

### MLM Environmental

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Eunomia Research & Consulting Ltd On behalf of Pembrokeshire County Council

**Building 41 Pembroke Dock** 

Phase 1 Preliminary Contamination Assessment Report

Document Ref: 771879-REP-ENV-001 Prepared: M. Henderson Revision: Principal Environmental \_ Consultant Date: April 2014 Checked: J. Warth Senior Environmental Consultant W. M. Henderson Approved: Environmental Principal Consultant

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### **Project Revision Sheet**

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-	15 April	Final	-	M Henderson	M Henderson

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#### Executive Summary

Details	Summary of Main Text					
Introduction	This report has been prepared on the instructions of Eunomia Research & Consulting Ltd. It presents the results of a preliminary contamination assessment for the site, which is intended to be redeveloped for a waste-related end use.					
Site Description	The site is located within an industrialised area of Pembroke Dock and is disused, comprising a large warehouse structure in the centre of the site. North and south of the building are laydown areas surfaced mainly by concrete. Electricity apparatus is in the southeast.					
Site History	The site has been part of Pembroke Docks (previously Paterchurch Dock Yard) since at least 1841. Dock yard activities have occurred in the surrounding area including a steam saw mill, boiler shop and millwright's shop in the northeast on the site itself. A gas works was 60m to the southwest. The site was subjected to aerial bombing during WW2.					
Environmental Setting	The site is directly underlain by Pembroke Limestone Group and Black Rock Subgroup and Great Oolite Formation (principal aquifers). The site is not within a groundwater source protection zone.					
	Milford Haven is located approximately 175m to the west and 220m north of the site.					
	The site is bordered in all directions by industrial uses.					
Potential Contamination Sources	<ul> <li>The site is in an area affected by radon.</li> <li>The desk study and site reconnaissance have identified the following potential sources of contamination that could affect current site condition:</li> <li>Steam saw mill, boiler shop and millwright's shop in the northeast</li> <li>Demolition fills and chimney (boiler) in the south</li> <li>Electricity apparatus in the southeast</li> <li>Surrounding dock yard activities</li> <li>Gas works 60m southwest</li> <li>Wartime UXO</li> <li>Radon</li> </ul>					
Risk Ratings	Very Low to Moderate					
Risk Assessment Findings	<ul> <li>Risk ratings of moderate or greater indicate potentially complete source-pathway-receptor linkages that can require further investigation and mitigation. The following have been identified at the site.</li> <li>Site users from hydrocarbons in groundwater (exposure to hydrocarbon vapour)</li> <li>Construction and services repair workers during ground works (exposure to metals, hydrocarbons, PAHs and asbestos in soil)</li> <li>Site users from radon gas</li> </ul>					
Recommendations	<ul> <li>Intrusive investigation to confirm desk study findings.</li> <li>Asbestos survey of structures to be demolished or refurbished.</li> <li>There is a legal requirement for employers to carry out a risk assessment for radon gas in the workplace.</li> <li>For any ground floor office space, radon protection may be required.</li> </ul>					

#### Desk Study General Notes

- 1 This report provides available factual data for the site at the time of the study and as obtained from the sources described in the text. The data is related to the site on the basis of the site location information provided by the Client.
- 2 It should be appreciated that the desk study information is not necessarily exhaustive and that further information relevant to the proposed site usage may be available.
- 3 The accuracy of map extracts cannot be guaranteed and it should be recognised that different conditions on site may have existed between and subsequent to the various map surveys.
- 4 Any borehole data from the British Geological Survey sources is included on the following basis: 'The British Geological Survey accept no responsibility for omissions or misinterpretations of the data from their Data Bank as this may be old or obtained from non-BGS sources and may not represent current interpretation'.
- 5 The identification and assessment of potential of geotechnical issues is excluded from this report, although such assessments can be undertaken by MLM Environmental if required.
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- 7 The content of websites visited during the internet searches has not been validated and is accepted *de facto* and without prejudice. Anyone relying upon the information obtained from such sources does so at their own risk. Notwithstanding, MLMCEL takes all reasonable care in assessing information only from reputable and professional sources.
- 8 This report was prepared only for our Client and was not intended to be relied on by any other party. Third parties should not rely on the facts, matters or opinions set out in this report without the express written permission of MLM Environmental.

#### 1 Introduction

#### 1.1 General

This report has been prepared by MLM Consulting Engineers Limited (MLMCEL) on the instructions of Eunomia Research & Consulting Ltd on behalf of Pembrokeshire County Council, which is proposing to develop the site as a waste transfer station.

#### 1.2 Terms of Reference

The terms of reference for the work were set out in the MLMCEL proposal 771879-FEE-ENV-001 dated 27 March 2014.

#### 1.3 Scope of Work

This Phase I Preliminary Contamination Assessment report presents the readily available information on and addresses the following:

- Current use and condition of the site based on a site walkover
- Previous uses of the site and surroundings based on available historical mapping and data
- Environmental setting in terms of geology, hydrogeology, hydrology and surrounding land use
- Environmental data searches
- Development of a preliminary conceptual site model and identification of potential risks to human health and environmental receptors
- Proposals for further investigation

#### 1.4 Technical Approach

The process of assessment adopted in this report follows procedures provided in relevant guidelines as follows:

- Model Procedures for the Management of Land Contamination. Environment Agency Contaminated Land Report 11 (CLR11)
- GPLC1 Guiding principles for land contamination. Environment Agency 2010
- British Standards Institution (2011) BS10175 Investigation of Potentially Contaminated Sites Code of Practice
- National Planning Policy Framework (NPPF) (2012)
- Welsh Local Government Association (2012) Development of land affected by contamination: a guide for developers.

#### 1.5 Proposed Development

The site will be developed as a waste transfer station. Building 41 and external storage areas in the north and south will be retained.

#### 2 The Site

#### 2.1 Location

The site is located on Edgar Morgan Way, Pembroke Dock, Pembrokeshire. The National Grid Reference for the approximate centre of the site is 195750, 203700.

A location plan of the site is presented as Figure 1.

#### 2.2 Site Environmental Setting

#### 2.2.1 Geology

The geological map of the area shows the site to be mainly underlain by Pembroke Limestone Group (limestone). The underlying Black Rock Subgroup and Great Oolite Formation is exposed at the surface at the northern end of the site.

Superficial deposits are absent from the site.

#### 2.2.2 Hydrogeology

The Environment Agency website provides the following hydrogeological information:

Aspect	Designation	Description
Groundwater Source Protection Zone	No SPZ	The site is not within a catchment area where groundwater is discharged to a source.
Bedrock Aquifer Pembroke Limestone Group	Principal Aquifer	These are deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base
Bedrock Aquifer Black Rock Subgroup and Great Oolite Formation (northern end of site)		flow on a strategic scale.

There are no public water supply abstractions within 2km of the site.

#### 2.2.3 Hydrology

Milford Haven is located approximately 175m to the west and 220m north of the site.

The site is not shown to be in an area likely to be affected by sea and river flooding.

There are no abstractions from surface waters within 250m of the site.

#### 3 Desk Study and Site Reconnaissance

#### 3.1 General

A desk study has been carried out using information obtained from a Landmark Envirocheck report for the area commissioned by MLMCEL; through a review of published information, information obtained from regulatory bodies and online, and a site walkover. The full Envirocheck report has been included as Appendix A.

A walkover survey of the site was undertaken on 3 April 2014. Weather conditions were overcast with rain. Site photographs are presented in Appendix B.

#### 3.2 Site Walkover

#### 3.2.1 Site Description and Use

The 1.02 hectare site is approximately rectangular in shape (albeit tapering at the northern end).

The site was vacant at the time of the walkover and contained a large warehouse (Building 41) in the centre of the site. External laydown areas are to the north and south of the building.

#### 3.2.2 Site Levels, Groundcover and Structures

To the north of the building, the site is generally level, rising slightly in the north, and surfaced by concrete. In the south is a mix of grassed land and concrete hardstanding (former building slabs and yards).

A strip of land along the eastern boundary is elevated above the main part of the site, separated by a low blockwork retaining wall. At its northern end, this strip of land is grassed but adjacent to the building it is surfaced with concrete and separated into former storage bays.

Another strip of land along the western boundary is concrete surfaced and below the main part of the site, separated by a low concrete retaining wall behind which is Building 41.

A roadway runs alongside the south side of the building and along the eastern and western boundaries.

The only structure is a large, profile sheet steel clad, warehouse (Building 41) in the centre of the site.

A fenced compound containing electrical apparatus was in the southeast.

The site is secure from surrounding land by a combination of post and wire and metal palisade fencing along the north, east and west boundaries. There is no physical definition of the southern boundary

#### 3.2.3 Surface Water and Drainage Features

There are no surface water or drainage features on site.

#### 3.2.4 Fuel Storage

There is no evidence of fuel storage on site.

#### 3.2.5 Material and Waste Storage

There is no evidence of material and waste storage on site.

#### 3.2.6 Evidence of Potential Contamination

There is no evidence of potential contamination on site.

#### 3.2.7 Surrounding Land Use

The site is bordered to the north by storage areas and parking, to the east by warehousing and open land, to the south by vacant land and to the west by a dock basin and concrete lay down areas.

#### 3.2.8 Other Features

The site reconnaissance did not include an asbestos survey of the building on site.

#### 3.3 Site History

Historical maps have been obtained as part of the Envirocheck Report and these are presented in Appendix A.

The historical information of relevance from within 100m of the site is presented as follows:

Map Date	On Site	Surrounding Area		
1864 (1:500)	A Steam Saw Mill with associated Boiler Shop and Millwright's Shop encroach the site in the northeast.	The site is within a dockyard setting and is surrounded by associated activities including Oaking Store 50m northeast, Foundry 30m northeast, Coal Yard 30m east, Painters Shop 40m east, three Timber Sheds 10 – 30m east, Saw Pits Shed 70m east, Joiners' Shop 15m south, Gas Works 60m southwest and Mast Pool 20m west.		
1866 (1:2,500)	No structures shown on site.	Joiners' Shop 15m south is indicated to be a Saw Pit.		
1908 (1:2,500)	No structures shown on site.	Gas Works 60m southwest is indicated to be disused.		
No wartime and inter-war map coverage	-	-		
1953 (1:10,000)	No structures shown on site.	Flying Boat Base is surrounding site.		
1967 (1:2,500)	A large rectangular building is in the centre of the site. A complex of buildings is in the south associated with which is a chimney.	Pembroke Dockyard is surrounding site in all directions however there are no details of individual building or land uses.		

Table 3.1Historical Map Summary

1989 – 1995 (1:2,500)	The complex of buildings in the south is shown as a single square unit with two outbuildings.	No change from previous edition.
1996 (1:2,500)	The unit in the south has been	No change from previous edition.
	extended on its northern side.	
2006 (1:10,000)	Unit in the south no longer	No change from previous edition.
	present.	

Internet searches indicate that prior to Pembroke Dock (in 1819) the site was located in an area known as Paterchurch Dock Yard. The dock yard was the target of severe German bombing raids throughout the period 1940 – 1941.

#### 3.3 Environmental Searches

Environmental data has been obtained for the site from a Landmark Envirocheck report and from data provided by the Environment Agency and local authority or their websites. Table 3.2 summarises these data.

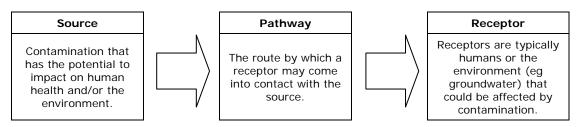
Table 3.2Environmental Data

Aspect	On Site	0 – 250m	Comment
Discharge Consents	0	3	None within 100m
Pollution Incidents to Controlled Waters	0	2	Nearest was 99m north involving the discharge of effluent from a boat and was a category 3 minor incident.
Licensed Waste Management Facilities	0	2	Nearest is 23m north for mixed metal recycling operated by Dockyard Motors.
Radon Affected Areas	1	-	Site is in a higher probability radon area requiring full radon protection in new dwellings or extensions
Contemporary Trade Directory Entries	0	13	Six within 100m:
			Mechanical engineers 28m NE
			Pallets 34m N
			Electrical engineers 41m N
			Electrical goods sales 75m SW
			Car dealers 77m E
			Scrap metal merchant 93m NE

#### 4 Conceptual Site Model and Preliminary Assessment

#### 4.1 General

The assessment of risk from contamination follows the source-pathway-receptor approach. Each of these elements is described as follows.



Without a source-pathway-receptor linkage in place, it is considered that there is no risk of harm and remediation is unlikely to be required.

If, however, there is a linkage between source and receptor then a risk-based approach is used to assess the significance or potential impact of the SPR-linkage to determine if remediation is required.

Such an assessment involves Quantitative Risk Assessment (QRA). The QRA process involves the identification of sources based on historical mapping, data searches and site walkover, together with identification of the exposure pathway and sensitive receptor. A Conceptual Site Model (CSM) is then developed and presented that shows the possible pollution linkages.

In terms of identifying *significant* pollution linkages (ie those that require remediation), MLM assigns a level of risk (ranging from Very High to Very Low) to each. Where the level of risk is Moderate or greater, then the pollution linkage is considered to be 'significant' and remediation is required. Risk definitions are provided in Appendix C.

#### 4.2 Potential Sources of Contamination

Based on the information obtained/presented in the previous sections, potential sources of contamination that could impact on receptors have been identified and are summarized in tables 4.1 and 4.2 below.

Source	Location On Site	Activity	Potential Contaminants	
Historical steam saw mill, boiler shop and millwright's shop	Northeast	Timber cutting, steam generation and metal and wood working	Metals, hydrocarbons, PAHs, asbestos	
Historical buildings	South	Demolition fill	Metals, PAH, asbestos	
Historical chimney	South	Possibly associated with steam or heat generation	PAHs, asbestos	
Wartime bombing	Whole site	Air raids	Unexploded ordnance	
Electricity aparatus	Southeast	Electricity transformation	Hydrocarbons, PCBs	
Natural geology	Whole site	Radon emissions	Radon gas	

 Table 4.1
 Potential Sources of Contamination – On Site

Source	Location Off Site	Activity	Potential <u>Mobile</u> Contaminants	
Historical Pembroke Dock	Within 100m in all directions	Oaking store, foundry, painter's shop, timber sheds, saw pits and joiner's shops	Hydrocarbons and hydrocarbon vapour, PAHs, PCBs	
Historical gas works	60m SW	Gas production	PAHs, hydrocarbons and hydrocarbon vapour	

 Table 4.2
 Potential Sources of Contamination – Off Site

#### 4.3 Potential Exposure Pathways

Table 4.3 below presents a review of the identified potential pathways that could exist at the site, whether or not a source of contamination has been identified above.

Receptor	Pathway	Present	Notes				
Human Health	Human Health						
Future Site Users	Dermal contact, ingestion or inhalation of soil and soil dust	NO	Site will be capped with buildings and external hardstanding				
	Migration in permeable strata and inhalation of gas and organic vapour	YES	Occupied buildings will be on site				
	Migration in permeable strata, accumulation and risk of explosion	YES	Occupied buildings will be on site				
Adjacent Site Users	Ingestion/inhalation of windblown dust	YES	Site will be capped with buildings and external hardstanding, however increased risk during construction phase				
Construction and Services Maintenance	Dermal contact, ingestion or inhalation of soil and soil dust	YES	Site workers could come into contact with soil contamination during groundworks				
Workers	Direct contact and explosion	YES	Potential for UXO during ground works				
Development							
Future Plant Life	Plant uptake in landscape area	NO	Site will be capped with buildings and hardstanding				
Water Supply Pipes	Contact with contaminated material	YES	Water supply pipes will be constructed below ground				

 Table 4.3
 Potential Exposure Pathways and Receptors

Environment							
Surface Water: Milford Haven estuary	Surface runoff	NO	Majority of site is capped with hardstanding/building and there will be no surface runoff across bare soils. Area of bare soils in the southeast is level				
	Groundwater movement	YES	Groundwater is likely to be in hydraulic connection with estuary				
Bedrock aquifers	Leaching from soil and vertical fluid movement	YES	Bedrock aquifer is unconfined.				

#### 4.4 Potentially Complete SPR-Linkages

Based on the sources, pathways and receptors identified above, table 4.4 below summarises all potentially complete pollutant linkages for the site and identifies the level of risk from each.

Source	Location	Contaminants	Pathway	Receptor	Likelihood	Potential Magnitude	Overall Risk	Justification and/or Mitigating Factors
Steam saw mill, boiler shop and	Northeast	South	dermal	Construction and services repair workers	Possible	Moderate	Moderate	Exposure to soil contamination during ground works.
millwright's shop Demolition fill and chimney	South		fugitive	Adjacent site users	Possible	Mild	Low	Exposuretosoilcontamination(as airbornedusts)duringgroundworks.Surroundinglandindustrialandlowsensitivity.
(boiler)			vertical fluid	Bedrock principal aquifer	Unlikely	Moderate	Low	Majority of site area capped with building and hardstanding which will reduce infiltration and leaching.
			Groundwater movement	Milford Haven	Unlikely	Mild	Very Low	Groundwater contamination from soil leaching is unlikely. Dilution at the receptor will be considerable.
		Hydrocarbons	Migration and contact	Water supply pipes	Likely	Moderate	Moderate	New services will be constructed below ground.
		Asbestos	Fibre inhalation	Construction and services repair workers	Possible	Severe	Moderate	Exposure to soil contamination during ground works.
				Adjacent site users	Possible	Severe	Moderate	Exposure to soil contamination (as airborne dusts) during ground works.
		Hydrocarbons and hydrocarbon vapour	Vapour inhalation	Site users	Possible	Moderate	Moderate	Hydrocarbons in soil could generate organic vapour and migrate into buildings.
Geology	Whole site	Radon	Migration and inhalation	Site users	Possible	Severe	Moderate	Proposal is for low sensitivity industrial use. Current building is open plan with high ceiling; therefore radon gas build up is unlikely. However, increased risk for ground floor offices if proposed.

#### Table 4.4Potentially Complete SPR-Linkages (on site sources of contamination)

Source	Location	Contaminants	Pathway	Receptor	Likelihood	Potential Magnitude	Overall Risk	Justification and/or Mitigating Factors
Electricity apparatus	Southeast	Hydrocarbons, PCB	Ingestion, dermal contact and fugitive inhalation	Construction and services repair workers	Unlikely	Moderate	Low	Exposure to soil contamination during ground works. Fluids used in substation transformers are in small quantities
				Adjacent site users	Unlikely	Mild	Low	Exposure to soil dust contamination during ground works. Surrounding land mainly industrial and low sensitivity. Fluids used in substation transformers are in small quantities
			Leaching from soil and vertical fluid movement	Bedrock principal aquifer	Unlikely	Moderate	Low	Majority of site area capped with building and hardstanding which will reduce infiltration and leaching. Fluids used in substation transformers are in small quantities and have low mobility.
			Groundwater movement	Milford Haven	Unlikely	Mild	Very Low	Groundwater contamination from soil leaching is unlikely. Dilution at the receptor will be considerable.
		Hydrocarbons, PAH	Migration and contact	Water supply pipes	Likely	Moderate	Moderate	New services will be constructed below ground
		Hydrocarbons and hydrocarbon vapour	Vapour inhalation	Site users	Unlikely	Moderate	Low	Hydrocarbons used in substation transformers have low volatility
Wartime bombing	Whole site	UXO	Direct contact and explosion	Construction and services repair workers	Very Unlikely	Severe	Low	Site is underlain by bedrock and has been redeveloped since WW2

#### Table 4.4 Potentially Complete SPR-Linkages (continued) (on site sources of contamination)

Table 4.5	Potentially Complete SPR-Linkages	(off site sources of mobile contamination)
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Source	Location	<u>Mobile</u> Contaminants	Pathway	Receptor	Likelihood	Potential Magnitude	Overall Risk	Justification and/or Mitigating Factors
Pembroke Dock historical activities	All directions	Hydrocarbons and hydrocarbon vapour	Migration in groundwater and inhalation	Site users	Possible	Moderate	Moderate	Hydrocarbons in groundwater, moving beneath the site, could generate organic vapour and migrate into
Gas works	60m SW							buildings

#### 5 Summary and Recommendations

#### 5.1 Summary

The site is currently disused comprising a large warehouse structure in the centre of the site, north and south of which are laydown areas surfaced mainly by concrete.

The site has been part of Pembroke Docks (previously Paterchurch Dock Yard) since at least 1841. Dock yard activities have occurred in the surrounding area including a steam saw mill, boiler shop and millwright's shop in the northeast on the site itself. A gas works was 60m to the southwest.

During WW2, the docks were subjected to significant aerial bombing. However, given the ground conditions beneath the site and previous development, UXO is unlikely to be present.

The site is directly underlain by Pembroke Limestone Group and Black Rock Subgroup and Great Oolite Formation (principal aquifers).

Milford Haven is located approximately 175m to the west and 220m north of the site.

The site is in a radon affected area.

The desk study and site reconnaissance have identified potential sources of contamination as follows:

- Steam saw mill, boiler shop and millwright's shop in the northeast
- Demolition fills and chimney (boiler) in the south
- Electricity substation in the southeast
- Surrounding dock yard activities
- Gas works 60m southwest
- Wartime UXO
- Radon

Qualitative risk assessment has identified potentially complete SPR-linkages as follows:

- Moderate risk to site users from hydrocarbons in groundwater from surrounding historical dock yard activities and gas works (exposure to hydrocarbon vapour)
- Moderate risk to construction and services repair workers during ground works (exposure to metals, hydrocarbons, PAH and asbestos in soil)
- Moderate risk to site users from radon gas
- Moderate risk to water supply pipes from hydrocarbons and PAH in soil
- Low risk to construction and services repair workers during ground works (exposure to UXO)
- Low risk to bedrock aquifer
- Very low risk to Milford Haven estuary

#### 5.2 Recommendations

The moderate risks (above) warrant further investigation and a more detailed assessment to establish what, if any, remediation or mitigation is necessary for development.

The following elements of investigation are advised:

• Soil sampling and testing in the northeast (former steam saw mill etc) and south (demolition fills and boiler chimney)

An asbestos survey is advised for any buildings that are to be demolished or refurbished.

There is a legal requirement, via the Health and Safety at Work etc Act 1974, for employers to carry out a risk assessment for radon gas in the workplace. The HSE advises the following for above ground workplaces in areas affected by radon, *"for the vast majority of above ground workplaces the risk assessment should include radon measurements in appropriate ground floor rooms".* 

For any new ground floor office space on site, radon protection may be required.

