# HUMBERSIDE MATERIALS LABORATORY LIMITED

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## Site Investigation Report

## For The Proposed Development

## Austendyke Road, Weston Hills, Spalding

Client Mr R Brown

Date: August 2016
Report Ref: 973/4008/P

**SITE INVESTIGATION REPORT FOR THE**

**PROPOSED DEVELOPMENT**

**AUSTENDYKE ROAD, WESTON HILLS, SPALDING**

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## 1.0 Introduction

At the request of Mr R Brown, Humberside Materials Laboratory Limited were engaged to undertake a preliminary investigation to aid the decision of purchase of land off Austendyke Road, Weston Hills, Spalding for a proposed housing development. The aim of the Phase 1 investigation is to assess the environmental settings for potential contamination on the site and produce an initial conceptual model. The intrusive investigation aim is to assess the potential for contamination on the site.

When assessing the environmental risks of the site the following definitions are used:

| | |
|---|---|
| Very Low. | It is very unlikely that there is a risk associated with the site. |
| Low. | It is unlikely that there is a risk associated with the site. |
| Medium. | The previous/current uses of the property have or are of a nature, which could give rise to a potential risk associated with the site. |
| High. | The previous/current use is of a nature that will very likely give rise to a risk associated with the site. |
| Very High. | The previous/current use is of a nature that is most likely to have a risk associated with the site. |

The methodology and references used in the compilation of this report includes: -

- BS 5930 - Code of practice for site investigations
- NHBC section 4.1 Land quality - managing ground conditions.
- BS 10175 - Investigation of potentially contaminated sites - Code of practice.

- CLEA documents published by DEFRA and the Environment Agency.
- LQM/CIEH S4ULs.

This report is produced solely for Mr r Brown and his consultants and should only be copied in full. When transmitted electronically the definitive copy of the report is held by Humberside Materials Laboratory Ltd.

## 2.0 Site Description

The site forming the subject of this assessment is situated on land to the north of Austendyke Road in Weston Hills near Spalding. The national grid reference for the centre of the site is 528360 321890. The site is rectangular shaped. It was previously used as a village fuel station and vehicle repair facility. The site comprises of an old forecourt with a building that is currently a workshop. To the rear is an area of hardstanding. There is an above ground diesel tank the left front of the building. To the front is the former forecourt which has to below ground fuel tanks believed to have been decommissioned by cement grout filling. Above these were two fuel pumps. A location plan for the site is enclosed in appendix A. A proposed layout plan is not available at this stage but is thought to have three houses at the rear and two at the front with a private access road down the middle.

A walkover survey was undertaken on the 28th July 2016. The site is still operational as a repair facility. It is as described above. A historic photograph is enclosed in appendix A showing the site in 1970's. The area of the haulage yard to the left has subsequently been developed with a bungalow.

A more recent ariel view from Google maps is also presented in appendix A together with photographs taken at the time of the investigation.

The site is flat with domestic properties to the front right and left. There is a commercial property at the rear of the domestic property to the eastern side of the site. To the rear are open fields.

Local information has indicated the site was originally a small village fuel station. An additional tract of land to the rear was purchased and used as a haulage yard. The fuel station side of the business closed many years ago. Local information indicated a spill had occurred near the above ground diesel tank many years ago. This explains the slight odour at the shallow level. The sample from the natural ground immediately below the hardstanding did not indicate excess contamination. It is however, recommended that the madeground from around the tank is removed from site.

## 3.0 Site History

A Sitecheck report has been obtained by the client. Historical maps dating back to 1891 have been reviewed by the report. The findings have concluded that a potential source of contamination and pollutant pathways are present within the site.

## 4.0 Area Environment

A Sitecheck search has been obtained and is presented in appendix B. The search concludes that a potential source of contamination and pollutant pathways are present within the site due to the commercial activities and fuel tanks present. Further investigation is recommended.

No waste sites or landfill sites have been identified in the area.

There are no statutory authorisations in the area.

There is one discharge consents within 250m.

There are no industrial processes in the area.

There is one planning of hazardous substance consents in the area. This is to the west, dated 1992 for Devex Supplies Ltd.

There are no contraventions recorded in the area.

AT Goodyear & Sons is noted as a road haulage service on the site. This is inactive. There was a similar use a short distance to the west, also inactive.

Historic land use indicates a potential tank on site. This has been confirmed.

The site is partly within a flood risk zone.

Groundwater vulnerability is classified as non-aquifer.

Less than 1% of homes are above the radon action level. No radon protection measures are necessary.

The site is within an area which may not be affected by coal mining. No hazards are reported for non-coal mining.

Geological hazards are recorded as follows.

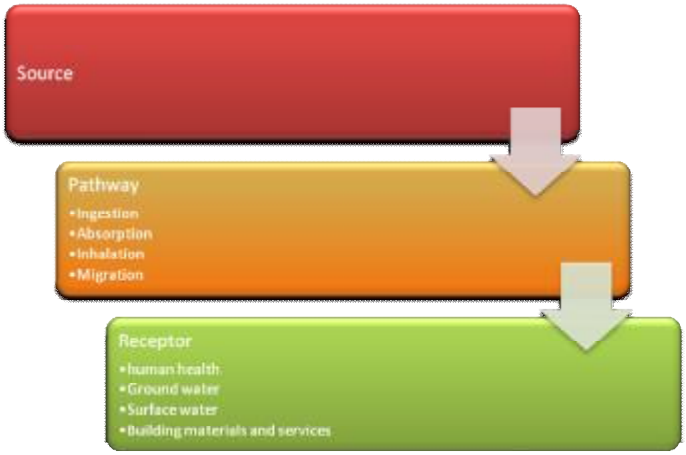
| | |
|---|---|
| Collapsible ground stability | None |
| Compressible ground stability | medium |
| Ground dissolution | None |
| Landslide ground stability | Very low |
| Running sand | medium |
| Shrinking & swelling clay | low |

Reference to the BGS map of the area indicates drift deposits are tidal flat deposits of silt and clay.

## 5.0 Phase I Conclusions and Conceptual Model

There is no evidence to suggest that an incident or event within the immediate area has affected this site. The historical settings indicate commercial usage including a haulage yard and fuel station. This would suggest a source of contamination exists on site. Following development there will be potential pathways to a sensitive receptor.

The following basic conceptual model is considered for the site.



**Site specific conceptual model**

There is hardstanding over the majority of the site which will afford some protection to the underlying soils. One below ground fuel tank has been identified along with an above ground diesel tank. The building present on site is old and could contain asbestos type materials.

It is therefore concluded that there is a risk from asbestos, metals, TPH and PAH present on site as the contaminants of concern.

The areas where fuel tanks are present has been identified. No staining was evident on the ground. There is however still a potential for TPH contamination to be present in the area of the tank.

No potential sources of contamination have been identified from offsite nearby sources.

The following site conceptual model is considered for the site.

| Site Conceptual Model | | | | | |
|---|---|---|---|---|---|
| Source | | Pathway | | Receptor | |
| Source type/area | Contaminant - likelihood | Route | Sub-route | | Risk |
| Asbestos within the building<br><br>Madeground<br><br>Fuels in area near tank & pump | Asbestos – medium to high<br><br>Metals, PAH – medium<br><br>TPH – medium | Ingestion | Soils<br>Indoor dust<br>Outdoor dust<br>Soils attached to vegetation<br>Soil absorbed by vegetation | Human health | high |
| | | Absorption | Dermal contact | Human health | high |
| | | Inhalation | Indoor dust<br>Outdoor dust<br>Indoor vapour<br>Outdoor vapour | Human health | high |
| | | Migration | | Groundwater<br>Surface water | low |
| | | | | Building materials & services | low |
| Not applicable | | | | | |
| Item | | Rational | | | |
| | | | | | |

## Risks

With due consideration to the afore and the conceptual model that it builds up, it is concluded at this stage that there is an overall medium to high risk of contaminants of concern on the site that could pose a significant risk to human health and the environment. Pathways are present and receptors to be considered include young children as the most vulnerable receptors post development.

An investigation is therefore required to evaluate contamination on the site.

From the BGS database no radon protection measures are necessary.

## 6.0 Site Investigation

On the 28th July 2016 five trial pits were excavated by a 360o excavator. The stratum within each trial pit was logged as it was advanced. The logs for each trial pit are included in appendix B. Bulk samples were taken from the depths indicated on the trial pit logs.

All samples were returned to the laboratory for logging and scheduling for testing. The location for each trial pit is indicated on the site plan in appendix A. Samples for contamination testing were taken in amber coloured glass jars and transported to the laboratory in a cool box. All precautions were taken to eliminate any cross contamination during sampling.

Groundwater was not encountered in any of the trial pits other than slight seepage.

The ethos for the trial pit locations was as follows.

1. Potential rear garden area. Historic area for parking of haulage vehicles.
2. Potential rear garden area. Historic area for parking of haulage vehicles.
3. Rear of garage. Area of potential spills and washing down.
4. Area adjacent to above ground fuel tank.
5. Area of below ground fuel tank.

Sample depths were initially shallow as this is the zone most likely to have been affected by historic use and the area that presents the greatest risk post development. A sample of fill material was also tested although it is likely to be removed from site as unsuitable to sustain plant growth. A deeper sample has also been tested from the area of the below ground tank as the potential source in this area could be deeper.

Other than a slight odour at a shallow depth in trial pit 4 there was no visual or olfactory evidence of any contamination noted. Where seepage of groundwater entered the trial pits this was noted as having no surface discolouration.

## 7.0 Laboratory Testing

A UKAS/MCETS accredited laboratory was used for all the testing of samples taken in this investigation. Analysis included metals, speciated TPH, speciated PAH and soil organic matter content. Results of all the analysis are contained in appendix D.

The results of the investigation have been assessed against published criteria from the LQM/CIEH S4ULs for human health risk assessment. This gives a values considered to be minimum risk.

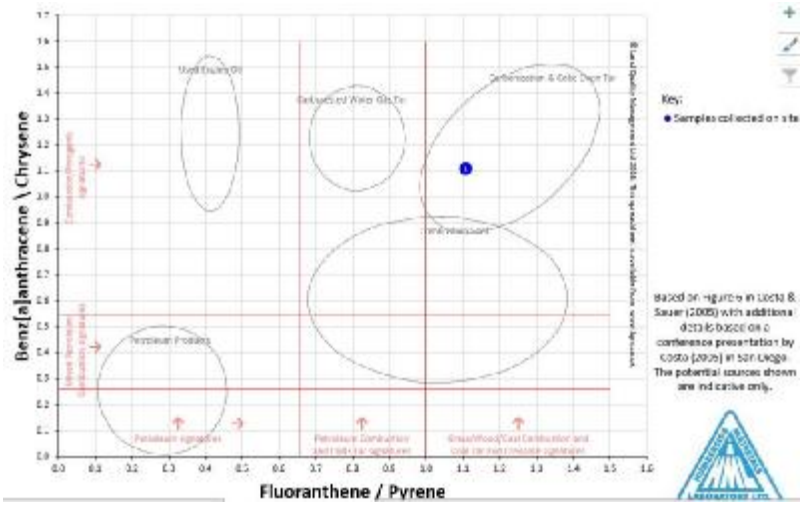
## 8.0 Discussions

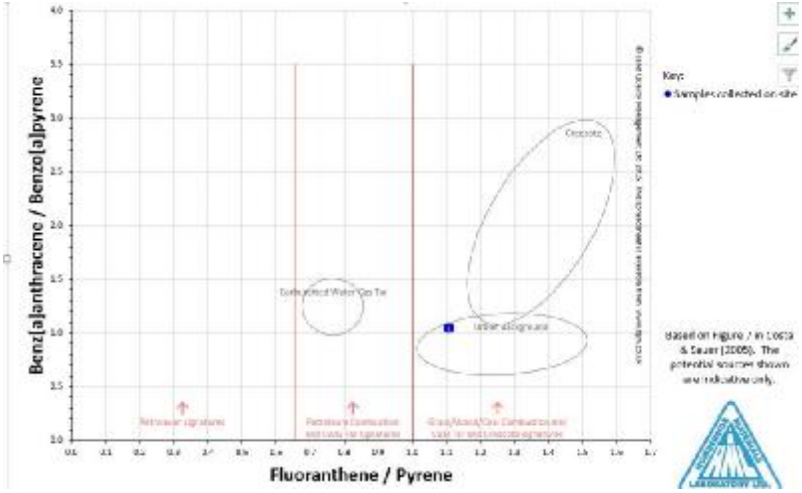
The investigation found a superficial layer of hardstanding. Madeground was predominantly brick rubble. Below this the anticipated geology of silt was encountered.

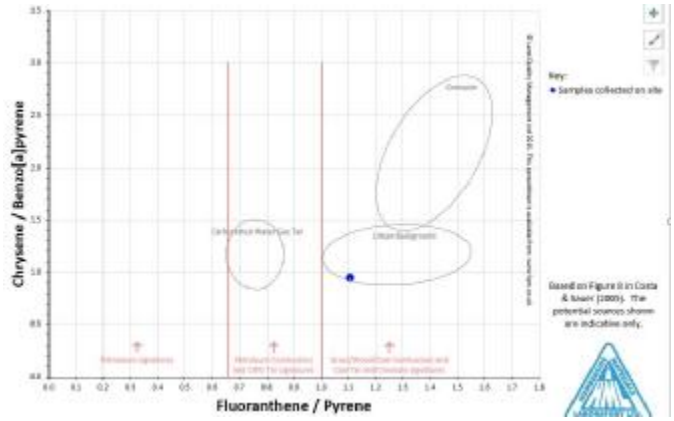
Ground water was not encountered in any of the trial pits except for a slight seepage at circa 1.4m to 1.9m bgl.

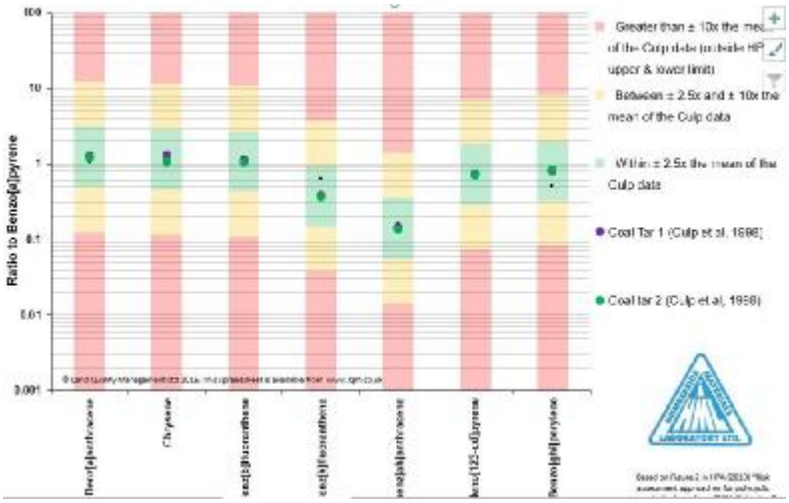
**Madeground**

Trial pit 3 sample 1 was from a shallow depth within the fill to characterise the fill present on site. This indicates metals to be below the assessment criteria. Speciated PAH was however elevated.
Double ratio and PAH profiling has been undertaken and reproduced below.






