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ENVIRONMENTAL PERMIT APPLICATION (EPR/LP3527SC/P004)

for a Road Planings Recycling Facility on

Land at Neilson Rail Sidings, Wellingborough, Northamptonshire, NN8 4BH

Report Prepared on Behalf of:
Conway Eurovia Industries Limited

RICS

Report Date:
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This Report was prepared by PDE Consulting Limited on behalf of Conway Eurovia Industries Limited

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RAP Shed Internal	Drawing Number 11968-WML-20-GF-DR-S-2002	Scale 1:100@A1
RAP Shed Elevations	Drawing Number KD.WLBR.1.D.014	Scale 1:500@A3

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1. INTRODUCTION

Background

1.1. PDE Consulting Limited (the 'Agent') has been commissioned by Conway Eurovia Industries Limited (CEIL) (the 'Operator') to prepare and submit to the Environment Agency (EA) an application for a new environmental permit for a Road Planings Recycling Facility to be located on Land at Neilson Rail Sidings, Wellingborough, Northamptonshire, NN8 4BH (the 'Site').

1.2. The recycling facility will process non-hazardous asphalt road planings (EWC code 17 03 02) by mechanical processing to produce Recycled Asphalt Pavement (RAP). The RAP will subsequently be used in the adjacent asphalt manufacturing process, also operated by the Operator. RAP may also be transported to other CEIL asphalt plants and depots for use in asphalt manufacturing, storage, or sold to third-party customers on a commercial basis.

1.3. The processing of asphalt planings is an increasingly important consideration for many asphalt manufacturers with industry practice moving towards increased sustainability. By utilising recycled planings within asphalt production, manufacturers are able to produce a more sustainable final product, reducing the waste arising from road resurfacing projects, when compared to asphalt mixes which use 100% virgin materials.

1.4. The adjacent asphalt plant will be operated in accordance with a Part B permit issued by North Northamptonshire Council (NNC).

1.5. The proposed permit boundary is shown in green on Drawing Number KD.WLBR.1.D.024. Total annual throughputs of road planings will be limited to 200,000 tonnes per annum (tpa).

1.6. A non-technical summary of the application is presented in Appendix 1.

Legislative Context

1.7. An Environmental Permit is required, under the Environmental Permitting (England and Wales) Regulations 2016 (*SI 2016 No. 1154)* (EPR) to operate:

- Installations that carry out Schedule 1 activities;
- Specified waste activities; and
- Mobile plant.

1.8. The EPR were made on 11 December 2016 and provide a consolidated system of environmental permitting in England and Wales. They fully replace the Environmental Permitting (England and Wales) Regulations 2010 (S.I. 2010/675). The EPR transpose provisions of fifteen Directives which impose obligations required to be delivered through permits or capable of being delivered through permits.

Standard and Bespoke Environmental Permits

1.9. There are two different types of environmental permit: standard and bespoke. The type of permit required for a particular waste facility depends on the complexity and environmental risk of the proposed operation. Standard rules permits refer to standard rules (pre-requisites and conditions within the permit) that must be met. Most of these rules specify certain environmental results that must be achieved and it is up to the Operator to confirm and demonstrate compliance.

1.10. Currently the EA has developed standard rules permits for a limited number of different waste operations / installations; an Operator may apply for a standard rules permit if the proposed activity meets all the specified requirements. In any other case, a bespoke permit must be applied for.

Pre Application Advice

1.11. On 20 February 2025, PDE requested pre-application advice as to whether the proposed waste operation could comply with Standard rules SR2022No1 (treatment of waste to produce soil, soil substitutes and aggregate) which allows the storage and treatment of road planings (up to 250,000 tpa).

1.12. On 28 February 2025, the EA responded with a Nature and Heritage Conservation Report and advised that their mapping showed that the Site was within the screening distance (50 m) of deciduous woodland, a habitat protected under the Biodiversity Action Plan (BAP). Consequently, the EA advised that the proposed waste operation was not eligible for SR2022 No1 and it would be necessary to apply for a bespoke permit.

1.13. The Nature and Heritage Conservation Screening Report is presented in Appendix 2. The application has been assigned pre-application reference number EPR/LP3527SC/P004.

EPR Application Forms

1.14. This report has been produced to accompany the following completed application forms which are presented in Appendix 3:

- Part EPA (About you);
- Part EPB2 (General – new bespoke permit);
- Part EPB4 (New bespoke waste operation permit); and
- Part EPF1 (Opra, charges and declarations).

EPR Charging Scheme

1.15. Permit application charges are listed in the "Tables of Charges. The Environment Agency (Environmental Permitting and Abstraction Licensing) (England) Charging Scheme 2022 Version 1.8: amendments up to 27 February 2026". The fees for the application are summarised in Table 1.

1.16. The total application fee of £11,621.45 has been provided alongside this application.

Table 1: Permit Application Fee

Charge Reference	Plan or Assessment	Application Fee pre 01 April 26	New Application Fee
1.16.12	Physical Treatment of Non Hazardous Waste.	£7,930	£8,231.34
1.19.2	Habitats Assessment	£779	£808.60
1.19.5	Emissions Management Plan (Dust)	£1,241	£1,288.16
1.19.7	Noise Management Plan	£1246	£1,293.35

2. SITE DETAILS

Site Location and Setting

2.1. The Site lies within the administrative boundary of NNC, sitting in the northeast of Wellingborough.

2.2. The Site forms part of an operational railway sidings known as Neilson Rail Sidings at Wellingborough which comprises an existing railhead with ancillary facilities including areas of surfaced yard space. The Site is bounded to the north and east by the River Ise corridor, beyond which is open land and industrial development to the east. To the west lies the rail sidings and ancillary facilities, with the Finedon Road Industrial Estate beyond. To the south lies further operational railway land.

2.3. The topography of the Site shows a gentle sloping upwards from 49.8 mAOD in the north to 50.1 mAOD in the south.

2.4. The nearest residential receptors to the Site are located on Teal Lane, off Nest Lane, approximately 700 metres (m) to the south west of the Site.

Environmental Site Setting

2.5. Information on the environmental Site setting and history has been taken from a number of sources, including a ground investigation report produced by Applied Geology in October 2024, which is appended to the Site Condition Report (SCR) in Appendix 5.

Geology

2.6. The Site is underlain by Made Ground. No natural superficial deposits are present beneath the Site. It is understood that the bedrock geology comprises the Whitby Mudstone Formation, a Jurassic mudstone with a shelly limestone bed at its base.

Hydrogeology

2.7. The EA classifies all aquifers as controlled waters but divides them into three categories: Principal Aquifer; Secondary Aquifer and Unproductive Strata. The Whitby Mudstone Formation is classified by the EA as Unproductive Strata. Unproductive strata are largely unable to provide usable water supplies and are unlikely to have surface water and wetland ecosystems dependent on them.

2.8. The EA has defined Source Protection Zones (SPZ) (inner, outer, total catchment, and special interest) for groundwater sources such as springs, wells and boreholes used for public drinking water supply. These zones provide an indication of the risk of contamination from any activities that might cause pollution in the area.

2.9. The Site is not located within a groundwater SPZ. There is an approximate 13 kilometre (km) standoff between the Site boundary and the nearest outer protection zone.

2.10. There are reported to be no licensed or private groundwater abstractions located within a 2 km radius of the Site.

Hydrology

2.11. The nearest surface watercourse is the River Ise which is located approximately 30 m east of the Site. The River Ise is a tributary of the River Nene and terminates at the Nene approximately 2.5 km south of the Site. The overall water quality rating of the River Ise is noted to be poor.

2.12. The Site is located within EA modelled fluvial Flood Zone 1 (FZ1), signifying an area with the lowest probability of annual flooding.

2.13. A Flood Risk Assessment was produced (BCL Hydro, October 2024) in support of the planning application for the proposed road planings recycling facility and the adjacent asphalt plant, which concluded:

"*That the Proposed Development will not be significantly affected by current or future flooding from any source*"; and

"*That the Proposed Development will not increase flood risk elsewhere*".

2.14. The nearest active surface water abstraction licence is noted to be located approximately 1.6 km north-west of the Site at Wellingborough Golf Club (Reference: NPS/WR/021299). It permits surface abstraction from Harrowden Brook for spray irrigation purposes. The licence permits 9,100 m^3 of water to be abstracted annually.

2.15. It is understood that there are records of up to fifteen licensed discharge consents within 500 m of the Site. The nearest active licence is held approximately 285 m to the southeast of the Site at Ise Valley Industrial Estate. It permits the discharge of surface water into the River Ise.

Air Quality

2.16. According to the Defra website[1] the Site is not located within an Air Quality Management Area (AQMA), and there are no AQMAs within NNC. The nearest AQMA is Bedford Town Centre AQMA, located over 22 km to the south of the Site and within the administrative area of Bedford Borough Council.

Habitats and Cultural Heritage

2.17. The Site does not lie within any nationally designated landscape i.e. National Park or Area of Outstanding or Natural Beauty. There are no designated or non-designated built heritage assets within the Site, nor are there Registered or Non-Registered Parks and Gardens. The closest Registered Historic Park and Garden, Great Harrowden Hall, is located approximately 1.6 km to the north west of the Site.

2.18. The nearest listed buildings to the Site are located approximately 1.4 km to the east, consisting of Carrol Spring Farmhouse its associated barns and cowsheds (Grade II). The nearest Grade I asset is St Mary's Church off Knox Road, located approximately 2 km south of the Site.

[1] http://uk-air.defra.gov.uk/aqma/

2.19. The Finedon Top Lodge Quarry Site of Special Scientific Interest (SSSI) lies approximately 2 km to the east of the Site. This area is designated as a SSSI due to its geological value and shows exposures of the Middle Jurassic Rutland Formation and overlying White Limestone.

2.20. The Upper Nene Valley Gravel Pits SSSI, Special Protection Area (SPA) and Ramsar site lies approximately 2.3 km south east of the Site. This area is nationally and internationally important for breeding bird assemblage and wintering birds. There are no other statutory designated sites within 2.5 km of the Site.

2.21. The EA advised that their mapping shows that deciduous woodland within 50 m of the Site falls under the Priority Habitat Inventory identified in the UK BAP. However, the area in question between the Site boundary and the River Ise comprises a mix of 'other broadleaved woodland' (w1g) and 'mixed scrub' (h3h). It is known to support very poor quality, secondary woodland and mature scrub which has grown up on previously disturbed land, which is not a Priority Habitat.

2.22. An Ecological Impact Assessment (EcIA) (Wilkinson Associates, October 2024) was undertaken in support of the planning application for the proposed road planing recycling facility and the adjacent asphalt plant, which concluded that the proposed operations would not have significant adverse effects on any designated sites, including the Upper Nene Valley Gravel Pits SSSI, SPA & Ramsar.

Existing permits

2.23. There are no existing permits that relate to the application area.

2.24. Approximately 0.15 km west of the Site is a non-hazardous waste physical treatment facility operated by VEKA Recycling Ltd. as per permit GB3802TJ issued by the EA on 22 March 2019.

2.25. Neilson Road Depot is located approximately 0.25 km to the north west of the Site, a hazardous waste transfer station operated by F&R Cawley Limited under permit JP3494NM issued by the EA on 14 May 1999.

2.26. A non-hazardous waste physical treatment facility of 6 ha lies approximately 0.25 km to the south of the Site. This facility is operated by GRS (Roadstone) Ltd. under a bespoke permit (Permit No. EPR/LB3733AF), issued by the EA on 19 May 2025.

2.27. Isebrook Recycling Works is located approximately 0.52 km east of the Site, a non-hazardous waste treatment facility operated by W.J. Redden and Sons Ltd. as per SR2022 No 1 under permit BB3304LL, issued by the EA on 17 March 2014.

2.28. Approximately 0.72 km south-east of the Site is Brookside Works, a Metal Recycling Site operated by John Redden Ltd. under permit KP3095NQ issued by the EA on 26 November 1990.

Historic Development

Planning History

2.29. A planning history search has been undertaken using NNC's online search facility. It is noted that there have been previous applications relating to the wider rail sidings within which the Site is located. Based upon the information that could be obtained, the planning history is summarised below.

2.30. On 23 September 2015, NCC granted planning permission reference 15/00045/MINFUL to allow for a rail served concrete block making facility with associated infrastructure and ancillary uses. This development covers the Site, however, it does appear this permission was not implemented and, therefore, has now lapsed.

2.31. Planning permission reference 09/00009/MIN was granted on 07 April 2019 by NCC to allow the construction of a rail fed aggregates distribution depot with ancillary facilities. This permission relates to land located to the south of the Site.

2.32. On 01 November 2019 planning permission reference 18/00005/MINFUL was granted by NCC to allow for the extension to an existing site for provision of increased aggregate stocking capacity (retrospective), plus replacement car parking facilities. This permission relates to land to the south of the Site and extended the stocking capacity regulated under planning permission reference 09/00009/MIN.

2.33. On 14 May 2024 planning permission reference NN/23/00033/WASFUL was granted by NNC to allow the importation and handling of pre-treated incinerator bottom ash aggregate into the existing Wellingborough railhead regulated under planning consent 09/00009/MIN dated 7 April 2009 and blend the same with raw aggregate to derive a secondary / recycled construction material. This permission relates to land located to the south of the application Site.

2.34. On 18 February 2025, North Northamptonshire Council (NCC) issued Planning Permission No. NN/24/00025/WASFUL for the:

"*The erection and operation of an asphalt plant and road planings recycling facility, ancillary facilities, and access*".

2.35. A copy of the planning permission is presented in Appendix 4.

Summary of Historic Maps

2.36. Ordnance Survey mapping from 1884 to 2023 shows the temporal development of the Site. The historic maps are appended to the SCR in Appendix 5.

2.37. In 1884 a main railway line, the Midland Railway, borders the western boundary of the Site. The Site itself is referred to as 'Neilson's Sidings' and consists of an area of sparse woodland, signal posts and a cross-cutting tramway from east to west which connects to the Midland Railway.

2.38. By 1899 the sidings have been further developed. The trees have been cleared and the Site is covered by an extensive network of tracks and section of narrow-gauge railway track associated with the Midland Railway. A crane has been erected where the tramway connects to the railway tracks.

2.39. In 1924, there are no further significant changes on Site, albeit a structure adjacent to the tramway in now labelled 'engine house'.

2.40. In 1938 the engine house is no longer shown. A golf course, wagon works and a painting shed have been constructed to the west of the Site.

2.41. The Site has not seen a large degree of new development by 1950, although the cross-cutting tramway has been dismantled.

2.42. By 1977 an extensive network of warehouses, factories and depots have been erected to the west of the Site. This trend continues until 1994, with industrial estates establishing to the east and west of the Site.

2.43. Most of the sections of railway track within the Site have been dismantled by 2001; the remaining section of track cuts from north to south close to the Site's western edge.

2.44. By 2010 there are no tracks present within the Site. The remaining sidings area has been relocated to the south of the Site and beyond the western boundary. No further developments were made to the Site between 2010 and 2023.

3. PROPOSED WASTE OPERATION

Site Preparation

3.1. To facilitate the proposed development, it will first be necessary to create a suitable platform for the infrastructure to be placed upon. This shall involve the minor re-profiling of the existing ground contours to those required for the development. This may necessitate the off-site removal of a nominal amount of surplus materials which will be taken to an appropriately permitted facility for recycling where possible.

3.2. Once the Site has been re-graded, appropriate materials shall be imported to form the footprint of the operational area. Foundations for the finished surfacing and any other necessary foundations, drainage infrastructure etc shall be installed at this stage, together with any service media. Piling for any of the major elements of the proposed development shall also be completed at this stage.

3.3. Having completed these preliminary stages of the development, the plant and necessary infrastructure shall be erected.

Road Planings Recycling

3.4. The Site will be used for the storage and mechanical processing of road planings only.

3.5. Imported road planings will be used to produce RAP. RAP is waste asphalt that has been processed in accordance with the WRAP Protocol for the production of aggregates from inert waste and meets the requirements of the product standards BS EN 13108-8 Bituminous mixtures – Reclaimed Asphalt.

3.6. The storage, screening and crushing of road planings in a granulator will be undertaken in the RAP shed. The RAP shed will be fully roofed with curtained / slide doors at the entrance and exit. Details of the layout and elevations of the proposed RAP shed are shown on Drawing Number KD.WLBR.1.D.014.

3.7. Internally the RAP shed will house the plant and machinery required to recycle road planings which will consist of a loader, an excavator, a granulator and a screener.

3.8. The granulator in the RAP shed will include a feed hopper with a magnetic screen to remove any anomalies / foreign bodies before material goes into granulator. The granulator will produce 6 mm and 20 mm RAP. Any oversize material will be directed back through the granulator.

3.9. All conveyors will be covered. There shall be purpose built partitioning and stock bay walls within the RAP shed which shall segregate the inter-related uses. Within the RAP shed, the bays will be concreted and the remaining areas will be surfaced in hardstanding (asphalt). A schematic of the inside of the RAP building is presented on Drawing No. 11968-WML-20-GF-DR-S-2002.

3.10. All HGVs arrive via the main Site entrance where each load will be weighed and the appropriate documentation checked at the weighbridge.

3.11. Once the paperwork has been checked and approved the driver will be directed to the RAP shed to deposit their load.

3.12. Within the shed, mechanical loading machines shall transfer the imported road planings to a granulator which will separate the component fractions, typically, into smaller particle sizes.

3.13. Once the particle size has been reduced, the materials will be screened into the respective various sizes and stockpiled within dedicated bays until they are required for use in the asphalt manufacturing process, or transported off Site to be used elsewhere. All of the reception, treatment and storage of road planings shall be undertaken in the RAP shed.

3.14. On an annual basis, it is expected that around 200,000 tpa of road planings will be imported to the Site for recycling with all the materials being imported using HGV's with an average payload capacity of 20 t. It is anticipated that approximately 50 % of the planings will be imported on a back haul basis using the returning HGVs associated with the export of asphalt.

3.15. A maximum quantity of 50,000 tonnes of processed and unprocessed planings will be stored on Site at any one time. The maximum treatment capacity of the mechanical processing equipment is 1,000 tonnes per day.

3.16. Once the planings have been recycled, they will be used within the on-Site asphalt manufacturing process, or transported off Site to be used elsewhere. It is expected that 150,000 tpa of planings will be used within the asphalt plant and that the balance of 50,000 tpa of planings shall be transported from Site as a recycled aggregate.

3.17. In accordance with Condition 4 of Planning Permission No. NN/24/00025/WASFUL, the following elements have unrestricted working hours due to the need to provide asphalt to road maintenance contracts which regularly take place at night:

- The manufacture and distribution of asphalt;
- The importation of road planings; and
- The distribution of recycled material.

3.18. The following activities will be limited to the following hours:

- Road Planings Recycling - Monday to Sunday (including bank holidays): 07:00 to 17:00 hours;
- Offloading by train – 07:00 to 23:00.

Waste Acceptance Procedure

3.19. In accordance with Condition 3 of Planning Permission No. NN/24/00025/WASFUL:

"*The development hereby permitted is restricted to the import, storage and processing of road planings, and no other form of waste storage or processing shall take place on the site*".

3.20. The Site will accept road planings only under EWC code 17 03 02 (bituminous mixtures other than those mentioned in 17 03 01).

3.21. Waste shall only be accepted if:

- It is of a type listed in the permit;
- It is not hazardous waste;
- It conforms to the description in the documentation supplied by the producer and holder;
- Its chemical, physical and biological characteristics make it suitable for its intended treatment; and

- It is visually inspected on arrival and before it enters the treatment process to ensure that it complies with the permit requirements.

3.22. Records demonstrating compliance with the above shall be maintained in accordance with the requirements in the permit.

3.23. The Operators Waste Acceptance Procedure (WAP) is presented in the draft Working Plan in Appendix 6. Adherence to the WAP will ensure that coal tar bound planings are not accepted at the Site. In the unlikely event that coal tar bound planings are identified in an incoming load, they will be rejected from Site and diverted to a suitably permitted facility, or temporarily stored in a quarantine area with the RAP shed prior to removal from Site.

3.24. Appendix 6 also contains process flow diagrams to describe the operations and processes undertaken.

Appropriate Measures

3.25. For the proposed waste operation, an assessment has been undertaken in accordance with EA Guidance Non – Hazardous and Inert Waste: Appropriate Measures for Permitted Facilities (last updated 01 August 2023).

3.26. A summary of how the proposed waste operation complies with the above referenced EA guidance is presented in Table 2.

Table 2: Waste Activities - Appropriate Measures

Section Reference	Description	Response
2	General management	Management System - the Site will be operated in accordance with a written Environmental Management System (EMS). The Working Plan (WRF 001) is presented in Appendix 6. The Site will be operated in accordance with ISO 14001, which is the internationally recognised standard for EMS, designed to help organisations improve environmental performance, reduce waste, and ensure regulatory compliance. Staff competence – the wastes will be operated at all times by an adequate number of staff with appropriate training, qualifications and competence. Records will be kept of training, qualifications and relevant experience. WAMITAB certificates for the proposed Technically Competent Manager are presented in Appendix 7. Accident Management Plan – refer to Section 5 of this report. Contingency Plan – mobile plant only. During maintenance or shutdown, permit conditions will be complied with. The Operator will stop accepting waste unless they have a clearly defined method of recovery and enough permitted capacity. Facility decommissioning - mobile plant only. Refer to Sections 3.34 to 3.38 of this report for further details.

3	Waste pre-acceptance, acceptance and tracking.	Refer to Working Plan (WRF 001) and process flow diagrams in Appendix 6.
4	Waste storage	EA guidance provides that you must store and handle waste in a way that makes sure you prevent and minimise pollution risks by using appropriate measures. All wastes will be stored in the RAP shed. EA guidance provides that you must store waste in locations that minimise the unnecessary handling of waste. Wastes will be stored adjacent to the mechanical processing equipment to minimise the unnecessary handling of waste. Waste handling will be carried out by competent staff using appropriate equipment. A maximum quantity of 50,000 tonnes of processed and unprocessed planings will be stored on Site at any one time. The Operator will regularly monitor the quantity of stored waste against the allowed maximum capacities, and not exceed them. The Operator will clearly mark all waste storage areas and provide signs indicating the type of waste stored there. EA guidance provides that you must not accumulate wastes. Non-hazardous planings will be stored for a maximum of 6 months.
5	Waste treatment	The Site will be used for the mechanical processing of asphalt road planings only to produce RAP of differing grades in accordance with the WRAP "Quality protocol for aggregates from inert waste". The Operator has an internal Factory Production Control Manual (FPCM) for Aggregate Production for this process The RAP will subsequently be used in the adjacent asphalt manufacturing process, also operated by the Operator. RAP may also be transported to other CEIL asphalt plants and depots for use in asphalt manufacturing, storage, or sold to third-party customers on a commercial basis. Refer to Working Plan (WRF 001) in Appendix 6.
6	Emissions control	The Site will be used for the storage and processing of road planings only. Imported planings will be stored and treated within a building and therefore there is no pathway to the underlying ground or groundwater. There will be no point source emissions to surface water or sewer form the permit boundary. There will be no point source (channelled) emissions to air from the proposed waste operation. A Dust Emissions Management Plan has been produced to support this application (refer to Appendix 8). A Noise Impact Assessment (refer to Appendix 9) and a Noise Management Plan (refer to Appendix 10) have been produced to support this application. The proposed wastes have negligible potential to attract pests.
7	Emissions Monitoring and Limits	There will be no point source emissions from the proposed waste operation.

8	Process Efficiency	The processing of asphalt planings is an increasingly important consideration for many asphalt manufacturers with industry practice moving towards increased sustainability. By utilising recycled planings within asphalt production, manufacturers are able to produce a more sustainable final product, reducing the waste arising from road resurfacing projects, when compared to asphalt mixes which use 100% virgin materials.
9	Waste minimisation, recovery and disposal	Up to 100% of the non-hazardous asphalt road planings accepted at the Site are treated and re-used in the adjacent asphalt plant or transferred off Site for re-use elsewhere. Negligible volumes of wastes are produced by the Site.

Waste Minimisation, Energy Efficiency and Preserving Raw Materials

3.27. In terms of sustainability, the whole development (road planings recycling and the adjacent asphalt plant) has been designed to incorporate a number of sustainability initiatives to support the Operator's own carbon reduction plans whilst also preserving and enhancing the natural environment. The sustainability initiatives proposed include:

- Vehicle electric charging points;
- A cycle shelter to encourage alternative transport options;
- The installation of green roofs which will regulate the indoor temperature, save energy, and provide biodiversity enhancement;
- Rainwater harvesting;
- The installation of roof mounted PV panels for the solar generation of electricity; and
- High efficiency external LED lighting.

3.28. The production of waste materials from the treatment process will be minimal as near enough 100% recycling will be achieved.

3.29. All Site staff will be made aware of the waste hierarchy, which is (from most to least favourable option):

- **Prevention:** preventing and reducing waste generation;
- **Reuse and preparation for reuse**: giving the products a second life before they become waste;
- **Recycle:** any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes composting and it does not include incineration;
- **Recovery:** some waste incineration based on a political non-scientific formula that upgrades the less inefficient incinerators; and
- **Disposal:** processes to dispose of waste, i.e. landfill, some incineration, etc.

Environmental Management System

3.30. The Site will be operated in accordance with the Working Plan (WRF 001) in Appendix 6.

3.31. An ISO 14001 certificate has been provided for F M Conway Limited (FMCL) in Appendix 6. CEIL is a wholly owned subsidiary and reports into FMCL, and at the time of application will operate under that accreditation.

3.32. In accordance with the requirements of the permit and the Working Plan, the Site will be managed such that:

- A business identification board will be prominently displayed at the entrance to the Site, clearly stating the company name, emergency contact details and permit details;
- The Site will be secured by fencing with lockable gates at the Site entrance;
- Minimum personal protective equipment shall be worn in all operational areas. This will include high visibility jacket or waistcoat in traffic areas and steel toe capped boots;
- All contractors visiting the Site will sign in and out of the visitors' book and will be made aware of the Sites' health and safety procedures; and
- A person holding the appropriate Certificate of Technical Competence (CoTC) will be present or available to attend the Site as required.

3.33. WAMITAB certificates for the proposed Technically Competent Manager, including the original certificate, and the most up to do continuing competence certificate, are presented in Appendix 7.

Outline Closure Requirements

3.34. When the waste operation ceases to operate, all waste will be removed from the Site.

3.35. All waste processing equipment will be decommissioned in accordance with the manufacturer's recommendations.

3.36. The local EA officer will be invited for a Site visit to confirm that the environmental permit may be surrendered and agree the type of surrender application required.

3.37. The legal test for surrender is that the necessary measures have been taken to:

- To avoid a pollution risk resulting from the operation of the regulated facility; and
- To return the site of the regulated facility to a satisfactory state, having regard to the state of the site before the facility was put into operation.

3.38. A permit surrender application will be submitted to the EA which will include an updated SCR.

4. RISK ASSESSMENTS AND MANAGEMENT PLANS

Fugitive Emissions of Dust, Mud, Litter and Pests

4.1. EA guidance provides that you must take measures to prevent the spread of dust, mud and litter from your Site.

4.2. Waste storage and mechanical processing activities will be undertaken in the RAP shed to mitigate against dust, odour and noise emissions.

4.3. Waste delivery or collection vehicles will not travel on unmade ground thus the potential for the generation of dust or for tracking mud onto the public highway is negligible. Road planings will be delivered to Site in sheeted vehicles.

4.4. Outside areas will be kept clear of litter and mud.

4.5. The risk of scavenging animals, scavenging birds and other pests arising from the Site and affecting the surrounding environment is highly unlikely due to the type of waste accepted on the Site. Should pests become a problem then specialist contractors will be engaged to address the problem.

Particulate Matter and Odour

4.6. An Air Quality and Odour Assessment (AQOA) (Tetra Tech, October 2024) was undertaken in support of the planning application for the proposed road planings recycling facility and the adjacent asphalt plant.

4.7. With regards to operational impacts of the proposed development, it concludes that:

"*It is considered that after the implementation of the proposed odour and dust suppressions technologies during site operations, the residual impact of odour and dust will be 'negligible' at all receptors.*"

4.8. As stated previously all waste operations will be undertaken within the RAP shed. The locations of the external dust / odour suppression units, proposed in the AQAO, are shown on Drawing Number KD.WLBR.1.D.024. Rainwater harvesting will be undertaken for use in the suppression system.

4.9. In accordance with EA guidance, a Dust Emissions Management Plan (DEMP) has been produced to support this application.

4.10. Adherence to the DEMP will ensure that any significant dust emissions arising from the process are prevented from escaping the Site and giving rise to pollution of the environment or nuisance.

4.11. The DEMP is presented in Appendix 8.

Noise

4.12. It is understood that the granulator and the screener will be electrically powered, generating a much lower sound power level than equivalent machinery which is typically powered by a diesel engine, therefore reducing noise levels at source.

4.13. A comprehensive Noise Impact Assessment (NIA) (WBM Acoustic Consultants, October 2024) has been produced to support the application for the planings recycling operation and the operation of the asphalt plant. The NIA sets out the calculated noise levels arising from the operation of the proposed facilities, for use in a BS 4142:2014+A1:2019 assessment for the nearest residential dwellings.

4.14. The NIA considers the existing baseline noise environment at the nearest residential dwellings to the Site and compares this to the anticipated noise levels arising from the proposed waste operation.

4.15. Attended sample measurements were undertaken on Wednesday 29 November 2023 (daytime), Friday 15 December 2023 (daytime) and Tuesday 19 to Wednesday 20 December 2023 (night-time) and have been used to obtain the existing baseline noise levels at locations representative of the nearest residential dwellings / areas to the Site.

4.16. A total of six potentially sensitive residential receptors were identified within proximity to the Site.

4.17. Results from the baseline noise monitoring have been modelled using SoundPLAN to create a visual representation of calculated noise levels across the wider area in the vicinity of the Site. The model files have been provided alongside this application.

4.18. The NIA concluded that:

"For all of the nearest residential dwellings considered, site noise levels are calculated below or equal to the background sound levels and this is a positive indication of a low level of impact. The impact magnitude is slight and a good standard of amenity should be expected. With regard to national planning guidance, noise impact from the site is expected to fall within the "no observed adverse effect level.

After considering the assessment of impacts and taking account of whether or not context and uncertainty could change the assessment, it is concluded that there are no likely significant noise effects".

4.19. The NIA is presented in Appendix 9 and a Noise Management Plan is presented in Appendix 10.

Environmental Risk Assessment

4.20. The potential impact of pollution for each aspect of the Site has been considered and tabulated, see Appendix 11 (Environmental Risk Assessment) including:

- Dust;
- Odour;
- Noise;
- Flooding;
- Accidents;
- Groundwater;
- Surface water;
- Unauthorised access; and
- Flooding.

Site Condition Report

4.21. A SCR describes and records the condition of the land and groundwater at a site at a particular point in time. It is to enable an operator to demonstrate that they have protected land and groundwater during the lifetime of the site and that the land is in a satisfactory state when it comes to surrender a permit.

4.22. It is necessary to complete sections 1 to 3 of the EA's template for a SCR[2] and submit it with an application for a new permit. The application SCR, which includes historic maps and photographs, is presented in Appendix 5.

4.23. The Site will be used for the storage and processing of road planings only. Imported planings will be stored and treated within a building and therefore there is no pathway to the underlying ground or groundwater.

4.24. The Site is not located directly upon a Principal or Secondary aquifer nor within a groundwater SPZ. There is considered to be no mechanism whereby emissions from the Site could impact on the River Ise.

4.25. In a consultation response on the planning application for the planings recycling operation and the operation of the asphalt plant dated 10 December 2024, the EA commented that:

"We have received the Report on Ground Investigation dated October 2024 compiled by Applied Geology. Based on the information received and our aquifer classification mapping, we consider that the site poses low risk to controlled waters".

4.26. As the risk of contamination from the proposed waste operation will be low, it is not considered necessary to provide a baseline report.

4.27. However, a Site investigation was undertaken to support the planning application for the planings recycling operation and the operation of the asphalt plant, which has been appended to the SCR in Appendix 5.

[2] H5: Site condition report – guidance and templates (Version 3.00). Environment Agency, April 2013.

5. ACCIDENT MANAGEMENT PLAN

5.1. Accidents are not always preventable, but identification of potential accidents will enable preventative measures to be implemented on Site to reduce the likelihood of accidents happening.

5.2. Potential accidents identified as part of this report are as follows:

- Equipment breakdowns;
- Enforced shutdowns;
- Fires;
- Vandalism / fly tipping;
- Flooding; and
- Any other incident which causes an unexpected change to normal operations, such as extreme weather.

5.3. The likelihood of each of these potential accidents occurring is dependent on different scenarios, for example, under normal and abnormal working conditions, activities being undertaken and in worst-case scenarios in regard to weather, temperature, or breakdowns.

5.4. Each identified accident will be reviewed to determine the likelihood of occurrence and the preventative measures in place.

5.5. Where applicable response actions will be outlined for accidents following occurrence.

5.6. Table 3 identifies the potential accidents / incidents, identified above that could take place on Site, the consequences of these, what preventative measures are in place to minimise the risk of accidents / incidents and the response to if any of the accidents / incidents listed took place.

5.7. If an accident or incident causes damage to the environment, or risks doing so, you must: report it to the EA (contact numbers below).

Local Officer Contact Telephone number: TBC. General Enquires Telephone number: 03708 506 506. Out of hours use the free 24 hour incident hotline: 0800 80 70 60. Floodline (24-hour service): 0345 988 1188.

5.8. Following an accident / incident, a tool box talk will be conducted in order to share lessons learned, and any changes to procedures to mitigate against any reoccurrence.

5.9. A form to record accidents / incidents on is presented in Appendix 12.

Table 3: Accident Management Plan

Event	Likelihood	Consequence	Preventative measures	Response to accident/ incident
Equipment breakdowns	It is likely that equipment breakdowns will occur from time to time. All equipment to be used in accordance with the permitted activities is basic mobile plant, therefore it should be easily fixed or replaced. Plant to be used comprise: a granulator and screener, a 360 excavator and a loading shovel. All plant and equipment will be subject to daily maintenance checks by the Operator. These will be logged on inspection sheets. Planned and reactive repairs, maintenance and servicing of the plant and equipment will be undertaken by a combination of CEIL's own fitters and external contractors. Maintenance of plant and equipment will be undertaken in line with the manufacturer's Operations and Maintenance Manuals. Details of all repairs, maintenance and servicing will be recorded in the Site logbook.	It may not be possible to process wastes for short periods.	Maintain a contact list for repairs or replacements to plant. Stop taking wastes if there is the potential for permitted storage volumes to be exceeded (unless otherwise agreed with the EA).	Repair or replace plant items as soon as possible.
Enforced shutdowns	Not considered likely due to the small scale of the operation.	It may not be possible to process wastes for short periods.	Stop taking wastes if there is the potential for permitted storage volumes to be exceeded (unless otherwise agreed with the EA).	Comply with any shutdown notice issue by the EA or Local Planning Authority.
Fires	While there is a low risk of fire the event is highly unlikely. The proposed wastes are non-combustible. The permit does not allow the burning of wastes.	Damage to infrastructure and injury to personnel.	Sources of ignition will be removed from the operational area and it shall be designated a 'No Smoking' zone.	Appropriate firefighting equipment will be available on Site.

Vandalism / fly tipping	Unauthorised entry and tampering or malicious damage to plant and equipment, illegal deposit of waste is unlikely to occur.	Contamination of land, drains, groundwater and watercourses.	Secure perimeter and locked gates. CCTV is installed.	Spill response procedure. Emergency procedures.
Flooding	Unlikely as the Site is located in Flood Zone 1 (lowest risk).	Possible loss of containment of materials.	The Operator will sign up to the EA flood warning service. External drainage systems will be inspected and maintained in accordance with the details in the draft Working Plan (WRF 001 WP).	Permitted waste types do not include sludge or liquids. Recovery of released material where possible. Report any significant effects to the EA.
Any other incident which causes an unexpected change to normal operations, such as extreme weather	Not considered likely due to the small scale of the operation.	Disruption to permitted activities.	Permitted operations to cease if emissions cannot be contained within the permit boundary, or if there is a risk of any limits in the permit being exceeded.	Report any significant effects to the EA.

6. INFORMATION

Records

6.1. Documents will be retained electronically where possible and will be:

- Legible;
- Made as soon as reasonably practicable;
- Documented in such a way that where amendments are made, the original record and any changes are all recorded and retrievable; and
- Retained for the period of time stated in the permit or until permit surrender (in the case of off-site environmental effects and matters pertaining to the condition of land and groundwater).

6.2. The Operator will keep a record of weekly operational hours and Site attendance of technically competent management. It is necessary to record start and finish times of operations and arrival and departure times of the technically competent manager. The records must be available for the EA to inspect on request.

Reporting

6.3. All reports required to comply with the permit will be provided to the EA as required. The records and reports will be retained in accordance with the procedures outlined in the permit.

Notifications

6.4. The Operator shall notify the EA without delay following the detection of:

- Any malfunction, breakdown or failure of equipment or techniques, accident or emission of a substance not controlled by an emission limit which has caused, is causing or may cause significant pollution;
- The breach of a limit specified in the permit; or
- Any significant adverse environmental effects.

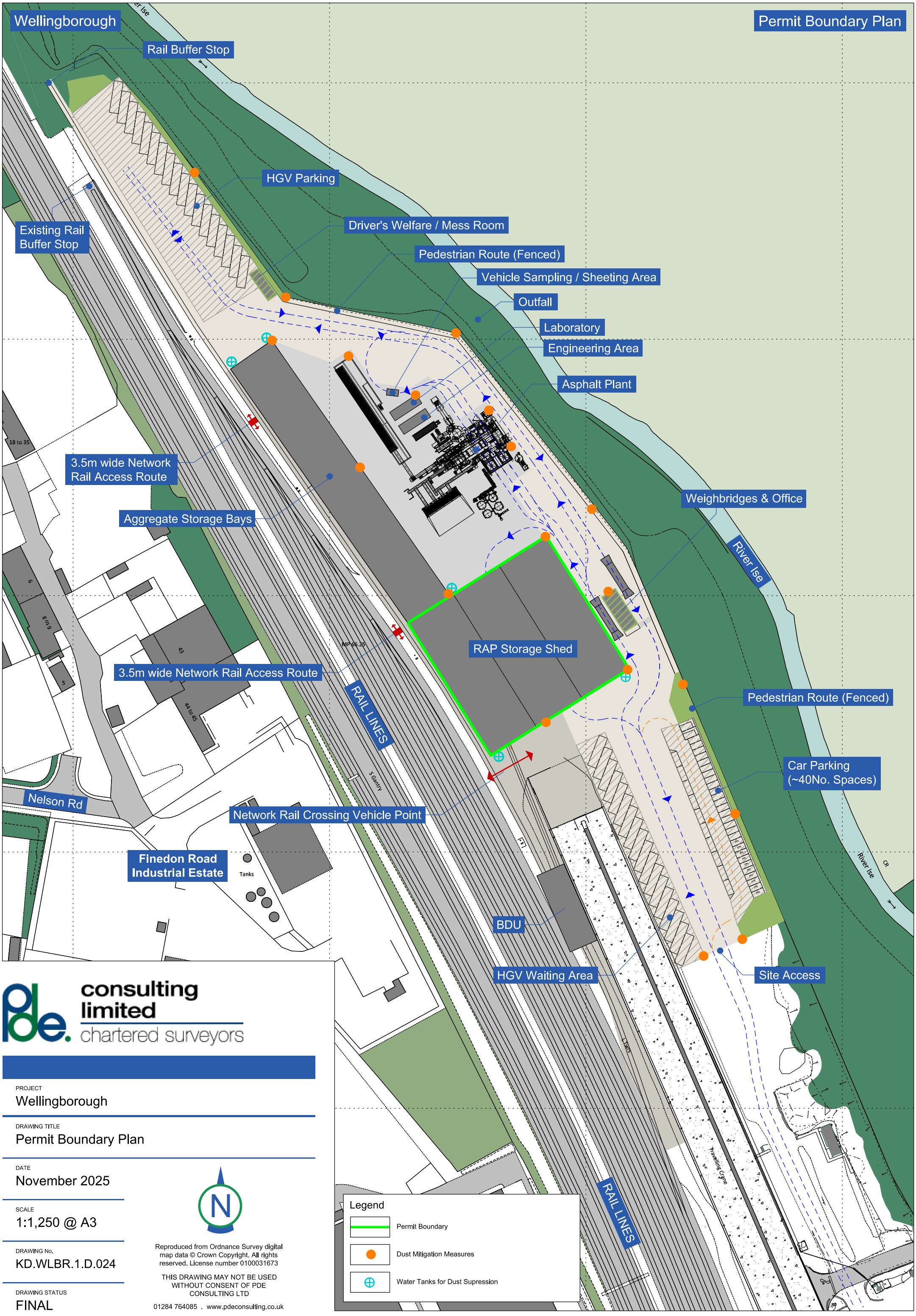
6.5. Written confirmation of actual or potential pollution incidents and breaches of emission limits shall be submitted within 24 hours. All notifications will be recorded and reported in line with Sections 6.1 and 6.2 above.

DRAWINGS

Permit Boundary Plan	Drawing Number KD.WLBR.1.D.024	Scale 1:1250@A3
RAP Shed Internal	Drawing Number 11968-WML-20-GF-DR-S-2002	Scale 1:100@A1
RAP Shed Elevations	Drawing Number KD.WLBR.1.D.014	Scale 1:500@A3

Wellingborough

Permit Boundary Plan



pde. consulting limited
chartered surveyors

PROJECT
Wellingborough

DRAWING TITLE
Permit Boundary Plan

DATE
November 2025

SCALE
1:1,250 @ A3

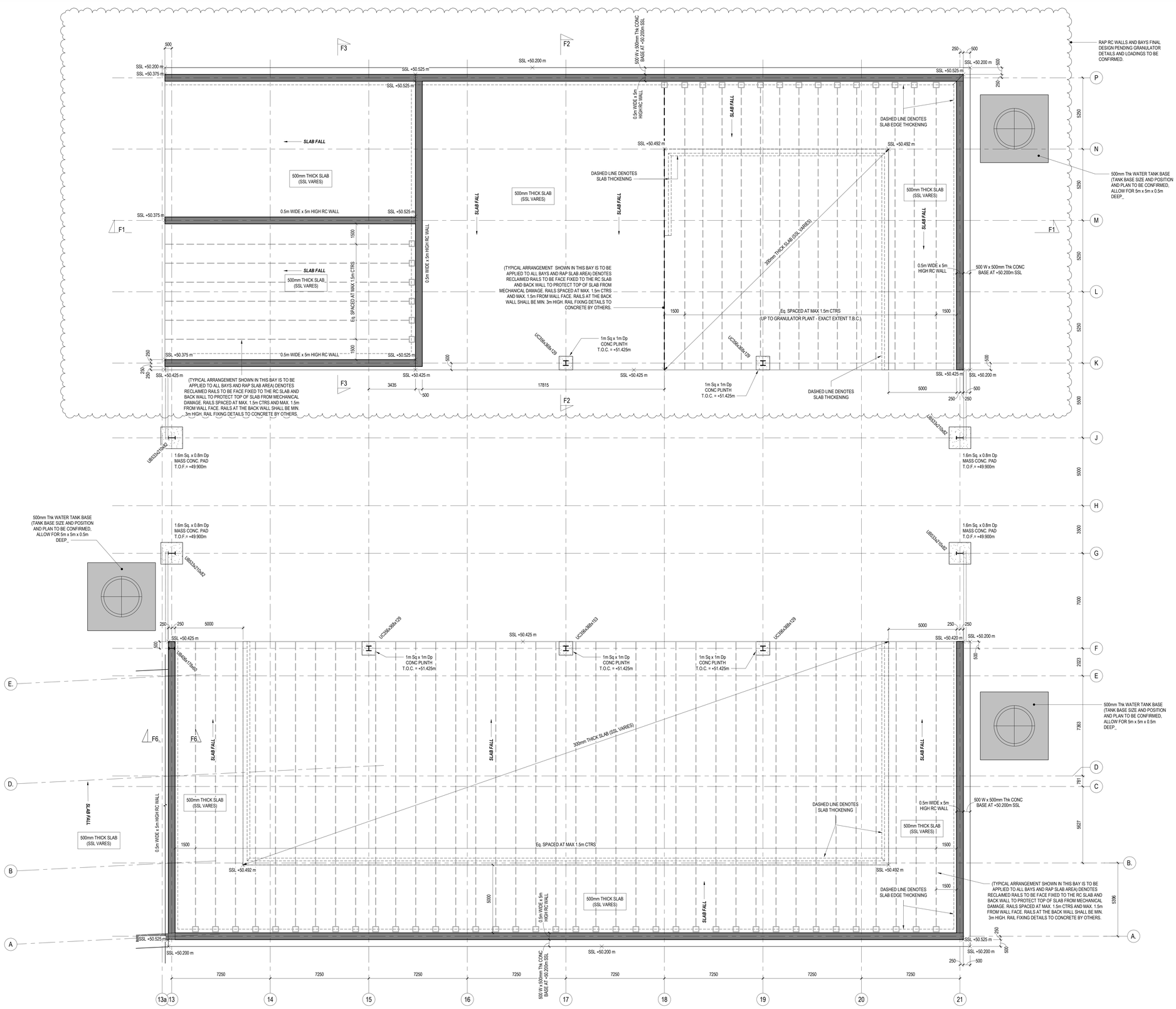
DRAWING No.
KD.WLBR.1.D.024

DRAWING STATUS
FINAL

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RAP BUILDING GROUND FLOOR PLAN

(SCALE 1 : 100)

GENERAL NOTES

1. DO NOT SCALE FROM THIS DRAWING WORK TO FIGURED DIMENSIONS ONLY.
2. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS ALLOWED WITHOUT PRIOR PERMISSION IN WRITING.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL ARCHITECTS, ENGINEERS AND SPECIALISTS DRAWINGS AND THE SPECIFICATION.
4. THE CONTRACTOR SHALL INCORPORATE ALL THE REQUIREMENTS OF THE PRE-TENDER STAGE HEALTH & SAFETY PLAN.
5. FOR CONCRETE QUALITIES REFER TO SPECIFICATION E10/105A, E10/105B AND E10/106A.
6. CONCRETE FINISHES
   CONCEALED CONCRETE FACES:
   FORMED FINISHES - BASIC FINISH E20/610A
   WORKED FINISHES - TAMPED FINISH E41/210
   EXPOSED CONCRETE FACES:
   FORMED FINISHES - FINE SMOOTH FINISH E20/630A
   WORKED FINISHES - SMOOTH FLOAT FINISH E41/310

RESIDUAL RISK REGISTER

GROUND FLOOR SLAB HAS BEEN DESIGNED TO SUPPORT THE AGGREGATE MATERIAL - REFER TO DRAWINGS FOR ASSUMED MATERIAL PROFILES.

OPERATIONAL RISK

IT IS LIKELY THAT LOADING SHOVEL OPERATION WILL CAUSE DAMAGE THE STRUCTURE AND CAUSE MAINTENANCE ISSUES DURING OPERATIONAL PHASE OF THIS DEVELOPMENT. WHILST CONSIDERATIONS ARE MADE TO PROVIDE APPROPRIATE PROTETCION TO AREAS AT MOST RISK, THE END USER SHALL ENSURE RIGOROUS TRAINING AND DISCIPLINE FOR PLANT OPERATORS TO MINIMISE THE RISK OF DAMAGE TO STRUCTURE.

ANY DAMAGE TO STRUCTURE SHOULD BE INSPECTED BY QUALIFIED AND COMPETENT STRUCTURAL ENGINEER AND REMEDIATED TO THEIR RECOMMENDATIONS.

SHOULD STAFF DISCIPLINE PROVE TO BE INEFFECTIVE, IT MAY BE NECESSARY TO RETRO-FIT ADDITIONAL PROTECTION MEASURES TO PREVENT REOCCURING DAMAGES.

NOTE:

HOLDING DOWN BOLTS TO BE INCLUDED IN CIVIL WORKS SCOPE.

HOT ROLLED STEELWORK TO BE INCLUDED IN M&E CONTRACTORS SCOPE.

TEMPORARY WORKS

THE CONTRACTOR MUST APPOINT A TEMPORARY WORKS COORDINATOR WHO WILL BE RESPONSIBLE FOR IDENTIFYING TEMPORARY WORKS REQUIRED TO FACILITATE CONSTRUCTION. THIS MAY INCLUDE ACCESS, PROPPING, CRANE PLATFORMS, PILING MAT ETC.

WML CONSULTING ARE NOT RESPONSIBLE FOR TEMPORARY WORKS DESIGN EXCEPT BY ADDITIONAL APPOINTMENT. WHERE THE REQUIREMENT FOR TEMPORARY WORKS IS NOTED ON WML DRAWINGS, THESE ARE INDICATIVE ONLY AND REFLECT AN ASSUMED METHOD OF CONSTRUCTION.

WML DRAWINGS DO NOT HIGHLIGHT ALL AREAS WHERE TEMPORARY WORKS MAY BE REQUIRED AS THIS WILL BE DETERMINED BY THE METHOD AND SEQUENCE OF CONSTRUCTION ADOPTED BY THE CONTRACTOR.

METHOD STATEMENTS AND TEMPORARY WORKS DESIGNS IMPACT ON THE PRIMARY STRUCTURE AND SHOULD BE FORWARDED TO WML FOR REVIEW PRIOR TO PROGRESSION OF WORKS.

WML PROPOSED CONSTRUCTION SEQUENCE:

- UNDERTAKE BULK EARTHWORKS TO ACHIEVE REQUIRED FORMATION LEVELS FOR PILING MAT
- INSTALL PILING MAT / LOAD DISTRIBUTION MATTRESS
- INSTALL CMCs
- CROP FRESHLY CAST CMC CONCRETE TO REQUIRED LEVEL AND REINSTATE LOAD DISTRIBUTION MATTRESS - REFER TO GROUND IMPROVEMENT CONTRACTORS DETAILS
- TRIM AND LEVEL OFF LOAD DISTRIBUTION MATTRESS TO REQUIRED SLAB FORMATION LEVELS
- LAY SEPARATION MEMBRANE
- CONSTRUCT CONCRETE BLINDING AND RC SLAB

NOTE:

- ALLOW FOR MIN. 125kg/m3 REINFORCEMENT

PRELIMINARY DRAWING

Rev	Amendment	Date	By	Chkd
P01	PRELIMINARY ISSUE	11.07.25	DB	MS

Project
WELLINGBOROUGH ASPHALT AND RECYCLING FACILITY

Client
FM CONWAY

Title
RAP BUILDING GROUND FLOOR GA

WML Job No.	Drawn	Checked	Date	Scale
11968	DB	MS	JUNE 25	As indicated @ A1

WML CONSULTING Civil, Structural & Geotechnical Engineers
Third Floor South Metropolitan House Station Road Cheadle Hulme SK8 7AZ
Tel 0161 482 0600
e-mail info@wmlconsulting.com
www.wmlconsulting.com

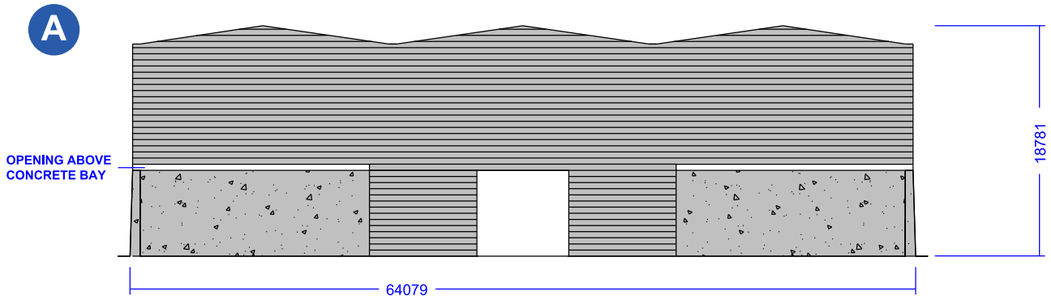
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Revision P01

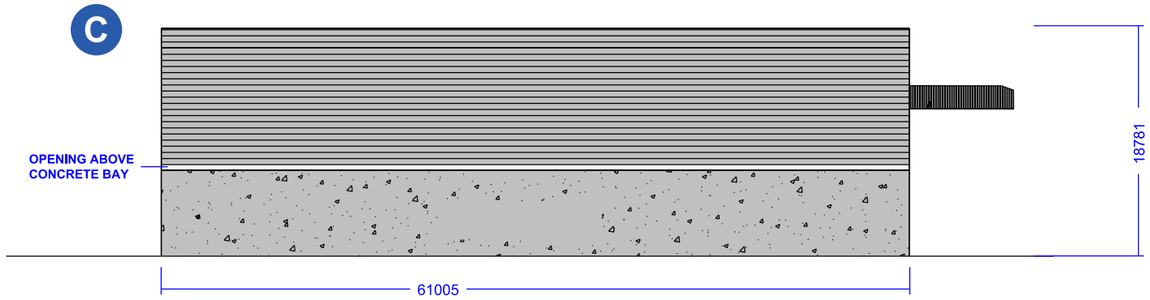
Wellingborough

RAP Shed

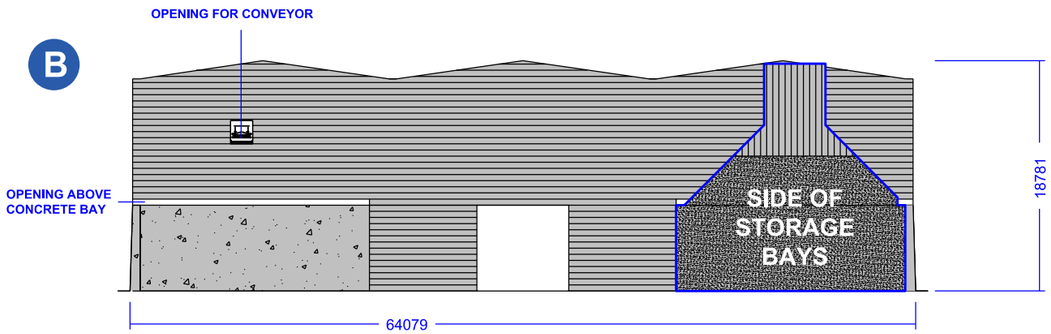
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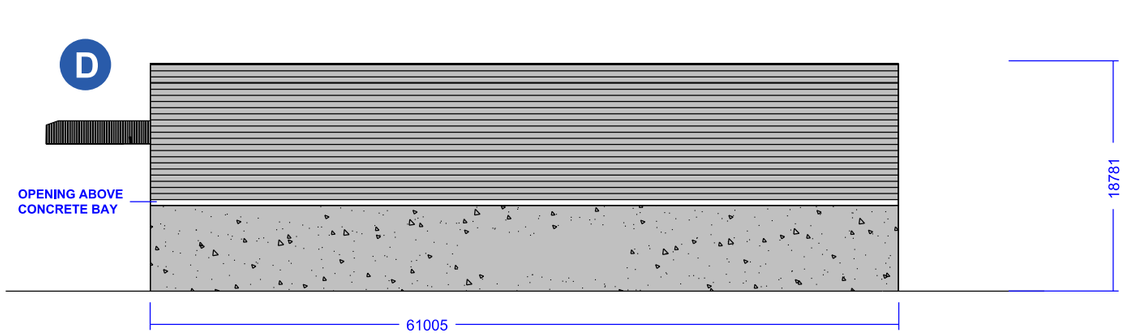
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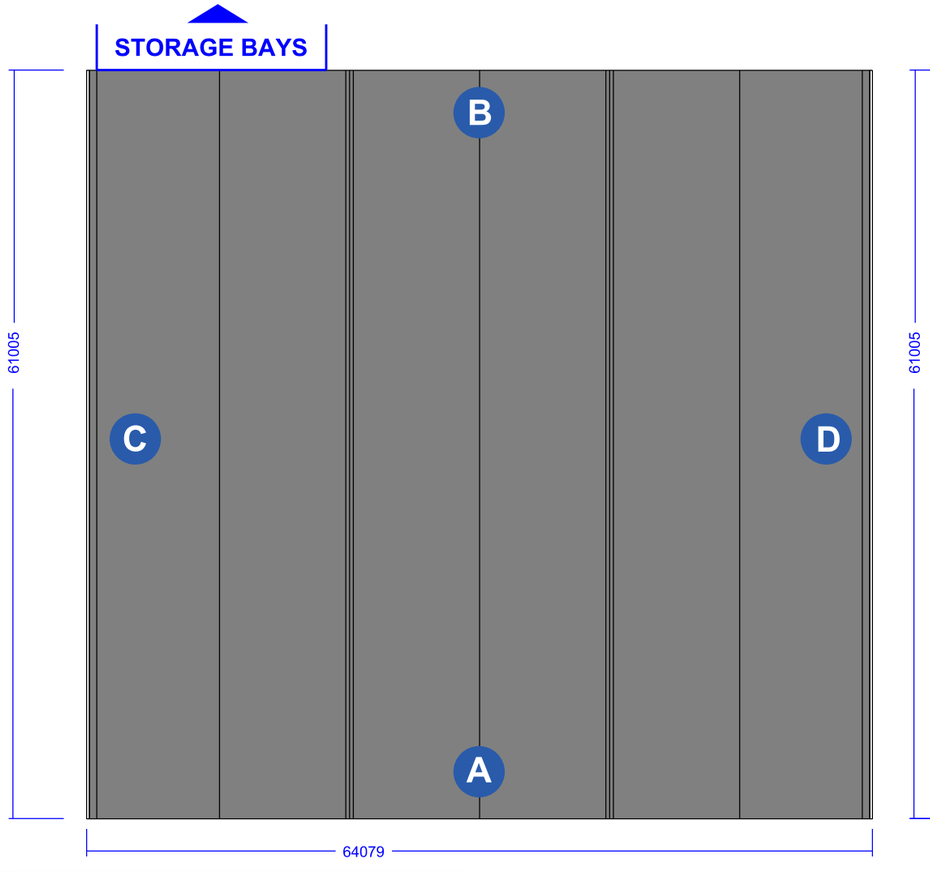
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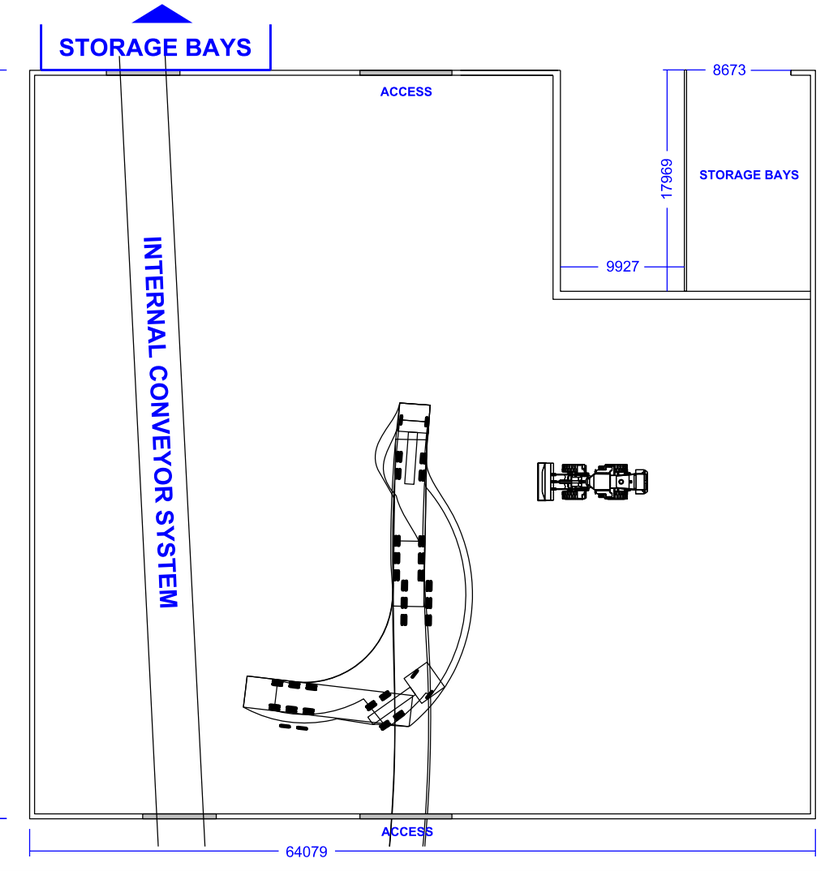


D



Proposed Roof Plan & Floor Plan





Elevations

SCALE

0 25

metres

pde. consulting limited chartered surveyors

PROJECT
Wellingborough

DRAWING TITLE
RAP Shed

DATE
October 2024

SCALE
1:500 @ A3

DRAWING No.
KD.WLBR.1.D.014

DRAWING STATUS
FINAL

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APPENDIX 1

Non-Technical Summary

Non-Technical Summary

Background

PDE Consulting Limited (the 'Agent') has been commissioned by Conway Eurovia Industries Limited (CEIL) (the 'Operator') to prepare and submit to the Environment Agency (EA) an application for a new environmental permit for a Road Planings Recycling Facility to be located on Land at Neilson Rail Sidings, Wellingborough, Northamptonshire, NN8 4BH (the 'Site').

The Site will act as a processing hub for planings removed from roads within the region, whereby the material is subsequently processed and recycled for reuse in similar applications. Processed planings will be used in the adjacent asphalt manufacturing process, also operated by the Operator, or transported off-Site for use elsewhere.

The proposed permit boundary is shown in green on Drawing Number KD.WLBR.1.D.024.

Annual throughputs will be limited to 200,000 tonnes per annum (tpa).

Site Location and Surroundings

The Site lies within the administrative boundary of North Northamptonshire Council (NNC), sitting in the northeast of Wellingborough.

The Site forms part of an operational railway sidings known as Neilson Rail Sidings at Wellingborough which comprises an existing railhead with ancillary facilities including areas of surfaced yard space. The Site is bounded to the north and east by the River Ise corridor, beyond which is open land and industrial development to the east. To the west lies the rail sidings and ancillary facilities, with the Finedon Road Industrial Estate beyond. To the south lies further operational railway land.

The topography of the Site shows a gentle sloping upwards from 49.8 mAOD in the north to 50.1 mAOD in the south.

The nearest residential receptors to the Site are located on Teal Lane, off Nest Lane, approximately 700 metres (m) to the south west of the Site.

Environmental Site Setting

According to British Geological Survey (BGS) mapping and borehole records, the Site is underlain by Made Ground. The bedrock geology comprises the Whitby Mudstone Formation.

The Whitby Mudstone Formation is classified by the EA as Unproductive Strata. The Site is not located within a groundwater source protection zone (SPZ).

The nearest surface watercourse is the River Ise which is located approximately 30 m east of the Site. The River Ise is a tributary of the River Nene and terminates at the Nene approximately 2.5 kilometres (km) south of the Site.

The Site is located within EA modelled Flood Zone 1 (FZ1), signifying an area with the lowest probability of annual flooding.

The Site is not located within an Air Quality Management Area (AQMA).

The Finedon Top Lodge Quarry Site of Special Scientific Interest (SSSI) lies approximately 2 km to the east of the Site. This area is designated as an SSSI due to its geological value and shows exposures of the Middle Jurassic Rutland Formation and overlying White Limestone. The Upper Nene Valley Gravel Pits SSSI, Special Protection Area (SPA) and Ramsar site lies approximately 2.3 km south east of the Site. This area is nationally and internationally important for breeding bird assemblage and wintering birds. There are no other statutory designated sites within 2.5 km of the Site.

Operational Details

The Site will be used for the storage and mechanical processing of non-hazardous road planings only. The storage and treatment of road planings will be undertaken in a building. Annual waste throughputs will be limited in the permit to a maximum of 200,000 tpa.

Imported road planings shall be subject to a Factory Production Control Procedure for the compliance of achieving WRAP Quality Protocol specifications.

The proposed waste activities will be undertaken in accordance with EA Guidance Non – Hazardous and Inert Waste: Appropriate Measures for Permitted Facilities (last updated 01 August 2023)

The Site will be operated by technically competent management who will operate the Site in accordance with the conditions in the environmental permit, planning permissions and a written Environmental Management System (EMS). The EMS will include a Dust Emissions Management Plan, a Noise Management Plan and an Environmental Risk Assessment.

APPENDIX 2

Nature and Heritage Conservation Screen

Nature and Heritage Conservation

Screening Report: Standard rules number SR2022 no.1

Reference	**EPR/LP3527SC/P004**
NGR	**SP 90220 70067**
Buffer (m)	**80**
Date report produced	**28/02/25**
Number of maps enclosed	**1**

This nature and heritage conservation report

The nature and heritage conservation sites, protected species and habitats, and other features **identified in the table below indicate you are not eligible for the standard rules permit this screening has been carried out for**. See below for additional information on standard rules 2022 No 4 and 2022 No 5.

The distance criteria for the standard rules permit selected can be found on the relevant standard rules gov.uk page. Distance criteria are detailed in the site section of the permit.

Please note for standard rules 2022 No 4 and 2022 No 5 condition 2.2.3 has separate criteria for activities involving wastes listed in table 2.3b and carried out outdoors. If you have applied for screening for one of these rules sets, please check if the results below are relevant for the whole site, or just this condition, as both sets of criteria are included in this screening. It is possible to apply for the rules set if you fail criteria in 2.2.3, by not taking wastes from table 2.3b, by using a building, or by limiting the activities to an area of the site outside of screening distance. In these cases, please make it clear how you intend to comply when you apply, or this information will be requested, delaying determination.

In the further information column of the table below, there are links which give more information about the site or feature type and indicate where you are able to self-serve to get the most accurate site boundaries or feature locations.

Most designated site boundaries are available on Magic map. Using Magic map allows you to zoom in and see the site boundary or feature location in detail, Magic map also allows you to measure the distance from these sites and features to your proposed boundary. Help videos are available on Magic map to guide you through.

Where information is not publicly available, or is only available to those with GIS access, we have provided a map at the end of this report.

rules screening

Where information is not publicly available, or is only available to those with GIS access, we have provided a map at the end of this report.

Sites and Features within screening distance	Further Information
Watercourse **River Ise**	EA Detailed River Network (DRN) and Magic map

Protected Habitats within screening distance	Further Information
Deciduous woodland (see map below)	Natural England

Where protected species are present, a licence may be required from Natural England to handle the species or undertake the proposed works.

Note: where the standard rules permit contains the criteria "*not within 250 metres within the presence of Great Crested Newts where it is linked to the breeding ponds of the newts by good habitat*" this screening does not include an assessment of habitat quality and is purely a distance screen.

The following nature and heritage conservation sites, protected species and habitats, and other features have been checked for, where they are relevant for the standard rules permit requested, but have not been found within screening distance of your site unless included in the list above.

Special Areas of Conservation (cSAC or SAC), Special Protection Area (pSPA or SPA), Marine Conservation Zone (MCZ), Ramsar, Sites of Special Scientific Interest (SSSI), Air quality Management area (AQMA), National Nature Reserve (NNR), Local Nature Reserve (LNR), Local Wildlife Sites (LWS), Ancient Woodland, Watercourse, Groundwater Source Protection Zone 1/2/3, Flood Risk Zone 2/3, Scheduled Monuments, relevant species and habitats.

Please note we have screened this application for features for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or

permissions will be required.

The nature and heritage screening we have conducted as part of this report is subject to change as it is based on data we hold at the time it is generated. We cannot guarantee there will be no changes to our screening data between the date of this report and the submission of the permit application, which could result in the return of an application or requesting further information.

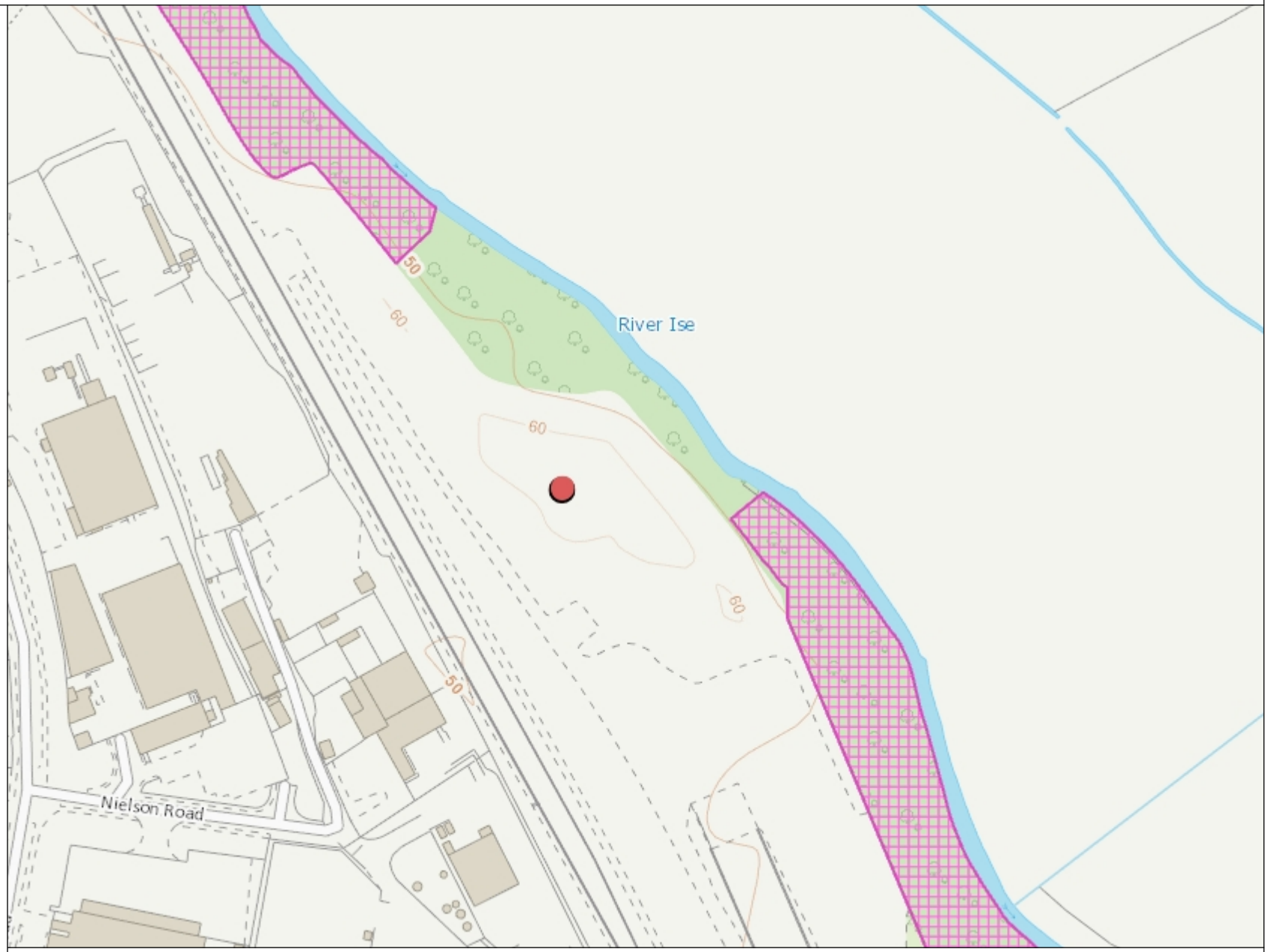
As you have not met the criteria for the standard rules permit, you will need to contact us for further advice on the type of permit you should apply for. Please submit a request through this link: https://www.gov.uk/government/publications/environmental-permit-pre-application-advice-form

Protected Habitats

Environment Agency

Legend

Protected Habitats screened for Env Permits



1: 2,500

0 62

Metres

N
W E
S

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APPENDIX 3

EPR Application Forms

Application for an environmental permit
Part A – About you

Environment Agency

When to complete the Part A form

Complete this part of the application form if you are:

- applying for a new permit (apart from exclusion 1 below)
- applying to vary (change) an existing permit (apart from exclusion 2 below)
- notifying or applying for a permit surrender (apart from exclusion 3 below)
- notifying or applying to transfer an existing permit to yourself

Exclusions – when you do not need to complete this form

You do not need to complete this form if you are:

1. applying for a new permit for:
   - intensive farming – see **Part B3.5 form**
   - discharge of treated domestic sewage up to 20 cubic metres a day to surface water – see **Part B6.5 form**
   - discharge of treated domestic sewage up to 15 cubic metres a day into ground – see **Part B6.5 form**
   - existing small discharges of sewage to ground in a source protection zone 1 – see **Part B6.6 form**
   - a medium combustion plant standard rule permit – see **MCP guidance**
   - a specified generators standard rule permit – see **SG guidance**
2. applying for a variation to:
   - make an administrative change – see **Part C0.5 form**. Note: you will still need to complete this Part A form if you're changing a name or address on the permit.
   - make a non-administrative change to an intensive farming permit – see **Part C3.5 form**.
3. notifying us of a water discharge or groundwater activity permit surrender – see **Part E1 form**. Note: this exclusion does not apply to surrender applications for standalone groundwater activities at onshore oil and gas facilities. You will need to complete this Part A form for those surrender applications.

Do not use this form for radioactive substance regulation permitting. See **RSR: environmental permit application forms**

Completing the form

Visit our website to check this is the latest version of the form. See **Application for an environmental permit: part A about you**.

Please read through the form before completing it. We expect it will take less than 1 hour to complete if you have all the necessary information available.

The form can be:

saved onto a computer and then filled in. We recommend using Adobe Acrobat software to avoid any compatibility issues.

- printed off and filled in by hand. Please write clearly in the answer spaces. If you need to use the links in this form, you can access the electronic version here: **https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-a-about-you**

Other forms you will need to complete

You will also need to complete other parts of the application form. This depends on your facility type and what you are applying for:

- for a new bespoke permit, see: **New bespoke environmental permit: application forms**
- for a new standard rules permit, see: **Application for an environmental permit: part B1 standard facilities permit**
- If you already have a permit, see **Change, transfer or cancel your environmental permit**

Contents

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Section 9: How to contact us

Section 10: Where to send your application

Appendix 1: Date of birth information for installation and waste activities

1 About you

Tick the box that describes you as the applicant.

- ☐ An individual. Now go to **section 2**.
- ☐ More than one individual. Now go to **section 3**.
- ☐ A public body. Now go to **section 4**.
- ☐ A ministerial government department. Now go to **section 5**.
- ☑ A registered company, limited liability partnerships, or other incorporated body. Now go to **section 6**.

To apply, you must be the legal operator of the activity or facility. See: **Legal operator and competence requirements: environmental permits**

2 Applications from an individual

2.1 Name of applicant

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

2.2 Address of applicant

Address

Postcode

2.3 Contact details for applicant

Email

Telephone number

Use a business address and contact details where possible. Otherwise use personal details. Individuals based overseas must provide an address for service in the UK.

Now go to **question 7.2**

3 Applications from more than one individual

3.1 Names and addresses of individuals

This could be, for example:

- individuals acting jointly
- individuals that are partners in a general or limited partnership (but not a limited liability partnership)
- unincorporated charities, trusts and associations, (unless we have agreed the charity, trust or association is a legal entity)

For unincorporated trusts, charities and societies provide the names and addresses of all governing individuals. For example:

- trustees
- chairperson
- treasurer
- secretary
- or a person with a similar position

For applications from other individuals provide the names and addresses of all individuals. However, for applications involving large numbers of individuals, a smaller number of individuals can be nominated. These individuals will be named on the permit and responsible for controlling activities. For example, where a group of 20 individuals are involved, you may decide to identify four individuals as being the operator. This is only applicable to permit and transfer applications. For variation and surrender applications, provide up to date details of the permit holders.

Use a continuation sheet as necessary.

3.1a Name of first individual

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

3.1b Address of first individual

Use a business address where possible. Otherwise use a personal address. Individuals based overseas must provide an address for service in the UK.

3 Applications from more than one individual, continued

Address

Postcode

3.1c Name of second individual

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

3.1d Address of second individual

Use a business address where possible. Otherwise use a personal address. Individuals based overseas must provide an address for service in the UK.

Address

Postcode

3.1e Name of third individual (where applicable)

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

3 Applications from more than one individual, continued

3.1f Address of third individual (where applicable)

Use a business address where possible. Otherwise use a personal address. Individuals based overseas must provide an address for service in the UK.

Address

Postcode

3.1g Continuation sheet for additional individuals (where applicable)

Document reference of continuation sheet

3.2 Organisation type (if any)

For example, individuals acting jointly (e.g. a club), general partnership, unincorporated charity

3.3 Charity Commission registration number (if any)

Recognised charities may qualify for reduced permitting fees for certain water discharge activities. We'll need a Charity Commission registration number to check if this applies to this application.

3.4 Companies House registration number (Limited Partnerships only)

Now go to **section 7: Contact details**

4 Applications from public bodies

4.1 Name of public body

4 Applications from public bodies, continued

4.2 Address of public body

Address

Postcode

4.3 Type of public body

For example, local government body, executive agency, non-departmental public body

4.4 Charity Commission number (if any)

Now go to **section 7: Contact details**

5 Applications from ministerial government departments

5.1 Title of Secretary of State for relevant government department

Title

For example, Secretary of State for Environment, Food and Rural Affairs

5.2 Address of the government department

Address

Postcode

Now go to **section 7: Contact details**

6 Applications from registered companies, limited liability partnerships and other corporate bodies

6.1 Name of company, limited liability partnership, or other incorporated body

Conway Eurovia Industries Limited

6.2 Principal address or Registered Office of registered company, limited liability partnership, or other incorporated body

Address

Conway House
Vestry Road
Sevenoaks
Kent
England

Postcode

TN14 5EL

For registered companies and limited liability partnerships this is the office address registered with Companies House. For other incorporated bodies use your principal business address or the address registered with The Charity Commission.

6.3 Main UK business address for overseas corporate bodies (if applicable)

Your main UK business address is required only if your principal or registered office address is overseas.

Address

As above

Postcode

6 Applications from registered companies, limited liability partnerships and other corporate bodies, continued

6.4 Type of incorporated body

Private Limited Company

For example, private limited company, public limited company, limited liability partnership, incorporated society, charitable incorporated organisation or community interest company

6.5 Companies House registration number (if any)

16769772

6.6 Charity Commission number (if any)

6.7 Additional information if not registered with Companies House or The Charity Commission (if applicable)

This question does not apply to variation or surrender applications.

If you are not registered with Companies House or The Charity Commission, supply:

- evidence that your company or corporate body is a legal entity
- a description of how you will be the legal operator if you are an overseas company without a UK presence.

Document reference for evidence/description:

Evidence of legal entity could, for example, include:

- a copy of your Certificate of Incorporation for companies.
- a copy of your Memorandum and Articles of Association for incorporated charities and trusts

Now go to section 7: Contact details

7 Contact details

7.1 Contact for receipt of official documents

This question does not apply to applications from an individual. We'll send documents to the individual named in **section 2** of this form. Go to **question 7.2** instead.

Provide the details of someone we can send official documents to, such as notices and copies of permits.

7 Contact details, continued

Important: this must be the permit holder and cannot be an agent or consultant acting on their behalf.

For companies this person must be a company secretary, clerk or a director.

For partnerships this must be a person with control or management of the partnership.

For applications from more than one individual, provide details of everyone who is to receive official documents. You can include all individuals or nominate one or more people. Add a continuation sheet where necessary.

If relevant, we'll also send a copy of official documents to the application contact.

Title (Mr, Mrs, Miss and so on) (optional)

Mr

First name

Andrew

Last name

Hanson

Position

Director

'Position' could, for example, be a director, secretary, trustee, or managing partner

Address

Conway House
Vestry Road
Sevenoaks
Kent
England

Postcode

TN14 5EL

Email

Phone number

Document reference of continuation sheet for additional people (if any). For applications from more than one individual only.

7 Contact details, continued

7.2 Application contact

Provide the details of someone we can contact about the application. The person must have the authority to act on behalf of the applicant.

☐ Contact details are the same as **section 2** (application from an individual). You do not need to fill in their details again.

☐ Contact details are the same as **question 7.1** (contact for receipt of official documents). You do not need to fill in their details again.

☐ New contact. Add their details below

Title (Mr, Mrs, Miss and so on) (optional)

Mrs

First name

Suzanne

Last name

Walsh

Address

PDE Consulting Limited
The Alaska Building
Sitka Drive
Shrewsbury Business Park
Shrewsbury
Shropshire

Postcode

SY2 6LG

Phone number

07889 602895

Email

suzanne@pdeconsulting.co.uk

Position

Agent

'Position' could, for example, be the applicant, their employee, or an agent or consultant acting on their behalf.

☑ Tick if you would like all general communication about this application sent to the above email address.

7 Contact details, continued

7.3 Operational contact

We use this information to help us know who to contact about operations at the site, returns and reporting. The operational contact is ordinarily the permit holder. Anyone else must have the authority to act on behalf of the permit holder.

- ☐ Contact details are the same as **section 2** (application from an individual). You do not need to fill in their details again.
- ☐ Contact details are the same as **question 7.1** (contact for receipt of official documents). You do not need to fill in their details again.
- ☐ Contact details are the same as **question 7.2** (application contact). You do not need to fill in their details again.
- ☐ New contact. Add their details below

Title (Mr, Mrs, Miss and so on) (optional)

Mr

First name

Mark

Last name

Whelehan

Address

Conway House
Vestry Road
Sevenoaks
Kent
England

Postcode

TN14 5EL

Phone number

07771647202

Email

mark.whelehan@fmconway.co.uk

Position

The applicant

'Position' could, for example, be the applicant, an employee, or an agent or consultant acting on their behalf.

7 Contact details, continued

7.4 Billing contact

Provide a billing contact where we can send requests for payment, such as invoices for the annual subsistence charge.

- ☐ Contact details are the same as **section 2** (application from an individual). You do not need to fill in their details again.
- ☐ Contact details are the same as **question 7.1** (contact for receipt of official documents). You do not need to fill in their details again.
- ☐ Contact details are the same as **question 7.2** (application contact). You do not need to fill in their details again.
- ☐ Contact details are the same as **question 7.3** (operational contact). You do not need to fill in their details again.
- ☐ New contact. Add their details below

Title (Mr, Mrs, Miss and so on) (optional)

Mr

First name

Mark

Last name

Whelehan

Address

Accounts Payable
Conway House
Vestry Road
Sevenoaks
Kent
England

Postcode

TN14 5EL

Phone number

07771647202

Email

accounts.payable@fmconway.co.uk

For applications from public bodies and ministerial government departments, go to **section 9**.

For all other applications, go to **section 8**.

8 Environmental record check

Question 8.1 applies if you are:

- applying for a new installation or waste permit
- applying to transfer an existing installation or waste permit
- applying to add a relevant waste operation to a permit that has not previously had one

'Relevant waste operations' are one or both of the following:

- a waste operation (not carried on at an installation or by means of a Part B mobile plant).
- a specified waste management activity (certain installations carrying out waste management activities).

For further details of relevant waste operations, see: **The Environmental Protection (Miscellaneous Amendments) (England and Wales) Regulations 2018**

We use the date of birth information to check your environmental record.

If this question does not apply, go to **section 9**

8.1 Complete the date of birth information in **Appendix 1** for the applications set out above.

☑ Tick the box to confirm that Appendix 1 has been completed where required.

Then go to **section 9**

9 How to contact us

If you have difficulty using this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: **enquiries@environment-agency.gov.uk**

Website: **www.gov.uk/government/organisations/environment-agency**

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

You don't have to answer this part of the form, but it will help us improve our forms if you do.

We want to make our forms easy to fill in and easy to understand. Please use the space below to give us any comments that you may have about this form.

9 How to contact us, continued

How long did it take you to fill in this form?

We will use your feedback to improve our form.

Would you like a reply to your feedback?

☐ Yes please

☐ No thank you

Go to **section 10**

10 Where to send your application

Send one electronic copy of your completed application via email to:

- **PSC-WaterQuality@environment-agency.gov.uk** for water discharge activities
- **PSC@environment-agency.gov.uk** for waste or installation activities
- **flood.permitting@environment-agency.gov.uk** for flood risk activities

Alternatively send one paper copy of your application to:

Integrated Permitting Services
Environment Agency
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

Appendix 1: Date of birth information for installation and waste activities

Dates of birth information in this appendix will not be put onto our Public Register.

Only complete this Appendix if required by **question 8.1**.

A1.1 Are you applying as an individual; group of individuals; or a registered company, limited liability partnership or other incorporated body?

