater encountered.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample	
	Stability: 1. Minor instability associated with excavation of sand and gravel.		

	Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	Project Name: Land at Carmarthen West	Project No.: 14439	Trial Pit No.: TP05 Sheet 1 of 1
	Location: Carmarthen West	Client: Lovell Partnership	Logged By: JM	Scale: 1:25

Location: Carmarthen West	Client: Lovell Partnership	Logged By: JM	Scale: 1:25
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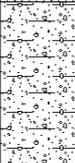
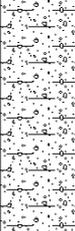
Equipment: JCB 3CX	Coordinates:	Dimensions 3.50m
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Date Excavated: 10/07/2025	Level:	Depth : 1.80m 0.70m
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Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.40	ES		0.20			Grass over soft brown gravelly sandy SILT with roots and rootlets. Gravel is rounded to sub-rounded of siltstone (TOPSOIL).
			0.60			(Medium dense) brown gravelly silty SAND. Gravel is angular to sub-rounded siltstone.
1.10	D		1.80			(Dense to very dense) light grey locally light brown clayey SAND and GRAVELS with a low cobble content of rounded to sub-rounded siltstone and mudstone. Gravel is fine to coarse rounded to sub-rounded of siltstone, mudstone and quartz.
						End of Trialpit at 1.80 m

Remarks: 1. Terminated at 1.8m bgl due to hard dig.	Groundwater: 1. No groundwater encountered.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample	
	Stability: 1. Minor instability associated with excavation of sand and gravel.		

		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land at Carmarthen West		Project No.: 14439		Trial Pit No.: TP06 Sheet 1 of 1	
Location: Carmarthen West		Client: Lovell Partnership		Logged By: JM		Scale 1:25			
Equipment: JCB 3CX		Coordinates:		Dimensions <div style="display: flex; justify-content: space-between;"> Depth : 2.00m 0.70m <div style="border: 1px solid black; width: 100px; height: 30px;"></div> </div>					
Date Excavated: 10/07/2025		Level:							
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.10	ES		0.20			Grass over soft brown gravelly sandy SILT with roots and rootlets. Gravel is rounded to sub-rounded of siltstone (TOP SOIL).			
			0.40			(Medium dense) brown gravelly silty SAND. Gravel is angular to sub-rounded siltstone.			
						(Dense to very dense) light grey locally light brown clayey SAND and GRAVELS with a low cobble content of rounded to sub-rounded siltstone and mudstone. Gravel is fine to coarse rounded to sub-rounded of siltstone, mudstone and quartz.			
			2.00			End of Trialpit at 2.00 m			
Remarks: 1. Terminated at 2.0m bgl due to hard dig.			Groundwater: 1. No groundwater encountered.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample				
			Stability: 1. Minor instability associated with excavation of sand and gravel.						

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land at Carmarthen West			Project No.: 14439	Trial Pit No.: TP07 Sheet 1 of 1
		Location: Carmarthen West			Client: Lovell Partnership	Logged By: JM
Equipment: JCB 3CX		Coordinates:			Dimensions: 3.50m	
Date Excavated: 10/07/2025		Level:			Depth : 2.40m	0.70m
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.10	ES		0.20			Grass over soft brown gravelly sandy SILT with roots and rootlets. Gravel is rounded to sub-rounded of siltstone (TOPSOIL).
1.10	D		1.60			(Medium dense to dense) light brown clayey gravelly SAND with low cobble content of rounded to sub-rounded siltstone. Gravel is fine to coarse rounded to sub-rounded of siltstone.
			2.40			(Dense to very dense) light grey locally light brown clayey SAND and GRAVELS with a low cobble content of rounded to sub-rounded siltstone and mudstone. Gravel is fine to coarse rounded to sub-rounded of siltstone, mudstone and quartz.
End of Trialpit at 2.40 m						
Remarks: 1. Terminated at 2.4m due to hard dig.		Groundwater: 1. No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample	
		Stability: 1. Minor instability associated with excavation of sand and gravel.				

	Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	Project Name: Land at Carmarthen West	Project No.: 14439	Trial Pit No.: TP08 Sheet 1 of 1
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Location: Carmarthen West	Client: Lovell Partnership	Logged By: JM	Scale: 1:25
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Equipment: JCB 3CX	Coordinates:	Dimensions: 3.50m
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Date Excavated: 10/07/2025	Level:	Depth: 2.10m 0.70m
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Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
Depth (m)	Type	Results				
0.40	ES		0.20			Grass over soft brown gravelly sandy SILT with roots and rootlets. Gravel is rounded to sub-rounded of siltstone (TOP SOIL).
			0.70			(Medium dense to dense) light brown clayey gravelly SAND with low cobble content of rounded to sub-rounded siltstone. Gravel is fine to coarse rounded to sub-rounded of siltstone.
1.20	D		2.10			(Dense to very dense) light grey locally light brown clayey SAND and GRAVELS with a low cobble content of rounded to sub-rounded siltstone, mudstone and quartz. Gravel is fine to coarse rounded to sub-rounded of siltstone, mudstone and quartz.
						End of Trialpit at 2.10 m

Remarks: 1. Terminated at 2.1m due to hard dig.	Groundwater: 1. No groundwater encountered.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample	
	Stability: 1. Minor instability associated with excavation of sand and gravel.		