#### 6 References

- 1 British Standards Institution (2011) BS10175 Investigation of Potentially Contaminated Sites - Code of Practice
- 2 Environment Agency (2004) *Model Procedures for the Management of Land Contamination* Contaminated Land Report 11 (CLR11)
- 3 Environment Agency (2010) *GPLC1 Guiding Principles for Land Contamination*
- 4 British Geological Survey 1:50,000 scale Geology Map, Solid and Drift Edition -Sheet 228 Haverfordwest.
- 5 Landmark Envirocheck Report 54770190 (28 March 2014)

### Figures

Figure 1: Site Location Plan



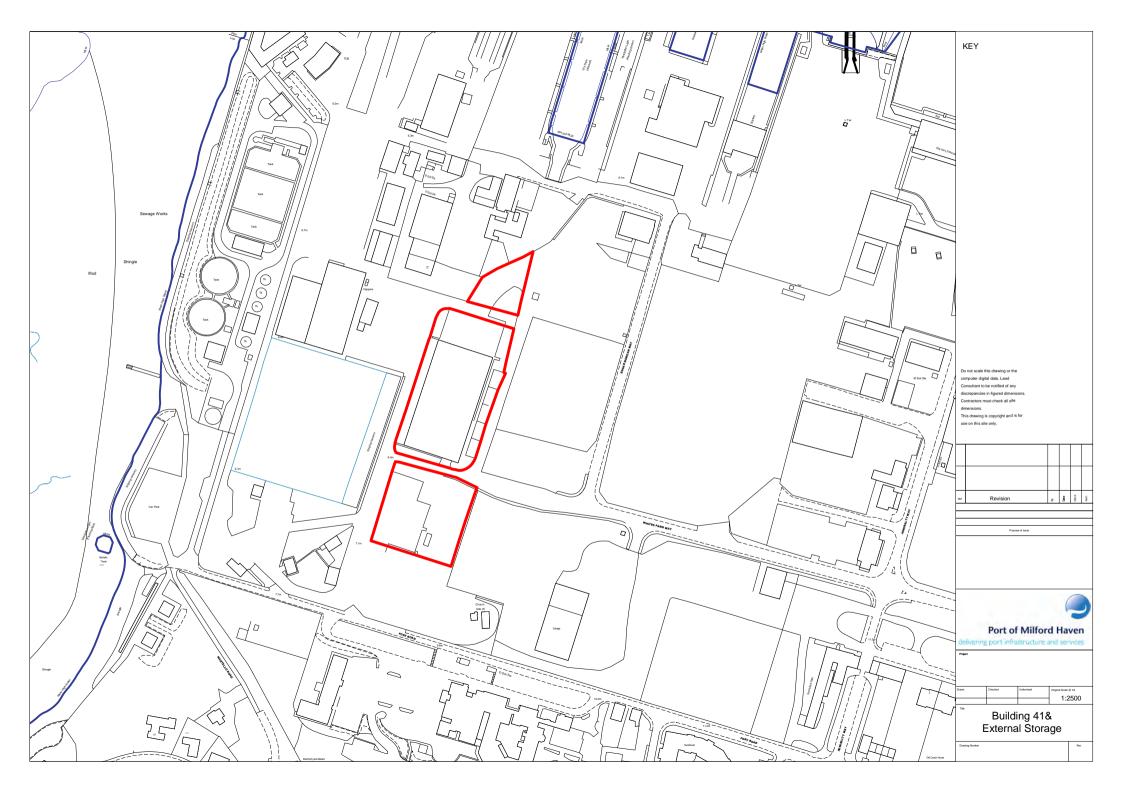
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Building 41 Pembroke Dock Site Location Plan Job No. 771879

Figure No. **1**  Drawings

Port of Milford Haven Building 41 & External Storage



### Appendices

Appendix A:	Envirocheck Report
Appendix B:	Site Photographs
Appendix C:	Risk Definitions

Appendix A

Envirocheck Report



## **Envirocheck® Report:**

## **Datasheet**

### **Order Details:**

Order Number: 54770190\_1\_1

Customer Reference: 771879

## National Grid Reference: 195750, 203700

Slice:

Site Area (Ha): 1.02

Search Buffer (m): 1000

### Site Details:

Building 41 Edgar Morgan Way Pembroke Dock SA72 6TD

### **Client Details:**

Ms C Hardingham MLM Consulting Engineers Ltd 7200 Cambridge Research Park Cambridge Cambridgeshire CB25 9TL

#### **Prepared For:**

Eunomia Research & Consulting Ltd



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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 and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client.

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

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#### Report Version v47.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		3	3	14
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control	pg 6			1	
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 6		Yes		
Pollution Incidents to Controlled Waters	pg 6		2	1	13
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 9				1
Water Abstractions	pg 9				(*1)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 9	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 9	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 9		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
Detailed River Network Lines	pg 13			Yes	n/a
Detailed River Network Offline Drainage					n/a

Summary

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## Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 15		2		
Local Authority Recorded Landfill Sites					
Registered Landfill Sites	pg 15				2
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites	pg 17			1	
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS 1:625,000 Solid Geology			n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 18	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 24		1		
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			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 24	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 24	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 24		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 24	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 24	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 25		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 25		Yes	n/a	n/a
Radon Potential - Radon Affected Areas	pg 25	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 25	Yes	n/a	n/a	n/a

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## Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 26		13	4	13
Fuel Station Entries	pg 28				1
Sensitive Land Use					
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 29		1		
Special Areas of Conservation	pg 29		1		
Special Protection Areas					

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Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Dwr Cymru Cyfyngedig Sewerage Network - Pumping Station - Water Company Pembroke Dock To The Milford H, Pembrokeshire, Wales Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 BN0084702 1 10th April 1979 10th April 1979 Not Supplied Public Sewage: Storm Sewage Overflow Saline Estuary Milford Haven New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 100m	A13SW (W)	174	1	195520 203620
2		Milford Haven Port Authority Support Services - Inland Transport Pembroke Dock Ferry Terminal, Pembrokeshire, Wales, Sa72 6tw Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bp027620101 1 27th April 1999 27th April 1999 27th April 1999 11th April 2000 Trade Discharges - Site Drainage Saline Estuary Milford Haven Estuary New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A13NE (NE)	228	1	196000 203920
2	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Milford Haven Port Authority Support Services - Inland Transport Pembroke Dock Ferry Terminal, Pembrokeshire, Wales, Sa72 6tw Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bp027620101 2 12th April 2000 27th April 1999 Not Supplied Trade Discharges - Site Drainage Saline Estuary Milford Haven Estuary Varied by Application - (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A13NE (NE)	228	1	196000 203920
3	Discharge Consent Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Dwr Cymru Cyfyngedig Sewerage Network - Sewers - Water Company Pembroke Dock Crude Outfall Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bg0050201 1 9th August 1965 9th August 1965 21st November 1996 Sewerage System Discharge Saline Estuary Milford Haven Estuary Consent expired Located by supplier to within 100m	A18SW (NW)	478	1	195520 204190

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Map ID		Details		Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Low Level O/Fall Environment Agency, Welsh Region Not Supplied Bp0116401 1 13th December 1991 13th December 1991 5th July 1995 Unspecified Not Specified Dau Cleddau Consent expired Located by supplier to within 10m	A18SW (NW)	500	1	195510 204210
3	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Low Level O/Fall Environment Agency, Welsh Region Not Supplied Bp0116501 1 13th December 1991 13th December 1991 5th July 1995 Unspecified Not Specified Dau Cleddau Consent expired Located by supplier to within 10m	A18SW (NW)	500	1	195510 204210
3	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Dwr Cymru Cyfyngedig Sewerage Network - Sewers - Water Company Pembroke Crude Outfall Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bg0050101 1 9th August 1965 9th August 1965 21st November 1996 Sewerage System Discharge Saline Estuary Milford Haven Estuary Consent expired Located by supplier to within 100m	A18SW (NW)	504	1	195520 204220
4	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	S Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Wastewater Treatment, Pembroke Dock Wwtw, Fort Road, Pembroke Dock, Pembrokeshire Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bp0250801 6 20th December 2013 20th December 2013 20th December 2013 Not Supplied Sewage Discharges - Final/Treated Effluent - Water Company Freshwater Stream/River Milford Haven Waterway Varied under EPR 2010 Located by supplier to within 10m	A18SW (NW)	566	1	195450 204250

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consent	S				
4	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Wastewater Treatment, Pembroke Dock Wwtw, Fort Road, Pembroke Dock, Pembrokeshire Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bp0250801 5 4th April 2012 4th April 2012 19th December 2013 Sewage Discharges - Final/Treated Effluent - Water Company Freshwater Stream/River Milford Haven Waterway Varied under EPR 2010 Located by supplier to within 10m	A18SW (NW)	566	1	195450 204250
	Discharge Consent	S				
4	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: <b>Status:</b> Positional Accuracy:	Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Wastewater Treatment, Pembroke Dock Wwtw, Fort Road, Pembroke Dock, Pembrokeshire Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bp0250801 4 31st March 2010 31st March 2010 31st March 2010 31st March 2010 31st March 2010 Sewage Discharges - Final/Treated Effluent - Water Company Freshwater Stream/River Milford Haven Waterway Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A18SW (NW)	566	1	195450 204250
	Discharge Consent	S				
4	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: <b>Status:</b> Positional Accuracy:	Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Wastewater Treatment, Pembroke Dock Wwtw, Fort Road, Pembroke Dock, Pembrokeshire Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bp0250801 3 31st December 2005 31st December 2005 30th March 2010 Sewage Discharges - Final/Treated Effluent - Water Company Freshwater Stream/River Milford Haven Waterway Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A18SW (NW)	566	1	195450 204250
	Discharge Consent	S				
4	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: <b>Status:</b> Positional Accuracy:	Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Wastewater Treatment, Pembroke Dock Wwtw, Fort Road, Pembroke Dock, Pembrokeshire Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bp0250801 2 22nd December 2000 20th January 2006 Sewage Discharges - Final/Treated Effluent - Water Company Coastal Milford Haven Waterway Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Located by supplier to within 10m	A18SW (NW)	566	1	195450 204250

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Discharge Consents	ŝ				
4	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status:	Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Wastewater Treatment, Pembroke Dock Wwtw, Fort Road, Pembroke Dock, Pembrokeshire Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 BP0250803 1 31st March 1995 18th November 1994 Not Supplied Public Sewage: Storm Sewage Overflow Saline Estuary Milford Haven Waterway New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 100m	A18SW (NW)	566	1	195450 204250
	Discharge Consents	S				
4		Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Wastewater Treatment, Pembroke Dock Wwtw, Fort Road, Pembroke Dock, Pembrokeshire Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 BP0250801 1 31st March 1995 18th November 1994 21st December 2000 Sewage Discharges - Final/Treated Effluent - Water Company Coastal Milford Haven Waterway New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 10m	A18SW (NW)	566	1	195450 204250
	Discharge Consents					
4	,	Dwr Cymru Cyfyngedig Sewage Disposal Works - Water Company Pembroke Dock Wastewater Treatment, Pembroke Dock Wwtw, Fort Road, Pembroke Dock, Pembrokeshire Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 BP0250802 1 31st March 1995 18th November 1994 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River Milford Haven Waterway New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 10m	A18SW (NW)	566	1	195450 204250
5	Discharge Consents	s Dwr Cymru Cyfyngedig	A14NE	957	1	196760
5	Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	Dwi Cyfinia Cyfrigedig         Dwird Cyfrigedig         Sewerage Network - Sewers - Water Company         Lwr Meyrick St.Swo.Pemb       Pem         Environment Agency, Welsh Region         Boundary Of HA 61 & HA 62         Bp0066201         2         19th October 1989         19th October 1989         Unspecified         Coastal         Milford Haven         New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)         Located by supplier to within 10m	(E)	557		203740

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Map ID	Details		Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Issued Date: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Dwr Cymru Cyfyngedig Sewerage Network - Sewers - Water Company Lwr Meyrick St.Swo.Pemb Pem Environment Agency, Welsh Region Boundary Of HA 61 & HA 62 Bp0066201 1 9th October 1987 9th October 1987 18th October 1989 Unspecified Coastal Milford Haven Authorisation revokedRevoked Located by supplier to within 10m	A14NE (E)	957	1	196760 203740
5	-	Dwr Cymru Cyfyngedig Sewerage Network - Sewers - Water Company (B)Meyrick St Swo Pembroke Dock, (B)Meyrick St Swo Pembroke Dock Environment Agency, Welsh Region Not Supplied Bp0209401 2 8th September 2010 8th September 2010 Not Supplied Public Sewage: Storm Sewage Overflow Freshwater Stream/River Milford Haven Varied under EPR 2010 Located by supplier to within 10m	A15NW (E)	968	1	196770 203730
5	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Revocation Date: Discharge Type: Discharge Type: Discharge Environment: Receiving Water: Status: Positional Accuracy:	s Dwr Cymru Cyfyngedig Sewerage Network - Sewers - Water Company (B)Meyrick St Swo Pembroke Dock, (B)Meyrick St Swo Pembroke, Swo Pembroke Dock Environment Agency, Welsh Region Not Given BP0209401 1 19th October 1989 19th October 1989 7th September 2010 Public Sewage: Storm Sewage Overflow Freshwater Stream/River Milford Haven New Consent, by Application (Water Resources Act 1991, Section 88) Located by supplier to within 100m	A15NW (E)	968	1	196770 203730
6	Discharge Consents Operator: Property Type: Location: Authority: Catchment Area: Reference: Permit Version: Effective Date: Issued Date: Issued Date: Discharge Type: Discharge Type: Discharge Type: Discharge Type: Status: Positional Accuracy:	s Peter Hancock & Sons Ltd Domestic Property (Single) Building 130 Mr Hobbs Point Pier Rd, Mr Hobbs Point, Pier Road, Pembroke Dock Environment Agency, Welsh Region Not Given Bn0096801 1 8th November 1973 8th November 1973 31st October 1996 Unspecified Saline Estuary Milford Haven South Shore Lapsed (under Environment Act 1995, Schedule 23) Located by supplier to within 100m	A19SE (NE)	980	1	196700 204200



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	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
Integrated Pollution	Prevention And Control				
Name: Location:		A14NW (E)	406	1	196210 203779
Authority: Permit Reference: Original Permit Ref: Effective Date: <b>Status:</b> Application Type:	Environment Agency, Welsh Region JP3335LD				
Activity Code: Activity Description: Primary Activity: Activity Code:	0.0 Associated Process Associated Process N 4.1 A(1) (A) (II)				
Activity Description: Primary Activity:	Organic Chemicals; Oxygen Containing Compounds Eg Alcohols Y				
Nearest Surface Wa	ter Feature	A13NW	20	-	195705 203719
Pollution Incidents	to Controlled Waters	(1997)			200113
Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference:	Boats/Ships PEMBROKE DOCK Environment Agency, Welsh Region Farm Effluent/Slurry Poor Operational Practise 28th February 1995 22726	A13NE (N)	99	1	195800 203900
Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	Not Given Not Given Spillage Category 3 - Minor Incident				
Pollution Incidents to Controlled Waters					
Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	Llanreath Beach Environment Agency, Welsh Region Heavy Fuel Oil Milford Haven Waterway; Leachate 26th November 1997 34158 Not Given Not Given Vandalism Category 3 - Minor Incident	A13SW (W)	194	1	195500 203600
Pollution Incidents to Controlled Waters					
Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity: Positional Accuracy:		A13NE (NE)	279	1	196000 204000
Pollution Incidents to Controlled Waters					
Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	Water Company Sewage: Sewage Treatment Works Carrs Rock Outfall Environment Agency, Welsh Region Farm Effluent/Slurry Not Supplied 27th February 1995 22712 Not Given Not Given Effluent Discharge Category 3 - Minor Incident	A14SW (E)	531	1	196300 203600
	Name: Location: Authority: Permit Reference: Original Permit Ref: Effective Date: Status: Application Type: App. Sub Type: Positional Accuracy: Activity Code: Activity Code: Activity Description: Primary Activity: Nearest Surface Wa Pollution Incidents Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Area: Receiving Water: Cause of Incident: Incident Severity: Positional Accuracy: Pollutant: Note: Incident Date: Incident Cate: Incident Parea: Receiving Water: Cause of Incidents Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Cate: Incident Parea: Receiving Water: Cause of Incidents Property Type: Location: Authority: Pollutant: Note: Incident Cate: Incident Cate: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Reference: Catchment Area: Receiving Water: Cause of Incidents Property Type: Location: Authority: Pollutant Incidents Property Type: Location: Authority: Pollutant Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Cate: Incident Cate: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Cate: Incident Cate: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Cate: Incident Cat	Integrated Pollution Prevention And Control           Name:         Celtic Biodiesel Limited           Location:         Permbroke Biodiesel, The Cargo Shed, The Dockyard, Pembroke Dock, Dyfed SA72 6TD           Authority:         Environment Agency, Welsh Region           Permit Reference:         JP33SLD           Original Permit Reference:         How Sold Otto           Permit Reference:         Authority:           Application Type:         Application           Application Type:         New           Positional Accuracy:         Manually positioned to the address or location           Activity Code:         0.0 Associated Process           Primary Activity:         N           Activity Code:         4.1.4(1)(A) (II)           Activity Code:         4.1.4(1)(A) (II)           Activity:         N           Pollution Incidents to Controlled Waters           Property Type:         Boats/Ships           Location:         PEMBROKE DOCK           Authority:         Environment Agency, Welsh Region           Pollutant:         Farm Effluent/Slury           Receiving Water:         Not Given           Receiving Water:         Category 3 - Minor Incident           Incident Date:         2010 February 1995           Incid	Details         References Direction)           Integrated Pollution Prevention And Control Name:         Celit: Biolese Limited SA72 6TD SA72	Details         Reference (Compass) Direction)         Estimate From Site From Site           Integrated Pollution Prevention And Control Name:         Celto: Biodesel, United Permit Metropic         A14NW (E)         406           Name:         Celto: Biodesel, United Permit Metropic         Anany         406           Continue:         Permit Metropic Metropic Metropic Metropic Metropic Permit Metropic         A14NW (E)         406           Status:         Effective Effective Desitional Accuracy:         Manually positioned to the address or location Activity Ocean Activity Ocean Actity Activity Activity Ocean Activity Ocean Activity Oc	Details         Reference (Compared Direction)         Estimate Prom Site         Contact Prom Site           Integrated Pollution Prevention And Control Contaction:         Calls (Sindered Limited Section:         Attempt Premione Bacteria Site         Attempt Premione Bacteria Site         Attempt (S)         406         1           Contact Premione Bacteria Site         Direction Site         Direction Site         Attempt (S)         Attempt Site         At

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	o Controlled Waters Not Given Pembroke Docks, LLANREATH Environment Agency, Welsh Region Crude Sewage Not Supplied 24th November 1996 30603 Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	A7NE (SW)	576	1	195205 203305
12	Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	o Controlled Waters Not Given New South Pembrokeshire Golf Course Environment Agency, Welsh Region Heavy Fuel Oil Not Supplied 24th November 1996 30603 Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	A7NE (SW)	578	1	195205 203300
12	Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	o Controlled Waters Not Given Beach Directly Below Wtw, Llanrhyd Environment Agency, Welsh Region Heavy Fuel Oil Not Supplied 24th November 1996 30603 Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	A7NE (SW)	581	1	195205 203295
12	Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	o Controlled Waters Not Given LLANREATH Environment Agency, Welsh Region Heavy Fuel Oil Not Supplied 24th November 1996 30603 Not Given Not Given Unknown Category 2 - Significant Incident Located by supplier to within 100m	A7NE (SW)	585	1	195200 203295
13	Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	o Controlled Waters Not Given At His House, Near Llanreath Beach Environment Agency, Welsh Region Algae Natural Occurrence 24th June 1997 32745 Not Given Not Given Natural Causes Category 3 - Minor Incident Located by supplier to within 100m	A12SE (SW)	629	1	195100 203400
13	Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	o Controlled Waters Not Given At His House Near, Llanreath Beach Environment Agency, Welsh Region Algae Llanreath Beach; Natural Occurrence 24th June 1997 32745 Not Given Not Given Natural Causes Category 3 - Minor Incident Located by supplier to within 100m	A12SE (SW)	631	1	195100 203395



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
14	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters Not Given Llanreath Beach Environment Agency, Welsh Region Light Oil Llanreath Beach 14th August 1997 33242 Not Given Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m	A7NE (SW)	641	1	195200 203200
15	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters Not Given Summerfield Stores, Diamond Street, PEMBROKE DOCK Environment Agency, Welsh Region Chemicals - Other Inorganic Accident 25th June 1997 32743 Not Given Not Given Spillage Category 3 - Minor Incident Located by supplier to within 100m	A14NE (E)	901	1	196700 203700
15	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters Not Given Summerfield Stores, Diamond St, PEMBROKE DOCK Environment Agency, Welsh Region Chemicals - Other Inorganic Milford Haven; Spillage 25th June 1997 32743 Not Given Not Given Not Given Accidental Spillage/Leakage Category 3 - Minor Incident Located by supplier to within 100m	A14SE (E)	901	1	196700 203695
16	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters Not Given LLANREATH Environment Agency, Welsh Region Crude Sewage Natural Causes 15th August 1996 29816 Not Given Not Given Natural Causes Category 3 - Minor Incident Located by supplier to within 100m	A7NW (SW)	943	1	194900 203100
17	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters Not Given Hobbs Point Walkway, Laugharne Holiday Park Environment Agency, Welsh Region Crude Sewage Not Supplied 2nd August 1996 29313 Not Given Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m	A19SE (NE)	978	1	196700 204195
17	Property Type: Location: Authority: Pollutant: Note: Incident Date: Incident Reference: Catchment Area: Receiving Water: Cause of Incident: Incident Severity:	to Controlled Waters Not Given Hobbs Point Walkway, Leads Down To, Pontoon Environment Agency, Welsh Region Oils - Other Oil Not Supplied 2nd August 1996 29313 Not Given Not Given Unknown Category 3 - Minor Incident Located by supplier to within 100m	A19SE (NE)	982	1	196705 204195

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Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Substantiated Pollution Incident Register         Authority:       Environment Agency Wales, South West Area         Incident Date:       16th July 2002         Incident Reference:       91886         Water Impact:       Category 4 - No Impact         Air Impact:       Category 2 - Significant Incident         Land Impact:       Category 2 - Significant Incident         Positional Accuracy:       Located by supplier to within 10m         Pollutant:       Asbestos Waste	A7NE (SW)	555	1	195209 203339
	Water Abstractions         Operator:       Mrs J V Llewellyn         Licence Number:       22/61/5/0094         Permit Version:       100         Location:       Unnamed Stream For Use On Woodbine Farm         Authority:       Environment Agency, Welsh Region         Abstraction:       General Agriculture: Spray Irrigation - Direct         Abstraction Type:       Water may be abstracted from a single point         Source:       Surface         Daily Rate (m3):       Not Supplied         Details:       Unnamed Stream For Use On Woodbine Farm         Authorised Start:       01 May         Authorised End:       31 July         Permit Start Date:       22/nd September 1998         Permit End Date:       Not Supplied         Positional Accuracy:       Located by supplier to within 100m	(N)	1729	1	195620 205520
	Groundwater Vulnerability         Soil Classification:       Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere worst case vulnerability classification (H) assumed, until proved otherwise Sheet:         Map Sheet:       Sheet 34 Pembroke 1:100,000	e. A (NE)	0	1	195755 203695
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Desination: Principal Aquifer	A13SE (NE)	0	2	195755 203695
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	44	1	195817 203844
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	45	1	195819 203844
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	54	1	195822 203853
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	66	1	195828 203863
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	84	1	195838 203879
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	114	1	195848 203907
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	130	1	195782 203929
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	139	1	195786 203939



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	143	1	195788 203943
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	147	1	195858 203939
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	153	1	195792 203953
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (SW)	154	1	195543 203574
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (W)	156	1	195553 203683
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (W)	156	1	195551 203676
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (W)	157	1	195547 203666
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (W)	158	1	195543 203658
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	158	1	195794 203959
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (W)	159	1	195541 203654
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (N)	159	1	195733 203942
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	160	1	195862 203951
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (N)	161	1	195734 203945
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (W)	162	1	195535 203642
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	162	1	195796 203963
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (W)	163	1	195559 203734



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (W)	164	1	195531 203635
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (N)	165	1	195738 203951
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	168	1	195798 203969
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	169	1	195955 203880
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (W)	170	1	195563 203766
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	170	1	195567 203778
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	171	1	195956 203883
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	171	1	195571 203794
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	171	1	195573 203802
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	172	1	195577 203816
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	172	1	195800 203973
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	174	1	195581 203830
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	176	1	195958 203889
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	176	1	195585 203842
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	177	1	195587 203848
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (N)	177	1	195744 203967



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	178	1	195802 203979
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	179	1	195589 203856
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (N)	180	1	195746 203971
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (SW)	182	1	195527 203536
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	183	1	195592 203867
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	184	1	195594 203871
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (SW)	188	1	195523 203530
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	188	1	195806 203989
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	190	1	195598 203885
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (SW)	192	1	195521 203524
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	192	1	195600 203891
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (N)	194	1	195752 203987
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	195	1	195602 203897
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	198	1	195604 203903
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	199	1	195968 203917
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	203	1	195606 203911



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	206	1	195608 203917
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (SW)	210	1	195509 203508
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	211	1	195610 203925
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	215	1	195974 203935
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13SW (SW)	222	1	195501 203499
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	225	1	195623 203954
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	227	1	195626 203959
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NE (NE)	228	1	195983 203944
	Extreme Flooding from Rivers or Sea without Defences           Type:         Extent of Extreme Flooding from Rivers or Sea without Defences           Flood Plain Type:         Tidal Models           Boundary Accuracy:         As Supplied	A13NW (NW)	243	1	195626 203979
	Flooding from Rivers or Sea without Defences         Type:       Extent of Flooding from Rivers or Sea without Defences         Flood Plain Type:       Tidal Models         Boundary Accuracy:       As Supplied	A13NE (NE)	44	1	195817 203844
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None The LD Constant of Cons				
	Flood Defences None				
19	Detailed River Network Lines         River Type:       Tertiary River         River Name:       Not Supplied         Hydrographic Area:       D009         River Flow Type:       Primary Flow Path         River Surface Level:       Surface         Drain Feature:       Not a Drain         Flood Risk       Other Rivers         Management Status:       Water Course         Water Course       Not Supplied         Name:       Water Course	A8NW (SW)	484	1	195450 203191



Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Detailed River Network Lines				
20	River Type:Tertiary RiverRiver Name:Not SuppliedHydrographic Area:D009River Flow Type:Primary Flow PathRiver Surface Level:SurfaceDrain Feature:Not a DrainFlood RiskOther RiversManagement Status:Water CourseWater CourseNot SuppliedName:Water CourseWater CourseNot SuppliedReference:Not Supplied	A8NW (SW)	489	1	195446 203188
	Detailed River Network Lines				
21	River Type:Tertiary RiverRiver Name:Not SuppliedHydrographic Area:D009River Flow Type:Primary Flow PathRiver Surface Level:SurfaceDrain Feature:Not a DrainFlood RiskOther RiversManagement Status:Water CourseNot SuppliedName:Water CourseWater CourseNot SuppliedReference:Not Supplied	A8NW (SW)	489	1	195442 203190
	Detailed River Network Offline Drainage				
	None				

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Licensed Waste Ma	nagement Facilities (Locations)				
22	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference: Positional Accuracy:	100411 Dockyard Motors, The Old Dockyard, Pembroke Dock, Pembrokeshire, SA72 6TE Gaze James Richard Not Supplied Environment Agency Wales, South West Area Metal Recycling Sites (Mixed) Issued 21st November 2008 Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Located by supplier to within 10m	A13NE (N)	23	1	195788 203817
	-	nagement Facilities (Locations)				
23	Licence Number: Location: Operator Name: Operator Location: Authority: Site Category: Licence Status: Issued: Last Modified: Expires: Suspended: Revoked: Surrendered: IPPC Reference: Positional Accuracy:	34263 Celtic Buildings, The Old Royal Dock, Edgar Morgan Way, Pembroke Dock, Pembrokeshire, SA72 6TE David Sean Waters & Bernard Finnegan Not Supplied Environment Agency Wales, South West Area End of Life Vehicles <b>Revoked</b> 25th July 2005 Not Supplied Not Supplied Not Supplied 17th March 2011 Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied Not Supplied	A13SE (E)	73	1	195844 203675
	Local Authority Lan	dfill Coverage				
	Name:	Pembrokeshire County Council - Has supplied landfill data		0	7	195755 203695
	Registered Landfill	Sites				
24	Licence Holder: Licence Reference: Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence: Soundary Accuracy: Boundary Accuracy: Authorised Waste Prohibited Waste	Govan Davis Developments Ltd WDL/3/85 Dry Dock & Part Of West Llanion Pill, Pembroke Dock, Pembrokeshire 196650 203730 Sunderland House, The Dockyard, Pembroke Dock, Pembrokeshire Environment Agency Wales, South West Area Landfill Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) No known restriction on source of waste Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled 1st October 1986 Not Given Manually positioned to the road within the address or location Not Applicable Stone,Brick,Hardcore,Concrete Hazardous Wastes Liquid Wastes Metal Paper Plastics Toxic/Poisonous Wastes Wood	A14NE (E)	748	1	196550 203727

Waste

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### Waste

Ma IC		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Registered Landfill	Sites				
25	Licence Reference: Site Location: Licence Easting: Licence Northing: Operator Location: Authority: Site Category: Max Input Rate: Waste Source Restrictions: Status: Dated: Preceded By Licence: Superseded By Licence:	Govan Davies Dvlts. Ltd WDL/2/83 Old Dry Dock & Pill, Lower Meyrick Street, Pembroke Dock, Pembrokeshire 196700 203680 Sunderland House, The Dockyard, Pembroke Dock, Pembrokeshire Environment Agency Wales, South West Area Landfill Undefined No known restriction on source of waste Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled 1st May 1983 Not Given Not Given Manually positioned to the address or location Not Applicable Excavated Natural Materials \$ Hardcore And Rubble Hazardous Wastes Liquid Wastes Metal Scrap Plastic/Polythene (Including Sacks) Poisonous, Noxious, Polluting Wastes Toxic/Poisonous Wastes Wood Waste/Timber	A14SE (E)	903	1	196700 203680



### **Hazardous Substances**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Explosive Sites					
26	Name: Location: <b>Status:</b> Positional Accuracy:	Pembroke Port/Milford Haven Port Authority Royal Dockyard, Pembroke Dock, Pembroke, Pembrokeshire Active Manually positioned to the address or location	A13NE (NE)	272	3	196066 203877



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13SE (NE)	0	4	195755 203695
	Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	<1.8 mg/kg 60 - 90 mg/kg <150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg <1.8 mg/kg	A13NE (N)	0	4	195763 203770
	Chromium Concentration: Lead Concentration: Nickel	60 - 90 mg/kg <150 mg/kg 15 - 30 mg/kg				
	Concentration:	io - oo myrky				
		Chamister				
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration:	Chemistry British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13SW (W)	122	4	195565 203668
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13NE (NE)	130	4	195855 203921
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry		<u> </u>		
	Source: Soil Sample Type: Arsenic Concentration: Cadmium	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg <1.8 mg/kg	A13NE (N)	164	4	195758 203959
	Concentration: Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13SW (SW)	177	4	195616 203451
	Cadmium Concentration: Chromium Concentration:	<1.8 mg/kg 60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13NW (NW)	177	4	195563 203793
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13NE (E)	195	4	196000 203735
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13NE (N)	199	4	195773 204000
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel					
	Concentration:					
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13NE (N)	199	4	195785 204000
	Cadmium Concentration:	<1.8 mg/kg				
	Chromium Concentration: Lead Concentration:	60 - 90 mg/kg <150 mg/kg				
	Nickel Concentration:	15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13NE (N)	202	4	195755 204000
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:					
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration:	Chemistry British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13SW (SW)	205	4	195509 203519
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:					



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	I Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13SE (E)	205	4	196000 203695
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	I Chamiatay				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg <1.8 mg/kg	A13NW (N)	241	4	195631 204000
	Concentration: Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	I Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A13NE (NE)	242	4	196000 203945
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	I Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A8NE (SE)	368	4	196000 203324
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel					
	Concentration:					
	BGS Estimated Soil	I Chemistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A14NW (NE)	397	4	196185 203918
	Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	I Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A8SE (S)	592	4	195755 203000
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel					
	Concentration:					



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A14NW (NE)	623	4	196396 204000
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
		Chamiatau				
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration: Cadmium	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg <1.8 mg/kg	A8SE (S)	643	4	196000 203000
	Concentration: Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A8SW (S)	691	4	195710 202902
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A7NW (SW)	745	4	195000 203337
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel					
	Concentration:					
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg <1.8 mg/kg	A9NE (SE)	791	4	196430 203192
	Concentration: Chromium	60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A8SE (S)	791	4	196000 202843
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel					
	Concentration:					



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A7NW (SW)	806	4	195000 203198
	Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	<1.8 mg/kg 60 - 90 mg/kg <150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg <1.8 mg/kg	A9SW (SE)	868	4	196382 203000
	Chromium Concentration: Lead Concentration:	60 - 90 mg/kg <150 mg/kg				
	Nickel Concentration:	15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A7SW (SW)	921	4	195004 203000
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:					
	BGS Estimated Soil	Chamistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A19SE (E)	922	4	196701 204043
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel					
	Concentration:					
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg <1.8 mg/kg	A7SW (SW)	923	4	195000 203000
	Concentration: Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A7SW (SW)	923	4	195000 203001
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A14NE (E)	950	4	196735 203995
	Cadmium Concentration: Chromium Concentration: Lead Concentration: Nickel Concentration:	<1.8 mg/kg 60 - 90 mg/kg <150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration: Cadmium	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg <1.8 mg/kg	A3NE (S)	969	4	195755 202623
	Concentration: Chromium Concentration:	60 - 90 mg/kg				
	Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A14NE (E)	972	4	196755 204005
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:					
		Chamistry				
	BGS Estimated Soil Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A14NE (E)	975	4	196760 204000
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel					
	Concentration:					
	BGS Estimated Soil Source:	British Geological Survey, National Geoscience Information Service	A14NE	975	4	196760
	Soil Sample Type: Arsenic Concentration:	Sediment <15 mg/kg	(E)			204000
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:	<150 mg/kg 15 - 30 mg/kg				
	BGS Estimated Soil	Chemistry				
	Source: Soil Sample Type: Arsenic Concentration:	British Geological Survey, National Geoscience Information Service Sediment <15 mg/kg	A15NW (E)	982	4	196769 203989
	Cadmium Concentration: Chromium	<1.8 mg/kg 60 - 90 mg/kg				
	Concentration: Lead Concentration: Nickel Concentration:					



Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	BGS Recorded Mine Site Name: Location: Source: Reference: Type: Status: Operator: Operator Location: Periodic Type: Geology:	Peral Sites Pembroke Dock Old Dock Yardcommercial Row, Pembroke Dock, Dyfed, Sa72 6ju British Geological Survey, National Geoscience Information Service 10797 Wharf Active Lafarge-Tarmac Lafarge-Tarmac, Portland House, Bickenhill Lane, Solihull, Birmingham, B37 7bq Quaternary Marine Deposits	A13NE (N)	99	2	195800 203900
	Commodity:	Marine Sand And Gravel Located by supplier to within 100m				
	No data available BGS Urban Soil Che No data available	emistry Averages				
	Coal Mining Affecter	d Areas not be affected by coal mining				
	Non Coal Mining Are Risk: Source:		A13SE (NE)	0	2	195755 203695
	Potential for Collaps Hazard Potential: Source:	sible Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SE (NE)	0	2	195755 203695
	Potential for Collaps Hazard Potential: Source:	sible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13SW (W)	126	2	195562 203668
	Potential for Collaps Hazard Potential: Source:	sible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13NE (NE)	130	2	195852 203923
	Hazard Potential: Source:	essible Ground Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13SE (NE)	0	2	195755 203695
	Hazard Potential: Source:	essible Ground Stability Hazards Moderate British Geological Survey, National Geoscience Information Service	A13SW (W)	126	2	195562 203668
	Hazard Potential: Source:	essible Ground Stability Hazards Moderate British Geological Survey, National Geoscience Information Service	A13NE (NE)	130	2	195852 203923
	Hazard Potential: Source:	d Dissolution Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SE (NE)	0	2	195755 203695
	Hazard Potential: Source:	d Dissolution Stability Hazards Low British Geological Survey, National Geoscience Information Service	A13SW (S)	49	2	195746 203542
	Hazard Potential: Source:	No Hazard British Geological Survey, National Geoscience Information Service	A13SW (W)	126	2	195562 203668
	Hazard Potential: Source:	d Dissolution Stability Hazards High British Geological Survey, National Geoscience Information Service	A13SW (S)	130	2	195685 203475
	Hazard Potential: Source:	d Dissolution Stability Hazards No Hazard British Geological Survey, National Geoscience Information Service	A13NE (NE)	130	2	195852 203923
	Hazard Potential: Source:	d Dissolution Stability Hazards Low British Geological Survey, National Geoscience Information Service	A13SW (S)	187	2	195685 203415
	Hazard Potential: Source:	ide Ground Stability Hazards Very Low British Geological Survey, National Geoscience Information Service	A13SE (NE)	0	2	195755 203695
	Potential for Landsl Hazard Potential: Source:	ide Ground Stability Hazards Low British Geological Survey, National Geoscience Information Service	A13SW (SW)	177	2	195616 203451

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Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Runni	ng Sand Ground Stability Hazards				
	Hazard Potential: Source:	No Hazard British Geological Survey, National Geoscience Information Service	A13SE (NE)	0	2	195755 203695
	Potential for Runni	ng Sand Ground Stability Hazards				
	Hazard Potential: Source:	Moderate British Geological Survey, National Geoscience Information Service	A13SW (W)	126	2	195562 203668
	Potential for Runni	ng Sand Ground Stability Hazards				
	Hazard Potential: Source:	Moderate British Geological Survey, National Geoscience Information Service	A13NE (NE)	130	2	195852 203923
	Potential for Shrink	ing or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Source:	No Hazard British Geological Survey, National Geoscience Information Service	A13SE (NE)	0	2	195755 203695
	Potential for Shrink	ing or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	A13SW (W)	126	2	195562 203668
	Potential for Shrink	ing or Swelling Clay Ground Stability Hazards				
	Hazard Potential: Source:	Very Low British Geological Survey, National Geoscience Information Service	A13NE (NE)	130	2	195852 203923
	Radon Potential - R	adon Protection Measures				
	Protection Measure:	Full radon protective measures are necessary in the construction of new dwellings or extensions	A13SE (NE)	0	2	195755 203695
	Source:	British Geological Survey, National Geoscience Information Service				
	Radon Potential - R	adon Affected Areas				
	Affected Area:	The property is in a higher probability radon area, as between 10 and 30% of homes are above the action level	A13SE (NE)	0	2	195755 203695
	Source:	British Geological Survey, National Geoscience Information Service				



### **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
28	Location: Classification: <b>Status:</b>	e Directory Entries Jacobs Catalytic (Uk) Ltd The Dockyard, Pembroke Dock, Dyfed, SA72 6TA Mechanical Engineers Inactive Automatically positioned to the address	A13NE (NE)	28	-	195811 203719
29	Location: Classification: <b>Status:</b>	e Directory Entries Port Pallets (Pembroke) Ltd The Dockyard, Pembroke Dock, Dyfed, SA72 6TA Pallets, Crates & Packing Cases Inactive Automatically positioned to the address	A13NW (N)	34	-	195727 203791
30	Location: Classification: <b>Status:</b>	e Directory Entries Gwinnutt Ltd The Dockyard, Pembroke Dock, Dyfed, SA72 6TA Electrical Engineers Inactive Automatically positioned to the address	A13NE (N)	41	-	195786 203837
31	Location: Classification: <b>Status:</b>	e Directory Entries Power Master Systems Stable 5,The Dockyard, Pembroke Dock, Dyfed, SA72 6TB Electrical Goods Sales, Manufacturers & Wholesalers Inactive Manually positioned within the geographical locality	A13SW (SW)	75	-	195618 203610
32	Location: Classification: <b>Status:</b>	e Directory Entries Mikado Edgar Morgan Way,1 The Dockyard, Pembroke Dock, Dyfed, SA72 6TE Car Dealers - Used Inactive Manually positioned to the road within the address or location	A13SE (E)	77	-	195844 203662
32	Location: Classification: <b>Status:</b>	e Directory Entries Grainger Tubolt meyrick owen way, Pembroke Dock, Dyfed, SA72 6WS Engineering Services Inactive Manually positioned within the geographical locality	A13SE (E)	101	-	195874 203676
33	Contemporary Trade Name: Location: Classification: Status:		A13NE (NE)	93	-	195862 203874
33	Location: Classification: <b>Status:</b>	Directory Entries Mustang Marine Ltd The Dockyard, Pembroke Dock, Dyfed, SA72 6TE Boatbuilders & Repairers     Active Automatically positioned to the address	A13NE (NE)	130	-	195900 203890
33	Contemporary Trade Name: Location: Classification: Status:		A13NE (NE)	163	-	195924 203912
34	Classification: Status:	e Directory Entries Dockyard Motors The Dockyard, Pembroke Dock, Dyfed, SA72 6TE Car Breakers & Dismantlers Inactive Manually positioned within the geographical locality	A13NE (E)	197	-	195991 203733
34	Contemporary Trade Name: Location: Classification: Status:		A13NE (E)	227	-	196024 203741
35	Contemporary Trade Name: Location: Classification: Status:		A13NE (NE)	230	-	196034 203820



### **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Carna The Dockyard, Pembroke Dock, Dyfed, SA72 6TD Cabinet Makers Inactive Automatically positioned to the address	A13NE (NE)	230	-	196034 203820
35	Contemporary Trad Name: Location: Classification: Status:		A13NE (NE)	264	-	196066 203844
36	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Redhall Engineering Solutions Ltd Pillar Building, The Dockyard, Pembroke Dock, Dyfed, SA72 6TD Engineers - General Active Automatically positioned to the address	A13SE (E)	269	-	196044 203657
37	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Robco The Dockyard, Pembroke Dock, Dyfed, SA72 6TE Engineering Machine Services Active Manually positioned within the geographical locality	A13SE (E)	278	-	196035 203580
38	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Celtic Biodiesel Ltd The Royal Dockyard, Pembroke Dock, Dyfed, SA72 6TD Oil Fuel Distributors Inactive Manually positioned within the geographical locality	A14SW (SE)	442	-	196172 203468
39	Contemporary Trad Name: Location: Classification: Status:		A14SW (E)	611	-	196396 203644
40	Contemporary Trad Name: Location: Classification: Status:		A14SE (SE)	717	-	196442 203410
41	Contemporary Trad Name: Location: Classification: Status:		A14SE (E)	832	-	196560 203402
42	Contemporary Trad Name: Location: Classification: Status:		A8SW (S)	844	-	195723 202748
43	Contemporary Trad Name: Location: Classification: Status:	,, ,, ,,	A14SE (E)	907	-	196676 203550
44	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Modern Print Meyrick Street, Pembroke Dock, Dyfed, SA72 6JD Printers Inactive Automatically positioned to the address	A14SE (E)	931	-	196715 203604
45	Contemporary Trad Name: Location: Classification: Status: Positional Accuracy:	e Directory Entries Jewson Ltd 4, Meyrick Street, Pembroke Dock, Dyfed, SA72 6UT Builders' Merchants Active Automatically positioned to the address	A14SE (E)	945	-	196699 203492



### **Industrial Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Contemporary Trad	le Directory Entries				
46	Name: Location: Classification: <b>Status:</b> Positional Accuracy:	Pennar Filling Station Treowen Road, Pembroke Dock, Dyfed, SA72 6NY Petrol Filling Stations Inactive Automatically positioned to the address	A9SW (SE)	959	-	196340 202838
	Contemporary Trad	le Directory Entries				
46	Name: Location: Classification: <b>Status:</b> Positional Accuracy:	Rudd Joinery Treowen Road, Pembroke Dock, Dyfed, SA72 6NY Joinery Manufacturers <b>Active</b> Automatically positioned to the address	A9SW (SE)	959	-	196340 202838
	Contemporary Trad	le Directory Entries				
47	Name: Location: Classification: <b>Status:</b> Positional Accuracy:	Stained Glass Ltd Unit 11,12,Haven Workshops,Pier Rd, Pembroke Dock, Dyfed, SA72 6TR Stained Glass Designers & Producers Active Manually positioned to the address or location	A19SE (E)	987	-	196750 204086
	Contemporary Trad	le Directory Entries				
47	Name: Location: Classification: Status: Positional Accuracy:	Computer Direct 14, Haven Workshops, Pier Road, Pembroke Dock, Dyfed, SA72 6TR Computer Manufacturers Inactive Automatically positioned to the address	A19SE (E)	988	-	196751 204087
	Contemporary Trad	e Directory Entries				
47	Name: Location: Classification: <b>Status:</b> Positional Accuracy:	A & C John Unit 12, Haven Workshops, Pier Road, Pembroke Dock, Dyfed, SA72 6TR Road Haulage Services Inactive Automatically positioned to the address	A19SE (E)	988	-	196751 204087
	Contemporary Trad	le Directory Entries				
48	Name: Location: Classification: <b>Status:</b> Positional Accuracy:	Kate Clarkson Unit A10, Maritime Industrial Park, Criterion Way, Pembroke Dock, Dyfed, SA72 6UL Clothing & Fabrics - Manufacturers Inactive Automatically positioned to the address	A15NW (E)	997	-	196781 204006
	Fuel Station Entries	3				
49	Name: Location: Brand: Premises Type: <b>Status:</b> Positional Accuracy:	Pennar Filling Station Treowen Road, Pennar, PEMBROKE DOCK, Dyfed, SA72 6NY Shell Not Applicable <b>Obsolete</b> Automatically positioned to the address	A9SW (SE)	959	-	196340 202838

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### **Sensitive Land Use**

Map ID		Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	Sites of Special Sci Name: Multiple Areas: Total Area (m2): Source: Reference: Designation Details: Designation Date: Date Type:	entific Interest Milford Haven Waterway Y 21920694.53 Natural Resources Wales (NRW) - formerly CCW 28232wp3 Mixed Biological And Geological 4th March 1993 Notified	A13SW (W)	136	6	195576 203689
	Special Areas of Co	nservation				
51	Name: Multiple Areas: Total Area (m2): Source: Reference: <b>Status:</b>	Pembrokeshire Marine / Sir Benfro Forol Y 1380663657.51 Natural Resources Wales (NRW) - formerly CCW Uk0013116 <b>Designated</b>	A13SW (W)	136	6	195576 203689

M	IM
IVL	LIVL

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Pembrokeshire County Council - Public Protection Division	October 2012	Annual Rolling Update
Discharge Consents		
Environment Agency - Welsh Region	February 2014	Quarterly
Enforcement and Prohibition Notices	M	
Environment Agency - Welsh Region	March 2013	As notified
Integrated Pollution Controls		
Environment Agency - Welsh Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control	February 2014	Querterly
Environment Agency - Welsh Region	February 2014	Quarterly
Local Authority Integrated Pollution Prevention And Control Pembrokeshire County Council - Environmental Health Department	Nevember 2012	Annual Dalling Lindata
	November 2013	Annual Rolling Update
Local Authority Pollution Prevention and Controls Pembrokeshire County Council - Environmental Health Department	November 2013	Annual Rolling Update
	November 2013	
Local Authority Pollution Prevention and Control Enforcements	November 2013	Annual Polling Lindato
Pembrokeshire County Council - Environmental Health Department	November 2013	Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	Quarterly
•		Qualteriy
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - Welsh Region	March 2013	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - Welsh Region	March 2013	As notified
Registered Radioactive Substances		
Environment Agency - Welsh Region	February 2014	Quarterly
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register		
Environment Agency Wales - South West Area	February 2014	Quarterly
Water Abstractions		
Environment Agency - Welsh Region	December 2014	Quarterly
Water Industry Act Referrals		
Environment Agency - Welsh Region	February 2014	Quarterly
Groundwater Vulnerability		
Environment Agency - Head Office	January 2011	Not Applicable
Drift Deposits		
Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations		
British Geological Survey - National Geoscience Information Service	October 2012	Annually
Superficial Aquifer Designations		
British Geological Survey - National Geoscience Information Service	October 2012	Annually
Source Protection Zones		
Environment Agency - Head Office	December 2014	Quarterly
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	February 2014	Quarterly

M	IM
IVL	LIVL

Agency & Hydrological	Version	Update Cycle	
Flooding from Rivers or Sea without Defences			
Environment Agency - Head Office	February 2014	Quarterly	
Areas Benefiting from Flood Defences			
Environment Agency - Head Office	February 2014	Quarterly	
Flood Water Storage Areas			
Environment Agency - Head Office	February 2014	Quarterly	
Flood Defences			
Environment Agency - Head Office	February 2014	Quarterly	
Detailed River Network Lines			
Environment Agency - Head Office	March 2012	Annually	
Detailed River Network Offline Drainage			
Environment Agency - Head Office	March 2012	Annually	
Waste	Version	Update Cycle	
BGS Recorded Landfill Sites			
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable	
Historical Landfill Sites			
Environment Agency - South East Region - Kent & South London Area	February 2014	Quarterly	
Environment Agency - South East Region - North East Thames Area	February 2014	Quarterly	
Environment Agency - South East Region - Solent & South Downs Area	February 2014	Quarterly	
Environment Agency - South East Region - West Thames Area	February 2014	Quarterly	
Environment Agency Wales - South West Area	February 2014	Quarterly	
Integrated Pollution Control Registered Waste Sites			
Environment Agency - Welsh Region	October 2008	Not Applicable	
Licensed Waste Management Facilities (Landfill Boundaries)			
Environment Agency - South East Region - Kent & South London Area	February 2014	Quarterly	
Environment Agency - South East Region - North East Thames Area	February 2014	Quarterly	
Environment Agency - South East Region - Solent & South Downs Area	February 2014	Quarterly	
Environment Agency - South East Region - West Thames Area	February 2014	Quarterly	
Environment Agency Wales - South West Area	February 2014	Quarterly	
Licensed Waste Management Facilities (Locations)			
Environment Agency Wales - South West Area	February 2014	Quarterly	
Local Authority Landfill Coverage			
Pembrokeshire County Council - Environmental Health Department	May 2000	Not Applicable	
Local Authority Recorded Landfill Sites			
Pembrokeshire County Council - Environmental Health Department	May 2000	Not Applicable	
Registered Landfill Sites			
Environment Agency Wales - South West Area	March 2003	Not Applicable	
Registered Waste Transfer Sites			
Environment Agency Wales - South West Area	March 2003	Not Applicable	
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South West Area	March 2003	Not Applicable	
Environment Agency wales - South west Area	iviarch 2003	Not Applicable	

