

Coastal Housing Group

Harvey Crescent, Port Talbot

Site Investigation Report

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1.0 INTRODUCTION

1.1 GENERAL

Coastal Housing Group are proposing to redevelop a site at Harvey Crescent, Port Talbot for residential end-use.

The site was previously investigated by Intégral Géotechnique (Wales) Limited in 2010 on behalf of Coastal Housing Group, as detailed in Intégral Géotechnique (Wales) Limited Site Investigation Report, Ref: 10608/RD/010 dated April 2010, and Ground Gas and Water Monitoring Report, Ref: 10608/RD dated 1st July 2010.

Due to the passage of time since the issue of the previous reports, and following demolition/site clearance works, Intégral Géotechnique (Wales) Limited have been appointed as the Geotechnical Engineers to undertake a supplemental site investigation, and to prepare an updated desk study and site investigation report in line with current industry standards.

This report presents the findings of the supplemental site investigation and gives recommendations for the design of foundations, floor slabs and other geotechnical and geoenvironmental aspects of the project. It should be noted that relevant information from the previous 2010 reports has been used, together with recently acquired data, in the production of this report.

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1.2 PROPOSED DEVELOPMENT

The proposed development will comprise the construction of six residential buildings, comprising four semi-detached two-storey residential buildings and two low rise residential buildings. The development will include associated infrastructure such as an access road and car parking areas and also areas of landscaping and private gardens. An extract of the proposed development layout is shown in Figure 3.

1.3 SCOPE OF WORKS

The work instructed included an updated desk study of available information (including a review of the previous 2010 site investigation data), site reconnaissance and supplemental intrusive site investigation. This was followed by laboratory testing, on site monitoring and geotechnical and geoenvironmental reporting.

The desk study comprised a review of:

- An Envirocheck Report obtained for the site
- Old Ordnance Survey maps covering the site, included within the Envirocheck Report
- A Radon GeoReport obtained from the British Geological Survey
- A Consultants Coal Mining Report from The Coal Authority
- Geological maps of the area provided by the British Geological Survey
- Natural Resources Wales groundwater vulnerability map and aquifer database for the area
- Existing site investigation data

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

The supplemental site investigation comprised:

- 7 No. machine excavated trial pits and 4 No. shell and auger boreholes carried out during November and December 2022
- Sampling of soil for laboratory chemical testing
- Sampling of groundwater for laboratory chemical testing (one round to supplement the previous three rounds undertaken in 2010)
- Monitoring for concentrations of methane, carbon dioxide, oxygen, hydrocarbon vapours and gas flow (two rounds to supplement the previous six rounds undertaken in 2010).

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

1.4 LIMITATIONS

“Contamination” is taken throughout the report to mean the “presence of one or more potentially harmful substances as a result of human activity”. The use of the term in this way does not imply that harm is being or might be caused by the contamination.

It should be noted that “contamination” can have different meanings under different regulatory regimes, for example, planning, building control and Part IIA of the Environmental Protection Act 1990. Naturally elevated concentrations of potentially harmful substances may also be of concern and the significance of any that have been found is also evaluated in this report.

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

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

Access for the intrusive site investigation was limited at the time due to a Heras fenced off area within the central area of the site, and a highly vegetated area along the western boundary.

Access for the intrusive site investigation was also limited at the time due to services within the site. LV electricity cables were present within the northern area of the site, a low pressure gas main within the south-western corner, and BT within the northern area of the site.

2.0 THE SITE

2.1 SITE LOCATION AND DESCRIPTION

The site is located in Port Talbot at a National Grid Reference of 275480, 189600, see Figure 1.

The site is irregular in shape and occupies an area of approximately 0.27 hectares. The boundaries of the site are defined by a welfare club and derelict land to the north, and existing residential development to the east, south and west. A site plan is presented in Figure 2.

The site is situated on generally level ground at an approximate elevation of approximately 7m AOD.

The site comprises a vacant land parcel following the demolition and clearance of a former office building. The site surface largely comprises crushed demolition materials.

Several heaps of fly-tipped materials/construction waste are present across the site.

A fenced off area of suspected Japanese Knotweed is present in the central area of the site.

2.2 SITE OPERATIONS

The site currently has no use and is undeveloped.

2.3 SURROUNDING LAND USE

The surrounding areas are generally developed for residential use with an existing welfare club building to the north.

2.4 AVAILABLE SITE INVESTIGATION DATA

Previous phases of investigation were at the site by Intégral Géotechnique (Wales) Limited behalf of Coastal Housing Group during 2010.

The following previously issued reports have been reviewed when compiling this supplemental report:

2.4 AVAILABLE SITE INVESTIGATION DATA (CONTINUED)

- Intégral Géotechnique (Wales) Limited, Harvey Crescent, Port Talbot, Site Investigation Report, Report No. 10608/RD/10, dated April 2010, on behalf of Coastal Housing Group.
- Intégral Géotechnique (Wales) Limited, Ground Gas and Water Monitoring Report, Harvey Crescent, Port Talbot, Report No. 10608/RD, dated 1st July 2010, on behalf of Coastal Housing Group.

A previous site investigation comprising six trial pits was carried out by Intégral Géotechnique (Wales) Limited on the 17th March 2010. The trial pits were located across accessible areas of the site and were excavated to a maximum depth of approximately 2.4m below existing ground level.

Further site investigation works, comprising three shell and auger boreholes were carried out between 10th and 18th March 2010. The boreholes were located across accessible areas of the site and drilled to a maximum depth of approximately 15.0m below existing ground level.

In-situ strength testing (SPT/CPTs) was carried out in the shell and auger boreholes.

Groundwater and gas monitoring standpipes were installed within the shell and auger boreholes.

Representative soil samples were taken from the trial pits and boreholes for laboratory chemical and geotechnical testing.

Representative groundwater samples were taken from the standpipe installed within the shell and auger boreholes for laboratory chemical testing. Three rounds of groundwater sampling and testing were completed. The results of these tests have been utilised and are discussed later in this report.

A programme of ground gas monitoring (comprising 6 No. monitoring rounds) was also undertaken.

The ground conditions typically comprised a thin layer of made ground or reworked natural soils over soft to firm grey/brown slightly silty slightly sandy slightly gravelly clay over soft to firm grey/brown peaty silty clay over medium dense to dense grey gravelly sand with frequent cobbles.

2.4 AVAILABLE SITE INVESTIGATION DATA (CONTINUED)

Indicative soil infiltration testing was undertaken within two trial pits (TP3 and TP5). Over the monitoring period the calculated infiltration rate were 1.66×10^{-4} m/s and 1.39×10^{-4} m/s.

The approximate location of the previous trial pits and boreholes are shown in Figure 2.

2.5 CONSULTATIONS WITH REGULATORS

The regulators have not been contacted at this stage.

3.0 SITE HISTORY

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

Map Scale	Dates
1:2,500	1876, 1889, 1917, 1939, 1952, 1969, 2001 (Aerial Photo)
1:1,250	1952, 1956-1964, 1962-1968, 1968-1975, 1986-1991, 1991, 1993
1:10,560	1884-1885, 1900, 1921, 1938-1952, 1959 (Aerial Photo)
1:10,000	1964-1965, 1974, 1980-1982, 1993-1996, 1999, 2006, 2022

The earliest edition of the map dated 1876 indicated the site to be undeveloped. The site was originally subject to tidal flooding and is noted as crossing the main channel and up to the high-water mark. A tramline is shown approximately 100m west of the site. Approximately 130m south-east of the site a railway line ran along an embankment from the south to the east following the west bank of the Afon Afan.

The 1899 edition of the map indicated the area shown as mudflat. Jubilee Road is built a 100m to the north-west of the site. The tramlines to the west of the site had been dismantled. Approximately 100m to the north of the site a Gasometer had been built whilst some 180m north-east of the site the Rhondda and Swansea Bay railway line had been built. Approximately 100m to south-east of the site and to the north-west of the railway line an embankment had been built to contain the realigned Afon Afan.

By 1917, the embankment to the south-east of the site had been extended further to allow the site and immediate surrounding area to hold water as some form of lake. The site would not appear to be a tidally influenced area as the high water mark no longer surrounds the site. Jubilee Road had been renamed Victoria Road by 1917 and residential properties had been built on either side. A new road off Victoria Road had been built running south-east towards the docks approximately 50m west of the site. A boat house off the new road had been built 50m west of the site. To the south-east of the Afon Afan the railway line had been expanded with several sidings. The gasometer approximately 100m north of the site had been redeveloped as a gas works by 1917.

By 1939, the road to the west of the site had been named Newbridge Road.

3.0 SITE HISTORY (CONTINUED)

The boathouse approximately 50m west of the site had been demolished whilst the Gasworks approximately 100m north of the site is shown to have expanded. The area to the northwest of the site is shown to have developed significantly with residential housing since 1917.

The 1952 edition of the map shows no sign of a water body and hence the man-made waterbody which covered the site and immediate surrounding area had been filled. The greater surrounding area remained relatively unchanged.

By the 1956-1964 edition of the map, the gasworks to the north of the site had been expanded. Structures are shown immediately north and east of the site. A site boundary crosses the site from the north-west to south-east. A new access road on the gas works site forms the northern site boundary. Approximately 80m east of the site an outfall is shown to the Afon Afan.

The 1962-1968 edition of the map, the gasworks had now expanded to include the site, with an office block building had now been constructed on site. The Rhondda and Swansea Bay railway had been dismantled.

The 1968 edition of the map shows further expansion of the gasworks. Several unspecified tanks are shown within 30 to 40m of the site boundary. By 1968, Afan way had been built where The Rhondda and Swansea Bay railway once was.

The 1986 edition of the map shows the office building on site labelled as government offices whilst the 1986 edition of the map shows much of the gasworks has been redeveloped as a gas holder station.

The 1988 map shows that the railway to the east of the Afon Afan had been dismantled.

The 1990 edition of the map also shows Harvey Crescent under development to the south of the site 100m east of the site. A pumping station had been built off the Afon Afan over part of the former gas works.

The 1991 and 1993 editions of the map shows Harvey Crescent to have been developed with residential properties now located to the south and west of the site.

The 2006 edition of the map still shows the Gas Holder, however many of the gasworks' buildings had been demolished.

3.0 SITE HISTORY (CONTINUED)

The 2022 edition of the map shows the government offices have been demolished and no buildings currently occupy the site. The aerial photos indicated the on-site building to have been demolished by 2013. The large tank approximately 130m west of the site had been replaced by a covered reservoir by this time. The aerial photos also indicate that between 2013 and 2016 a degree of fill material has been spread across the site surface (presumably to raise levels).

4.0 SITE ENVIRONMENTAL SETTING

4.1 PHYSICAL SETTING

The site is located in a mainly residential setting within Aberavon, Port Talbot.

The site is situated on generally level ground at an approximate elevation of approximately 7m AOD.

4.2 GEOLOGY

The 1:50,000 (Sheet No.247) geological map of the area indicates the site to be underlain by bedrock strata of the South Wales Middle Coal Measures Formation of the Carboniferous Period. These strata usually comprise grey, productive coal-bearing mudstones/siltstones, with seatearths and minor sandstones.

There are no conjectural coal outcrops in the vicinity of the site.

Superficial deposits comprising of Blow Sand of the Quaternary Period are indicated to overlie the bedrock strata. These deposits typically comprise sand that has been transported by wind, or sand consisting predominantly of wind-borne particles.

Superficial deposits comprising of Tidal Flat deposits are indicated to the east of the site boundary and Marine Beach deposits are indicated to the west of the site boundary. Areas of these deposits could also overlie the bedrock strata beneath the site.

A variable thickness of made ground is anticipated above the superficial deposits across the site. The Envirocheck Report indicates the site to be covered with artificially modified ground.

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

4.2 GEOLOGY (CONTINUED)

Table 1 : Summary of Anticipated Site Geology		
Geological unit	Horizon	Description
Recent	Made ground	Various materials
Quaternary	Blown Sand	Sand that has been transported by wind, or sand consisting predominantly of wind-borne particles
Quaternary	Tidal Flat Deposits	Clay, silt and sand
Quaternary	Marine Beach Deposits	Shingle, sand, silt and clay
Carboniferous	South Wales Middle Coal Measures Formation	Grey, productive coal-bearing mudstones/siltstones, with seatearths and minor sandstones

4.3 RADON

Information with regard to Radon Protective Measures is provided within the Envirocheck Report and the BGS Radon GeoReport as presented in Appendices A and B respectively. The reports state that the site is within a lower probability area, as less than 1% of homes are estimated to be at or above the action level, and that therefore no radon protective measures would be necessary in the construction of new buildings within the site.

4.4 MINING

The site is located within a coal mining reporting area and therefore a Consultants Coal Mining Report has been obtained from the Coal Authority and a copy is included in Appendix C.

The Coal Authority state that there is no past mining recorded beneath the site.

The Coal Authority state “none” in relation of probable unrecorded workings and that there are no recorded shallow roadways beneath the site.

The Coal Authority states that there are no faults, fissures or breaklines recorded beneath the site.

4.4 MINING (CONTINUED)

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

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

“The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991”.

The Coal Authority states that with regards to mine gas, none has been recorded within 500m of the site boundary. However, due to the site being located within a coal mining reporting area, a mine gas risk assessment should always be undertaken within coal mining areas in order to satisfy the guidelines within CL:AIRE document Good Practice for Risk Assessment for Coal Mine Gas Emissions, dated October 2021. (See Section 10.6).

The Coal Authority viewer indicates that the site is not located within a high-risk development area.

It is concluded that there is no risk of potential ground subsidence issues associated with the presence of past shallow mining activities and therefore no further specific coal mining related investigation is required.

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK

The Envirocheck Report indicates the nearest surface water feature is located 82m southeast of the site boundary. The OS Water Network Lines map indicates this to be the River Afan. There are no other surface water features located within 250m of the site boundary.

The Natural Resources Wales groundwater vulnerability map and aquifer database classifies the bedrock beneath the site as a Secondary ‘A’ Aquifer. Secondary ‘A’ Aquifers are permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers.

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

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK (CONTINUED)

A perched water body could be encountered within the made ground.

It is considered possible that the existing site drainage could act as a pathway for potential surface contaminants.

The Envirocheck Report indicates that there are two effective discharge consents recorded within 250m of the site boundary. Both consents are recorded 116m to the east of the site where Dwr Cymru sewage discharges are received by the River Tawe.

The Envirocheck Report states that there are no water abstractions recorded within 250m of the site boundary. The nearest abstraction is a surface water abstraction from the River Afan recorded 474m to the east with the water used as process water at Corus UK.

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

Table 2: Summary of Site Hydrology					
Feature	Distance from site	Flow	Classification	Abstraction	Discharge
River Afan	82m southeast	South westerly	Tidal river	Yes	Swansea Bay
Surface run-off	On site	Flows into site drainage	N/A	No	Not known
Site Drainage	On site	Not known	N/A	No	Not known

Table 3: Summary of Site Hydrogeology				
Geological Unit	Aquifer Classification	Aquifer Characteristics	Source Protection Zone	Groundwater Abstractions
Made ground	Not classified	Highly variable permeability and porosity. Perched water may be present with variable flow directions.	No	None
Blown Sand	Secondary A Aquifer	Variable moderate permeability Sand	No	None
South Wales Coal Measures	Secondary A Aquifer	Variable moderate permeability coal-bearing mudstones/siltstones and sandstones	No	None

4.5 HYDROLOGY, HYDROGEOLOGY AND FLOOD RISK (CONTINUED)

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

The Natural Resources Wales Flood Risk map as presented within the Envirocheck Report indicates that the site is at risk of flooding from rivers or sea without defences.

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

The BGS Groundwater Flooding Susceptibility map as presented within the Environment Report indicates the site to have potential for groundwater flooding to occur at surface.

4.6 LANDFILL SITES

The Envirocheck Report states there are no recorded, current or historical landfill sites within 500m of the site boundary.

The Envirocheck Report indicates that there is one area of potentially infilled land (non-water) recorded within 250m of the site boundary. The area is located 29m to the west at the location of an area of historical infilled land.

The Envirocheck Report indicates that there are five areas of potentially infilled land (water) located both on-site and within 250m of the site boundary. The areas are located across the site and extending to the surrounding areas and also 79m southeast, 116m southeast, 177m east and 218m south at the location of former surface water features.

4.7 POTENTIAL CONTAMINATION

Previous Uses

The various activities in the vicinity of the site which may have resulted in ground or water resource contamination on this site are listed below in Tables 4 and 5. A summary of the potential contaminants can be found in the tables.

4.7 POTENTIAL CONTAMINATION (CONTINUED)

Table 4: Potential Contaminants		
Land Use: Undeveloped land and water filled feature until 1950's		
Material/Process	Contamination/Hazard	Evidence
Mudflats and undeveloped land which later became water filled	No potential contaminants	Historical maps
Land Use: Reclaimed land and infilling man-made water body		
Material/Process	Contamination/Hazard	Evidence
Imported made ground/earthworks in order to reclaim the land and infill the feature. Likely to have utilised imported materials of unknown origin	Metals, semi metals, non-metals, PAH, asbestos	Historical maps
Land Use: Construction of office building by the 1960's		
Material/Process	Contamination/Hazard	Evidence
Construction of former gas works office building (later converted to government offices) would have disturbed the ground and may have utilised imported materials of unknown origin	Metals, semi metals, non-metals, PAH, asbestos	Historical maps
Demolition and site clearance by 2013 which would have further disturbed the ground and may utilised imported materials of unknown origin to raise site levels	Metals, semi metals, non-metals, PAH, asbestos	Aerial photos

Existing Uses

There are no current site uses with the site remaining undeveloped.

Adjacent Site Uses

Table 5: Potential Contaminants: Adjacent Site Uses		
Potential Contamination Source	Boundary	Associated Contaminants and Hazards
Mainly undeveloped derelict former commercial land formerly a gas works	Northern and North Eastern	Metals, semi metals, non-metals, PAH, asbestos
Residential development within Harvey Crescent	Western, Eastern and Southern	No Potential Contaminants

4.8 OTHER ENVIRONMENTAL ISSUES

The Envirocheck Report does not indicate any environmentally sensitive land within 1km of the site boundary.

The Envirocheck Report indicates that there have been no pollution incidents to controlled waters recorded on site but has been three recorded within 250m of the site boundary. The nearest incident was a Category 3-Minor Incident involving light oils recorded 92m southeast of the site, the cause is unknown. A further Category 3-Minor Incident involving farm effluent/slurry due to a spillage was recorded 133m northeast of the site. An additional Category 3-Minor Incident involving a crude sewage due to a spillage was recorded 184m east of the site.

The Envirocheck Report indicated that there have been no substantiated pollution incidents registered on the site but one recorded within 250m of the site boundary.

The incident was recorded 40m to the north where other organic chemicals or products caused a significant impact on land and no impact on water or air.

Aberavon Gas Works located 163m to the east was registered as a Control of Major Accident Hazard site (COMAH). The site also had a Planning Hazardous Substance Consent in place and a Notification of Installations Handling Hazardous Substances (NHHS). All these consents and classifications are no longer active.

There have been no prosecutions relating to controlled waters or to authorised processes recorded on site or within 1km of the site boundary.

The Envirocheck Report indicates one active Contemporary Trade Directory Entry within 250m of the site boundary. The entry is for a Tyre Dealers located 50m to the northwest.

There is one point of Interest-Commercial Services located within 250m of the site boundary. The entry is recorded 244m north of the site for vehicle repair, testing and servicing.

There are two points of Interest-Manufacturing and Production recorded within 250m of the site boundary. The entries included a power station located 110m northeast and a tank located 137m north.

4.8 OTHER ENVIRONMENTAL ISSUES (CONTINUED)

Vegetation surrounds much of the site, and a fenced off area of suspected Japanese Knotweed is present in the central area of the site. It is strongly advised that a full invasive/pest plant species survey is undertaken across the entire site area. A scheme for the eradication and removal of any identified invasive plant species will be required.

5.0 PRELIMINARY CONCEPTUAL SITE MODEL

5.1 RISK ASSESSMENT FRAMEWORK

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

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

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

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

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

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

LCRM also provides definitions of the following terms:

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

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

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

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

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

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

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

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

5.1 RISK ASSESSMENT FRAMEWORK (CONTINUED)

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

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

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

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

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

S4ULs have been derived for a wider number of substances.

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

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

5.2 CONCEPTUAL MODEL FRAMEWORK

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

5.2 CONCEPTUAL MODEL FRAMEWORK (CONTINUED)

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

5.3 CRITICAL SENSITIVE RECEPTOR – HUMAN HEALTH

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

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

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

5.4 CRITICAL SENSITIVE RECEPTOR – CONTROLLED WATERS

Based on the proposed redevelopment of the site for a residential end use, and the findings of the desk study, the critical sensitive receptor from a controlled water perspective is groundwater within the Secondary 'A' Aquifer of the Blown Sand and the underlying South Wales Middle Coal Measures Formation.

By considering groundwater as the critical sensitive receptor for controlled waters, the groundwater/hydrogeological risk assessment will also be protective of the River Afan to the southeast of the site.

5.5 POTENTIAL CONTAMINANT SOURCES

As identified in the desk study, the extensive historical land uses at the site since the 1950's has involved the reprofiling of the topography which would have involved the use of imported material of an unknown origin and the subsequent construction of an office building within the site. The building was demolished circa 2013 which would have disturbed the ground further. Made ground of variable thickness would be anticipated across the site.

The potential types of contaminants of concern are listed below:

5.5 POTENTIAL CONTAMINANT SOURCES (CONTINUED)

- Metals, semi-metals, and inorganics within the made ground/ groundwater
- Polyaromatic hydrocarbons (PAH) within the made ground/groundwater
- Petroleum hydrocarbons within the groundwater
- Asbestos within the made ground.

5.6 POTENTIAL EXPOSURE PATHWAYS

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

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

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

- Ground gas generation and migration
- Building materials durability.

5.7 SUMMARY OF CONCEPTUAL EXPOSURE MODEL

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

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

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

5.7 SUMMARY OF CONCEPTUAL EXPOSURE MODEL (CONTINUED)

Table 6: Preliminary Conceptual Exposure Model				
Source		Receptor	Pathway	Potentially Active Pathway?
Origin	Contaminant			
Made Ground of unknown origin and historical land uses	Metals, semi-metals, non-metals, PAH, asbestos	Resident – human health	Dermal Contact with made ground/dust	✓
			Ingestion of soil and/or soil attached to home-grown produce	✓
			Ingestion of home-grown produce	✓
			Inhalation of dust	✓
			Inhalation of vapours – indoor/outdoor	✓
	Metals, semi-metals, inorganics, PAH, petroleum hydrocarbons	Groundwater quality	Leaching from made ground	✓
		Surface water quality	Transportation within groundwater	✓
Made Ground of unknown origin and natural ground	pH and water-soluble sulphate	Building Materials Durability	Direct contact	✓
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration off site, leading to asphyxiation, or risk of explosion	✓

6.0 THE SITE INVESTIGATION

6.1 FIELDWORKS

A supplemental site investigation was designed in accordance with BS 5930:2015+A1:2020, the Code of Practice for Site Investigations, BS10175:2011+A2:2017, the Code of Practice for Investigation of Potentially Contaminated Sites, and 'Development of Land Affected by Contamination: A Guide for Developers' prepared by Welsh Local Government Association (WLGA)/Natural Resources Wales (NRW) Land Contamination Working Group, 2017.

The supplemental site investigation was also designed to provide information to support and refine the preliminary conceptual site model/conceptual exposure model.

The supplemental site investigation comprised:

- 7 No. machine excavated trial pits and 4 No. shell and auger boreholes carried out during November and December 2022
- Sampling of soil for laboratory chemical testing
- Sampling of groundwater for laboratory chemical testing (one round to supplement the previous three rounds undertaken in 2010)
- Monitoring for concentrations of methane, carbon dioxide, oxygen, hydrocarbon vapours and gas flow (two rounds to supplemental the previous six rounds undertaken in 2010).

The machine excavated trial pits (referenced TP01 to TP07) were undertaken using a JCB 3CX mechanical excavator down to a maximum depth of approximately 2.7m bgl.

The shell and auger boreholes (referenced BH1, BH2, BH3, and BH3A) were drilled to maximum depth of 14.6m bgl using a Dando 2000 drilling rig. The shell and auger boreholes were specifically positioned to coincide with the approximate locations of the previous shell and auger boreholes drilled during the 2010 site investigation works.

In-situ strength testing (SPTs) was carried out in the boreholes. Shallow and deep ground gas and groundwater monitoring standpipes were installed within the shell and auger boreholes.

Following the installation of the standpipes, groundwater was sampled for laboratory chemical testing, and a programme of gas monitoring was commenced. The purpose of the groundwater sampling and gas monitoring was to supplement the previous rounds undertaken at the site during 2010.

6.1 FIELDWORKS (CONTINUED)

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

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

The approximate locations of the trial pits and shell and auger boreholes are shown on Figure 2, while their logs are presented in Appendix D and E respectively.

6.2 FIELD OBSERVATIONS

Made ground deposits were encountered at all trial pit and borehole locations. However, no visual or olfactory evidence of any gross contamination was observed.

A buried concrete obstruction was encountered at TP07 at a depth of approximately 0.60m bgl. TP07 was terminated at 0.60m bgl due to the presence of the buried obstruction.

A buried obstruction was encountered at BH3A at a depth of approximately 1.50m bgl. BH3A was terminated at 1.60m bgl due to the presence of the buried obstruction.

6.3 LABORATORY CHEMICAL TESTING

Representative soil samples were taken from the trial pits across the site, stored at the appropriate temperature and dispatched to the laboratories of i2 Analytical for laboratory chemical testing within 24 hours.

The samples were tested for a range of contaminants that reflects the historical use of the site, the findings of the desk study and the preliminary conceptual site model/conceptual exposure model. A list of the soil testing carried out is given below:

Beryllium	Cadmium
Total Chromium	Hexavalent Chromium (VI)
Copper	Lead

6.3 LABORATORY CHEMICAL TESTING (CONTINUED)

Mercury	Nickel
Vanadium	Zinc
Arsenic	Boron
Selenium	Elemental Sulphur
Total Cyanide	Total Sulphate
Sulphide	Water Soluble Sulphate
pH	Monohydric Phenol
Polyaromatic Hydrocarbons (PAH)	Asbestos

Upon completion of the drilling works, groundwater was sampled from each of the boreholes. The samples were also dispatched to the laboratories of i2 Analytical and tested for the same elements/compounds as the soils, with the addition of speciated petroleum hydrocarbons.

The results of all the soil and groundwater testing are presented in Appendices F and G respectively.

6.4 LABORATORY GEOTECHNICAL TESTING

Representative soils were not subject to laboratory geotechnical testing from the 2022 trial pits. Instead, the results from the previous 2010 site investigation have been utilised.

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

6.5 GROUNDWATER MONITORING

Groundwater monitoring standpipes were installed in shell and auger boreholes BH1, BH2 and BH3 located across the site. One groundwater monitoring round has been carried out to date. The groundwater levels within the wells were initially checked and recorded. The boreholes were then purged of approximately three times the well volume using an electric pump. Each well was monitored in situ during purging for groundwater parameters pH, temperature, conductivity, and total dissolved solids using a Hanna Multi Parameter Water Quality Meter. Representative samples of ground water were then collected and stored in the correct sample bottles during transportation to the laboratory.

The sampling equipment was cleaned between boreholes to prevent cross contamination between boreholes. Care was also taken to ensure the sampling equipment did not become contaminated at the ground surface.

6.5 GROUNDWATER MONITORING (CONTINUED)

Upon completion of the sampling, the rate of recovery of the groundwater level in the borehole was observed.

A copy of the groundwater monitoring results is presented in Appendix I.

6.6 IN-SITU GAS MONITORING

As part of the supplemental site investigation works, gas monitoring standpipes were installed in shell and auger boreholes BH1, BH2 and BH3 and these were monitored at two fortnightly intervals following completion of the supplemental fieldworks.

Two rounds of rounds of ground gas monitoring have been completed. The purpose of the ground gas monitoring was to supplement the previous six rounds of monitoring undertaken at the site during 2010.

The concentration levels of methane, carbon dioxide and oxygen were measured in the standpipes during each visit by using a GA5000 Landfill Gas Analyser. In addition, gas flow rate and the atmospheric pressure at the time of the field measurements were also recorded.

Gas monitoring was carried out over a range of atmospheric pressures to include at least one reading in low and/or falling pressure, in accordance with the recommendations made in CIRIA Report C665.

The results of the ground gas monitoring (including the results of the previous 2010 monitoring programme are presented in Appendix J.

7.0 GROUND CONDITIONS

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

Table 7: Summary of Ground Conditions		
Depth (m)		Stratum
From	To	
0.00	0.60/1.30	MADE GROUND (recent): Typically, loose granular deposits, predominantly comprising GRAVEL and COBBLES with occasional boulders and variable fines content. High quantities of anthropogenic constituents including brick, concrete, ash, clinker etc.
0.00/1.30	9.10/10.90	MADE GROUND (historical): Typically, loose, locally medium dense, yellow brown coarse slightly gravelly SAND with variable quantities of anthropogenic constituents including brick, slag, and clinker. With lenses / layers of soft dark grey silty CLAY and loose or medium dense dark grey sandy GRAVEL.
9.10/10.90	9.90/11.30	Soft, soft to firm grey/dark grey slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse sub angular and sub rounded sandstone.
9.40	12.40	Soft dark grey slightly sandy slightly gravelly peaty silty CLAY (BH3 only).
11.30/12.40	12.50/14.60	Medium dense to dense dark grey slightly sandy slightly clayey GRAVEL and COBBLES of rounded and sub rounded sandstone.

Trial pit sides either experienced overbreak or complete collapse within the loose made ground deposits.

7.1 MADE GROUND

All trial pits and boreholes encountered made ground. Heterogeneous made ground characterised by the presence of anthropogenic material was recorded immediately below the surface and was proven to extend to depths of between 9.1m and 10.9m below existing ground level. The greatest thickness of made ground was recorded in BH1.

7.1 MADE GROUND (CONTINUED)

The made ground encountered from ground level typically comprises recent fill and was predominately granular. These deposits are characterised by the presence of angular and sub angular limestone and sandstone with some anthropogenic materials including brick, ash, clinker, and slag. Which was proven to extend to depths between 0.6m and 1.3m below existing ground level.

A thick sequence of historical made grounds underlies the surface layer of more recent made ground. The historical made ground deposits typically comprise loose, locally medium dense, yellow brown coarse slightly gravelly sand with variable quantities of anthropogenic constituents including brick, slag, and clinker. Lenses / layers of soft dark grey silty clay and loose or medium dense dark grey sandy gravel are also present. The base of the historical made ground was recorded at depths of between approximately 9.1m and 10.9m below existing ground level.

Uncorrected N values derived from in-situ testing in the shell and auger boreholes ranged from between 3 and 35 within the granular made ground. This indicates that with the exception of localised concentrations of cobbles, elevating the N value, the made ground is generally loose to medium dense, becoming more dense with depth.

7.2 SUPERFICIAL DEPOSITS

The made ground was fully penetrated in all of the shell and auger boreholes (with the exception of BH3A due to an obstruction) and was proven to be underlain by natural superficial deposits.

Underlying the made ground was cohesive soils which was proven to extend to depths of between 9.9m bgl (at BH2) and 12.4m bgl (at BH3). These fine-grained soils comprised of a mixture of soft or soft to firm dark grey slightly sandy slightly gravelly silty clay.

The thickness of this clay layer varied between approximately 0.4m at BH1, 0.8m at BH2, and 3.0m at BH3. It should be noted that at BH3 the clay soils were noted to contain peat inclusions. Uncorrected N values in the cohesive soils were recorded between 2 and 15, indicating these superficial deposits were soft, soft to firm and firm.

The cohesive soils were proven to be underlain by natural granular deposits in BH1, BH2 and BH3.

7.2 SUPERFICIAL DEPOSITS (CONTINUED)

The encountered granular deposits were generally described as medium dense to dense dark grey slightly sandy slightly clayey gravel and cobbles. The gravel and cobbles comprised of fine to coarse subangular to subrounded sandstone.

This deposit was proven to extend to depths of between 11.0m and >14.6m below existing ground level.

The uncorrected N values in the granular soils were recorded between 3 and 84 or greater than 50. Indicating the granular superficial deposits becoming more dense with depth.

7.3 GROUNDWATER

Groundwater was not encountered in any of the trial pits dug across the site, however it was found at shallow within all three boreholes, a summary is provided below in Table 8.

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

Borehole	Table 8: Groundwater Strikes
BH1	Perched groundwater at 5.6mbgl, rising to 2.9mbgl after 20 minutes.
BH2	Perched groundwater at 2.8mbgl, rising to 1.9mbgl after 20 minutes.
BH3	Perched groundwater at 2.7mbgl rising to 1.9mbgl after 20 minutes.

Groundwater levels were also measured during visits to site to sample groundwater. The depth to groundwater has been converted to a groundwater level with respect to ordnance datum, and a summary provided below in Table 9.

Borehole	Table 9: Groundwater Monitoring Depths (m bgl)
BH1	4.58
BH2	4.51
BH3	4.43

8.0 CONTAMINATION

8.1 AVERAGING AREAS

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

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

8.2 SOIL CONTAMINATION

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

Since the results of the testing indicate total organic carbon content (TOC) in the range of 1.1% to 2.4%, the results have been compared to the respective guidelines, where applicable, for 1% soil organic matter content.

The soil test results for made ground have been summarised and are shown in Appendix K.

8.2.1 *Made Ground*

A total of nine samples of the made ground have been tested for contamination.

The results of the laboratory testing indicate that most of the analysed chemical elements or compounds are present at concentrations below the appropriate thresholds. However, the results do indicate exceedances of Lead (in all nine tested samples) and PAH compounds (in two tested samples). Asbestos was also detected within two tested samples of the made ground.

All nine samples recorded elevated concentrations of lead which were detected above the adopted screening values of 200mg/kg (LQM 1% SOM). The highest concentrations of Lead were detected within a made ground sample from TP07 (0.1m bgl) at 600mg/kg.

8.2 SOIL CONTAMINATION (CONTINUED)

Slightly elevated concentrations of the PAH compound dibenzo(ah)anthracene were detected above the adopted screening value of 0.24mg/kg (LQM 1% SOM) within two samples of made ground at TP01 (0.3m bgl) and TP04 (0.2m bgl). The recorded concentration at TP01 was 0.27mg/kg. The recorded concentration at TP02 was 0.29mg/kg.

A single slightly elevated concentration of the PAH compound benzo(b)fluoranthene was recorded in a sample of made ground from TP04 (0.2m bgl). The recorded concentration was 3.0mg/kg which slightly exceeds the adopted screening value of 2.6mg/kg (LQM 1% SOM).

Asbestos has been identified in two out of nine samples of made ground. Fibres of Chrysotile asbestos were identified within the made ground at TP02 (0.4mbgl) and chrysotile asbestos Fibrous Debris was identified within a sample of made ground at TP04 (0.2mbgl). Both samples were sent for quantification testing at the laboratory and the results presented in Appendix K. The result of the quantification test on TP02 (0.4mbgl) and TP04 (0.2mbgl) indicates <0.001% and 0.001% asbestos respectively.

No further exceedances were detected within the samples of made ground.

It should also be noted that based on a comparison the previous 2010 soil testing data (which predominantly comprised sampling and testing of the reworked sand deposits underlying the more recent post demolition made ground) with current screening values, no further contaminant exceedances have been recorded.

8.2.2 *In-situ Natural Ground*

No visual or olfactory evidence of contamination of the in-situ natural ground was identified during the excavation of the trial pits or drilling of the boreholes or excavation of the trial pits. At the time of writing this report no samples of natural ground had been tested. It is considered likely that concentrations of determinants within the natural ground are likely to be naturally occurring and as such, the natural ground poses no significant threat to human health or the environment.

8.3 GROUNDWATER CONTAMINATION

Groundwater monitoring standpipes were installed within the previous shell and auger boreholes drilled across the site during 2010. Three rounds of groundwater sampling and testing were undertaken from these standpipes as part of the previous 2010 site investigation works.

8.3 GROUNDWATER CONTAMINATION (CONTINUED)

In order to supplement the previous 2010 groundwater contamination dataset, one round of groundwater sampling and testing has been undertaken from the standpipes installed within the supplemental shell and auger boreholes as part of the current site investigation works.

Copies of all the groundwater testing results have been included in Appendix G.

As part of a 'Tier 1' screening exercise, the results of the groundwater analyses have been compared against the Annual Average Environmental Quality Standards (AA-EQS) for Estuaries and Coastal Waters in the first instance. Where no AA-EQS values are available, the results have been compared against the available Maximum Allowable Concentration Environmental Quality Standards (MAC-EQS) for Estuaries and Coastal Waters.

Where no EQS values are available, the results have been compared against UK and WHO drinking water standards, in hierarchical order.

A summary of the groundwater test results and comparison with the screening values is presented in Appendix L.

A summary of the exceedances recorded during the three groundwater sampling and testing rounds undertaken during 2010 is provided below.

- Zinc was recorded above the adopted AA-EQS (6.8ug/l) in samples of groundwater from BH1, BH2 and BH3. At BH1, the exceeding concentrations were 34ug/l (round 1) and 39ug/l (round 3). At BH2, the exceeding concentrations were 19ug/l (round 1) and 79ug/l (round 3). At BH3, the exceeding concentration was 110ug/l (round 1). It should be noted that all concentrations are significantly below the UKDWS of 5000ug/l.
- Cyanide was recorded above the adopted AA-EQS (1.0ug/l) and MAC-EQS (5.0ug/l) in samples of groundwater from BH1 and BH2. At BH1, the exceeding concentration was 16ug/l (round 3). At BH2, the exceeding concentration was 15ug/l (round 3). It should be noted that both concentrations are significantly below the UKDWS of 50ug/l.
- A single elevation concentration of chromium above the adopted AA-EQS (0.6ug/l) was recorded at BH1 (round 1). A concentration of 3.0ug/l was recorded at BH1 (round 1) only. It should be noted that this concentration is significantly below the adopted MAC-EQS of 32ug/l.

8.3 GROUNDWATER CONTAMINATION (CONTINUED)

- Fluoranthene was recorded above the adopted AA-EQS (0.0064ug/l) in samples of groundwater from BH1 and BH2. At BH1, the exceeding concentrations were 0.021ug/l (round 2) and 0.014ug/l (round 3). At BH2, the exceeding concentration was 0.05ug/l (round 3) only. It should be noted that all concentrations are significantly below the adopted MAC-EQS of 0.12ug/l.
- Single elevated concentrations of benzo(g,h,i)perylene, benzo(a)pyrene, and benzo(k)fluoranthene were recorded above the adopted screening values for these contaminants of 0.00082ug/l, 0.00017ug/l, and 0.017ug/l at BH2 (round 3) only.
- A single elevated concentration of petroleum hydrocarbon compound aliphatic C16-C21 was recorded at BH3 (round 3) only. The recorded concentration of 23ug/l exceeds the adopted screening value of 10ug/l.
- A single slightly elevated concentration of petroleum hydrocarbon compound aromatic C10-C12 was recorded at BH2 (round 2) only. The recorded concentration of 11ug/l very slightly exceeds the adopted screening value of 10ug/l.

No further exceedances were recorded within the analysed groundwater samples from 2010.

A summary of the exceedances recorded within the groundwater samples obtained as part of the current 2023 site investigation works (i.e., round 4) is provided below.

- Zinc was recorded above the adopted AA-EQS (6.8ug/l) in samples of groundwater from BH1 and BH2. The exceeding concentrations at these locations were 8.3ug/l at BH1, and 19.0ug/l at BH2. It should be noted that both concentrations are significantly below the UKDWS of 5000ug/l.
- A single elevated concentration of petroleum hydrocarbon compound aromatic C10-C12 was recorded at BH3 (round 4) only. The recorded concentration of 25ug/l very slightly exceeds the adopted screening value of 10ug/l.
- A single elevated concentration of petroleum hydrocarbon compound aromatic C12-C16 was recorded at BH3 (round 4) only. The recorded concentration of 24ug/l very slightly exceeds the adopted screening value of 10ug/l.

No further exceedances were recorded within the analysed groundwater samples.

8.4 GROUND GASES

A programme of ground gas monitoring has been completed at the site. The ground gas monitoring programme comprised of six monitoring rounds undertaken during 2010, and a further two monitoring rounds undertaken as part of the current site investigation works. The results of the gas monitoring programme to date are included in Appendix J.

A summary of the results is given in the following Table 10.

Table 10: Summary of Ground Gas Results				
Borehole	Maximum Methane Concentration (%)	Maximum Carbon Dioxide Concentration (%)	Minimum Oxygen Concentration (%)	Gas Flow Rate (l/hr)
BH1 (2010)	0.1	1.4	18.8	<0.1
BH2 (2010)	<0.1	0.9	18.9	<0.1
BH3 (2010)	<0.1	0.5	18.7	<0.1
BH1 (2022)	<0.5	0.8	19.5	<0.3
BH2 (2022)	<0.5	0.2	20.0	<0.3
BH3 (2022)	<0.5	0.2	19.1	<0.3

The results show a maximum methane concentration of <0.5% and a maximum carbon dioxide concentration of 1.4%. A maximum gas flow rate of <0.3l/hr was measured during the gas monitoring programme.

9.0 REVISED CONCEPTUAL EXPOSURE MODEL

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

Table 11: Revised Conceptual Exposure Model						
Source		Receptor	Pathway	Preliminary Active Pathway? (see Sect. 5.7)	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Made Ground of unknown origin and historical land uses	Metals, semi-metals, non-metals, PAH, petroleum hydrocarbons, Asbestos	Resident – human health	Dermal Contact with made ground/dust	✓	✓	Elevated soil contaminant concentrations identified in made ground. Asbestos in soil identified in made ground – risk assess.
			Ingestion of soil and/or soil attached to home-grown produce	✓	✓	
			Ingestion of home-grown produce	✓	✓	
			Inhalation of dust	✓	✓	
			Inhalation of vapours – indoor/outdoor	✓	X	No sufficiently volatile contaminants identified.
	Metals, semi-metals, inorganics, PAH, petroleum hydrocarbons	Groundwater quality	Leaching from made ground	✓	✓	
		Surface water quality	Transportation within groundwater	✓	✓	Elevated groundwater contaminant concentrations identified – risk assess

9.0 REVISED CONCEPTUAL EXPOSURE MODEL (CONTINUED)

Source		Receptor	Pathway	Preliminary Active Pathway?	Relevant Pollutant Linkage	Justification/ Mitigation
Origin	Contaminant					
Made Ground of unknown origin and natural ground	pH and water-soluble sulphate	Building Materials Durability	Direct contact	✓	✓	Building materials will be in contact with made ground – risk assess
Ground Gas – organic, gas producing materials	Methane, carbon dioxide	Human health	Accumulation of gases in confined spaces, and/or migration off site, leading to asphyxiation, or risk of explosion	✓	✓	Gas monitoring programme completed – risk assess

10.0 RISK ASSESSMENT

10.1 METHODOLOGY

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

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

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

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

10.2 SOURCE-PATHWAY-RECEPTOR MODEL

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

The pathways shown as potentially active in the Revised Conceptual Site Model in Section 9.0 above have been assessed below.

10.3 HUMAN HEALTH RISK ASSESSMENT

10.3.1 *Site in its Present Condition*

The site does not pose any risks to casual visitors or trespassers, the site is fenced off.

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

10.3.2 Future Site Users

The contamination test results have recorded elevated concentration levels in the made ground (at shallow depth) of lead and PAH compounds. Two made ground samples were also found to contain trace concentrations of chrysotile asbestos.

Given the contamination recorded in the made ground encountered across the site, it is considered that a potential risk to human health may exist via the following relevant pollutant linkages:

- Dermal contact,
- Ingestion of soil or soil derived dust,
- Ingestion of soil attached to homegrown produce,
- Ingestion of homegrown produce,
- Inhalation of soil bourn dust.

The inhalation of vapours pathways (indoor and outdoor air) are not considered to be active since the contaminants of concern identified are not sufficiently volatile.

It is necessary to protect future site end users from the identified contamination within the made ground. This can be achieved by breaking the above listed relevant pollutant linkages thereby removing the potential risk.

In order to protect future site end users, it is considered the following preliminary remedial measures will be required:

- All exposed formations should be visually inspected and handpicked of any identified asbestos containing materials (ACM). Additionally, any excavated made ground, any encountered buried foundations, service runs/ducts, pipework etc should also be visually inspected and handpicked of any identified ACM. These works should be carried out by a suitably licenced contractor in accordance with an appropriate risk assessment and managed in accordance with the requirements of the Control of Asbestos Regulations (2012).
- Any handpicked ACM should be disposed off-site at a suitable licensed facility as hazardous waste. Daily records and waste transfer notes should be kept in order to document the identification and subsequent removal of any ACM. These records and waste transfer notes should be made available for review as they will be required for potential remediation verification.

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

- A capping layer, of a minimum 600mm thickness, of clean inert imported subsoil and topsoil will be required in all gardens and areas of soft landscaping that are underlain by made ground. A geotextile separation/alert membrane (such as Terram T1000 orange) should be placed at the base of the capping soils to maintain the integrity of the capping layer and to prevent the upwards migration of contamination.

10.3.3 Construction Workers

Following site strip and during site construction works when the existing made ground materials are exposed, there could be a potential risk to construction workers.

During site preparation and construction works, any exposed made ground soils should be dampened down to minimise the potential for soils to dust and the subsequent release of any asbestos fibres.

During exposure and excavation of soils, the exposed formations, and excavated materials should be inspected by asbestos awareness trained contractors. These works should be carried out under an appropriate risk assessment and managed in accordance with the Control of Asbestos Regulations 2012 (CAR 2012).

With future site development works involving the excavation and removal of made ground, there would be a risk to workers from contaminants (including asbestos) in the soils. Appropriate measures are therefore recommended for works involving the made ground materials which are known to be present beneath the site.

The following practical measures are required while excavating/re-using made ground:

- Excavations will need to be regularly damped down to prevent any dust that may contain asbestos becoming airborne
- Any excavated materials should be regularly dampened down to prevent any dust may contain asbestos becoming airborne
- Appropriate PPE/RPE to be worn by all workers, as appropriate
- Asbestos/dust/air monitoring may be required during early site establishment.

Site preparation and operational constraints will be covered in the contractor's method statements. These should include the contractor's proposals for controls and monitoring of dust, noise, vibrations, and odour.

10.3 HUMAN HEALTH RISK ASSESSMENT (CONTINUED)

All site operatives are to be suitably asbestos awareness trained. Routine visual checks should be made for the presence of any asbestos containing materials (ACM). Any handpicked ACM should be disposed off-site at a suitable licensed facility as hazardous waste.

All excavations should be regularly checked for safe atmospheres, including oxygen levels and guidance sought should depleted oxygen levels be identified in excavations/ confined spaces.

During excavation, in order to prevent cross contamination of materials, the made ground arisings should be segregated from any underlying natural soils.

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

Daily records and waste transfer notes should be kept in order to document the identification and subsequent removal of any asbestos containing materials (ACM).

These records and waste transfer notes should be made available for review as they will be required for potential remediation verification.

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

10.4 RISKS TO VEGETATION

The concentrations of contaminants in the made ground, indicate the potential for adverse effects to vegetation. Similarly, the physical nature of the existing made ground does not provide a suitable growing medium for vegetation. To ensure viable landscape areas by preventing upward migration of contaminants into the overlying soils, and in order to promote plant growth, any landscaped areas will require the provision of a minimum 600mm thick capping layer of clean, inert subsoil and topsoil materials.

10.5 GROUNDWATER RISK ASSESSMENT

The groundwater sampling and testing programme (comprising three rounds from 2010 and one round from 2022) and the results of the 'Tier 1' screening exercise (as detailed in Section 8.4) indicate that most of the determinants were below the representative screening criteria values and/or below the limit of detection of the laboratory.

It is noted that when comparing the previous 2010 contamination dataset with current screening values, some historical exceedances of chromium, zinc, cyanide, PAHs, and petroleum hydrocarbons (aliphatic C16-C35) were recorded. However, the results of the most recent round of sampling and testing (undertaken during 2022) have only recorded exceedances of zinc and localised exceedances petroleum hydrocarbons (aromatic C10-C16).

No exceedances of chromium, cyanide, or PAHs were recorded during the most recent round of testing. The only contaminants that have been identified during both the 2010 and 2022 site investigation works are zinc and petroleum hydrocarbons.

With regards to zinc, it is considered that the elevated results are indicative of suspended solids/particulate in the water samples obtained. The results are not considered to represent significant groundwater contamination. The results are likely to be representative of normal background levels for this formerly industrialised area of Port Talbot.

During the most recent round of sampling and testing, all petroleum hydrocarbon concentrations were recorded below detectable limits, with the exception of at BH3 (which is an up hydraulic gradient borehole). At BH3, slightly elevated concentrations in carbon band range aromatic C10-C16 only were recorded. The results are not considered to represent significant groundwater contamination. Furthermore, no visual or olfactory evidence of potential petroleum hydrocarbon contamination was recorded during the site investigation works and no potential on-site sources have been identified based on a review of the site history.

The contamination concentrations detected are not considered to be significant and the results show no consistent trends or evidence of migration. For example, the only elevated petroleum hydrocarbon concentrations that have been recorded are in the up hydraulic gradient borehole (BH3). No elevated petroleum hydrocarbon concentrations have been recorded in the down hydraulic gradient boreholes (BH1 and BH2). Therefore, there is not considered to be an apparent migrating plume of contamination. The detected concentrations are considered to be representative of normal background levels for this formerly industrialised area of Port Talbot.

10.5 GROUNDWATER RISK ASSESSMENT (CONTINUED)

Based on the contamination dataset obtained, the risks to environmental receptors (such as the Secondary 'A' Aquifer in the superficial deposits underlying the site, and the River Afan) from site sourced contamination is considered to be low.

In order to confirm the conclusion of this qualitative assessment and obtain an expanded dataset with respect to the historically identified contaminants (i.e., chromium, cyanide, or PAHs), a further two rounds of groundwater sampling and testing are recommended.

10.6 GROUND GAS RISK ASSESSMENT

A programme of ground gas monitoring has been completed at the site. The ground gas monitoring programme comprised of six monitoring rounds undertaken during 2010, and a further two monitoring rounds undertaken as part of the current site investigation works.

The results show a maximum methane concentration of <0.5% and a maximum carbon dioxide concentration of 1.4%. A maximum gas flow rate of <0.3l/hr was measured during the gas monitoring programme.

In accordance with CIRIA Report C665 a Gas Screening Value (GSV) of <0.0042l/hour has been calculated. This GSV corresponds to gas characteristic situation 1/green which does not require any special gas protective measures.

No radon protective measures are required in the construction of new buildings within the site.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY

10.7.1 Concrete Classification

A summary of the laboratory chemical test results for the chemicals monohydric phenol, sulphur, total sulphate, water soluble sulphate, sulphide, and pH, which may adversely affect the durability of building materials is presented in Appendix K.

Evidence to date does not indicate any specifically aggressive conditions, but it would be reasonable to expect a degree of sulphate and acidic aggressiveness from the made ground.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY (CONTINUED)

Made Ground (2010 Results)

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for brownfield sites, the laboratory chemical test results indicate a characteristic value (taking the highest of the test results) for water soluble sulphate within the made ground of 150mg/l.

Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-1.

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

Made Ground (2022 Results)

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for brownfield sites, the laboratory chemical test results indicate a characteristic value (taking the highest of the test results) for water soluble sulphate within the made ground of 360mg/l.

Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-1.

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the made ground of 9.0 has been determined (adopting the mean of the lowest of the test results). The Design Sulphate Class has been modified to give a site ACEC class of AC-1 for concrete structures constructed within the made ground).

Natural Ground (2010 Results)

In accordance with BRE Digest SD1:2005 and adopting the assessment procedure specified therein for brownfield sites, the laboratory chemical test results indicate a characteristic value (taking the mean of the highest of the test results) for water soluble sulphate within the made ground of 360mg/l.

Using Table C2 of BRE Digest SD1:2005, this characteristic value corresponds to Design Sulphate Class DS-1.

10.7 RISKS TO BUILDINGS AND MATERIALS DURABILITY (CONTINUED)

The groundwater regime of the site has been assessed as 'mobile' and a characteristic pH value within the made ground of 7.5 has been determined (adopting the mean of the lowest of the test results). The Design Sulphate Class has been modified to give a site ACEC class of AC-1 for concrete structures constructed within the made ground.

10.7.2 Water Services

Water supply pipes will need to be protected from any contamination present within the made ground.

Measures to protect the pipes should include clean backfill to trenches and alternative material selection. Reference should be made to UKWIR Guidance for the Selection of Water Supply Pipes to be used in Brownfield Sites, document No. 10/WM/03/21.

The final design and selection of the pipe and associated backfill should be agreed with the appropriate Regulator prior to installation.

10.8 WASTE DISPOSAL

Excavated materials generated by the development may be considered as waste and subject to waste controls. Any re-use of excavated materials on-site should be undertaken in accordance with current waste and environmental legislation, and which may require the production of an approved Materials Management Plan (MMP) prepared in accordance with the CL:AIRE Code of Practice.

It is recommended that a sustainable development strategy is adopted which reduces to a practicable minimum the generation of waste materials and the need for disposal to a licensed tip. Emphasis should be on recovery and re-use rather than disposal.

However, any waste or surplus materials that are generated will need to be classified in accordance with current EC regulations and Environment Agency guidance prior to disposal. It is the responsibility of the waste producer to classify the waste.

Based on the data obtained from the site investigation works, any waste materials comprising the existing made ground are likely to be classified as hazardous waste. The existing natural ground are likely to be classified as hazardous waste.

Any asbestos containing materials (ACMs) will be classified as hazardous waste.

10.8 WASTE DISPOSAL (CONTINUED)

This classification is provisional, and indicative of the likely waste classification based on the data obtained to date (including chemical composition, moisture content, etc.). It also assumes that the materials tested will be representative of future generated waste.

In order to minimise disposal, the materials generated should be segregated and examined, with appropriate testing as necessary, to enable the materials to be sorted or treated into lower classifications, with the resultant benefit of potentially generating re-use rather than disposal.

Once final waste sources and volumes are known, the waste stockpile to be disposed off-site will need to be classified in accordance with Environment Agency/Natural Resources Wales Waste Classification – Guidance on the Classification and Assessment of Waste Technical Guidance WM3 (2015). This is likely to require additional sampling and testing of the generated waste materials to provide an up-to-date current basis for classification.

Depending on the waste classification, waste acceptance criteria (WAC) testing may be required, in order to determine which class of landfill site the waste can be sent to.

It is recommended that the results of the waste classification and any WAC test results are sent to the intended licensed waste operator prior to disposal in order to confirm their classification and acceptance.

10.9 UNCERTAINTIES

It is important to recognise that there may be areas of contamination within the site that have not been found or that contaminants may be present at concentrations above those that have been found. It is also important to recognise that contamination may be localised and that no investigation, however comprehensive, is capable of finding such occurrences, other than by chance. The near-surface drainage patterns have not been fully established.

11.0 ENGINEERING CONSIDERATIONS AND RECOMMENDATIONS

11.1 DETAILS OF PROPOSED DEVELOPMENT

The proposed development will comprise the construction of six residential buildings, comprising four semi-detached two-storey residential buildings and two low rise residential buildings. The development will include associated infrastructure such as an access road and car parking areas and also areas of landscaping and private gardens. An extract of the proposed development layout is shown in Figure 3.

11.2 SITE PREPARATION

Vegetation surrounds much of the site, and a fenced off area of suspected Japanese Knotweed is present in the central area of the site. It is strongly advised that a full invasive/pest plant species survey is undertaken across the entire site area. A scheme for the eradication and removal of any identified invasive plant species will be required.

Prior to works commencing on site, any services should be identified and either diverted or protected. Any diversion works should be carried out under the supervision of, and to the specification of appropriate Statutory Authorities. The resulting excavation should be backfilled with suitable granular fill material laid and compacted to Department of Transport (DTp) Specification for Earthworks.

A system should be established for identification and dealing with any unforeseen contamination encountered during the site works (including identification of any potential asbestos containing materials). Any contamination, or suspected contamination, should be reported to the site manager, so that appropriate action may be taken, following specialist advice if necessary.

All exposed formations should be visually inspected and handpicked of any identified asbestos containing materials (ACM). Additionally, any excavated made ground, any encountered buried foundations, service runs/ducts, pipework etc should also be visually inspected and handpicked of any identified ACM. These works should be carried out by a suitably licenced contractor in accordance with an appropriate risk assessment and managed in accordance with the requirements of the Control of Asbestos Regulations (2012).

All materials to be disposed of offsite should be sent to a suitably licensed facility. Licenced tips may require additional waste classification and Waste Acceptance Criteria testing of materials to ensure compliance with their current licence agreements.

11.2 SITE PREPARATION (CONTINUED)

The presence of buried obstructions within the previously developed areas of the site should be anticipated. The removal of obstructions within these areas should be anticipated during the course of the works.

It is recommended that any buried obstructions (such as redundant footings, pile caps, ground slabs, basements and services associated with for demolished building) are broken out and the resulting debris crushed and screened to a structural specification, typically <125mm maximum particle size. All excavated materials should be screened for unsuitable materials such as timber, metal etc. Any encountered asbestos containing materials (ACM's) should be removed by a suitably qualified professional.

The exposed formations should be checked, and any soft spots/areas should be removed and replaced with well compacted clean site won or imported granular fill material placed in accordance with the DTp Specification for Highways Works.

Any reduced levels should be brought up to the required levels with engineered fill placed controlled and compacted layers in accordance with Department of Transport (DTp) Specification for Highway Works.

Allowances should be made for appropriate pollution prevention measures to be in place during the construction phase. Pollution prevention measures should be included within the appointed contractor's method statements and agreed with the appropriate regulator prior to commencement. The required pollution prevention measures should include, but not be limited to, the following:

- Protection/diversion of any active surface water drains that cross the site,
- Segregation of arising's from piling operations and/or excavation works,
- Stockpiled materials are to be sealed from the weather, placed on a suitable impermeable surface and bunded to prevent run-off,
- Exposed formations are to be regularly damped down to prevent fugitive dust emissions,
- Appropriate boundary air and dust monitoring.

Where any mature trees are within influencing distance of the proposed building, allowance should be made for the removal of any associated roots that may become exposed in any proposed nearby earthworks and foundation excavations. Any such works should be conducted in accordance with current codes of practice.

11.2 SITE PREPARATION (CONTINUED)

Exposed formations should be protected from site traffic and inclement weather in order to preserve their integrity. Any soft spots/areas should be removed and replaced with well compacted site won or imported granular fill material.

Any required site preparatory earthworks should be properly designed, specified, and supervised by a suitably qualified engineer. Allowances should be made for site supervision by a competent and suitably qualified Engineer, sampling, and field and laboratory testing.

11.3 FOUNDATIONS AND FLOOR SLABS

The site is underlain by thick made ground / reworked ground deposits proven to a maximum depth of approximately 10.9m below existing ground level.

Superficial deposits underlie the made ground beneath the site. The superficial deposits typically comprise a layer of soft silty clay which is in turn underlain by more competent medium dense becoming dense sands, gravels, and cobbles of sub angular to rounded sandstone.

The made ground and underlying soft clays are not considered suitable bearing strata for the proposed structures, and as such these deposits should be fully penetrated by the chosen foundation arrangement. The thickness of the made ground (and underlying clay layer) will negate the use of shallow foundations.

It is recommended that piled foundations are adopted.

Subject to vibration and noise issues, pre-cast concrete or steel tube driven piles, driven to an appropriate set within the dense natural strata, typically encountered at depths greater than approximately 12m and 14m should be feasible.

Piles will need to be designed to ignore load contribution from the made ground and soft and very soft underlying clay strata.

Any piles that are driven to a premature set should be investigated and allowances made for re-driving, digging out any encountered shallow obstructions, or pile replacement. Subject to the advice of a specialist piling contractor, the use of alternative piling techniques may be required.

11.3 FOUNDATIONS AND FLOOR SLABS (CONTINUED)

Special consideration should be given to ground induced vibrations from pile driving operations to ensure that they do not damage any existing underground services, or neighbouring properties. Alternatively, consideration should be given to augured/bored piles.

If an augured/bored piling system is adopted, it will be necessary to segregate the made ground arisings from the natural soil arisings for appropriate off-site disposal.

It is recommended that the advice of a specialist Piling Contractor is sought in order to confirm the most appropriate piling technique and for the detailed pile design.

Allowances should be made by the Piling Contractor for carrying out suitable pile testing.

Prior to commencement of piling, a suitable working platform must be constructed, typically of granular material, to insure plant stability.

A piling risk assessment is likely to be required prior to commencement of piling operations.

Floor slabs should be designed and constructed as suspended.

When adopting a piled foundation solution there is the potential for differential settlements between the thresholds of the piled structures and external areas / infrastructure / service entry points etc. As such, careful consideration should be given to the threshold details into the proposed structures, where a degree of flexibility should also be allowed to deal with potential differential movements.

11.4 EXCAVATIONS AND FORMATIONS

Excavations should be possible with normal soil excavating machinery. Allowances should be made for using larger plant or the use of a pneumatic breaker attachment, or similar tools, should any remnant buried obstructions be encountered in the made ground.

Excavations to depths of typically 2.0 to 2.7m depth are unlikely to encounter significant groundwater inflows. Should groundwater inflows be encountered above such depths and below such depths, they should be dealt with by conventional pumping techniques.

Perched ground water should be anticipated within the vicinity of any buried obstructions, basements etc.

11.4 EXCAVATIONS AND FORMATIONS (CONTINUED)

The sides of excavations greater than 1m should be supported by trench boxes.

Any 'soft spots/areas' encountered at the formation levels should be removed and replaced with well compacted approved granular materials. As a minimum, Department of Transport (DTp) Type 2 sub-base or similar approved, could be used and should be compacted in layers in accordance with the DTp Specification for Highways Works.

Any exposed formations within the in-situ materials will be extremely susceptible to damage, softening and deterioration by wet weather and site traffic. They should therefore be protected by blinding concrete or a 200mm thick layer of hardcore immediately after exposure.

11.5 ACCESS ROADS AND CAR PARKING AREAS

Following site strip there are likely to be variations in the strength of the materials at the formation levels.

For preliminary design purposes California Bearing Ratio (CBR) values of between 1-2% could be assumed for the near surface made ground deposits. For engineered fill, a CBR value of 5% should be achievable, subject to confirmatory in-situ testing.

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

Formations within cohesive deposits should be regarded as frost susceptible.

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

Indicative soil infiltration testing was undertaken within two trial pits (TP3 and TP5) during the previous 2010 site investigation works. Over the monitoring period the calculated infiltration rates were 1.66×10^{-4} m/s and 1.39×10^{-4} m/s. The approximate locations of the previous trial pits are shown in Figure 2.

11.6 DRAINAGE AND SERVICES

Subject to the proposed development levels, drainage runs may pass through loose made ground. It is therefore recommended that drainage runs be designed using flexible joints with steep gradients, in order to prevent any backfalls occurring as a result of future settlements.