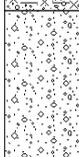
APPENDIX C

WINDOWLESS SAMPLE BOREHOLE LOGS

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Land at Carmarthen West			Project No.: 14439		Borehole No.: WS01	
		Location: Carmarthen West			Client: Lovell Partnership		Coordinates:	
Equipment: Dart 540		Diameter of Casing:			Level:		Scale 1:25	
Diameter of Boring: 101mm		Depth of Casing:			Dates 09/07/2025 -		Logged By: JM	
Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		1.00	C	N=50 (16,17/19,21,10,0)	1.00		Grass over soft brown slightly gravelly sandy SILT with frequent roots and rootlets. Gravel is fine to coarse rounded to sub-rounded of siltstone (TOP SOIL).	
								(Medium dense) brown sandy gravelly clayey SILT with low cobble content of sub-rounded to sub-angular siltstone. Gravel is fine to coarse sub-rounded to angular of siltstone.
								(Dense) light grey/light brown sandy clayey silty GRAVEL with low cobbler content of rounded to sub-rounded siltstone. Gravel is fine to coarse rounded to sub-rounded of siltstone.
							End of Borehole at 1.00 m	
Remarks: 1. Refusal at 1.0m bgl.								Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation



	Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	Project Name: Land at Carmarthen West	Project No.: 14439	Borehole No.: WS02 Sheet 1 of 1
	Location: Carmarthen West	Client: Lovell Partnership	Coordinates:	Hole Type: WLS
Equipment: Dart 540	Diameter of Casing:	Level:	Scale: 1:25	
Diameter of Boring: 101+86mm	Depth of Casing:	Dates: 09/07/2025 -	Logged By: JM	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		1.00	C	N=50 (7,11/12,12,14,12)	0.20			Grass over soft brown slightly gravelly sandy SILT with frequent roots and rootlets. Gravel is fine to coarse rounded to sub-rounded of siltstone (TOP SOIL).
								(Medium dense) brown sandy gravelly clayey SILT with low cobble content of sub-rounded to sub-angular siltstone. Gravel is fine to coarse sub-rounded to angular of siltstone.
					0.80			...becoming very sandy below 0.6m bgl.
					1.30			Dense to very dense light grey gravelly SAND with a low cobble content of angular to sub-rounded siltstone. Gravel is fine to coarse angular to sub-rounded of siltstone.
								End of Borehole at 1.30 m

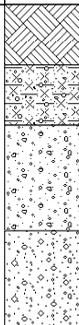
Remarks: 1. Refusal at 1.3m bgl.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)	W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation	
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 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	Project Name:	Project No.:	Borehole No.:
	Land at Carmarthen West	14439	WS03
Location:	Client: Lovell Partnership	Coordinates:	Sheet 1 of 1
Carmarthen West			Hole Type: WLS
Equipment: Dart 540	Diameter of Casing:	Level:	Scale 1:25
Diameter of Boring: 101+86+73mm	Depth of Casing:	Dates 09/07/2025 -	Logged By: JM

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
					0.20		Grass over soft brown slightly gravelly sandy SILT with frequent roots and rootlets. Gravel is fine to coarse rounded to sub-rounded of siltstone (TOP SOIL). (Medium dense) brown sandy gravelly clayey SILT with low cobble content of sub-rounded to sub-angular siltstone. Gravel is fine to coarse sub-rounded to angular of siltstone.	
		1.00	C	N=20 (1,1/2,2,7,9)	1.20		Dense light grey gravelly SAND with a low cobble content of angular to sub-rounded siltstone. Gravel is fine to coarse angular to sub-rounded of siltstone. <i>...pocket of orange brown SAND with perched water between 1.6m and 1.7m bgl.</i>	
		2.00	C	N=47 (8,9/9,11,13,14)	2.50		End of Borehole at 2.50 m	
		2.50	C	N=50 (18,14/14,14,16,6)	2.50			