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Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	March 2014	Bi-Annually
Explosive Sites	November 2013	
Health and Safety Executive	November 2013	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Pembrokeshire County Council - Planning Department	November 2012	Annual Rolling Update
Pembrokeshire Coast National Park Authority - Development Control	September 2013	Annual Rolling Update
Planning Hazardous Substance Consents		
Pembrokeshire County Council - Planning Department	November 2012	Annual Rolling Update
Pembrokeshire Coast National Park Authority - Development Control	September 2013	Annual Rolling Update
Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology	4 4 4 9 9 9	
British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Variable
BGS Recorded Mineral Sites	January 2010	Valiable
Bos Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	October 2013	Bi-Annually
Coal Mining Affected Areas		,
The Coal Authority - Mining Report Service	December 2013	As notified
Mining Instability		
Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain		
British Geological Survey - National Geoscience Information Service	February 2011	Not Applicable
Potential for Collapsible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Compressible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
		As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Running Sand Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	October 2013	As notified
Radon Potential - Radon Affected Areas		
British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures		
British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries		
Thomson Directories	February 2014	Quarterly
Fuel Station Entries		_
Catalist Ltd - Experian	March 2014	Quarterly

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Sensitive Land Use	Version	Update Cycle
Areas of Outstanding Natural Beauty		
Natural Resources Wales (NRW) - formerly CCW	March 2014	Bi-Annually
Environmentally Sensitive Areas		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	August 2008	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Marine Nature Reserves		
Natural Resources Wales (NRW) - formerly CCW	March 2014	Bi-Annually
National Nature Reserves		
Natural Resources Wales (NRW) - formerly CCW	January 2014	Bi-Annually
Nitrate Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	February 2012	Not Applicable
Nitrate Vulnerable Zones		
The National Assembly for Wales - GI Services (Department of Planning & Countryside)	October 2005	Annually
Ramsar Sites		
Natural Resources Wales (NRW) - formerly CCW	March 2014	Bi-Annually
Sites of Special Scientific Interest		
Natural Resources Wales (NRW) - formerly CCW	May 2013	Bi-Annually
Special Areas of Conservation		
Natural Resources Wales (NRW) - formerly CCW	March 2014	Bi-Annually
Special Protection Areas		
Natural Resources Wales (NRW) - formerly CCW	March 2014	Bi-Annually



A selection of organisations who provide data within this report

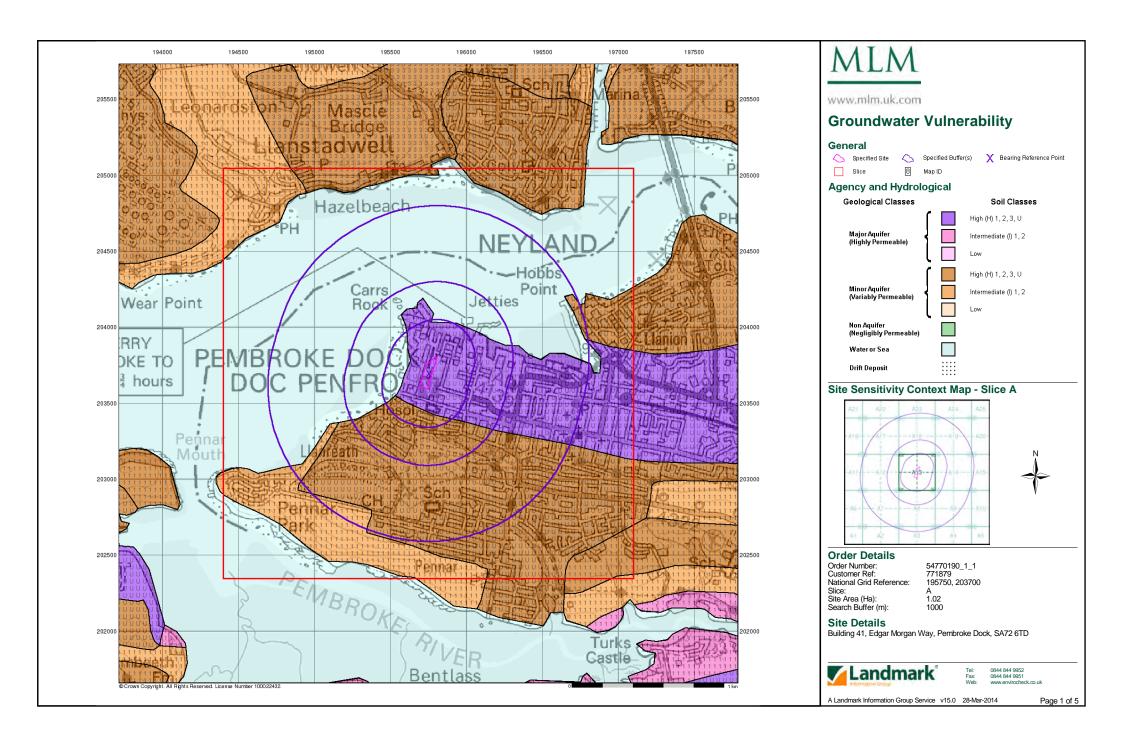
Data Supplier	Data Supplier Logo
Ordnance Survey	Licensed Partner
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SE PAR
The Coal Authority	THE COAL AUTHORITY
British Geological Survey	British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL
Countryside Council for Wales	CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES
Scottish Natural Heritage	SCOTTISH NATURAL H <u>eritage</u> (辺会派)
Natural England	
Public Health England	Public Health England
Ove Arup	ARUP
Peter Brett Associates	peterbrett

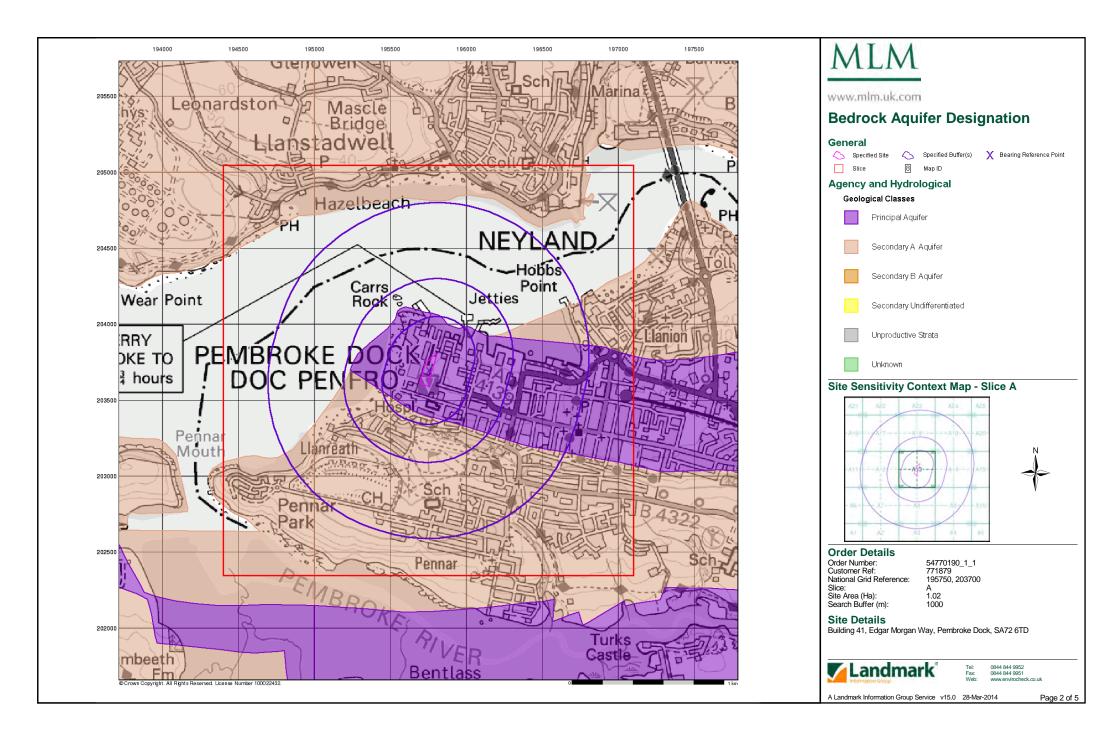
www.mlm.uk.com

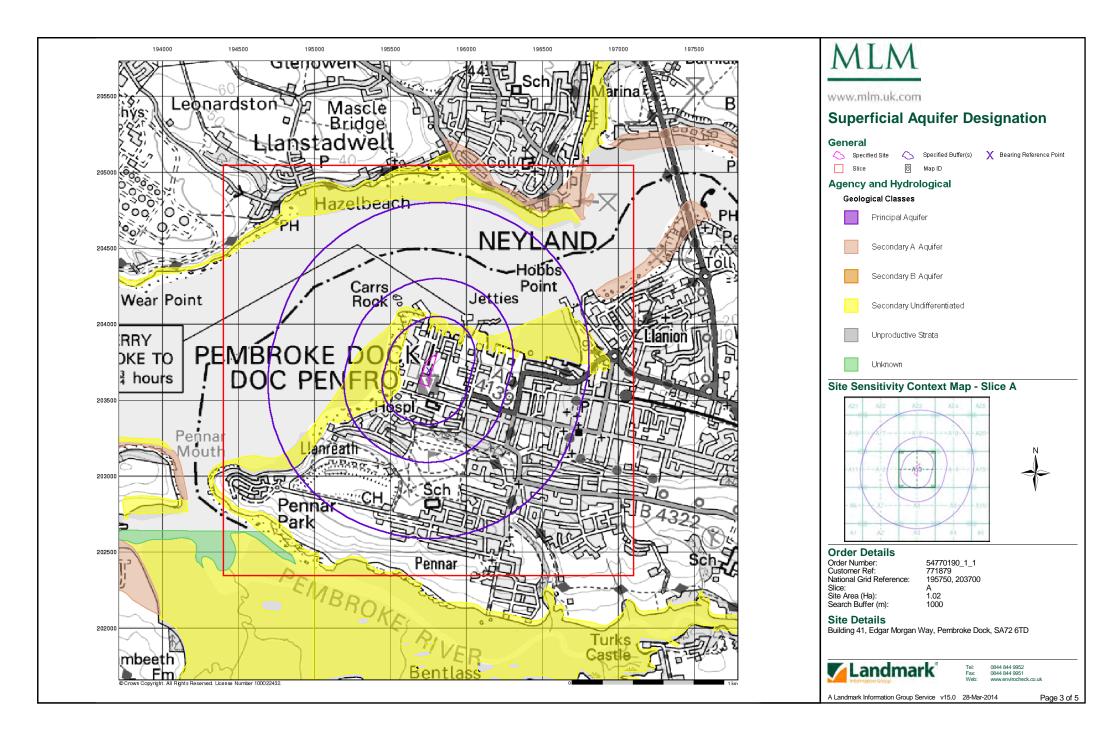
### **Useful Contacts**

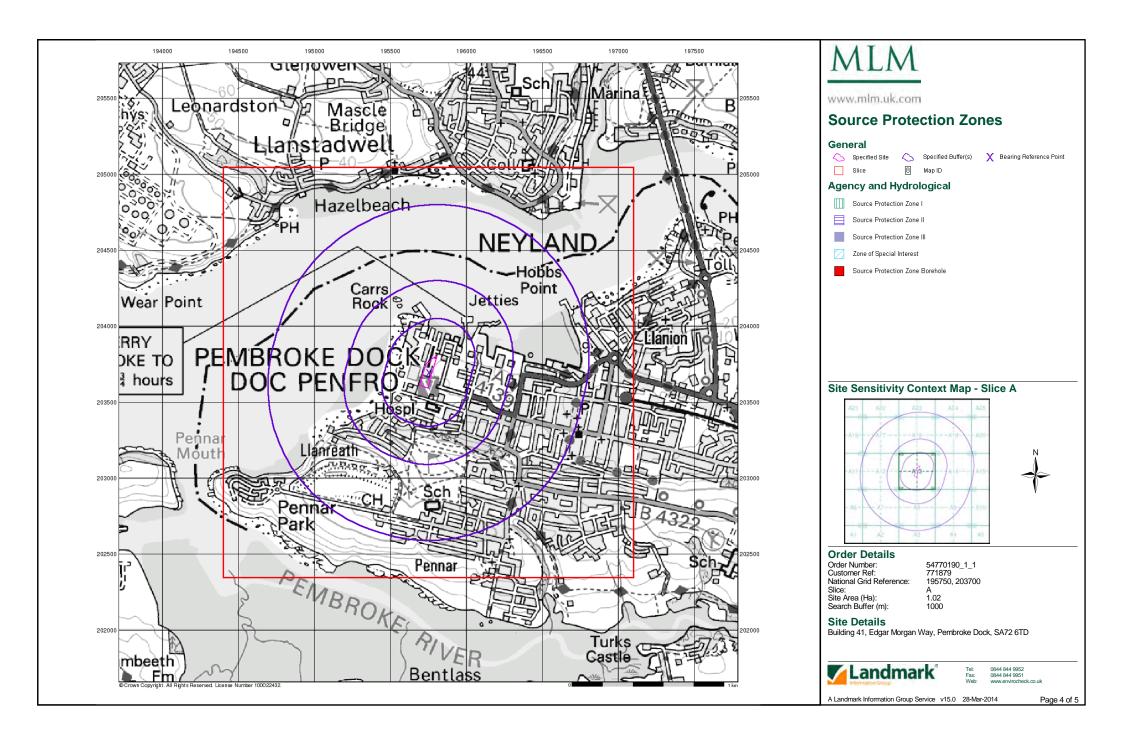
Contact	Name and Address	Contact Details	
1	Environment Agency - National Customer Contact Centre (NCCC)	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk	
	PO Box 544, Templeborough, Rotherham, S60 1BY		
2	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk	
3	Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk	
4	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmark.co.uk Website: www.landmarkinfo.co.uk	
5	The National Assembly for Wales - GI Services (Department of Planning & Countryside)	Telephone: 02920 825111 Website: www.wales.gov.uk	
	Yr Hen Ysgol Gymraeg, Alexandria Road, Aberystwyth, Ceredigion, SY23 1LD		
6	Natural Resources Wales (NRW) - formerly CCW Plas Penrhose, Fford Penrhos, Bangor, Gwynedd, LL57 2LQ	Telephone: 01248 385500 Fax: 01248 355782	
7	Pembrokeshire County Council - Environmental Health Department	Telephone: 01437 764551 Fax: 01437 775838 Website: www.pembrokeshire.gov.uk	
	Public Protection Division, Pembrokeshire County Council, County Hall, Haverfordwest, Pembrokeshire, SA61 1TP		
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org	
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk	

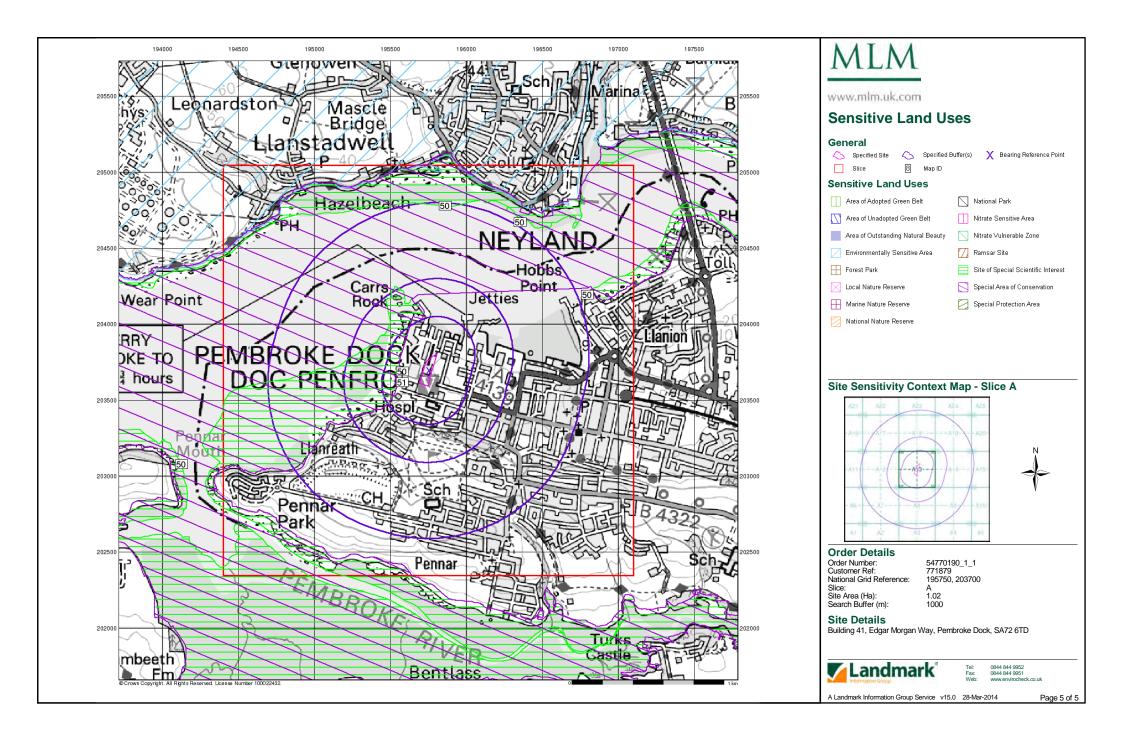
Please note that the Environment Agency / SEPA have a charging policy in place for enquiries.











### Geology 1:50,000 Maps Legends

#### **Superficial Geology**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SUPNM	Superficial Theme Not Mapped [For Digital Map Use Only]	Unknown/Unclassif ied Entry	Not Applicable - Not Applicable
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	TFD	Tidal Flat Deposits	Sand, Silt and Clay	Holocene - Holocene
	GFDMP	Glaciofluvial Deposits, Mid Pleistocene	Sand and Gravel	lpswichian - Cromerian
	RBDU	Raised Beach Deposits	Sand and Gravel	Quaternary - Quaternary

#### **Bedrock and Faults**

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	PEMB	Pembroke Limestone Group	Limestone	Brigantian - Courceyan
	BGUO	Black Rock Subgroup and Gully Oolite Formation (Undifferentiated)	Limestone	Arundian - Courceyan
	AVO	Avon Group	INTERBEDDED LIMESTONE AND MUDSTONE	Courceyan - Courceyan
	SES	Skrinkle Sandstone Formation	Sandstone	Tournaisian - Famennian
	RDWC	Ridgeway Conglomerate Formation	Conglomerate	Frasnian - Praghian
	COB	Cosheston Group	Sandstone	Emsian - Lochkovian
	MIH	Milford Haven Group	INTERBEDDED ARGILLACEOUS ROCKS AND [SUBEQUAL/SUB ORDINATE] SANDSTONE	Praghian - Ludlow
/		Faults		

## MLM

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#### Geology 1:50,000 Maps

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

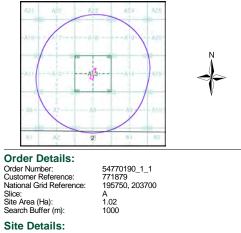
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability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

#### Geology 1:50,000 Maps Coverage Map ID: 1 Map ID: Map Sheet No: 228 Map Sheet No: 245 Map Name: Haverfordwes Map Name: Pembroke and L 1977 Map Date: 1976 Map Date: Bedrock Geology: Available Bedrock Geology: Available Superficial Geology: Available Superficial Geology: Available Artificial Geology: Not Available Artificial Geology: Not Available Available Not Available Available Not Available Faults: Faults: Landslip: Landslip: Rock Segments: Available

Rock Segments

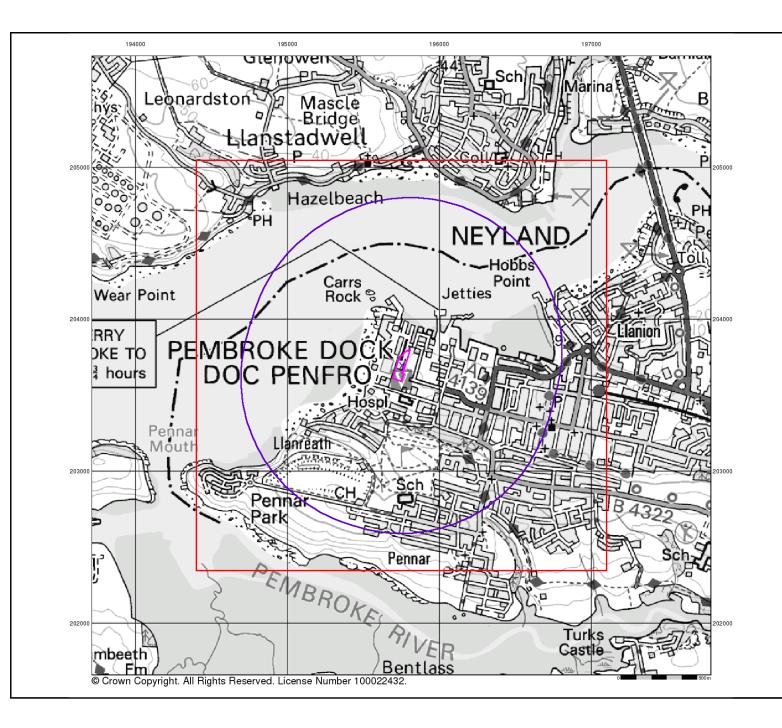
#### Geology 1:50,000 Maps - Slice A

Available



Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD

**Landmark** Tel: Fax: 0844 844 9952 0844 844 9951 Web: www.envirocheck.co.uk v15.0 28-Mar-2014



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#### Artificial Ground and Landslip

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

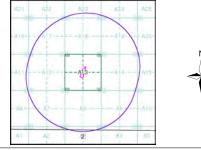
#### Artificial ground includes:

- Made ground man-made deposits such as embankments and spoil heaps on the natural ground surface.
   Worked around - areas where the ground has been cut away such as
- Worked ground areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground areas where the ground has been cut away then wholly or partially backfilled.