An individual. Now go to **A1.2**

More than one individual. Now go to **A1.3**.

A registered company, limited liability partnership or other incorporated body. Now go to **A1.4**.

Public body or ministerial government department. Do not complete this appendix. Go to **section 9** instead.

A1.2 Applications from an individual

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

Date of birth (DD/MM/YYYY)

Now go to **section 9**

A1.3 Applications from more than one individual

For unincorporated trusts, charities and associations provide the name and date of birth of all individuals that are part of the group's controlling or guiding mind. For example:

- trustees
- chairperson
- treasurer
- secretary
- or a person with a similar position

In all other instances, provide the names and address of all individuals listed in **section 3** of this form.

Use a continuation sheet where necessary.

Appendix 1: Date of birth information for installation and waste activities, continued

First individual

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

Date of birth (DD/MM/YYYY)

Second individual

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

Date of birth (DD/MM/YYYY)

Third individual

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

Date of birth (DD/MM/YYYY)

Fourth individual

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

Date of birth (DD/MM/YYYY)

Continuation sheet for additional individuals

Document reference of continuation sheet (if any):

Now go to **section 9**

Appendix 1: Date of birth information for installation and waste activities, continued

A1.4 Applications from registered companies, limited liability partnership or other incorporated bodies

For registered companies provide the names and dates of birth of all directors and any company secretary.

For limited liability partnerships provide the names and dates of birth of all partners.

For other incorporated bodies provide the name and date of birth of all individuals that are part of the body's controlling or guiding mind. For example:

- trustees
- chairperson
- treasurer
- secretary
- or a person with a similar position

Use a continuation sheet where necessary.

Provide the company name and registration number on a continuation sheet for any corporate:

- directors
- company secretaries
- partners

First person

Title (Mr, Mrs, Miss and so on) (optional)

Mr

First name

Paul

Last name

Goosey

Position

Diector

Date of birth (DD/MM/YYYY)

[redacted]

Appendix 1: Date of birth information for installation and waste activities, continued

Second person

Title (Mr, Mrs, Miss and so on) (optional)

Mr

First name

Andrew

Last name

Hansen

Position

Director

Date of birth (DD/MM/YYYY)

[redacted]

Third person

Title (Mr, Mrs, Miss and so on) (optional)

Mr

First name

Xavier

Last name

Lansade

Position

Director

Date of birth (DD/MM/YYYY)

[redacted]

Fourth person

Title (Mr, Mrs, Miss and so on) (optional)

Mr

First name

Scott

Last name

Wardrop

Position

Director

Date of birth (DD/MM/YYYY)

[redacted]

Document reference of continuation sheet for additional people or corporate officers (if any):

Now go to **section 9**

Application for an environmental permit
Part B2 – General – new bespoke permit

Environment Agency

You will need to use an Adobe Acrobat product to complete this form. The form may not work properly if you use a different pdf reader, such as the one built-in to your internet browser.

Fill in this part of the form together with parts A and F1 if you are applying for a new bespoke permit. You also need to fill in part B2.5, B3, B4, B5, B6, or B7 (this depends on what activities you are applying for).

Please check that this is the latest version of the form available from our website.

Please read through this form and the accompanying Part B2 guidance notes(see **https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1102174/Guidance-app-for-an-environmental-permit-part-b2-general-new-bespoke-permit.pdf**).

The form can be:

1) saved onto a computer and then filled in.

2) printed off and filled in by hand. Please write clearly in the answer spaces

It should take less than two hours to fill in this part of the application form.

Contents

1 About the permit

2 About the site (excludes mobile plant)

3 Your ability as an operator

4 Consultation

5 Supporting information

6 Environmental risk assessment

7 How to contact us

Appendix 1 – Low impact installation checklist

Appendix 2 – Date of birth information for Relevant offences and/or Technical ability questions only

1 About the permit

1a Discussions before your application

If you have had discussions with us before your application, including having requested to submit your application in stages, give us the permit reference or details on a separate sheet. Tell us below the reference you have given this extra sheet(s).

Permit or document reference

Refer to application report text and Appendix 2.

1 About the permit, continued

1b Is the permit for a site or for mobile plant?

☐ Mobile plant Now go to **question 1c**

☑ Site Now go to **section 2**

Note: The term 'mobile plant' does not include mobile sheep dipping units.

Mobile plant only

1c Have we told you during pre-application discussions that we believe that a mobile permit is suitable for your activity?

☐ No

☐ Yes

1d Have there been any changes to your proposal since this discussion?

☐ No Now go to **section 3**

☐ Yes You should send us a description of the activity you want to carry out, highlighting the changes you have made since our pre-application discussions

Document reference

Now go to **section 3**

2 About the site (excludes mobile plant)

2a What is the site name, address, postcode and national grid reference?

Site name

Land at Neilson Rail Sidings

Address

Wellingborough,
Northamptonshire

Postcode

NN8 4BH

National grid reference for the middle of the site, or for water quality/groundwater activities, the discharge point (for example, ST 12345 67890).

SP 90220 70067

2 About the site (excludes mobile plant), continued

2b What type of regulated facility are you applying for?

Note: if you are applying for more than one regulated facility then go to 2c.

- ☐ Installation
- ☑ Waste operation
- ☐ Mining waste operation
- ☐ Water discharge activity
- ☐ Groundwater activity (point source)
- ☐ Groundwater activity (discharge onto land)

What is the national grid reference for the regulated facility (if only one)?
(**See the guidance notes on part B2**.)

- ☐ As in 2a above
- ☐ Different from that in 2a Please fill in the national grid reference below

National grid reference for the regulated facility

Now go to **question 2d**

2c If you are applying for more than one regulated facility on your site, what are their types and their grid references?

See the guidance notes on part B2.

Regulated facility 1

National grid reference

What is the regulated facility type?

- ☐ Installation
- ☐ Waste operation
- ☐ Mining waste operation
- ☐ Water discharge activity
- ☐ Groundwater activity (point source)
- ☐ Groundwater activity (discharge onto land)

2 About the site (excludes mobile plant), continued

Regulated facility 2

National grid reference

What is the regulated facility type?

- ☐ Installation
- ☐ Waste operation
- ☐ Mining waste operation
- ☐ Water discharge activity
- ☐ Groundwater activity (point source)
- ☐ Groundwater activity (discharge onto land)

Use several copies of this page or separate sheets if you have a long list of regulated facilities. Send them to us with your application form. Tell us below the reference you have given these extra sheets.

Document reference

Now go to **question 2d**

2d Low impact installations (installations only)

Are any of the regulated facilities low impact installations?

- ☑ No
- ☐ Yes If yes, tell us how you meet the conditions for a low impact installation (**see the guidance notes on part B2** – Appendix 1).

Document reference

- ☐ Tick the box to confirm you have filled in the low impact installation checklist in **appendix 1** for each regulated facility

2e Treating batteries

Are you planning to treat batteries? (**See the guidance notes on part B2**.)

- ☑ No
- ☐ Yes Tell us how you will do this, send us a copy of your explanation and tell us below the reference you have given this explanation

Document reference for the explanation

2 About the site (excludes mobile plant), continued

2f Ship recycling

Is your activity covered by the Ship Recycling Regulations 2015? (**See the guidance notes on part B2**.)

☑ No

☐ Yes Tell us how you will do this. Please send us a copy of your explanation and your facility recycling plan, and tell us below the reference numbers you have given these documents

Document reference for the explanation

Document reference for the facility recycling plan

2g Multi-operator installation

If the site is a multi-operator site (that is there is more than one operator of the installation) then fill in the table below the application reference for each of the other permits.

Table 1 – Other permit application references

3 Your ability as an operator

If you are only applying for a standalone water discharge or for a groundwater activity, you only have to fill in **question 3d**.

3a Relevant offences

Applies to all except standalone surface water discharges and groundwater discharges (**see the guidance notes on part B2**).

Have you, or any other relevant person, been convicted of any relevant offence? (see https://www.gov.uk/government/publications/relevant-conviction-guidance-for-permit-applications-for-waste-activities-and-installations-only)

☑ No Now go to **question 3b**

☐ Yes Please give details below

3 Your ability as an operator, continued

Name of the relevant person

Title (Mr, Mrs, Miss and so on)

First name

Last name

Position held at the time of the offence

Name of the court where the case was dealt with

Date of the conviction (DD/MM/YYYY)

Offence and penalty set

Date any appeal against the conviction will be heard (DD/MM/YYYY)

If necessary, use a separate sheet to give us details of other relevant offences and tell us below the reference number you have given the extra sheet.

Now go to **question 3b**

Please also complete the details in **Appendix 2**.

3b Technical ability

Relevant waste operations only (see the guidance notes on part B2).

Please indicate which of the two schemes you are using to demonstrate you are technically competent to operate your facility and the evidence you have enclosed to demonstrate this.

ESA/EU skills

Please select one of the following:

☐ I have enclosed a copy of the current Competence Management System certificate

or

☐ We will have a certified Competence Management System within 12 months and have enclosed evidence of the contract with an accredited certification body

3 Your ability as an operator, continued

CIWM/WAMITAB scheme

Your answers below must relate to the person(s) providing technically competent management when the permitted activities start.

Please select **one** of the following:

- I have enclosed a copy of:

  ☑ the relevant qualification certificate/s

  or

  ☐ evidence of deemed competence

  or

  ☐ Environment Agency assessment

  or

  ☐ evidence of nominated manager status under the transitional provisions for previously exempt activities

  and, if deemed competent or Agency-assessed, or nominated manager, or if the original qualification is over two years old:

  ☑ I have enclosed a copy of the relevant current continuing competence certificate/s

- ☐ The technically competent manager will complete their qualification within four weeks of starting the permitted activities and I have enclosed evidence of their registration with WAMITAB or their EPOC booking as appropriate

- **For medium- and high-risk tier activities other than landfill**

  ☐ The technically competent manager will complete the qualification within 12 months and I have enclosed evidence of their registration with WAMITAB and, where relevant, EPOC booking. I understand they must complete either four specified units of the relevant qualification or an EPOC within four weeks of the permitted activities commencing

For each technically competent manager please give the following information. If necessary, use a separate sheet to give us these details and tell us below the document reference you have given the extra sheet.

Title (Mr, Mrs, Miss and so on)

Mr

First name

Andrew

Last name

Newell

Phone

Mobile

077395 25168

Email

andrew.newell@fmconway.co.uk

3 Your ability as an operator, continued

Please provide the environmental permit number/s and site address for all other waste operations, (**see part B2 guidance notes**), that the proposed technically competent manager provides technical competence for, including permits held by other operators. Continue on a separate sheet as required.

Permit number	Site address	Postcode
None		

Document reference

Now go to **question 3c**

Please also complete the details in **Appendix 2**.

3c Finances

Installations, waste operations and mining waste operations only.

Please note that if you knowingly or carelessly make a statement that is false or misleading to help you get an environmental permit (for yourself or anyone else), you may be committing an offence under the Environmental Permitting (England and Wales) Regulations 2016.

Do you, or any relevant person, or a company in which you (or they) (or any relevant person) were a relevant person, have current or past bankruptcy or insolvency proceedings against you?

☑ No

☐ Yes Please give details below, including the required set-up costs (including infrastructure), maintenance and clean up costs for the proposed facility against which a credit check may be assessed

We may want to contact a credit reference agency for a report about your business's finances.

See **Environmental permits privacy notice - GOV.UK (www.gov.uk)** for how we use your personal information to support environmental permitting.

3 Your ability as an operator, continued

Landfill, Category A mining waste facilities and mining waste facilities for hazardous waste only

How do you plan to make financial provision (to operate a landfill or a mining waste facility you need to show us that you are financially capable of meeting the obligations of closure and aftercare)?

- ☐ Renewable bonds
- ☐ Cash deposits with the Environment Agency
- ☐ Other – provide comprehensive details

Document reference

Provide a cost profile and expenditure plan of your estimated costs throughout the aftercare period of your site.

Document plan reference

Now go to **question 3d**

3d Management systems (all)

You must have an effective, written management system in place that identifies and reduces the risk of pollution. You may show this by using a certified scheme or your own system.

Your permit requires you (as the operator) to ensure that you manage and operate your activities in accordance with a written management system.

You need to be able to explain what happens at each site and which parts of the overall management system apply. For example, at some sites you may need to show you are carrying out additional measures to prevent pollution because they are nearer to sensitive locations than others.

For waste and installation permits only: your management system must also explain your resilience to climate change.

You can find guidance on management systems on our website at **https://www.gov.uk/guidance/develop-a-management-system-environmental-permits**

- ☑ **Tick this box to confirm that you have read the guidance and that your management system will meet our requirements**

What management system will you provide for your regulated facility?

- ☑ ISO 14001
- ☐ BS 8555 (Phases 1–5)
- ☐ BS EN ISO 14005:2019
- ☐ Green dragon
- ☐ Own management system
- ☐ EMAS Global
- ☐ Other

Please send us a summary of the management system you are using and a copy of your accreditation (if applicable) with your application.

Document reference/s

Appendix 6 to permit application

4 Consultation

Fill in 4a to 4c for installations and waste operations and 4d for installations only.

Could the waste operation or installation involve releasing any substance into any of the following?

4a A sewer managed by a sewerage undertaker?

☑ No

☐ Yes Please name the sewerage undertaker

4b A harbour managed by a harbour authority?

☑ No

☐ Yes Please name the harbour authority

4c Directly into relevant territorial waters or coastal waters within the sea fisheries district of a local fisheries committee?

☑ No

☐ Yes Please name the fisheries committee

4d Is the installation on a site for which:

4d1 a nuclear site licence is needed under section 1 of the Nuclear Installations Act 1965?

☐ No

☐ Yes

4d2 a policy document for preventing major accidents is needed under regulation 5 of the Control of Major Accident Hazards Regulations 2015, or a safety report is needed under regulation 7 of those Regulations?

☐ No

☐ Yes

5 Supporting information

5a Provide a plan or plans for the site

But not any mobile plant

Clearly mark the site boundary or discharge point, or both. The site plan must be legible at A4 size, drawn to scale and include a scale bar.

5 Supporting information, continued

Also include site drainage plans, site layout plans, and plant design drawings/process flow diagrams (as required). (**See the guidance notes on part B2**.)

Document reference/s of the plans

Refer to application report

5b Provide the relevant sections of a site condition/baseline report if this applies

See the guidance notes on part B2

Document reference of the report

Refer to Appendix 5 of the application report

☐ If you are applying for an installation, tick the box to confirm that you have sent in a baseline report

5c Provide a non-technical summary of your application

See the guidance notes on part B2 for what needs to be included.

Document reference of the summary

Refer to Appendix 1 of the application report

5d Are you applying for an activity that includes the storage of combustible wastes?

This applies to all activities excluding standalone water and groundwater discharges.

☑ No

☐ Yes Provide a fire prevention plan (**see the guidance notes on part B2**).

Document reference of the plan

6 Environmental risk assessment

Provide an assessment of the risks each of your proposed regulated facilities poses to the environment. The risk assessment must follow the methodology set out in 'Risk assessments for your environmental permit' at **Risk assessments for your environmental permit – GOV.UK (www.gov.uk)** or an equivalent method.

For air dispersion modelling see: **Environmental permitting: air dispersion modelling reports – GOV.UK (www.gov.uk)**

Document reference(s) for the assessments, including modelling reports and files where applicable

Refer to Appendix 11 of the application report

7 How to contact us

If you have difficulty using this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: **enquiries@environment-agency.gov.uk**

7 How to contact us, continued

Website: **www.gov.uk/government/organisations/environment-agency**

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form?

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

- Yes please
- No thank you

For Environment Agency use only

Date received (DD/MM/YYYY)

Our reference number

Payment received?

- ☐ No
- ◯ Yes

Amount received (£)

Appendix 1 – Low impact installation checklist

Low impact installation criterion (see the Part B2 guidance notes)	Section of supporting document that shows how your proposed activity meets the LII criterion	Do you meet LII criterion?
A – Management techniques		☐ Yes ☐ No
B – Wastewater		☐ Yes ☐ No
C – Abatement systems/ releases to air		☐ Yes ☐ No
D – Emissions to groundwater		☐ Yes ☐ No
E – Waste production		☐ Yes ☐ No
F – Energy consumption		☐ Yes ☐ No
G – Accident prevention		☐ Yes ☐ No
H – Noise		☐ Yes ☐ No
I – Emissions of polluting substances		☐ Yes ☐ No
J – Odours		☐ Yes ☐ No
K – Compliance history		☐ Yes ☐ No

If you answered 'No' to any of the questions above, your installation cannot be considered as a low impact installation.

Appendix 2 – Date of birth information for Relevant offences and/or Technical ability questions only

Date of birth information in this appendix will not be put onto our Public Register. Continue on a separate sheet if necessary

1. Relevant Offences – date of birth information for relevant persons(s)

Please give us the following details if you have answered 'Yes' to question 3a

Name

Date of birth (DD/MM/YYYY)

2. Technical ability – date of birth information for technically competent manager(s)

Please give us the following details (relevant waste operations only)

Name

Andrew Newall

Date of birth (DD/MM/YYYY)

[redacted]

Application for an environmental permit
Part B4 – New bespoke waste operation permit

Environment Agency

Fill in this part of the form, together with parts A, B2 and F1, if you are applying for a new bespoke permit for a waste operation. Please check that this is the latest version of the form available from our website.

Please read through this form and the guidance notes that came with it.

You can apply online for waste bespoke environmental permits.

Apply online for an environmental permit.

The form can be:

1) saved onto a computer and then filled in. Please note that the form follows a logic that means questions will open or stay closed depending on a previous answer. So you may not be able to enter text in some boxes.
2) printed off and filled in by hand. Please write clearly in the answer spaces.

It will take less than three hours to fill in this part of the application form.

Contents

1 What waste operations are you applying for?
2 Point source emissions to air, water and land
3 Operating techniques
4 Monitoring
5 How to contact us
Appendix 1 – Specific questions for the recovery to land for agricultural benefit of compost like outputs from the treatment of mixed municipal solid wastes
Appendix 2 – Specific questions for inert waste landfill and deposit for recovery operations

1 What waste operations are you applying for?

Fill in Table 1a with details of what you are applying for.

Fill in a separate table for each waste operation you are applying for. Use a separate sheet if you have a long list and send it to us with your application form. Tell us below the reference you have given the extra sheet.

Document reference

Types of waste accepted

For each line in Table 1a, fill in a separate document to list those wastes you will accept on the site for that operation, giving the List of Wastes catalogue code (search for 'Technical guidance on how to assess and classify waste' at www.gov.uk/government/organisations/environment-agency). If you need to exclude waste from your activity or facility by restricting the description, quantity, physical nature, hazardous properties, composition or characteristic of the waste, include these in the document. Send it to us with your application form.

1 What waste operations are you applying for?, continued

Table 1a – Waste operations which do not form part of an installation

Name of the waste operation	Description of the waste operation	Annex I (D codes) and Annex II (R codes) and descriptions	Hazardous waste treatment capacity (if this applies) (See note 1)	Non-hazardous waste treatment capacity (if this applies) (See note 1)
Add extra rows if you need them. If you do not have enough room, go to the line below or send a separate document and give us the document reference here	Use the description from the guidance. Include any extra detail that you think would help to accurately describe what you want to do			
Land at Neilson Rail Sidings	Non-hazardous storage & treatment	R5 & R3		
For all waste operations	Total storage capacity (see note 2)			50,000.00
	Annual throughput (tonnes each year)			200,000.00

Notes

1 By 'capacity', we mean:

- the total landfill capacity (cubic metres) for landfills
- the total treatment capacity (tonnes each day) for waste treatment
- the total storage capacity (tonnes) for waste-storage operations

2 By 'total storage capacity', we mean the maximum amount of waste in tonnes you store on the site at any one time.

1 What waste operations are you applying to vary?, continued

Please provide the document reference. You can use Table 1b as a template.

If you want to accept any waste with a code ending in 99, you must provide more information and a full description of the waste in the document, (for example, detailing the source, nature and composition of the waste). Where you only want to receive specific wastes within a waste code you can provide further details of the waste you want to receive. Where a waste is dual coded you should use both codes for the waste.

Document reference

Table 1b – Template example – types of waste accepted and restrictions

Waste code	Description of the waste
Example	Example
02 01 08*	Agrochemical waste containing hazardous substances
18 01 03*	Infectious clinical waste, not contaminated with chemicals or medicines – human healthcare (may contain sharps) for alternative treatment
17 05 03*/17 06 05*	Non-hazardous soil from construction or demolition contaminated with fragments of asbestos cement sheet

1c Deposit for recovery purposes (see Appendix 4 and the guidance notes on part B4)

Are you applying for a waste recovery activity involving the permanent deposit on waste on land for construction or land reclamation (including landfill restoration)?

No ☑ Go to section 2

Yes ☐

Are you applying for an inert landfill permit that includes a restoration activity using waste?

No ☐ Go to section 2

Yes ☐ Please send us a copy of your restoration plan in accordance with our guidance at https://www.gov.uk/guidance/landfill-operators-environmental-permits/restore-your-landfill-site

Have we advised you during pre-application discussions that we believe the activity is waste recovery?

No ☐ Go to section 2

Yes ☐

Have there been any changes to your proposal since the discussions?

No ☐

Yes ☐

Please send us a copy of your waste recovery plan that complies with our guidance at https://www.gov.uk/guidance/waste-recovery-plans-and-permits. You need to highlight any changes you have made since your pre-application discussions. Also give us the reference number of the document with your justification.

Please note that there is an additional charge for the assessment of a waste recovery plan that must be submitted as part of this application. For the charge see https://www.gov.uk/topic/environmental-management/environmental-permits.

Document reference

2 Point source emissions to air, water and land

Fill in Table 2 below with details of the point source emissions that result from the operating techniques at each of your waste operations.

Fill in one table for each waste operation.

Table 2 – Emissions

Name of the waste operation	Land at Neilson Rail Sidings			
Point source emissions to air				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				
Point source emissions to water (other than sewers)				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				
Point source emissions to sewers, effluent treatment plants or other transfers off site				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				
Point source emissions to land				
Emission point reference and location	Source	Parameter	Quantity	Unit
None				

Supporting information

3 Operating techniques

3a Technical standards

Fill in Table 3a for each waste operation you refer to in Table 1a above and list the 'appropriate measures' you are planning to use. If you are using the standards set out in the relevant technical guidance(s) (TGN) there is no need to justify using them within your documents in Table 3a.

You must justify your decisions in a separate document if:

- there is no technical standard
- the technical guidance provides a choice of standards, or
- you plan to use another standard

This justification could include a reference to the Environmental Risk Assessment provided in part B2 of the application form.

Table 3a should summarise:

- the operations undertaken
- the measures you will use to control the emissions from your process, as identified in your risk assessment or the relevant technical guidance
- how you will meet other standards set out in the relevant technical guidance

Table 3a – Technical standards

Fill in a separate table for each waste operation.

Waste operation	Land at Neilson Rail Sidings	
Description of the waste operation Add extra rows if you need them	Appropriate measure (TGN reference)	Document reference (if appropriate)
Non-hazardous storage & physical	Non-hazardous and inert waste:	www.gov.uk/guidance
treatment.	appropriate measures for permitted facilities	

In all cases, describe the type of facility or operation you are applying for and provide site infrastructure plans, location plans and process flow diagrams or block diagrams to help describe the operations and processes undertaken. Give the document references you use for each plan, diagram and description.

Document reference: Refer to permit application report

3b General requirements

Fill in a separate table for each waste operation.

Table 3b – General requirements

Name of the waste operation	Land at Neilson Rail Sidings
If the technical guidance or your risk assessment shows that emissions of substances not controlled by emission limits are an important issue, send us your plan for managing them	Document reference or references Refer to Appendix 8 of application report
If the technical guidance or your risk assessment shows that odours are an important issue, send us your odour management plan. **If your activity type is listed in the guidance document 'Control and monitor emissions for your environmental permit' as needing an odour management plan, or your risk assessment shows that odours are an important issue, you need to send us your odour management plan.**	Document reference or references n/a
If the technical guidance or your risk assessment shows that noise or vibration are important issues, send us your noise or vibration management plan (or both)	Document reference or references Refer to Appendix 10 of application report

3 Operating techniques, continued

We may need to ask for management plans or risk assessments in other circumstances based on our regulatory experience. If you are unsure as to whether you need to submit a management plan with your application, please discuss this with the Environment Agency prior to submission.

Search for 'Risk assessment for your environmental permit' at www.gov.uk/government/organisations/environment-agency.

3c Information for specific sectors

For some of the sectors, we need more information to be able to set appropriate conditions in the permit. This is as well as the information you may provide in sections 5, 6 and 7. For those activities listed in Table 3c, you must answer the questions in the related document.

Table 3c – Questions for specific sectors

Sector	Appendix
Recovery to land for agricultural benefit of compost like outputs from the treatment of mixed municipal solid wastes	See the questions in appendix 1
Inert landfill and deposit of waste on land for construction, land reclamation, restoration or improvement	See the questions in appendix 2

General information

4 Monitoring

4a Describe the measures you use for monitoring emissions by referring to each emission point in Table 2 above

You should also describe any environmental monitoring. Tell us:

- how often you use these measures
- the methods you use
- the procedures you follow to assess the measures

Document reference: n/a

4b Point source emissions to air only

Provide an assessment of the sampling locations used to measure point source emissions to air. The assessment must use M1 (search for 'M1 sampling requirements for stack emission monitoring' at www.gov.uk/government/organisations/environment-agency).

Document reference of the assessment: n/a

5 How to contact us

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General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: enquiries@environment-agency.gov.uk

Website: www.gov.uk/government/organisations/environment-agency

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form?

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

Yes please ☐

No thank you ☐

Crystal Mark 19105
Clarity approved by Plain English Campaign

For Environment Agency use only

Date received (DD/MM/YYYY)

Our reference number

Payment received?

No ☐

Yes ☐ Amount received

£

Plain English Campaign's Crystal Mark does not apply to appendices 1 to 2.

Appendix 1 – Specific questions for the recovery to land for agricultural benefit of compost like outputs from the treatment of mixed municipal solid wastes

1 Please provide an accurate and reliable characterisation of your compost like outputs (CLO). This should be based on sampling and analysis of the CLO produced by the treatment (MBT) process over a 12-month period and in accordance with section 2 of TGN 6.15

Document reference

2 Please provide an agricultural benefit assessment for the use of your CLO. This should be based on section 2 of TGN 6.15 and should be signed and dated by an appropriate technical expert

Document reference

3 Please provide a site-specific risk assessment of risks to soil and food chain receptors. This should be based on Schedule 2 of TGN 6.15 and include a map with a green outline showing the boundary of the area being treated and include:

- locations where the waste will be stored and spread
- any spring, well or borehole used to supply water for domestic or food production purposes that is within 250 metres of the area being treated
- any spring, well or borehole not being used for domestic or food production purposes that is within 50 metres of the area being treated
- any European designated sites (candidate or Special Area of Conservation, proposed or Special Protections Area in England and Wales or Ramsar Site) or Sites of Special Scientific Interest (SSSI) which are within 500 metres of the place where waste is to be stored or spread
- the location of public rights of way
- any Groundwater Source Protection Zones
- surface watercourses
- any buildings or houses within 250 metres of the area being treated
- land drains within the boundary

Document reference

4 Are the technical standards and measures fully in line with those set out in section 3 of TGN 6.15?

No ☐ Provide justification for departure from TGN 6.15 and a copy of the proposed technical standards, measures or procedures

Document reference

Yes ☐

Appendix 2 – Specific questions for inert waste landfill and deposit for recovery operations

1 Please provide your Environmental Setting and Site Design (ESSD) report

Document reference

Note: You should use the Environment Agency template to help you develop an environmental setting and site design (ESSD) report.

2 Please provide your Waste Acceptance Procedures (including Waste Acceptance Criteria)

Document reference

3 Have you provided a hydrogeological risk assessment (HRA) for the site?

No ☐ Please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes ☐ Document reference

4 Have you completed an outline engineering plan for the site?

No ☐ Please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes ☐ Document reference

5 Have you provided a stability risk assessment (SRA) for your site?

No ☐ Please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes ☐ Document reference

Appendix 2 – Specific questions for inert waste landfill and deposit for recovery operations, continued

6 Have you completed a monitoring plan for the site?

No ☐ Please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes ☐ Document reference

7 Have you completed a plan for closing the site and procedures for looking after the site once it has closed?

No ☐ If no for deposit for recovery activities please refer to the section of your ESSD that explains why this is unnecessary for your site

Yes ☐ For inert waste landfill you must provide a closure plan

Document reference

Spreading waste to support plant growth

8a Does the activity involve the deposit of waste to create or treat a growing medium (R10 for land treatment)?

No ☐

Yes ☐

8b If you answered 'yes' to question 8a, does the R10 activity include the spreading of waste to improve the quality of the growing medium (e.g. soil conditioner to improve existing soil profile)?

No ☐

Yes ☐ Go to question 8c

8c If you have answered 'Yes' to question 8b, have you completed a benefit statement?

No ☐ Please explain why

Document reference

Yes ☐

Note: Refer to our guidance when completing your statement (including EPR 8.01, section 6).

Application for an environmental permit Part F1 – Charges and declarations

Environment Agency

When to complete the Part F1 form

Complete this form for all applications for:

- installations (except exclusions 1 and 2)
- waste operations (except exclusion 1)
- mining waste operations (except exclusion 1)
- medium combustion plant (except exclusions 1 and 3)
- specified generators (except exclusion 1 and 4)
- water discharges to surface water (except exclusions 1, 5, 6 and 7)
- groundwater activities (except exclusions 1, 6, 8, 9 and 10)

Exclusions – when you do not need to complete this form

You do not need to complete this form if your application is for:

1. an administrative variation. Use the **Part C0.5 form** instead.
2. a permit or non-administrative variation for intensive farming. Use the **Part B3.5 form** or **Part C3.5 form** as appropriate.
3. a medium combustion plant standard rule permit. See **MCP guidance**
4. a specified generator standard rule permit. See **SG guidance**
5. a permit to discharge up to 20 cubic metres a day of treated domestic sewage to surface water. Use the **Part B6.5 form**.
6. a water discharge or groundwater activity transfer notification. Use the **Part A** and **Part D1** forms. This exclusion does not apply to partial transfer of activities. You'll need to complete this Part F1 form as part of the permit variation to reflect the partial transfer.
7. a water discharge surrender notification. Use the **Part E1 form**. This exclusion does not apply to partial surrenders that need a permit variation. If a variation is required, you'll need to complete this Part F1 form as part of your variation application.
8. a permit to discharge up to 15 cubic metres a day of treated domestic sewage to ground. Use the **Part B6.5 form**.
9. a permit for an existing discharge up to 2 cubic metres a day of treated domestic sewage to ground in a source protection zone 1. Use the **Part B6.6 form**.
10. a groundwater activity surrender notification. Use the **Part E1 form**. You will still need to complete this Part F1 form for the following:
    - surrender applications for standalone groundwater activities at onshore oil and gas facilities
    - partial surrender notifications that need a permit variation. If a variation is required, you'll need to complete this Part F1 form as part of your variation application.

Completing this form

Visit our website to check this is the latest version of the form. See **Application for an environmental permit (charges and declarations): part F1**

Please read through this form before completing it.

You will need to refer to our **charging scheme and charge tables** and **charging guidance** to complete the form.

You can also use our **pre-application advice service** to help you work out your charges.

We expect it will take less than 3 hours to complete the form.

The form can be:

- saved to your computer or device and then filled in. We recommend using Adobe Acrobat software to avoid any compatibility issues.
- printed off and filled in by hand. Please write clearly in the answer spaces. If you need to use the links in this form, you can access the electronic version here: **https://www.gov.uk/government/publications/application-for-an-environmental-permit-part-f1-opra-charges-declarations**

Other forms you will need to complete

You'll also need to complete other parts of the application form in addition to this Part F1 form. This depends on your facility type and what you are applying for:

- for a new bespoke permit visit **New bespoke environmental permit: application forms**
- for a new standard rules permit visit **Application for an environmental permit: part B1 standard facilities permit**
- If you already have a permit visit **Change, transfer or cancel your environmental permit**

Contents

1 When you need to pay an application charge

2 Working out your application charge

3 Payment

4 Privacy notice

5 Commercial and industrial confidentiality

6 National security

7 Ecological survey information

8 Declaration

9 Application review section

10 How to contact us

11 Where to send your application

Appendix 1 – declarations from additional people

1 When you need to pay an application charge

1.1 What are you applying for?

Complete Table 1 with your facility type, application type and number of applications.

Table 1

Facility type (see **note 1**)	Application type (see **note 2**)	Number of applications
Waste operation	New bespoke permit	1

Table 1 notes

1. Facility type

Choose the facility type from the following list:

- groundwater activity
- installation
- medium combustion plant or specified generator
- mining waste
- waste operation
- water discharge

Use a separate row for each facility type and each application type.

2. Application type

Choose the application type from the following list:

New permit:

- new bespoke permit
- new standard rules permit

Variation:

- minor variation
- normal variation
- substantial variation

Surrender:

- full surrender
- low risk surrender
- partial surrender
- partial surrender with variation

1 When you need to pay an application charge, continued

Transfer:

- full transfer
- partial transfer with variation

Use a separate row for each facility type and each application type.

1.2 Are you applying for any of the following?

Tick any that apply

- ☐ Part B installation surrender (except a partial surrender requiring a permit variation)
- ☐ waste mobile plant surrender
- ☐ authorised ship recycling facility (applications and renewals)
- ☐ bespoke groundwater mobile plant (all application types)
- ☐ staged application

If **none** of the above apply, go to **section 2**

If you have ticked **any** of the above, go to **section 4**

The following applications do not attract a charge:

- Part B installation surrender (except a partial surrender requiring a permit variation)
- waste mobile plant surrender

The following charges are payable on demand as time and materials charges:

- authorised ship recycling facility (applications and renewals)
- bespoke groundwater mobile plant (all application types)
- staged applications

For all other applications, charge payments must be made at the time of application.

2 Working out your application charge

For all applications, enter your fixed charges in Table 2. These charges are detailed in our charging scheme tables.

Complete Table 3 if additional charges apply. For example, where additional chargeable assessments are needed.

Your total application charge consists of your fixed charges, plus any additional charges. Complete Table 4 with these figures.

Do not add VAT as most application charges are outside the scope of VAT. The exception is pre-application charges where VAT is applicable. Your pre-application invoice will show if VAT has been included in the charge.

Application charges are set out in **Environmental permits and abstraction licences: tables of charges**.

Guidance on charges is available at **Environmental permits: when and how you are charged**.

You can also use our pre-application advice service to help you work out your charges. Visit **Get advice before you apply for an environmental permit**.

2 Working out your application charge, continued

2.1 Fixed charges

Complete Table 2 with all fixed charges relevant to your application.

Table 2

Ref (from charging table)	**Activity description** (from charging table)	**Additional description** (where applicable – see **note 1**)	**Application type** (from charging table)	**Fixed charge amount** (see **note 2**)
1.16.12	Physical treatment of non - hazardous waste.	n/a	New permit application	7930
Total fixed charges				

Continue on separate sheet as necessary

Document reference of continuation sheet (if any):

2 Working out your application charge, continued

Table 2 notes

1. Additional description

For multiple activities on the same permit:

- use a separate row for each chargeable activity
- add a description to help identify the correct charge. For example, if the same activity is being carried out multiple times or is a secondary activity.

Bulk permit transfer with the same charging table reference can be entered on the same row.

2. Fixed charge amount

Enter the fixed charge amount from the relevant **charging table**.

Show any reductions for:

- **batch permit transfers** (also see example 1 below)
- **multi-activity new permit applications** (also see example 2 below)
- **standalone directly associated activities**

New standard rules may not be shown in the current charging scheme tables. Whilst the scheme is being updated, you can find the charges by visiting **Standard rules: environmental permitting**. Then follow the link to the relevant rule set. The charges will be listed on the individual rule set page. Alternatively, you can contact us for pre-application advice by visiting **Get advice before you apply for an environmental permit**.

2 Working out your application charge, continued

Example 1 – batch transfer of 11 permits

Ref (from charging table)	**Activity description** (from charging table)	**Additional description** (where applicable)	**Application type** (from charging table)	**Fixed charge amount**
1.16.9	Household waste amenity site taking hazardous waste; includes assessment of fire prevention plan and odour management plan		Transfer application	£2,529 (100% of largest transfer charge)
1.16.9	Household waste amenity site taking hazardous waste; includes assessment of fire prevention plan and odour management plan		Transfer application	£5,058 (10 applications after 80% reduction)
Total fixed charges				£7,587

Example 2 – multi-activity new permit application

Ref (from charging table)	**Activity description** (from charging table)	**Additional description** (where applicable)	**Application type** (from charging table)	**Fixed charge amount**
1.7.1	Section 6.8: food and drink production	First production line	Permit application	£13,984 (100% of largest activity charge)
1.7.1	Section 6.8: food and drink production	Second production line (same activity carried out multiple times)	Permit application (part of above application)	£1,398 (after 90% reduction)
1.16.2.2	Section 5.4 (a)(ii): non-hazardous waste installation – physico-chemical treatment for disposal	Effluent treatment plant discharging to sewer (secondary activity)	Permit application (part of above application)	£1,344 (after 90% reduction)
Total fixed charges				£16,726

Note: example charges and calculations were correct at time of form publication.

2 Working out your application charge, continued

Now go to **question 2.2**

2.2 Additional application charges

Complete Table 3 with any additional application charges

Table 3

Charging scheme reference (table 1.19 or paragraph reference)	**Additional charge type**	**Tick all applicable**	**Charge amount**
1.19.1	Waste recovery plan or variation or revision of a waste recovery plan assessment	☐	
1.19.2	Habitats assessment (except where the application activity is a water discharge or groundwater activity)	☑	779
1.19.3	Fire prevention plan assessment	☐	
1.19.4	Pests management plan assessment	☐	
1.19.5	Emissions management plan assessment	☑	1241
1.19.6	Odour management plan assessment	☐	
1.19.7	Noise and vibration management plan assessment	☑	1246
1.19.10	Habitats assessment for discharges to water and groundwater activities	☐	
1.19.11	Specific Substances Assessment for a water discharge activity to surface water	☐	
1.19.12	Specific Substances Assessment for a groundwater activity	☐	
1.19.13	Decarbonisation readiness assessment for an in-scope generator which is a specified installation	☐	
1.19.14	Decarbonisation readiness assessment for an in-scope generator other than a specified installation	☐	
Paragraph 10(a)	Advertising charge	☐	
Paragraph 10(c)	Enhanced pre-application charges (invoiced but not yet paid). Include the amount and invoice number in the 'Charge amount' column	☐	
Total additional charges			

2 Working out your application charge, continued

Table 3 notes

Complete Table 3 if additional charges apply to your application.

Chargeable plans and assessments

Tick all chargeable plans and assessments submitted in support of your application. Enter the charge amount for each. Charges can be found in the relevant charging table at **Environmental permits and abstraction licences: tables of charges**

Some charges for assessing your plans and documents are already included in the fixed charge. Where this is applicable, it will be shown in the charge table description. For example, the description may say 'includes assessment of fire prevention plan'.

For further guidance visit **Charges for plans and assessments** for further information. There is no need to complete table 3 for assessments already included in the fixed charge.

Advertising charge

Tick the advertising charge box if we've told you we will be advertising your application. For further information see **Advertising charge**.

Enhanced pre-application advice charge

You must pay any outstanding pre-application charge invoices with your application. We will return any applications with unpaid invoices.

Now go to **question 2.3**

2.3 Total amount payable

Complete Table 4 with the total application charges payable.

Table 4

Charge	Charge amount
Total fixed charges (from **Table 2**)	7930
Total additional charges (from **Table 3**)	3266
Total amount payable	11196

Now go to **section 3**

3 Payment

Only complete this section if your application needs to be accompanied by a payment. Refer to **question 1.2**.

Please note we are unable to:

- send you an invoice for application charges, (other than pre-application charges)
- accept payments in instalments

3 Payment, continued

3.1 Payment method

Tick one option to show your payment method. Then follow the link to the relevant payment section and follow the steps shown.

☐ Online card payment using GOV.UK Pay – go to **Paying by GOV.UK Pay**

☑ Electronic bank transfer (for example, by BACS) – go to **Paying by electronic bank transfer**

☐ Credit or debit card payment over the phone – go to **Paying by phone**

☐ Cheque – go to **Paying by cheque**

A. Paying by GOV.UK Pay

GOV.UK Pay is a digital payment system where you can pay using a Visa, MasterCard, Maestro card and some digital wallets.

Follow steps A1 to A3 to pay using GOV.UK Pay.

A1 Create your payment reference number

You'll need to include a unique reference number when making your payment. This reference number means we can match the payment to your application. It may cause delays if you do not include a reference number.

1. Start your reference number with one of the following codes, based on your facility type:
   - PSCAPPWASTE – for waste operations and mining waste operations
   - PSCAPPINST – for installations and medium combustion plant or specified generators
   - PSCAPPWQ – for water discharge and groundwater activities
2. Follow this with the first five letters of the applicant's name
3. Finish with your chosen unique identifying number

Example

- application is for a waste operation, so the code is: PSCAPPWASTE
- applicant is Anyfirm Limited, so the first five letters are: ANYFI
- applicant's chosen identifier is: 01

The payment reference number is therefore: PSCAPPWASTEANYFI01

Make a note of this reference number. You'll need to provide it in step A3 below.

A2 Go to GOV.UK Pay payment page

Click on the relevant link below according to your facility type. This will take you to the relevant page to make your payment.

- Link for: **waste operations and mining waste operations**
- Link for: **installations and medium combustion plant/specified generators**
- Link for: **water discharges and groundwater activities**

3 Payment, continued

A3 Complete the payment details below

Payment reference number

Payment amount

11196

Payment date

Now go to **section 4**

B. Paying by electronic bank transfer

Follow steps B1 to B3 to pay by electronic bank transfer, such as BACS.

B1 Create your payment reference number

You'll need to include a unique reference number when making your payment. This reference number means we can match the payment to your application. It may cause delays if you do not include a reference number.

1. Start your reference number with one of the following codes, based on your facility type:

- PSCAPPWASTE – for waste operations and mining waste operations
- PSCAPPINST – for installations and medium combustion plant or specified generators
- PSCAPPWQ – for water discharge and groundwater activities

2. Follow this with the first five letters of the applicant's name
3. Finish with your chosen unique identifying number

Example

- application is for a waste operation, so the code is: PSCAPPWASTE
- applicant is Anyfirm Limited, so the first five letters are: ANYFI
- applicant's chosen identifier is: 01

The payment reference number is therefore: PSCAPPWASTEANYFI01

Make a note of this reference number. You'll need to provide it in step B3 below.

B2 Log onto your banking system

Log onto your banking system to transfer the funds.

You'll need to use the following information to make your payment:

Payee name:	Environment Agency
Sort code:	60-70-80
Account number:	10014411
Account name:	EA RECEIPTS

If you are making your payment from outside the United Kingdom, it must be in sterling. Our IBAN number is GB23NWBK60708010014411 and our SWIFTBIC number is NWBKGB2L.

3 Payment, continued

B3 Complete the payment details below

Name of account holder

Payment reference number

Payment amount

Payment date

Also email your payment details and reference number to **ea_fsc_ar@gov.sscl.com**.

Now go to **section 4**

C. Paying by phone

If you want to pay by phone, add the name and phone number of the person making the payment.

Name

Phone number

We'll call the above person to arrange payment. We can accept payments by Visa, MasterCard or Maestro card only.

Now go to **section 4**

D. Paying by cheque

Make your cheque payable to 'Environment Agency' and cross it with 'A/C Payee' (if not already printed on the cheque).

Write the following on the back of your cheque:

- applicant's name
- application reference number (if known)
- application site address and postcode (where applicable)

Enter the cheque number below

3 Payment, continued

If you're submitting a paper application, include your cheque with the application.

If you're emailing your application, include a covering note with your cheque. Post your cheque to our Integrated Permitting Services at the address shown in **section 11**.

Please note, we're unable to accept post-dated cheques.

It is usually quicker and easier to complete your payment online or by phone.

Now go to **section 4**

4 Privacy notice

See how we use your personal information in services to support environmental permitting by visiting **Environmental permits privacy notice**.

Now go to **section 5**

5 Commercial and industrial confidentiality

We're required to put a copy of your application on a public register. We may exclude information we consider to be confidential from the public register. 'Confidential information' in this context means it is commercially or industrially confidential.

You can ask for information in your application to be treated as confidential. You should request confidentiality when you submit your application.

To be considered fully, your request must:

- clearly identify which information should be considered confidential
- include a clear justification for each item you want kept from the public register
- include evidence that the confidentiality is provided by law to protect a legitimate economic interest

Confidential information should be easy to separate from the rest of your application. For example, you could submit two versions of the same document. One version that contains the confidential information and is marked accordingly. The other document is the same, but with the confidential information hidden or removed.

Information identified as confidential won't be put on the public register while we review your request. We'll let you know the outcome once our decision has been made.

You can find further information on commercial and industrial confidentiality by visiting **Environmental permitting guidance: Core guidance**.

Only tick the box below if you do want to claim commercial or industrial confidentiality.

☐ I wish the information I have identified to be treated as confidential and excluded from the public register.

Now go to **section 6**

6 National security

We maintain a public register of permitting applications. We can be directed to exclude information in the interests of national security. If your application contains such information, you may notify the Secretary of State. They will decide whether it should be excluded from the register.

You must tell us if you have given notice to the Secretary of State. You must still include the information in your application. It will be excluded from the register unless the Secretary of State decides it should be included.

You cannot apply for national security using this application form.

You can find further information on national security by visiting **Environmental permitting guidance: Core guidance**.

Now go to **section 7**

7 Ecological survey information

7.1 Have you provided ecological survey data as part of your application?

☐ Yes – go to **question 7.2**

☑ No – go to **section 8**

7.2 Use of ecological survey data

We may wish to use any ecological survey data you have supplied for other purposes as detailed below.

We assume that we are permitted to use the information you supply to us, in connection with our statutory and regulatory responsibilities. In particular (although there may be other uses), we may:

- incorporate the information into our datasets and mapping. These are used for a variety of purposes
- provide information to other applicants and organisations where this enables us to protect wildlife as we are directed to do in the Environment Act
- respond to requests for information under the Freedom of Information Act and the associated Environmental Information Regulations 2004 and agree limited usage rights in accordance with our Standard Notices that we use when supplying our information
- license datasets and mapping derived from or containing information

If you have any queries, please contact us using the details in **section 10** of this form

☐ Tick this box if you do **not** want us to use information from any ecological survey that you have supplied with your application

8 Declaration

Who should complete the declaration

The person needing to complete the declaration depends on the type of legal entity applying. This is set out below:

Individual

One of the following must sign the declaration:

- the individual

8 Declaration, continued

- someone with written authorisation from the individual

Multiple individuals (see below for unincorporated organisations)

One of the following must sign the declaration:

- all individuals named, or to be named on the permit
- someone with written authorisation from all individuals named, or to be named on the permit

Unincorporated trusts, charities and societies

One of the following must sign the declaration:

- trustee
- chairperson
- treasurer
- secretary
- person with a similar position
- someone with written authorisation from any of the above

Registered company

One of the following must sign the declaration:

- director registered at Companies House
- company secretary registered at Companies House
- any similar company officer registered at Companies House
- someone with written authorisation from any of the above

Limited liability partnership

One of the following must sign the declaration:

- partner registered at Companies House
- partnership secretary registered at Companies House
- someone with written authorisation from any of the above

Other incorporated body

One of the following must sign the declaration:

- chairperson
- treasurer
- secretary
- person with a similar position
- someone with written authorisation from any of the above

Public body or ministerial government department

A person with delegated authority under the body's non-financial scheme of delegation must sign the declaration.

Corporate bodies subject to insolvency procedures

The official Receiver or appointed insolvency practitioner must sign the declaration.

8 Declaration, continued

Written authorisations

If you are the applicant and want someone to complete the below declaration on your behalf, you must give them written authorisation to do so.

Your authorisation must confirm the person has authority to complete the declaration for you. Include a copy of the authorisation with your application, unless we already hold a valid one on file.

Agents or consultants cannot complete the declaration without written authorisation from the applicant.

8.1 Declaration by current permit holder or applicant applying for a new permit

The declaration and details below must be completed by the:

- current permit holder for variation, transfer and surrender applications
- applicant applying for a new permit

Declaration

Note: It is an offence under the Environmental Permitting (England and Wales) Regulations 2016 to knowingly or recklessly make a statement that is false or misleading for the purpose of obtaining an environmental permit, variation, transfer or surrender (for yourself or anyone else)

For further information visit **Environmental Permitting Regulations (EPR) offences**

I declare that the information in this application is true to the best of my knowledge and belief.

I understand that this application may be refused, or approval withdrawn if I give false or misleading information.

☑ Tick this box to confirm that you understand and agree with the declaration above.

In addition, if you are applying for a standard rules permit, tick the box below if you agree with the statement.

☐ I confirm that my standard rules facility will fully meet the rules that I have applied for.

Now complete your details below. You do not need to provide a signature as well.

Person completing declaration

Title (Mr, Mrs, Miss and so on) (optional)

Mr

First name

Andrew

Last name

Hansen

on behalf of (if relevant; for example, a company or organisation and so on)

Conway Eurovia Industries Limited

Position (if relevant)

Operator

'Position' could, for example, be a director, secretary, trustee, or partner in a partnership

8 Declaration, continued

Date of declaration (DD/MM/YYYY)

Use **Appendix 1** if more than one person needs to complete the declaration for the same applicant. For example, where multiple individuals are to be named on the permit.

8.2 Are you applying for a permit transfer?

☐ Yes – now go to **question 8.3**

☑ No – now go to **section 9**

8.3 Declaration by proposed new permit holder

The proposed new permit holder must complete the declaration and their details below.

Declaration for permit transfer applications

Permit transfer applications are joint applications.

The existing permit holder must complete the declaration and details in **question 8.1**.

The proposed new permit holder must complete the declaration and details below.

Note: there may be situations when you're unable to trace the permit holder or a joint holder. You may still be able to transfer the permit without their declaration. Contact us to discuss this. You'll need to supply evidence in your application to confirm you're unable to trace them.

It is an offence under the Environmental Permitting (England and Wales) Regulations 2016 to knowingly or recklessly make a statement that is false or misleading for the purpose of obtaining an environmental permit, variation, transfer or surrender (for yourself or anyone else)

For further information visit **Environmental Permitting Regulations (EPR) offences**

Declaration

I declare that the information in this application is true to the best of my knowledge and belief.

I understand that this application may be refused, or approval withdrawn if I give false or misleading information.

☐ Tick this box to confirm that you understand and agree with the declaration above.

Now complete your details below. You do not need to provide a signature as well.

Person completing declaration

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

on behalf of (if relevant; for example, a company or organisation and so on)

Position (if relevant)

8 Declaration, continued

'Position' could, for example, be a director, secretary, trustee, or partner in a partnership

Date of declaration (DD/MM/YYYY)

Use **Appendix 1** if more than one person needs to complete the declaration for the same applicant. For example, where multiple individuals are to be named on the permit.

Now go to **section 9**

9 Application review section

You must complete this section.

We are unable to return any application or supporting documents. Do not send original legal or important documents.

We can't progress applications that are incomplete or lack sufficient detail.

If you aren't sure about what you need to send, contact us before submitting your application. For further information on pre-application advice visit **Get advice before you apply for an environmental permit**.

9.1 Checklist

Tick to confirm you've completed the following:

- ☑ filled in all relevant parts of the application form clearly
- ☑ included all required supporting documents and listed them in the table below
- ☐ included supporting information for any commercial or industrial confidentiality claim (where applicable)
- ☑ declaration completed by a relevant person, with written authorisation if needed
- ☑ sent the correct payment

9.2 Table of supporting documents

List of all the documents submitted as part of your application in the table below

Question reference e.g. Part B1, Q5b	Document title	Document reference
Part B2, Q1a	Discussions before your application	Refer to application report text and Appendix 2.
Part B2, Q3b	Technical ability	Refer to application report: Appendix 7.
Part B2, Q3d	Management systems	Refer to application report: Appendix 6.
Part B2, Q5a	Provide a plan or plans for the site	Refer to application report: Drawings Section.

9 Application review section, continued

Question reference e.g. Part B1, Q5b	Document title	Document reference
Form B2, Q5b	Site Condition Report	Refer to application report: Appendix 5.
Form B2, Q5bc	Non-technical Summary	Refer to application report: Appendix 1.
Form B2, Q6	Environmental risk assessment	Refer to application report: Appendix 11.
Form B4, Table 3b	Dust Emissions Management Plan	Refer to application report: Appendix 8.
Form B4, Table 3b	Noise Management Plan	Refer to application report: Appendix 10.

Continue on a separate sheet if necessary.

Document reference of continuation sheet (where applicable)

Now go to **section 10**

10 How to contact us

If you have difficulty using this form, please contact the person who sent it to you or contact us as shown below.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm)

Textphone: 03702 422 549 (Monday to Friday, 8am to 6pm)

Email: **enquiries@environment-agency.gov.uk**

Website: **www.gov.uk/government/organisations/environment-agency**

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

You don't have to answer this part of the form, but it will help us improve our forms if you do.

We want to make our forms easy to fill in and easy to understand. Please use the space below to give us any comments that you may have about this form.

How long did it take you to fill in this form?

We will use your feedback to improve our form.

Would you like a reply to your feedback?

☐ Yes please

☐ No thank you

Now go to **section 11**

11 Where to send your application

A. By email

Send water discharge and groundwater activity applications to: **PSC-WaterQuality@environment-agency.gov.uk**

Send all other applications to: **PSC@environment-agency.gov.uk**

If your documents are too large to email, you can upload them to a file sharing site and send us the download link. You can also send multiple emails with attachments.

B. By post

Send one paper copy to:

Environment Agency
Integrated Permitting Services
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

Appendix 1 – declarations from additional people

Declaration – additional person 1

Note: It is an offence under the Environmental Permitting (England and Wales) Regulations 2016 to knowingly or recklessly make a statement that is false or misleading for the purpose of obtaining an environmental permit, variation, transfer or surrender (for yourself or anyone else)

For further information visit **Environmental Permitting Regulations (EPR) offences**

Complete the declaration and add your details below.

Declaration

I declare that the information in this application is true to the best of my knowledge and belief.

I understand that this application may be refused, or approval withdrawn if I give false or misleading information.

☐ Tick this box to confirm that you understand and agree with the declaration above.

In addition, if you are applying for a standard rules permit, tick the box below if you agree with the statement.

☐ I confirm that my standard rules facility will fully meet the rules that I have applied for.

Now complete your details below. You do not need to provide a signature as well.

Person completing declaration

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

on behalf of (if relevant; for example, a company or organisation and so on)

Position (if relevant)

'Position' could, for example, be a director, secretary, trustee, or partner in a partnership.

If applying to transfer a permit, state whether you're the current or proposed holder.

Date of declaration (DD/MM/YYYY)

Declaration – additional person 2

Note: It is an offence under the Environmental Permitting (England and Wales) Regulations 2016 to knowingly or recklessly make a statement that is false or misleading for the purpose of obtaining an environmental permit, variation, transfer or surrender (for yourself or anyone else)

For further information visit **Environmental Permitting Regulations (EPR) offences**

Complete the declaration and add your details below.

Declaration

I declare that the information in this application is true to the best of my knowledge and belief.

I understand that this application may be refused, or approval withdrawn if I give false or misleading information.

☐ Tick this box to confirm that you understand and agree with the declaration above.

In addition, if you are applying for a standard rules permit, tick the box below if you agree with the statement.

☐ I confirm that my standard rules facility will fully meet the rules that I have applied for.

Now complete your details below. You do not need to provide a signature as well.

Person completing declaration

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

on behalf of (if relevant; for example, a company or organisation and so on)

Position (if relevant)

'Position' could, for example, be a director, secretary, trustee, or partner in a partnership.

If applying to transfer a permit, state whether you're the current or proposed holder.

Date of declaration (DD/MM/YYYY)

Declaration – additional person 3

Note: It is an offence under the Environmental Permitting (England and Wales) Regulations 2016 to knowingly or recklessly make a statement that is false or misleading for the purpose of obtaining an environmental permit, variation, transfer or surrender (for yourself or anyone else)

For further information visit **Environmental Permitting Regulations (EPR) offences**

Complete the declaration and add your details below.

Declaration

I declare that the information in this application is true to the best of my knowledge and belief.

I understand that this application may be refused, or approval withdrawn if I give false or misleading information.

☐ Tick this box to confirm that you understand and agree with the declaration above.

In addition, if you are applying for a standard rules permit, tick the box below if you agree with the statement.

☐ I confirm that my standard rules facility will fully meet the rules that I have applied for.

Now complete your details below. You do not need to provide a signature as well.

Person completing declaration

Title (Mr, Mrs, Miss and so on) (optional)

First name

Last name

on behalf of (if relevant; for example, a company or organisation and so on)

Position (if relevant)

'Position' could, for example, be a director, secretary, trustee, or partner in a partnership.
If applying to transfer a permit, state whether you're the current or proposed holder.

Date of declaration (DD/MM/YYYY)

Continue on separate sheet as necessary

Document reference of continuation sheet (if any)

APPENDIX 4

Planning Permission

North Northamptonshire Council

Northamptonshire Minerals and Waste
Planning Service
One Angel Square, Angel Street
Northampton NN1 1ED
Tel: 0300 126 3000
www.northnorthants.gov.uk

Name and address of agent:

Abigail Molyneux
PDE Consulting Limited
6 Forbes Business Centre
Kempson Way
Bury St Edmunds
Suffolk
IP32 7AR

Name and address of applicant:

FM Conway Limited
Conway House
Vestry Road
Sevenoaks
Kent
TN14 5EL

NOTICE OF APPROVAL

Town and Country Planning Act 1990 (as amended)

Part I – Particulars of application

Date Valid:	**Application Number:**
18 February 2025	NN/24/00025/WASFUL

Location: Land at Neilson Rail Sidings, Wellingborough, Northamptonshire, NN8 4BH

Description: The erection and operation of an asphalt plant and road planings recycling facility, ancillary facilities, and access.

Part II – Particulars of decision

North Northamptonshire Council having considered a valid application for the above development, in pursuance of its powers under the Town and Country Planning Act 1990 (as amended)

GRANTS PERMISSION

for the development as described in Part I above and in accordance with the application and plans submitted, subject to the following conditions:

Commencement and Compliance

1. The development hereby permitted shall be begun before the expiry of **THREE YEARS** from the date of this permission. Written notification of the date of commencement shall be sent to the Waste Planning Authority within 7 days of such commencement.

   Reason: To comply with Section 91 of the Town and Country Planning Act as amended by the Planning and Compulsory Purchase Act 2004.

Scope of the Permission

2. Except as otherwise required by conditions attached to this planning permission the development hereby permitted shall be carried out in accordance with the following approved documents:

Planning Documents

- Application Forms dated 28 October 2024
- Planning Statement dated 22 October 2024, prepared by PDE Consulting Ltd
- Design & Access Statement (included in Planning Statement) dated 22 October 2024, prepared by PDE Consulting Ltd

Drawings

- Drawing No. KD.WLBR.1.D.008 Site Location Plan
- Drawing No. KD.WLBR.1.D.009 Existing Site Plan
- Drawing No. KD.WLBR.1.D.010 Proposed Layout Plan
- Drawing No. KD.WLBR.1.D.013 Asphalt Plant
- Drawing No. KD.WLDR.1.D.014 RAP Shed
- Drawing No. KD.WLDR.1.D.015 Covered Storage Bays
- Drawing No. KD.WLDR.1.D.016 Bottom Discharge Unit
- Drawing No. KD.WLDR.1.D.017 Office and Weighbridges
- Drawing No. KD.WLDR.1.D.018 Drivers Mess
- Drawing No. KD.WLDR.1.D.019 Engineering Building
- Drawing No. KD.WLDR.1.D.020 Laboratory

Technical Reports

- Noise Impact Assessment, ref. 5413, prepared by WBM Acoustic Consultants dated 14 October 2024
- Air Quality Assessment, ref. 784-B049693, prepared by Tetra Tech dated 21 October 2024
- Air Quality Impact Assessment of Stack Emissions, ref. 784-B049693, prepared by Tetra Tech dated 22 October 2024
- Transport Statement, ref. JPH/230704/Final, prepared by The Hurlstone Partnership, dated October 2024
- Lighting Assessment, ref. 784-B049693, prepared by Tetra Tech dated 18th October 2024
- Biodiversity Net Gain Assessment, ref. A2308/BNG, prepared by Wilkinson Associates dated October 2024
- Ecological Impact Assessment, ref. A2308/EcIA, prepared by Wilkinson Associates dated October 2024
- Habitat Survey Report, ref. A2308/UKHab, prepared by Wilkinson Associates dated October 2024
- River Condition Assessment, ref. A2308/UKHab, prepared by Wilkinson Associates dated October 2024
- Flood Risk Assessment, ref. PDE.FMC.WLG.FRA24.02, prepared by BCL Hydro Ltd dated October 2024
- Surface Water Drainage Strategy, ref. MC0364 PDE Wellingborough SWDS, prepared by Meridian Civil Engineering Consultancy dated January 2025

- Arboricultural Assessment, ref. L:\12400\12433\ARB\AA\12433AA.doc, prepared by FPCR Environment and Design Ltd dated October 2024
- Ground Investigation Report, ref. AG3488-23-AQ70, prepared by Applied Geology Ltd dated 17 October 2024
- Landscape and Visual Impact Assessment, prepared by KEDD Ltd, dated October 2024

Reason: To specify the approved documents in the interests of amenity.

Waste Types

3. The development hereby permitted is restricted to the import, storage and processing of road planings, and no other form of waste storage or processing shall take place on the site.

   Reason: To restrict the waste types to those specified in the application in the interests of amenity and the environment having regard to Policy 18 of the Minerals and Waste Local Plan (2017) and Policy 8 of the North Northamptonshire Joint Core Strategy.

Hours of Working

4. The development hereby permitted shall be operated as follows:

	Road Planings Recycling	Offloading by train	Manufacture and distribution of asphalt, importation of road planings and distribution of recycled planings
Monday to Friday	07:00 to 17:00	07:00 to 23:00	Continuous
Saturdays	07:00 to 17:00	07:00 to 23:00	Continuous
Sundays	07:00 to 17:00	07:00 to 23:00	Continuous
Bank Holiday	07:00 to 17:00	07:00 to 23:00	Continuous

   Reason: In the interests of amenity protection, having regard to Policy 18 of the Minerals and Waste Local Plan (2017) and Policy 8 of the North Northamptonshire Joint Core Strategy.

Buildings/structures

5. Prior to the construction of the buildings hereby permitted, details of the materials to be used for the external appearance of the buildings shall be submitted to the Waste Planning Authority for approval in writing. The details shall include the materials, colours, and finishes to be used on all buildings. The development shall be fully implemented in accordance with the approved details.

   Reason: In the interests of visual amenity and landscape protection having regard to Policies 18, 21 and 23 of the Minerals and Waste Local Plan (2017).

Noise

6. Noise shall be controlled in accordance with the mitigation measures as detailed in Section 6 of the Noise Impact Assessment by WBM Acoustic Consultants (ref. 5413, date of report 14 October 2024).

   Reason: In the interests of amenity protection having regard to Policy 18 of the Northamptonshire Minerals and Waste Local Plan (2017).

Dust and Odour

7. At all times during the carrying out of operations authorised or required under this permission, best practicable means shall be employed to minimise dust and odour. The recommended dust and odour control measures detailed in section 8 of the Air Quality Assessment by Tetra Tech (ref. 784-B049693, date of report 21 October 2024), shall be implemented in full.

   Reason: In the interests of amenity and biodiversity protection and highway safety, in accordance with Policy 18 of the Northamptonshire Minerals and Waste Local Plan (2017).

Surface Water Drainage

8. The proposed development shall be carried out in full accordance with the drainage strategy as detailed in the Surface Water Drainage Strategy by Meridian Civil Engineering Consultancy (ref. MC0364 PDE Wellingborough SWDS, date of report January 2025).

   Reason: To reduce the risk of flooding both on and off site by ensuring the satisfactory means of surface water attenuation and discharge from the site having regard to the NPPF and Policy 18 of the Minerals and Waste Local Plan (2017).

9. Prior to first occupation, a Verification Report for the installed surface water drainage system for the site, based on the approved Flood Risk Assessment and Surface Water Drainage Strategy, must be submitted in writing by a suitably qualified drainage engineer and approved by the Waste Planning Authority. The details shall include:

   A. Any departure from the agreed design is in keeping with the approved principles
   B. Any As-Built Drawings and accompanying photos
   C. Results of any Performance testing undertaken as a part of the application process (if required / necessary)
   D. Copies of any Statutory Approvals, such as Land Drainage Consent for Discharges etc.
   E. CCTV confirmation that the system is free from defects, damage and foreign objects.

   Reason: To ensure the installed Surface Water Drainage System is satisfactory and in accordance with the approved reports for the development site.

10. No occupation and subsequent use of the development shall take place until evidence of a long term maintenance plan has been agreed and accepted by the site owner, in keeping with the details submitted within the approved Surface Water Drainage Strategy. Such maintenance plan should:

    A. Provide the name of the party responsible, including contact name, address, email address and phone number.
    B. Include plans showing the locations of features requiring maintenance and how these should be accessed.
    C. Provide details on how surface water each relevant feature shall be maintained and managed for the lifetime of the development.
    D. Be of a nature to allow an operator, who has no prior knowledge of the scheme, to conduct the required routine maintenance.

    Reason: To ensure the future maintenance of the sustainable drainage structures.

HGV Movements

11. The average daily number of HGV movements associated with the development hereby permitted shall not exceed:

    - 186 movements [93 in and 93 out] per day

    Reason: To safeguard the interest of users of the public highway having regard to Policy 18 of the Minerals and Waste Local Plan (2017).

Vehicle Sheeting/Mud on the Road

12. All operational vehicles arriving at and leaving the site shall be appropriately covered so as to prevent material spillage, wind blow and dust nuisance.

    Reason: In the interests of highway safety and local amenity having regard to Policies 18 and 19 of the Minerals and Waste Local Plan (2017).

13. All operational vehicles leaving the site shall be cleansed to ensure they are free of mud and other debris to ensure no mud or other debris is deposited on the public highway.

    Reason: In the interests of highway safety and local amenity having regard to Policies 18 and 19 of the Minerals and Waste Local Plan (2017).

Ecology and Biodiversity

14. No development shall take place (including demolition, ground works, vegetation clearance) until a Construction Environmental Management Plan (CEMP: Biodiversity) has been submitted to and approved in writing by the Local Planning Authority. The CEMP (Biodiversity) shall include the following:

    a) Risk assessment of potentially damaging construction activities.
    b) Identification of “biodiversity protection zones”.

c) Practical measures (both physical measures and sensitive working practices) to avoid or reduce impacts during construction (may be provided as a set of method statements).
d) The location and timing of sensitive works to avoid harm to biodiversity features.
e) The times during construction when specialist ecologists need to be present on site to oversee works.
f) Responsible persons and lines of communication.
g) The role and responsibilities on site of an Ecological Clerk of Works (ECoW) or similarly competent person.
h) Use of protective fences, exclusion barriers and warning signs.

The approved CEMP shall be adhered to and implemented throughout the construction period strictly in accordance with the approved details, unless otherwise agreed in writing by the Local Planning Authority.

15. A Biodiversity Gain Plan shall be prepared in accordance with Neilson Rail Sidings, Wellingborough Biodiversity Net Gain Assessment, report ref. A2308/BNG by Wilkinson Associates Environmental Consultants Ltd and dated October 2024.

Reason: To ensure the development delivers a biodiversity net gain on site in accordance with Schedule 7A of the Town and Country Planning Act 1990.

16. The development shall not commence until a Habitat Management and Monitoring Plan (the HMMP), prepared in accordance with the approved Biodiversity Gain Plan and including:

a) a non-technical summary
b) the roles and responsibilities of the people or organisation(s) delivering the HMMP
c) the planned habitat creation and enhancement works to create or improve habitat to achieve the biodiversity net gain in accordance with the approved Biodiversity Gain Plan
d) the management measures to maintain habitat in accordance with the approved Biodiversity Gain Plan for a period of 30 years from the completion of development, and
e) the monitoring methodology and frequency, in respect of the created or enhanced habitat, has been submitted to and approved in writing by the Waste planning Authority.

Reason: To ensure the development delivers a biodiversity net gain on site in accordance with Schedule 7A of the Town and Country Planning Act 1990.

17. Notice in writing shall be given to the Waste Planning Authority when the:

a) HMMP has been implemented; and
b) Habitat creation and enhancement works as set out in the HMMP have been completed.

Reason: To ensure the development delivers a biodiversity net gain on site in accordance with Schedule 7A of the Town and Country Planning Act 1990.

18. The created and/or enhanced habitat specified in the approved HMMP shall be managed and maintained in accordance with the approved HMMP.

Reason: To ensure the development delivers a biodiversity net gain on site in accordance with Schedule 7A of the Town and Country Planning Act 1990.

19. Monitoring reports shall be submitted to the Waste Planning Authority in writing in accordance with the methodology and frequency specified in the approved HMMP.

Reason: To ensure the development delivers a biodiversity net gain on site in accordance with Schedule 7A of the Town and Country Planning Act 1990.

Contaminated Land

20. If, during development, contamination not previously identified is found to be present at the site then no further development (unless otherwise agreed in writing with the Waste Planning Authority) shall be carried out until a remediation strategy detailing how this contamination will be dealt with has been submitted to, and approved in writing by, the Waste Planning Authority. The remediation strategy shall be implemented as approved.

Reason: To ensure that the development does not contribute to, and is not put at unacceptable risk from, or adversely affected by, unacceptable levels of water pollution from previously unidentified contamination sources at the development site. This is in line with paragraph 180 of the NPPF.

Monitoring

21. The operating company shall submit an annual report to the Waste Planning Authority within one month of the first anniversary of commencing and at 12 monthly intervals thereafter. The report shall include detailed information on the quantities and sources of all waste materials brought on to the site and taken off the site, including records of vehicle movements and records that demonstrate compliance with the limit on imported waste, 200,000 tonnes per annum. The information required by this condition shall also be supplied at any other time on request by the Waste Planning Authority.

Reason: To enable the Waste Planning Authority to monitor progress towards achieving the principles in Policy 10, 12 and 25 of the Minerals and Waste Local Plan (2017) and to ensure that waste materials are dealt with close to their source in accordance with Policy 19 of the Minerals and Waste Local Plan (2017).

Complaints

22. In the event that complaints regarding dust, noise, odour and/or lighting are received by the Waste Planning Authority from any sensitive receptor, and thereafter notified to the operator, an assessment of the complaint shall be undertaken by the operator and a response on the findings submitted within two working days. In the event the complaint is considered by the Waste Planning Authority as being potentially contrary to a condition of this permission the operator shall be notified and required to submit proposals for removing, reducing, or mitigating identified adverse effects resulting from the operation. A programme for the implementation of remedial measures and works to be undertaken shall be submitted to the Waste Planning Authority for

agreement in writing no later than five working days from the submission of the response on the findings unless a later date is otherwise agreed in writing by the Waste Planning Authority. The remedial measures agreed in writing shall thereafter be implemented and maintained thereafter.

Reason: In the interests of amenity protection having regard to Policy 18 of the Minerals and Waste Local Plan (2017).

Informative(s)

1. The applicant's attention is drawn to the advice given in the Environment Agency's letter dated 10 December 2024.

2. The applicants should be aware of their responsibilities in respect of Biodiversity Net Gain. Please note the following standard requirements:

   The effect of paragraph 13 of Schedule 7A to the Town and Country Planning Act 1990 is that planning permission granted for the development of land in England is deemed to have been granted subject to the condition ("the biodiversity gain condition") that development may not begin unless:

   a) a Biodiversity Gain Plan has been submitted to the planning authority, and
   b) the planning authority has approved the plan.

   This permission will require the submission and approval of a Biodiversity Gain Plan before development commences.

   Please also note, with respect to biodiversity net gain, 'Completion of development' means the date the Habitat Creation and Enhancement Works were completed to the reasonable satisfaction of the Waste Planning Authority.

3. If it is considered by the Waste Planning Authority that the complaint (referred to in condition 21) is a matter more appropriately regulated under any Environmental Permit at the site, then the Environment Agency will be notified by the Waste Planning Authority for it to investigate and take any action it sees appropriate.

Decision Date:

18 February 2025

Signed:



Name: George Candler
Title: Executive Director of Place and Economy

Officer Ref: Laura Kennedy
Senior Minerals and Waste Planning Officer

APPENDIX 5

Site Condition Report

1.0 SITE DETAILS	
Name of the applicant	Conway Eurovia Industries Limited
Activity address	Land at Neilson Rail Sidings, Wellingborough, Northamptonshire, NN8 4BH
National grid reference	SP 90220 70067

Document reference and dates for Site Condition Report at permit application and surrender	Site Condition Report Appendix 5 to permit application report. PDE Consulting Limited, March 2026

Document references for site plans (including location and boundaries)	Environmental Permit Application. PDE Consulting Limited, March 2026. Drawing Number KD.WLBR.1.D.024 - Permit Boundary Plan.

2.0 Condition of the land at permit issue	
Environmental setting including: • geology • hydrogeology • surface waters	<u>Geology</u> The Site is underlain by Made Ground. No natural superficial deposits are present beneath the Site. The bedrock geology comprises the Whitby Mudstone Formation, a Jurassic mudstone with a shelly limestone bed at its base. <u>Hydrogeology</u> The EA classifies all aquifers as controlled waters but divides them into three categories: principal aquifer; secondary aquifer and unproductive strata. The Whitby Mudstone Formation is classified by the EA as Unproductive Strata. Unproductive strata are largely unable to provide usable water supplies and are unlikely to have surface water and wetland ecosystems dependent on them. The EA has defined Source Protection Zones (inner, outer, total catchment, and special interest) for groundwater sources such as springs, wells and boreholes used for public drinking water supply. These zones provide an indication of the risk of contamination from any activities that might cause pollution in the area. The Site is not located within a groundwater Source Protection Zone (SPZ). There is an approximated 13 km standoff between the Site boundary and the nearest outer protection zone. There are no licensed or private groundwater abstractions located within a 2 km radius of the Site.

	Hydrology The nearest surface watercourse is the River Ise which is located from approximately 30 m east of the site and runs adjacent to the full extent of the eastern boundary of the site. The River Ise is a tributary of the River Nene and terminates at the Nene approximately 2.5 kilometres (km) south of the Site. The overall water quality rating of the River Ise is noted to be poor. The Site is located within EA modelled fluvial Flood Zone 1 (FZ1), signifying an area with the lowest probability of annual flooding. The nearest active surface water abstraction license is noted to be located approximately 1.6 km north-west of the site at Wellingborough Golf Club and it permits surface abstractions from Harrowden Brook for spray irrigation purposes. The license permits 9100 m^3 of water to be abstracted annually under licence No. NPS/WR/021299. It is understood that there are records for up to fifteen Licensed Discharge Consents within 500 m of the Site. The nearest active licence is held approximately 285 m to the southeast of the Site at Ise Valley Industrial Estate and it permits the discharge of surface waters into the River Ise.
Pollution history including: • pollution incidents that may have affected land • historical land-uses and associated contaminants • any visual/olfactory evidence of existing contamination • evidence of damage to pollution prevention measures	The previous land use in shown on the historic maps in Annex 1 which are summarised in the permit application report. A Site walkover / inspection was carried out by Applied Geology on the 26th of June 2023, prior to the commencement of the intrusive works. At the time of the walkover and the subsequent intrusive works, the Site comprised a parcel of land within the aforementioned sidings depot. The northern half of the Site was largely disused with Made Ground soils, sparse grasses and wildflowers exposed at surface, whilst the southern half of the Site comprised an aggregate depot with crushed roadstone (compacted) present at surface. Dense vegetation and semimature to mature trees were noted to the adjacent north and east of the Site. No obvious visual or olfactory signs of gross contamination were observed during the Site walkover / inspection.
Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available)	A Desk Study / Phase I Geoenvironmental Risk Assessment and Phase II Ground Investigation has been undertaken by Applied Geology Limited in respect of the Proposed Development. The full assessment can be found in Annex 1. Chemical testing was undertaken as part of the Applied Geology investigation on the soils across the Site. A review of the chemical testing undertaken as part of this investigation on the Made Ground samples analysed has identified that none of the determinants tested for

	were found to exceed the corresponding screening values for a commercial / industrial end use. The ten samples submitted for PAH analysis recorded total PAH concentrations of between 7.3 mg/kg (TP08 at 0.30 mbgl) and 69 mg/kg (CP04 at 0.80 mbgl), which are considered to be of very low order and of no significant concern. All individual speciated PAHs were significantly below the relevant screening values. Of the same ten samples submitted for petroleum hydrocarbon analysis, two recorded concentrations of total TPH of below the laboratory detection limit (<10mg/kg). The remaining eight samples recorded total TPH of between 15mg/kg (SS1 at 0.20 mbgl) and 410mg/kg (DCS03 at 1.00 mbgl), which are considered to be of relatively low order and of limited significant in the context of the proposed end use. Heavy metal, phenol and BTEX concentrations analysed as part of this investigation were significantly below the relevant screening values for a commercial / industrial end use and the majority were often found to be below the laboratory detection limits. Also, the MTBE, VOC and SVOC concentrations were all found to be at concentrations below the laboratory detection limit. As such, the VOC and SVOCs have been omitted from the human health screening table for clarity. Laboratory screening for asbestos did not detect any asbestos containing material within the samples screened. Based on the above assessments and the Proposed Development plans, it is considered that the Site presents a low risk to end users with regards to Human Health.
Baseline soil and groundwater reference data	Refer to Annex 1.

3.0 Permitted activities	
Permitted activities	The storage and treatment of road planings for re-use as a secondary aggregate.
Non-permitted activities undertaken	None.
Document references for: • plan showing activity layout; and • environmental risk assessment.	Environmental Permit Application. PDE Consulting Limited, March 2026. Drawing Number KD.WLBR.1.D.024 - Permit Boundary Plan. Appendix 11 – Environmental Risk Assessment.

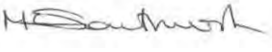
Annex 1 Site Investigation Report

APPLiED GEOLOGY

REPORT ON
GROUND INVESTIGATION
AT
NEILSON'S RAIL SIDINGS
OFF ROUNDHOUSE WAY
WELLINGBOROUGH

REPORT STATUS SHEET

Client:	FM Conway Ltd
Report Title:	Report on Ground Investigation at Neilson's Rail Sidings, off Roundhouse Way, Wellingborough
Report Number:	AG3488-23-AQ70
Report Status:	Validated Issue 2
Details of Changes:	Minor text revisions at request of PDE Consulting
Date:	October 2024

		Date	**Signed for and on behalf of Applied Geology Limited**
Report Author	M Southworth BSc (Hons) MSc FGS Lead Project Engineer	17/10/2024	
Checked	F Hadley-Jones BSc (Hons) MSc FGS Senior Engineer	17/10/2024	
Authorised	J B Cartwright BEng (Hons) MSc FGS Managing Director	17/10/2024	

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APPENDIX A **DRAWINGS & FIGURES**

- Site Location Plan, Dwg No AG3488-23-01 Rev 1
- Exploratory Hole Location Plan, Dwg No AG3488-23-02 Rev 2
- Proposed Layout Drawing by PDE Consulting Ltd ref. KD.WLBR.1.D.010.
- Asphalt Plant Drawing by PDE Consulting Ltd ref. KD.WLBR.1.D.013.
- SPT N value v depth.
- Undrained Shear Strength v depth

APPENDIX B **DESK STUDY DATA**

APPENDIX C **EXPLORATORY HOLE LOGS**

APPENDIX D **FIELD MONITORING**

APPENDIX E **LABORATORY TEST RESULTS & DATA SHEETS**

APPENDIX F **STANDARD FIELDWORK AND ASSESSMENT PROCEDURES**

1.0 INTRODUCTION

1.1 Objectives and Scope of Investigation

Applied Geology was appointed by FM Conway Ltd (the Client) to undertake a desk study/Phase I Geoenvironmental Risk Assessment and Phase II ground investigation in order to:

- assess the potential for hazardous substances or conditions to exist at the site that might warrant mitigation or remediation appropriate to the intended end use proposed by the Client.
- establish geological conditions and geotechnical parameters to assist in the safe and economic engineering design of the proposed development.
- support a Planning Application.

The terms of reference/brief for the works were mutually developed between Applied Geology and the Client and are outlined in our proposal and estimate reference: AG23-8335let001, dated the 15th of February 2023.

The scope of works undertaken by Applied Geology comprised:

- A site inspection and walkover survey
- A review of the following desk study sources:
  - GroundSure – GeoInsight & EnviroInsight environmental databases.
  - GroundSure – MapInsight historical maps.
  - British Geological Survey (BGS) - published information, online borehole database and 1:50,000 and 1:10,000 scale mapping.
  - Online aerial images.
  - Multi-Agency Geographical Information for the Countryside (MAGIC) on-line database.
- Ground investigation together with sampling, monitoring and a programme of laboratory testing.
- Assessment and reporting of the results of the works.

Statutory service plans for the site dated June 2023 were provided by the Client. Similarly, a utility survey drawing (by Macleod Simmons) and a topographical survey drawing (by unknown surveyors and drawing unreferenced), both dated June 2023, were also provided by the Client.

1.2 Report Layout

This report presents a brief description of the site, the desk study data and the factual results of the intrusive investigations carried out. An interpretation of the ground conditions and a discussion/assessment of the findings is presented in the later report text sections. The main text of the report has been produced in a concise format, including the use of data tables to summarise key information where possible. The report should be read in conjunction with the general procedures detailed in Appendix F and General Notes given at the end of the main text, which provide details of investigation techniques, assessment methodology and standards, health & safety

and limitations and exceptions of the report. Drawings and factual data including exploratory hole records, laboratory testing results and desk study records are presented in the other Appendices.

2.0 SITE DESCRIPTION AND PROPOSALS

2.1 Site Description

The site forms the most northern part of the existing Neilson's Rail Sidings Rail Depot site located off Roundhouse Way, Wellingborough, c.2.2km north-east of Wellingborough town centre, Northamptonshire. The Ordnance Survey grid reference for the centre of the site is approximately 490239, 270023, as shown on the Site Location Plan (AG3488-23-01 Rev 1), presented in Appendix A.

The site is relatively elongated in plan shape and measures c.450m by 120m at the longest and widest extents. The Site extends to approximately 3.36 hectares and is comprised of the development area and the access. The topographical survey of the site (undertaken by others) indicates the site to slope gently upwards from 49.8m AOD in the north to 50.1m AOD in the south. Elevations of between 49.61m and 52.50m AOD are indicated along the north-western boundary of the site, and these correspond to a peripheral earth bund. Whilst stockpiles are noted on the topographical survey drawing along the eastern boundary of the site, elevations were not obtained.

A site walkover/inspection was carried out by Applied Geology on the 26th of June 2023, prior to the commencement of the intrusive works in order to agree access and the location of the proposed exploratory hole locations with FM Conway Ltd. Access to the site was gained via the wider Neilson's Siding Rail Depot to the immediate south. At the time of the walkover and the subsequent intrusive works, the site comprised a parcel of land within the aforementioned sidings depot, currently occupied and maintained by Great British Rail Freight (GBRF). The northern half of the site was largely disused with Made Ground soils, sparse grasses and wildflowers exposed at surface, whilst the southern half of the site comprised an aggregate depot with crushed roadstone (compacted) present at surface. Dense vegetation and semi-mature to mature trees were noted to the adjacent north and east of the site.

A vegetated peripheral earth bund was noted along the north-western boundary of the site and FM Conway Ltd noted that this was likely scraped surface material from the northern area of the site. Whilst this remained in-situ during the recent intrusive works, it is understood that the earth bund will be removed as part of the proposed development. To the adjacent east of the peripheral earth bund was a dismantled crane, which was being stored for the wider site use. Several large-scale mounded stockpiles of imported crushed material (confirmed to be graded to Type 1 and Type 2) were also noted almost centrally along the eastern extent of the site. Sections of these stockpiles were removed/relocated by GBRF to allow our intrusive works to proceed. The southern extent of the site was largely being used as a car parking area for employees of GBRF.