Remarks: 1. Refusal at 2.5m bgl.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)	W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation	
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 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com	Project Name:	Project No.:	Borehole No.:
	Land at Carmarthen West	14439	WS04
Location:	Client: Lovell Partnership	Coordinates:	Sheet 1 of 1
Carmarthen West			Hole Type: WLS
Equipment: Dart 540	Diameter of Casing:	Level:	Scale 1:25
Diameter of Boring: 101+86mm	Depth of Casing:	Dates 09/07/2025 -	Logged By: JM

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description
		Depth (m)	Type	Results				
		1.00	C	N=50 (11,14/19,24,7,0)	0.20		Grass over soft brown slightly gravelly sandy SILT with frequent roots and rootlets. Gravel is fine to coarse rounded to sub-rounded of siltstone (TOP SOIL).	
					0.40		(Medium dense) brown sandy gravelly clayey SILT with low cobble content of sub-rounded to sub-angular siltstone. Gravel is fine to coarse sub-rounded to angular of siltstone.	
					0.75		(Medium dense) light brown locally light grey sandy GRAVEL with frequent cobbles of sub-rounded to sub-angular siltstone. Gravel is fine to coarse sub-rounded to sub-angular of siltstone.	
					1.10		Dense light grey gravelly SAND with a low cobble content of angular to sub-rounded siltstone. Gravel is fine to coarse angular to sub-rounded of siltstone.	
							End of Borehole at 1.10 m	

Remarks: 1. Refusal at 1.1m bgl.	Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)	W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation	
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APPENDIX D

LABORATORY CHEMICAL TEST RESULTS

Integral Geotechnique
Integral House
7 Beddau Way
Castlegate Business Park
CF83 2AX

i2 Analytical Ltd.
7 Woodshots Meadow,
Croxley Green
Business Park,
Watford,
Herts,
WD18 8YS

t: 2920807991

e: joem@integralgeotec.com

t: 01923 225404

f: 01923 237404

e: reception@i2analytical.com

Analytical Report Number : 25-036969

Project / Site name:	Carmarthen West	Samples received on:	14/07/2025
Your job number:	14439	Samples instructed on/ Analysis started on:	14/07/2025
Your order number:	14439 JM	Analysis completed by:	21/07/2025
Report Issue Number:	1	Report issued on:	21/07/2025
Samples Analysed:	11 soil samples		



Signed:

Rachel Chappell
Key Account Manager
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting
air - once the analysis is complete

Excel copies of reports are only valid when accompanied by this PDF certificate.

Retention period for records and reports is minimum 6 years from the date of issue of the final report.
Some records may be kept for longer according to other legal/best practice requirements.

Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 25-036969
 Project / Site name: Carmarthen West
 Your Order No: 14439 JM

Lab Sample Number	612589	612590	612591	612592	612593
Sample Reference	TP01	TP02	TP03	TP04	TP07
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.10	0.50	0.10	0.40	0.10
Date Sampled	10/07/2025	10/07/2025	10/07/2025	10/07/2025	10/07/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	26.6	< 0.1
Moisture Content	%	0.01	NONE	19	16	17	12	20
Total mass of sample received	kg	0.1	NONE	0.9	1	1	1	1

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	DKI	DKI	DKI	DKI	DKI
Analysis completed	N/A	N/A	N/A	18/07/2025	18/07/2025	18/07/2025	18/07/2025	18/07/2025

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.5	8.7	7.4	7.7	7.4
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	1100	620	960	830	1100
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	68	73	78	65	87
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0339	0.0364	0.0392	0.0327	0.0436
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	33.9	36.4	39.2	32.7	43.6
Water Soluble SO ₄ 16hr extraction (2:1)	mg/l	1.25	MCERTS	-	-	-	-	-
Sulphide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphur	mg/kg	50	MCERTS	610	280	590	470	650
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	3.6	1.6	4.1	2.7	4.3
Loss on Ignition @ 450°C	%	0.2	MCERTS	8.5	4.6	9.5	7	9.9

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Phenanthrene	mg/kg	0.05	MCERTS	0.1	< 0.05	0.29	0.16	0.09
Anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.09	< 0.05	< 0.05
Fluoranthene	mg/kg	0.05	MCERTS	0.33	< 0.05	0.96	0.3	0.33
Pyrene	mg/kg	0.05	MCERTS	0.3	< 0.05	0.87	0.25	0.28
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.24	< 0.05	0.57	0.16	0.2
Chrysene	mg/kg	0.05	MCERTS	0.28	< 0.05	0.69	0.19	0.26
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.33	< 0.05	0.77	0.23	0.33
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.14	< 0.05	0.34	0.08	0.15
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.25	< 0.05	0.65	0.16	0.26
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.13	< 0.05	0.31	0.09	0.14
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	0.07	< 0.05	< 0.05
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.16	< 0.05	0.37	< 0.05	0.15