This shows the PAH to be from a combustion product and within a suitable range to use the surrogate marker approach for assessment. The value for benzo pyrene when assessed against the surrogate marker approach is above the acceptance criteria. The value was 5.15mg/kg compared to the assessment criteria of 0.98mg/k. It is therefore unsuitable for retention in any garden areas.

TPH contamination within the madeground is below the assessment criteria. Indicating contamination from fuel and oils is not present.

PAH content makes the fill unsuitable for retention in garden areas. The fill present by it's very nature would be unsuitable to sustain plant growth and should be removed from garden areas. Based on the test data it is likely that this material would be classified as inert for landfill purposes.

**Natural soils**

Five shallow and two deeper samples have been selected for testing. Soil organic matter content was 2.2% and therefore a 2.5% was used to assess to select the appropriate hydrocarbon contamination assessment criteria.

Metals

The levels of metals were relatively consistent across the site. The assessment criteria from LQM/CIEH S4ULs is reproduced below for domestic gardens with plant uptake included. The values are in mg/kg. The exception to this is the limit for lead which is taken from the Atkin Atrisk report for the same scenario.

| **element** | Residential with plant uptake |
|---|---|
| Arsenic | 37 |
| Boron | 290 |
| Cadmium | 11 |
| chromium III | 910 |
| chromium VI | 6 |
| lead (atkin atrisk) | 276-342 |
| Mercury element | 1.2 |
| mercury inorganic | 40 |
| mercury methyl | 11 |
| selenium | 250 |
| copper | 2400 |
| nickel | 130 |
| zinc | 3700 |
| Vanadium | 410 |
| Beryllium | 1.7 |

The analysis in the first instance has included total chromium, which exists in nine oxidation states. In natural soils the most common being chromium III. Chromium IV is typically only present in soils in the vicinity of industrial processes and waste deposition, which is not the case on this site.

All values are well below the assessment criteria. No further assessment for metals is required.

**Polyaromatic hydrocarbons**

Four shallow samples have been selected for speciated PAH analysis. The assessment criteria from LQM/CIEH S4ULs is reproduced below for domestic gardens with plant uptake included based on 2.5% soil organic matter content.

| **element** | Domestic gardens with plant uptake included |
|---|---|
| Acenaphthene | 510 |
| Acenaphthylene | 420 |
| Anthracene | 5400 |
| benzo a anthracene | 11 |
| benzo pyrene | 2.7 |
| benzo b fluoranthene | 3.3 |
| benzo k fluoranthene | 93 |
| benzo perylene | 340 |
| chrysene | 22 |
| dibenzo anthracene | 0.28 |
| fluoranthene | 560 |
| fluorene | 400 |
| indeno pryene | 36 |
| Naphthalene | 5.6 |
| phenanthrene | 220 |
| pyrene | 1200 |
| BaP as Surrogate marker | 0.98 |

Due to the low levels recorded, the double ratios and PAH profiling has not been undertaken, as it is not required. The data for all four samples indicate values are relatively consistent and well below the assessment criteria. No further evaluation is required.

**Total petroleum hydrocarbons**

Four shallow and two deeper samples have been selected for aliphatic/aromatic equivalent carbon chain analysis. The assessment criteria from LQM/CIEH S4ULs is reproduced below for domestic gardens with plant uptake included based on 2.5% soil organic matter content.

| element | Domestic gardens with plant uptake included | element | Domestic gardens with plant uptake included |
|---|---|---|---|
| **TPH aliphatic** | | **TPH aromatic** | |
| C5-6 | 78 | C5-7 | 140 |
| C6-8 | 230 | C7-8 | 290 |
| C8-10 | 65 | C8-10 | 83 |
| C10-12 | 330(118) | C10-12 | 180 |
| C12-16 | 2400(59) | C12-16 | 330 |
| C16-35 | 92000(21) | C16-21 | 540 |
| C35-44 | 92000(21) | C21-35 | 1500 |

The values in brackets are where either vapour or solubility saturation limits are exceeded.

Both shallow and deep samples are well below the assessment criteria. The data indicates contamination is not present. However due to the odour encountered during the site investigation it is considered that the shallow madeground from around the above ground fuel tank should be removed.

**Summary**

The madeground has been proven to be unsuitable for retention in any garden areas and should be removed from site.

The natural soils have been proven to be below the assessment criteria and suitable to remain in garden areas. Therefore, any natural soils excavated during the development i.e. from foundation etc. can be used to make up levels if required.

TPH analysis at the surface and at depth near the below ground tank indicate the pumps, pipes and tank have not leaked.

Local information indicated a spill had occurred near the above ground diesel tank many years ago. This explains the slight odour at the shallow level. The sample from the natural ground immediately below the hardstanding did not indicate excess contamination. It is however, recommended that the madeground from around the tank is removed from site.

It is recommended that an asbestos survey is undertaken on the building prior to demolition. If asbestos is present, this shall be dealt with in accordance with current legislation.

It is recommended that the below ground tanks in the forecourt are removed. During this process it should be confirmed that no odours are present from the sides and base of the excavation.

If unforeseen contamination is encountered during the development, work in that area shall be halted and the local authority informed. The potential contamination shall be investigated and remediated, if necessary to the satisfaction of the local authority.

## 9.0 Conclusion

The anticipated geology of silt was encountered throughout the site below the superficial surface layers.

A sitecheck has been obtained and assessed to produce an initial site conceptual model. This identified contaminants of concern to include metals, PAH and TPH. An intrusive investigation as required and undertaken.

From the BGS database no radon protection measures are necessary. The madeground has been proven to be unsuitable for retention in any garden areas and should be removed from site.

The natural soils have been proven to be below the assessment criteria and suitable to remain in garden areas. Therefore, any natural soils excavated during the development i.e. from foundation etc. can be used to make up levels if required.

TPH analysis at the surface and at depth near the below ground tank indicate the pumps, pipes and tank have not leaked. Local information indicated a spill had occurred near the above ground diesel tank many years ago. This explains the slight odour at the shallow level. The sample from the natural ground immediately below the hardstanding did not indicate excess contamination. It is however, recommended that the madeground from around the tank is removed from site.

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It is recommended that the below ground tanks in the forecourt are removed. During this process it should be confirmed that no odours are present from the sides and base of the excavation.

If unforeseen contamination is encountered during the development, work in that area shall be halted and the local authority informed. The potential contamination shall be investigated and remediated, if necessary to the satisfaction of the local authority.

This report is prepared on the assumption that all facts have been disclosed. The comments given in this report and the opinions expressed assume that ground conditions do not vary beyond the range revealed by this investigation and the information provided in the production of this report is complete and reliable.

**M.J. Green I.Eng. F.I.H.I.E.**

*Appendix A*




**Forecourt area of site**



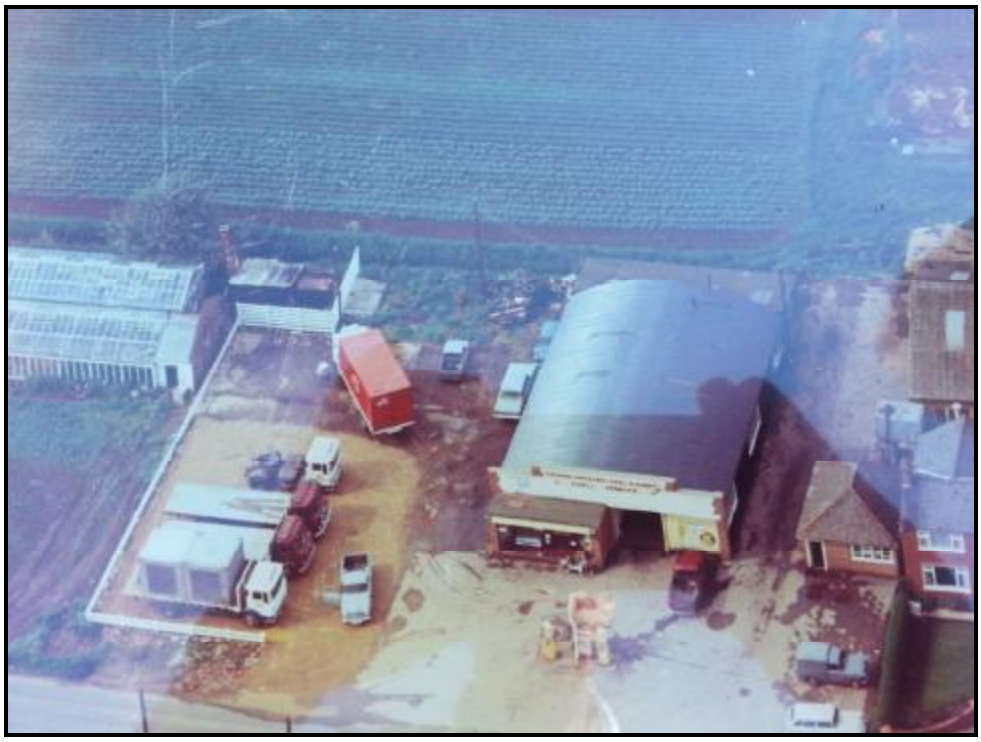

**Above ground diesel tank**



**Rear of repair workshop**



**Rear of site**



**Historic photograph 1970's**



**Trial pit 5**




Humberside Materials Laboratory Ltd
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Tel Fax 01652 652753

## SITE PLAN

SITE :- Weston Hills

CLIENT :- R Brown

*Appendix B*

# Parcel of land situate off , Austendyke Road , Weston Hills, Spalding

**Prepared for:**
**TM Official Search**
**TM Group (UK)**
**1200**
**Delta Business Park**
**Swindon**
**Wiltshire**
**SN5 7XZ**
**Report Reference:** SAS_90455978_1_1

**Report Date:** 08-JUL-2016

**Customer Reference:** 15487903

**National Grid Reference:** 528360 321890

**Site Area:** 3026 m²






If you have any questions on the contents of this Report please contact Landmark Customer Helpdesk which is open from 9:00am - 5:30pm, Monday - Friday, via one of the following channels:

**Telephone:** 0844 844 9966
**Fax:** 0844 844 9980
**Email:** info@landmarkinfo.co.uk
**Website:** www.sitecheck.co.uk

Sitecheck Assess

argyll environmental

**Professional Opinion**
**on environmental risk**

# FURTHER ACTION

The Sitecheck report dated 08-JUL-2016 and reference SAS_90455978_1_1 for Parcel of land situate off , Austendyke Road , Weston Hills, Spalding has examined the sources of potential contamination in terms of historical land use, environmental data and current land uses where known.

The report has highlighted the presence of Historical Tanks And Energy Facilities on or within 25m of the site boundary.

## INTRODUCTION

This professional opinion determines the level of environmental risk, as to whether a pollutant linkage exists which is created when there is a source of contamination, a pathway for it to travel along and receptors, which may be harmed. This risk-based approach underpins the government approach to contaminated land. If a pollutant linkage exists the property may be regarded by the local authority as being "Contaminated Land" for the purposes of Part 2A of the Environmental Protection Act 1990.

In completing this report, Argyll Environmental has undertaken a review of data made available to it. No site inspection, further enquiries or investigation of surface or ground conditions has been carried out by Argyll Environmental. No information as to the age, value and type of property has been made available. It is important to note that it is not known by Argyll Environmental for what purpose the report has been commissioned.

## FACTORS AFFECTING THIS PROPERTY

**Potential Sources:**

A detailed examination of the historical Ordnance Survey maps from 1888 to 2016 has revealed that the site existed as vacant land until 1938 when it was developed for commercial use, later identified as a garage by 1970. No further significant changes were identified from subsequent mapping.

A review of selected 1:2,500 and 1:1,250 scale Ordnance Survey mapping covering a period from 1970 has identified that the site is on or within 25 metres of Potential Tanks.

**Potential Pathways:**

- Direct human contact with soil (and water).
- Contamination transport to shallow groundwater.
- Contamination transport to deep groundwater.

**Potential Receptors:**

The property itself, surrounding properties and their respective occupants may be considered as receptors. Buildings and people can suffer harm by definition of Part 2A of the Environmental Protection Act 1990.

Current Ordnance Survey mapping indicates residential dwellings within 25 metres of the site boundary.

Current mapping indicates that the closest surface water feature is located within 25 metres of the site.

The groundwater vulnerability map, Sheet 24 North Northamptonshire, has revealed that the site is located above a Non Aquifer (Negligibly permeable).

Environment Agency data indicates that the site is located on or within 25 metres of an area which may be at risk of flooding. In the event of a flood the floodwater may be considered a sensitive receptor.

**CONCLUSIONS:**

The data examined in this risk assessment indicates that there may be a potential source of contamination arising from the potentially contaminative past land uses which may have significant implications. It would appear from this preliminary appraisal that there may be a potential pollutant linkage.

In our opinion, from the information we have examined, there is a risk that the value of the property could be impaired.

In our opinion the property may also constitute "contaminated land" as defined by Part 2A of the Environmental Protection Act 1990.

**NEXT STEPS:**

In order to revise the risk assessment provided, additional information will need to be reviewed. If any of the information below is available, please consider taking advantage of our free re-review service. Please forward this to our customer services team using the following email address; **helpdesk@landmark.co.uk**.

This could include:

1. Confirmation or commentary from the Local Authority Environmental Health Department that they are not considering taking any action against the Site under Part 2A of the Environmental Protection Act 1990.

2. Confirmation or commentary from the Local Authority Planning Department, that any recent redevelopment of the site included ground investigations and/or remediation works undertaken to their satisfaction resulting in discharge of any associated conditions.

However if no information is available or the information you send us is insufficient, we can collect and review additional information for you for £450 plus VAT.

Please call **0845 458 5250** to discuss these options in more detail.

If the site is operational, you should consider undertaking a Phase 1 Environmental Audit in order to investigate current operational environmental liabilities, compliance issues and any historical legacy that the site owner may be exposed to. We can offer a contaminated land, compliance and other environmental audits from £795 + VAT.