No obvious visual or olfactory signs of gross contamination were observed during the site walkover/inspection.

The site was bound to the north and east by dense vegetation, semi-mature to mature trees with the River Ise beyond, to the south by the wider Neilson's Sidings Rail Depot

and to the west by several operational sidings, an active single railway line with an industrial estate immediately beyond. Topographically the surrounding area appeared to be relatively flat, albeit the agricultural fields beyond the River Ise gradually drop in level towards the east/ north-east.



Peripheral earth bund along the north-western boundary of the site, with the metal framed equipment to the adjacent east.



The several stockpiles of crushed aggregate (graded to Type 1 and Type 2) located roughly centrally along the eastern boundary of the site.



The southern extent of the site which was largely used as an area of car parking for the GBRF employees. Beyond is access to the wider Neilson's Siding Rail Depot site.



Operational railway sidings to the adjacent west of the site. Active single railway line immediately beyond, but out of photograph.



Another photograph showing the operational GBRF sidings to the adjacent west of the site.



Northern half of the site with the dense vegetation and semi-mature to mature trees beyond.

2.2 Site Proposals

The proposed location and layout of the proposed development is detailed on PDE Consulting Ltd drawing reference KD.WLBR.1.D.010 and the proposed asphalt plant detailed on drawing reference KD.WLBR.1.D.013, both presented in Appendix A.

3.0 DESK STUDY INFORMATION

The desk study findings are summarised below with the full Groundsure Report and selected Historical Ordnance Survey Maps included in Appendix B.

Site History (1884 to 2023)	• **1884 to 1886** – The site is shown to comprise a largely unoccupied parcel of land across parts of four to five separate fields. The Midlands Railway line runs adjacent to the full extent of the western boundary of the site, with a connecting tramway that crosses the central regions of the site in a north-east to south-west direction. A brickfield and kiln are noted to the adjacent south of the tramway, c.500m east to north-east of the site. The land to the adjacent west of the Midland Railway line is labelled as Neilson's Sidings. It is not known whether at this time the site formed part of the sidings. Signal posts and boxes are noted either side of the railway line along the extent which bounds the site. The River Ise is mapped along the full extent of the eastern boundary of the site and appears to encroach the site in one location along this boundary. The river is shown to flow in a southerly direction and the land to the adjacent east is noted to be "liable to floods". A second brickfield with a number of kilns is shown to the adjacent west of the Midland Railway line, c.480m to c.500m south of the site. • **1899** – The majority of the site (excluding a portion of the eastern boundary) and the land to the adjacent south are occupied by sidings associated with the adjacent west Midland Railway Line. The sidings appear to be on at least two different levels with embankments shown. The site is now labelled as being part of Neilson's Sidings. The brickfield c.500m north-east of the site is now labelled as an old clay pit. A structure is shown within the boundaries of the site at the termination point of the tramway with the sidings and there is also a crane marked adjacent. Subsequent mapping suggests this is an engine house likely associated with powering the tramway. An iron works (labelled Wellingborough Iron Works) is mapped to the adjacent west of the brickfield/ brick works from c.480m south of the site. • **1924** – There are no further significant changes onsite, albeit the structure adjacent to the tramway is now labelled 'Engine House'. There is an extra siding entering the site from the south-east, which runs up to and terminates by the Engine House. A chimney is also shown. There are further embankments/slopes noted in the east, to suggest the site has

	been raised further in this area. A wagon works and a painting shed are shown to the adjacent west of the site beyond the railway line, which has been renamed the London, Midland and Scottish Railway line. A golf course is shown from c.250m west of the site and an asphalt plant is mapped adjacent to the iron works c.500m south-west of the site. A pumping station and reservoir are mapped c.750m to the east of the site. • **1938** – 'Engine House' no longer appears on mapping and the structure has likely been demolished. The painting shed to the adjacent west of the railway line is no longer shown on mapping, whilst the nearby wagon works appears to have extended in size but is no longer labelled. Further works are shown either side of the railway line c.1km south of the site. • **1950** – The sidings are shown to now occupy the entirety of the site, including the eastern boundary. The onsite tramway appears to no longer be in use and partially dismantled. The brickfield/ works c.480m to the south and the asphalt plant c.500m to the south-west no longer appear on mapping, however, the associated sidings remain and appear to have been extended to. There is extensive residential development from c.750m south of the site, which is likely the widening of the settlement of Wellingborough. • **1957 to 1958** – There are no further significant changes onsite. The railway to the adjacent west is again labelled the Midland Line. The pumping station and reservoir c.750m to the east no longer appear on mapping. The Iron Works c.480m to the south is now simple labelled as a works. The extensive residential development scheme from c.750m south of the site is still ongoing. • **1974 to 1982** – The River Ise has been re-aligned and no longer encroaches the eastern boundary of the site, however, does still run adjacent to the full extent of this boundary. The tramway which formerly crossed the site is labelled as dismantled. A large-scale industrial estate housing several unspecified works and warehouses is mapped beyond the Midland Railway line to the adjacent west and south-west of the site. A branch of this railway is also shown to be dismantled. The residential development scheme from c.750m south of the site is largely constructed. • **1988 to 1994** – There are no further significant changes onsite or within the immediate area. • **2001-** The majority of the onsite sidings have been removed from the site, with only one sidings line noted in the very west of the site. The sidings on the land to the adjacent south have largely remained. The large-scale industrial estate is labelled Finedon Road Industrial Estate and except for a recycling centre (c.250m north-east of the site) all other works remain unspecified. Residential developments are now also shown from c.1km north-west of the site, with the continual expansion of Wellingborough. • **2010 –** The sidings along the western extent no longer appear on mapping, and so the site is returned to an undeveloped parcel of land within the wider Neilson's Sidings Rail depot. The sidings on the land to the adjacent south have been reduced in numbers. • **2023 –** There are no further significant changes onsite. There are no sidings mapped on the land to the adjacent south of the site with only one siding remaining off-site adjacent to the railway line. • **Aerial Imagery – 1999 –** The site is shown to be largely unoccupied with a covering of sparse grass. It is evident where the former sidings were located within the boundaries of the site. An active railway line and siding are noted adjacent to the full extent of the western boundary of the site, whilst a relatively large industrial estate is noted immediately beyond. Dense vegetation and trees align the northern and eastern site boundaries, with agricultural fields beyond. The River Ise is not noticeable in the aerial image likely due to the tree canopy. Undeveloped land and further sidings associated with the wider Neilson's Sidings Rail depot are noted to the adjacent south. • **Aerial Imagery – 2010** – The site and the immediate area remain largely the same, albeit several small (possibly temporary) structures are mapped centrally along the western boundary of the site. The peripheral earth bund noted along the north-western boundary of the site, is noticeable on aerial

	imagery of this time. A series of sidings are noted to the adjacent south/ south-west of the site. • **Aerial Imagery** – 2014 – The small structures in the west of the site no longer appear on mapping. • **Aerial Imagery** – 2018 – A stockpile of likely crushed materials or railway ballast is present in the extreme south of the site. • **Aerial Imagery** – Recent – Large-scale stockpiles of likely crushed materials or railway ballast are present across much of the northern, eastern and southern extents of the site.
Anticipated Geology and Ground Conditions	• The anticipated ground conditions beneath the site were assessed using the BGS map web viewer, the BGS 1:50,000 scale mapping sheet 186 (Solid and Drift edition) and the published BGS maps (1:10,000 scale and 1:50,000 scale maps in the Groundsure Report). • The published information indicates the site to be underlain by Solid geology of the Whitby Mudstone Formation (dark grey fossiliferous mudstones and siltstones), which is part of the Lias Group of Jurassic age. • The Northampton Sand Formation (ironstone), which is stratigraphically younger in age to the Lias Group, is mapped from c.100m south-west of the site. • No Superficial Deposits are mapped within the boundaries of the site, albeit Alluvium and River Terrace Deposits are mapped to the adjacent east and are likely associated with the River Ise and as such, may actually encroach on to site. • The site and the wider Neilson's Sidings Rail Depot are shown to have a covering of Made Ground soils, whilst the land to the adjacent west is shown as having a covering of landscaped ground. • There are no available BGS archival boreholes within 250m of the site, that could provide additional information on the likely ground conditions onsite. • It should be noted that the geology of the area comprising the Northampton Sand Formation over the Whitby Mudstone Formation can result in historical shear planes/surfaces being present within the weathered clays of the Whitby Mudstone Formation. The presence of these features within the cohesive soils can lower the residual shear strength that would be anticipated for the geology and if loaded can reactivate the plane/surface.
Radon	• The site is not in a radon affected area, with <1% of homes above the Action Level. Radon protection measures are therefore not considered necessary for new properties.
Mining/Quarrying	• The site is not indicated to be within an area of underground coal mining activities. • There are no records of natural cavities, mining cavities, and/or reported incidents within 500m of the site. • There are no underground workings within 1km of the site. • The Groundsure report indicates that the site and the wider Neilson's Sidings Rail Depot is designated as an active BritPit (British Pit). The crushed rock commodities are unloaded from rail trucks and stockpiled and stored onsite and within the wider site. At the time of the walkover several stockpiles of Type 1 and Type 2 graded crushed rock were stockpiled onsite. • The Groundsure report indicates there to be up to eight surface ground workings within 250m of the site, two of which are noted to be onsite and relate to an unspecified pit in 1899 and an unspecified heap in 1938 (these were not noted during review of the historical maps of this time). • Much of the land to the adjacent east of the site (which also locally encroaches the eastern boundary of the site) is designated as a 'Historical Mineral Planning Area' known as Carol Spring No.5 It is understood that the mineral planning permission was for the extraction of ironstone within the Northampton Sand Ironstone formation.
Hydrology	• The nearest surface watercourse is the River Ise which is located from c.9m east of the site and runs adjacent to the full extent of the eastern boundary of the site. • The overall water quality rating of the River Ise is noted to be poor. • The nearest active surface water abstraction license is noted to be located c.1.8km north-west of the site at Wellingborough Golf Club and it permits

	surface abstractions from Harrowden Brook for spray irrigation purposes. The license permits 9100m^3 of water to be abstracted annually under license no. NPS/WR/021299. • There are records for up to fifteen Licensed Discharge Consents within 500m of the site. The nearest active license is held c.285m to the south-east of the site at Ise Valley Industrial Estate and it permits the discharge of surface waters in to the River Ise. • The majority of the site lies within EA modelled fluvial Flood Risk Zone 1 (FRZ1). The northern end of the Site (c.1.1ha) resides within FRZ2. • The associated risk from fluvial flooding is noted to be high and a historical flood event was recorded at the site between the 16th and the 18th of March 1947. It is understood the flood was associated with failure/breach of the River Ise to the adjacent east of the site, though it is not clear whether the site has been raised since this time.
Hydrogeology	• The Whitby Mudstone Formation is classified as an Unproductive strata? aquifer. • The Superficial Deposits located to the adjacent east of the site are classified as a Secondary A aquifer. • The site does not lie within a Source Protection Zone. • There are no groundwater abstraction licenses within 2km of the site. • The associated risk from groundwater flooding is noted to be negligible.
Other Environmental data	• There are no records held for any operational/historical EA landfills onsite or within the immediate area of the site. • Records indicate that the site was formerly a waste transfer station from December 1991 to January 2000, which permitted the processing of household, commercial and industrial wastes. • Another historical waste transfer station was previously located c.150m south of the site, and this permitted the storage and treatment of waste vegetable oil. • There are thirty-six waste exemption records within 500m of the site, the nearest is held on the Finedon Road Industrial Estate, c.158m west of the site and it permits the sorting and storage of non-agricultural waste materials. • A scrap yard was formerly located c.85m to the north-west of the site between 1979 and 1990. • There are no historical or operational petrol fuel sites within 500m of the site. • There are records for up to eight historical garages within 500m of the site. The nearest was a wagon repair shop located c.30m to the north-west of the site, which was in operation from c.1925 to c.1971. • There are records for up to thirty-five historical tanks within 500m of the site, the nearest of which are several unspecified tanks from c.215m to c.220m west of the site. • There is a total of twenty-three industrial land uses within 250m of the site. There is a recycling centre c.65m to the north-west, a tank c.70m to the south-west, a vehicle repair shop c.105m to the west, several electricity substations from between c.105m and c.160m to the west/ north-west and a further two recycling centres, one c.160m to the west and the other c.175m to the south. • There are no sites determined as Contaminated Land under Part 2a of the Environmental Protection Act 1990, within 500m of the site. • A Control of Major Accident Hazards (COMAH) site was formerly located c.45m south-west of the site on Finedon Road Industrial Estate. • There is an active license for the storage/usage of a hazardous substance at a site c.175m south of the site, also on the Finedon Road Industrial Estate. The application has been held since November 2003; however, no further information was made available. • There are records for twenty-one historical licensed industrial activities (IPC) within 500m of the site. The nearest was located c.130m south of the site on Finedon Road Industrial Estate and permitted processes involving halogens.

	• There are records for fifty-two Licensed Industrial Activities (Part A(1)) within 500m of the site. The nearest was held by Mining and Chemical Products Ltd and was surrendered in May 2023. • There are eleven records for licensed pollutant release (Part A(2)/B) installations within 500m of the site. The nearest is held by Univar Limited c.175m south of the site for halogen processes. No further information was made available. • There are fifteen recorded EA pollution incidents within 250m of the site, the nearest was located c.40m to the north-west of the site and involved specific commercial waste materials. The incident was assigned Category 4 (no impact) to water and air and was assign Category 2 (significant) to land. • Excluding the fact that the area is within a nitrate vulnerable zone, there are no further environmentally sensitive ecological designations associated within the site or the immediate area. • There are no visual or cultural designations within 250m of the site. • Zetica Bomb Risk Maps for the area indicate a 'Low Risk' from Unexploded Ordnance (UXO).

Geohazards	• The BGS have established the following potential for ground stability hazards on site as:
	  • Shrink-Swell Clay- Low
	  • Landslides – very low
	  • Ground Dissolution of Soluble Rocks- Negligible
	  • Compressible Deposits- Moderate
	  • Collapsible Deposits- Very low
	  • Running Sand-Low

Railways and tunnels	• The site forms the northern extent of Neilson's Siding Rail Depot. Whilst there are no longer any sidings present within the boundaries of the site, there are a number located to the adjacent west/ south-west, with an active single track railway line located immediately beyond. • There are currently no records for any new proposed railway lines or tunnels within 250m of the site.
Planning Application Search	• Upon review of the Local Authority Planning Portal (North Northamptonshire Council (Wellingborough Area)) no further relevant information was available with regards to the proposed development of the site.

4.0 CONCEPTUAL SITE MODEL

The Conceptual Model for the site, noting the main elements of the surface and subsurface conditions and including the potential contaminant sources, pathways and receptors identified from the desk study information, are defined in the following sections:

4.1 Sources

The site-specific potential sources of contamination are as follows:

- Made Ground soils onsite associated with former site development, including former railway sidings, former waste transfer station, stockpiles of crushed aggregate, river realignment works, several structures now demolished, peripheral earth bund (e.g., heavy metals, hydrocarbons, asbestos and PAH compounds);
- Possible fuel spillages/leakages during demolition/removal of former onsite uses and/or from plant/machinery used to load/off load the stockpiles of crushed aggregate;

- Potential contaminants within offsite Made Ground soils, including the railway operations to the west, the former wagon works c.30m to the west, railway sidings to the south, offsite river alignment works to the east;
- Onsite and offsite ground gases and volatile organic vapours associated with the decomposition of organic material in the Made Ground soils or hydrocarbon leaks/spills;
- Sulphates in the Made Ground soils or the underlying natural strata.

The tank c.70m to the south-west and the vehicle repair shop c.105m to the west are considered to be located a sufficient distance to not pose a significant risk to the site.

Similarly, the electricity sub-stations located from between c.105m to c.160m to the west and north-west of the site have not been considered viable sources of contamination, since PCB's have low-mobility and any form of contamination would be localised to the immediate area of the sub-station.

4.2 Receptors

Standard receptors to be considered are as follows:

- End Users (Human Health);
- River Ise which runs adjacent to the eastern boundary of the site (Controlled Waters);
- Secondary A aquifer (Controlled Waters), if encroaches the site (Superficial River Terrace Deposits and Alluvium mapped to the adjacent east);
- Buried foundation/ substructure concrete (Building Materials);
- Water supply services (Building Materials).

4.3 Pathways

Generic pathways, potentially linking the above sources and receptors, to be considered are as follows;

- Human dermal contact (within limited areas of soft landscaping);
- Human ingestion (within limited areas of soft landscaping);
- Human inhalation of dust or volatile vapours (within limited areas of soft landscaping and within ground floor building spaces);
- Gas migration;
- Direct contact with buried concrete/water supply services;
- Leaching and/or migration of perched groundwater/ groundwater through permeable soils (Made Ground and/or Superficial Deposits, and any permeable rock strata if present).

4.4 Source/Pathway/Receptor Linkage and Assessed Risk

Source-pathway-receptor (SPR) linkages are tabulated below together with the qualitatively assessed risk. The risk to ground workers and construction workers is not included here due to the short-term exposure times that they will be subject to and the assumption that good hygiene practices will be adopted on site, together with the appropriate use of relevant PPE/RPE. Comments regarding contamination issues with respect to ground workers and construction workers are included in the health and safety section of the Standard Procedures included as Appendix F.

Source	Pathway	Receptor	Risk*
Potential contaminants with Made Ground on site – historic/current site use (e.g. PAH compounds, hydrocarbons, heavy metals asbestos).	Inhalation, ingestion, dermal contact	End Users	Low
	Leaching and lateral migration	Secondary A aquifer (if encountered)	Low to Medium
		River Ise to the adjacent east	Low to Medium
	Direct contact	Water supply pipes	Low to Medium
Hydrocarbon contaminants within soils associated with possible fuel spillages/leakages during demolition/removal of former onsite uses and/or from plant machinery used to load/off load the stockpiles of crushed aggregate.	Inhalation, ingestion, dermal contact	End Users	Low
	Leaching and lateral migration	Secondary A aquifer (if encountered)	Low to Medium
		River Ise to the adjacent east	Low to Medium
	Direct contact	Water supply pipes	Low to Medium
Contaminants within offsite Made Ground soils (inc. the adjacent railway operations, the river realignment etc).	Leaching and lateral migration	Secondary A aquifer (if encountered)	Low
		River Ise to the adjacent east	Low
Ground gas from Made Ground soils on and offsite sources	Migration into building service ducts, etc (inhalation/ explosion)	End Users	Low
Elevated sulphates in Made Ground and the underlying natural strata onsite	Direct contact	Buried Concrete	Medium to High

*** Definition of Risk Categories**

Negligible - Contaminants that might have unacceptable impact on key receptors, are unlikely to be present, or, no pathway is envisaged.

Low Risk: Contaminants may be present but are unlikely to be at levels to have unacceptable impact on key receptors, or pathways are likely to be minimal.

Medium Risk: Contaminants are probably present and might have an unacceptable impact on key receptors. Pathways may also be present therefore remedial measures may be necessary to reduce the risks.

High Risk – Contaminants probably or certainly present and pathways are probably also present. Therefore, contaminants are likely to have an unacceptable impact on key receptors and remedial measures are likely to be necessary to reduce the risks to acceptable levels.

5.0 GROUND INVESTIGATION WORKS

5.1 Fieldwork

The following scope of fieldwork was undertaken by Applied Geology between the 17th and the 25th of July 2023;

- 4 No Driven Continuous Sampling boreholes (re. DCS01 to DCS04) to depths of between 5.45m and 6.45m below ground level (bgl);
- 8 No Machine Excavated Trial Pits (ref. TP01 to TP08) to depths of between 3.30m and 3.80m bgl;

- 3 No Driven Continuous Sampling/ Rotary Cored boreholes (ref. RH01 to RH03) to depths of between 20.28m and 20.87m bgl;
- 4 No Cable Percussion boreholes (ref. CP01 to CP04) to depths of between 10.05m and 10.95m bgl.
- 1 Hand Dug Inspection Pit (SS1) to a depth of 0.25m bgl.

Fieldwork was generally carried out, where relevant, in accordance with BS5930 (2015) "Code of Practice for Site Investigations" and was supervised by an experienced Geoenvironmental Engineer.

The borehole and trial pit records are included in Appendix C, together with an SPT summary and calibration certificate.

The locations of the exploratory holes were selected by Applied Geology, agreed by the Client and set out and cleared for the presence of underground services by specialist contractor Safe Dig Surveys Ltd. The cable percussion boreholes and two of the four Driven Continuous Sampling (DCS) boreholes (DCS02 and DCS03) were positioned within the footprint of the processing shed and racking area, whilst the rotary core follow on (rotary) boreholes were positioned within the footprint of the proposed asphalt plant. The machine excavated trial pits and the remaining two DCS boreholes (DCS01 and DCS04) were positioned within areas of proposed hardstanding (earmarked as HGV parking, staff parking and pedestrian routes), in order to provide general site coverage and to obtain samples for contamination analysis. A hand dug pit (Stockpile Sample 1 / SS1) was excavated on the southern extent of the peripheral earth bund in the north-west of the site, in order to confirm the composition of the material and to obtain a chemical sample for waste disposal purposes.

100mm diameter thin walled 'undisturbed' (UT100) samples were obtained within the natural fine-grained soils from the cable percussion boreholes, where feasible.

Soil samples were screened for the presence of volatile organic compounds (VOCs) using a Photo Ionisation Detector (PID) via headspace testing. The results of these tests are included on the exploratory hole logs in Appendix C.

The positions of the exploratory holes were surveyed to National Grid and levelled to Ordnance Datum by Safe Dig Surveys Ltd. The locations of the exploratory holes are presented on the Exploratory Hole Location Plan (AG3488-23-02), included in Appendix A and the co-ordinates and levels are included on the exploratory hole records presented in Appendix C.

5.2 Instrumentation and Monitoring

On completion of boring, 50mm diameter standpipes were installed in each of the DCS boreholes and selected rotary and cable percussion boreholes as follows, with further details included on the relevant borehole logs in Appendix C.

Location	Standpipe installation response zone (m bgl)	Stratum	Purpose
DCS01	4.00m to 6.60m	Alluvium	Ground gas monitoring

Location	Standpipe installation response zone (m bgl)	Stratum	Purpose
DCS02	1.00m to 5.00m	Made Ground	Ground gas monitoring
DCS03	1.00m to 5.00m	Made Ground	Ground gas monitoring
DCS04	1.00m to 2.60m	Made Ground	Ground gas monitoring
CP01	5.00m to 8.00m	Natural strata (Alluvium, River Terrace Deposits, Whitby Mudstone Formation)	Groundwater monitoring
CP03	4.00m to 8.00m	Natural strata (Alluvium, River Terrace Deposits, Whitby Mudstone Formation)	Groundwater monitoring
RH03	7.00m to 11.00m	Natural strata (River Terrace Deposits, Whitby Mudstone Formation)	Groundwater monitoring

Washed silica gravel (6 to 10mm) was used as the filter medium. Each standpipe was fitted with a push-in bung and single gas tap and was finished with a flush metal cover concreted in place.

Ground gas and groundwater monitoring visits were undertaken on four separate occasions from the 31st of July to the 1st of September 2023. Each monitoring well was monitored for concentrations of carbon dioxide, methane, oxygen, flow rate, differential pressure, carbon monoxide, hydrogen sulphide, Volatile Organic Compounds (VOC) and groundwater level. The monitoring results are presented in Appendix D.

5.3 Laboratory Testing

Geotechnical laboratory testing was undertaken by specialist laboratory Professional Soils Laboratory Ltd (PSL) (UKAS lab no. 4043) on selected samples and comprised the following.

- 10 No natural moisture content tests;
- 10 No Atterberg Limit tests;
- 6 particle size distribution tests (sieve);
- 5 No Undrained single stage triaxial tests;
- 4 No Uniaxial Compressive Strength tests;
- 13 No Franklin Point Loads (axial and diametral);
- 14 No BRE SD1 natural ground + pyrite suite tests;
- 5 No BRE SD1 natural ground tests;
- 5 No BRE SD1 Made Ground + pyrite suite tests.

Chemical testing was undertaken by specialist laboratory Chemtest (UKAS lab no. 2183). The scope of testing was based on the desk study, walkover and site observations made during the fieldwork.

Soils

Ten samples of Made Ground (including one sample obtained from the peripheral earth bund) were analysed for the following suite of contaminants;

- Selected metals suite [arsenic, boron, beryllium, cadmium, chromium (total, trivalent and hexavalent), copper, lead, mercury, nickel, selenium, vanadium and zinc];
- Speciated (16 US EPA) Polycyclic Aromatic Hydrocarbons (PAH);
- Phenols;
- pH;
- Water soluble sulphate;
- Soil organic matter;
- Asbestos Containing Materials (ACM) Screen:
- Total Petroleum Hydrocarbons Criteria Working Group (TPH CWG);
- BTEX and MTBE.

Three of these samples were also analysed for Volatile Organic Compounds (VOCs) and Semi-Volatile Organic Compounds (SVOCs).

Leachate

Leachate analysis was carried out on three samples of Made Ground for the following suite of contaminants:

- Selected metals suite [arsenic, cadmium, chromium (total, trivalent and hexavalent), copper, mercury, nickel, lead, zinc, selenium, vanadium];
- Speciated (16 US EPA) Polycyclic Aromatic Hydrocarbons (PAH);
- pH;
- Water soluble sulphate.

Laboratory test results are included in Appendix E.

6.0 GROUND CONDITIONS

6.1 Strata Encountered

The intrusive investigation undertaken by Applied Geology has typically recorded a significant thickness of Made Ground directly underlain by cohesive Alluvium, over predominantly granular River Terrace Deposits, with Solid geology of the Whitby Mudstone Formation noted at depth.

Strata of the Northampton Sand Formation was not encountered across the site as part of this investigation.

Full details of the strata encountered are given on the borehole records presented in Appendix C. A generalised ground profile is presented below to summarise the information. An SPT 'N' value versus depth plot and a shear strength (Cu) versus depth plot are presented in Appendix A.

Stratum	Depth to Top of Strata (m bgl)	Depth to Bottom of Strata (m bgl)	Thickness of strata (m)	Comments
Hardstanding (Roadstone) or possibly a railway ballast material	GL	0.15 to 1.10	0.15 to 0.70	Recorded in the southern half of the site, in the area used as an aggregate depot.
Made Ground	GL to 1.10	4.00 to 7.30	3.70 to 6.60	Recorded in all exploratory holes across the site. Proven to the full depth of the investigation in all trial pits and DCS boreholes, excluding DCS01.
Alluvium	4.00 to 7.30	4.40 to 8.50	0.40 to 2.45	Recorded in all exploratory holes that proved the base of the Made Ground Proven to the full depth of the investigation in DCS01 (>6.45m bgl).
River Terrace Deposits	4.40 to 8.50	4.80 to 9.15	0.40 to 2.70	Recorded in all exploratory holes that proved the base of the Made Ground and the Alluvium
Whitby Mudstone Formation	4.80 to 9.15	Proven to the full depth of the investigation (20.87m bgl)	>1.25 to >13.07	Recorded in all exploratory holes across the site that extended beneath the Made Ground and underlying Superficial Deposits.

6.2 Hard Standing (Roadstone)

Compacted limestone roadstone (or possibly a railway ballast material) was present from surface across much of the southern half of the site, which at the time of the works was utilised by GBRF as an aggregate depot and housed several large-scale stockpiles of Type 1 and Type 2 grade limestone. The hardstanding was proven to base depths of between 0.15m (DCS03) and 1.10m bgl (TP07) and was generally proven to greater depths in CP04 (0.70m) and TP7 (1.10m), which at the time of the initial walkover were located beneath the aforementioned stockpiles.

Prior to advancement, the compacted roadstone was broken out using a hand-held hydraulic breaker at borehole locations and using the excavator mounted hydraulic breaker at trial pit locations.

6.3 Made Ground

Made Ground was encountered across the entirety of the site, either from surface or directly beneath a covering of placed roadstone/ railway ballast and was proven in

DCS01 and the deeper cable percussion and rotary cored boreholes to depths of between 4.00m (DCS01 and CP03) and 7.30m bgl (CP04). The greater thicknesses of Made Ground were generally proven in the south-east of the site, in the area utilised as an aggregate depot by GBRF, where site levels are at their highest. Given the depth to which Made Ground has been proven as part of this investigation, it is considered likely that areas of Made Ground deeper than 7.30m bgl, may be present locally on the site.

It should be noted that the base of the Made Ground was not proven in the trial pit excavations or in the majority of the DCS boreholes, owing to the significant depth of the Made Ground and the maximum reach or capabilities of these two methods of investigation.

The Made Ground was highly variable across the site, however, largely comprised variations of the following four materials, as follows;

- Dark grey to black slightly silty gravelly sand or dark grey to black slightly silty sand and gravel. The gravel content of this unit comprised a lot of by product waste materials of the coal mining industry or coal fired furnaces, including coal fragments/ tailings, clinker, mudstone, and occasional fused slag. To a lesser extent fragments of brick, flint, limestone and fragments of wood/ relict railway sleepers and parts of relict railway line were also recorded.
- Light yellowish brown to brown slightly silty slightly clayey sand and gravel. The gravel content of this layer comprised fine to coarse angular to subangular flint and rare quartzite and sandstone. Whilst there were no anthropogenic inclusions encountered, the layer was often present near surface, overlying other layers of Made Ground.
- Soft to firm greenish grey mottled brown slightly silty, slightly gravelly silty clay. The gravel content of this particular layer comprised flint, ironstone, sandstone and occasional fragments of brick.
- Firm orangish brown slightly gravelly sandy silty clay. The gravel content comprised limestone, sandstone and ironstone.

The cohesive layers of Made Ground are considered likely to be reworked natural soils from the area, including the Whitby Mudstone Formation and Northampton Sand Formation, given the colour of the cohesive soils and/or their inclusion of ironstone. It should be noted that the cohesive Made Ground was generally absent in exploratory holes located along the eastern extent of the site, including in TP03, TP05, TP06, TP07, TP08, DCS03 and RH01. Historical maps suggest that the placement of such materials was during the installation of the former sidings and therefore representative of the source materials of infilling at the time.

A dark greyish brown slightly silty sandy gravelly clay material with a gravel content comprising limestone, granite, ash, coal fragments/tailings and wood fragments was encountered in the hand dug inspection pit advanced in to the peripheral earth bund in the north-western extent of the site.

Three particle size distribution tests were undertaken on bulk samples of the granular layers of Made Ground at depths of between 0.30m and 1.50m bgl. For clarity, the results are presented in the table below;

Location	Depth (m bgl)	Sample Proportion (%)			
		Fines (Clay and Silt)	Sand	Gravel	Cobbles
TP01	0.30	4	24	72	0
TP03	0.60	1	76	23	0
TP06	1.50	0	62	33	5

The results indicate the samples tested to generally comprise slightly silty/clayey gravelly sands and/or slightly clayey sandy gravels. These results generally correspond with their field description.

Fifty Standard Penetration Tests (SPTs) were carried out in the Made Ground soils, thirty-two in granular Made Ground soils and eighteen in cohesive Made Ground soils. SPT 'N' values of between N=4 and N=28 (but generally between N=4 and N=12) were recorded in the granular Made Ground soils from depths of between 1.20m and 7.10m bgl. Whilst SPT 'N' values of between N=4 and N=31 (but generally between N=4 and N=12) were recorded in the Made Ground soils from depths of between 1.20m and 5.0m bgl. Collectively, these results indicate the variability in strength/consistency of the Made Ground soils across the site.

6.4 Alluvium

Strata considered to represent Alluvium were encountered directly beneath the Made Ground from depths of between 4.00m (CP03) and 7.30m bgl (CP04) and were proven in the deeper rotary cored and cable percussion boreholes, to base depths of between 4.40m (CP03) and 8.50m bgl (CP04). The greater thicknesses of Alluvium were generally recorded in exploratory holes located along the eastern extent of the site (DCS01, RH01, CP04), which are nearer to the adjacent River Ise. The base of the Alluvium was not fully proven in DCS01 (>6.45m bgl), as the depth of the Alluvium exceeded the capabilities of the drilling rig.

The Alluvium was generally encountered as a soft locally firm greenish grey mottled dark grey slightly sandy, silty clay with occasional pockets of black organic matter/decaying material and a weak to moderate (sometimes strong) natural organic odour.

One particle size distribution test was undertaken on a bulk sample of the cohesive Alluvium, from CP04 at a depth of 7.95m bgl. For clarity, the results are presented in the table below;

Location	Depth (m bgl)	Sample Proportion (%)			
		Fines (Clay and Silt)	Sand	Gravel	Cobbles
CP04	7.95	79	20	1	0

The results indicate the sample tested generally comprised a sandy silty/clay, which generally corresponds with the field description.

The results of three Atterberg Limit tests undertaken on the cohesive horizons of Alluvium have indicated plasticity indices of between 22% and 60% (equal to corrected values) indicating the clays to be of medium to very high shrinkability according to current NHBC standards. Uncorrected liquid limits of between 41% and 97%, plastic limits of between 19% and 37% and moisture contents of between 20% and 50% were also recorded. The results indicate the clays to be of intermediate to very high plasticity, but generally high to very high.

Due to the depth of the Alluvium and the fact that it was not encountered in the trial pit excavations. Hand held shear vanes were not achievable.

Eight in-situ Standard Penetration Tests were carried out in the cohesive Alluvium, recording uncorrected 'N' values of between N=6 and N=23, but generally between N=6 and N=11 at depths of between 4.00m and 6.00m bgl, which are indicative of soft to firm clays. The SPT vs depth plot does not show an obvious increase in strength with depth. Applying the empirical relationship between SPT 'N' values versus mass shear strength using an average plasticity index of 38%, this correlates to an F_1 value of approximately 4.2 (after Stroud et al) giving estimates of mass shear strength (in clayey soils) of between c.25kN/m^2 and c.95kN/m^2.

One quick undrained triaxial test was carried out on the Alluvium in CP04 at 7.50m bgl and recorded an undrained shear strength of 67kPa (medium strength). A bulk density of 2.03Mg/m^3 and a moisture content of 25% were also recorded. The mode of failure was noted to be plastic.

6.5 River Terrace Deposits

Strata considered to represent Superficial River Terrace Deposits were encountered directly beneath the Alluvium at depths of between 4.40m (CP03) and 8.50m bgl (CP04) and were proven in the deeper rotary cored and cable percussion boreholes, to depths of between 4.80m (CP03) and 9.15m bgl (RH03). Similarly, to the overlying Alluvium, the greater thicknesses of River Terrace strata were generally recorded in exploratory holes located along the eastern extent of the site (RH01, RH03) and adjacent to the River Ise.

The stratum comprised light yellowish brown slightly silty slightly clayey sand and gravel, yellowish brown slightly gravelly silty clayey sand, or yellowish brown slightly silty slightly clayey slightly sandy gravel. Locally, nominal horizons of firm orangish brown mottled light grey/ light brown slightly silty slightly gravelly sandy clay were recorded (CP03 and RH03). Collectively, the gravel content comprised fine to coarse angular to rounded flint and rare quartzite and sandstone.

Two particle size distribution tests were undertaken on bulk samples of the granular River Terrace Deposits, at a uniform depth of 6.50m bgl. For clarity, the results are presented in the table below;

Location	Depth (m bgl)	Sample Proportion (%)			
		Fines (Clay and Silt)	Sand	Gravel	Cobbles
CP01	6.50	30	42	28	0
CP02	6.50	5	13	82	0

The results indicate the samples tested to generally comprise either a silty, very gravelly very clayey sand or a very silty/clayey sandy silty gravel. These results generally correspond with their field descriptions.

Seven in-situ SPT tests were carried out in the granular River Terrace Deposits, recording uncorrected 'N' values of between N=11 and N=27 at depths of between 5.00m and 7.00m bgl. SPT 'N' values at 8.00m bgl generally decreased to values of N=18 and N=19. This reduction in strength is likely due to the presence of groundwater and the granular strata being saturated. The SPT vs depth plot shows a slight increase in strength with depth.

6.6 Whitby Mudstone Formation

Strata considered to represent the Whitby Mudstone Formation were recorded directly beneath the Superficial River Terrace Deposits in the deeper cable percussion and rotary cored boreholes from depths of between 4.80m (CP03) and 9.15m bgl (RH03) and were proven to the full depth of the investigation (>20.87m bgl).

It should be noted that the Whitby Mudstone Formation was not encountered in the DCS boreholes or trial pit excavations, which largely terminated in the Made Ground soils.

Initially, weathered horizons of Whitby Mudstone strata were encountered, comprising firm to stiff thinly laminated dark grey (occasionally mottled greenish grey) silty clay with occasional tabular mudstone lithorelicts, which graded into stiff to very thinly laminated dark grey silty clay with frequent tabular angular mudstone lithorelicts. Often with depth, crushed shell fragments and selenite crystals were encountered. The thickness of the weathered strata was proven in the rotary cored boreholes to be between 0.85m (RH03) and 3.77m bgl (RH02).

Shear surfaces/planes were not identified within the weathered Whitby Mudstone Formation. Such features are generally easier to identify within open trial pit excavations.

The results of seven Atterberg Limit tests undertaken on the weathered horizons of Whitby Mudstone strata have indicated plasticity indices of between 29% and 38% (equal to corrected values) indicating these soils to be of medium shrinkability as defined by NHBC Standards. Uncorrected liquid limits of between 51% and 63%, plastic limits of between 22% and 27%, and moisture contents of between 18% and 32% were also recorded. The results indicate the clays to be of high plasticity.

Due to the depth of the Whitby Mudstone Formation and the fact that it was not encountered in the trial pit excavations. Hand held shear vanes were not achievable.

Thirteen in-situ SPT tests were carried out in the weathered Whitby Mudstone Formation, recording uncorrected 'N' values of between N=15 and N=53 (but more typically between N=21 and N=48) at depths of between 7.10m and 10.00m bgl. The SPT vs depth plot shows a steady increase in strength with depth. Applying the empirical relationship between SPT 'N' values versus mass shear strength using an average plasticity index of 33%, this correlates to an F_1 value of approximately 4.4 (after Stroud et al) giving estimates of mass shear strength (in clayey soils) of between c. 65kN/m^2 and c. >200kN/m^2.

Four quick undrained triaxial tests were carried out on the weathered Whitby Mudstone Formation in CP01 at 8.60m bgl, CP03 at 5.20m and 8.00m bgl and in CP04 at 9.70m bgl. The results indicate undrained shear strengths of between 66kPa and 87kPa (medium to high strength, but generally high), bulk densities of between 1.77Mg/m^3 and 1.97Mg/m^3 and moisture contents of between 24% and 29% were also recorded. All four triaxial tests noted the mode of failure to be plastic.

Rock strength strata of the Whitby Mudstone Formation were encountered beneath the initial weathered horizon at depths of between 10.00m (RH03) and 11.50m bgl (RH01) and were proven to the full depth of the investigation (20.87m bgl).

The rock strength strata were generally recorded as extremely weak to very weak thinly laminated dark grey silty mudstone, which generally graded in to very weak to weak and locally medium strong strata. Subordinate bands of strong to very strong light grey siltstone were recorded in all three rotary cored boreholes and these were generally proven to be less than 10cm in thickness. Often where a subordinate band of siltstone was encountered at the end of a core run, poor recovery would follow, as is evident in RH01. The weaker mudstone was likely scrubbed away by the overlying band of stronger siltstone during the drilling process.

A summary of the rock core details, including recovery, is detailed in the table below and also on the exploratory hole logs presented in Appendix C.

Borehole	Range of TCR (%)	Range of SCR (%)	Range of RQD (%)	Range of average If (mm)	Comments
RH01	0 to 100	0 to 81	0 to 67	Non intact to 300	10.00m to 11.50m – no recovery 11.50m to 11.60m – non intact 12.91m to 12.93m – non intact 13.00m to 14.20m – no recovery 14.20m to 14.40m – non intact 14.50m to 14.70m – non intact 16.00m to 18.40m – no recovery 18.30m to 18.50m – non intact 19.00m to 19.20m – non intact
RH02	17 to 100	0 to 84	0 to 72	Non intact to 270	11.55m to 12.35m – no recovery 12.89m to 13.00 – non intact 13.00m to 14.10m – no recovery 14.92m to 15.22m – non intact 16.00m to 16.20m – non intact 17.50m to 17.70m – non intact
RH03	89 to 100	8 to 98	8 to 87	Non intact to 500	10.03 to 10.10m – non intact 10.51m to 10.57m – non intact 11.50m to 11.58m – non intact 12.30m to 12.32m – non intact 13.00m to 13.07m – non intact 14.50m to 14.75m – non intact 17.50m to 17.90m – no recovery 17.90m to 17.95m – non intact 18.40m to 18.44m – non intact 19.84m to 20.00m – non intact

Fourteen in-situ SPT tests were carried out in the rock strength Whitby Mudstone Formation and generally recorded SPT 'refusal' (N=>50), albeit an SPT 'N' value of N=43 was recorded in the rock strength strata in RH01 at 14.50m bgl.

A summary of the results of the laboratory testing undertaken on the intact Whitby Mudstone strata are presented below, and the results are presented in Appendix E.

Soil Parameters	Strength Range (MPa)
Unconfined compressive strength from diametral Franklin point load testing I_{S50}	0.04 to 0.10
Unconfined compressive strength from axial Franklin point load testing I_{S50} (Mpa)	0.05 to 0.26
Unconfined compressive strength by unconfined compressive testing (Mpa)	0.828 to 1.30

Franklin Point Load Tests carried out on thirteen samples of the Whitby Mudstone strata gave Is(50) results ranging between 0.04 and 0.26 MN/m^2. Using a published conversion (K factor) of 13.4, from the suggested range of published data for relatively weak argillaceous rocks, derived UCS results for the mudstone typically ranged from circa 0.5MN/m^2 to 3.5MN/m^2 (extremely weak locally weak).

6.7 Groundwater

Groundwater strikes were typically recorded in the natural strata at depth, whilst sporadic groundwater seepages (typical of perched groundwater) were recorded in the Made Ground soils.

Location	Stratum	Depth of strike (m bgl)	Groundwater level after 20min	Comments
TP02	Made Ground	2.00	-	Seepage
DCS01	Alluvium	4.10	4.10	Strike
DCS02	Made Ground	5.00	5.00	Seepage
DCS03	Made Ground	5.20	5.20	Seepage
DCS04	Made Ground	4.80	4.80	Seepage
CP02	Made Ground	4.50	4.30	Strike
CP02	River Terrace Deposits	6.40	5.50	Strike
CP03	Whitby Mudstone Formation	5.00	4.50	Strike
CP04	Made Ground	6.50	6.00	Strike
RH02	River Terrace Deposits	6.80	6.80	Strike

Location	Stratum	Depth of strike (m bgl)	Groundwater level after 20min	Comments
RH03	Alluvium	6.30	6.90	Strike

Groundwater levels may fluctuate for a number of reasons, including in the short term the prevailing weather conditions immediately before and during investigation and monitoring works and longer-term seasonal variations should be expected.

During the subsequent monitoring programme standing groundwater levels within the standpipes were recorded and are summarised below:

Location	Response Zone (m bgl)	Stratum	Depth to groundwater over four visits (m bgl)	Level on groundwater over four visits (m AOD)
DCS01	4.00m to 6.60m	Alluvium	2.42 to 2.50	46.95 to 47.03
DCS02	1.00m to 5.00m	Made Ground	3.94 to 3.97	46.38 to 46.41
DCS03	1.00m to 5.00m	Made Ground	Dry	-
DCS04	1.00m to 2.60m	Made Ground	Dry	-
CP01	5.00m to 8.00m	Natural strata (Alluvium, River Terrace Deposits, Whitby Mudstone Formation)	3.02 to 3.19	46.11 to 46.28
CP03*	4.00m to 8.00m	Natural strata (Alluvium, River Terrace Deposits, Whitby Mudstone Formation)	3.50	47.09
RH03	7.00m to 11.00m	Natural strata (River Terrace Deposits, Whitby Mudstone Formation)	5.92 to 6.23	42.85 to 43.16

*CP03 could not be monitored during the first monitoring event as a stockpile of aggregate had been placed over the location of the installation. This was relocated ahead of the second monitoring visit. Prior to monitoring visit three, the area of CP03 had been scrapped and the installation could not be relocated and was assumed to have been buried/destroyed.

During the return monitoring programme, relatively stable standing groundwater was recorded from depths of between 2.42m and 6.23m bgl in the Superficial Deposits, whilst the installations in the shallow Made Ground were generally noted to be dry.

6.8 Ground Gas

The results of the ground gas monitoring undertaken indicated methane concentrations of below the detection limit (<0.1%) to 0.20% (DCS01 visit 3), together

with carbon dioxide concentrations of between 2.5% (CP01 visit 1) and 15.5% (DCS04 visit 2). Depleted oxygen concentrations were recorded between 1.8% and 17.6% and average flow rates were generally recorded at below the limit of detection (<0.1l/hr), however a negative flow rate of -0.1l/hr was recorded in DCS02, DCS04 and DCS03 during the first, second and third monitoring visits respectively. Where negative flow values are encountered these have the potential to flip to positive flow rates and so, in order to form a worst-case scenario for the site, a positive flow rate of 0.1l/hr has been used in this assessment. This together with the maximum concentration of methane (0.2%) and carbon dioxide (15.5%), gas screening values (GSVs) have been calculated as 0.0002l/hr for methane and 0.0155l/hr for carbon dioxide.

Volatile Organic Compound (VOCs) ranged between <0.1ppm and 1.3ppm, which are considered to be of very low order and therefore of limited significance.

All Hydrogen Sulphide concentration were noted to be of very low order and often below the limit of detection and therefore, are not of any significant concern.

During the initial monitoring visits the majority of the carbon monoxide concentrations were recorded as either below the limit of detection (<0.1ppm) or of very low order, except for a reading of 436ppm in RH03. During the following visits carbon monoxide readings had stabilised to between <0.1ppm and 1.0ppm, including in RH03.

6.9 Contamination

Generally, no significant visual or olfactory evidence of gross contamination was recorded across the site. By product waste materials of the coal mining industry or coal fired furnaces, including coal, clinker and on occasion fused slag, were encountered in the dark granular horizons of Made Ground. Varying strengths of possible creosote odours were noted in the Made Ground soils in DCS04 (at 0.70m and TP08 (at 0.30m bgl).

All environmental samples of Made Ground were screened onsite using a Photo Ionisation Detector (PID) to determine the presence of Volatile Organic Compounds (VOC's) within the sampled soils. The screening typically returned results of between <0.1ppm (less than the limit of detection) and 0.1ppm, which are considered to be negligible, whilst very marginally elevated readings of between 1.1ppm and 6.8ppm were recorded and these are still considered to be of very low order and of limited concern.

There was no obvious visual or olfactory evidence of any significant contamination encountered in either the Alluvium, River Terrace Deposits or underlying Whitby Mudstone strata.

7.0 GEOENVIRONMENTAL ASSESSMENT

7.1 Human Health Risk Assessment

The results of the chemical testing undertaken as part of the Applied Geology investigation on the soils across the site have been assessed as described in Appendix F, with specific details as follows:

- Proposed end-use – asphalt plant, RAP shed, aggregate storage bays, associated HGV and car parking for staff.
- Screening criteria – commercial/ industrial, based on a 6.0% SOM.
- Assuming a single dataset based on the size of the site, the current land-use and the proposed redevelopment.

The spreadsheet summarising the laboratory results and relevant screening values for the dataset are presented in Appendix E.

A review of the chemical testing undertaken as part of this investigation on the Made Ground samples analysed has identified that none of the determinants tested for were found to exceed the corresponding screening values for a commercial/ industrial end use.

The ten samples submitted for PAH analysis recorded total PAH concentrations of between 7.3mg/kg (TP08 at 0.30m bgl) and 69mg/kg (CP04 at 0.80m bgl), which are considered to be of very low order and of no significant concern. All individual speciated PAHs were significantly below the relevant screening values.

Of the same ten samples submitted for petroleum hydrocarbon analysis, two recorded concentrations of total TPH of below the laboratory detection limit (<10mg/kg). The remaining eight samples recorded total TPH of between 15mg/kg (SS1 at 0.20m bgl) and 410mg/kg (DCS03 at 1.00m bgl), which are considered to be of relatively low order and of limited significant in the context of the proposed end use.

Heavy metal, phenol and BTEX concentrations analysed as part of this investigation were significantly below the relevant screening values for a commercial/industrial end use and the majority were often found to be below the laboratory detection limits. Also, the MTBE, VOC and SVOC concentrations were all found to be at concentrations below the laboratory detection limit. As such, the VOC and SVOCs have been omitted from the human health screening table for clarity.

Laboratory screening for asbestos did not detect any ACM within the samples screened.

Based on the above assessments and the proposed development plans, it is considered that the site presents a low risk to end users with regards to Human Health.

7.2 Controlled Waters Risk Assessment

The Secondary A aquifer (River Terrace Deposits) and the River Ise to the adjacent east of the site are considered to be the key Controlled Water receptors. The potential for complete pollutant linkages associated with leaching and vertical migration from

impacted soils has, therefore, been semi-quantitatively assessed using the results of the soil leachate analysis detailed below.

Three samples obtained from the Made Ground at varying depths were analysed for their metal and PAH leaching potential. The results were compared directly to the Controlled Water screening values based on the conservative UK Drinking Water Standards 2010 (UK DWS). In the absence of a relevant screening value, EQS and the laboratory limit of detection have been used as an initial screen. The results are tabulated and presented in Appendix D.

Following the initial screening, the sample analysed from CP04 at 0.80m bgl identified the following marginal PAH exceedances;

- Acenaphthene – 5.2ug/l against a screening value of 0.5ug/l.
- Fluorene – 3.5ug/l against a screening value of 0.5ug/l
- Phenanthrene – 2.7ug/l against a screening value of 0.5ug/l
- Anthracene 0.76ug/l against a screening value of 0.5ug/l
- Fluoranthene – 0.93ug/l against a screening value of 0.5ug/l
- Pyrene – 0.87ug/l against a screening value of 0.5ug/l.

It should be noted that there are currently no relevant corresponding screening values for PAH compounds and so the concentrations have been screened against the laboratory limit of detection (<0.5ug/l).

The results of the chemical testing on the Made Ground soils across the site, including the sample from CP04 at 0.80m bgl has only identified individual PAH concentrations of very low order (7.3mg/kg to 69mg/kg), which are considered to be of no significant concern. The soil leachate test can be relatively aggressive as compared to natural conditions and can over estimate the amount of leaching that will actually occur. This together with the fact that the new development will comprise entirely hardstanding at surface, it is considered very unlikely that the contaminants could migrate into the underlaying aquatic environment, which is considered to be at depths of between 2.42m and 6.23m bgl in the Superficial Deposits.

No significant visual or olfactory evidence of impact by hydrocarbons or solvents has been encountered at the site as part of this investigation.

Based on the context of the site and the proposed development, it is considered that the site poses a low risk to Controlled Waters based on current available information.

7.3 Disposal of Soil Arisings

General comments regarding the procedures for the assessment of waste soil for off-site disposal purposes is included in Appendix F. Under the Waste Framework Directive, naturally occurring soils are not considered waste if reused on the site of origin for the purposes of development. The comments below only apply if surplus soil is sent off-site for disposal.

With regards to potential waste disposal of the Made Ground, the samples tested indicate contaminants at concentrations that would likely be classified as non-hazardous.

The underlying River Terrace Deposits and Whitby Mudstone strata would likely be classified as inert waste subject to appropriate WAC testing and acceptance by the receiving facility.

If there is a high organic content within the Alluvium, then it is considered unlikely that they could be disposed of as inert waste.

8.0 GEOTECHNICAL ASSESSMENT

8.1 General

The proposals for the site comprise the construction of a asphalt plant, road planings recycling and ancillary facilities. It is understood from information provided by the Client that the size and anticipated loads of the proposed asphalt plant are significant, whilst the proposed ancillary structures (including the processing shed and aggregate storage bays) are understood to be relatively light weight structures, however, no loading information was made available.

The ground investigation has recorded mixed granular and cohesive Made Ground to significant depths of between 4.00m and 7.30m bgl, directly underlain by cohesive Alluvium to depths of between 4.40m and 8.50m bgl, over predominantly granular River Terrace Deposits to depths of between 4.80m and 9.15m bgl. Solid geology of the Whitby Mudstone Formation was noted directly beneath the Superficial Deposits and were proven to the full depth of the investigation (>20.87m bgl).

Groundwater strikes were typically recorded in the natural strata at depths of between 4.10m and 6.80m bgl, whilst sporadic groundwater seepages (typical of perched groundwater) were recorded in the Made Ground soils at depths of between 2.00m and 5.20m bgl. During the return monitoring programme, groundwater was recorded at depths of between 2.42m and 6.23m bgl.

8.2 Foundation Design

The Made Ground is not considered suitable to support conventional spread foundations in its current state due to its variable nature and strength and potential for unacceptable total and differential settlement under working load. Similarly, the underlying Alluvium is considered too soft and organic/ compressible to constitute a reliable bearing stratum to support conventional spread foundations.

Whilst the underlying medium dense (or better) sands and gravels and/or firm (or better) clays of the River Terrace Deposits would be suitable to support spread foundations, within the footprint of the proposed asphalt plant, processing shed and aggregate storage area, the River Terrace Deposits were encountered from depths of between 4.40m and 8.50m bgl. Given the depth to suitable founding strata and the granular and unstable Made Ground and Alluvium overlying the natural strata, it is considered that conventional strip/trench fill or pad foundations would not be feasible on this site. Suitable foundation solutions for the many proposed structures are discussed below.

<u>Proposed Asphalt Plant.</u>

Given the anticipated heavy loads of the proposed asphalt plant, a scheme of piles carrying their working load in a combination of skin friction and end bearing in the

Whitby Mudstone Formation is considered the most appropriate foundation solution. The use of CFA piles would likely prove suitable for the site, though other piling techniques such as pre-cast driven, driven cast in-situ or displacement piles are also likely to be feasible. Conventional bored piles may be feasible, though bores would need to be fully supported through Made Ground, Alluvium and River Terrace Deposits and the presence of groundwater would need to be taken into account. It is recommended that the advice of a specialist piling contractor is first sought with regards to detailed design, including suitable pile diameters, capacities and confirmation of suitable pile types. The SPT 'N' versus depth profile included in Appendix A may be useful in this regard.

Ultimately the preferred design approach will be a function of the specialist piling contractors' recommendations, programme and cost. However, the following estimated design values have been provided as a guide for feasibility.

Estimated design values for CFA piles

	Pile diameter (mm)		
	300	**450**	**600**
End resistance (Qb) at 15m	45kN	95kN	180kN
End resistance (Qb) at 20m	75kN	160kN	300kN
Unit Skin Friction (Qs) 10 to 15m (	20kN/m	35kN/m	45kN/m
Unit Skin Friction (QS) at 15 to 20m	40kN/m	60kN/m	80kN/m
Safe pile capacity for 15m pile	145kN	270kN	405kN
Safe pile capacity for 20m pile	375kN	635kN	925kN

Notes:
1. The end resistance and the unit skin friction values provided are based on engineering judgement and a low bound design parameter, they also use a factor of safety of 2.5.
2. Values provided are for CFA piles and using an adhesion reduction factor of 0.45.
3. Cu values of 180kPa and 300kPa used for end resistance calculation.
4. Average Cu values of 130kPa and 240kPa used for unit skin friction calculation.

The ultimate shaft resistance can be calculated by taking the applicable unit skin friction and then multiplying this value by the shaft length of the proposed pile, in which case a 300mm diameter pile with a length of 20m would provide safe pile capacity of 375kN.

The settlement of the piles will depend on a number of factors (pile diameter, number of piles per group, depth of piles and method / type), though in all cases would be expected to be less than 25mm. Specialist contractors would provide specific advice based on their proprietary systems.

An appropriately designed working platform would also need to be designed and constructed.

Allowances would need to be made for the appropriate management and disposal of any soil arisings associated with the construction of the piles through the Made Ground, Alluvium, River Terrace Deposits and deeper Whitby Mudstone strata.

Processing shed, aggregate storage bays and other ancillary structures.

Similarly, a piled foundation solution could be adopted for the proposed processing shed, aggregate storage bays and other ancillary structures.

Alternatively, consideration could be given to a ground improvement foundation solution, such as the treatment of the Made Ground, Alluvium and upper extents of the River Terrace Deposits by the vibro-replacement ground improvement process. Given the anticipated age of the majority of the Made Ground, depth and strength of the Alluvium, it is likely that the strata would be suitable, although the advice of a specialist contractor should be sought to establish feasibility of various ground improvement techniques. Such a solution would typically permit conventional reinforced spread foundations to be adopted above soils treated by the ground improvement process. Allowable bearing pressures would be subject to specific consideration by specialist contractors based on their proprietary systems, though typically we would expect allowable bearing pressures in the range 100-150kN/m^2 to be achievable. Other specialist ground improvement solutions may be feasible such as Controlled Modulus Columns (CMC), rapid impact compaction and excavation/re-engineering to a controlled specification. Other proprietary systems are available. The advice of specialist contractors should be sought for these solutions also.

If conditions vary significantly to those described herein are encountered, specialist geotechnical advice should be sought to make appropriate assessment and recommendations.

8.3 Floor Slab and Gas Protection

Ground bearing floor slabs are not feasible at this site owing to the nature and thickness of Made Ground.

The potential options for utilising ground bearing floor slabs include placing these either on improved ground or on controlled re-engineered materials with all Made Ground removed/replaced, following the advice of an appropriate specialist contractor.

Alternatively, suspended floor slabs could be adopted if a piled solution is implemented.

Based on the calculated GSVs from the monitoring undertaken to date, the site would generally be classified as Characteristic Situation 1 (CS1). However, consistently elevated concentrations of carbon dioxide were recorded in the majority of the shallow DCS installations. As these concentrations were often recorded above the allowable threshold of 5% for a CS1 classification a 'raise' in the classification must be considered. As such, it is recommended that protection measures equivalent to Characteristic Situation 2 are adopted.

It is recommended that the assessment and any proposed gas protection measures are agreed with the Local Authority prior to construction as they may have their own bespoke requirements.

8.4 Excavations

Excavations for the development (e.g., service trenches) are expected to be in a combination of granular and/or cohesive Made Ground and are unlikely to reach the natural strata at depth. Of the eight trial pits undertaken as part of the intrusive works, six remained stable during excavation, suggesting that these soils have the potential to be stable in open vertical cut in the very short term, although they will likely become rapidly unstable if left open for longer periods, or if perched groundwater is encountered and may need to be graded back to a stable angle or trench support provided. Trench support or the angle of batter should be designed by an appropriately qualified engineer or competent person to suit the required depth and the ground and groundwater conditions encountered. Any trenches requiring man entry will require appropriate supports and assessments in line with current guidance and legislation.

Significant groundwater ingress is not expected above c.5m bgl, however, it is recommended that some provision is made for the use of temporary sump pumping equipment to control seepage run-off in wet weather conditions.

Cobbles of clinker and possible fused slag were recorded in CP04 from a depth of 6.95m to 7.30m bgl, which required 1.5hours of chiselling in order to progress the borehole further. In TP03 a relic railway line and relic railway sleepers were recorded in the Made Ground soils, whilst further railway sleepers were encountered in the Made Ground soils in DCS02 and DCS04. Given this and the site history, it is envisaged that during the redevelopment further relic obstructions, sub-structures, former utilities and other features may remain, which could pose a constraint with regards the redevelopment (in particular piling/ground improvement) and may require breaking out and local removal.

8.5 Pavement Design

Made Ground is present at formation across the entirety of the site. As such it is recommended that preliminary pavement design is based on an equilibrium CBR value of <2%, though this is likely to be significantly improved following proof rolling and the removal of soft, organic and/or loose materials given the widespread presence of granular strata at surface. Subsequent plate testing should be undertaken to confirm CBR design values across the site.

Natural strata are not anticipated to be exposed at formation considering the significant thickness of the Made Ground soils.

The particle size distribution tests indicate the Made Ground soils analysed are unlikely to be susceptible to frost.

8.6 Buried Concrete and Services

As defined by BRE Special Digest 1, Concrete Aggressive Ground, 2005 the Design Sulphate Class and the Aggressive Chemical Environment for Concrete (ACEC) has been assessed for each of the strata encountered. Characteristic values for each stratum have been determined and are detailed in the table below:

Strata	No of samples tested	Soluble Sulphate (g/l)*1	Total Potential Sulphate (%)*1	Potentially Pyritic	pH	Design Sulphate Class	ACEC*2
Made Ground	15	0.4	1.7	No - 0 of 5	7.6	DS-4	AC-3s
Alluvium	5	0.2	0.9	Yes 2 of 5	7.6	DS-3	AC-2s
River Terrace Deposits	5	0.2	-	-	7.5	DS-1	AC-1
Whitby Mudstone Formation	9	0.2	5.0	Yes 8 of 9	7.9	DS-4	AC-3s
Leachate	3	<0.1	-	-	8.4	DS-1	AC-1s

Notes:
*1: Characteristic values are rounded to the nearest 0.1%.
*2: Assumes mobile groundwater in the River Terrace Deposits only.

In accordance with the guidance in BRE SD1, the characteristic values for each stratum have been determined based on the highest result (where less than 5 samples tested) or the mean average of the highest 2no. results (where 5 to 9 samples tested) or the mean of the highest 20% (where 10 or more samples tested).

The Design Sulphate Class for the Alluvium is DS-3 and AC-2s, whilst the Design Sulphate Class for the underlying River Terrace Deposits is DS-1 and AC-1.

Analysis undertaken on soil samples of both the Made Ground and the Whitby Mudstone Formation indicate the Design Sulphate Class of these soils to be DS-4 and AC-3s, based on the Total Potential Sulphate results. The analysis initially indicated the Design Sulphate Class for the Whitby Mudstone Formation to be DS-5. However, based on the water-soluble sulphate results, which are all DS-1 classifications, a limitation can be assumed for the Whitby Mudstone strata. High Total Potential sulphate values were recorded in the majority of the test results for the Whitby Mudstone strata, which is typical for this stratum.

The testing has also identified the Alluvium and the Whitby Mudstone strata as being potentially pyritic in the majority of samples tested.

It is considered that these results as a whole are likely to represent the general levels of sulphates present naturally within these soils and hence, additional testing is unlikely to statistically reduce the sulphate class further from DS-4, AC-3s.

Further reference should be made to BRE Special Digest 1 for requirements in respect of types of cement and aggregate to be used and variations in type of concrete construction.

The results of the laboratory testing undertaken at the site to date have indicated concentrations of TPH at less than the threshold for Polyurethane pipes. Barrier supply pipes, therefore, may not be necessary on this site. It should be noted that the full suite of testing required by the UKWIR guidance has not been undertaken as part of this investigation and such testing may be required by the Water Authority once

pipeline routes are known. Further guidance on this subject is included in Appendix F.

9.0 CONCLUSIONS AND RECOMMENDATIONS

9.1 Geo-environmental

Based on the above assessment, it is considered that the site generally presents a relatively low risk to human health and Controlled Water receptors, given the current proposed development plans. It is therefore considered that no further assessment or remedial actions are warranted for the proposed development. However, should any potential sources of contamination be identified during redevelopment, a specialist should be consulted to enable additional investigation and testing to be carried out.

Given the history of the site, it may prove prudent to have a Discovery Strategy prepared, so that should any previously unidentified contamination be encountered during construction, there is already a document in place which stipulates the remedial measures and steps required to demonstrate that contamination has been appropriately managed.

Careful segregation of soils should be undertaken when sending surplus soils off-site to landfill. Further sampling of the Made Ground proposed for disposal would likely be required in order to determine the appropriate landfill facility.

9.2 Geotechnical

Conventional foundations are unlikely to be feasible owing to the significant thickness of Made Ground across the site and the anticipated loads of the asphalt plant. The most obvious and low risk solution would be a piled solution for both the foundations and the floor slabs.

Other solutions such as ground improvement and re-engineering may be feasible for the light-weight processing shed and racking area and for the associated floor slabs.

Gas protection measures consistent with Characteristic Situation 2 (CS2) are recommended for the site. Radon protection measures are not considered necessary.

A buried concrete classification of DS-4 and AC-3s has been determined for the Made Ground and the Whitby Mudstone Formation.

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GENERAL NOTES

A) The assessment made in this report is based on the site terrain and ground conditions revealed by the various field investigations undertaken and also any other relevant data for the site including previous site investigation reports (if available) and desk study data. There may be special conditions appertaining to the site, however, which have not been revealed by the investigation and which have not, therefore, been taken into account in the report. The assessment may be subject to amendment in the light of additional information becoming available. It must be recognised that many of the Environmental Searches obtained during the course of the desk study are often lengthy. Applied Geology have, where appropriate and in the interests of simplicity, only reproduced the summary of the searches within the report. A full copy of all the search data is held at the Applied Geology office and is available for inspection if required.

B) The services provided are defined within our proposal and are carried out in line with the terms of appointment between Applied Geology and the Client.

C) Where any data supplied by the Client or other external source, including that from previous site investigations, has been used it has been assumed that the information is correct. No responsibility can be accepted by Applied Geology for inaccuracies within this data.

D) Whilst the report may express an opinion on possible configurations of strata between or beyond the exploratory locations, or on the possible presence of features based on either visual, verbal or published evidence this is for guidance only and no liability can be accepted for the accuracy.

E) Comments on groundwater (and landfill gas) conditions are based on observations made during the course of the present and past investigations or with reference to published data unless otherwise stated. It should be noted, however, that groundwater (and landfill gas) levels vary due to seasonal (or atmospheric conditions) or other effects.

F) The copyright of this report and other plans (and documents prepared by Applied Geology) is owned by Applied Geology and no such report, plan or document may be reproduced, published or adapted without the written consent of Applied Geology. Complete copies of the report may, however, be made and distributed by the Client as an expedient in dealing with matters related to its submission.

G) This report is prepared and written in the context of the proposals stated in the introduction to the report and should not be used in a differing context. Furthermore, new information, improved practices and legislation may necessitate an alteration to the report in whole or in part after its submission. Therefore with any change in circumstances or after the expiry of one year from the date of the report, the report should be referred to Applied Geology for re-assessment and if necessary, re-appraisal.

H) The survey was conducted and this report was prepared for the sole internal use and reliance of the Client. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Applied Geology. If an unauthorised third party comes into possession of this report they rely on it at their peril and Applied Geology owes them no duty of care and skill.

I) Ground conditions should be monitored during the construction of the works and the recommendations of the report re-evaluated in the light of this data by the supervising geotechnical or geo-environmental engineers.

J) Unless specifically stated, the investigation has not taken into account the possible effects of mineral extraction.

K) The works performed are not a comprehensive site characterisation and should not be construed as being such.

L) The findings of the geo-environmental risk assessment are based on information obtained from a variety of sources which Applied Geology believe to be correct. Applied Geology cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

M) The report represents the findings and opinions of experienced geo-environmental consultants. Applied Geology does not provide legal advice and the advice of lawyers may be required.

N) Conditions at the site are subject to change from the time of the site inspection.

O) It is possible that researches carried out by Applied Geology, whilst fully appropriate for a phase 1 desk study, failed to indicate the existence of important information sources. Assuming such indicators actually exist, their information could not have been considered in the formulation of Applied Geology findings and opinions.

P) The economic viability of the proposals referred to in the report, or of the solutions put forward to any problems encountered, depends on very many factors in addition to geotechnical considerations and hence its evaluation is outside the scope of this report.

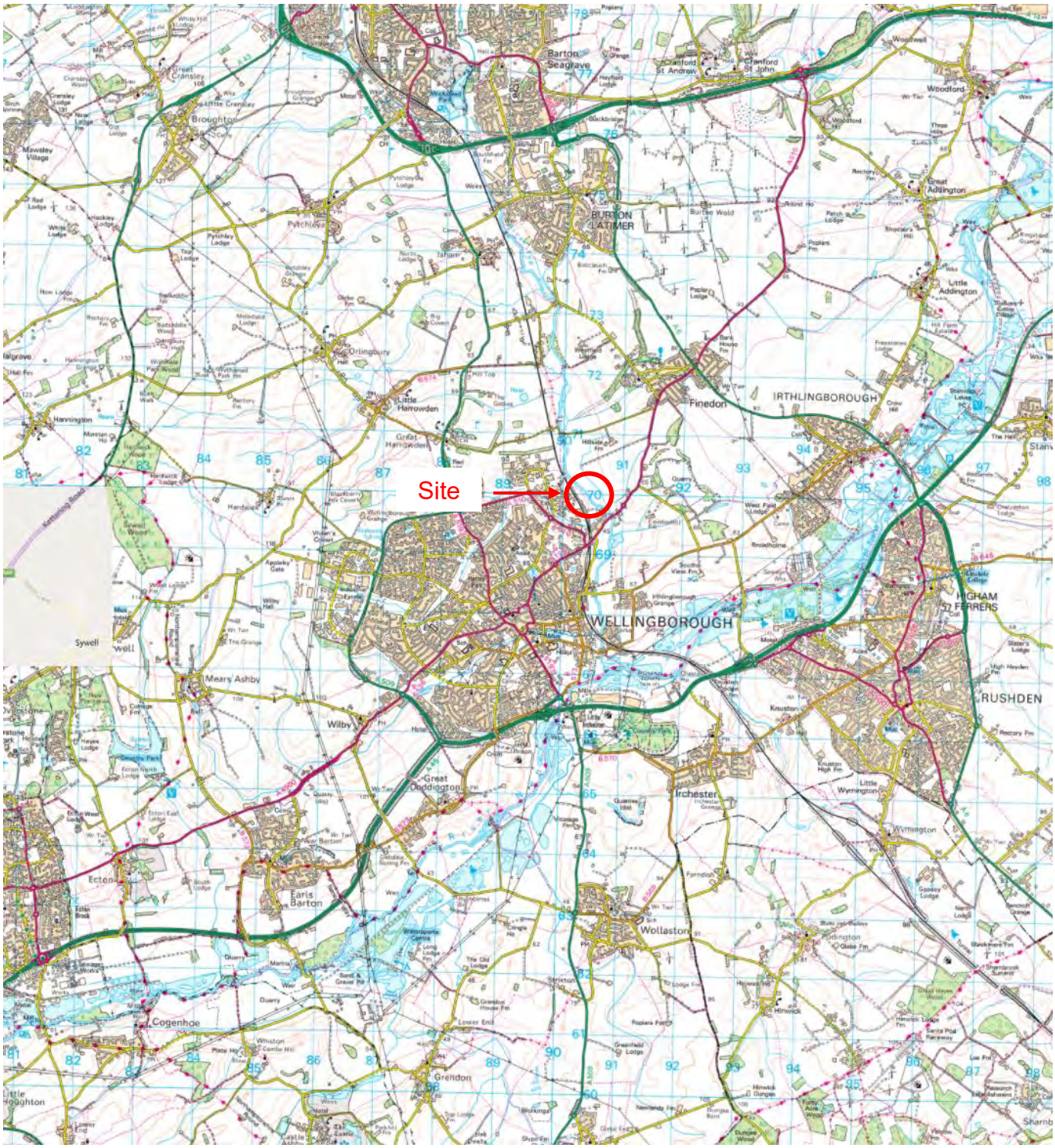
Q) Applied Geology operates as a Consultancy and does not operate it's own laboratory for soil testing, this work being sub contracted to known and respected, generally UKAS accredited, laboratories. Applied Geology can therefore not be held responsible for the testing carried out.

LIST OF REFERENCES COMMONLY USED BY APPLIED GEOLOGY IN REPORTS

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APPENDIX A



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email: admin@appliedgeology.co.uk

Client: FM CONWAY LTD

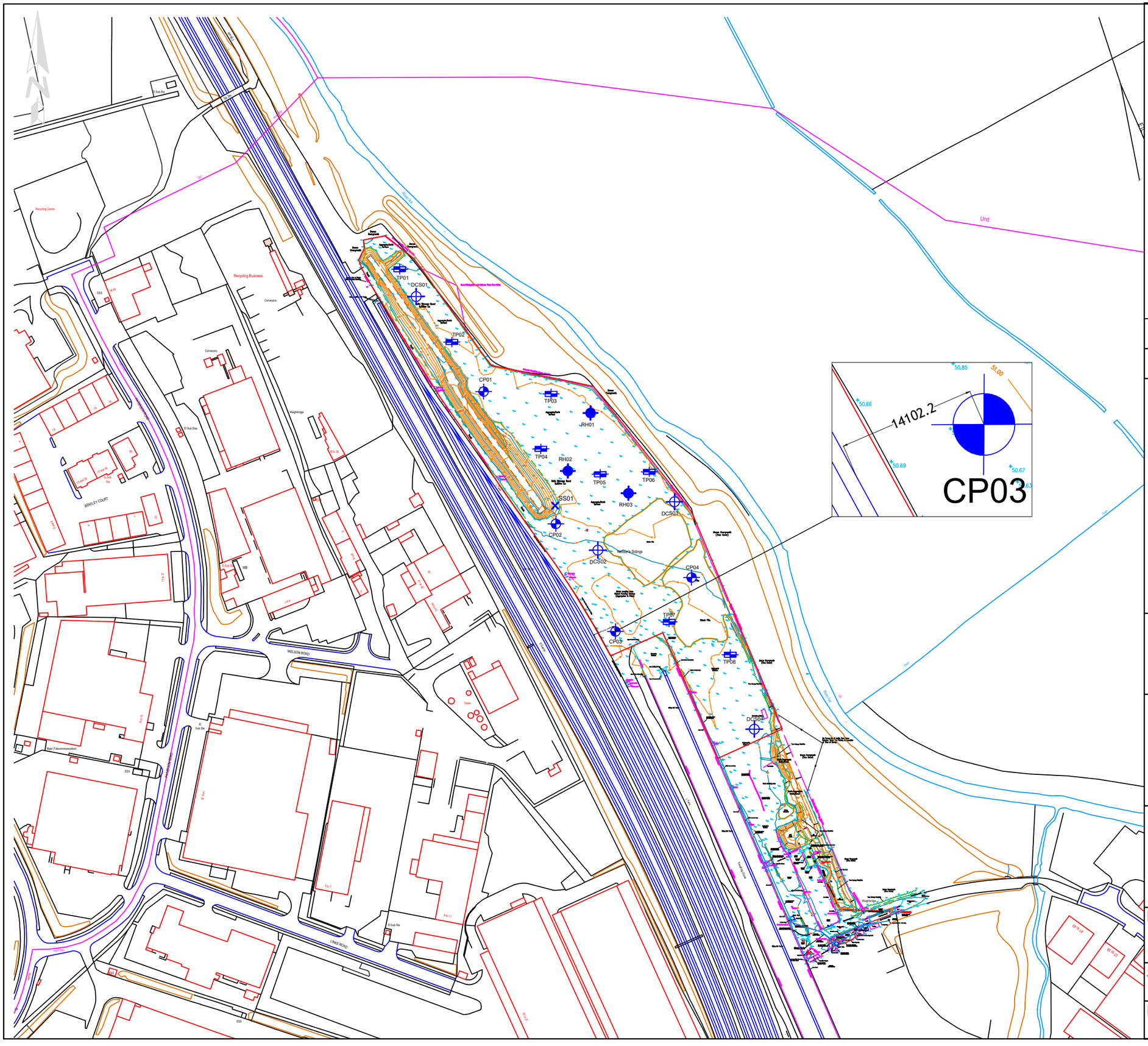
Project: NEILSON'S RAIL SIDINGS OFF ROUNDHOUSE WAY, WELLINGBOROUGH

Drawn By:	Checked By:	Paper Size:
KM	MS	A4

Scale:	Date:	NGR:
NTS	05.07.2023	490239 270023

Title: SITE LOCATION PLAN

Drawing No:	Revision:
AG3488-23-01	1


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TP02
CP01
TP03
RH01
TP04
RH02
TP05
TP06
SS01
RH03
DCS03
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Conveyors
Weighbridge
BENTLEY COURT
NEILSON ROAD
LIMES ROAD
Tanks
Sidings
Unnamed Stream
Track
Unnamed Stream
Recycling Centre
Telecommunications
ES
ES Sub Sta
Sub Sta
Sub Sta

Wellingborough

Proposed Asphalt Plant

Proposed Site Layout

Rail Buffer Stop

HGV Parking

Existing Rail Buffer Stop

Driver's Welfare / Mess Room

Pedestrian Route (Fenced)

Vehicle Sampling / Sheeting Area

Outfall

Laboratory

Engineering Area

Asphalt Plant

3.5m wide Network Rail Access Route

Aggregate Storage Bays

Weighbridges & Office

River Ise

RAP Storage Shed

3.5m wide Network Rail Access Route

RAIL LINES

Pedestrian Route (Fenced)

Car Parking (~40No. Spaces)

Nelson Rd

Network Rail Crossing Vehicle Point

Finedon Road Industrial Estate

BDU

HGV Waiting Area

Site Access

RAIL LINES

Legend

- Application Boundary
- Buildings, Roads & Rail Lines
- Structural Vegetation
- Water Bodies & Courses
- Proposed Asphalt, Concrete Surfacing and Made Ground
- Vehicle Routing (HGV / Cars)
- Vehicle Routing (Cars Only)
- Dust Mitigation Measures

Biodiversity Enhancement Measures

- Proposed Scrub Planting / Biodiverse Green Roof
- Crib Lock Surfacing - Grasscrete

pde. consulting limited chartered surveyors

PROJECT
Wellingborough

DRAWING TITLE
Proposed Asphalt Plant - *Proposed Site Layout*

DATE
October 2024

SCALE
1:1,250 @ A3

DRAWING No.
KD.WLBR.1.D.010

DRAWING STATUS
FINAL

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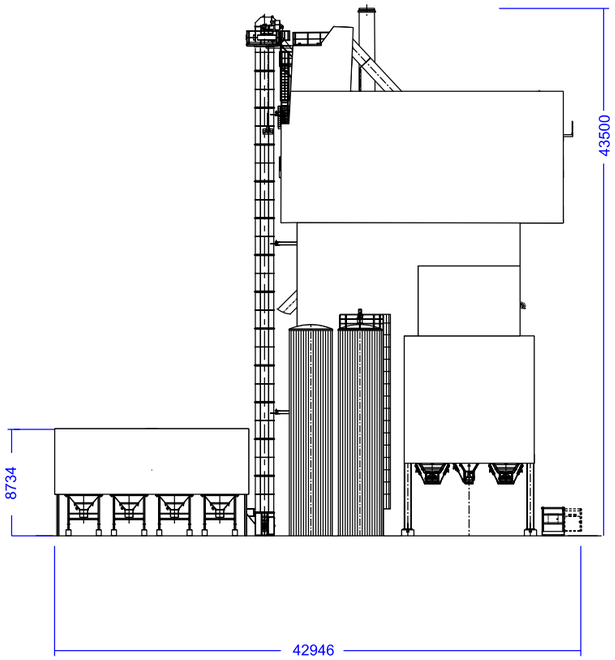
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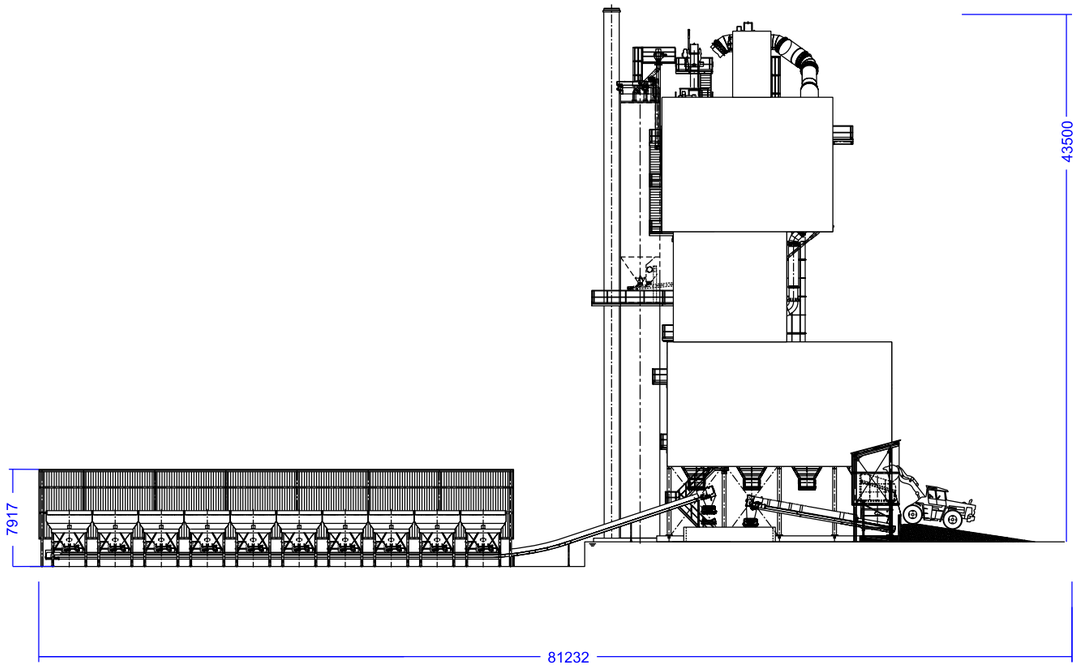
Wellingborough

Asphalt Plant

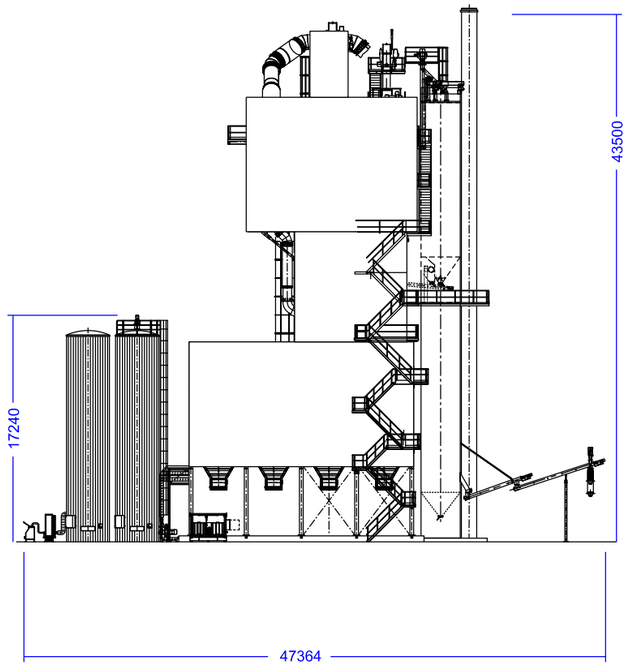
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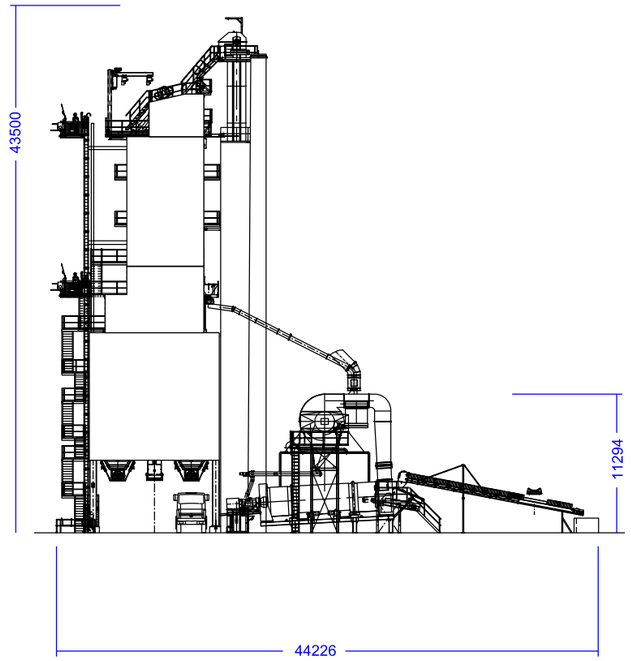
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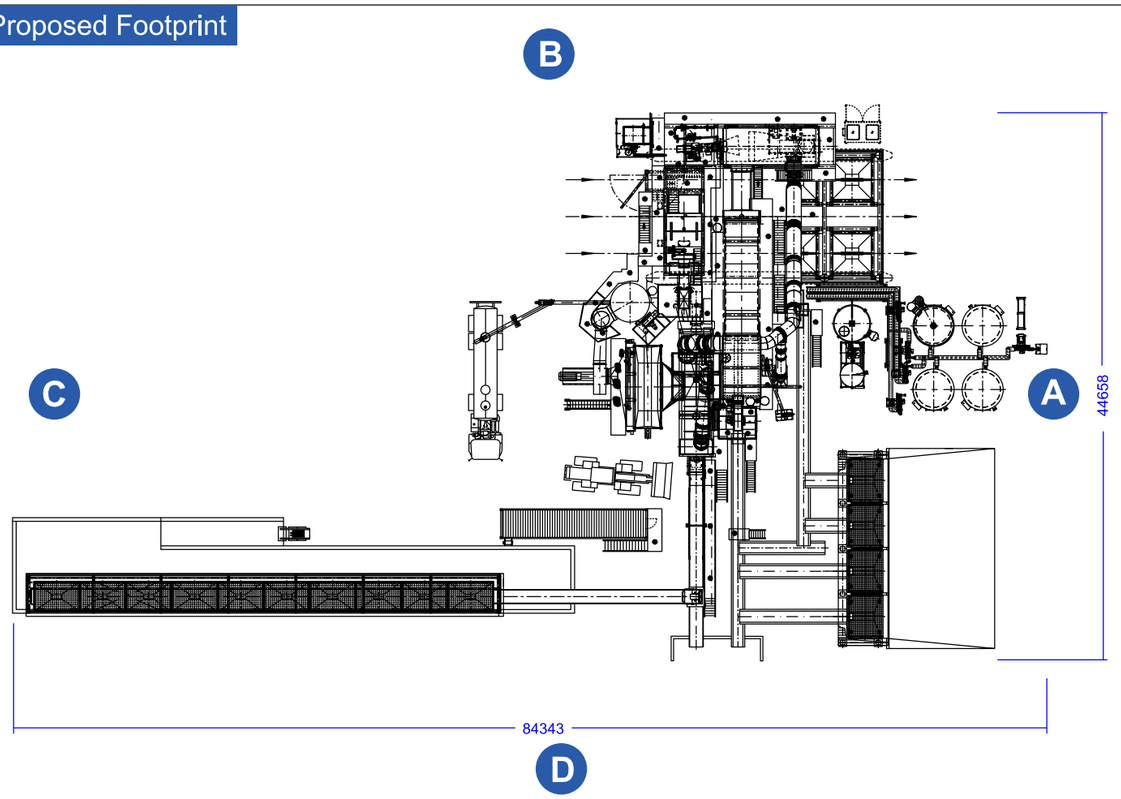
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C



Proposed Footprint



SCALE

0 25

metres

pde. consulting limited chartered surveyors

PROJECT

Wellingborough

DRAWING TITLE

Asphalt Plant

DATE

October 2024

SCALE

1:500 @ A3

DRAWING No.