Special care should be taken at the entry detail of external services into the proposed buildings, in order to deal with potential differential movements. At these locations, flexible joints should again be used.

11.7 RECOMMENDED FURTHER WORKS

In order to confirm the conclusion of the qualitative groundwater assessment and obtain an expanded dataset with respect to the historically identified contaminants (i.e., chromium, cyanide, or PAHs), a further two rounds of groundwater sampling and testing are recommended.

APPENDIX A

ENVIROCHECK REPORT

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

304800989_1_1

Customer Reference:

14128/LS

National Grid Reference:

275480, 189600

Slice:

A

Site Area (Ha):

0.27

Search Buffer (m):

1000

Site Details:

Harvey Crescent

Aberavon

Port Talbot

SA12 6DF

Client Details:

MR H Pritchard

Integral Geotechnique

Integral House

7 Beddau Way

Castlegate Business Park

Caerphilly

CF83 2AX

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Hazardous Substances	39
Geological	40
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Sensitive Land Use	-
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Introduction

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In this datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1		7	15	23
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls	pg 12				1
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 12			2	3
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 13		Yes		
Pollution Incidents to Controlled Waters	pg 13		3	2	5
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances	pg 15				5
River Quality	pg 16		2		1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points	pg 17				1
Substantiated Pollution Incident Register	pg 17		1	1	3
Water Abstractions	pg 18			6	1 (*20)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 25	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 25	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 25	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 25	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 26		Yes	n/a	n/a
Areas Benefiting from Flood Defences	pg 27		Yes	n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 28		1	6	23

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 32				11
Local Authority Landfill Coverage	pg 34	1	n/a	n/a	n/a
Local Authority Recorded Landfill Sites	pg 34				1
Potentially Infilled Land (Non-Water)	pg 34		1		2
Potentially Infilled Land (Water)	pg 34	1	4	5	33
Registered Landfill Sites					
Registered Waste Transfer Sites	pg 37				3
Registered Waste Treatment or Disposal Sites	pg 38				1
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)	pg 39		1		
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)	pg 39		1		
Planning Hazardous Substance Consents	pg 39		1		
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 40	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 40	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites					
BGS Urban Soil Chemistry	pg 41				Yes
BGS Urban Soil Chemistry Averages	pg 42		Yes		
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas	pg 43	Yes	n/a	n/a	n/a
Mining Instability	pg 43	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 43		Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 43		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 43	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 43		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 43		Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 44		6	57	53
Fuel Station Entries	pg 54			1	1
Points of Interest - Commercial Services	pg 54		1	9	16
Points of Interest - Education and Health	pg 56			1	8
Points of Interest - Manufacturing and Production	pg 57		2	4	16
Points of Interest - Public Infrastructure	pg 59		5	4	25
Points of Interest - Recreational and Environmental	pg 62			1	7
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones					
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13NW (S)	0	1	275481 189600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	100	1	275400 189500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	106	1	275600 189650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	118	1	275600 189500
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SW (SW)	206	1	275350 189400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SW (SW)	312	1	275250 189350
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A8NW (S)	360	1	275481 189200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A18SW (N)	363	1	275481 190000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NW (SW)	427	1	275250 189200
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	453	1	275000 189600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A12NE (W)	455	1	275000 189600
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Gasworks Sewer Junction Chamber Po, Chamber Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: BB4025503 Permit Version: 1 Effective Date: 19th July 1978 Issued Date: 19th July 1978 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Unnamed Status: Surrendered Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	90	2	275600 189550
1	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Gasworks Sewer Junction Chamber Po, Chamber Port Talbot Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bb4025503 Permit Version: 1 Effective Date: 19th July 1978 Issued Date: 19th July 1978 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: River Tawe Status: Surrendered Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	90	2	275600 189550

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Discharge Consents Operator: Westbury Homes (Wales) Ltd Property Type: Domestic Property (Multiple) Location: Port Talbot Residential Development, Newbridge Road Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0105101 Permit Version: 2 Effective Date: 3rd November 1988 Issued Date: 3rd November 1988 Revocation Date: 29th September 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	118	2	275600 189500
1	Discharge Consents Operator: Westbury Homes (Wales) Ltd Property Type: Domestic Property (Multiple) Location: Port Talbot Residential Development, Newbridge Road Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0105101 Permit Version: 1 Effective Date: 1st January 1901 Issued Date: 1st January 1901 Revocation Date: 2nd November 1988 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	118	2	275600 189500
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 104 Newbridge Road Pumping Stat, Newbridge Road Pumping Station, Port Talbot, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bb4025501 Permit Version: 2 Effective Date: 1st April 2004 Issued Date: 31st March 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Tawe Status: Effective Positional Accuracy: Located by supplier to within 10m	A13SE (E)	116	2	275632 189598
2	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 104 Newbridge Road Pumping Stat, Newbridge Road Pumping Station, Port Talbot, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bb4025501 Permit Version: 2 Effective Date: 1st April 2004 Issued Date: 31st March 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Tawe Status: Effective Positional Accuracy: Located by supplier to within 10m	A13SE (E)	116	2	275632 189598

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Henshaw St.Sjc. Port T Authority: Natural Resources Wales Catchment Area: River Afan Reference: BB4025504 Permit Version: 1 Effective Date: 19th July 1978 Issued Date: 19th July 1978 Revocation Date: 31st March 2004 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A13NE (E)	233	2	275740 189650
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Water St.Cjc Port Talb Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: BB4025505 Permit Version: 1 Effective Date: 19th July 1978 Issued Date: 19th July 1978 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Status: Surrendered Positional Accuracy: Located by supplier to within 100m	A13NE (E)	252	2	275760 189650
3	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Water St.Cjc Port Talb Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: Bb4025505 Permit Version: 1 Effective Date: 19th July 1978 Issued Date: 19th July 1978 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: River Tawe Status: Surrendered Positional Accuracy: Located by supplier to within 10m	A13NE (E)	252	2	275760 189650
4	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: S'Dfields Sewer J'Ction Chambe Port, Port Talbot Authority: Natural Resources Wales Catchment Area: River Afan Reference: BB4025502 Permit Version: 1 Effective Date: 19th July 1978 Issued Date: 19th July 1978 Revocation Date: 31st March 2004 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A13SE (S)	252	2	275510 189310

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Isaacs Plice Sjc Port T Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bb4025506 Permit Version: 1 Effective Date: 19th July 1978 Issued Date: 19th July 1978 Revocation Date: 14th March 1994 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A14NW (E)	344	2	275850 189670
6	Discharge Consents Operator: Mechema Chemicals Ltd Property Type: Undefined Or Other Location: Port Talbot Talbot Wharf Chemical W, Talbot Wharf Chemical Works West, West Glam Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bm0044501 Permit Version: 1 Effective Date: 30th January 1985 Issued Date: 30th January 1985 Revocation Date: 30th June 1992 Discharge Type: Sewerage System Discharge Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 10m	A8NE (S)	369	2	275560 189200
6	Discharge Consents Operator: Associated British Ports Property Type: Basic Industry, Chemicals Inorganic Location: Abp Sewer Ref No R2 Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055718 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 17th August 1987 Revocation Date: 31st October 1991 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A8NE (S)	380	2	275600 189200
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso 126, Moors St Culvert, 20m Upstream Of Bridge, Afan Way, Port Talbot, Sa12 6nr Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: Bp0240201 Permit Version: 3 Effective Date: 16th December 2021 Issued Date: 16th December 2021 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A14NW (E)	440	2	275937 189716

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 126 Moors St Culvert Afan, Moors Street Culvert, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: Bp0240201 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: The Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A14NW (E)	440	2	275937 189716
7	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Cso No 126 Moors St Culvert Afan, Moors Street Culvert, Neath Port Talbot Cbc Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: Bp0240201 Permit Version: 2 Effective Date: 12th March 2003 Issued Date: 11th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: The Afon Afan Status: Effective Positional Accuracy: Located by supplier to within 10m	A14NW (E)	440	2	275937 189716
8	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Pumping Station - Water Company Location: Newbridge Rd P.Stn Swo Port T Authority: Natural Resources Wales Catchment Area: River Afan Reference: BB4025501 Permit Version: 1 Effective Date: 19th July 1978 Issued Date: 19th July 1978 Revocation Date: 31st March 2004 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A8NE (S)	453	2	275530 189110
8	Discharge Consents Operator: Associated British Ports Property Type: Basic Industry, Chemicals Inorganic Location: Abp Sewer Ref No R2 Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055718 Permit Version: 2 Effective Date: 1st November 1991 Issued Date: 18th July 1991 Revocation Date: 12th October 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8NE (S)	461	2	275500 189100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Discharge Consents Operator: Associated British Ports Property Type: Undefined Or Other Location: Port Talbot Docks - Dry Dock Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055734 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 18th November 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8NE (S)	476	2	275600 189100
10	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Moors Culvert 30 Metres U/S Road Br, 30 Metres U/S Road Bridge Abera, Aberavon Authority: Natural Resources Wales Catchment Area: Not Given Reference: BP0240201 Permit Version: 1 Effective Date: 21st July 1994 Issued Date: 21st July 1994 Revocation Date: 11th March 2003 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A14NW (E)	480	2	275950 189790
11	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Port Talbot Docks - Security B Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055705 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 16th December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14NW (E)	483	2	276000 189600
12	Discharge Consents Operator: Dwr Cymru Cyfyngedig Property Type: Sewerage Network - Sewers - Water Company Location: Abbey Bsc Works Authority: Natural Resources Wales Catchment Area: Not Given Reference: BO5081401 Permit Version: 1 Effective Date: 20th October 1989 Issued Date: 20th October 1989 Revocation Date: 31st March 2004 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Betsi Lagoon Status: Revoked (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 100m	A14NW (E)	497	2	276000 189700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	Discharge Consents Operator: Associated British Ports Property Type: Undefined Or Other Location: Port Talbot Docks - Overflow F Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055728 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 18th November 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A14NW (E)	529	2	276000 189800
14	Discharge Consents Operator: Associated British Ports Property Type: Not Supplied Location: Talbot Wharf, The Docks, Port Talbot, Neath Port Talbot, Sa13 1re Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bm0033601 Permit Version: 2 Effective Date: 26th November 2012 Issued Date: 26th November 2012 Revocation Date: Not Supplied Discharge Type: Not Supplied Discharge: Into Land Environment: Receiving Water: Groundwater Via Infiltration System Status: Effective Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	706	2	275990 189060
14	Discharge Consents Operator: Associated British Ports Property Type: Not Supplied Location: Talbot Wharf, The Docks, Port Talbot, Neath Port Talbot, Sa13 1re Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bm0033601 Permit Version: 2 Effective Date: 26th November 2012 Issued Date: 26th November 2012 Revocation Date: Not Supplied Discharge Type: Not Supplied Discharge: Into Land Environment: Receiving Water: Groundwater Via Infiltration System Status: Effective Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	706	2	275990 189060
14	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Talbot Wharf, The Docks, Port Talbot, Neath Port Talbot, Sa13 1re Authority: Natural Resources Wales Catchment Area: Not Given Reference: BM0033601 Permit Version: 1 Effective Date: 17th November 1983 Issued Date: 17th November 1983 Revocation Date: 25th November 2012 Discharge Type: Unspecified Discharge: Land/Soakaway Environment: Receiving Water: To Underground Strata Status: New Consent, by Application (Water Resources Act 1991, Section 88) Positional Accuracy: Located by supplier to within 100m	A9NW (SE)	706	2	275990 189060

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Sea Cadets Club Site Port Talbot Do, Port Talbot Docks Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: BP0055704 Permit Version: 2 Effective Date: 21st January 1993 Issued Date: 21st October 1992 Revocation Date: Not Supplied Discharge Type: Not Supplied Discharge: Freshwater Stream/River Environment: Receiving Water: Port Talbot Docks Status: Effective Positional Accuracy: Located by supplier to within 100m	A8SE (SE)	734	2	275800 188900
15	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Sea Cadets Club Site Port Talbot Do, Port Talbot Docks Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: Bp0055704 Permit Version: 2 Effective Date: 21st January 1993 Issued Date: 21st October 1992 Revocation Date: Not Supplied Discharge Type: Not Supplied Discharge: Freshwater Stream/River Environment: Receiving Water: Port Talbot Docks Status: Effective Positional Accuracy: Located by supplier to within 100m	A8SE (SE)	734	2	275800 188900
15	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Sea Cadets Club Site Port Talbot Do, Port Talbot Docks Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055704 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 20th January 1993 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A8SE (SE)	734	2	275800 188900
16	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Port Talbot Docks Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055720 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 16th December 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8SW (S)	764	2	275400 188800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	Discharge Consents Operator: Associated British Ports Property Type: Undefined Or Other Location: Port Talbot Docks Authority: Natural Resources Wales Catchment Area: Unknown Reference: Bp0055701 Permit Version: 2 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 18th November 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8SE (S)	770	2	275600 188800
18	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Small Boat Club Site Port Talbot Do, Port Talbot Docks Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: BP0055702 Permit Version: 2 Effective Date: 21st January 1993 Issued Date: 21st October 1992 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Port Talbot Docks Status: Effective Positional Accuracy: Located by supplier to within 100m	A8SE (S)	791	2	275700 188800
18	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Small Boat Club Site Port Talbot Do, Port Talbot Docks Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: Bp0055702 Permit Version: 2 Effective Date: 21st January 1993 Issued Date: 21st October 1992 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Port Talbot Docks Status: Effective Positional Accuracy: Located by supplier to within 100m	A8SE (S)	791	2	275700 188800
18	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Small Boat Club Site Port Talbot Do, Port Talbot Docks Authority: Natural Resources Wales Catchment Area: Unknown Reference: Bp0055702 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 20th January 1993 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A8SE (S)	791	2	275700 188800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
19	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Sea Cadets Club Site Port Talbot, Port Talbot Docks, Neath Port Talbot, Sa13 1ra Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: BP0055703 Permit Version: 2 Effective Date: 21st January 1993 Issued Date: 21st October 1992 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Port Talbot Docks Status: Effective Positional Accuracy: Located by supplier to within 100m	A8SE (S)	825	2	275800 188800
19	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Sea Cadets Club Site Port Talbot, Port Talbot Docks, Neath Port Talbot, Sa13 1ra Authority: Natural Resources Wales Catchment Area: AFAN ESTUARY INCL DOCKS Reference: Bp0055703 Permit Version: 2 Effective Date: 21st January 1993 Issued Date: 21st October 1992 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Port Talbot Docks Status: Effective Positional Accuracy: Located by supplier to within 100m	A8SE (S)	825	2	275800 188800
19	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Sea Cadets Club Site Port Talbot, Port Talbot Docks, Neath Port Talbot, Sa13 1ra Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055703 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 20th January 1993 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A8SE (S)	825	2	275800 188800
19	Discharge Consents Operator: Associated British Ports Property Type: Recreational & Cultural Location: Sea Cadets Club Site Port Talbot, Port Talbot Docks, Neath Port Talbot, Sa13 1ra Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055717 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 18th November 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8SE (S)	825	2	275800 188800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	Discharge Consents Operator: Associated British Ports Property Type: Undefined Or Other Location: Port Talbot Docks Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055727 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 18th November 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A9NE (SE)	837	2	276200 189100
21	Discharge Consents Operator: Associated British Ports Property Type: Not Supplied Location: Puckey House Port Talbot Tidal Harb, Port Talbot Tidal Harbour Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: BP0055719 Permit Version: 2 Effective Date: 12th January 1993 Issued Date: 12th October 1992 Revocation Date: Not Supplied Discharge Type: Not Supplied Discharge: Saline Estuary Environment: Receiving Water: Afan Estuary Status: Effective Positional Accuracy: Located by supplier to within 100m	A8SW (S)	934	2	275270 188650
21	Discharge Consents Operator: Associated British Ports Property Type: Not Supplied Location: Puckey House Port Talbot Tidal Harb, Port Talbot Tidal Harbour Authority: Natural Resources Wales Catchment Area: Not Supplied Reference: Bp0055719 Permit Version: 2 Effective Date: 12th January 1993 Issued Date: 12th October 1992 Revocation Date: Not Supplied Discharge Type: Not Supplied Discharge: Saline Estuary Environment: Receiving Water: Afan Estuary Status: Effective Positional Accuracy: Located by supplier to within 10m	A8SW (S)	934	2	275270 188650
22	Discharge Consents Operator: British Steel Plc (Tinplate) Property Type: Iron & Steel Industries Location: 8 Iron Ore Stockyard Bsc Por Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0059203 Permit Version: 1 Effective Date: 16th September 1987 Issued Date: 16th September 1987 Revocation Date: 30th June 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: River Afan Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A8SW (S)	964	2	275400 188600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	Discharge Consents Operator: Associated British Ports Property Type: Undefined Or Other Location: Port Talbot Docks Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055716 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 18th November 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A9SW (SE)	977	2	276100 188800
24	Discharge Consents Operator: Associated British Ports Property Type: Support Services - Sea Transport Location: Puckey House Port Talbot Tidal Harb, Port Talbot Tidal Harbour Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055719 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 11th January 1993 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Afan Estuary Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m	A8SW (S)	977	2	275300 188600
25	Discharge Consents Operator: Associated British Ports Property Type: Undefined Or Other Location: Port Talbot Docks Authority: Natural Resources Wales Catchment Area: River Afan Reference: Bp0055729 Permit Version: 1 Effective Date: 18th September 1987 Issued Date: 18th September 1987 Revocation Date: 18th November 1992 Discharge Type: Unspecified Discharge: Not Supplied Environment: Receiving Water: Port Talbot Docks Status: Consent expired Positional Accuracy: Located by supplier to within 100m	A15SW (E)	1000	2	276500 189400
26	Integrated Pollution Controls Name: Multiserv (Asr) Ltd Location: British Steel Strip Products, Port Talbot Works, PORT TALBOT, West Glamorgan, SA13 1RE Authority: Environment Agency, Welsh Region Permit Reference: BE7699 Dated: 21st December 1998 Process Type: IPC minor (non-substantial) variation to previous variation Description: 2.1 A (B) Iron and Steel processes within the Metal Industry Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Automatically positioned to the address	A14SE (E)	889	3	276398 189462
27	Local Authority Pollution Prevention and Controls Name: RMC Readymix Wales & Midlands Location: Docks Road, PORT TALBOT, West Glamorgan, SA13 1RS Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: e3/1/7 Dated: 19th May 1994 Process Type: Local Authority Air Pollution Control Description: PG3/1Blending, packing, loading and use of bulk cement Status: Authorisation has varied Positional Accuracy: Manually positioned to the address or location	A14SW (E)	403	4	275902 189465

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	Local Authority Pollution Prevention and Controls Name: John Nicholas & Sons Ltd Location: Docks Road, PORT TALBOT, West Glamorgan, SA13 1RS Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: Not Given Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/1 Blending, packing, loading and use of bulk cement Status: Authorisation revoked Positional Accuracy: Manually positioned to the address or location	A14SW (E)	408	4	275907 189465
28	Local Authority Pollution Prevention and Controls Name: Afan Way Services Limited Location: Afan Way, PORT TALBOT, West Glamorgan, SA12 6NR Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/83 Dated: 8th April 1999 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Manually positioned to the address or location	A14NW (NE)	511	4	275963 189833
29	Local Authority Pollution Prevention and Controls Name: Rhino Engineering Ltd Location: Cramic House, Cramic Way, Port Talbot, Sa13 1ru Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/116 Dated: 24th May 2006 Process Type: Local Authority Air Pollution Control Description: PG1/1 Waste oil burners, less than 0.4MW net rated thermal input Status: Authorised Positional Accuracy: Manually positioned to the address or location	A14NE (E)	957	4	276436 189849
30	Local Authority Pollution Prevention and Controls Name: Civil & Marine Slag Cement Ltd Location: Rio Tinto Wharf, Docks Road, The Docks, PORT TALBOT, West Glamorgan, SA13 1RA Authority: Neath Port Talbot County Borough Council, Environmental Health Department Permit Reference: E3/1/86 Dated: 29th June 1999 Process Type: Local Authority Air Pollution Control Description: PG3/8 Quarry processes including roadstone plants and the size reduction of bricks, tiles and concrete Status: Authorised Positional Accuracy: Automatically positioned to the address	A14SE (E)	982	4	276479 189385
	Nearest Surface Water Feature	A13SE (SE)	82	-	275578 189528
31	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Afan Sewage, Pumping Station Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 27th April 1995 Incident Reference: 23819 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	92	3	275600 189545
32	Pollution Incidents to Controlled Waters Property Type: Building Sites Location: Old Gas Works, Site Victoria Road, Port Authority: Environment Agency, Welsh Region Pollutant: Farm Effluent/Slurry Note: Accidental Spillage/Leakage Incident Date: 14th March 1996 Incident Reference: 27548 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	133	3	275600 189700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
33	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Fractured Sewer In, River Bed B. Gas Pipeline Work, PORT TALBOT Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: River Afan; Direct Introduction Incident Date: 29th January 1998 Incident Reference: 34696 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Accidental Spillage/Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (E)	184	3	275700 189600
34	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Estuary Between, The Two Weirs Authority: Environment Agency, Welsh Region Pollutant: Light Oil Note: Not Supplied Incident Date: 7th March 1991 Incident Reference: 4029 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NW (NE)	440	3	275900 189800
35	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Adjacent Tiger, Tyres, Greenpark Authority: Environment Agency, Welsh Region Pollutant: Miscellaneous - Fire water / Foam Note: Deliberate Act Incident Date: 24th August 1995 Incident Reference: 25479 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	496	3	276000 189695
36	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Weir Near, Dock Feeder Authority: Environment Agency, Welsh Region Pollutant: Crude Sewage Note: Not Supplied Incident Date: 28th November 1991 Incident Reference: 1655 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A14NW (E)	551	3	276050 189725
37	Pollution Incidents to Controlled Waters Property Type: Not Given Location: From Port, Talbot Small Authority: Environment Agency, Welsh Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 9th May 1996 Incident Reference: 28346 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SE (S)	796	3	275700 188795
38	Pollution Incidents to Controlled Waters Property Type: Not Given Location: 100 Metres Downstream Of, Dock Entrance Authority: Environment Agency, Welsh Region Pollutant: Mud/Clay/Soil Note: River Afan; Effluent Quality Incident Date: 24th April 1998 Incident Reference: 35489 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Poor Management Control Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A8SW (S)	864	3	275400 188700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
39	Pollution Incidents to Controlled Waters Property Type: Not Given Location: Aberafon Beach Authority: Environment Agency, Welsh Region Pollutant: Rubbish Note: Not Supplied Incident Date: 16th October 1996 Incident Reference: 30237 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	883	3	274600 189400
40	Pollution Incidents to Controlled Waters Property Type: Domestic/Residential Location: Little Warren Authority: Environment Agency, Welsh Region Pollutant: Agricultural: Carcasses Note: Deliberate Act Incident Date: 24th November 1994 Incident Reference: 21796 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Direct Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	961	3	274700 189000
41	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Local Health Board Location: Neath Port Talbot Hospital, Baglen Way, PORT TALBOT, West Glamorgan, SA12 7BX Authority: Natural Resources Wales Permit Reference: CD9852 Dated: 23rd September 2009 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Application has been authorised and any conditions apply to the operator Positional Accuracy: Automatically positioned to the address	A18NW (N)	832	2	275402 190466
41	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Neath Port Talbot Hospital, Afan Way, PORT TALBOT, West Glamorgan, SA12 6NR Authority: Natural Resources Wales Permit Reference: CC9687 Dated: 29th October 2008 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation either revoked or cancelled Positional Accuracy: Manually positioned to the address or location	A18NW (N)	832	2	275402 190466
41	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Neath Port Talbot Hospital, Afan Way, PORT TALBOT, West Glamorgan, SA12 6NR Authority: Natural Resources Wales Permit Reference: CC9695 Dated: 29th October 2008 Process Type: Registration under S7 RSA for the keeping and use of Radioactive materials (was RSA60 S1) Description: Minor variation to a registration under the Act of an open source which is also the subject of an authorisation Status: Authorisation either revoked or cancelled Positional Accuracy: Manually positioned to the address or location	A18NW (N)	832	2	275402 190466
42	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Neath Port Talbot Hospital, Afan Way, Port Talbot, West Glamorgan, SA12 6nr Authority: Natural Resources Wales Permit Reference: Bw8917 Dated: 1st December 2003 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Minor variation to authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the address or location	A18NW (N)	869	2	275298 190490

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
43	Registered Radioactive Substances Name: Abertawe Bro Morgannwg University Nhs Trust Location: Neath Port Talbot Hospital, Afan Way, Port Talbot, West Glamorgan, Sa12 6nr Authority: Natural Resources Wales Permit Reference: Bt5377 Dated: 29th November 2002 Process Type: Authorisation under S13 RSA for the disposal of Radioactive waste (was RSA60 S7) Description: Authorisation under RSA Status: Authorisation superseded by a substantial or non substantial variation Positional Accuracy: Manually positioned to the road within the address or location	A17NE (NW)	933	2	275011 190457
	River Quality Name: Not Supplied GQA Grade: Unclassified Tidal River Reach: Not Supplied Estimated Distance (km): Not Supplied Flow Rate: Not Supplied Flow Type: Not Supplied Year: 1995	A13SE (SE)	183	3	275591 189413
	River Quality Name: Not Supplied GQA Grade: Unclassified Tidal River Reach: Not Supplied Estimated Distance (km): Not Supplied Flow Rate: Not Supplied Flow Type: Not Supplied Year: 1995	A13SE (S)	242	3	275541 189326
	River Quality Name: Afan GQA Grade: River Quality A Reach: Dock Intake Weir - M4 Motorway Estimated Distance (km): .7 Flow Rate: Flow less than 5 cumecs Flow Type: River Year: 2000	A14NW (E)	519	3	276034 189636

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
44	River Quality Chemistry Sampling Points Name: Afan Reach: Dock Intake Weir To M4 Motorway Estimated Distance: 0.70 Objective: Not Supplied Positional Accuracy: Located by supplier to within 10m Year: 1990 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1993 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1994 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1995 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1996 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1997 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1998 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 1999 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2000 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2001 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2002 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2003 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2004 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2005 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2006 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2007 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2008 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied Year: 2009 GQA Grade: River Quality Chemistry GQA Grade A - Very Good Compliance: Not Supplied	A14NW (E)	549	3	276047 189727
45	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 4th January 2005 Incident Reference: 285528 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Organic Chemicals/Products: Other Organic Chemical Or Product	A13NW (N)	40	2	275472 189676
46	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 29th March 2004 Incident Reference: 225980 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants and Effects: Smoke	A14SW (E)	369	2	275885 189558

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 27th February 2014 Incident Reference: 1212608 Water Impact: Category 4 - No Impact Air Impact: Category 4 - No Impact Land Impact: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Specific Waste Materials: Tyres	A14NW (E)	657	2	276156 189738
48	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 16th December 2009 Incident Reference: 741055 Water Impact: Category 4 - No Impact Air Impact: Category 1 - Major Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants and Effects: Smoke	A12SW (W)	806	2	274649 189577
49	Substantiated Pollution Incident Register Authority: Natural Resources Wales Incident Date: 12th July 2016 Incident Reference: 1603860 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: Atmospheric Pollutants and Effects: Smoke	A14NE (NE)	814	2	276252 189933
50	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0009 Permit Version: 100 Location: River Afan To Port Talbot Docks Authority: Environment Agency, Welsh Region Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	474	3	275980 189685
50	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0009 Permit Version: 101 Location: River Afan To Port Talbot Docks Authority: Natural Resources Wales Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	475	2	275980 189690
50	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0009 Permit Version: 101 Location: River Afan To Port Talbot Docks Authority: Natural Resources Wales Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	475	2	275980 189690

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
50	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0009 Permit Version: 100 Location: River Afan To Port Talbot Docks Authority: Environment Agency, Welsh Region Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Afan To Port Talbot Docks Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14NW (E)	475	3	275980 189690
50	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0009 Permit Version: Not Supplied Location: Land At British Steel, Port Talbot Authority: Natural Resources Wales Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from any point within an area Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	475	2	275980 189690
50	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0009 Permit Version: Not Supplied Location: Land At British Steel, Port Talbot Authority: Natural Resources Wales Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from any point within an area Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	475	2	275980 189690
51	Water Abstractions Operator: Environment Agency Licence Number: Wa/058/0061/007 Permit Version: Not Supplied Location: Not Supplied Authority: Natural Resources Wales Abstraction: Impounding Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NW (E)	564	2	276054 189756

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Civil And Marine Ltd Licence Number: 21/58/61/0042 Permit Version: 5 Location: Port Talbot Docks Port Talbot Authority: Natural Resources Wales Abstraction: Other Industrial/Commercial/Public Services: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Port Talbot Docks, Port Talbot Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 1st May 2014 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9SE (SE)	1002	2	276230 188880
	Water Abstractions Operator: Civil And Marine Ltd Licence Number: 21/58/61/0042 Permit Version: 4 Location: Port Talbot Docks Port Talbot Authority: Environment Agency, Welsh Region Abstraction: Other Industrial/Commercial/Public Services: Dust Suppression Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Port Talbot Docks, Port Talbot Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 21st May 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9SE (SE)	1002	3	276230 188880
	Water Abstractions Operator: Civil And Marine Ltd Licence Number: 21/58/61/0042 Permit Version: 4 Location: Port Talbot Docks Port Talbot Authority: Environment Agency, Welsh Region Abstraction: Other Industrial/Commercial/Public Services: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Port Talbot Docks, Port Talbot Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 21st May 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9SE (SE)	1002	3	276230 188880
	Water Abstractions Operator: Civil And Marine Ltd Licence Number: 21/58/61/0042 Permit Version: Not Supplied Location: Abstraction From Port Tallbot Dock Authority: Natural Resources Wales Abstraction: Other Industrial/Commercial/Public Services: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9SE (SE)	1002	2	276230 188880

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Civil And Marine Ltd Licence Number: 21/58/61/0042 Permit Version: 3 Location: Civil & Marine Slag Cement Ltd Quay At Port Talbot Docks Authority: Environment Agency, Welsh Region Abstraction: Other Industrial/Commercial/Public Services: Dust Suppression Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Land At Civil & Marine Slag Cement Ltd Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 12th September 2008 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9SE (SE)	1023	3	276240 188860
	Water Abstractions Operator: Civil And Marine Ltd Licence Number: 21/58/61/0042 Permit Version: 2 Location: Civil & Marine Slag Cement Ltd Quay At Port Talbot Docks Authority: Environment Agency, Welsh Region Abstraction: Other Industrial/Commercial/Public Services: Dust Suppression Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Land At Civil & Marine Slag Cement Ltd Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 10th October 2007 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9SE (SE)	1023	3	276240 188860
	Water Abstractions Operator: Civil & Marine Slag Cement Ltd Licence Number: 21/58/61/0042 Permit Version: 1 Location: Civil & Marine Slag Cement Ltd Quay At Port Talbot Docks Authority: Environment Agency, Welsh Region Abstraction: Other Industrial/Commercial/Public Services: Dust Suppression Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Land At Civil & Marine Slag Cement Ltd Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2003 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9SE (SE)	1023	3	276240 188860
	Water Abstractions Operator: Costain Limited Licence Number: Wa/058/0061/004 Permit Version: 1 Location: Port Talbot Dock At Margam Moors Authority: Environment Agency, Welsh Region Abstraction: Construction: Dust Suppression Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Margam Moors - Port Talbot Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 5th August 2011 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10NE (SE)	1589	3	276967 188933

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0012 Permit Version: 101 Location: Port Talbot Docks Authority: Natural Resources Wales Abstraction: Metal: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1695	2	276890 188590
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0012 Permit Version: 101 Location: Port Talbot Docks Authority: Natural Resources Wales Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1695	2	276890 188590
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0012 Permit Version: 100 Location: Port Talbot Docks Authority: Environment Agency, Welsh Region Abstraction: Metal: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Port Talbot Docks Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A10SE (SE)	1695	3	276890 188590
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0012 Permit Version: Not Supplied Location: Land At British Steel Authority: Natural Resources Wales Abstraction: Metal: Non-Evaporative Cooling Abstraction Type: Water may be abstracted from any point within an area Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1695	2	276890 188590

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0012 Permit Version: Not Supplied Location: Land At British Steel Authority: Natural Resources Wales Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from any point within an area Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1695	2	276890 188590
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0012 Permit Version: 100 Location: Port Talbot Docks Authority: Environment Agency, Welsh Region Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A5NE (SE)	1698	3	276890 188585
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0024 Permit Version: 101 Location: River Ffrwdwyllt Authority: Natural Resources Wales Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1782	2	277150 188870
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0024 Permit Version: 101 Location: River Ffrwdwyllt Authority: Natural Resources Wales Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 12th November 2010 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1782	2	277150 188870

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0024 Permit Version: 100 Location: River Ffrwdwyllt Authority: Environment Agency, Welsh Region Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: River Ffrwdwyllt Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A10SE (SE)	1782	3	277150 188870
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0024 Permit Version: Not Supplied Location: Land At British Steel, Port Talbot Authority: Natural Resources Wales Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from any point within an area Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1782	2	277150 188870
	Water Abstractions Operator: Tata Steel Uk Limited Licence Number: 21/58/61/0024 Permit Version: Not Supplied Location: Land At British Steel, Port Talbot Authority: Natural Resources Wales Abstraction: Metal: Process Water Abstraction Type: Water may be abstracted from any point within an area Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 January Authorised End: 31 December Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1782	2	277150 188870
	Water Abstractions Operator: Corus Uk Strip Products Licence Number: 21/58/61/0024 Permit Version: 100 Location: River Ffrwdwyllt Authority: Environment Agency, Welsh Region Abstraction: Metal: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Licenced from 01-Jan to 31-Dec Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A10SE (SE)	1784	3	277150 188865

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: High Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: >70% Superficial: >90% Patchiness: >10m Superficial Thickness: High Superficial Recharge: High	A13NW (S)	0	2	275481 189600
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NW (S)	0	2	275481 189600
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13NW (S)	0	2	275481 189600
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (S)	0	2	275481 189600
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	77	2	275571 189529
	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 (E)	169	2	275678 189636
	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 (E)	177	2	275686 189639
	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 (E)	184	2	275692 189642
	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	A13SE (SE)	190	2	275660 189459
	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 (E)	213	2	275718 189653
	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	A13SE (SE)	231	2	275586 189355
	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	A13SE (S)	234	2	275584 189350
	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	A13SE (S)	235	2	275501 189326
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (S)	238	2	275500 189323
	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	A13SE (S)	239	2	275583 189344

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	A13SE (S)	240	2	275500 189321
	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	A13SE (S)	244	2	275499 189317
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	244	2	275738 189479
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (S)	244	2	275499 189317
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	246	2	275742 189484
	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	A13SE (E)	248	2	275747 189491
	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	A13SE (SE)	248	2	275741 189478
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial/Tidal Models Boundary Accuracy: As Supplied	A13SE (SE)	77	2	275576 189535
	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	A13SE (SE)	81	2	275565 189518
	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	A13SE (SE)	86	2	275561 189509
	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	A13SE (SE)	90	2	275558 189503
	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	A13SE (SE)	95	2	275555 189496
	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	A13SE (E)	96	2	275613 189584
	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	A13SE (SE)	99	2	275552 189488
	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	A13SE (SE)	108	2	275547 189475
	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	A13SE (SE)	117	2	275540 189460

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	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	A13SE (S)	121	2	275540 189455
	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	A13SE (S)	125	2	275538 189449
	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	A13SE (S)	130	2	275537 189443
	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	A13SE (S)	135	2	275535 189437
	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	A13SE (S)	140	2	275534 189431
	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	A13SE (S)	145	2	275530 189424
	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	A13SE (S)	148	2	275531 189421
	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	A13SE (S)	154	2	275529 189415
	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	A13SE (S)	157	2	275518 189408
	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 (E)	184	2	275692 189642
	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	A13SE (SE)	190	2	275660 189459
	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	A13SE (S)	197	2	275516 189367
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NE (NE)	198	2	275626 189768
	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	A13SE (S)	204	2	275516 189359
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	246	2	275742 189484
	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	A13SE (E)	248	2	275747 189491
	Areas Benefiting from Flood Defences Type: Area Benefiting from Flood Defences Boundary Accuracy: As Supplied	A13NE (NE)	198	2	275626 189768

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flood Water Storage Areas None				
	Flood Defences None				
52	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 697.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A13SE (SE)	109	5	275594 189505
53	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 126.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 2	A13SE (S)	266	5	275545 189302
54	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 125.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A13SE (S)	266	5	275545 189302
55	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 956.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 2	A13SE (SE)	328	5	275772 189377
56	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 423.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A8NE (S)	377	5	275516 189185
57	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A8NE (S)	384	5	275545 189182
58	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 158.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 2	A14NW (E)	402	5	275919 189599
59	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 21.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 2	A14NW (E)	517	5	276017 189714

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
60	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 14.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A14NW (E)	517	5	276017 189714
61	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A14NW (E)	524	5	276027 189703
62	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 33.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 2	A14NW (E)	527	5	276022 189735
63	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 16.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 2	A14NW (E)	527	5	276022 189735
64	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	529	5	276020 189749
65	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 14.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 2	A14NW (E)	531	5	276036 189695
66	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A14NW (E)	537	5	276039 189709
67	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 46.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 2	A14NW (E)	538	5	276029 189750
68	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	539	5	276028 189756

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
69	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A14NW (E)	541	5	276029 189758
70	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 11.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 2	A14NW (E)	559	5	276054 189738
71	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 339.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A14NW (E)	570	5	276065 189742
72	OS Water Network Lines Watercourse Form: Lock or flight of locks Watercourse Length: 145.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ffrwd Wylt Catchment Name: Afan Primacy: 1	A8SE (S)	763	5	275638 188813
73	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 669.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ffrwd Wylt Catchment Name: Afan Primacy: 1	A8SE (S)	763	5	275638 188813
74	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 75.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ffrwd Wylt Catchment Name: Afan Primacy: 1	A8SE (S)	780	5	275496 188780
75	OS Water Network Lines Watercourse Form: Tidal river Watercourse Length: 777.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A8SW (S)	787	5	275420 188776
76	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 2.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A19SE (E)	896	5	276338 189943
77	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 69.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A19SE (E)	898	5	276339 189944

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
78	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A19SE (NE)	959	5	276383 189996
79	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 156.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Afon Afan Catchment Name: Afan Primacy: 1	A19SE (NE)	963	5	276389 189993
80	OS Water Network Lines Watercourse Form: Lake Watercourse Length: 566.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Ffrwd Wyllt Catchment Name: Afan Primacy: 1	A9NE (SE)	969	5	276280 188986
81	OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 32.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Afan Primacy: 1	A9SE (SE)	994	5	276198 188860

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
82	Licensed Waste Management Facilities (Locations) Licence Number: BB3195CB Location: Talbot Wharf, Riverside Road, Port Talbot Docks, Port Talbot, SA13 1RE Operator Name: Associated British Ports Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Effective Issued: 4th March 2019 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	527	2	275855 189179
83	Licensed Waste Management Facilities (Locations) Licence Number: 34154 Location: Old Byass Works, Docks Road, Port Talbot, N P T, SA13 1ER Operator Name: Jem Recycling Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Expired Issued: 1st April 1998 Last Modified: Not Supplied Expires: 1st April 2000 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14NW (E)	594	2	276100 189700
83	Licensed Waste Management Facilities (Locations) Licence Number: 34142 Location: Old Byass Works, Docks Road, Port Talbot, N P T, SA13 1ER Operator Name: Jem Recycling Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Expired Issued: 24th December 1996 Last Modified: Not Supplied Expires: 1st April 2000 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14NW (E)	594	2	276100 189700
83	Licensed Waste Management Facilities (Locations) Licence Number: 34168 Location: Old Byass Works, Docks Road, Port Talbot, N P T, SA13 1ER Operator Name: Jem Recycling Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Expired Issued: 30th March 1994 Last Modified: Not Supplied Expires: 1st April 2000 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A14NW (E)	594	2	276100 189700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
84	Licensed Waste Management Facilities (Locations) Licence Number: LB3933DA Location: Port Talbot Recovery Centre, Former Byass Works, Docks Road, Port Talbot, N P T, Neath Port Talbot, SA13 1RS Operator Name: Egan Metal Recycling Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Expired Issued: 25th August 2006 Last Modified: Not Supplied Expires: 14th November 2015 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NE (E)	672	2	276183 189674
84	Licensed Waste Management Facilities (Locations) Licence Number: 34283 Location: Former Byass Works, Docks Road, Port Talbot, SA13 1RS Operator Name: Egan Metal Recycling Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Household, Commercial And Industrial Transfer Stations Licence Status: Modified Issued: 25th August 2006 Last Modified: 4th April 2013 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NE (E)	672	2	276183 189674
84	Licensed Waste Management Facilities (Locations) Licence Number: AB3895CN Location: Byass Works, Byass Works, The Docks, Port Talbot, SA13 1RS Operator Name: A W D Group Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: HCl Waste TS + treatment Licence Status: Effective Issued: 24th September 2021 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NE (E)	680	2	276190 189681
85	Licensed Waste Management Facilities (Locations) Licence Number: EP3198FW Location: Neath And Port Talbot Hospital, Neath & Port Talbot Hospital, Baglan Way, Port Talbot, SA12 7BX Operator Name: Veolia Energy & Utilities Services UK Plc Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Clinical Waste Transfer Station Licence Status: Effective Issued: 3rd June 2016 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A18NE (N)	786	2	275501 190422

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
85	Licensed Waste Management Facilities (Locations) Licence Number: 34208 Location: Neath & Port Talbot Hospital, Baglan Way, Port Talbot, SA12 7BX Operator Name: Dalkia Utilities Services Plc Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Clinical Waste Transfer Stations Licence Status: Modified Issued: 6th June 2003 Last Modified: 7th March 2013 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A18NE (N)	786	2	275501 190422
86	Licensed Waste Management Facilities (Locations) Licence Number: PP3298FX Location: Old Byass Works, The Docks, Port Talbot, Neath Port Talbot, SA13 1RS Operator Name: Cuddy Recycling Ltd Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Metal recycling site Licence Status: Expired Issued: 1st September 2016 Last Modified: Not Supplied Expires: 1st May 2020 Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NE (E)	815	2	276289 189844
86	Licensed Waste Management Facilities (Locations) Licence Number: 34040 Location: Old Byass Works, The Docks, Port Talbot, SA13 1RS Operator Name: C. P. Harvey (Scrap) Limited Operator Location: Not Supplied Authority: Natural Resources Wales Site Category: Metal recycling site Licence Status: Modified Issued: 30th January 1994 Last Modified: 26th June 2015 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m	A14NE (E)	815	2	276289 189844
	Local Authority Landfill Coverage Name: Neath Port Talbot County Borough Council - Has supplied landfill data		0	4	275481 189600
87	Local Authority Recorded Landfill Sites Location: Baglan Landfill (Hospital Site) Reference: Not Supplied Authority: Neath Port Talbot County Borough Council, Environmental Health Department Last Reported Status: Not Supplied Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable	A18NW (N)	767	4	275400 190400
88	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A13NW (W)	29	-	275431 189601
89	Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A12NE (NW)	649	-	274863 189904
90	Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A7NE (SW)	664	-	274941 189173
91	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A13NW (S)	0	-	275481 189600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
92	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	79	-	275580 189537
93	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	116	-	275574 189479
94	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A13SE (E)	177	-	275694 189597
95	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (S)	218	-	275532 189349
96	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A13SE (SE)	315	-	275805 189455
97	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A8NE (S)	372	-	275538 189193
98	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A14NW (E)	391	-	275896 189678
99	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A14SW (E)	443	-	275953 189502
100	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A14NW (NE)	449	-	275916 189790
101	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A14NW (E)	523	-	276022 189717
102	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18SE (N)	552	-	275666 190153
103	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NW (S)	596	-	275403 188969
104	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A19SW (NE)	617	-	275866 190113
105	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18SE (N)	635	-	275516 190270
106	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NE (N)	663	-	275487 190300
107	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A19SW (NE)	667	-	275830 190200
108	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NW (N)	679	-	275398 190312
109	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18SE (NE)	703	-	275814 190252
110	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18NE (N)	721	-	275671 190329
111	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NE (N)	767	-	275749 190352
112	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NE (N)	778	-	275622 190399

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
113	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A7NW (SW)	796	-	274802 189144
114	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A19NW (NE)	807	-	275922 190308
115	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18NE (NE)	816	-	275812 190379
116	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18NE (N)	820	-	275792 190392
117	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A19NW (NE)	822	-	275876 190353
118	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	839	-	276018 190276
119	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	840	-	276020 190275
120	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	862	-	276024 190301
121	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	874	-	276037 190305
122	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A18NE (N)	881	-	275708 190486
123	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A19NW (NE)	894	-	275945 190395
124	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	904	-	276054 190330
125	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	911	-	276045 190346
126	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NE (N)	924	-	275697 190533
127	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NW (N)	942	-	275265 190558
128	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A18NW (N)	945	-	275252 190558
129	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	950	-	276072 190374
130	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A17NE (N)	968	-	275115 190542
131	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A18NE (N)	968	-	275691 190579
132	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A17NE (NW)	977	-	275051 190525
133	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NW (N)	977	-	275369 190608

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
134	Registered Waste Transfer Sites Licence Holder: Port Talbot Mini Skips Licence Reference: . Site Location: rear of Byass Works, North Bank Road, The Docks, PORT TALBOT, West Glamorgan, SA13 1ER Operator Location: As Site Address Authority: Environment Agency Wales, South West Area Site Category: Transfer Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: Waste produced/controlled by licence holder Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 30th March 1994 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Approximate location provided by supplier Boundary Quality: Not Supplied Authorised Waste: Construction Waste Max.Stor Glass Max.Stor Household Waste - General Plastic Max.Stor Wood Max.Stor	A14NW (E)	594	3	276100 189700
135	Registered Waste Transfer Sites Licence Holder: Jem Recycling Ltd Licence Reference: SWW 158L Site Location: Byass Works, Docks Road, PORT TALBOT, West Glamorgan, SA13 1ER Operator Location: As Site Address Authority: Environment Agency Wales, South West Area Site Category: Transfer Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 24th December 1996 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Building Materials Cellulose Cement Bonded Asbestos Clinker & Ash Demolition Wastes Food Waste Fragmentiser Waste Glass Gypsum Based Filter Cake Man-Made Insulation Mat'Ls Max.Waste Permitted By Licence Natural & Man-Made Fibres Packaging Mat'Ls Paper/Paper Prods/Cardboard Plant & Tree Cuttings Plasterboard Plastic Scrap Metal Shot Blasting Grit Soil Tyres Wood/Wood Prods Prohibited Waste: Clinical Wastes Fibrous Forms Of Asbestos Flue Ash Liquid Wastes Packaging Containing Special Waste Pcbs/Pcts Percussive/Explosive/Similar Waste Sewage Screenings/Grit From S.T.Wks Sludge Wastes Special Wastes (As In '96 Regs) N.O.S Sub'S Control. Radioactive Subs Act'60 Waste In Sealed Drums Waste N.O.S.	A14NE (E)	693	3	276200 189700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
136	Registered Waste Transfer Sites Licence Holder: C P Harvey (Recycling) Ltd Licence Reference: . Site Location: Old Byass Works, Cramic Way, PORT TALBOT, West Glamorgan, SA13 1RS Operator Location: Alexandra House, 1 Alexandra Road, SWANSEA, West Glamorgan, SA1 5ED Authority: Environment Agency Wales, South West Area Site Category: Scrapyard - with Transfer Station Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source: Some restriction on source of waste Restrictions: Licence Status: Site Closed Dated: 23rd December 1993 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Electrical Scrap Max.Stor Ferrous Metal Scrap Max.Stor Fuel Oil Max.Stor Max.Waste From Fees/Charges Mineral Oils Max.Stor Non-Ferrous Metal Scrap Max.Stor Spec.Waste (Epa'90:S62/1996 Regs)N.O.S Prohibited Waste:	A14NE (E)	745	3	276230 189800
137	Registered Waste Treatment or Disposal Sites Licence Holder: Jem Recycling Ltd Licence Reference: SWW 171L Site Location: The Old Byass Works, Docks Road, PORT TALBOT, West Glamorgan, SA13 1ER Operator Location: As Site Address Authority: Environment Agency Wales, South West Area Site Category: Transfer - with Baling(compaction) Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st April 1998 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Building Materials Cardboard/Paper/Paper Products Clay, Sand, Top/Subsoil Ferrous Metal Food Waste Hardcore, Brickwork, Concrete, Glass, Stone Max.Waste By Agreement With Env.Agency Non-Ferrous Metal Plastic Plastic Film Tarmacadam Wood/Wood Products Difficult Wastes (As In Wmp.26) Drummed Waste Liquid Wastes Sludge Wastes Spec.Waste (Epa'90:S62/1996 Regs) Waste N.O.S. Prohibited Waste:	A14NE (E)	792	3	276300 189700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	Control of Major Accident Hazards Sites (COMAH) Name: Transco Plc Location: Aberavon Gas Works, Victoria Road, PORT TALBOT, West Glamorgan, SA13 1PN Reference: Not Supplied Type: Lower Tier Status: Record Ceased To Be Supplied Under COMAH Regulations Positional Accuracy: Manually positioned to the address or location	A13NE (E)	163	6	275655 189670
139	Notification of Installations Handling Hazardous Substances (NIHHS) Name: Transco Location: Aberavon Gas Works, Victoria Road, PORT TALBOT, West Glamorgan, SA13 1PN Status: Not Active Positional Accuracy: Unknown	A13NE (E)	163	6	275660 189662
140	Planning Hazardous Substance Consents Name: British Gas Plc Location: Wales, Aberavon Gas Works, Victoria Road, PORT TALBOT, West Glamorgan, SA12 6DB Authority: Neath Port Talbot County Borough Council, Planning Department Application Ref: P2013/0135 Hazardous Substance: Unknown at time of report Maximum Quantity: 61.8 Application date: 27th November 1992 Decision: Application revoked or cancelledCancelled Positional Accuracy: Located by supplier to within 10m	A13NE (E)	159	7	275650 189670

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: South Wales Upper Coal Measures Formation	A13NW (S)	0	1	275481 189600
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (S)	0	1	275481 189600
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (SE)	89	1	275581 189522
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (S)	287	1	275512 189274
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NE (S)	326	1	275587 189252
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NE (S)	383	1	275602 189197
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A8NE (S)	561	1	275505 189000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 25 - 35 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 30 - 45 mg/kg Concentration:	A9SW (SE)	946	1	276000 188769
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Sediment Arsenic 35 - 45 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <100 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SE (SW)	967	1	275000 188721
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 275210, 190210 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 12.00 mg/kg Concentration: Cadmium Measured 0.60 mg/kg Concentration: Chromium Measured 81.40 mg/kg Concentration: Lead Measured 41.50 mg/kg Concentration: Nickel Measured 16.80 mg/kg Concentration:	A18SW (NW)	624	1	275210 190210
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 275760, 190240 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 39.80 mg/kg Concentration: Cadmium Measured 1.70 mg/kg Concentration: Chromium Measured 71.40 mg/kg Concentration: Lead Measured 489.80 mg/kg Concentration: Nickel Measured 64.90 mg/kg Concentration:	A18SE (NE)	668	1	275760 190240
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274760, 189790 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 14.70 mg/kg Concentration: Cadmium Measured 0.40 mg/kg Concentration: Chromium Measured 53.10 mg/kg Concentration: Lead Measured 113.80 mg/kg Concentration: Nickel Measured 26.10 mg/kg Concentration:	A12NW (W)	710	1	274760 189790

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274750, 189270 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 23.70 mg/kg Concentration: Cadmium Measured 0.90 mg/kg Concentration: Chromium Measured 53.10 mg/kg Concentration: Lead Measured 158.60 mg/kg Concentration: Nickel Measured 22.50 mg/kg Concentration:	A12SW (SW)	783	1	274750 189270
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 274780, 190300 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 18.40 mg/kg Concentration: Cadmium Measured 0.90 mg/kg Concentration: Chromium Measured 62.90 mg/kg Concentration: Lead Measured 119.00 mg/kg Concentration: Nickel Measured 25.40 mg/kg Concentration:	A17NW (NW)	946	1	274780 190300
	BGS Measured Urban Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Grid: 276210, 190260 Soil Sample Type: Topsoil Sample Area: Swansea Arsenic Measured 42.80 mg/kg Concentration: Cadmium Measured 2.30 mg/kg Concentration: Chromium Measured 99.60 mg/kg Concentration: Lead Measured 630.30 mg/kg Concentration: Nickel Measured 112.60 mg/kg Concentration:	A19SE (NE)	960	1	276210 190260
	BGS Urban Soil Chemistry Averages Source: British Geological Survey, National Geoscience Information Service Sample Area: Swansea Count Id: 368 Arsenic Minimum 8.00 mg/kg Concentration: Arsenic Average 79.00 mg/kg Concentration: Arsenic Maximum 2161.00 mg/kg Concentration: Cadmium Minimum 0.10 mg/kg Concentration: Cadmium Average 2.90 mg/kg Concentration: Cadmium Maximum 61.90 mg/kg Concentration: Chromium Minimum 13.00 mg/kg Concentration: Chromium Average 72.00 mg/kg Concentration: Chromium Maximum 562.00 mg/kg Concentration: Lead Minimum 23.00 mg/kg Concentration: Lead Average 413.00 mg/kg Concentration: Lead Maximum 10000.00 mg/kg Concentration: Nickel Minimum 8.00 mg/kg Concentration: Nickel Average 52.00 mg/kg Concentration: Nickel Maximum 384.00 mg/kg Concentration:	A13NW (N)	63	1	275481 189700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13NW (S)	0	8	275481 189600
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NW (S)	0	-	275481 189600
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	1	275481 189600
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	104	1	275606 189530
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	1	275481 189600
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	171	1	275681 189629
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	1	275481 189600
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	1	275481 189600
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	138	1	275639 189518
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	140	1	275610 189479
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	146	1	275654 189532
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	202	1	275720 189582
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	1	275481 189600
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	171	1	275681 189629
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	1	275481 189600
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	136	1	275636 189518
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	1	275481 189600
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	1	275481 189600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
141	Contemporary Trade Directory Entries Name: Filtration & Separation Ltd Location: Unit 9, Aberavon Gas Works Estate, Victoria Road, Port Talbot, West Glamorgan, SA12 6DB Classification: Filter Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A13NW (N)	40	-	275472 189676
141	Contemporary Trade Directory Entries Name: Afan Tyre Discount Centre Ltd Location: Aberavon Gas Works Estate, Victoria Road, Port Talbot, West Glamorgan, SA12 6DB Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A13NW (NW)	50	-	275429 189678
142	Contemporary Trade Directory Entries Name: Greenwood Plant Services Ltd Location: Addison Rd, Port Talbot, West Glamorgan, SA12 6HZ Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NW (N)	191	-	275425 189824
143	Contemporary Trade Directory Entries Name: Puncture- Shield Location: 2, Webb Place, Port Talbot, West Glamorgan, SA12 6AG Classification: Tyre Repairs & Retreading Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	218	-	275341 189392
144	Contemporary Trade Directory Entries Name: T Lang & Sons Aberavon Ltd Location: 29, Maesgwyn Street, Port Talbot, West Glamorgan, SA12 6PF Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	243	-	275385 189869
144	Contemporary Trade Directory Entries Name: All Seasons Manufacturing Ltd Location: Addison Rd, Port Talbot, West Glamorgan, SA12 6HZ Classification: Clothing & Fabrics - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NW (N)	244	-	275396 189872
144	Contemporary Trade Directory Entries Name: E S Cleaning Services Location: 32, Maesgwyn Street, Port Talbot, West Glamorgan, SA12 6PF Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	269	-	275372 189892
144	Contemporary Trade Directory Entries Name: Active Automation Services Ltd Location: Addison Rd, Port Talbot, West Glamorgan, SA12 6HZ Classification: Electronic Engineers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NW (N)	280	-	275376 189904
144	Contemporary Trade Directory Entries Name: D J Engineering Location: B S C Workshops, Addison Rd, Port Talbot, West Glamorgan, SA12 6HZ Classification: Engineers - General Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NW (N)	312	-	275359 189932
145	Contemporary Trade Directory Entries Name: R P Tyres & Exhaust Centre Location: Unit 4, Henshaw Street, Port Talbot, SA12 6NH Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (E)	265	-	275751 189707
145	Contemporary Trade Directory Entries Name: Celtic Leather & Fabric Location: Unit 1, Henshaw Street, Port Talbot, SA12 6NH Classification: Textile Manufacturing Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	282	-	275759 189729

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
145	Contemporary Trade Directory Entries Name: Site Heat Treatment Services Ltd Location: Unit 2, Henshaw Street, Port Talbot, West Glamorgan, SA12 6NH Classification: Heat Treatment - Metals Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (NE)	282	-	275759 189729
145	Contemporary Trade Directory Entries Name: Oates Engineering Services Location: Unit 1, Isaacs Place, Port Talbot, West Glamorgan, SA12 6NP Classification: Engineering Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (E)	294	-	275785 189703
146	Contemporary Trade Directory Entries Name: Boat Bits Location: 1, Glyn Street, Port Talbot, West Glamorgan, SA12 6NF Classification: Chandlers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	279	-	275654 189850
146	Contemporary Trade Directory Entries Name: Port Talbot Exhaust & Service Centre Location: 5, Henshaw Street, Port Talbot, West Glamorgan, SA12 6NH Classification: Exhaust & Shock Absorber Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	287	-	275688 189831
146	Contemporary Trade Directory Entries Name: Universal Heat Transfer Ltd Location: 3, Henshaw Street, Port Talbot, West Glamorgan, SA12 6NH Classification: Heat Exchangers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	290	-	275687 189837
146	Contemporary Trade Directory Entries Name: Celtic Leather & Fabric Upholstery Ltd Location: 1, Henshaw Street, Port Talbot, West Glamorgan, SA12 6NH Classification: Furniture Manufacturers - Home & Office Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (NE)	293	-	275685 189843
146	Contemporary Trade Directory Entries Name: Premier Sports & Leisure Apparel Ltd Location: Unit 3a Henshaw St, Port Talbot, West Glamorgan, SA12 6NH Classification: Clothing & Fabrics - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NE (NE)	295	-	275698 189834
146	Contemporary Trade Directory Entries Name: Dragon Heat Transfer Ltd Location: Unit 3, Henshaw St, Port Talbot, West Glamorgan, SA12 6NH Classification: Car Radiator Servicing & Repairs Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NE (NE)	303	-	275696 189846
147	Contemporary Trade Directory Entries Name: Body Repair Centre Location: Henshaw St, Port Talbot, West Glamorgan, SA12 6NH Classification: Car Body Repairs Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NE (NE)	288	-	275702 189820
147	Contemporary Trade Directory Entries Name: Morris Windows Location: Factory, Henshaw St, Port Talbot, West Glamorgan, SA12 6NH Classification: PVC-U Products - Manufacturers & Suppliers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A13NE (NE)	290	-	275702 189822
148	Contemporary Trade Directory Entries Name: Just M O T Location: Unit 48 Port Talbot Workshops, Addison Road, Port Talbot, West Glamorgan, SA12 6HZ Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	300	-	275442 189935

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
148	Contemporary Trade Directory Entries Name: Paul'S M O T Centre Location: Unit 48, Port Talbot Workshops, Addison Road, Sandfields, SA12 6HZ Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (N)	300	-	275442 189935
148	Contemporary Trade Directory Entries Name: Cymru Industrial Supplies Ltd Location: Unit 47, Port Talbot Workshops, Addison Road, Port Talbot, SA12 6HZ Classification: Hose, Tubing & Fittings Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	306	-	275436 189941
148	Contemporary Trade Directory Entries Name: Stand Banner Location: Unit 46, Port Talbot Workshops, Addison Road, Port Talbot, SA12 6HZ Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	313	-	275430 189947
149	Contemporary Trade Directory Entries Name: Gogo'S Motors Location: UNIT 3, ISAACS PLACE, PORT TALBOT, SA12 6NP Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A13NE (E)	311	-	275803 189705
149	Contemporary Trade Directory Entries Name: The Range Co Location: Unit 4, Isaacs Place, Port Talbot, SA12 6NP Classification: Catering Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NE (E)	318	-	275810 189707
150	Contemporary Trade Directory Entries Name: Talbot Flyers Location: 5, Station Terrace, Port Talbot, West Glamorgan, SA12 6BZ Classification: Distribution Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SE (N)	313	-	275503 189948
151	Contemporary Trade Directory Entries Name: Sparks Fire Protection Ltd Location: Unit 41, Port Talbot Workshops, Addison Road, Port Talbot, West Glamorgan, SA12 6HZ Classification: Disability Equipment - Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	325	-	275392 189954
151	Contemporary Trade Directory Entries Name: Kindrace Ltd Location: Addison Road, Port Talbot, West Glamorgan, SA12 6HZ Classification: Transformer Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	357	-	275394 189987
151	Contemporary Trade Directory Entries Name: Sparks F P Ltd Location: Unit 9, Port Talbot Workshops, Addison Road, Port Talbot, SA12 6HZ Classification: Disability Equipment - Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	359	-	275395 189989
152	Contemporary Trade Directory Entries Name: Carver Metals Location: B S C Workshops, Addison Rd, Port Talbot, West Glamorgan, SA12 6HZ Classification: Jewellery Manufacturers & Repairers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A18SW (N)	341	-	275339 189956
152	Contemporary Trade Directory Entries Name: S P K Enterprises Location: 43, Addison Road, Port Talbot, West Glamorgan, SA12 6HZ Classification: Sports Equipment Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (NW)	373	-	275301 189975

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
153	Contemporary Trade Directory Entries Name: Port Talbot General Hospital Location: Hospital Road, Port Talbot, West Glamorgan, SA12 6PD Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	347	-	275247 189915
153	Contemporary Trade Directory Entries Name: Port Talbot General Hospital Location: Hospital Road, Port Talbot, West Glamorgan, SA12 6PD Classification: Hospitals Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	347	-	275247 189915
154	Contemporary Trade Directory Entries Name: Green In Mind Location: Unit 20, Port Talbot Workshops, Addison Road, PORT TALBOT, West Glamorgan, SA12 6HZ Classification: Furniture - Repairing & Restoring Status: Active Positional Accuracy: Automatically positioned to the address	A18SW (N)	355	-	275378 189982
154	Contemporary Trade Directory Entries Name: Copier Exchange Location: Unit 20,Addison Rd Workshops,Addison Rd, Port Talbot, West Glamorgan, SA12 6HZ Classification: Photocopiers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A18SW (N)	355	-	275378 189982
154	Contemporary Trade Directory Entries Name: Test Fixture Supplies Location: Unit 16 Port Talbot Workshops,Addison Rd, Port Talbot, West Glamorgan, SA12 6HZ Classification: Electronic Component Manufacturers & Distributors Status: Inactive Positional Accuracy: Manually positioned to the address or location	A18SW (N)	357	-	275370 189982
154	Contemporary Trade Directory Entries Name: Select Joinery Manufacturers Location: Unit 1 B S I Workshops,Addison Rd, Port Talbot, West Glamorgan, SA12 6HZ Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A18SW (NW)	359	-	275324 189970
154	Contemporary Trade Directory Entries Name: S & E Engineering Location: Unit 27, Port Talbot Workshops, Addison Road, Port Talbot, SA12 6HZ Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	360	-	275350 189980
154	Contemporary Trade Directory Entries Name: Special Moments Ltd Location: Unit 19, Port Talbot Workshops, Addison Road, Port Talbot, West Glamorgan, SA12 6HZ Classification: Greeting Card Publishers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A18SW (N)	361	-	275364 189985
154	Contemporary Trade Directory Entries Name: K90 Raw & Hydro Location: Unit 24, Port Talbot Workshops, Addison Road, Port Talbot, West Glamorgan, SA12 6HZ Classification: Pet Foods & Animal Feeds Status: Active Positional Accuracy: Automatically positioned to the address	A18SW (N)	377	-	275338 189994
154	Contemporary Trade Directory Entries Name: Pyramid Manufacturing Location: Unit 5,Port Talbot Workshops,Addison Rd, Port Talbot, West Glamorgan, SA12 6HZ Classification: Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location	A18SW (N)	381	-	275378 190008
154	Contemporary Trade Directory Entries Name: Leo Assemblies Location: Unit 5, Port Talbot Workshops, Addison Road, PORT TALBOT, West Glamorgan, SA12 6HZ Classification: Transformer Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A18SW (N)	381	-	275378 190009