Please call **0845 458 5250** to discuss the audit options in more detail with one of our environmental consultants.

## Professional Opinion

**on environmental risk**

**OTHER ENVIRONMENTAL FACTORS:**

In this case the following environmental factors have been identified which a client may wish to be investigated before proceeding further:

An area of Subsidence Hazard Potential
An area of floodplain

Please refer to the relevant section in the report for each of the above factors.

Approved by

Argyll Environmental Ltd

# Professional Opinion

**on environmental risk**

**SOURCES OF ADDITIONAL PROFESSIONAL GUIDANCE:**

If the report is for valuation, or investment, or other forms of lending decision making there may be issues arising from the current occupation, which need to be examined. The Royal Institution of Chartered Surveyors has provided guidance with respect to such matters and specific reference should be made to the guidance note 'Contamination, the environment and sustainability - Implications for chartered surveyors and their clients' published April 2010. This guidance note is referred to in UKGN1.1 paragraph 2.2 of the RICS Valuation Standards (6th Edition) (The "Red Book").

It is recommended that the client reviews the outputs of any valuation report, which should include a Property Observation Checklist, contained at Appendix A for commercial property or Appendix B for rural property in the Royal Institution of Chartered Surveyors guidance note 'Contamination, the environment and sustainability - Implications for chartered surveyors and their clients'. Completion of these checklists does not constitute an environmental assessment for the purposes of Professional Indemnity Insurance where many surveyors are unlikely to have appropriate indemnity cover. Any contamination, which is observed on the site by the surveyor during the normal course of their inspection, can also be recorded.

If the property is let, the landlord or the tenant (as appropriate) should take legal advice as to whether the covenants in the lease constitute legal or financial burdens. The Law Society's "Environmental Law Handbook-6th Edition" provides valuable assistance.

In leases with no express covenants dealing with environmental matters, lawyers and surveyors need to be aware of the extent to which the repairing of covenants can be applied and, when advising tenant clients in particular, will need to draw attention to the client's obligations to comply with enacted legislation.

Should contamination have been observed on site a suitably qualified, insured and experienced professional, preferably with the Specialist in Land Condition (SiLC) accreditation, should quantify whether this could give rise to an action by a regulator or any other party. A suitable management plan for action incorporated in a Land Quality Statement in accordance with RICS guidance should be put in place and appropriate matters taken up with the tenant / occupier.

In terms of development this report should be seen as a precursor to a thorough investigation of the property for planning control purposes. The DTI funded guidance published by the Construction Industry Research and Information Association (CIRIA) Brownfields-managing the development of previously developed land-a clients guide may be a useful starting point.

This professional opinion forms part of the Sitecheck Assess report and is subject to Landmark Information Group's Terms and Conditions of Business in force from time to time. Further information on the methodology and the datasets examined in this professional opinion is included in the Sitecheck Asses Practitioner Guide.

Sitecheck Assess

# Contents


| Report Sections and Details | Page |
|---|---|
| **Summary of Site** | - |
| This section comprises contaminant, pathway and receptor information found on site. Other factors which may affect the site are also included. | |
| **Aerial Photo** | 1 |
| The aerial photo gives an overall view of the area. The smaller large-scale Ordnance Survey map includes the site boundary and search zone buffer at 500m. | |
| **Location Map** | 2 |
| The large-scale Ordnance Survey map includes the site boundary and search zone buffer at 500m. The smaller aerial photo also includes the site boundary. | |
| **Summary Table** | 3 |
| This section comprises of a summary table of the information found on site and in its vicinity. | |
| **Current Land Use** | 7 |
| This section contains a map, which shows current land use features. The following pages detail these features and identify the Reference Number and direction. | |
| **Historical Land Use** | 10 |
| This section contains a map, which shows historical land use features. The following pages detail these features and identify the Reference Number and direction. A table listing all the maps used to source this information is included. | |
| **Sensitivity** | 13 |
| This section contains a map, which shows pathway and receptor features. The following pages detail these features and identify the Reference Number and direction. This section also contains a separate Flood Map and flood details. | |
| **Other Factors** | 16 |
| This section contains information on other factors which may affect the site and its vicinity. | |
| **Useful Information** | 17 |
| This section contains information which may be of use when interpreting the report. | |
| **Useful Contacts** | 18 |
| All textual information is linked by the 'Contact Ref' to this quick reference list of contacts. These contacts may be able to supply additional information or answer any subsequent query relating to that record. | |

| Current Land Use<br>Potentially Contaminative Uses | Page No. | Reference Number (Map ID) |
|---|---|---|
| **Contemporary Trade Directory Entries** | | |
| A T Goodyear & Son Ltd, 28, Austendyke Road, Weston Hills, Spalding, Lincolnshire, PE12 6BX, Road Haulage Services, Status: Inactive, Positional Accuracy: Automatically positioned to the address | 9 | 3 |

| Historical Land Use<br>Potentially Contaminative Uses | Page No. | Reference Number (Map ID) |
|---|---|---|
| **Historical Tanks And Energy Facilities** | | |
| Potential Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1970 | 11 | 1 |

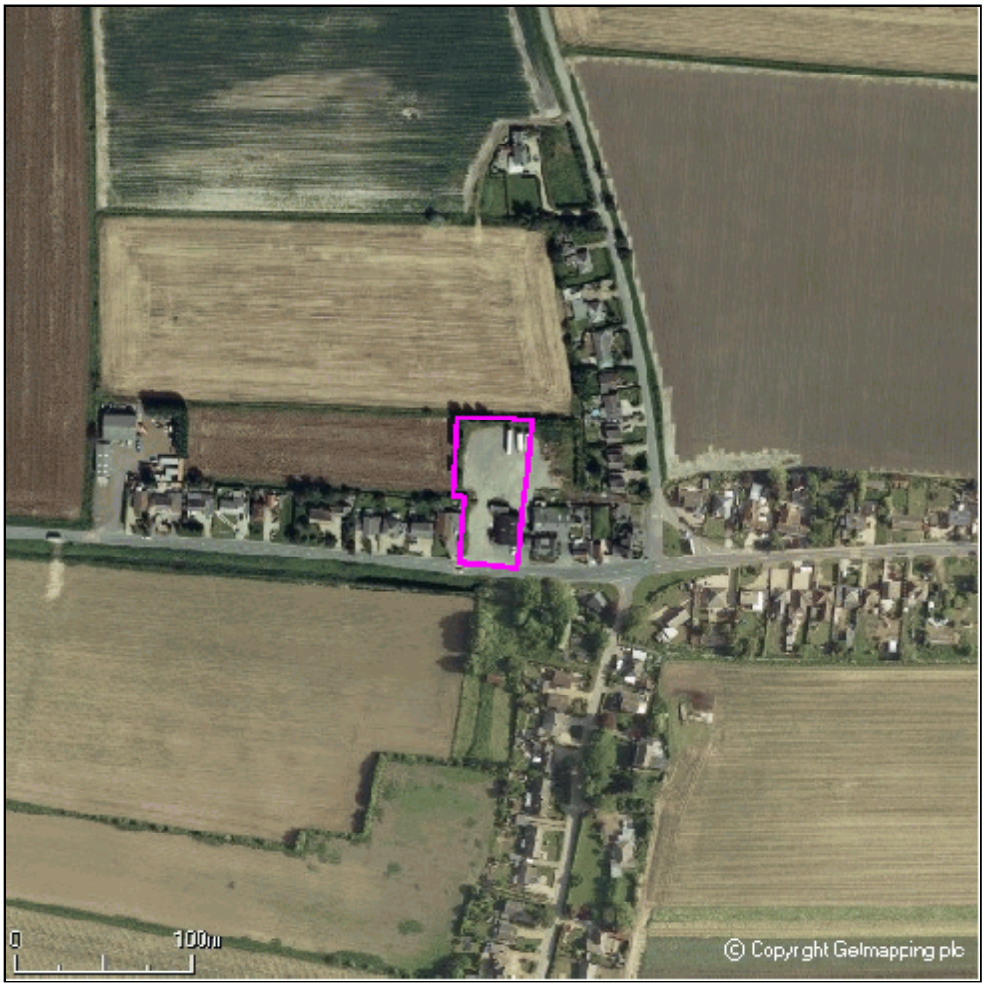
| Sensitivity<br>Pathways | Page No. | Reference Number (Map ID) |
|---|---|---|
| **Groundwater Vulnerability** | | |
| Geological Classification: Non Aquifer (Negligibly permeable) - Formations which are generally regarded as containing insignificant quantities of groundwater. However, groundwater flow through such rocks, although imperceptible, does take place and needs to be considered in assessing the risk associated with persistent pollutants, Soil Classification: Not classified, Map Scale: 1:100,000, Map Name: Sheet 24 North Northamptonshire, Contact Ref: 2 | 15 | - |
| **Extreme Flooding from Rivers or Sea without Defences** | | |
| Type: Extent of Extreme Flooding from Rivers or Sea without Defences, Flood Plain Type: Tidal Models, Contact Ref: 2 | 15 | - |
| **Flooding from Rivers or Sea without Defences** | | |
| Type: Extent of Flooding from Rivers or Sea without Defences, Flood Plain Type: Fluvial/Tidal Models, Contact Ref: 2 | 15 | - |

| Sensitivity<br>Environmentally Sensitive Receptors | Page No. | Reference Number (Map ID) |
|---|---|---|
| **Nearest Surface Water Feature** | | |
| Distance: 0m | 15 | 2 |

| Other Factors<br>Geological | Page No. | Reference Number (Map ID) |
|---|---|---|
| **Radon Potential - Radon Affected Areas** | | |
| Affected Areas: The property is in a lower probability radon area, as less than 1% of homes are above the action level, Source: British Geological Survey, National Geoscience Information Service, Contact Ref: 3 | 16 | - |
| **Radon Potential - Radon Protection Measures** | | |
| Radon Protection Measures: None, Source: British Geological Survey, National Geoscience Information Service, Contact Ref: 3 | 16 | - |
| **Potential for Compressible Ground Stability Hazards** | | |
| Hazard Potential: Moderate, Contact Ref: 3 | 16 | - |
| **Potential for Landslide Ground Stability Hazards** | | |
| Hazard Potential: Very Low, Contact Ref: 3 | 16 | - |
| **Potential for Running Sand Ground Stability Hazards** | | |
| Hazard Potential: Moderate, Contact Ref: 3 | 16 | - |
| **Potential for Shrinking or Swelling Clay Ground Stability Hazards** | | |
| Hazard Potential: Low, Contact Ref: 3 | 16 | - |



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**Site**
Parcel of land situate off ,Austendyke Road ,Weston Hills,Spalding

**Grid Reference**
528360, 321890

**Report Reference**
SAS_90455978_1_1

**Customer Reference**
15487903

**Size of Site**
3026 m²





If you would like any further assistance regarding this report then please contact Landmark on (Tel) 0844 844 9966, (Fax) 0844 844 9980, Email: helpdesk@landmark.co.uk



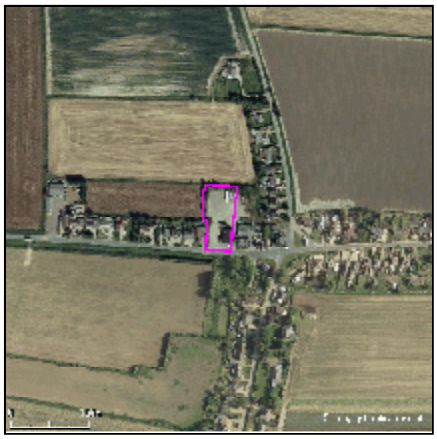

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**Size of Site**
3026 m²





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| Current Land Use<br>Contaminants | On Site<br>1 | 0-250m<br>10 | 250-500m<br>3 |
|---|---|---|---|
| **Waste / Landfill Sites** | | | |
| BGS Recorded Landfill Sites | 0 | 0 | 0 |
| Licensed Waste Management Facilities (Landfill Boundaries) | 0 | 0 | 0 |
| Licensed Waste Management Facilities (Locations) | 0 | 0 | 0 |
| Local Authority Recorded Landfill Sites | 0 | 0 | 0 |
| Registered Landfill Sites | 0 | 0 | 0 |
| Registered Waste Transfer Sites | 0 | 0 | 0 |
| Registered Waste Treatment or Disposal Sites | 0 | 0 | 0 |
| **Statutory Authorisations** | | | |
| Local Authority Pollution Prevention and Controls | 0 | 0 | 0 |
| Contaminated Land Register Entries and Notices | 0 | 0 | 0 |
| Radioactive Substances Register | 0 | 0 | 0 |
| **Discharge Consents** | | | |
| Discharge Consents | 0 | 6 | 1 |
| Water Industry Act Referrals | 0 | 0 | 0 |
| **Industrial Processes** | | | |
| Integrated Pollution Controls | 0 | 0 | 0 |
| Integrated Pollution Control Registered Waste Sites | 0 | 0 | 0 |
| Environmental Permitting Regulations - Industry | 0 | 0 | 0 |
| Local Authority Integrated Pollution Prevention And Control | 0 | 0 | 0 |
| **Storage of Hazardous Substances** | | | |
| Control of Major Accident Hazards Sites (COMAH) | 0 | 0 | 0 |
| Explosive Sites | 0 | 0 | 0 |
| Notification of Installations Handling Hazardous Substances (NIHHS) | 0 | 0 | 0 |
| Planning Hazardous Substance Consents | 0 | 1 | 0 |
| **Contraventions** | | | |
| Local Authority Pollution Prevention and Control Enforcements | 0 | 0 | 0 |
| Enforcement and Prohibition Notices | 0 | 0 | 0 |
| Planning Hazardous Substance Enforcements | 0 | 0 | 0 |
| Prosecutions Relating to Authorised Processes | 0 | 0 | 0 |
| Prosecutions Relating to Controlled Waters | 0 | 0 | 0 |
| Substantiated Pollution Incident Register | 0 | 0 | 0 |

| Current Land Use | On Site | 0-250m | 250-500m |
|---|---|---|---|
| **Contaminants** | **1** | **10** | **3** |
| **Potentially Contaminative Uses** | | | |
| Contemporary Trade Directory Entries | 1 | 3 | 2 |
| Fuel Station Entries | 0 | 0 | 0 |
| **Miscellaneous** | | | |
| BGS Recorded Mineral Sites | 0 | 0 | 0 |

| Historical Land Use | On Site | 0-250m | 250-500m |
|---|---|---|---|
| **Contaminants** | **1** | **0** | **2** |
| **Potentially Contaminative Uses** | | | |
| Historical Tanks And Energy Facilities | 1 | 0 | 1 |
| Potentially Contaminative Industrial Uses (Past Land Use) | 0 | 0 | 0 |
| **Potentially Infilled Land** | | | |
| Former Marshes | 0 | 0 | 0 |
| Potentially Infilled Land (Non-Water) | 0 | 0 | 0 |
| Potentially Infilled Land (Water) | 0 | 0 | 1 |

| Sensitivity | On Site | 0-250m | 250-500m |
|---|---|---|---|
| **Pathways and Receptors** | **4** | **0** | **0** |
| **Pathways** | | | |
| Groundwater Vulnerability | 1 | n/a | n/a |
| Drift Deposits | 0 | n/a | n/a |
| Historical Flood Liabilities | 0 | 0 | 0 |
| Extreme Flooding from Rivers or Sea without Defences | 1 | 0 | n/a |
| Flooding from Rivers or Sea without Defences | 1 | 0 | n/a |
| Areas Benefiting from Flood Defences | 0 | 0 | n/a |
| Flood Water Storage Areas | 0 | 0 | n/a |
| Flood Defences | 0 | 0 | n/a |