KD.WLBR.1.D.013

DRAWING STATUS

FINAL

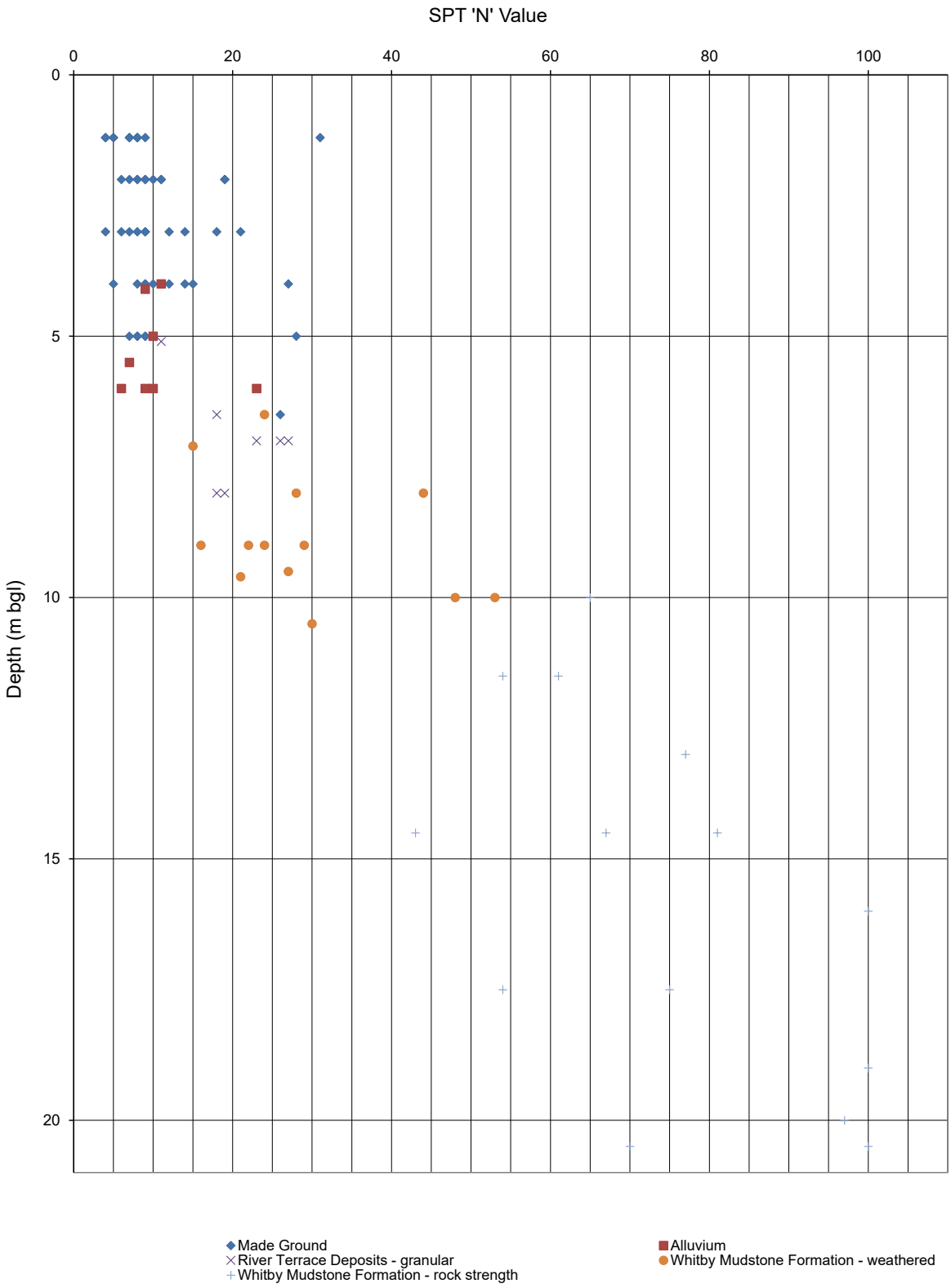
N

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Uncorrected SPT 'N' Value versus Depth

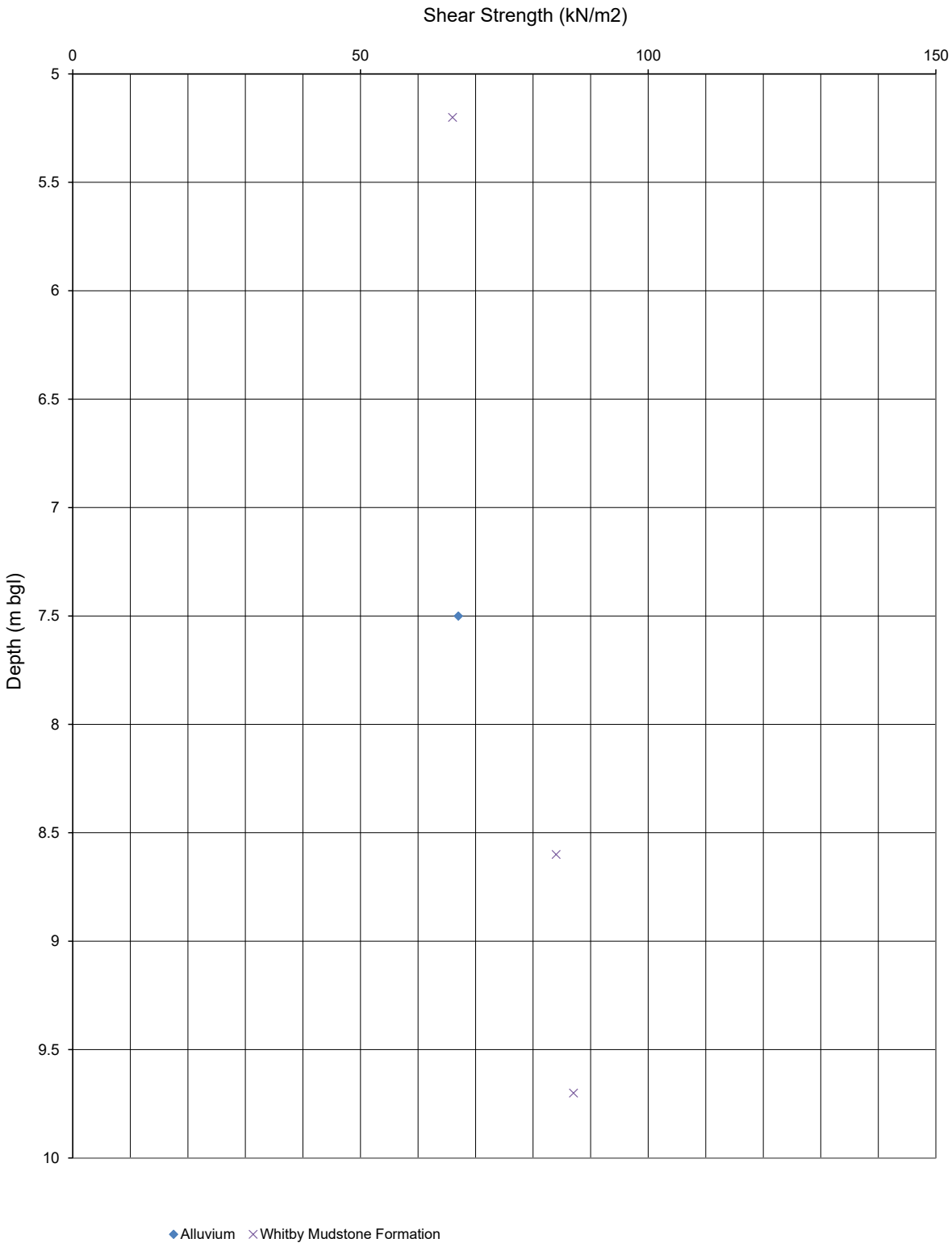


Notes: N' values >100, limited to N=100.

Client:	FM Conway Ltd
Project:	Neilson's Sidings, off Roundhouse Way, Wellingborough
Project No.	AG3488-23

APPLiED GEOLOGY

Undrained Shear Strength versus Depth Plot



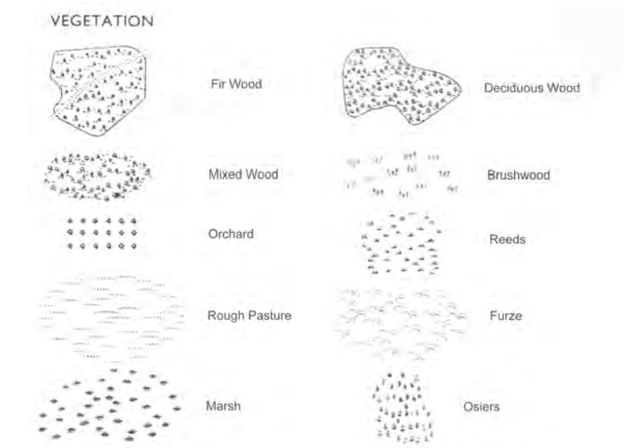
Notes: 1. Undrained shear strength values from triaxial tests plotted.

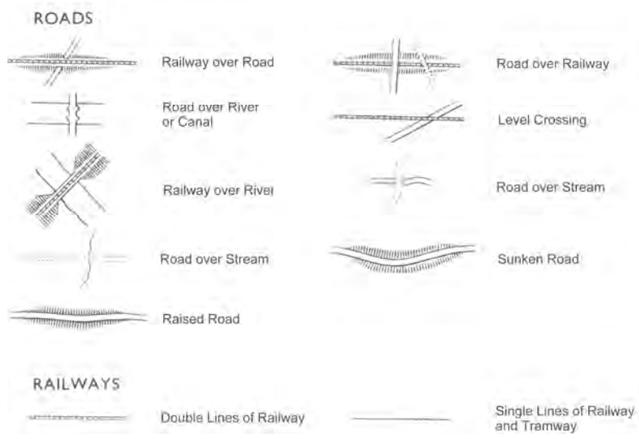
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Project No.	AG3488-23

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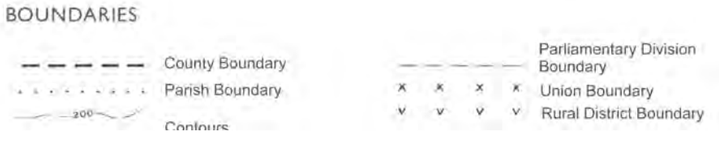
APPENDIX B

County Series 1:10,560 scale

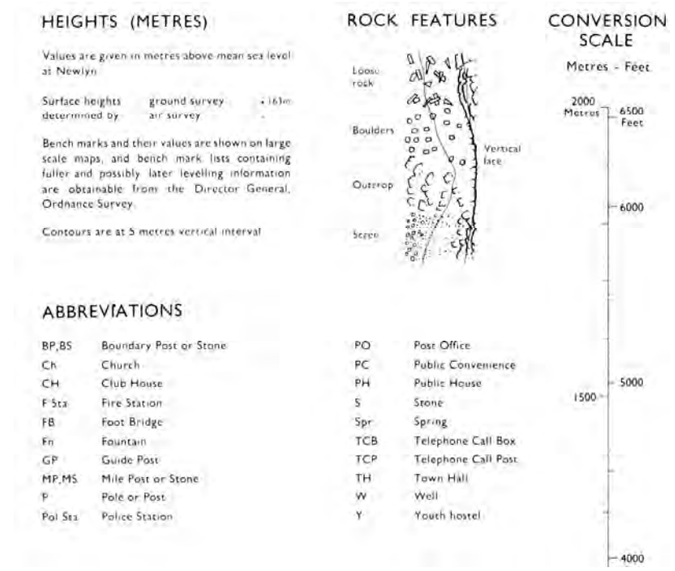


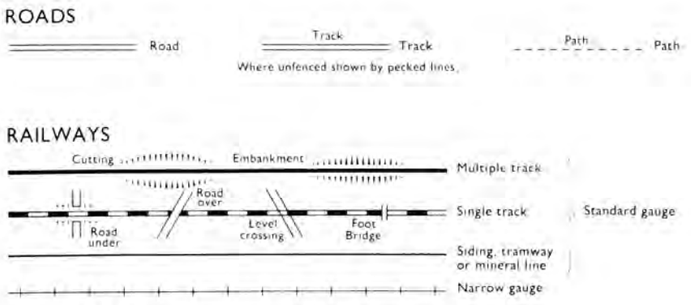


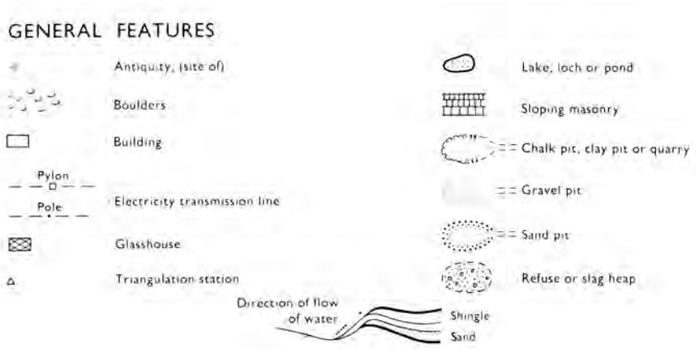


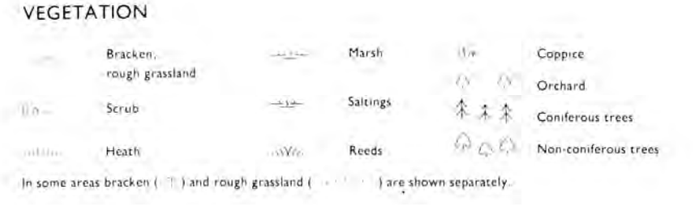


National Grid 1:10,000 scale









GroundSure

Historical Map Pack Legend

County Series & National Grid

1:10,560 scale

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Client Ref: AG3488-23
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Grid Ref: 490239, 270013

Map Name: County Series

Map date: **1884**

Scale: 1:10,560

Printed at: 1:10,560

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Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: County Series

Map date: **1884-1886**

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Printed at: 1:10,560

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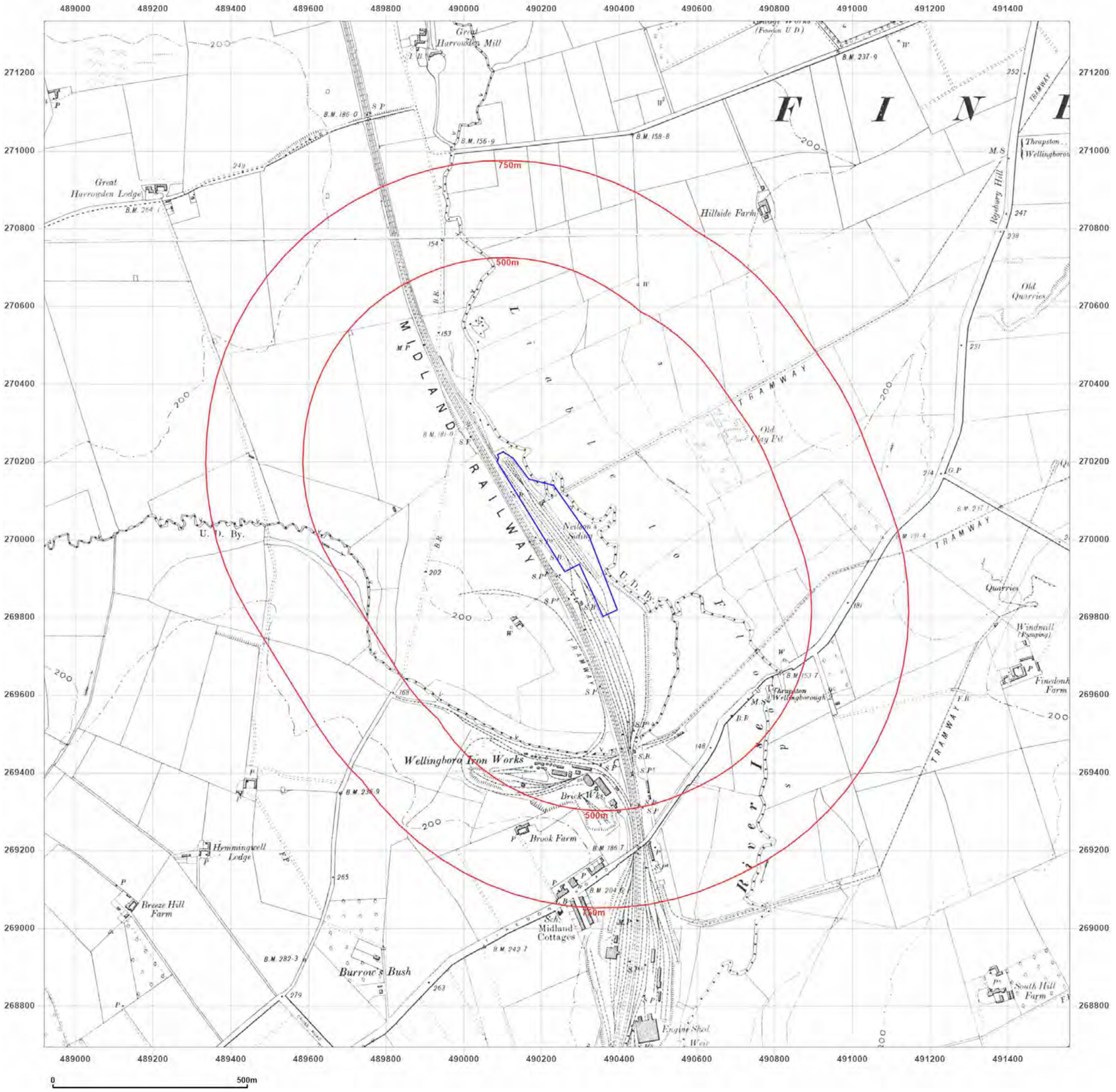
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Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

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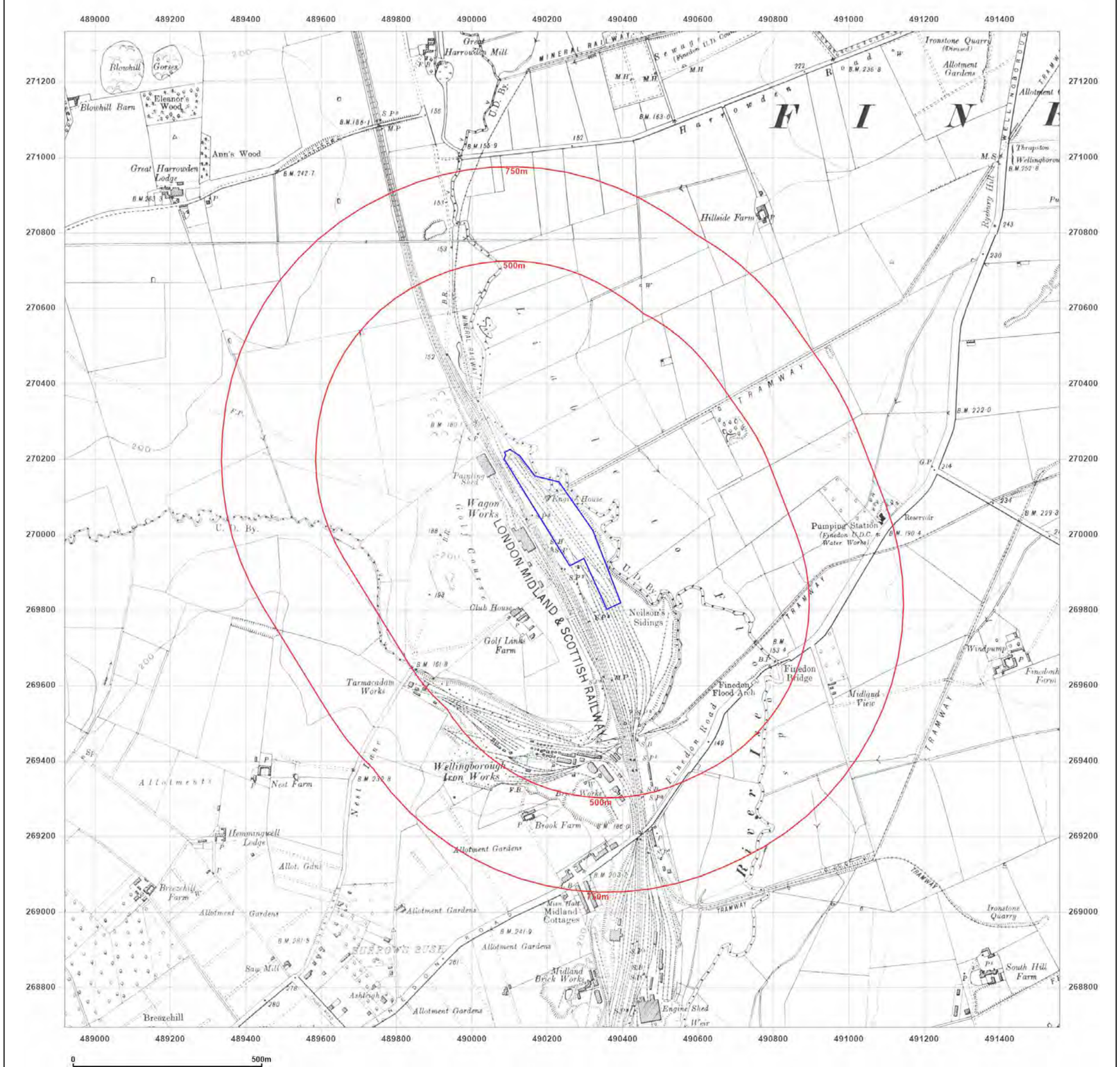
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490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: County Series

Map date: **1924**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1884
Revised 1924
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1884
Revised 1924
Edition N/A
Copyright N/A
Levelled N/A

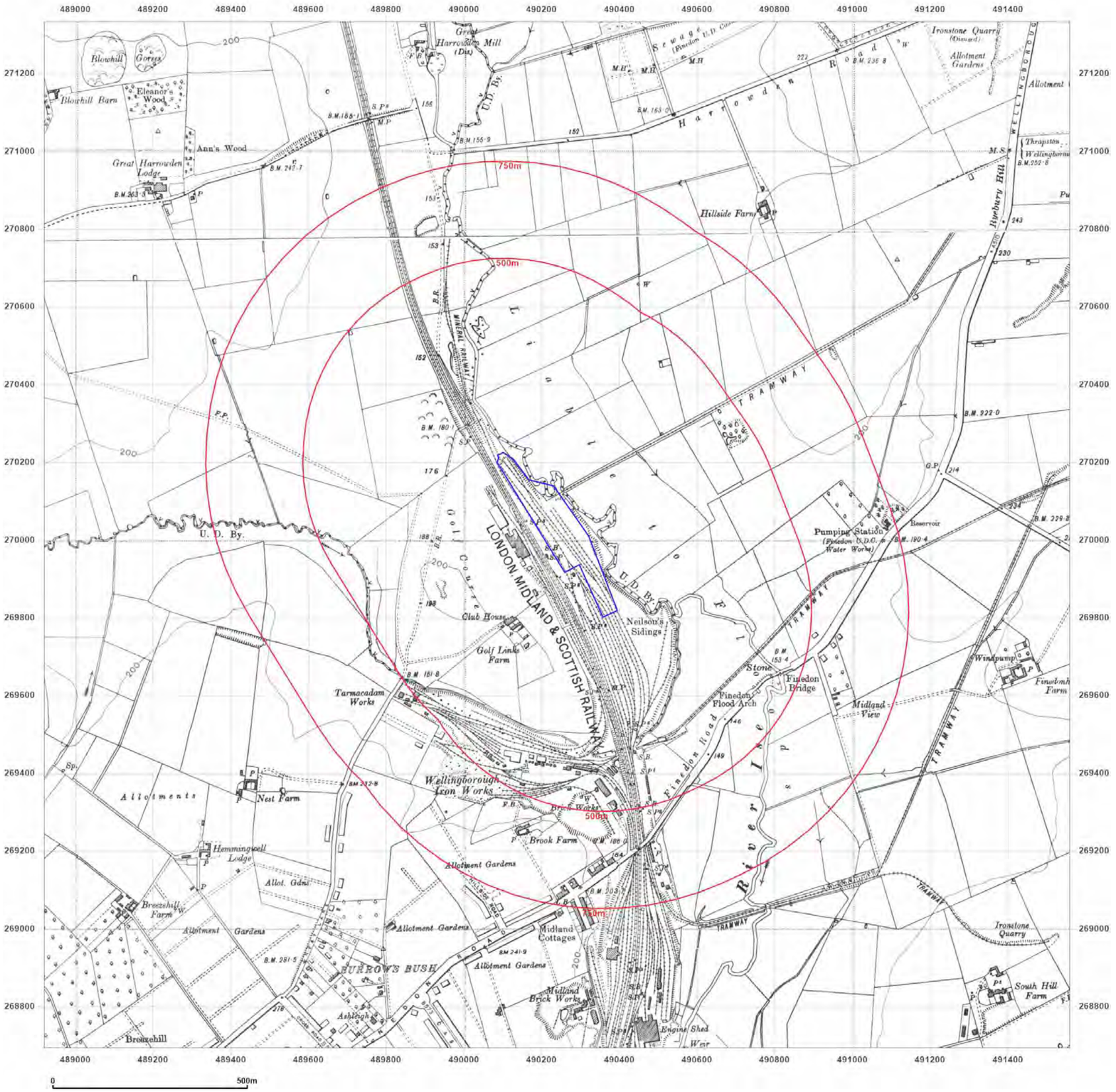
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Production date: 27 June 2023

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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: County Series

Map date: **1938**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
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Surveyed 1884
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1884
Revised 1938
Edition N/A
Copyright N/A
Levelled N/A

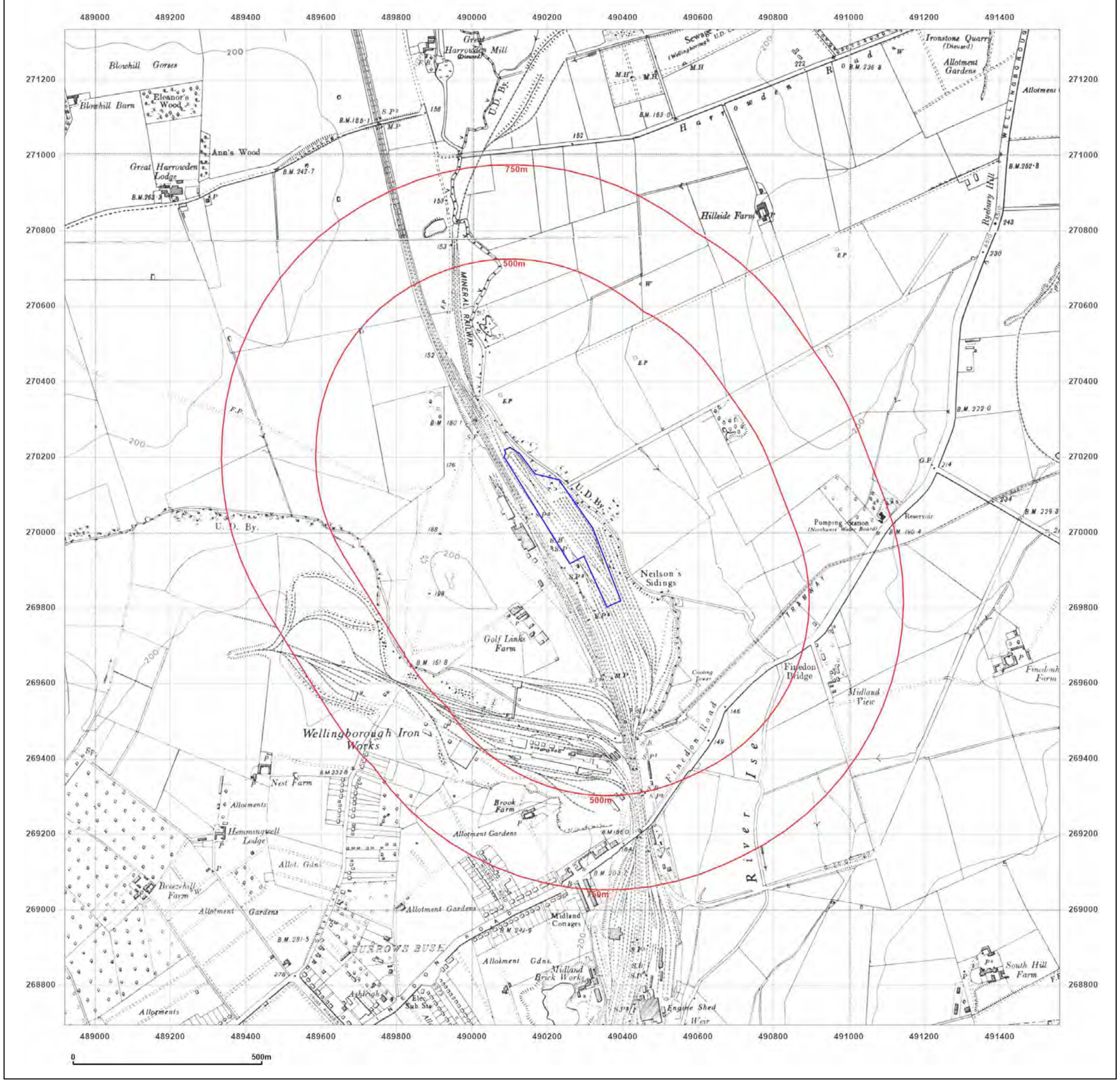
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: County Series

Map date: **1950**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1884
Revised 1950
Edition 1950
Copyright N/A
Levelled N/A

Surveyed 1884
Revised 1950
Edition 1950
Copyright N/A
Levelled N/A

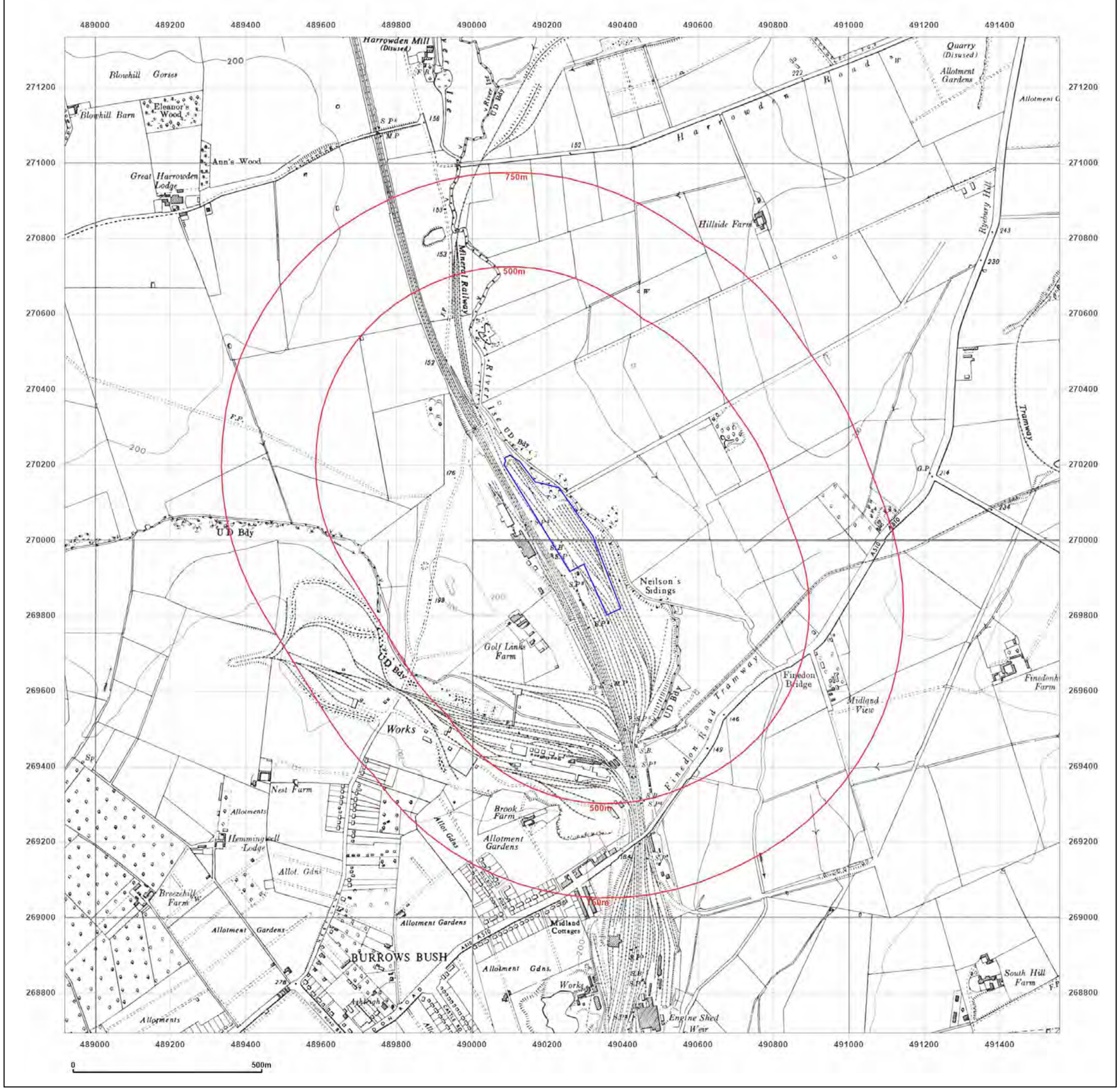
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: Provisional

Map date: **1957-1958**

Scale: 1:10,560

Printed at: 1:10,560

N
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Surveyed 1950
Revised 1957
Edition 1958
Copyright N/A
Levelled N/A

Surveyed 1950
Revised 1950
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1957
Edition N/A
Copyright 1958
Levelled N/A

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A

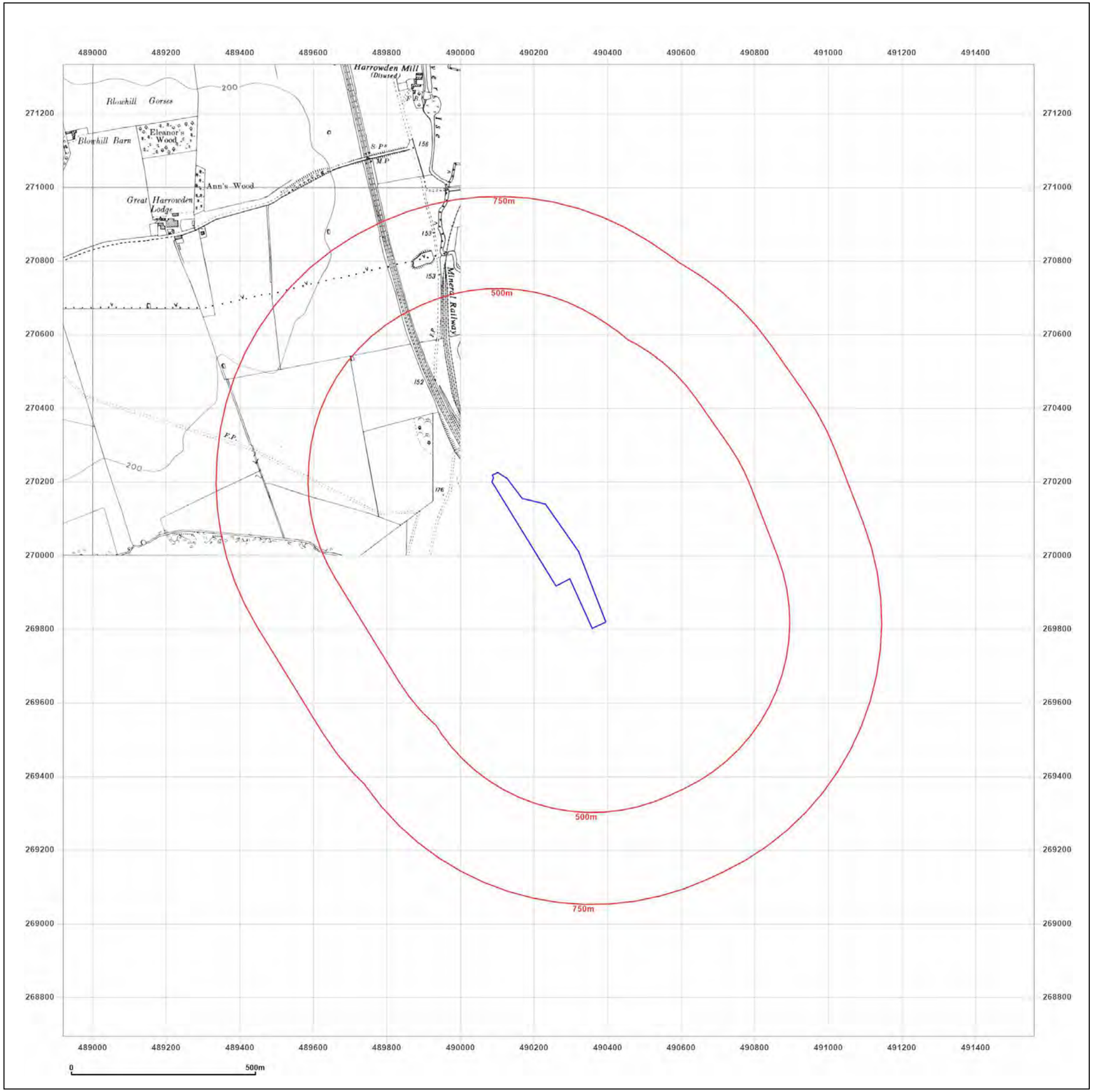
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: Provisional
Map date: **1971**
Scale: 1:10,560
Printed at: 1:10,560

N
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Surveyed N/A
Revised 1971
Edition N/A
Copyright 1958
Levelled N/A



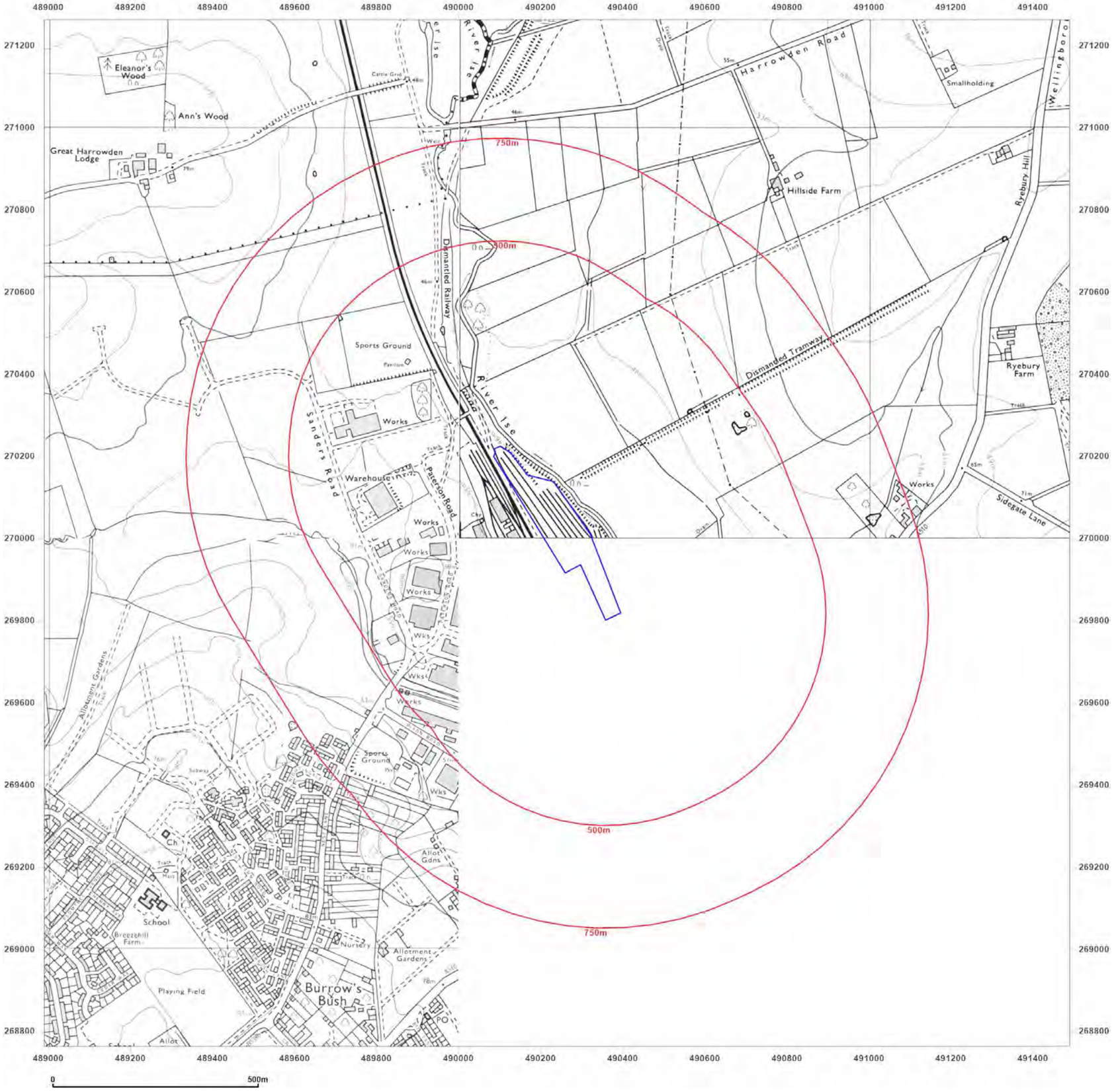
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: National Grid

Map date: **1974-1977**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1971
Revised 1975
Edition N/A
Copyright 1975
Levelled 1967

Surveyed 1972
Revised 1974
Edition N/A
Copyright 1974
Levelled 1968

Surveyed 1974
Revised 1977
Edition N/A
Copyright 1977
Levelled 1975

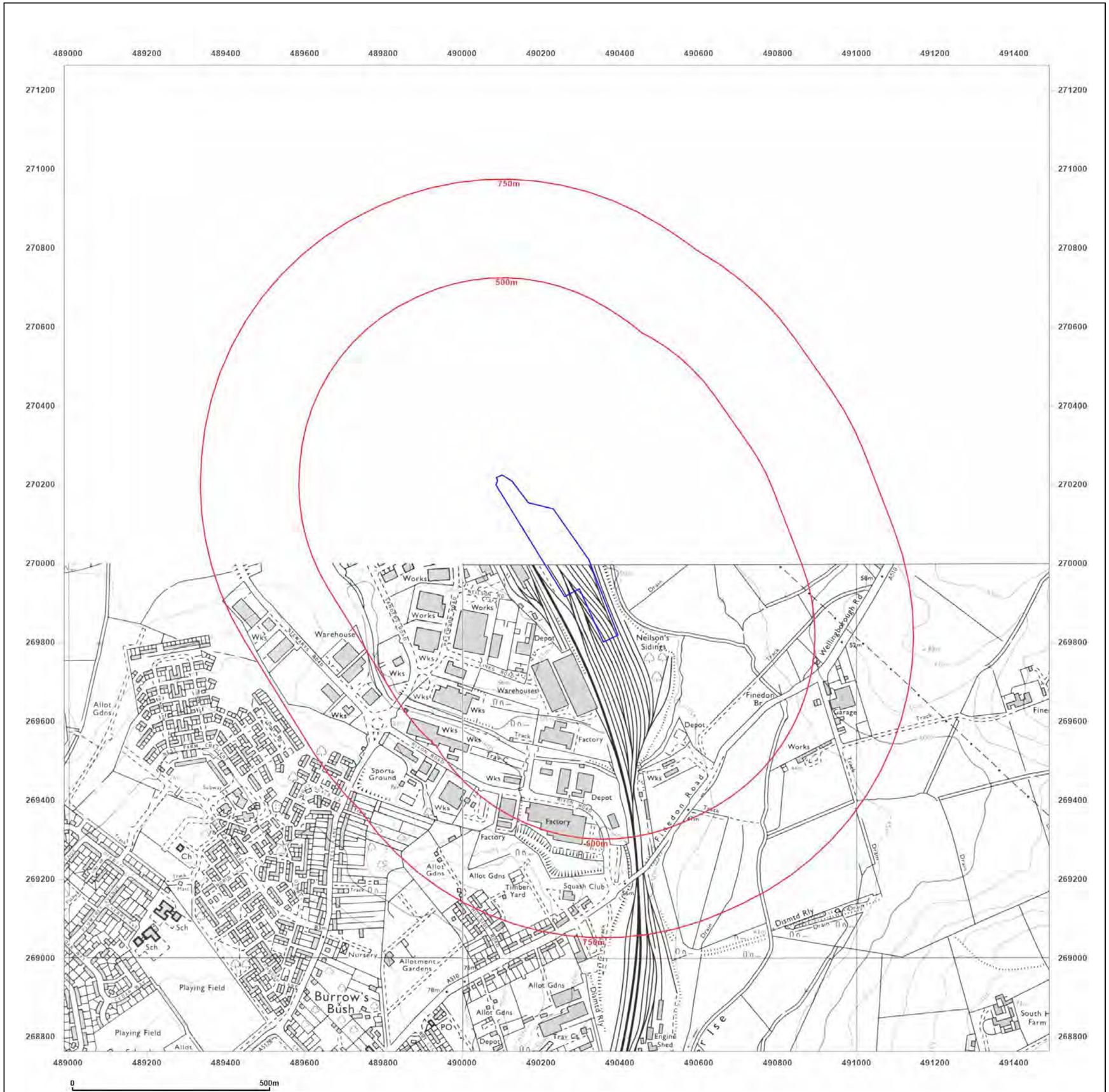
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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

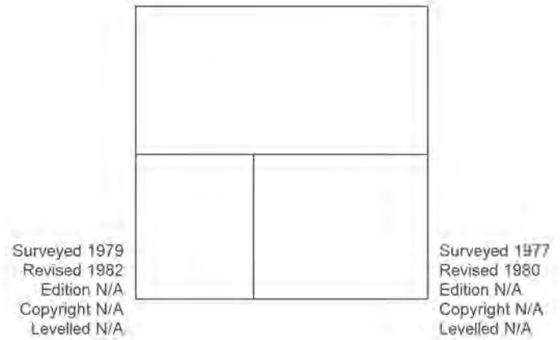
Map Name: National Grid

Map date: **1980-1982**

Scale: 1:10,000

Printed at: 1:10,000

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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: National Grid

Map date: **1988-1990**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1986
Revised 1990
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1986
Revised 1989
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1984
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

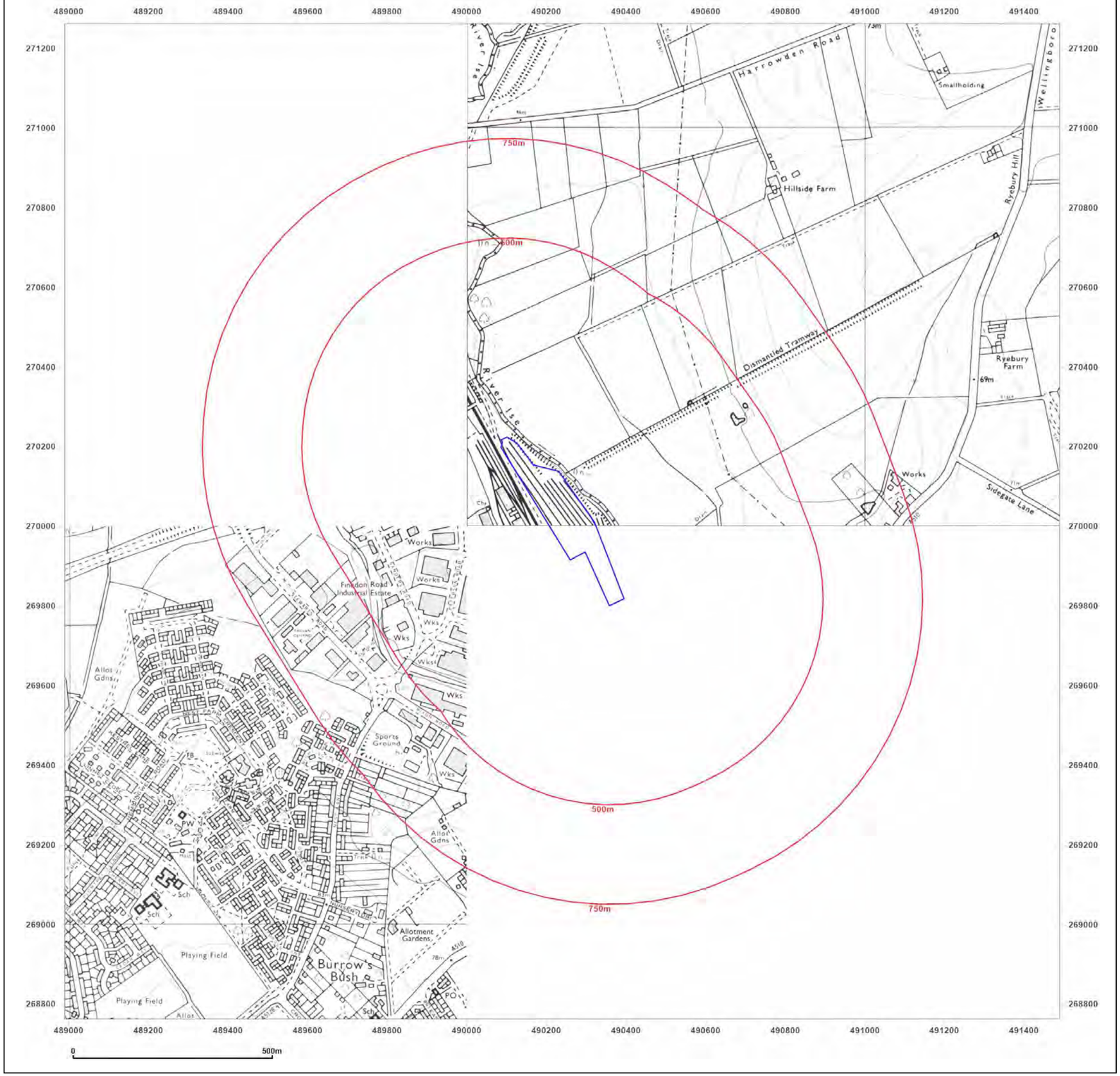
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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: National Grid

Map date: **1992-1994**

Scale: 1:10,000

Printed at: 1:10,000

N
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Surveyed 1972
Revised 1994
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1986
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

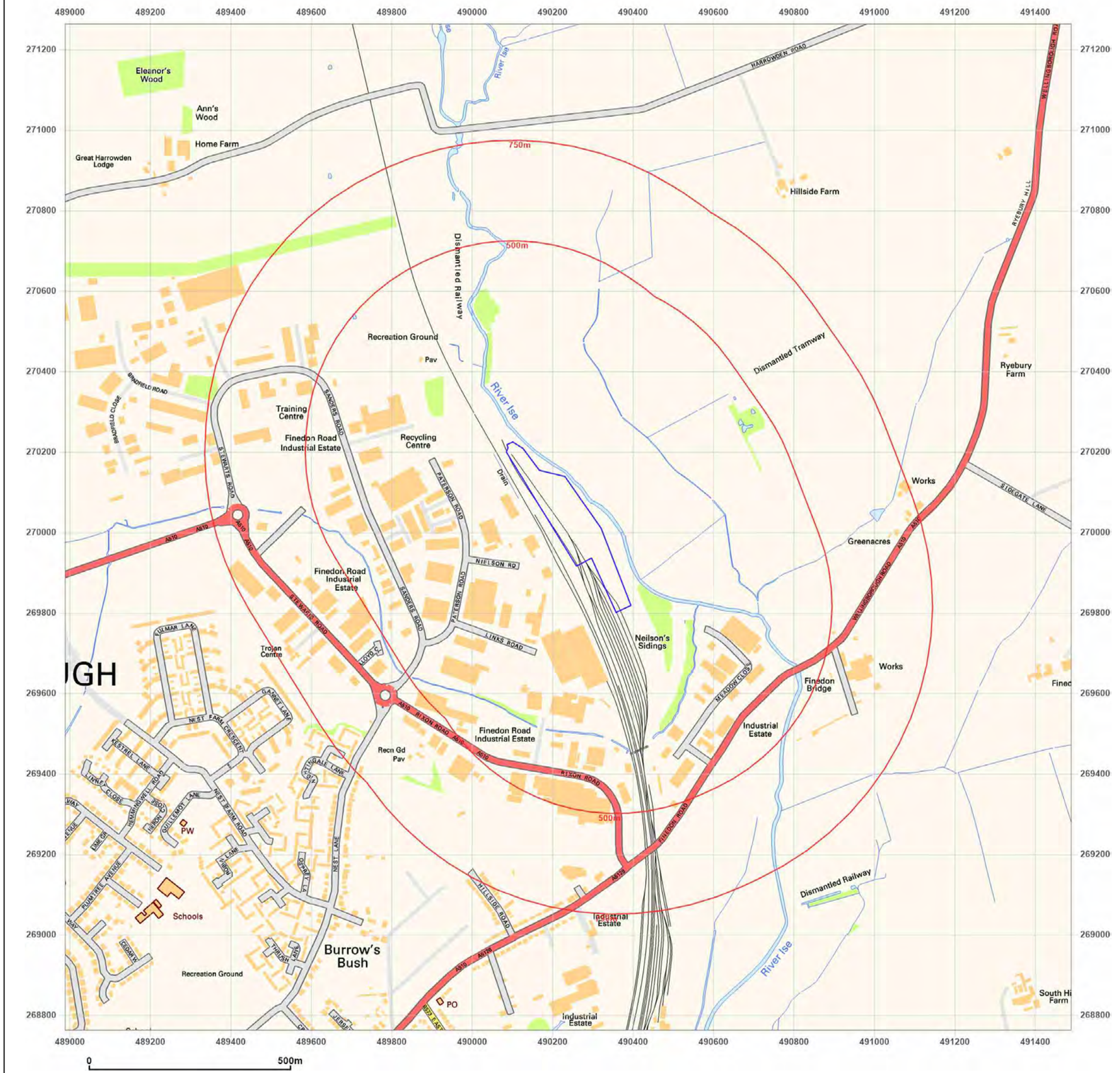
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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: National Grid

Map date: **2001**

Scale: 1:10,000

Printed at: 1:10,000

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Site Details:

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Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: National Grid

Map date: **2010**

Scale: 1:10,000

Printed at: 1:10,000

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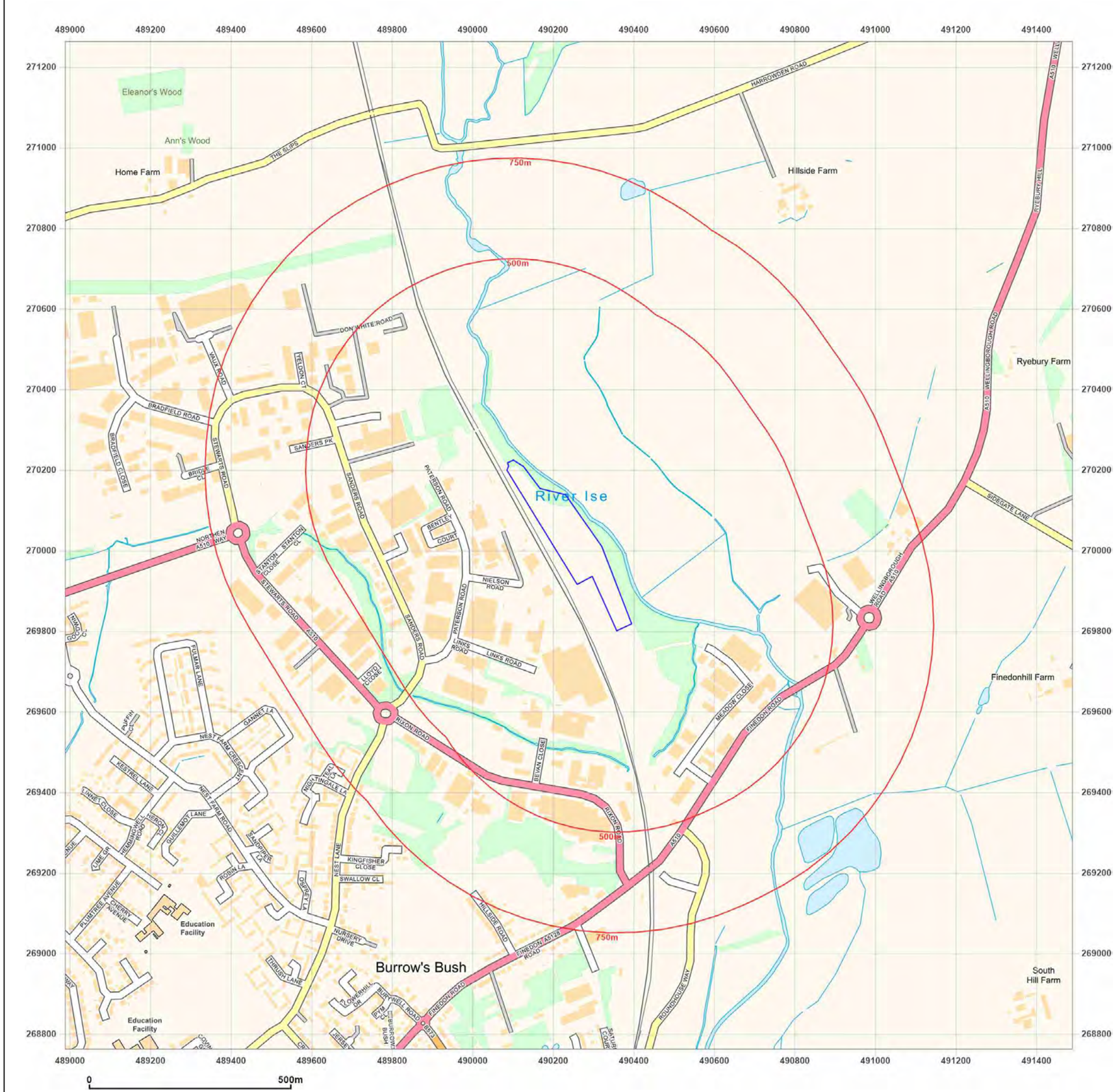


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Site Details:

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Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H
Grid Ref: 490239, 270013

Map Name: National Grid

Map date: **2023**

Scale: 1:10,000

Printed at: 1:10,000

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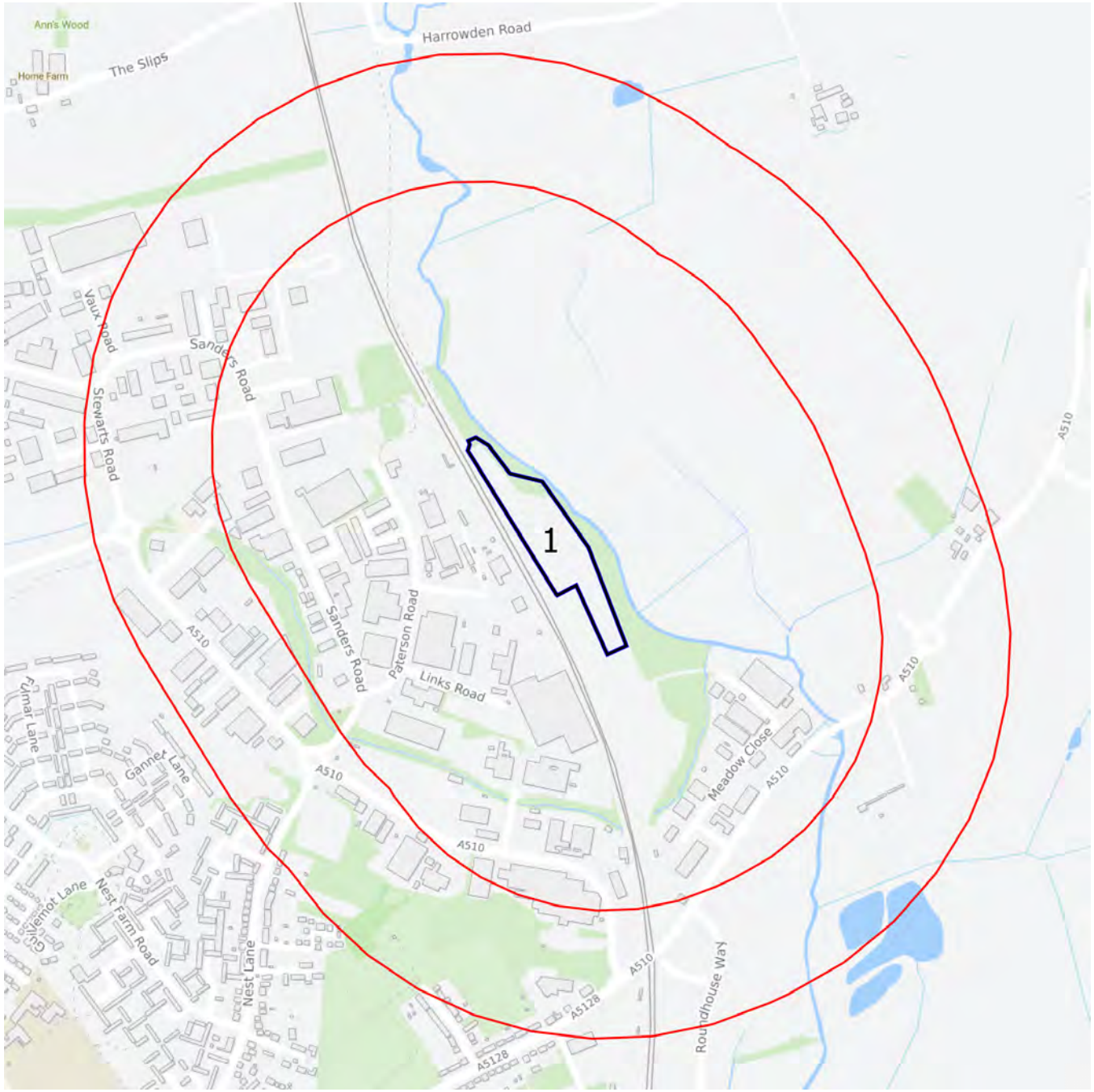
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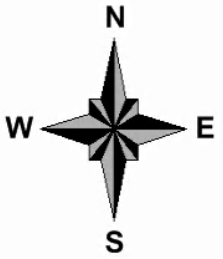
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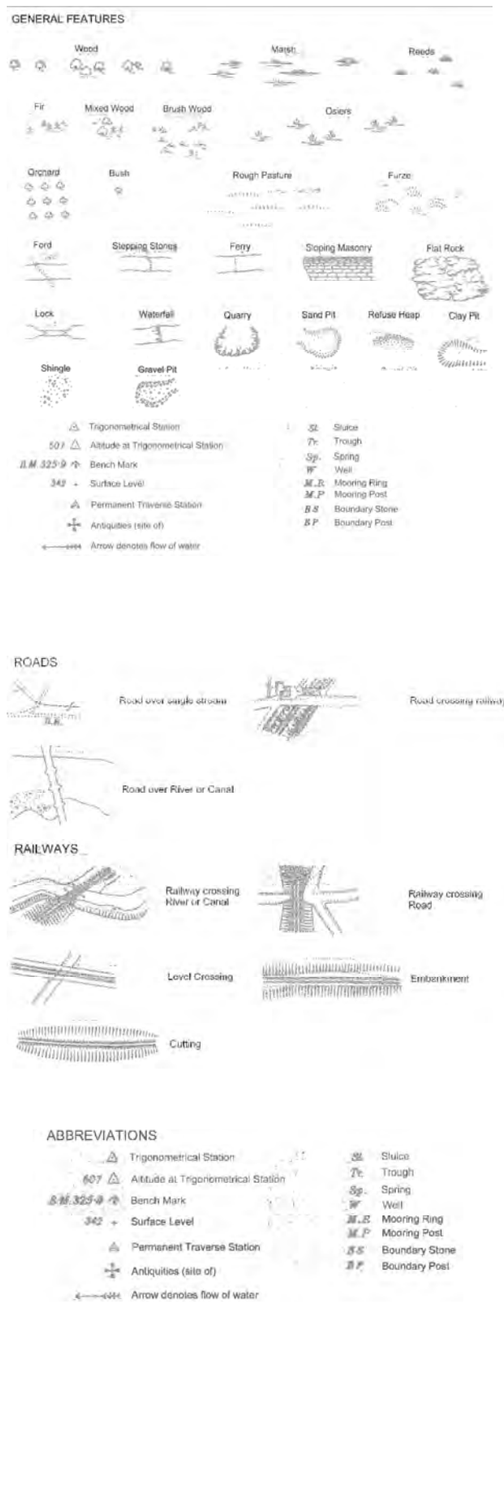


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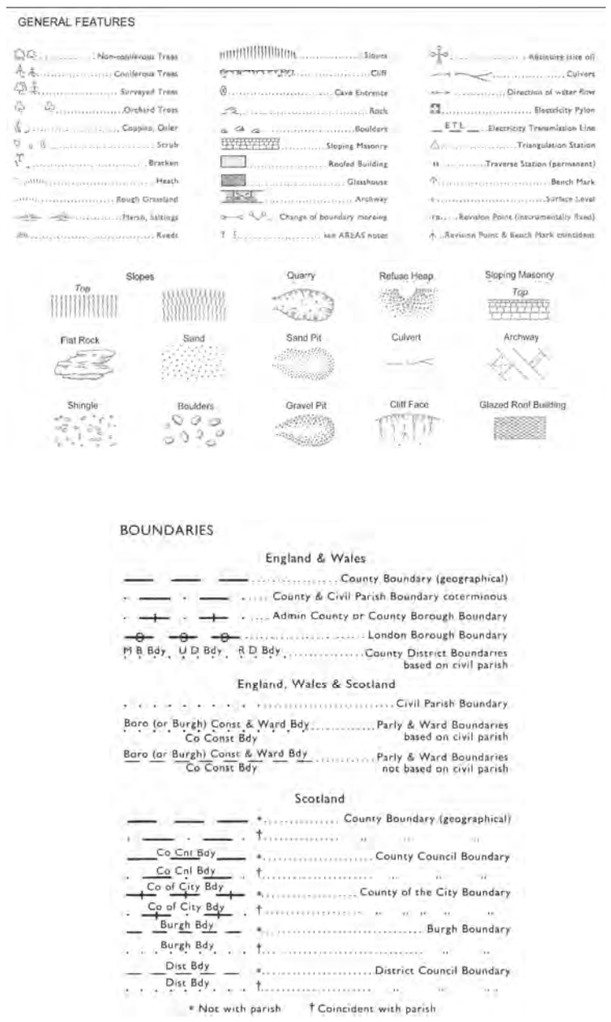
Small Scale Grid Index



County Series 1:2,500 scale



National Grid 1:2,500 / 1:1,250 scale





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Historical Map Pack Legend

County Series

1:1,250 scale

~

County Series & National Grid

1:2,500 scale

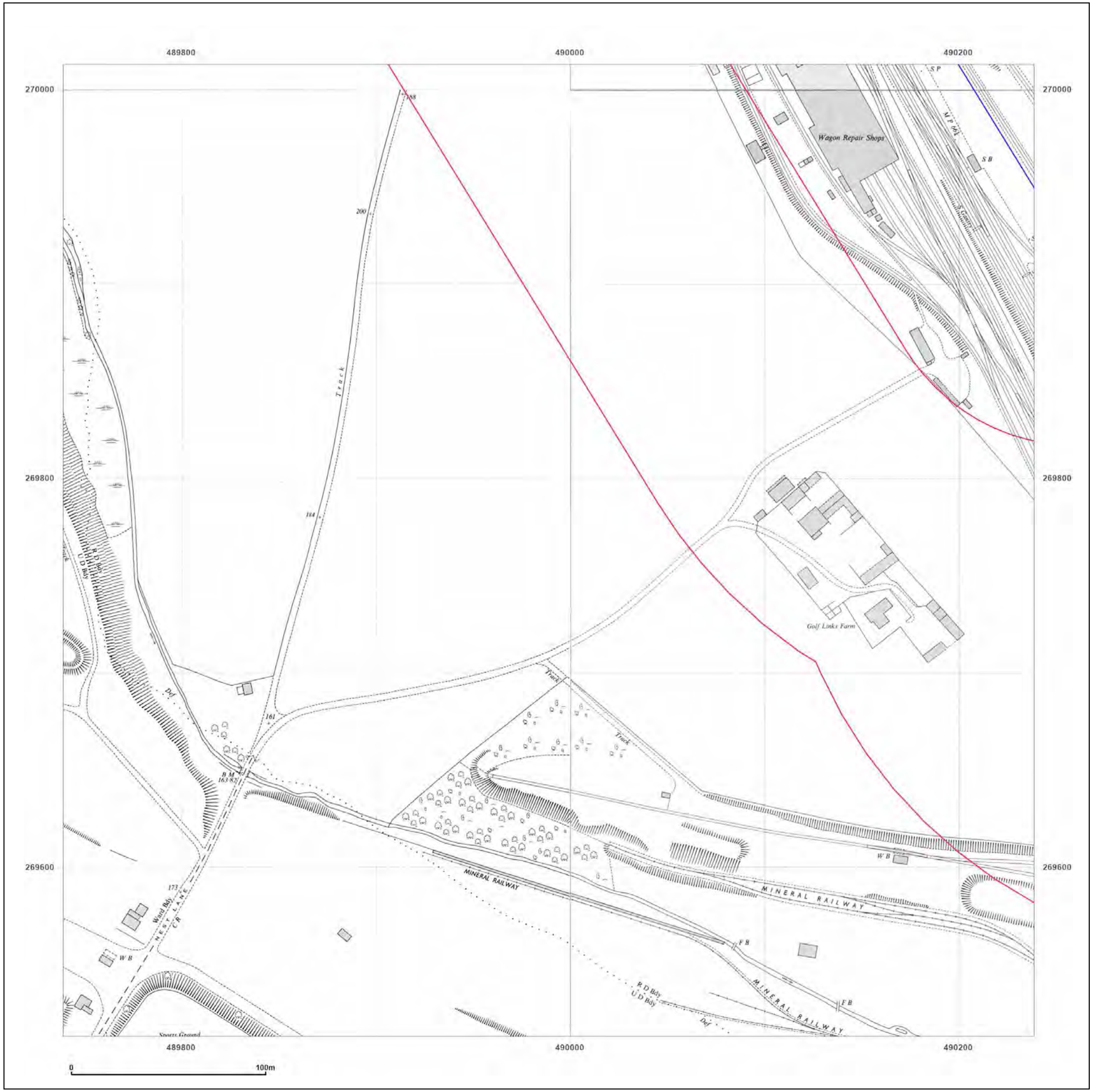
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Technical Helpline:

Tel 08444159000

groundsureinsight@groundsure.com
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_1
Grid Ref: 489989, 269763

Map Name: National Grid

Map date: **1965-1966**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1965
Revised 1965
Edition N/A
Copyright 1965
Levelled 1960

Surveyed 1965
Revised 1965
Edition N/A
Copyright 1966
Levelled 1960

Surveyed 1965
Revised 1965
Edition N/A
Copyright 1966
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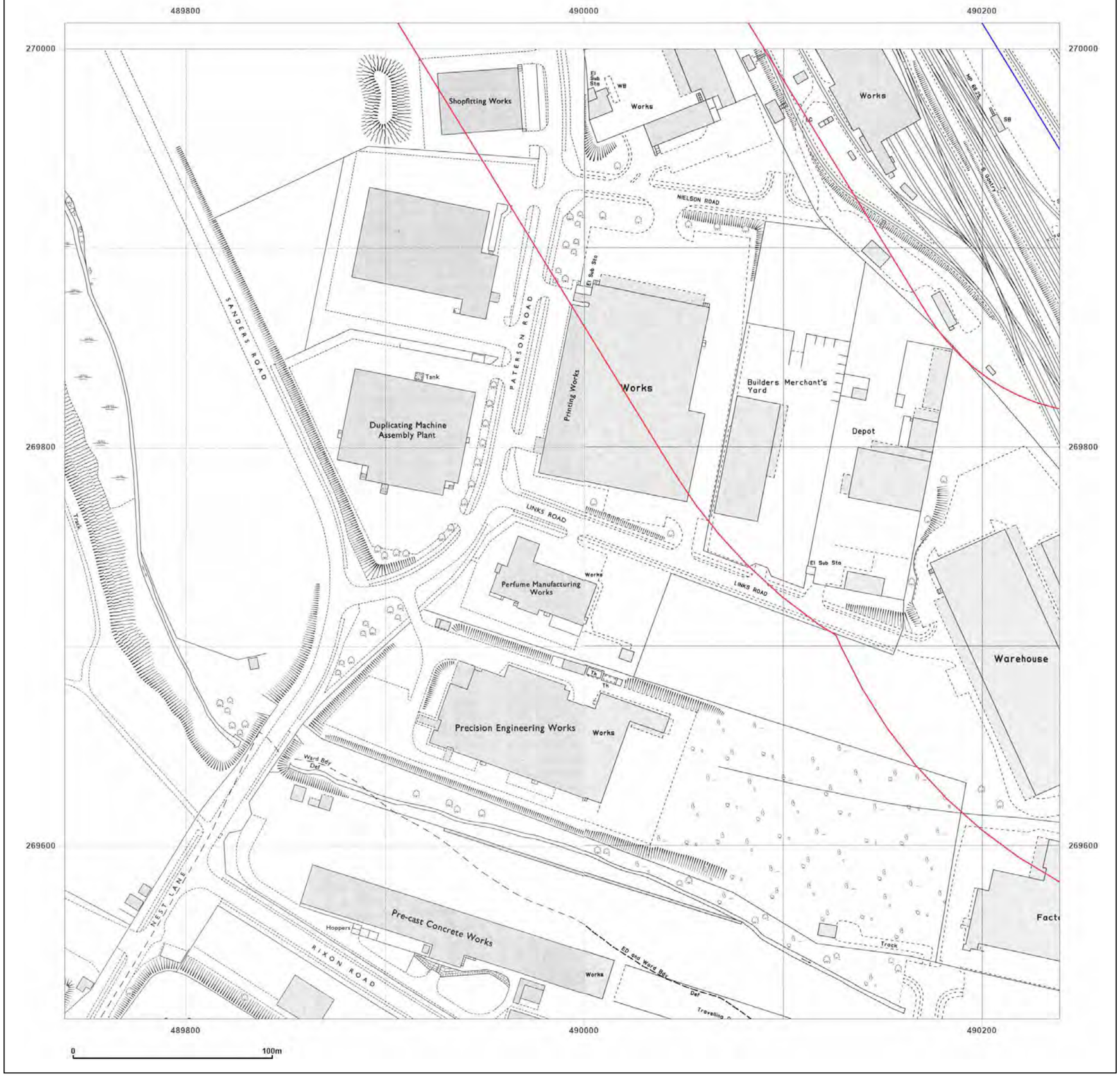
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_1
Grid Ref: 489989, 269763

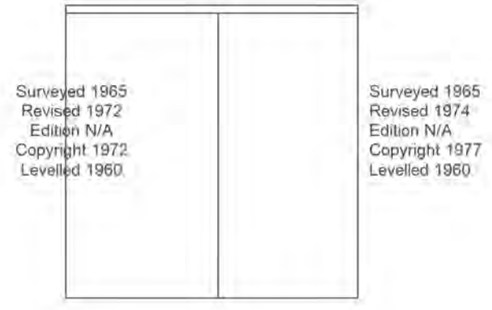
Map Name: National Grid

Map date: **1972-1977**

Scale: 1:1,250

Printed at: 1:2,000

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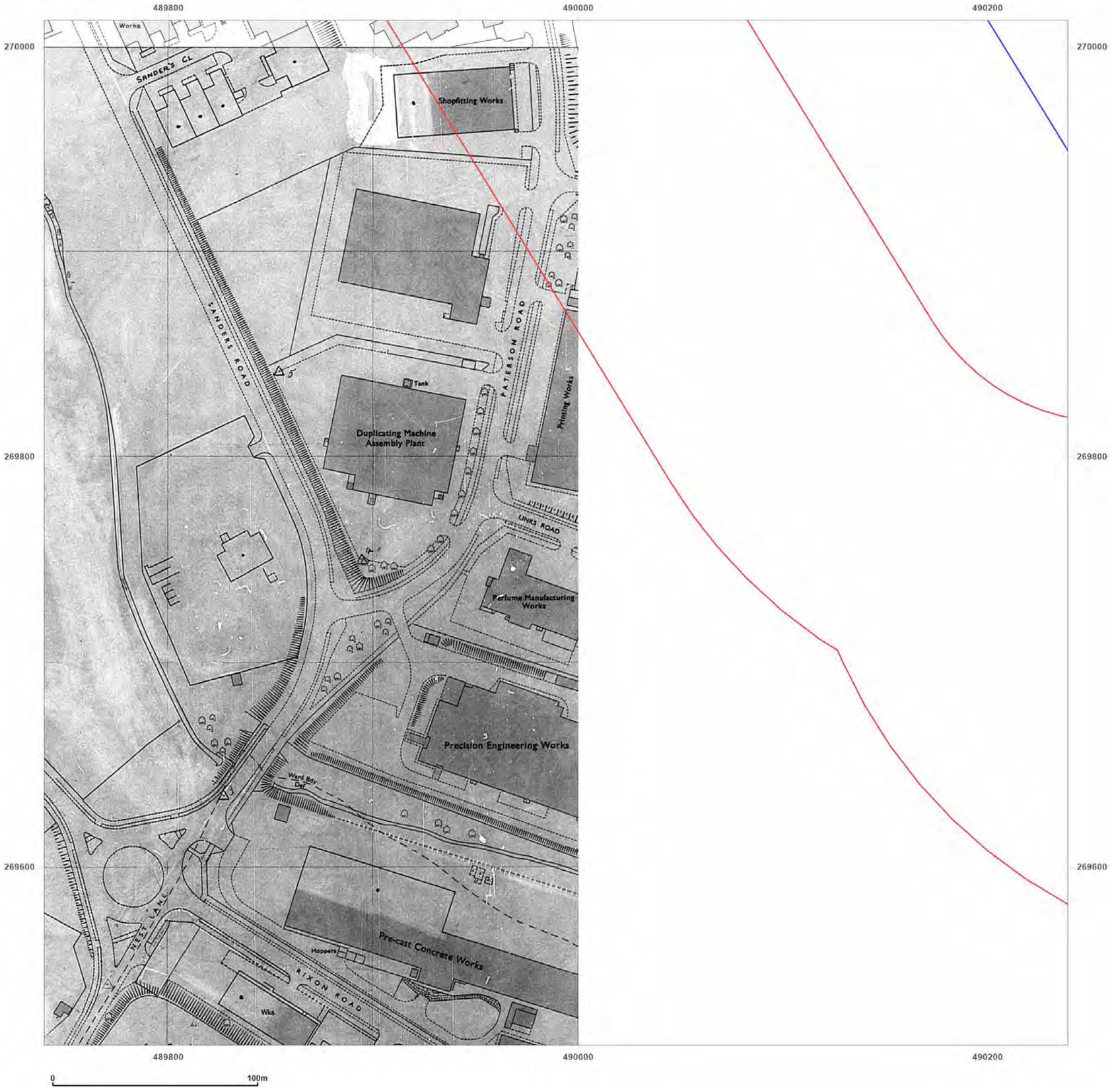
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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_1
Grid Ref: 489989, 269763

Map Name: National Grid

Map date: **1978-1980**

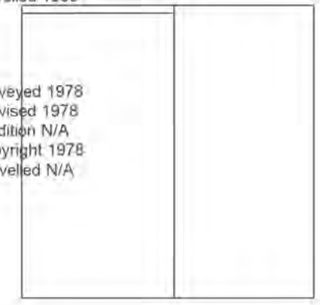
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Printed at: 1:2,000

N
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Surveyed 1979
Revised 1979
Edition N/A
Copyright 1980
Levelled 1960

Surveyed 1978
Revised 1978
Edition N/A
Copyright 1978
Levelled N/A



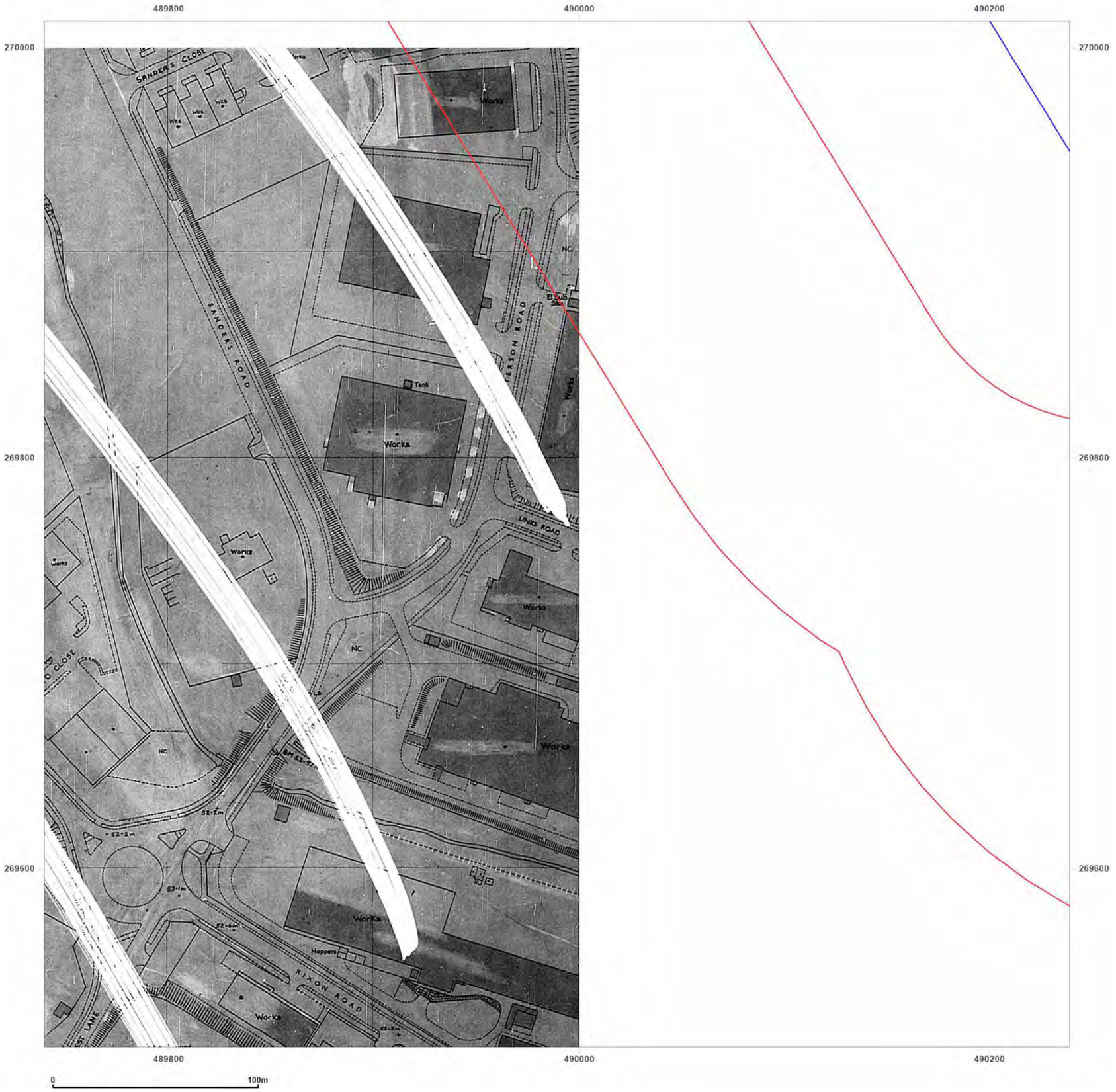
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_1
Grid Ref: 489989, 269763