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
154	Contemporary Trade Directory Entries Name: Andreas Haaf Printers Location: Unit 18, Port Talbot Workshops, Addison Road, Port Talbot, West Glamorgan, SA12 6HZ Classification: Printers Status: Active Positional Accuracy: Automatically positioned to the address	A18SW (N)	388	-	275347 190008
154	Contemporary Trade Directory Entries Name: Cando Laundry Services Location: Unit 2, Addison Road, Port Talbot, SA12 6HZ Classification: Laundries & Launderettes Status: Active Positional Accuracy: Automatically positioned to the address	A18SW (N)	409	-	275312 190019
154	Contemporary Trade Directory Entries Name: Can Do Laundry Location: UNIT 2, ADDISON ROAD, PORT TALBOT, SA12 6HZ Classification: Laundries & Launderettes Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	409	-	275312 190019
155	Contemporary Trade Directory Entries Name: Akins Garage & Autocare Location: Frederick Street, Port Talbot, West Glamorgan, SA12 6BX Classification: Garage Services Status: Active Positional Accuracy: Manually positioned to the address or location	A18SW (N)	365	-	275474 190002
155	Contemporary Trade Directory Entries Name: A Class Caravan Services Location: 10, Stair Street, Port Talbot, West Glamorgan, SA12 6BJ Classification: Caravans - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	393	-	275435 190028
156	Contemporary Trade Directory Entries Name: Quay Engineering Service Ltd Location: 4, Sitwell Way, Port Talbot, West Glamorgan, SA12 6BL Classification: Metal Products - Fabricated Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SW (SW)	369	-	275252 189270
157	Contemporary Trade Directory Entries Name: Cymru Industrial Supplies Ltd Location: Unit 47 Port Talbot Business Units, Addison Road, Port Talbot, West Glamorgan, SA12 6HZ Classification: Engineering Materials Status: Active Positional Accuracy: Automatically positioned to the address	A18SW (NW)	388	-	275288 189986
158	Contemporary Trade Directory Entries Name: Proclean Location: Isaacs Pl, Port Talbot, West Glamorgan, SA12 6NP Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14NW (NE)	411	-	275849 189828
158	Contemporary Trade Directory Entries Name: Olympus Catering Ltd Location: Isaacs Place, Port Talbot, West Glamorgan, SA12 6NP Classification: Catering Equipment Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A14NW (NE)	415	-	275876 189791
159	Contemporary Trade Directory Entries Name: D W E Hydraulics & Pneumatics Location: North Bank Road, The Docks, Port Talbot, West Glamorgan, SA13 1RE Classification: Hydraulic Engineers Status: Active Positional Accuracy: Manually positioned to the address or location	A14SW (SE)	436	-	275915 189406
160	Contemporary Trade Directory Entries Name: T Lang & Sons Ltd Location: Unit 3, Addison Road, Port Talbot, SA12 6HZ Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SW (N)	441	-	275327 190057

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
160	Contemporary Trade Directory Entries Name: Fairfield Garage Location: Graham Davies House, Addison Road, Port Talbot, SA12 6HZ Classification: Mot Testing Centres Status: Active Positional Accuracy: Automatically positioned to the address	A18SW (N)	441	-	275327 190057
161	Contemporary Trade Directory Entries Name: Ats Euromaster Port Talbot Location: Afan Way, PORT TALBOT, West Glamorgan, SA12 6NR Classification: Tyre Dealers Status: Active Positional Accuracy: Automatically positioned to the address	A14NW (E)	461	-	275949 189744
162	Contemporary Trade Directory Entries Name: Chroma Domestic Cleaning Services Location: 22, Sitwell Way, Port Talbot, SA12 6BL Classification: Cleaning Services - Domestic Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NW (SW)	469	-	275204 189181
163	Contemporary Trade Directory Entries Name: Skelton Thomas Engineering Ltd Location: Water Street, Port Talbot, West Glamorgan, SA12 6LL Classification: Valve Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NW (NE)	486	-	275942 189820
164	Contemporary Trade Directory Entries Name: Talbot Blind Co Location: 184, Water Street, Port Talbot, West Glamorgan, SA12 6LL Classification: Blinds, Awnings & Canopies Status: Active Positional Accuracy: Automatically positioned to the address	A14NW (NE)	487	-	275886 189909
164	Contemporary Trade Directory Entries Name: Afan Way Services Location: Water St, Port Talbot, West Glamorgan, SA12 6LL Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A14NW (NE)	490	-	275904 189888
164	Contemporary Trade Directory Entries Name: Little Feather Duster Location: 178, Water Street, Port Talbot, SA12 6LL Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A14NW (NE)	499	-	275906 189902
165	Contemporary Trade Directory Entries Name: Fairfield Garage Location: 63, Sandfields Road, Port Talbot, West Glamorgan, SA12 6LR Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Automatically positioned to the address	A18SE (N)	490	-	275642 190096
165	Contemporary Trade Directory Entries Name: Best Auto Repairs Ltd Location: 1, Alfred Street, Port Talbot, West Glamorgan, SA12 6UL Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A18SE (N)	528	-	275675 190125
166	Contemporary Trade Directory Entries Name: Margam Engineering & Welding Co Ltd Location: North Bank, The Docks, Port Talbot, West Glamorgan, SA13 1RE Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	520	-	275978 189343
166	Contemporary Trade Directory Entries Name: Talbot Block Ltd Location: North Bank, The Docks, Port Talbot, West Glamorgan, SA13 1RE Classification: Builders' Merchants Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (SE)	520	-	275978 189343
166	Contemporary Trade Directory Entries Name: Initial G W S Ltd Location: North Bank, The Docks, Port Talbot, West Glamorgan, SA13 1RE Classification: Crane Hire, Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	520	-	275978 189343

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
166	Contemporary Trade Directory Entries Name: G W S Ltd Location: North Bank, The Docks, Port Talbot, West Glamorgan, SA13 1RE Classification: Crane Hire, Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SW (SE)	520	-	275978 189343
166	Contemporary Trade Directory Entries Name: D W E Hydraulics Location: North Bank, The Docks, Port Talbot, West Glamorgan, SA13 1RE Classification: Hydraulic Equipment & Accessories - Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A14SW (SE)	520	-	275978 189343
167	Contemporary Trade Directory Entries Name: Valley Industrial Services Ltd Location: The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NW (E)	528	-	276040 189662
168	Contemporary Trade Directory Entries Name: Speedgold Ltd Location: Pierhead, The Docks, Port Talbot, West Glamorgan, SA13 1RH Classification: Precision Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	595	-	275668 188996
169	Contemporary Trade Directory Entries Name: Builders Supplies Port Talbot Ltd Location: Green Park Industrial Estate, Port Talbot, West Glamorgan, SA12 6NU Classification: Builders' Merchants Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A14NW (NE)	626	-	276076 189866
169	Contemporary Trade Directory Entries Name: Valley Reclamation Ltd Location: Green Park Industrial Estate, Port Talbot, West Glamorgan, SA12 6NU Classification: Scrap Metal Merchants Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A14NW (E)	632	-	276096 189837
170	Contemporary Trade Directory Entries Name: J D Marine & Sons Location: 58, Mariners Quay, Port Talbot, SA12 6AN Classification: Marine Engineering Equipment Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	669	-	275021 189074
171	Contemporary Trade Directory Entries Name: A W D Group Location: Byass Works, Dock Road, The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: Recycling Services Status: Active Positional Accuracy: Automatically positioned to the address	A14NE (E)	671	-	276178 189697
171	Contemporary Trade Directory Entries Name: Valley Waste & Recycling Ltd Location: The Recycling Company UK Ltd., Byass Works, Dock Road, Port Talbot, SA13 1RS Classification: Recycling Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	688	-	276197 189686
172	Contemporary Trade Directory Entries Name: Ready Steel Reinforcements Location: Talbot Wharf, The Docks, Port Talbot, West Glamorgan, SA13 1RH Classification: Concrete Reinforcements Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A9NW (SE)	674	-	275830 188984
173	Contemporary Trade Directory Entries Name: B Harwood & Son Ltd Location: Water Street, Port Talbot, West Glamorgan, SA12 6LF Classification: Mot Testing Centres Status: Active Positional Accuracy: Automatically positioned to the address	A19SW (NE)	691	-	276094 189964

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
173	Contemporary Trade Directory Entries Name: Harwoods Location: Water Street, Port Talbot, SA12 6LF Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SW (NE)	716	-	276115 189977
174	Contemporary Trade Directory Entries Name: Orange West Scaffolding Location: Green Pk Ind Est, Port Talbot, West Glamorgan, SA12 6NU Classification: Scaffolding & Work Platforms Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A14NW (E)	700	-	276154 189874
175	Contemporary Trade Directory Entries Name: The Princess Of Wales Hospital Location: Site Office, Neath Port Talbot Hospital, Baglan Way, Aberavon, SA12 7BX Classification: Hospitals Status: Active Positional Accuracy: Automatically positioned to the address	A18NW (N)	704	-	275294 190321
176	Contemporary Trade Directory Entries Name: West Glamorgan Auto Electrical Location: Water St, Port Talbot, West Glamorgan, SA12 6LF Classification: Plant & Machinery Repairs Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A19SW (NE)	732	-	276154 189944
177	Contemporary Trade Directory Entries Name: A L A Rail Ltd Location: Byass Works, The Docks, PORT TALBOT, West Glamorgan, SA13 1RS Classification: Railway Equipment Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	735	-	276250 189648
178	Contemporary Trade Directory Entries Name: S A 12 Ironing Location: 13, Mariners Quay, Port Talbot, West Glamorgan, SA12 6AN Classification: Ironing & Home Laundry Services Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	753	-	274873 189115
179	Contemporary Trade Directory Entries Name: A & S Commercial Vehicle Repairs Location: A and S Commercial Repairs Ltd, Road From Riverside Road to Harbour House, Port Talbot, SA13 1RA Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	756	-	276057 189055
179	Contemporary Trade Directory Entries Name: Celtic Specialist Treatments Ltd Location: The Docks, Port Talbot, West Glamorgan, SA13 1RH Classification: Metal Finishing Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NW (SE)	761	-	276062 189052
180	Contemporary Trade Directory Entries Name: Gss Support Services Location: 10, Rhodes Avenue, Port Talbot, West Glamorgan, SA12 6UT Classification: Cleaning Services - Commercial Status: Inactive Positional Accuracy: Automatically positioned to the address	A18NE (N)	762	-	275670 190373
181	Contemporary Trade Directory Entries Name: Coates Rentair Location: Coates Rentair, Dock Road, Port Talbot, SA13 1RA Classification: Air Compressors Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	774	-	276279 189446
182	Contemporary Trade Directory Entries Name: C P Harvey (Recycling) Ltd Location: Old Byass Works, The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: Scrap Metal Merchants Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A14NE (E)	791	-	276291 189747

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
183	Contemporary Trade Directory Entries Name: The Recycling Co Location: Byass Works, The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: Recycling Centres Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14NE (E)	797	-	276286 189794
183	Contemporary Trade Directory Entries Name: Raymond Joseph Engineers Ltd Location: Byass Works, The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	798	-	276287 189795
183	Contemporary Trade Directory Entries Name: Jem Recycling Ltd Location: Byass Works, The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: Waste Disposal Services Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14NE (E)	798	-	276287 189795
183	Contemporary Trade Directory Entries Name: Innotech (Wales) Ltd Location: Byass Works, The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	798	-	276287 189795
183	Contemporary Trade Directory Entries Name: The Recycling Co Location: Byass Works, The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: Reclaiming - Waste Products Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14NE (E)	798	-	276287 189795
183	Contemporary Trade Directory Entries Name: M P L S Engineering Location: Byass Works, The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	816	-	276294 189834
184	Contemporary Trade Directory Entries Name: Neath General Hospital Location: Baglan Way, Port Talbot, West Glamorgan, SA12 7BX Classification: Hospitals Status: Active Positional Accuracy: Automatically positioned to the address	A18NW (N)	832	-	275402 190466
184	Contemporary Trade Directory Entries Name: Neath General Hospital Location: Baglan Way, Port Talbot, West Glamorgan, SA12 7BX Classification: Hospitals Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A18NW (N)	832	-	275402 190466
185	Contemporary Trade Directory Entries Name: Unigate Dairies Ltd Location: Green Park Indust Est, Port Talbot, West Glamorgan, SA12 6NT Classification: Dairies Status: Inactive Positional Accuracy: Manually positioned to the address or location	A19SE (NE)	852	-	276290 189942
185	Contemporary Trade Directory Entries Name: John Young & Co (Engineers) Ltd Location: Green Park Industrial Estate, Port Talbot, West Glamorgan, SA12 6NT Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	853	-	276291 189942
185	Contemporary Trade Directory Entries Name: Talbot Printing Co Ltd Location: Green Park Industrial Estate, Port Talbot, West Glamorgan, SA12 6NT Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	853	-	276291 189942
186	Contemporary Trade Directory Entries Name: Thomas Silvey Ltd Location: The Docks, Port Talbot, West Glamorgan, SA13 1RE Classification: Oil Fuel Distributors Status: Inactive Positional Accuracy: Manually positioned to the address or location	A14SE (E)	888	-	276397 189461

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
187	Contemporary Trade Directory Entries Name: Cvc Recovery & Quality Used Parts Location: 15, St. Mary Street, Port Talbot, West Glamorgan, SA12 6DU Classification: Car Breakdown & Recovery Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A19SE (NE)	916	-	276210 190192
188	Contemporary Trade Directory Entries Name: M C Windows Location: Cramic Way, The Docks, Port Talbot, West Glamorgan, SA13 1RS Classification: PVC-U Products - Manufacturers & Suppliers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	916	-	276378 189897
189	Contemporary Trade Directory Entries Name: T W I Technology Centre Wales Location: Harbourside Business Park, Harbourside Road, Port Talbot, West Glamorgan, SA13 1SB Classification: Engineering Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	945	-	276453 189456
190	Contemporary Trade Directory Entries Name: Gregory Auto Repairs Location: Somerset La, Port Talbot, West Glamorgan, SA13 1TY Classification: Car Body Repairs Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A14SE (E)	951	-	276454 189420
190	Contemporary Trade Directory Entries Name: Civil & Marine Slag Cement Ltd Location: Docks Road, The Docks, Port Talbot, West Glamorgan, SA13 1RA Classification: Cement Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	982	-	276479 189385
190	Contemporary Trade Directory Entries Name: Autolec Diesel Services (Wales) Ltd Location: Docks Road, The Docks, Port Talbot, West Glamorgan, SA13 1RA Classification: Fuel Injection Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	982	-	276479 189385
190	Contemporary Trade Directory Entries Name: A & S Commercial Repairs Location: Docks Road, The Docks, Port Talbot, West Glamorgan, SA13 1RA Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	982	-	276479 189385
191	Contemporary Trade Directory Entries Name: L B S Builders Merchants Location: 5 Cramic Way, Port Talbot, West Glamorgan, SA13 1RU Classification: Builders' Merchants Status: Active Positional Accuracy: Manually positioned to the address or location	A14NE (E)	957	-	276437 189849
191	Contemporary Trade Directory Entries Name: Evd Commercials Ltd Location: Cramic Way, Port Talbot, West Glamorgan, SA13 1JU Classification: Commercial Vehicle Bodybuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	958	-	276437 189849
191	Contemporary Trade Directory Entries Name: It Asset Matters 2 U Location: Unit 2e, Cramic Way, Port Talbot, West Glamorgan, SA13 1RU Classification: Computer Recycling & Disposal Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	958	-	276437 189849
192	Contemporary Trade Directory Entries Name: Pioneer Maintenance Services Location: 32, Rees Street, Port Talbot, West Glamorgan, SA12 6HB Classification: Swimming Pool Contractors, Repairers & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A19NW (NE)	962	-	275985 190451

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
193	Contemporary Trade Directory Entries Name: M H M Plant Location: Unit 3, Aberavon Road, Baglan Industrial Park, Port Talbot, West Glamorgan, SA12 7DJ Classification: Generators - Sales & Service Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NE (NW)	966	-	275065 190519
194	Contemporary Trade Directory Entries Name: Associated British Ports Location: Puckey House, The Docks, Port Talbot, SA13 1RB Classification: Ports, Docks & Harbours Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SW (S)	981	-	275258 188605
195	Contemporary Trade Directory Entries Name: 1st Class Furniture Location: Astra Business Park, Cramic Way, Port Talbot, West Glamorgan, SA13 1RU Classification: Furniture Manufacturers - Home & Office Status: Inactive Positional Accuracy: Automatically positioned to the address	A14NE (E)	992	-	276484 189806
196	Contemporary Trade Directory Entries Name: Theatre Quest Location: 4, Morrison Road, Port Talbot, West Glamorgan, SA12 6TG Classification: Hi-Fi Equipment Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NW (NW)	999	-	274782 190375
197	Fuel Station Entries Name: Fairfield Garage Proteus Location: 63, Sandfields Road , , Port Talbot, Neath Port Talbot, SA12 6LR Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Automatically positioned to the address	A18SE (N)	490	-	275642 190096
198	Fuel Station Entries Name: Afan Way Service Station Location: Afan Way , , Port Talbot, Neath Port Talbot, SA12 6NR Brand: Obsolete Premises Type: Not Applicable Status: Obsolete Positional Accuracy: Manually positioned to the address or location	A14NW (NE)	515	-	275967 189835
199	Points of Interest - Commercial Services Name: T Lang & Sons Aberavon Ltd Location: 29 Maesgwyn Street, Port Talbot, SA12 6PF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (N)	244	9	275385 189869
199	Points of Interest - Commercial Services Name: Just M O T Location: Unit 48, Port Talbot Workshops, Addison Road, Sandfields, SA12 6HZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (N)	300	9	275442 189935
199	Points of Interest - Commercial Services Name: Paul's M O T Centre Location: Unit 48 Port Talbot Workshops, Addison Road, Port Talbot, SA12 6HZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (N)	300	9	275442 189935
199	Points of Interest - Commercial Services Name: Talbot Flyers Location: 5 Station Terrace, Port Talbot, SA12 6BZ Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A18SE (N)	312	9	275502 189947
199	Points of Interest - Commercial Services Name: Akins Garage & Autocare Location: Frederick Street, Port Talbot, SA12 6BX Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18SW (N)	365	9	275474 190002

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
200	Points of Interest - Commercial Services Name: Gogo's Motors Location: Unit 3, Isaacs Place, Aberavon, SA12 6NP Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (E)	311	9	275803 189705
201	Points of Interest - Commercial Services Name: T Lang & Sons Ltd T/A Fairfield Garage Location: Unit 3, Addison Road, Port Talbot, SA12 6HZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18SW (N)	390	9	275371 190016
201	Points of Interest - Commercial Services Name: Fairfield Garage Location: Graham Davies House, Addison Road, Port Talbot, SA12 6HZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18SW (N)	430	9	275326 190046
201	Points of Interest - Commercial Services Name: T Lang & Sons Ltd Location: Unit 3, Addison Road, Port Talbot, SA12 6HZ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18SW (N)	441	9	275327 190057
202	Points of Interest - Commercial Services Name: Fairfield Garage Location: 63 Sandfields Road, Port Talbot, SA12 6LR Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18SE (N)	490	9	275642 190096
202	Points of Interest - Commercial Services Name: D M Location: 1 Alfred Street, Port Talbot, SA12 6UL Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18SE (N)	528	9	275675 190125
202	Points of Interest - Commercial Services Name: Best Auto Repairs Ltd Location: 1 Alfred Street, Aberavon, SA12 6UL Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A18SE (N)	528	9	275675 190124
203	Points of Interest - Commercial Services Name: Seabourne Transport Ltd Location: 63 Sandown Road, Port Talbot, SA12 6PT Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NE (NW)	583	9	274948 189927
204	Points of Interest - Commercial Services Name: Egan Metals Recycling Ltd Location: Byass Works, The Docks, Port Talbot, SA13 1RS Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A14NW (E)	630	9	276141 189671
204	Points of Interest - Commercial Services Name: A W D Group Location: Byass Works, Dock Road, Port Talbot, SA13 1RS Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A14NE (E)	670	9	276178 189696
204	Points of Interest - Commercial Services Name: Valley Waste & Recycling Ltd Location: Byass Works, Dock Road, Port Talbot, SA13 1RS Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A14NE (E)	688	9	276197 189686
205	Points of Interest - Commercial Services Name: Valley Waste Metal Services Location: Green Park Industrial Estate, Port Talbot, SA12 6NT Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A14NW (E)	670	9	276145 189820

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
206	Points of Interest - Commercial Services Name: B Harwood & Son Location: Water Street, Port Talbot, SA12 6LF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SW (NE)	691	9	276094 189964
206	Points of Interest - Commercial Services Name: Harwoods Location: Water Street, Port Talbot, SA12 6LF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SW (NE)	716	9	276115 189977
206	Points of Interest - Commercial Services Name: B Harwood & Son Ltd Location: 100 Water Street, Aberavon, SA12 6LF Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A19SW (NE)	716	9	276115 189977
207	Points of Interest - Commercial Services Name: Scrap Yard Location: SA13 Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to address or location	A14NE (E)	759	9	276241 189813
207	Points of Interest - Commercial Services Name: Scrap Yard Location: Not Supplied Category: Recycling Services Class Code: Scrap Metal Merchants Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	765	9	276246 189816
207	Points of Interest - Commercial Services Name: The Recycling Co Location: Byass Works, The Docks, Port Talbot, SA13 1RS Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A14NE (E)	798	9	276287 189795
208	Points of Interest - Commercial Services Name: M J F Car Body Repairs Location: Unit 1b, Cramic Way, Port Talbot, SA13 1RU Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14NE (E)	916	9	276378 189897
208	Points of Interest - Commercial Services Name: It Asset Disposal Ltd Location: Unit 2e, Cramic Way, Port Talbot, SA13 1RU Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A14NE (E)	958	9	276437 189849
209	Points of Interest - Commercial Services Name: A & S Commercial Repairs Location: Docks Road, The Docks, Port Talbot, SA13 1RA Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A14SE (E)	982	9	276479 189385
210	Points of Interest - Education and Health Name: Port Talbot General Hospital Location: Hospital Road, Port Talbot, SA12 6PD Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A13NW (NW)	347	9	275247 189915
211	Points of Interest - Education and Health Name: Neath Port Talbot Hospital Location: Baglan Way, Port Talbot, SA12 7BX Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (N)	832	9	275402 190466
211	Points of Interest - Education and Health Name: Neath Port Talbot Hospital Location: Baglan Way, Aberavon, SA12 7BX Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (N)	832	9	275402 190466

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
211	Points of Interest - Education and Health Name: Neath Port Talbot Hospital Location: Baglan Way, Port Talbot, SA12 7BX Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (N)	832	9	275402 190466
211	Points of Interest - Education and Health Name: Neath Port Talbot Hospital Location: Baglan Way, Port Talbot, SA12 7BX Category: Health Practitioners and Establishments Class Code: Accident & Emergency Department Positional Accuracy: Positioned to address or location	A18NW (N)	832	9	275402 190466
211	Points of Interest - Education and Health Name: Neath Port Talbot Hospital Location: Baglan Way, Port Talbot, SA12 7BX Category: Health Practitioners and Establishments Class Code: Accident & Emergency Department Positional Accuracy: Positioned to address or location	A18NW (N)	832	9	275402 190466
211	Points of Interest - Education and Health Name: Neath Port Talbot Hospital Location: Baglan Way, Port Talbot, SA12 7BX Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (N)	832	9	275402 190466
211	Points of Interest - Education and Health Name: Groeswen Hospital Location: Margam Road, Port Talbot, SA4 2LH Category: Health Practitioners and Establishments Class Code: Hospitals Positional Accuracy: Positioned to address or location	A18NW (N)	851	9	275395 190484
211	Points of Interest - Education and Health Name: Neath Port Talbot Hospital Location: Baglan Way, Port Talbot, SA12 7BX Category: Health Practitioners and Establishments Class Code: Accident & Emergency Department Positional Accuracy: Positioned to address or location	A18NW (N)	909	9	275411 190544
212	Points of Interest - Manufacturing and Production Name: Power Station Location: SA12 Category: Industrial Features Class Code: Energy Production Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	110	9	275565 189704
212	Points of Interest - Manufacturing and Production Name: Tank Location: SA12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (N)	137	9	275531 189761
213	Points of Interest - Manufacturing and Production Name: Port Talbot Workshops Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	312	9	275403 189943
214	Points of Interest - Manufacturing and Production Name: Works Location: SA12 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	329	9	275820 189712
214	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	335	9	275826 189713
215	Points of Interest - Manufacturing and Production Name: Tank Location: SA12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	334	9	275778 189795

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
216	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NW (E)	520	9	276028 189682
216	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NW (E)	522	9	276030 189680
216	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A14NW (E)	524	9	276032 189678
216	Points of Interest - Manufacturing and Production Name: Tanks Location: SA12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	530	9	276038 189683
217	Points of Interest - Manufacturing and Production Name: Industrial Estate Location: SA13 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	619	9	276135 189610
218	Points of Interest - Manufacturing and Production Name: Business Centre Location: SA12 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	689	9	276101 189949
219	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	706	9	275558 188859
220	Points of Interest - Manufacturing and Production Name: Port Talbot Industrial Estate Location: SA13 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	708	9	276211 189445
221	Points of Interest - Manufacturing and Production Name: Tank Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14NE (E)	796	9	276304 189706
222	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A19SE (E)	872	9	276312 189943
223	Points of Interest - Manufacturing and Production Name: Tanks Location: SA13 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	892	9	276390 189402
223	Points of Interest - Manufacturing and Production Name: Steel Works Wharf Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	917	9	276396 189321

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
224	Points of Interest - Manufacturing and Production Name: Business Park Location: SA13 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	894	9	276409 189523
225	Points of Interest - Manufacturing and Production Name: Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	959	9	275986 188745
225	Points of Interest - Manufacturing and Production Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	977	9	276021 188746
225	Points of Interest - Manufacturing and Production Name: Works Location: SA13 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A9SW (SE)	978	9	276021 188745
226	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	97	9	275607 189547
226	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	118	9	275635 189593
226	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	122	9	275639 189593
227	Points of Interest - Public Infrastructure Name: Outfall Location: SA13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	238	9	275747 189646
227	Points of Interest - Public Infrastructure Name: Outfall Location: SA13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A13NE (E)	243	9	275752 189647
228	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	353	9	275859 189671
229	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	367	9	275524 189196
229	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	369	9	275523 189194

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
230	Points of Interest - Public Infrastructure Name: Mortuary Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A18SW (NW)	407	9	275239 189981
231	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	503	9	276005 189706
231	Points of Interest - Public Infrastructure Name: Sluice Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	519	9	276021 189706
231	Points of Interest - Public Infrastructure Name: Sluice Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	520	9	276023 189702
231	Points of Interest - Public Infrastructure Name: Sluice Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	521	9	276013 189743
231	Points of Interest - Public Infrastructure Name: Sluice Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	525	9	276017 189744
231	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	547	9	276047 189721
231	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	549	9	276049 189721
231	Points of Interest - Public Infrastructure Name: Sluice Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	561	9	276056 189741
231	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	563	9	276055 189750
231	Points of Interest - Public Infrastructure Name: Sluice Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	563	9	276058 189741
231	Points of Interest - Public Infrastructure Name: Weir Location: SA12 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14NW (E)	566	9	276058 189751

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
232	Points of Interest - Public Infrastructure Name: Sluice Location: SA13 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A8SE (S)	709	9	275595 188861
233	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	718	9	275471 188842
233	Points of Interest - Public Infrastructure Name: Outfall Location: SA12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	718	9	275477 188842
234	Points of Interest - Public Infrastructure Name: Graveyard Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	776	9	276182 189983
234	Points of Interest - Public Infrastructure Name: Graveyard Location: SA12 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	777	9	276183 189984
234	Points of Interest - Public Infrastructure Name: Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	825	9	276191 190061
234	Points of Interest - Public Infrastructure Name: Cemetery Location: SA12 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	831	9	276198 190061
235	Points of Interest - Public Infrastructure Name: The Recycling Co Location: Byass Works, The Docks, Port Talbot, West Glamorgan, SA13 1RS Category: Infrastructure and Facilities Class Code: Recycling Centres Positional Accuracy: Positioned to address or location	A14NE (E)	797	9	276286 189794
236	Points of Interest - Public Infrastructure Name: Outfall Location: SA13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	861	9	275448 188700
236	Points of Interest - Public Infrastructure Name: Outfall Location: SA13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	881	9	275423 188681
236	Points of Interest - Public Infrastructure Name: Outfall Location: SA13 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8SW (S)	886	9	275429 188676
237	Points of Interest - Public Infrastructure Name: It Asset Disposal Ltd Location: Unit 2e, Cramic Way, Port Talbot, SA13 1RU Category: Infrastructure and Facilities Class Code: Recycling Centres Positional Accuracy: Positioned to address or location	A14NE (E)	958	9	276437 189849

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
238	Points of Interest - Public Infrastructure Name: Bus Station Location: SA13 Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to an adjacent address or location	A19SE (NE)	961	9	276369 190028
238	Points of Interest - Public Infrastructure Name: Bus Station Location: SA13 Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A19SE (NE)	997	9	276395 190055
239	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SW (S)	273	9	275386 189304
240	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A17SE (NW)	552	9	275011 189965
240	Points of Interest - Recreational and Environmental Name: Playground Location: Sandown Road (Heol Sandown), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A17SE (NW)	576	9	274978 189960
240	Points of Interest - Recreational and Environmental Name: Playground Location: Sandown Road (Heol Sandown), SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A17SE (NW)	577	9	274978 189962
241	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	850	9	276005 190300
241	Points of Interest - Recreational and Environmental Name: Play Area Location: SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	853	9	275990 190316
241	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19NW (NE)	862	9	275968 190343
241	Points of Interest - Recreational and Environmental Name: Playground Location: Hopkin Street, SA12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A19NW (NE)	864	9	275959 190351

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Bridgend County Borough Council - Environmental Health Department Natural Resources Wales Neath Port Talbot County Borough Council - Environmental Health Department City and County of Swansea - Environmental Health Department	January 2020 June 2020 October 2017 September 2017	Annual Rolling Update Annually Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - Welsh Region Natural Resources Wales	August 2014 July 2022	Quarterly Quarterly
Enforcement and Prohibition Notices Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control Environment Agency - Welsh Region Natural Resources Wales	January 2021 October 2022	Quarterly Quarterly
Local Authority Integrated Pollution Prevention And Control Swansea Bay Port Health Authority Bridgend County Borough Council - Environmental Health Department City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	April 2014 July 2015 June 2014 March 2014	Variable Variable Variable Variable
Local Authority Pollution Prevention and Controls Swansea Bay Port Health Authority Bridgend County Borough Council - Environmental Health Department City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	April 2014 July 2015 June 2014 March 2014	Annually Not Applicable Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Swansea Bay Port Health Authority Bridgend County Borough Council - Environmental Health Department City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	April 2014 July 2015 June 2014 March 2015	Variable Variable Variable Variable
Nearest Surface Water Feature Ordnance Survey	September 2022	
Pollution Incidents to Controlled Waters Environment Agency - Welsh Region	December 1998	
Prosecutions Relating to Authorised Processes Environment Agency - Welsh Region Natural Resources Wales	July 2015 July 2015	
Prosecutions Relating to Controlled Waters Environment Agency - Welsh Region Natural Resources Wales	March 2013 March 2013	
Registered Radioactive Substances Natural Resources Wales Environment Agency - Welsh Region	January 2015 June 2016	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Chemistry Sampling Points Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register Environment Agency Wales - South West Area Natural Resources Wales	January 2021 October 2022	Quarterly Quarterly
Water Abstractions Natural Resources Wales Environment Agency - Welsh Region	July 2022 October 2022	Quarterly Quarterly

Agency & Hydrological	Version	Update Cycle
Water Industry Act Referrals Natural Resources Wales Environment Agency - Welsh Region	July 2022 October 2017	Quarterly
Groundwater Vulnerability Map Natural Resources Wales	June 2018	As notified
Bedrock Aquifer Designations Natural Resources Wales	January 2018	Annually
Superficial Aquifer Designations Natural Resources Wales	January 2018	Annually
Source Protection Zones Natural Resources Wales	July 2022	Annual Rolling Update
Extreme Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Flooding from Rivers or Sea without Defences Natural Resources Wales	September 2020	
Areas Benefiting from Flood Defences Natural Resources Wales	November 2019	Quarterly
Flood Water Storage Areas Natural Resources Wales	August 2019	Quarterly
Flood Defences Natural Resources Wales	November 2019	Quarterly
OS Water Network Lines Ordnance Survey	October 2022	Quarterly
Surface Water 1 in 30 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 100 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent Natural Resources Wales	May 2018	Annually
Surface Water Suitability Natural Resources Wales	February 2016	Annually
BGS Groundwater Flooding Susceptibility British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites Natural Resources Wales	July 2019	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Natural Resources Wales Environment Agency Wales - South West Area	October 2021 October 2022	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency Wales - South West Area Natural Resources Wales	July 2021 July 2022	Quarterly Quarterly
Local Authority Landfill Coverage Bridgend County Borough Council City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	February 2003 February 2003 February 2003	Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Bridgend County Borough Council City and County of Swansea - Environmental Health Department Neath Port Talbot County Borough Council - Environmental Health Department	October 2018 October 2018 October 2018	
Potentially Infilled Land (Non-Water) Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water) Landmark Information Group Limited	December 1999	
Registered Landfill Sites Environment Agency Wales - South West Area	March 2006	Not Applicable
Registered Waste Transfer Sites Environment Agency Wales - South West Area	April 2018	
Registered Waste Treatment or Disposal Sites Environment Agency Wales - South West Area	June 2015	
Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH) Health and Safety Executive	January 2022	Bi-Annually
Explosive Sites Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements Bridgend County Borough Council - Planning Department City and County of Swansea - Planning Department Neath Port Talbot County Borough Council - Planning Department	February 2016 January 2016 October 2015	Variable Variable Variable
Planning Hazardous Substance Consents Bridgend County Borough Council - Planning Department City and County of Swansea - Planning Department Neath Port Talbot County Borough Council - Planning Department	February 2016 January 2016 October 2015	Variable Variable Variable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2022	Bi-Annually
BGS Urban Soil Chemistry British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Urban Soil Chemistry Averages British Geological Survey - National Geoscience Information Service	December 2015	As notified
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	September 2022	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	September 2022	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	October 2022	Quarterly
Fuel Station Entries Catalist Ltd - Experian	August 2022	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	December 2022	Quarterly
Points of Interest - Education and Health PointX	December 2022	Quarterly
Points of Interest - Manufacturing and Production PointX	December 2022	Quarterly
Points of Interest - Public Infrastructure PointX	December 2022	Quarterly
Points of Interest - Recreational and Environmental PointX	December 2022	Quarterly
Underground Electrical Cables National Grid	May 2021	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural Resources Wales	September 2018	Bi-Annually
Areas of Adopted Green Belt Bridgend County Borough Council City and County of Swansea Neath Port Talbot County Borough Council - Planning Services	July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly
Areas of Unadopted Green Belt Bridgend County Borough Council City and County of Swansea Neath Port Talbot County Borough Council - Planning Services	July 2022 July 2022 July 2022	Quarterly Quarterly Quarterly
Areas of Outstanding Natural Beauty Natural Resources Wales	August 2022	Bi-Annually
Environmentally Sensitive Areas The National Assembly for Wales - GI Services (Department of Planning & Countryside)	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Bridgend County Borough Council City and County of Swansea Neath Port Talbot County Borough Council	August 2018 August 2018 August 2018	Bi-Annually Bi-Annually Bi-Annually
Marine Nature Reserves Natural Resources Wales	August 2018	Bi-Annually
National Nature Reserves Natural Resources Wales	February 2022	Bi-Annually
National Parks Natural Resources Wales	February 2018	Annually
Nitrate Vulnerable Zones The National Assembly for Wales - GI Services (Department of Planning & Countryside) Natural Resources Wales	April 2016 July 2019	Bi-Annually
Ramsar Sites Natural Resources Wales	July 2019	Bi-Annually
Sites of Special Scientific Interest Natural Resources Wales	March 2020	Bi-Annually
Special Areas of Conservation Natural Resources Wales	August 2020	Bi-Annually
Special Protection Areas Natural Resources Wales	August 2018	Bi-Annually

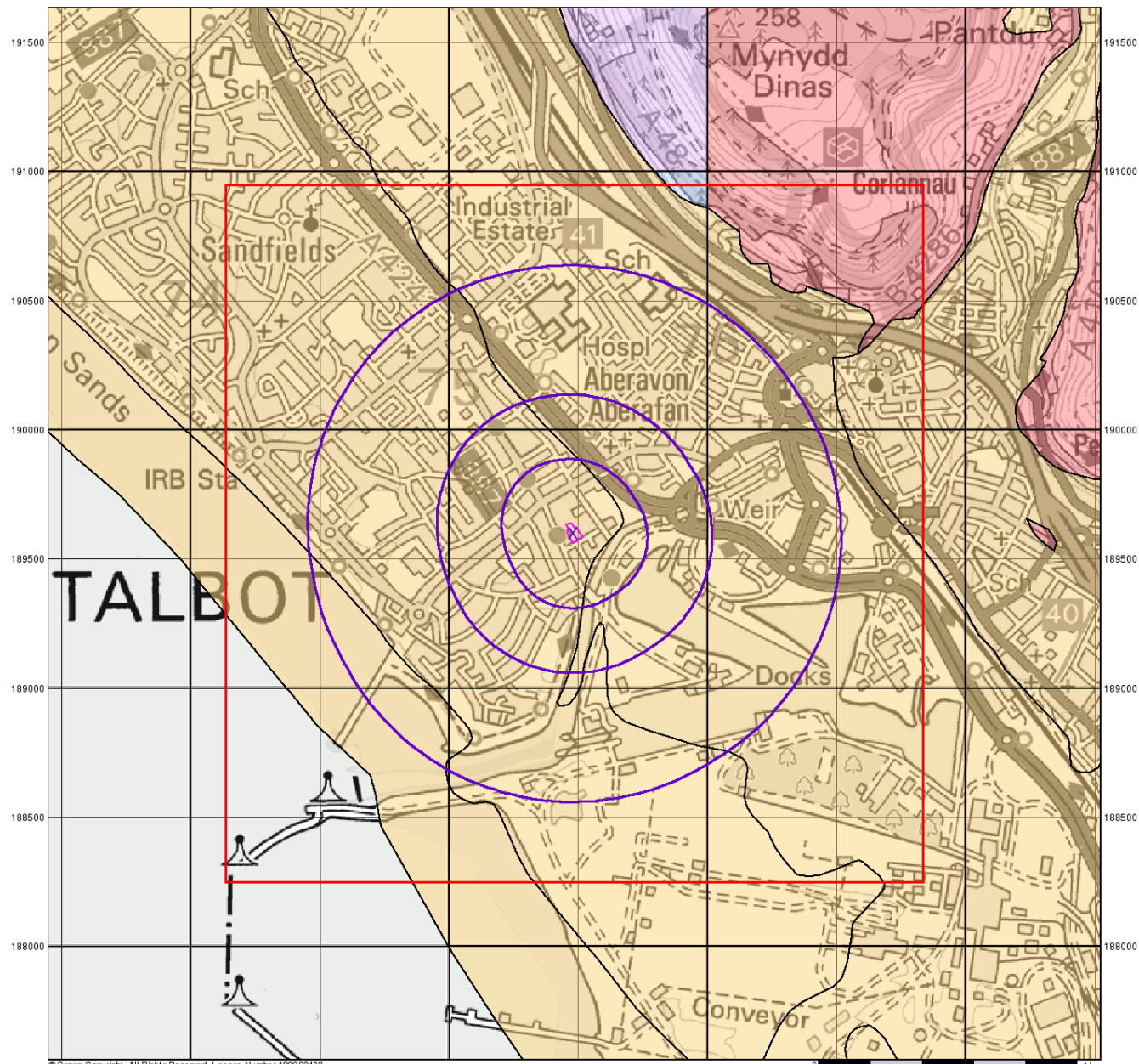
A selection of organisations who provide data within this report

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

Contact	Name and Address	Contact Details
1	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	Natural Resources Wales Ty Cambria, 29 Newport Road, Cardiff, CF24 0TP	Telephone: 0300 065 3000 Email: enquiries@naturalresourceswales.gov.uk
3	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
4	Neath Port Talbot County Borough Council - Environmental Health Department Room 322, Neath Civic Centre, Neath, West Glamorgan, SA11 3QZ	Telephone: 01639 763333 Fax: 01693 763444 Website: www.neath-porttalbot.gov.uk
5	Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	Health and Safety Executive 5S.2 Redgrave Court, Merton Road, Bootle, L20 7HS	Website: www.hse.gov.uk
7	Neath Port Talbot County Borough Council - Planning Department Port Talbot Civic Centre, Port Talbot, SA13 1PJ	Telephone: 01639 763333 Fax: 01639 763444 Website: www.neath-porttalbot.gov.uk
8	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
9	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

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Intégral Géotechnique

Groundwater Vulnerability

General

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

Agency and Hydrological

Bedrock Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

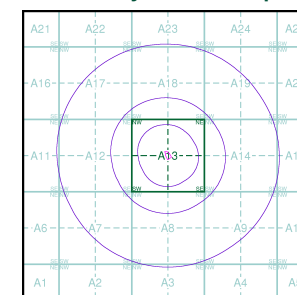
Superficial Aquifers

- High Vulnerability, Principal Aquifer
- High Vulnerability, Secondary Aquifer
- Medium Vulnerability, Principal Aquifer
- Medium Vulnerability, Secondary Aquifer
- Low Vulnerability, Principal Aquifer
- Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

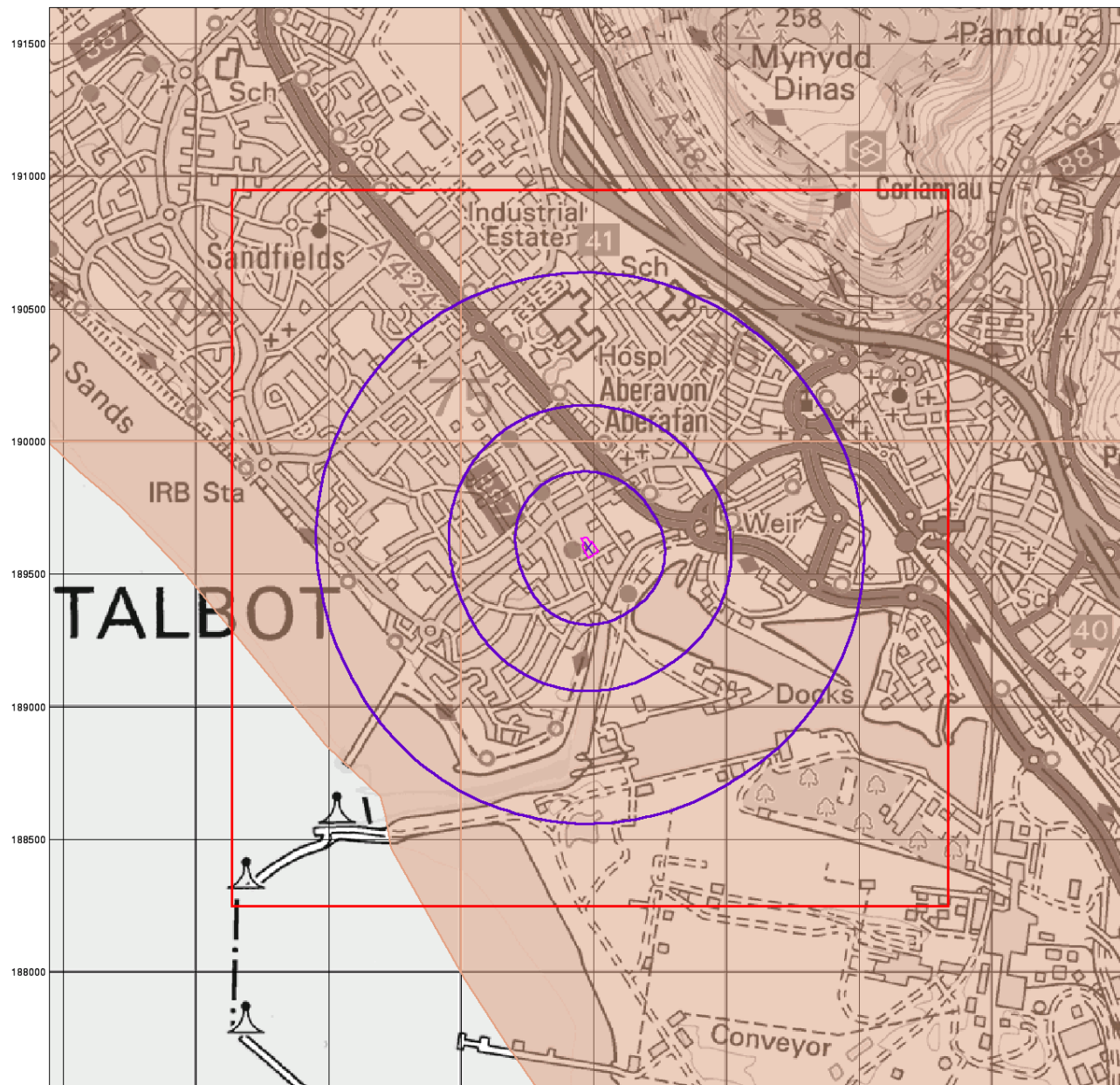
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0 1 km

Intégral Géotechnique

Bedrock Aquifer Designation

General

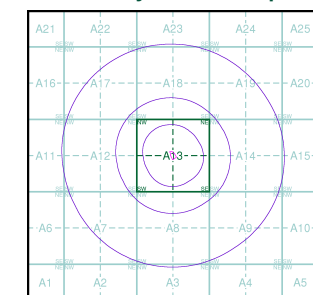
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

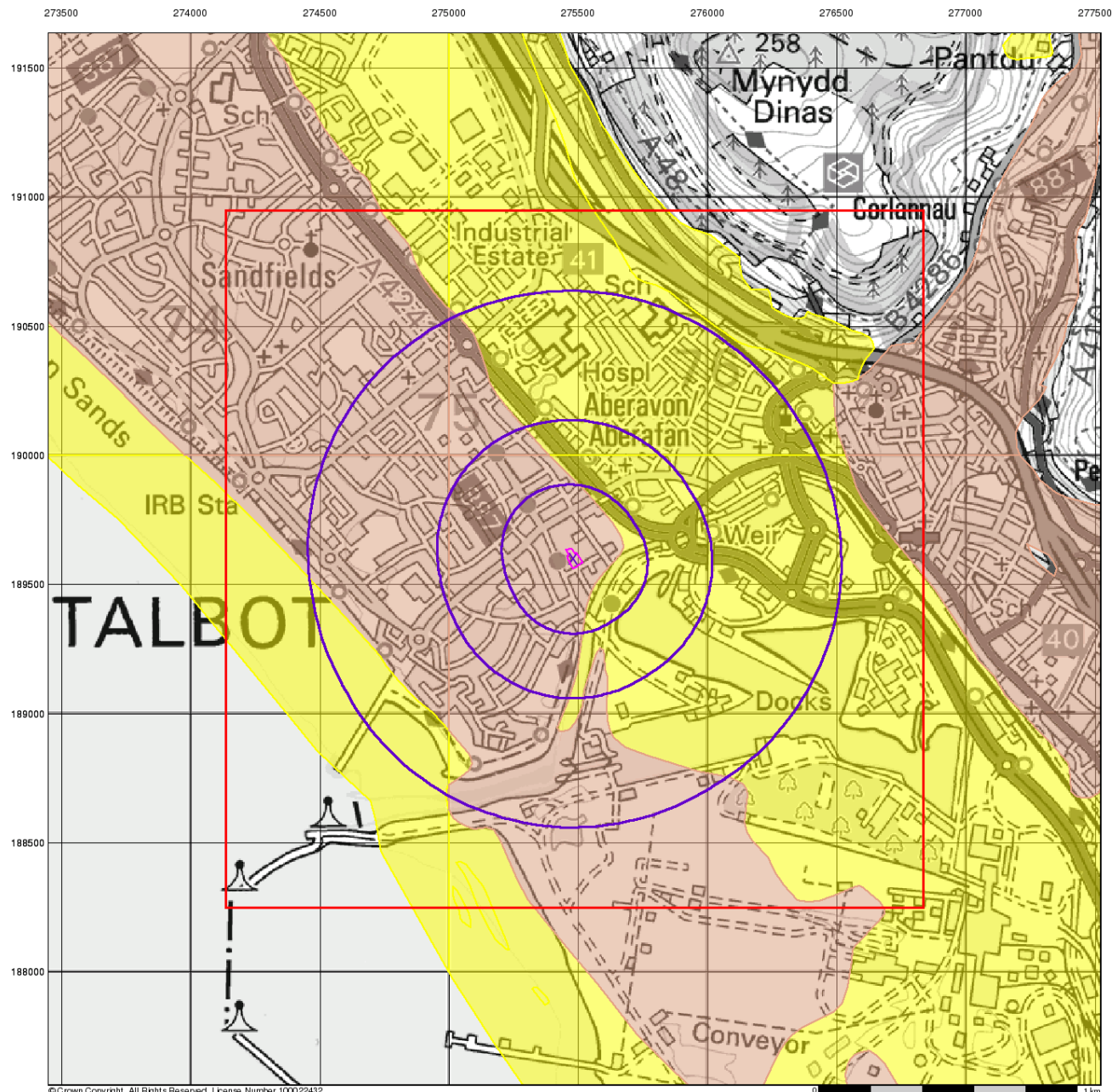
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0 1 km

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Superficial Aquifer Designation

General

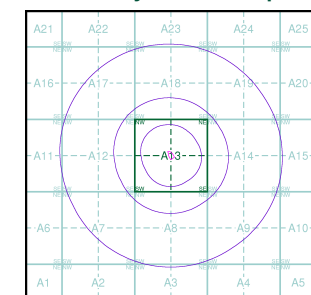
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

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

Site Sensitivity Context Map - Slice A



Order Details

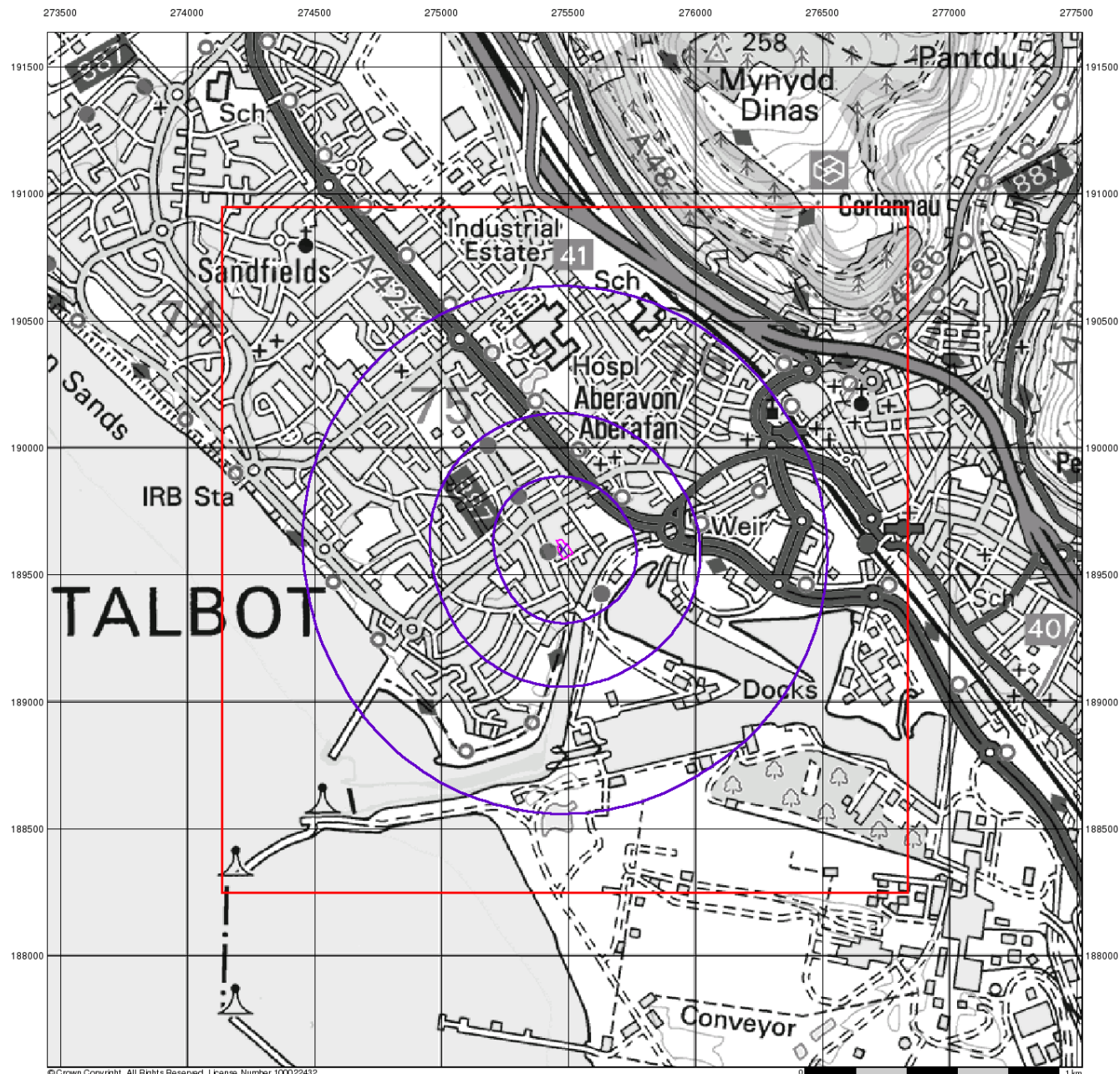
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 National Grid Reference: 275480, 189600
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 Site Area (Ha): 0.27
 Search Buffer (m): 1000

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Source Protection Zones

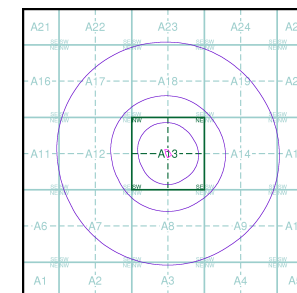
General

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

Agency and Hydrological

- Inner zone (Zone 1)
- Inner zone - subsurface activity only (Zone 1c)
- Outer zone (Zone 2)
- Outer zone - subsurface activity only (Zone 2c)
- Total catchment (Zone 3)
- Total catchment - subsurface activity only (Zone 3c)
- Special interest (Zone 4)

Site Sensitivity Context Map - Slice A



Order Details

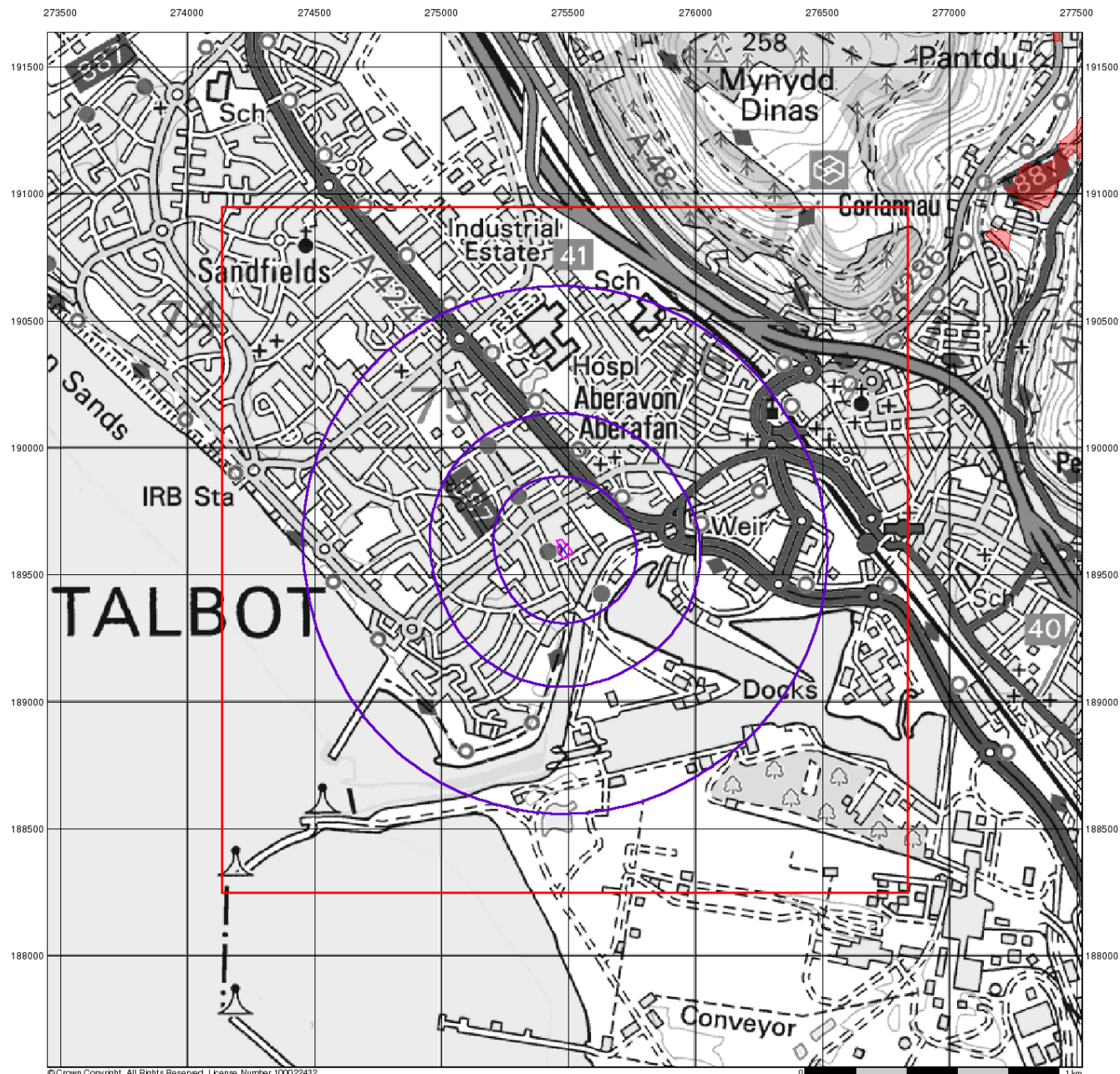
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 Site Area (Ha): 0.27
 Search Buffer (m): 1000

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Intégral Géotechnique

Sensitive Land Uses

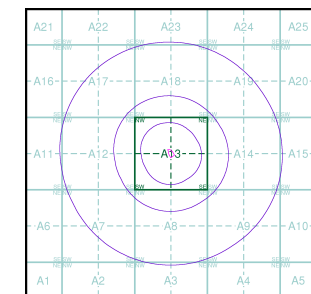
General

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

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

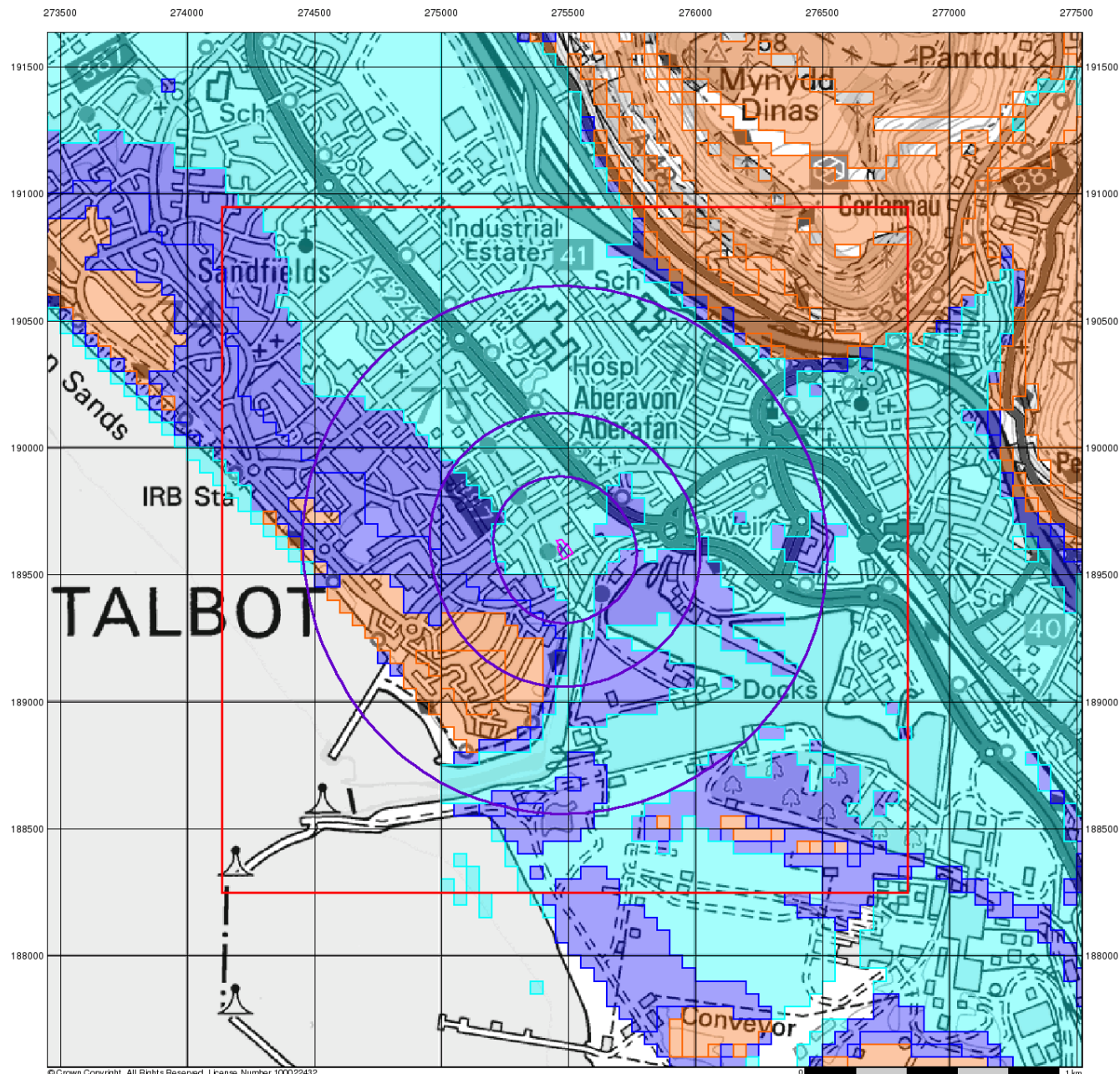
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 Site Area (Ha): 0.27
 Search Buffer (m): 1000