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| Sensitivity<br>Pathways and Receptors | On Site<br>4 | 0-250m<br>0 | 250-500m<br>0 |
|---|---|---|---|
| **Environmentally Sensitive Receptors** | | | |
| Areas of Outstanding Natural Beauty | 0 | 0 | 0 |
| Environmentally Sensitive Areas | 0 | 0 | 0 |
| Local Nature Reserves | 0 | 0 | 0 |
| Marine Nature Reserves | 0 | 0 | 0 |
| National Nature Reserves | 0 | 0 | 0 |
| Nearest Surface Water Feature | 1 | 0 | 0 |
| Ramsar Sites | 0 | 0 | 0 |
| Sites of Special Scientific Interest | 0 | 0 | 0 |
| Source Protection Zones | 0 | 0 | 0 |
| Special Areas of Conservation | 0 | 0 | 0 |
| Special Protection Areas | 0 | 0 | 0 |
| Water Abstractions | 0 | 0 | 0 |
| **Protected Countryside Areas** | | | |
| Forest Parks | 0 | 0 | 0 |
| National Parks | 0 | 0 | 0 |
| National Scenic Areas | 0 | 0 | 0 |

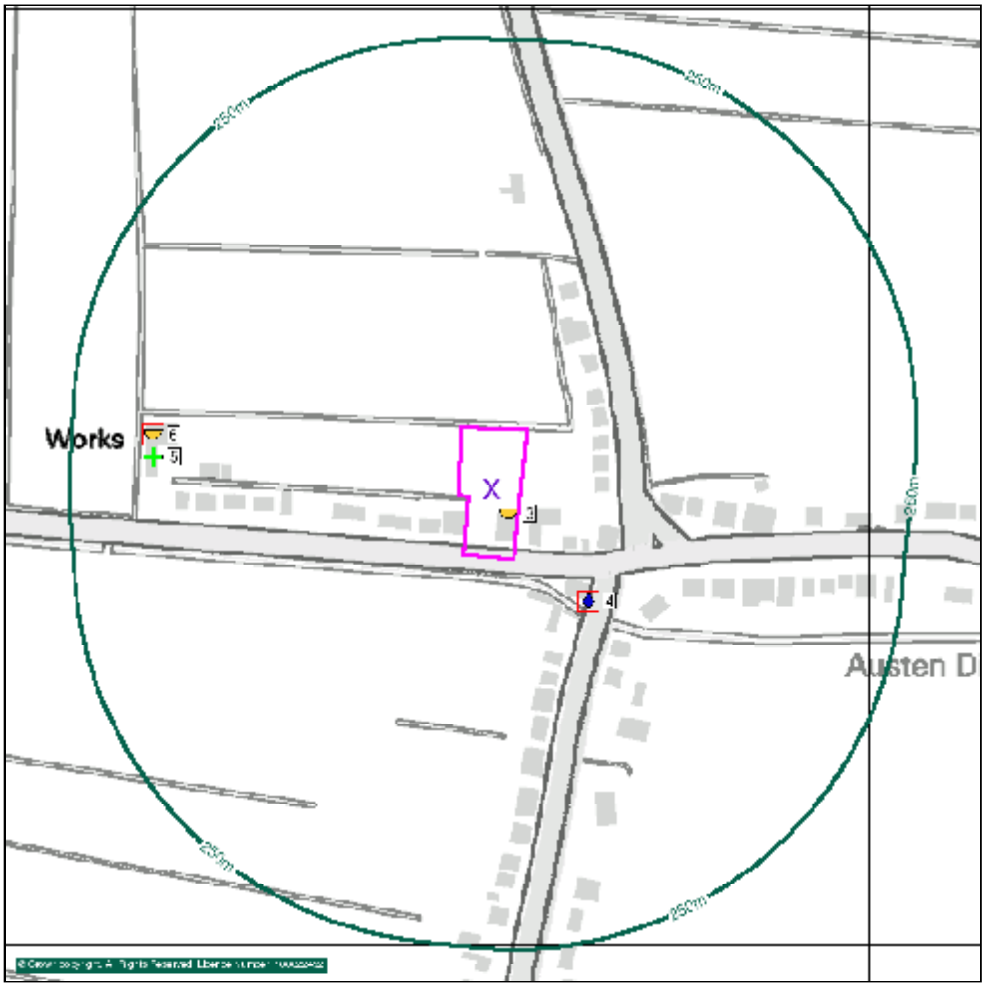


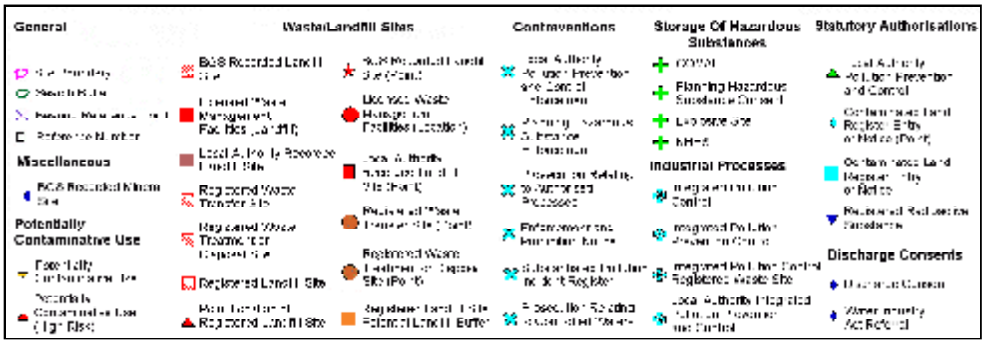
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| Other Factors<br>Geological | On Site<br>8 | 0-250m<br>0 | 250-500m<br>0 |
|---|---|---|---|
| | | | |
| Brine Compensation Area | 0 | n/a | n/a |
| Coal Mining Affected Areas | 0 | n/a | n/a |
| Mining Instability | 0 | 0 | n/a |
| Man-Made Mining Cavities | 0 | 0 | 0 |
| Natural Cavities | 0 | 0 | 0 |
| Non Coal Mining Areas of Great Britain | 0 | 0 | n/a |
| Radon Potential - Radon Affected Areas | 1 | n/a | n/a |
| Radon Potential - Radon Protection Measures | 1 | n/a | n/a |
| Potential for Collapsible Ground Stability Hazards | 1 | 0 | n/a |
| Potential for Compressible Ground Stability Hazards | 1 | 0 | n/a |
| Potential for Ground Dissolution Stability Hazards | 1 | 0 | n/a |
| Potential for Landslide Ground Stability Hazards | 1 | 0 | n/a |
| Potential for Running Sand Ground Stability Hazards | 1 | 0 | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | 1 | 0 | n/a |



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| Contaminants<br>Waste / Landfill Sites | Ref No. | Search Buffer | Direction |
|---|---|---|---|
| **Local Authority Landfill Coverage** | | | |
| Name: South Holland District Council, - Has no landfill data to supply, Contact Ref: 4 | - | On Site | SE |
| Name: Lincolnshire County Council, - Had landfill data but passed it to the relevant environment agency, Contact Ref: 5 | - | On Site | SE |

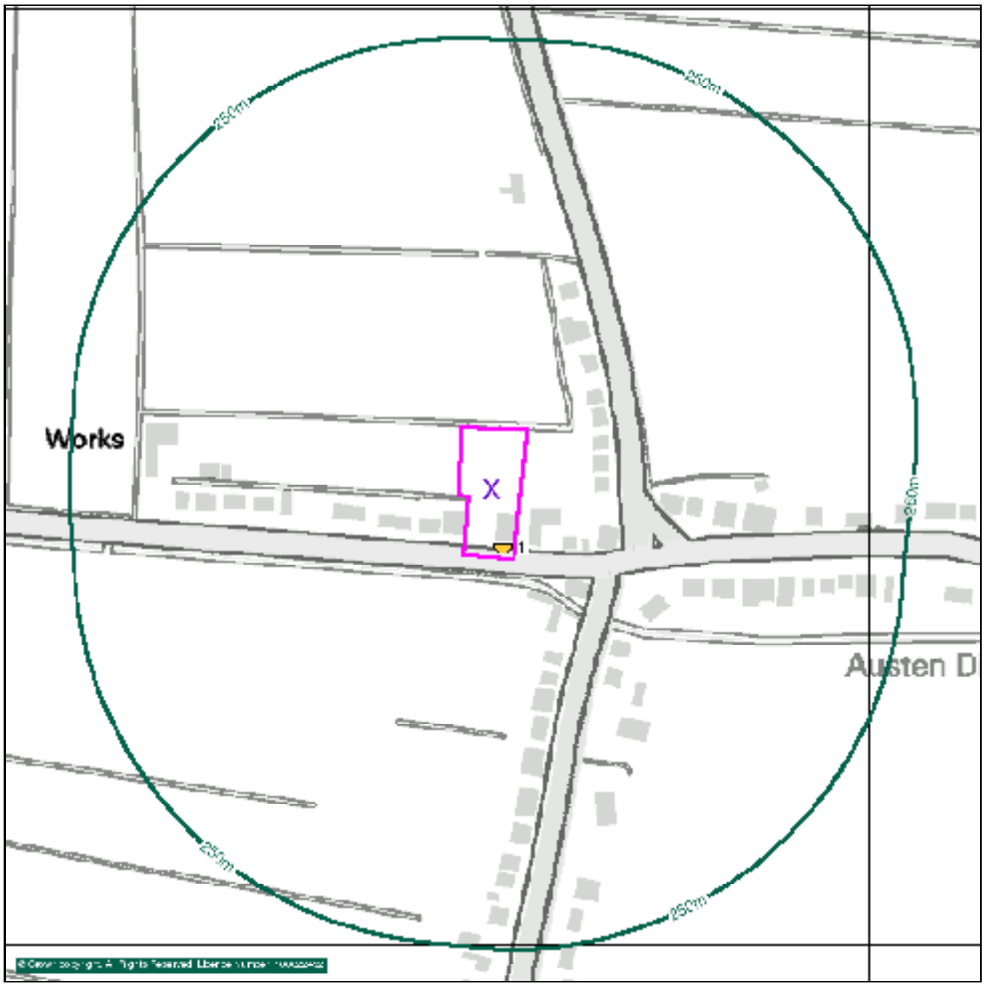
| Discharge Consents | Ref No. | Search Buffer | Direction |
|---|---|---|---|
| **Discharge Consents** | | | |
| Anglian Water Services Limited, Cowbit Stw, Cowbit, Spalding, Broadgate, Bgate Weston, Pe12 0xw, Sewage Discharge, Reference: Aw5nf807, Version: 5, Status: Revised by Notice, at direction of Secretary of State (Section 37(2)), Positional Accuracy: Located by supplier to within 10m, Contact Ref: 2 | 4 | 0-250m | SE |
| Anglian Water Services Limited, Cowbit Stw, Cowbit, Spalding, Broadgate, Bgate Weston, Pe12 0xw, Sewage Discharge, Reference: Aw5nf807, Version: 6, Status: Varied under EPR 2010, Positional Accuracy: Located by supplier to within 10m, Contact Ref: 2 | 4 | 0-250m | SE |
| Anglian Water Services Limited, Cowbit Stw, Cowbit, Spalding, Broadgate, Bgate Weston, Pe12 0xw, Sewage Discharge, Reference: Aw5nf807, Version: 1, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 10m, Contact Ref: 2 | 4 | 0-250m | SE |
| Anglian Water Services Limited, Cowbit Stw, Cowbit, Spalding, Broadgate, Bgate Weston, Pe12 0xw, Sewage Discharge, Reference: Aw5nf807, Version: 2, Status: Revised by Notice, at direction of Secretary of State (Section 37(2)), Positional Accuracy: Located by supplier to within 10m, Contact Ref: 2 | 4 | 0-250m | SE |
| Anglian Water Services Limited, Cowbit Stw, Cowbit, Spalding, Broadgate, Bgate Weston, Pe12 0xw, Sewage Discharge, Reference: Aw5nf807, Version: 3, Status: Revised by Notice, at direction of Secretary of State (Section 37(2)), Positional Accuracy: Located by supplier to within 10m, Contact Ref: 2 | 4 | 0-250m | SE |
| Anglian Water Services Limited, Cowbit Stw, Cowbit, Spalding, Broadgate, Bgate Weston, Pe12 0xw, Sewage Discharge, Reference: Aw5nf807, Version: 4, Status: Revised by Notice, at direction of Secretary of State (Section 37(2)), Positional Accuracy: Located by supplier to within 10m, Contact Ref: 2 | 4 | 0-250m | SE |
| Mr.D.J.Durrant, Cottage At Delgate Bank Weston Hills, Spalding, Lincs, Pe12 6dn, Unknown Discharge, Reference: Pr5lf3863, Version: 1, Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989, Positional Accuracy: Located by supplier to within 100m, Contact Ref: 2 | - | 250-500m | SE |