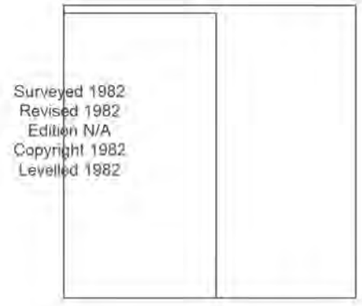
Map Name: National Grid

Map date: **1982**

Scale: 1:1,250

Printed at: 1:2,000

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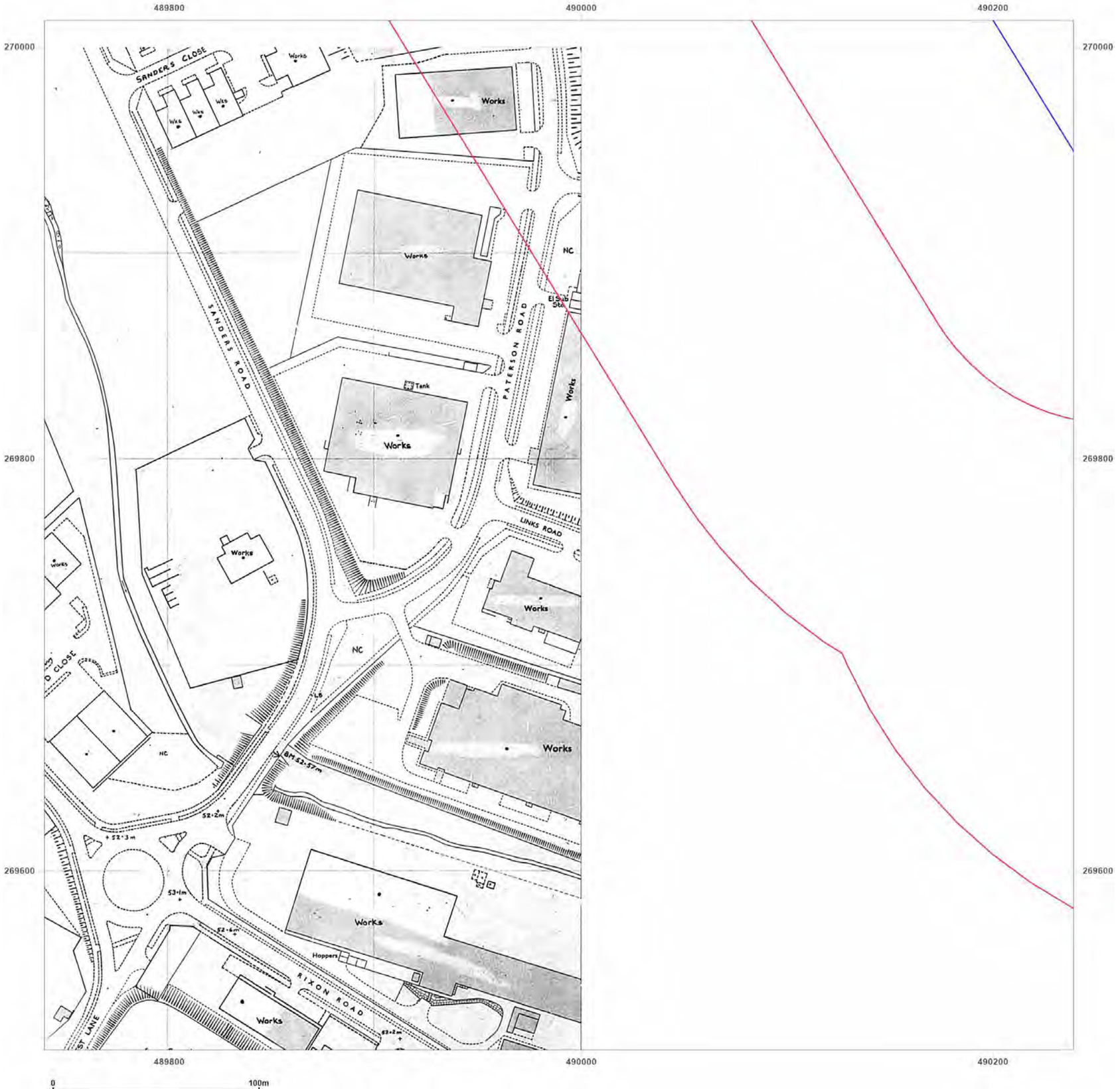
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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_1
Grid Ref: 489989, 269763

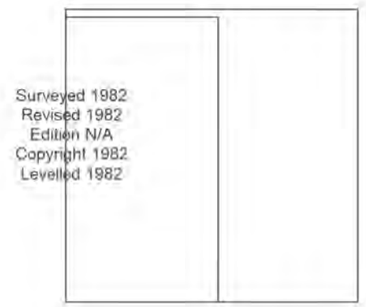
Map Name: National Grid

Map date: **1982**

Scale: 1:1,250

Printed at: 1:2,000

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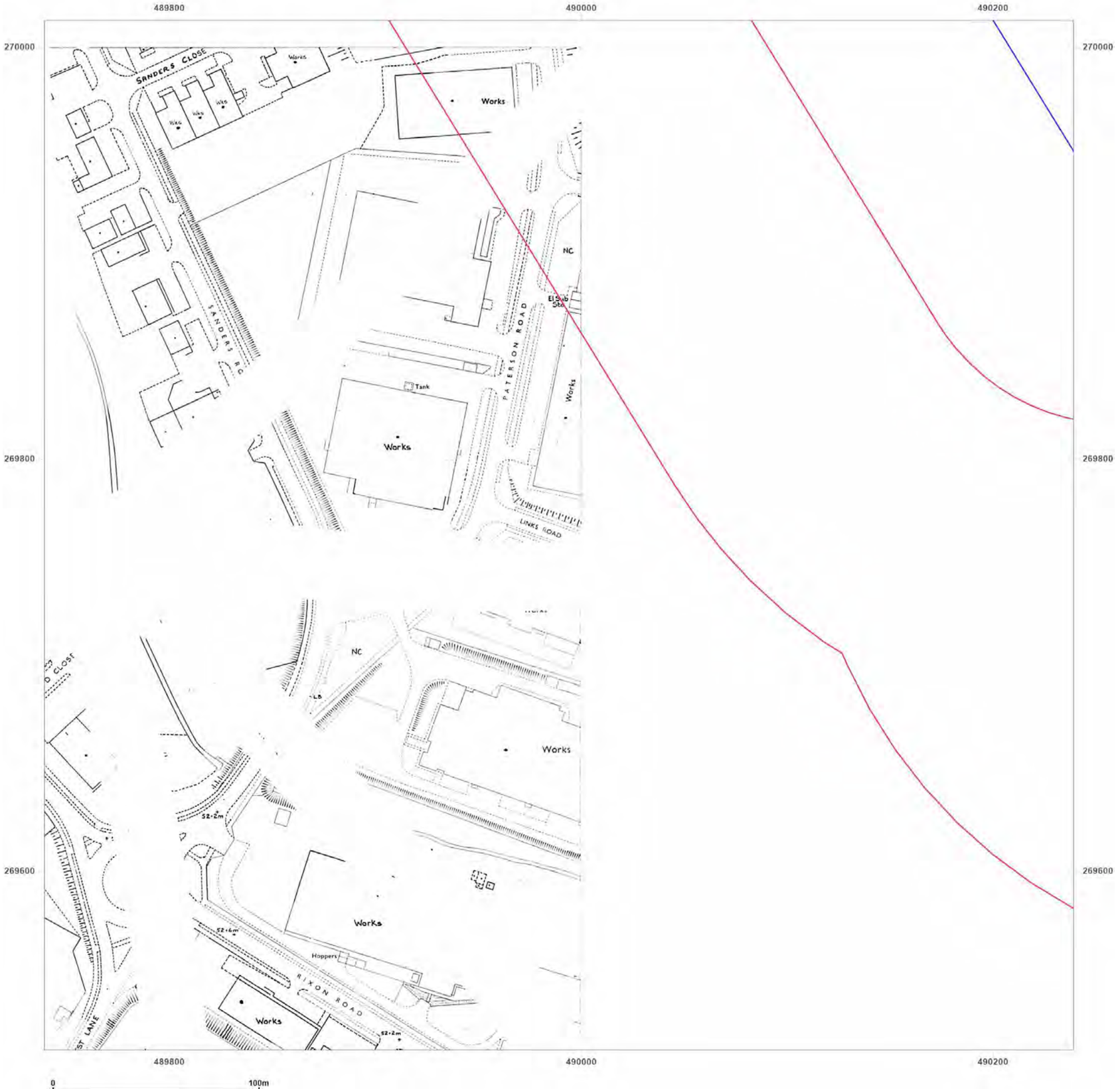
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Site Details:

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Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_1
Grid Ref: 489989, 269763

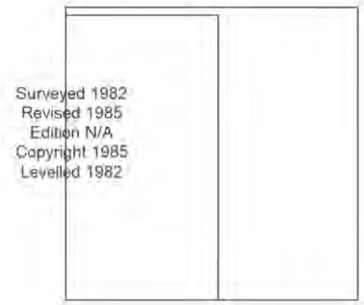
Map Name: National Grid

Map date: **1985**

Scale: 1:1,250

Printed at: 1:2,000

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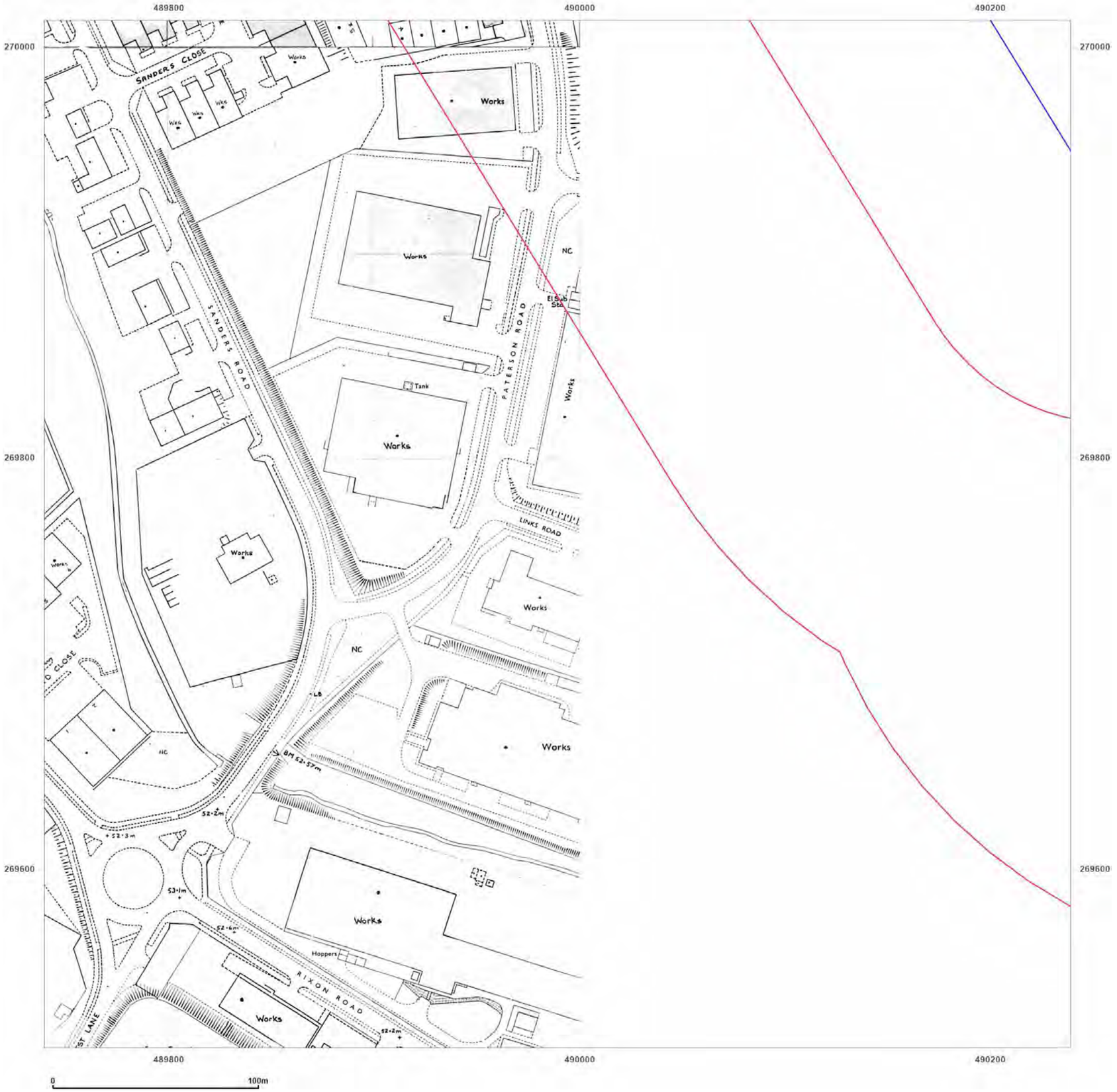
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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_1
Grid Ref: 489989, 269763

Map Name: National Grid

Map date: **1985-1990**

Scale: 1:1,250

Printed at: 1:2,000

N
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Surveyed 1982
Revised 1990
Edition N/A
Copyright 1990
Levelled 1982

Surveyed 1982
Revised 1985
Edition N/A
Copyright 1985
Levelled 1982

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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_1
Grid Ref: 489989, 269763

Map Name: National Grid
Map date: **1990-1993**
Scale: 1:1,250
Printed at: 1:2,000

N
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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed 1982
Revised 1990
Edition N/A
Copyright 1990
Levelled 1982

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

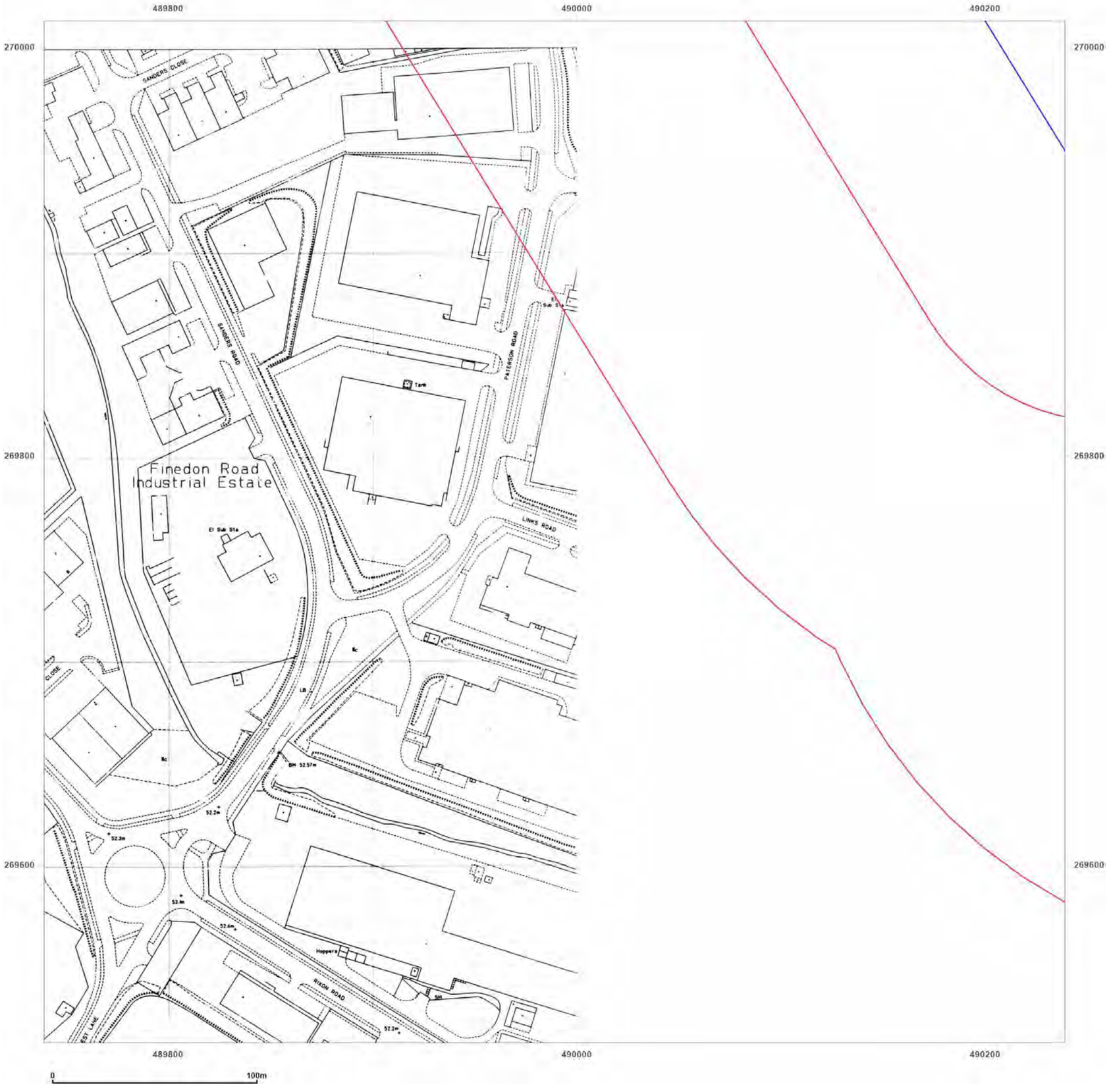
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_1
Grid Ref: 489989, 269763

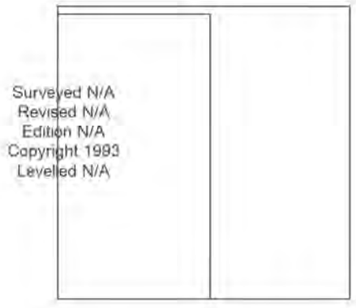
Map Name: National Grid

Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

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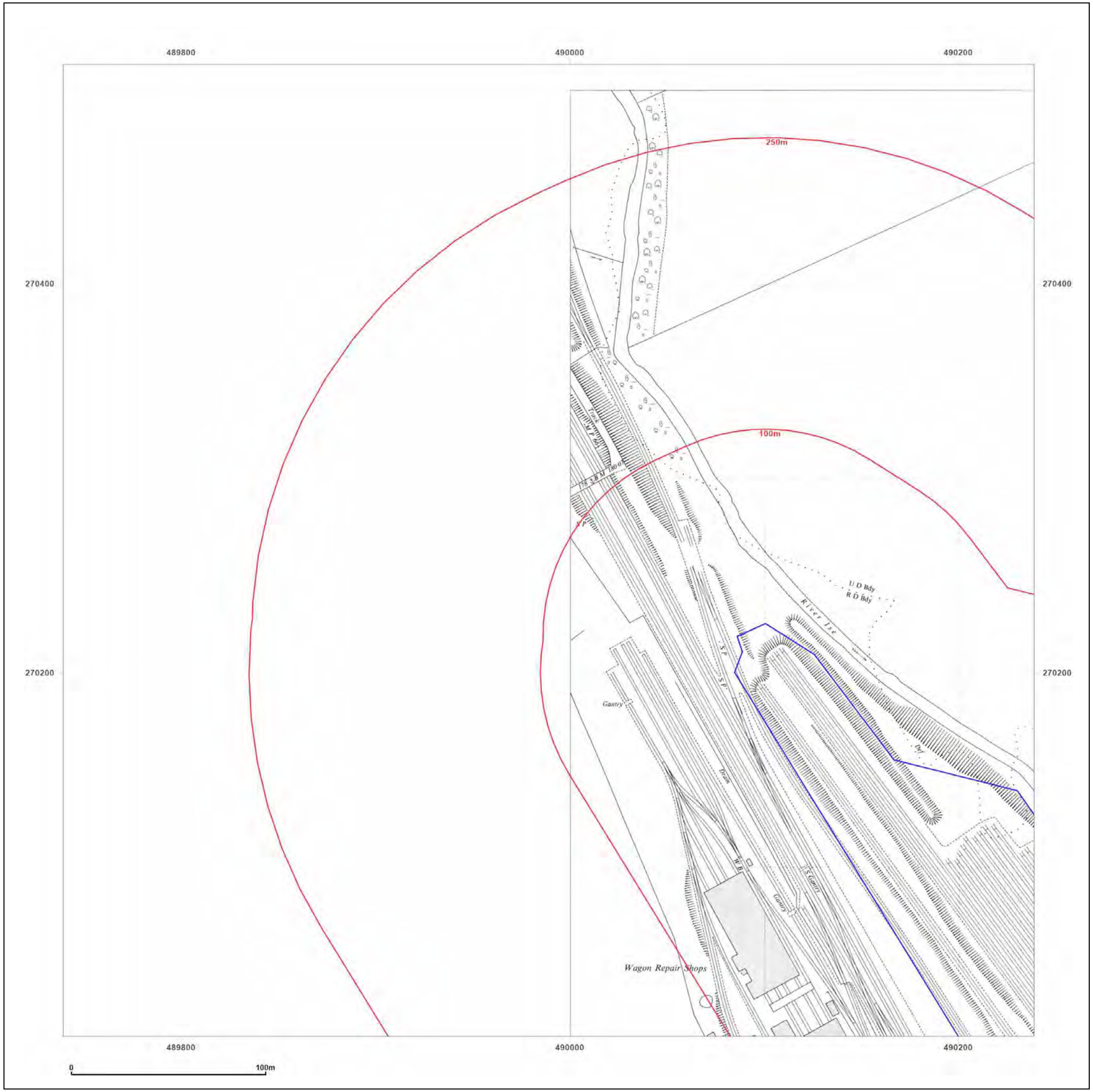
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_2
Grid Ref: 489989, 270263

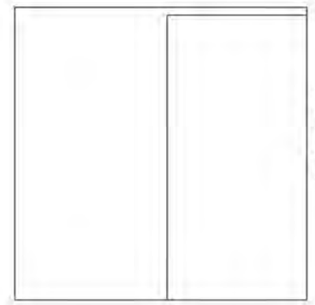
Map Name: National Grid

Map date: **1965**

Scale: 1:1,250

Printed at: 1:2,000

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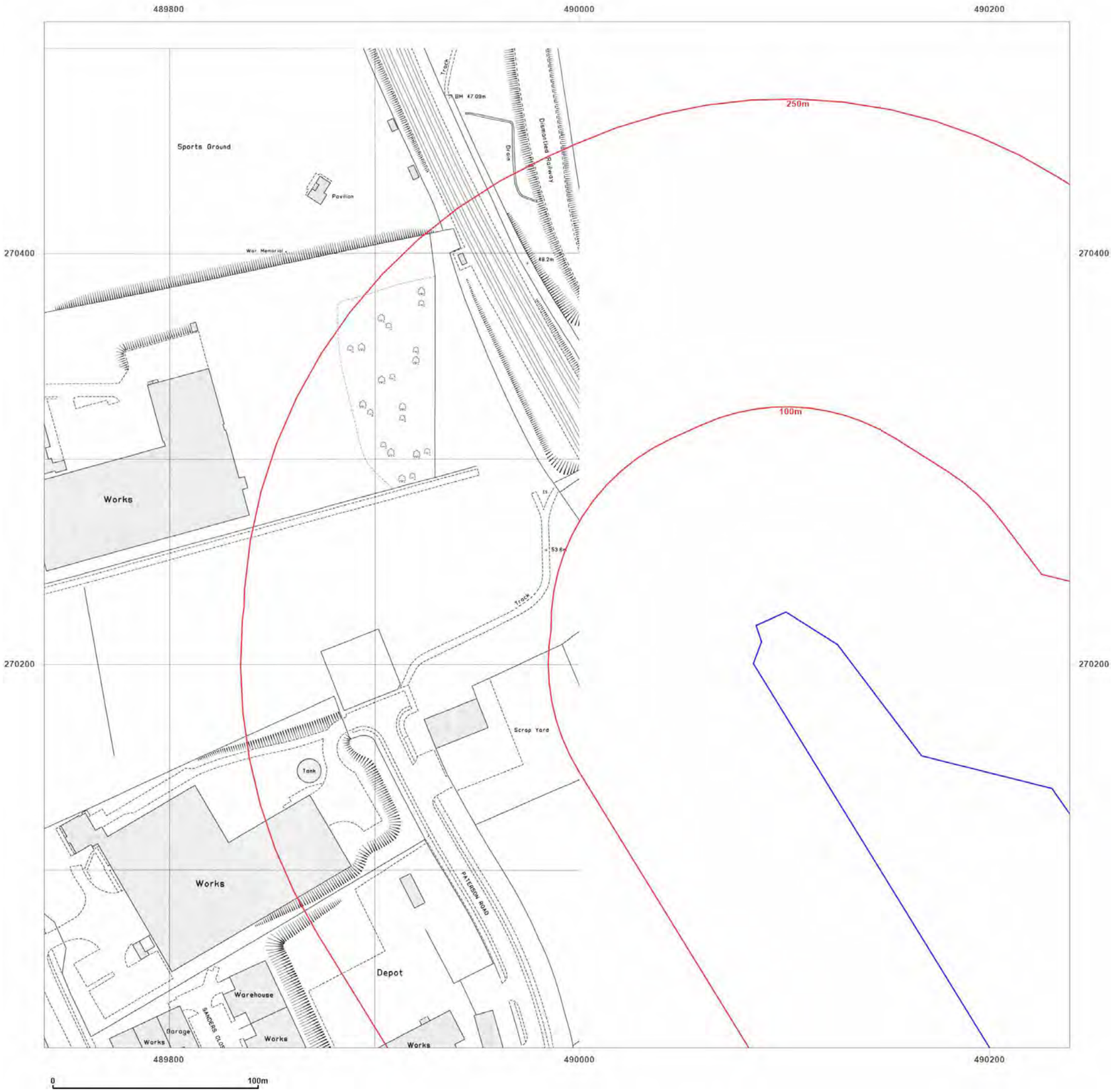
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_2
Grid Ref: 489989, 270263

Map Name: National Grid
Map date: **1980**
Scale: 1:1,250
Printed at: 1:2,000

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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_2
Grid Ref: 489989, 270263

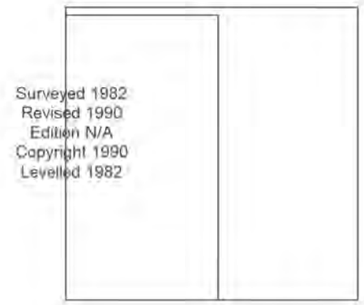
Map Name: National Grid

Map date: **1990**

Scale: 1:1,250

Printed at: 1:2,000

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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_1_2
Grid Ref: 489989, 270263

Map Name: National Grid

Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
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Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

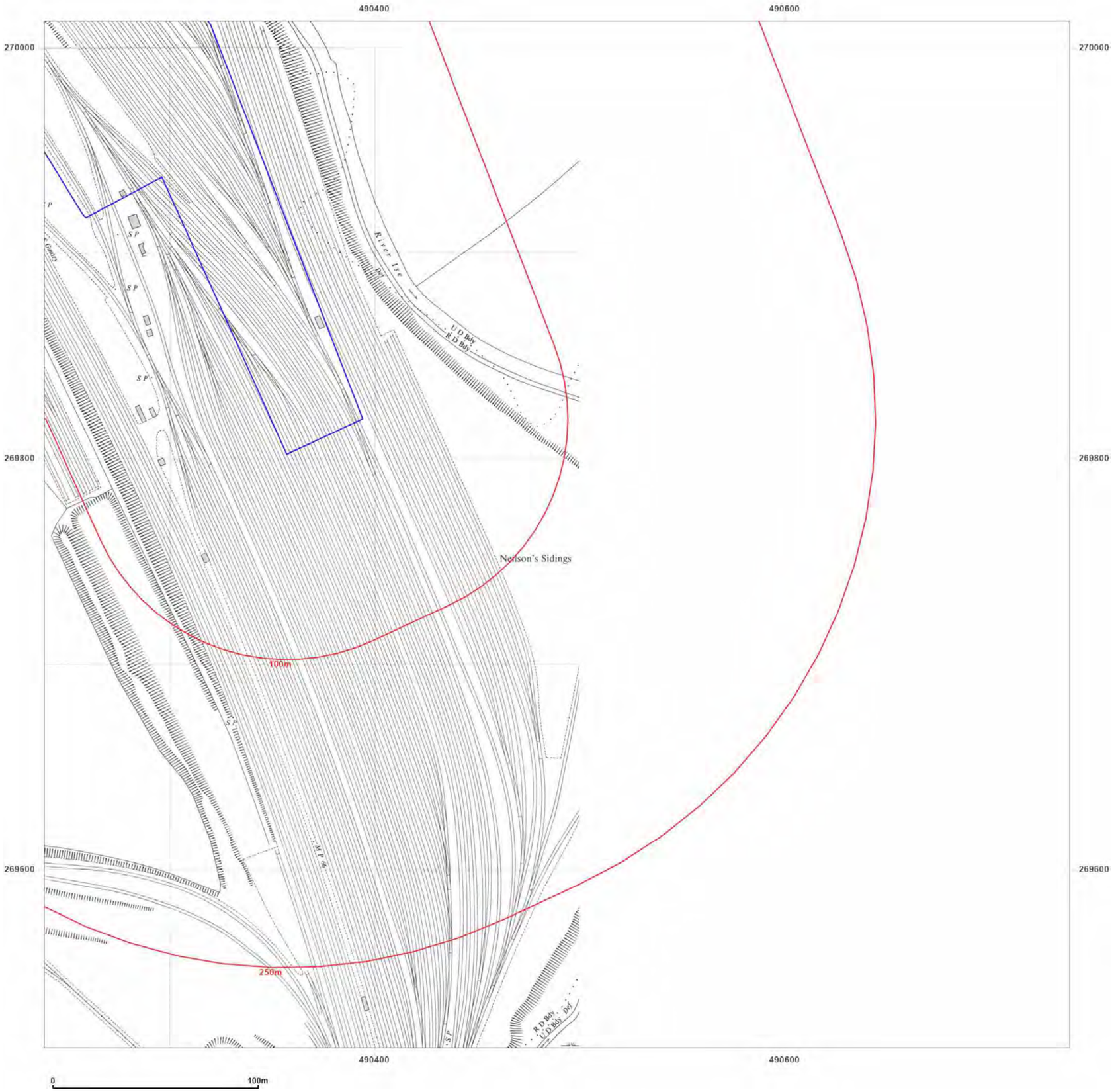
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_2_1
Grid Ref: 490489, 269763

Map Name: National Grid
Map date: **1965-1966**
Scale: 1:1,250
Printed at: 1:2,000

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Surveyed 1965
Revised 1965
Edition N/A
Copyright 1965
Levelled 1960

Surveyed 1965
Revised 1965
Edition N/A
Copyright 1966
Levelled 1960

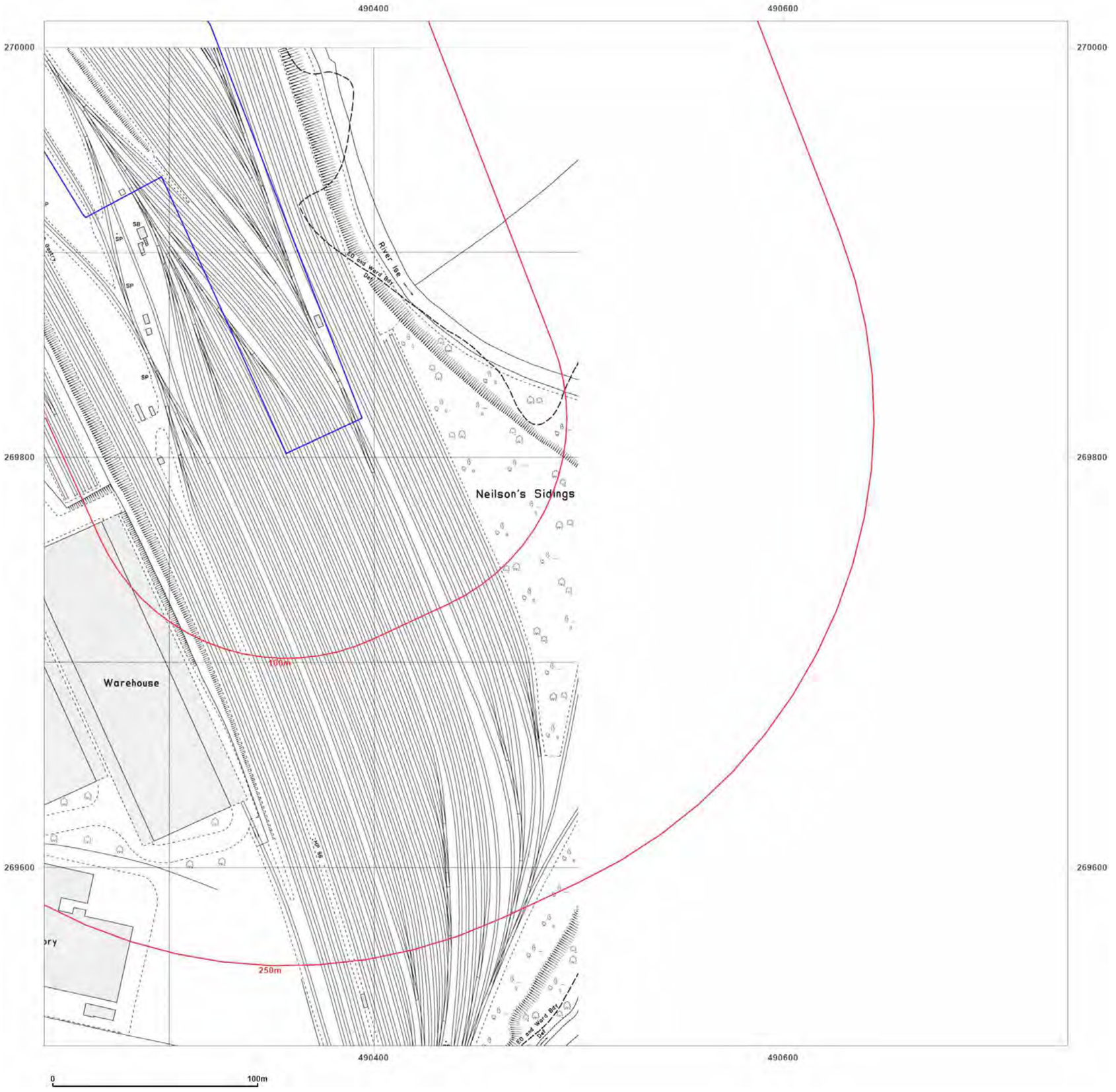
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_2_1
Grid Ref: 490489, 269763

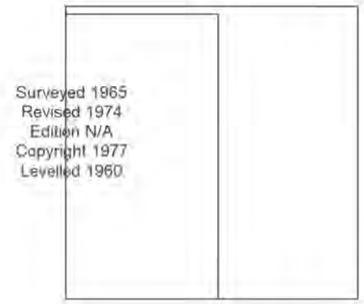
Map Name: National Grid

Map date: **1977**

Scale: 1:1,250

Printed at: 1:2,000

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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_2_1
Grid Ref: 490489, 269763

Map Name: National Grid

Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
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Site Details:

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Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_2_1
Grid Ref: 490489, 269763

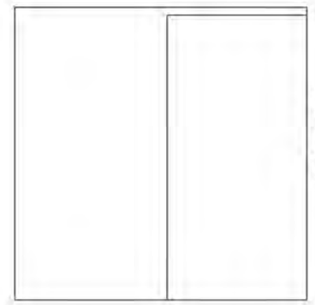
Map Name: National Grid

Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed N/A
Revised N/A
Edition N/A
Copyright 1993
Levelled N/A

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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_2_1
Grid Ref: 490489, 269763

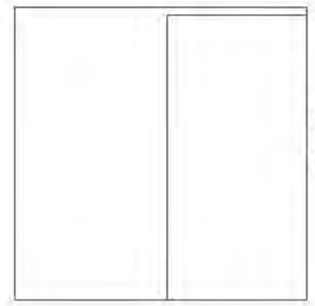
Map Name: National Grid

Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

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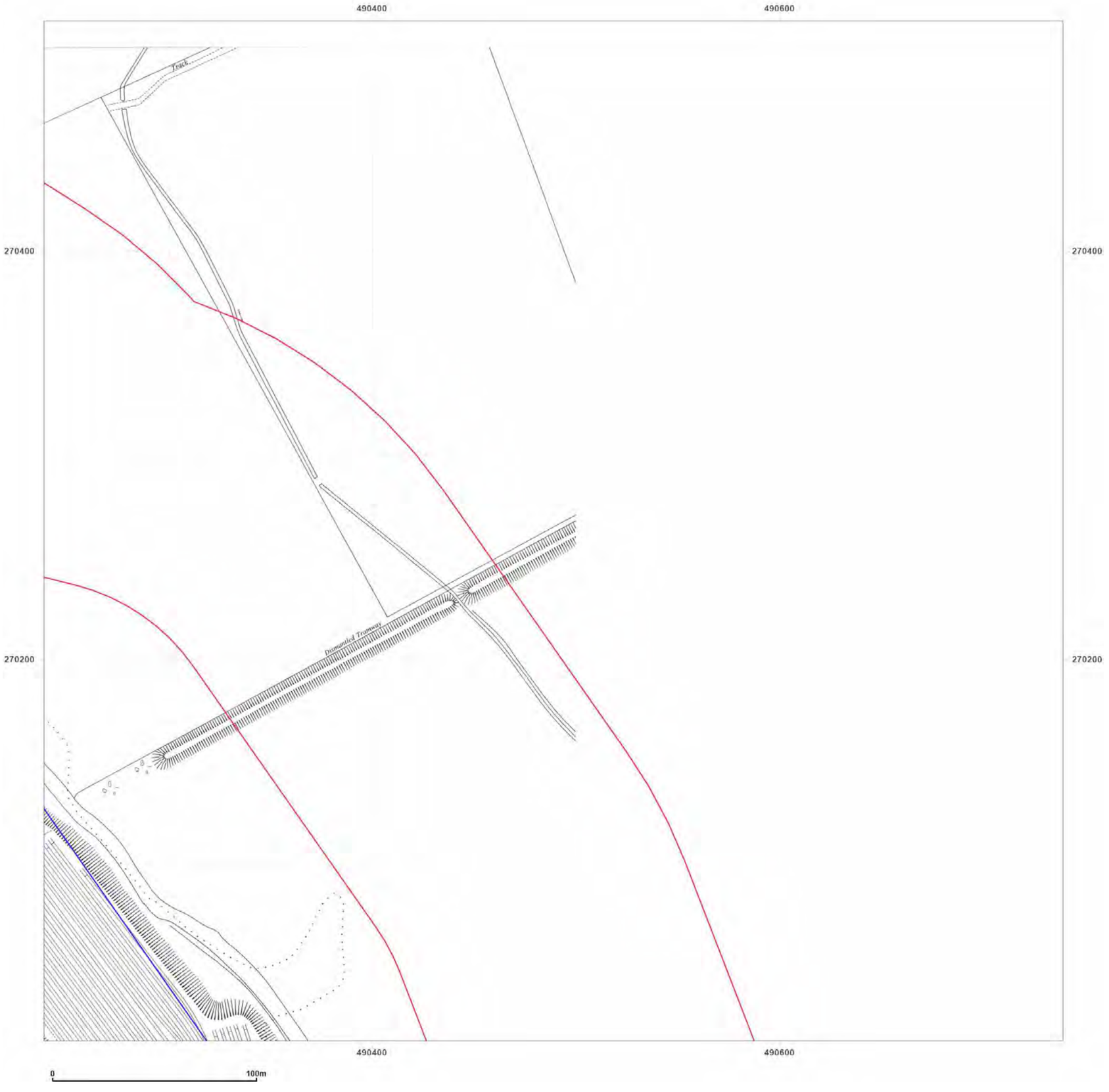
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_2_2
Grid Ref: 490489, 270263

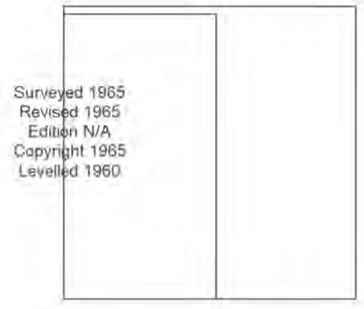
Map Name: National Grid

Map date: **1965**

Scale: 1:1,250

Printed at: 1:2,000

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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_1250_2_2
Grid Ref: 490489, 270263

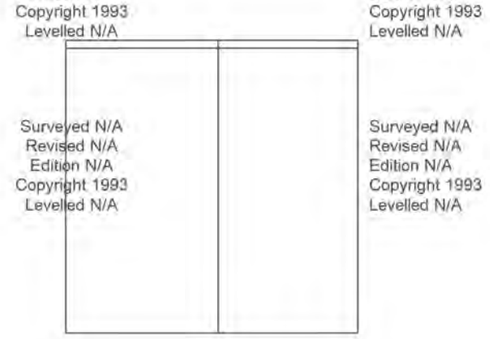
Map Name: National Grid

Map date: **1993**

Scale: 1:1,250

Printed at: 1:2,000

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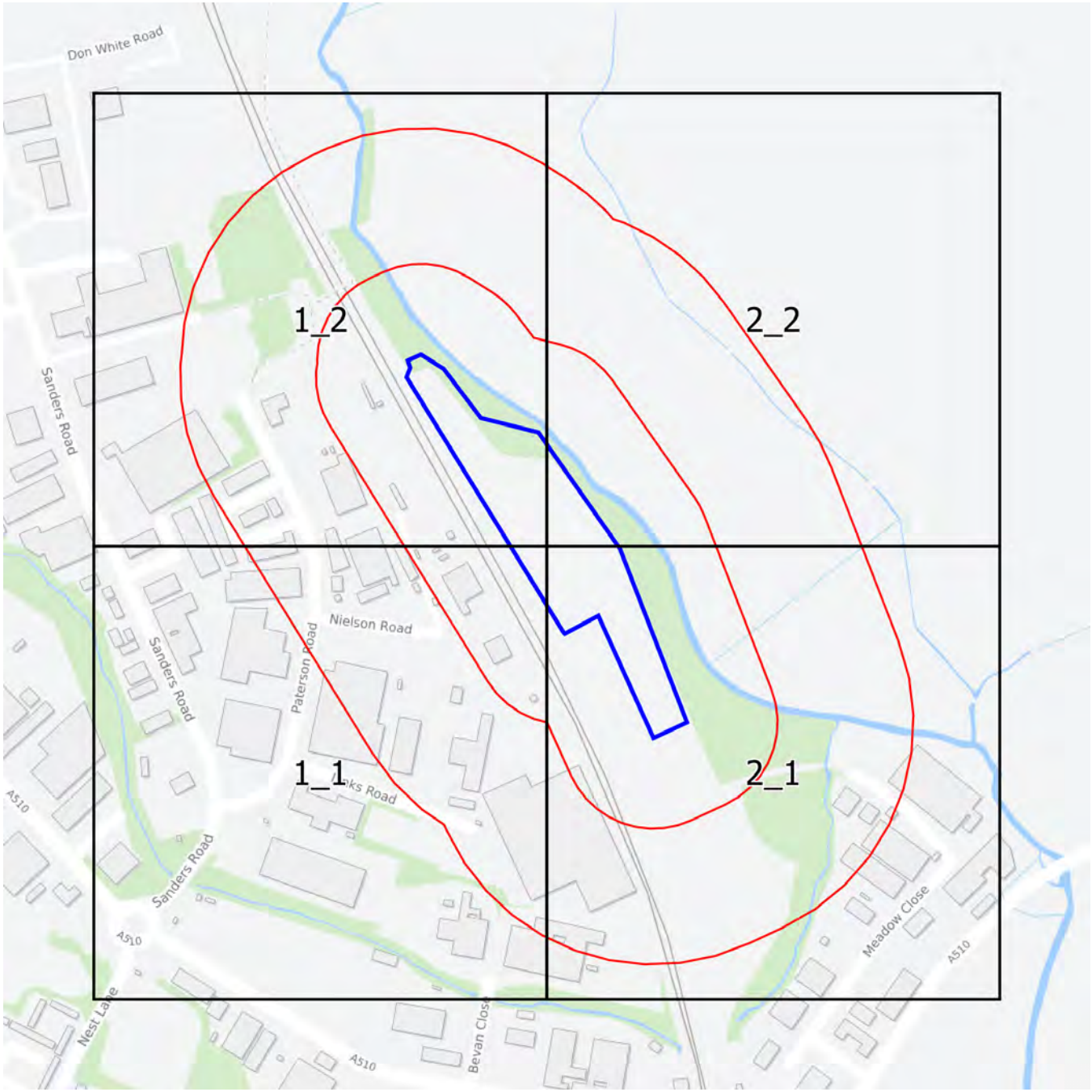
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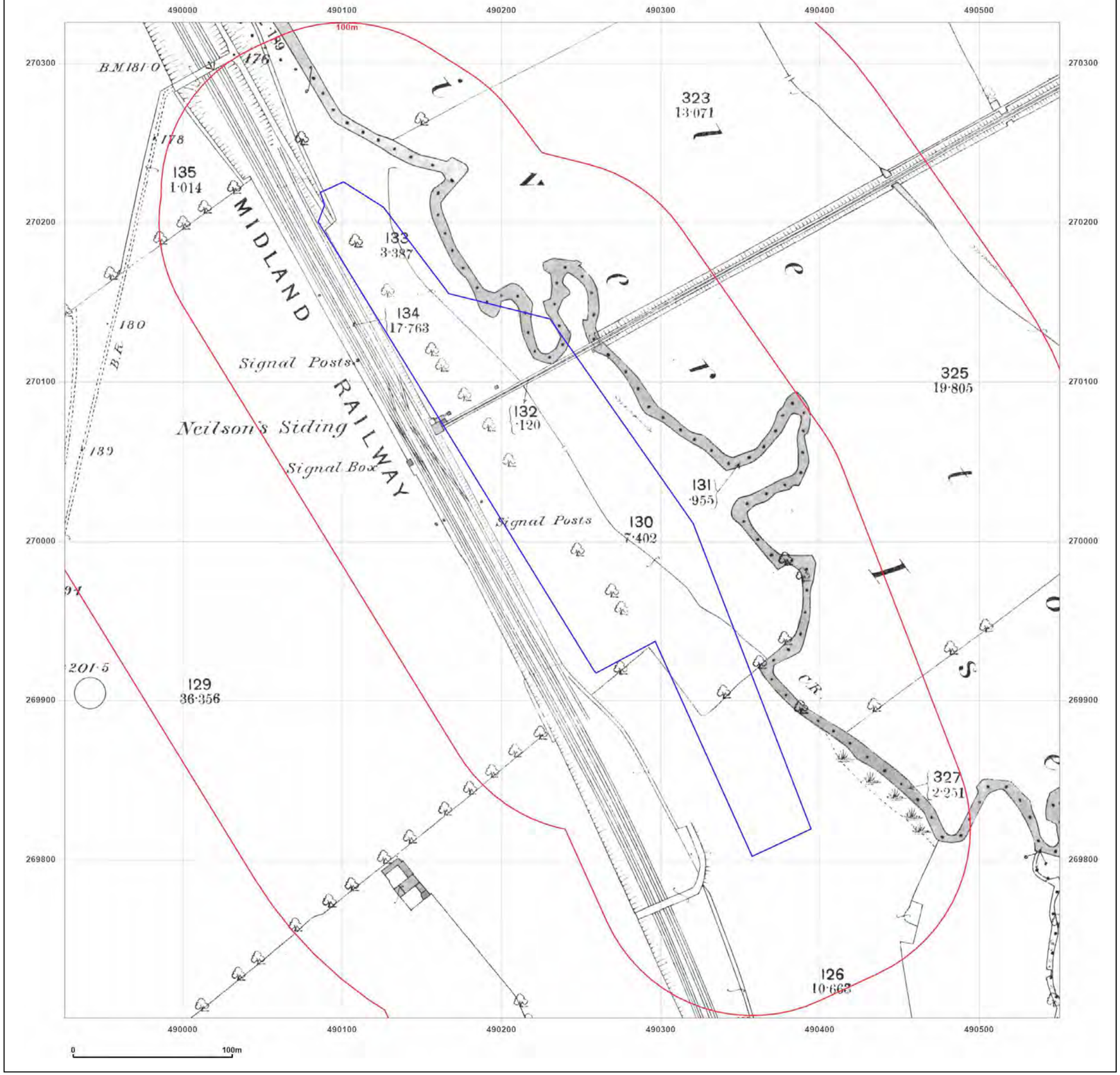
Map legend available at:
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Groundsure INSIGHTS

1:1,250 Scale Grid Index

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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_LS_1_1
Grid Ref: 490238, 270013

Map Name: County Series
Map date: **1887**
Scale: 1:2,500
Printed at: 1:2,500

N
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Surveyed 1887
Revised 1887
Edition N/A
Copyright N/A
Levelled N/A

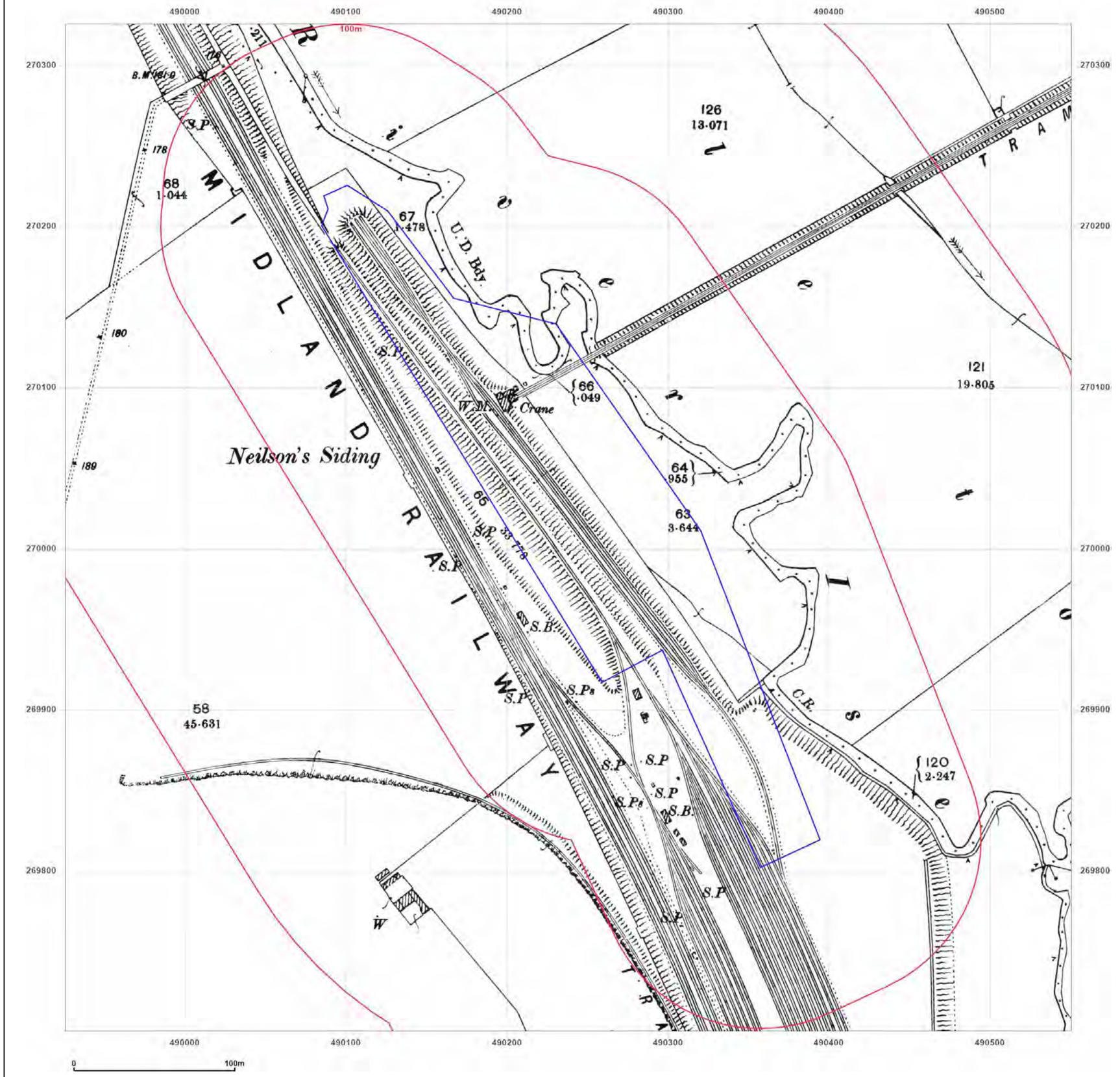
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_LS_1_1
Grid Ref: 490238, 270013

Map Name: County Series

Map date: **1899**

Scale: 1:2,500

Printed at: 1:2,500

N
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Surveyed 1899
Revised 1899
Edition N/A
Copyright N/A
Levelled N/A

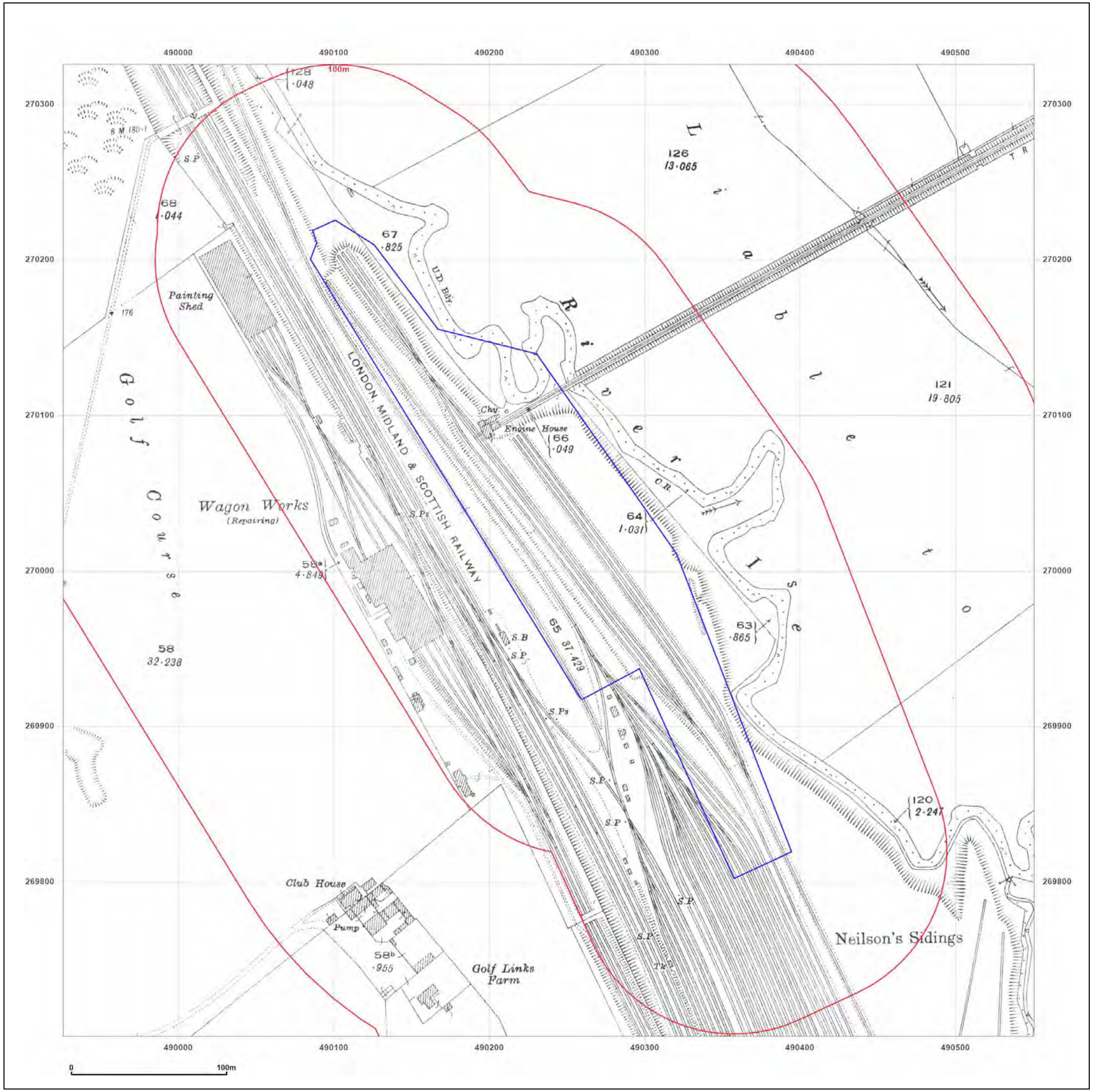
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_LS_1_1
Grid Ref: 490238, 270013

Map Name: County Series
Map date: **1925**
Scale: 1:2,500
Printed at: 1:2,500

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Surveyed 1925
Revised 1925
Edition N/A
Copyright N/A
Levelled N/A

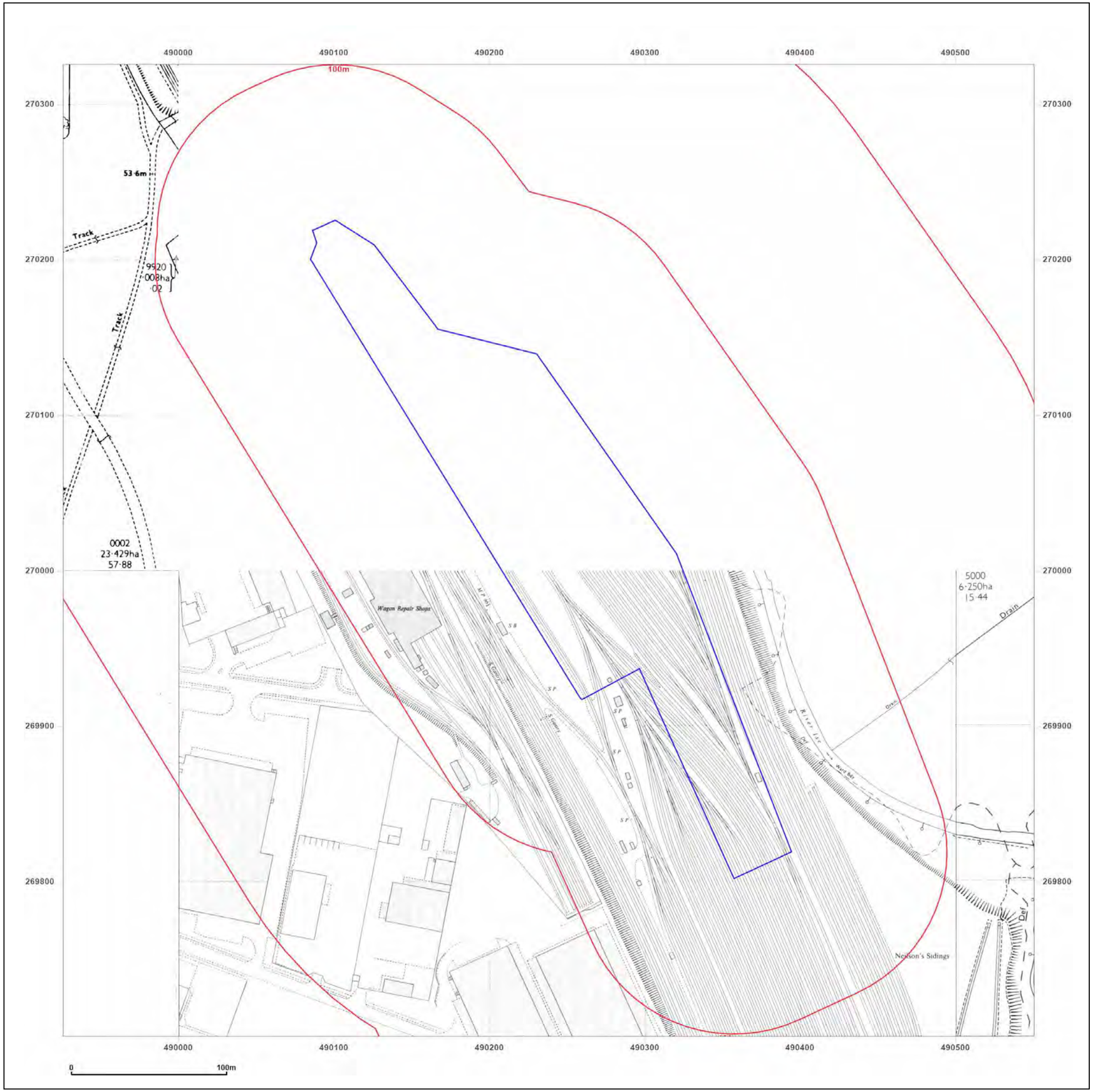
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Groundsure INSIGHTS

Site Details:

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Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_LS_1_1
Grid Ref: 490238, 270013

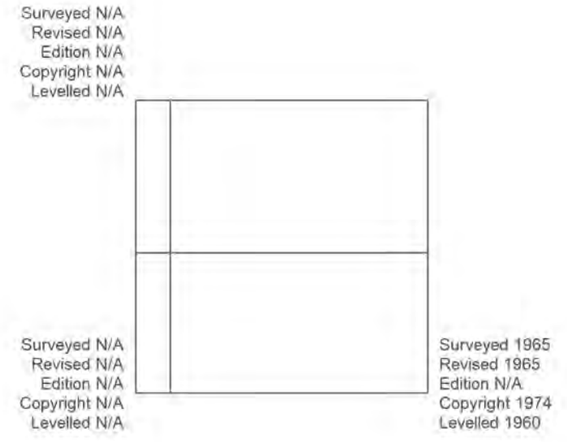
Map Name: National Grid

Map date: **1970-1975**

Scale: 1:2,500

Printed at: 1:2,500

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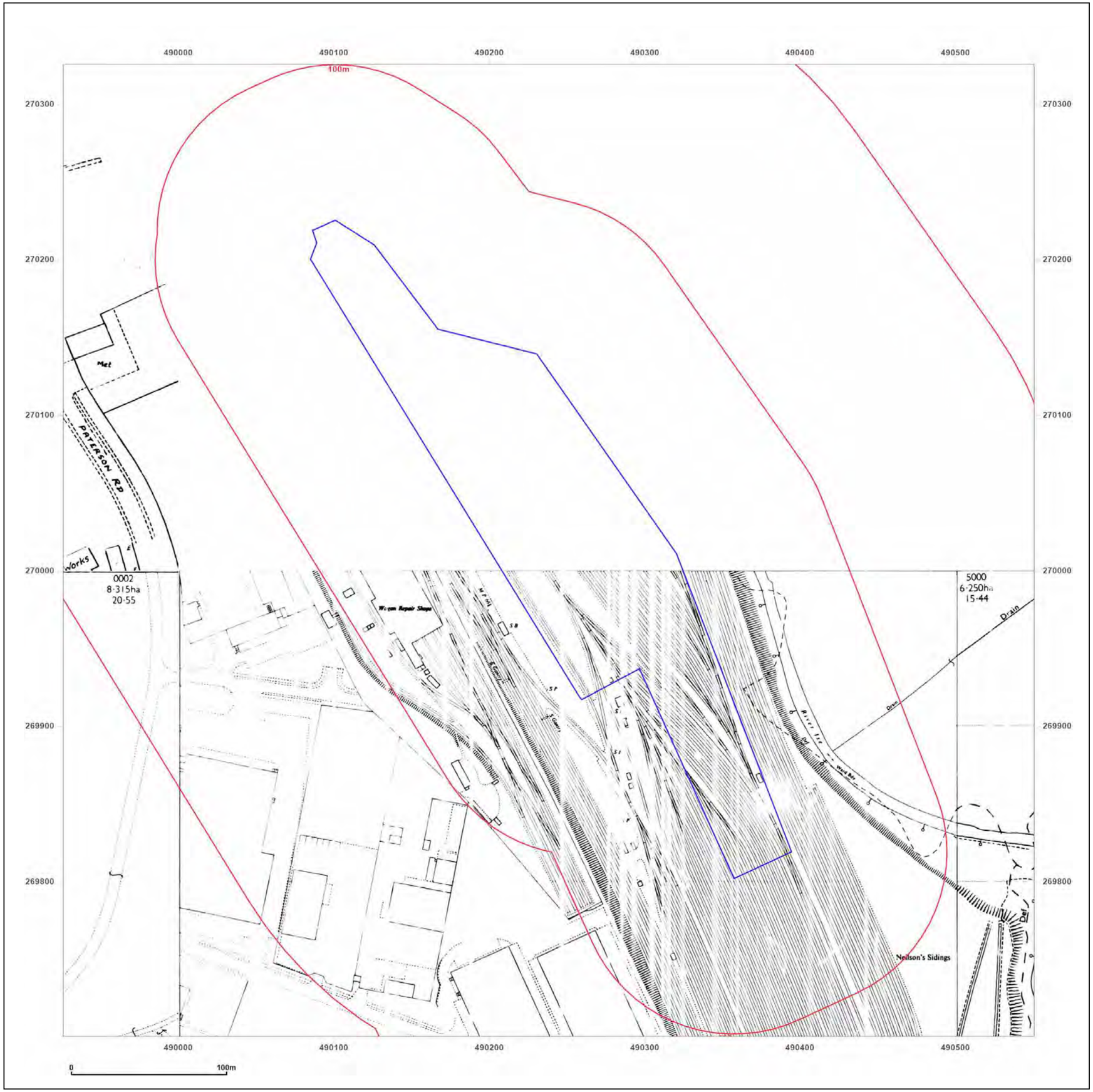
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_LS_1_1
Grid Ref: 490238, 270013

Map Name: National Grid

Map date: **1970-1975**

Scale: 1:2,500

Printed at: 1:2,500

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Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

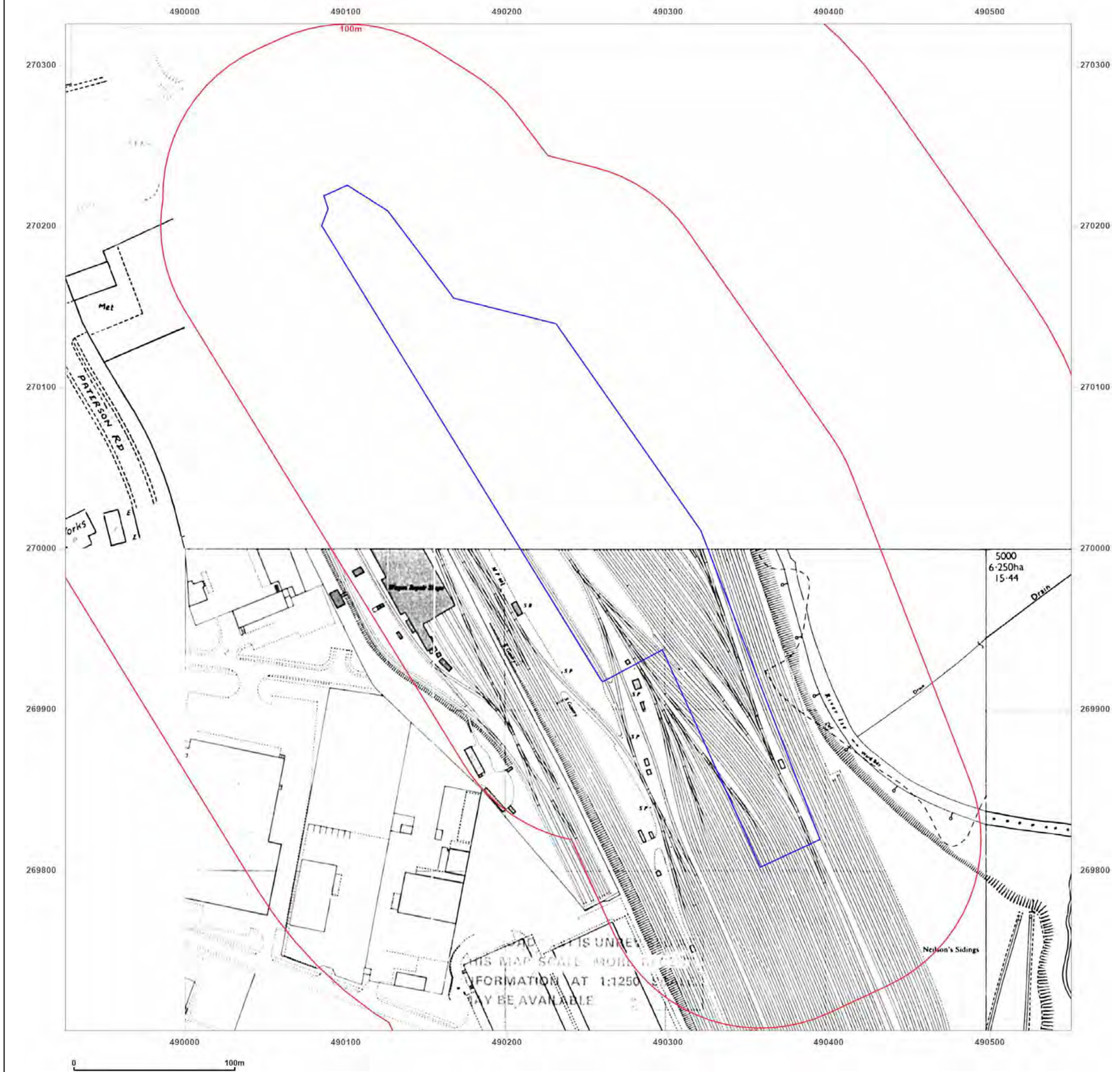
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Groundsure INSIGHTS

Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_LS_1_1
Grid Ref: 490238, 270013

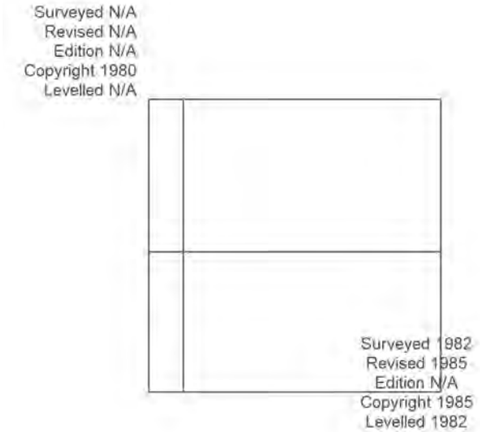
Map Name: National Grid

Map date: **1980-1985**

Scale: 1:2,500

Printed at: 1:2,500

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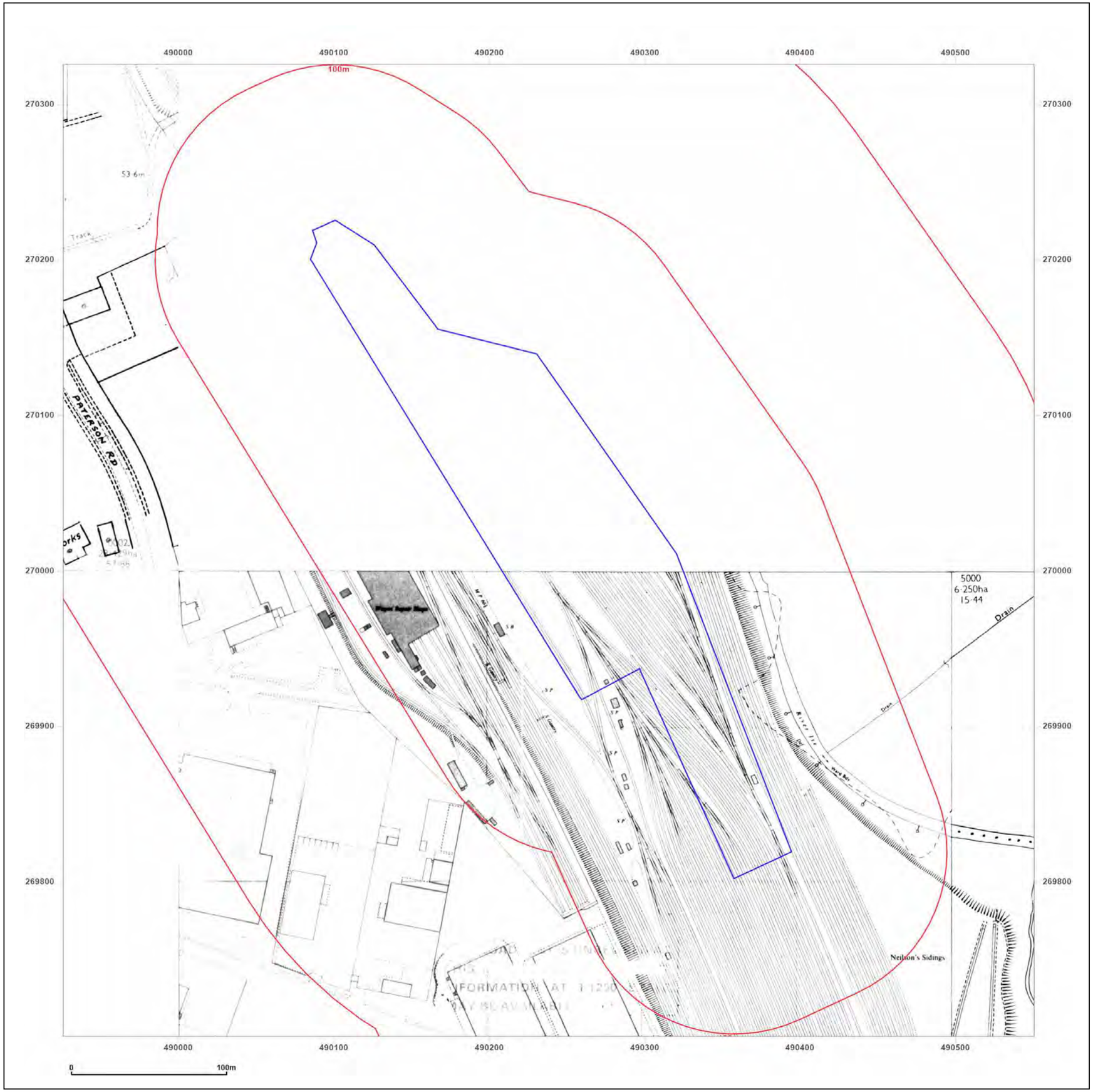
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Site Details:

490254 , 270040

Client Ref: AG3488-23
Report Ref: GS-XLV-TLY-HWI-19H_LS_1_1
Grid Ref: 490238, 270013

Map Name: National Grid

Map date: **1990**

Scale: 1:2,500

Printed at: 1:2,500

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Groundsure
LOCATION INTELLIGENCE

Enviro+Geo Insight

490254 , 270040,

Order Details

Date: 27/06/2023

Your ref: AG3488-23

Our Ref: GS-46E-DT8-C52-15I

Site Details

Location: 490239 270023

Area: 3.37 ha

Authority: North Northamptonshire Council (Wellingborough Area) ↗



Summary of findings p. 2 >

Aerial image p. 9 >

OS MasterMap site plan p.14 >

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Contact us with any questions at:
info@groundsure.com ↗
01273 257 755

Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
15 >	1.1 >	Historical industrial land uses >	10	5	30	68	-
20 >	1.2 >	Historical tanks >	0	0	1	17	-
21 >	1.3 >	Historical energy features >	0	0	6	7	-
21	1.4	Historical petrol stations	0	0	0	0	-
22 >	1.5 >	Historical garages >	0	2	1	1	-
22	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
23 >	2.1 >	Historical industrial land uses >	12	7	42	99	-
29 >	2.2 >	Historical tanks >	0	0	4	31	-
31 >	2.3 >	Historical energy features >	0	0	10	8	-
32	2.4	Historical petrol stations	0	0	0	0	-
32 >	2.5 >	Historical garages >	0	5	2	1	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
33	3.1	Active or recent landfill	0	0	0	0	-
33	3.2	Historical landfill (BGS records)	0	0	0	0	-
34	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
34	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
34 >	3.5 >	Historical waste sites >	0	0	5	6	-
36 >	3.6 >	Licensed waste sites >	2	1	20	14	-
48 >	3.7 >	Waste exemptions >	0	0	13	23	-
Page	Section	Current industrial land use >	On site	0-50m	50-250m	250-500m	500-2000m
52 >	4.1 >	Recent industrial land uses >	0	0	23	-	-
54	4.2	Current or recent petrol stations	0	0	0	0	-
54	4.3	Electricity cables	0	0	0	0	-
54	4.4	Gas pipelines	0	0	0	0	-
55	4.5	Sites determined as Contaminated Land	0	0	0	0	-

55 >	4.6 >	Control of Major Accident Hazards (COMAH) >	0	1	0	0	-
55	4.7	Regulated explosive sites	0	0	0	0	-
55 >	4.8 >	Hazardous substance storage/usage >	0	0	1	0	-
56 >	4.9 >	Historical licensed industrial activities (IPC) >	0	0	17	4	-
59 >	4.10 >	Licensed industrial activities (Part A(1)) >	0	0	45	7	-
68 >	4.11 >	Licensed pollutant release (Part A(2)/B) >	0	0	3	8	-
70	4.12	Radioactive Substance Authorisations	0	0	0	0	-
70 >	4.13 >	Licensed Discharges to controlled waters >	0	0	3	12	-
72	4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
72 >	4.15 >	Pollutant release to public sewer >	0	0	1	0	-
73 >	4.16 >	List 1 Dangerous Substances >	0	0	2	0	-
73 >	4.17 >	List 2 Dangerous Substances >	0	0	0	6	-
74 >	4.18 >	Pollution Incidents (EA/NRW) >	0	1	5	9	-
75 >	4.19 >	Pollution inventory substances >	0	0	0	1	-
76 >	4.20 >	Pollution inventory waste transfers >	0	0	0	1	-
77	4.21	Pollution inventory radioactive waste	0	0	0	0	-

Page	Section	Hydrogeology >	On site	0-50m	50-250m	250-500m	500-2000m
78 >	5.1 >	Superficial aquifer >	Identified (within 500m)				
80 >	5.2 >	Bedrock aquifer >	Identified (within 500m)				
82 >	5.3 >	Groundwater vulnerability >	Identified (within 50m)				
83	5.4	Groundwater vulnerability- soluble rock risk	None (within 0m)				
84	5.5	Groundwater vulnerability- local information	None (within 0m)				
85	5.6	Groundwater abstractions	0	0	0	0	0
86 >	5.7 >	Surface water abstractions >	0	0	0	0	5
87	5.8	Potable abstractions	0	0	0	0	0
87	5.9	Source Protection Zones	0	0	0	0	-
87	5.10	Source Protection Zones (confined aquifer)	0	0	0	0	-

Page	Section	Hydrology >	On site	0-50m	50-250m	250-500m	500-2000m
88 >	6.1 >	Water Network (OS MasterMap) >	0	3	10	-	-

90 >	6.2 >	Surface water features >	0	2	3	-	-
90 >	6.3 >	WFD Surface water body catchments >	1	-	-	-	-
90 >	6.4 >	WFD Surface water bodies >	1	0	0	-	-
91 >	6.5 >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding >	On site	0-50m	50-250m	250-500m	500-2000m
92 >	7.1 >	Risk of flooding from rivers and the sea >	High (within 50m)				
93 >	7.2 >	Historical Flood Events >	1	2	0	-	-
93	7.3	Flood Defences	0	0	0	-	-
94	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
94	7.5	Flood Storage Areas	0	0	0	-	-
95 >	7.6 >	Flood Zone 2 >	Identified (within 50m)				
96 >	7.7 >	Flood Zone 3 >	Identified (within 50m)				
Page	Section	Surface water flooding >					
97 >	8.1 >	Surface water flooding >	1 in 30 year, 0.3m - 1.0m (within 50m)				
Page	Section	Groundwater flooding >					
99 >	9.1 >	Groundwater flooding >	Negligible (within 50m)				
Page	Section	Environmental designations >	On site	0-50m	50-250m	250-500m	500-2000m
100 >	10.1 >	Sites of Special Scientific Interest (SSSI) >	0	0	0	0	1
101	10.2	Conserved wetland sites (Ramsar sites)	0	0	0	0	0
101	10.3	Special Areas of Conservation (SAC)	0	0	0	0	0
101	10.4	Special Protection Areas (SPA)	0	0	0	0	0
101	10.5	National Nature Reserves (NNR)	0	0	0	0	0
102	10.6	Local Nature Reserves (LNR)	0	0	0	0	0
102	10.7	Designated Ancient Woodland	0	0	0	0	0
102	10.8	Biosphere Reserves	0	0	0	0	0
102	10.9	Forest Parks	0	0	0	0	0
103	10.10	Marine Conservation Zones	0	0	0	0	0
103	10.11	Green Belt	0	0	0	0	0
103	10.12	Proposed Ramsar sites	0	0	0	0	0