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Intégral Géotechnique

BGS Flood GFS Data

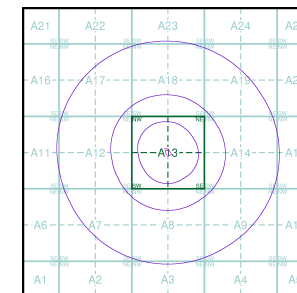
General

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

Agency and Hydrological (Flood)

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

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 304800989_1_1
 Customer Ref: 14128/LS
 National Grid Reference: 275480, 189600
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

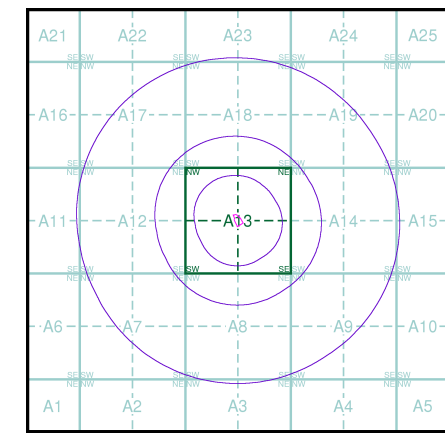
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Intégral Géotechnique

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

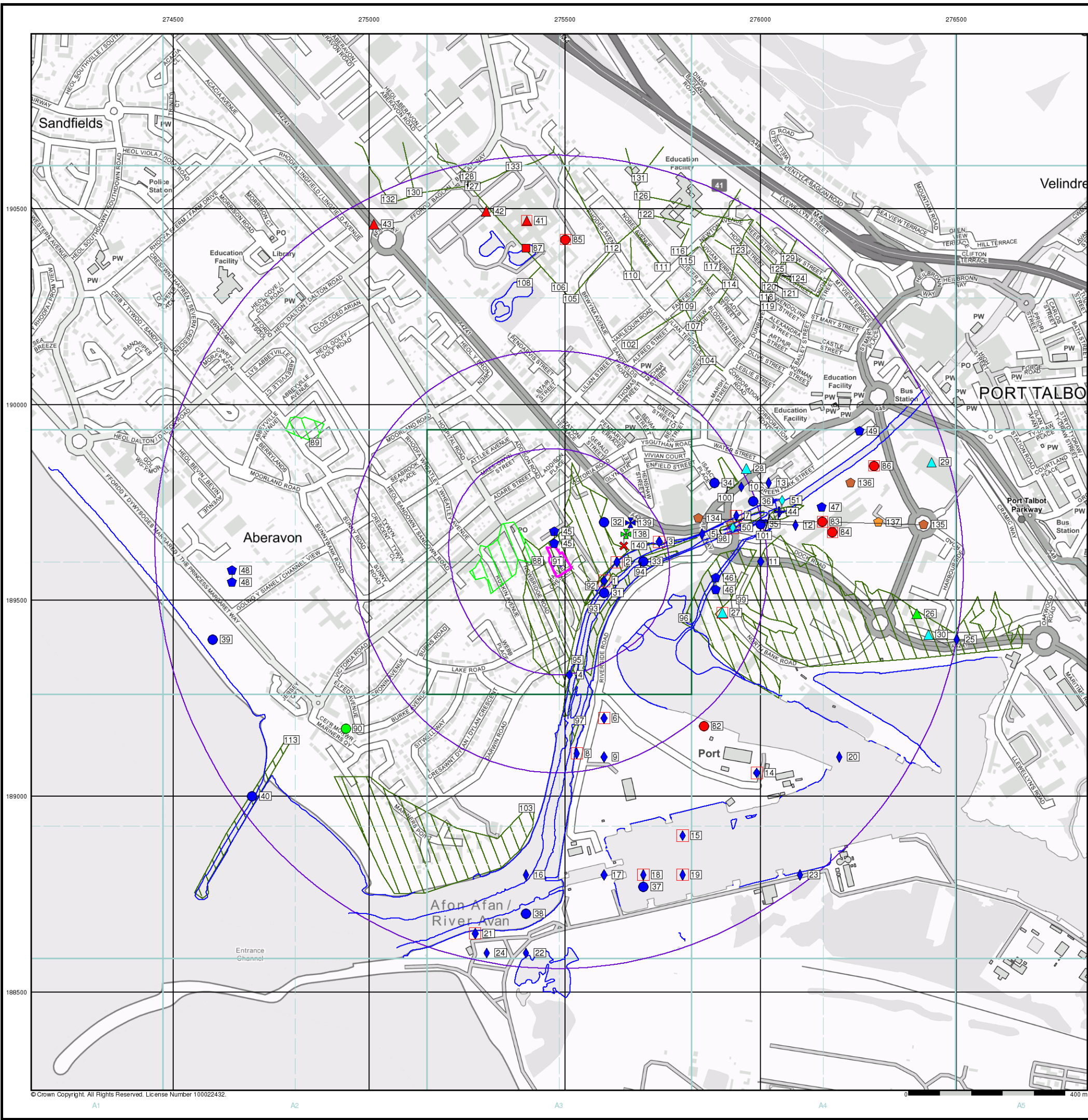
Site Sensitivity Map - Slice A



Order Details
Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details
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Intégral Géotechnique

Industrial Land Use Map

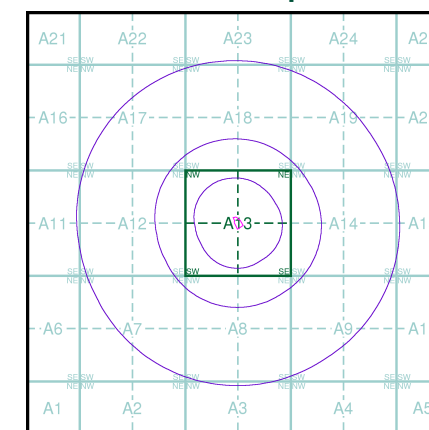
General

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

Industrial Land Use

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

Industrial Land Use Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

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Landmark
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Intégral Géotechnique

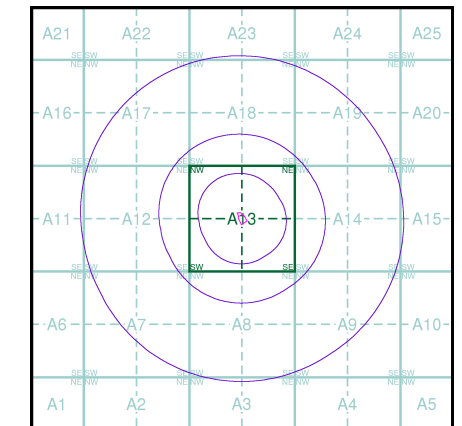
General

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

Agency and Hydrological (Flood)

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

Flood Map - Slice A



Order Details

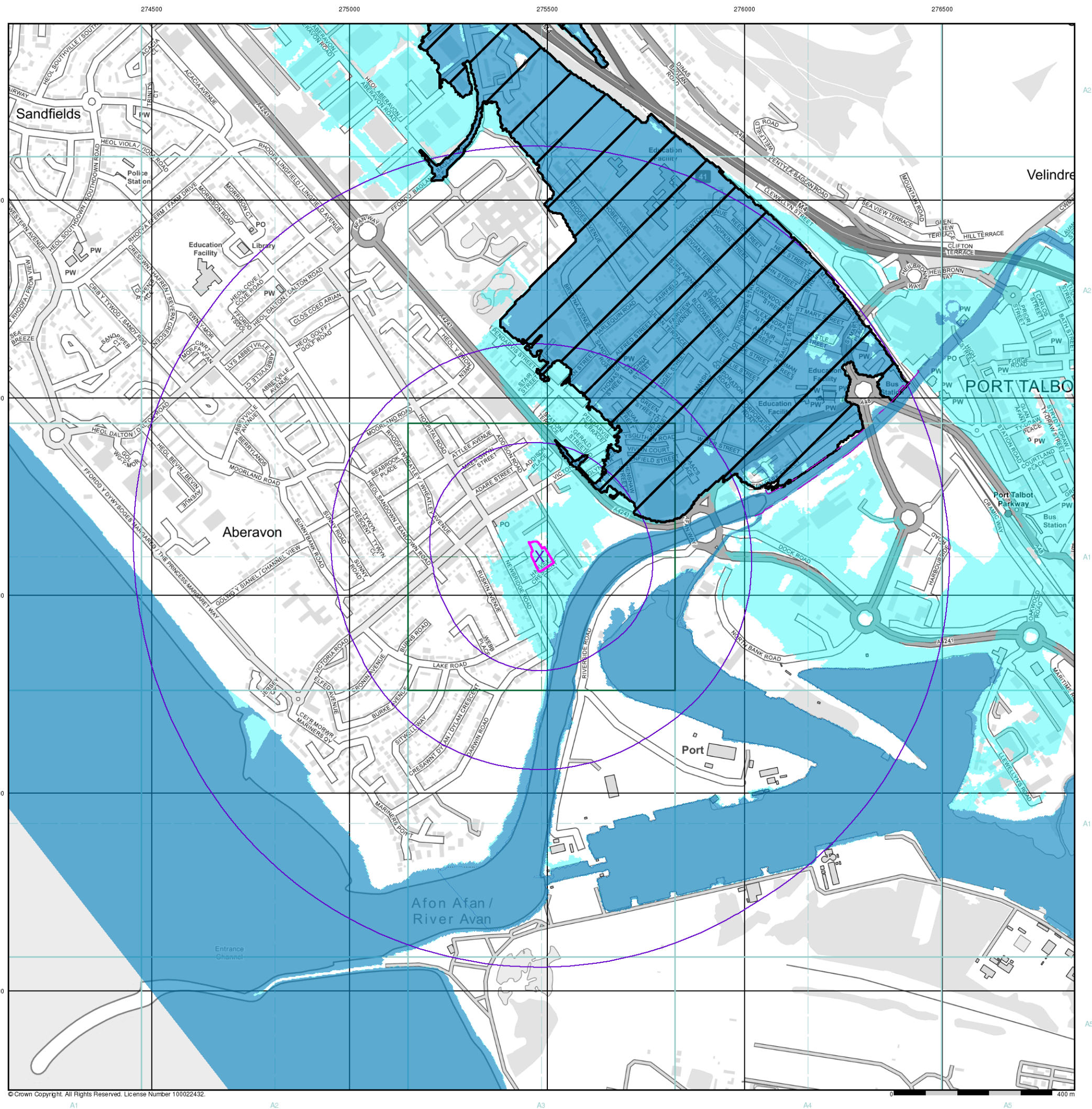
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Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

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INFORMATION GROUP

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



General

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

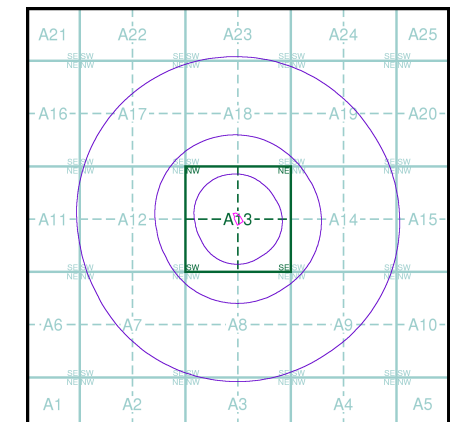
Agency and Hydrological (Boreholes)

- 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: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Intégral Géotechnique

General

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

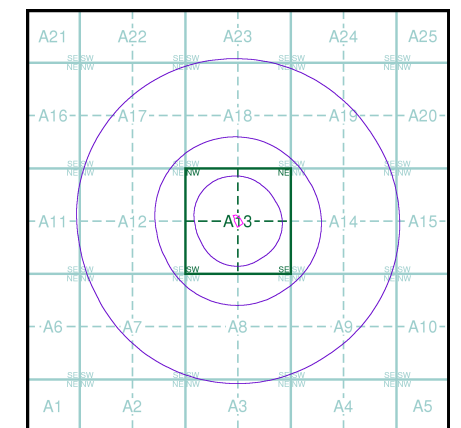
OS Water Network Data

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

Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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

Intégral Géotechnique

General

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

Risk of Flooding from Surface Water

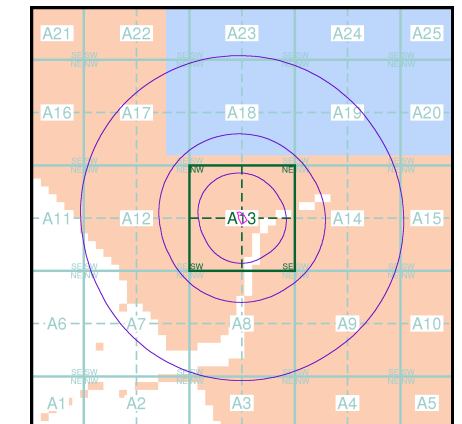
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

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

EA/NRW Suitability Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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

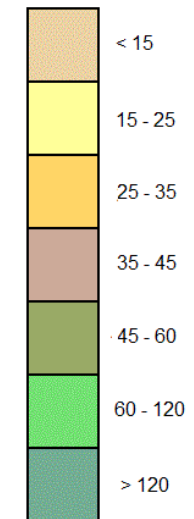
Intégral Géotechnique

General

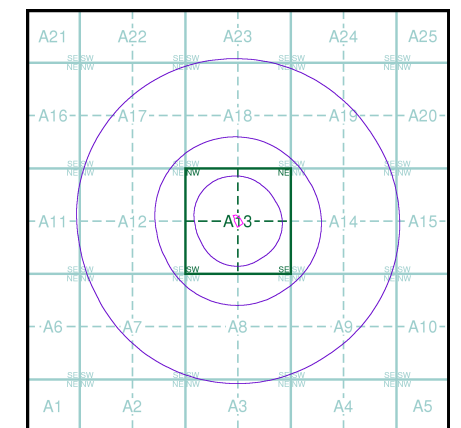
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A



Order Details

Order Details: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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

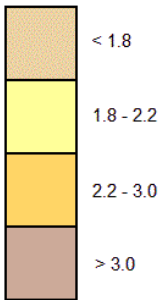
Intégral Géotechnique

General

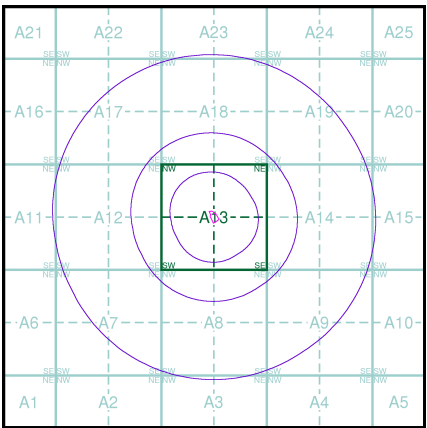
 Specified Site  Specified Buffer(s)  Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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

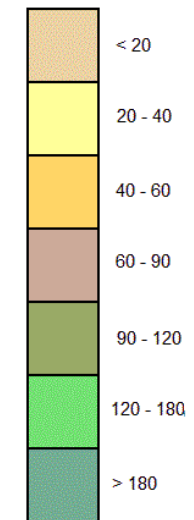
Intégral Géotechnique

General

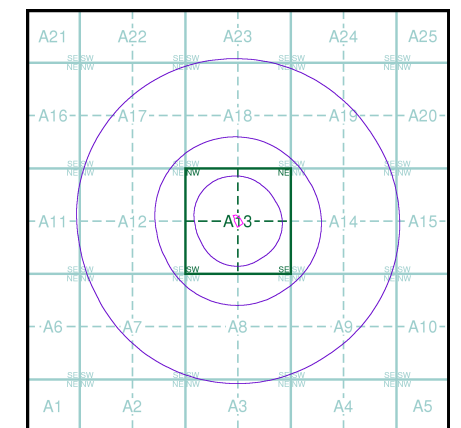
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A



Order Details

Order Details: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

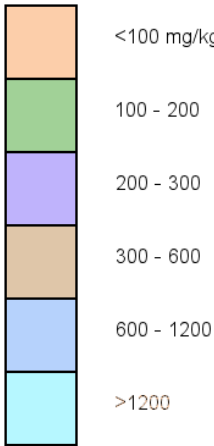
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

General

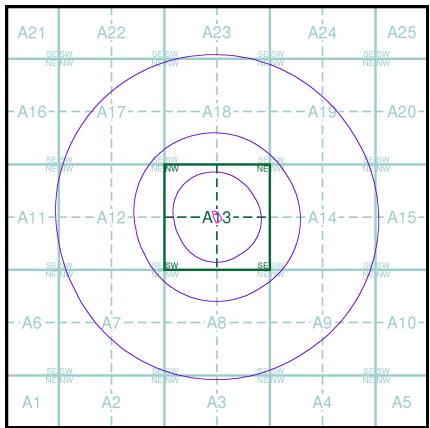
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A



Order Details

Order Details: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

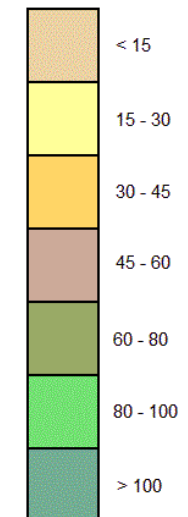
Intégral Géotechnique

General

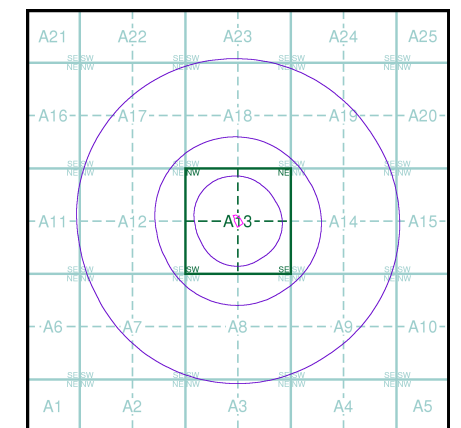
Specified Site Specified Buffer(s) Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A



Order Details

Order Details: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

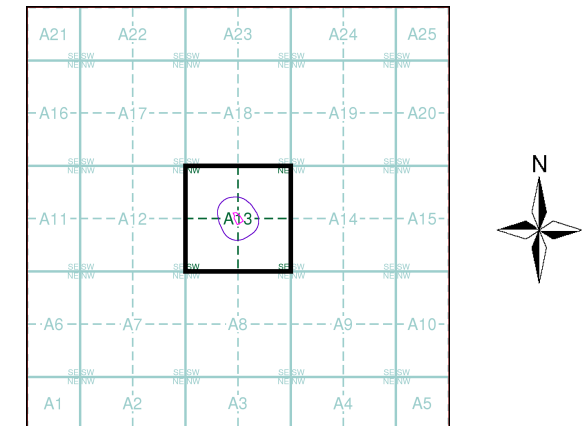
Landmark
INFORMATION GROUP

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

General

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

Site Sensitivity Map - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Plot Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Geology 1:50,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LSGR	Landscaped Ground (Undivided)	Artificially Modified Ground	Not Supplied - Holocene
	MGR	Made Ground (Undivided)	Artificial Deposit	Not Supplied - Holocene
	WGR	Worked Ground (Undivided)	Void	Not Supplied - Holocene
	SLIP	Landslide Deposit	Unknown/Unclassified Entry	Not Supplied - Quaternary

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	SUPNM	Superficial Theme Not Mapped [For Digital Map Use Only]	Unknown/Unclassified Entry	Not Supplied - Not Supplied
	TFD	Tidal Flat Deposits	Clay, Silt and Sand	Not Supplied - Holocene
	ALV	Alluvium	Sand and Gravel	Not Supplied - Holocene
	TILLD	Till, Devensian	Diamicton	Not Supplied - Devensian
	GFICD	Glaciofluvial Ice Contact Deposits, Devensian	Sand and Gravel	Not Supplied - Devensian
	BSA	Blown Sand	Sand	Not Supplied - Quaternary
	MBD	Marine Beach Deposits	Sand	Not Supplied - Quaternary
	MBD	Marine Beach Deposits	Sand and Gravel	Not Supplied - Quaternary
	STOB	Storm Beach Deposits	Gravel	Not Supplied - Quaternary
	ALF	Alluvial Fan Deposits	Sand and Gravel	Not Supplied - Quaternary
	RSBD	Raised Storm Beach Deposits	Sand and Gravel	Not Supplied - Quaternary
	HEAD	Head	Clay, Silt, Sand and Gravel	Not Supplied - Quaternary

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	BD	Brithdir Member	Sandstone	Not Supplied - Westphalian
	SWUCM	South Wales Upper Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
			Sandstone	
	LLFB	Llynfi Member	Sandstone	Not Supplied - Westphalian
	LLFB	Llynfi Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
	RA	Rhondda Member	Sandstone	Not Supplied - Westphalian
	SWMCM	South Wales Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Not Supplied - Westphalian
		Faults		
		Rock Segments		

Intégral Géotechnique

Geology 1:50,000 Maps

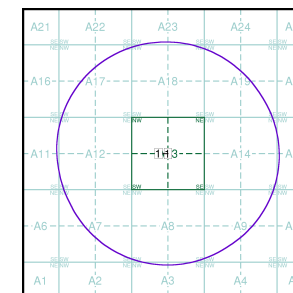
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published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

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

Geology 1:50,000 Maps Coverage

Map ID: 1
Map Sheet No: 247
Map Name: Swansea
Map Date: 2011
Bedrock Geology: Available
Superficial Geology: Available
Artificial Geology: Available
Faults: Not Supplied
Landslip: Available
Rock Segments: Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

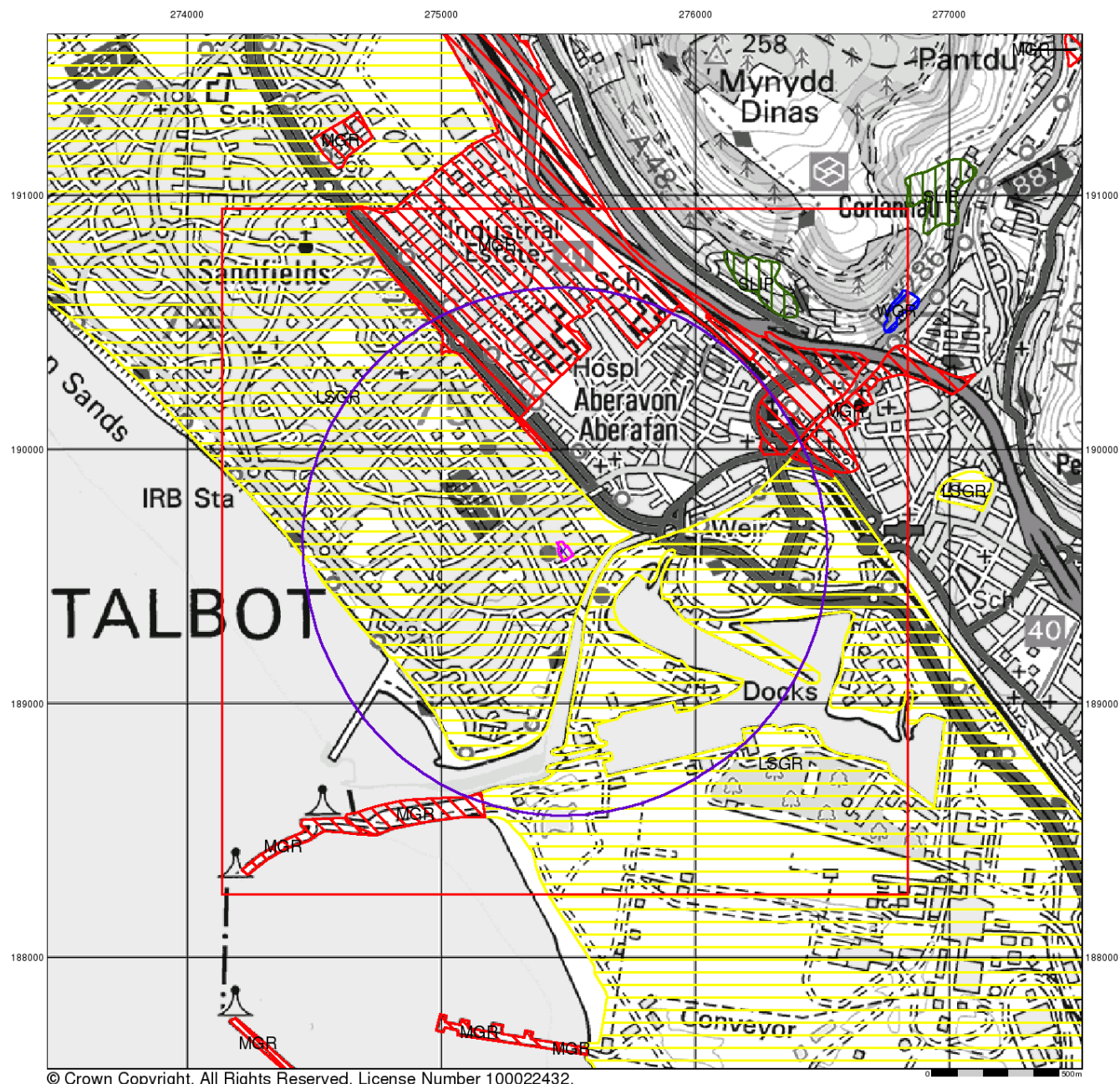
Order Number: 304800989_1_1
Customer Reference: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details:

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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Web: www.ernirocheck.co.uk



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Intégral Géotechnique

Artificial Ground and Landslip

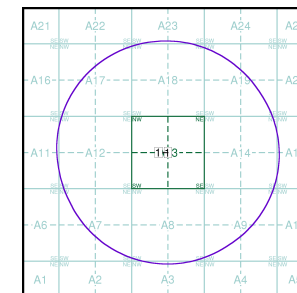
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions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

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- In-filled 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: 304800989_1_1
Customer Reference: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details:

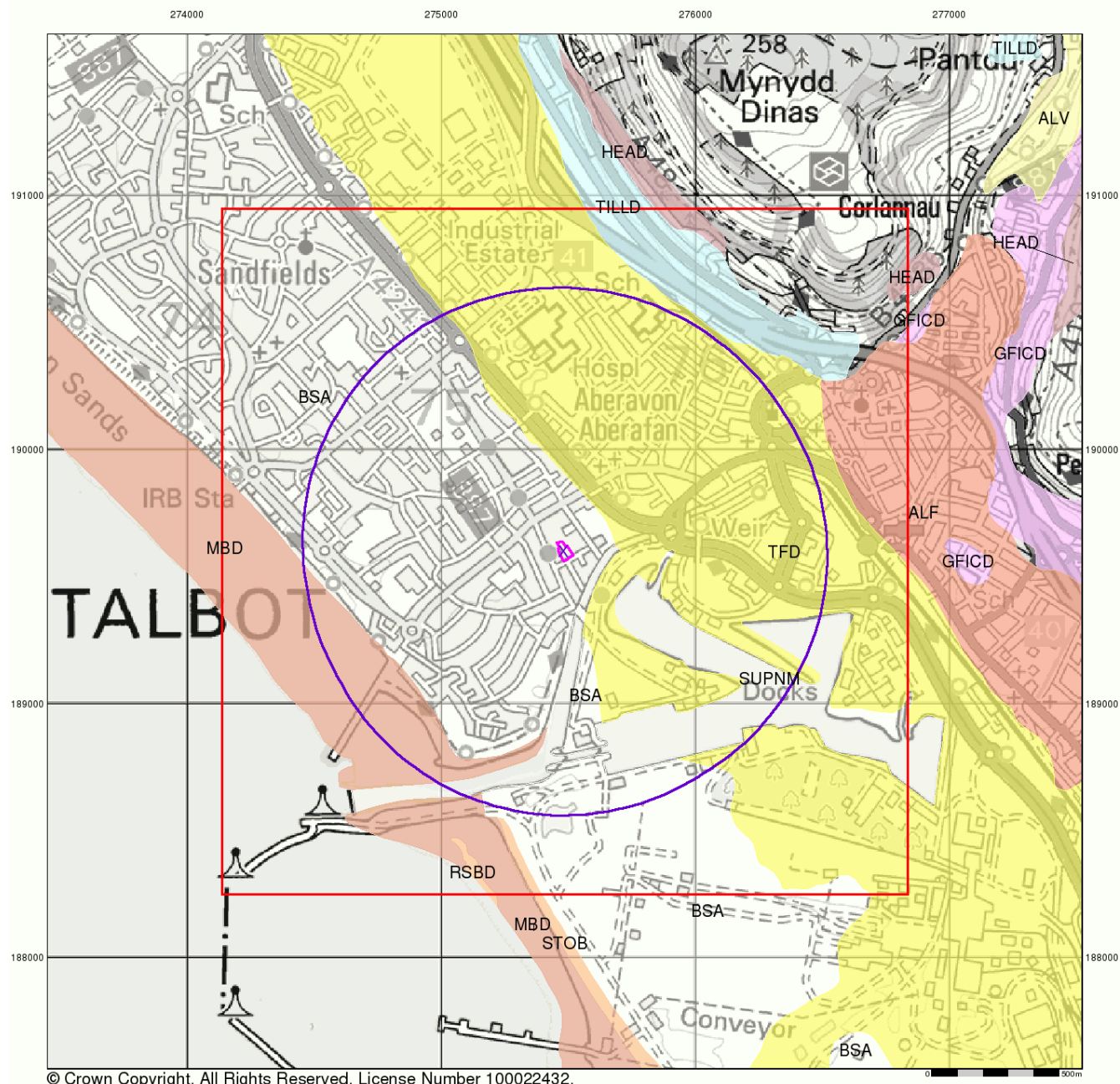
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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Web: www.envirocheck.co.uk

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Intégral Géotechnique

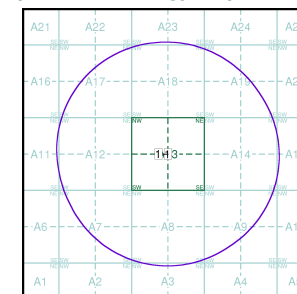
Superficial Geology

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

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

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

Superficial Geology Map - Slice A



Order Details:

Order Number: 304800989_1_1
Customer Reference: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details:

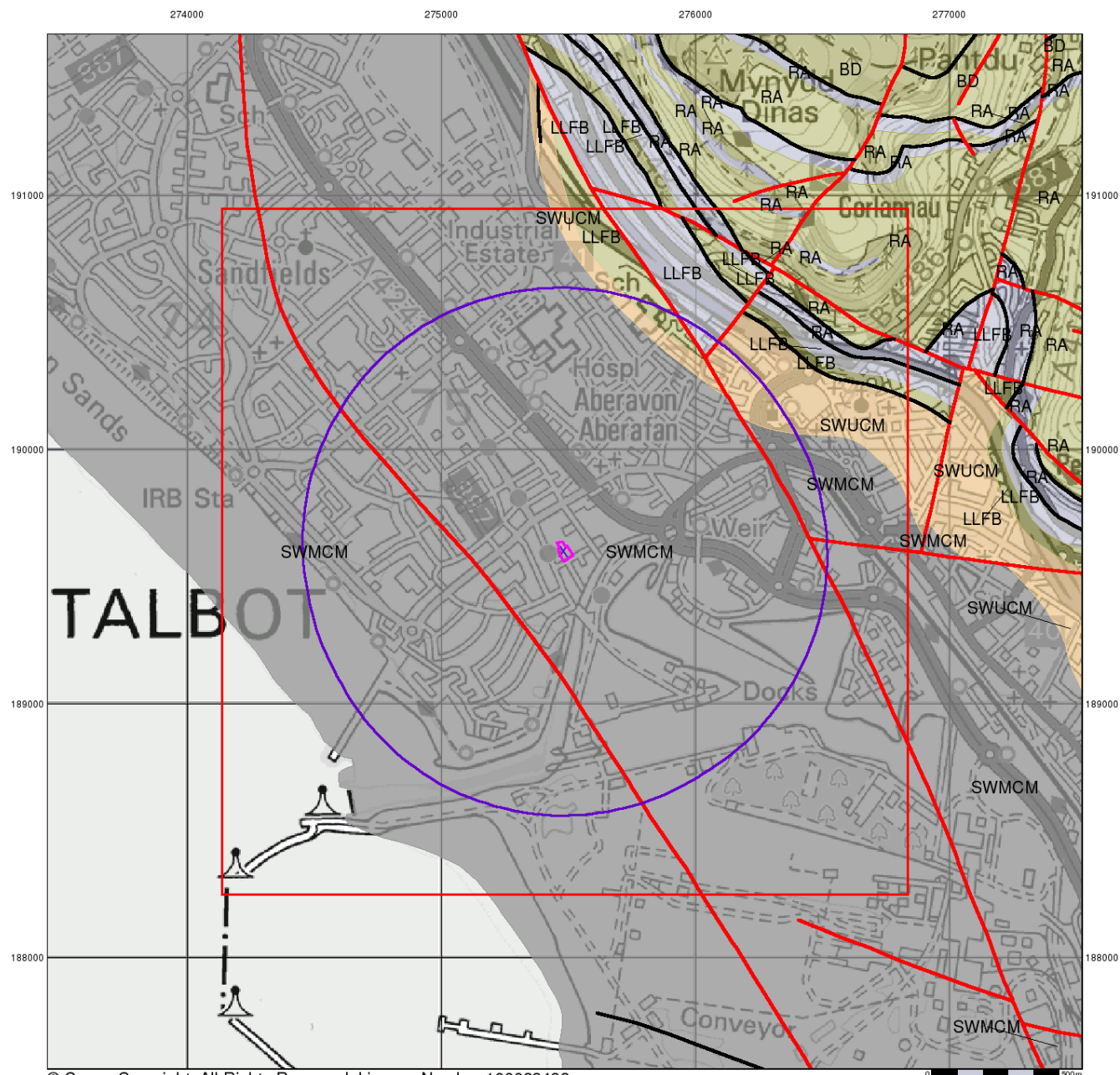
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Intégral Géotechnique

Bedrock and Faults

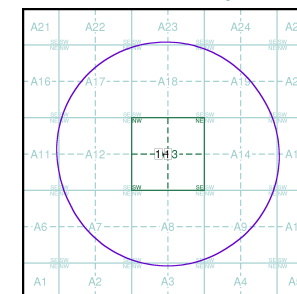
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

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

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

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

Bedrock and Faults Map - Slice A



Order Details:

Order Number: 304800989_1_1
 Customer Reference: 14128/LS
 National Grid Reference: 275480, 189600
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details:

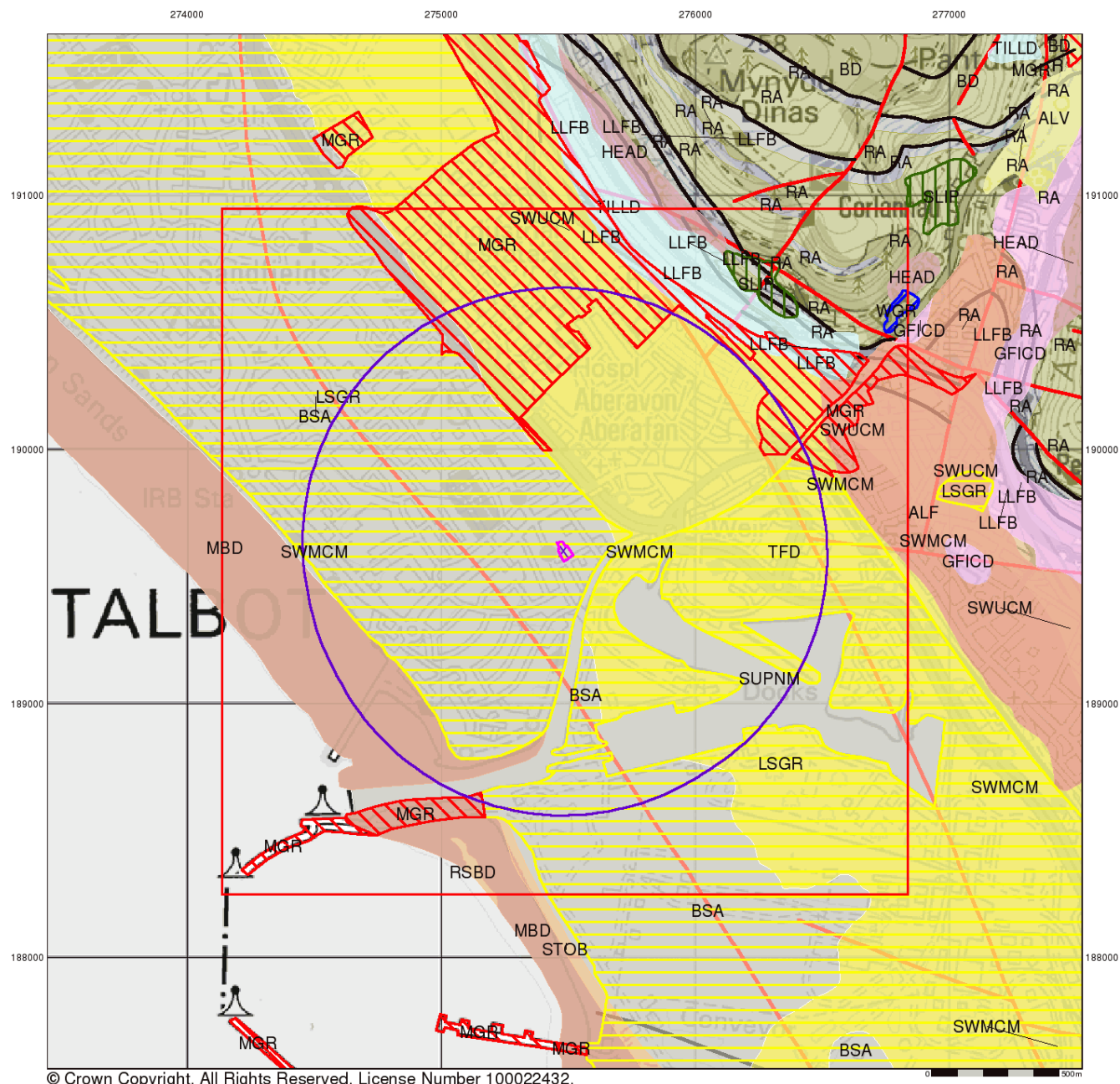
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
 INFORMATION GROUP

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

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Intégral Géotechnique

Combined Surface Geology

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

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

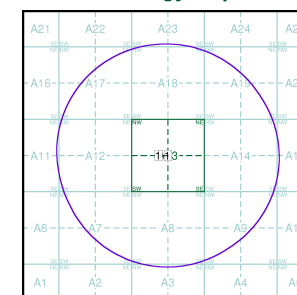
Additional Information

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

Contact

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

Combined Geology Map - Slice A



Order Details:

Order Number: 304800989_1_1
Customer Reference: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details:

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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Web: www.envirocheck.co.uk

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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

	Chalk Pit, Clay Pit or Quarry		Gravel Pit
	Sand Pit		Disused Pit or Quarry
	Refuse or Slag Heap		Lake, Loch or Pond
	Dunes		Boulders
	Coniferous Trees		Non-Coniferous Trees
	Orchard		Scrub
	Bracken		Heath
	Marsh		Reeds
	Building		Glasshouse
	Sloping Masonry		Pylon
	Cutting		Embankment
	Road Under		Road Over
	Level Crossing		Foot Bridge
	Standard Gauge Multiple Track		Standard Gauge Single Track
	Siding, Tramway or Mineral Line		Narrow Gauge
	Geographical County		Administrative County, County Borough or County of City
	Municipal Borough, Urban or Rural District, Burgh or District Council		Borough, Burgh or County Constituency
	Civil Parish		
	BP, BS Boundary Post or Stone		Police Station
	Church		Post Office
	Club House		Public Convenience
	Fire Engine Station		Public House
	Foot Bridge		Signal Box
	Fountain		Spring
	Guide Post		Telephone Call Box
	Mile Post		Telephone Call Post
	Mile Stone		Well

1:10,000 Raster Mapping

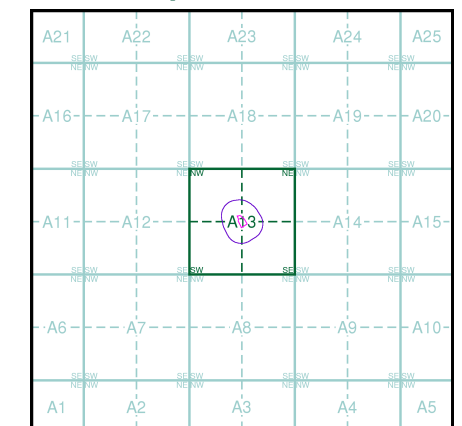
	Gravel Pit		Refuse tip or slag heap
	Rock		Rock (scattered)
	Boulders		Boulders (scattered)
	Shingle		Mud
	Sand		Sand Pit
	Slopes		Top of cliff
	General detail		Underground detail
	Overhead detail		Narrow gauge railway
	Multi-track railway		Single track railway
	County boundary (England only)		Civil,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

Intégral Géotechnique

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:10,560	1884 - 1885	2
Glamorganshire	1:10,560	1900	3
Glamorganshire	1:10,560	1921	4
Glamorganshire	1:10,560	1921	5
Glamorganshire	1:10,560	1938 - 1952	6
Historical Aerial Photography	1:10,560	1949	7
Glamorganshire	1:10,560	1951	8
Ordnance Survey Plan	1:10,000	1964 - 1965	9
Ordnance Survey Plan	1:10,000	1974	10
Ordnance Survey Plan	1:10,000	1980 - 1982	11
Ordnance Survey Plan	1:10,000	1993 - 1996	12
10K Raster Mapping	1:10,000	1999	13
10K Raster Mapping	1:10,000	2006	14
VectorMap Local	1:10,000	2022	15

Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

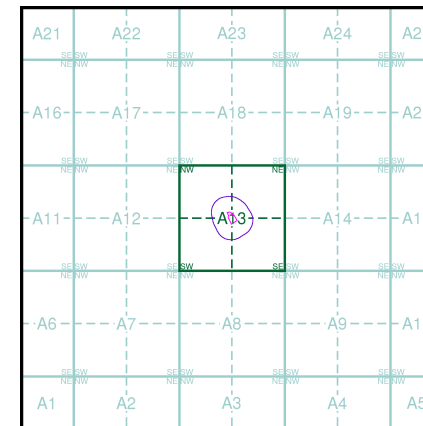
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

02400 1884 1:10,560	02500 1884 1:10,560
033A00 1885 1:10,560	03300 1885 1:10,560

Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
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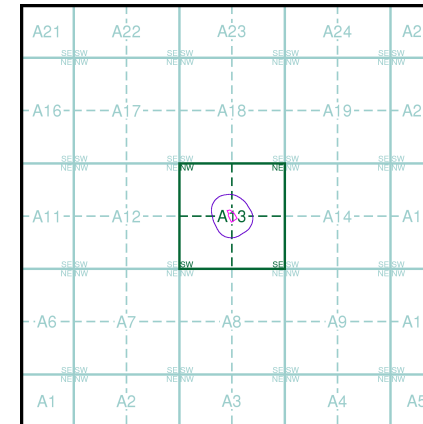
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

024SE 1900 1:10,560	025SW 1900 1:10,560
033ANE 1900 1:10,560	033NW 1900 1:10,560

Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

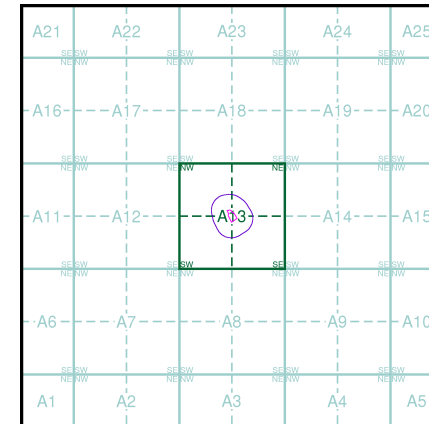
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

024SE 1921 1:10,560	025SW 1921 1:10,560
	033NW 1921 1:10,560

Historical Map - Slice A



Order Details

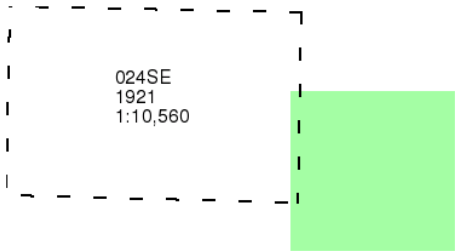
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Search Buffer (m): 1000

Site Details

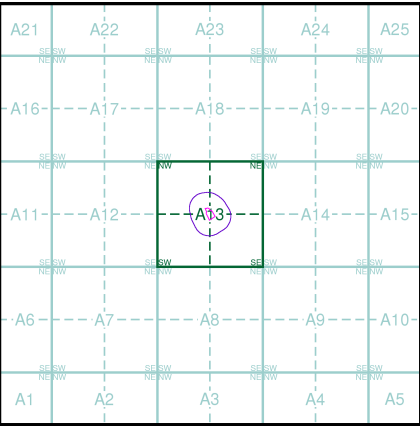
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

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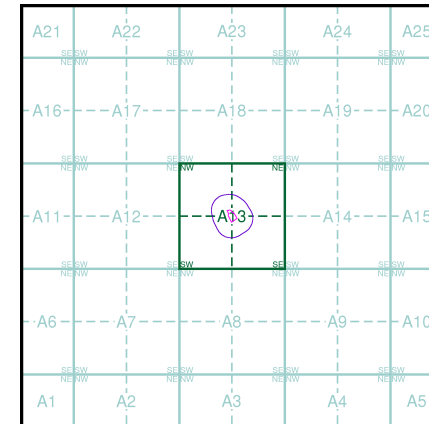
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

024SE 1951 1:10,560	025SW 1952 1:10,560
	033NW 1938 1:10,560

Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Historical Aerial Photography

Published 1949

Source map scale - 1:10,560

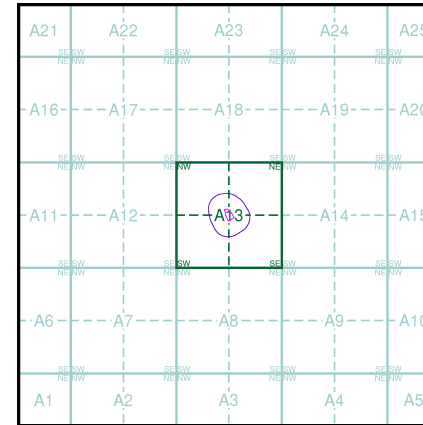
The Historical Aerial Photos were produced by the Ordnance Survey at a scale of 1:1,250 and 1:10,560 from Air Force photography. They were produced between 1944 and 1951 as an interim measure, pending preparation of conventional mapping, due to post war resource shortages. New security measures in the 1950's meant that every photograph was re-checked for potentially unsafe information with security sites replaced by fake fields or clouds. The original editions were withdrawn and only later made available after a period of fifty years although due to the accuracy of the editing, without viewing both revisions it is not easy to spot the edits. Where available Landmark have included both revisions.

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Map Name(s) and Date(s)

SS79SW 1949 1:10,560	SS79SE 1949 1:10,560
SS78NW 1949 1:10,560	SS78NE 1949 1:10,560

Historical Aerial Photography - Slice A



Order Details

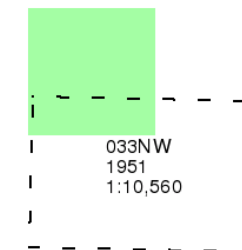
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Site Area (Ha): 0.27
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Site Details

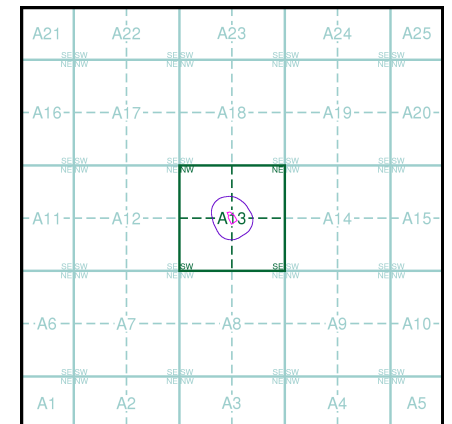
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Ordnance Survey Plan

Published 1964 - 1965

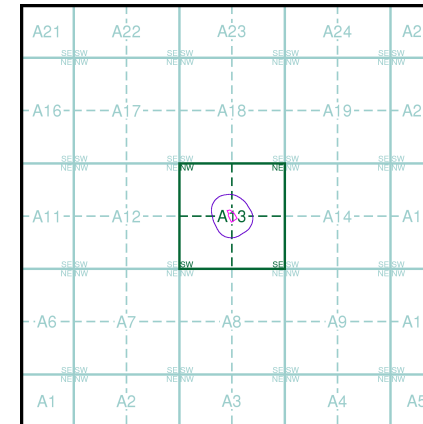
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SS79SW	SS79SE
1964	1964
1:10,560	1:10,560
SS78NW	SS78NE
1965	1965
1:10,560	1:10,560

Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
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Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF



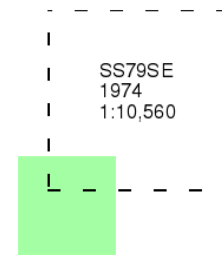
Ordnance Survey Plan

Published 1974

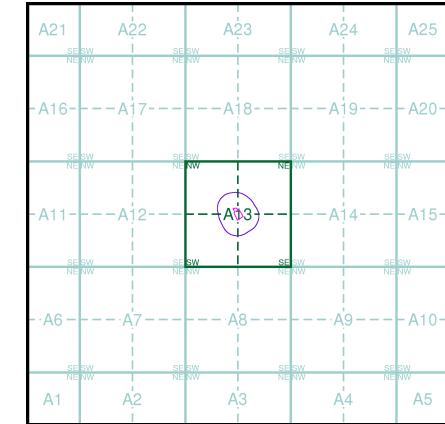
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

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Fax: 0844 844 9951
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Ordnance Survey Plan

Published 1980 - 1982

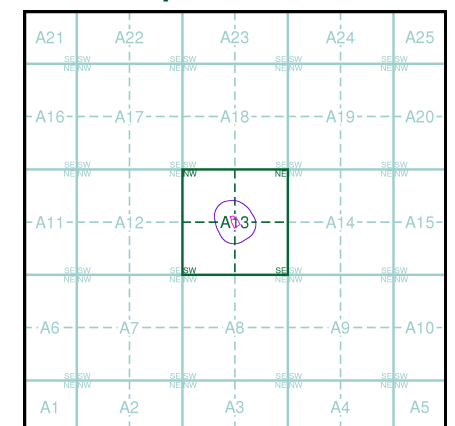
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SS79SW	SS79SE
1980	1980
1:10,000	1:10,000
SS78NW	SS78NE
1982	1982
1:10,000	1:10,000

Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Ordnance Survey Plan

Published 1993 - 1996

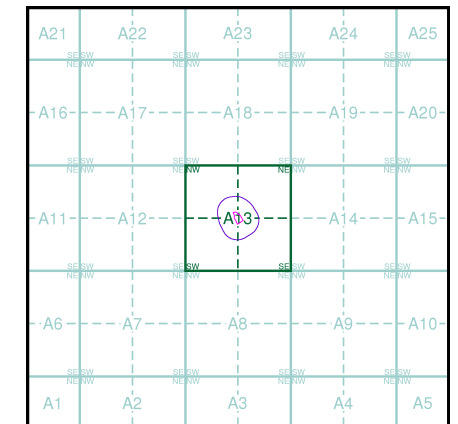
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SS79SE	1996	1:10,000
SS78NW	1993	1:10,000
SS78NE	1993	1:10,000

Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
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Site Details

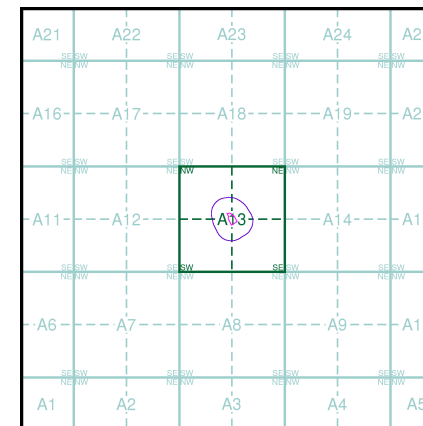
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SS79SW	SS79SE
1999	1999
1:10,000	1:10,000
SS78NW	SS78NE
1999	1999
1:10,000	1:10,000

Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Intégral
Géotechnique

10k Raster Mapping

Published 2006

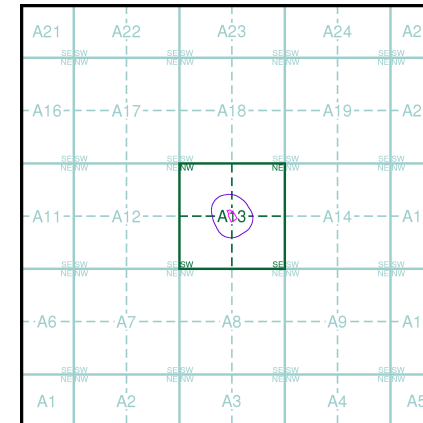
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SS79SW	SS79SE
2006	2006
1:10,000	1:10,000
SS78NW	SS78NE
2006	2006
1:10,000	1:10,000

Historical Map - Slice A



Order Details

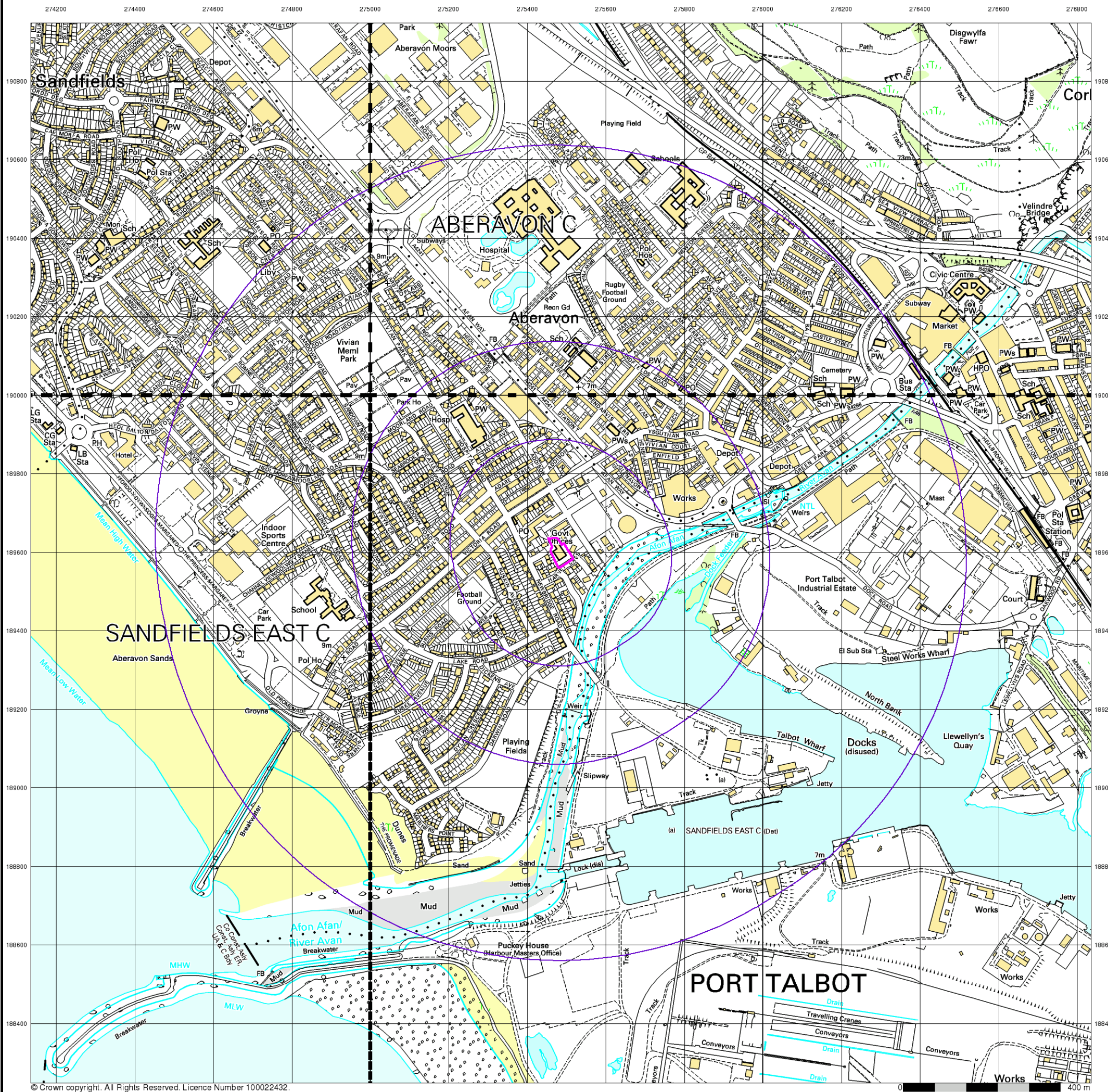
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National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

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INFORMATION GROUP

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Fax: 0844 844 9951
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Intégral
Géotechnique

VectorMap Local

Published 2022

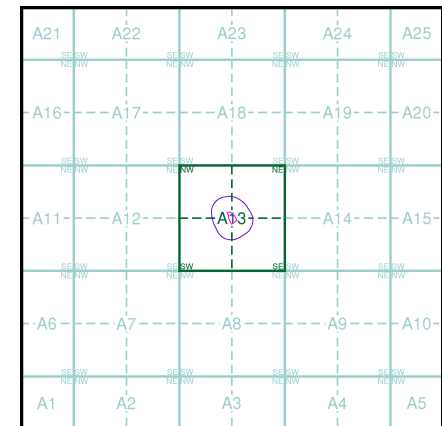
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SS79SW	SS79SE
2022	2022
Variable	Variable
SS78NW	SS78NE
2022	2022
Variable	Variable

Historical Map - Slice A



Order Details

Order Number: 304800989_1_1
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National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
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Site Details

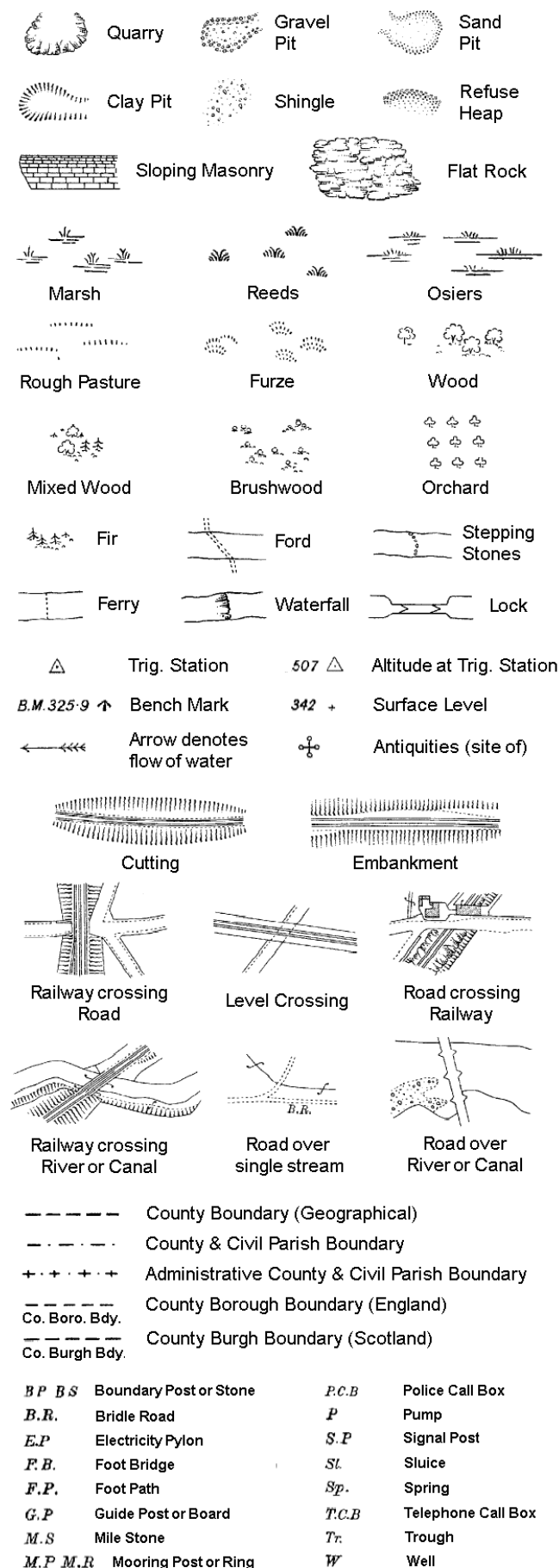
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

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Web: www.envirocheck.co.uk

Historical Mapping Legends

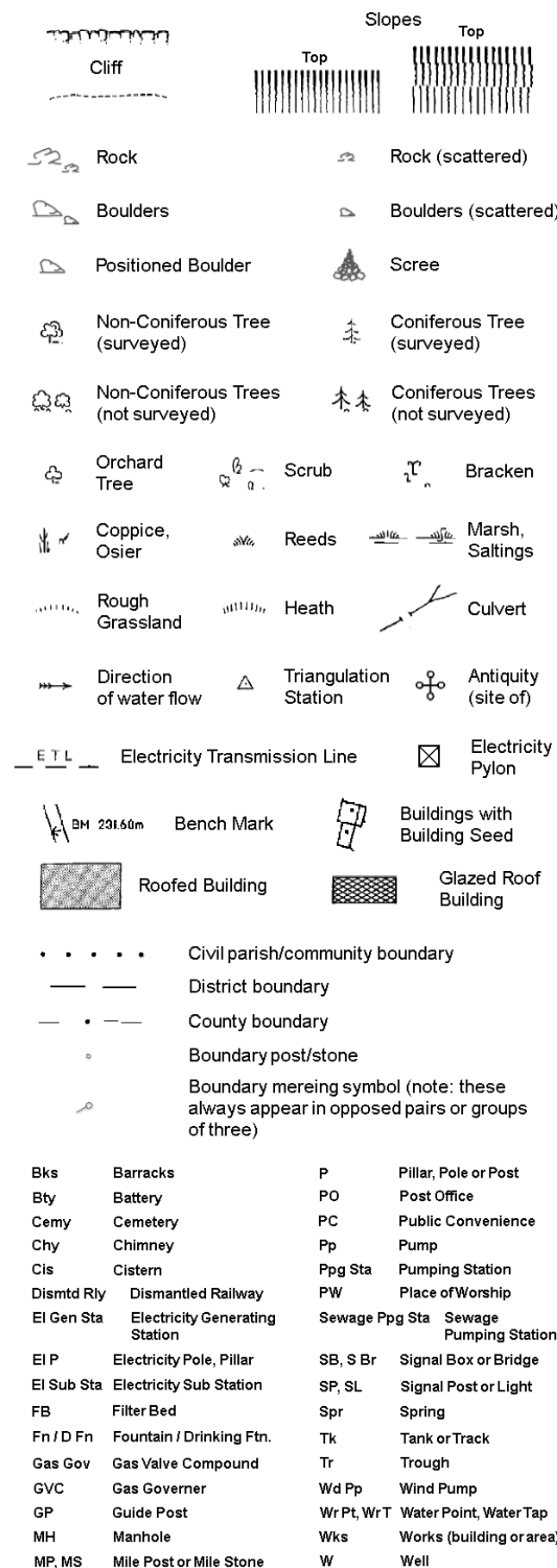
Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