 Landscaped ground - areas where the surface has been reshaped.
 Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

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

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



 Order Details:

 Order Number:
 54770190\_1\_1

 Customer Reference:
 771879

 National Grid Reference:
 195750, 203700

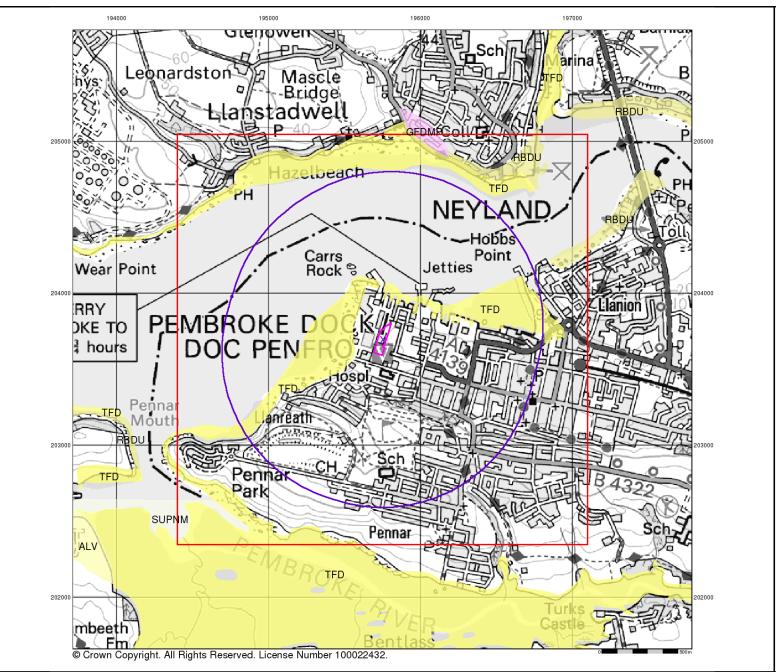
 Site Area (Ha):
 1.02

 Search Buffer (m):
 1000

 Site Details:
 102

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD





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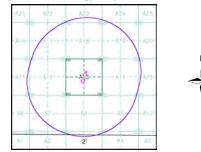
#### **Superficial Geology**

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

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

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

Superficial Geology Map - Slice A



 Order Details:

 Order Number:
 54770190\_1\_1

 Customer Reference:
 771879

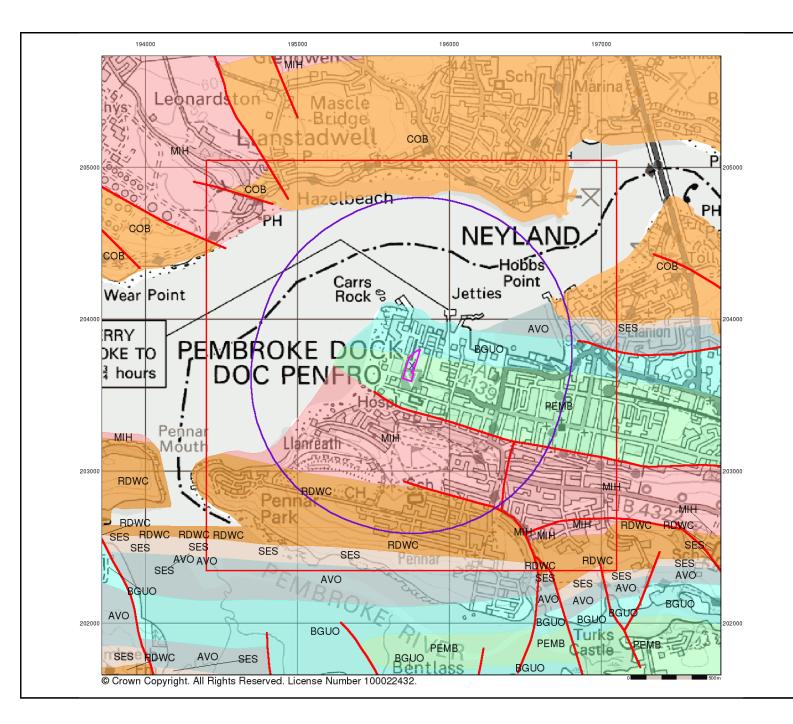
 National Grid Reference:
 195750, 203700

 Slice:
 A

 Site Area (Ha):
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 Search Buffer (m):
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 Site Details:
 Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



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#### **Bedrock and Faults**

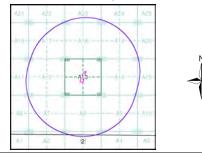
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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





 Order Details:

 Order Number:
 54770190\_1\_1

 Customer Reference:
 771879

 National Grid Reference:
 195750, 203700

 Slice:
 A

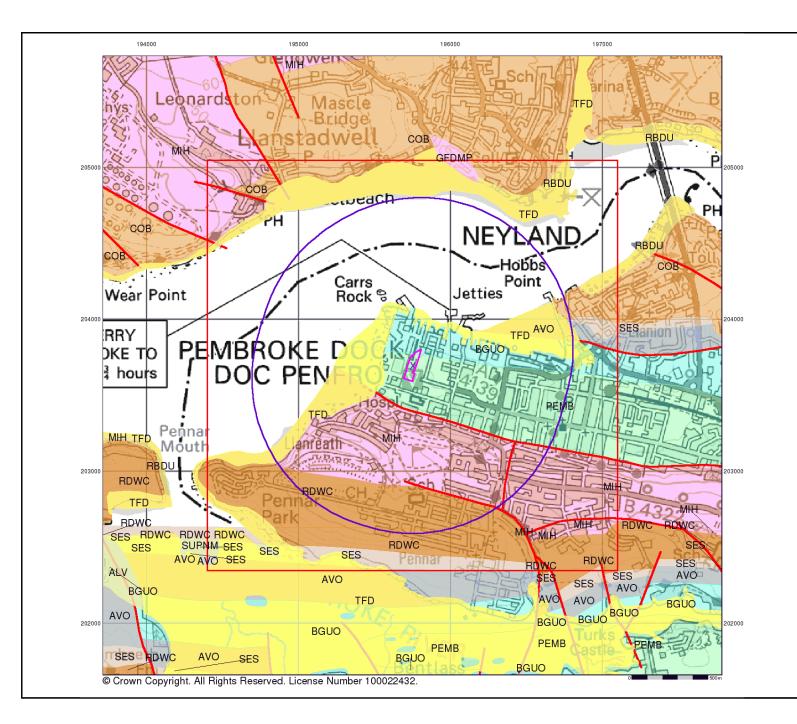
 Site Area (Ha):
 1.02

 Search Buffer (m):
 1000

 Site Details:
 1000

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD





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#### **Combined Surface Geology**

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

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

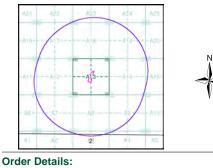
#### Additional Information

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

#### Contact

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

#### **Combined Geology Map - Slice A**

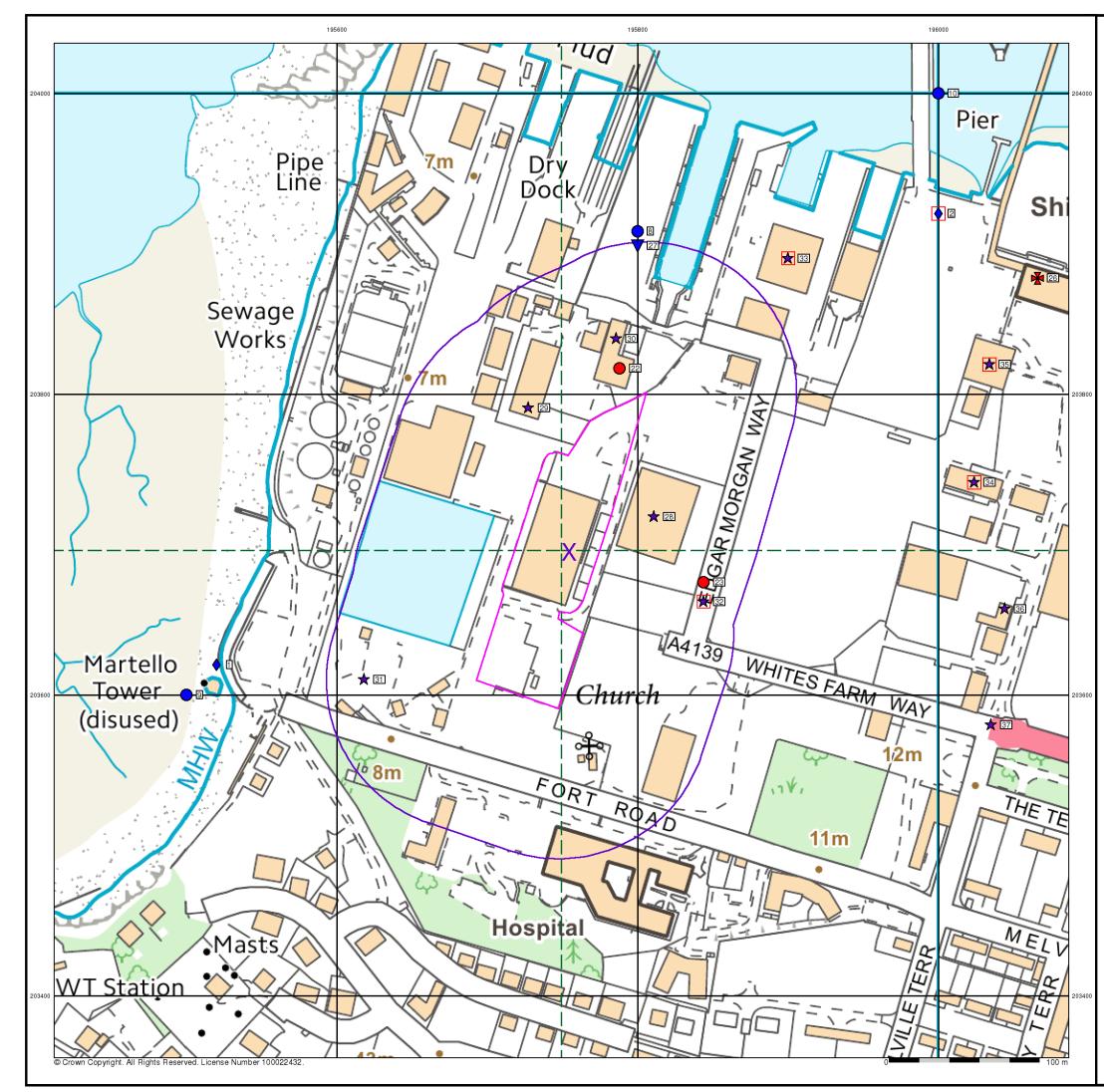


Order Number: Customer Reference: 54770190\_1\_1 771879 National Grid Reference: 195750, 203700 Slice: A 1.02 Site Area (Ha): Search Buffer (m): 1000

#### Site Details:

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD

Landmark Tel: Fax: 0844 844 9952 0844 844 9951 www.envirocheck.co.uk v15.0 28-Mar-2014



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#### General

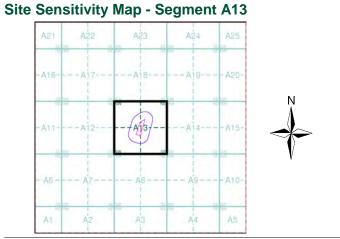


T BGS Recorded Mineral Site

#### Industrial Land Use

- ★ Contemporary Trade Directory Entry
- 🖈 Fuel Station Entry

W	aste
▼	BGS Recorded Landfill Site (Location)
	BGS Recorded Landfill Site
	EA Historic Landfill (Buffered Point)
	EA Historic Landfill (Polygon)
$\infty$	Integrated Pollution Control Registered Waste Site Licensed Waste Management Facility (Landfill Boundary)
۲	Licensed Waste Management Facility (Location)
	Local Authority Recorded Landfill Site (Location)
Ш	Local Authority Recorded Landfill Site
	Registered Landfill Site
►	Registered Landfill Site (Location)
	Registered Landfill Site (Point Buffered to 100m)
	Registered Landfill Site (Point Buffered to 250m)
٢	Registered Waste Transfer Site (Location)
	Registered Waste Transfer Site
$\bigcirc$	Registered Waste Treatment or Disposal Site (Location)
	Registered Waste Treatment or Disposal Site
Ha	azardous Substances
<b>1</b>	COMAH Site
<b>1</b>	Explosive Site
<b>×</b>	NIHHS Site
*	Planning Hazardous Substance Consent
*	Planning Hazardous Substance Enforcement



#### **Order Details**

Order Number: Customer Ref: 771879 National Grid Reference: 195750, 203700 Slice: А 1.02 Site Area (Ha):

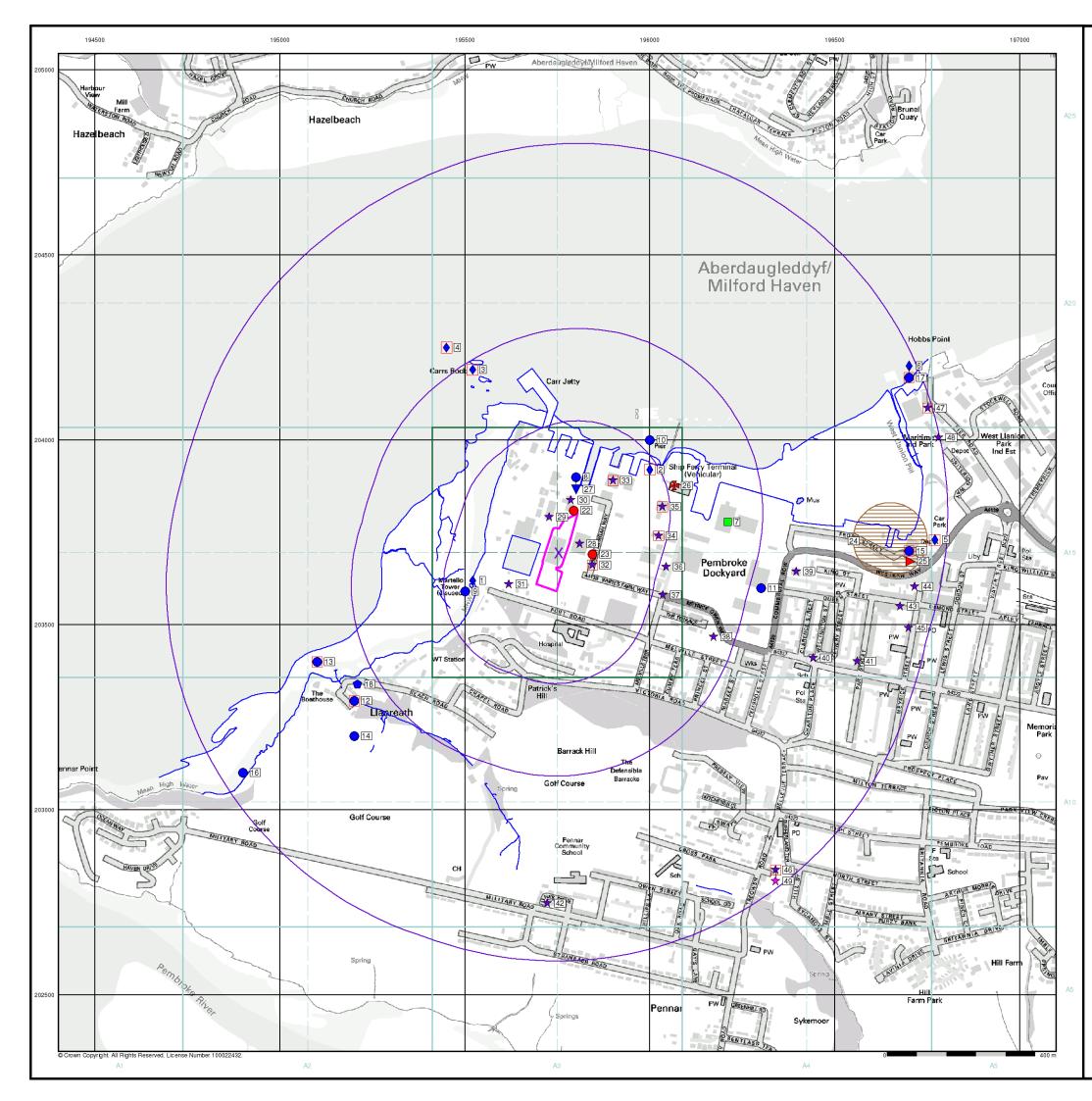
54770190\_1\_1

# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:



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#### General



BGS Recorded Mineral Site

#### Industrial Land Use

- ★ Contemporary Trade Directory Entry
- 📩 Fuel Station Entry
- Site Sensitivity Map Slice A
  - -A13-

🙀 Explosive Site

🗱 Planning Hazardous Substance Consent

🗱 Planning Hazardous Substance Enforcement

🙀 NIHHS Site



#### **Order Details**

Order Number: Customer Ref: National Grid Reference: 195750, 203700 Slice: Site Area (Ha): Search Buffer (m):

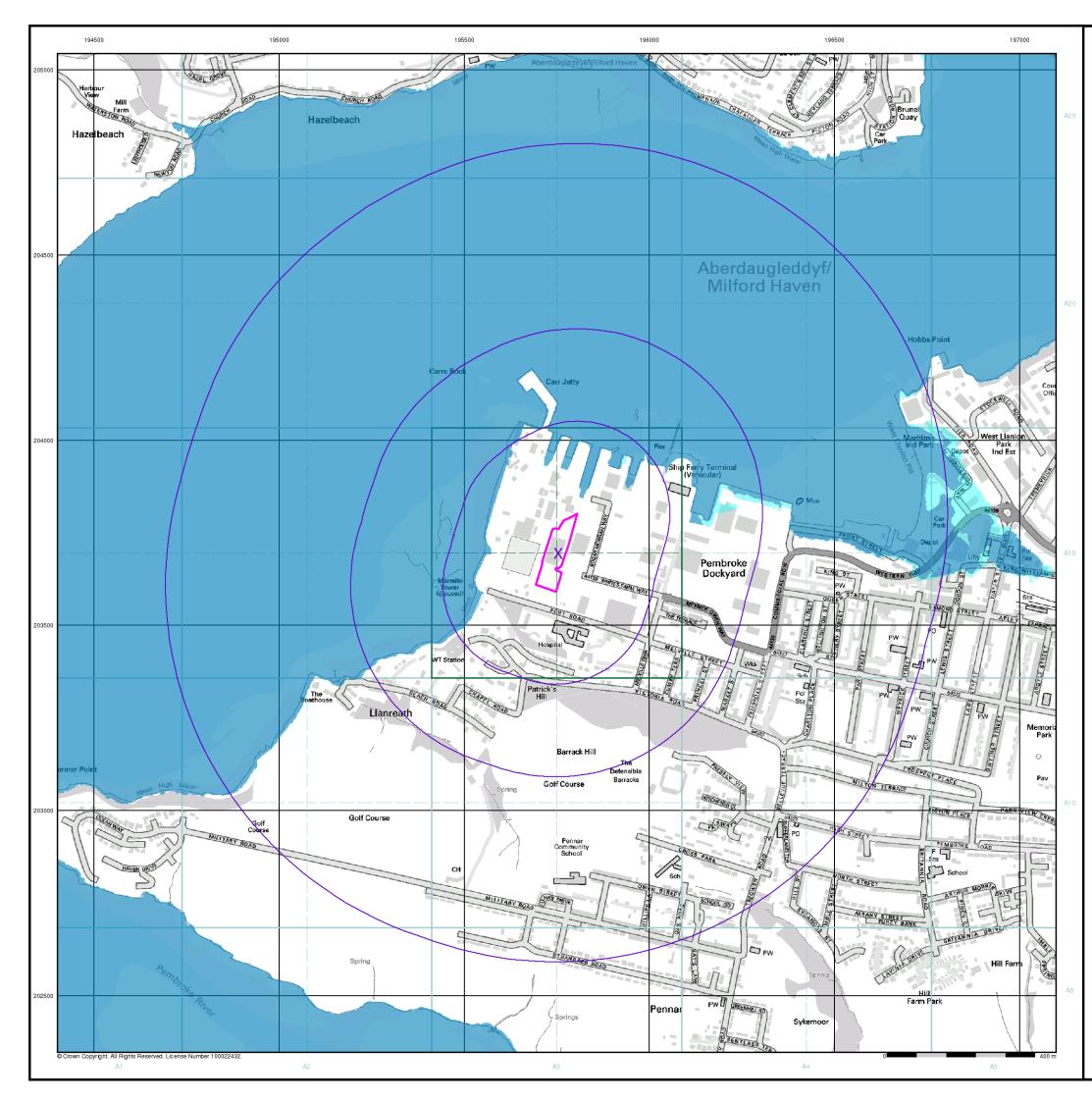
54770190\_1\_1 771879 Α 1.02 1000

#### Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





#### General

🔼 Specified Site

- C Specified Buffer(s)
- X 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)

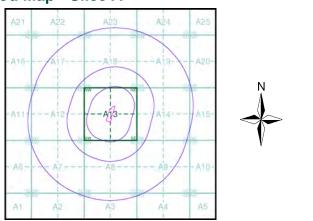
Area Benefiting from Flood Defence



Flood Water Storage Areas

--- Flood Defence

# Flood Map - Slice A



#### **Order Details**

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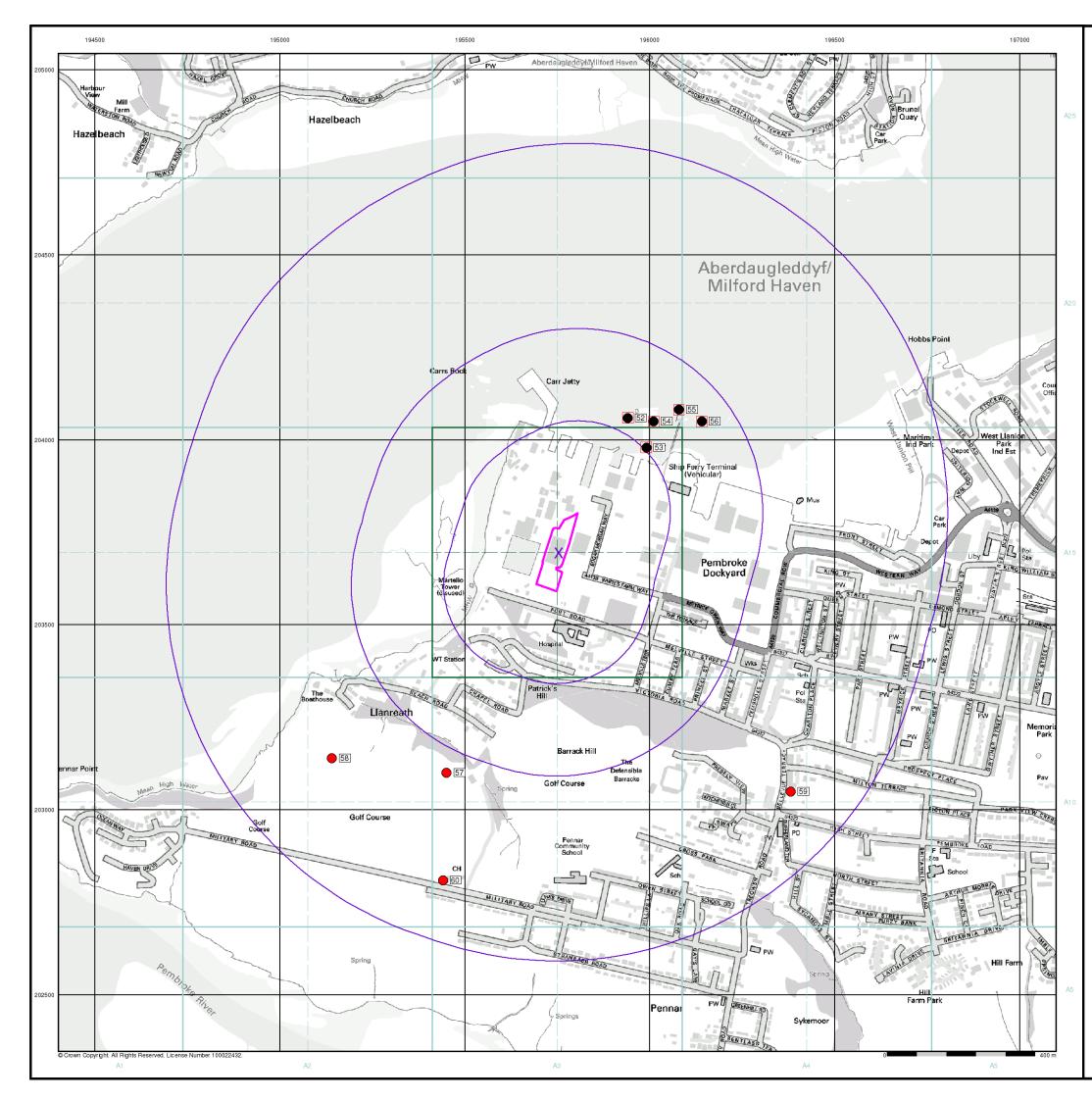
54770190\_1\_1 771879 А 1.02 1000

# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





#### General

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

## Agency and Hydrological (Boreholes)

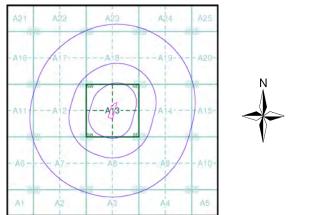
- 😑 BGS Borehole Depth 0 10m
- 🔵 BGS Borehole Depth 10 30m
- 🔴 BGS Borehole Depth 30m +
- Confidential