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	2.28	< 0.80	5.96	1.62	2.2
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Analytical Report Number: 25-036969
 Project / Site name: Carmarthen West
 Your Order No: 14439 JM

Lab Sample Number	612589		612590		612591		612592		612593	
Sample Reference	TP01		TP02		TP03		TP04		TP07	
Sample Number	None Supplied		None Supplied		None Supplied		None Supplied		None Supplied	
Water Matrix	N/A		N/A		N/A		N/A		N/A	
Depth (m)	0.10		0.50		0.10		0.40		0.10	
Date Sampled	10/07/2025		10/07/2025		10/07/2025		10/07/2025		10/07/2025	
Time Taken	None Supplied		None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status							

Heavy Metals / Metalloids

Element	Unit	Test Limit	MCERTS	612589	612590	612591	612592	612593
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	16	15	16	20	18
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.55	0.62	0.49	0.61	0.57
Boron (water soluble)	mg/kg	0.2	MCERTS	1.6	0.7	1.4	1	1.7
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.2	< 0.2	< 0.2	< 0.2	0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	25	29	24	27	26
Copper (aqua regia extractable)	mg/kg	1	MCERTS	24	25	23	28	32
Lead (aqua regia extractable)	mg/kg	1	MCERTS	47	30	42	48	74
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	0.5
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	15	27	17	23	17
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	2.2	2.2	1.8	1.9	2
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	36	37	34	38	37
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	90	110	91	100	100

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 25-036969
 Project / Site name: Carmarthen West
 Your Order No: 14439 JM

Lab Sample Number	612594	612595	612596	612597	612598
Sample Reference	TP08	TP01	TP04	TP05	TP07
Sample Number	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Water Matrix	N/A	N/A	N/A	N/A	N/A
Depth (m)	0.40	1.20	1.40	1.10	1.10
Date Sampled	10/07/2025	10/07/2025	10/07/2025	10/07/2025	10/07/2025
Time Taken	None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status		

Stone Content	%	0.1	NONE	14.5	< 0.1	< 0.1	40	33.3
Moisture Content	%	0.01	NONE	21	12	5	3.3	14
Total mass of sample received	kg	0.1	NONE	1	0.6	0.6	0.6	0.6

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	Not-detected	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	DKI	-	-	-	-
Analysis completed	N/A	N/A	N/A	18/07/2025	-	-	-	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	7.4	8	8.4	8.8	8.3
Total Cyanide	mg/kg	1	MCERTS	< 1.0	-	-	-	-
Total Sulphate as SO ₄	mg/kg	50	MCERTS	540	-	-	-	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	89	19	9.7	13	67
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0446	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	44.6	-	-	-	-
Water Soluble SO ₄ 16hr extraction (2:1)	mg/l	1.25	MCERTS	-	9.64	4.86	6.34	33.3
Sulphide	mg/kg	1	MCERTS	< 1.0	-	-	-	-
Total Sulphur	mg/kg	50	MCERTS	260	-	-	-	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.2	-	-	-	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	4	-	-	-	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	-	-	-	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	< 0.05	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	< 0.05	-	-	-	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	< 0.80	-	-	-	-
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Analytical Report Number: 25-036969
 Project / Site name: Carmarthen West
 Your Order No: 14439 JM

Lab Sample Number	612594		612595		612596		612597		612598	
Sample Reference	TP08		TP01		TP04		TP05		TP07	
Sample Number	None Supplied		None Supplied		None Supplied		None Supplied		None Supplied	
Water Matrix	N/A		N/A		N/A		N/A		N/A	
Depth (m)	0.40		1.20		1.40		1.10		1.10	
Date Sampled	10/07/2025		10/07/2025		10/07/2025		10/07/2025		10/07/2025	
Time Taken	None Supplied		None Supplied		None Supplied		None Supplied		None Supplied	
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status							

Heavy Metals / Metalloids

Element	Unit	Limit	MCERTS	612594	612595	612596	612597	612598
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	14	-	-	-	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.51	-	-	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	-	-	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	-	-	-	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	-	-	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	18	-	-	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	21	-	-	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	-	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	23	-	-	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	1.7	-	-	-	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	41	-	-	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	88	-	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 25-036969
 Project / Site name: Carmarthen West
 Your Order No: 14439 JM

Lab Sample Number				612599
Sample Reference				TP08
Sample Number				None Supplied
Water Matrix				N/A
Depth (m)				1.20
Date Sampled				10/07/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Stone Content	%	0.1	NONE	44
Moisture Content	%	0.01	NONE	5,3
Total mass of sample received	kg	0.1	NONE	0.6

Asbestos

Asbestos in Soil Detected/Not Detected	Type	N/A	ISO 17025	-
Asbestos Analyst ID	N/A	N/A	N/A	-
Analysis completed	N/A	N/A	N/A	-