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



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

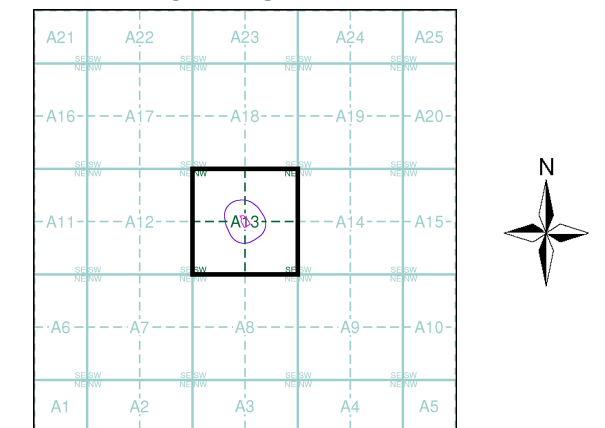


Intégral Géotechnique

Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Glamorganshire	1:2,500	1876	2
Glamorganshire	1:2,500	1899	3
Glamorganshire	1:2,500	1917	4
Glamorganshire	1:2,500	1939	5
Ordnance Survey Plan	1:2,500	1952	6
Ordnance Survey Plan	1:1,250	1952	7
Ordnance Survey Plan	1:1,250	1956 - 1964	8
Ordnance Survey Plan	1:1,250	1962 - 1968	9
Ordnance Survey Plan	1:1,250	1968 - 1975	10
Ordnance Survey Plan	1:2,500	1969	11
Additional SIMs	1:1,250	1986 - 1991	12
Additional SIMs	1:1,250	1991	13
Large-Scale National Grid Data	1:1,250	1993	14
Historical Aerial Photography	1:2,500	2001	15

Historical Map - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
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Search Buffer (m): 100

Site Details

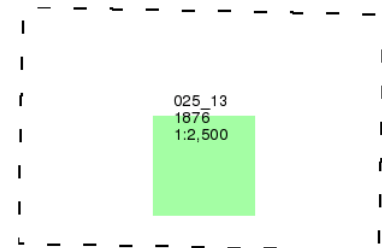
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

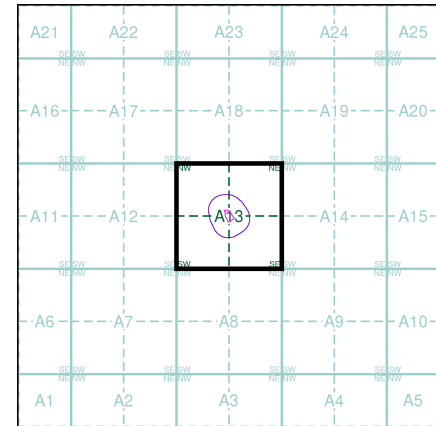
Tel: 0844 844 9952
Fax: 0844 844 9951
Web: www.envirocheck.co.uk

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

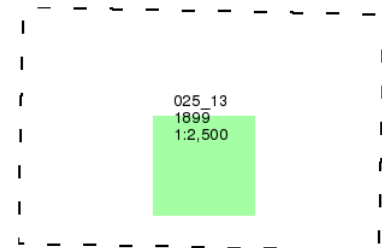
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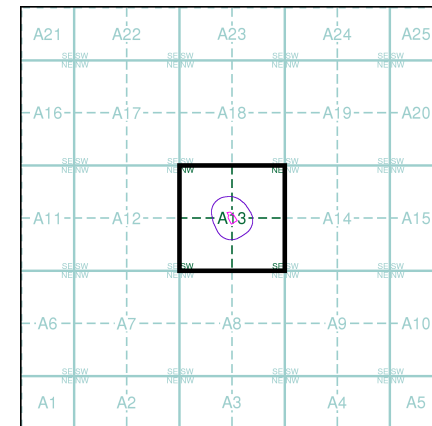
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

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

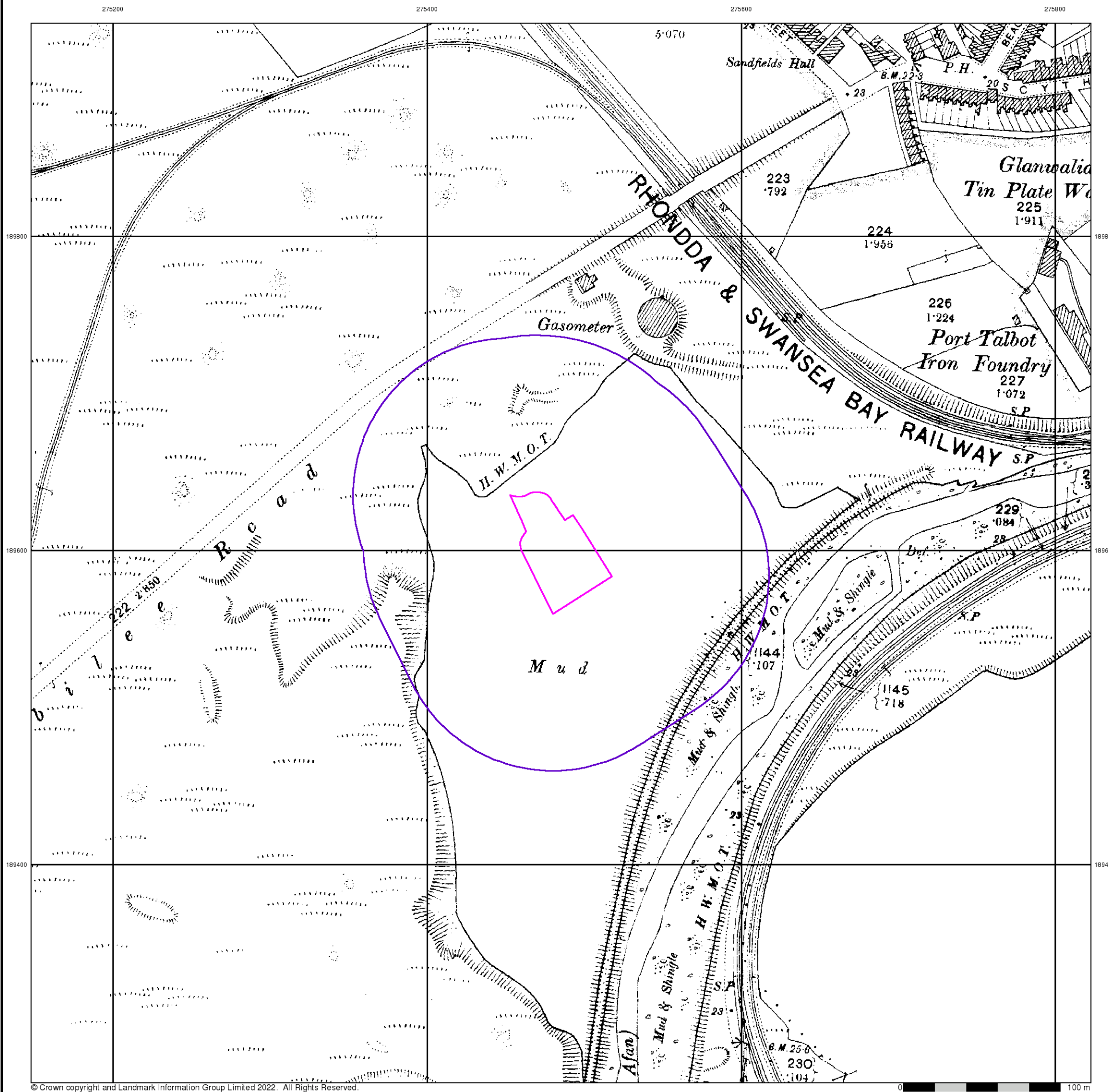


Order Details

Order Number: 304800989_1_1
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Site Area (Ha): 0.27
Search Buffer (m): 100

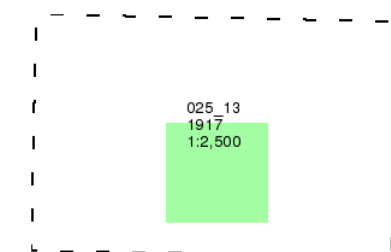
Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

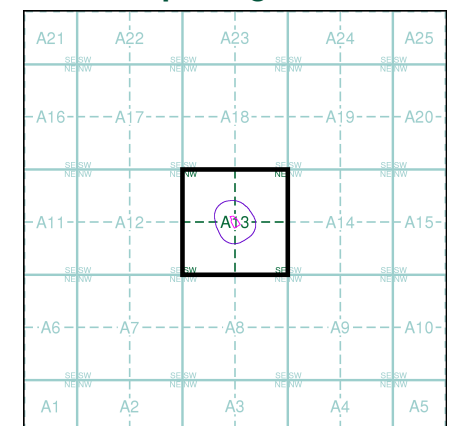


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain.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

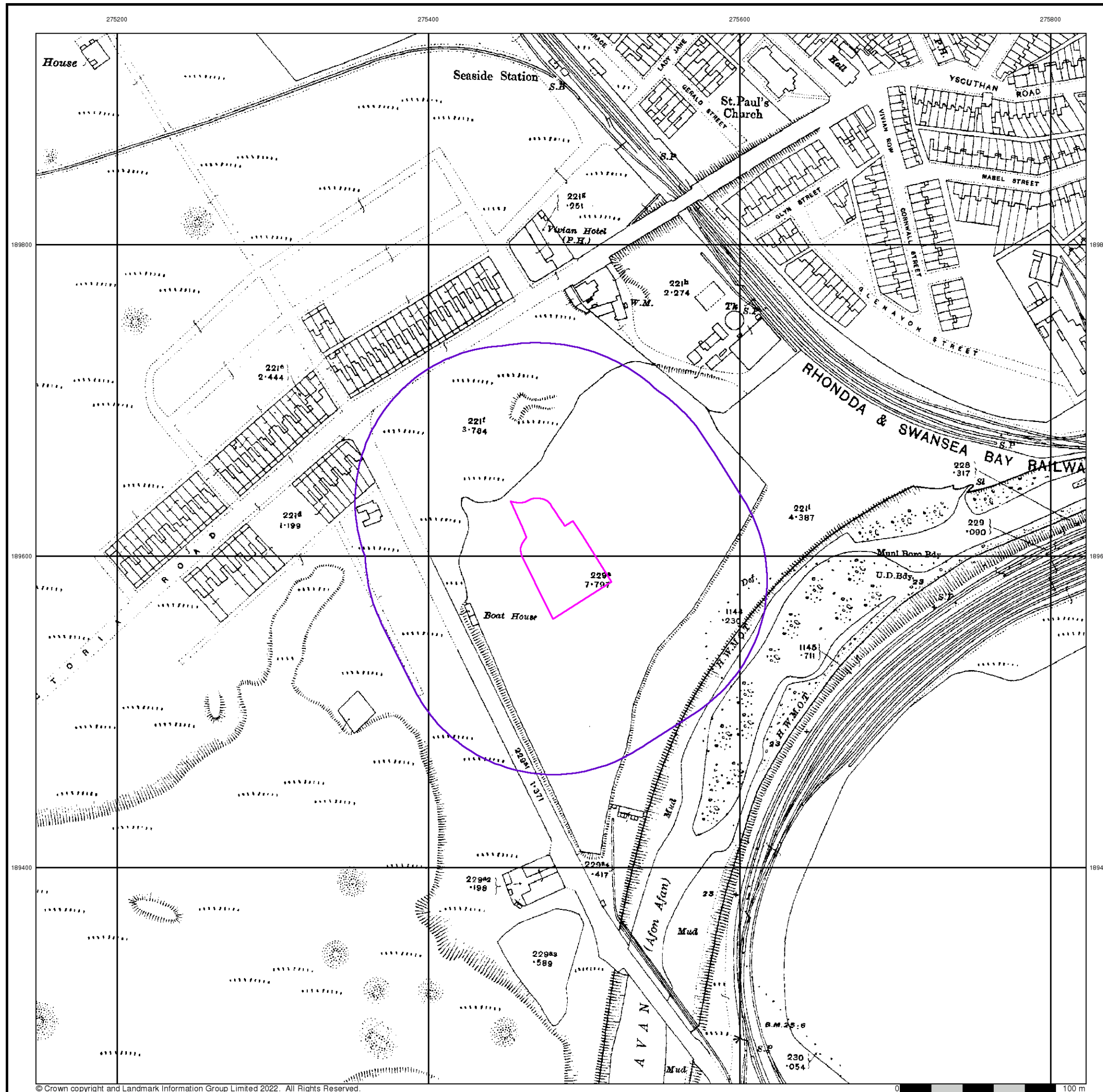


Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF



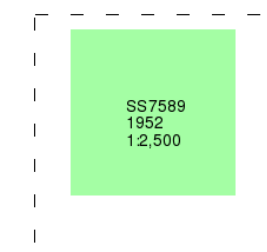
Ordnance Survey Plan

Published 1952

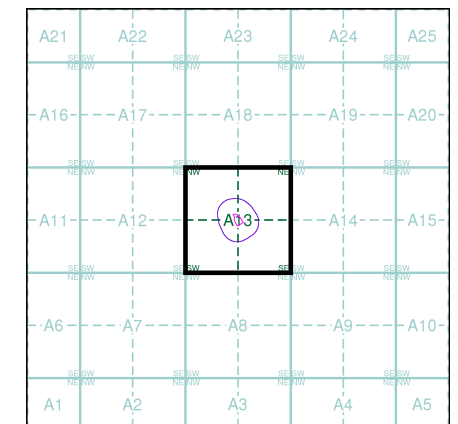
Source map scale - 1:2,500

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: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Ordnance Survey Plan

Published 1952

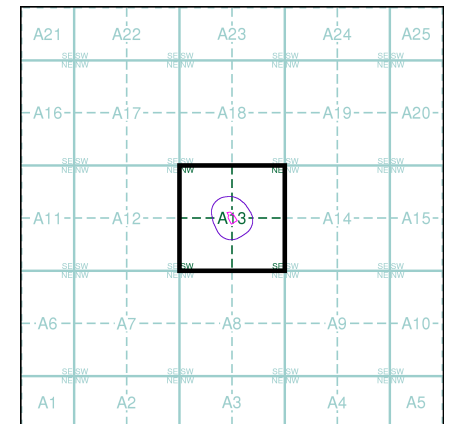
Source map scale - 1:1,250

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)

SS7589NW 1952 1:1,250	SS7589NE 1952 1:1,250
SS7589SW 1952 1:1,250	SS7589SE 1952 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF



Ordnance Survey Plan

Published 1956 - 1964

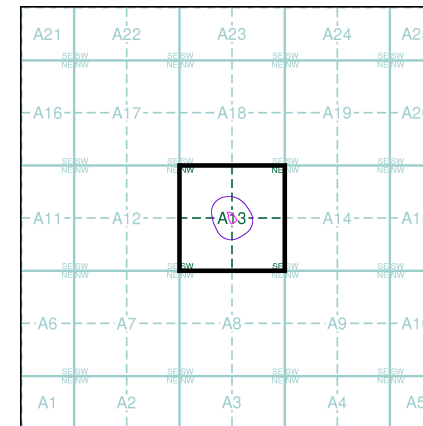
Source map scale - 1:1,250

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)

SS7589NW	SS7589NE
1960	1962
1:1,250	1:1,250
SS7589SW	SS7589SE
1956	1964
1:1,250	1:1,250

Historical Map - Segment A13



Order Details

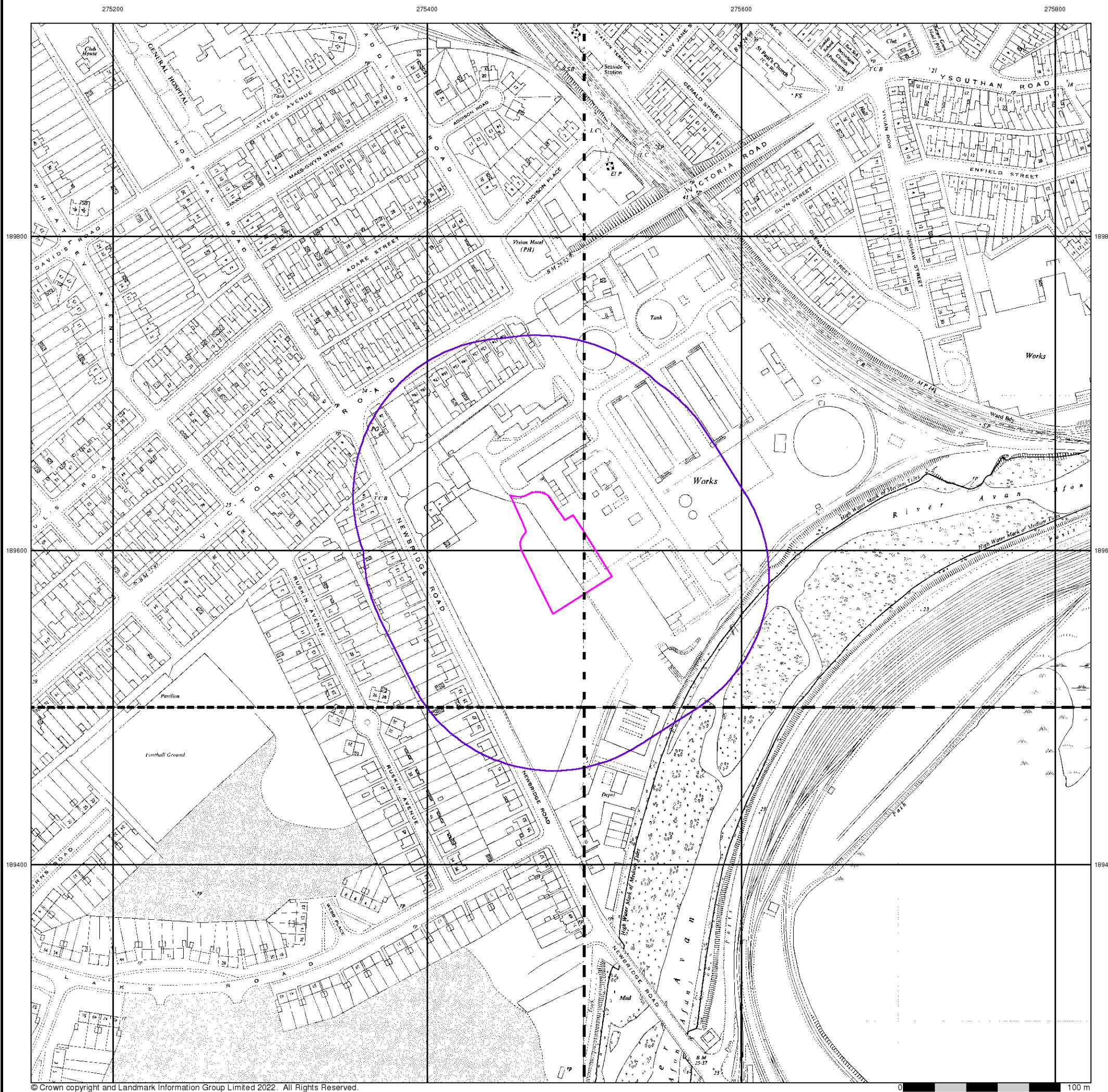
Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

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Web: www.envirocheck.co.uk



Ordnance Survey Plan

Published 1962 - 1968

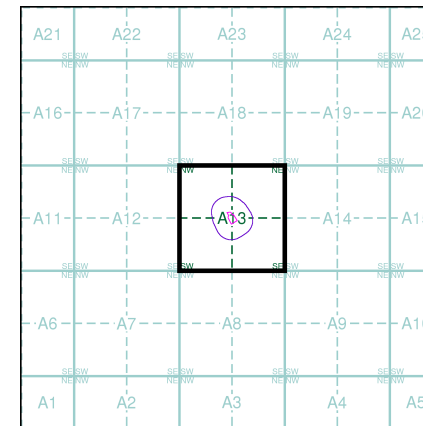
Source map scale - 1:1,250

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)

SS7589NW 1968 1:1,250	SS7589NE 1968 1:1,250
SS7589SW 1962 1:1,250	SS7589SE 1968 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF



Ordnance Survey Plan

Published 1968 - 1975

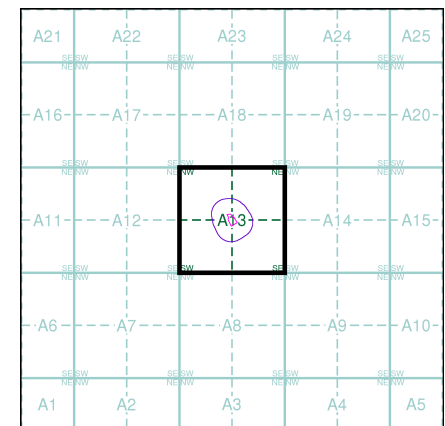
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7589NE
1975
1:1,250
SS7589SW
1968
1:1,250

Historical Map - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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

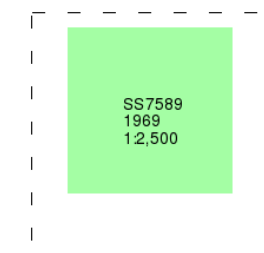
Ordnance Survey Plan

Published 1969

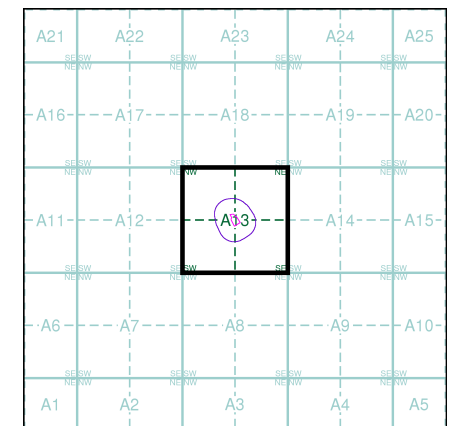
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Additional SIMs

Published 1986 - 1991

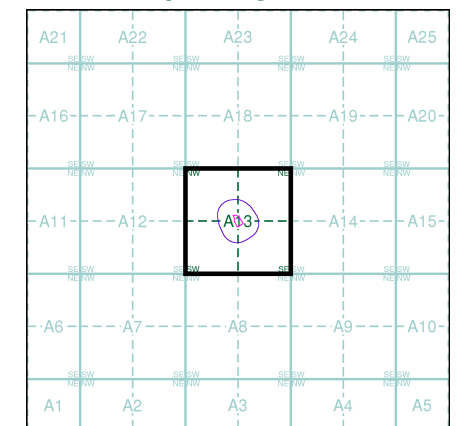
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7589NW	SS7589NE
1986	1990
1:1,250	1:1,250
SS7589SW	SS7589SE
1991	1988
1:1,250	1:1,250

Historical Map - Segment A13

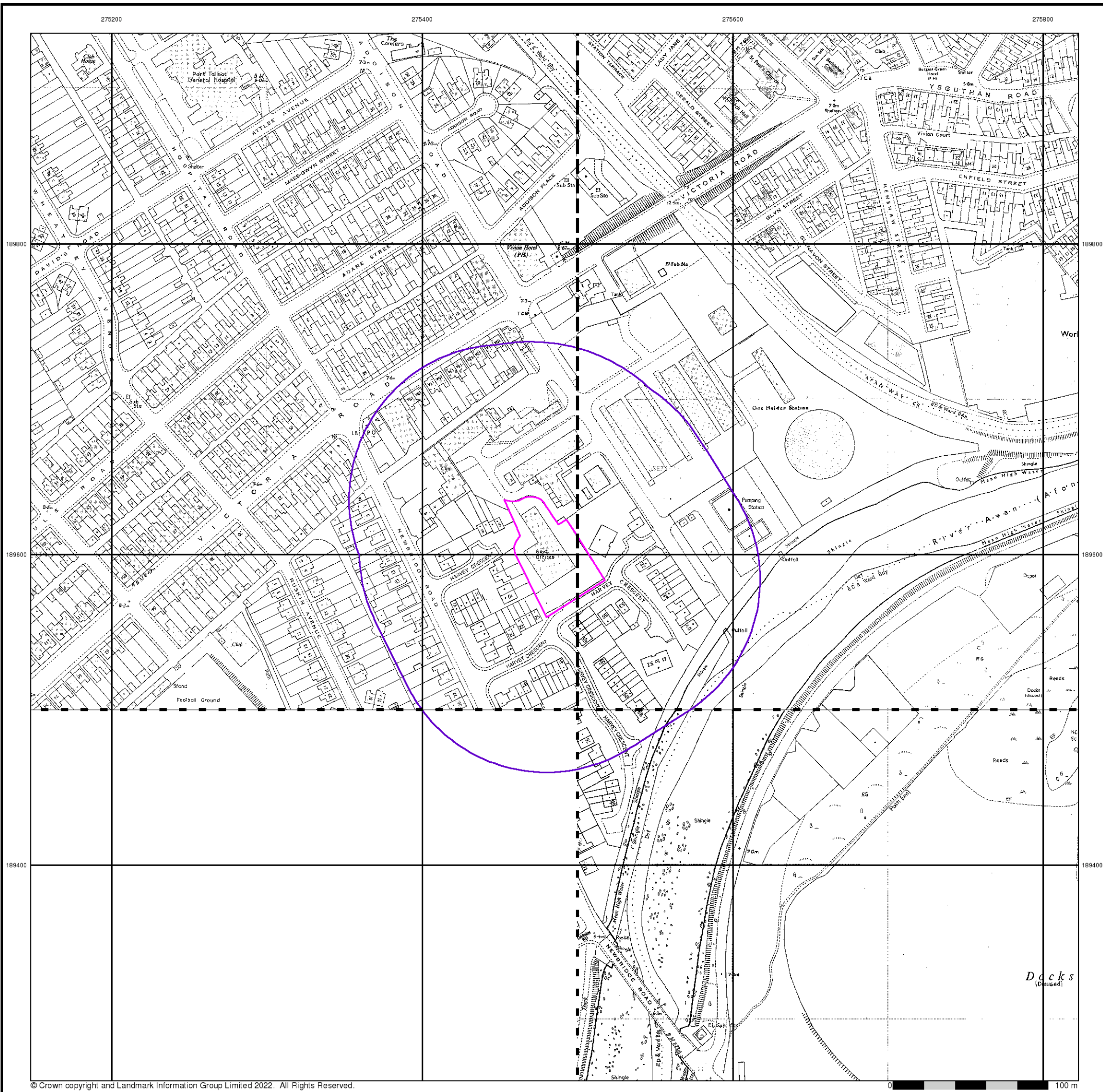


Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF



Additional SIMs

Published 1991

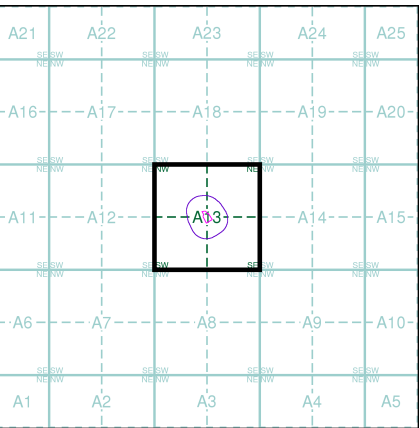
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7589NW	SS7589NE
1991	1991
1:1,250	1:1,250
	SS7589SE
	1991
	1:1,250

Historical Map - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF



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Large-Scale National Grid Data

Published 1993

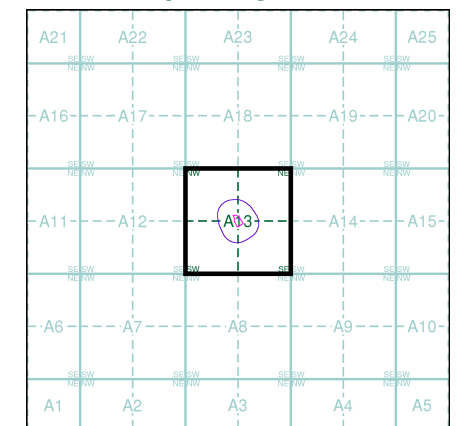
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

SS7589NW 1993 1:1,250	SS7589NE 1993 1:1,250
SS7589SW 1993 1:1,250	SS7589SE 1993 1:1,250

Historical Map - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

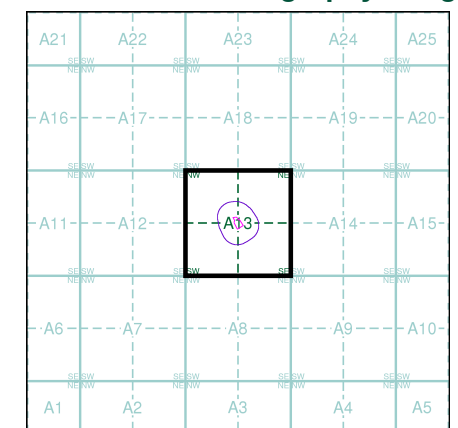
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Historical Aerial Photography

Published 2001

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

Historical Aerial Photography - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Envirocheck® Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

304800989_1_1

Customer Reference:

14128/LS

National Grid Reference:

275480, 189600

Slice:

A

Site Area (Ha):

0.27

Search Buffer (m):

1000

Site Details:

Harvey Crescent

Aberavon

Port Talbot

SA12 6DF

Client Details:

MR H Pritchard

Integral Geotechnique

Integral House

7 Beddau Way

Castlegate Business Park

Caerphilly

CF83 2AX

Report Section and Details	Page Number
Summary	-
The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected. For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).	
Mining and Natural Cavities Data	1
The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities. Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.	
Historical Land Use Information (1:2,500)	2
The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative. For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.	
Historical Land Use Information (1:10,000)	3
The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses. For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.	
Ground Stability Data (1:50,000)	6
The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.	
Historical Map List	7
The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.	
Data Currency	8
Data Suppliers	9
Useful Contacts	10

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

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Report Version v53.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites					
Coal Mining Affected Areas	pg 1	Yes	n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability	pg 1	Yes	n/a	n/a	n/a
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)	pg 2		2	n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)	pg 2		1	n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)	pg 2		1	n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)				n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground	pg 3				1
General Quarrying					
Heap, unknown constituents	pg 3		1	3	2
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits	pg 3		1		1
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 3		1		2
Potentially Infilled Land (Water)	pg 3	1	4	5	33
Ground Stability Data (1:50,000)					
CBSCB Compensation District			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 6	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 6	Yes	Yes	n/a	n/a
Salt Mining Related Features					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	A13NW (S)	0	1	275481 189600
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A13NW (S)	0	2	275481 189600
	Non Coal Mining Areas of Great Britain No Hazard				

Historical Land Use Information (1:2,500)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	Extractive Industries or Potential Excavations from 1855-1909 Use: Unspecified Deposited Material First Map Published 1876 Date: Last Map Published Not Applicable Date:	A13NW (N)	47	-	275454 189682
2	Extractive Industries or Potential Excavations from 1855-1909 Use: Unspecified Pit First Map Published 1876 Date: Last Map Published Not Applicable Date:	A13NW (W)	80	-	275378 189608
3	Extractive Industries or Potential Excavations from 1893-1915 Use: Unspecified Deposited Material First Map Published 1899 Date: Last Map Published Not Applicable Date:	A13NW (N)	50	-	275460 189685
4	Extractive Industries or Potential Excavations from 1906-1937 Use: Unspecified Deposited Material First Map Published 1917 Date: Last Map Published Not Applicable Date:	A13NW (N)	51	-	275459 189687

Historical Land Use Information (1:10,000)

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Disturbed Ground Use: Not Supplied Date of Mapping: 1885	A8SW (S)	974	-	275469 188586
6	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1884	A13SW (SW)	219	-	275262 189507
7	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1884	A13SW (SW)	320	-	275224 189369
8	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1884	A8NW (S)	353	-	275357 189230
9	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1900	A14NW (E)	369	-	275864 189709
10	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1964	A18NW (N)	798	-	275304 190419
11	Heap, unknown constituents Use: Not Supplied Date of Mapping: 1884	A11NE (W)	1000	-	274454 189668
12	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1884	A13NW (W)	29	-	275431 189601
13	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1952	A7NE (SW)	664	-	274941 189173
14	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A13NW (W)	29	-	275431 189601
15	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A12NE (NW)	649	-	274863 189904
16	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A7NE (SW)	664	-	274941 189173
17	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A13NW (S)	0	-	275481 189600
18	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	79	-	275580 189537
19	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (SE)	116	-	275574 189479
20	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A13SE (E)	177	-	275694 189597
21	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A13SE (S)	218	-	275532 189349
22	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A13SE (SE)	315	-	275805 189455
23	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A8NE (S)	372	-	275538 189193
24	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A14NW (E)	391	-	275896 189678
25	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A14SW (E)	443	-	275953 189502

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
26	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A14NW (NE)	449	-	275916 189790
27	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A14NW (E)	523	-	276022 189717
28	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18SE (N)	552	-	275666 190153
29	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1965	A8NW (S)	596	-	275403 188969
30	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A19SW (NE)	617	-	275866 190113
31	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18SE (N)	635	-	275516 190270
32	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NE (N)	663	-	275487 190300
33	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A19SW (NE)	667	-	275830 190200
34	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NW (N)	679	-	275398 190312
35	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18SE (NE)	703	-	275814 190252
36	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18NE (N)	721	-	275671 190329
37	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NE (N)	767	-	275749 190352
38	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NE (N)	778	-	275622 190399
39	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A7NW (SW)	796	-	274802 189144
40	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A19NW (NE)	807	-	275922 190308
41	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18NE (NE)	816	-	275812 190379
42	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A18NE (N)	820	-	275792 190392
43	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A19NW (NE)	822	-	275876 190353
44	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	839	-	276018 190276
45	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	840	-	276020 190275
46	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	862	-	276024 190301

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	874	-	276037 190305
48	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A18NE (N)	881	-	275708 190486
49	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1921	A19NW (NE)	894	-	275945 190395
50	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	904	-	276054 190330
51	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	911	-	276045 190346
52	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NE (N)	924	-	275697 190533
53	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NW (N)	942	-	275265 190558
54	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1884	A18NW (N)	945	-	275252 190558
55	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1900	A19NW (NE)	950	-	276072 190374
56	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A17NE (N)	968	-	275115 190542
57	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952	A18NE (N)	968	-	275691 190579
58	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A17NE (NW)	977	-	275051 190525
59	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1964	A18NW (N)	977	-	275369 190608

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	CBSCB Compensation District The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
60	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	104	3	275606 189530
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	3	275481 189600
61	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	171	3	275681 189629
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	3	275481 189600
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	3	275481 189600
62	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	3	275481 189600
63	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	138	3	275639 189518
64	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	140	3	275610 189479
65	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	146	3	275654 189532
66	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	202	3	275720 189582
67	Potential for Running Sand Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	171	3	275681 189629
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	3	275481 189600
68	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	136	3	275636 189518
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (S)	0	3	275481 189600

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

1:2,500	Mapsheet	Published Date
Glamorganshire	025_13	1876
Glamorganshire	025_13	1899
Glamorganshire	025_13	1917
Glamorganshire	025_13	1939
Ordnance Survey Plan	SS7589	1952

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

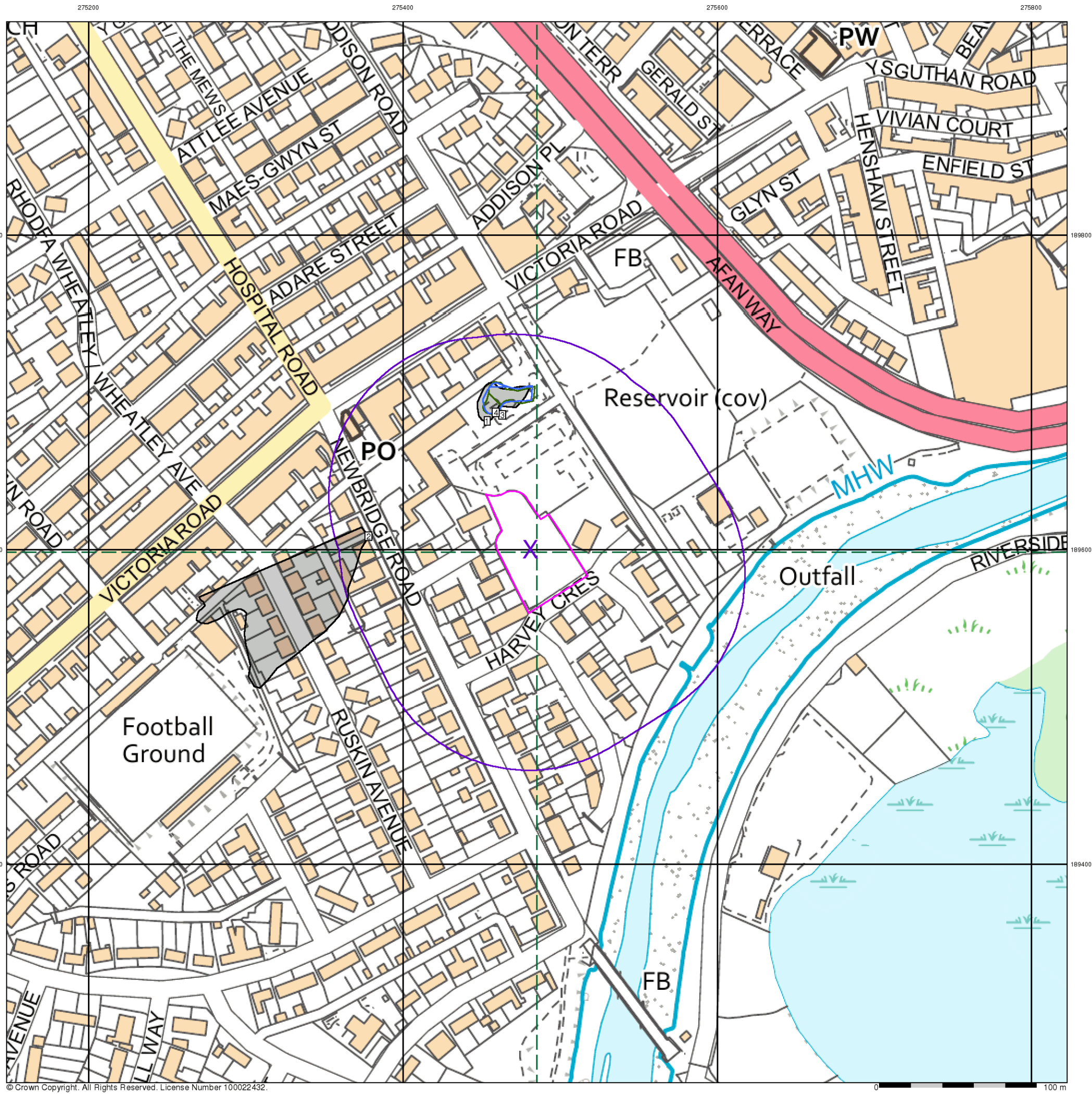
1:10,560	Mapsheet	Published Date
Glamorganshire	024_00	1884
Glamorganshire	025_00	1884
Glamorganshire	033A_00	1885
Glamorganshire	033_00	1885
Glamorganshire	024_SE	1900
Glamorganshire	025_SW	1900
Glamorganshire	033A_NE	1900
Glamorganshire	033_NW	1900
Glamorganshire	024_SE	1921
Glamorganshire	025_SW	1921
Glamorganshire	033_NW	1921
Glamorganshire	024_SE	1951
Glamorganshire	033_NW	1951
Glamorganshire	025_SW	1952
Ordnance Survey Plan	SS79SE	1964
Ordnance Survey Plan	SS79SW	1964
Ordnance Survey Plan	SS78NE	1965
Ordnance Survey Plan	SS78NW	1965
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	SS79SW	1980
Ordnance Survey Plan	SS78NE	1993
Ordnance Survey Plan	SS78NW	1993
Ordnance Survey Plan	SS79SE	1996

Mining and Cavities Data	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2022	Bi-Annually
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Man Made Mining Cavities Stantec UK Ltd	December 2021	Bi-Annually
Mining Instability Ove Arup & Partners	June 1998	Not Applicable
Natural Cavities Stantec UK Ltd	December 2021	Bi-Annually
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Historical Land Use Information (1:2,500)	Version	Update Cycle
Subterranean Features Landmark Information Group Limited	June 2022	Bi-Annually
Ground Stability Data (1:50,000)	Version	Update Cycle
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB) Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011 November 2020	As notified
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	As notified
Brine Subsidence Solution Area Johnson Poole & Bloomer	December 2020	Annual Rolling Update

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
British Geological Survey	 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL
The Coal Authority	 The Coal Authority
Ove Arup	
Stantec UK Ltd	 Stantec
Wardell Armstrong	 wardell armstrong your earth our world
Johnson Poole & Bloomer	

Contact	Name and Address	Contact Details
1	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com
2	Ove Arup & Partners Central Square, Forth Street, Newcastle upon Tyne, Tyne and Wear, NE1 3PL	Telephone: 0191 261 6080 Fax: 0191 261 7879
3	British Geological Survey - Enquiry Service British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
-	Landmark Information Group Limited 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



Intégral Géotechnique

Historical Land Use Information (1:2,500)

General

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

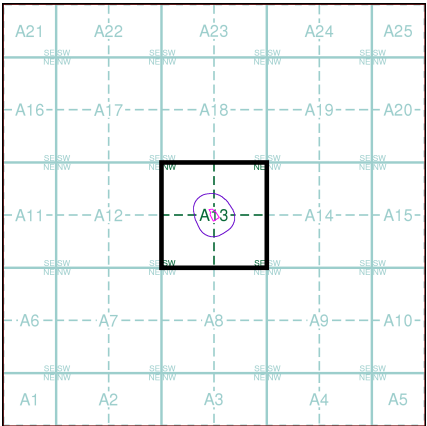
Potentially Contaminative Industrial Uses (Extractive Industries Activity)

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

Subterranean Features

	Point	Line	Polygon
Subterranean Features	▼	---	■

Mining and Ground Stability - Segment A13



Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Plot Buffer (m): 100

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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

Historical Land Use Information (1:10,000)

General

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

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

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

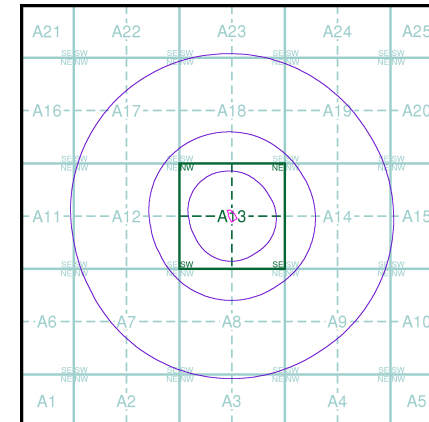
Historical Land Use

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

Mining Data

- Potential Mining Area
BGS Recorded Mineral Site

Mining and Ground Stability - Slice A

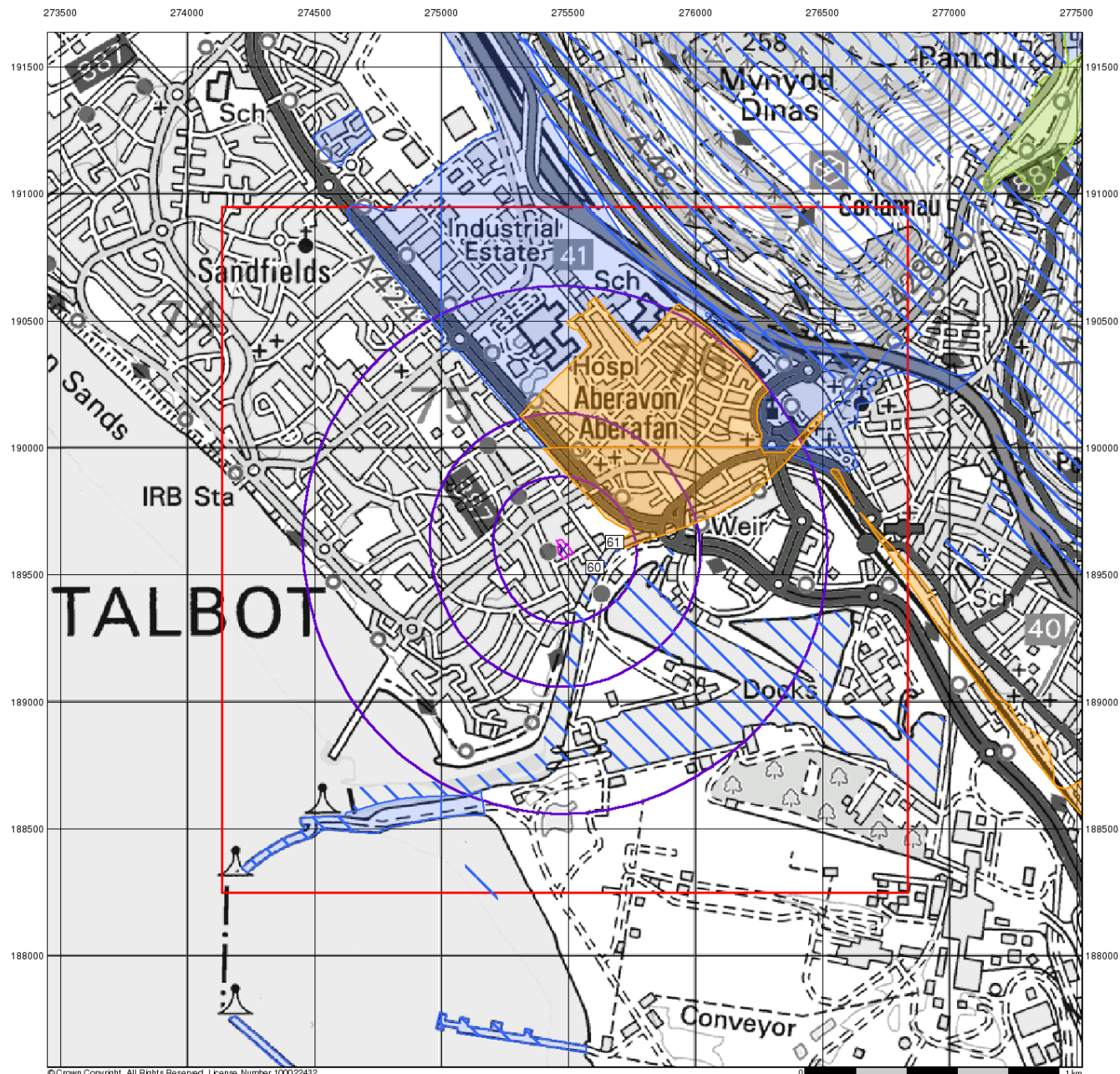


Order Details

Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Slice: A
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF



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Intégral Géotechnique

Ground Stability Data (1:50,000)

General

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

Potential for Compressible Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Collapsible Ground Stability Hazards

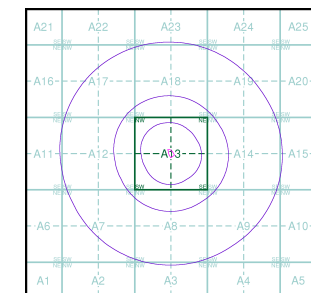
- High
- Moderate
- Low
- Very Low

Brine Pumping and Salt Mining

- Brine Pumping Related Feature
- Salt Mining Related Feature

- Point
- Polygon

Mining and Ground Stability - Slice A



Order Details

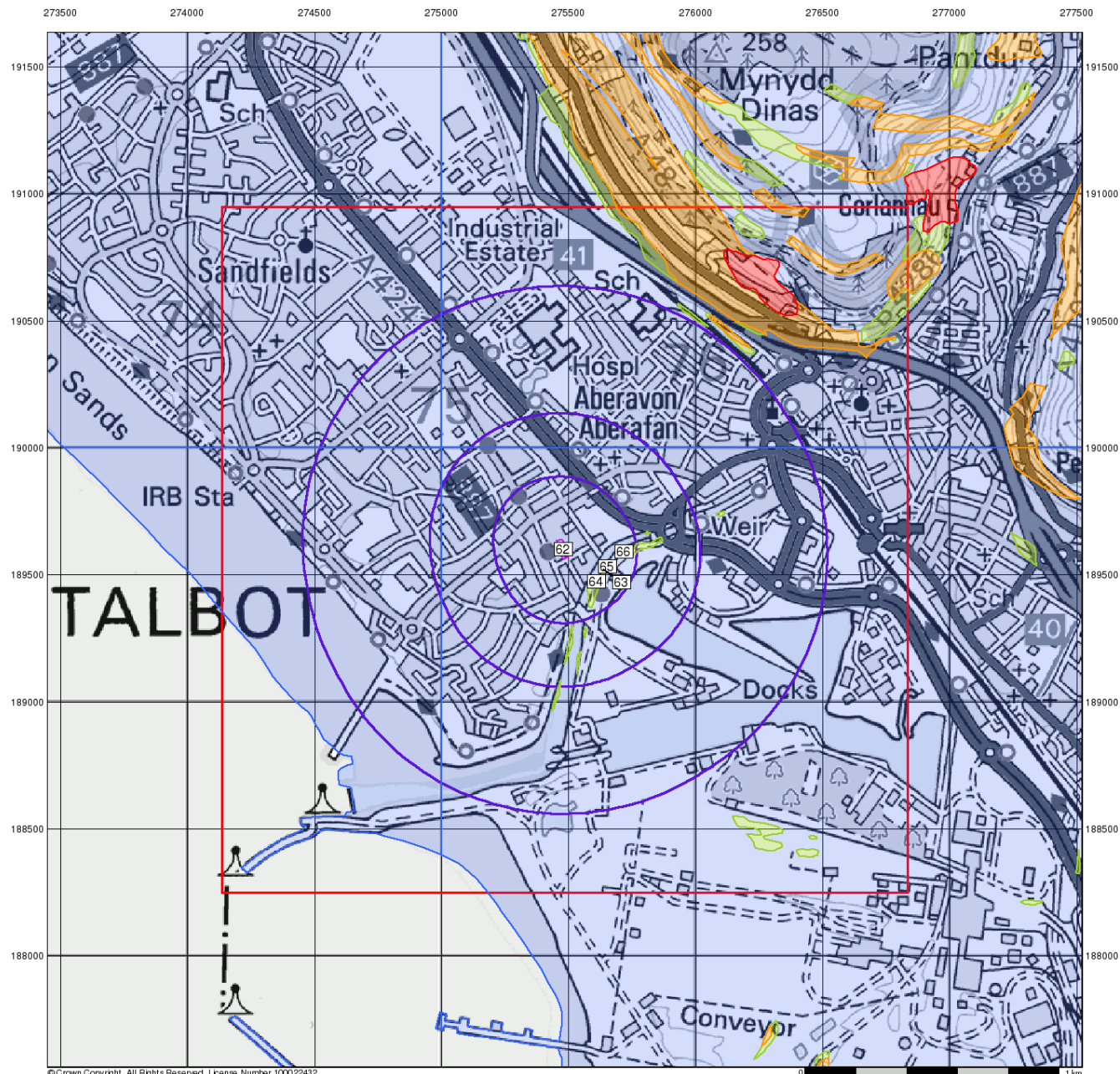
- Order Number: 304800989_1_1
- Customer Ref: 14128/LS
- National Grid Reference: 275480, 189600
- Slice: A
- Site Area (Ha): 0.27
- Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
INFORMATION GROUP

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



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0 1 km

Intégral Géotechnique

Ground Stability Data (1:50,000)

General

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

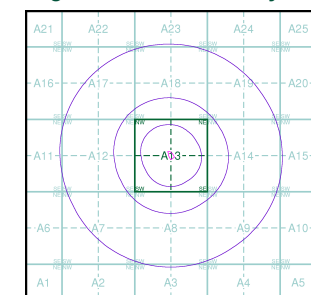
Potential for Landslide Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice A



Order Details

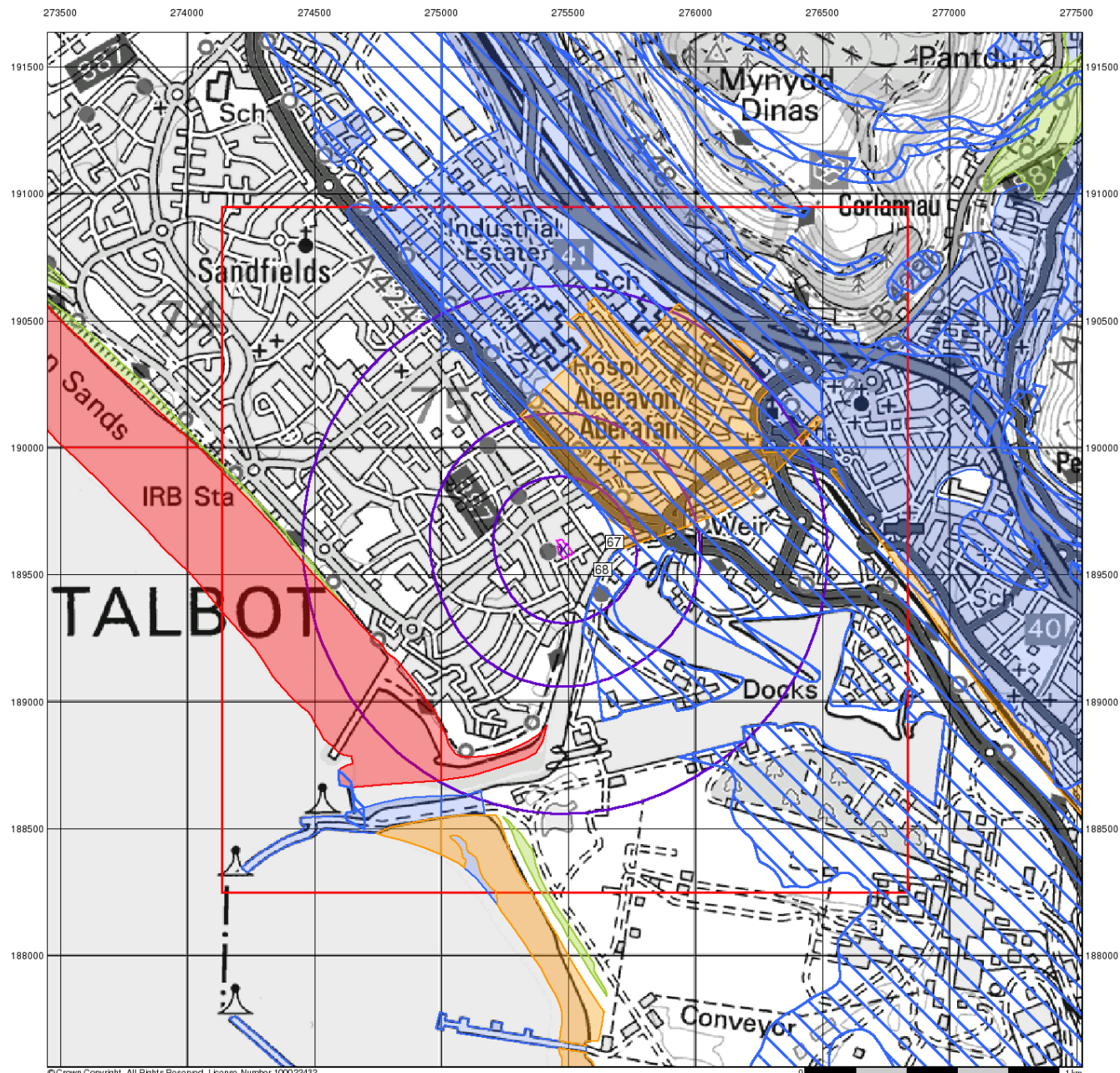
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 Customer Ref: 14128/LS
 National Grid Reference: 275480, 189600
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
 INFORMATION GROUP

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



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Intégral Géotechnique

Ground Stability Data (1:50,000)

General

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

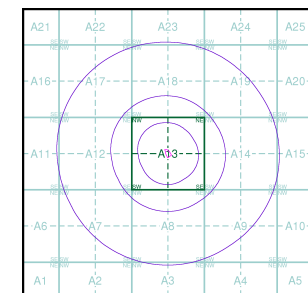
Potential for Running Sand Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice A



Order Details

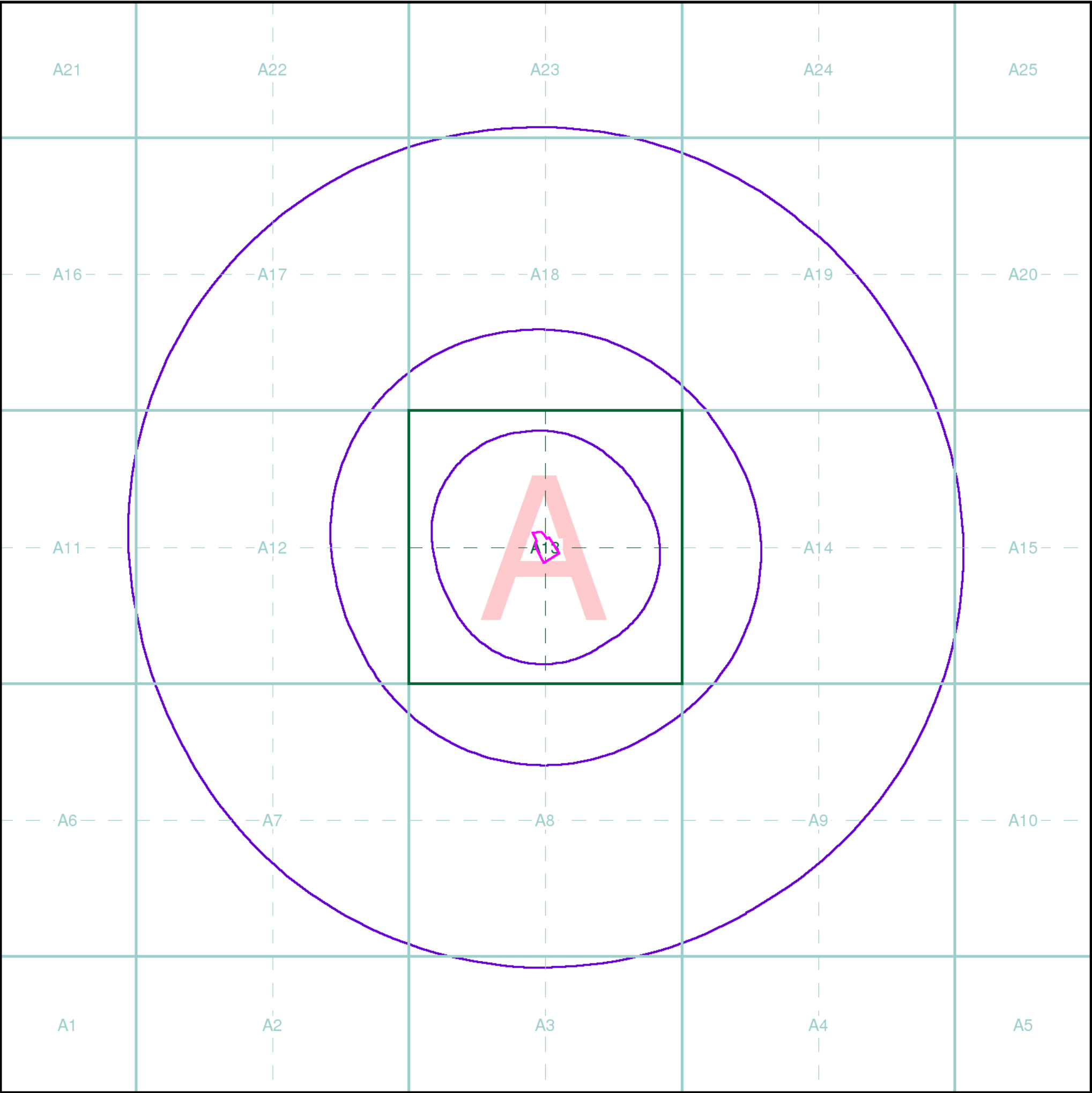
Order Number: 304800989_1_1
 Customer Ref: 14128/LS
 National Grid Reference: 275480, 189600
 Slice: A
 Site Area (Ha): 0.27
 Search Buffer (m): 1000

Site Details

Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

Landmark
 INFORMATION GROUP

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



Index Map

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

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

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

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

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

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

Order Details
Order Number: 304800989_1_1
Customer Ref: 14128/LS
National Grid Reference: 275480, 189600
Site Area (Ha): 0.27
Search Buffer (m): 1000

Site Details
Harvey Crescent, Aberavon, Port Talbot, SA12 6DF

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

APPENDIX B

BGS RADON REPORT

Laura Pullin
Integral Geotechnique
Integral House
7 Beddau Way
Caerphilly
CF83 2AX

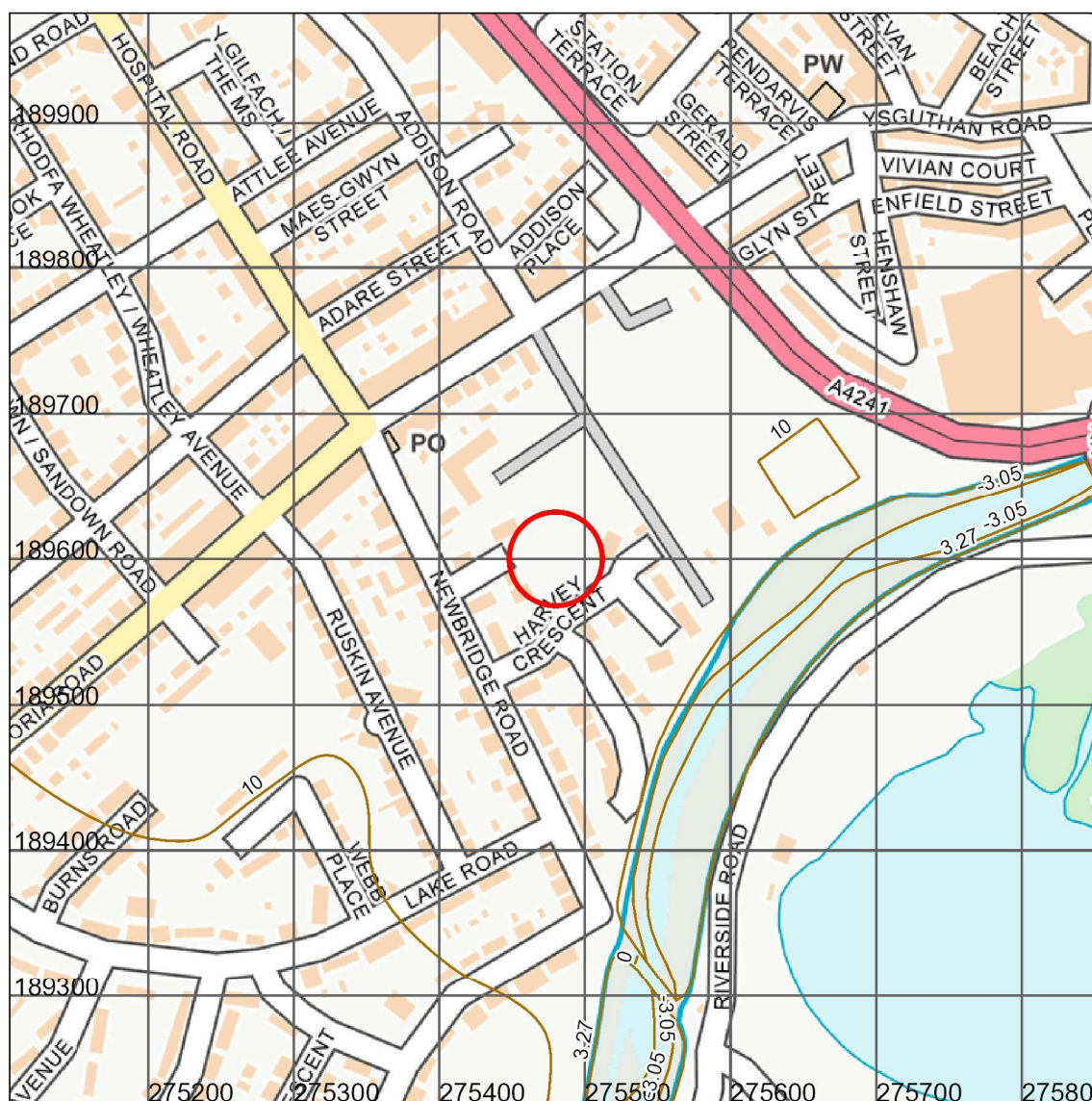
Radon Report

Advisory report on the requirement for radon protective measures in new buildings, conversions and extensions to existing buildings. The report also indicates whether a site is located within a radon Affected Area

Report Id: *BGS_329668/40142*

Client reference: 14128 Harvey Crescent

Search location



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Search location indicated in red

Area centred at: 275480,189600

Radius of site area: 32 metres

Radon Report: UK

When extensions are made to existing buildings in high radon areas, or new buildings are constructed in these areas, the Building Regulations for England, Wales, Scotland and Northern Ireland require that protective measures are taken against radon entering the building.