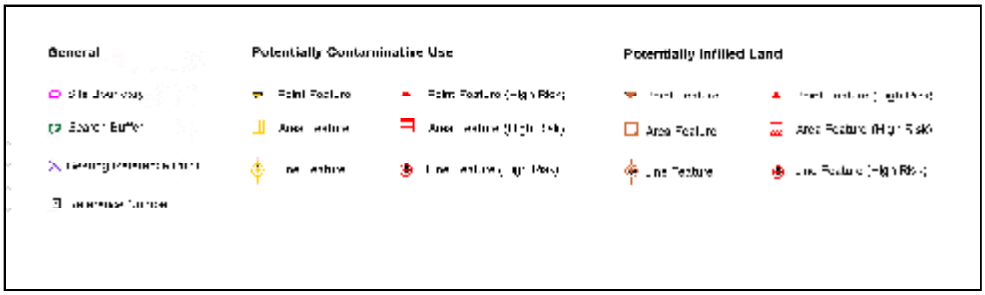

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| Contaminants<br>Storage of Hazardous Substances | Ref No. | Search Buffer | Direction |
|---|---|---|---|
| **Planning Hazardous Substance Consents** | | | |
| Devex Supplies Ltd, Austendyke Road, Weston Hills, SPALDING, Lincolnshire, PE12 6BX, Storage of Flammable Substances, Reference: H04/0968/95, Status: Deemed consent granted between June 1992 and November 1992, Granted, Positional Accuracy: Automatically positioned to the address, Contact Ref: 1 | 5 | 0-250m | W |

| Potentially Contaminative Uses | Ref No. | Search Buffer | Direction |
|---|---|---|---|
| **Contemporary Trade Directory Entries** | | | |
| A T Goodyear & Son Ltd, 28, Austendyke Road, Weston Hills, Spalding, Lincolnshire, PE12 6BX, Road Haulage Services, Status: Inactive, Positional Accuracy: Automatically positioned to the address | 3 | On Site | SE |
| B H Smylie, 2, Austendyke Road, Weston Hills, Spalding, Lincolnshire, PE12 6BX, Commercial Vehicle Servicing, Repairs, Parts & Accessories, Status: Inactive, Positional Accuracy: Automatically positioned to the address | 6 | 0-250m | W |
| Dennis Jex & Son Ltd, 2, Austendyke Road, Weston Hills, Spalding, Lincolnshire, PE12 6BX, Agricultural Engineers, Status: Inactive, Positional Accuracy: Automatically positioned to the address | 6 | 0-250m | W |
| G L F, 2, Austendyke Road, Weston Hills, Spalding, Lincolnshire, PE12 6BX, Motor Cycle Repairs, Status: Inactive, Positional Accuracy: Automatically positioned to the address | 6 | 0-250m | W |
| Budget Spares, Weston Hills, Spalding, Lincolnshire, PE12 6DP, Car Breakers & Dismantlers, Status: Inactive, Positional Accuracy: Manually positioned within the geographical locality | - | 250-500m | S |
| Skycraft Ltd, 621, Broadgate, Weston Hills, Spalding, Lincolnshire, PE12 6DP, Aviation Engineers, Status: Active, Positional Accuracy: Automatically positioned to the address | - | 250-500m | N |


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| Contaminants<br>Potentially Contaminative Uses | Ref No. | Search Buffer | Direction |
|---|---|---|---|
| **Historical Tanks And Energy Facilities** | | | |
| Potential Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1970 | 1 | On Site | S |
| Tanks, Scale of Mapping: 1:2,500, Date of Mapping: 1970 | - | 250-500m | S |

| Potentially Infilled Land | Ref No. | Search Buffer | Direction |
|---|---|---|---|
| **Potentially Infilled Land (Water)** | | | |
| Unknown Filled Ground (Pond, marsh, river, stream, dock etc), Date of Mapping: 1938 | - | 250-500m | N |

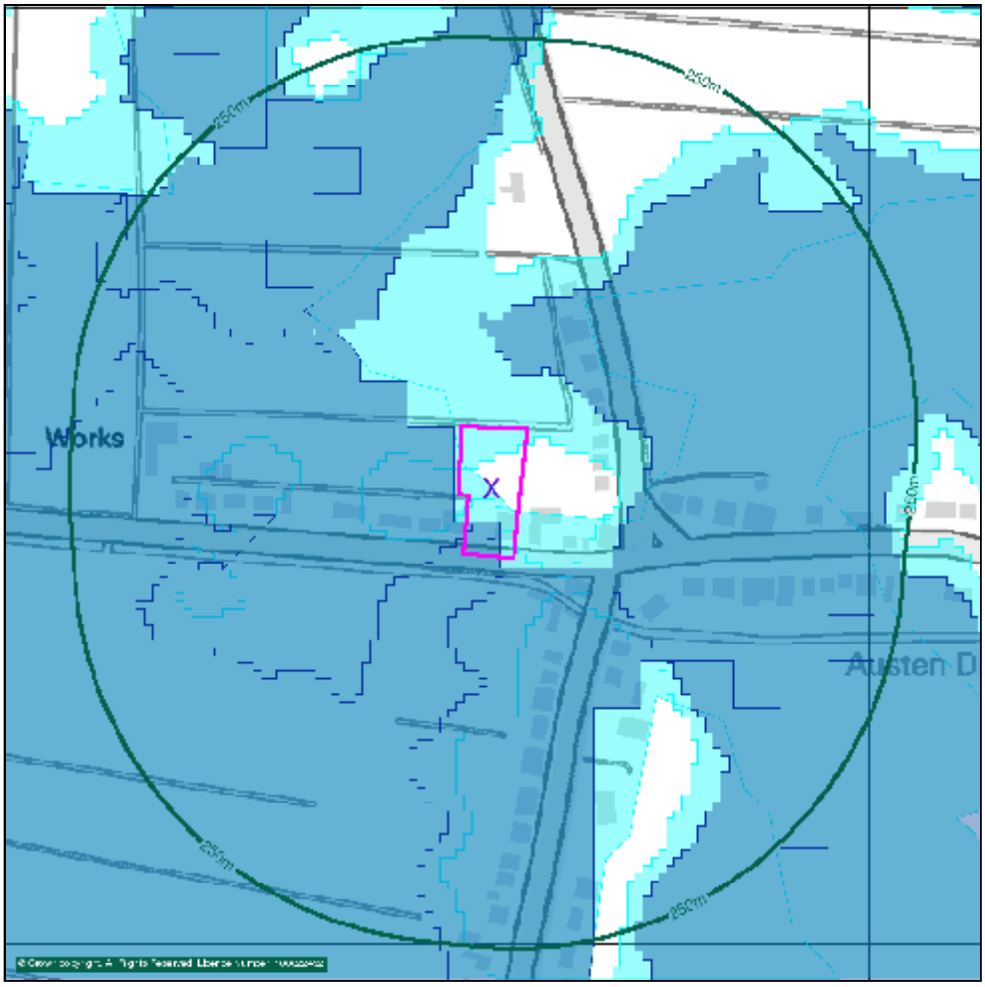

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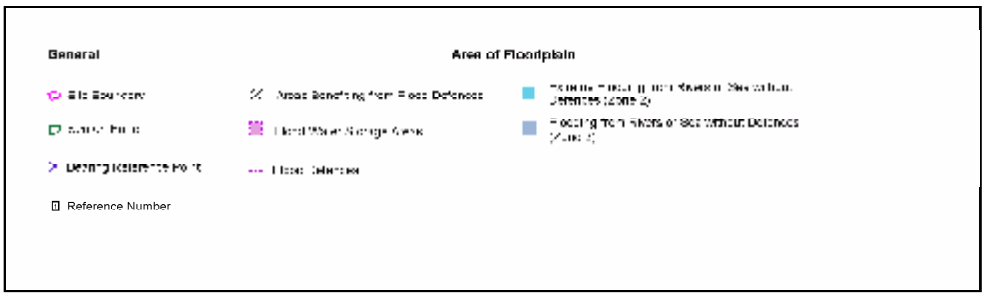
## Map Details

| The following maps have been analysed for Historical Tanks and Energy Facilities | | |
|---|---|---|
| **1:2,500** | **Mapsheet** | **Published** |
| Ordnance Survey Plan | TF2821 | 1970 |
| **The following maps have been analysed for Potentially Contaminative Uses and Potentially Infilled Land information** | | |
| **1:10,000** | **Mapsheet** | **Published** |
| Ordnance Survey Plan | TF22SE | 1989 |
| **1:10,560** | **Mapsheet** | **Published** |
| Lincolnshire | 142_NE | 1891 |
| Lincolnshire | 142_NE | 1906 |
| Lincolnshire | 142_NE | 1938 |
| Ordnance Survey Plan | TF22SE | 1958 |


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## Flood Map

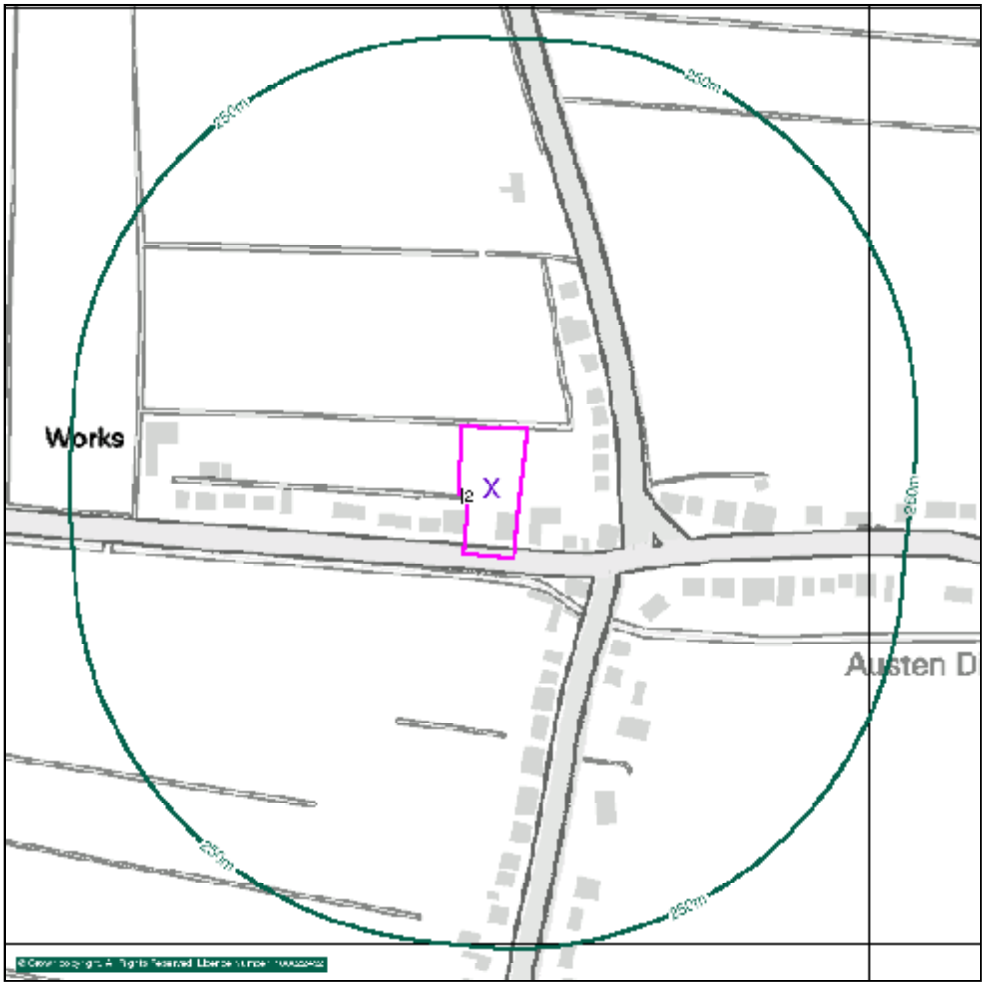


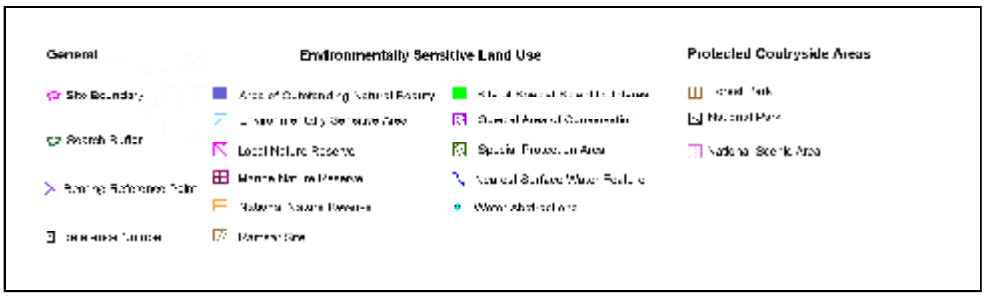






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## Sensitivity Map






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| Pathways and Receptors<br>Pathways | Ref No. | Search Buffer | Direction |
|---|---|---|---|
| **Groundwater Vulnerability** | | | |
| Geological Classification: Non Aquifer (Negligibly permeable) - Formations which are generally regarded as containing insignificant quantities of groundwater. However, groundwater flow through such rocks, although imperceptible, does take place and needs to be considered in assessing the risk associated with persistent pollutants, Soil Classification: Not classified, Map Scale: 1:100,000, Map Name: Sheet 24 North Northamptonshire, Contact Ref: 2 | - | On Site | SE |
| **Drift Deposits** | | | |
| None | - | | - |
| **Extreme Flooding from Rivers or Sea without Defences** | | | |
| Type: Extent of Extreme Flooding from Rivers or Sea without Defences, Flood Plain Type: Tidal Models, Contact Ref: 2 | - | On Site | SE |
| **Flooding from Rivers or Sea without Defences** | | | |
| Type: Extent of Flooding from Rivers or Sea without Defences, Flood Plain Type: Fluvial/Tidal Models, Contact Ref: 2 | - | On Site | S |
| **Areas Benefiting from Flood Defences** | | | |
| None | - | | - |
| **Flood Water Storage Areas** | | | |
| None | - | | - |
| **Flood Defences** | | | |
| None | - | | - |

| Environmentally Sensitive Receptors | Ref No. | Search Buffer | Direction |
|---|---|---|---|
| **Nearest Surface Water Feature** | | | |
| Distance: 0m | 2 | On Site | W |


If you would like any further assistance regarding this report then please contact
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| Other Factors<br>Geological | Search Buffer | Direction |
|---|---|---|
| **Brine Compensation Area** | | |
| No | | - |
| **Coal Mining Affected Areas** | | |
| In an area which may not be affected by Coal Mining | | - |
| **Non Coal Mining Areas of Great Britain** | | |
| No Hazard | | - |
| **Radon Potential - Radon Affected Areas** | | |
| Affected Areas: The property is in a lower probability radon area, as less than 1% of homes are above the action level, Source: British Geological Survey, National Geoscience Information Service, Contact Ref: 3 | On Site | SE |
| **Radon Potential - Radon Protection Measures** | | |
| Radon Protection Measures: None, Source: British Geological Survey, National Geoscience Information Service, Contact Ref: 3 | On Site | SE |
| **Potential for Collapsible Ground Stability Hazards** | | |
| Hazard Potential: No Hazard, Contact Ref: 3 | On Site | SE |
| **Potential for Compressible Ground Stability Hazards** | | |
| Hazard Potential: Moderate, Contact Ref: 3 | On Site | SE |
| **Potential for Ground Dissolution Stability Hazards** | | |
| Hazard Potential: No Hazard, Contact Ref: 3 | On Site | SE |
| **Potential for Landslide Ground Stability Hazards** | | |
| Hazard Potential: Very Low, Contact Ref: 3 | On Site | SE |
| **Potential for Running Sand Ground Stability Hazards** | | |
| Hazard Potential: Moderate, Contact Ref: 3 | On Site | SE |
| **Potential for Shrinking or Swelling Clay Ground Stability Hazards** | | |
| Hazard Potential: Low, Contact Ref: 3 | On Site | SE |


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## Registered Landfill Sites

At present no complete national data set exists for landfill site boundaries, therefore a point grid reference, provided by the data supplier, is used for some landfill sites. In certain cases the point grid references supplied provide only an approximate position and can vary from the site entrance to the centre of the site. Where the exact position of the site is unclear, Landmark construct either a 100 metre or 250 metre "buffer" around the point to warn of the possible presence of landfill. The size of this "buffer" relates to the positional accuracy that can be attributed to the site. The "buffer" is shown on the map as an orange cross-hatched circle and is referred to in the map legend as Potential Landfill Buffer. Where actual boundaries are available, the landfill site area is shown on the map as a red diagonal hatched polygon and referred to in the map legend as Registered Landfill Site.