General Inorganics

pH (L099)	pH Units	N/A	MCERTS	8
Total Cyanide	mg/kg	1	MCERTS	-
Total Sulphate as SO ₄	mg/kg	50	MCERTS	-
Water Soluble Sulphate as SO ₄ 16hr extraction (2:1)	mg/kg	2.5	MCERTS	40
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	mg/l	1.25	MCERTS	-
Water Soluble SO ₄ 16hr extraction (2:1)	mg/l	1.25	MCERTS	20.1
Sulphide	mg/kg	1	MCERTS	-
Total Sulphur	mg/kg	50	MCERTS	-
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	-
Loss on Ignition @ 450°C	%	0.2	MCERTS	-

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-
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Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-
Acenaphthylene	mg/kg	0.05	MCERTS	-
Acenaphthene	mg/kg	0.05	MCERTS	-
Fluorene	mg/kg	0.05	MCERTS	-
Phenanthrene	mg/kg	0.05	MCERTS	-
Anthracene	mg/kg	0.05	MCERTS	-
Fluoranthene	mg/kg	0.05	MCERTS	-
Pyrene	mg/kg	0.05	MCERTS	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-
Chrysene	mg/kg	0.05	MCERTS	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-
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Analytical Report Number: 25-036969
Project / Site name: Carmarthen West
Your Order No: 14439 JM

Lab Sample Number				612599
Sample Reference				TP08
Sample Number				None Supplied
Water Matrix				N/A
Depth (m)				1.20
Date Sampled				10/07/2025
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	Units	Test Limit of detection	Test Accreditation Status	

Heavy Metals / Metalloids

Analytical Parameter	Units	Test Limit of detection	Test Accreditation Status	Result
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	-
Boron (water soluble)	mg/kg	0.2	MCERTS	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-
Chromium (hexavalent)	mg/kg	1.8	MCERTS	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 25-036969
Project / Site name: Carmarthen West

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
612589	TP01	None Supplied	0.1	Brown loam and sand with gravel and vegetation
612590	TP02	None Supplied	0.5	Brown loam and sand with gravel and vegetation
612591	TP03	None Supplied	0.1	Brown loam and sand with gravel and vegetation
612592	TP04	None Supplied	0.4	Brown loam and sand with vegetation and stones
612593	TP07	None Supplied	0.1	Brown loam and clay with gravel and vegetation
612594	TP08	None Supplied	0.4	Brown sand with gravel and stones
612595	TP01	None Supplied	1.2	Brown clay and sand
612596	TP04	None Supplied	1.4	Brown sand with gravel
612597	TP05	None Supplied	1.1	Brown sand with gravel and stones
612598	TP07	None Supplied	1.1	Brown clay and sand with gravel and stones
612599	TP08	None Supplied	1.2	Brown sand with gravel and stones

Analytical Report Number : 25-036969
Project / Site name: Carmarthen West

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques	In-house method based on HSG 248, 2021	A001B	D	ISO 17025
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate (Walkley Black Method)	In-house method	L009B	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode	In-house method	L010-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically (up to 30°C)	In-house method	L019B	W	NONE
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight	In-house method based on British Standard Methods and MCERTS requirements.	L019B	D	NONE
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil	L038B	D	MCERTS
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES	In-house method based on Second Site Properties version 3	L038B	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES	In-house method	L038B	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Sulphate, water soluble, in soil (16hr extraction)	In-house method	L038B	D	MCERTS
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES	In-house method	L038B	D	MCERTS
Loss on ignition of soil @ 450°C	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	In-house method	L047-PL	D	MCERTS
Speciated PAHs and/or Semi-volatile organic compounds in soil	Determination of semi-volatile organic compounds (including PAH) in soil by extraction in dichloromethane and hexane followed by GC-MS	In-house method based on USEPA 8270	L064B	D	MCERTS
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry	In-house method	L080-PL	W	MCERTS
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L080-PL	W	MCERTS

Analytical Report Number : 25-036969
 Project / Site name: Carmarthen West

Water matrix abbreviations:
 Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters Heating/Cooling (PrW) DI Process Water (DI PrW)
 Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement	In-house method	L099-PL	D	MCERTS
Soil Descriptions	Textural classification	In-house method	L019B	W	NONE

For method numbers ending in 'UK' or 'A' analysis have been carried out in our laboratory in the United Kingdom (Watford).
 For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
 For method numbers ending in 'PL' or 'B' analysis have been carried out in our laboratory in Poland.
 Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.
 Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Quality control parameter failure associated with individual result applies to calculated sum of individuals.
 The result for sum should be interpreted with caution