⊖ 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:
 54770190\_1\_1

 Customer Ref:
 771879

 National Grid Reference:
 195750, 203700

 Slice:
 A

 Site Area (Ha):
 1.02

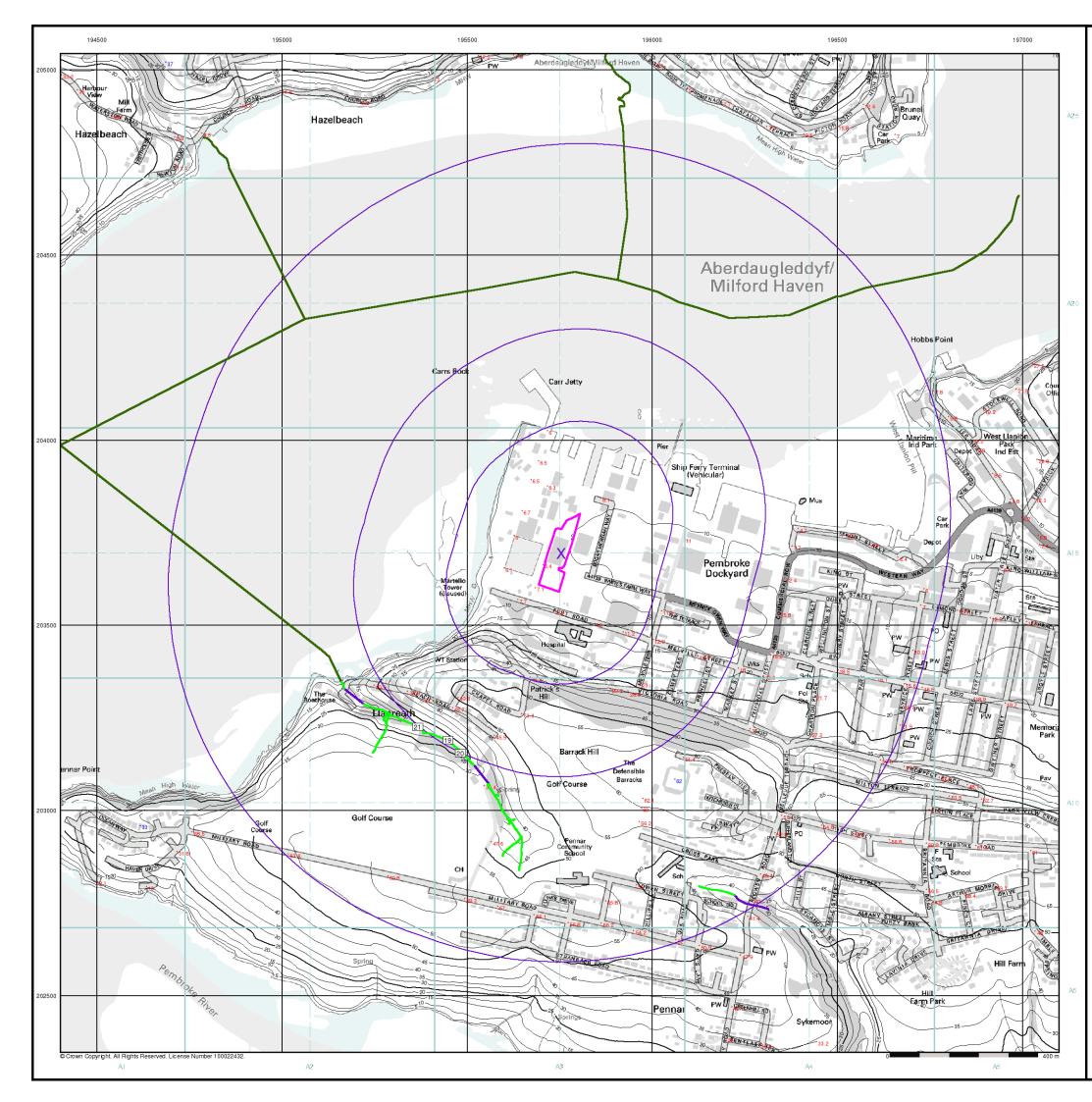
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# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:

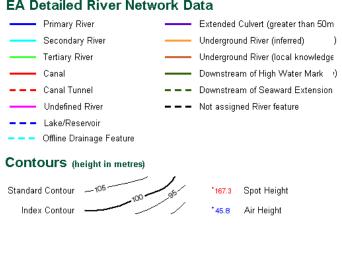


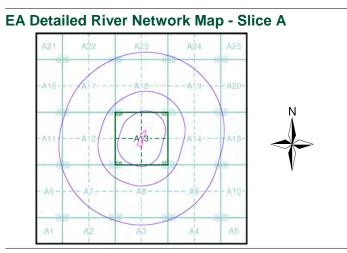


#### General

- 🔼 Specified Site
- C Specified Buffer(s)
- X Bearing Reference Point
- 8 Map ID

# EA Detailed River Network Data





# **Order Details**

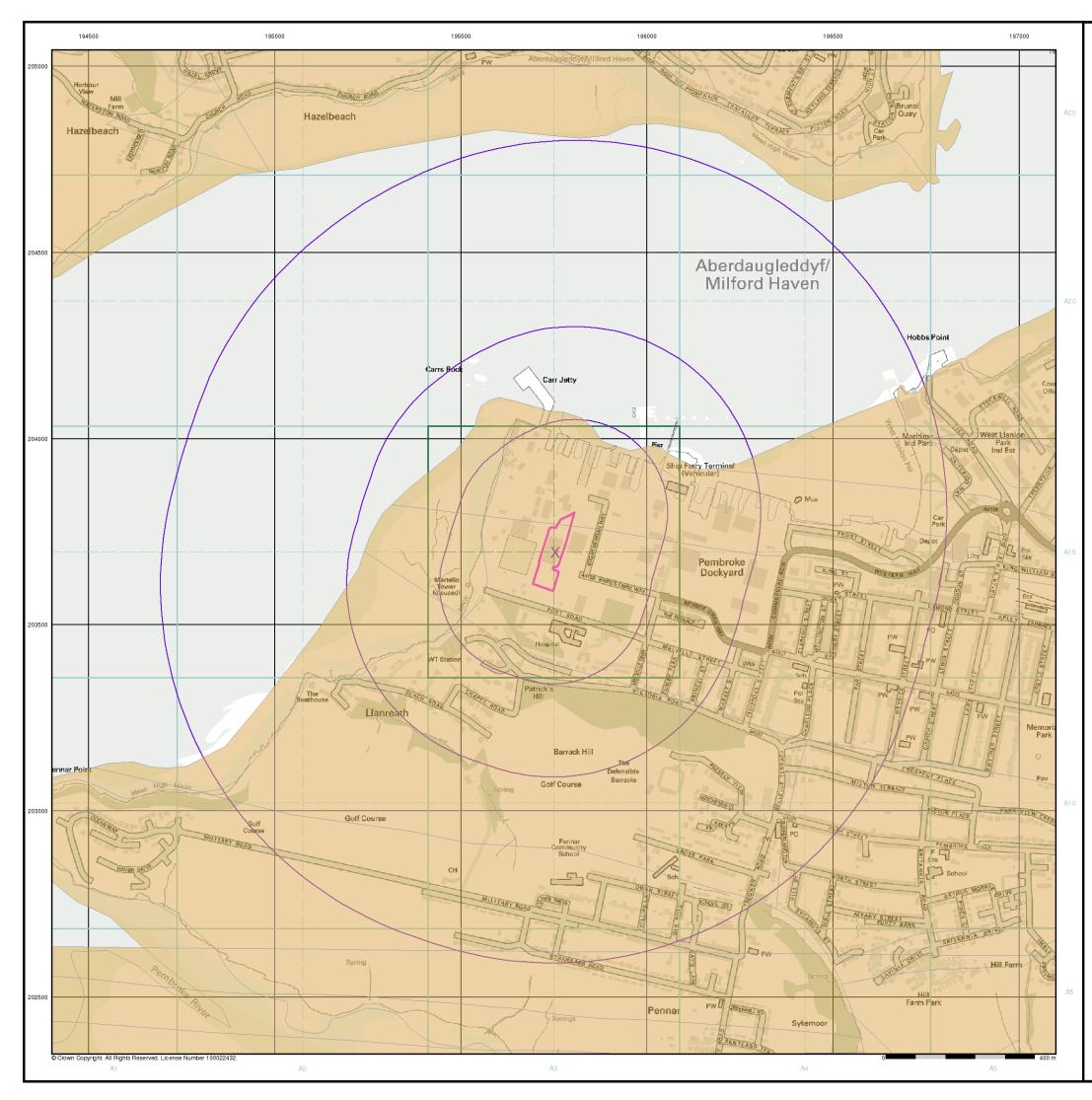
Order Number: 54770190\_1\_1 Customer Ref: 771879 National Grid Reference: 195750, 203700 Slice: А Site Area (Ha): Search Buffer (m): 1.02 1000

# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





#### General

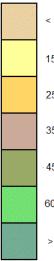
🔼 Specified Site

Specified Buffer(s)

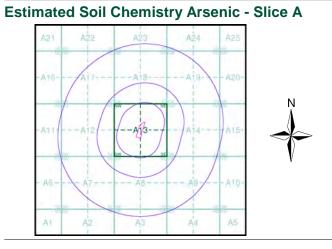
X Bearing Reference Point

#### **Estimated Soil Chemistry Arsenic**

#### Arsenic Concentrations mg/kg







#### **Order Details**

 Order Details:
 54770190\_1\_1

 Customer Ref:
 771879

 National Grid Reference:
 195750, 203700

 Slice:
 A

 Site Area (Ha):
 1.02

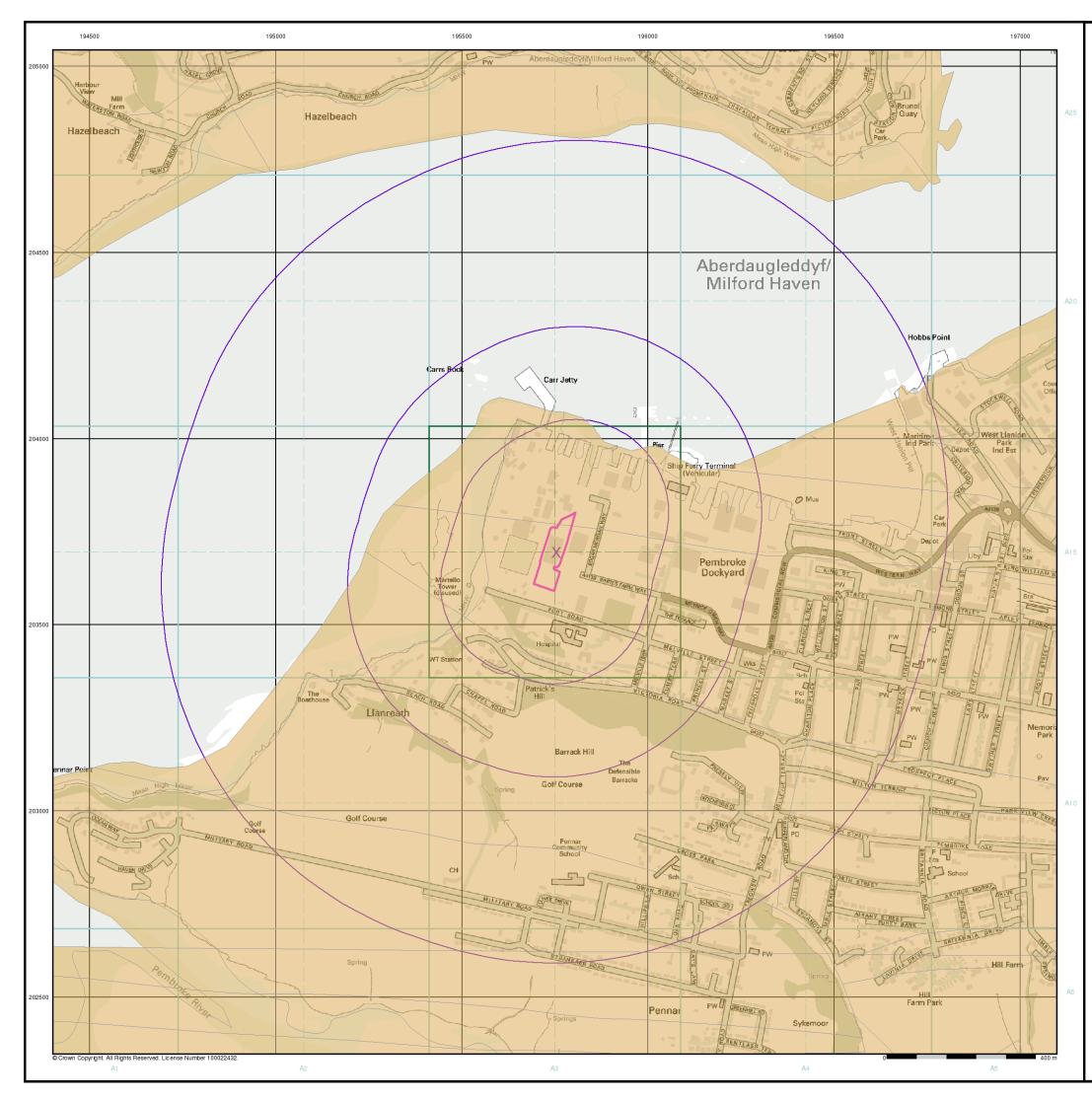
 Search Buffer (m):
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# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





#### General

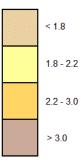
🔼 Specified Site

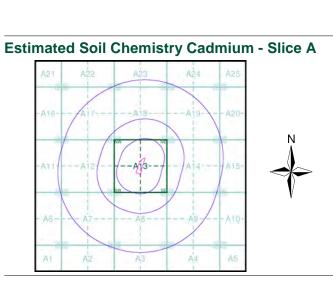
Specified Buffer(s)

X Bearing Reference Point

# Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg





# **Order Details**

 Order Details:
 54770190\_1\_1

 Customer Ref:
 771879

 National Grid Reference:
 195750, 203700

 Slice:
 A

 Site Area (Ha):
 1.02

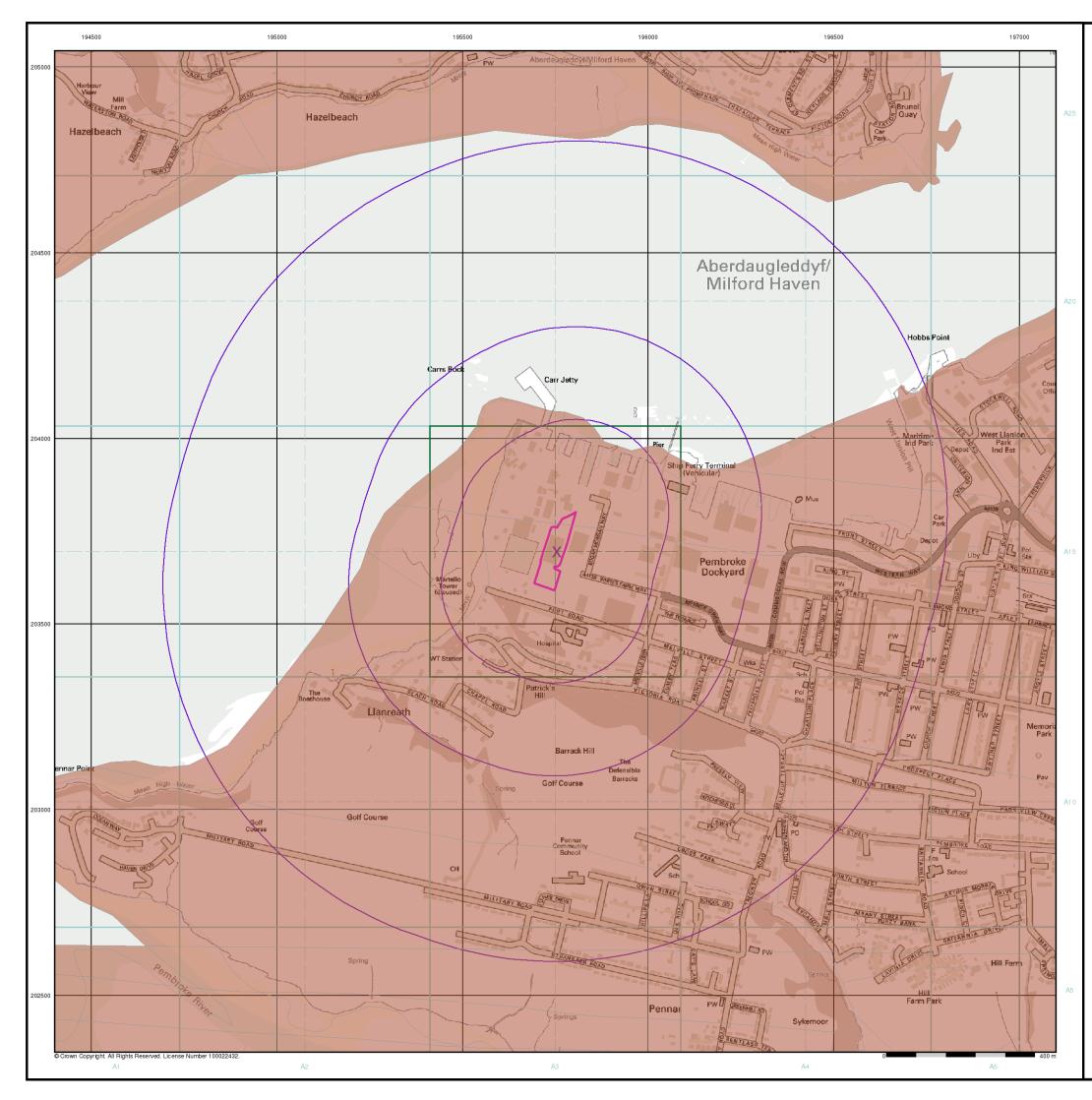
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# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





#### General

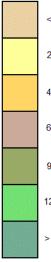
🔼 Specified Site

Specified Buffer(s)

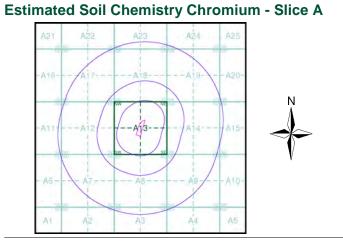
X Bearing Reference Point

**Estimated Soil Chemistry Chromium** 

Chromium Concentrations mg/kg







#### **Order Details**

 Order Details:
 54770190\_1\_1

 Customer Ref:
 771879

 National Grid Reference:
 195750, 203700

 Slice:
 A

 Site Area (Ha):
 1.02

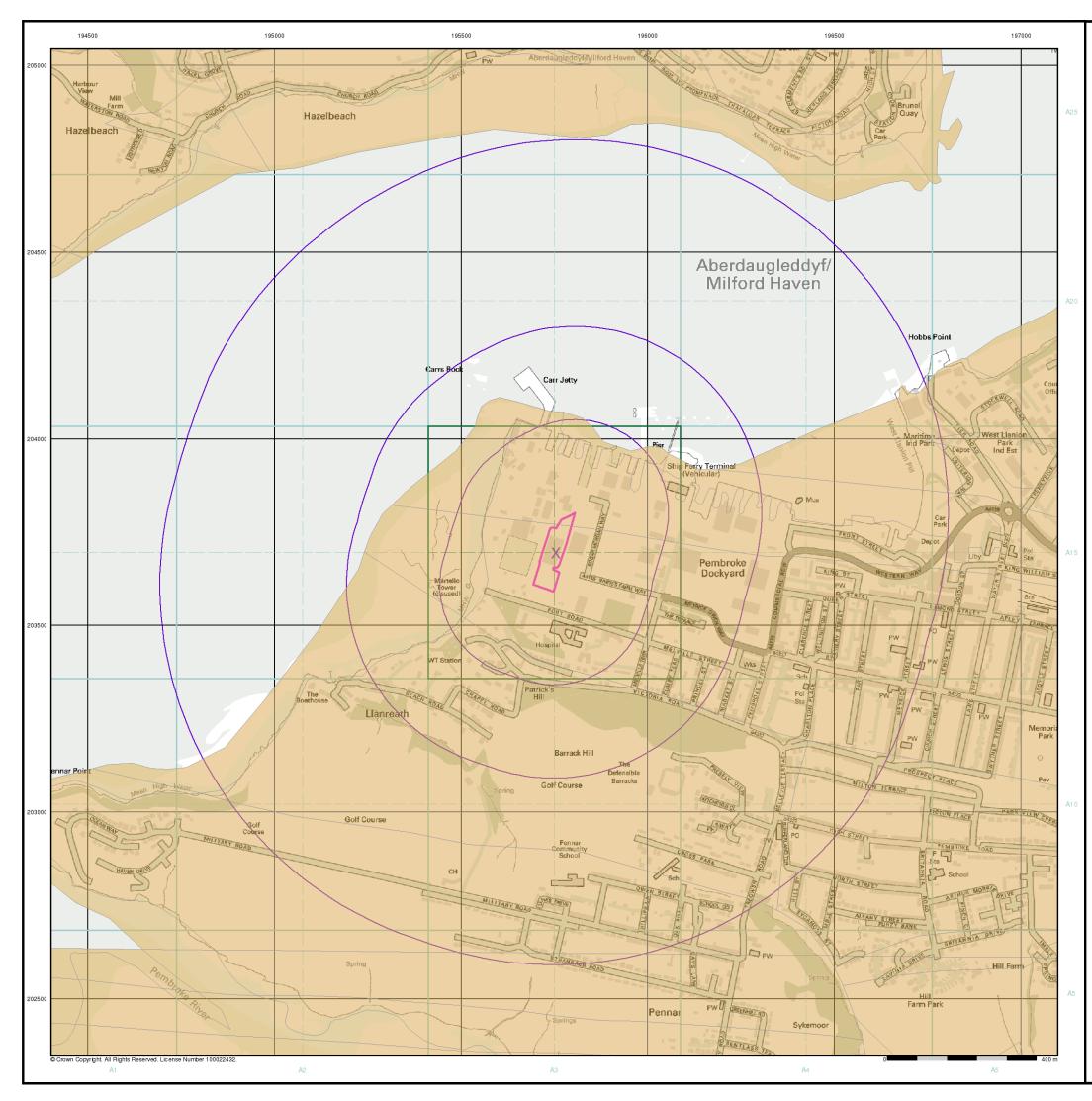
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# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





#### General

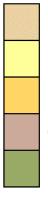
🔼 Specified Site

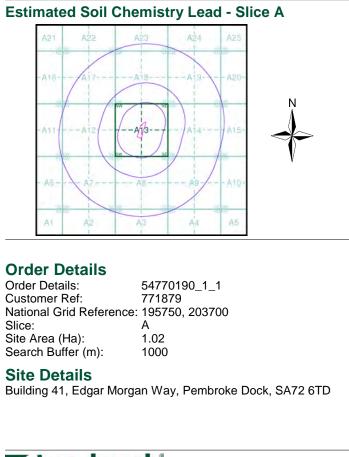
Specified Buffer(s)



#### Estimated Soil Chemistry Lead

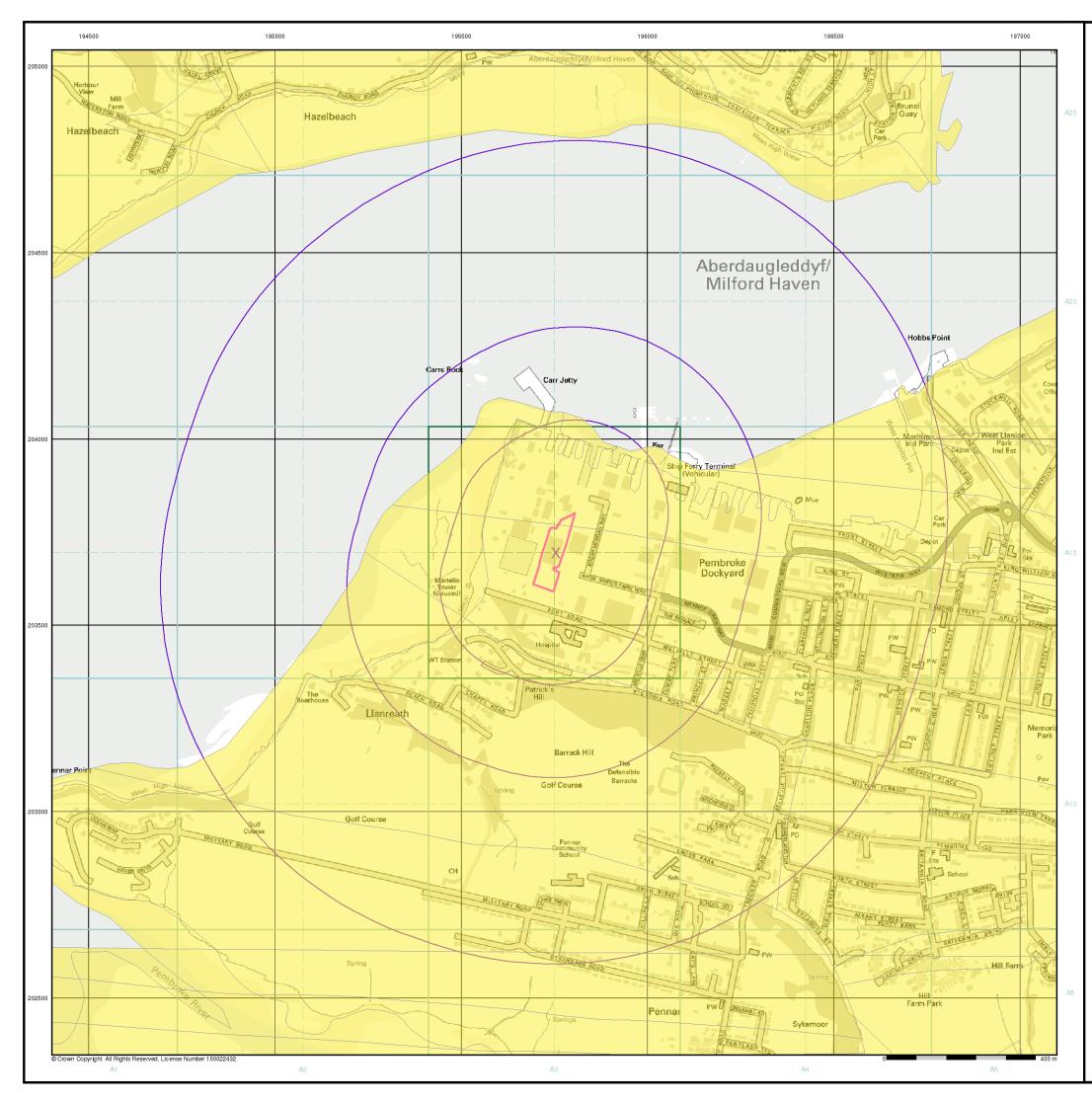
#### Lead Concentrations mg/kg







Tel: Fax: Web:





#### General

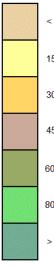
🔼 Specified Site

Specified Buffer(s)

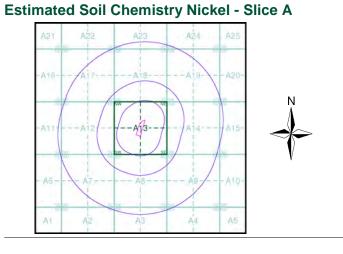
X Bearing Reference Point

#### Estimated Soil Chemistry Nickel

#### Nickel Concentrations mg/kg







# **Order Details**

 Order Details:
 54770190\_1\_1

 Customer Ref:
 771879

 National Grid Reference:
 195750, 203700

 Slice:
 A

 Site Area (Ha):
 1.02

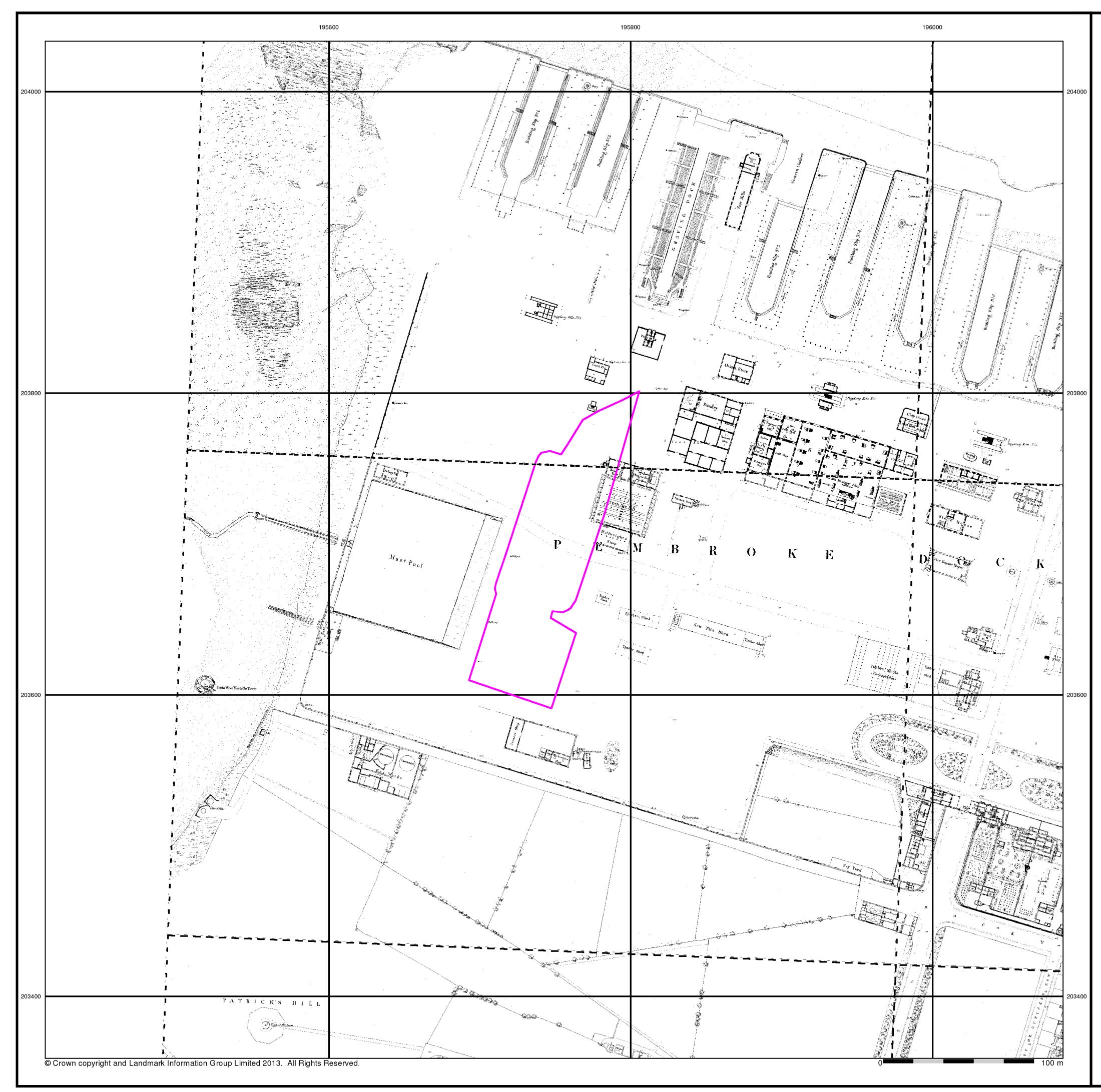
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# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





# Pembrokeshire

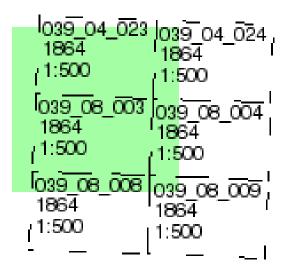
**Published 1864** 

# Source map scale - 1:500

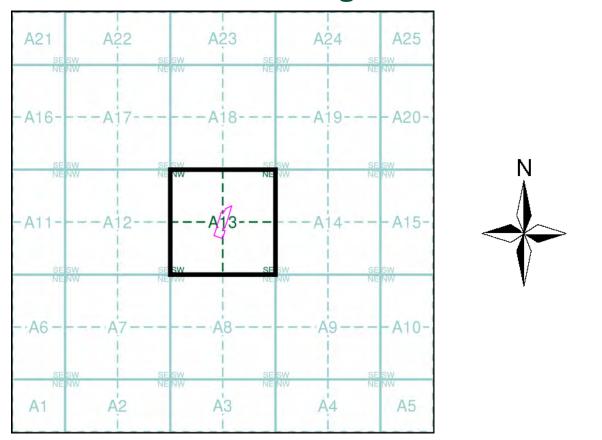
The 1:500 scale Ordnance Survey mapping was introduced in 1855 as a replacement for the 1:528 scale and to compliment the 1:2500 scale that had been implemented in 1853. By 1895, the 1:500 scale covered most towns over a population of about 4000 at the time of survey, although very few towns were mapped more than once at this scale, and none have been since 1910. The 1:500 scale gives particular emphasis to such features as lamp posts, man holes, arched passages and minor building projections. Also often featured are divisions between tenements, interior ground floor layouts of public buildings, and on earlier plans, the functions of the various parts of larger industrial premises are also indicated. Content of the plans does vary however, from one town to the next in terms of, for example, the completeness of railway tracks and the coverage of public buildings.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

# Map Name(s) and Date(s)



# **Historical Town Plan - Segment A13**



# **Order Details**

 Order Number:
 54770190\_1\_1

 Customer Ref:
 771879

 National Grid Reference:
 195750, 203700

 Slice:
 A

 Site Area (Ha):
 1.02

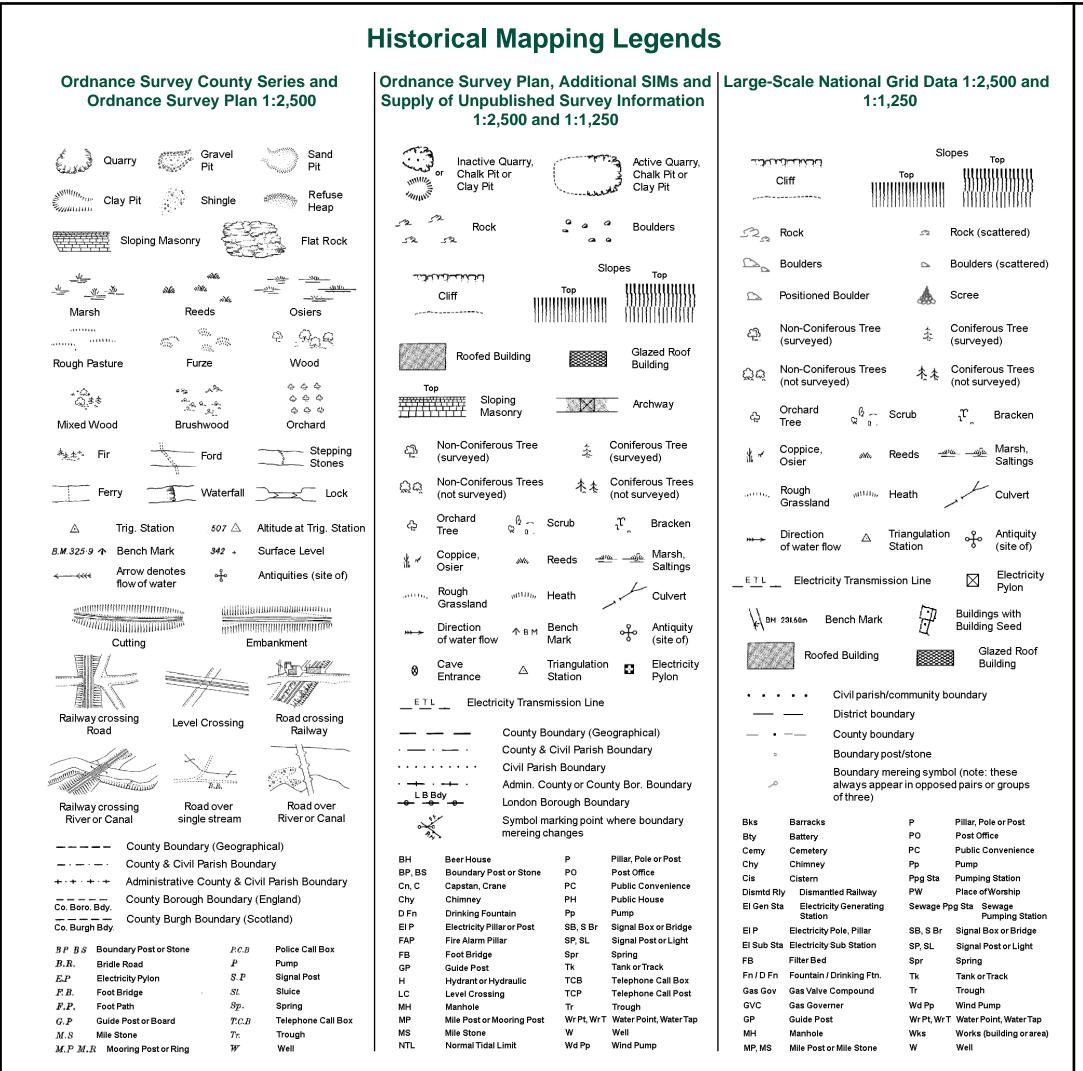
 Search Buffer (m):
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# **Site Details**

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Т	el:
F	ax:
V	Veb

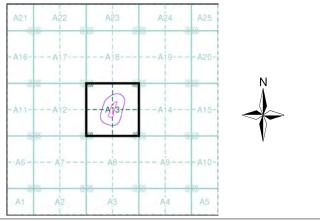


# www.mlm.uk.com

# Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Pembrokeshire	1:2,500	1866 - 1895	2
Pembrokeshire	1:2,500	1908	3
Ordnance Survey Plan	1:2,500	1967 - 1973	4
Additional SIMs	1:2,500	1967 - 1990	5
Ordnance Survey Plan	1:2,500	1974 - 1976	6
Ordnance Survey Plan	1:1,250	1989	7
Large-Scale National Grid Data	1:1,250	1994	8
Large-Scale National Grid Data	1:1,250	1995	9
Large-Scale National Grid Data	1:1,250	1996	10
Large-Scale National Grid Data	1:1,250	1996	11

# Historical Map - Segment A13



#### **Order Details**

 Order Number:
 54770190\_1\_1

 Customer Ref:
 771879

 National Grid Reference:
 195750, 203700

 Slice:
 A

 Site Area (Ha):
 1.02

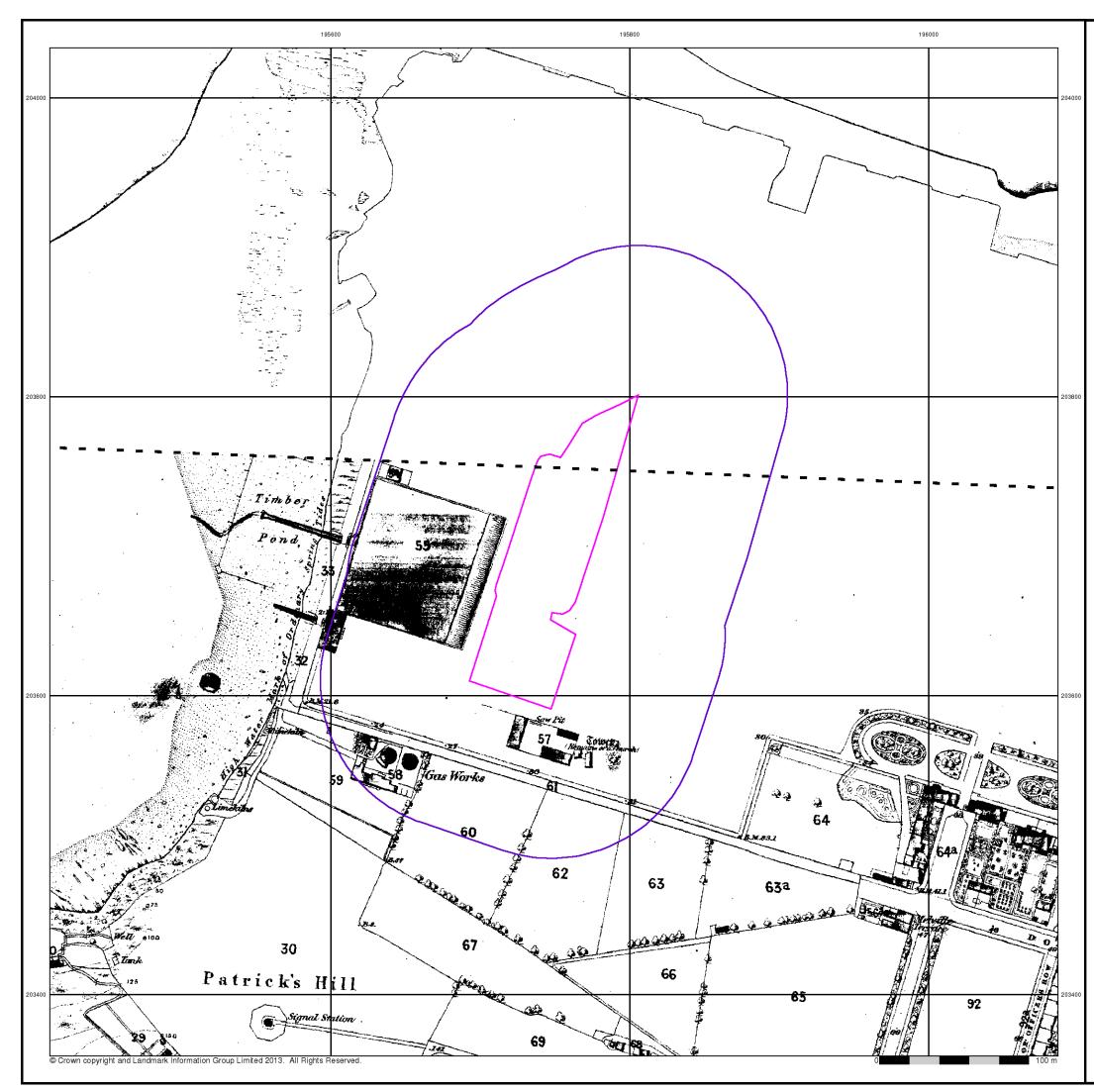
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#### Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: 08 Fax: 08 Web: wv





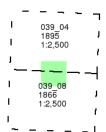
# Pembrokeshire

# Published 1866 - 1895

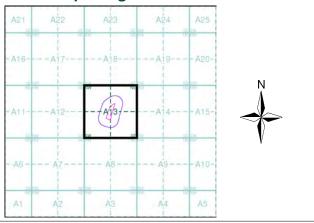
# Source map scale - 1:2,500

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**

Order Number: Customer Ref:	54770190_1_1 771879
National Grid Reference:	
Slice:	A
Site Area (Ha):	1.02
Search Buffer (m):	100

# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





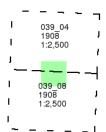
# Pembrokeshire

# Published 1908

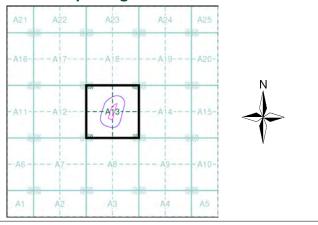
# Source map scale - 1:2,500

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**

Order Number:	54770190_1_1
Customer Ref:	771879
National Grid Reference:	195750, 203700
Slice:	Α
Site Area (Ha):	1.02
Search Buffer (m):	100

#### Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD





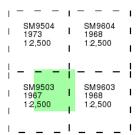


# Ordnance Survey Plan Published 1967 - 1973

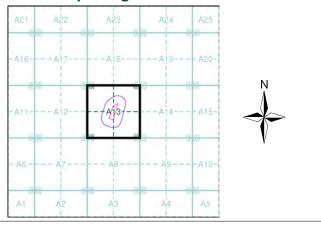
# Source map scale - 1:2,500

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**

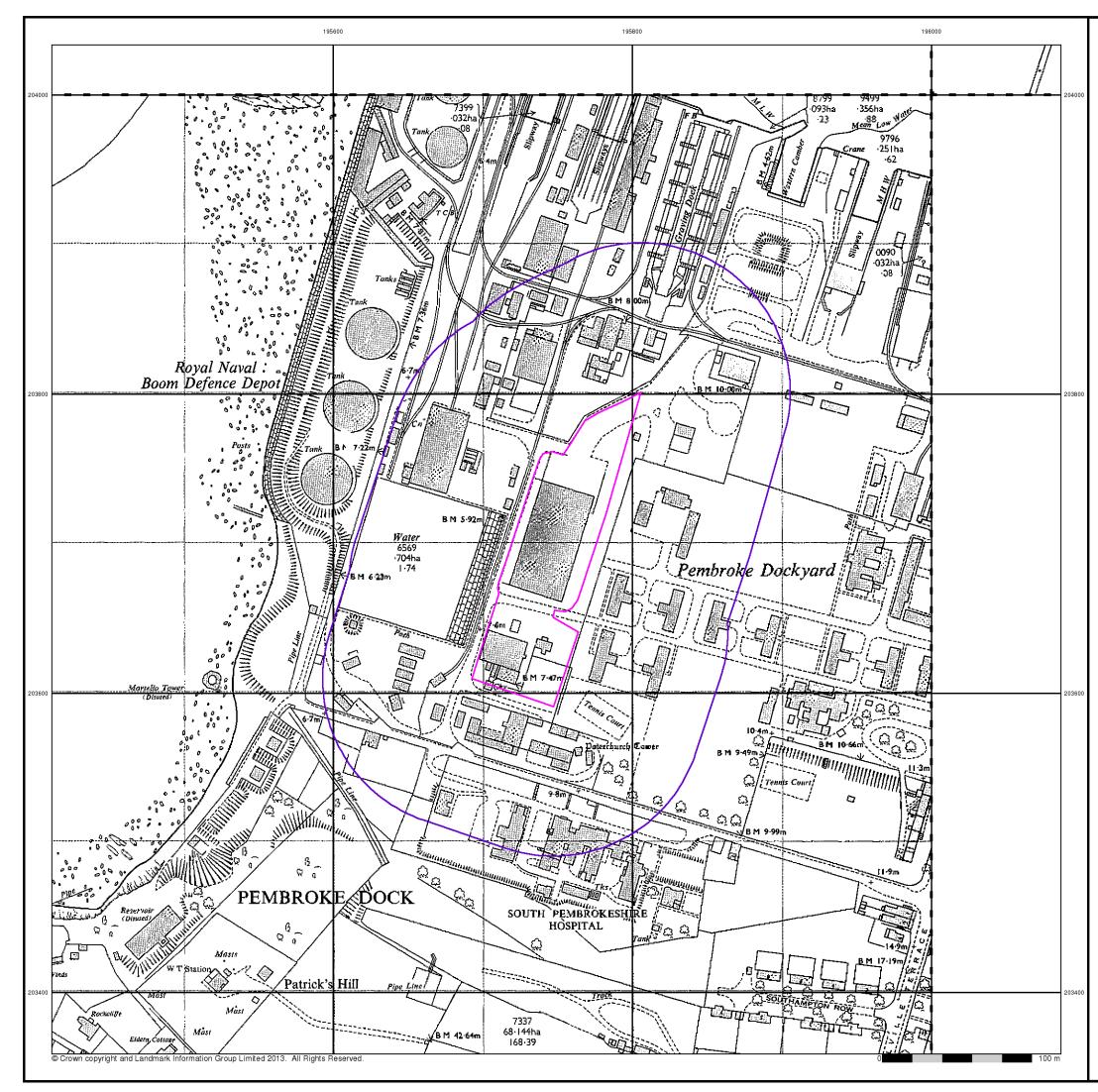
Order Number: Customer Ref:	54770190_1_1 771879
National Grid Reference:	
Slice:	A
Site Area (Ha):	1.02
Search Buffer (m):	100

#### Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: 084 Fax: 084 Web: ww





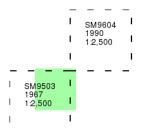
# **Additional SIMs**

# Published 1967 - 1990

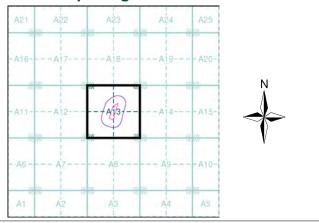
# Source map scale - 1:2,500

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**

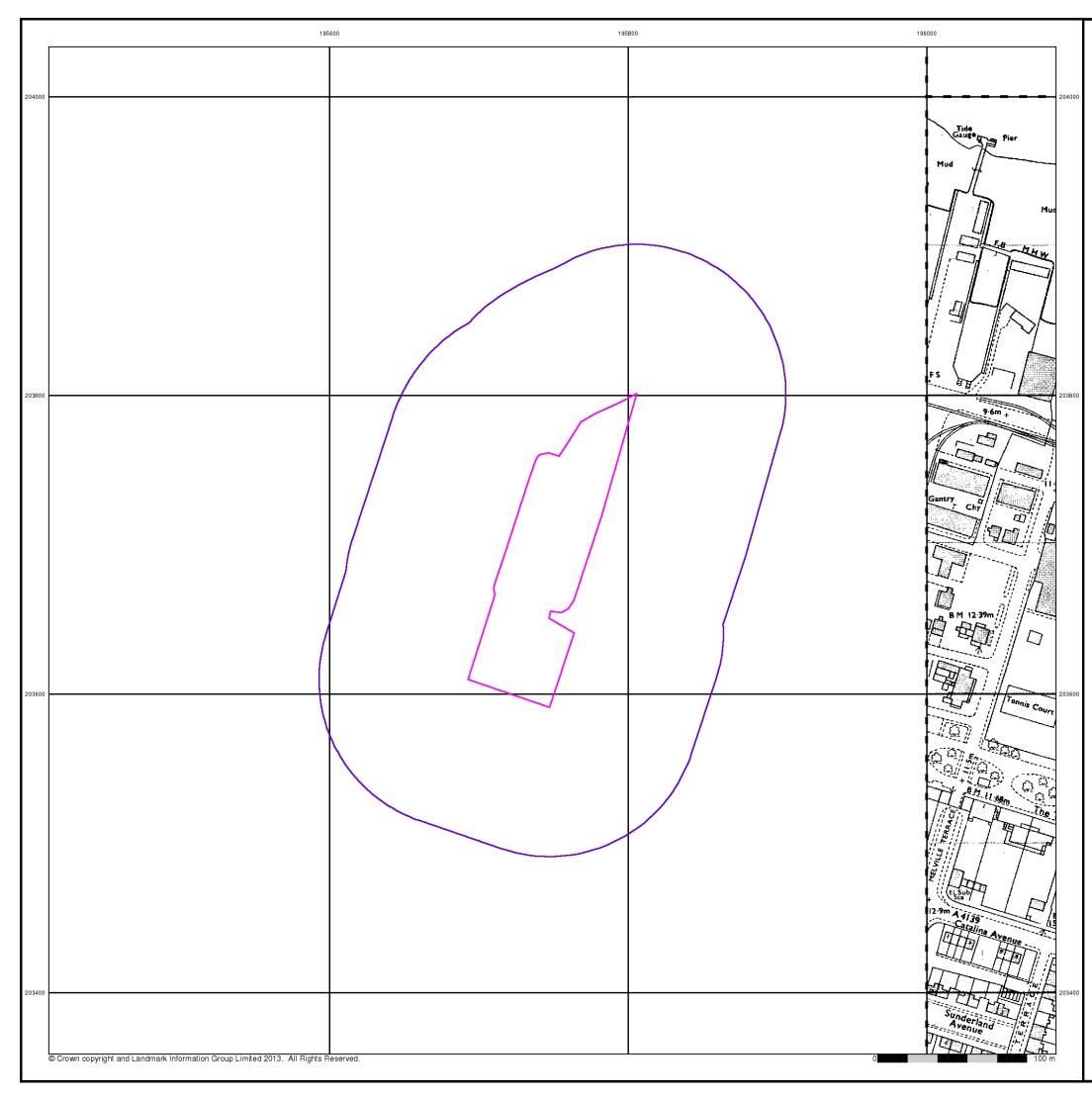
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Customer Ref:	771879
National Grid Reference:	195750, 203700
Slice:	A
Site Area (Ha):	1.02
Search Buffer (m):	100

#### Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





# Ordnance Survey Plan Published 1974 - 1976

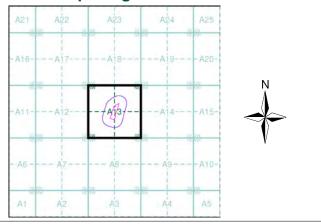
# Source map scale - 1:2,500

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.