This report provides information on whether radon protective measures are required. Depending on the probability of buildings having high radon levels, the Regulations may require either:

1. No protective measures
2. Basic protective measures
3. Full protective measures

This is an advisory report on the requirement for radon protective measures in new buildings, conversions and extensions. The report also indicates whether a site is located within a radon Affected Area

Requirement for radon protective measures

The determination below follows advice in *BR211 Radon: Guidance on protective measures for new buildings (2015 edition)*, which also provides guidance on what to do if the result indicates that protective measures are required.

Is the property in an area where radon protective measures are required for new buildings or extensions to existing ones as described in publication BR211 (2015 edition) Radon: Guidance on protective measures for new buildings?

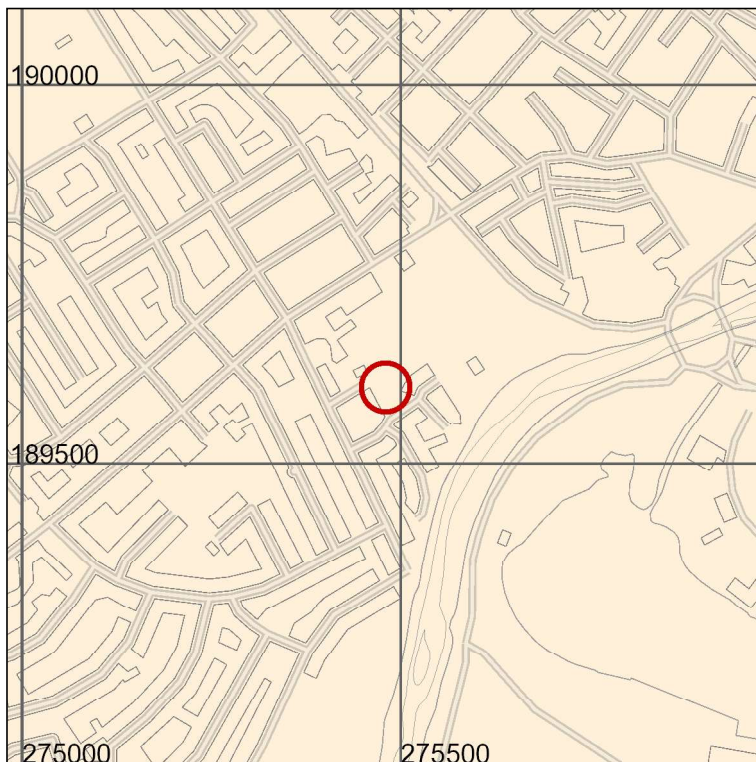
NO RADON PROTECTIVE MEASURES ARE REQUIRED FOR THE REPORT AREA.

More details of the protective measures required are available in *BR211 Radon: Guidance on protective measures for new buildings (2015 Edition)*. Additional information and guidance is available from the Building Research Establishment website (<http://www.bre.co.uk/radon/>).

Whether or not the radon level in a building is above or below the radon Action Level can only be established by having the building tested. The UKHSA provides a radon testing service which can be accessed at www.ukradon.org or by telephone (01235 822622).

If you require further information or guidance, you should contact your local authority building control officer or approved inspector.

Radon Affected Area



% Homes estimated to be at or above the action level
0-1%
1-3%
3-5%
5-10%
10-30%
30-100%

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Scale: 1:10 000 (1cm = 100 m)

Search area indicated in red

Is the property in a radon Affected Area as defined by the UK Health Security Agency (UKHSA) and if so what percentage of homes are estimated to be at or above the Action Level? **NO**

Additional Information

THE PROPERTY IS IN AN AREA WHERE LESS THAN 1% OF HOMES ARE ESTIMATED TO BE AT OR ABOVE THE ACTION LEVEL. THE PROPERTY IS NOT IN A RADON AFFECTED AREA.

The UKHSA recommends a radon 'Action Level' of 200 Becquerels per cubic metre of air (Bq m^{-3}) for the annual average of the radon gas concentration in a home. Where 1% or more of homes are estimated to be at or above the Action Level the area should be regarded as a radon Affected Area.

This report informs you whether the property is in a radon Affected Area and the percentage of homes that are estimated to be at or above the radon Action Level at this location. Being in an Affected Area does not necessarily mean there is a high radon level within the property; the only way to determine the radon level is to carry out a radon measurement.

The UKHSA advises that radon gas should be measured in all properties within radon Affected Areas and that homes with radon levels at or above the Action Level (200 Bq m⁻³) should be remediated. Householders with levels between the Target Level (100 Bq m⁻³) and Action Level should seriously consider reducing their radon level, especially if they are at greater risk, such as if they are current or ex smokers. Whether or not a home is in fact above or below the Action Level or Target Level can only be established by having the building tested. The UKHSA provides a validated radon testing service which can be accessed at www.ukradon.org.

The information in this report provides an answer to one of the standard legal enquiries on house purchase in England and Wales, known as Law Society CON29 Enquiries of the Local Authority (2016); 3.14 Radon Gas: Do records indicate that the property is in a “Radon Affected Area” as identified by the UKHSA. The data can also be used to advise house buyers and sellers in Scotland and Northern Ireland.

If you are buying a new build property in a Radon Affected Area, you should ask the builder whether radon protective measures were incorporated in the construction of the property.

If you are buying a currently occupied property in a radon Affected Area, you should ask the present owner whether radon levels have been measured in the property. If they have, ask whether the results were at or above the radon Action Level and if so, whether remedial measures were installed, radon levels were re-tested, and if the results of re-testing confirmed the effectiveness of the measures.

Further information on radon is available from the UKHSA at www.ukradon.org.

What is radon?

Radon is a naturally occurring radioactive gas, which is produced by the radioactive decay of radium which, in turn, is derived from the radioactive decay of uranium. Uranium is found in small quantities in all soils and rocks, although the amount varies from place to place. Radon released from rocks and soils is quickly diluted in the atmosphere. Concentrations in the open air are normally very low and do not present a hazard. Radon that enters enclosed spaces such as some buildings (particularly basements), caves, mines, and tunnels may reach high concentrations in some circumstances. The construction method and degree of ventilation will influence radon levels in individual buildings. A person's exposure to radon will also vary according to how particular buildings and spaces are used.

Inhalation of the radioactive decay products of radon gas increases the chance of developing lung cancer. If individuals are exposed to high concentrations for significant periods of time, there may be cause for concern. In order to limit the risk to individuals, the Government has adopted an Action Level for radon in homes of 200 becquerels per cubic metre (Bq m^{-3}). The Government advises householders that, where the radon level is at or above the Action Level, measures should be taken to reduce the concentration.

Radon in workplaces

The Ionising Radiation Regulations 2017 require employers to take action when radon is present above a defined level in the workplace. Advice may be obtained from your local Health and Safety Executive Area Office or the Environmental Health Department of your local authority. The BRE publishes a guide (BR293): **Radon in the workplace**. BRE publications may be obtained from the BRE Bookshop, Tel: 01923 664262, email: bookshop@bre.co.uk website: www.brebookshop.com

Contact Details

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- Detail, which is clearly defined and accurately depicted on large-scale maps, may be lost when small-scale maps are derived from them.
- Although samples and records are maintained with all reasonable care, there may be some deterioration in the long term.
- The most appropriate techniques for copying original records are used, but there may be some loss of detail and dimensional distortion when such records are copied.
- Data may be compiled from the disparate sources of information at BGS's disposal, including material donated to BGS by third parties, and may not originally have been subject to any verification or other quality control process.
- Data, information and related records, which have been donated to BGS, have been produced for a specific purpose, and that may affect the type and completeness of the data recorded and any interpretation. The nature and purpose of data collection, and the age of the resultant material may render it unsuitable for certain applications/uses. You must verify the suitability of the material for your intended usage.
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**Report issued by
BGS Enquiry Service**

APPENDIX C

COAL AUTHORITY MINING REPORT



The Coal
Authority

Consultants Coal Mining Report

Harvey Crescent
Sandfields
Neath Port Talbot
SA12 6DF

Date of enquiry:	14 December 2022
Date enquiry received:	14 December 2022
Issue date:	14 December 2022

Our reference:	51003330349001
Your reference:	14128/LP



Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

INTEGRAL GEOTECHNIQUE (WALES) LTD.

Enquiry address

Harvey Crescent
Sandfields
Neath Port Talbot
SA12 6DF

How to contact us

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200 Lichfield Lane
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NG18 4RG

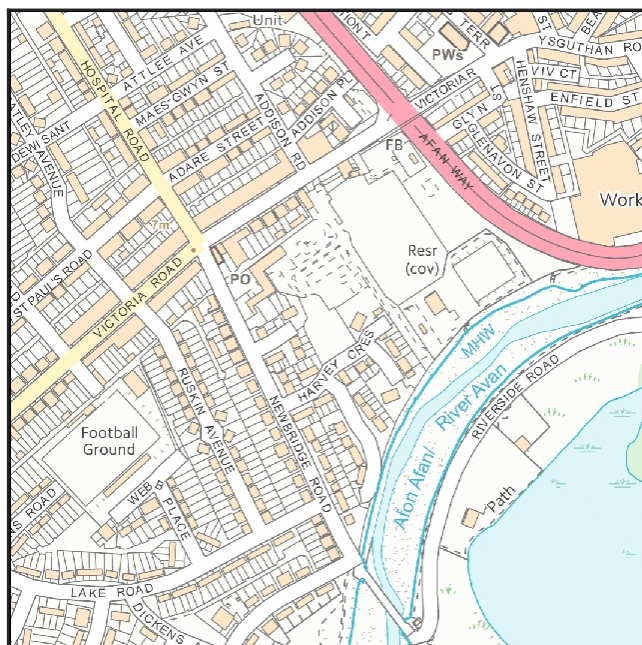
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

No past mining recorded.

Probable unrecorded shallow workings

None.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

None available.

Outcrops

No outcrops recorded.

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

Based on the responses in this report, no further information has been highlighted.

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **call us on 0345 762 6848** or **email us at groundstability@coal.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

Payment to owners of former copyhold land

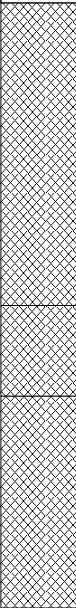
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

APPENDIX D

TRIAL PIT LOGS

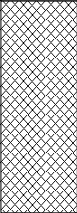
 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Harvey Crescent			Project No.: 14128		Trial Pit No.: TP01 Sheet 1 of 1	
Location: Port Talbot			Client: Coastal Housing Group			Logged By: LS		Scale 1:25	
Equipment: JCB 3CX			Coordinates:			Dimensions 2.00m			
Date Excavated: 14/12/2022			Level:			Depth : 2.70m 0.80m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.30	ES		0.10			(MADE GROUND) Compact grey sandy GRAVEL. Gravel is fine to coarse sub angular and angular limestone, brick, concrete, ash, slag and clinker. (MADE GROUND) Loose becoming medium dense dark grey and black sandy GRAVEL and COBBLES of sub angular and angular limestone, brick fragments, concrete, ash, slag and clinker. Occasional boulders of sub angular concrete (0.5m x 0.2m x 0.4m)			
			1.00			(MADE GROUND) Loose yellow beige and brown coarse SAND.			
			2.70			End of Trialpit at 2.70 m			
Remarks: Trial pit terminated at 2.7mbgl due to collapsing trial pit sides.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Overbreak encountered within the sides of the trial pit.						

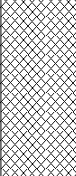
 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Harvey Crescent			Project No.: 14128		Trial Pit No.: TP02 Sheet 1 of 1	
Location: Port Talbot			Client: Coastal Housing Group			Logged By: LS		Scale 1:25	
Equipment: JCB 3CX			Coordinates:			Dimensions 2.00m			
Date Excavated: 14/12/2022			Level:			Depth : 2.20m 0.80m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.10	ES		0.10			(MADE GROUND) Limited vegetation and compact coarse gravel over loose light grey slightly sandy GRAVEL. Gravel is fine to coarse sub angular and angular limestone, sandstone,, concrete and occasional brick fragments, ash, slag and clinker.			
0.40	ES					(MADE GROUND) Loose dark grey and black slightly clayey sandy GRAVEL and COBBLES of sub angular and angular limestone, brick fragments, concrete, ash, slag and clinker. Occasional boulders of sub angular concrete (0.5m x 0.2m x 0.4m).			
			0.70			(MADE GROUND) Loose to medium dense orange dark brown very clayey slightly sandy GRAVEL and COBBLES of sub angular and angular limestone and sandstone with occasional ash and clinker. Gravel is fine to coarse sub angular and angular limestone, sandstone and occasional ash and clinker.			
			1.10			(MADE GROUND) Loose yellow brown and beige coarse SAND.			
			2.20			End of Trialpit at 2.20 m			
Remarks: Trial pit terminated at 2.2mbgl due to collapsing trial pit sides.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Overbreak encountered within the sides of the trial pit.						

 Integral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Harvey Crescent			Project No.: 14128		Trial Pit No.: TP03 Sheet 1 of 1	
Location: Port Talbot			Client: Coastal Housing Group			Logged By: LS		Scale 1:25	
Equipment: JCB 3CX			Coordinates:			Dimensions 1.90m			
Date Excavated: 14/12/2022			Level:			Depth : 2.00m 0.80m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.20	ES					(MADE GROUND) Limited vegetation and compact gravel over loose dark grey slightly clayey slightly sandy GRAVEL and COBBLES of angular and sub angular limestone, brick fragments, concrete, ash, slag and clinker.			
0.50	ES								
			1.00						
			1.30			(MADE GROUND) Loose yellow brown coarse slightly gravelly SAND. Gravel is medium to coarse sub angular and angular sandstone.			
			2.00			End of Trialpit at 2.00 m			
Remarks: Trial pit terminated at 2.0mbgl due to collapsing trial pit sides.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Trial pit sides experienced overbreak.						

 Integral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Harvey Crescent			Project No.: 14128		Trial Pit No.: TP04 Sheet 1 of 1	
Location: Port Talbot			Client: Coastal Housing Group			Logged By: LS		Scale 1:25	
Equipment: JCB 3CX			Coordinates:			Dimensions 1.90m			
Date Excavated: 14/12/2022			Level:			Depth : 1.80m 0.80m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.20	ES					(MADE GROUND) Compact gravel over loose dark brown slightly clayey sandy GRAVEL. Gravel is fine to coarse sub angular and angular limestone, sandstone, brick, slag, clinker and occasional plastic and metal.			
			0.80			(MADE GROUND) Medium dense dark brown slightly clayey sandy GRAVEL and COBBLES of sub angular to rounded sandstone, limestone, brick fragments and metal. Gravel is fine to coarse sub angular to rounded limestone, sandstone and brick fragments.	1		
			1.10			(MADE GROUND) Loose yellow brown coarse SAND.			
			1.80			End of Trialpit at 1.80 m	2		
							3		
							4		
							5		
Remarks: Trial pit terminated at 1.8mbgl due to collapsing trial pit sides.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Overbreak encountered within sides of the trial pits.						

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Harvey Crescent			Project No.: 14128		Trial Pit No.: TP05 Sheet 1 of 1	
Location: Port Talbot			Client: Coastal Housing Group			Logged By: LS		Scale 1:25	
Equipment: JCB 3CX			Coordinates:			Dimensions 1.80m			
Date Excavated: 14/12/2022			Level:			Depth : 2.00m 0.75m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.30	ES					(MADE GROUND) Compact coarse gravel over dark brown sandy GRAVEL and COBBLES of sub angular and angular limestone and sandstone. Gravel is fine to coarse sub angular and angular sandstone, limestone and brick fragments.			
			0.50			(MADE GROUND) Loose to medium dense orange brown very clayey slightly sandy GRAVEL and COBBLES of sub angular and angular limestone and sandstone. Gravel is fine to coarse sub angular and angular limestone sandstone and occasional ash and clinker.			
			0.75			(MADE GROUND) Loose orange yellow brown SAND.			
			2.00			End of Trialpit at 2.00 m			
Remarks: Trial pit terminated at 2.0mbgl due to collapsing trial pit sides.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Trial pit sides collapsed.						

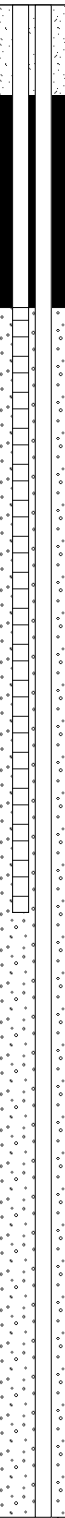
Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Harvey Crescent			Project No.: 14128		Trial Pit No.: TP06 Sheet 1 of 1	
Location: Port Talbot			Client: Coastal Housing Group			Logged By: LS		Scale 1:25	
Equipment: JCB 3CX			Coordinates:			Dimensions 1.80m			
Date Excavated: 14/12/2022			Level:			Depth : 0.70m 0.70m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.30	ES		0.70			(MADE GROUND) Limited vegetation and compact gravel over loose to medium dense dark brown sandy slightly silty GRAVEL and COBBLES of sub angular and angular limestone. Gravel is fine to coarse sub angular and angular limestone and brick fragments.			
						End of Trialpit at 0.70 m			
Remarks:			Groundwater:			Key:			
Trial pit terminated at 0.7mbgl due to service caution tape being excavated within the bucket of the JCB 3CX.			Stability:			D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			

 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com			Project Name: Harvey Crescent			Project No.: 14128		Trial Pit No.: TP07 Sheet 1 of 1	
Location: Port Talbot			Client: Coastal Housing Group			Logged By: LS		Scale 1:25	
Equipment: JCB 3CX			Coordinates:			Dimensions 1.80m			
Date Excavated: 14/12/2022			Level:			Depth : 0.60m 0.80m			
Samples & In-situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
Depth (m)	Type	Results							
0.10	ES		0.60			(MADE GROUND) Loose to medium dense dark grey silty sandy GRAVEL and COBBLES of sub angular to rounded limestone, sandstone, brick. Gravel is fine to coarse sub angular and angular sandstone, limestone, brick fragments and occasional ash, slag and clinker.			
						End of Trialpit at 0.60 m			
						1			
						2			
						3			
						4			
						5			
Remarks: Trial pit terminated at 0.6mbgl due to concrete slab, unable to excavate any further.			Groundwater: No groundwater encountered.			Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample W - Water sample			
			Stability: Trial pit sides were stable in the short term.						

APPENDIX E

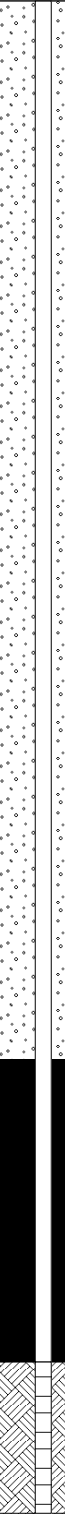
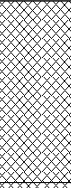
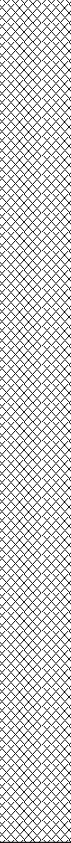
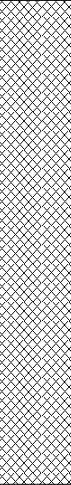
SHELL AND AUGER LOGS

		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Harvey Crescent			Project No.: 14128		Borehole No.: BH1 Sheet 1 of 3	
Location: Port Talbot				Client: Coastal Housing Group			Coordinates:		Hole Type: CP	
Equipment: Dando 2000				Diameter of Casing: 150+200mm			Level:		Scale 1:25	
Diameter of Boring: 200+150mm				Depth of Casing: 14.20+9.00m			Dates 22/11/2022 - 24/11/2022		Logged By: LS	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.60		(MADE GROUND) Dark grey sandy slightly silty GRAVEL. Gravel is fine to coarse sub angular and angular ash, slag, tarmac fragments and clinker.		
		1.00 1.00	B C	N=9 (1,2/1,2,3,3)			(MADE GROUND) Loose dark yellow brown slightly gravelly SAND. Gravel is fine to coarse sub angular and angular sandstone, brick, slag and clinker.	1	
		2.00 2.00	B C	N=10 (1,1/2,2,3,3)				2	
		3.00 3.00	B C	N=3 (1,1/0,1,1,1)				3	
		4.00	C	N=19 (2,4/4,4,5,6)	4.00		(MADE GROUND) Medium dense becoming loose yellow gravelly SAND. Gravel is fine to coarse sub rounded to sub angular sandstone, occasional ash slag and clinker.	4	
		5.00	B					5	

Remarks: 1. Chiselling from 0.5mbgl to 0.8mbgl for 0.5 hours, 6.5mbgl to 6.8mbgl for 0.5 hours, 14.2mbgl and 14.6mbgl for 2 hours. 2. Perched groundwater encountered at 5.6mbgl rising to 2.9mbgl after 20 minutes. 3. Terminated at 14.6mgl.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Harvey Crescent		Project No.: 14128		Borehole No.: BH1 Sheet 2 of 3	
Location: Port Talbot		Client: Coastal Housing Group		Coordinates:		Hole Type: CP			
Equipment: Dando 2000		Diameter of Casing: 150+200mm		Level:		Scale 1:25			
Diameter of Boring: 200+150mm		Depth of Casing: 14.20+9.00m		Dates 22/11/2022 - 24/11/2022		Logged By: LS			

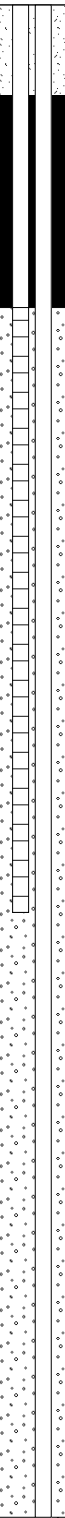
Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		5.00	C	N=4 (2,2/1,1,1,1)	5.60		(MADE GROUND) Soft dark grey silty CLAY.	6	
		5.30	D						
		6.50 6.50	D C	50 (10 for 75mm/50 for 50mm)	8.40		...Possible boulder at 6.5mbgl.	7	
		8.00 8.00	B C	N=5 (1,1/1,1,1,2)					
		9.50 9.50	B C	N=8 (1,1/1,2,2,3)		(MADE GROUND) Loose dark grey sandy GRAVEL. Gravel is fine to coarse sub angular and sub rounded sandstone, ash, slag, coke and clinker.	9		

Remarks: 1. Chiselling from 0.5mbgl to 0.8mbgl for 0.5 hours, 6.5mbgl to 6.8mbgl for 0.5 hours, 14.2mbgl and 14.6mbgl for 2 hours. 2. Perched groundwater encountered at 5.6mbgl rising to 2.9mbgl after 20 minutes. 3. Terminated at 14.6mbgl.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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Intégral Géotechnique Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Harvey Crescent				Project No.: 14128		Borehole No.: BH1 Sheet 3 of 3			
Location: Port Talbot				Client: Coastal Housing Group				Coordinates:		Hole Type: CP	
Equipment: Dando 2000				Diameter of Casing: 150+200mm				Level:		Scale 1:25	
Diameter of Boring: 200+150mm				Depth of Casing: 14.20+9.00m				Dates 22/11/2022 - 24/11/2022		Logged By: LS	
Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		11.00	B	N=7 (1,1/1,2,2,2)	10.90			Soft to firm grey slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse sub angular and sub rounded sandstone.			
		11.00	C		11.30						
		12.50	B	N=26 (4,5/6,6,6,8)				Medium dense becoming dense dark grey slightly sandy slightly clayey GRAVEL and COBBLES of sub rounded to rounded sandstone. Gravel is fine to coarse sub angular and sub rounded sandstone.			
		12.50	C								
		14.00	C	56 (3,8/56 for 275mm)							
					14.60			End of Borehole at 14.60 m			
Remarks:							Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone) W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation				
1. Chiselling from 0.5mbgl to 0.8mbgl for 0.5 hours, 6.5mbgl to 6.8mbgl for 0.5 hours, 14.2mbgl and 14.6mbgl for 2 hours. 2. Perched groundwater encountered at 5.6mbgl rising to 2.9mbgl after 20 minutes. 3. Terminated at 14.6mbgl.											

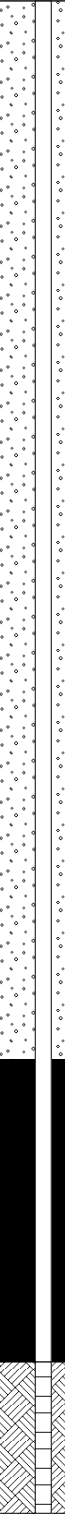


		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Harvey Crescent		Project No.: 14128		Borehole No.: BH2 Sheet 1 of 3	
Location: Port Talbot				Client: Coastal Housing Group		Coordinates:		Hole Type: CP	
Equipment: Dando 2022				Diameter of Casing: 150+200mm		Level:		Scale 1:25	
Diameter of Boring: 200+150mm				Depth of Casing: 14.20+9.50m		Dates 28/11/2022 - 29/11/2022		Logged By: LS	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.00 1.00	B C	N=7 (1,1/1,2,2,2)			(MADE GROUND) Loose dark grey and brown very silty slightly gravelly SAND. Gravel is fine to medium sub angular sandstone, ash and clinker.	1	
		2.00 2.00	B C	N=4 (1,1/1,1,1,1)				2	
		3.00 3.00	B C	N=6 (1,1/2,1,2,1)				3	
		4.00 4.00	B C	N=6 (1,0/1,2,1,2)				4	
		5.00	C	N=7 (1,1/1,1,2,3)				5	

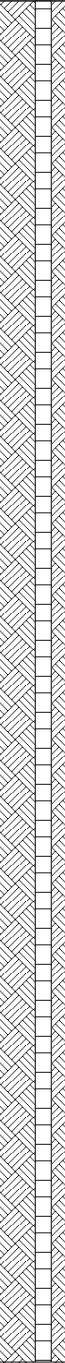
Remarks: 1. Chiselling from 14.2mbgl and 14.5mbgl for 0.5 hours. 2. Perched groundwater encountered at 2.8mbg and rising to 1.9mbgl after 20 minutes. 3. Terminated at 14.5mbgl.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Harvey Crescent		Project No.: 14128		Borehole No.: BH2 Sheet 2 of 3	
Location: Port Talbot		Client: Coastal Housing Group		Coordinates:		Hole Type: CP	
Equipment: Dando 2022		Diameter of Casing: 150+200mm		Level:		Scale 1:25	
Diameter of Boring: 200+150mm		Depth of Casing: 14.20+9.50m		Dates 28/11/2022 - 29/11/2022		Logged By: LS	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					5.30				
		6.50 6.50	B C	N=35 (8,10/11,10,7,7)			(MADE GROUND) Medium dense to dense dark grey slightly clayey sandy GRAVEL and COBBLES of sub angular and angular limestone and sandstone. Gravel is fine to coarse sub angular and rounded sandstone, limestone, ash, slag and clinker.	6	
		8.00 8.00	B C	N=20 (3,5/4,5,6,5)				7	
								8	
					9.10				
		9.50	C	N=3 (1,0/1,0,1,1)			Soft grey silty sandy gravelly CLAY. Gravel is fine to coarse sub angular and sub rounded sandstone.	9	
					9.90		Medium dense slightly clayey sandy GRAVEL. Gravel is fine to coarse	10	

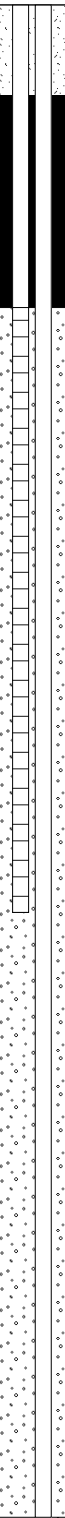
Remarks: 1. Chiselling from 14.2mbgl and 14.5mbgl for 0.5 hours. 2. Perched groundwater encountered at 2.8mbg and rising to 1.9mbgl after 20 minutes. 3. Terminated at 14.5mbgl.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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 Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Harvey Crescent		Project No.: 14128		Borehole No.: BH2 Sheet 3 of 3	
		Location: Port Talbot		Client: Coastal Housing Group		Coordinates:	
Equipment: Dando 2022		Diameter of Casing: 150+200mm		Level:		Scale 1:25	
Diameter of Boring: 200+150mm		Depth of Casing: 14.20+9.50m		Dates 28/11/2022 - 29/11/2022		Logged By: LS	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		11.00	C	N=15 (2,2/3,3,3,6)	11.80		sub angular and sub rounded sandstone.	11	
		12.50	B	N=29 (3,6/7,6,7,9)			Medium dense becoming dense dark brown and grey sandy gravelly COBBLES. Gravel and cobbles are sub angular to rounded sandstone.	12	
		12.50	C					13	
		14.00	C	N=84 (4,8/12,23,27,22)				14	
					14.50		End of Borehole at 14.50 m	15	

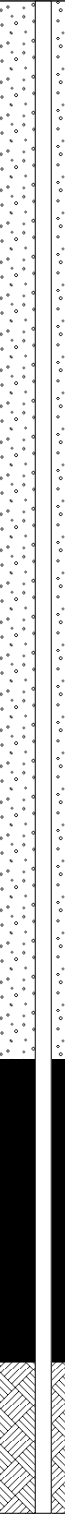
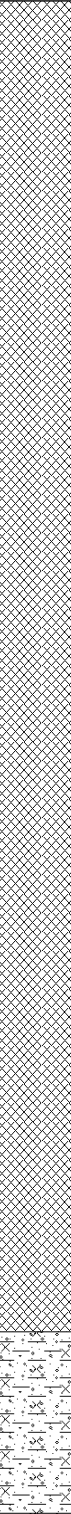
Remarks: 1. Chiselling from 14.2mbgl and 14.5mbgl for 0.5 hours. 2. Perched groundwater encountered at 2.8mbg and rising to 1.9mbgl after 20 minutes. 3. Terminated at 14.5mbgl.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Harvey Crescent		Project No.: 14128		Borehole No.: BH3 Sheet 1 of 3	
Location: Port Talbot				Client: Coastal Housing Group		Coordinates:		Hole Type: CP	
Equipment: Dando 2000				Diameter of Casing: 150+200mm		Level:		Scale 1:25	
Diameter of Boring: 200+150mm				Depth of Casing: 12.10+9.50m		Dates 01/12/2022 - 02/12/2022		Logged By: LS	

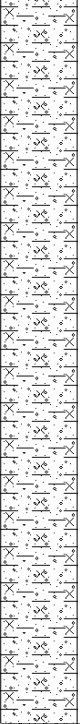
Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.00 1.00	D C	N=9 (1,1/5,2,1,1)			(MADE GROUND) Loose dark yellow brown and beige silty SAND.	1	
		2.00	C	N=4 (1,1/1,1,1,1)				2	
		3.00 3.00	D C	N=3 (1,0/1,0,1,1)				3	
		4.00	C	N=4 (1,0/1,0,1,2)				4	
		5.00	D					5	

Remarks: 1. Chiselling from 12.1mbgl and 12.4mbgl for 2 hours. 2. Perched groundwater encountered at 2.7mbgl, rising to 1.9mbgl after 20 minutes. 3. Terminated at 12.4mbgl due to cobble obstruction.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Harvey Crescent		Project No.: 14128		Borehole No.: BH3 Sheet 2 of 3	
Location: Port Talbot				Client: Coastal Housing Group		Coordinates:		Hole Type: CP	
Equipment: Dando 2000				Diameter of Casing: 150+200mm		Level:		Scale 1:25	
Diameter of Boring: 200+150mm				Depth of Casing: 12.10+9.50m		Dates 01/12/2022 - 02/12/2022		Logged By: LS	

Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		5.00	C	N=5 (1,0/1,1,1,2)					
		6.50	D	N=27 (4,5/5,6,8,8)					
		6.50	C						
		8.00	D	N=10 (2,3/2,3,2,3)					
		8.00	C						
		9.50	D	N=3 (1,0/1,0,1,1)	9.40		Soft dark grey slightly sandy slightly gravelly peaty silty CLAY. Gravel is fine to coarse sub angular and sub rounded sandstone.		
		9.50	C						

Remarks: 1. Chiselling from 12.1mbgl and 12.4mbgl for 2 hours. 2. Perched groundwater encountered at 2.7mbgl, rising to 1.9mbgl after 20 minutes. 3. Terminated at 12.4mbgl due to cobble obstruction.		Key: D - Small disturbed sample B - Bulk disturbed sample ES - Environmental soil sample SPT - Standard Penetration Test (split spoon) CPT - Standard Penetration Test (solid cone)		W - Water sample U - Undisturbed sample TCR - Total Core Recovery SCR - Solid Core Recovery RQD - Rock Quality Designation		
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		Intégral House, 7 Beddau Way Castlegate Business Park Caerphilly CF83 2AX Tel. 029 20807991 Fax. 029 20862176 mail@integralgeotec.com		Project Name: Harvey Crescent			Project No.: 14128		Borehole No.: BH3 Sheet 3 of 3	
Location: Port Talbot				Client: Coastal Housing Group			Coordinates:		Hole Type: CP	
Equipment: Dando 2000				Diameter of Casing: 150+200mm			Level:		Scale 1:25	
Diameter of Boring: 200+150mm				Depth of Casing: 12.10+9.50m			Dates 01/12/2022 - 02/12/2022		Logged By: LS	
Well	Water Strikes	Samples & In situ Testing			Depth (m)	Level (m AOD)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		11.00	C	N=2 (1,0/0,1,0,1)					11	
										12
		12.40	D		12.40			Dense dark grey sandy slightly clayey GRAVEL and COBBLES of sub angular to rounded sandstone. Gravel is fine to coarse sub angular and angular sandstone.	13	
		12.40	C	50 (0 for 25mm/50 for 0mm)	12.50				14	
									15	

Remarks:

1. Chiselling from 12.1mbgl and 12.4mbgl for 2 hours. 2. Perched groundwater encountered at 2.7mbgl, rising to 1.9mbgl after 20 minutes. 3. Terminated at 12.4mbgl due to cobble obstruction.

Key:

D - Small disturbed sample	W - Water sample
B - Bulk disturbed sample	U - Undisturbed sample
ES - Environmental soil sample	TCR - Total Core Recovery
SPT - Standard Penetration Test (split spoon)	SCR - Solid Core Recovery
CPT - Standard Penetration Test (solid cone)	RQD - Rock Quality Designation



APPENDIX F

LABORATORY CHEMICAL TEST RESULTS (SOILS)

Lauren Smith
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7 Beddau Way
Castlegate Business Park
CF83 2AX

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Analytical Report Number : 22-13940

Replaces Analytical Report Number: 22-13940, issue no. 1
Additional analysis undertaken.

Project / Site name:	Harvey Crescent, Port Talbot	Samples received on:	19/12/2022
Your job number:	14128	Samples instructed on/ Analysis started on:	19/12/2022
Your order number:		Analysis completed by:	05/01/2023
Report Issue Number:	2	Report issued on:	13/01/2023
Samples Analysed:	9 soil samples		

Signed:

Izabela Wójcik

Izabela Wójcik
Reporting Specialist
For & on behalf of i2 Analytical Ltd.

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

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

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

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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

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

Analytical Report Number: 22-13940

Project / Site name: Harvey Crescent, Port Talbot

Lab Sample Number				2537682	2537683	2537684	2537685	2537686
Sample Reference				TP01	TP02	TP02	TP03	TP03
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.10	0.40	0.20	0.50
Date Sampled				19/12/2022	19/12/2022	19/12/2022	19/12/2022	19/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status					
Stone Content	%	0.1	NONE	7.9	< 0.1	< 0.1	< 0.1	13
Moisture Content	%	0.01	NONE	8.4	9.4	9	9	7.5
Total mass of sample received	kg	0.001	NONE	1	0.4	1	1	1

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	-	-	Chrysotile	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	Detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	-	-	< 0.001	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	-	-	< 0.001	-	-
Asbestos Analyst ID	N/A	N/A	N/A	MLO	MLO	MLO	MLO	MLO

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	10.1	10	9.2	9.5	9.3
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	2300	3600	2600	1800	2200
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.25	0.36	0.28	0.16	0.28
Sulphide	mg/kg	1	MCERTS	55	97	56	58	61
Total Sulphur	mg/kg	50	MCERTS	1200	1600	1400	880	830
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.3	1.6	1.5	1.3	1.1
Loss on Ignition @ 450oC	%	0.2	MCERTS	4.1	5.1	4.7	3.9	3.5

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	0.25	0.21	0.31*	0.26*	0.27*
Acenaphthylene	mg/kg	0.05	MCERTS	0.14	0.12	0.09*	0.05*	0.06*
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	0.07	0.06*	< 0.05*	0.06*
Fluorene	mg/kg	0.05	MCERTS	0.07	0.13	0.08*	0.05*	0.08*
Phenanthrene	mg/kg	0.05	MCERTS	1.1	1.1	1*	0.78*	0.94*
Anthracene	mg/kg	0.05	MCERTS	0.27	0.27	0.23*	0.16*	0.2*
Fluoranthene	mg/kg	0.05	MCERTS	2.5	2.8	2.3*	1.5*	1.7*
Pyrene	mg/kg	0.05	MCERTS	2.9*	3.2*	2.8*	1.7*	2*
Benzo(a)anthracene	mg/kg	0.05	MCERTS	1.6	1.7	1.7*	0.92*	1*
Chrysene	mg/kg	0.05	MCERTS	2	2.1	1.6*	1.1*	1.3*
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	1.9	1.8	1.6*	1.1*	1.3*
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.89*	0.66*	0.82*	0.55*	0.49*
Benzo(a)pyrene	mg/kg	0.05	MCERTS	1.3*	1.2*	1.3*	0.89*	0.93*
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.77	0.7	0.6*	0.52*	0.54*
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.27	0.22	0.18*	0.13*	0.13*
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.94	0.85	0.72*	0.53*	0.58*

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	16.7	17.2	15.5*	10.3*	11.6*
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Analytical Report Number: 22-13940

Project / Site name: Harvey Crescent, Port Talbot

Lab Sample Number				2537682	2537683	2537684	2537685	2537686
Sample Reference				TP01	TP02	TP02	TP03	TP03
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.30	0.10	0.40	0.20	0.50
Date Sampled				19/12/2022	19/12/2022	19/12/2022	19/12/2022	19/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)				Units	Limit of detection	Accreditation Status		

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	26	24	29	26	23
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	0.74	1.3	0.83	0.67	0.52
Boron (water soluble)	mg/kg	0.2	MCERTS	1	0.6	0.6	1.3	1.5
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	< 0.2	< 0.2	< 0.2	1.3	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	31	31	28	32	20
Copper (aqua regia extractable)	mg/kg	1	MCERTS	58	77	72	73	52
Lead (aqua regia extractable)	mg/kg	1	MCERTS	370	310	390	560	400
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	17	18	19	16	15
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	39	44	40	40	25
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	530	490	590	700	500

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

*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted and the failure justified as having no significant impact on sample data reported.

Analytical Report Number: 22-13940

Project / Site name: Harvey Crescent, Port Talbot

Lab Sample Number				2537687	2537688	2537689	2537690
Sample Reference				TP04	TP05	TP06	TP07
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.30	0.30	0.10
Date Sampled				19/12/2022	19/12/2022	19/12/2022	19/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Stone Content	%	0.1	NONE	5.8	42	8	< 0.1
Moisture Content	%	0.01	NONE	7.7	6.4	7.3	8.7
Total mass of sample received	kg	0.001	NONE	1	1	1	1

Asbestos in Soil Screen / Identification Name	Type	N/A	ISO 17025	Chrysotile	-	-	-
Asbestos in Soil	Type	N/A	ISO 17025	Detected	Not-detected	Not-detected	Not-detected
Asbestos Quantification (Stage 2)	%	0.001	ISO 17025	0.001	-	-	-
Asbestos Quantification Total	%	0.001	ISO 17025	0.001	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	MLO	MLO	MLO	MLO

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	9.6	11.2	10	9
Total Cyanide	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Total Sulphate as SO ₄	mg/kg	50	MCERTS	2800	4800	2200	1700
Water Soluble SO ₄ 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.35	0.1	0.13	0.13
Sulphide	mg/kg	1	MCERTS	87	60	40	89
Total Sulphur	mg/kg	50	MCERTS	1300	2100	1200	1000
Total Organic Carbon (TOC) - Automated	%	0.1	MCERTS	1.3	1.1	1.2	2.4
Loss on Ignition @ 450oC	%	0.2	MCERTS	4	3.5	3.7	5.3

Total Phenols

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

Naphthalene	mg/kg	0.05	MCERTS	0.27*	0.23*	0.25*	0.31*
Acenaphthylene	mg/kg	0.05	MCERTS	0.31*	0.06*	0.07*	0.11*
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05*	< 0.05*	0.09*	< 0.05*
Fluorene	mg/kg	0.05	MCERTS	0.05*	< 0.05*	0.13*	0.07*
Phenanthrene	mg/kg	0.05	MCERTS	0.74*	0.53*	1.8*	0.89*
Anthracene	mg/kg	0.05	MCERTS	0.28*	0.13*	0.4*	0.19*
Fluoranthene	mg/kg	0.05	MCERTS	2.3*	1.8*	3.6*	2.3*
Pyrene	mg/kg	0.05	MCERTS	2.3*	2.2*	3.3*	2.6*
Benzo(a)anthracene	mg/kg	0.05	MCERTS	2*	1*	2.1*	1.7*
Chrysene	mg/kg	0.05	MCERTS	2.2*	1.3*	2*	1.7*
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	3*	1.3*	2.5*	1.9*
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	1.1*	0.44*	0.73*	0.89*
Benzo(a)pyrene	mg/kg	0.05	MCERTS	2*	0.91*	1.7*	1.5*
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	1*	0.52*	0.92*	0.82*
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.29*	0.12*	0.21*	0.2*
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	1.2*	0.53*	0.88*	0.86*

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	18.9*	11.1*	20.7*	16*
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Analytical Report Number: 22-13940

Project / Site name: Harvey Crescent, Port Talbot

Lab Sample Number				2537687	2537688	2537689	2537690
Sample Reference				TP04	TP05	TP06	TP07
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.20	0.30	0.30	0.10
Date Sampled				19/12/2022	19/12/2022	19/12/2022	19/12/2022
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	Units	Limit of detection	Accreditation Status				
Heavy Metals / Metalloids							
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	26	26	20	36
Beryllium (aqua regia extractable)	mg/kg	0.06	MCERTS	1.1	0.78	0.64	0.82
Boron (water soluble)	mg/kg	0.2	MCERTS	0.5	0.4	< 0.2	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	1.1	< 0.2	< 0.2	< 0.2
Chromium (hexavalent)	mg/kg	1.8	MCERTS	< 1.8	< 1.8	< 1.8	< 1.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	30	19	25	28
Copper (aqua regia extractable)	mg/kg	1	MCERTS	58	66	46	100
Lead (aqua regia extractable)	mg/kg	1	MCERTS	440	450	270	660
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	< 0.3	< 0.3	< 0.3	< 0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	16	14	14	20
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0
Vanadium (aqua regia extractable)	mg/kg	1	MCERTS	44	30	37	42
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	590	550	400	930

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

*Data reported unaccredited due to quality control parameter failure associated with this result; other checks applied prior to reporting the data have been accepted and the failure justified as having no significant impact on sample data reported.

Analytical Report Number: 22-13940
Project / Site name: Harvey Crescent, Port Talbot
Your Order No:

Certificate of Analysis - Asbestos Quantification

Methods:

Qualitative Analysis

The samples were analysed qualitatively for asbestos by polarising light and dispersion staining as described by the Health and Safety Executive in HSG 248.

Quantitative Analysis

The analysis was carried out using our documented in-house method A006-PL based on HSE Contract Research Report No: 83/1996: Development and Validation of an analytical method to determine the amount of asbestos in soils and loose aggregates (Davies et al, 1996) and HSG 248. Our method includes initial examination of the entire representative sample, then fractionation and detailed analysis of each fraction, with quantification by hand picking and weighing.

The limit of detection (reporting limit) of this method is 0.001 %.

The method has been validated using samples of at least 100 g, results for samples smaller than this should be interpreted with caution.

Both Qualitative and Quantitative Analyses are UKAS accredited.

Sample Number	Sample ID	Sample Depth (m)	Sample Weight (g)	Asbestos Containing Material Types Detected (ACM)	PLM Results	Asbestos by hand picking/weighing (%)	Total % Asbestos in Sample
2537684	TP02	0.40	151	Loose Fibres	Chrysotile	< 0.001	< 0.001
2537687	TP04	0.20	152	Loose Fibrous Debris	Chrysotile	0.001	0.001

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Analytical Report Number : 22-13940

Project / Site name: Harvey Crescent, Port Talbot

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

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

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2537682	TP01	None Supplied	0.3	Brown loam and clay with gravel and vegetation.
2537683	TP02	None Supplied	0.1	Brown loam and clay with gravel and vegetation.
2537684	TP02	None Supplied	0.4	Brown loam and clay with gravel and vegetation.
2537685	TP03	None Supplied	0.2	Brown loam and clay with gravel and vegetation.
2537686	TP03	None Supplied	0.5	Brown loam and clay with gravel and vegetation.
2537687	TP04	None Supplied	0.2	Brown loam and clay with gravel and vegetation.
2537688	TP05	None Supplied	0.3	Brown loam and clay with gravel and brick.
2537689	TP06	None Supplied	0.3	Brown sandy loam with gravel and vegetation.
2537690	TP07	None Supplied	0.1	Brown sandy loam with gravel and clinker

Analytical Report Number : 22-13940

Project / Site name: Harvey Crescent, Port Talbot

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Loss on ignition of soil @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace.	In house method.	L047-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total sulphate (as SO ₄ in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total Sulphur in soil	Determination of total sulphur in soil by extraction with aqua-regia, potassium bromide/bromate followed by ICP-OES.	In house method.	L038-PL	D	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon (Automated) in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In house method.	L009-PL	D	MCERTS
Asbestos Quantification - Gravimetric	Asbestos quantification by gravimetric method - in house method based on references.	HSE Report No: 83/1996, HSG 248, HSG 264 & SCA Blue Book (draft).	A006-PL	D	ISO 17025
Hexavalent chromium in soil	Determination of hexavalent chromium in soil by extraction in NaOH and addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method	L080-PL	W	MCERTS

Analytical Report Number : 22-13940

Project / Site name: Harvey Crescent, Port Talbot

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Mr Davies
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly CF83 2AX
Caerphilly

05 May 2010

Test Report: COV/682400/2010

Dear Mr Davies

Analysis of your sample(s) submitted on 26 March 2010 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out is included with this report.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using STL and we look forward to receiving your next samples.

Yours Sincerely,

Signed: 

Name: J. Fell

Title: Chemistry Operations Manager

STL Coventry

STL Business Centre, Torrington Avenue,
Coventry, CV4 9GU

Tel: +44 (0)24 7642 1213

Fax: +44 (0)24 7685 6575

www.stl-ltd.com

Severn Trent Laboratories Limited

Registered in England & Wales Registration No. 2148934 Registered Office: 2297 Coventry Road, Birmingham B26



Report Summary



1314
0897
1229
1510



STL

Mr Ryan Davies
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly
Caerphilly
CF83 2AX

Date of Issue: **05 May 2010**

Report Number: **COV/682400/2010**

Issue **3**

Job Description: Integral General Project

Job Location: 10608 Harvey Crescent, Port Talbot

Number of Samples
included in this report **14**

Job Received: **26 March 2010**

Number of Test Results
included in this report **579**

Analysis Commenced: **29 March 2010**

Signed:

Name: **J. Fell**

Date: **05 May 2010**

Title: **Chemistry Operations Manager**

STL was not responsible for sampling unless otherwise stated. Sampling is not covered by our UKAS accreditation.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested. Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

MCERTS accreditation refers to analysis carried out at our STL Midlands site only.

Analysis carried out on air-dried and ground test portion of the sample(s), unless otherwise stated. Air drying is carried out at not greater than 30 degrees C. Samples are not preserved on site, unless otherwise stated.

All results are reported on an air-dried basis following removal of stones.

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Certificate of Analysis



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0897
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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676556**

Sample **1** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP1 @ 0.50m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	16	%	01/04/2010		N Mid	Stones
Moisture content at 30C	6.1	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	8.2	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	0.55	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.36	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	<0.10	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	3.2	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	<5.0	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	<2.0	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	1.7	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	8.8	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	15	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Loss on ignition, dried solids	0.61	%	09/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	110	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	0.87	%	12/04/2010		N Mid	27
pH	10.0	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	140	mg/kg	06/04/2010		M Mid	51
Naphthalene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.010	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	0.013	mg/kg	06/04/2010		M Mid	313
Pyrene	0.012	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

Severn Trent Laboratories Ltd.

Certificate of Analysis



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STL

Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676556**

Sample **1** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP1 @ 0.50m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	<0.010	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	<0.10	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	<0.060	g/l	07/04/2010		Y Mid	46

Analyst Comments for 11676556:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

Certificate of Analysis



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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676557**

Sample **2** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP3 @ 0.30m**

Visual Description: **Brown loam with occasional stone and some organic matter**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	55	%	01/04/2010		N Mid	Stones
Moisture content at 30C	18	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	18	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	0.76	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.78	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	0.14	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	20	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	22	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	170	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	20	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	0.38	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	30	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	150	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Chloride as Cl, Total	550	mg/kg	12/04/2010		N Mid	24
Loss on ignition, dried solids	5.2	%	09/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	<7.5	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	1.8	%	12/04/2010		N Mid	27
pH	8.6	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	0.025	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	0.022	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	0.023	mg/kg	06/04/2010		M Mid	313
Fluorene	0.022	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.074	mg/kg	06/04/2010		M Mid	313
Anthracene	0.025	mg/kg	06/04/2010		M Mid	313
Fluoranthene	0.15	mg/kg	06/04/2010		M Mid	313
Pyrene	0.12	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	0.056	mg/kg	06/04/2010		M Mid	313
Chrysene	0.074	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	0.11	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	0.055	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	0.066	mg/kg	06/04/2010		M Mid	313

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STL

Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676557**

Sample **2** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP3 @ 0.30m**

Visual Description: **Brown loam with occasional stone and some organic matter**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Indeno(1,2,3-c,d)pyrene	0.042	mg/kg	06/04/2010		M Mid	313
Dibenz(a,h)anthracene	0.015	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	0.057	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	0.94	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	<0.060	g/l	07/04/2010		Y Mid	46

Analyst Comments for 11676557:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.
I/S=Insufficient sample

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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676558**

Sample **3** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP3 @ 0.70m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	3.7	%	01/04/2010		N Mid	Stones
Moisture content at 30C	7.1	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	9.9	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	<0.30	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.30	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	<0.10	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	<1.0	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	<5.0	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	<2.0	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	2.3	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	10.0	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	<5.0	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Loss on ignition, dried solids	0.61	%	09/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	<7.5	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	0.68	%	12/04/2010		N Mid	27
pH	9.3	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	<0.010	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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STL

Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676558**

Sample **3** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP3 @ 0.70m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	<0.010	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	<0.10	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	<0.060	g/l	07/04/2010		Y Mid	46

Analyst Comments for 11676558:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676559**

Sample **4** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP4 @ 0.40m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	5.9	%	01/04/2010		N Mid	Stones
Moisture content at 30C	11	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	9.6	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	<0.30	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.26	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	<0.10	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	<1.0	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	<5.0	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	<2.0	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	2.1	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	9.5	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	<5.0	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Loss on ignition, dried solids	0.87	%	09/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	<7.5	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	0.66	%	12/04/2010		N Mid	27
pH	9.3	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	<0.010	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	0.010	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676559**

Sample **4** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP4 @ 0.40m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	0.010	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	<0.10	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	<0.060	g/l	07/04/2010		Y Mid	46

Analyst Comments for 11676559:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676560**

Sample **5** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP5 @ 0.40m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	5.8	%	01/04/2010		N Mid	Stones
Moisture content at 30C	5.7	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	9.4	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	<0.30	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.42	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	<0.10	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	<1.0	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	<5.0	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	<2.0	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	2.2	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	9.8	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	<5.0	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Loss on ignition, dried solids	0.68	%	09/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	<7.5	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	0.92	%	12/04/2010		N Mid	27
pH	9.6	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.019	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	0.038	mg/kg	06/04/2010		M Mid	313
Pyrene	0.031	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	0.016	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	0.022	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	0.011	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	0.017	mg/kg	06/04/2010		M Mid	313
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676560**

Sample **5** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP5 @ 0.40m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	0.015	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	0.18	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	<0.060	g/l	07/04/2010		Y Mid	46

Analyst Comments for 11676560:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676561**

Sample **6** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP6 @ 0.30m**

Visual Description: **Brown loam with some stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	39	%	01/04/2010		N Mid	Stones
Moisture content at 30C	10.0	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	13	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	0.43	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.59	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	<0.10	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	10	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	11	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	20	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	5.8	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	16	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	42	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Loss on ignition, dried solids	3.6	%	12/04/2010		M Mid	337
Sulphate, Total as SO4 dw	700	mg/kg	08/04/2010		M Mid	45
Sulphide	15	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	4.2	%	12/04/2010		N Mid	27
pH	9.0	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	0.054	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	0.036	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.11	mg/kg	06/04/2010		M Mid	313
Anthracene	0.021	mg/kg	06/04/2010		M Mid	313
Fluoranthene	0.22	mg/kg	06/04/2010		M Mid	313
Pyrene	0.22	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	0.13	mg/kg	06/04/2010		M Mid	313
Chrysene	0.15	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	0.22	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	0.12	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	0.16	mg/kg	06/04/2010		M Mid	313
Indeno(1,2,3-c,d)pyrene	0.15	mg/kg	06/04/2010		M Mid	313

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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676561**

Sample **6** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP6 @ 0.30m**

Visual Description: **Brown loam with some stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Dibenz(a,h)anthracene	0.020	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	0.17	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	1.8	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	0.091	g/l	07/04/2010		Y Mid	46

Analyst Comments for 11676561:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676562**

Sample **7** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP6 @ 0.70m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	1.7	%	01/04/2010		N Mid	Stones
Moisture content at 30C	11	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	9.7	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	<0.30	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.30	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	<0.10	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	<1.0	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	<5.0	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	<2.0	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	2.0	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	9.4	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	<5.0	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Loss on ignition, dried solids	0.66	%	12/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	<7.5	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	1.0	%	12/04/2010		N Mid	27
pH	9.3	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	<0.010	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676562**

Sample **7** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP6 @ 0.70m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	<0.010	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	<0.10	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	<0.060	g/l	08/04/2010		Y Mid	46

Analyst Comments for 11676562:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676563**

Sample **8** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH1 @ 11.50m**

Visual Description: **Grey gravel many stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	64	%	01/04/2010		N Mid	Stones
Moisture content at 30C	4.8	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	3.5	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	0.58	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.71	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	0.16	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	9.5	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	<5.0	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	<2.0	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	25	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	12	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	49	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Chloride as Cl, Total	770	mg/kg	12/04/2010		N Mid	24
Loss on ignition, dried solids	2.1	%	12/04/2010		M Mid	337
Sulphate, Total as SO4 dw	400	mg/kg	08/04/2010		M Mid	45
Sulphide	<7.5	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	0.57	%	12/04/2010		N Mid	27
pH	7.5	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.014	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676563**

Sample **8** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH1 @ 11.50m**

Visual Description: **Grey gravel many stone**

Sample Date: **22 March 2010** Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	<0.010	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	<0.10	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	0.36	g/l	08/04/2010		Y Mid	46

Analyst Comments for 11676563: No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.
I/S=Insufficient sample

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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676564**

Sample **9** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH1 @ 1.50m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	6.4	%	01/04/2010		N Mid	Stones
Moisture content at 30C	17	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	8.7	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	<0.30	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.36	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	<0.10	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	3.4	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	<5.0	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	<2.0	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	2.0	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	8.9	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	17	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Loss on ignition, dried solids	0.77	%	12/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	<7.5	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	0.85	%	12/04/2010		N Mid	27
pH	9.7	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.020	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	0.026	mg/kg	06/04/2010		M Mid	313
Pyrene	0.023	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	0.012	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	0.013	mg/kg	06/04/2010		M Mid	313
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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Matrix: **Soil - Sand**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676564**

Sample **9** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH1 @ 1.50m**

Visual Description: **Brown sand with occasional stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	0.011	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	0.11	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	<0.060	g/l	08/04/2010		Y Mid	46

Analyst Comments for 11676564:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676565**

Sample **10** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH3 @ 12.50m**

Visual Description: **Grey clay with many stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	61	%	01/04/2010		N Mid	Stones
Moisture content at 30C	8.8	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	6.2	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	0.51	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	1.1	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	0.28	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	11	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	6.2	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	<2.0	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	20	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	11	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	59	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	25	mg/kg	01/04/2010		Y Mid	40A
Chloride as Cl, Total	1100	mg/kg	12/04/2010		N Mid	24
Loss on ignition, dried solids	2.7	%	12/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	11	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	1.1	%	12/04/2010		N Mid	27
pH	8.4	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	110	mg/kg	06/04/2010		M Mid	51
Naphthalene	0.014	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.035	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	0.015	mg/kg	06/04/2010		M Mid	313
Pyrene	0.014	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676565**

Sample **10** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH3 @ 12.50m**

Visual Description: **Grey clay with many stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	<0.010	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	<0.10	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	0.070	g/l	08/04/2010		Y Mid	46

Analyst Comments for 11676565:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.
I/S=Insufficient sample

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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676566**

Sample **11** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH1 @ 5.00m**

Visual Description: **Black clay with some stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	55	%	01/04/2010		N Mid	Stones
Moisture content at 30C	31	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	27	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	0.89	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	1.9	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	<0.10	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	16	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	110	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	79	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	23	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	0.46	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	28	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	200	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Loss on ignition, dried solids	7.4	%	12/04/2010		M Mid	337
Sulphate, Total as SO4 dw	910	mg/kg	08/04/2010		M Mid	45
Sulphide	<7.5	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	4.9	%	12/04/2010		N Mid	27
pH	8.0	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	1700	mg/kg	07/04/2010		M Mid	51
Naphthalene	0.44	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	0.016	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	0.18	mg/kg	06/04/2010		M Mid	313
Fluorene	0.29	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.95	mg/kg	06/04/2010		M Mid	313
Anthracene	0.23	mg/kg	06/04/2010		M Mid	313
Fluoranthene	1.0	mg/kg	06/04/2010		M Mid	313
Pyrene	0.68	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	0.33	mg/kg	06/04/2010		M Mid	313
Chrysene	0.31	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	0.36	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	0.17	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	0.24	mg/kg	06/04/2010		M Mid	313
Indeno(1,2,3-c,d)pyrene	0.16	mg/kg	06/04/2010		M Mid	313

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STL

Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676566**

Sample **11** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH1 @ 5.00m**

Visual Description: **Black clay with some stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Dibenz(a,h)anthracene	0.029	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	0.17	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	5.6	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	0.15	g/l	08/04/2010		Y Mid	46

Analyst Comments for 11676566:

{/*}Sulphur Analysis: Detection limits raised due to result over routine calibration range.{*/}

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

Certificate of Analysis



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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676567**

Sample **12** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH2 @ 9.50m**

Visual Description: **Grey clay with occasoinal stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	65	%	01/04/2010		N Mid	Stones
Moisture content at 30C	32	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	13	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	0.95	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	5.8	mg/kg	06/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	0.14	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	26	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	8.9	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	15	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	23	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	30	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	87	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	08/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Chloride as Cl, Total	830	mg/kg	12/04/2010		N Mid	24
Loss on ignition, dried solids	6.4	%	12/04/2010		M Mid	337
Sulphate, Total as SO4 dw	800	mg/kg	08/04/2010		M Mid	45
Sulphide	25	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	3.1	%	12/04/2010		N Mid	27
pH	8.2	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	0.018	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.033	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	0.023	mg/kg	06/04/2010		M Mid	313
Pyrene	0.018	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	0.012	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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STL

Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676567**

Sample **12** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH2 @ 9.50m**

Visual Description: **Grey clay with occasoinal stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	<0.010	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	0.10	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	<0.060	g/l	08/04/2010		Y Mid	46

Analyst Comments for 11676567:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.
I/S=Insufficient sample

Certificate of Analysis



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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676568**

Sample **13** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH2 @ 8.00m**

Visual Description: **Black gravel with many stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	75	%	01/04/2010		N Mid	Stones
Moisture content at 30C	5.1	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	5.3	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	1.1	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.49	mg/kg	07/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	0.41	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	14	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	17	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	6.8	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	12	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	43	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	17	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	09/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Loss on ignition, dried solids	2.8	%	12/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	38	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	2.0	%	12/04/2010		N Mid	27
pH	8.3	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	0.018	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.035	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	0.023	mg/kg	06/04/2010		M Mid	313
Pyrene	0.019	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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STL

Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676568**

Sample **13** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH2 @ 8.00m**

Visual Description: **Black gravel with many stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	<0.010	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	<0.10	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	0.077	g/l	08/04/2010		Y Mid	46

Analyst Comments for 11676568:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676569**

Sample **14** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH2 @ 12.50m**

Visual Description: **Grey gravel with many stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received: **26 March 2010**

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Stones NG Method	67	%	01/04/2010		N Mid	Stones
Moisture content at 30C	2.4	%	01/04/2010		N Mid	33A
Arsenic as As, dry weight	1.8	mg/kg	12/04/2010		M Mid	30/30C
Beryllium as Be, dry weight	0.30	mg/kg	09/04/2010		M Mid	30
Boron as B, hot water sol dw	0.53	mg/kg	07/04/2010		M Mid	6
Cadmium as Cd, dry weight	<0.20	mg/kg	09/04/2010		M Mid	30
Hexavalent Chromium as dw	0.18	mg/kg	06/04/2010		N Mid	30B
Chromium as Cr, dry weight	9.5	mg/kg	13/04/2010		M Mid	30
Copper as Cu, dry weight	<5.0	mg/kg	09/04/2010		M Mid	30
Lead as Pb, dry weight	<2.0	mg/kg	09/04/2010		M Mid	30
Mercury as Hg, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Nickel as Ni, dry weight	19	mg/kg	09/04/2010		M Mid	30
Selenium as Se, dry weight	<0.35	mg/kg	12/04/2010		M Mid	30C
Vanadium as V, dry weight	9.4	mg/kg	09/04/2010		M Mid	30
Zinc as Zn, dry weight	36	mg/kg	13/04/2010		M Mid	30
Cyanide, Total dry weight	<2.5	mg/kg	09/04/2010		Y Mid	14
Monohydric Phenols, Dry Weight	<0.50	mg/kg	01/04/2010		Y Mid	40A
Chloride as Cl, Total	1200	mg/kg	12/04/2010		N Mid	24
Loss on ignition, dried solids	1.6	%	12/04/2010		M Mid	337
Sulphate, Total as SO4 dw	<240	mg/kg	08/04/2010		M Mid	45
Sulphide	<7.5	mg/kg	08/04/2010		M Mid	47
TOC by Ignition in O2	0.75	%	12/04/2010		N Mid	27
pH	8.9	pH units	08/04/2010		Y Mid	39
Sulphur, Elemental	<100	mg/kg	06/04/2010		M Mid	51
Naphthalene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthylene	<0.010	mg/kg	06/04/2010		Y Mid	313
Acenaphthene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluorene	<0.010	mg/kg	06/04/2010		M Mid	313
Phenanthrene	0.015	mg/kg	06/04/2010		M Mid	313
Anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Chrysene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(b)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(k)fluoranthene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(a)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313

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STL

Matrix: **Soil - Loam**

Report Number: **COV/682400/2010**

Issue **3**

Laboratory Number: **11676569**

Sample **14** of **14**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 BH2 @ 12.50m**

Visual Description: **Grey gravel with many stone**

Sample Date: **22 March 2010**

Sample Time:

Sample Received:

26 March 2010

Test Description	Result	Units	Analysis Date	UoM%	Accreditation	Method
Indeno(1,2,3-c,d)pyrene	<0.010	mg/kg	06/04/2010		M Mid	313
Dibenz(a,h)anthracene	<0.010	mg/kg	06/04/2010		M Mid	313
Benzo(g,h,i)perylene	<0.010	mg/kg	06/04/2010		Y Mid	313
PAH, Total of 16 EPA	<0.10	mg/kg	06/04/2010		Y Mid	313
Sulphate as SO ₄ , Water Soluble	0.064	g/l	08/04/2010		Y Mid	46

Analyst Comments for 11676569:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

Signed:

Name: **J. Fell**

Date: **05 May 2010**

Title: **Chemistry Operations Manager**

Date of Issue : 05 May 2010

Sample No	Description	Determinand	Comments

Signed: 	Name: J. Fell	Date: 05 May 2010
	Title: Chemistry Operations Manager	

METHOD COMMENTS FOR REPORT COV/682400/2010

Issue 3

Date of Issue :05 May 2010

Method	Statement
14	The cyanides in the sample are determined in two stages. The free cyanide is liberated by heating with pH 4 buffer and the resulting gas collected in sodium hydroxide solution. Complex cyanide is liberated using phosphoric acid under the same conditions. the two portions of sodium hydroxide are then analysed for cyanide content using a discrete autoanalyser. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
24	24
27	27
30	Metals are extracted from land samples by boiling with hydrochloric/nitric acids (3:1 ratio). The measurement of metal concentrations is determined directly on an ICP-OES at defined wavelengths. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
30/30C	Metals are extracted from land samples by boiling with hydrochloric/nitric acids (3:1 ratio). For the measurement of metal concentrations is determined on an ICP-OES at defined wavelengths. Where a result is 25mg/kg or above results are obtained directly. Otherwise results are obtained via hydride generation. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
30B	Hexavalent chromium is extracted from land samples using dilute hydrochloric acid. The extract is shaken and then filtered. The measurement of chromium in the filtrate is then determined directly by ICP-OES at a defined wavelength. This analysis is carried out on an air dried sample, ground to pass a 212?m sieve.
30C	Metals are extracted from land samples by boiling with hydrochloric/nitric acid (3:1 ratio). The measurement of metal concentrations is determined by means of hydride generation / atomic vapour on an ICP-OES at defined wavelengths. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
313	PAH?s are extracted from land samples using Dichloromethane, and sonication. An aliquot of the supernatant liquid is then transferred to a separate vial and analysed by GC-MS. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
337	The loss on ignition of a pre-weighted portion of soil is determined by gravimetry after 4 hours at 450?C. This analysis is carried out on an air dried sample, ground to pass a 212?m sieve.
33A	Moisture Content is the weight difference between an as received sample and the air dried sample at 30 degrees C.
39	The test is carried out by extraction using deionised water with agitation. The pH of this suspension is read directly from an electronic pH meter. This analysis is carried out on an air dried sample, ground to pass a 212?m sieve.
40A	This method determines steam distillable phenolic compounds in land materials. Phenol is extracted from air dried soil using steam distillation. The pH adjusted distillate is measured colorimetrically at a defined wavelength. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
45	The sulphates are extracted from land samples using boiling hydrochloric acid solution. After cooling and filtration the determination of sulphate is obtained from an aliquot of solution, via a turbidimetric measurement. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
46	Water soluble sulphate is content of land samples is extracted by shaking with deionised water. The resultant solution is filtered and the determination of sulphate is obtained turbidimetrically from this filtrate via a reaction with barium chloride. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
47	The sulphide content of land samples is determined via extraction with dilute sulphuric acid and steam distillation into zinc acetate solution and sodium hydroxide. The distillate is then titrated against sodium thiosulphate solution using iodine indicator. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
51	Elemental sulphur is extracted from land samples using dichloromethane by microwave assisted extraction. Samples are cooled, centrifuged and transferred to separate vials before analysis by HPLC. This analysis is carried out on an air dried sample, ground to pass a 2mm sieve.
6	Boron is extracted from land samples using boiling deionised water followed by vacuum filtration. The measurement of boron in the filtrate is then determined directly by ICP-OES at the defined wavelength. This analysis is carried out on an air-dried sample, ground to pass a 2mm sieve. For analysis by National Grid - Version 1.0, the samples are ground to pass a 212?m sieve.
Stones	The percentage weight of the stones that are naturally occurring and are greater than 10mm in diameter of the total weight of sample.