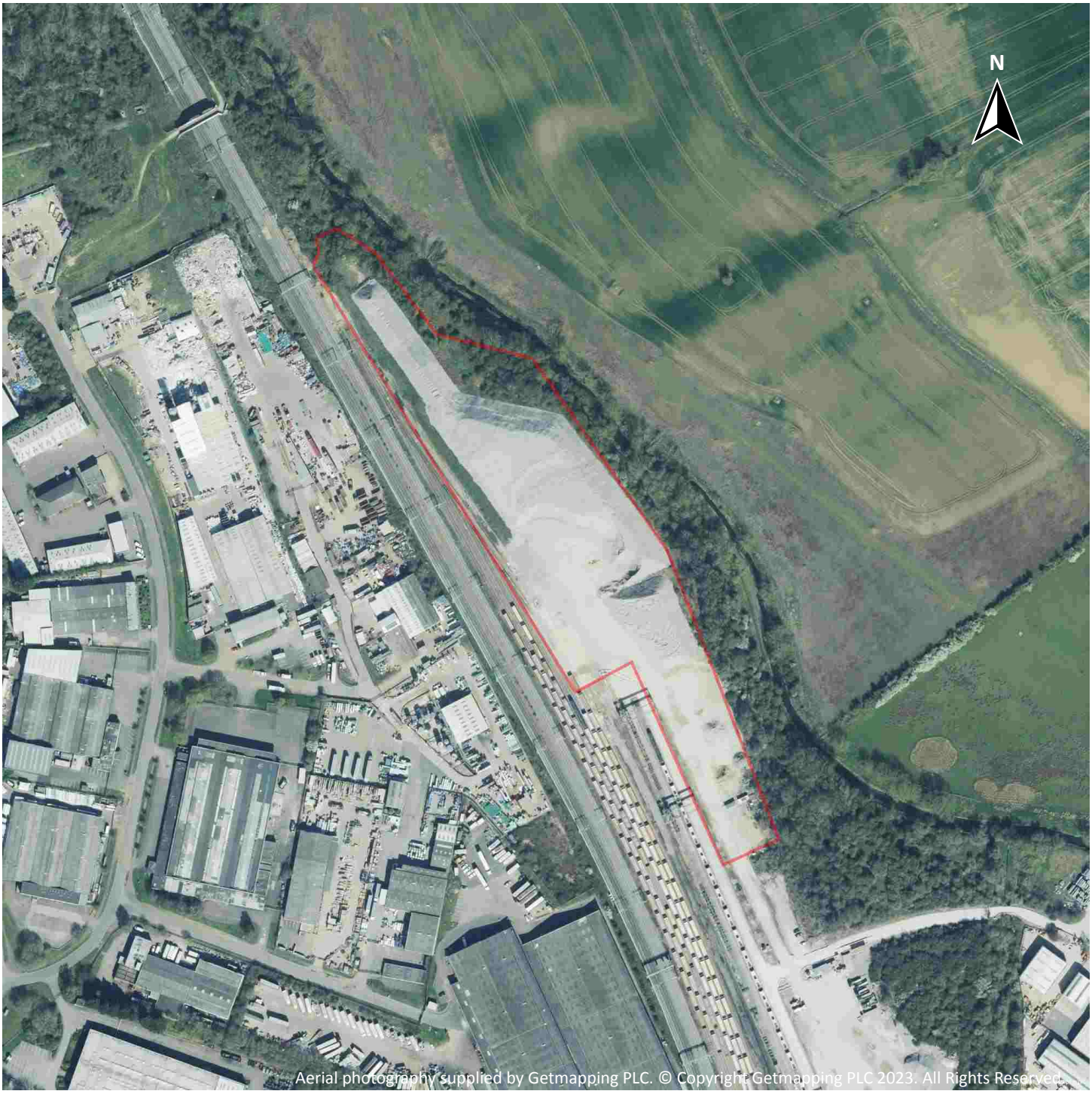
103	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
103	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
104	10.15	Nitrate Sensitive Areas	0	0	0	0	0
104 >	10.16 >	Nitrate Vulnerable Zones >	3	0	0	0	0
105 >	10.17 >	SSSI Impact Risk Zones >	1	-	-	-	-
106 >	10.18 >	SSSI Units >	0	0	0	0	1
Page	Section	Visual and cultural designations	On site	0-50m	50-250m	250-500m	500-2000m
107	11.1	World Heritage Sites	0	0	0	-	-
107	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
107	11.3	National Parks	0	0	0	-	-
107	11.4	Listed Buildings	0	0	0	-	-
108	11.5	Conservation Areas	0	0	0	-	-
108	11.6	Scheduled Ancient Monuments	0	0	0	-	-
108	11.7	Registered Parks and Gardens	0	0	0	-	-
Page	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
109 >	12.1 >	Agricultural Land Classification >	Grade 3b (within 250m)				
110	12.2	Open Access Land	0	0	0	-	-
110	12.3	Tree Felling Licences	0	0	0	-	-
110	12.4	Environmental Stewardship Schemes	0	0	0	-	-
110	12.5	Countryside Stewardship Schemes	0	0	0	-	-
Page	Section	Habitat designations >	On site	0-50m	50-250m	250-500m	500-2000m
112 >	13.1 >	Priority Habitat Inventory >	2	0	5	-	-
113	13.2	Habitat Networks	0	0	0	-	-
113	13.3	Open Mosaic Habitat	0	0	0	-	-
113	13.4	Limestone Pavement Orders	0	0	0	-	-
Page	Section	Geology 1:10,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
114 >	14.1 >	10k Availability >	Identified (within 500m)				
116 >	14.2 >	Artificial and made ground (10k) >	2	4	5	2	-
118 >	14.3 >	Superficial geology (10k) >	1	1	2	7	-

119	14.4	Landslip (10k)	0	0	0	0	-
120 >	14.5 >	Bedrock geology (10k) >	2	0	4	1	-
121	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	**Geology 1:50,000 scale** >	On site	0-50m	50-250m	250-500m	500-2000m
122 >	15.1 >	50k Availability >	Identified (within 500m)				
123 >	15.2 >	Artificial and made ground (50k) >	1	1	0	0	-
124 >	15.3 >	Artificial ground permeability (50k) >	2	2	-	-	-
125 >	15.4 >	Superficial geology (50k) >	1	0	1	3	-
126 >	15.5 >	Superficial permeability (50k) >	Identified (within 50m)				
126	15.6	Landslip (50k)	0	0	0	0	-
126	15.7	Landslip permeability (50k)	None (within 50m)				
127 >	15.8 >	Bedrock geology (50k) >	1	0	1	1	-
128 >	15.9 >	Bedrock permeability (50k) >	Identified (within 50m)				
128	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	**Boreholes** >	On site	0-50m	50-250m	250-500m	500-2000m
129 >	16.1 >	BGS Boreholes >	0	0	5	-	-
Page	Section	**Natural ground subsidence** >					
131 >	17.1 >	Shrink swell clays >	Low (within 50m)				
132 >	17.2 >	Running sands >	Low (within 50m)				
134 >	17.3 >	Compressible deposits >	Moderate (within 50m)				
136 >	17.4 >	Collapsible deposits >	Very low (within 50m)				
138 >	17.5 >	Landslides >	Very low (within 50m)				
139 >	17.6 >	Ground dissolution of soluble rocks >	Negligible (within 50m)				
Page	Section	**Mining and ground workings** >	On site	0-50m	50-250m	250-500m	500-2000m
141 >	18.1 >	BritPits >	0	0	1	2	-
142 >	18.2 >	Surface ground workings >	2	1	5	-	-
143	18.3	Underground workings	0	0	0	0	0
143	18.4	Underground mining extents	0	0	0	0	-
143 >	18.5 >	Historical Mineral Planning Areas >	1	0	0	4	-

144	18.6	Non-coal mining	0	0	0	0	0
144	18.7	JPB mining areas	None (within 0m)				
144	18.8	The Coal Authority non-coal mining	0	0	0	0	-
144	18.9	Researched mining	0	0	0	0	-
145	18.10	Mining record office plans	0	0	0	0	-
145	18.11	BGS mine plans	0	0	0	0	-
145	18.12	Coal mining	None (within 0m)				
145	18.13	Brine areas	None (within 0m)				
145	18.14	Gypsum areas	None (within 0m)				
146	18.15	Tin mining	None (within 0m)				
146	18.16	Clay mining	None (within 0m)				
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m
147	19.1	Natural cavities	0	0	0	0	-
147	19.2	Mining cavities	0	0	0	0	0
147	19.3	Reported recent incidents	0	0	0	0	-
147	19.4	Historical incidents	0	0	0	0	-
148	19.5	National karst database	0	0	0	0	-
Page	Section	**Radon >**					
149 >	**20.1 >**	**Radon >**	Less than 1% (within 0m)				
Page	Section	**Soil chemistry >**	On site	0-50m	50-250m	250-500m	500-2000m
151 >	**21.1 >**	**BGS Estimated Background Soil Chemistry >**	4	0	-	-	-
151	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-
152	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-
Page	Section	**Railway infrastructure and projects >**	On site	0-50m	50-250m	250-500m	500-2000m
153	22.1	Underground railways (London)	0	0	0	-	-
153	22.2	Underground railways (Non-London)	0	0	0	-	-
154	22.3	Railway tunnels	0	0	0	-	-
154 >	**22.4 >**	**Historical railway and tunnel features >**	20	8	9	-	-
155	22.5	Royal Mail tunnels	0	0	0	-	-

156	22.6	Historical railways	0	0	0	-	-
156 >	**22.7 >**	**Railways >**	3	10	4	-	-
157	22.8	Crossrail 1	0	0	0	0	-
157	22.9	Crossrail 2	0	0	0	0	-
157	22.10	HS2	0	0	0	0	-

Recent aerial photograph



Capture Date: 17/04/2021

Site Area: 3.37ha

Recent site history - 2018 aerial photograph



Capture Date: 06/09/2018

Site Area: 3.37ha

Recent site history - 2014 aerial photograph



Capture Date: 16/04/2014

Site Area: 3.37ha

Recent site history - 2010 aerial photograph



Capture Date: 03/06/2010

Site Area: 3.37ha

Recent site history - 1999 aerial photograph



Capture Date: 23/07/1999

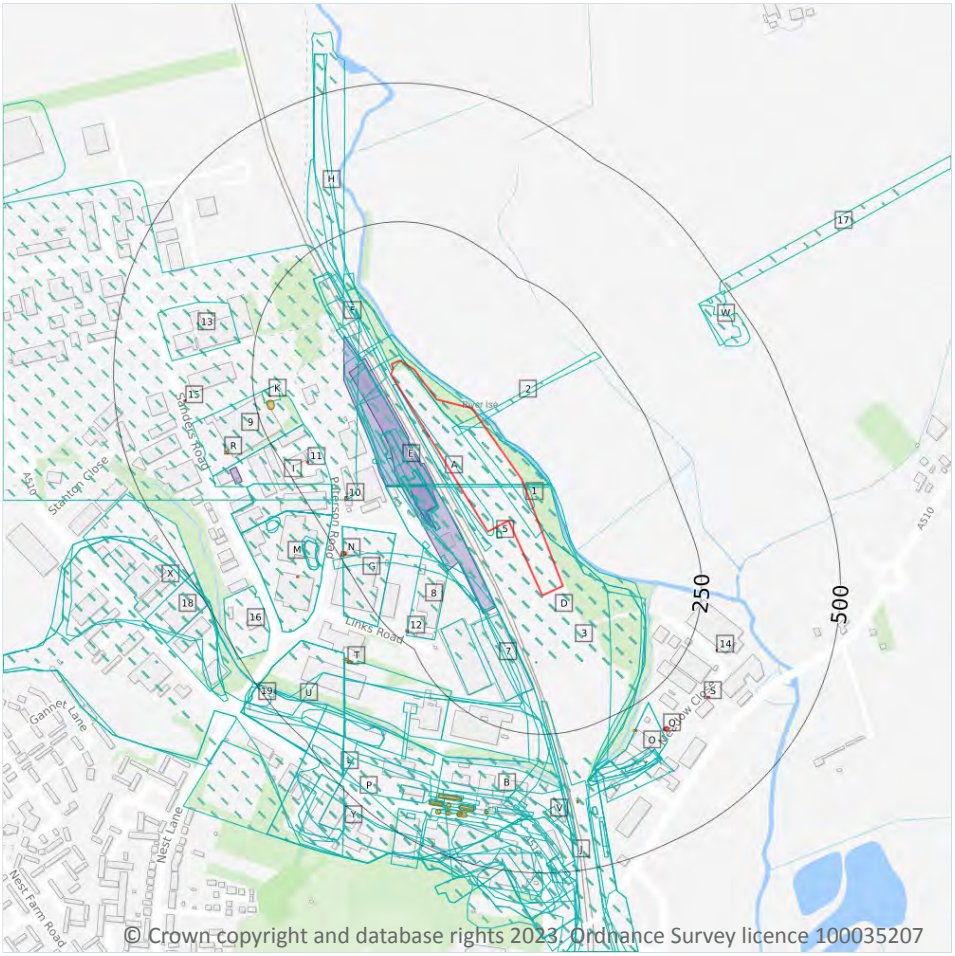
Site Area: 3.37ha

OS MasterMap site plan



Site Area: 3.37ha

1 Past land use



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

1.1 Historical industrial land uses

Records within 500m	113

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
1	**On site**	**Unspecified Heap**	**1938**	**1756656**

ID	Location	Land use	Dates present	Group ID
2	**On site**	**Tram Sidings**	**1938**	**1760908**
3	**On site**	**Railway Sidings**	**1980 - 1988**	**1796383**
4	**On site**	**Railway Sidings**	**1950**	**1799844**
A	**On site**	**Unspecified Pit**	**1899**	**1777555**
A	**On site**	**Railway Sidings**	**1957**	**1790195**
A	**On site**	**Railway Sidings**	**1974 - 1994**	**1832010**
B	**On site**	**Railway Sidings**	**1957**	**1788603**
C	**On site**	**Mineral Railway Sidings**	**1938**	**1835789**
D	**On site**	**Railway Sidings**	**1899**	**1837748**
A	1m NW	Railway Sidings	1884	1804929
5	8m S	Railway Building	1950 - 1957	1811231
F	41m NW	Cuttings	1884	1786609
E	45m NW	Railway Buildings	1974 - 1994	1801659
E	50m W	Railway Building	1938	1836132
E	52m W	Railway Building	1957 - 1980	1789778
E	53m W	Railway Building	1957	1812566
E	53m W	Railway Buildings	1950	1839070
E	56m NW	Railway Building	1957	1765081
6	59m NW	Industrial Estate	1990	1831023
E	69m SW	Railway Buildings	1957	1792215
F	80m NW	Cuttings	1950	1787740
C	84m S	Tramway Sidings	1899	1765796
7	85m S	Unspecified Warehouses	1980 - 1988	1828596
E	89m SW	Railway Building	1957 - 1980	1784737
8	99m S	Unspecified Depot	1980 - 1988	1849575
E	102m SW	Railway Building	1980	1765080
E	103m W	Chimney	1974 - 1994	1826924
G	143m SW	Unspecified Works	1988	1801080

ID	Location	Land use	Dates present	Group ID
G	143m SW	Unspecified Works	1980	1829945
C	148m S	Unspecified Warehouses	1980 - 1988	1813343
F	150m NW	Cuttings	1971	1839786
H	153m NW	Mineral Railway Sidings	1950	1847779
H	171m NW	Mineral Railway Sidings	1971	1846818
I	179m W	Unspecified Works	1973 - 1975	1803259
9	181m W	Unspecified Warehouse	1973	1757672
J	191m S	Railway Sidings	1884	1819296
I	195m W	Unspecified Works	1982 - 1989	1790808
I	195m W	Unspecified Works	1992	1844819
K	204m W	Cuttings	1973	1752261
L	205m S	Iron Works	1950	1818865
D	212m S	Unspecified Factory	1980 - 1988	1838057
M	223m W	Unspecified Works	1982 - 1992	1792241
M	223m W	Unspecified Works	1975	1812139
B	238m S	Unspecified Works	1980 - 1988	1836198
O	261m SE	Industrial Estate	1988	1757577
O	261m SE	Unspecified Depot	1980	1763908
M	273m SW	Unspecified Pit	1950	1820215
M	273m W	Unspecified Pit	1957	1839226
M	274m SW	Unspecified Pit	1938	1847525
13	277m NW	Unspecified Works	1973	1771426
B	299m S	Railway Building	1957	1765083
P	301m S	Iron Works	1938	1832556
I	307m W	Unspecified Pit	1957	1781418
I	313m W	Unspecified Pit	1950	1781785
P	316m S	Unspecified Depot	1980 - 1988	1838032
O	320m SE	Tramway Sidings	1899	1786923

ID	Location	Land use	Dates present	Group ID
O	320m SE	Tramway Sidings	1938	1803891
O	337m SE	Tramway Sidings	1950	1832301
L	339m SW	Unspecified Works	1980 - 1989	1783295
U	339m SW	Unspecified Works	1975	1799265
U	339m SW	Unspecified Works	1992	1840269
O	345m SE	Railway Building	1950	1765106
O	348m S	Unspecified Works	1980	1771393
P	368m S	Iron Works	1899	1793112
P	372m S	Railway Building	1884	1765078
J	376m S	Brick Field	1884	1763592
L	378m S	Refuse Heap	1957	1770624
L	378m S	Refuse Heaps	1950	1813644
P	380m S	Unspecified Kiln	1884	1769589
V	381m S	Railway Buildings	1957	1773401
P	388m S	Railway Buildings	1957	1773402
P	388m S	Unspecified Tanks	1899	1761510
P	389m S	Railway Building	1957	1765079
V	392m S	Railway Building	1980 - 1988	1824528
P	392m S	Railway Building	1957	1765088
P	395m S	Unspecified Kiln	1884	1769592
J	398m S	Brick Works	1899	1814514
P	398m S	Unspecified Tanks	1899	1793262
P	398m S	Unspecified Tanks	1938	1822601
J	399m S	Brick Works	1938	1792359
P	399m S	Unspecified Tanks	1957	1794364
P	400m S	Unspecified Tanks	1950	1824602
P	404m S	Railway Building	1957	1765089
P	409m S	Railway Building	1957	1765087

ID	Location	Land use	Dates present	Group ID
16	411m SW	Unspecified Works	1982 - 1992	1845902
P	411m S	Unspecified Tanks	1938	1802353
P	413m S	Unspecified Tanks	1950	1831643
V	414m S	Railway Building	1980 - 1988	1826529
P	416m S	Unspecified Tanks	1899	1761509
U	416m SW	Refuse Heaps	1957	1835262
V	421m S	Railway Buildings	1957	1773390
J	422m S	Unspecified Factory	1980 - 1988	1811015
U	426m SW	Unspecified Works	1938	1807537
W	431m NE	Brick Field	1884	1763596
J	436m S	Unspecified Ground Workings	1884	1755061
W	439m NE	Old Clay Pit	1899	1750763
P	444m S	Unspecified Factory	1980 - 1988	1846797
J	453m S	Unspecified Pit	1938	1800608
P	456m S	Railway Building	1957	1765086
W	458m NE	Unspecified Kiln	1884	1769588
J	464m S	Unspecified Pit	1899	1807763
X	471m W	Industrial Estate	1992	1802110
Y	473m S	Refuse Heap	1938	1814491
17	487m NE	Cuttings	1974 - 1994	1843934
18	489m W	Unspecified Warehouse	1982 - 1989	1810780
J	492m S	Railway Buildings	1957	1773391
19	492m SW	Refuse Heap	1950	1799259
X	493m SW	Refuse Heaps	1957	1808716
X	494m SW	Refuse Heaps	1950	1802251
J	496m S	Unspecified Pit	1980 - 1988	1812474
Y	497m SW	Unspecified Works	1982 - 1992	1782032
Y	497m SW	Unspecified Works	1975	1796477

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m	18

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
K	217m W	Unspecified Tank	1980 - 1990	288903
O	289m SE	Unspecified Tank	1985 - 1990	300127
O	290m SE	Unspecified Tank	1965 - 1993	295097
R	325m W	Unspecified Tank	1980 - 1990	297599
M	332m SW	Unspecified Tank	1972 - 1990	300409
T	338m SW	Unspecified Tank	1977	283707
T	340m SW	Unspecified Tank	1977	283735
O	350m SE	Unspecified Tank	1925	283691
V	375m S	Unspecified Tank	1925	283704
P	393m S	Tanks	1899 - 1925	288509
P	401m S	Unspecified Tank	1899	283705
P	402m S	Tanks	1899 - 1925	291749
P	411m S	Unspecified Tank	1899 - 1925	299807
P	415m S	Tanks	1925	287251
P	416m S	Tanks	1925	287252
P	417m S	Unspecified Tank	1899	283706
P	423m S	Unspecified Tank	1899 - 1925	296962
P	428m S	Unspecified Tank	1899 - 1925	300850

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m	13

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
10	183m W	Electricity Substation	1977	170035
11	209m W	Electricity Substation	1990	170033
12	228m SW	Electricity Substation	1977	170036
N	237m SW	Electricity Substation	1977	170034
N	239m SW	Electricity Transformers	1978	171350
N	242m SW	Electricity Substation	1982 - 1990	175592
14	299m SE	Electricity Substation	1993	170042
Q	314m SE	Electricity Substation	1985 - 1990	181024
Q	315m SE	Electricity Substation	1993	177979
S	327m SE	Gas Governor	1990	171505
S	330m SE	Gas Governor	1993	171506
15	373m W	Electricity Substation	1990	170032
P	488m S	Electricity Substation	1995	170038

This data is sourced from Ordnance Survey / Groundsure.

1.4 Historical petrol stations

Records within 500m	0

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m	4

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on **page 15 >**

ID	Location	Land use	Dates present	Group ID
E	27m NW	Wagon Repair Shops	1965 - 1971	58238
E	32m NW	Wagon Repairing Works	1925	54931
E	51m W	Wagon Repair Shops	1985 - 1990	60084
R	326m W	Garage	1980	54737

This data is sourced from Ordnance Survey / Groundsure.

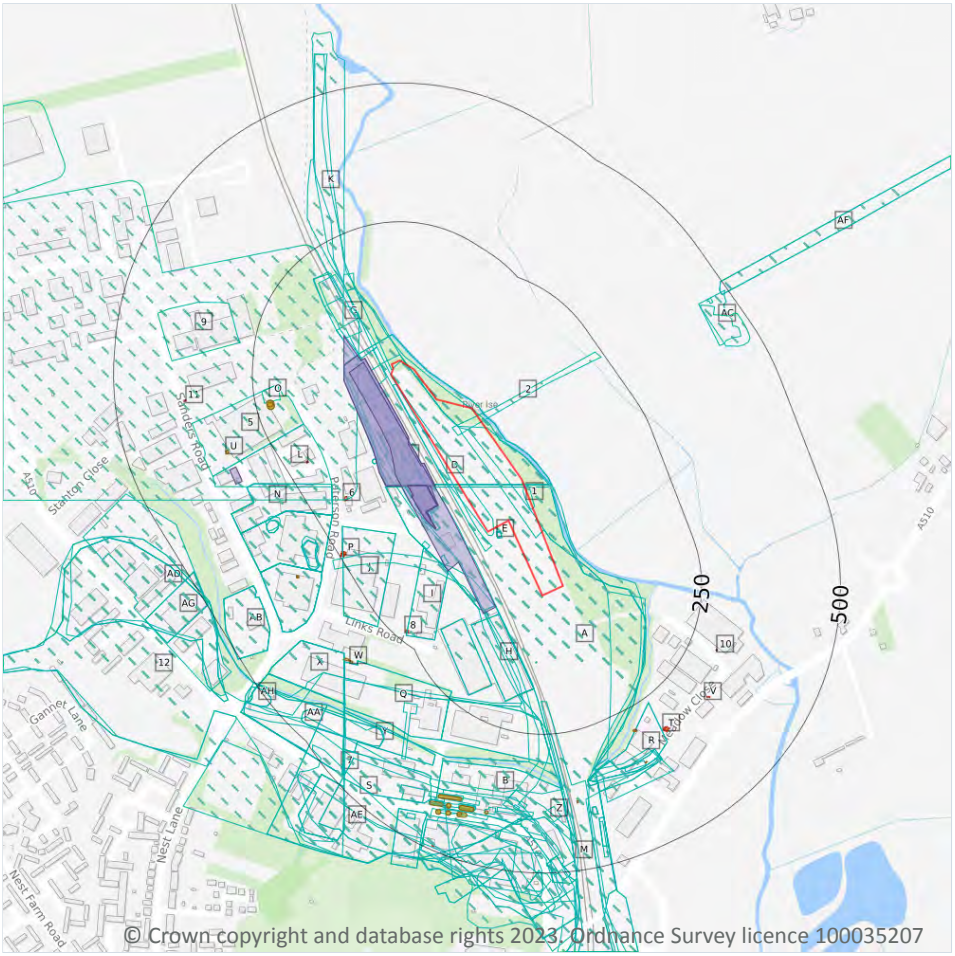
1.6 Historical military land

Records within 500m	0

Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.

2 Past land use - un-grouped



Site Outline

Search buffers in metres (m)

Historical industrial land uses

Historical tanks

Historical energy features

Historical garages

2.1 Historical industrial land uses

Records within 500m	160

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 23 >**

ID	Location	Land Use	Date	Group ID
1	**On site**	**Unspecified Heap**	**1938**	**1756656**
2	**On site**	**Tram Sidings**	**1938**	**1760908**
3	**On site**	**Railway Sidings**	**1950**	**1799844**

ID	Location	Land Use	Date	Group ID
A	**On site**	**Railway Sidings**	**1988**	**1796383**
A	**On site**	**Railway Sidings**	**1980**	**1796383**
B	**On site**	**Railway Sidings**	**1957**	**1788603**
B	**On site**	**Railway Sidings**	**1899**	**1837748**
C	**On site**	**Mineral Railway Sidings**	**1938**	**1835789**
D	**On site**	**Unspecified Pit**	**1899**	**1777555**
D	**On site**	**Railway Sidings**	**1994**	**1832010**
D	**On site**	**Railway Sidings**	**1974**	**1832010**
D	**On site**	**Railway Sidings**	**1957**	**1790195**
D	1m NW	Railway Sidings	1884	1804929
E	8m S	Railway Building	1957	1811231
E	9m S	Railway Building	1950	1811231
G	41m NW	Cuttings	1884	1786609
F	45m NW	Railway Buildings	1994	1801659
F	45m NW	Railway Buildings	1974	1801659
F	50m W	Railway Building	1938	1836132
F	52m W	Railway Building	1980	1789778
F	53m W	Railway Building	1957	1812566
F	53m W	Railway Buildings	1950	1839070
F	54m SW	Railway Building	1957	1789778
F	56m NW	Railway Building	1957	1765081
4	59m NW	Industrial Estate	1990	1831023
F	69m SW	Railway Buildings	1957	1792215
G	80m NW	Cuttings	1950	1787740
C	84m S	Tramway Sidings	1899	1765796
H	85m S	Unspecified Warehouses	1988	1828596
H	85m S	Unspecified Warehouses	1980	1828596
F	89m SW	Railway Building	1980	1784737

ID	Location	Land Use	Date	Group ID
F	89m SW	Railway Building	1957	1784737
I	99m S	Unspecified Depot	1988	1849575
I	99m S	Unspecified Depot	1980	1849575
F	102m SW	Railway Building	1980	1765080
F	103m W	Chimney	1994	1826924
F	103m W	Chimney	1974	1826924
J	143m SW	Unspecified Works	1988	1801080
J	143m SW	Unspecified Works	1980	1829945
C	148m S	Unspecified Warehouses	1988	1813343
C	148m S	Unspecified Warehouses	1980	1813343
G	150m NW	Cuttings	1971	1839786
K	153m NW	Mineral Railway Sidings	1950	1847779
K	171m NW	Mineral Railway Sidings	1971	1846818
L	179m W	Unspecified Works	1973	1803259
5	181m W	Unspecified Warehouse	1973	1757672
M	191m S	Railway Sidings	1884	1819296
N	195m W	Unspecified Works	1992	1844819
N	195m W	Unspecified Works	1989	1790808
N	195m W	Unspecified Works	1982	1790808
N	195m W	Unspecified Works	1975	1803259
O	204m W	Cuttings	1973	1752261
7	205m S	Iron Works	1950	1818865
B	212m S	Unspecified Factory	1988	1838057
B	212m S	Unspecified Factory	1980	1838057
N	223m W	Unspecified Works	1992	1792241
N	223m W	Unspecified Works	1989	1792241
N	223m W	Unspecified Works	1982	1792241
N	223m W	Unspecified Works	1975	1812139

ID	Location	Land Use	Date	Group ID
Q	238m S	Unspecified Works	1988	1836198
Q	238m S	Unspecified Works	1980	1836198
R	261m SE	Industrial Estate	1988	1757577
R	261m SE	Unspecified Depot	1980	1763908
N	273m SW	Unspecified Pit	1950	1820215
N	273m SW	Unspecified Pit	1950	1820215
N	273m W	Unspecified Pit	1957	1839226
N	274m SW	Unspecified Pit	1938	1847525
9	277m NW	Unspecified Works	1973	1771426
N	293m SW	Unspecified Works	1992	1792241
N	293m SW	Unspecified Works	1989	1792241
N	293m SW	Unspecified Works	1982	1792241
N	293m SW	Unspecified Works	1975	1812139
Q	299m S	Railway Building	1957	1765083
S	301m S	Iron Works	1938	1832556
N	307m W	Unspecified Pit	1957	1781418
N	313m W	Unspecified Pit	1950	1781785
N	313m W	Unspecified Pit	1950	1781785
S	316m S	Unspecified Depot	1988	1838032
S	316m S	Unspecified Depot	1980	1838032
R	320m SE	Tramway Sidings	1938	1803891
R	320m SE	Tramway Sidings	1899	1786923
R	337m SE	Tramway Sidings	1950	1832301
X	339m SW	Unspecified Works	1992	1840269
X	339m SW	Unspecified Works	1989	1783295
X	339m SW	Unspecified Works	1982	1783295
X	339m SW	Unspecified Works	1975	1799265
R	345m SE	Railway Building	1950	1765106

ID	Location	Land Use	Date	Group ID
Y	346m S	Unspecified Works	1988	1783295
Y	346m S	Unspecified Works	1980	1783295
R	348m S	Unspecified Works	1980	1771393
S	368m S	Iron Works	1899	1793112
S	372m S	Railway Building	1884	1765078
M	376m S	Brick Field	1884	1763592
Y	378m S	Refuse Heap	1957	1770624
Y	378m S	Refuse Heaps	1950	1813644
Y	378m S	Refuse Heaps	1950	1813644
S	380m S	Unspecified Kiln	1884	1769589
Z	381m S	Railway Buildings	1957	1773401
S	383m S	Unspecified Works	1988	1783295
S	383m S	Unspecified Works	1980	1783295
S	388m S	Railway Buildings	1957	1773402
S	388m S	Unspecified Tanks	1899	1761510
S	389m S	Railway Building	1957	1765079
Z	392m S	Railway Building	1988	1824528
Z	392m S	Railway Building	1980	1824528
S	392m S	Railway Building	1957	1765088
S	395m S	Unspecified Kiln	1884	1769592
M	398m S	Brick Works	1899	1814514
S	398m S	Unspecified Tanks	1938	1822601
S	398m S	Unspecified Tanks	1899	1793262
M	399m S	Brick Works	1938	1792359
S	399m S	Unspecified Tanks	1957	1794364
S	400m S	Unspecified Tanks	1950	1824602
AA	404m SW	Unspecified Works	1992	1840269
AA	404m SW	Unspecified Works	1989	1783295

ID	Location	Land Use	Date	Group ID
AA	404m SW	Unspecified Works	1982	1783295
AA	404m SW	Unspecified Works	1975	1799265
S	404m S	Railway Building	1957	1765089
S	409m S	Railway Building	1957	1765087
AB	411m SW	Unspecified Works	1992	1845902
AB	411m SW	Unspecified Works	1989	1845902
AB	411m SW	Unspecified Works	1982	1845902
S	411m S	Unspecified Tanks	1938	1802353
S	413m S	Unspecified Tanks	1950	1831643
Z	414m S	Railway Building	1988	1826529
Z	414m S	Railway Building	1980	1826529
S	416m S	Unspecified Tanks	1899	1761509
12	416m SW	Railway Sidings	1957	1788603
AA	416m SW	Refuse Heaps	1957	1835262
Z	421m S	Railway Buildings	1957	1773390
M	422m S	Unspecified Factory	1988	1811015
AA	426m SW	Unspecified Works	1938	1807537
AC	431m NE	Brick Field	1884	1763596
M	431m S	Unspecified Factory	1980	1811015
M	436m S	Unspecified Ground Workings	1884	1755061
AC	439m NE	Old Clay Pit	1899	1750763
S	444m S	Unspecified Factory	1988	1846797
S	444m S	Unspecified Factory	1980	1846797
M	453m S	Unspecified Pit	1938	1800608
S	456m S	Railway Building	1957	1765086
AC	458m NE	Unspecified Kiln	1884	1769588
M	464m S	Unspecified Pit	1899	1807763
AD	471m W	Industrial Estate	1992	1802110

ID	Location	Land Use	Date	Group ID
AE	473m S	Refuse Heap	1938	1814491
AF	487m NE	Cuttings	1994	1843934
AF	487m NE	Cuttings	1974	1843934
AG	489m W	Unspecified Warehouse	1989	1810780
AG	489m W	Unspecified Warehouse	1982	1810780
M	492m S	Railway Buildings	1957	1773391
AH	492m SW	Refuse Heap	1950	1799259
AH	492m SW	Refuse Heap	1950	1799259
AD	493m SW	Refuse Heaps	1957	1808716
AD	494m SW	Refuse Heaps	1950	1802251
AD	494m SW	Refuse Heaps	1950	1802251
M	496m S	Unspecified Pit	1988	1812474
M	496m S	Unspecified Pit	1980	1812474
AE	497m SW	Unspecified Works	1992	1782032
AE	497m SW	Unspecified Works	1989	1782032
AE	497m SW	Unspecified Works	1982	1782032
AE	497m SW	Unspecified Works	1975	1796477

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	**35**

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 23 >**

ID	Location	Land Use	Date	Group ID
O	217m W	Unspecified Tank	1980	288903
O	218m W	Unspecified Tank	1980	288903
O	218m W	Unspecified Tank	1990	288903

ID	Location	Land Use	Date	Group ID
O	219m W	Unspecified Tank	1990	288903
R	289m SE	Unspecified Tank	1985	300127
R	289m SE	Unspecified Tank	1990	300127
R	290m SE	Unspecified Tank	1965	295097
R	290m SE	Unspecified Tank	1993	295097
U	325m W	Unspecified Tank	1980	297599
U	325m W	Unspecified Tank	1990	297599
N	332m SW	Unspecified Tank	1972	300409
N	333m SW	Unspecified Tank	1978	300409
N	333m SW	Unspecified Tank	1982	300409
N	333m SW	Unspecified Tank	1982	300409
N	333m SW	Unspecified Tank	1985	300409
N	333m SW	Unspecified Tank	1985	300409
N	333m SW	Unspecified Tank	1990	300409
W	338m SW	Unspecified Tank	1977	283707
W	340m SW	Unspecified Tank	1977	283735
R	350m SE	Unspecified Tank	1925	283691
Z	375m S	Unspecified Tank	1925	283704
S	393m S	Tanks	1925	288509
S	393m S	Tanks	1899	288509
S	401m S	Unspecified Tank	1899	283705
S	402m S	Tanks	1925	291749
S	402m S	Tanks	1899	291749
S	411m S	Unspecified Tank	1925	299807
S	411m S	Unspecified Tank	1899	299807
S	415m S	Tanks	1925	287251
S	416m S	Tanks	1925	287252
S	417m S	Unspecified Tank	1899	283706

ID	Location	Land Use	Date	Group ID
S	423m S	Unspecified Tank	1925	296962
S	423m S	Unspecified Tank	1899	296962
S	428m S	Unspecified Tank	1925	300850
S	428m S	Unspecified Tank	1899	300850

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m	**18**

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 23 >**

ID	Location	Land Use	Date	Group ID
6	183m W	Electricity Substation	1977	170035
L	209m W	Electricity Substation	1990	170033
8	228m SW	Electricity Substation	1977	170036
P	237m SW	Electricity Substation	1977	170034
P	239m SW	Electricity Transformers	1978	171350
P	242m SW	Electricity Substation	1982	175592
P	242m SW	Electricity Substation	1982	175592
P	242m SW	Electricity Substation	1985	175592
P	242m SW	Electricity Substation	1985	175592
P	242m SW	Electricity Substation	1990	175592
10	299m SE	Electricity Substation	1993	170042
T	314m SE	Electricity Substation	1985	181024
T	314m SE	Electricity Substation	1990	181024
T	315m SE	Electricity Substation	1993	177979
V	327m SE	Gas Governor	1990	171505
V	330m SE	Gas Governor	1993	171506

ID	Location	Land Use	Date	Group ID
11	373m W	Electricity Substation	1990	170032
S	488m S	Electricity Substation	1995	170038

This data is sourced from Ordnance Survey / Groundsure.

2.4 Historical petrol stations

Records within 500m	**0**

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m	**8**

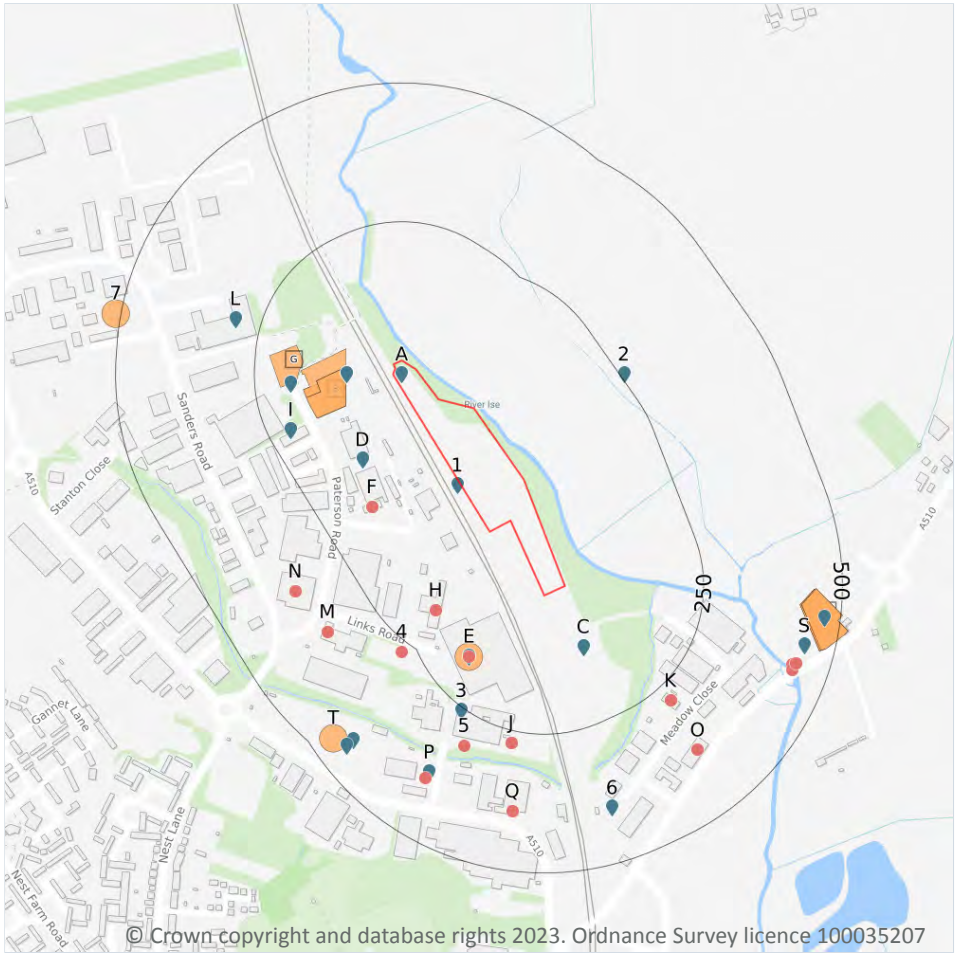
Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on **page 23 >**

ID	Location	Land Use	Date	Group ID
F	27m NW	Wagon Repair Shops	1965	58238
F	27m NW	Wagon Repair Shops	1971	58238
F	32m NW	Wagon Repairing Works	1925	54931
F	46m W	Wagon Repair Shops	1966	58238
F	50m W	Wagon Repair Shops	1965	58238
F	51m W	Wagon Repair Shops	1990	60084
F	51m W	Wagon Repair Shops	1985	60084
U	326m W	Garage	1980	54737

This data is sourced from Ordnance Survey / Groundsure.

3 Waste and landfill



Site Outline

Search buffers in metres (m)

Historical waste sites

Licensed waste sites

Waste exemptions

3.1 Active or recent landfill

Records within 500m	0

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m	0

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.

3.3 Historical landfill (LA/mapping records)

Records within 500m	0

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m	0

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m	11

Waste site records derived from Local Authority planning records and high detail historical mapping.

Features are displayed on the Waste and landfill map on **page 33 >**

ID	Location	Address	Further Details	Date
B	85m NW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1979
B	85m NW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1990
B	86m NW	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1990

ID	Location	Address	Further Details	Date
E	150m S	Site Address: 15-21 Links Road, Finedon Road, Industrial Estate, WELLINGBOROUGH, Northamptonshire, NN8 4EY	Type of Site: Waste Transfer Station Planning application reference: WP/2010/0482 Description: Scheme comprises non-material amendment to planning permission 10/00016/WAS to allow the storage and treatment of waste vegetable oil at an waste transfer station. An application (ref: WP/2010/0482) for detailed planning permission was submitted to Wel ngborough B.C. A detailed planning application has been submitted. Data source: Historic Planning Application Data Type: Point	10/03/2012
G	162m NW	Site Address: N/A	Type of Site: Recycling Centre Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1990
R	425m SE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1985
R	425m SE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1990
R	427m SE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1993
R	427m SE	Site Address: N/A	Type of Site: Scrap Yard Planning application reference: N/A Description: N/A Data source: Historic Mapping Data Type: Polygon	1965
T	434m SW	Site Address: 3 - 7 Bevan Close, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4BL	Type of Site: Recycling Centre Planning application reference: WP/19/00173/CRA Description: Scheme comprises operate the recycling of inert material from local surrounding areas Data source: Historic Planning Application Data Type: Point	22/03/2019

ID	Location	Address	Further Details	Date
7	484m NW	Site Address: Trafalgar House, 30 Sanders Park, Finedon Road, Industrial Estate, Wellingborough, Northamptonshire, NN8 4FR	Type of Site: Waste Transfer Station Planning application reference: WP/16/00503/CRA Description: Scheme comprises construction of waste transfer station to bulk up dry recyclable waste, including a new building. The associated works include sewer systems, landscaping, infrastructure, enabling and access roads. Data source: Historic Planning Application Data Type: Point	15/09/2016

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m **37**

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

Features are displayed on the Waste and landfill map on **page 33 >**

ID	Location	Details		
A	**On site**	**Site Name: Premier Waste Transfer Station** **Site Address: Premier Waste Ltd, 36-38, Paterson Road, Finedon Road Ie, Wellingborough, Northants, NN8 4BZ** **Correspondence Address: -**	**Type of Site: Household, Commercial & Industrial Waste T Stn** **Size: >= 75000 tonnes** **Environmental Permitting Regulations (Waste) Licence Number: PRE001** **EPR reference: EA/EPR/GP3895NF/A001** **Operator: Premier Waste Ltd** **Waste Management licence No: 70667** **Annual Tonnage: 79150**	**Issue Date: 24/12/1991** **Effective Date: -** **Modified: -** **Surrendered Date: -** **Expiry Date: 01/01/2000** **Cancelled Date: -** **Status: Expired**
A	**On site**	**Site Name: Premier Waste Transfer Station** **Site Address: Premier Waste Ltd, 36-38, Paterson Road, Finedon Road Ie, Wellingborough, Northants, NN8 4BZ** **Correspondence Address: -**	**Type of Site: Household, Commercial & Industrial Waste T Stn** **Size: 25000 tonnes** **Environmental Permitting Regulations (Waste) Licence Number: PRE001** **EPR reference: EA/EPR/GP3895NF/A001** **Operator: Premier Waste Ltd** **Waste Management licence No: 70667** **Annual Tonnage: 79150**	**Issue Date: 24/12/1991** **Effective Date: -** **Modified: -** **Surrendered Date: -** **Expiry Date: 01/01/2000** **Cancelled Date: -** **Status: Expired**

ID	Location	Details		
1	6m SW	Site Name: Mining & Chemical Products Ltd Site Address: Mining & Chemical Products Ltd, 1-4, Nielson Road, Finedon Road Ind' Estate, Wellingborough, Northants, NN8 4PE Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MIN001 EPR reference: EA/EPR/GP3495NL/A001 Operator: Mining & Chemical Products Ltd Waste Management licence No: 70669 Annual Tonnage: 5000	Issue Date: 06/08/1993 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Expired
B	84m NW	Site Name: Neilson Road Depot Site Address: Neilson Road Depot, Off Paterson Road, Finedon Rd Ind Est, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: Special Waste Transfer Station Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PRE002 EPR reference: EA/EPR/JP3494NM/V007 Operator: F & R Cawley Ltd Waste Management licence No: 73042 Annual Tonnage: 74999	Issue Date: 14/05/1999 Effective Date: - Modified: 29/10/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
B	84m NW	Site Name: F & R Cawley Ltd Site Address: 36-38 Paterson Road, Finedon Rd Ind Est, Wellingborough, Northants, NN8 4BZ Correspondence Address: 1, Covent Garden Close, Luton, Bedfordshire, LU4 8QB	Type of Site: Transfer Station taking Non-Biodegradable Wastes Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PRE002 EPR reference: - Operator: F & R Cawley Ltd Waste Management licence No: 73042 Annual Tonnage: 75000	Issue Date: 14/05/1999 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
B	84m NW	Site Name: F & R Cawley Limited Site Address: F & R Crawley Limited, Neilson Road Off Paterson Road, Finedon Rd Ind Est, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PRE002 EPR reference: EA/EPR/JP3494NM/V006 Operator: F & R Cawley Limited Waste Management licence No: 73042 Annual Tonnage: 74999	Issue Date: 14/05/1999 Effective Date: - Modified: 15/05/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
B	84m NW	Site Name: F & R Cawley Ltd Site Address: 36-38, Paterson Road, Finedon Rd Ind Est, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PRE002 EPR reference: EA/EPR/JP3494NM/V005 Operator: F & R Cawley Ltd Waste Management licence No: 73042 Annual Tonnage: 74999	Issue Date: 14/05/1999 Effective Date: - Modified: 08/07/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
B	84m NW	Site Name: Neilson Road Depot Site Address: Neilson Road Depot, Off Paterson Road, Finedon Rd Ind Est, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: Special Waste Transfer Station Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PRE002 EPR reference: EA/EPR/JP3494NM/V007 Operator: F & R Cawley Limited Waste Management licence No: 73042 Annual Tonnage: 74999	Issue Date: 14/05/1999 Effective Date: - Modified: 29/10/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

ID	Location	Details		
B	84m NW	Site Name: Neilson Road Depot Site Address: Neilson Road Depot, Off Paterson Road, Finedon Rd Ind Est, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: Special Waste Transfer Station Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PRE002 EPR reference: EA/EPR/JP3494NM/V007 Operator: F & R Cawley Ltd Waste Management licence No: 73042 Annual Tonnage: 74999	Issue Date: 14/05/1999 Effective Date: - Modified: 29/10/2012 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
C	114m SE	Site Name: Wellingborough Railhead Site Address: Neilsons Yard, Meadow Close, Wellingborough, Northants, NN8 4BH Correspondence Address: -	Type of Site: Inert & Excavation WTS with treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NOR437 EPR reference: EA/EPR/LB3733AF/A001 Operator: Northampton Aggregates Limited Waste Management licence No: 104797 Annual Tonnage: 249999	Issue Date: 29/10/2012 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
C	114m SE	Site Name: Wellingborough Railhead Site Address: Neilsons Yard, Meadow Close, Wellingborough, Northants, NN8 4BH Correspondence Address: -	Type of Site: Inert & Excavation WTS with treatment Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NOR437 EPR reference: EA/EPR/LB3733AF/V002 Operator: G R S Rail Services Limited Waste Management licence No: 104797 Annual Tonnage: 249999	Issue Date: 29/10/2012 Effective Date: - Modified: 25/04/2018 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

ID	Location	Details		
D	128m W	Site Name: V E K A Recycling Limited Site Address: 1-4, Nielson Road, Finedon Road Industrial E, Wellingborough, Northants, NN8 4PE Correspondence Address: -	Type of Site: Physical Treatment Facility Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VEK002 EPR reference: EA/EPR/GB3802TJ/V002 Operator: V E K A Recycling Limited Waste Management licence No: 405770 Annual Tonnage: 74999	Issue Date: 22/03/2019 Effective Date: - Modified: 03/11/2021 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
D	128m W	Site Name: V E K A Recycling Limited Site Address: 1-4, Nielson Road, Finedon Road Industrial E, Wellingborough, Northants, NN8 4PE Correspondence Address: -	Type of Site: Physical Treatment Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VEK002 EPR reference: EA/EPR/GB3802TJ/A001 Operator: V E K A Recycling Limited Waste Management licence No: 405770 Annual Tonnage: 74999	Issue Date: 22/03/2019 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
D	128m W	Site Name: V E K A Recycling Limited Site Address: 1-4, Nielson Road, Finedon Road Industrial E, Wellingborough, Northamptonshir, NN8 4PE Correspondence Address: -	Type of Site: Mining Waste Operations Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: VEK002 EPR reference: EA/EPR/GB3802TJ/A001 Operator: V E K A Recycling Limited Waste Management licence No: 405770 Annual Tonnage: 74999	Issue Date: 22/03/2019 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
E	175m S	Site Name: Oil 2 Go Site Address: Unit 6, 15-21, Links Road, Wellingborough, Northants, NN8 4EY Correspondence Address: -	Type of Site: Material Recycling Treatment Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: OIL004 EPR reference: EA/EPR/QP3597EH/A001 Operator: Oil 2 Go Ltd Waste Management licence No: 102186 Annual Tonnage: 2999	Issue Date: 12/05/2011 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked

ID	Location	Details		
E	175m S	Site Name: Think 3e Site Address: Units 15 - 21, Links Road, Finedon Road Ind Est, Wellingborough, Northants, NN8 4EY Correspondence Address: -	Type of Site: Special Waste Transfer Station Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WAS192 EPR reference: EA/EPR/BB3404KM/V002 Operator: Think 3 E Consortium Limited Waste Management licence No: 101445 Annual Tonnage: 50000	Issue Date: 30/06/2010 Effective Date: 18/04/2014 Modified: 24/12/2014 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
E	175m S	Site Name: Think 3e Site Address: Units 15 - 21, Links Road, Finedon Road Ind Est, Wellingborough, Northants, NN8 4EY Correspondence Address: -	Type of Site: Special Waste Transfer Station Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: THI009 EPR reference: EA/EPR/GP3092LF/S002 Operator: Think 3e Group Ltd Waste Management licence No: 101445 Annual Tonnage: 50000	Issue Date: 30/06/2010 Effective Date: - Modified: 02/02/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
G	186m NW	Site Name: Wellingborough H W R C Site Address: Northamptonshire County Council, Paterson Road, Finedon Road Ind. Est., Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: 75kte Non-hazardous & hazardous HWA Site Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: URB007 EPR reference: EA/EPR/KB3008XS/T001 Operator: Urbaser Limited Waste Management licence No: 70671 Annual Tonnage: 74999	Issue Date: 01/09/1992 Effective Date: 01/03/2021 Modified: 02/09/2019 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred

ID	Location	Details		
G	186m NW	Site Name: Wellingborough Household Waste Recycling Centre Site Address: Northamptonshire County Council, 40, Paterson Road, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: 75kte Non-hazardous & hazardous HWA Site Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: EMS012 EPR reference: EA/EPR/GP3993VW/V Operator: Enterprise Managed Services Ltd Waste Management licence No: 70671 Annual Tonnage: 74999	Issue Date: 01/09/1992 Effective Date: 07/07/2010 Modified: 02/09/2019 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
G	186m NW	Site Name: Wellingborough Household Waste Recycling Centre Site Address: Northamptonshire County Council, 40, Paterson Road, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: 75kte Non-hazardous & hazardous HWA Site Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: EMS012 EPR reference: EA/EPR/GP3993VW/V Operator: Enterprise Managed Services Ltd Waste Management licence No: 70671 Annual Tonnage: 74999	Issue Date: 01/09/1992 Effective Date: 07/07/2010 Modified: 02/09/2019 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
I	210m W	Site Name: Paterson Road Household Waste Recycling Centre Site Address: Northamptonshire County Council, Paterson Road, Wellingborough, Northants, NN8 4BZ Correspondence Address: Northamptonshire County Council, John Dryden House Po Baox 221, 8-10, The Lakes, Northampton, Northants, NN4 7DE	Type of Site: Household, Commercial & Industrial Waste T Stn Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NOR013 EPR reference: - Operator: Northamptonshire County Council Waste Management licence No: 70671 Annual Tonnage: 25000	Issue Date: 01/09/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
I	210m W	Site Name: Paterson Road Household Waste Recycling Centre Site Address: Northamptonshire County Council, Paterson Road, Wellingborough, Northants, NN8 4BZ Correspondence Address: Northamptonshire County Council, John Dryden House Po Baox 221, 8-10, The Lakes, Northampton, Northants, NN4 7DE	Type of Site: Household Waste Amenity Site Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NOR013 EPR reference: - Operator: Northamptonshire County Council Waste Management licence No: 70671 Annual Tonnage: 25000	Issue Date: 01/09/1992 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
I	210m W	Site Name: Wellingborough Household Waste Recycling Centre Site Address: Northamptonshire County Council, Paterson Road, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: 75kte Non-hazardous & hazardous HWA Site Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NOR013 EPR reference: GP3695NG/V001 Operator: Northamptonshire County Council Waste Management licence No: 70671 Annual Tonnage: 0	Issue Date: 01/09/1992 Effective Date: - Modified: 17/05/2010 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
2	255m NE	Site Name: Eady's Autos Site Address: Higham Road, Burton Latimer, Kettering, Northants, NN15 5PU Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: EAD001 EPR reference: EA/EPR/PP3992NV/S002 Operator: Eady Mr Rodney Waste Management licence No: 73061 Annual Tonnage: 0	Issue Date: 19/12/1997 Effective Date: - Modified: - Surrendered Date: 28/09/2007 Expiry Date: - Cancelled Date: - Status: Surrendered
3	256m S	Site Name: A F G Transport Ltd Site Address: Unit 1, 6, Bevan Close, Finedon Close Ind Est, Wellingborough, Northants, NN8 4BL Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: AFG002 EPR reference: EA/EPR/DB3832AL/A001 Operator: A F G Transport Ltd Waste Management licence No: 103674 Annual Tonnage: 4999	Issue Date: 28/11/2011 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
L	297m NW	Site Name: N S Motors Site Address: N S Motors, Paterson Road, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MOT001 EPR reference: EA/EPR/KP3995NW/A001 Operator: N S Motors Waste Management licence No: 70677 Annual Tonnage: 30000	Issue Date: 09/10/1991 Effective Date: - Modified: - Surrendered Date: - Expiry Date: 01/01/2000 Cancelled Date: - Status: Expired
L	297m NW	Site Name: N S Motors Site Address: N S Motors, Paterson Road, Wellingborough, Northants, NN8 4BZ Correspondence Address: -	Type of Site: Metal Recycling Site (mixed MRS's) Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MOT001 EPR reference: EA/EPR/KP3995NW/A001 Operator: N S Motors Waste Management licence No: 70677 Annual Tonnage: 30000	Issue Date: 09/10/1991 Effective Date: - Modified: - Surrendered Date: - Expiry Date: 01/01/2000 Cancelled Date: - Status: Expired
P	381m S	Site Name: Larner Pallets (Recycling) Ltd Site Address: Bevan Close, Finedon Road Ind Est, Wellingborough, Northants, NN8 4BL Correspondence Address: -	Type of Site: Physical Treatment Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAR001 EPR reference: EA/EPR/XP3892NJ/A001 Operator: Larner Pallets (Recycling) Ltd Waste Management licence No: 73148 Annual Tonnage: 24999	Issue Date: 22/12/2003 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked

ID	Location	Details		
P	381m S	Site Name: Larner Pallets (recycling) Limited Site Address: Bevan Close, Finedon Road Industrial Estate, Wellingborough, Northants, NN8 4BL Correspondence Address: Bevan Close, Finedon Rod Industrial Estate, Wellingborough, Northants, NN8 4BL	Type of Site: Physical Treatment Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAR001 EPR reference: - Operator: Larner Pallets (recycling) Limited Waste Management licence No: 73148 Annual Tonnage: 0	Issue Date: 22/12/2003 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
6	402m S	Site Name: Wellingborough Railhead Site Address: Neilsons Yard, Meadow Close, Wellingborough, Northants, NN8 4BH Correspondence Address: -	Type of Site: Inert & Excavation WTS with treatment Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: NOR437 EPR reference: EA/EPR/LB3733AF/V002 Operator: G R S Rail Services Limited Waste Management licence No: 104797 Annual Tonnage: 249999	Issue Date: 29/10/2012 Effective Date: - Modified: 25/04/2018 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified
T	433m SW	Site Name: Larner Pallets Recycling Site Address: Bevan Close, Finedon Industrial Estate, Wellingborough, Northants, NN8 4BL Correspondence Address: -	Type of Site: Treatment of waste wood 75000 tps Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAR012 EPR reference: EA/EPR/FB3838RH/A001 Operator: Larner Timber Recycling Ltd Waste Management licence No: 104027 Annual Tonnage: 74999	Issue Date: 08/05/2012 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked

ID	Location	Details		
T	433m SW	Site Name: Larner Pallets Recycling Site Address: Bevan Close, Finedon Industrial Estate, Wellingborough, Northants, NN8 4BL Correspondence Address: -	Type of Site: Treatment of waste wood 75000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: LAR012 EPR reference: EA/EPR/FB3838RH/A001 Operator: Larner Timber Recycling Ltd Waste Management licence No: 104027 Annual Tonnage: 74999	Issue Date: 08/05/2012 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Revoked
S	444m SE	Site Name: Wellingborough Motor Centre Site Address: Unit 1 Brookside Garages, Finedon Road, Wellingborough, Northants, NN8 4BW Correspondence Address: -	Type of Site: Vehicle Depollution Facility 5000 tps Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WMC002 EPR reference: EA/EPR/PB3430RD/S002 Operator: Wellingborough Motor Centre Limited Waste Management licence No: 400196 Annual Tonnage: 0	Issue Date: 16/04/2013 Effective Date: - Modified: - Surrendered Date: 25/09/2017 Expiry Date: - Cancelled Date: - Status: Surrendered
T	449m SW	Site Name: Grabhire4u Ltd Site Address: 7, Bevan Close, Wellingborough, Northants, NN8 4BL Correspondence Address: -	Type of Site: Physical Treatment Facility Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GHF001 EPR reference: EA/EPR/HB3100MJ/A001 Operator: Grabhire4u Ltd Waste Management licence No: 405987 Annual Tonnage: 74999	Issue Date: 23/06/2020 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

ID	Location	Details		
T	449m SW	Site Name: Grabhire4u Ltd Site Address: 7, Bevan Close, Wellingborough, Northamptonshir, NN8 4BL Correspondence Address: -	Type of Site: Physical Treatment Facility Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GHF001 EPR reference: EA/EPR/HB3100MJ/A001 Operator: Grabhire4u Ltd Waste Management licence No: 405987 Annual Tonnage: 74999	Issue Date: 23/06/2020 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
R	471m SE	Site Name: Isebrook Recycling Works Site Address: Isebrook Recycling Works, Finedon Road, Wellingborough, Northants, NN8 4BW Correspondence Address: -	Type of Site: Treatment of waste to produce soil 75,000 tpy Size: >= 25000 tonnes 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WJR002 EPR reference: EA/EPR/BB3304LL/A001 Operator: W J Redden & Sons Limited Waste Management licence No: 401219 Annual Tonnage: 74999	Issue Date: 17/03/2014 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued
R	471m SE	Site Name: Isebrook Recycling Works Site Address: Isebrook Recycling Works, Finedon Road, Wellingborough, Northants, NN8 4BW Correspondence Address: -	Type of Site: Treatment of waste to produce soil 75,000 tpy Size: 25000 tonnes Environmental Permitting Regulations (Waste) Licence Number: WJR002 EPR reference: EA/EPR/BB3304LL/A001 Operator: W J Redden & Sons Limited Waste Management licence No: 401219 Annual Tonnage: 74999	Issue Date: 17/03/2014 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued

This data is sourced from the Environment Agency and Natural Resources Wales.

3.7 Waste exemptions

Records within 500m	36

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on **page 33 >**

ID	Location	Site	Reference	Category	Sub-Category	Description
F	158m W	1-4, NIELSON ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4PE	WEX121258	Storing waste exemption	Not on a farm	Storage of waste in secure containers
F	158m W	1-4, NIELSON ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4PE	WEX121258	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
F	158m W	1-4, NIELSON ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4PE	WEX247366	Using waste exemption	Not on a farm	Use of waste in construction
F	158m W	1-4, NIELSON ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4PE	WEX247366	Storing waste exemption	Not on a farm	Storage of waste in a secure place
F	158m W	1-4, NIELSON ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4PE	WEX247366	Storing waste exemption	Not on a farm	Storage of waste in secure containers
F	158m W	1-4, NIELSON ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4PE	WEX247366	Treating waste exemption	Not on a farm	Sorting mixed waste
F	158m W	1-4, NIELSON ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4PE	WEX247366	Treating waste exemption	Not on a farm	Recovery of scrap metal

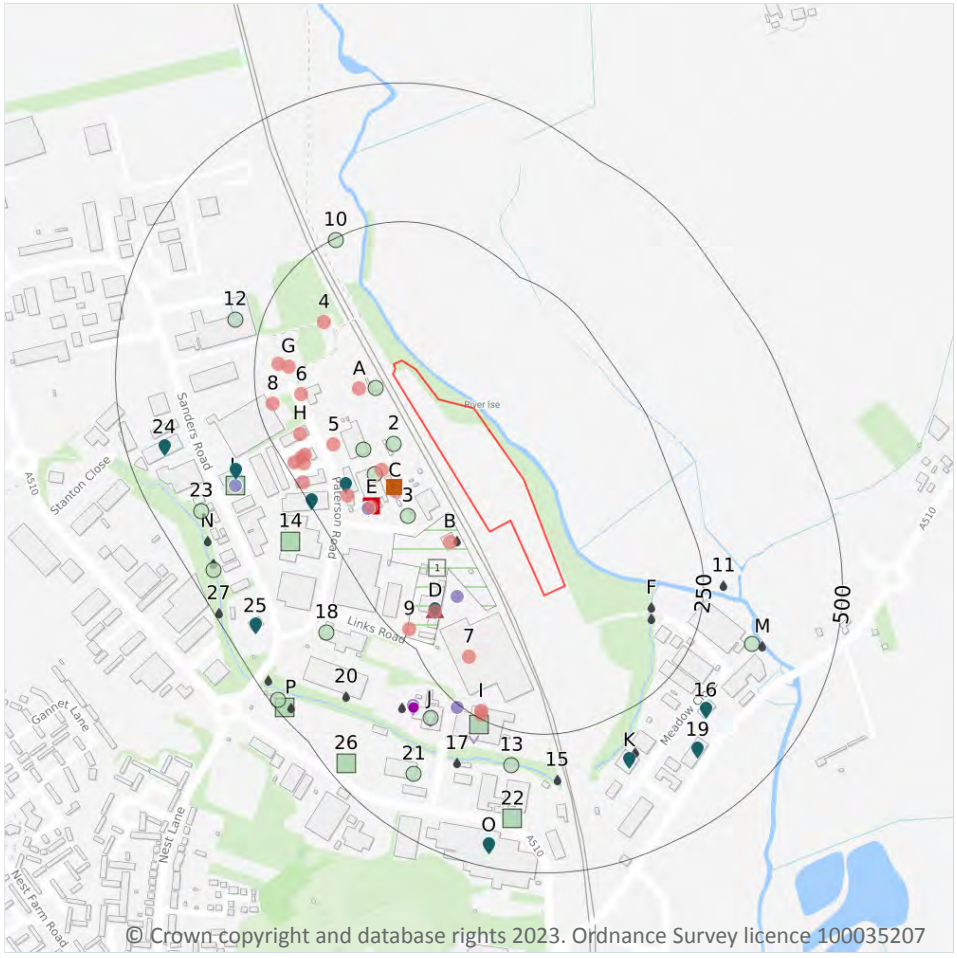
ID	Location	Site	Reference	Category	Sub-Category	Description
F	158m W	1-4, NIELSON ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4PE	WEX247366	Treating waste exemption	Not on a farm	Preparatory treatments (baling, sorting, shredding etc)
F	158m W	1-4, NIELSON ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4PE	WEX247366	Using waste exemption	Not on a farm	Use of waste for a specified purpose
H	173m S	Think 3 E, 155-17 Links Road, Wellingborough, Norhtants, NN8 4EY	WEX159278	Treating waste exemption	Not on a Farm	Treatment of waste food
H	173m S	9-11, LINKS ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4EY	WEX131992	Storing waste exemption	Not on a farm	Storage of waste in a secure place
E	175m S	Think 3 E, 155-17 Links Road, Wellingborough, Norhtants, NN8 4EY	WEX296162	Treating waste exemption	Not on a Farm	Treatment of waste food
E	175m S	UNIVAR SOLUTIONS UK LTD, 9-11 LINKS ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4EY	WEX274013	Storing waste exemption	Not on a farm	Storage of waste in a secure place
4	270m SW	9-11 Links Road Wellingborough Northamptonshire NN8 4EY	EPR/FF0702KE/A001	Storing waste exemption	Non-Agricultural Waste Only	Storage of waste in a secure place
J	273m S	15, BEVAN CLOSE, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4BL	WEX159200	Storing waste exemption	Not on a Farm	Storage of waste in a secure place
J	273m S	15, BEVAN CLOSE, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4BL	WEX159200	Using waste exemption	Not on a Farm	Use of waste in construction

ID	Location	Site	Reference	Category	Sub-Category	Description
J	273m S	15, BEVAN CLOSE, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4BL	WEX159200	Treating waste exemption	Not on a Farm	Screening and blending of waste
K	281m SE	25-31, MEADOW CLOSE, ISE VALLEY INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4BH	WEX233992	Using waste exemption	Not on a farm	Burning of waste as a fuel in a small appliance
K	282m SE	10-14 Meadow Close Wellingborough NN8 4BH	EPR/VF0108XD/A001	Using waste exemption	Non-Agricultural Waste Only	Burning of waste as a fuel in a small appliance
5	308m S	Bevan Close Northamptonshire NN8 4BL	EPR/PE5585HF/A001	Treating waste exemption	Non-Agricultural Waste Only	Treatment of waste wood and waste plant matter by chipping, shredding, cutting or pulverising
M	345m SW	-	WEX255960	Storing waste exemption	Not on a farm	Storage of waste in secure containers
M	345m SW	-	WEX255960	Storing waste exemption	Not on a farm	Storage of waste in a secure place
M	345m SW	-	WEX255960	Storing waste exemption	Not on a farm	Storage of sludge
N	356m SW	Linde, UNIT 6-8 Paterson Road, Wellingborough, NN8 4EX	WEX247706	Using waste exemption	Not on a farm	Use of depolluted end-of-life vehicles for vehicle parts
N	356m SW	Linde, UNIT 6-8 Paterson Road, Wellingborough, NN8 4EX	WEX247706	Storing waste exemption	Not on a farm	Storage of waste in a secure place
N	356m SW	Linde, UNIT 6-8 Paterson Road, Wellingborough, NN8 4EX	WEX247706	Storing waste exemption	Not on a farm	Storage of waste in secure containers
O	381m SE	10-14, MEADOW CLOSE, ISE VALLEY INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4BH	WEX125677	Using waste exemption	Not on a farm	Burning of waste as a fuel in a small appliance
O	381m SE	-	WEX266446	Using waste exemption	Not on a farm	Burning of waste as a fuel in a small appliance

ID	Location	Site	Reference	Category	Sub-Category	Description
P	393m S	7, BEVAN CLOSE, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4BL	WEX159187	Treating waste exemption	Not on a Farm	Screening and blending of waste
P	393m S	7, BEVAN CLOSE, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH, NN8 4BL	WEX159187	Using waste exemption	Not on a Farm	Use of waste in construction
Q	394m S	Grabhire4u, Rixon road, Wellingborough, NN8 4BB	WEX272467	Treating waste exemption	Not on a farm	Screening and blending of waste
Q	394m S	Grabhire4u, Rixon road, Wellingborough, NN8 4BB	WEX272467	Using waste exemption	Not on a farm	Use of waste in construction
S	433m SE	-	WEX115928	Using waste exemption	Not on a farm	Spreading waste on agricultural land to confer benefit
S	436m SE	-	WEX114075	Disposing of waste exemption	Not on a farm	Deposit of waste from dredging of inland waters
S	439m SE	-	WEX062028	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
S	439m SE	-	WEX062028	Using waste exemption	On a farm	Use of waste in construction

This data is sourced from the Environment Agency and Natural Resources Wales.

4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m	23

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Company	Address	Activity	Category
A	66m NW	Recycling Business	Northamptonshire, NN8	Recycling Centres	Infrastructure and Facilities
B	71m SW	Tank	Northamptonshire, NN8	Tanks (Generic)	Industrial Features
C	107m W	Turnell Motors	7-8, Nielson Road, Wellingborough, Northamptonshire, NN8 4PE	Vehicle Repair, Testing and Servicing	Repair and Servicing

ID	Location	Company	Address	Activity	Category
C	107m W	Electricity Sub Station	Northamptonshire, NN8	Electrical Features	Infrastructure and Facilities
4	147m NW	Electricity Sub Station	Northamptonshire, NN8	Electrical Features	Infrastructure and Facilities
5	157m W	Electricity Sub Stations	Northamptonshire, NN8	Electrical Features	Infrastructure and Facilities
E	158m W	Veka Recycling	1-4, Nielson Road, Wellingborough, Northamptonshire, NN8 4PE	Recycling, Reclamation and Disposal	Recycling Services
6	169m NW	Electricity Sub Station	Northamptonshire, NN8	Electrical Features	Infrastructure and Facilities
D	174m S	Univar UK Ltd	9-11, Links Road, Wellingborough, Northamptonshire, NN8 4EY	Colours, Chemicals and Water Softeners and Supplies	Industrial Products
7	175m S	Think 3 E Consortium	15-21, Links Road, Wellingborough, Northamptonshire, NN8 4EY	Recycling, Reclamation and Disposal	Recycling Services
E	184m W	Electricity Sub Station	Northamptonshire, NN8	Electrical Features	Infrastructure and Facilities
G	189m NW	Cawleys	40, Paterson Road, Wellingborough, Northamptonshire, NN8 4BZ	Waste Storage, Processing and Disposal	Infrastructure and Facilities
H	199m W	Narked at 90 Ltd	15, Bentley Court, Wellingborough, Northamptonshire, NN8 4BQ	Hobby, Sports and Pastime Products	Consumer Products
G	207m NW	Wellingborough Household Waste Recycling Centre	Northamptonshire, NN8	Recycling Centres	Infrastructure and Facilities
H	211m W	Mix Flow Systems	17, Bentley Court, Wellingborough, Northamptonshire, NN8 4BQ	Special Purpose Machinery and Equipment	Industrial Products
H	220m W	The File Factory Ltd	18, Bentley Court, Wellingborough, Northamptonshire, NN8 4BQ	Stationery, Stamps, Tags and Labels	Industrial Products
H	220m W	Electricity Sub Station	Northamptonshire, NN8	Electrical Features	Infrastructure and Facilities
8	223m W	Tank	Northamptonshire, NN8	Tanks (Generic)	Industrial Features
9	228m SW	Electricity Sub Station	Northamptonshire, NN8	Electrical Features	Infrastructure and Facilities

ID	Location	Company	Address	Activity	Category
H	234m W	Martin Bros Curtains Ltd	20, Bentley Court, Wellingborough, Northamptonshire, NN8 4BQ	Curtains and Blinds	Consumer Products
I	238m S	Northants Vehicle Recovery	Unit 6 Bevan Close, Units 1 and 2 Bevan Court, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4BL	Vehicle Breakdown and Recovery Services	Personal, Consumer and Other Services
H	240m W	Mosaic Print & Packaging	3, Bentley Court, Wellingborough, Northamptonshire, NN8 4BQ	Plate Makers, Print Finishers and Type Setters	IT, Advertising, Marketing and Media Services
I	242m S	A F G Transport Ltd	Unit 1 6, Bevan Close, Wellingborough, Northamptonshire, NN8 4BL	Scrap Metal Merchants	Recycling Services

This data is sourced from Ordnance Survey.

4.2 Current or recent petrol stations

Records within 500m	0

Open, closed, under development and obsolete petrol stations.

This data is sourced from Experian.

4.3 Electricity cables

Records within 500m	0

High voltage underground electricity transmission cables.

This data is sourced from National Grid.

4.4 Gas pipelines

Records within 500m	0

High pressure underground gas transmission pipelines.

This data is sourced from National Grid.

4.5 Sites determined as Contaminated Land

Records within 500m	0

Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 1990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m	1

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Company	Address	Operational status	Tier
1	45m SW	Univar Solutions UK Limited	Univar Solutions UK Limited, Wellingborough, Finedon Road Industrial Estate, Links Road, Wellingborough, Northamptonshire, NN8 4EY	Historical COMAH Site	COMAH Lower Tier Operator

This data is sourced from the Health and Safety Executive.

4.7 Regulated explosive sites

Records within 500m	0

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m	1

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Details	
D	174m S	Application reference number: WP/2003/0726 Application status: Approved Application date: 18/11/2003 Address: Univar Solutions UK Ltd, Finedon Road Ind Estate, Links Road, Wellingborough, Northamptonshire, England, NN8 4EY	Details: Continuation of hazardous substance consent for the amendment of storage limits dangerous to the environment material Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m	**21**

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Details	
D	131m S	Operator: Univar Ltd Address: Links Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4EY Process: Processes Involving Halogens Permit Number: AP0585	Original Permit Number: IPCAPP Date Approved: 10-3-1995 Effective Date: 1-4-1995 Status: Superseded By Variation
D	131m S	Operator: Univar Ltd Address: Links Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4EY Process: Processes Involving Halogens Permit Number: BD0362	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
D	131m S	Operator: Univar Ltd Address: Links Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4EY Process: Processes Involving Halogens Permit Number: BI6929	Original Permit Number: IPCMINVAR Date Approved: 12-12-2000 Effective Date: 13-12-2000 Status: Superseded By Variation
D	131m S	Operator: Univar Ltd Address: Links Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4EY Process: Processes Involving Halogens Permit Number: BX7495	Original Permit Number: IPCMINVAR Date Approved: 22-7-2004 Effective Date: 1-8-2004 Status: Revoked
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Processes Involving Halogens Permit Number: AI8641	Original Permit Number: IPCAPP Date Approved: 19-9-1993 Effective Date: 19-9-1993 Status: Superseded By Variation

ID	Location	Details	
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Processes Involving Halogens Permit Number: AN7007	Original Permit Number: IPCMAJVAR Date Approved: 26-1-1995 Effective Date: 1-2-1995 Status: Superseded By Variation
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Non-ferrous Metals Permit Number: AS2530	Original Permit Number: IPCAIRAPP Date Approved: 30-10-1995 Effective Date: 1-11-1995 Status: Superseded By Variation
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Non-ferrous Metals Permit Number: AS7272	Original Permit Number: IPCAPP Date Approved: 20-11-1995 Effective Date: 1-12-1995 Status: Superseded By Variation
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Processes Involving Halogens Permit Number: AY7518	Original Permit Number: IPCMAJVAR Date Approved: 15-9-1997 Effective Date: 15-9-1997 Status: Superseded By Variation
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Non-ferrous Metals Permit Number: BB0043	Original Permit Number: IPCAPP Date Approved: 29-6-1998 Effective Date: 1-7-1998 Status: Superseded By Variation
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Non-ferrous Metals Permit Number: BD1873	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Revoked - Now Ippc
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Non-ferrous Metals Permit Number: BD2454	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Processes Involving Halogens Permit Number: BD9548	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Non-ferrous Metals Permit Number: BE4126	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Revoked - Now Ippc

ID	Location	Details	
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Manufacture And Use Of Organic Chemicals Permit Number: BH2979	Original Permit Number: IPCMAJVAR Date Approved: 18-2-2000 Effective Date: 25-2-2000 Status: Superseded By Variation
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Inorganic Chemical Processes Permit Number: BK2585	Original Permit Number: IPCMAJVAR Date Approved: 19-4-2001 Effective Date: 23-4-2001 Status: Revoked - Now Ippc
E	164m W	Operator: Mining and Chemical Products Ltd Address: 1-4 Nielson Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4PE Process: Non-ferrous Metals Permit Number: BL0286	Original Permit Number: IPCMINVAR Date Approved: 14-9-2001 Effective Date: 21-9-2001 Status: Revoked - Now Ippc
I	256m S	Operator: Escol Panels (s and G) Ltd (dissolved) Address: Paisley Works, Bevan Close, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4BL Process: Inorganic Chemical Processes Permit Number: AN9085	Original Permit Number: IPCAPP Date Approved: 25-11-1994 Effective Date: 1-1-1995 Status: Superseded By Variation
I	256m S	Operator: Escol Panels (s and G) Ltd (dissolved) Address: Paisley Works, Bevan Close, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4BL Process: Inorganic Chemical Processes Permit Number: BC9127	Original Permit Number: IPCMINVAR Date Approved: 24-11-1998 Effective Date: 30-11-1998 Status: Superseded By Variation
I	256m S	Operator: Escol Panels (s and G) Ltd (dissolved) Address: Paisley Works, Bevan Close, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4BL Process: Inorganic Chemical Processes Permit Number: BF9476	Original Permit Number: IPCMINVAR Date Approved: 25-6-1999 Effective Date: 1-7-1999 Status: Revoked
L	347m W	Operator: Fuel Oils (kent) Ltd Address: Unit 3, Bradfield Close, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4RQ Process: Non-ferrous Metals Permit Number: AH4853	Original Permit Number: IPCAPP Date Approved: 27-9-1993 Effective Date: 27-9-1993 Status: Revoked

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m	52

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Details	
E	164m W	Operator: 5N PLUS UK LIMITED Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; USING ETC OF ANTIMONY ETC (UNLESS OTHERRWISE PRESCRINED) (UNLESS GLAZING ETC) Permit Number: BL3781IX Original Permit Number: BL3781IX	EPR Reference: EPR/BL3781IX Issue Date: 23/10/2017 Effective Date: 23/10/2017 Last date noted as effective: 25/05/2023 Status: Surrendered
E	164m W	Operator: 5N PLUS UK LIMITED Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: ASSOCIATED PROCESS Permit Number: LP3433JA Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 30/11/2017 Status: DETERMINATION
E	164m W	Operator: 5N PLUS UK LIMITED Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; GASES EG AMMONIA Permit Number: LP3433JA Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 30/11/2017 Status: DETERMINATION
E	164m W	Operator: 5N PLUS UK LIMITED Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; NON METALS ETC EG CALCIUM CARBIDE Permit Number: LP3433JA Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 30/11/2017 Status: DETERMINATION
E	164m W	Operator: 5N PLUS UK LIMITED Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: MANUFACTURING THE USE OF, OR THE USE OF ANTIMONY, ARSENIC, BERYLLIUM, GALLIUM, INDIUM, LEAD, PALLADIUM, PLATINUM, SELENIUM, TELLURIUM AND THALLIUM Permit Number: LP3433JA Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 30/11/2017 Status: DETERMINATION

ID	Location	Details	
E	164m W	Operator: 5N PLUS UK LIMITED Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; MANUFACTURING ETC BERYLLIUM/SELENIUM AND ALLOY WITH RELEASE TO AIR (UNLESS 0.1 PERCENT BERYLLIUM AND 2.1 B (A) OR (D)) Permit Number: LP3433JA Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 30/11/2017 Status: DETERMINATION
E	164m W	Operator: 5N PLUS UK LIMITED Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; MELTING CAPACITY >4T/D LEAD/CADMIUM OR 20T/D OTHERS AND FOR ALLOYS A VESSEL WITH A DESIGN HOLDING CAPACITY OF 5 TONNES OR MORE. Permit Number: LP3433JA Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 30/11/2017 Status: DETERMINATION
E	164m W	Operator: 5N PLUS UK LIMITED Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: RECOVERY OF GALLIUM; INDIUM; PALLADIUM; TELLURIUM; THALLIUM WITH RELEASE TO AIR Permit Number: LP3433JA Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 30/11/2017 Status: DETERMINATION
E	164m W	Operator: MINING AND CHEMICAL PRODUCTS LTD Installation Name: - Process: NON-FERROUS METALS; PRODUCING ETC LEAD & ALLOYS > 23 PERCENT LEAD (WITH COPPER) OR 2 PERCENT LEAD (WITHOUT) Permit Number: BL3781 Original Permit Number: BL3781	EPR Reference: - Issue Date: 26/11/2002 Effective Date: 26/11/2002 Last date noted as effective: 01/10/2004 Status: SUPERSEDED BY PAS
E	164m W	Operator: MINING AND CHEMICAL PRODUCTS LTD Installation Name: - Process: NON-FERROUS METALS; MANUFACTURING ETC BERYLLIUM/SELENIUM & ALLOY WITH RELEASE TO AIR (UNLESS 0.1 PERCENT BERYLLIUM AND 2.1 B (A) OR (D)) Permit Number: BL3781 Original Permit Number: BL3781	EPR Reference: - Issue Date: 26/11/2002 Effective Date: 26/11/2002 Last date noted as effective: 01/10/2004 Status: SUPERSEDED BY PAS

ID	Location	Details	
E	164m W	Operator: MINING AND CHEMICAL PRODUCTS LTD Installation Name: - Process: NON-FERROUS METALS; REFINING (NOT ELECTRLYTIC COPPER) (UNLESS 2.2 A (2) (A) OR 2.2 B (A), (D) OR (E)) Permit Number: BL3781 Original Permit Number: BL3781	EPR Reference: - Issue Date: 26/11/2002 Effective Date: 26/11/2002 Last date noted as effective: 01/10/2004 Status: SUPERSEDED BY PAS
E	164m W	Operator: MINING AND CHEMICAL PRODUCTS LTD Installation Name: - Process: INORGANIC CHEMICALS; USING ETC OF ANTIMONY ETC (UNLESS OTHERRWISE PRESCRINED) (UNLESS GLAZING ETC) Permit Number: BL3781 Original Permit Number: BL3781	EPR Reference: - Issue Date: 26/11/2002 Effective Date: 26/11/2002 Last date noted as effective: 01/10/2004 Status: SUPERSEDED BY PAS
E	164m W	Operator: MINING AND CHEMICAL PRODUCTS LTD Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; SECTION 4.2 A(1) (A) WHERE = 100 TONNES PER ANNUM. AND ON SAME INSTALLATION AS A LARGER PLANT Permit Number: DP3538SG Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 01/04/2005 Status: DETERMINATION
E	164m W	Operator: Mining & Chemical Products Ltd Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; GASES EG AMMONIA Permit Number: DP3538SG Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 13/07/2005 Effective Date: 13/07/2005 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: Mining & Chemical Products Ltd Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: RECOVERY OF GALLIUM; INDIUM; PALLADIUM; TELLURIUM; THALLIUM WITH RELEASE TO AIR Permit Number: DP3538SG Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 13/07/2005 Effective Date: 13/07/2005 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: RECOVERY OF GALLIUM; INDIUM; PALLADIUM; TELLURIUM; THALLIUM WITH RELEASE TO AIR Permit Number: BP3830TD Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 24/03/2010 Effective Date: 24/03/2010 Last date noted as effective: 21/03/2023 Status: Superceded

ID	Location	Details	
E	164m W	Operator: 5N Plus UK Limited Installation Name: Mining & Chemical Products - EPR/BL3781IX Process: INORGANIC CHEMICALS; GASES EG AMMONIA Permit Number: GP3333NE Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 28/05/2013 Effective Date: 28/05/2013 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: Mining & Chemical Products - EPR/BL3781IX Process: INORGANIC CHEMICALS; NON METALS ETC EG CALCIUM CARBIDE Permit Number: GP3333NE Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 28/05/2013 Effective Date: 28/05/2013 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: Mining & Chemical Products - EPR/BL3781IX Process: INORGANIC CHEMICALS; USING ETC OF ANTIMONY ETC (UNLESS OTHERRWISE PRESCRINED) (UNLESS GLAZING ETC) Permit Number: GP3333NE Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 28/05/2013 Effective Date: 28/05/2013 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: Mining & Chemical Products - EPR/BL3781IX Process: NON-FERROUS METALS; MANUFACTURING ETC BERYLLIUM/SELENIUM AND ALLOY WITH RELEASE TO AIR (UNLESS 0.1 PERCENT BERYLLIUM AND 2.1 B (A) OR (D)) Permit Number: GP3333NE Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 28/05/2013 Effective Date: 28/05/2013 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; GASES EG AMMONIA Permit Number: NP3031FM Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 09/03/2012 Effective Date: 09/03/2012 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; NON METALS ETC EG CALCIUM CARBIDE Permit Number: NP3031FM Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 09/03/2012 Effective Date: 09/03/2012 Last date noted as effective: 21/03/2023 Status: Superceded

ID	Location	Details	
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: RECOVERY OF GALLIUM; INDIUM; PALLADIUM; TELLURIUM; THALLIUM WITH RELEASE TO AIR Permit Number: NP3031FM Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 09/03/2012 Effective Date: 09/03/2012 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; GASES EG AMMONIA Permit Number: BP3830TD Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 24/03/2010 Effective Date: 24/03/2010 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; MANUFACTURING ETC BERYLLIUM/SELENIUM AND ALLOY WITH RELEASE TO AIR (UNLESS 0.1 PERCENT BERYLLIUM AND 2.1 B (A) OR (D)) Permit Number: BP3830TD Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 24/03/2010 Effective Date: 24/03/2010 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: Mining & Chemical Products Ltd Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; REFINING (NOT ELECTRLYTIC COPPER) (UNLESS 2.2 A (2) (A) OR 2.2 B (A), (D) OR (E)) Permit Number: BL3781IX Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 26/11/2002 Effective Date: 26/11/2002 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: Mining & Chemical Products Ltd Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; MANUFACTURING ETC BERYLLIUM/SELENIUM AND ALLOY WITH RELEASE TO AIR (UNLESS 0.1 PERCENT BERYLLIUM AND 2.1 B (A) OR (D)) Permit Number: BL3781IX Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 26/11/2002 Effective Date: 26/11/2002 Last date noted as effective: 21/03/2023 Status: Superceded

ID	Location	Details	
E	164m W	Operator: Mining & Chemical Products Ltd Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; PRODUCING ETC LEAD AND ALLOYS > 23 PERCENT LEAD (WITH COPPER) OR 2 PERCENT LEAD (WITHOUT) Permit Number: BL3781IX Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 26/11/2002 Effective Date: 26/11/2002 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: Mining & Chemical Products Ltd Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; NON METALS ETC EG CALCIUM CARBIDE Permit Number: DP3538SG Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 13/07/2005 Effective Date: 13/07/2005 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: Mining & Chemical Products Ltd Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; USING ETC OF ANTIMONY ETC (UNLESS OTHERRWISE PRESCRINED) (UNLESS GLAZING ETC) Permit Number: DP3538SG Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 13/07/2005 Effective Date: 13/07/2005 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: Mining & Chemical Products Ltd Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; MANUFACTURING ETC BERYLLIUM/SELENIUM AND ALLOY WITH RELEASE TO AIR (UNLESS 0.1 PERCENT BERYLLIUM AND 2.1 B (A) OR (D)) Permit Number: DP3538SG Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 13/07/2005 Effective Date: 13/07/2005 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: Mining & Chemical Products Ltd Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; MELTING CAPACITY >4T/D LEAD/CADMIUM OR 20T/D OTHERS AND FOR ALLOYS A VESSEL WITH A DESIGN HOLDING CAPACITY OF 5 TONNES OR MORE. Permit Number: DP3538SG Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 13/07/2005 Effective Date: 13/07/2005 Last date noted as effective: 21/03/2023 Status: Superceded

ID	Location	Details	
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; USING ETC OF ANTIMONY ETC (UNLESS OTHERRWISE PRESCRINED) (UNLESS GLAZING ETC) Permit Number: BP3830TD Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 24/03/2010 Effective Date: 24/03/2010 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; MELTING CAPACITY >4T/D LEAD/CADMIUM OR 20T/D OTHERS AND FOR ALLOYS A VESSEL WITH A DESIGN HOLDING CAPACITY OF 5 TONNES OR MORE. Permit Number: BP3830TD Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 24/03/2010 Effective Date: 24/03/2010 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: Mining & Chemical Products - EPR/BL3781IX Process: RECOVERY OF GALLIUM; INDIUM; PALLADIUM; TELLURIUM; THALLIUM WITH RELEASE TO AIR Permit Number: GP3333NE Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 28/05/2013 Effective Date: 28/05/2013 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; GASES EG AMMONIA Permit Number: LP3433JA Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: 23/10/2017 Last date noted as effective: 21/03/2023 Status: Surrender Effective
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; MELTING CAPACITY >4T/D LEAD/CADMIUM OR 20T/D OTHERS AND FOR ALLOYS A VESSEL WITH A DESIGN HOLDING CAPACITY OF 5 TONNES OR MORE. Permit Number: NP3031FM Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 09/03/2012 Effective Date: 09/03/2012 Last date noted as effective: 21/03/2023 Status: Superceded

ID	Location	Details	
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; NON METALS ETC EG CALCIUM CARBIDE Permit Number: BP3830TD Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 24/03/2010 Effective Date: 24/03/2010 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: Mining & Chemical Products - EPR/BL3781IX Process: ASSOCIATED PROCESS Permit Number: GP3333NE Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 28/05/2013 Effective Date: 28/05/2013 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: Mining & Chemical Products - EPR/BL3781IX Process: MANUFACTURING THE USE OF, OR THE USE OF ANTIMONY, ARSENIC, BERYLLIUM, GALLIUM, INDIUM, LEAD, PALLADIUM, PLATINUM, SELENIUM, TELLURIUM AND THALLIUM Permit Number: GP3333NE Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 28/05/2013 Effective Date: 28/05/2013 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: Mining & Chemical Products - EPR/BL3781IX Process: NON-FERROUS METALS; MELTING CAPACITY >4T/D LEAD/CADMIUM OR 20T/D OTHERS AND FOR ALLOYS A VESSEL WITH A DESIGN HOLDING CAPACITY OF 5 TONNES OR MORE. Permit Number: GP3333NE Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 28/05/2013 Effective Date: 28/05/2013 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; USING ETC OF ANTIMONY ETC (UNLESS OTHERRWISE PRESCRINED) (UNLESS GLAZING ETC) Permit Number: LP3433JA Original Permit Number: BL3781IX	EPR Reference: - Issue Date: - Effective Date: 23/10/2017 Last date noted as effective: 21/03/2023 Status: Surrender Effective
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; USING ETC OF ANTIMONY ETC (UNLESS OTHERRWISE PRESCRINED) (UNLESS GLAZING ETC) Permit Number: NP3031FM Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 09/03/2012 Effective Date: 09/03/2012 Last date noted as effective: 21/03/2023 Status: Superceded

ID	Location	Details	
E	164m W	Operator: 5N Plus UK Limited Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: NON-FERROUS METALS; MANUFACTURING ETC BERYLLIUM/SELENIUM AND ALLOY WITH RELEASE TO AIR (UNLESS 0.1 PERCENT BERYLLIUM AND 2.1 B (A) OR (D)) Permit Number: NP3031FM Original Permit Number: BL3781IX	EPR Reference: - Issue Date: 09/03/2012 Effective Date: 09/03/2012 Last date noted as effective: 21/03/2023 Status: Superceded
E	164m W	Operator: 5N PLUS UK LIMITED Installation Name: MINING AND CHEMICAL PRODUCTS LTD Process: INORGANIC CHEMICALS; GASES EG AMMONIA Permit Number: BL3781IX Original Permit Number: BL3781IX	EPR Reference: EPR/BL3781IX Issue Date: 23/10/2017 Effective Date: 23/10/2017 Last date noted as effective: 25/05/2023 Status: Surrendered
I	282m S	Operator: GREEN PLAN ENERGY (WELLINGBOROUGH) LIMITED Installation Name: GPE WELLINGBOROUGH Process: THE INCINERATION OF NON-HAZARDOUS WASTE IN AN INCINERATION OR CO-INCINERATION PLANT WITH A CAPACITY EXCEEDING 3 TONNES PER HOUR. Permit Number: HP3030AE Original Permit Number: HP3030AE	EPR Reference: - Issue Date: - Effective Date: - Last date noted as effective: 01/01/2016 Status: DETERMINATION
J	303m S	Operator: PREMIER FOODS GROUP LIMITED Installation Name: Finedon Mill, Wellingborough Process: ASSOCIATED PROCESS Permit Number: LP3435GR Original Permit Number: LP3435GR	EPR Reference: EPR/LP3435GR Issue Date: 26/03/2009 Effective Date: 26/03/2009 Last date noted as effective: 25/05/2023 Status: Superseded
J	303m S	Operator: PREMIER FOODS GROUP LIMITED Installation Name: Finedon Mill, Wellingborough Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: LP3435GR Original Permit Number: LP3435GR	EPR Reference: EPR/LP3435GR Issue Date: 26/03/2009 Effective Date: 26/03/2009 Last date noted as effective: 25/05/2023 Status: Superseded
J	303m S	Operator: RANK HOVIS LIMITED Installation Name: Finedon Mill, Wellingborough Process: ANIMAL VEGETABLE AND FOOD; TREATING ETC VEGETABLE RAW MATERIALS FOR FOOD >300T/D Permit Number: BT3528IS Original Permit Number: BT3528IS	EPR Reference: EPR/BT3528IS Issue Date: 08/11/2005 Effective Date: 08/11/2005 Last date noted as effective: 25/05/2023 Status: Superseded

ID	Location	Details	
J	303m S	Operator: RANK HOVIS LIMITED Installation Name: Finedon Mill, Wellingborough Process: ASSOCIATED PROCESS Permit Number: BT3528IS Original Permit Number: BT3528IS	EPR Reference: EPR/BT3528IS Issue Date: 08/11/2005 Effective Date: 08/11/2005 Last date noted as effective: 25/05/2023 Status: Superseded
J	311m S	Operator: HOVIS LIMITED Installation Name: Finedon Mill, Wellingborough EPR/RP3931VA Process: ANIMAL VEGETABLE AND FOOD TREATING ETC VEGETABLE Permit Number: RP3931VA Original Permit Number: RP3931VA	EPR Reference: EPR/RP3931VA Issue Date: 31/07/2014 Effective Date: 31/07/2014 Last date noted as effective: 25/05/2023 Status: Effective
J	311m S	Operator: HOVIS LIMITED Installation Name: Finedon Mill, Wellingborough EPR/RP3931VA Process: ASSOCIATED PROCESS Permit Number: RP3931VA Original Permit Number: RP3931VA	EPR Reference: EPR/RP3931VA Issue Date: 31/07/2014 Effective Date: 31/07/2014 Last date noted as effective: 25/05/2023 Status: Effective

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m **11**

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Address	Details	
D	175m S	Univar Limited (formerly Ellis & Everard UK Ltd), Links Road, F.R.I.E., Wellingborough, NN8 4EY	Process: Halogen Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
E	178m W	Dbs Ltd, Victoria Road, Wellingborough, NN9 5JD	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Location	Address	Details	
H	245m W	Msi Oilfield Products, Allen House, Wellingborough, NN8 4BZ	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
L	333m W	Sanders Garage, 3 Sanders Close, Finedon Road Industrial Estate, Wellingborough, NN8 4HQ	Process: Waste Oil Burner 0.4 MW Status: New Legislation Applies Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
K	334m SE	Harcros Timber, 5-11 Meadow Close, Wellingborough, NN8 4BH	Process: Timber Manufacture Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
16	338m SE	Blake Performance Fabrics, Meadow Close, Wellingborough, NN8 4BH	Process: Coating Processes Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
19	379m SE	Bonham Lilley Timber, 10-14 Meadow Close, Ise Valley Industrial Estate, Wellingborough, Northamptonshire, NN8 4BH	Process: Timber Manufacture Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
24	433m W	Hartigan Readymix Ltd, Sanders Road, F.R.I.E., Wellingborough,NN8 4BX	Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
25	449m SW	Hanson Heidelberg Cement Group, Sanders Road, Finedon Road Industrial Estate, Wellingborough, Northamptonshire, NN8 4UT	Process: Use of Bulk Cement Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
O	461m S	Castline Limited, Rixon Road, F.R.I.E., Wellingborough, Northants, NN8 4BA	Process: Timber Manufacture Status: Historical Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified
O	461m S	Bushboard Ltd, Rixon Road, Finedon Road Industrial Estate, Wellingborough, NN8 4BA	Process: Timber Manufacture Status: Current Permit Permit Type: Part B	Enforcement: No Enforcement Notified Date of enforcement: No Enforcement Notified Comment: No Enforcement Notified

This data is sourced from Local Authority records.