# Historical Map - Segment A13



## **Order Details**

Order Number: Customer Ref:	54770190_1_1 771879
National Grid Reference:	
Slice:	A
Site Area (Ha):	1.02
Search Buffer (m):	100

#### Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





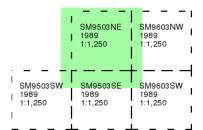
# **Ordnance Survey Plan**

# Published 1989

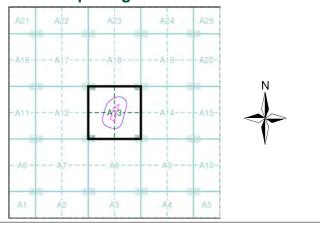
# Source map scale - 1:1,250

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

# Map Name(s) and Date(s)



# Historical Map - Segment A13



## **Order Details**

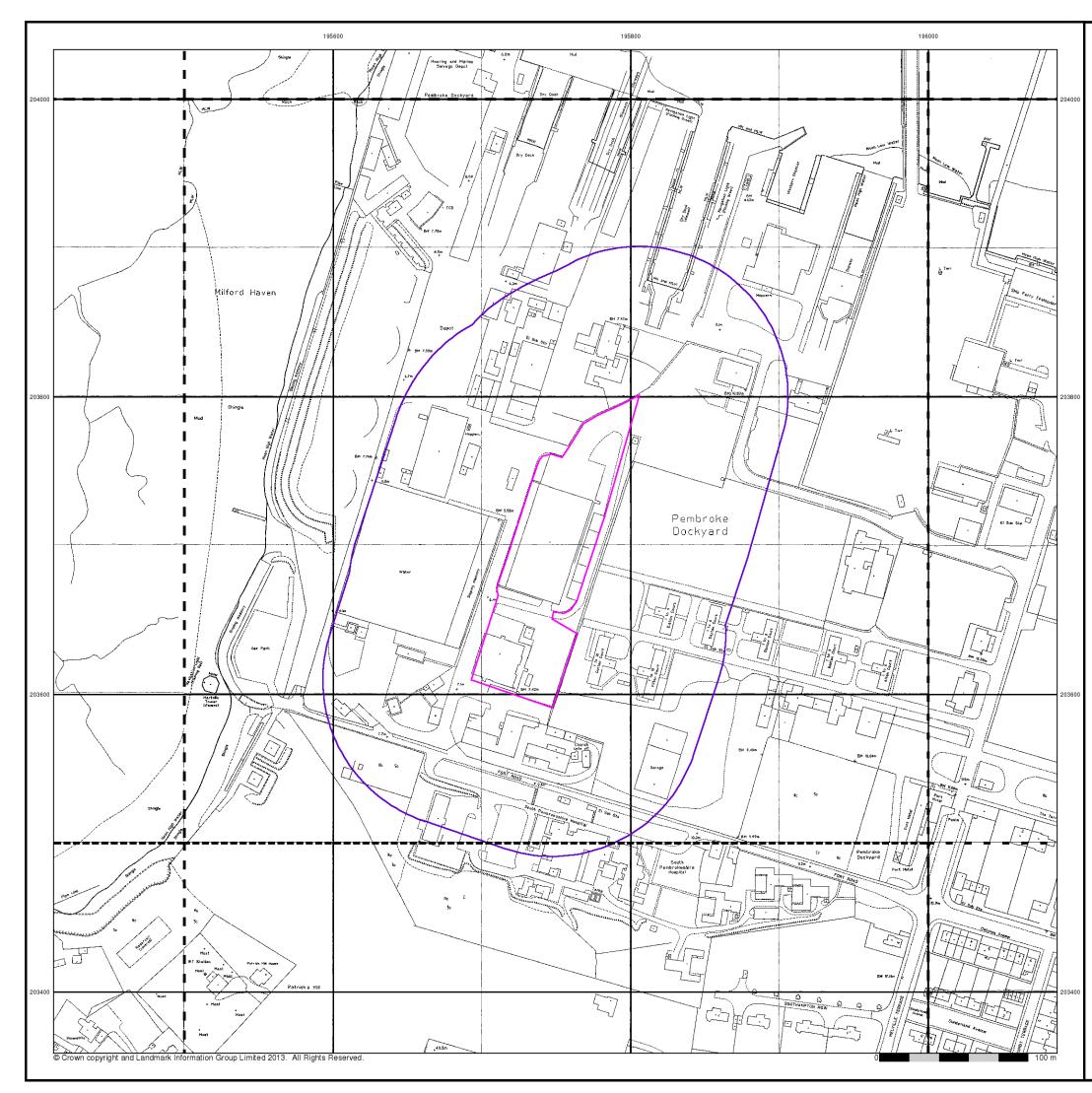
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Customer Ref:	771879
National Grid Reference:	195750, 203700
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Site Area (Ha):	1.02
Search Buffer (m):	100

#### Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: 04 Fax: 04 Web: w





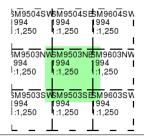
# Large-Scale National Grid Data

# Published 1994

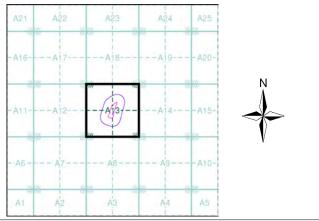
# Source map scale - 1:1,250

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

# Map Name(s) and Date(s)



# Historical Map - Segment A13



### **Order Details**

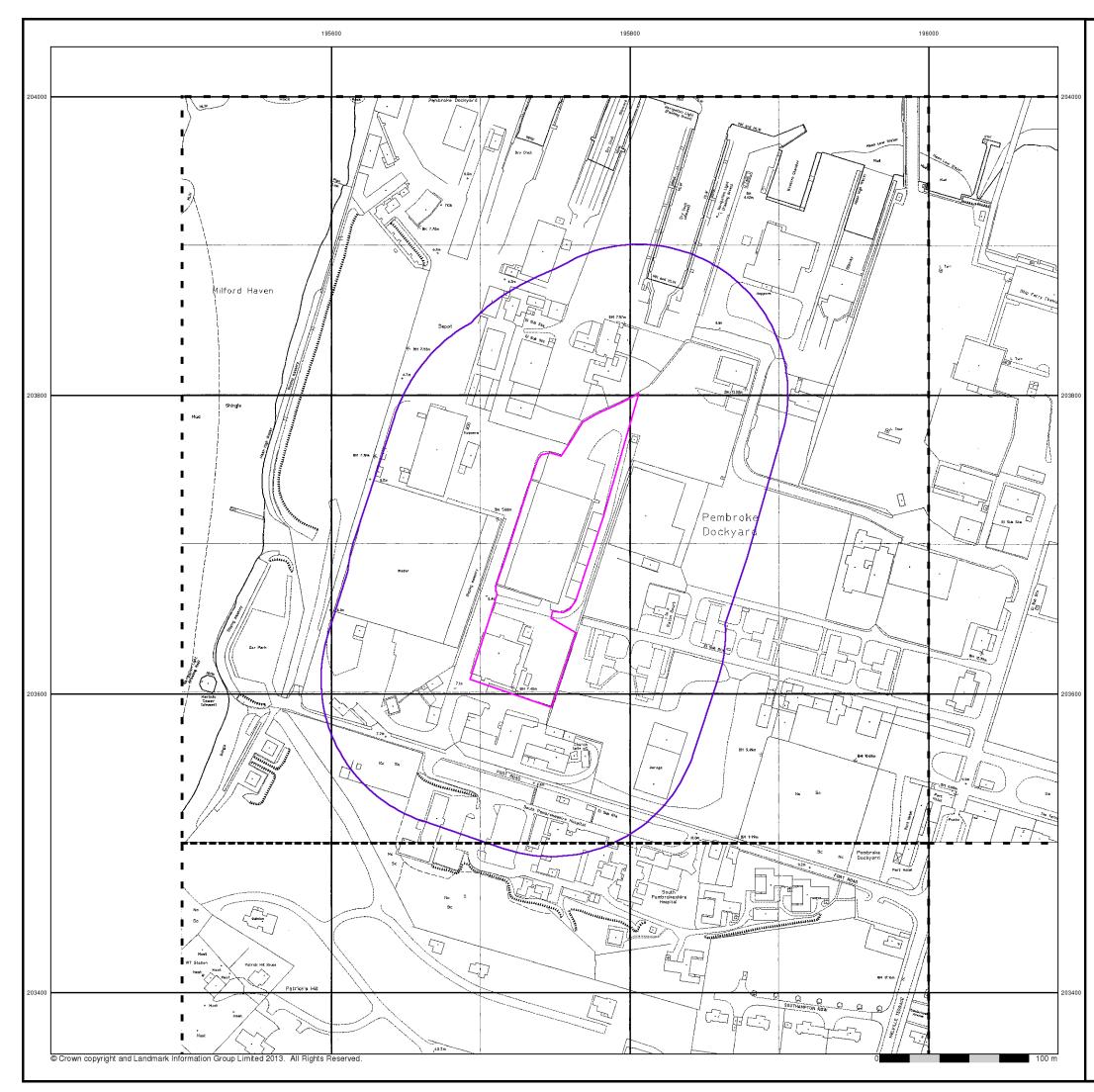
Order Number:	54770190_1_1
Customer Ref:	771879
National Grid Reference:	195750, 203700
Slice:	A
Site Area (Ha):	1.02
Search Buffer (m):	100

# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





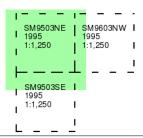
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# Published 1995

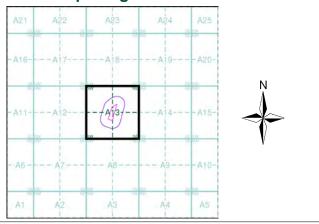
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'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information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

# Map Name(s) and Date(s)



# Historical Map - Segment A13



# **Order Details**

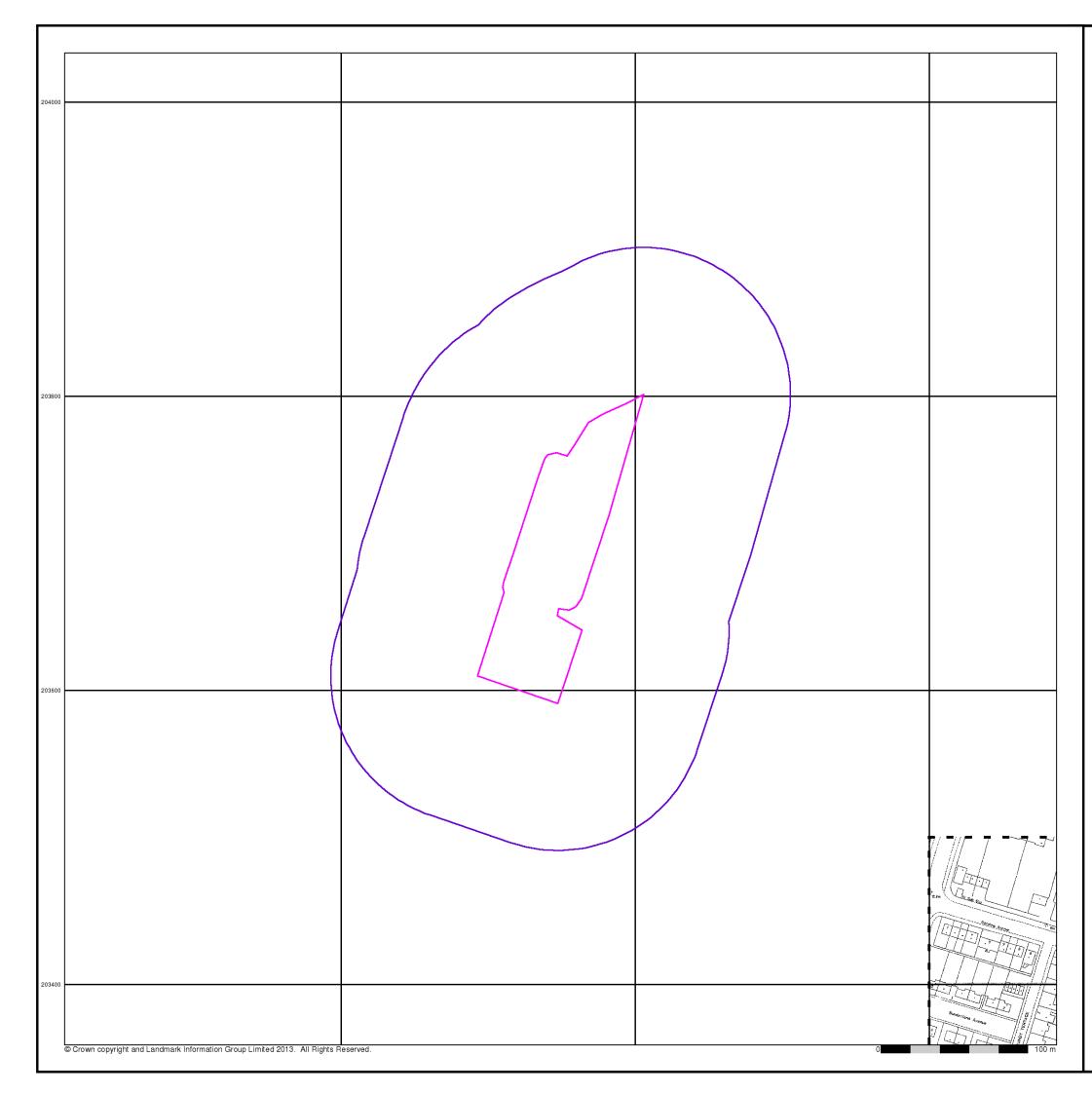
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Customer Ref:	771879
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Slice:	A
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Search Buffer (m):	100

# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





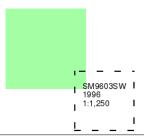
# Large-Scale National Grid Data

# Published 1996

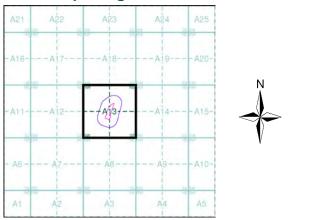
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'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information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

# Map Name(s) and Date(s)



# Historical Map - Segment A13



# **Order Details**

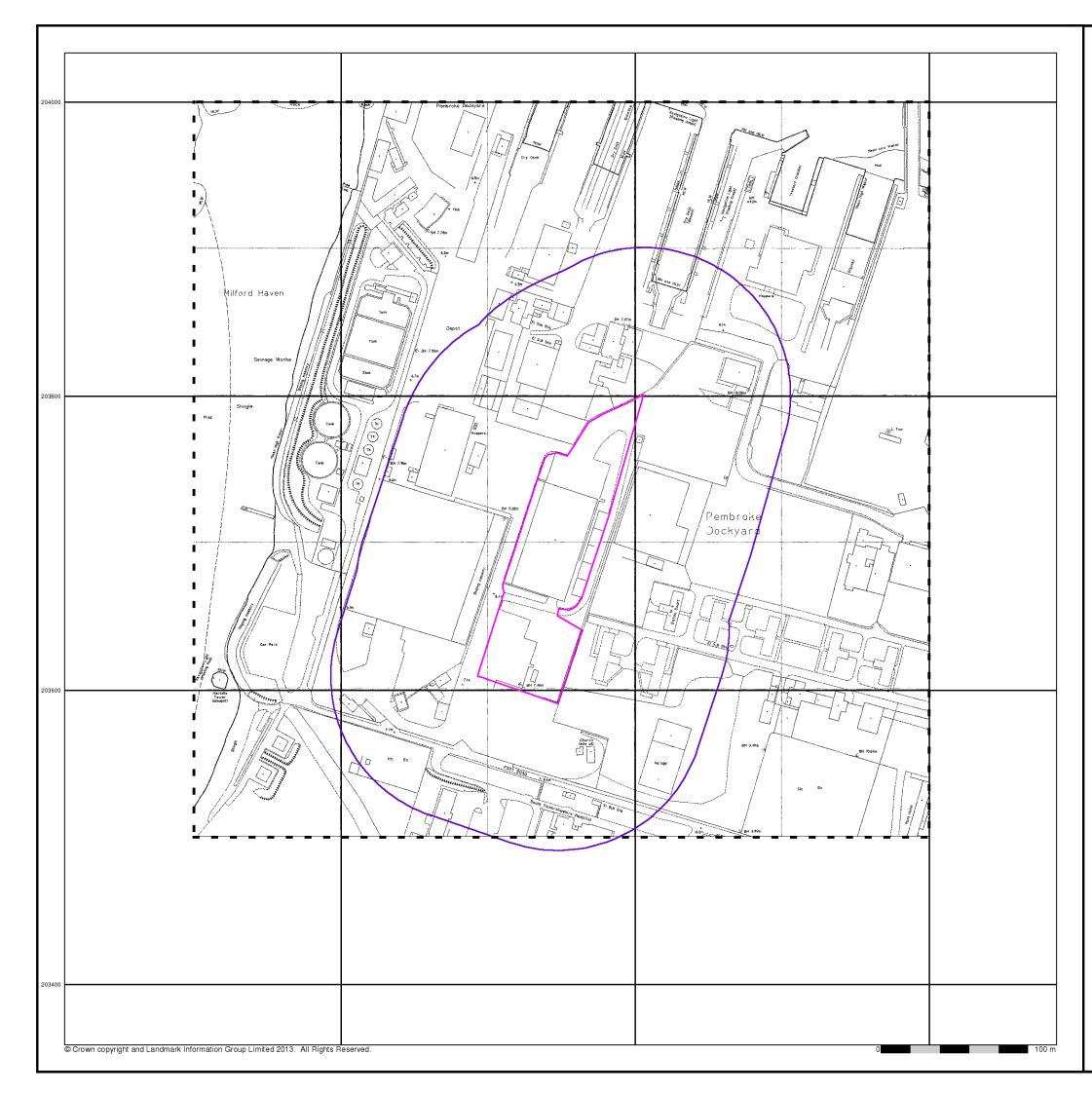
Order Number:	54770190_1_1
Customer Ref:	771879
National Grid Reference:	195750, 203700
Slice:	A
Site Area (Ha):	1.02
Search Buffer (m):	100

# Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: Fax: Web:





# Large-Scale National Grid Data

# Published 1996

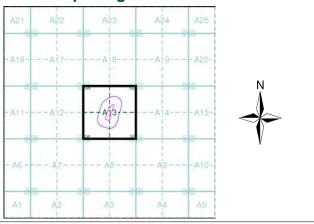
# Source map scale - 1:1,250

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

# Map Name(s) and Date(s)



# Historical Map - Segment A13



## **Order Details**

Order Number:	54770190_1_1
Customer Ref:	771879
National Grid Reference:	195750, 203700
Slice:	A
Site Area (Ha):	1.02
Search Buffer (m):	100

#### Site Details

Building 41, Edgar Morgan Way, Pembroke Dock, SA72 6TD



Tel: 08 Fax: 08 Web: w

Appendix B

Site Photographs



Northern end of site (view towards northeast)



Building 41 (view towards southwest)



East elevation Building 41 and storage bays (view towards north)



West elevation Building 41 (view towards northeast)



Area southeast of Building 41 and electrical apparatus compound (view towards northwest)



Area southwest of Building 41 (view towards northeast)

Appendix C

**Risk Definitions** 

#### **Risk Definitions**

The environmental risks identified for each pollutant linkage have been derived using a matrix based on the model provided in CIRIA C552 Contaminated Land Risk Assessment, A Guide to Good Practice, which considers both the magnitude of consequence and the likelihood of occurrence. The overall risk is determined by using a worst case scenario matrix as follows:

		Likelihood of Occurrence				
		Almost Certain	Likely	Possible	Unlikely	Very Unlikely
Potential Magnitude of Consequence	Severe	Very High	High	Moderate	Low	Low
	Moderate	High	Moderate	Moderate	Low	Very Low
	Mild	Moderate	Moderate	Low	Very Low	Very Low
	Negligible	Low	Low	Very Low	Very Low	Very Low

Input for the matrix above is based on the following scenarios for the potential magnitude of the consequence and the likely occurrence of the event:

Severe	<ul> <li>Permanent damage to buildings and structure</li> <li>Long term irreversible damage to human health</li> <li>Acute contamination of groundwater and/or surface water</li> </ul>	
Moderate	<ul> <li>Major (but reversible) damage to buildings and structures</li> <li>Long term (but curable) effects on human health</li> <li>Heavy contamination of groundwater and/or surface water</li> </ul>	
Mild	<ul> <li>Minor reversible damage to building and structure</li> <li>Short term effects on human health</li> <li>Minor contamination of groundwater and/or surface water</li> </ul>	
<ul> <li>Very little or no damage to buildings and structures</li> <li>Very minor, short term or no effects on human health.</li> <li>Very little or no contamination of groundwater and/or surfawater</li> </ul>		

#### Potential Magnitude of the Consequence

#### Likelihood of Occurrence

Almost Certain	• There is a clear pollutant linkage and circumstances are such that an event will inevitably occur or there is already evidence of harm to receptors	
Likely	• There is a pollutant linkage and circumstances are such that an event is likely to occur in either the long or short term	
Possible	• There is a pollutant linkage and circumstances are possible under which the event could occur in the sort term but more likely in the long term	
Unlikely	• There is a pollutant linkage and circumstances are possible under which the event could occur. It is however, unlikely in long term and even less so in the short term	
Very Unlikely	Very Unlikely • There is a pollutant linage however circumstances are such that is unlikely that an event would ever occur	