APPENDIX E

LABORATORY GEOTECHNICAL TEST RESULTS



2788

Laboratory Report



Contract Number: 79807

Client Ref: **14439**

Client PO: **14439/JM**

Date Received: **14-07-2025**

Date Completed: **25-07-2025**

Report Date: **25-07-2025**

Client: **Integral Geotechnique (Wales) Limited**

This report has been checked and approved by:

Contract Title: **Carmarthen West**

For the attention of: **Joe Massey**

Shaun Jones

Laboratory manager

Description	Qty
Determination of water content BS EN ISO 17892-1:2014 - @ Non Accredited Test	5
4 Point Liquid & Plastic Limit.. BS EN ISO 17892-12 - * UKAS	5

Notes: Observations and Interpretations are outside the UKAS Accreditation

* - denotes test included in laboratory scope of accreditation

- denotes test carried out by approved contractor

@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This test report/certificate shall not be reproduced except in full, without the approval of GEO Site & Testing Services Ltd. Any opinions or interpretations stated - within this report/certificate are excluded from the laboratories UKAS accreditation.

Approved Signatories:

Brendan Evans (Senior Office Administrator) - Brendan Evans (Business Support Co-ordinator) - Darren Bourne (Quality Senior Technician)

Paul Evans (Director) - Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager)

Shaun Thomas (Site Manager) - Wayne Honey (HR & HSE Manager)

APPENDIX F

SUMMARY OF LABORATORY CHEMICAL TEST RESULTS

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14439
 Site: Carmarthen West
 Soil Type: Topsoil
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	TP01	0.10	16	1.6	0.55	0.2	25	< 1.8	24	47	< 0.3	15	2.2	36	90
3	TP03	0.10	16	1.4	0.49	< 0.2	24	< 1.8	23	42	< 0.3	17	1.8	34	91
5	TP07	0.10	18	1.7	0.57	0.2	26	< 1.8	32	74	0.5	17	2	37	100
Screening Criteria Value			37.0	290.0	1.7	11.0	-	6.0	2400.0	200.0	1.2	130.0	250.0	410.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS
INORGANIC CHEMICALS & OTHERS

Job No.: 14439
 Site: Carmarthen West
 Soil Type: Topsoil
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (g/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
1	TP01	0.10	< 1.0	8.50	19.00	< 1.0	7.50	0.034	1100.00	< 1.0	610.00	3.60	6.19	Not-detected	#N/A
3	TP03	0.10	< 1.0	9.50	17.00	< 1.0	7.40	0.039	960.00	< 1.0	590.00	4.10	7.05	Not-detected	#N/A
5	TP07	0.10	< 1.0	9.90	20.00	< 1.0	7.40	0.044	1100.00	< 1.0	650.00	4.30	7.40	Not-detected	#N/A
Screening Criteria Value			34.0	-	-	120.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 14439
 Site: Carmarthen West
 Soil Type: Topsoil
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
1	TP01	0.10	< 0.05	< 0.05	< 0.05	0.24	0.25	0.33	0.16	0.14	0.28	< 0.05	0.33	< 0.05	0.13	< 0.05	0.1	0.3
3	TP03	0.10	< 0.05	< 0.05	0.09	0.57	0.65	0.77	0.37	0.34	0.69	0.07	0.96	< 0.05	0.31	< 0.05	0.29	0.87
5	TP07	0.10	< 0.05	< 0.05	< 0.05	0.2	0.26	0.33	0.15	0.15	0.26	< 0.05	0.33	< 0.05	0.14	< 0.05	0.09	0.28
Screening Criteria Value			210.0	170.0	2400.0	7.2	2.2	2.6	320.0	77.0	15.0	0.24	280.0	170.0	27.0	2.3	95.0	620.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14439
 Site: Carmarthen West
 Soil Type: Superficial Soil
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
2	TP02	0.50	15	0.7	0.62	< 0.2	29	< 1.8	25	30	< 0.3	27	2.2	37	110
4	TP04	0.40	20	1	0.61	< 0.2	27	< 1.8	28	48	< 0.3	23	1.9	38	100
6	TP08	0.40	14	0.5	0.51	< 0.2	31	< 1.8	18	21	< 0.3	23	1.7	41	88
Screening Criteria Value			37.0	290.0	1.7	11.0	-	6.0	2400.0	200.0	1.2	130.0	250.0	410.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS
INORGANIC CHEMICALS & OTHERS