4.12 Radioactive Substance Authorisations

Records within 500m	0

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m	15

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Address	Details	
B	59m S	OLD RAILWAY PREMES, NEILSON ROAD, FINEDON RD IND ESTATE, RUSHDEN	Effluent Type: UNSPECIFIED Permit Number: PR5LF5125 Permit Version: 1 Receiving Water: land	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 05/02/1986 Effective Date: 05/02/1986 Revocation Date: 01/10/1996
F	160m SE	FINEDON RD IND ESTATE, WELLINGBOROUGH, NORTHANTS	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PRNNF00349 Permit Version: 1 Receiving Water: Harrowden Brook	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 15/12/1988 Effective Date: 15/12/1988 Revocation Date: -
F	166m SE	RICHARDSON BURDETT, ISLE VALLEY IND EST, WELLINGBOROUGH	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PRNNF04253 Permit Version: 1 Receiving Water: Harrowden Brook	Status: REVOKED - UNSPECIFIED Issue date: 09/04/1991 Effective Date: 09/04/1991 Revocation Date: 30/09/2014
11	285m SE	MEADOW CLOSE, ISE VALLEY INDUSTRIAL ESTATE, WELLINGBOROUGH, NORTHANTS, NN8 4BH	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PRNNF04630 Permit Version: 1 Receiving Water: River Ise	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 15/11/1991 Effective Date: 15/11/1991 Revocation Date: -

ID	Location	Address	Details	
K	324m SE	CENTRAL BATCHING PLANT, FINEDON ROAD, WELLINGBOROUGH	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: PR5LF3047 Permit Version: 1 Receiving Water: Land	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 29/03/1967 Effective Date: 29/03/1967 Revocation Date: 26/02/1992
J	327m S	FINEDON RD IND. EST, FINEDON RD, FINEDON ROAD INDUSTRIA, WELLINGBOROUGH, NN8	Effluent Type: TRADE DISCHARGES - UNSPECIFIED Permit Number: PR5NF5059 Permit Version: 1 Receiving Water: Harrowden Brook	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 30/08/1985 Effective Date: 30/08/1985 Revocation Date: 26/02/1992
15	333m S	IRONWORKS IND. EST., FINEDON ROAD INDUSTRIA, WELLINGBOROUGH, NN8	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: AW5NF293 Permit Version: 1 Receiving Water: Harrowden Brook	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 24/06/1965 Effective Date: 24/06/1965 Revocation Date: -
17	340m S	RIXON RD, FINEDON ROAD IND. EST., WELLINGBOROUGH, NN8 4BB	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PR5NF5058 Permit Version: 1 Receiving Water: Harrowden Brook	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 04/07/1985 Effective Date: 04/07/1985 Revocation Date: 01/07/1991
M	372m SE	FINEDON ROAD IND EST, FINEDON ROAD, WELLINGBOROUGH, NORTHANTS, NN8 4BH	Effluent Type: SEWAGE DISCHARGES - PUMPING STATION - WATER COMPANY Permit Number: AW5NF698 Permit Version: 1 Receiving Water: River Ise	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 22/12/1980 Effective Date: 22/12/1980 Revocation Date: -
20	394m SW	FINEDON ROAD IND EST, FINEDON ROAD, FINEDON ROAD INDUSTRIA, WELLINGBOROUGH, NN8	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: AW5NF466 Permit Version: 1 Receiving Water: Harrowden Brook	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 12/05/1969 Effective Date: 12/05/1969 Revocation Date: -
N	442m W	STEWARTS ROAD, FINEDON ROAD INDUSTRIAL ESTATE, WELLINGBOROUGH	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PRNNF01280 Permit Version: 1 Receiving Water: Harrowden Brook	Status: POST NRA LEGISLATION WHERE ISSUE DATE > 31-AUG-89 (HISTORIC ONLY) Issue date: 20/07/1989 Effective Date: 20/07/1989 Revocation Date: -

ID	Location	Address	Details	
N	455m W	GARDINER MOTORS LTD, STEWARTS ROAD, WELLINGBOROUGH, NN8 4RJ	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PR5NF5139 Permit Version: 1 Receiving Water: trib River Ise	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 14/03/1986 Effective Date: 14/03/1986 Revocation Date: -
P	479m SW	FINEDON ROAD IND. EST, WELLINGBOROUGH	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: PR5NF5057 Permit Version: 1 Receiving Water: Harrowden Brook	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 04/07/1985 Effective Date: 04/07/1985 Revocation Date: -
P	480m SW	WELLINGBOROUGH 40 SWS, PATTERSON ROAD, WELLINGBOROUGH, NN8 4SR	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: AW5NF1218 Permit Version: 1 Receiving Water: Trib River Ise	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 19/09/1984 Effective Date: 19/09/1984 Revocation Date: -
27	493m SW	FINEDON ROAD IND EST, (PHASE IV)	Effluent Type: MISCELLANEOUS DISCHARGES - SURFACE WATER Permit Number: AW5NF650 Permit Version: 1 Receiving Water: Trib Harrowden Brook	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 03/09/1975 Effective Date: 03/09/1975 Revocation Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m	0

Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances) Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m	1

Discharges of Special Category Effluents to the public sewer.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Address	Details	
C	105m W	GALLY LIMITED. PATERSON ROAD, FINEDON ROAD IND EST, FINEDON ROAD IND EST, WELLINGBOROUGH, NORTHAMPTONSHIRE	Permission reference: SCE0080C2 Local Authority: WELLINGBOROUGH BOROUGH COUNCIL First received date: 01/01/2015	Last received date: 08/10/2016 Status: EFFECTIVE

This data is sourced from the Environment Agency and Natural Resources Wales.

4.16 List 1 Dangerous Substances

Records within 500m **2**

Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Name	Status	Receiving Water	Authorised Substances
E	159m W	Mining & Chemical Products Limited	Active	Na	Mercury (other), Cadmium
E	159m W	Mining & Chemical Products Limited	Active	-	Mercury (other), Cadmium

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m **6**

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Name	Status	Receiving Water	Authorised Substances
I	260m S	Rank Hovis Limited	Not Active	Na	pH
14	315m W	Bantex Ltd	Active	Na	pH
L	348m W	Tingdene Homes Ltd	Not Active	Na	pH
22	406m S	Bushboard Limited	Not Active	Na	pH
26	468m SW	B-trac	Not Active	Na	pH
P	487m SW	Tnt Newsfast/taylor Barnard Ltd	Not Active	Na	pH

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m	15

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on **page 52 >**

ID	Location	Details	
A	39m NW	Incident Date: 02/03/2022 Incident Identification: 2036345 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 4 (No Impact)
2	64m W	Incident Date: 25/09/2013 Incident Identification: 1162027 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 2 (Significant)
3	110m SW	Incident Date: 05/10/2001 Incident Identification: 34822 Pollutant: Oils and Fuel Pollutant Description: Lubricating Oils	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
C	116m W	Incident Date: 05/07/2019 Incident Identification: 1715962 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
C	122m W	Incident Date: 15/10/2001 Incident Identification: 36862 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
10	247m NW	Incident Date: 24/04/2003 Incident Identification: 154055 Pollutant: Inert Materials and Wastes Pollutant Description: Other Inert Material or Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
12	297m NW	Incident Date: 02/07/2001 Incident Identification: 12981 Pollutant: Specific Waste Materials Pollutant Description: Household Waste	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
J	301m S	Incident Date: 14/11/2005 Incident Identification: 360127 Pollutant: Other Pollutant Pollutant Description: Other	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)

ID	Location	Details	
13	311m S	Incident Date: 16/01/2002 Incident Identification: 52857 Pollutant: Pollutant Not Identified Pollutant Description: Not Identified	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)
18	345m SW	Incident Date: 03/06/2013 Incident Identification: 1118394 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 2 (Significant)
M	352m SE	Incident Date: 08/11/2001 Incident Identification: 41808 Pollutant: Specific Waste Materials Pollutant Description: Tyres	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
21	398m S	Incident Date: 30/03/2004 Incident Identification: 226444 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Dust	Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 2 (Significant)
23	423m W	Incident Date: 02/05/2003 Incident Identification: 155571 Pollutant: Sewage Materials Pollutant Description: Crude Sewage	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
N	460m W	Incident Date: 11/03/2002 Incident Identification: 63194 Pollutant: General Biodegradable Materials and Wastes Pollutant Description: Other General Biodegradable Material or Waste	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
P	487m SW	Incident Date: 23/11/2001 Incident Identification: 45550 Pollutant: Inert Materials and Wastes Pollutant Description: Soils and Clay	Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m	**1**

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

Features are displayed on the Current industrial land use map on **page 52 >**

ID: J, Location: 312m S, Permit: RP3931VA
Operator: Hovis Limited
Activity: Animal vegetable and food treating etc vegetable
Address: Finedon Mill,Wellingborough 5 Bevan Close Finedon Road Industrial Estate Northamptonshire NN8 5BL
Sector: Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Substance	Reporting threshold (kg)	Quantity (kg)
Air	Particulate matter - PM2.5	1000kg	Below Reporting Threshold
Air	Particulate matter - total	10000kg	Below Reporting Threshold
Air	Carbon dioxide	10000000kg	Below Reporting Threshold
Air	Particulate matter - PM10	1000kg	Below Reporting Threshold

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.20 Pollution inventory waste transfers

Records within 500m	**1**

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

Features are displayed on the Current industrial land use map on **page 52 >**

ID: J, Location: 312m S, Permit: RP3931VA
Operator: Hovis Limited
Activity: Animal vegetable and food treating etc vegetable
Address: Finedon Mill,Wellingborough 5 Bevan Close Finedon Road Industrial Estate Northamptonshire NN8 5BL
Sector: Food & Drink, Sub-sector: Food & Drink
Releases:

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R9	Oil e-refining or other reuses of oil	0.138	absolute value	11 01 14	degreasing wastes other than those mentioned in 11 01 13	No

Route	Route description	Quantity (tonnes)	Release level	EWC code	EWC description	Hazardous waste
R13	Storage of wastes pending any of the operations numbered R1 to R12 (excluding temporary storage, pending collection, on the site where it is produced)	0.33	absolute value	20 01 36	discarded electrical and electronic equipment other than those mentioned in 20 01 21, 20 01 23 and 20 01 35	No
R3	Recycling/Reclamation of organic substances which are not used as solvents (including composting and other biological transformatin processes)	316.32	absolute value	02 03 04	materials unsuitable for consumption or processing	No
R4	Recycling/reclamation of metals and metal compounds	8.72	absolute value	20 03 01	mixed municipal waste	No
R1	Use principally as a fuel or other means to generate energy	1.93	absolute value	20 03 01	mixed municipal waste	No
D10	Incineration on Land	0.16	absolute value	15 02 02	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	Yes
R9	Oil e-refining or other reuses of oil	10.362	absolute value	13 05 08	mixtures of wastes from grit chambers and oil/water separators	Yes

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

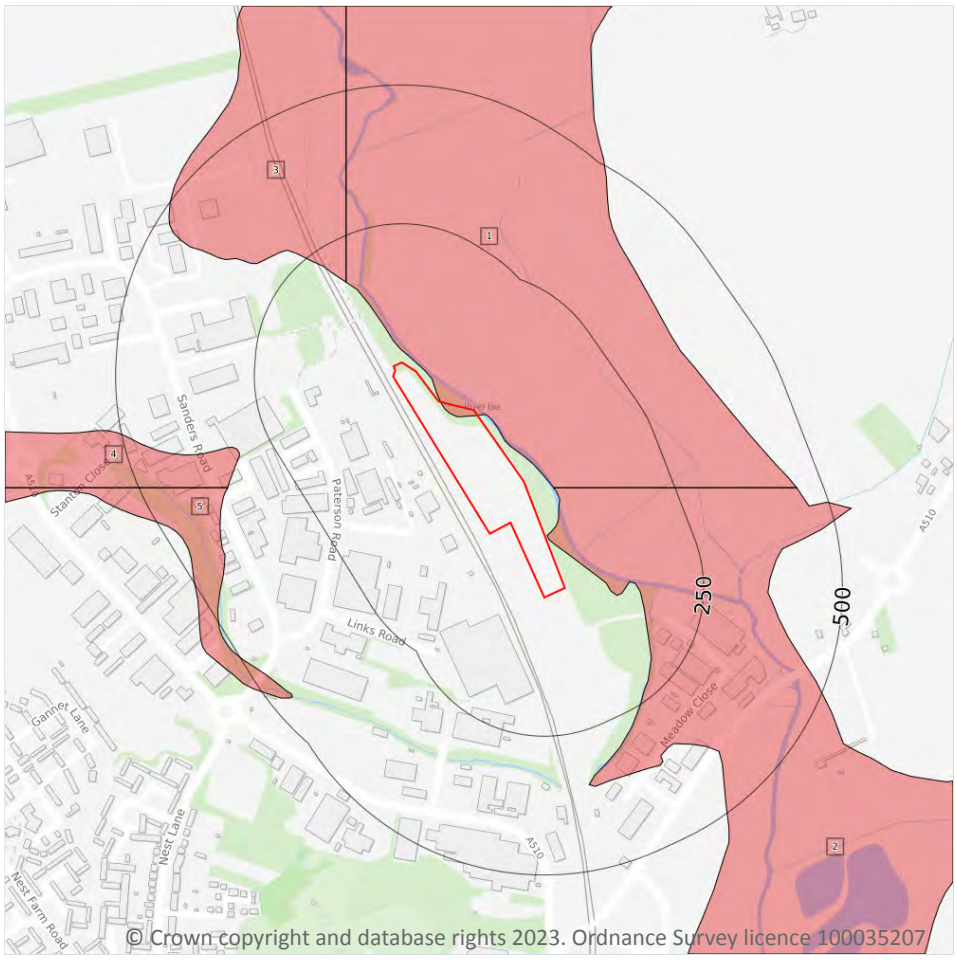
4.21 Pollution inventory radioactive waste

Records within 500m	**0**

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

5 Hydrogeology - Superficial aquifer



Site Outline

Search buffers in metres (m)

- Principal
- Secondary A
- Secondary B
- Secondary Undifferentiated
- Unproductive
- Unknown

5.1 Superficial aquifer

Records within 500m	5

Aquifer status of groundwater held within superficial geology.

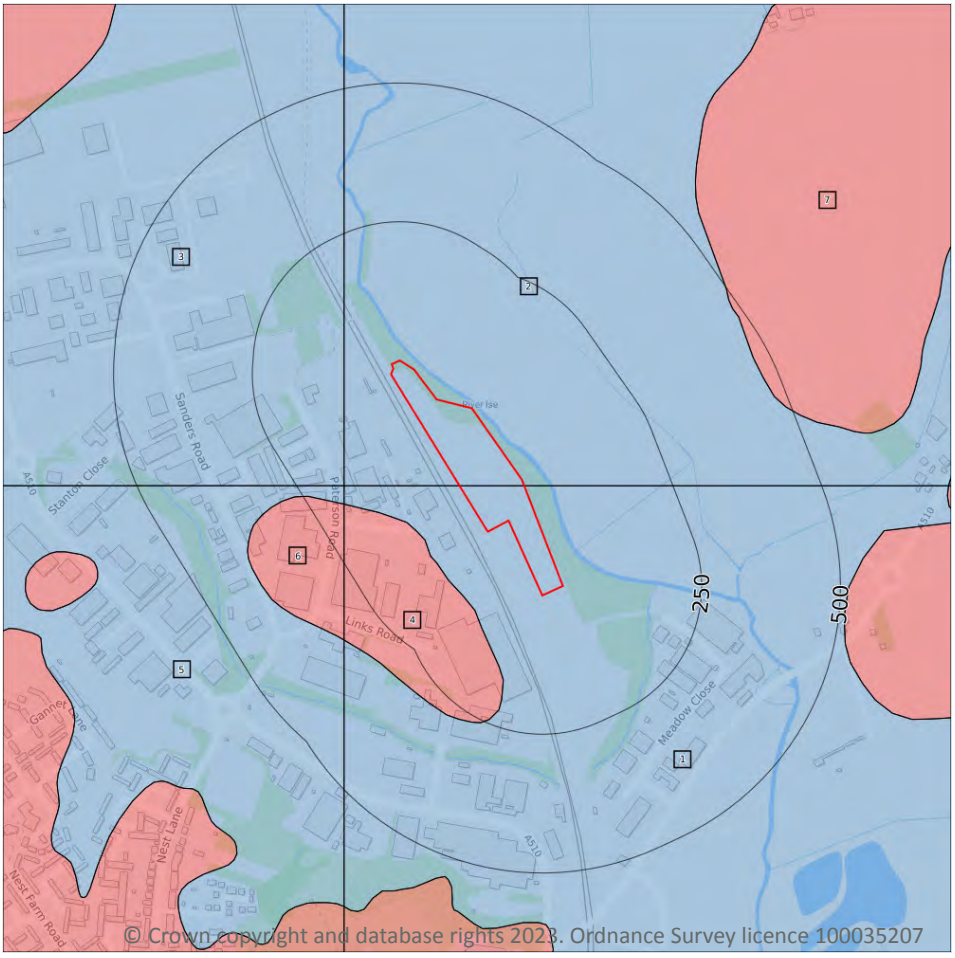
Features are displayed on the Hydrogeology map on **page 78 >**

ID	Location	Designation	Description
1	**On site**	**Secondary A**	**Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers**
2	4m SE	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

ID	Location	Designation	Description
3	174m NW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	309m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	359m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m **7**

Aquifer status of groundwater held within bedrock geology.

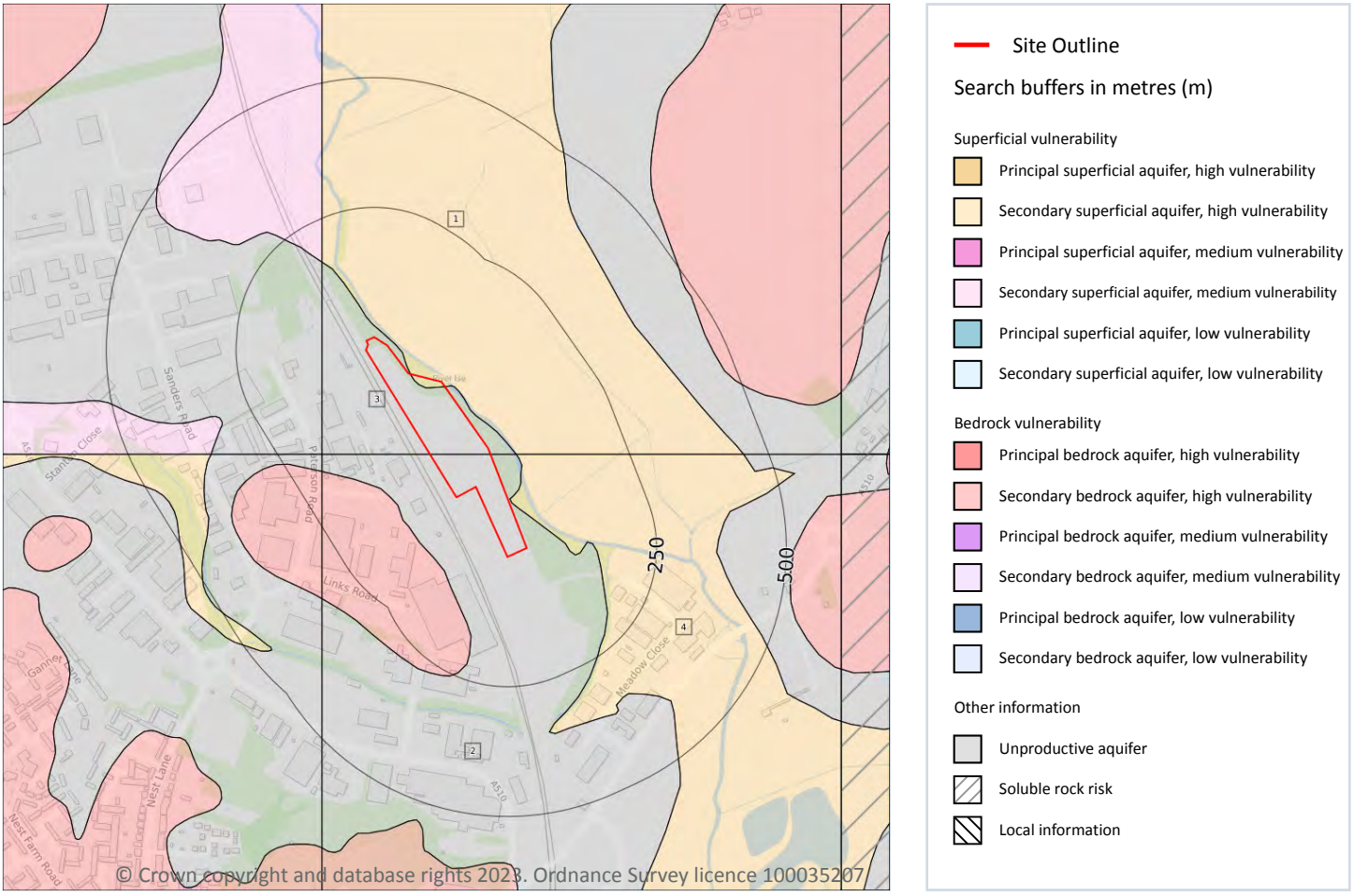
Features are displayed on the Bedrock aquifer map on **page 80 >**

ID	Location	Designation	Description
1	**On site**	**Unproductive**	**These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow**
2	**On site**	**Unproductive**	**These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow**
3	85m NW	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

ID	Location	Designation	Description
4	104m SW	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
5	177m W	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow
6	195m W	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
7	471m E	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m	4

An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High - Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium - Intermediate between high and low vulnerability.
- Low - Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on **page 82 >**

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	**On site**	**Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer**	**Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year**	**Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures**
2	**On site**	**Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: High Infiltration value: >70% Dilution value: <300mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: High**	**Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures**
3	**On site**	**Summary Classification: Unproductive aquifer (may have productive aquifer beneath) Combined classification: Unproductive Bedrock Aquifer, No Superficial Aquifer**	**Leaching class: Intermediate Infiltration value: >70% Dilution value: <300mm/year**	**Vulnerability: - Aquifer type: - Thickness: <3m Patchiness value: <90% Recharge potential: No Data**	**Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures**
4	3m SE	Summary Classification: Secondary superficial aquifer - High Vulnerability Combined classification: Unproductive Bedrock Aquifer, Productive Superficial Aquifer	Leaching class: High Infiltration value: >70% Dilution value: <300mm/year	Vulnerability: High Aquifer type: Secondary Thickness: <3m Patchiness value: <90% Recharge potential: High	Vulnerability: Unproductive Aquifer type: Unproductive Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site	**0**

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

This data is sourced from the British Geological Survey and the Environment Agency.

5.5 Groundwater vulnerability- local information

Records on site	0

This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk ↗.

This data is sourced from the British Geological Survey and the Environment Agency.

Abstractions and Source Protection Zones



Site Outline

Search buffers in metres (m)

- Source Protection Zone 1 — Inner catchment
- Source Protection Zone 2 — Outer catchment
- Source Protection Zone 3 — Total catchment
- Source Protection Zone 4 — Zone of Special Interest
- Source Protection Zone 1c — Inner catchment - confined aquifer
- Source Protection Zone 2c — Outer catchment - confined aquifer
- Source Protection Zone 3c — Total catchment - confined aquifer
- Drinking water abstraction licences
- Drinking water abstraction licences — Polygon features
- Drinking water abstraction licences — Linear features
- Groundwater abstraction licence (point)
- Groundwater abstraction licence (area)
- Groundwater abstraction licence (linear)
- Surface Water Abstractions (point)
- Surface Water Abstractions (area)
- Surface Water Abstractions (linear)

5.6 Groundwater abstractions

Records within 2000m	0

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m	5

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on **page 85 >**

ID	Location	Details	
-	1499m NW	Status: Historical Licence No: 5/32/06/*S/0088 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GT HARROWDEN BROOK Data Type: Point Name: HARROWDEN FARMS LTD Easting: 489260 Northing: 271470	Annual Volume (m^3): 50007 Max Daily Volume (m^3): 1000 Original Application No: - Original Start Date: 01/01/1977 Expiry Date: - Issue No: 101 Version Start Date: 22/08/2003 Version End Date: -
-	1502m NW	Status: Historical Licence No: 5/32/06/*S/0088 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: GT HARROWDEN BROOK Data Type: Point Name: HARROWDEN FARMS LTD Easting: 489300 Northing: 271500	Annual Volume (m^3): - Max Daily Volume (m^3): - Original Application No: - Original Start Date: 01/01/1977 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1989 Version End Date: -
-	1795m NW	Status: Historical Licence No: 5/32/06/*S/0097 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: UN-NAMED RIPARIAN DRAIN - HARROWDEN Data Type: Point Name: WELLINGBOROUGH GOLF CLUB LTD Easting: 488700 Northing: 271360	Annual Volume (m^3): 2160 Max Daily Volume (m^3): 24 Original Application No: - Original Start Date: 01/04/1993 Expiry Date: - Issue No: 101 Version Start Date: 01/10/2010 Version End Date: -
-	1805m NW	Status: Active Licence No: 5/32/06/*S/0097 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: HARROWDEN BROOK - GREAT HARROWDEN Data Type: Point Name: WELLINGBOROUGH GOLF CLUB LTD Easting: 488685 Northing: 271357	Annual Volume (m^3): 9100 Max Daily Volume (m^3): 101 Original Application No: NPS/WR/021299 Original Start Date: 01/04/1993 Expiry Date: - Issue No: 103 Version Start Date: 30/12/2016 Version End Date: -

ID	Location	Details	
-	1919m NW	Status: Historical Licence No: 5/32/06/*S/0097 Details: Spray Irrigation - Storage Direct Source: SURFACE WATER SOURCE OF SUPPLY Point: HARROWDEN BROOK - GREAT HARROWDEN Data Type: Point Name: WELLINGBOROUGH GOLF CLUB LTD Easting: 488630 Northing: 271470	Annual Volume (m^3): 2160 Max Daily Volume (m^3): 24 Original Application No: - Original Start Date: 01/04/1993 Expiry Date: - Issue No: 101 Version Start Date: 01/10/2010 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.8 Potable abstractions

Records within 2000m	0

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m	0

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

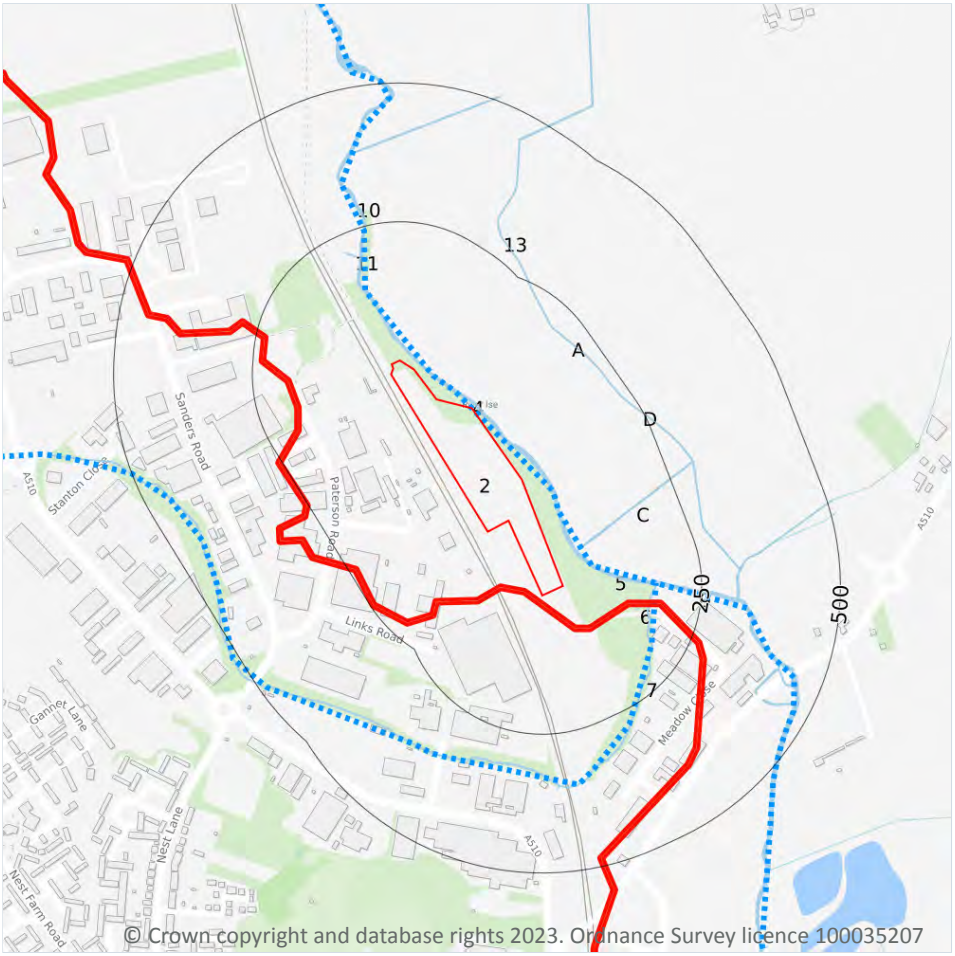
5.10 Source Protection Zones (confined aquifer)

Records within 500m	0

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.

6 Hydrology



Site Outline

Search buffers in metres (m)

Water Network (OS MasterMap)

Surface water features (wider than 5m)

Surface water features (narrower than 5m)

WFD River, canal and surface water transfer water bodies

WFD Lake water bodies

WFD Transitional and coastal water bodies

WFD Surface water body catchments boundaries

WFD Groundwater body boundaries

6.1 Water Network (OS MasterMap)

Records within 250m	13

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on **page 88 >**

ID	Location	Type of water feature	Ground level	Permanence	Name
4	9m N	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ise

ID	Location	Type of water feature	Ground level	Permanence	Name
5	43m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ise
C	43m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
6	139m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
7	159m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
9	168m SE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ise
10	197m NW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Ise
11	197m NW	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
A	205m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	205m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
13	206m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
A	224m NE	Inland river not influenced by normal tidal action.	Underground	Watercourse contains water year round (in normal circumstances)	-
D	225m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-

This data is sourced from the Ordnance Survey.

6.2 Surface water features

Records within 250m	5

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on **page 88 >**

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site	1

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on **page 88 >**

ID	Location	Type	Water body catchment	Water body ID	Operational catchment	Management catchment
A	**On site**	**River**	**Ise - Lower**	**GB105032045140**	**Ise**	**Nene**

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified	1

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on **page 88 >**

ID	Location	Type	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
1	**On site**	**River**	**Ise - Lower**	**GB105032045140** ↗	**Poor**	**Fail**	**Poor**	**2019**

This data is sourced from the Environment Agency and Natural Resources Wales.

6.5 WFD Groundwater bodies

Records on site	1

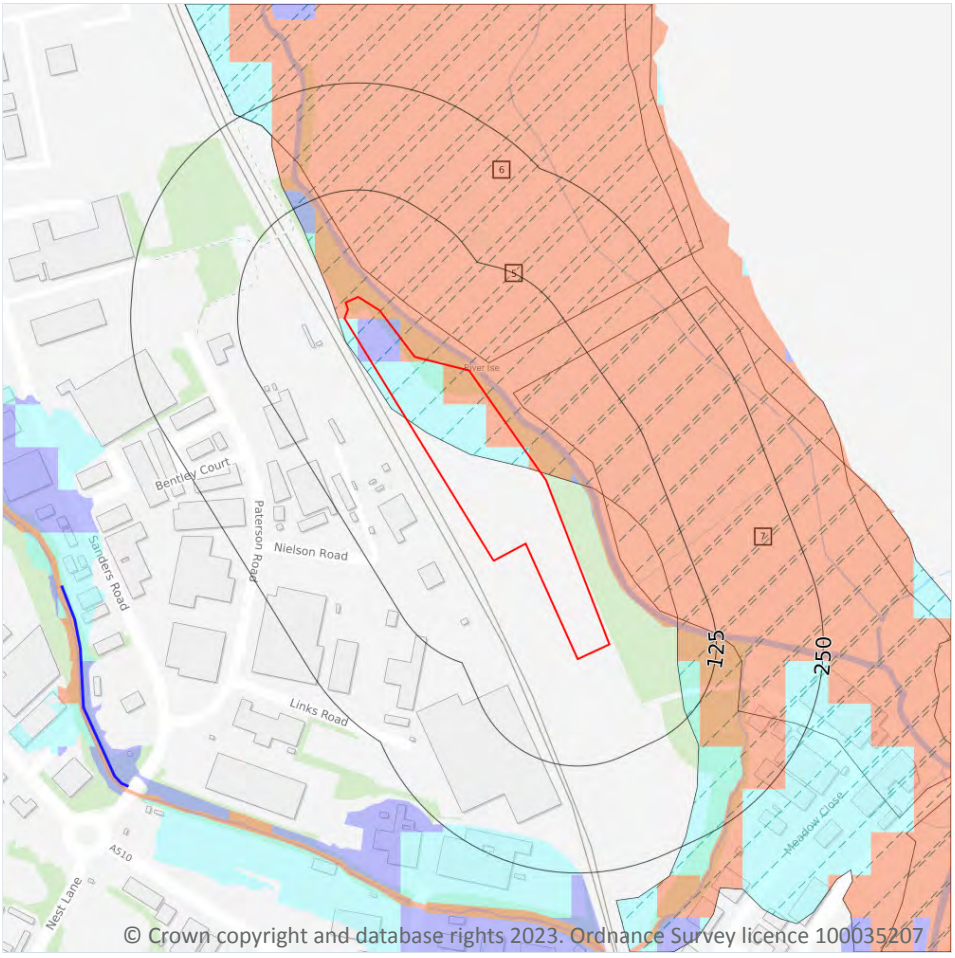
Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on **page 88 >**

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
2	**On site**	**Nene Mid Lower Jurassic Unit**	**GB40502G402400** ↗	**Good**	**Good**	**Good**	**2019**

This data is sourced from the Environment Agency and Natural Resources Wales.

7 River and coastal flooding



Site Outline

Search buffers in metres (m)

River and coastal flooding:

- High
- Medium
- Low
- Very Low
- Historical Flood Events
- Areas Used for Flood Storage
- Areas Benefiting from Flood Defences
- Flood Defences

7.1 Risk of flooding from rivers and the sea

Records within 50m	6

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 100 chance) or High (greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

Features are displayed on the River and coastal flooding map on **page 92 >**

Distance	Flood risk category
On site	**High**
0 - 50m	High

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m	**3**

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

Features are displayed on the River and coastal flooding map on **page 92 >**

ID	Location	Event name	Date of flood	Flood source	Flood cause	Type of flood
5	**On site**	**Lna_1947_March_River Nene_D/s Northampton**	**1947-03-16 1947-03-18**	**Main river**	**Operational failure/breach of defence**	**Fluvial**
6	21m N	Lna_1998_April_River Ise	1998-04-09 1998-04-11	Main river	Channel capacity exceeded (no raised defences)	Fluvial
7	27m NE	Lna_1998_April_River Ise	1998-04-09 1998-04-11	Main river	Channel capacity exceeded (no raised defences)	Fluvial

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m	**0**

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.4 Areas Benefiting from Flood Defences

Records within 250m	0

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

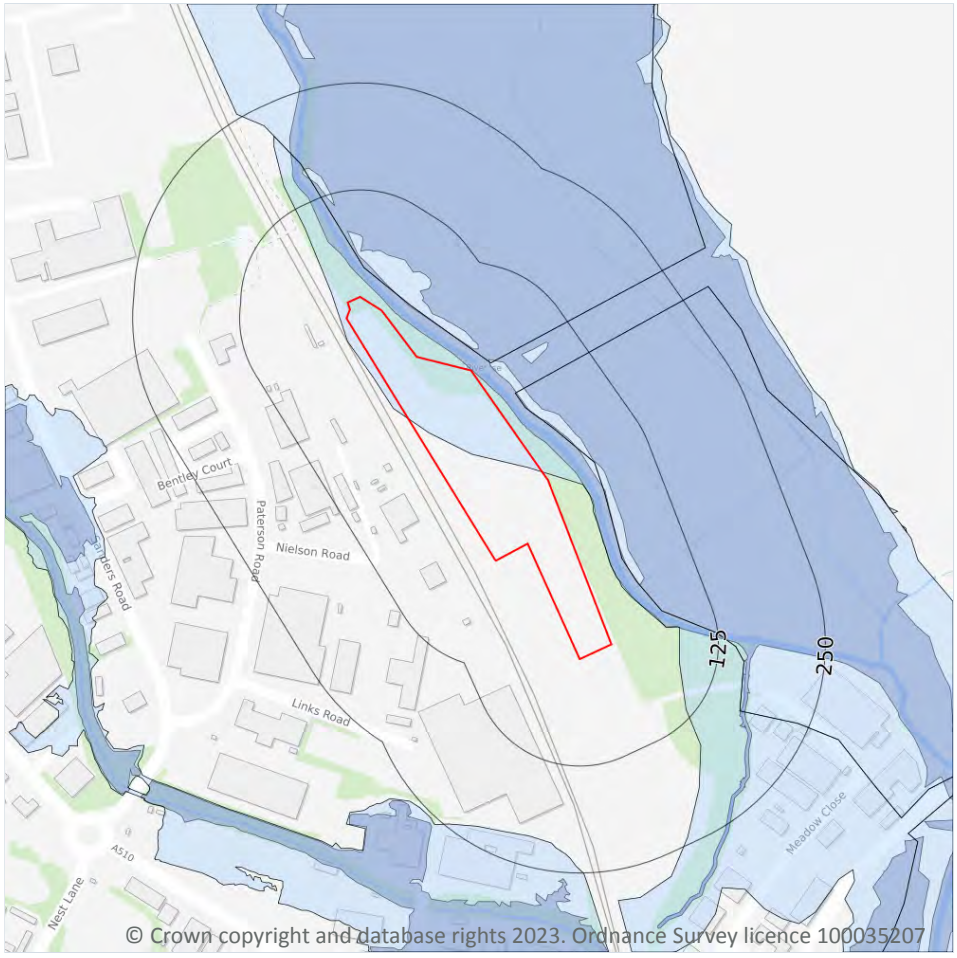
7.5 Flood Storage Areas

Records within 250m	0

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.

River and coastal flooding - Flood Zones



Site Outline

Search buffers in metres (m)

Flood zone 2

Flood zone 3

7.6 Flood Zone 2

Records within 50m	1

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

Features are displayed on the River and coastal flooding map on **page 92 >**

Location	Type
On site	**Zone 2 - (Fluvial /Tidal Models)**

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m	1

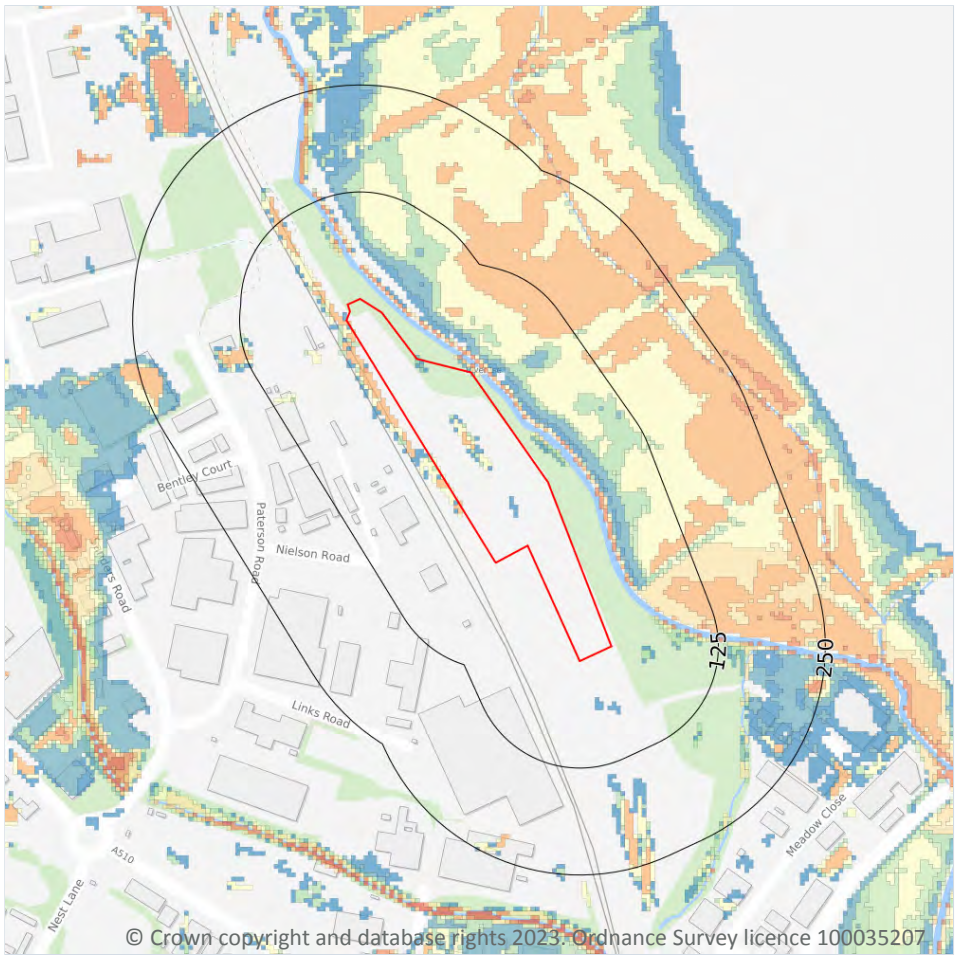
Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

Features are displayed on the River and coastal flooding map on **page 92 >**

Location	Type
1m N	Zone 3 - (Fluvial /Tidal Models)

This data is sourced from the Environment Agency and Natural Resources Wales.

8 Surface water flooding



Site Outline
Search buffers in metres (m)

1 in 1000 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 250 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 100 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

1 in 30 return period
- Depth between 0.1m - 0.3m
- Depth between 0.3m - 1.0m
- Depth greater than 1.0m

8.1 Surface water flooding

Highest risk on site	**1 in 30 year, 0.1m - 0.3m**
Highest risk within 50m	**1 in 30 year, 0.3m - 1.0m**

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

Features are displayed on the Surface water flooding map on **page 97 >**

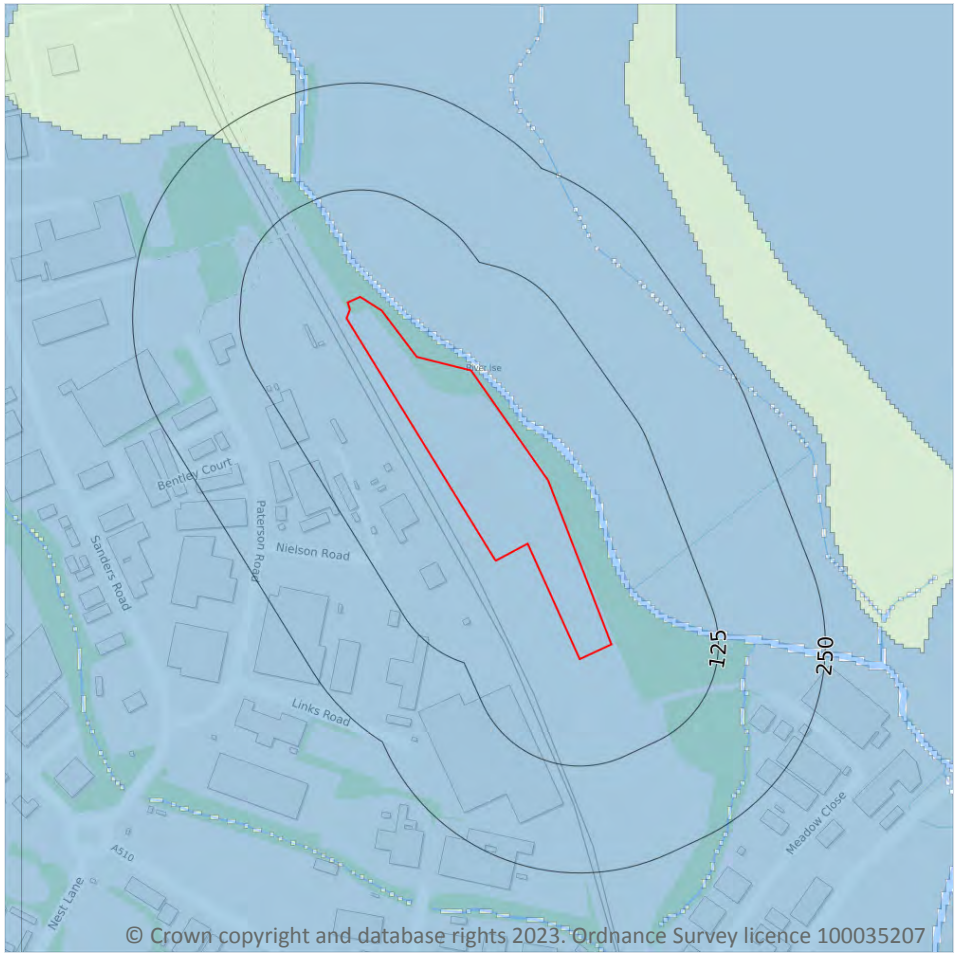
The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site.

The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Greater than 1.0m
1 in 250 year	Between 0.3m and 1.0m
1 in 100 year	Between 0.3m and 1.0m
1 in 30 year	Between 0.1m and 0.3m

This data is sourced from Ambiental Risk Analytics.

9 Groundwater flooding



Site Outline

Search buffers in metres (m)

High

Moderate - High

Moderate

Low

Negligible

9.1 Groundwater flooding

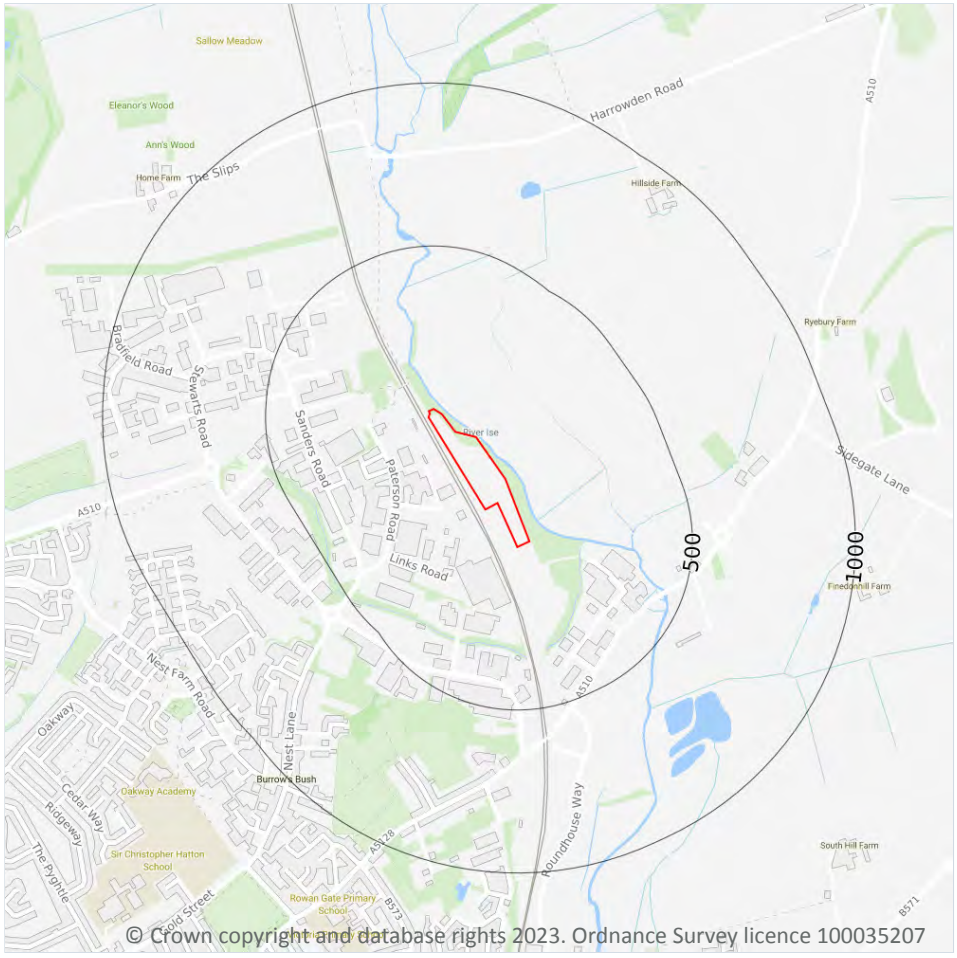
Highest risk on site	**Negligible**
Highest risk within 50m	**Negligible**

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on **page 99 >**

This data is sourced from Ambiental Risk Analytics.

10 Environmental designations



Site Outline

Search buffers in metres (m)

Sites of Special Scientific Interest (SSSI)

10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m	1

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were re-notified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on **page 100 >**

ID	Location	Name	Data source
-	1997m E	Finedon Top Lodge Quarry	Natural England

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m	0

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m	0

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m	0

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m	0

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.6 Local Nature Reserves (LNR)

Records within 2000m	0

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m	0

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m	0

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.9 Forest Parks

Records within 2000m	0

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m	0

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m	0

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records within 2000m	0

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m	0

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.

10.14 Potential Special Protection Areas (pSPA)

Records within 2000m	0

Special Protection Areas (SPAs) are areas designated (or ‘classified’) under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m	0

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

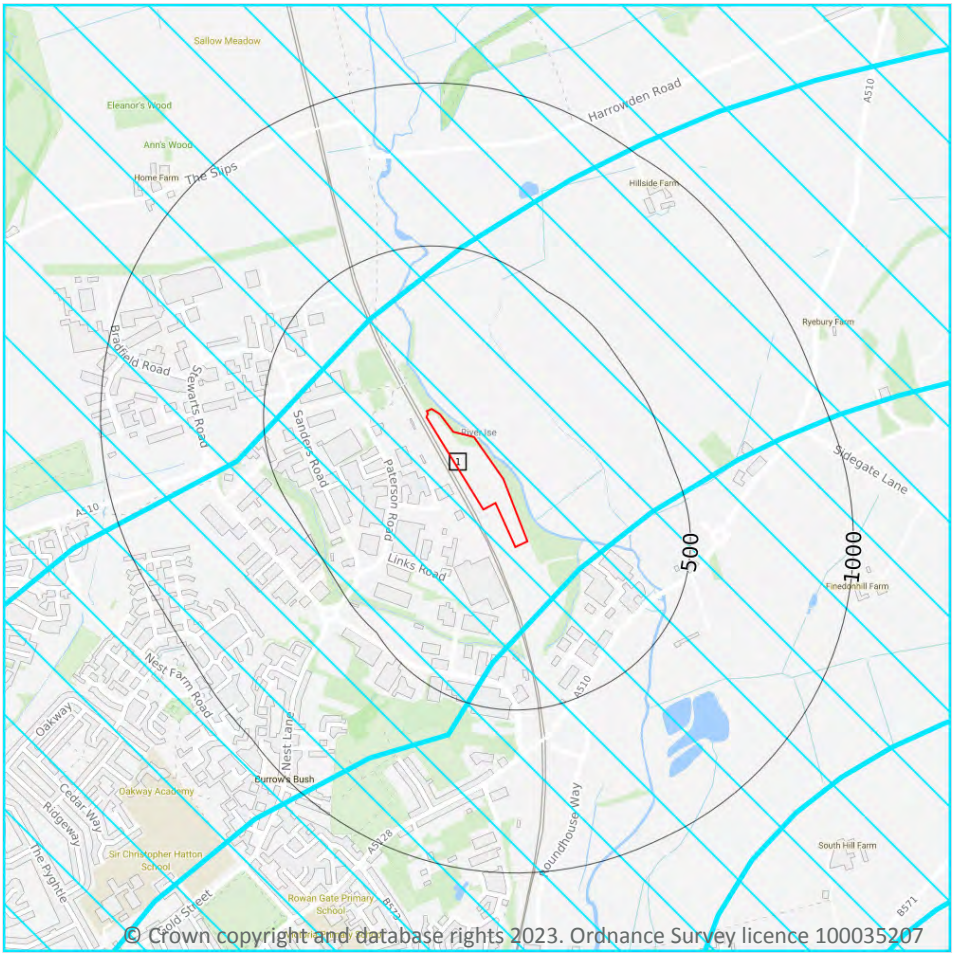
Records within 2000m	3

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These are areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Type	NVZ ID	Status
On site	**River Nene NVZ**	**Surface Water**	**382**	**Existing**
On site	**Northampton Sands**	**Groundwater**	**165**	**Existing**
On site	**Thrapstone lake Eutrophic lake NVZ**	**Eutrophic Water**	**148**	**Existing**

This data is sourced from Natural England and Natural Resources Wales.

SSSI Impact Zones and Units



Site Outline

Search buffers in metres (m)

SSSI Impact Risk Zones

SSSI Units

- Not recorded
- Favourable
- Unfavourable - Recovering
- Unfavourable - No change
- Unfavourable - Declining
- Partially destroyed
- Destroyed

10.17 SSSI Impact Risk Zones

Records on site	1

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on **page 105 >**

ID	Location	Type of developments requiring consultation
1	**On site**	**Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.** **Wind and Solar - Solar schemes with footprint > 0.5ha, all wind turbines.** **Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.** **Rural non-residential - Large non residential developments outside existing settlements/urban areas where footprint exceeds 1ha.** **Residential - Residential development of 10 units or more.** **Rural residential - Any residential development of 10 or more houses outside existing settlements/urban areas.** **Air pollution - Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 750m², manure stores > 3500t).** **Combustion - General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.** **Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.** **Discharges - Any discharge of water or liquid waste of more than 5m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.** **Notes: Strategic solutions for recreational impacts are in place. Please contact your Local Planning Authority as they have the information to advise on specific requirements.**

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m	**1**

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

Features are displayed on the SSSI Impact Zones and Units map on **page 105 >**

ID: -
Location: 1997m E
SSSI name: Finedon Top Lodge Quarry
Unit name: Whole Site
Broad habitat: Earth Heritage
Condition: Favourable
Reportable features:

Feature name	Feature condition	Date of assessment
ED - Bathonian	Favourable	14/02/2018

This data is sourced from Natural England and Natural Resources Wales.

11 Visual and cultural designations

11.1 World Heritage Sites

Records within 250m	0

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.2 Area of Outstanding Natural Beauty

Records within 250m	0

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m	0

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic well-being of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m	0

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m	0

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m	0

A scheduled monument is an historic building or site that is included in the Schedule of Monuments kept by the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

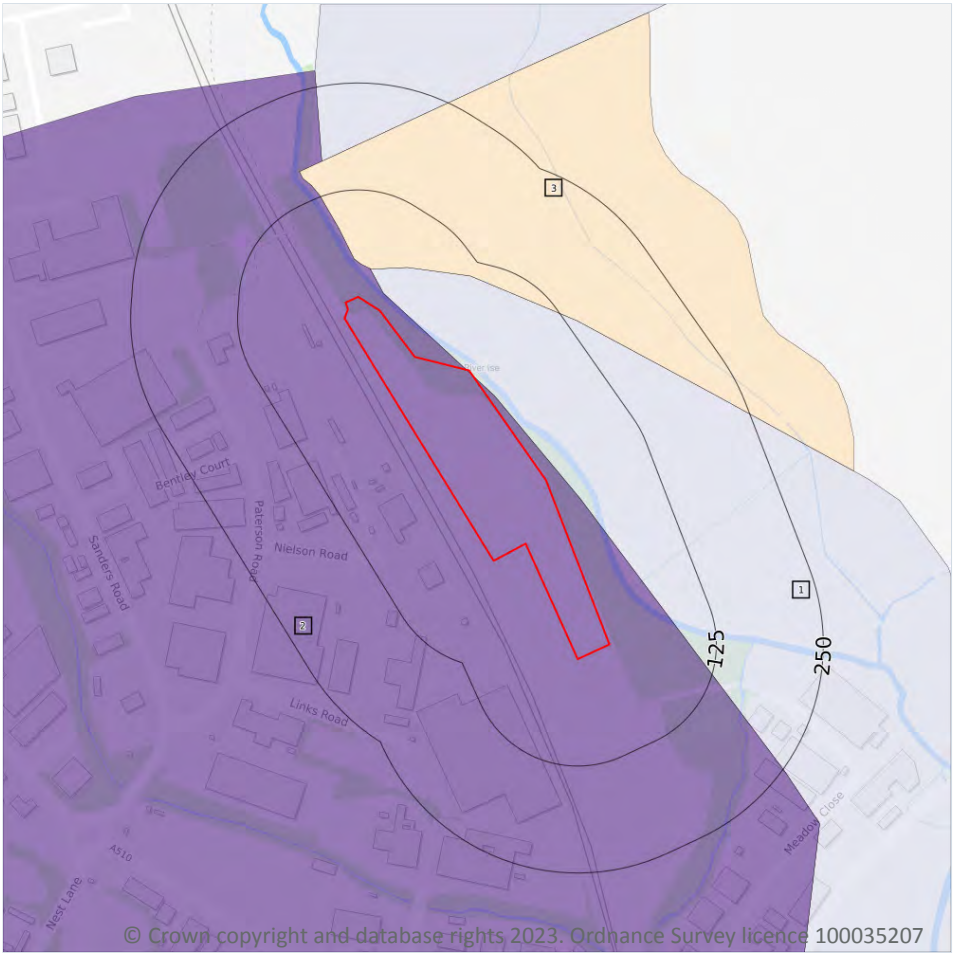
11.7 Registered Parks and Gardens

Records within 250m	0

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

12 Agricultural designations



Site Outline

Search buffers in metres (m)

- Grade 1 - excellent quality
- Grade 2 - very good quality
- Grade 3 - good to moderate quality
- Grade 3a - good quality
- Grade 3b - moderate quality
- Grade 4 - poor quality
- Grade 5 - very poor quality
- Non-agricultural land
- Urban land
- Exclusion land
- Tree felling licences
- Open Access land

12.1 Agricultural Land Classification

Records within 250m	3

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on **page 109 >**

ID	Location	Classification	Description
1	On site	Grade 4	**Poor quality agricultural land. Land with severe limitations which significantly restrict the range of crops and/or level of yields. It is mainly suited to grass with occasional arable crops (e.g. cereals and forage crops) the yields of which are variable. In moist climates, yields of grass may be moderate to high but there may be difficulties in utilisation. The grade also includes very droughty arable land.**

ID	Location	Classification	Description
2	**On site**	**Urban**	**-**
3	36m NW	Grade 3b	Moderate quality agricultural land. Land capable of producing moderate yields of a narrow range of crops, principally cereals and grass or lower yields of a wider range of crops or high yields of grass which can be grazed or harvested over most of the year.

This data is sourced from Natural England.

12.2 Open Access Land

Records within 250m	0

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m	0

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m	0

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.

13 Habitat designations



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Site Outline

Search buffers in metres (m)

Priority Habitat Inventory
Open Mosaic Habitat
Limestone Pavement Orders

Habitat Networks

Primary Habitat
Restorable Habitat
Associated Habitats
Habitat Restoration-Creation
Network Enhancement Zone 1
Network Enhancement Zone 2

13.1 Priority Habitat Inventory

Records within 250m	7

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on **page 112 >**

ID	Location	Main Habitat	Other habitats
1	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
2	**On site**	**Deciduous woodland**	**Main habitat: DWOOD (INV > 50%)**
3	87m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
4	126m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

ID	Location	Main Habitat	Other habitats
5	139m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
6	158m SE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
7	173m NW	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.

13.2 Habitat Networks

Records within 250m	0

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m	0

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m	0

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.

14 Geology 1:10,000 scale - Availability



Site Outline

Search buffers in metres (m)

Full coverage

Partial coverage

No coverage

14.1 10k Availability

Records within 500m	4

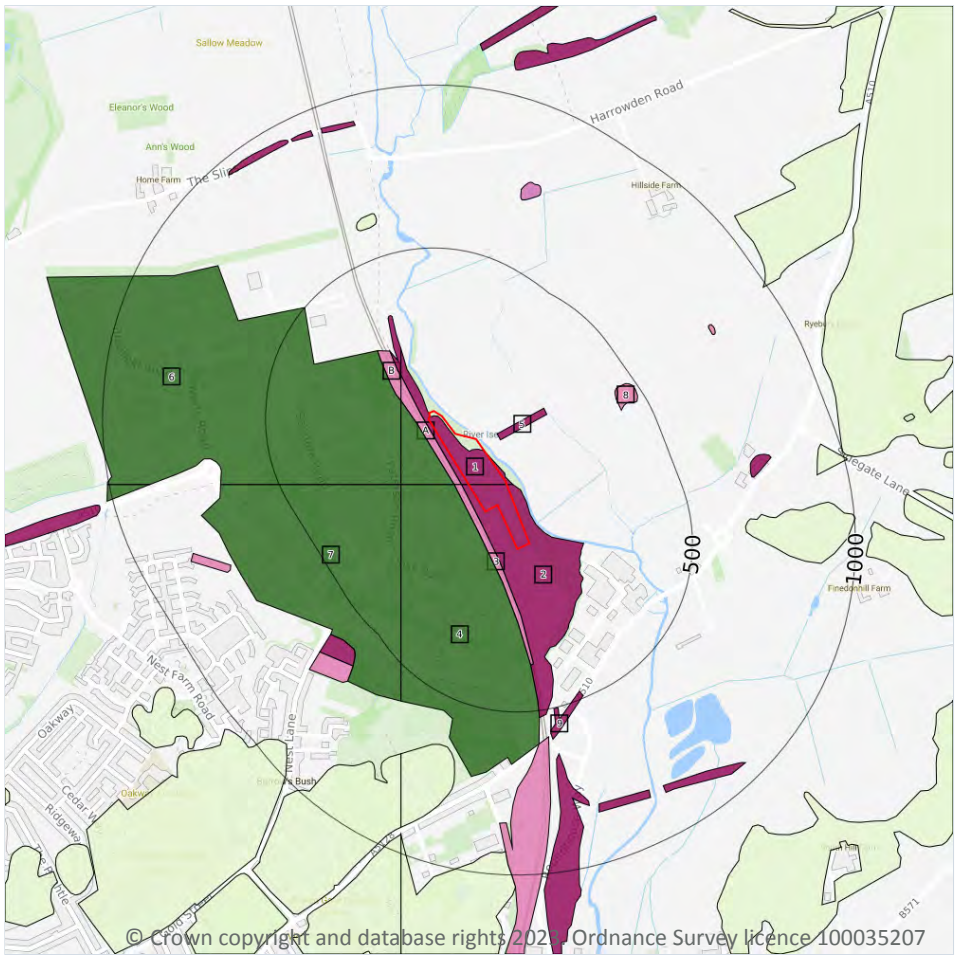
An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on **page 114 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SP96NW**
2	**On site**	**Full**	**Full**	**Full**	**No coverage**	**SP97SW**
3	85m NW	Full	Full	Full	No coverage	SP87SE
4	177m W	Full	Full	Full	No coverage	SP86NE

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Artificial and made ground



Site Outline

Search buffers in metres (m)

- Reclaimed ground
- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

14.2 Artificial and made ground (10k)

Records within 500m	13

Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

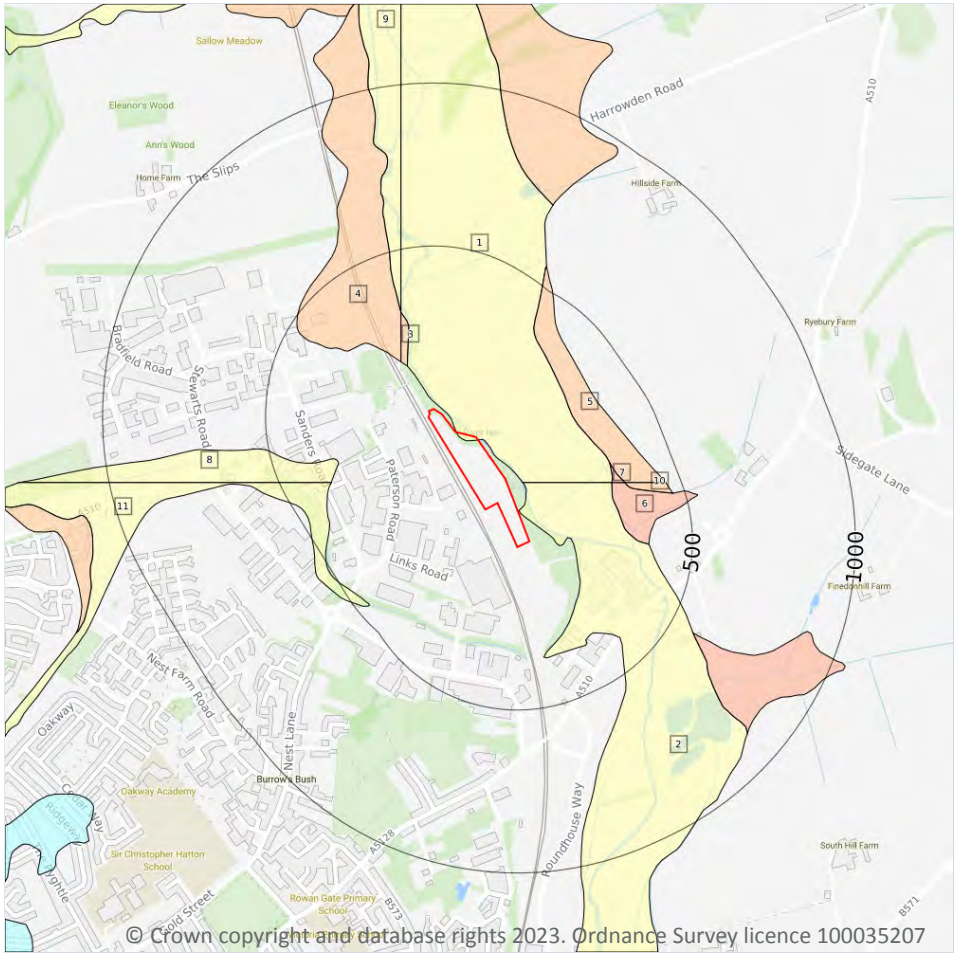
Features are displayed on the Geology 1:10,000 scale - Artificial and made ground map on **page 116 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial Deposit**
2	**On site**	**MGR-ARTDP**	**Made Ground (Undivided)**	**Artificial Deposit**
A	13m NW	WGR-VOID	Worked Ground (Undivided)	Void
3	19m SW	WGR-VOID	Worked Ground (Undivided)	Void

ID	Location	LEX Code	Description	Rock description
A	37m NW	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
4	38m W	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
5	60m NE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
6	85m NW	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
B	94m NW	WGR-VOID	Worked Ground (Undivided)	Void
B	145m NW	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit
7	177m W	LSGR-UKNOWN	Landscaped Ground (Undivided)	Unknown/unclassified Entry
8	417m NE	WGR-VOID	Worked Ground (Undivided)	Void
9	476m SE	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (10k)

Superficial geology (10k)
Please see table for more details.

14.3 Superficial geology (10k)

Records within 500m	11

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on **page 118 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**ALV-XCZ**	**Alluvium - Clay And Silt**	**Clay And Silt**
2	4m SE	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt
3	153m NW	ECTN-XSV	Ecton Member - Sand And Gravel	Sand And Gravel
4	174m NW	ECTN-XSV	Ecton Member - Sand And Gravel	Sand And Gravel

ID	Location	LEX Code	Description	Rock description
5	278m NE	ECTN-XSV	Ecton Member - Sand And Gravel	Sand And Gravel
6	286m E	ALF-XCZSV	Alluvial Fan Deposits - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
7	301m E	ALF-XCZSV	Alluvial Fan Deposits - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
8	309m W	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt
9	314m NW	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt
10	338m E	ECTN-XSV	Ecton Member - Sand And Gravel	Sand And Gravel
11	359m W	ALV-XCZ	Alluvium - Clay And Silt	Clay And Silt

This data is sourced from the British Geological Survey.

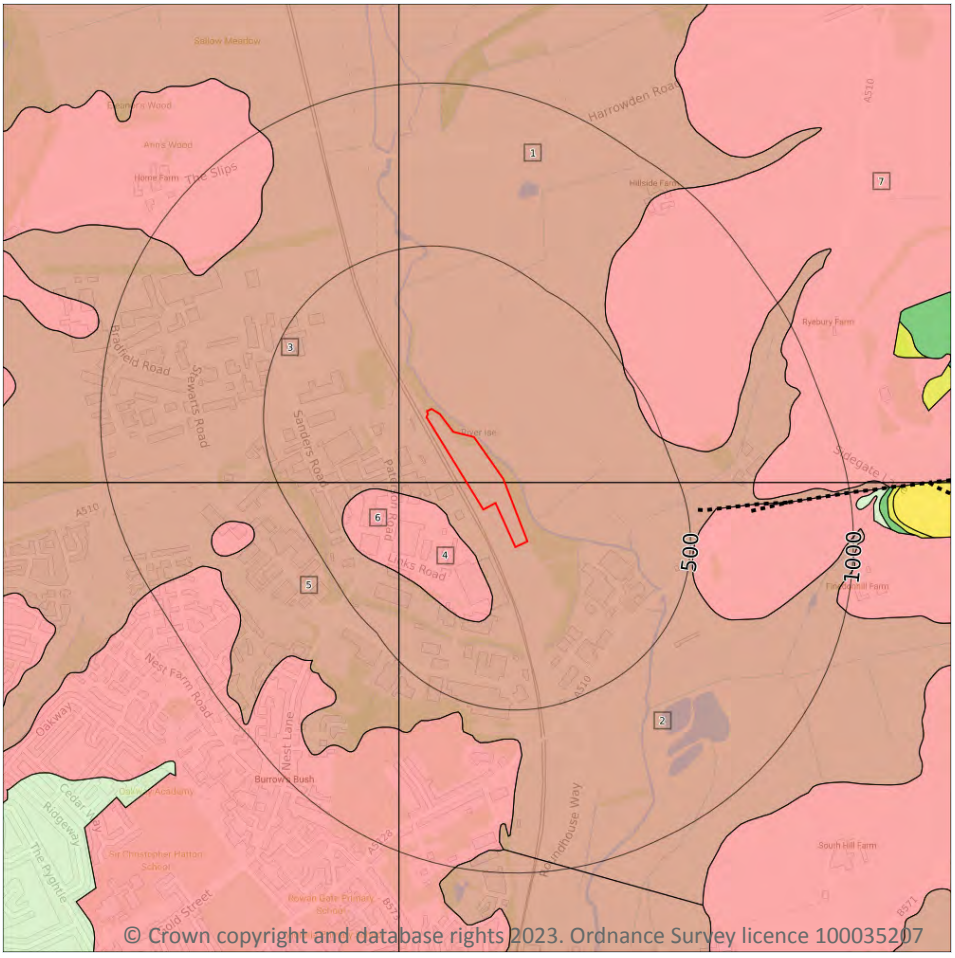
14.4 Landslip (10k)

Records within 500m	0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

Geology 1:10,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (10k)

Bedrock geology (10k)
Please see table for more details.

14.5 Bedrock geology (10k)

Records within 500m **7**

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on **page 120 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**WHM-MDST**	**Whitby Mudstone Formation - Mudstone**	**Toarcian Age**
2	**On site**	**WHM-MDST**	**Whitby Mudstone Formation - Mudstone**	**Toarcian Age**
3	85m NW	WHM-MDST	Whitby Mudstone Formation - Mudstone	Toarcian Age

ID	Location	LEX Code	Description	Rock age
4	104m SW	NS-FEOOL	Northampton Sand Formation - Ooidal Ironstone	Aalenian Age
5	177m W	WHM-MDST	Whitby Mudstone Formation - Mudstone	Toarcian Age
6	194m W	NS-FEOOL	Northampton Sand Formation - Ooidal Ironstone	Aalenian Age
7	471m E	NS-FEOOL	Northampton Sand Formation - Ooidal Ironstone	Aalenian Age

This data is sourced from the British Geological Survey.