## Local Authority Recorded Landfill Sites

Local Authority landfill data are sourced from individual local authorities that were able to provide information on sites operating prior to the introduction of the Control of Pollution Act (COPA) in 1974. Appropriate authorities are listed under Local Authority Landfill Coverage with an indication of whether or not they were able to make landfill data available. Details of any records identified are disclosed. You should be aware that if the local authority 'Had landfill data but passed it to the relevant environment agency' it does not necessarily mean that local authority landfill data is included in our other Landfill datasets. In addition if no data has been made available, for all or part of the search area, you should be aware that a negative response under 'Local Authority Recorded Landfill Sites' does not necessarily confirm that no local authority landfills exist.

## Flooding

The Sitecheck report flood map plots all flood related features revealed within the search area as supplied by the relevant environment agency. However, to avoid confusion, the text entry in the body of the report only reveals the detail of the nearest feature in each flood data set. This is also reflected in the summary table where only a single entry is included to indicate the search buffer of the nearest occurrence.

## Mining Instability Data

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The Sitecheck Assess User guide is available free of charge from our website www.sitecheck.co.uk

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## Contact Names and Addresses

### 1 South Holland District Council

Council Offices
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Spalding
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PE11 2XE

Telephone 01775 761161
Fax 01775 710772

www.sholland.gov.uk

### 2 Environment Agency National Customer Contact Centre (NCCC)

PO Box 544
Templeborough
Rotherham
S60 1BY

Telephone 03708 506 506

enquiries@environment-agency.gov.uk

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

### 3 British Geological Survey Enquiry Service

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
Nottinghamshire
NG12 5GG

Telephone 0115 936 3143
Fax 0115 936 3276

enquiries@bgs.ac.uk
www.bgs.ac.uk

### 4 South Holland District Council Environmental Services

Council Offices
Priory Road
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### 5 Lincolnshire County Council

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LN1 1DN

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PublicRelations@lincolnshire.gov.uk
www.lincolnshire.gov.uk

## Other Contacts

### Institution of Civil Engineering Surveyors

26 Market Street
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WA14 1PF

Telephone 0161 928 8074

www.ices.org.uk/ices.asp

### The Association of Geotechnical and Geoenvironmental Specialists

Foreham Street
83 Copers
Cope Road
Beckenham
Kent
BR3 1NR

Telephone 020 86588212

www.ags.org.uk/

### The Environmental Auditors Registration Association

Welton House
Limekiln Way
Lincoln
LN2 4US

Telephone 01522 540069

www.greenchannel.com/iea/earahome.htm

### The Environmental Industries Commission

45 Weymouth Street
London
W1N 3LD

Telephone 020 79351675

www.eic-uk.co.uk/

### The Institution of Civil Engineers

One Great George Street
Westminster
LONDON
SW1P 3AA

Telephone 0207 222 7722
Fax 0207 222 7500

www.ice.org.uk

### The Royal Institution of Chartered Surveyors

12 Great George Street
Parliament Square
London
SW1P 3AD

Telephone 020 7222 7000

www.rics.org.uk/

### Argyll Environmental Ltd

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## Landmark Information Group Limited

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# Search Code

**IMPORTANT CONSUMER PROTECTION INFORMATION**

This search has been produced by Landmark Information Group Ltd, Imperium, Imperial Way, Reading, Berkshire, RG2 0TD. Telephone: 0844 844 9966, Fax No: 0844 844 9980, email: helpdesk@landmark.co.uk which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered firms maintain compliance with the Code.

The Search Code:

- Provides protection for homebuyers, sellers, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom.
- Sets out minimum standards which firms compiling and selling search reports have to meet.
- Promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals.
- Enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

**The Code's core principles**

Firms which subscribe to the Code will:

- Display the Code logo prominently on their search reports.
- Act with integrity and carry out work with due skill, care and diligence.
- At all times maintain adequate and appropriate insurance to protect consumers.
- Conduct business in an honest, fair and professional manner.
- Handle complaints speedily and fairly.
- Ensure that all search services comply with the law, registration rules and standards.
- Monitor their compliance with the Code.

**COMPLAINTS**

If you have a query or complaint about your search, you should raise it directly with the firm, and if appropriate ask for your complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if it finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

**Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.**

**TPOs Contact Details:**
The Property Ombudsman Scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk.

**PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE**

# Search Code

**COMPLAINTS PROCEDURE**

If you want to make a complaint, we will:

- Acknowledge it within 5 working days of its receipt.
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt.
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time.
- Provide a final response, in writing, at the latest within 40 working days of receipt.
- Liaise, at your request, with anyone acting formally on your behalf.

**Complaints should be sent to:**

Head of Customer Relations
Landmark Information Group Ltd
Landmark UK Property
Imperium
Imperial Way
Reading
RG2 0TD

Telephone: 0844 844 9966

E-mail: helpdesk@landmark.co.uk

Fax: 0844 844 9980

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman Scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk.

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.

# LANDMARK STANDARD TERMS & CONDITIONS

Full Terms and Conditions can be found on the following link:

http://www.landmarkinfo.co.uk/Terms/Show/515

*Appendix C*

**HUMBERSIDE MATERIALS LABATORY Ltd.**
Atherton Way, Brigg
North Lincs DN20 8AR
Tel & Fax 01652 652753

email info@humbersidematerialslab.co.uk

# TRIAL PIT LOG

Trial pit No **1**

Client :- R Brown
Site :- Weston Hills
Project No :- 4008

Location :- see site plan
Date :- 28-Jul-16

Coordinates E: N:
Elevation :-
Excavated by :- 360 Excavator

| Depth (m) | Lithology / Description | Elevation | Samples | Water level | Notes |
|---|---|---|---|---|---|
| 0 | TOPSOIL | 0 | | | |
| 0.2 | MADEGROUND of Brick rubble | 0.2 | | | |
| 0.4 | Black grey SILT | 0.4 | 1 B | | |
| 0.6 | Orange brown SILT | 0.6 | | | |
| 0.8 | | 0.8 | | | |
| 1 | | 1 | | | |
| 1.2 | | 1.2 | | | |
| 1.4 | | 1.4 | | | |
| 1.6 | | 1.6 | | | |
| 1.8 | | 1.8 | | | |
| 2 | | 2 | | | |
| 2.2 | | 2.2 | | | |
| 2.4 | | 2.4 | | | |
| 2.6 | | 2.6 | | | |
| 2.8 | | 2.8 | | | |
| 3 | | 3 | | | |
| 3.2 | | 3.2 | | | |
| 3.4 | | 3.4 | | | |
| 3.6 | | 3.6 | | | |
| 3.8 | | 3.8 | | | |

Sample Key
B Bulk
D Disturbed
W Water
SS Split spoon
C Cone

Notes :-

File Ref :- 973 / 4008
Logged by :- M Green

**HUMBERSIDE MATERIALS LABATORY Ltd.**
Atherton Way, Brigg
North Lincs DN20 8AR
Tel & Fax 01652 652753

email info@humbersidematerialslab.co.uk

**TRIAL PIT LOG**

Trial pit No **2**

Client :- R Brown
Site :- Weston Hills
Project No :- 4008

Location :- see site plan
Date :- 28-Jul-16

Coordinates E: N:
Elevation :-
Excavated by :- 360 Excavator

| Depth (m) | Lithology / Description | Elevation | Samples | Water level | Notes |
|---|---|---|---|---|---|
| 0 – 0.2 | MADEGROUND of gravels and various aggregates | 0 – 0.2 | | | |
| 0.2 – 0.6 | MADEGROUND of brick rubble | 0.2 – 0.6 | 1 B | | |
| 0.6 – 0.8 | Black grey SILT | 0.6 – 0.8 | | | |
| 0.8 – 1.4 | Orange brown SILT | 0.8 – 1.4 | | | |
| 1.4 – 3.8 | | 1.4 – 3.8 | | | |

Sample Key
B Bulk
D Disturbed
W Water
SS Split spoon
C Cone

Notes :-

File Ref :- 973 / 4008
Logged by :- M Green

**HUMBERSIDE MATERIALS LABATORY Ltd.**
Atherton Way, Brigg
North Lincs DN20 8AR
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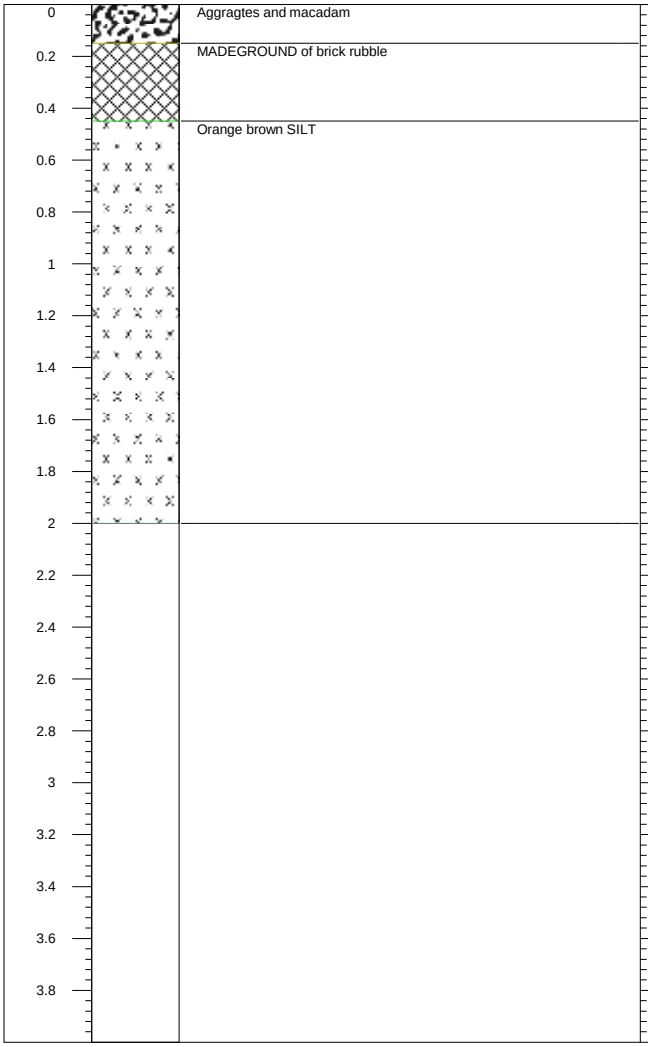
# TRIAL PIT LOG