APPENDIX G

LABORATORY CHEMICAL TEST RESULTS (GROUNDWATER)



4041



Roger Hawkins

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Analytical Report Number : 22-12963

Project / Site name:	Harvey Crescent, Port Talbot	Samples received on:	14/12/2022
Your job number:	14128 RJH	Samples instructed on/ Analysis started on:	14/12/2022
Your order number:		Analysis completed by:	21/12/2022
Report Issue Number:	1	Report issued on:	21/12/2022
Samples Analysed:	3 water samples		

Signed:

Adam Fenwick
Technical Reviewer
For & on behalf of i2 Analytical Ltd.

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

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

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

soils	- 4 weeks from reporting
leachates	- 2 weeks from reporting
waters	- 2 weeks from reporting
asbestos	- 6 months from reporting

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



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Analytical Report Number: 22-12963

Project / Site name: Harvey Crescent, Port Talbot

Lab Sample Number				2531077	2531078	2531079
Sample Reference				BH 1	BH 2	BH 3
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				12/12/2022	12/12/2022	12/12/2022
Time Taken				1205	1225	1255
Analytical Parameter (Water Analysis)				Units	Limit of detection	Accreditation Status

General Inorganics

pH	pH Units	N/A	ISO 17025	7.6	7.6	7.7
Total Cyanide	µg/l	10	ISO 17025	< 10	< 10	< 10
Sulphate as SO ₄	µg/l	45	ISO 17025	50800	71900	89100
Total Sulphur	µg/l	15	NONE	17000	24000	30000
Sulphide	µg/l	5	NONE	< 5.0	< 5.0	< 5.0
Dissolved Organic Carbon (DOC)	mg/l	0.1	ISO 17025	3.79	4.82	5.95
Total Organic Carbon (TOC)	mg/l	0.1	ISO 17025	4.42	5	6.25

Hardness - Total	mg/l	1	ISO 17025	363	298	384
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Total Phenols

Total Phenols (monohydric)	µg/l	10	ISO 17025	< 10	< 10	< 10
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Speciated PAHs

Naphthalene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Acenaphthylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Acenaphthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Fluorene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Phenanthrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(a)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Chrysene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(b)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(k)fluoranthene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(a)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Indeno(1,2,3-cd)pyrene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Dibenz(a,h)anthracene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01
Benzo(ghi)perylene	µg/l	0.01	ISO 17025	< 0.01	< 0.01	< 0.01

Total PAH

Total EPA-16 PAHs	µg/l	0.16	ISO 17025	< 0.16	< 0.16	< 0.16
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Analytical Report Number: 22-12963

Project / Site name: Harvey Crescent, Port Talbot

Lab Sample Number				2531077	2531078	2531079
Sample Reference				BH 1	BH 2	BH 3
Sample Number				None Supplied	None Supplied	None Supplied
Depth (m)				None Supplied	None Supplied	None Supplied
Date Sampled				12/12/2022	12/12/2022	12/12/2022
Time Taken				1205	1225	1255
Analytical Parameter (Water Analysis)	Units	Limit of detection	Accreditation Status			

Heavy Metals / Metalloids

Boron (dissolved)	µg/l	10	ISO 17025	98	190	160
Calcium (dissolved)	mg/l	0.012	ISO 17025	130	91	130
Chromium (hexavalent)	µg/l	5	ISO 17025	< 5.0	< 5.0	< 5.0
Magnesium (dissolved)	mg/l	0.005	ISO 17025	6.3	17	11

Arsenic (dissolved)	µg/l	0.15	ISO 17025	0.77	1.99	7.89
Beryllium (dissolved)	µg/l	0.1	ISO 17025	< 0.1	< 0.1	< 0.1
Cadmium (dissolved)	µg/l	0.02	ISO 17025	0.08	< 0.02	< 0.02
Chromium (dissolved)	µg/l	0.2	ISO 17025	0.5	< 0.2	< 0.2
Copper (dissolved)	µg/l	0.5	ISO 17025	4.1	2.8	2.6
Lead (dissolved)	µg/l	0.2	ISO 17025	0.3	< 0.2	< 0.2
Mercury (dissolved)	µg/l	0.05	ISO 17025	< 0.05	< 0.05	< 0.05
Nickel (dissolved)	µg/l	0.5	ISO 17025	1.6	2.6	2.5
Selenium (dissolved)	µg/l	0.6	ISO 17025	< 0.6	1	< 0.6
Vanadium (dissolved)	µg/l	0.2	ISO 17025	0.3	0.4	0.4
Zinc (dissolved)	µg/l	0.5	ISO 17025	8.3	19	9.5

Monoaromatics & Oxygenates

Benzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
Toluene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
Ethylbenzene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
p & m-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
o-xylene	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
MTBE (Methyl Tertiary Butyl Ether)	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0

Petroleum Hydrocarbons

TPH-CWG - Aliphatic >C5 - C6 _{HS_ID_AL}	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C6 - C8 _{HS_ID_AL}	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C8 - C10 _{HS_ID_AL}	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >C10 - C12 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C12 - C16 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C16 - C21 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C21 - C35 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic >C35 - C44 _{EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C35) _{HS+EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aliphatic (C5 - C44) _{HS+EH_ID_AL_MS}	µg/l	10	NONE	< 10	< 10	< 10

TPH-CWG - Aromatic >C5 - C7 _{HS_ID_AR}	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C7 - C8 _{HS_ID_AR}	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C8 - C10 _{HS_ID_AR}	µg/l	1	ISO 17025	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >C10 - C12 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	25
TPH-CWG - Aromatic >C12 - C16 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	34
TPH-CWG - Aromatic >C16 - C21 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C21 - C35 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic >C35 - C44 _{EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	< 10
TPH-CWG - Aromatic (C5 - C35) _{HS+EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	59
TPH-CWG - Aromatic (C5 - C44) _{HS+EH_ID_AR_MS}	µg/l	10	NONE	< 10	< 10	59

TPH-CWG Total C5 - C44 _{EH+HS_ID_TOTAL_MS}	µg/l	10	NONE	< 10	< 10	59
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U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected



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**Analytical Report Number : 22-12963****Project / Site name: Harvey Crescent, Port Talbot****Water matrix abbreviations:****Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)**

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Metals in water by ICP-MS (dissolved)	Determination of metals in water by acidification followed by ICP-MS. Accredited Matrices: SW, GW, PW except B=SW,GW, Hg=SW,PW, Al=SW,PW.	In-house method based on USEPA Method 6020 & 200.8 "for the determination of trace elements in water by ICP-MS.	L012-PL	W	ISO 17025
Metals in water by ICP-OES (dissolved)	Determination of metals in water by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW, PrW.(Al, Cu,Fe,Zn).	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Boron in water	Determination of boron in water by acidification followed by ICP-OES. Accredited matrices: SW PW GW	In-house method based on MEWAM	L039-PL	W	ISO 17025
Hexavalent chromium in water	Determination of hexavalent chromium in water by acidification, addition of 1,5 diphenylcarbazide followed by colorimetry.	In-house method by continuous flow analyser. Accredited Matrices SW, GW, PW.	L080-PL	W	ISO 17025
Total Hardness of water	Determination of hardness in waters by calculation from calcium and magnesium. Accredited Matrices SW, GW, PW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L045-PL	W	ISO 17025
Monohydric phenols in water	Determination of phenols in water by continuous flow analyser. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	ISO 17025
Speciated EPA-16 PAHs in water	Determination of PAH compounds in water by extraction in dichloromethane followed by GC-MS with the use of surrogate and internal standards. Accredited matrices: SW PW GW	In-house method based on USEPA 8270	L102B-PL	W	ISO 17025
Sulphide in water	Determination of sulphide in water by ion selective electrode.	In-house method	L029-PL	W	NONE
Sulphate in water	Determination of sulphate in water after filtration by acidification followed by ICP-OES. Accredited Matrices SW, GW, PW.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L039-PL	W	ISO 17025
Total Sulphur in water	Determination of total sulphur in water by acidification followed by ICP-OES.	In-house method based on MEWAM 1986 Methods for the Determination of Metals in Soil""	L039-PL	W	NONE
TPHCWG (Waters)	Determination of dichloromethane extractable hydrocarbons in water by GC-MS, speciation by interpretation.	In-house method	L070-PL	W	ISO 17025
Total cyanide in water	Determination of total cyanide by distillation followed by colorimetry. Accredited matrices: SW PW GW	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	ISO 17025
Total organic carbon in water	Determination of dissolved organic carbon in water by TOC/DOC NDIR analyser. Accredited matrices: SW PW GW.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	ISO 17025
Dissolved Organic Carbon in water	Determination of dissolved inorganic carbon in water by TOC/DOC NDIR Analyser.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton	L037-PL	W	ISO 17025
BTEX and MTBE in water (Monoaromatics)	Determination of BTEX and MTBE in water by headspace GC-MS. Accredited matrices: SW PW GW	In-house method based on USEPA8260	L073B-PL	W	ISO 17025
pH at 20oC in water (automated)	Determination of pH in water by electrometric measurement. Accredited matrices: SW PW GW	In house method.	L099-PL	W	ISO 17025
TPH in (Water)	Determination of TPH bands by HS-GC-MS/GC-MS	In-house method, TPH with carbon banding.	L070-PL	W	NONE



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Analytical Report Number : 22-12963

Project / Site name: Harvey Crescent, Port Talbot

Water matrix abbreviations:

Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
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For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).

For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).

For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
-	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

**Mr Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly CF83 2AX
Caerphilly**

13 April 2010

Test Report: COV/682402/2010

Dear Mr Hawkins

Analysis of your sample(s) submitted on 26 March 2010 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using STL and we look forward to receiving your next samples.

Yours Sincerely,

Signed: *L. Ellis*

Name: L. Ellis

Title: Inorganics Operations Manager

STL Coventry

STL Business Centre, Torrington Avenue,
Coventry, CV4 9GU

Tel: +44 (0)24 7642 1213

Fax: +44 (0)24 7685 6575

www.stl-ltd.com

Severn Trent Laboratories Limited

Registered in England & Wales Registration No. 2148934 Registered Office: 2297 Coventry Road, Birmingham B26



Report Summary



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Mr Roger Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly
Caerphilly
CF83 2AX

Date of Issue: **13 April 2010**

Report Number: **COV/682402/2010**

Issue **1**

Job Description: Integral General Project

Job Location: 10608 Harvey Crescent

Number of Samples
included in this report **3**

Job Received: **26 March 2010**

Number of Test Results
included in this report **366**

Analysis Commenced: **29 March 2010**

Signed: 

Name: **L. Ellis**

Date: **13 April 2010**

Title: **Inorganics Operations Manager**

STL was not responsible for sampling unless otherwise stated. Sampling is not covered by our UKAS accreditation.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

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Report Number: **COV/682402/2010**

Issue **1**

Laboratory Number: **11676577**

Sample **1** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP1**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	<0.3	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	0.0006	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0003	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	0.003	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.002	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	0.0014	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	0.0017	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.034	mg/l	Y Cov	WAS049
pH	7.2	pH units	Y Cov	WAS039
Hardness, Total as Ca (Calc)	104	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	1.1	mg/l	Y Cov	WAS036
Sulphate as SO4	56	mg/l	Y Cov	WAS036
Cyanide, Total as CN	<0.1	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.1	mg/l	Y Cov	WAS019
Sulphide as S	0.01	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/682402/2010**

Laboratory Number: **11676577**

Issue **1**

Sample **1** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP1**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received: **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44	<10	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	<10	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	<0.01	ug/l	Y Cov	GEO19
Acenaphthylene	<0.01	ug/l	Y Cov	GEO19
Anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.01	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	<0.01	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	<0.01	ug/l	Y Cov	GEO19
Fluorene	<0.01	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.01	ug/l	Y Cov	GEO19
Naphthalene	<0.01	ug/l	Y Cov	GEO19
Phenanthrene	<0.01	ug/l	Y Cov	GEO19
Pyrene	<0.01	ug/l	Y Cov	GEO19
PAH, Total	<0.01	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	N Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/682402/2010**

Laboratory Number: **11676577**

Issue **1**

Sample **1** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP1**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received: **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<2.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40

Severn Trent Laboratories Ltd.

STL Business Centre, Torrington Avenue, Coventry, CV4 9GU Tel:+44 (0)24 7642 1213 Fax:+44 (0)24 7685 6575

Certificate of Analysis



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Report Number: **COV/682402/2010**

Laboratory Number: **11676577**

Issue **1**

Sample **1** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP1**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received: **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
Chrysene	<1.0	ug/l	Y Cov	GEO40
Bis(2-ethylhexyl)phthalate	<10.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y Cov	GEO40
2-Fluorophenol	92.4	%Recovery	N Cov	GEO40
Phenol-d6	87.2	%Recovery	N Cov	GEO40
Nitrobenzene-d5	93.5	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	89.9	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	83.8	%Recovery	N Cov	GEO40
Terphenyl-d14	99.8	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	<0.001	mg/l	Y Cov	WAS051
Selenium, Total as Se	<0.001	mg/l	Y Cov	WAS051

Analyst Comments for 11676577:

SVOC sample subbed from 1l PET bottle.

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Report Number: **COV/682402/2010**

Issue **1**

Laboratory Number: **11676578**

Sample **2** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP2**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	<0.3	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	0.0005	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0003	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.001	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.002	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	0.0013	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	0.0022	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.019	mg/l	Y Cov	WAS049
pH	7.8	pH units	Y Cov	WAS039
Hardness, Total as Ca (Calc)	113	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	1.1	mg/l	Y Cov	WAS036
Sulphate as SO4	84	mg/l	Y Cov	WAS036
Cyanide, Total as CN	<0.1	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.1	mg/l	Y Cov	WAS019
Sulphide as S	0.02	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/682402/2010**

Laboratory Number: **11676578**

Issue **1**

Sample **2** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP2**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44	<10	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	<10	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	<0.01	ug/l	Y Cov	GEO19
Acenaphthylene	<0.01	ug/l	Y Cov	GEO19
Anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.01	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	<0.01	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	<0.01	ug/l	Y Cov	GEO19
Fluorene	<0.01	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.01	ug/l	Y Cov	GEO19
Naphthalene	<0.01	ug/l	Y Cov	GEO19
Phenanthrene	<0.01	ug/l	Y Cov	GEO19
Pyrene	<0.01	ug/l	Y Cov	GEO19
PAH, Total	<0.01	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	N Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/682402/2010**

Laboratory Number: **11676578**

Issue **1**

Sample **2** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP2**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<2.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/682402/2010**

Laboratory Number: **11676578**

Issue **1**

Sample **2** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP2**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received: **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
Chrysene	<1.0	ug/l	Y Cov	GEO40
Bis(2-ethylhexyl)phthalate	<10.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y Cov	GEO40
2-Fluorophenol	88.6	%Recovery	N Cov	GEO40
Phenol-d6	82.5	%Recovery	N Cov	GEO40
Nitrobenzene-d5	93.2	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	90.0	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	87.3	%Recovery	N Cov	GEO40
Terphenyl-d14	97.5	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	<0.001	mg/l	Y Cov	WAS051
Selenium, Total as Se	<0.001	mg/l	Y Cov	WAS051

Analyst Comments for 11676578:

SVOC sample subbed from 1l PET bottle.

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Report Number: **COV/682402/2010**

Issue **1**

Laboratory Number: **11676579**

Sample **3** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP3**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	<0.3	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	0.0009	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0003	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.001	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.002	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	0.0009	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	0.0095	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.11	mg/l	Y Cov	WAS049
pH	7.7	pH units	Y Cov	WAS039
Hardness, Total as Ca (Calc)	46	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	0.7	mg/l	Y Cov	WAS036
Sulphate as SO4	26	mg/l	Y Cov	WAS036
Cyanide, Total as CN	<0.1	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.1	mg/l	Y Cov	WAS019
Sulphide as S	0.04	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	23	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	23	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/682402/2010**

Laboratory Number: **11676579**

Issue **1**

Sample **3** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP3**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44	23	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	23	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	23	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	<0.02	ug/l	Y Cov	GEO19
Acenaphthylene	<0.02	ug/l	Y Cov	GEO19
Anthracene	<0.02	ug/l	Y Cov	GEO19
Benzo (a) anthracene	<0.02	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.02	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.02	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	<0.02	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.02	ug/l	Y Cov	GEO19
Chrysene	<0.02	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.02	ug/l	Y Cov	GEO19
Fluoranthene	<0.02	ug/l	Y Cov	GEO19
Fluorene	<0.02	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.02	ug/l	Y Cov	GEO19
Naphthalene	<0.02	ug/l	Y Cov	GEO19
Phenanthrene	<0.02	ug/l	Y Cov	GEO19
Pyrene	<0.02	ug/l	Y Cov	GEO19
PAH, Total	<0.02	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<2.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<2.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<2.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<2.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<2.0	ug/l	Y Cov	GEO40
2-Methylphenol	<2.0	ug/l	N Cov	GEO40
3&4-Methylphenol	<2.0	ug/l	N Cov	GEO40
Dibenzofuran	<2.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<2.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<2.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<2.0	ug/l	Y Cov	GEO40

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Report Number: **COV/682402/2010**

Laboratory Number: **11676579**

Issue **1**

Sample **3** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP3**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<2.0	ug/l	Y Cov	GEO40
Nitrobenzene	<2.0	ug/l	Y Cov	GEO40
Isophorone	<2.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<2.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<2.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<4.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<2.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<2.0	ug/l	Y Cov	GEO40
Naphthalene	<4.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<2.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<2.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<2.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<2.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<2.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<2.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<2.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<2.0	ug/l	Y Cov	GEO40
Acenaphthylene	<2.0	ug/l	Y Cov	GEO40
Acenaphthene	<2.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<2.0	ug/l	Y Cov	GEO40
Diethylphthalate	<2.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<10.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<2.0	ug/l	Y Cov	GEO40
Fluorene	<2.0	ug/l	Y Cov	GEO40
Diphenylamine	<2.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<2.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<2.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<2.0	ug/l	Y Cov	GEO40
Phenanthrene	<2.0	ug/l	Y Cov	GEO40
Anthracene	<2.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<2.0	ug/l	Y Cov	GEO40
Fluoranthene	<2.0	ug/l	Y Cov	GEO40
Pyrene	<2.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<2.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<2.0	ug/l	Y Cov	GEO40

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Report Number: **COV/682402/2010**

Laboratory Number: **11676579**

Issue **1**

Sample **3** of **3**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608 TP3**

Sample Matrix: **Ground waters**

Sample Date: **26 March 2010** Sample Received: **26 March 2010** Analysis Complete: **13 April 2010**

Test Description	Result	Units	Accreditation	Method
Chrysene	<2.0	ug/l	Y Cov	GEO40
Bis(2-ethylhexyl)phthalate	<20.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<2.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<2.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<2.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<2.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<2.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<2.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<2.0	ug/l	Y Cov	GEO40
2-Fluorophenol	98.3	%Recovery	N Cov	GEO40
Phenol-d6	96.2	%Recovery	N Cov	GEO40
Nitrobenzene-d5	98.6	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	93.7	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	86.8	%Recovery	N Cov	GEO40
Terphenyl-d14	97.4	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	0.010	mg/l	Y Cov	WAS051
Selenium, Total as Se	<0.001	mg/l	Y Cov	WAS051

Analyst Comments for 11676579:

SVOC sample subbed from 1l PET bottle.

SVOC reporting limits raised due to nature of sample matrix.

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.
I/S=Insufficient sample

Signed: *L. Ellis*

Name: **L. Ellis**

Date: **13 April 2010**

Title: **Inorganics Operations Manager**

ANALYST COMMENTS FOR REPORT

COV/682402/2010

Issue 1

Date of Issue: 13 April 2010

Sample No	Analyst Comments
11676577	SVOC sample subbed from 1l PET bottle.
11676578	SVOC sample subbed from 1l PET bottle.
11676579	SVOC sample subbed from 1l PET bottle. SVOC reporting limits raised due to nature of sample matrix.

Signed:



Name: L. Ellis

Date: 13 April 2010

Title: Inorganics Operations Manager

DETERMINAND COMMENTS FOR REPORT COV/682402/2010

ISSUE 1

Date of Issue : 13 April 2010

Sample No	Description	Determinand	Comments

Signed: *L. Ellis*

Name: L. Ellis

Date: 13 April 2010

Title: Inorganics Operations Manager

**Mr Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly CF83 2AX
Caerphilly**

01 June 2010

Test Report: COV/693409/2010

Dear Mr Hawkins

Analysis of your sample(s) submitted on 13 May 2010 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using STL and we look forward to receiving your next samples.

Yours Sincerely,

Signed: 

Name: J. Fell

Title: Chemistry Operations Manager

STL Coventry

STL Business Centre, Torrington Avenue,
Coventry, CV4 9GU

Severn Trent Laboratories Limited

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Report Summary



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Mr Roger Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly
Caerphilly
CF83 2AX

Date of Issue: **01 June 2010**

Report Number: **COV/693409/2010**

Issue **1**

Job Description: Integral General Project

Job Location: 10608 Harvey Crescent

Number of Samples
included in this report **2**

Job Received: **13 May 2010**

Number of Test Results
included in this report **244**

Analysis Commenced: **13 May 2010**

Signed: 

Name: **J. Fell**

Date: **01 June 2010**

Title: **Chemistry Operations Manager**

STL was not responsible for sampling unless otherwise stated. Sampling is not covered by our UKAS accreditation.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

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Certificate of Analysis



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Report Number: **COV/693409/2010**

Issue **1**

Laboratory Number: **11755764**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH1**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	<0.3	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	0.0005	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0003	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.001	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.002	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	<0.0009	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	0.0012	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.005	mg/l	Y Cov	WAS049
pH	7.9	pH units	Y Cov	WAS039
Hardness, Calcium as Ca	74.1	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	0.7	mg/l	Y Cov	WAS036
Sulphate as SO4	41	mg/l	Y Cov	WAS036
Cyanide, Total as CN	<0.1	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.1	mg/l	Y Cov	WAS019
Sulphide as S	<0.01	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/693409/2010**

Laboratory Number: **11755764**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH1**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44	<10	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	<10	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	0.037	ug/l	Y Cov	GEO19
Acenaphthylene	0.288	ug/l	Y Cov	GEO19
Anthracene	0.059	ug/l	Y Cov	GEO19
Benzo (a) anthracene	0.014	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.01	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	<0.01	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	0.021	ug/l	Y Cov	GEO19
Fluorene	0.114	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.01	ug/l	Y Cov	GEO19
Naphthalene	0.058	ug/l	Y Cov	GEO19
Phenanthrene	0.207	ug/l	Y Cov	GEO19
Pyrene	0.032	ug/l	Y Cov	GEO19
PAH, Total	1.49	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	N Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/693409/2010**

Laboratory Number: **11755764**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH1**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<2.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/693409/2010**

Laboratory Number: **11755764**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH1**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Chrysene	<1.0	ug/l	Y Cov	GEO40
Bis(2-ethylhexyl)phthalate	<10.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y Cov	GEO40
2-Fluorophenol	84.9	%Recovery	N Cov	GEO40
Phenol-d6	82.1	%Recovery	N Cov	GEO40
Nitrobenzene-d5	89.1	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	86.9	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	76.3	%Recovery	N Cov	GEO40
Terphenyl-d14	92.9	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	<0.001	mg/l	Y Cov	WAS051
Selenium, Total as Se	<0.001	mg/l	Y Cov	WAS051

Analyst Comments for 11755764:

EPH subbed from 500ml clear bottle.

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Report Number: **COV/693409/2010**

Issue **1**

Laboratory Number: **11755765**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH2**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	<0.3	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	0.0009	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0003	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.001	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.002	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	<0.0009	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	0.0018	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.003	mg/l	Y Cov	WAS049
pH	7.6	pH units	Y Cov	WAS039
Hardness, Calcium as Ca	87.6	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	0.5	mg/l	Y Cov	WAS036
Sulphate as SO4	86	mg/l	Y Cov	WAS036
Cyanide, Total as CN	<0.1	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.1	mg/l	Y Cov	WAS019
Sulphide as S	0.03	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	11	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/693409/2010**

Laboratory Number: **11755765**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH2**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	11	ug/l	Y Cov	GEO46
EPH>C10-C44	11	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	11	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	11	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	<0.01	ug/l	Y Cov	GEO19
Acenaphthylene	<0.01	ug/l	Y Cov	GEO19
Anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.01	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	<0.01	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	<0.01	ug/l	Y Cov	GEO19
Fluorene	<0.01	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.01	ug/l	Y Cov	GEO19
Naphthalene	<0.01	ug/l	Y Cov	GEO19
Phenanthrene	<0.01	ug/l	Y Cov	GEO19
Pyrene	<0.01	ug/l	Y Cov	GEO19
PAH, Total	<0.01	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	N Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40

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Certificate of Analysis



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Report Number: **COV/693409/2010**

Laboratory Number: **11755765**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH2**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<2.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40

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STL

Report Number: **COV/693409/2010**

Laboratory Number: **11755765**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH2**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Chrysene	<1.0	ug/l	Y Cov	GEO40
Bis(2-ethylhexyl)phthalate	<10.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y Cov	GEO40
2-Fluorophenol	84.7	%Recovery	N Cov	GEO40
Phenol-d6	84.0	%Recovery	N Cov	GEO40
Nitrobenzene-d5	86.9	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	85.2	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	76.8	%Recovery	N Cov	GEO40
Terphenyl-d14	93.1	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	<0.001	mg/l	Y Cov	WAS051
Selenium, Total as Se	0.001	mg/l	Y Cov	WAS051

Analyst Comments for 11755765:

EPH subbed from 500ml clear bottle.

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.
I/S=Insufficient sample

Signed:

Name: **J. Fell**

Date: **01 June 2010**

Title: **Chemistry Operations Manager**

ANALYST COMMENTS FOR REPORT

COV/693409/2010

Issue 1

Date of Issue: 01 June 2010

Sample No	Analyst Comments
11755764	EPH subbed from 500ml clear bottle.
11755765	EPH subbed from 500ml clear bottle.

Signed:



Name: J. Fell

Date: 01 June 2010

Title: Chemistry Operations Manager

Date of Issue : 01 June 2010

Sample No	Description	Determinand	Comments

Signed: 	Name: J. Fell	Date: 01 June 2010
	Title: Chemistry Operations Manager	

**Mr Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly CF83 2AX
Caerphilly**

01 June 2010

Test Report: COV/693409/2010

Dear Mr Hawkins

Analysis of your sample(s) submitted on 13 May 2010 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using STL and we look forward to receiving your next samples.

Yours Sincerely,

Signed: 

Name: J. Fell

Title: Chemistry Operations Manager

STL Coventry

STL Business Centre, Torrington Avenue,
Coventry, CV4 9GU

Severn Trent Laboratories Limited

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Report Summary



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Mr Roger Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly
Caerphilly
CF83 2AX

Date of Issue: **01 June 2010**

Report Number: **COV/693409/2010**

Issue **1**

Job Description: Integral General Project

Job Location: 10608 Harvey Crescent

Number of Samples
included in this report **2**

Job Received: **13 May 2010**

Number of Test Results
included in this report **244**

Analysis Commenced: **13 May 2010**

Signed: 

Name: **J. Fell**

Date: **01 June 2010**

Title: **Chemistry Operations Manager**

STL was not responsible for sampling unless otherwise stated. Sampling is not covered by our UKAS accreditation.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

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Report Number: **COV/693409/2010**

Issue **1**

Laboratory Number: **11755764**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH1**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	<0.3	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	0.0005	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0003	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.001	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.002	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	<0.0009	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	0.0012	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.005	mg/l	Y Cov	WAS049
pH	7.9	pH units	Y Cov	WAS039
Hardness, Calcium as Ca	74.1	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	0.7	mg/l	Y Cov	WAS036
Sulphate as SO4	41	mg/l	Y Cov	WAS036
Cyanide, Total as CN	<0.1	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.1	mg/l	Y Cov	WAS019
Sulphide as S	<0.01	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/693409/2010**

Laboratory Number: **11755764**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH1**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44	<10	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	<10	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	0.037	ug/l	Y Cov	GEO19
Acenaphthylene	0.288	ug/l	Y Cov	GEO19
Anthracene	0.059	ug/l	Y Cov	GEO19
Benzo (a) anthracene	0.014	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.01	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	<0.01	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	0.021	ug/l	Y Cov	GEO19
Fluorene	0.114	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.01	ug/l	Y Cov	GEO19
Naphthalene	0.058	ug/l	Y Cov	GEO19
Phenanthrene	0.207	ug/l	Y Cov	GEO19
Pyrene	0.032	ug/l	Y Cov	GEO19
PAH, Total	1.49	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	N Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/693409/2010**

Laboratory Number: **11755764**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH1**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<2.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/693409/2010**

Laboratory Number: **11755764**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH1**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Chrysene	<1.0	ug/l	Y Cov	GEO40
Bis(2-ethylhexyl)phthalate	<10.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y Cov	GEO40
2-Fluorophenol	84.9	%Recovery	N Cov	GEO40
Phenol-d6	82.1	%Recovery	N Cov	GEO40
Nitrobenzene-d5	89.1	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	86.9	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	76.3	%Recovery	N Cov	GEO40
Terphenyl-d14	92.9	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	<0.001	mg/l	Y Cov	WAS051
Selenium, Total as Se	<0.001	mg/l	Y Cov	WAS051

Analyst Comments for 11755764:

EPH subbed from 500ml clear bottle.

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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STL

Report Number: **COV/693409/2010**

Issue **1**

Laboratory Number: **11755765**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH2**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	<0.3	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	0.0009	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0003	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.001	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.002	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	<0.0009	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	0.0018	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.003	mg/l	Y Cov	WAS049
pH	7.6	pH units	Y Cov	WAS039
Hardness, Calcium as Ca	87.6	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	0.5	mg/l	Y Cov	WAS036
Sulphate as SO4	86	mg/l	Y Cov	WAS036
Cyanide, Total as CN	<0.1	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.1	mg/l	Y Cov	WAS019
Sulphide as S	0.03	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	11	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/693409/2010**

Laboratory Number: **11755765**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH2**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	11	ug/l	Y Cov	GEO46
EPH>C10-C44	11	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	11	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	11	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	<0.01	ug/l	Y Cov	GEO19
Acenaphthylene	<0.01	ug/l	Y Cov	GEO19
Anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.01	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	<0.01	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	<0.01	ug/l	Y Cov	GEO19
Fluorene	<0.01	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.01	ug/l	Y Cov	GEO19
Naphthalene	<0.01	ug/l	Y Cov	GEO19
Phenanthrene	<0.01	ug/l	Y Cov	GEO19
Pyrene	<0.01	ug/l	Y Cov	GEO19
PAH, Total	<0.01	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	N Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/693409/2010**

Laboratory Number: **11755765**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH2**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<2.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/693409/2010**

Laboratory Number: **11755765**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **BH2**

Sample Matrix: **Ground waters**

Sample Date: **10 May 2010**

Sample Received

13 May 2010

Analysis Complete:

31 May 2010

Test Description	Result	Units	Accreditation	Method
Chrysene	<1.0	ug/l	Y Cov	GEO40
Bis(2-ethylhexyl)phthalate	<10.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y Cov	GEO40
2-Fluorophenol	84.7	%Recovery	N Cov	GEO40
Phenol-d6	84.0	%Recovery	N Cov	GEO40
Nitrobenzene-d5	86.9	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	85.2	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	76.8	%Recovery	N Cov	GEO40
Terphenyl-d14	93.1	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	<0.001	mg/l	Y Cov	WAS051
Selenium, Total as Se	0.001	mg/l	Y Cov	WAS051

Analyst Comments for 11755765:

EPH subbed from 500ml clear bottle.

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.
I/S=Insufficient sample

Signed:

Name: **J. Fell**

Date: **01 June 2010**

Title: **Chemistry Operations Manager**

ANALYST COMMENTS FOR REPORT

COV/693409/2010

Issue 1

Date of Issue: 01 June 2010

Sample No	Analyst Comments
11755764	EPH subbed from 500ml clear bottle.
11755765	EPH subbed from 500ml clear bottle.

Signed:



Name: J. Fell

Date: 01 June 2010

Title: Chemistry Operations Manager

Date of Issue : 01 June 2010

Sample No	Description	Determinand	Comments

Signed: 	Name: J. Fell	Date: 01 June 2010
	Title: Chemistry Operations Manager	

**Mr Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly CF83 2AX
Caerphilly**

18 June 2010

Test Report: COV/699067/2010

Dear Mr Hawkins

Analysis of your sample(s) submitted on 04 June 2010 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using STL and we look forward to receiving your next samples.

Yours Sincerely,

Signed: *L. Ellis*

Name: L. Ellis

Title: Inorganics Operations Manager

STL Coventry

STL Business Centre, Torrington Avenue,
Coventry, CV4 9GU

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Report Summary



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Mr Roger Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly
Caerphilly
CF83 2AX

Date of Issue: **18 June 2010**

Report Number: **COV/699067/2010**

Issue **1**

Job Description: Integral General Project

Job Location: 10608 Harvey Crescent

Number of Samples
included in this report **2**

Job Received: **04 June 2010**

Number of Test Results
included in this report **244**

Analysis Commenced: **07 June 2010**

Signed: 

Name: **L. Ellis**

Date: **18 June 2010**

Title: **Inorganics Operations Manager**

STL was not responsible for sampling unless otherwise stated. Sampling is not covered by our UKAS accreditation.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

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Report Number: **COV/699067/2010**

Issue **1**

Laboratory Number: **11795572**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH1**

Sample Matrix: **Ground waters**

Sample Date: **03 June 2010** Sample Received **04 June 2010** Analysis Complete: **18 June 2010**

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	<0.11	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	<0.0006	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0006	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.0007	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.005	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	0.002	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	<0.002	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.039	mg/l	Y Cov	WAS049
pH	8.3	pH units	Y Cov	WAS039
Hardness, Calcium as CaCO ₃	169	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	1.2	mg/l	Y Cov	WAS036
Sulphate as SO ₄	58	mg/l	Y Cov	WAS036
Cyanide, Total as CN	0.016	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.15	mg/l	Y Cov	WAS019
Sulphide as S	<0.029	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/699067/2010**

Laboratory Number: **11795572**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH1**

Sample Matrix: **Ground waters**

Sample Date: **03 June 2010**

Sample Received

04 June 2010

Analysis Complete:

18 June 2010

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44	<10	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	<10	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	<0.01	ug/l	Y Cov	GEO19
Acenaphthylene	<0.01	ug/l	Y Cov	GEO19
Anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.01	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	0.011	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	<0.01	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	0.014	ug/l	Y Cov	GEO19
Fluorene	<0.01	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.01	ug/l	Y Cov	GEO19
Naphthalene	<0.01	ug/l	Y Cov	GEO19
Phenanthrene	<0.01	ug/l	Y Cov	GEO19
Pyrene	0.015	ug/l	Y Cov	GEO19
PAH, Total	0.040	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	Y Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/699067/2010**

Laboratory Number: **11795572**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH1**

Sample Matrix: **Ground waters**

Sample Date: **03 June 2010**

Sample Received

04 June 2010

Analysis Complete:

18 June 2010

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<1.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/699067/2010**

Laboratory Number: **11795572**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH1**

Sample Matrix: **Ground waters**

Sample Date: **03 June 2010**

Sample Received

04 June 2010

Analysis Complete:

18 June 2010

Test Description	Result	Units	Accreditation	Method
Chrysene	<1.0	ug/l	Y Cov	GEO40
Bis(2-ethylhexyl)phthalate	<5.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y Cov	GEO40
2-Fluorophenol	82.5	%Recovery	N Cov	GEO40
Phenol-d6	75.4	%Recovery	N Cov	GEO40
Nitrobenzene-d5	88.8	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	89.4	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	89.0	%Recovery	N Cov	GEO40
Terphenyl-d14	104.2	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	0.0021	mg/l	Y Cov	WAS051
Selenium, Total as Se	0.002	mg/l	Y Cov	WAS051

Analyst Comments for 11795572:

EPH subbed from 500ml glass bottle.

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Report Number: **COV/699067/2010**

Issue **1**

Laboratory Number: **11795573**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH2**

Sample Matrix: **Ground waters**

Sample Date: **03 June 2010** Sample Received **04 June 2010** Analysis Complete: **18 June 2010**

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	<0.11	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	0.0010	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0006	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.0007	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.005	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	0.002	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	<0.002	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.079	mg/l	Y Cov	WAS049
pH	8.4	pH units	Y Cov	WAS039
Hardness, Calcium as CaCO ₃	216	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	<0.19	mg/l	Y Cov	WAS036
Sulphate as SO ₄	72	mg/l	Y Cov	WAS036
Cyanide, Total as CN	0.015	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.15	mg/l	Y Cov	WAS019
Sulphide as S	0.05	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/699067/2010**

Laboratory Number: **11795573**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH2**

Sample Matrix: **Ground waters**

Sample Date: **03 June 2010**

Sample Received

04 June 2010

Analysis Complete:

18 June 2010

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44	<10	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	<10	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	<0.01	ug/l	Y Cov	GEO19
Acenaphthylene	<0.01	ug/l	Y Cov	GEO19
Anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) anthracene	0.030	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	0.024	ug/l	Y Cov	GEO19
Benzo (a) pyrene	0.031	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	0.042	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	0.033	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	0.054	ug/l	Y Cov	GEO19
Fluorene	<0.01	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	0.018	ug/l	Y Cov	GEO19
Naphthalene	<0.01	ug/l	Y Cov	GEO19
Phenanthrene	0.020	ug/l	Y Cov	GEO19
Pyrene	0.058	ug/l	Y Cov	GEO19
PAH, Total	0.310	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	Y Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40

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STL

Report Number: **COV/699067/2010**

Laboratory Number: **11795573**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH2**

Sample Matrix: **Ground waters**

Sample Date: **03 June 2010**

Sample Received

04 June 2010

Analysis Complete:

18 June 2010

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<1.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40

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STL

Report Number: **COV/699067/2010**

Laboratory Number: **11795573**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH2**

Sample Matrix: **Ground waters**

Sample Date: **03 June 2010**

Sample Received

04 June 2010

Analysis Complete:

18 June 2010

Test Description	Result	Units	Accreditation	Method
Chrysene	<1.0	ug/l	Y Cov	GEO40
Bis(2-ethylhexyl)phthalate	<5.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y Cov	GEO40
2-Fluorophenol	81.7	%Recovery	N Cov	GEO40
Phenol-d6	76.6	%Recovery	N Cov	GEO40
Nitrobenzene-d5	82.2	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	80.5	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	85.7	%Recovery	N Cov	GEO40
Terphenyl-d14	96.1	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	0.0009	mg/l	Y Cov	WAS051
Selenium, Total as Se	0.001	mg/l	Y Cov	WAS051

Analyst Comments for 11795573:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.
I/S=Insufficient sample

Signed: *L. Ellis*

Name: **L. Ellis**

Date: **18 June 2010**

Title: **Inorganics Operations Manager**

ANALYST COMMENTS FOR REPORT

COV/699067/2010

Issue 1

Date of Issue: 18 June 2010

Sample No	Analyst Comments
11795572	EPH subbed from 500ml glass bottle.
11795573	

Signed:



Name: L. Ellis

Date: 18 June 2010

Title: Inorganics Operations Manager

DETERMINAND COMMENTS FOR REPORT COV/699067/2010

ISSUE 1

Date of Issue : 18 June 2010

Sample No	Description	Determinand	Comments

Signed: *L. Ellis*

Name: L. Ellis

Date: 18 June 2010

Title: Inorganics Operations Manager

Mr Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly CF83 2AX
Caerphilly

21 July 2010

Test Report: COV/706766/2010

Dear Mr Hawkins

Analysis of your sample(s) submitted on 06 July 2010 is now complete and we have pleasure in enclosing the appropriate test report(s).

An invoice for the analysis carried out will be sent under separate cover.

Should you have any queries regarding this report(s) or any part of our service, please contact Customer Services on +44 (0)24 7642 1213 who will be happy to discuss your requirements.

If you would like to arrange any further analysis, please contact Customer Services. To arrange container delivery or sample collection, please call the Couriers Department directly on 024 7685 6562.

Thank you for using STL and we look forward to receiving your next samples.

Yours Sincerely,

Signed: 

Name: J. Fell

Title: Chemistry Operations Manager

STL Coventry

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Report Summary



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Mr Roger Hawkins
Integral Geotechnique
Integral House
Beddau Way
Castlegate Business Park
Caerphilly
Caerphilly
CF83 2AX

Date of Issue: **21 July 2010**

Report Number: **COV/706766/2010**

Issue **1**

Job Description: Integral General Project

Job Location: 10608 Harvey Crescent

Number of Samples
included in this report **2**

Job Received: **06 July 2010**

Number of Test Results
included in this report **243**

Analysis Commenced: **07 July 2010**

Signed: 

Name: **J. Fell**

Date: **21 July 2010**

Title: **Chemistry Operations Manager**

STL was not responsible for sampling unless otherwise stated. Sampling is not covered by our UKAS accreditation.

Information on the methods of analysis and performance characteristics are available on request.

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation. The results relate only to the items tested.

Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory.

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Report Number: **COV/706766/2010**

Issue **1**

Laboratory Number: **11851317**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH1**

Sample Matrix: **Ground waters**

Sample Date: **06 July 2010**

Sample Received

06 July 2010

Analysis Complete:

21 July 2010

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	0.15	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	<0.0006	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0006	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.0007	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.005	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	0.005	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	<0.002	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.032	mg/l	Y Cov	WAS049
pH	7.4	pH units	Y Cov	WAS039
Hardness, Calcium as CaCO ₃	173	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	1.17	mg/l	Y Cov	WAS036
Sulphate as SO ₄	43.9	mg/l	Y Cov	WAS036
Cyanide, Total as CN	0.009	mg/l	Y Cov	WAS018
Phenols Mono (Phenol Index)	<0.15	mg/l	Y Cov	WAS019
Sulphide as S	0.12	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46

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Report Number: **COV/706766/2010**

Laboratory Number: **11851317**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH1**

Sample Matrix: **Ground waters**

Sample Date: **06 July 2010**

Sample Received

06 July 2010

Analysis Complete:

21 July 2010

Test Description	Result	Units	Accreditation	Method
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44	<10	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	<10	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	<0.01	ug/l	Y Cov	GEO19
Acenaphthylene	<0.01	ug/l	Y Cov	GEO19
Anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.01	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	<0.01	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	<0.01	ug/l	Y Cov	GEO19
Fluorene	<0.01	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.01	ug/l	Y Cov	GEO19
Naphthalene	<0.01	ug/l	Y Cov	GEO19
Phenanthrene	<0.01	ug/l	Y Cov	GEO19
Pyrene	<0.01	ug/l	Y Cov	GEO19
PAH, Total	<0.01	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	Y Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/706766/2010**

Laboratory Number: **11851317**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH1**

Sample Matrix: **Ground waters**

Sample Date: **06 July 2010**

Sample Received

06 July 2010

Analysis Complete:

21 July 2010

Test Description	Result	Units	Accreditation	Method
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<1.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40

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Report Number: **COV/706766/2010**

Laboratory Number: **11851317**

Issue **1**

Sample **1** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH1**

Sample Matrix: **Ground waters**

Sample Date: **06 July 2010**

Sample Received

06 July 2010

Analysis Complete:

21 July 2010

Test Description	Result	Units	Accreditation		Method
Chrysene	<1.0	ug/l	Y	Cov	GEO40
Bis(2-ethylhexyl)phthalate	<5.0	ug/l	Y	Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y	Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y	Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y	Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y	Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y	Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y	Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y	Cov	GEO40
2-Fluorophenol	107.7	%Recovery	N	Cov	GEO40
Phenol-d6	101.0	%Recovery	N	Cov	GEO40
Nitrobenzene-d5	111.6	%Recovery	N	Cov	GEO40
2-Fluorobiphenyl	105.0	%Recovery	N	Cov	GEO40
2,4,6-Tribromophenol	98.5	%Recovery	N	Cov	GEO40
Terphenyl-d14	104.8	%Recovery	N	Cov	GEO40
Arsenic, Filtered as As	0.0012	mg/l	Y	Cov	WAS051
Selenium, Total as Se	0.002	mg/l	Y	Cov	WAS051

Analyst Comments for 11851317:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

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Report Number: **COV/706766/2010**

Issue **1**

Laboratory Number: **11851318**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH2**

Sample Matrix: **Ground waters**

Sample Date: **06 July 2010**

Sample Received

06 July 2010

Analysis Complete:

21 July 2010

Test Description	Result	Units	Accreditation	Method
Boron, Filtered as B	0.16	mg/l	Y Cov	WAS049
Cadmium , Total as Cd	<0.0006	mg/l	Y Cov	WAS049
Cadmium, Filtered as Cd	<0.0006	mg/l	Y Cov	WAS049
Chromium, Filtered as Cr	<0.0007	mg/l	Y Cov	WAS049
Copper, Filtered as Cu	<0.001	mg/l	Y Cov	WAS049
Lead, Filtered as Pb	<0.005	mg/l	Y Cov	WAS049
Mercury, Total as Hg	<0.0001	mg/l	Y Cov	WAS013
Nickel, Filtered as Ni	0.006	mg/l	Y Cov	WAS049
Vanadium, Filtered as V	<0.002	mg/l	Y Cov	WAS049
Zinc, Total as Zn	0.025	mg/l	Y Cov	WAS049
pH	7.3	pH units	Y Cov	WAS039
Hardness, Calcium as CaCO ₃	182	mg/l	Y Cov	WAS049
Ammoniacal Nitrogen as N	1.87	mg/l	Y Cov	WAS036
Sulphate as SO ₄	89.0	mg/l	Y Cov	WAS036
Phenols Mono (Phenol Index)	<0.15	mg/l	Y Cov	WAS019
Sulphide as S	0.08	mg/l	Y Cov	WAS033
VPH>C5-C6 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C6-C8 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C8-10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aliphatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C7 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C7-C8 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C8-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-C10 Aromatic	<10	ug/l	Y Cov	GEO45
VPH>C5-10, Total	<10	ug/l	Y Cov	GEO45
EPH>C10-C12 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C35 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44-Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44 Aliphatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C12 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C12-C16 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C16-C21 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C21-C35 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C35-C44 Aromatic	<10	ug/l	Y Cov	GEO46

Severn Trent Laboratories Ltd.

Certificate of Analysis



1314
0897
1229
1510



STL

Report Number: **COV/706766/2010**

Laboratory Number: **11851318**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH2**

Sample Matrix: **Ground waters**

Sample Date: **06 July 2010**

Sample Received

06 July 2010

Analysis Complete:

21 July 2010

Test Description	Result	Units	Accreditation	Method
EPH>C10-C44 Aromatic	<10	ug/l	Y Cov	GEO46
EPH>C10-C44	<10	ug/l	Y Cov	GEO46
TPH>C5-C44 Aliphatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Aromatic	<10	ug/l	Y Cov	GEO45/GEO46
TPH>C5-C44 Total Ali and Aro	<10	ug/l	Y Cov	GEO45/GEO46
Acenaphthene	<0.01	ug/l	Y Cov	GEO19
Acenaphthylene	<0.01	ug/l	Y Cov	GEO19
Anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) anthracene	<0.01	ug/l	Y Cov	GEO19
Benzo (g,h,i) perylene	<0.01	ug/l	Y Cov	GEO19
Benzo (a) pyrene	<0.01	ug/l	Y Cov	GEO19
Benzo (b) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Benzo (k) fluoranthene	<0.01	ug/l	Y Cov	GEO19
Chrysene	<0.01	ug/l	Y Cov	GEO19
Dibenz (a,h) anthracene	<0.01	ug/l	Y Cov	GEO19
Fluoranthene	<0.01	ug/l	Y Cov	GEO19
Fluorene	<0.01	ug/l	Y Cov	GEO19
Indeno (1,2,3) cd pyrene	<0.01	ug/l	Y Cov	GEO19
Naphthalene	<0.01	ug/l	Y Cov	GEO19
Phenanthrene	<0.01	ug/l	Y Cov	GEO19
Pyrene	<0.01	ug/l	Y Cov	GEO19
PAH, Total	<0.01	ug/l	N Cov	GEO19
SVOC	y	ug/l	Y Cov	GEO40
Phenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethyl)ether	<1.0	ug/l	Y Cov	GEO40
2-Chlorophenol	<1.0	ug/l	Y Cov	GEO40
1,3-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
1,4-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
2-Methylphenol	<1.0	ug/l	Y Cov	GEO40
3&4-Methylphenol	<1.0	ug/l	N Cov	GEO40
Dibenzofuran	<1.0	ug/l	N Cov	GEO40
1,2-Dichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroisopropyl)ether	<1.0	ug/l	Y Cov	GEO40
n-Nitrosodi-n-propylamine	<1.0	ug/l	Y Cov	GEO40
Hexachloroethane	<1.0	ug/l	Y Cov	GEO40

Severn Trent Laboratories Ltd.

Certificate of Analysis



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STL

Report Number: **COV/706766/2010**

Laboratory Number: **11851318**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH2**

Sample Matrix: **Ground waters**

Sample Date: **06 July 2010**

Sample Received

06 July 2010

Analysis Complete:

21 July 2010

Test Description	Result	Units	Accreditation	Method
Nitrobenzene	<1.0	ug/l	Y Cov	GEO40
Isophorone	<1.0	ug/l	Y Cov	GEO40
2,4-Dimethylphenol	<1.0	ug/l	Y Cov	GEO40
2-Nitrophenol	<1.0	ug/l	Y Cov	GEO40
Bis(2-chloroethoxy)methane	<1.0	ug/l	Y Cov	GEO40
2,4-Dichlorophenol	<1.0	ug/l	Y Cov	GEO40
1,2,4-Trichlorobenzene	<1.0	ug/l	Y Cov	GEO40
Naphthalene	<2.0	ug/l	Y Cov	GEO40
Hexachlorobutadiene	<1.0	ug/l	Y Cov	GEO40
4-Chloro-3-methylphenol	<1.0	ug/l	Y Cov	GEO40
2-Methylnaphthalene	<1.0	ug/l	Y Cov	GEO40
2,4,6-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2,4,5-Trichlorophenol	<1.0	ug/l	Y Cov	GEO40
2-Chloronaphthalene	<1.0	ug/l	Y Cov	GEO40
Dimethylphthalate	<1.0	ug/l	Y Cov	GEO40
2,6-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Acenaphthylene	<1.0	ug/l	Y Cov	GEO40
Acenaphthene	<1.0	ug/l	Y Cov	GEO40
2,4-Dinitrotoluene	<1.0	ug/l	Y Cov	GEO40
Diethylphthalate	<1.0	ug/l	Y Cov	GEO40
4-Nitrophenol	<5.0	ug/l	Y Cov	GEO40
4-Chlorophenyl phenyl ether	<1.0	ug/l	Y Cov	GEO40
Fluorene	<1.0	ug/l	Y Cov	GEO40
Diphenylamine	<1.0	ug/l	N Cov	GEO40
4-Bromophenyl Phenyl Ether	<1.0	ug/l	Y Cov	GEO40
Hexachlorobenzene	<1.0	ug/l	Y Cov	GEO40
Pentachlorophenol	<1.0	ug/l	Y Cov	GEO40
Phenanthrene	<1.0	ug/l	Y Cov	GEO40
Anthracene	<1.0	ug/l	Y Cov	GEO40
di-n-Butylphthalate	<1.0	ug/l	Y Cov	GEO40
Fluoranthene	<1.0	ug/l	Y Cov	GEO40
Pyrene	<1.0	ug/l	Y Cov	GEO40
Benzyl Butyl Phthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(a)anthracene	<1.0	ug/l	Y Cov	GEO40
Chrysene	<1.0	ug/l	Y Cov	GEO40

Severn Trent Laboratories Ltd.

Certificate of Analysis



1314
0897
1229
1510



STL

Report Number: **COV/706766/2010**

Laboratory Number: **11851318**

Issue **1**

Sample **2** of **2**

Sample Source: **Integral Geotechnique**

Sample Point Description: **Integral Geotechnique**

Sample Description: **10608/BH2**

Sample Matrix: **Ground waters**

Sample Date: **06 July 2010**

Sample Received

06 July 2010

Analysis Complete:

21 July 2010

Test Description	Result	Units	Accreditation	Method
Bis(2-ethylhexyl)phthalate	<5.0	ug/l	Y Cov	GEO40
Di-n-octylphthalate	<1.0	ug/l	Y Cov	GEO40
Benzo(b)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(k)fluoranthene	<1.0	ug/l	Y Cov	GEO40
Benzo(a)pyrene	<1.0	ug/l	Y Cov	GEO40
Indeno(1,2,3-c,d)pyrene	<1.0	ug/l	Y Cov	GEO40
Dibenz(a,h)anthracene	<1.0	ug/l	Y Cov	GEO40
Benzo(g,h,i)perylene	<1.0	ug/l	Y Cov	GEO40
2-Fluorophenol	97.4	%Recovery	N Cov	GEO40
Phenol-d6	101.1	%Recovery	N Cov	GEO40
Nitrobenzene-d5	93.8	%Recovery	N Cov	GEO40
2-Fluorobiphenyl	95.0	%Recovery	N Cov	GEO40
2,4,6-Tribromophenol	86.1	%Recovery	N Cov	GEO40
Terphenyl-d14	95.3	%Recovery	N Cov	GEO40
Arsenic, Filtered as As	<0.0008	mg/l	Y Cov	WAS051
Selenium, Total as Se	0.002	mg/l	Y Cov	WAS051

Analyst Comments for 11851318:

No Analyst Comment

Accreditation Codes: Y = UKAS Accredited, N = Not UKAS Accredited, M = MCERTS.

Analysed at: Brd = STL Bridgend, Cov = STL Coventry, Mid = STL Midlands, Rea = STL Reading, Run = STL Runcorn, S = Subcontracted.

For Microbiological determinands 0 or ND=Not Detected, For Legionella ND=Not Detected in volume of sample filtered. Relating to Legionella volume analysed 1g is approximately equivalent to 1ml.