Job No.: 14439
 Site: Carmarthen West
 Soil Type: Superficial Soil
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (g/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
2	TP02	0.50	< 1.0	4.60	16.00	< 1.0	8.70	0.036	620.00	< 1.0	280.00	1.60	2.75	Not-detected	#N/A
4	TP04	0.40	< 1.0	7.00	12.00	< 1.0	7.70	0.033	830.00	< 1.0	470.00	2.70	4.64	Not-detected	#N/A
6	TP08	0.40	< 1.0	4.00	21.00	< 1.0	7.40	0.045	540.00	< 1.0	260.00	1.20	2.06	Not-detected	#N/A
Screening Criteria Value			34.0	-	-	120.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 14439
 Site: Carmarthen West
 Soil Type: Superficial Soil
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
2	TP02	0.50	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
4	TP04	0.40	< 0.05	< 0.05	< 0.05	0.16	0.16	0.23	< 0.05	0.08	0.19	< 0.05	0.3	< 0.05	0.09	< 0.05	0.16	0.25
6	TP08	0.40	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Screening Criteria Value			210.0	170.0	2400.0	7.2	2.2	2.6	320.0	77.0	15.0	0.24	280.0	170.0	27.0	2.3	95.0	620.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

FIGURES



Site Location

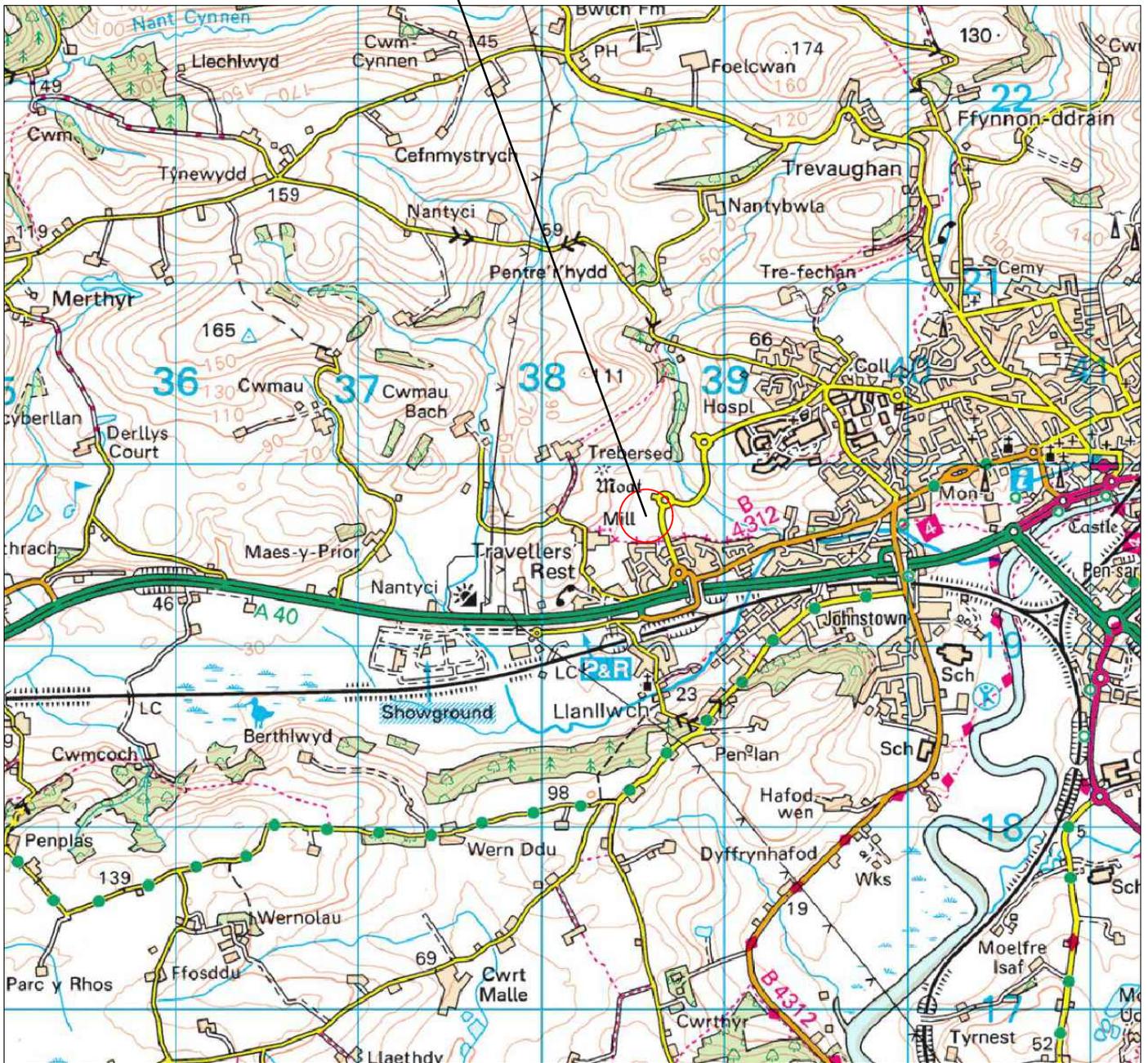


Figure 1: Site Location

Project: Land at Carmarthen West

Job no.: 14439

Client: Lovell Partnerships

Scale: 1:35000 at A4

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Question 3: Placemaking, Site Tenures & Phasing: 3.1 Proposed Masterplan