Trial pit No **3**

Client :- R Brown
Site :- Weston Hills
Project No :- 4008

Location :- see site plan
Date :- 28-Jul-16

Coordinates E: N:
Elevation :-
Excavated by :- 360 Excavator




Sample Key
B Bulk
D Disturbed
W Water
SS Split spoon
C Cone

Notes :-

File Ref :- 973 / 4008
Logged by :- M Green

**HUMBERSIDE MATERIALS LABATORY Ltd.**
Atherton Way, Brigg
North Lincs DN20 8AR
Tel & Fax 01652 652753

email info@humbersidematerialslab.co.uk

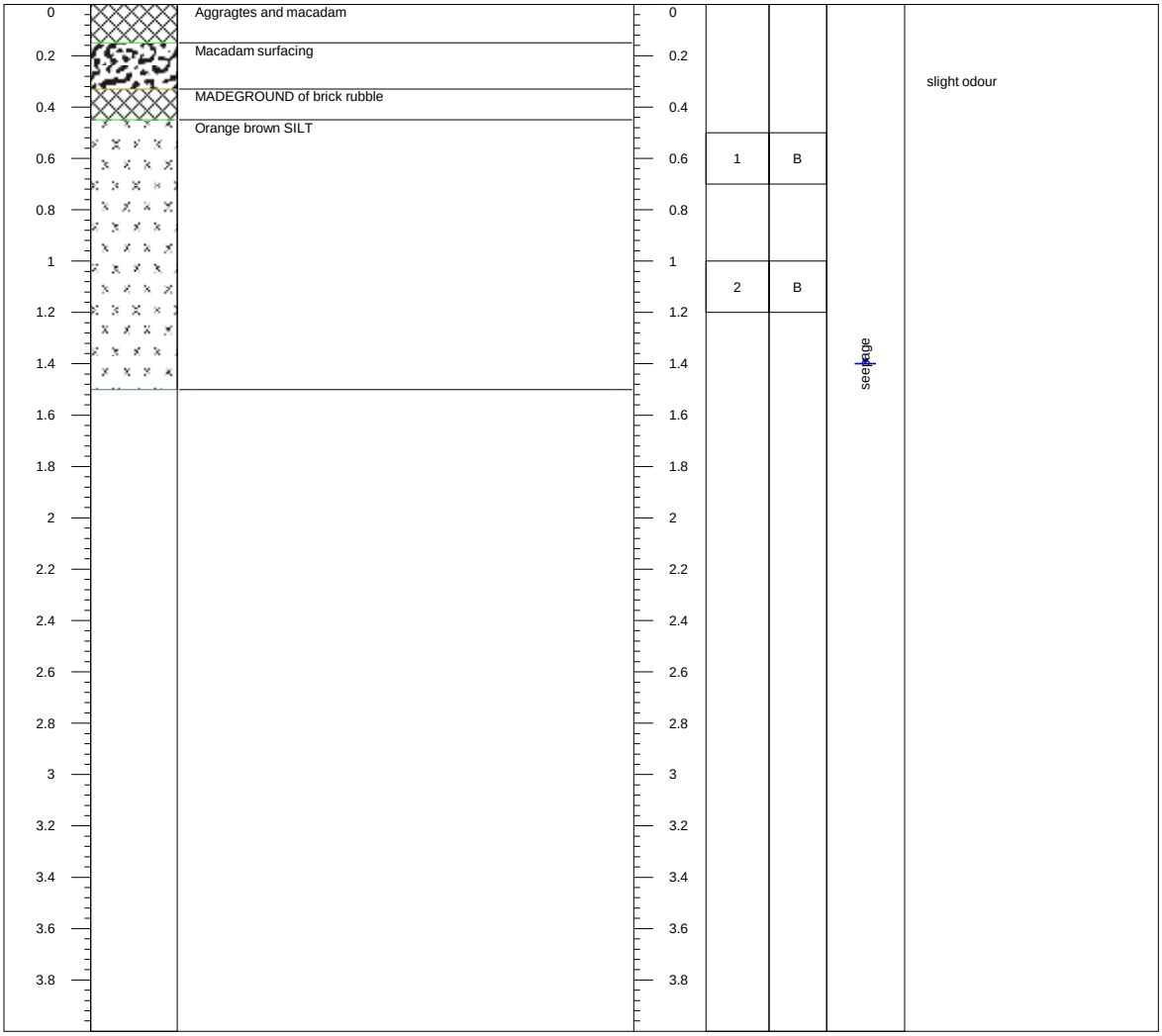
# TRIAL PIT LOG

Trial pit No **4**

Client :- R Brown
Site :- Weston Hills
Project No :- 4008

Location :- see site plan
Date :- 28-Jul-16

Coordinates E: N:
Elevation :-
Excavated by :- 360 Excavator




Sample Key
B Bulk
D Disturbed
W Water
SS Split spoon
C Cone

Notes :-

File Ref :- 973 / 4008
Logged by :- M Green

**HUMBERSIDE MATERIALS LABATORY Ltd.**
Atherton Way, Brigg
North Lincs DN20 8AR
Tel & Fax 01652 652753

email info@humbersidematerialslab.co.uk

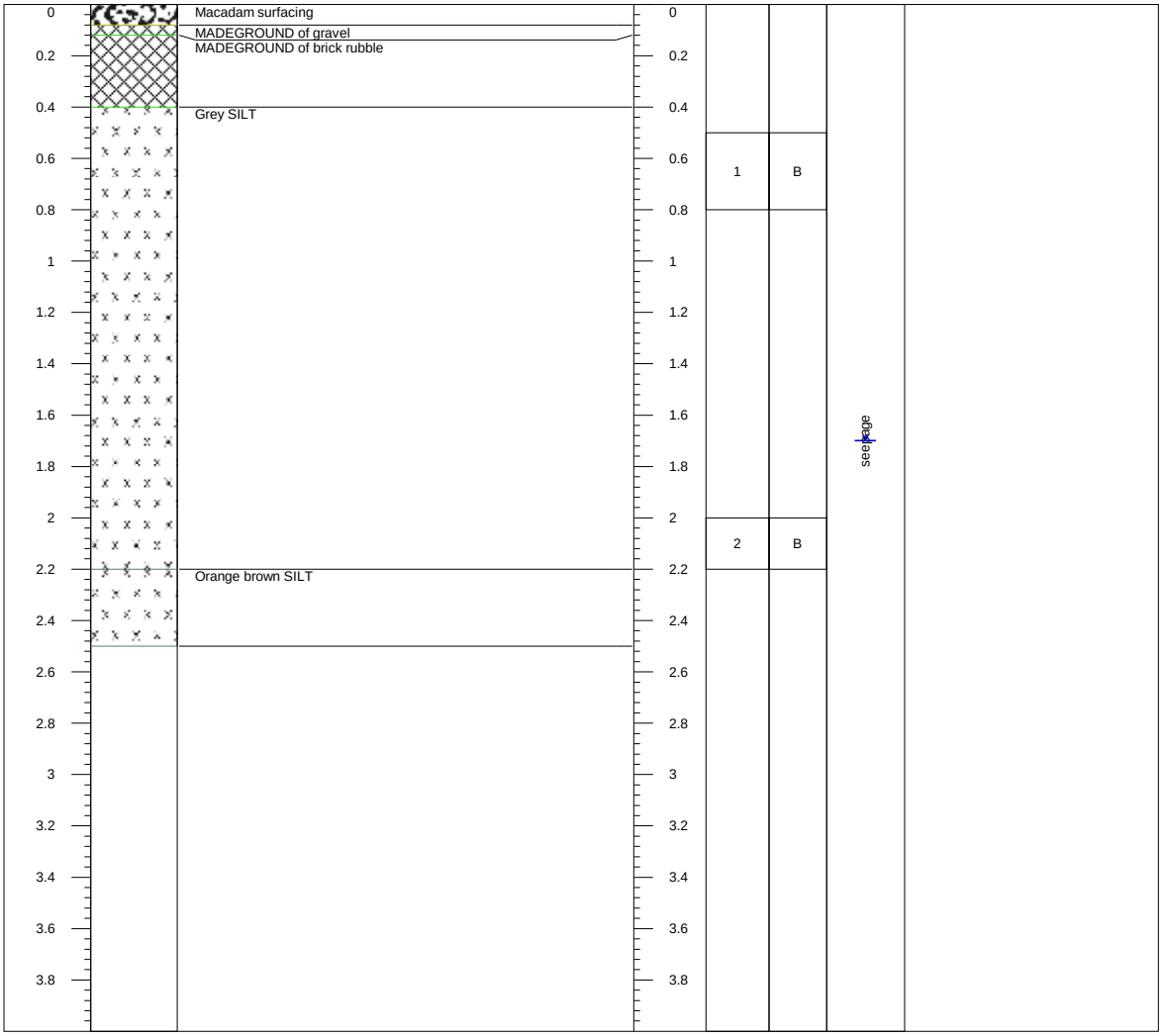
# TRIAL PIT LOG

Trial pit No **5**

Client :- R Brown
Site :- Weston Hills
Project No :- 4008

Location :- see site plan
Date :- 28-Jul-16

Coordinates E: N:
Elevation :-
Excavated by :- 360 Excavator




Sample Key
B Bulk
D Disturbed
W Water
SS Split spoon
C Cone

Notes :-

File Ref :- 973 / 4008
Logged by :- M Green

*Appendix D*

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# ANALYTICAL TEST REPORT

**Contract no:** 60835

**Contract name:** Weston Hills

**Client reference:** 973/4008

**Clients name:** Humberside Materials Laboratory

**Clients address:** Atherton Way
Brigg
North Lincolnshire
DN20 8AR

**Samples received:** 05 August 2016

**Analysis started:** 08 August 2016

**Analysis completed** 11 August 2016

**Report issued:** 11 August 2016

**Notes:**
Opinions and interpretations expressed herein are outside the UKAS accreditation scope.
Unless otherwise stated, Chemtech Environmental Ltd was not responsible for sampling.
Methods, procedures and performance data are available on request.
Results reported herein relate only to the material supplied to the laboratory.
This report shall not be reproduced except in full, withour prior written approval.
Samples will be disposed of 6 weeks from initial receipt unless otherwise instructed.

**Key:**
U UKAS accredited test
M MCERTS & UKAS accredited test
$ Test carried out by an approved subcontractor
I/S Insufficient sample to carry out test
N/S Sample not suitable for testing

**Approved by:**

Dave Bowerbank
Customer Services Co-ordinator

# Chemtech Environmental Limited

# SAMPLE INFORMATION

**MCERTS (Soils):**

Soil descriptions are only intended to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions. MCERTS accreditation applies for sand, clay and loam/topsoil, or combinations of these whether these are derived from naturally occurring soils or from made ground, as long as these materials constitute the major part of the sample. Other materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

All results are reported on a dry basis. Samples dried at no more than 30°C in a drying cabinet.
Analytical results are inclusive of stones.

| Lab ref | Sample id | Depth (m) | Sample description | Material removed | % Removed | % Moisture |
|---|---|---|---|---|---|---|
| 60835-1 | S/42085 BH1-1 | 0.40-0.50 | Clay | - | - | 16.7 |
| 60835-2 | S/42086 BH2-1 | 0.60-0.70 | Silty Clay | - | - | 16.6 |
| 60835-3 | S/42087 BH3-1 | 0.10-0.30 | Sand with Gravel & Brick | - | - | 12.7 |
| 60835-4 | S/42088 BH3-2 | 0.50-0.70 | Silty Clay | - | - | 18.3 |
| 60835-5 | S/42089 BH4-1 | 0.50-0.70 | Silty Clay | - | - | 18.1 |
| 60835-6 | S/42090 BH4-2 | 1.00-1.20 | Clay | - | - | 26.3 |
| 60835-7 | S/42091 BH5-1 | 0.50-0.80 | Silty Clay | - | - | 17.9 |
| 60835-8 | S/42092 BH5-2 | 2.00-2.20 | Silty Clay | - | - | 21.1 |

# Chemtech Environmental Limited

# SOILS

| **Lab number** | | | 60835-1 | 60835-2 | 60835-3 | 60835-4 | 60835-5 | 60835-6 |
|---|---|---|---|---|---|---|---|---|
| **Sample id** | | | S/42085 | S/42086 | S/42087 | S/42088 | S/42089 | S/42090 |
| | | | BH1-1 | BH2-1 | BH3-1 | BH3-2 | BH4-1 | BH4-2 |
| **Depth (m)** | | | 0.40-0.50 | 0.60-0.70 | 0.10-0.30 | 0.50-0.70 | 0.50-0.70 | 1.00-1.20 |
| **Date sampled** | | | 28/07/2016 | 28/07/2016 | 28/07/2016 | 28/07/2016 | 28/07/2016 | 28/07/2016 |
| **Test** | **Method** | **Units** | | | | | | |
| Arsenic (total) | CE127 M | mg/kg As | 9.4 | 7.6 | 16 | - | 13 | - |
| Beryllium (total) | CE127 U | mg/kg Be | <1 | <1 | <1 | - | <1 | - |
| Boron (water soluble) | CE063 M | mg/kg B | 4.4 | 3.5 | 1.0 | - | 6.0 | - |
| Cadmium (total) | CE127 M | mg/kg Cd | <0.2 | <0.2 | <0.2 | - | <0.2 | - |
| Chromium (total) | CE127 M | mg/kg Cr | 55 | 58 | 75 | - | 51 | - |
| Copper (total) | CE127 M | mg/kg Cu | 14 | 9.5 | 15 | - | 18 | - |
| Lead (total) | CE127 M | mg/kg Pb | 23 | 15 | 121 | - | 51 | - |
| Mercury (total) | CE127 M | mg/kg Hg | <0.5 | <0.5 | <0.5 | - | <0.5 | - |
| Nickel (total) | CE127 M | mg/kg Ni | 16 | 13 | 16 | - | 23 | - |
| Selenium (total) | CE127 M | mg/kg Se | 0.6 | 0.5 | 0.8 | - | 0.7 | - |
| Vanadium (total) | CE127 M | mg/kg V | 30 | 25 | 54 | - | 40 | - |
| Total Organic Carbon (TOC) | CE072 M | % w/w C | 1.29 | - | - | - | - | - |
| Estimate of OMC (calculated from TOC) | CE072 M | % w/w | 2.22 | - | - | - | - | - |
| **PAH** | | | | | | | | |
| Naphthalene | CE087 M | mg/kg | <0.01 | <0.01 | 0.04 | - | <0.01 | - |
| Acenaphthylene | CE087 M | mg/kg | <0.01 | <0.01 | 0.05 | - | <0.01 | - |
| Acenaphthene | CE087 M | mg/kg | <0.01 | <0.01 | 0.11 | - | <0.01 | - |
| Fluorene | CE087 U | mg/kg | <0.01 | <0.01 | 0.07 | - | <0.01 | - |
| Phenanthrene | CE087 M | mg/kg | 0.03 | 0.04 | 2.08 | - | <0.02 | - |
| Anthracene | CE087 U | mg/kg | <0.02 | <0.02 | 0.73 | - | <0.02 | - |
| Fluoranthene | CE087 M | mg/kg | 0.12 | 0.12 | 8.92 | - | 0.08 | - |
| Pyrene | CE087 M | mg/kg | 0.10 | 0.10 | 8.05 | - | 0.05 | - |
| Benzo(a)anthracene | CE087 U | mg/kg | 0.05 | 0.04 | 5.39 | - | 0.02 | - |
| Chrysene | CE087 M | mg/kg | 0.06 | 0.05 | 4.85 | - | 0.03 | - |
| Benzo(b)fluoranthene | CE087 M | mg/kg | 0.07 | 0.07 | 6.28 | - | 0.03 | - |
| Benzo(k)fluoranthene | CE087 M | mg/kg | 0.03 | 0.03 | 2.61 | - | <0.02 | - |
| Benzo(a)pyrene | CE087 U | mg/kg | 0.05 | 0.05 | 5.15 | - | 0.02 | - |
| Indeno(123cd)pyrene | CE087 M | mg/kg | 0.04 | 0.04 | 3.50 | - | <0.02 | - |
| Dibenz(ah)anthracene | CE087 M | mg/kg | <0.02 | <0.02 | 0.85 | - | <0.02 | - |
| Benzo(ghi)perylene | CE087 M | mg/kg | 0.04 | 0.04 | 3.23 | - | <0.02 | - |
| PAH (total of USEPA 16) | CE087 | mg/kg | 0.58 | 0.58 | 51.9 | - | <0.27 | - |
| **TPH** | | | | | | | | |
| VPH Aromatic (>EC5-EC7) | CE067 | mg/kg | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 |
| VPH Aromatic (>EC7-EC8) | CE067 | mg/kg | <0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 |
| VPH Aromatic (>EC8-EC10) | CE067 | mg/kg | 0.01 | - | <0.01 | <0.01 | <0.01 | <0.01 |
| EPH Aromatic (>EC10-EC12) | CE068 | mg/kg | <1 | - | <1 | <1 | <1 | <1 |
| EPH Aromatic (>EC12-EC16) | CE068 | mg/kg | <1 | - | <1 | <1 | <1 | <1 |
| EPH Aromatic (>EC16-EC21) | CE068 | mg/kg | 1 | - | 4 | 2 | <1 | <1 |
| EPH Aromatic (>EC21-EC35) | CE068 | mg/kg | 1 | - | 44 | 7 | <1 | 1 |
| EPH Aromatic (>EC35-EC44) | CE068 | mg/kg | <1 | - | 5 | 1 | <1 | <1 |