I/S=Insufficient sample

Signed:

Name: **J. Fell**

Date: **21 July 2010**

Title: **Chemistry Operations Manager**

ANALYST COMMENTS FOR REPORT

COV/706766/2010

Issue 1

Date of Issue: 21 July 2010

Sample No

Analyst Comments

11851317

11851318

Signed:



Name: J. Fell

Date: 21 July 2010

Title: Chemistry Operations Manager

Date of Issue : 21 July 2010

Sample No	Description	Determinand	Comments

Signed:



Name: J. Fell

Date: 21 July 2010

Title: Chemistry Operations Manager

APPENDIX H

GEOTECHNICAL TEST RESULTS (2010)

Summary of Laboratory Sample Descriptions

[illegible]

Note: Results on this table are in summary format and may not meet the requirements of the relevant standards, additional information is held by the laboratory

[Signature]

Checked by

Date 4/5/10

Alan Walker

Approved by

4/5/10
Date



Harvey Crescent

Contract No.:
9831-070410

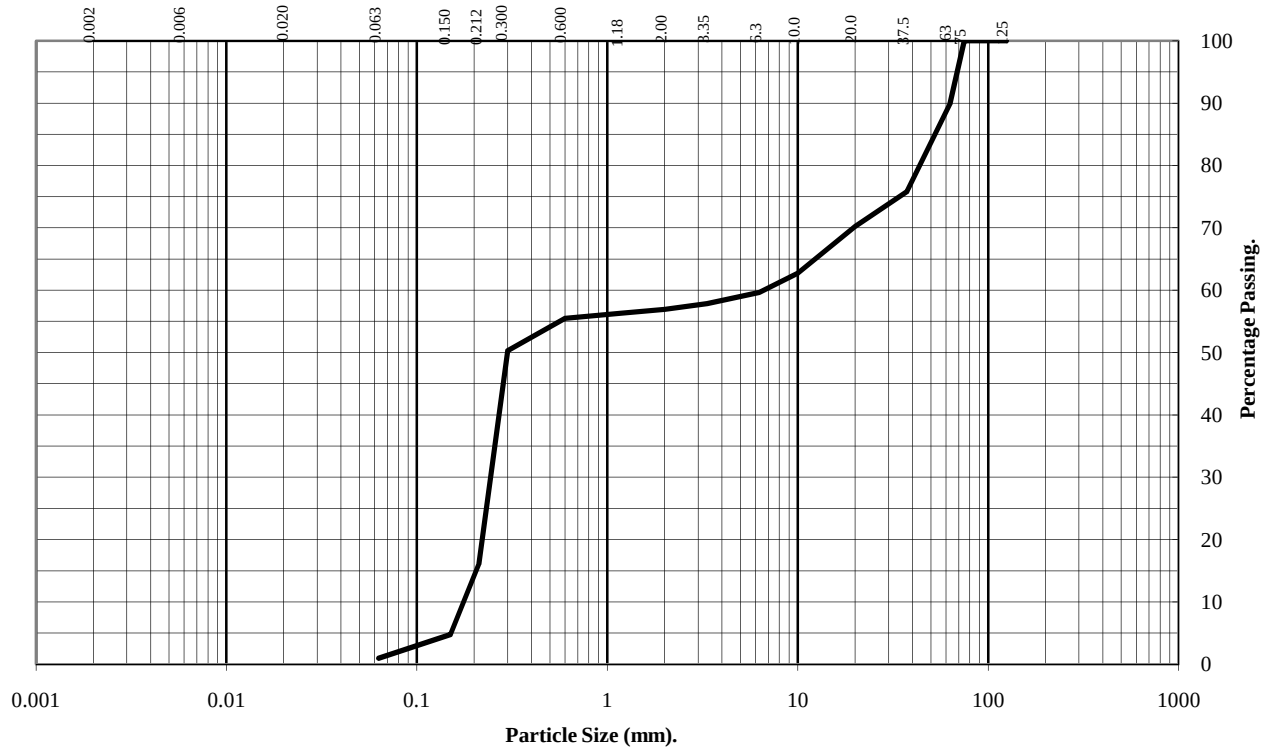
Client ref:
10608/RD

PARTICLE SIZE DISTRIBUTION TEST

BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

Hole Number: **TP1** Type: **B** Depth (m): **0.50** to **1.00**



BS Test Sieve	Percentage Passing
125	100
75	100
63	90
37.5	76
20	70
10	63
6.3	60
3.35	58
2.00	57
1.18	56
0.60	55
0.300	50
0.212	16
0.150	5
0.063	1

Particle Diameter	Percentage Passing
0.02	#
0.006	#
0.002	#

Soil Fraction	Total Percentage
Cobbles	10
Gravel	33
Sand	56
Silt and Clay	1

Remarks:

#- not determined

Checked by

04/05/2010

Date

Approved by

04/05/2010

Date



Harvey Crescent

Contract No.:
9831-070410
Client Ref No:
10608/RD

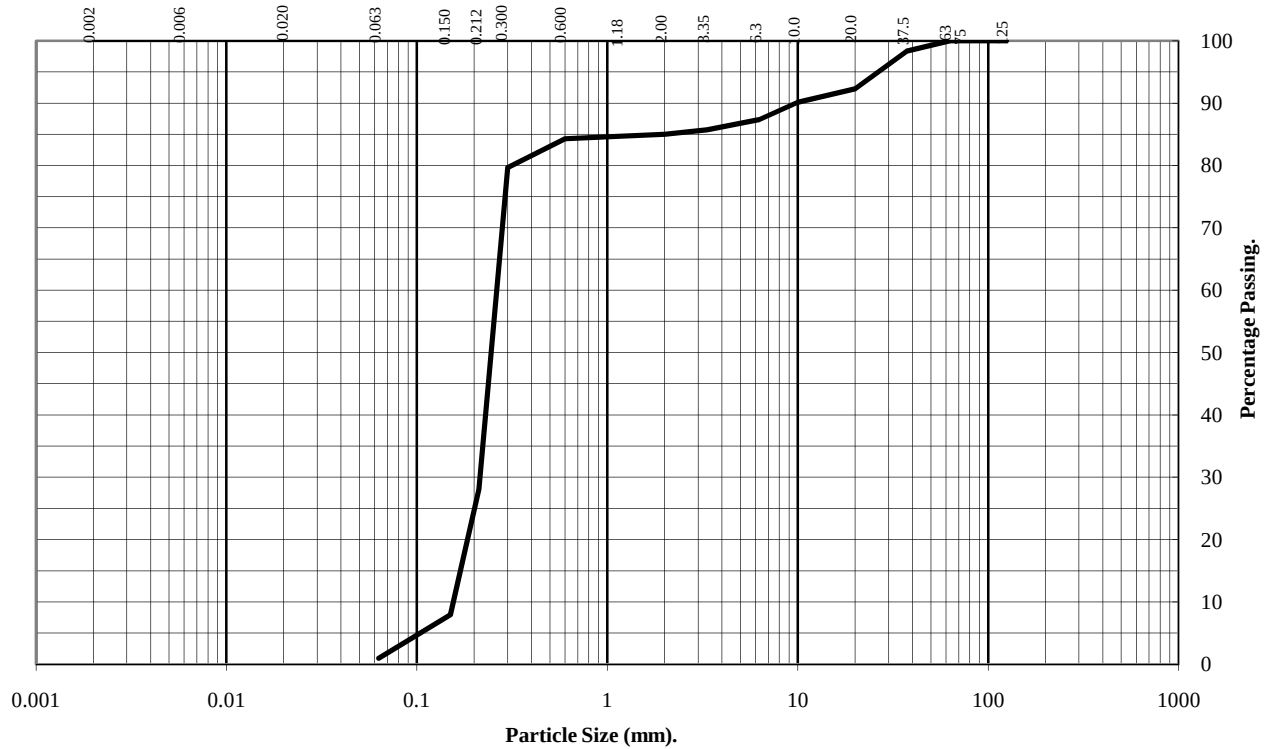


PARTICLE SIZE DISTRIBUTION TEST

BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

Hole Number: **TP2** Type: **B** Depth (m): **0.50** to **1.00**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	98
20	92
10	90
6.3	87
3.35	86
2.00	85
1.18	85
0.60	84
0.300	80
0.212	28
0.150	8
0.063	1

Particle Diameter	Percentage Passing
0.02	#
0.006	#
0.002	#

Soil Fraction	Total Percentage
Cobbles	0
Gravel	15
Sand	84
Silt and Clay	1

Remarks:

#- not determined

Checked by

04/05/2010

Date

Approved by

04/05/2010

Date



Harvey Crescent

Contract No.:
9831-070410
Client Ref No:
10608/RD

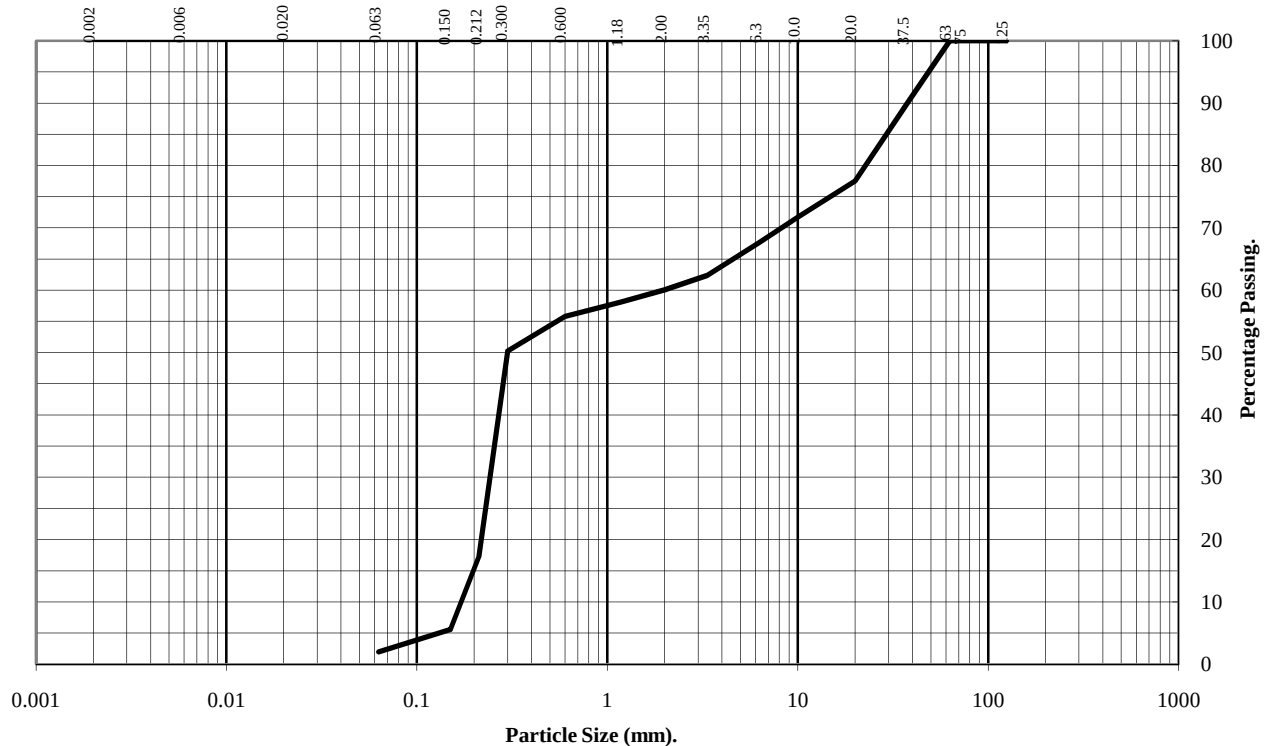


PARTICLE SIZE DISTRIBUTION TEST

BS 1377 Part 2:1990.

Wet Sieve, Clause 9.2

Hole Number: **TP3** Type: **B** Depth (m): **0.50** to **1.00**



BS Test Sieve	Percentage Passing
125	100
75	100
63	100
37.5	90
20	77
10	72
6.3	68
3.35	62
2.00	60
1.18	58
0.60	56
0.300	50
0.212	17
0.150	6
0.063	2

Particle Diameter	Percentage Passing
0.02	#
0.006	#
0.002	#

Soil Fraction	Total Percentage
Cobbles	0
Gravel	40
Sand	58
Silt and Clay	2

Remarks:

#- not determined

Checked by

04/05/2010

Date

Approved by

04/05/2010

Date



Harvey Crescent

Contract No.:
9831-070410
Client Ref No:
10608/RD



APPENDIX I

GROUNDWATER MONITORING RESULTS

Groundwater Quality Monitoring Results																												
Site:		Harvey Cresent Port Talbot			Job No:		14128																					
Date:		12.12.22			Weather:		Cloudy																					
Name of Engineer:		RH																										
Sample No.	Water level (mbgl)	Well Base Level (mbgl)	pH (pH Units)	Temperature (°C)	Conductivity (uS/cm)	Total dissolved solids (ppm)	Salinity (PSU)	Oxygen Reduction Potential (mV)	Disolved Oxygen (%)	Comments																		
BH 1	4.58	15.12	8.45	10.87	469	187				Medium Recharge Medium Recharge Fast Recharge																		
BH 2	4.51	15.06	8.11	11.21	641	254																						
BH 3	4.43	13.26	8.21	11.11	361	172																						
Notes:																												
1. Instrument Used: HI Multiparameter Water 2. Typical Accuracy:<table><tr><td>Temperature</td><td>+/- 0.15 °C</td><td>DO</td><td>+/- 1%</td><td>PSU</td><td>+/- 2% or +/- 0.01 PSU</td></tr><tr><td>pH</td><td>+/- 0.01 pH</td><td>Conductivity</td><td>+/- 1% or +/- 1uS/cm</td><td>Resistivity</td><td>+/- 1% or +/- 1mg/L</td></tr><tr><td>ORP</td><td>+/- 1mV</td><td colspan="3"></td><td></td></tr></table> 3. N/R = No Reading Taken											Temperature	+/- 0.15 °C	DO	+/- 1%	PSU	+/- 2% or +/- 0.01 PSU	pH	+/- 0.01 pH	Conductivity	+/- 1% or +/- 1uS/cm	Resistivity	+/- 1% or +/- 1mg/L	ORP	+/- 1mV				
Temperature	+/- 0.15 °C	DO	+/- 1%	PSU	+/- 2% or +/- 0.01 PSU																							
pH	+/- 0.01 pH	Conductivity	+/- 1% or +/- 1uS/cm	Resistivity	+/- 1% or +/- 1mg/L																							
ORP	+/- 1mV																											
Intégral Géotechnique																												

Groundwater Quality Monitoring Results																												
Site:		Harvey Cresent Port Talbot			Job No:		14128																					
Date:		12.12.22			Weather:		Cloudy																					
Name of Engineer:		RH																										
Sample No.	Water level (mbgl)	Well Base Level (mbgl)	pH (pH Units)	Temperature (°C)	Conductivity (uS/cm)	Total dissolved solids (ppm)	Salinity (PSU)	Oxygen Reduction Potential (mV)	Disolved Oxygen (%)	Comments																		
BH 1	4.58	15.12	8.45	10.87	469	187				Medium Recharge Medium Recharge Fast Recharge																		
BH 2	4.51	15.06	8.11	11.21	641	254																						
BH 3	4.43	13.26	8.21	11.11	361	172																						
Notes:																												
1. Instrument Used: HI Multiparameter Water 2. Typical Accuracy:<table><tr><td>Temperature</td><td>+/- 0.15 °C</td><td>DO</td><td>+/- 1%</td><td>PSU</td><td>+/- 2% or +/- 0.01 PSU</td></tr><tr><td>pH</td><td>+/- 0.01 pH</td><td>Conductivity</td><td>+/- 1% or +/- 1uS/cm</td><td>Resistivity</td><td>+/- 1% or +/- 1mg/L</td></tr><tr><td>ORP</td><td>+/- 1mV</td><td colspan="3"></td><td></td></tr></table> 3. N/R = No Reading Taken											Temperature	+/- 0.15 °C	DO	+/- 1%	PSU	+/- 2% or +/- 0.01 PSU	pH	+/- 0.01 pH	Conductivity	+/- 1% or +/- 1uS/cm	Resistivity	+/- 1% or +/- 1mg/L	ORP	+/- 1mV				
Temperature	+/- 0.15 °C	DO	+/- 1%	PSU	+/- 2% or +/- 0.01 PSU																							
pH	+/- 0.01 pH	Conductivity	+/- 1% or +/- 1uS/cm	Resistivity	+/- 1% or +/- 1mg/L																							
ORP	+/- 1mV																											
Intégral Géotechnique																												

Groundwater Quality Monitoring Results													
Site:		Harvey Crescent			Job No:		10608						
Date:		30.04.10			Weather:		Light Rain						
Name of Engineer:		RH											
Sample No.	Water level (mbgl)	Well Base Level (mbgl)	pH (pH Units)	Temperature (°C)	Conductivity (uS/cm)	Total dissolved solids (ppm)	Salinity (PSU)	Oxygen Reduction Potential (mV)	Disolved Oxygen (%)	Comments			
BH 1	3.81	14.25											
BH 2	3.87	14.42											
BH 3	4.49	11.6											
Notes:													
1. Instrument Used:		HI Multiparameter											
2. Typical Accuracy:		Water											
		Temperature		+/- 0.15 °C		DO		+/- 1%		PSU		+/- 2% or +/- 0.01 PSU	
		pH		+/- 0.01 pH		Conductivity		+/- 1% or +/- 1uS/cm		Resistivity		+/- 1% or +/- 1mg/L	
		ORP		+/- 1mV									
3. N/R		= No Reading Taken											
Intégral Géotechnique													

Groundwater Quality Monitoring Results													
Site:		Harvey Crescent			Job No:		10608						
Date:		26.03.10			Weather:		Light Rain						
Name of Engineer:		RH											
Sample No.	Water level (mbgl)	Well Base Level (mbgl)	pH (pH Units)	Temperature (°C)	Conductivity (uS/cm)	Total dissolved solids (ppm)	Salinity (PSU)	Oxygen Reduction Potential (mV)	Disolved Oxygen (%)	Comments			
										V/Fast Recharge			
BH1	3.85	14.25	6.96	13.32	683	345	0.35	-41.6	21.9				
BH2	3.91	14.42	7.10	13.17	708	355	0.33	-61.8	15.9				
BH3	3.61	11.6	7.02	11.83	415	210	0.20	-37.4	15.9				
Notes:													
1. Instrument Used:		HI Multiparameter											
2. Typical Accuracy:		Water											
		Temperature		+/- 0.15 °C		DO		+/- 1%		PSU		+/- 2% or +/- 0.01 PSU	
		pH		+/- 0.01 pH		Conductivity		+/- 1% or +/- 1uS/cm		Resistivity		+/- 1% or +/- 1mg/L	
		ORP		+/- 1mV									
3. N/R		= No Reading Taken											
Intégral Géotechnique													

Groundwater Quality Monitoring Results													
Site:		Harvey Crescent			Job No:		10608						
Date:		30.04.10			Weather:		Light Rain						
Name of Engineer:		RH											
Sample No.	Water level (mbgl)	Well Base Level (mbgl)	pH (pH Units)	Temperature (°C)	Conductivity (uS/cm)	Total dissolved solids (ppm)	Salinity (PSU)	Oxygen Reduction Potential (mV)	Disolved Oxygen (%)	Comments			
BH 1	3.81	14.25											
BH 2	3.87	14.42											
BH 3	4.49	11.6											
Notes:													
1. Instrument Used:		HI Multiparameter											
2. Typical Accuracy:		Water											
		Temperature		+/- 0.15 °C		DO		+/- 1%		PSU		+/- 2% or +/- 0.01 PSU	
		pH		+/- 0.01 pH		Conductivity		+/- 1% or +/- 1uS/cm		Resistivity		+/- 1% or +/- 1mg/L	
		ORP		+/- 1mV									
3. N/R		= No Reading Taken											
Intégral Géotechnique													

Groundwater Quality Monitoring Results													
Site:		Harvey Crescent			Job No:		10608						
Date:		10.05.10			Weather:		Cloudy						
Name of Engineer:		RH											
Sample No.	Water level (mbgl)	Well Base Level (mbgl)	pH (pH Units)	Temperature (°C)	Conductivity (uS/cm)	Total dissolved solids (ppm)	Salinity (PSU)	Oxygen Reduction Potential (mV)	Disolved Oxygen (%)	Comments			
										Fast Recharge			
BH 1	4.08	14.25	7.12	13.18	766	386	0.38	-107.6	14.1				
BH 2	4.2	14.42	7.36	13.36	711	335	0.35	-124.2	11.3				
BH 3	3.85	11.6	Obstruction at 4M unable to water sample										
Notes:													
1. Instrument Used:		HI Multiparameter											
2. Typical Accuracy:		Water											
		Temperature		+/- 0.15 °C		DO		+/- 1%		PSU		+/- 2% or +/- 0.01 PSU	
		pH		+/- 0.01 pH		Conductivity		+/- 1% or +/- 1uS/cm		Resistivity		+/- 1% or +/- 1mg/L	
		ORP		+/- 1mV									
3. N/R		= No Reading Taken											
Intégral Géotechnique													

Groundwater Quality Monitoring Results													
Site:		Harvey Crescent			Job No:		10608						
Date:		19.05.10			Weather:		Cloudy						
Name of Engineer:		RH											
Sample No.	Water level (mbgl)	Well Base Level (mbgl)	pH (pH Units)	Temperature (°C)	Conductivity (uS/cm)	Total dissolved solids (ppm)	Salinity (PSU)	Oxygen Reduction Potential (mV)	Disolved Oxygen (%)	Comments			
BH 1	3.91	14.25											
BH 2	3.92	14.42											
BH 3	3.69	11.6											
Notes:													
1. Instrument Used:		HI Multiparameter											
2. Typical Accuracy:		Water											
		Temperature		+/- 0.15 °C		DO		+/- 1%		PSU		+/- 2% or +/- 0.01 PSU	
		pH		+/- 0.01 pH		Conductivity		+/- 1% or +/- 1uS/cm		Resistivity		+/- 1% or +/- 1mg/L	
		ORP		+/- 1mV									
3. N/R		= No Reading Taken											
Intégral Géotechnique													

Groundwater Quality Monitoring Results													
Site:		Harvey Crescent			Job No:		10608						
Date:		03.06.10			Weather:		Sunny						
Name of Engineer:		RH											
Sample No.	Water level (mbgl)	Well Base Level (mbgl)	pH (pH Units)	Temperature (°C)	Conductivity (uS/cm)	Total dissolved solids (ppm)	Salinity (PSU)	Oxygen Reduction Potential (mV)	Disolved Oxygen (%)	Comments			
										Fast Recharge Fast Recharge			
BH 1	3.87	14.25	6.98	13.98	751	394	0.36	-56.8	18.1				
BH 2	3.92	14.42	7.14	14.21	745	354	0.36	-87.2	18.7				
BH 3	3.56	11.6	Obstruction at 4M unable to water sample										
Notes:													
1. Instrument Used:		HI Multiparameter											
2. Typical Accuracy:		Water											
		Temperature		+/- 0.15 °C		DO		+/- 1%		PSU		+/- 2% or +/- 0.01 PSU	
		pH		+/- 0.01 pH		Conductivity		+/- 1% or +/- 1uS/cm		Resistivity		+/- 1% or +/- 1mg/L	
		ORP		+/- 1mV									
3. N/R		= No Reading Taken											
Intégral Géotechnique													

APPENDIX J

GAS MONITORING SUMMARY SHEETS

FIELD GAS MONITORING RESULTS

Job No.: 14128
 Site: Harvey Crescent Port Talbot
 Monitoring Date: 12.12.22
 Monitoring Round: 1

Monitoring Conditions

Weather: Cloudy
 Ambient Temp: 5 °C
 Instrument: GA5000

Barometric Pressure (mb)

On Arrival: 1008
 During Monitoring: 1008
 End of Monitoring: 1008

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
BH 1	3.07	2.35	<0.5	<0.5			20.10	20.10	0.80	0.80	<1	<1	<0.3	<0.1
BH 2	2.81	Dry	<0.5	<0.5			20.20	20.20	0.20	0.20	<1	<1	<0.3	<0.1
BH 3	3.2	Dry	<0.5	<0.5			20.10	20.10	0.20	0.10	<1	<1	<0.3	<0.1
Typical Instrument Accuracy: %CH ₄ 0-70% +/- 0.5% CO 0-500ppm +/- 2% FS %CO ₂ 0-60% +/- 0.5% H ₂ S 0-5000ppm +/- 2.0% FS %O ₂ 0-25% +/- 1.0% Flow from borehole +/- 0.3l/h LEL = Lower Explosive Limit N/R = No Reading Taken FS = Full Scale														
Notes: 														

FIELD GAS MONITORING RESULTS

Job No.: 14128
 Site: Harvey Crescent Port Talbot
 Monitoring Date: 04.01.23
 Monitoring Round: 2

Monitoring Conditions

Weather: Light Rain
 Ambient Temp: 9 °C
 Instrument: GA5000

Barometric Pressure (mb)

On Arrival: 992
 During Monitoring: 992
 End of Monitoring: 992

Location	Well Base Level (mbgl)	Water Level (mbgl)	Methane (CH4) %v/v		Methane % LEL		Oxygen (O2) %v/v		Carbon Dioxide (CO2) %v/v		Carbon Monoxide (CO) (ppm)	Hydrogen Sulphide (H2S) (ppm)	Peak Gas Flow (l/hr)	VOC Vapours (ppm>background)
			Peak	Steady	Peak	Steady	Peak	Steady	Peak	Steady				
BH 1	3.07	2.39	<0.5	<0.5			19.50	19.50	0.60	0.60	<1	<1	<0.3	<0.1
BH 2	2.81	Dry	<0.5	<0.5			20.00	20.10	0.10	0.10	<1	<1	<0.3	<0.1
BH 3	3.2	Dry	<0.5	<0.5			19.10	19.60	0.20	0.20	<1	<1	<0.3	<0.1

Typical Instrument Accuracy:

%CH ₄	0-70% +/- 0.5%	CO	0-500ppm +/- 2% FS	LEL = Lower Explosive Limit
%CO ₂	0-60% +/- 0.5%	H ₂ S	0-5000ppm +/- 2.0% FS	N/R = No Reading Taken
%O ₂	0-25% +/- 1.0%	Flow from borehole	+/- 0.3l/h	FS = Full Scale

Notes:

Field Gas Monitoring Results	
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Site:	Harvey Crescent	Job No:	10608			
Date:	26.03.10	Weather:	Light Rain			
Name of Engineer:	RH	Barometric Pressure (Millibars):	On Arrival 997	During Monitoring 997	End of Monitoring 997	Ambient Temp 11.7°C

[illegible]

Notes:

1. Instrument Used:	GA 2000 Gas Analyser						
2. Typical Accuracy:	Gas	0-5% Volume	5-15% Volume	15%-FS	Gas	0-FS	
	%CH ₄	+/- 1%	+/- 1%	+/- 3%	CO	+/- 1%	10%FS
	%CO ₂	+/- 2%	+/- 1%	+/- 3%	H ₂ S	+/- 1%	10%FS
	%O ₂	+/- 1%	+/- 1%	+/- 3%			
3. LEL	= Lower Explosive Limit						
4. N/R	= No Reading Taken						

Intégral Géotechnique

Field Gas Monitoring Results

Site:	Harvey Crescent	Job No:	10608			
Date:	12.04.10	Weather:	Sunny			
Name of Engineer:	RH	Barometric Pressure (Millibars):	On Arrival 1021	During Monitoring 1021	End of Monitoring 1021	Ambient Temp 13.2°C

[illegible]

1. Instrument Used:	GA 2000 Gas Analyser					
2. Typical Accuracy:	Gas	0-5% Volume	5-15% Volume	15%-FS	Gas	0-FS
	%CH ₄	+/- 1%	+/- 1%	+/- 3%	CO	+/- 10%FS
	%CO ₂	+/- 2%	+/- 1%	+/- 3%	H ₂ S	+/- 10%FS
	%O ₂	+/- 1%	+/- 1%	+/- 3%		
3. LEL	= Lower Explosive Limit					
4. N/R	= No Reading Taken					

Intégral Géotechnique

Field Gas Monitoring Results

Site:	Harvey crescent	Job No:	10608			
Date:	30.04.10	Weather:	Light Rain			
Name of Engineer:	RH	Barometric Pressure (Millibars):	On Arrival 1003	During Monitoring 1003	End of Monitoring 1003	Ambient Temp 8.7°C

[illegible]

1. Instrument Used:	GA 2000 Gas Analyser					
2. Typical Accuracy:	Gas	0-5% Volume	5-15% Volume	15%-FS	Gas	0-FS
	%CH ₄	+/- 1%	+/- 1%	+/- 3%	CO	+/- 10%FS
	%CO ₂	+/- 2%	+/- 1%	+/- 3%	H ₂ S	+/- 10%FS
	%O ₂	+/- 1%	+/- 1%	+/- 3%		
3. LEL	= Lower Explosive Limit					
4. N/R	= No Reading Taken					

Integral Géotechnique

Field Gas Monitoring Results												
Site:		Harvey Crescent				Job No:		10608				
Date:		10.05.10				Weather:		Cloudy				
Name of Engineer:		RH				Barometric Pressure (Millibars):		On Arrival 1006	During Monitoring 1006	End of Monitoring 1006	Ambient Temp 12.1°C	
Borehole No.	Water level (mbgl)	Well Base Level (mbgl)	Methane (CH ₄)			Oxygen O ₂ (%)	Carbon Dioxide CO ₂ (%)	Carbon Monoxide CO (ppm)	Hydrogen Sulphide H ₂ S (ppm)	Peak Gas Flow (l/per hr)	VOC Vapours (ppm > background)	Time
			LEL (%)	Average (%)	Peak (%)							
BH 1	2.35	3.48	0.00	0.00	0.00	20.10	0.40	7.00	0.00	0.00	0.00	12.30
BH 2	2.38	3.02	0.00	0.00	0.00	20.30	0.20	0.80	0.00	0.00		
BH 3	2.01	3.08	0.00	0.00	0.00	20.40	0.20	4.00	0.00	0.00		
Notes:												
1. Instrument Used: GA 2000 Gas Analyser												
2. Typical Accuracy:												
	Gas	0-5% Volume	5-15% Voume	15%-FS		Gas	0-FS					
	%CH ₄	+/- 1%	+/- 1%	+/- 3%		CO	+/- 10%FS					
	%CO ₂	+/- 2%	+/- 1%	+/- 3%		H ₂ S	+/- 10%FS					
	%O ₂	+/- 1%	+/- 1%	+/- 3%								
3. LEL = Lower Explosive Limit												
4. N/R = No Reading Taken												
Intégral Géotechnique												

Field Gas Monitoring Results	
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Site:	Harvey Crescent	Job No:	10608			
Date:	19.05.10	Weather:	Cloudy			
Name of Engineer:	RH	Barometric Pressure (Millibars):	On Arrival 1015	During Monitoring 1015	End of Monitoring 1015	Ambient Temp 14.8°C

[illegible]

Notes:

1. Instrument Used:	GA 2000 Gas Analyser						
2. Typical Accuracy:	Gas	0-5% Volume	5-15% Volume	15%-FS	Gas	0-FS	
	%CH ₄	+/- 1%	+/- 1%	+/- 3%	CO	+/- 1%	10%FS
	%CO ₂	+/- 2%	+/- 1%	+/- 3%	H ₂ S	+/- 1%	10%FS
	%O ₂	+/- 1%	+/- 1%	+/- 3%			
3. LEL	= Lower Explosive Limit						
4. N/R	= No Reading Taken						

Intégral Géotechnique

Field Gas Monitoring Results

Site:	Harvey Crescent	Job No:	10608			
Date:	03.06.10	Weather:	Sunny			
Name of Engineer:	RH	Barometric Pressure (Millibars):	On Arrival 1021	During Monitoring 1021	End of Monitoring 1021	Ambient Temp 22.1°C

[illegible]

1. Instrument Used:	GA 2000 Gas Analyser					
2. Typical Accuracy:	Gas	0-5% Volume	5-15% Volume	15%-FS	Gas	0-FS
	%CH ₄	+/- 1%	+/- 1%	+/- 3%	CO	+/- 10%FS
	%CO ₂	+/- 2%	+/- 1%	+/- 3%	H ₂ S	+/- 10%FS
	%O ₂	+/- 1%	+/- 1%	+/- 3%		
3. LEL	= Lower Explosive Limit					
4. N/R	= No Reading Taken					

Intégral Géotechnique

APPENDIX K

SUMMARY OF CHEMICAL RESULTS – MADE GROUND

SUMMARY OF LABORATORY SOIL TEST RESULTS

METALS AND SEMI-METALS

Job No.: 14128
 Site: Harvey Crescent, Port Talbot
 Soil Type: Made Ground
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Arsenic (mg/kg)	Boron (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Chromium (VI) (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (Elemental) (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
1	TP01	0.30	26	1	0.74	< 0.2	31	< 1.8	58	370	< 0.3	17	< 1.0	39	530
2	TP02	0.10	24	0.6	1.3	< 0.2	31	< 1.8	77	310	< 0.3	18	< 1.0	44	490
3	TP02	0.40	29	0.6	0.83	< 0.2	28	< 1.8	72	390	< 0.3	19	< 1.0	40	590
4	TP03	0.20	26	1.3	0.67	1.3	32	< 1.8	73	560	< 0.3	16	< 1.0	40	700
5	TP03	0.50	23	1.5	0.52	< 0.2	20	< 1.8	52	400	< 0.3	15	< 1.0	25	500
6	TP04	0.20	26	0.5	1.1	1.1	30	< 1.8	58	440	< 0.3	16	< 1.0	44	590
7	TP05	0.30	26	0.4	0.78	< 0.2	19	< 1.8	66	450	< 0.3	14	< 1.0	30	550
8	TP06	0.30	20	< 0.2	0.64	< 0.2	25	< 1.8	46	270	< 0.3	14	< 1.0	37	400
9	TP07	0.10	36	0.3	0.82	< 0.2	28	< 1.8	100	660	< 0.3	20	< 1.0	42	930
10	TP1 (2010)	0.50	8.2	0.36	0.55	0.2	3.2	0.1	5	2	0.35	1.7	0.35	8.8	15
11	TP3 (2010)	0.30	18	0.78	0.76	0.2	20	0.14	22	170	0.35	20	0.38	30	150
12	TP3 (2010)	0.70	9.9	0.3	0.3	0.2	1	0.1	5	2	0.35	2.3	0.35	10	5
13	TP4 (2010)	0.40	9.6	0.26	0.3	0.2	1	0.1	5	2	0.35	2.1	0.35	9.5	5
14	TP5 (2010)	0.40	9.4	0.42	0.3	0.2	1	0.1	5	2	0.35	2.2	0.35	9.8	5
15	TP6 (2010)	0.30	13	0.59	0.43	0.2	10	0.1	11	20	0.35	5.8	0.35	16	42
16	TP6 (2010)	0.70	9.7	0.3	0.3	0.2	1	0.1	5	2	0.35	2	0.35	9.4	5
17	BH1 (2010)	1.50	8.7	0.36	0.3	0.2	3.4	0.1	5	2	0.35	2	0.35	8.9	17
18	BH1 (2010)	5.00	27	1.9	0.89	0.2	16	0.1	110	79	0.35	23	0.46	28	200
19	BH2 (2010)	8.00	5.3	0.49	1.1	0.2	14	0.41	17	6.8	0.35	12	0.35	43	17
Screening Criteria Value			37.0	290.0	1.7	11.0	-	6.0	2400.0	200.0	1.2	130.0	250.0	410.0	3700.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	-	S4UL	S4UL	C4SL	S4UL	S4UL	S4UL	S4UL	S4UL

SUMMARY OF LABORATORY SOIL TEST RESULTS

INORGANIC CHEMICALS & OTHERS

Job No.: 14128
 Site: Harvey Crescent, Port Talbot
 Soil Type: Made Ground
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Cyanide (mg/kg)	Loss on ignition, dried solids (%)	Moisture content at 30 C (%)	Phenol (mg/kg)	pH (pH units)	Water Soluble Sulphate (g/l)	Sulphate Total as SO4 (mg/kg)	Sulphide (mg/kg)	Total Sulphur (mg/kg)	TOC by Ignition in O2 (%)	Equivalent SOM (%)	Asbestos in Soil	Asbestos Quantification (%)
1	TP01	0.30	< 1.0	4.10	8.40	< 1.0	10.10	0.25	2300.00	55.00	1200.00	1.30	2.24	Not-detected	-
2	TP02	0.10	< 1.0	5.10	9.40	< 1.0	10.00	0.36	3600.00	97.00	1600.00	1.60	2.75	Not-detected	-
3	TP02	0.40	< 1.0	4.70	9.00	< 1.0	9.20	0.28	2600.00	56.00	1400.00	1.50	2.58	Detected	< 0.001
4	TP03	0.20	< 1.0	3.90	9.00	< 1.0	9.50	0.16	1800.00	58.00	880.00	1.30	2.24	Not-detected	-
5	TP03	0.50	< 1.0	3.50	7.50	< 1.0	9.30	0.28	2200.00	61.00	830.00	1.10	1.89	Not-detected	-
6	TP04	0.20	< 1.0	4.00	7.70	< 1.0	9.60	0.35	2800.00	87.00	1300.00	1.30	2.24	Detected	0.001
7	TP05	0.30	< 1.0	3.50	6.40	< 1.0	11.20	0.10	4800.00	60.00	2100.00	1.10	1.89	Not-detected	-
8	TP06	0.30	< 1.0	3.70	7.30	< 1.0	10.00	0.13	2200.00	40.00	1200.00	1.20	2.06	Not-detected	-
9	TP07	0.10	< 1.0	5.30	8.70	< 1.0	9.00	0.13	1700.00	89.00	1000.00	2.40	4.13	Not-detected	-
10	TP1 (2010)	0.50	2.50	0.61	6.10	0.50	10.00	0.06	240.00	110.00	140.00	0.87	1.50	N/A	N/A
11	TP3 (2010)	0.30	2.50	5.20	18.00	0.50	8.60	0.06	240.00	7.50	100.00	1.80	3.10	N/A	N/A
12	TP3 (2010)	0.70	2.50	0.61	7.10	0.50	9.30	0.06	240.00	7.50	100.00	0.68	1.17	N/A	N/A
13	TP4 (2010)	0.40	2.50	0.87	11.00	0.50	9.30	0.06	240.00	7.50	100.00	0.66	1.14	N/A	N/A
14	TP5 (2010)	0.40	2.50	0.68	5.70	0.50	9.60	0.06	240.00	7.50	100.00	0.92	1.58	N/A	N/A
15	TP6 (2010)	0.30	2.50	3.60	10.00	0.50	9.00	0.09	700.00	15.00	100.00	4.20	7.22	N/A	N/A
16	TP6 (2010)	0.70	2.50	0.66	11.00	0.50	9.30	0.06	240.00	7.50	100.00	1.00	1.72	N/A	N/A
17	BH1 (2010)	1.50	2.50	0.77	17.00	0.50	9.70	0.06	240.00	7.50	100.00	0.85	1.46	N/A	N/A
18	BH1 (2010)	5.00	2.50	7.40	31.00	0.50	8.00	0.15	910.00	7.50	1700.00	4.90	8.43	N/A	N/A
19	BH2 (2010)	8.00	2.50	2.80	5.10	0.50	8.30	0.08	240.00	38.00	100.00	2.00	3.44	N/A	N/A
Screening Criteria Value			34.0	-	-	120.0	-	-	-	-	-	-	-	-	0.001
Source of Screening Criteria Value			ATRISK	-	-	S4UL	-	-	-	-	-	-	-	-	IOM

SUMMARY OF LABORATORY SOIL TEST RESULTS

POLYAROMATIC HYDROCARBONS (PAH)

Job No.: 14128
 Site: Harvey Crescent, Port Talbot
 Soil Type: Made Ground
 Soil Organic Matter: 1%

No.	Location	Depth (m)	Acenaphthene (mg/kg)	Acenaphthylene (mg/kg)	Anthracene (mg/kg)	Benzo(a)anthracene (mg/kg)	Benzo(a)pyrene (mg/kg)	Benzo(b)fluoranthene (mg/kg)	Benzo(ghi)perylene (mg/kg)	Benzo(k)fluoranthene (mg/kg)	Chrysene (mg/kg)	Dibenzo(ah)anthracene (mg/kg)	Fluoranthene (mg/kg)	Fluorene (mg/kg)	Indeno(123cd)pyrene (mg/kg)	Naphthalene (mg/kg)	Phenanthrene (mg/kg)	Pyrene (mg/kg)
1	TP01	0.30	< 0.05	0.14	0.27	1.6	1.3	1.9	0.94	0.89	2	0.27	2.5	0.07	0.77	0.25	1.1	2.9
2	TP02	0.10	0.07	0.12	0.27	1.7	1.2	1.8	0.85	0.66	2.1	0.22	2.8	0.13	0.7	0.21	1.1	3.2
3	TP02	0.40	0.06	0.09	0.23	1.7	1.3	1.6	0.72	0.82	1.6	0.18	2.3	0.08	0.6	0.31	1	2.8
4	TP03	0.20	<0.05	0.05	0.16	0.92	0.89	1.1	0.53	0.55	1.1	0.13	1.5	0.05	0.52	0.26	0.78	1.7
5	TP03	0.50	0.06	0.06	0.2	1	0.93	1.3	0.58	0.49	1.3	0.13	1.7	0.08	0.54	0.27	0.94	2
6	TP04	0.20	<0.05	0.31	0.28	2	2	3	1.2	1.1	2.2	0.29	2.3	0.05	1	0.27	0.74	2.3
7	TP05	0.30	<0.05	0.06	0.13	1	0.91	1.3	0.53	0.44	1.3	0.12	1.8	<0.05	0.52	0.23	0.53	2.2
8	TP06	0.30	0.09	0.07	0.4	2.1	1.7	2.5	0.88	0.73	2	0.21	3.6	0.13	0.92	0.25	1.8	3.3
9	TP07	0.10	<0.05	0.11	0.19	1.7	1.5	1.9	0.86	0.89	1.7	0.2	2.3	0.07	0.82	0.31	0.89	2.6
10	TP1 (2010)	0.50	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.013	0.01	0.01	0.01	0.01	0.012
11	TP3 (2010)	0.30	0.023	0.022	0.025	0.056	0.066	0.11	0.057	0.055	0.074	0.015	0.15	0.022	0.042	0.025	0.074	0.12
12	TP3 (2010)	0.70	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
13	TP4 (2010)	0.40	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
14	TP5 (2010)	0.40	0.01	0.01	0.01	0.01	0.017	0.022	0.015	0.011	0.016	0.01	0.038	0.01	0.01	0.01	0.019	0.031
15	TP6 (2010)	0.30	0.01	0.036	0.021	0.13	0.16	0.22	0.17	0.12	0.15	0.02	0.22	0.01	0.15	0.054	0.11	0.22
16	TP6 (2010)	0.70	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
17	BH1 (2010)	1.50	0.01	0.01	0.01	0.01	0.013	0.012	0.011	0.01	0.01	0.01	0.026	0.01	0.01	0.01	0.02	0.023
18	BH1 (2010)	5.00	0.18	0.016	0.23	0.33	0.24	0.36	0.17	0.17	0.31	0.029	1	0.29	0.16	0.44	0.95	0.68
19	BH2 (2010)	8.00	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.023	0.01	0.01	0.018	0.035	0.019
Screening Criteria Value			210.0	170.0	2400.0	7.2	2.2	2.6	320.0	77.0	15.0	0.24	280.0	170.0	27.0	2.3	95.0	620.0
Source of Screening Criteria Value			S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL	S4UL

APPENDIX L

SUMMARY OF GROUNDWATER TEST RESULTS

	Determinand	Unit	Sample Location												Guideline Value		
			BH1				BH2				BH3				MAC-EQS Other Surface Water C3 50 - <100mg/lCa CO3	Coastal and Estuarine AA-EQS	UK (England and Wales) Drinking Water Standards
			Round 1 (March 2010)	Round 2 (May 2010)	Round 3 (June 2010)	Round 4 (Dec 2022)	Round 1 (March 2010)	Round 2 (May 2010)	Round 3 (June 2010)	Round 4 (Dec 2022)	Round 1 (March 2010)	Round 2 (May 2010)	Round 3 (June 2010)	Round 4 (Dec 2022)			
Metals and Non-Metals	Arsenic	ug/l	<1	<1	2.10	0.8	<1	<1	0.90	1.99	10.00	-	-	7.89	-	25	10
	Boron	ug/l	<300	<300	<110	98.00	<300	<300	<110	190.00	<3200	-	-	160.00	-	7000	1000
	Cadmium	ug/l	<0.3	<0.3	<0.6	0.08	<0.3	<0.3	<0.6	< 0.02	<0.3	-	-	< 0.02	-	0.2	5
	Chromium	ug/l	3.00	<1	<0.7	0.50	<1	<1	<0.7	< 0.2	<1	-	-	< 0.2	32	0.6	50
	Copper	ug/l	<1	<1	<1	4.10	<1	<1	<1	2.80	<1	-	-	2.60	-	8.3	2000
	Cyanide	ug/l	<100	<100	16.00	< 10	<100	<100	15.00	< 10	<100	-	-	< 10	5	1	50
	Lead	ug/l	<2	<2	<5	0.30	<2	<2	<5	< 0.2	<2	-	-	< 0.2	14	1.3	10
	Mercury	ug/l	<0.1	<0.1	<0.1	< 0.05	<0.1	<0.1	<0.1	< 0.05	<0.1	-	-	< 0.05	0.07	-	1
	Nickel	ug/l	1.40	<0.9	2.00	1.60	1.30	<0.9	2.00	2.60	0.90	-	-	2.50	34	8.6	20
	pH	pH Units	7.20	7.90	8.30	7.60	7.80	7.60	8.40	7.60	7.70	-	-	7.70	-	-	-
	Selenium	ug/l	<1	<1	2.00	< 0.6	<1	1.00	1.00	1.00	<1	-	-	< 0.6	-	-	10
	Sulphate as SO4	ug/l	56000.00	41000.00	58000.00	50800.00	84000.00	86000.00	72000.00	71900.00	26000.00	-	-	89100.00	-	-	250000
	Vanadium	ug/l	1.70	1.20	<2	0.30	2.20	1.80	<2	0.40	9.50	-	-	0.40	-	100	-
	Zinc	ug/l	34.00	5.00	39.00	8.30	19.00	3.00	79.00	19.00	110.00	-	-	9.50	-	6.8	5000
PAH	Acenaphthene	ug/l	<0.01	0.037	<0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	<0.02	-	-	< 0.01	-	5	-
	Acenaphthylene	ug/l	<0.01	0.288	<0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	<0.02	-	-	< 0.01	-	5	-
	Anthracene	ug/l	<0.01	0.059	<0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	<0.02	-	-	< 0.01	0.1	0.1	-
	Benzo (a) anthracene	ug/l	<0.01	0.014	<0.01	< 0.01	<0.01	<0.01	0.03	< 0.01	<0.02	-	-	< 0.01	-	5	-
	Benzo (g,h,i) perylene	ug/l	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	0.02	< 0.01	<0.02	-	-	< 0.01	0.00082	-	-
	Benzo (a) pyrene	ug/l	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	0.03	< 0.01	<0.02	-	-	< 0.01	0.027	0.00017	0.01
	Benzo (b) fluoranthene	ug/l	<0.01	<0.01	0.011	< 0.01	<0.01	<0.01	0.04	< 0.01	<0.02	-	-	< 0.01	0.017	-	-
	Benzo (k) fluoranthene	ug/l	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	<0.02	-	-	< 0.01	0.017	-	-
	Chrysene	ug/l	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	0.03	< 0.01	<0.02	-	-	< 0.01	-	5	-
	Dibenz (a,h) anthracene	ug/l	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	<0.02	-	-	< 0.01	-	3.76	-
	Fluoranthene	ug/l	<0.01	0.021	0.014	< 0.01	<0.01	<0.01	0.05	< 0.01	<0.02	-	-	< 0.01	0.12	0.0063	-
	Fluorene	ug/l	<0.01	0.114	<0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	<0.02	-	-	< 0.01	-	5	-
	Indeno (1,2,3) cd pyrene	ug/l	<0.01	<0.01	<0.01	< 0.01	<0.01	<0.01	0.02	< 0.01	<0.02	-	-	< 0.01	-	-	-
	Naphthalene	ug/l	<0.01	0.058	<0.01	< 0.01	<0.01	<0.01	<0.01	< 0.01	<0.02	-	-	< 0.01	130	2	-
	Phenanthrene	ug/l	<0.01	0.207	<0.01	< 0.01	<0.01	<0.01	0.02	< 0.01	<0.02	-	-	< 0.01	-	5	-
	Pyrene	ug/l	<0.01	0.032	0.015	< 0.01	<0.01	<0.01	0.06	< 0.01	<0.02	-	-	< 0.01	-	5	-
VPH/EPH	Aliphatic VPH >C5 - C6	ug/l	<10	<10	<10	< 1.0	<10	<10	<10	< 1.0	<10	-	-	< 1.0	50	8	10
	Aliphatic VPH >C6 - C8	ug/l	<10	<10	<10	< 1.0	<10	<10	<10	< 1.0	<10	-	-	< 1.0	50	8	10
	Aliphatic VPH >C8 - 10	ug/l	<10	<10	<10	< 1.0	<10	<10	<10	< 1.0	<10	-	-	< 1.0	50	8	10
	Aliphatic EPH >C10 - C12	ug/l	<10	<10	<10	< 10	<10	<10	<10	< 10	<10	-	-	< 10	50	8	10
	Aliphatic EPH >C12 - C16	ug/l	<10	<10	<10	< 10	<10	<10	<10	< 10	<10	-	-	< 10	50	8	10
	Aliphatic EPH >C16 - C21	ug/l	<10	<10	<10	< 10	<10	<10	<10	< 10	23.00	-	-	< 10	50	8	10
	Aliphatic EPH >C21 - C35	ug/l	<10	<10	<10	< 10	<10	<10	<10	< 10	<10	-	-	< 10	50	8	10
	Aliphatic EPH >C35 - C44	ug/l	<10	<10	<10	< 10	<10	<10	<10	< 10	<10	-	-	< 10	50	8	10
	Aromatic VPH >C5 - C7	ug/l	<10	<10	<10	< 1.0	<10	<10	<10	< 1.0	<10	-	-	< 1.0	50	8	10
	Aromatic VPH >C7 - C8	ug/l	<10	<10	<10	< 1.0	<10	<10	<10	< 1.0	<10	-	-	< 1.0	50	8	10
	Aromatic VPH >C8 - C10	ug/l	<10	<10	<10	< 1.0	<10	<10	<10	< 1.0	<10	-	-	< 1.0	50	8	10
	Aromatic EPH >C10 - C12	ug/l	<10	<10	<10	< 10	<10	11.00	<10	< 10	<10	-	-	25.00	50	8	10
	Aromatic EPH >C12 - C16	ug/l	<10	<10	<10	< 10	<10	<10	<10	< 10	<10	-	-	34.00	50	8	10
	Aromatic EPH >C16 - C21	ug/l	<10	<10	<10	< 10	<10	<10	<10	< 10	<10	-	-	< 10	50	8	10
	Aromatic EPH >C21 - C35	ug/l	<10	<10	<10	< 10	<10	<10	<10	< 10	<10	-	-	< 10	50	8	10
	Aromatic EPH >C35 - C44	ug/l	<10	<10	<10	< 10	<10	<10	<10	< 10	<10	-	-	< 10	50	8	10

Notes:
Benzo(a)pyrene is used as an indicator for PAH contamination.
EQS for Benzene used for all VPH/EPH compounds

Results exceeding the AA-EQS value, or the most conservative EQS/UKDWS guideline value where AA-EQS values are unavailable, are highlighted in **red bold type**

Sources:
MAC-EQS and AA-EQS values sourced from the Environment Agency/Water Framework Directive
Drinking Water Standards sourced from The Water Supply (Water Quality) Regulations 2018 Water, England and Wales: 2018 No.647 (W.121)



FIGURES

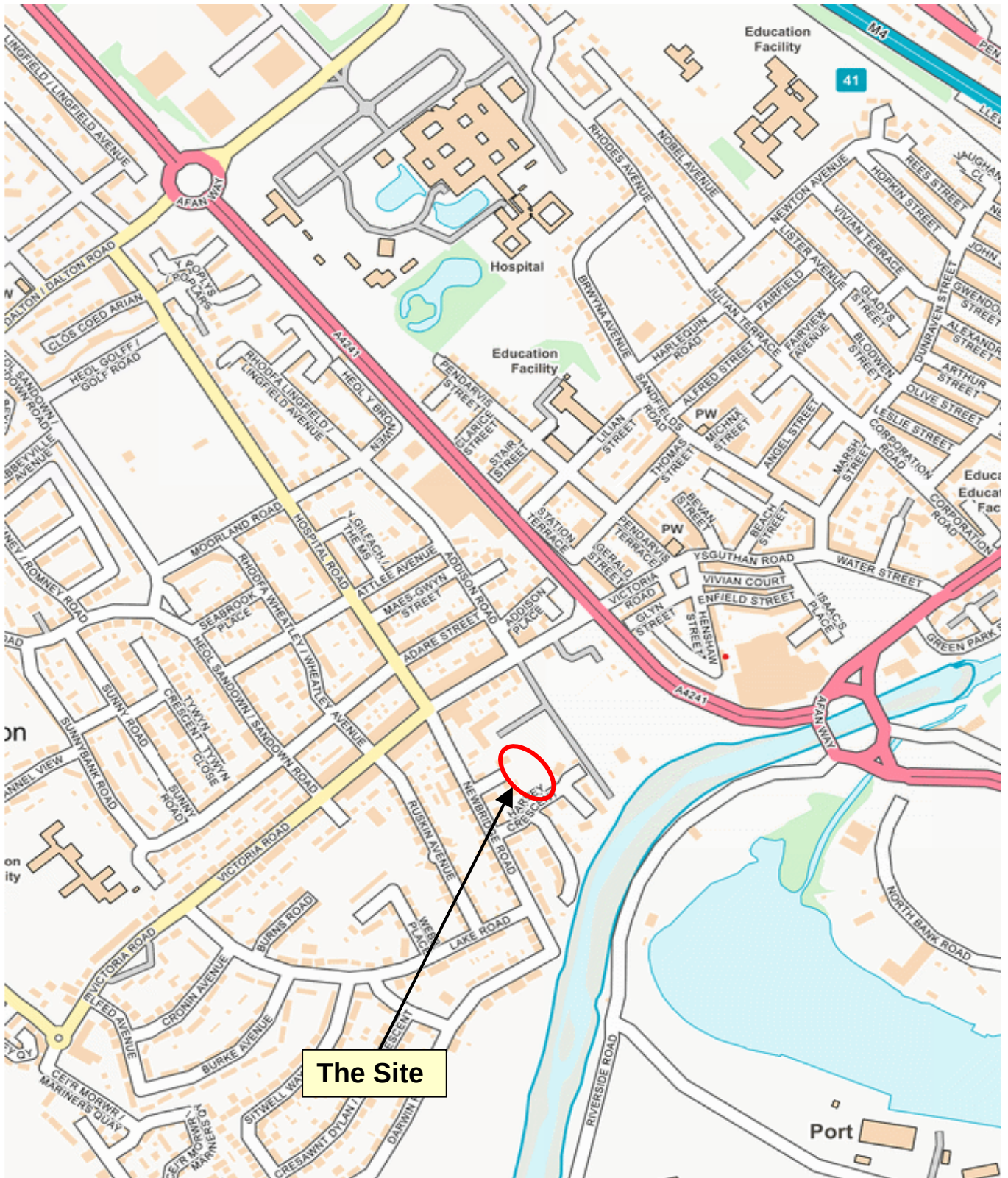
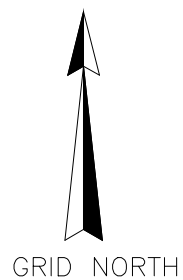


Figure 1: Site Location

14128 - Harvey Crescent, Port Talbot

Intégral
Géotechnique

Intégral House
7 Beddau Way
Castlegate Business Park
Caerphilly
CF83 2AX
Tel: 029 2080 7991



Legend:

- Approximate Trial Pit Location
- Approximate Trial Pit Location (2010)
- Approximate Shell and Auger Borehole Location
- Approximate Shell and Auger Borehole Location (2010)
- Approximate Extent of Fly-tipped Materials
- Approximate Extent of Heras Fencing - suspected Japanese Knotweed
- Approximate Extent of Vegetated Area

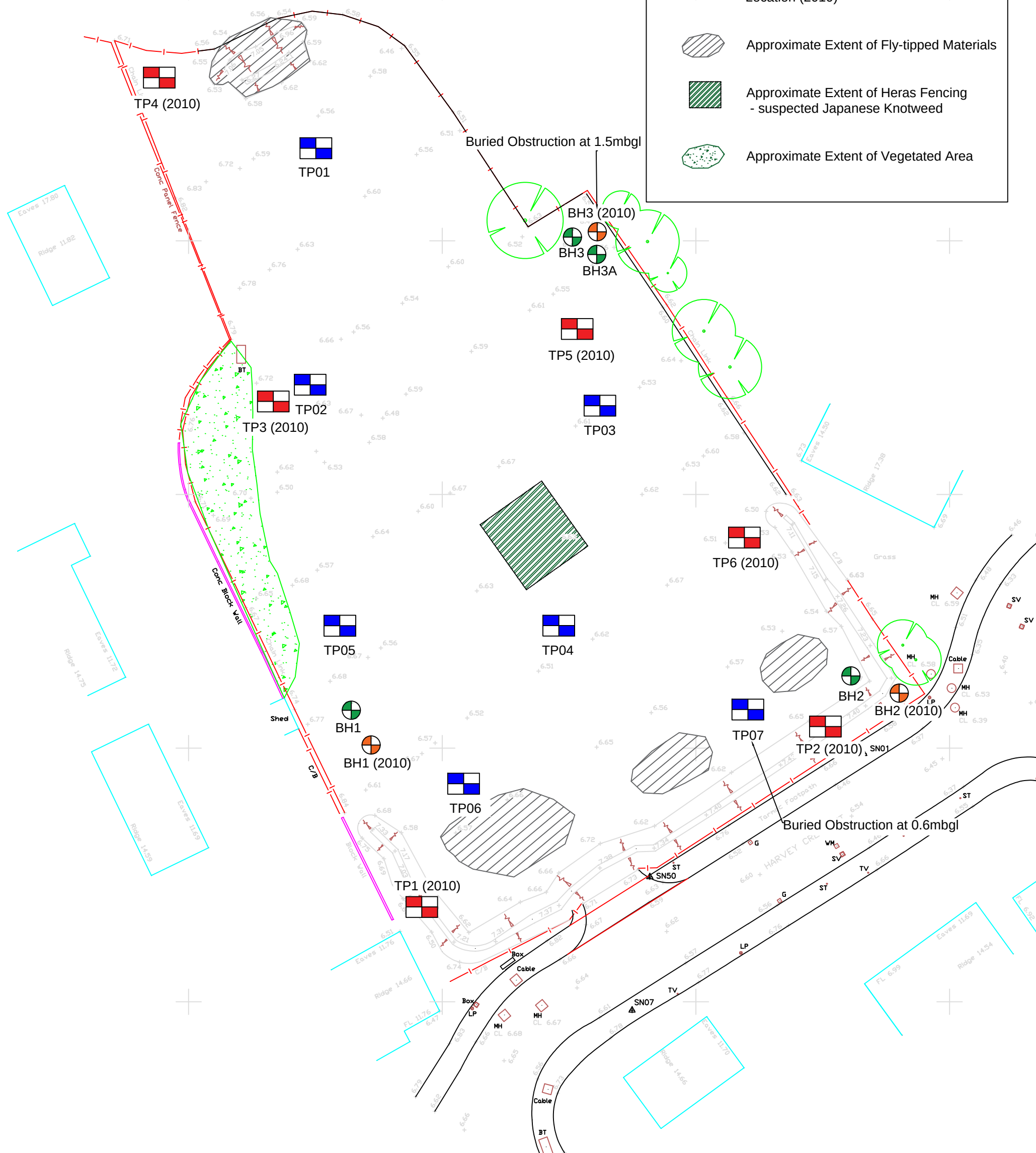


Figure 2: Site Plan

Project: Harvey Crescent, Port Talbot

Client: Coastal Housing Group

Job No.: 14128

Scale: 1:300 at A3

Intégral
Géotechnique

Integral House,
7 Beddau Way,
Castlegate Business Park,
Caerphilly,
CF83 2AX.
Tel: 029 2080 7991

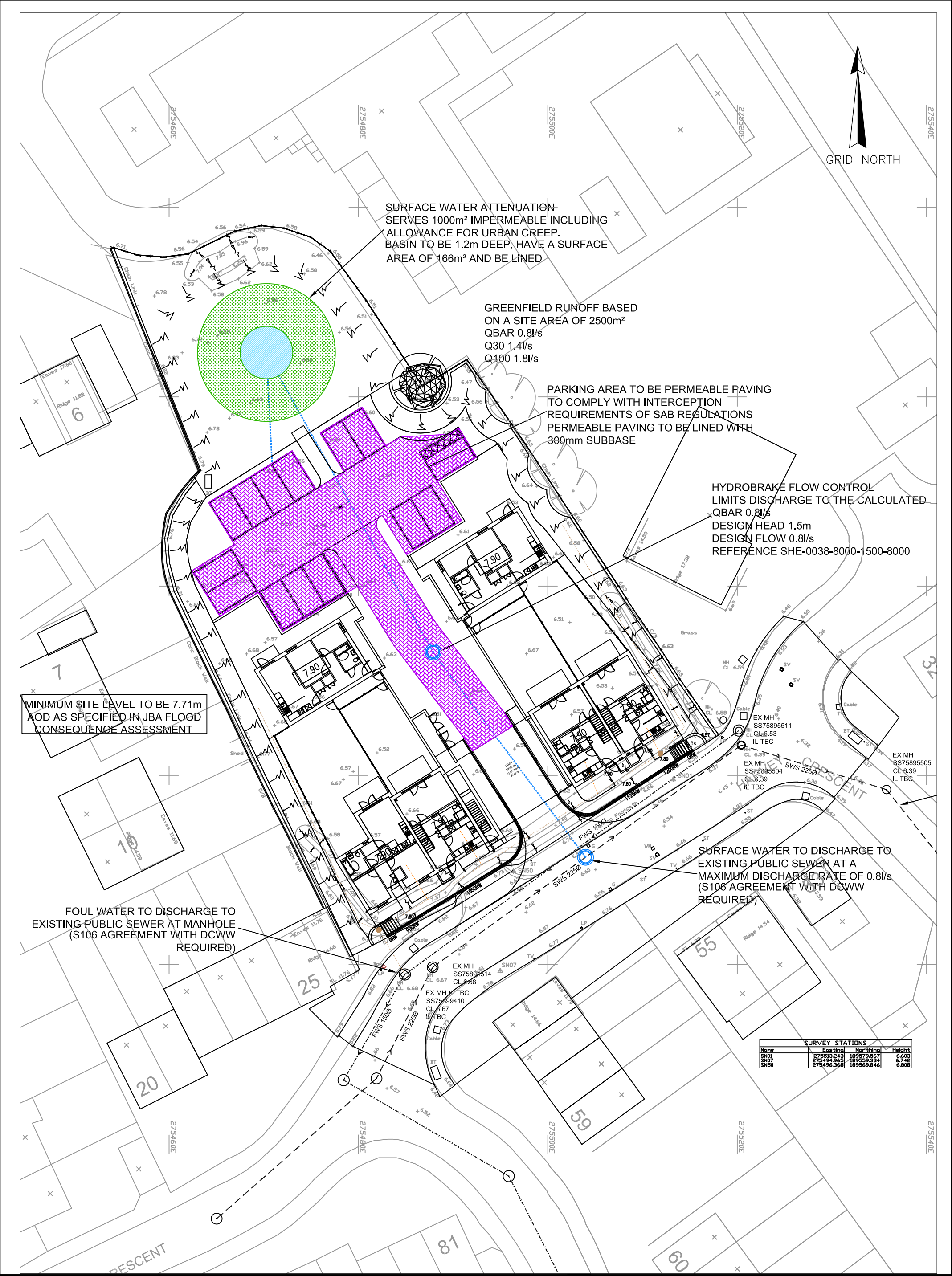


Figure 3: Proposed Development Layout