Land at Carmarthen West
Residential Development Opportunity

theurbanists **LOVELL**

Figure 2: Illustrative Phase 1 Masterplan

Project: Land at Carmarthen West

Job No.: 14439

Client: Lovell Partnerships

Scale: NTS

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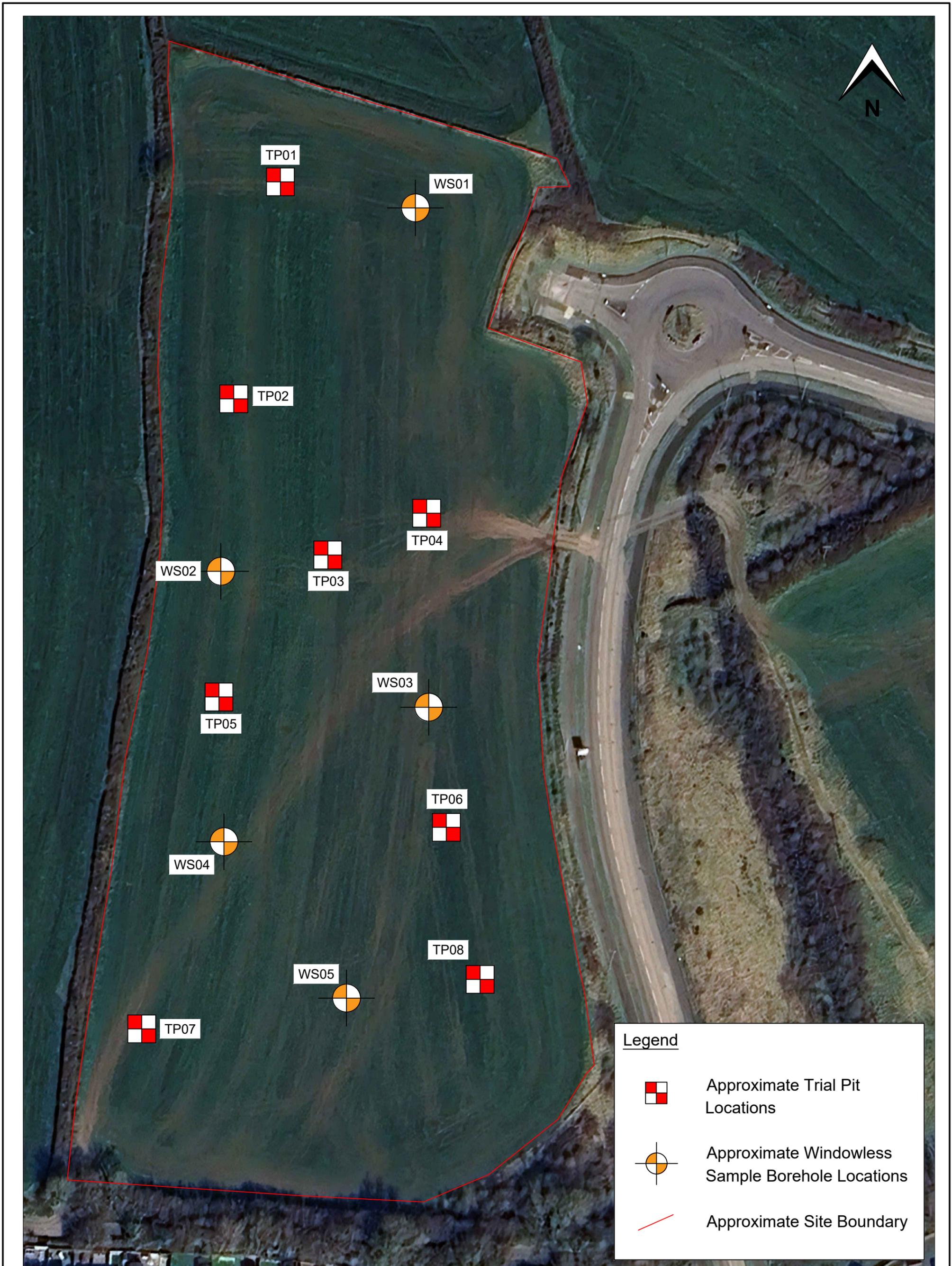


Figure 3: Site Plan

Project: Land at Carmarthen West

Client: Lovell Partnerships

Job No.: 14439

Scale: NTS

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