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# SOILS

| Lab number | | | 60835-1 | 60835-2 | 60835-3 | 60835-4 | 60835-5 | 60835-6 |
|---|---|---|---|---|---|---|---|---|
| Sample id | | | S/42085 | S/42086 | S/42087 | S/42088 | S/42089 | S/42090 |
| | | | BH1-1 | BH2-1 | BH3-1 | BH3-2 | BH4-1 | BH4-2 |
| Depth (m) | | | 0.40-0.50 | 0.60-0.70 | 0.10-0.30 | 0.50-0.70 | 0.50-0.70 | 1.00-1.20 |
| Date sampled | | | 28/07/2016 | 28/07/2016 | 28/07/2016 | 28/07/2016 | 28/07/2016 | 28/07/2016 |
| **Test** | **Method** | **Units** | | | | | | |
| VPH Aliphatic (>C5-C6) | CE067 | mg/kg | <0.1 | - | <0.1 | <0.1 | <0.1 | <0.1 |
| VPH Aliphatic (>C6-C8) | CE067 | mg/kg | 0.2 | - | <0.1 | <0.1 | <0.1 | <0.1 |
| VPH Aliphatic (>C8-C10) | CE067 | mg/kg | <0.1 | - | <0.1 | <0.1 | 0.1 | 0.1 |
| EPH Aliphatic (>C10-C12) | CE068 | mg/kg | <4 | - | <4 | <4 | <4 | <4 |
| EPH Aliphatic (>C12-C16) | CE068 | mg/kg | <4 | - | 9 | 5 | <4 | <4 |
| EPH Aliphatic (>C16-C35) | CE068 | mg/kg | 64 | - | 279 | 269 | 26 | 23 |
| EPH Aliphatic (>C35-C44) | CE068 | mg/kg | 31 | - | 131 | 132 | 20 | 13 |

# Chemtech Environmental Limited

# SOILS

| **Lab number** | | | 60835-7 | 60835-8 |
|---|---|---|---|---|
| **Sample id** | | | S/42091 BH5-1 | S/42092 BH5-2 |
| **Depth (m)** | | | 0.50-0.80 | 2.00-2.20 |
| **Date sampled** | | | 28/07/2016 | 28/07/2016 |
| **Test** | **Method** | **Units** | | |
| Arsenic (total) | CE127 M | mg/kg As | 13 | - |
| Beryllium (total) | CE127 U | mg/kg Be | <1 | - |
| Boron (water soluble) | CE063 M | mg/kg B | 5.9 | - |
| Cadmium (total) | CE127 M | mg/kg Cd | <0.2 | - |
| Chromium (total) | CE127 M | mg/kg Cr | 73 | - |
| Copper (total) | CE127 M | mg/kg Cu | 46 | - |
| Lead (total) | CE127 M | mg/kg Pb | 26 | - |
| Mercury (total) | CE127 M | mg/kg Hg | <0.5 | - |
| Nickel (total) | CE127 M | mg/kg Ni | 26 | - |
| Selenium (total) | CE127 M | mg/kg Se | 0.7 | - |
| Vanadium (total) | CE127 M | mg/kg V | 48 | - |
| Total Organic Carbon (TOC) | CE072 M | % w/w C | - | - |
| Estimate of OMC (calculated from TOC) | CE072 M | % w/w | - | - |
| **PAH** | | | | |
| Naphthalene | CE087 M | mg/kg | <0.01 | - |
| Acenaphthylene | CE087 M | mg/kg | <0.01 | - |
| Acenaphthene | CE087 M | mg/kg | 0.01 | - |
| Fluorene | CE087 U | mg/kg | 0.01 | - |
| Phenanthrene | CE087 M | mg/kg | 0.09 | - |
| Anthracene | CE087 U | mg/kg | 0.02 | - |
| Fluoranthene | CE087 M | mg/kg | 0.30 | - |
| Pyrene | CE087 M | mg/kg | 0.27 | - |
| Benzo(a)anthracene | CE087 U | mg/kg | 0.14 | - |
| Chrysene | CE087 M | mg/kg | 0.15 | - |
| Benzo(b)fluoranthene | CE087 M | mg/kg | 0.23 | - |
| Benzo(k)fluoranthene | CE087 M | mg/kg | 0.11 | - |
| Benzo(a)pyrene | CE087 U | mg/kg | 0.20 | - |
| Indeno(123cd)pyrene | CE087 M | mg/kg | 0.15 | - |
| Dibenz(ah)anthracene | CE087 M | mg/kg | 0.03 | - |
| Benzo(ghi)perylene | CE087 M | mg/kg | 0.14 | - |
| PAH (total of USEPA 16) | CE087 | mg/kg | 1.86 | - |
| **TPH** | | | | |
| VPH Aromatic (>EC5-EC7) | CE067 | mg/kg | <0.01 | <0.01 |
| VPH Aromatic (>EC7-EC8) | CE067 | mg/kg | <0.01 | <0.01 |
| VPH Aromatic (>EC8-EC10) | CE067 | mg/kg | <0.01 | <0.01 |
| EPH Aromatic (>EC10-EC12) | CE068 | mg/kg | <1 | <1 |
| EPH Aromatic (>EC12-EC16) | CE068 | mg/kg | <1 | <1 |
| EPH Aromatic (>EC16-EC21) | CE068 | mg/kg | 1 | <1 |
| EPH Aromatic (>EC21-EC35) | CE068 | mg/kg | 2 | <1 |
| EPH Aromatic (>EC35-EC44) | CE068 | mg/kg | <1 | <1 |

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# SOILS

| **Lab number** | | | 60835-7 | 60835-8 |
|---|---|---|---|---|
| **Sample id** | | | S/42091 BH5-1 | S/42092 BH5-2 |
| **Depth (m)** | | | 0.50-0.80 | 2.00-2.20 |
| **Date sampled** | | | 28/07/2016 | 28/07/2016 |
| **Test** | **Method** | **Units** | | |
| VPH Aliphatic (>C5-C6) | CE067 | mg/kg | <0.1 | <0.1 |
| VPH Aliphatic (>C6-C8) | CE067 | mg/kg | 0.3 | <0.1 |
| VPH Aliphatic (>C8-C10) | CE067 | mg/kg | <0.1 | <0.1 |
| EPH Aliphatic (>C10-C12) | CE068 | mg/kg | <4 | <4 |
| EPH Aliphatic (>C12-C16) | CE068 | mg/kg | <4 | <4 |
| EPH Aliphatic (>C16-C35) | CE068 | mg/kg | 65 | 14 |
| EPH Aliphatic (>C35-C44) | CE068 | mg/kg | 22 | <10 |

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# METHOD DETAILS

| METHOD | SOILS | METHOD SUMMARY | SAMPLE | STATUS | LOD | UNITS |
|---|---|---|---|---|---|---|
| CE127 | Arsenic (total) | Aqua regia digest, ICP-MS | Dry | M | 1 | mg/kg As |
| CE127 | Beryllium (total) | Aqua regia digest, ICP-MS | Dry | U | 1 | mg/kg Be |
| CE063 | Boron (water soluble) | Hot water extract, ICP-OES | Dry | M | 0.5 | mg/kg B |
| CE127 | Cadmium (total) | Aqua regia digest, ICP-MS | Dry | M | 0.2 | mg/kg Cd |
| CE127 | Chromium (total) | Aqua regia digest, ICP-MS | Dry | M | 1 | mg/kg Cr |
| CE127 | Copper (total) | Aqua regia digest, ICP-MS | Dry | M | 1 | mg/kg Cu |
| CE127 | Lead (total) | Aqua regia digest, ICP-MS | Dry | M | 1 | mg/kg Pb |
| CE127 | Mercury (total) | Aqua regia digest, ICP-MS | Dry | M | 0.5 | mg/kg Hg |
| CE127 | Nickel (total) | Aqua regia digest, ICP-MS | Dry | M | 1 | mg/kg Ni |
| CE127 | Selenium (total) | Aqua regia digest, ICP-MS | Dry | M | 0.3 | mg/kg Se |
| CE127 | Vanadium (total) | Aqua regia digest, ICP-MS | Dry | M | 1 | mg/kg V |
| CE072 | Total Organic Carbon (TOC) | Removal of IC by acidification, Carbon Analyser | Dry | M | 0.1 | % w/w C |
| CE072 | Estimate of OMC (calculated from TOC) | Calculation from Total Organic Carbon | Dry | M | 0.1 | % w/w |
| CE087 | Naphthalene | Solvent extraction, GC-MS | Wet | M | 0.01 | mg/kg |
| CE087 | Acenaphthylene | Solvent extraction, GC-MS | Wet | M | 0.01 | mg/kg |
| CE087 | Acenaphthene | Solvent extraction, GC-MS | Wet | M | 0.01 | mg/kg |
| CE087 | Fluorene | Solvent extraction, GC-MS | Wet | U | 0.01 | mg/kg |
| CE087 | Phenanthrene | Solvent extraction, GC-MS | Wet | M | 0.02 | mg/kg |
| CE087 | Anthracene | Solvent extraction, GC-MS | Wet | U | 0.02 | mg/kg |
| CE087 | Fluoranthene | Solvent extraction, GC-MS | Wet | M | 0.02 | mg/kg |
| CE087 | Pyrene | Solvent extraction, GC-MS | Wet | M | 0.02 | mg/kg |
| CE087 | Benzo(a)anthracene | Solvent extraction, GC-MS | Wet | U | 0.02 | mg/kg |
| CE087 | Chrysene | Solvent extraction, GC-MS | Wet | M | 0.01 | mg/kg |
| CE087 | Benzo(b)fluoranthene | Solvent extraction, GC-MS | Wet | M | 0.02 | mg/kg |
| CE087 | Benzo(k)fluoranthene | Solvent extraction, GC-MS | Wet | M | 0.02 | mg/kg |
| CE087 | Benzo(a)pyrene | Solvent extraction, GC-MS | Wet | U | 0.02 | mg/kg |
| CE087 | Indeno(123cd)pyrene | Solvent extraction, GC-MS | Wet | M | 0.02 | mg/kg |
| CE087 | Dibenz(ah)anthracene | Solvent extraction, GC-MS | Wet | M | 0.02 | mg/kg |
| CE087 | Benzo(ghi)perylene | Solvent extraction, GC-MS | Wet | M | 0.02 | mg/kg |
| CE087 | PAH (total of USEPA 16) | Solvent extraction, GC-MS | Wet | | 0.27 | mg/kg |
| CE067 | VPH Aromatic (>EC5-EC7) | Headspace GC-FID | Wet | | 0.01 | mg/kg |
| CE067 | VPH Aromatic (>EC7-EC8) | Headspace GC-FID | Wet | | 0.01 | mg/kg |
| CE067 | VPH Aromatic (>EC8-EC10) | Headspace GC-FID | Wet | | 0.01 | mg/kg |
| CE068 | EPH Aromatic (>EC10-EC12) | Solvent extraction, GC-FID | Wet | | 1 | mg/kg |
| CE068 | EPH Aromatic (>EC12-EC16) | Solvent extraction, GC-FID | Wet | | 1 | mg/kg |
| CE068 | EPH Aromatic (>EC16-EC21) | Solvent extraction, GC-FID | Wet | | 1 | mg/kg |
| CE068 | EPH Aromatic (>EC21-EC35) | Solvent extraction, GC-FID | Wet | | 1 | mg/kg |
| CE068 | EPH Aromatic (>EC35-EC44) | Solvent extraction, GC-FID | Wet | | 1 | mg/kg |
| CE067 | VPH Aliphatic (>C5-C6) | Headspace GC-FID | Wet | | 0.1 | mg/kg |
| CE067 | VPH Aliphatic (>C6-C8) | Headspace GC-FID | Wet | | 0.1 | mg/kg |
| CE067 | VPH Aliphatic (>C8-C10) | Headspace GC-FID | Wet | | 0.1 | mg/kg |
| CE068 | EPH Aliphatic (>C10-C12) | Solvent extraction, GC-FID | Wet | | 4 | mg/kg |
| CE068 | EPH Aliphatic (>C12-C16) | Solvent extraction, GC-FID | Wet | | 4 | mg/kg |

# Chemtech Environmental Limited

# METHOD DETAILS

| METHOD | SOILS | METHOD SUMMARY | SAMPLE | STATUS | LOD | UNITS |
|---|---|---|---|---|---|---|
| CE068 | EPH Aliphatic (>C16-C35) | Solvent extraction, GC-FID | Wet | | 4 | mg/kg |
| CE068 | EPH Aliphatic (>C35-C44) | Solvent extraction, GC-FID | Wet | | 10 | mg/kg |

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# DEVIATING SAMPLE INFORMATION

**Comments**
Sample deviation is determined in accordance with the UKAS note "Guidance on Deviating Samples" and based on reference standards and laboratory trials.
For samples identified as deviating, test result(s) may be compromised and may not be representative of the sample at the time of sampling.
Chemtech Environmental Ltd cannot be held responsible for the integrity of sample(s) received if Chemtech Environmental Ltd did not undertake the sampling. Such samples may be deviating.

**Key**

| | |
|---|---|
| N | No (not deviating sample) |
| Y | Yes (deviating sample) |
| A | Sampling date not provided |
| B | Sampling time not provided (waters only) |
| C | Sample exceeded holding time(s) |
| D | Sample not received in appropriate containers |
| E | Headspace present in sample container |
| F | Sample not chemically fixed (where appropriate) |
| G | Sample not cooled |
| H | Other (specify) |

| Lab ref | Sample id | Depth (m) | Deviating | Tests (Reason for deviation) |
|---|---|---|---|---|
| 60835-1 | S/42085 BH1-1 | 0.40-0.50 | N | |
| 60835-2 | S/42086 BH2-1 | 0.60-0.70 | N | |
| 60835-3 | S/42087 BH3-1 | 0.10-0.30 | N | |
| 60835-4 | S/42088 BH3-2 | 0.50-0.70 | N | |
| 60835-5 | S/42089 BH4-1 | 0.50-0.70 | N | |
| 60835-6 | S/42090 BH4-2 | 1.00-1.20 | N | |
| 60835-7 | S/42091 BH5-1 | 0.50-0.80 | N | |
| 60835-8 | S/42092 BH5-2 | 2.00-2.20 | N | |