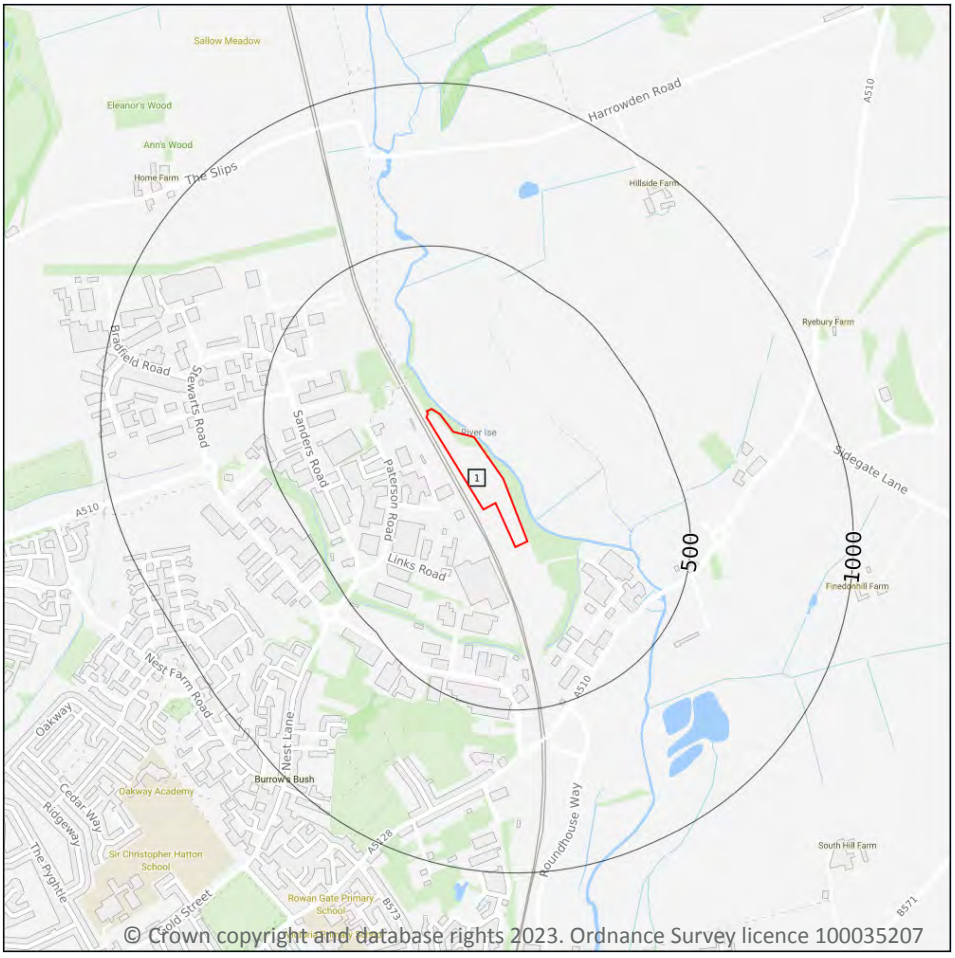
14.6 Bedrock faults and other linear features (10k)

Records within 500m	**0**

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

15 Geology 1:50,000 scale - Availability



Site Outline

Search buffers in metres (m)

Geological map tile

15.1 50k Availability

Records within 500m	1

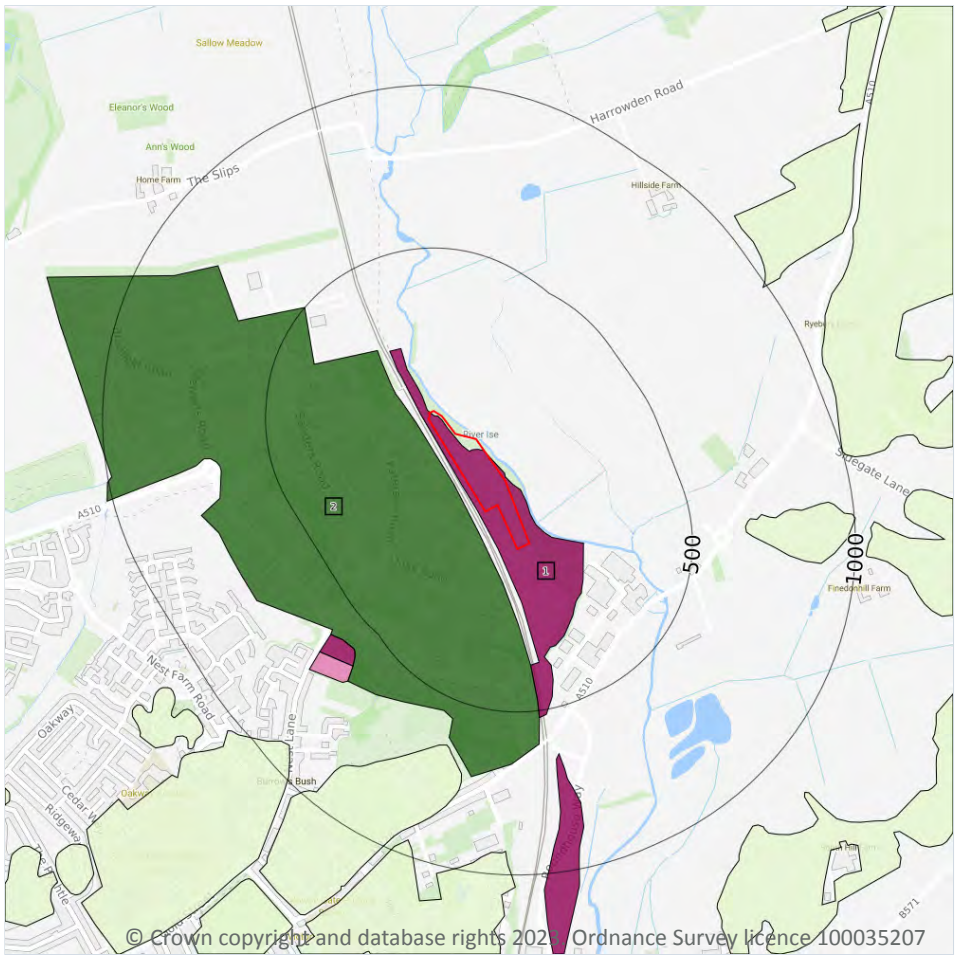
An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on **page 122 >**

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	**On site**	**Full**	**Full**	**Full**	**Full**	**EW186_wellingborough_v4**

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Artificial and made ground



Site Outline

Search buffers in metres (m)

- Made ground
- Worked ground
- Infilled ground
- Disturbed ground
- Landscaped ground

15.2 Artificial and made ground (50k)

Records within 500m	2

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

Features are displayed on the Geology 1:50,000 scale - Artificial and made ground map on **page 123 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**MGR-ARTDP**	**MADE GROUND (UNDIVIDED)**	**ARTIFICIAL DEPOSIT**
2	38m NW	LSGR-ARTGR	LANDSCAPED GROUND (UNDIVIDED)	ARTIFICIALLY MODIFIED GROUND

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

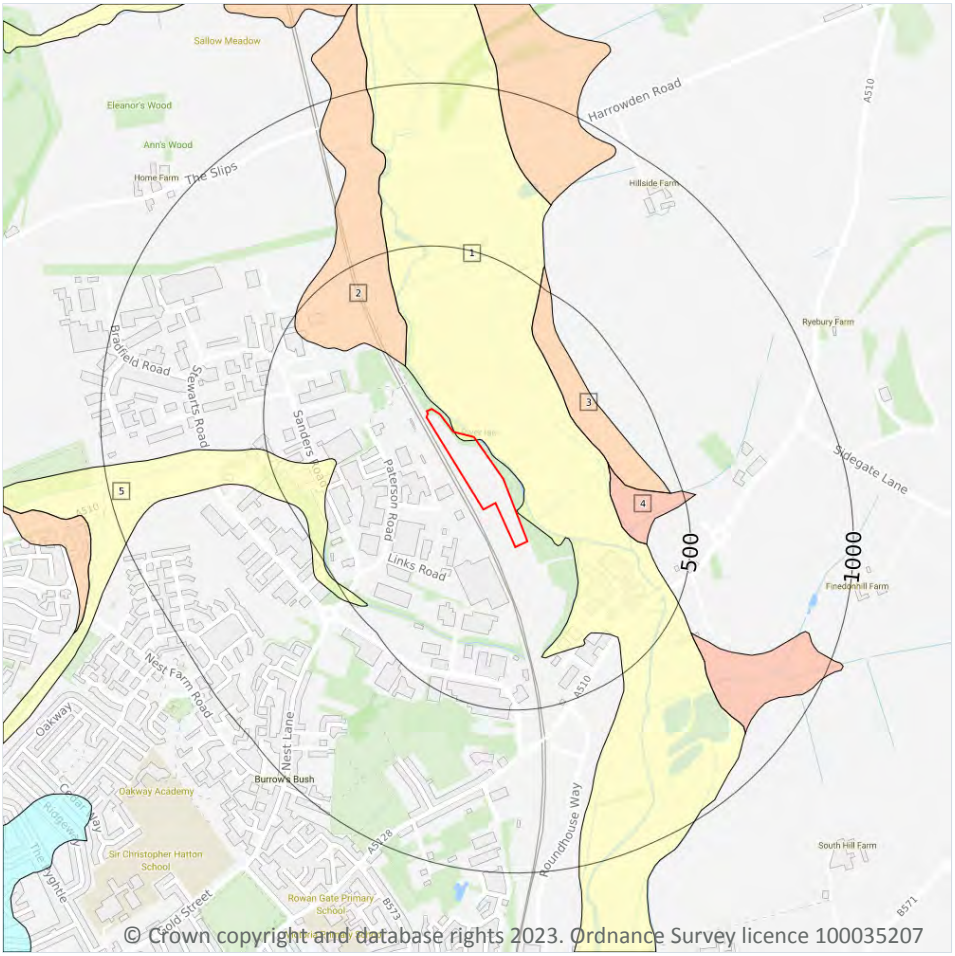
Records within 50m	4

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Mixed**	**Very High**	**Low**
On site	**Mixed**	**Very High**	**Low**
38m NW	Mixed	Very High	Low
38m W	Mixed	Very High	Low

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Superficial



Site Outline

Search buffers in metres (m)

Landslip (50k)

Superficial geology (50k)
Please see table for more details.

15.4 Superficial geology (50k)

Records within 500m	5

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on **page 125 >**

ID	Location	LEX Code	Description	Rock description
1	**On site**	**ALV-XCZ**	**ALLUVIUM**	**CLAY AND SILT**
2	153m NW	ECTN-XSV	ECTON MEMBER	SAND AND GRAVEL
3	278m NE	ECTN-XSV	ECTON MEMBER	SAND AND GRAVEL
4	288m E	ALF-XCZSV	ALLUVIAL FAN DEPOSITS	CLAY, SILT, SAND AND GRAVEL

ID	Location	LEX Code	Description	Rock description
5	309m W	ALV-XCZ	ALLUVIUM	CLAY AND SILT

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m	**2**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Intergranular**	**Low**	**Very Low**
4m SE	Intergranular	Low	Very Low

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	**0**

Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.

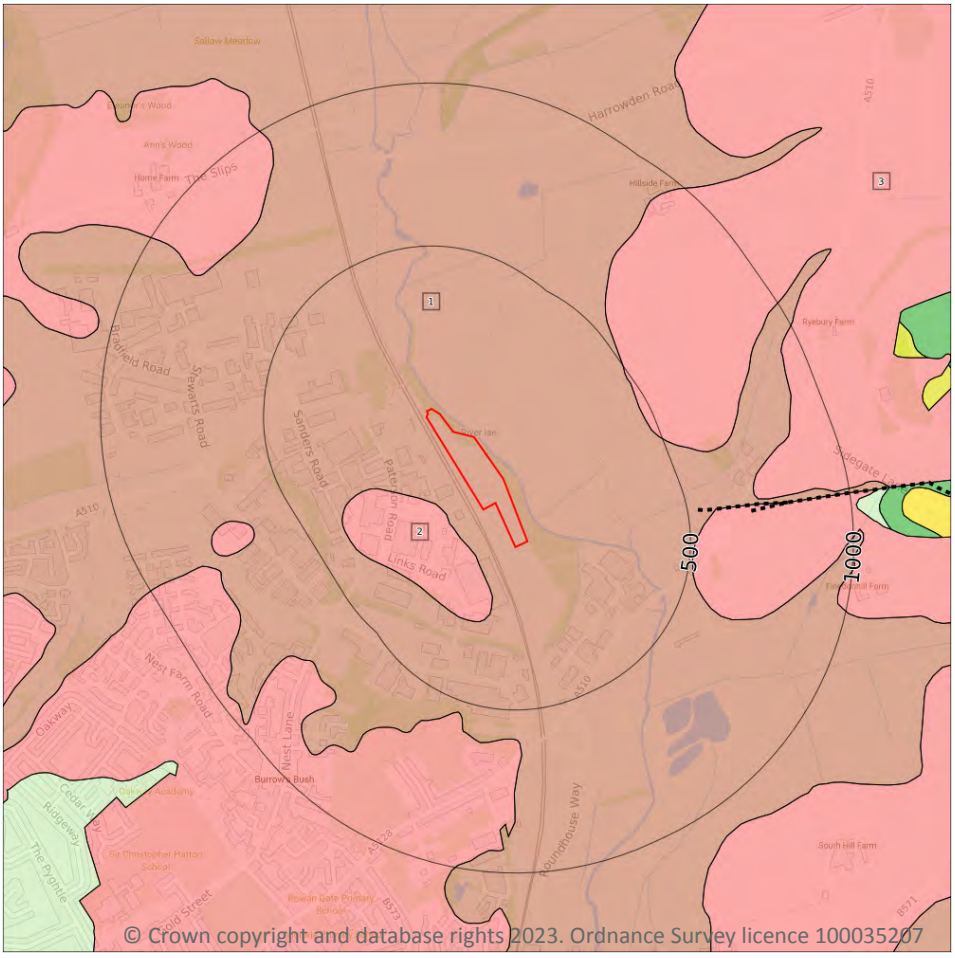
15.7 Landslip permeability (50k)

Records within 50m	**0**

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

Geology 1:50,000 scale - Bedrock



Site Outline

Search buffers in metres (m)

Bedrock faults and other linear features (50k)

Bedrock geology (50k)
Please see table for more details.

15.8 Bedrock geology (50k)

Records within 500m **3**

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on **page 127 >**

ID	Location	LEX Code	Description	Rock age
1	**On site**	**WHM-MDST**	**WHITBY MUDSTONE FORMATION - MUDSTONE**	**TOARCIAN**
2	104m SW	NS-FEOOL	NORTHAMPTON SAND FORMATION - IRONSTONE, OOIDAL	AALENIAN
3	471m E	NS-FEOOL	NORTHAMPTON SAND FORMATION - IRONSTONE, OOIDAL	AALENIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Records within 50m	2

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	**Fracture**	**Low**	**Low**
On site	**Fracture**	**Low**	**Low**

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0

Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.

16 Boreholes



Site Outline

Search buffers in metres (m)

Confidential

0 - 10m

10 - 30m

30m+

Unknown

16.1 BGS Boreholes

Records within 250m	5

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

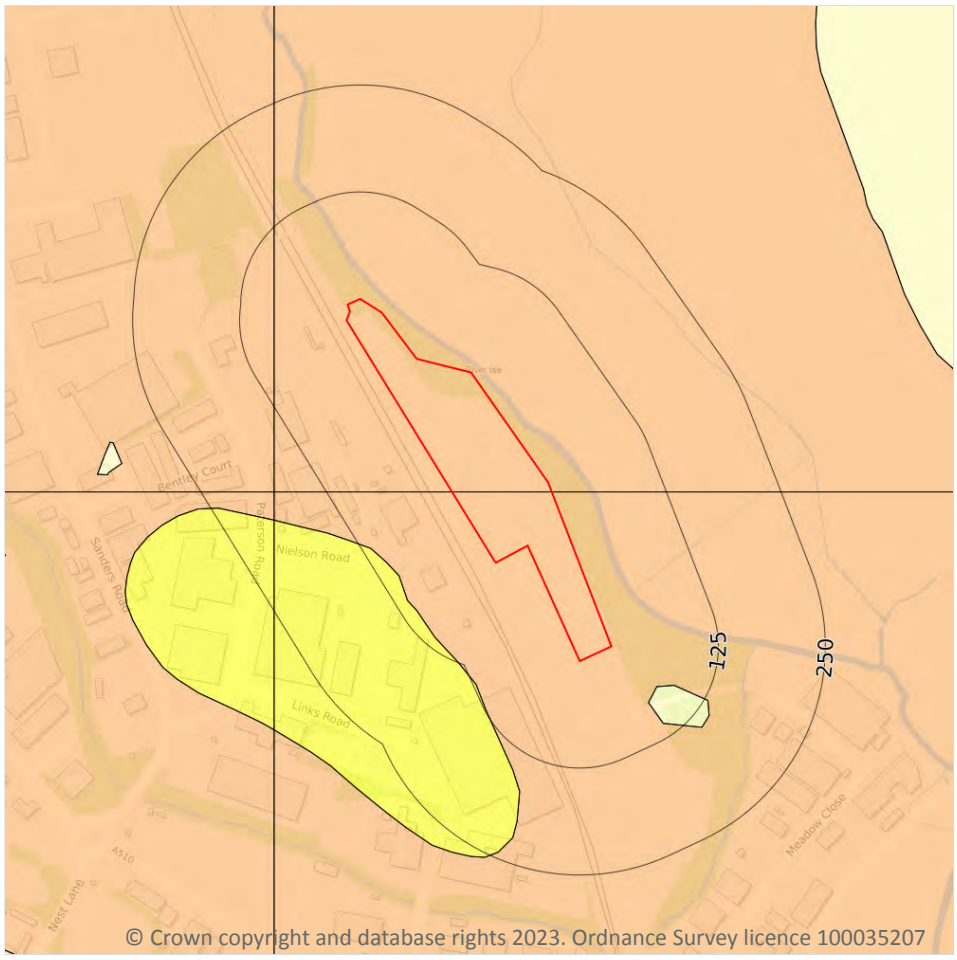
Features are displayed on the Boreholes map on **page 129 >**

ID	Location	Grid reference	Name	Length	Confidential	Web link
1	198m W	489920 270090	PATTERSON ROAD WELLINGBOROUGH 9/88 TP 6	-	Y	N/A
A	205m W	489930 270060	PATTERSON ROAD WELLINGBOROUGH 9/88 TP 2	-	Y	N/A
A	228m W	489910 270050	PATTERSON ROAD WELLINGBOROUGH 9/88 TP 3	-	Y	N/A

ID	Location	Grid reference	Name	Length	Confidential	Web link
A	248m W	489880 270060	PATTERSON ROAD WELLINGBOROUGH 9/88 TP 5	-	Y	N/A
A	250m W	489890 270040	PATTERSON ROAD WELLINGBOROUGH 9/88 TP 4	-	Y	N/A

This data is sourced from the British Geological Survey.

17 Natural ground subsidence - Shrink swell clays



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17.1 Shrink swell clays

Records within 50m	1

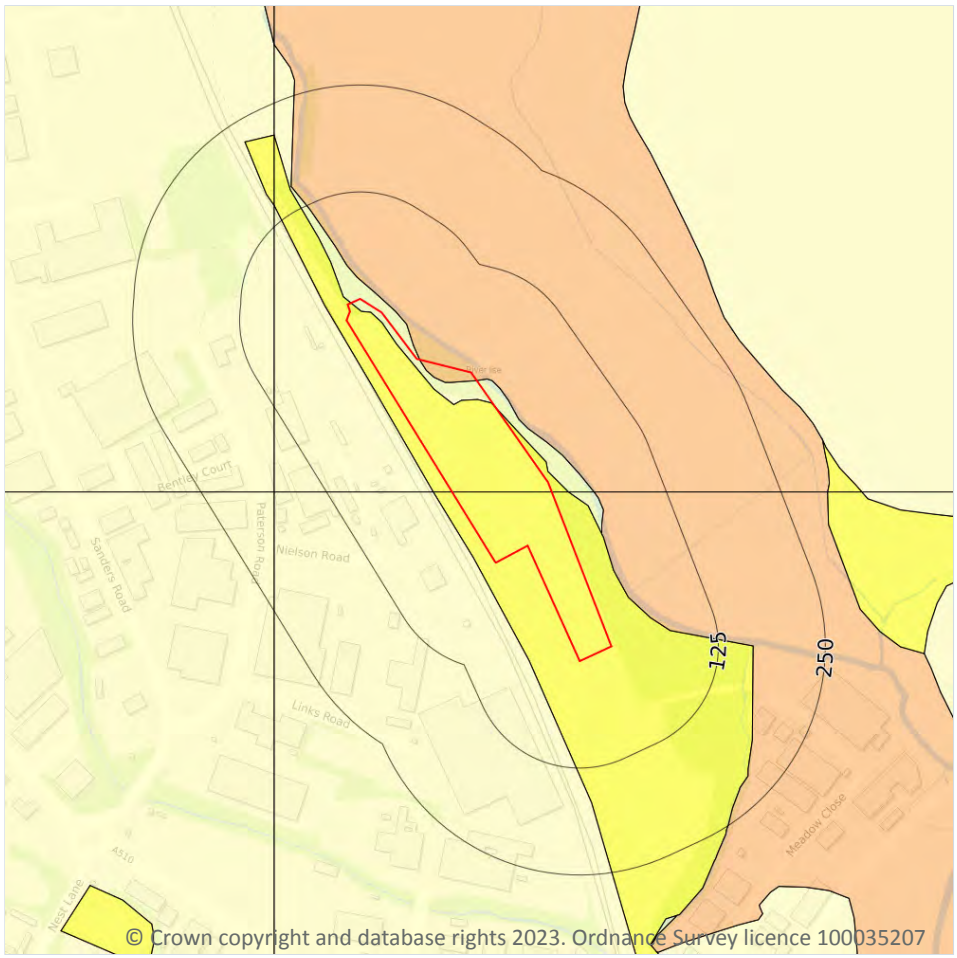
The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on **page 131 >**

Location	Hazard rating	Details
On site	**Low**	**Ground conditions predominantly medium plasticity.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Running sands



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.2 Running sands

Records within 50m	7

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

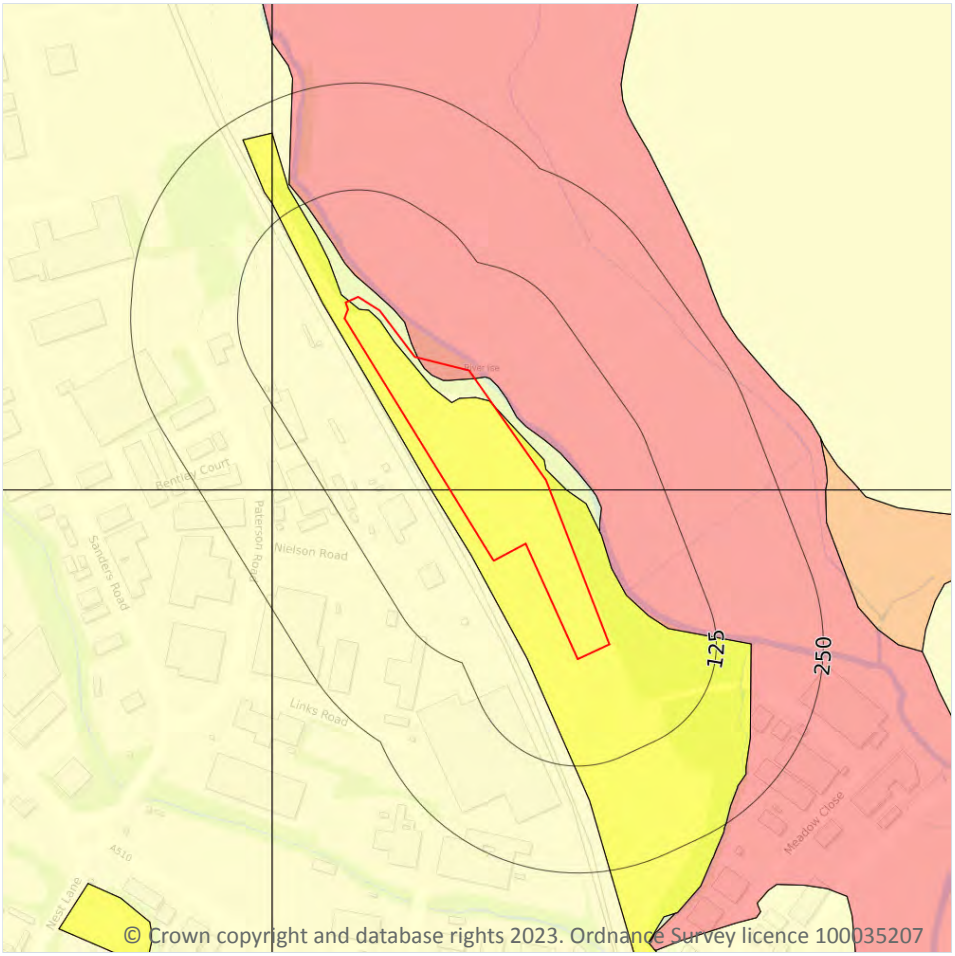
Features are displayed on the Natural ground subsidence - Running sands map on **page 132 >**

Location	Hazard rating	Details
On site	**Negligible**	**Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.**

Location	Hazard rating	Details
On site	**Very low**	**Running sand conditions are unlikely. No identified constraints on land use due to running conditions unless water table rises rapidly.**
On site	**Low**	**Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.**
13m NW	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.
18m E	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.
19m SW	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.
34m SE	Low	Running sand conditions may be present. Constraints may apply to land uses involving excavation or the addition or removal of water.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Compressible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.3 Compressible deposits

Records within 50m	7

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

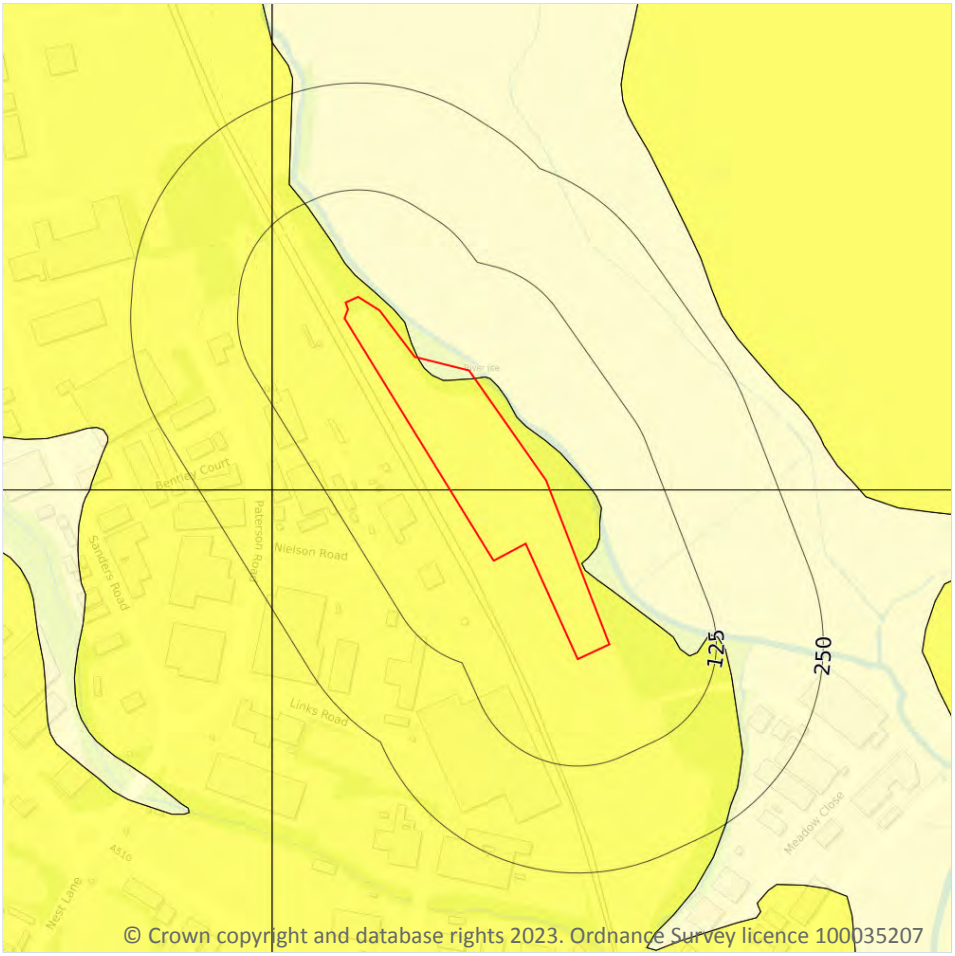
Features are displayed on the Natural ground subsidence - Compressible deposits map on **page 134 >**

Location	Hazard rating	Details
On site	**Negligible**	**Compressible strata are not thought to occur.**
On site	**Very low**	**Compressibility and uneven settlement problems are not likely to be significant on the site for most land uses.**

Location	Hazard rating	Details
On site	**Moderate**	**Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.**
13m NW	Negligible	Compressible strata are not thought to occur.
18m E	Negligible	Compressible strata are not thought to occur.
19m SW	Negligible	Compressible strata are not thought to occur.
34m SE	Moderate	Compressibility and uneven settlement hazards are probably present. Land use should consider specifically the compressibility and variability of the site.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Collapsible deposits



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.4 Collapsible deposits

Records within 50m	3

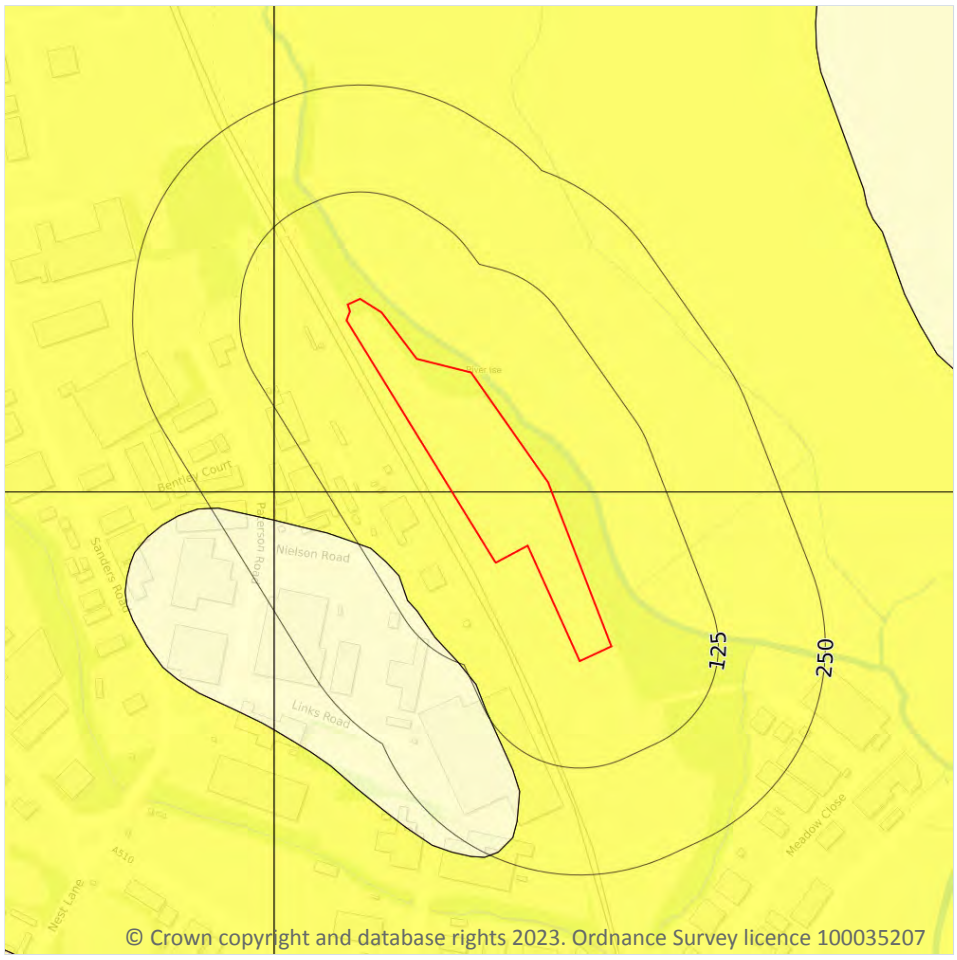
The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on **page 136 >**

Location	Hazard rating	Details
On site	**Negligible**	**Deposits with potential to collapse when loaded and saturated are believed not to be present.**
On site	**Very low**	**Deposits with potential to collapse when loaded and saturated are unlikely to be present.**
4m SE	Negligible	Deposits with potential to collapse when loaded and saturated are believed not to be present.

This data is sourced from the British Geological Survey.

Natural ground subsidence - Landslides



Site Outline

Search buffers in metres (m)

- No data
- Negligible
- Very low
- Low
- Moderate
- High

17.5 Landslides

Records within 50m	1

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on **page 138 >**

Location	Hazard rating	Details
On site	**Very low**	**Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.**

This data is sourced from the British Geological Survey.

Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m	1

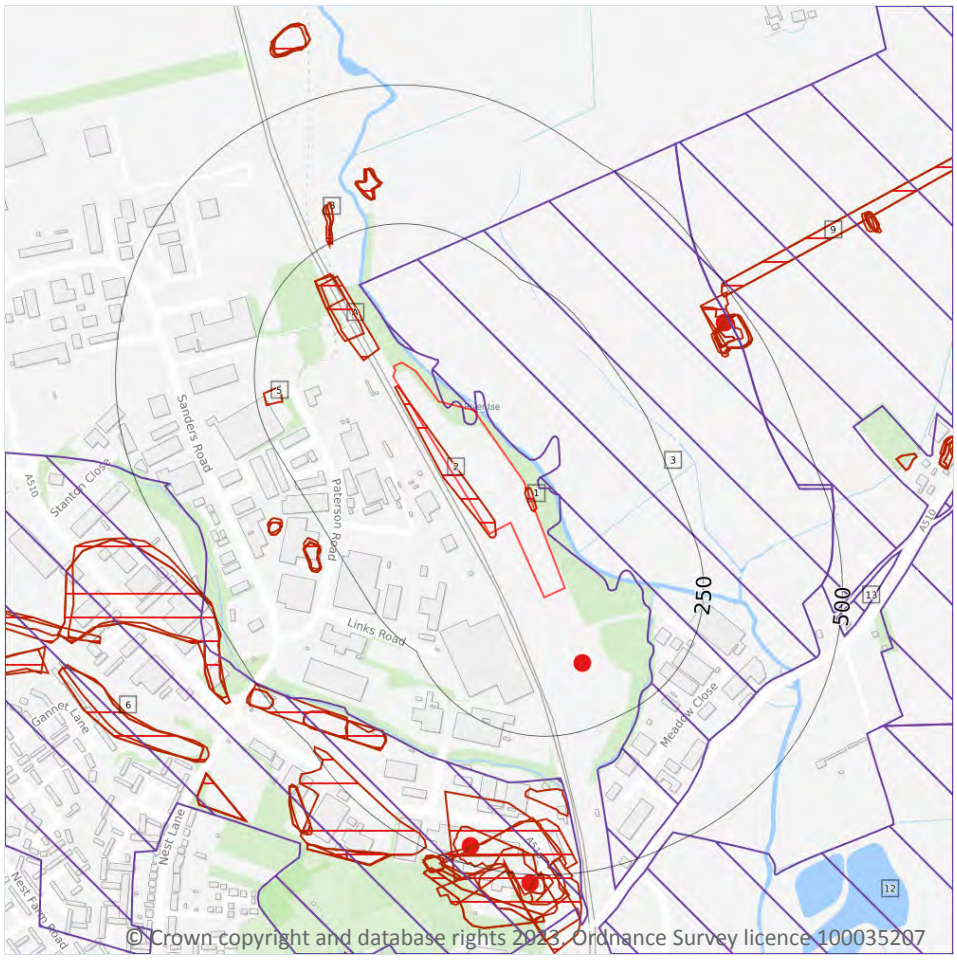
The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on **page 139 >**

Location	Hazard rating	Details
On site	**Negligible**	**Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.**

This data is sourced from the British Geological Survey.

18 Mining and ground workings



Site Outline

Search buffers in metres (m)

BritPits

Surface ground workings

Underground workings

Underground mining extents

Historical mineral planning areas

TCA non-coal mining

Non Coal Mining

Sporadic underground mining of restricted extent possible

Localised small scale underground mining possible

Small scale mining possible

Underground mining known or likely within or in close proximity

Underground mining known within or in very close proximity

18.1 BritPits

Records within 500m	3

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

Features are displayed on the Mining and ground workings map on **page 141 >**

ID	Location	Details	Description
4	134m SE	Name: Neilson's Sidings Rail Depot Address: Ise Valley Industrial Estate, WELLINGBOROUGH, Northamptonshire Commodity: Crushed Rock Status: Active	Type: A site where mineral commodities are unloaded from rail trucks and stored Status description: Site which is actively extracting mineral products, or in the case of wharfs and rail depots, is actively handing minerals

ID	Location	Details	Description
H	460m NE	Name: Irthlingborough Brick Field Address: Finedon, WELLINGBOROUGH, Northamptonshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority
10	466m S	Name: Wellingborough Brick Field Address: WELLINGBOROUGH, Northamptonshire Commodity: Clay & Shale Status: Ceased	Type: A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site Status description: Site which, at date of entry, has ceased to extract minerals. May be considered as Closed by operator. May be considered to have Active, Dormant or Expired planning permissions by Mineral Planning Authority

This data is sourced from the British Geological Survey.

18.2 Surface ground workings

Records within 250m **8**

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on **page 141 >**

ID	Location	Land Use	Year of mapping	Mapping scale
1	**On site**	**Unspecified Heap**	**1938**	**1:10560**
2	**On site**	**Unspecified Pit**	**1899**	**1:10560**
A	41m NW	Cuttings	1884	1:10560
A	80m NW	Cuttings	1950	1:10560
A	150m NW	Cuttings	1971	1:10560
5	204m W	Cuttings	1973	1:10000
B	246m NW	Pond	1938	1:10560
B	247m NW	Pond	1884	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Records within 1000m	0

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m	0

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m	5

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

Features are displayed on the Mining and ground workings map on **page 141 >**

ID	Location	Site Name	Mineral	Type	Planning Status	Planning Status Date
3	**On site**	**Carol Spring No.5**	**Ironstone**	**Surface mineral working**	**Valid**	**Not available**
6	327m S	Carol Spring No.5	Ironstone	Surface mineral working	Application	Not available
9	445m E	Carol Spring No.5	Ironstone	Surface mineral working	Valid	Not available
12	482m SE	Carol Spring No.5	Ironstone	Surface mineral working	Valid	13/8/58
13	493m E	Carol Spring No.5	Ironstone	Surface mineral working	Refused	13/8/58

This data is sourced from the British Geological Survey.

18.6 Non-coal mining

Records within 1000m	0

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site	0

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m	0

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m	0

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.

18.10 Mining record office plans

Records within 500m	0

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m	0

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site	0

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site	0

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site	0

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

18.15 Tin mining

Records on site	0

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site	0

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).

19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m	0

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m	0

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m	0

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m	0

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.

This data is sourced from Groundsure.

19.5 National karst database

Records within 500m	0

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.

20 Radon



Site Outline

Search buffers in metres (m)

- Greater than 30%
- Between 10% and 30%
- Between 5% and 10%
- Between 3% and 5%
- Between 1% and 3%
- Less than 1%

20.1 Radon

Records on site	1

The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on **page 149 >**

Location	Estimated properties affected	Radon Protection Measures required
On site	**Less than 1%**	**None**

This data is sourced from the British Geological Survey and UK Health Security Agency.

21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m	4

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km^2. In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km^2; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	**15 - 25 mg/kg**	**1 mg/kg**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**1 - 2 mg/kg**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**15 - 30 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**
On site	**25 - 35 mg/kg**	**No data**	**100 mg/kg**	**60 mg/kg**	**1.8 mg/kg**	**90 - 120 mg/kg**	**30 - 45 mg/kg**

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m	0

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km^2).

This data is sourced from the British Geological Survey.

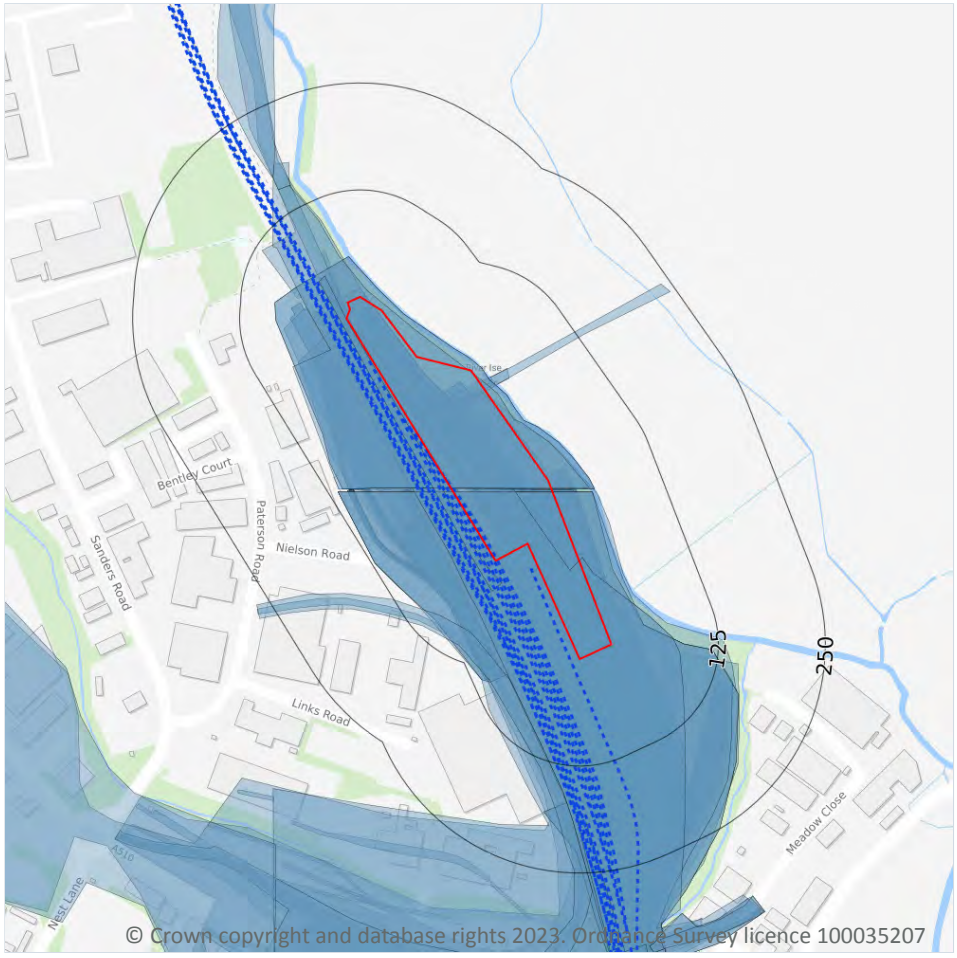
21.3 BGS Measured Urban Soil Chemistry

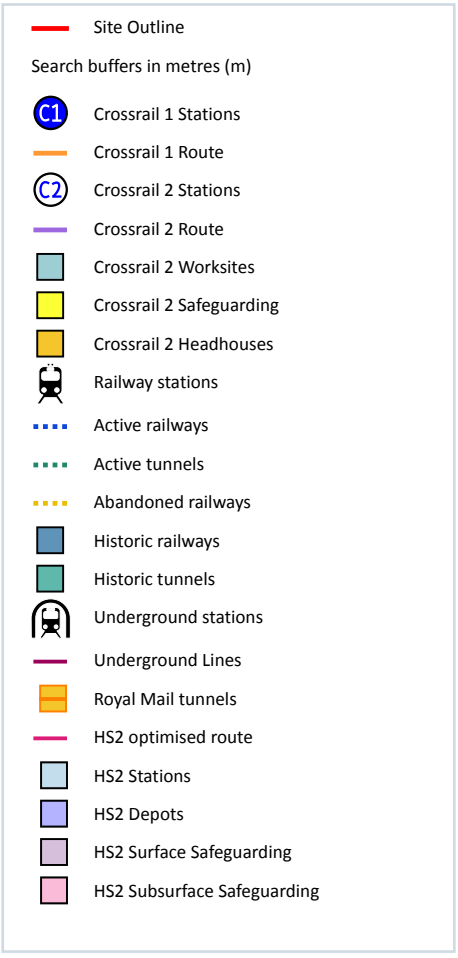
Records within 50m	0

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km^2.

This data is sourced from the British Geological Survey.

22 Railway infrastructure and projects





22.1 Underground railways (London)

Records within 250m	0

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m	0

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m	0

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m	37

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

Features are displayed on the Railway infrastructure and projects map on **page 153 >**

Location	Land Use	Year of mapping	Mapping scale
On site	Railway Sidings	1977	1250
On site	Railway Sidings	1966	1250
On site	Railway Sidings	1965	1250
On site	Railway Sidings	1971	2500
On site	Railway Sidings	1965	2500
On site	Railway Sidings	1985	2500
On site	Railway Sidings	1990	2500
On site	Railway Sidings	1899	2500
On site	Railway	1887	-
On site	Railway Sidings	1887	2500
On site	Railway Sidings	1925	2500
On site	Mineral Railway Sidings	1938	10560
On site	Railway Sidings	1950	10560
On site	Tram Sidings	1938	10560
On site	Railway Sidings	1988	10000
On site	Railway Sidings	1980	10000
On site	Railway Sidings	1957	10560

Location	Land Use	Year of mapping	Mapping scale
On site	**Railway Sidings**	**1899**	**10560**
On site	**Railway Sidings**	**1994**	**10000**
On site	**Railway Sidings**	**1974**	**10000**
1m NW	Railway Sidings	1884	10560
12m NW	Railway Sidings	1965	1250
31m NW	Railway Sidings	1971	2500
31m NW	Railway Sidings	1965	1250
41m W	Railway Sidings	1977	1250
41m W	Railway Sidings	1966	1250
42m W	Railway Sidings	1985	2500
42m W	Railway Sidings	1990	2500
84m S	Tramway Sidings	1899	10560
92m S	Tramway Sidings	1899	2500
153m NW	Mineral Railway Sidings	1950	10560
170m S	Railway Sidings	1977	1250
170m S	Railway Sidings	1985	2500
170m S	Railway Sidings	1990	2500
171m NW	Mineral Railway Sidings	1971	10560
191m S	Railway Sidings	1887	2500
191m S	Railway Sidings	1884	10560

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m	**0**

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.

This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m	0

Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m	17

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways.

Features are displayed on the Railway infrastructure and projects map on **page 153 >**

Location	Name	Type
On site		**rail**
On site		**rail**
On site		**rail**
2m W		rail
3m NW		rail
4m NW		rail
8m SE		rail
10m NW	Midland Main Line	rail
12m NW	Not given	Single Track
13m NW	Midland Main Line	rail
20m NW	Midland Main Line	rail
22m NW	Not given	Multi Track
24m NW	Midland Main Line	rail
72m S	Not given	Multi Track
111m NW	Not given	Single Track
114m NW	Not given	Multi Track
171m S	Not given	Multi Track

This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m	0

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m	0

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m	0

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 ltd.

Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see https://www.groundsure.com/sources-reference ↗.

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: https://www.groundsure.com/terms-and-conditions-april-2023/ ↗.

APPENDIX C

BOREHOLE LOG - CABLE PERCUSSION

CP01

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	1 of 2
Start	20/07/2023	**Coordinates**	E 490178.00 N 270099.25	**Scale**	1:50
End	20/07/2023	**Ground Level**	49.30m AOD	**Total Depth**	10.05m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
D	0.30					Black slightly silty gravelly SAND. Sand is fine to coarse ash. Gravel is fine to coarse angular to subangular clinker, coal fragments/tailings limestone, mudstone and occasional to rare brick fragments. (MADE GROUND)			
	0.40								
ES	0.40								
PID	0.40	PID = 0.0							
D	1.00				(2.00)				
D	1.20					*From 1.20m bgl: very loose.*			
S	1.20	N = 4	1.20						
D	1.70					*From 1.70m bgl: slightly clayey.*			
ES	1.80								
PID	1.80	PID = 0.0		47.30	2.00				
D	2.00					Firm light greenish grey to brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse subangular to rounded chalk fragments, mudstone and rare brick fragments. (MADE GROUND)			
D	2.20								
S	2.20	N = 10	1.50						
D	2.80				(1.50)				
ES	2.80								
PID	2.80	PID = 0.0							
UT	3.00	(20)							
D	3.50			45.80	3.50				
ES	3.60					Firm locally soft dark grey mottled orangish brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse angular to subangular coal fragments/tailings, ironstone and mudstone. (MADE GROUND)			
PID	3.60	PID = 0.0							
D	4.00				(1.10)				
S	4.00	N = 14	4.00			*At 4.00m bgl: less gravelly.*			
D	4.40								
D	4.60			44.70	4.60				
ES	4.80					Soft to firm locally soft greenish grey mottled dark grey slightly sandy silty CLAY with occasional pockets of black organic matter and a weak to moderate natural organic odour. (ALLUVIUM)			
PID	4.80	PID = 0.0							
B	5.00								
D	5.00								
UT	5.00	(18)							
D	5.50				(1.90)				
S	5.50	N = 7	5.00						
D	6.30								
B	6.50			42.80	6.50	Light yellowish brown slightly silty slightly clayey SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse angular to subrounded flint and rare quartzite. (RIVER TERRACE DEPOSITS)			
					(0.40)				
D	6.90			42.40	6.90				
D	7.10					Firm becoming stiff thinly laminated dark grey silty CLAY with occasional angular tabular mudstone lithorelicts. (WHITBY MUDSTONE FORMATION)			
S	7.10	N = 15	7.00						
D	8.00								
					(3.15)				
UT	8.60	(33)							
D	9.40								
D	9.60					*Below 9.60m bgl: stiff.*			
S	9.60	N = 21	7.00						

Continued next sheet

Chiselling

From	To	Duration (hh:mm)

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed

Drilled: TS

Logged: MS

Checked: FHJ

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 9.60m bgl. Groundwater not encountered.

Installation: 50mm diameter standpipe installed to 8.00m bgl.

Diameter: 150mm to 10.05m

APPLiED GEOLOGY

BOREHOLE LOG - CABLE PERCUSSION

CP01

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 2
Start	20/07/2023	**Coordinates**	E 490178.00 N 270099.25	**Scale**	1:50
End	20/07/2023	**Ground Level**	49.30m AOD	**Total Depth**	10.05m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
				39.26	10.05	Firm becoming stiff thinly laminated dark grey silty CLAY with occasional angular tabular mudstone lithorelicts. (WHITBY MUDSTONE FORMATION)			
						End of Borehole at 10.05m			

Chiselling			Groundwater Strikes				
From	To	Duration (hh:mm)	Depth Strike	Rose to	Remarks	Cased	Sealed

Drilled: TS

Logged: MS

Checked: FHJ

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 9.60m bgl. Groundwater not encountered.

Installation: 50mm diameter standpipe installed to 8.00m bgl.

Diameter: 150mm to 10.05m

BOREHOLE LOG - CABLE PERCUSSION

CP02

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	1 of 2
Start	24/03/2022	**Coordinates**	E 490226.33 N 270010.74	**Scale**	1:50
End	25/07/2023	**Ground Level**	49.50m AOD	**Total Depth**	10.95m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata
D	0.10				(0.60)	Grey mottled red slightly silty sandy GRAVEL of fine to coarse angular to subangular limestone and granite. (MADE GROUND)
D	0.50			48.90	0.60	
ES	0.50					Soft greenish grey to light brown slightly gravelly sandy silty CLAY. Gravel is fine to coarse angular ironstone, mudstone, sandstone and occasional black specs. (MADE GROUND)
PID	0.50	PID = 0.0				
D	0.80				(0.90)	
ES	0.90					
PID	0.90	PID = 0.0				
C	1.20	N = 4	1.20	48.00	1.50	
D	1.50					Soft locally firm orangish brown slightly gravelly slightly sandy CLAY. Gravel is fine to coarse angular to subangular ironstone and possible flint with occasional black specs. (MADE GROUND)
C	2.00	N = 11	2.00			
D	2.50					*At 2.50m bgl: pockets of orangish brown sand.*
ES	2.60					*From 2.60m bgl: mottled greenish brown.*
PID	2.60	PID = 0.0				
D	3.00				(3.10)	*From 3.00m bgl: occasional lenses of light greyish brown silt.*
S	3.00	N = 6	3.00			
D	3.60					
ES	3.70					
PID	3.70	PID = 0.0				
D	4.00					*From 4.00m bgl: with gravel of crushed chalk.*
S	4.00	N = 9	4.00			
B	4.30					*From 4.30m bgl: an increase in ironstone gravel.*
D	4.70			44.90	4.60	Soft dark greenish grey slightly sandy silty CLAY with frequent pockets of black organic matter and a moderate to strong natural organic odour. (ALLUVIUM)
ES	4.80				(0.50)	
PID	4.80	PID = 0.0				
D	5.10			44.40	5.10	
S	5.10	N = 11	5.00			Medium dense orangish/yellowish brown slightly gravelly silty clayey fine to coarse SAND. Gravel is fine to coarse angular to subangular ironstone. (RIVER TERRACE DEPOSITS)
B	6.00				(1.10)	*From 5.70m bgl: yellowish brown.*
D	6.00			43.30	6.20	
B	6.50					Medium dense to dense yellowish brown slightly silty slightly clayey slightly sandy GRAVEL of fine to coarse angular to subrounded ironstone and flint. (RIVER TERRACE DEPOSITS)
C	6.50	N = 18	6.50			
					(1.60)	
D	7.80			41.70	7.80	
D	8.00					Stiff becoming very stiff thinly laminated dark grey silty CLAY with frequent angular tabular mudstone lithorelicts. (WHITBY MUDSTONE FORMATION)
S	8.00	N = 28	8.00			
D	9.00					*From 9.00m bgl: broken shell fragments and suspected selenite crystals.*
B	9.50				(3.15)	
UT	9.50	(35)				
B	10.00					

Continued next sheet

Chiselling

From	To	Duration (hh:mm)

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
4.50	4.30	Strike	4.00	5.00
6.40	5.50	Strike	6.00	8.00

Drilled: TS

Logged: MS

Checked: FHJ

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 2.50m bgl. Borehole backfilled with bentonite and arisings on completion.

Installation:

Diameter: 150mm to 10.95m

APPLIED GEOLOGY

BOREHOLE LOG - CABLE PERCUSSION

CP02

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 2
Start	24/03/2022	**Coordinates**	E 490226.33 N 270010.74	**Scale**	1:50
End	25/07/2023	**Ground Level**	49.50m AOD	**Total Depth**	10.95m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
UT	10.00	(38)				Stiff becoming very stiff thinly laminated dark grey silty CLAY with frequent angular tabular mudstone lithorelicts. (WHITBY MUDSTONE FORMATION)			
D	10.50					*Below 10.50m bgl: very stiff.*			
S	10.50	N = 30	8.00						
				38.55	10.95				
						End of Borehole at 10.95m			

Chiselling			Groundwater Strikes				
From	To	Duration (hh:mm)	Depth Strike	Rose to	Remarks	Cased	Sealed
			4.50	4.30	Strike	4.00	5.00
			6.40	5.50	Strike	6.00	8.00

Drilled: TS

Logged: MS

Checked: FHJ

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 2.50m bgl. Borehole backfilled with bentonite and arisings on completion.

Installation:

Diameter: 150mm to 10.95m

Exploratory hole logs should be read in conjunction with key sheets

APPLiED GEOLOGY

BOREHOLE LOG - CABLE PERCUSSION

CP03

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	1 of 2
Start	24/07/2023	**Coordinates**	E 490266.22 N 269938.78	**Scale**	1:50
End	24/07/2023	**Ground Level**	50.59m AOD	**Total Depth**	10.05m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata
					(0.30)	Compacted limestone roadstone. (MADE GROUND)
				50.29	0.30	
D	0.50					Dark grey to black slightly silty gravelly fine to coarse ashy SAND. Gravel is fine to coarse angular to subangular limestone, mudstone, coal fragments/tailings, clinker and occasional to rare brick fragments. (MADE GROUND)
D	0.80					
ES	0.80				(1.30)	
PID	0.80	PID = 0.0				
C	1.20	N = 8	1.20			
D	1.60			48.99	1.60	
ES	1.80					Soft to firm damp light greyish brown mottled orangish brown slightly silty slightly sandy gravelly CLAY. Gravel is fine to coarse angular to rounded flint, limestone, ironstone, mudstone and rare fragments of brick. (MADE GROUND)
PID	1.80	PID = 0.0				
C	2.00	N = 9	1.50			
D	2.50					
ES	2.60					
PID	2.60	PID = 0.0			(2.40)	
D	3.00					
S	3.00	N = 14	3.00			
D	3.60					*At 3.60m bgl: cobble of angular ironstone.*
D	4.00			46.59	4.00	
D	4.10				(0.40)	Soft to firm greenish grey to brown slightly sandy silty CLAY with occasional pockets of dark organic matter and a weak to moderate natural organic odour. (ALLUVIUM)
S	4.10	N = 9	4.00	46.19	4.40	
D	4.30					
D	4.60				(0.40)	
ES	4.80			45.79	4.80	Firm orangish brown occasionally mottled light grey and light brown slightly silty slightly gravelly sandy CLAY. Gravel is fine to coarse subangular to subrounded ironstone. (RIVER TERRACE DEPOSITS)
PID	4.80	PID = 0.0				
D	5.00				(0.70)	
UT	5.20	(30)				Firm to stiff thinly laminated greenish grey mottled dark orangish brown slightly sandy silty CLAY. (WHITBY MUDSTONE FORMATION)
				45.09	5.50	
D	5.65					
D	6.00					Stiff thinly laminated dark grey occasionally mottled greenish grey silty CLAY with occasional to frequent angular tabular mudstone lithorelicts and fine relict rootlets. (WHITBY MUDSTONE FORMATION)
D	6.50					*From 6.00m bgl: occasional broken shell fragments.*
S	6.50	N = 24	6.00			*From 6.50m bgl: no longer mottled greenish grey.*
D	7.00					*From 7.00m bgl: with fine selenite crystals.*
					(4.55)	
UT	8.00	(36)				
D	9.20					*From 9.00m bgl: an increase in mudstone lithorelicts.*
D	9.50					
S	9.50	N = 27	6.00			

Continued next sheet

Chiselling

From	To	Duration (hh:mm)

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
5.00	4.50	Strike	5.00	6.00

Drilled: TS

Logged: MS

Checked: FHJ

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 9.00m bgl.

Installation: 50mm diameter standpipe installed to 8.00m bgl.

Diameter: 150mm to 10.05m

APPLiED GEOLOGY

BOREHOLE LOG - CABLE PERCUSSION

CP03

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 2
Start	24/07/2023	**Coordinates**	E 490266.22 N 269938.78	**Scale**	1:50
End	24/07/2023	**Ground Level**	50.59m AOD	**Total Depth**	10.05m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
				40.54	10.05	Stiff thinly laminated dark grey occasionally mottled greenish grey silty CLAY with occasional to frequent angular tabular mudstone lithorelicts and fine relict rootlets. (WHITBY MUDSTONE FORMATION) End of Borehole at 10.05m			

Chiselling

From	To	Duration (hh:mm)

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
5.00	4.50	Strike	5.00	6.00

Drilled: TS

Logged: MS

Checked: FHJ

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 9.00m bgl.

Installation: 50mm diameter standpipe installed to 8.00m bgl.

Diameter: 150mm to 10.05m

Exploratory hole logs should be read in conjunction with key sheets

APPLiED GEOLOGY

BOREHOLE LOG - CABLE PERCUSSION

CP04

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	1 of 2
Start	21/07/2023	**Coordinates**	E 490317.15 N 269974.87	**Scale**	1:50
End	21/07/2023	**Ground Level**	49.69m AOD	**Total Depth**	10.15m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata
D	0.20					Compacted limestone roadstone. (MADE GROUND)
ES	0.30				(0.70)	
PID	0.30	PID = 0.0				
D	0.50			48.99	0.70	
D	0.70					Dark brown to greyish brown slightly silty sandy gravelly CLAY with a strong solvent odour. Gravel is fine to coarse angular to subangular limestone, flint and occasional wood fragments, coal fragments/tailings and brick fragments. (MADE GROUND)
ES	0.80					
PID	0.80	PID = 0.1			(1.00)	
D	1.20					
S	1.20	N = 31	1.20			
				47.99	1.70	
D	1.80					Black slightly silty sandy GRAVEL of fine to coarse angular to subrounded ash and occasional limestone, ironstone, brick fragments and coal fragments/tailings. (MADE GROUND)
ES	1.90					
PID	1.90	PID = 0.9				
D	2.00					
S	2.00	N = 19	2.00			*From 2.00m bgl: medium dense.*
D	2.50					
ES	2.60					
PID	2.60	PID = 0.3				
D	3.00					*From 3.00m bgl: occasional pockets of soft sandy black clay.*
S	3.00	N = 21	3.00			
D	3.50					*From 3.50m bgl: cobbles of angular tabular mudstone.*
ES	3.60					
PID	3.60	PID = 1.1				
D	4.00					
S	4.00	N = 27	4.00			
					(5.60)	
D	4.60					
ES	4.70					
PID	4.70	PID = 0.4				
D	5.00					
S	5.00	N = 28	5.00			
D	6.00					
ES	6.20					
PID	6.20	PID = 0.1				
D	6.50					
S	6.50	N = 26	6.00			
B	6.95					*At 6.95m to 7.30m bgl: cobbles of angular clinker and concrete.*
B	6.95					
D	7.10			42.39	7.30	
D	7.10					Soft to firm greenish grey occasionally mottled dark grey slightly silty slightly sandy CLAY with pockets of dark black organic matter and a weak to moderate natural organic odour. (ALLUVIUM)
S	7.10	N = 15	7.00			
D	7.30					
UT	7.50	(25)			(1.20)	
B	7.95					
D	8.50			41.19	8.50	
					(0.40)	Light orangish brown slightly silty clayey sandy GRAVEL of fine to coarse angular to subrounded flint. (RIVER TERRACE DEPOSITS)
D	8.90			40.79	8.90	
D	9.00					Firm becoming stiff thinly laminated dark grey occasionally mottled orangish brown silty CLAY with occasional to rare shell fragments and tabular angular mudstone lithorelicts. (WHITBY MUDSTONE FORMATION)
S	9.00	N = 16	9.00			
					(1.25)	
D	9.60					
UT	9.70	(30)				*Below 9.70m bgl: stiff.*

Continued next sheet

Chiselling

From	To	Duration (hh:mm)
6.95	7.00	01:00
7.00	7.10	00:30

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
6.50	6.00	Strike	6.00	

Drilled: TS

Logged: MS

Checked: FHJ

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 9.50m bgl. Borehole backfilled with bentonite and arisings on completion.

Installation:

Diameter: 150mm to 10.15m

APPLiED GEOLOGY

BOREHOLE LOG - CABLE PERCUSSION

CP04

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 2
Start	21/07/2023	**Coordinates**	E 490317.15 N 269974.87	**Scale**	1:50
End	21/07/2023	**Ground Level**	49.69m AOD	**Total Depth**	10.15m

Sample / Test Type	Depth (m)	Result	Casing Depth (m)	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
				39.54	10.15	Firm becoming stiff thinly laminated dark grey occasionally mottled orangish brown silty CLAY with occasional to rare shell fragments and tabular angular mudstone lithorelicts. (WHITBY MUDSTONE FORMATION)			
						End of Borehole at 10.15m			

Chiselling

From	To	Duration (hh:mm)
6.95	7.00	01:00
7.00	7.10	00:30

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
6.50	6.00	Strike	6.00	

Drilled: TS

Logged: MS

Checked: FHJ

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Water added to aid drilling from 1.20m bgl to 9.50m bgl. Borehole backfilled with bentonite and arisings on completion.

Installation:

Diameter: 150mm to 10.15m

Exploratory hole logs should be read in conjunction with key sheets

APPLiED GEOLOGY

SPT SUMMARY SHEET

Project: Neilson's Sidings, off Roundhouse Way, Wellingborough
Client: FM Conway Ltd
Project No: AG3488-23

Borehole No.	Borehole depth (m)	Bottom depth (m)	Casing depth (m)	Water Level (m)	Equipment ref.	Seating Drive				Test Drive									Test Type	N Value
						Blows		Pen (mm)		Blows				Pen (mm)				Total Pen (mm)		
CP01	1.20	1.65	1.20	DRY	AR1752	1	0	75	75	1	1	1	1	75	75	75	75	300	S	4
CP01	2.20	2.65	1.50	DRY	AR1752	2	2	75	75	2	2	3	3	75	75	75	75	300	S	10
CP01	4.00	4.45	4.00	DRY	AR1752	2	3	75	75	3	3	4	4	75	75	75	75	300	S	14
CP01	5.50	5.95	5.00	DRY	AR1752	1	1	75	75	1	2	2	2	75	75	75	75	300	S	7
CP01	7.10	7.55	7.00	DRY	AR1752	2	3	75	75	3	3	4	5	75	75	75	75	300	S	15
CP01	9.60	10.05	7.00	DRY	AR1752	3	3	75	75	3	5	6	7	75	75	75	75	300	S	21
CP02	1.20	1.65	1.20	DRY	AR1752	1	0	75	75	1	1	1	1	75	75	75	75	300	C	4
CP02	2.00	2.45	2.00	DRY	AR1752	1	2	75	75	2	2	3	4	75	75	75	75	300	C	11
CP02	3.00	3.45	3.00	DRY	AR1752	1	2	75	75	1	1	2	2	75	75	75	75	300	S	6
CP02	4.00	4.45	4.00	DRY	AR1752	1	2	75	75	2	2	2	3	75	75	75	75	300	S	9
CP02	5.10	5.55	5.00	DRY	AR1752	2	3	75	75	2	2	3	4	75	75	75	75	300	S	11
CP02	6.50	6.95	6.50	5.90	AR1752	3	4	75	75	4	4	5	5	75	75	75	75	300	C	18
CP02	8.00	8.45	8.00	DRY	AR1752	3	4	75	75	6	7	7	8	75	75	75	75	300	S	28
CP02	10.50	10.95	8.00	DRY	AR1752	4	5	75	75	6	7	8	9	75	75	75	75	300	S	30
CP03	1.20	1.65	1.20	1.20	AR1752	1	2	75	75	2	2	2	2	75	75	75	75	300	C	8
CP03	2.00	2.45	1.50	1.50	AR1752	2	1	75	75	2	2	3	2	75	75	75	75	300	C	9
CP03	3.00	3.45	3.00	DRY	AR1752	7	6	75	75	5	3	3	3	75	75	75	75	300	S	14
CP03	4.10	4.55	4.00	DRY	AR1752	2	2	75	75	2	2	2	3	75	75	75	75	300	S	9
CP03	6.50	6.95	6.00	DRY	AR1752	3	4	75	75	5	6	6	7	75	75	75	75	300	S	24
CP03	9.50	9.95	6.00	DRY	AR1752	5	6	75	75	6	6	7	8	75	75	75	75	300	S	27
CP04	1.20	1.65	1.20	DRY	AR1752	6	7	75	75	7	8	8	8	75	75	75	75	300	S	31
CP04	2.00	2.45	2.00	DRY	AR1752	3	4	75	75	4	4	5	6	75	75	75	75	300	S	19
CP04	3.00	3.45	3.00	DRY	AR1752	2	4	75	75	4	4	6	7	75	75	75	75	300	S	21
CP04	4.00	4.45	4.00	DRY	AR1752	4	6	75	75	6	6	7	8	75	75	75	75	300	S	27
CP04	5.00	5.45	5.00	DRY	AR1752	5	7	75	75	7	6	7	8	75	75	75	75	300	S	28
CP04	6.50	6.95	6.00	6.00	AR1752	4	5	75	75	6	6	7	7	75	75	75	75	300	S	26
CP04	7.10	7.55	7.00	6.80	AR1752	8	3	75	75	3	4	4	4	75	75	75	75	300	S	15
CP04	9.00	9.45	9.00	DRY	AR1752	2	3	75	75	3	4	4	5	75	75	75	75	300	S	16
DCS01	1.20	1.65		DRY	110.119	1	1	75	75	1	1	1	2	75	75	75	75	300	C	5
DCS01	2.00	2.45		DRY	110.119	2	1	75	75	1	2	2	2	75	75	75	75	300	S	7
DCS01	3.00	3.45		DRY	110.119	2	1	75	75	2	2	3	5	75	75	75	75	300	S	12
DCS01	4.00	4.45		4.10	110.119	2	2	75	75	3	2	3	3	75	75	75	75	300	S	11
DCS01	5.00	5.45		4.10	110.119	2	1	75	75	2	2	3	3	75	75	75	75	300	S	10
DCS01	6.00	6.45		4.10	110.119	3	3	75	75	2	2	1	1	75	75	75	75	300	C	6

Notes:
1. Test carried out in general accordance with BS EN ISO 22476-3:2005
2. N values have not been subjected to any correction.
3. Test carried out using split spoon S, or solid cone C.

APPLiED GEOLOGY

SPT SUMMARY SHEET

Project: Neilson's Sidings, off Roundhouse Way, Wellingborough
Client: FM Conway Ltd
Project No: AG3488-23

Borehole No.	Borehole depth (m)	Bottom depth (m)	Casing depth (m)	Water Level (m)	Equipment ref.	Seating Drive				Test Drive									Test Type	N Value
						Blows		Pen (mm)		Blows				Pen (mm)				Total Pen (mm)		
DCS02	1.20	1.65		DRY	110.119	1	1	75	75	1	2	2	2	75	75	75	75	300	S	7
DCS02	2.00	2.45		DRY	110.119	1	1	75	75	1	1	2	2	75	75	75	75	300	C	6
DCS02	3.00	3.45		DRY	110.119	1	2	75	75	2	2	3	2	75	75	75	75	300	C	9
DCS02	4.00	4.45		3.90	110.119	1	2	75	75	2	2	2	2	75	75	75	75	300	C	8
DCS02	5.00	5.45		3.90	110.119	1	2	75	75	1	2	2	2	75	75	75	75	300	S	7
DCS03	1.20	1.65		DRY	110.119	1	1	75	75	1	2	1	1	75	75	75	75	300	C	5
DCS03	2.00	2.45		DRY	110.119	2	2	75	75	2	3	3	3	75	75	75	75	300	C	11
DCS03	3.00	3.45		DRY	110.119	2	2	75	75	1	1	1	1	75	75	75	75	300	S	4
DCS03	4.00	4.45		DRY	110.119	1	2	75	75	1	2	1	1	75	75	75	75	300	C	5
DCS03	5.00	5.45		5.20	110.119	1	1	75	75	2	1	3	2	75	75	75	75	300	S	8
DCS04	1.20	1.65		DRY	110.119	1	2	75	75	2	2	1	2	75	75	75	75	300	C	7
DCS04	2.00	2.45		DRY	110.119	2	2	75	75	3	2	2	2	75	75	75	75	300	S	9
DCS04	3.00	3.45		DRY	110.119	2	4	75	75	5	5	5	3	75	75	75	75	300	S	18
DCS04	4.00	4.45		DRY	110.119	3	2	75	75	2	2	3	3	75	75	75	75	300	S	10
DCS04	5.00	5.45		4.80	110.119	3	2	75	75	2	2	2	2	75	75	75	75	300	C	8
RH01	1.20	1.65		DRY	120.58	2	3	75	75	3	2	2	2	75	75	75	75	300	S	9
RH01	2.00	2.45		DRY	120.58	1	2	75	75	2	2	2	2	75	75	75	75	300	S	8
RH01	3.00	3.45		DRY	120.58	2	3	75	75	2	2	3	2	75	75	75	75	300	S	9
RH01	4.00	4.45		DRY	120.58	2	4	75	75	3	2	4	3	75	75	75	75	300	S	12
RH01	5.00	5.45		DRY	120.58	1	1	75	75	1	2	1	5	75	75	75	75	300	S	9
RH01	6.00	6.45		DRY	120.58	2	3	75	75	3	4	8	8	75	75	75	75	300	S	23
RH01	7.00	7.45	6.00	6.90	120.58	3	4	75	75	6	8	6	6	75	75	75	75	300	S	26
RH01	8.00	8.45	6.00	6.90	120.58	1	2	75	75	2	4	5	7	75	75	75	75	300	S	18
RH01	9.00	9.45	6.00	DRY	120.58	4	5	75	75	4	6	7	5	75	75	75	75	300	S	22
RH01	10.00	10.45	9.00	DRY	120.58	5	7	75	75	8	10	13	17	75	75	75	75	300	S	48
RH01	11.50	11.93	9.00	DRY	120.58	4	8	75	75	11	10	16	13	75	75	75	55	280	S	>50
RH01	14.50	14.95	9.00	DRY	120.58	3	6	75	75	7	9	13	14	75	75	75	75	300	S	43
RH01	17.50	17.93	9.00	DRY	120.58	6	6	75	75	9	13	16	12	75	75	75	55	280	S	>50
RH01	19.00	19.23	9.00	18.70	120.58	19	6	75	5	23	25	2		75	75	0		150	S	>50
RH01	20.50	20.87	9.00	18.70	120.58	7	9	75	75	13	17	20		75	75	65		215	S	>50
RH02	1.20	1.65		DRY	120.58	2	1	75	75	2	2	2	2	75	75	75	75	300	S	8
RH02	2.00	2.45		DRY	120.58	1	2	75	75	4	6	4	5	75	75	75	75	300	S	19
RH02	3.00	3.45		DRY	120.58	1	2	75	75	1	2	2	3	75	75	75	75	300	S	8
RH02	4.00	4.45		DRY	120.58	2	1	75	75	3	3	4	5	75	75	75	75	300	S	15

Notes:
1. Test carried out in general accordance with BS EN ISO 22476-3:2005
2. N values have not been subjected to any correction.
3. Test carried out using split spoon S, or solid cone C.

APPLiED GEOLOGY

SPT SUMMARY SHEET

Project: Neilson's Sidings, off Roundhouse Way, Wellingborough
Client: FM Conway Ltd
Project No: AG3488-23

Borehole No.	Borehole depth (m)	Bottom depth (m)	Casing depth (m)	Water Level (m)	Equipment ref.	Seating Drive				Test Drive									Test Type	N Value
						Blows		Pen (mm)		Blows				Pen (mm)				Total Pen (mm)		
RH02	5.00	5.45		DRY	120.58	2	2	75	75	2	2	2	3	75	75	75	75	300	S	9
RH02	6.00	6.45		DRY	120.58	1	2	75	75	2	2	2	3	75	75	75	75	300	S	9
RH02	7.00	7.45	6.00	6.80	120.58	2	2	75	75	4	4	7	8	75	75	75	75	300	S	23
RH02	8.00	8.45	6.00	6.80	120.58	8	8	75	75	9	10	10	15	75	75	75	75	300	S	44
RH02	9.00	9.45	8.00	6.80	120.58	2	4	75	75	5	5	8	11	75	75	75	75	300	S	29
RH02	10.00	10.44	9.00	6.80	120.58	6	7	75	75	8	10	15	17	75	75	75	60	285	S	>50
RH02	11.50	11.90	9.00	6.80	120.58	6	9	75	75	10	14	19	7	75	75	75	20	245	S	>50
RH02	13.00	13.35	9.00	DRY	120.58	4	7	75	75	14	21	15		75	75	45		195	S	>50
RH02	14.50	14.88	9.00	6.80	120.58	7	12	75	75	14	15	18	3	75	75	75	0	225	S	>50
RH02	16.00	16.27	9.00	6.80	120.58	11	14	75	60	24	26			75	55			130	S	>50
RH02	20.50	20.77	9.00	6.80	120.58	11	14	75	40	22	26	2		75	75	0		150	S	>50
RH03	1.20	1.65		DRY	120.58	2	3	75	75	3	2	1	2	75	75	75	75	300	S	8
RH03	2.00	2.45		DRY	120.58	2	1	75	75	2	2	1	3	75	75	75	75	300	S	8
RH03	3.00	3.45		DRY	120.58	1	2	75	75	2	2	1	2	75	75	75	75	300	S	7
RH03	4.00	4.45		DRY	120.58	2	2	75	75	1	3	2	3	75	75	75	75	300	S	9
RH03	5.00	5.45		DRY	120.58	1	0	75	75	1	2	2	3	75	75	75	75	300	S	8
RH03	6.00	6.45	6.00	DRY	120.58	1	3	75	75	4	2	2	2	75	75	75	75	300	S	10
RH03	7.00	7.45	6.00	6.90	120.58	5	3	75	75	3	6	11	7	75	75	75	75	300	S	27
RH03	8.00	8.45	6.00	6.90	120.58	3	3	75	75	4	4	6	5	75	75	75	75	300	S	19
RH03	9.00	9.45	9.00	DRY	120.58	5	4	75	75	4	6	6	8	75	75	75	75	300	S	24
RH03	10.00	10.38	9.00	DRY	120.58	4	8	75	75	10	16	18	6	75	75	75	5	230	S	>50
RH03	14.50	14.84	9.00	DRY	120.58	8	15	75	75	18	21	11		75	75	35		185	S	>50
RH03	17.50	17.85	9.00	DRY	120.58	12	12	75	75	18	19	13		75	75	50		200	S	>50
RH03	20.00	20.28	9.00	DRY	120.58	12	13	75	45	21	24	5		75	75	5		155	S	>50

Notes:
1. Test carried out in general accordance with BS EN ISO 22476-3:2005
2. N values have not been subjected to any correction.
3. Test carried out using split spoon S, or solid cone C.

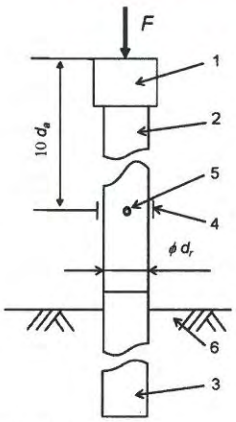
APPLiED GEOLOGY

SPT Calibration Report

Hammer Energy Measurement Report

Type of Hammer	SPT Hammer
Test No	EQU2023_35
Client	Applied Geology
Test Depth (m)	9.20
Mass of hammer	m = 63.5kg
Falling height	h = 0.76m
E_{theor} =	$m \times g \times h$ = 473J

Characteristics of the instrumented rod



Key

1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

F Force
d_r Diameter of rod

Fig. B.1 and B.2
BS EN ISO 22476-3 : 2005 + A1 : 2011

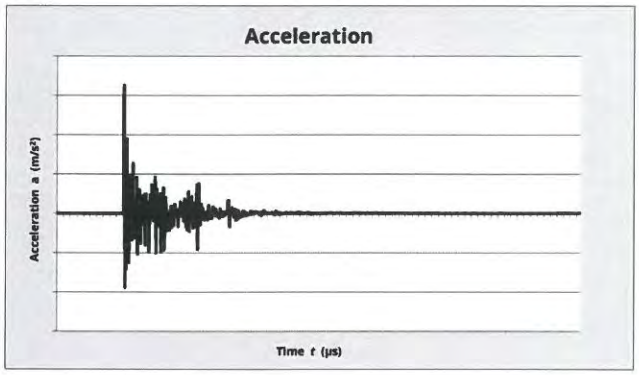
Diameter	d_r = 0.052 m
Length of instrumented rod	0.558 m
Area	A = 11.61 cm²
Modulus	E_a = 206843 MPa

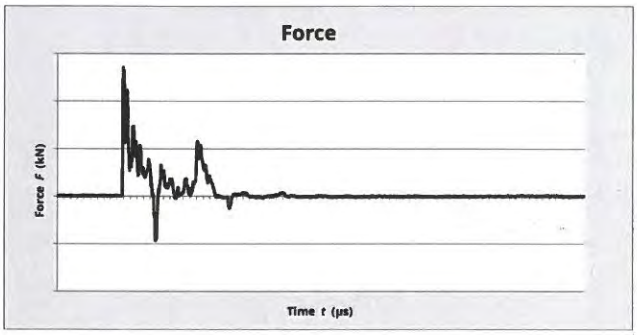
DATE OF TEST	VALID UNTIL	HAMMER ID
03/02/2023	03/02/2024	AR1752

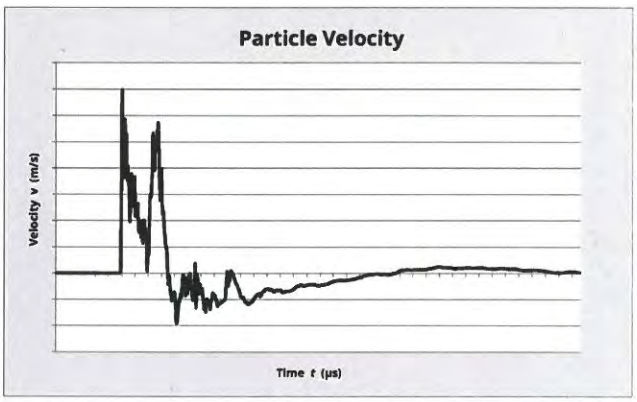
E_{meas} = **0.351** kN-m

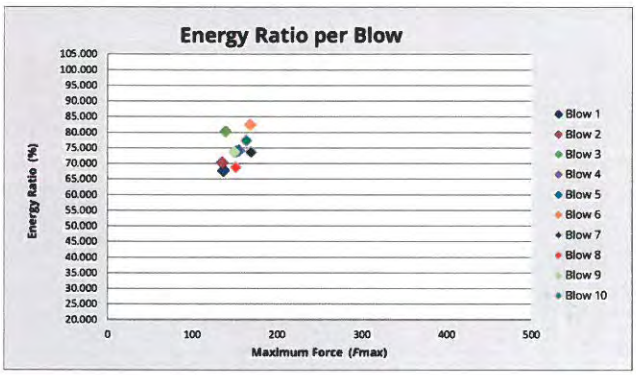
E_{theor} = **0.473** kN-m

Comments









Energy Ratio (Er) = $\frac{E_{meas}}{E_{theor}}$	**74.20%**

Equipe SPT Analyzer Operator	Certificate prepared by	Certificate checked by	Certificate date
ks			10/02/2023

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BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS01

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	1 of 2
Start	19/07/2023	**Coordinates**	E 490132.87 N 270162.84	**Scale**	1:25
End	19/07/2023	**Ground Level**	49.45m AOD	**Total Depth**	6.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
ES	0.20					Dark grey to black slightly silty slightly clayey gravelly fine to coarse ashy SAND. Gravel is fine to coarse angular to subangular limestone, coal fragments/tailings, brick fragments and occasional to rare flint. (MADE GROUND)			
PID	0.20	PID = 0.1			(0.60)				
D	0.40								
				48.85	0.60	Soft friable damp orangish brown rarely mottled light grey slightly silty slightly gravelly sandy CLAY. Gravel is fine to coarse angular to subrounded flint, brick fragments, sandstone and rare fragments of coal. (MADE GROUND)			
ES	0.80					*At 0.80m bgl: boulder of angular sandstone.*			
PID	0.80	PID = 0.0			(0.60)	*At 1.10m to 1.20m bgl: very sandy.*			
D	1.10								
C	1.20	N = 5		48.25	1.20	Very loose to loose dark grey to black slightly silty slightly clayey sandy GRAVEL of fine to coarse angular to subrounded ash, clinker, coal fragments/tailings, mudstone, limestone and occasional flint and brick fragments. (MADE GROUND)			
D	1.30				(0.25)				
				48.00	1.45	Soft to firm orangish brown occasionally mottled greyish brown slightly gravelly silty sandy CLAY. Gravel is fine to coarse angular to subrounded ironstone, sandstone, clinker and coal fragments/tailings. (MADE GROUND)			
D	1.60		116mm /80%		(0.65)				
D	2.00								
ES	2.00			47.35	2.10	Soft to firm greenish grey occasionally mottled orangish brown slightly gravelly slightly sandy silty CLAY. Gravel is fine to coarse angular to subangular ironstone and sandstone. (MADE GROUND)			
S	2.00	N = 7							
PID	2.00	PID = 0.0							
D	2.50		101mm /90%						
B	3.00								
D	3.00				(1.90)				
S	3.00	N = 12				*From 3.20m bgl: becoming dark grey mottled orangish brown.*			
			92mm /70%			*At 3.60m to 3.80m bgl: band of orangish brown ironstone gravel.*			
B	4.00			45.45	4.00	Soft to firm greenish grey slightly sandy slightly silty CLAY with occasional pockets of black organic matter and a weak natural organic odour. (ALLUVIUM)			
D	4.00								
S	4.00	N = 11							
			79mm /80%						
D	5.00								

Continued next sheet

Installation: 50mm diameter standpipe installed to 5.60m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
4.10	4.10	Strike		

Drilled: DH

Logged: MS

Checked: FHJ

APPLiED GEOLOGY

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS01

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 2
Start	19/07/2023	**Coordinates**	E 490132.87 N 270162.84	**Scale**	1:25
End	19/07/2023	**Ground Level**	49.45m AOD	**Total Depth**	6.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
S	5.00	N = 10	70mm /100%		(2.45)	Soft to firm greenish grey slightly sandy slightly silty CLAY with occasional pockets of black organic matter and a weak natural organic odour. (ALLUVIUM)			
						From 5.70m bgl: becoming orangish brown.			
D	6.00					*From 6.00m bgl: soft.*			
C	6.00	N = 6							
				43.00	6.45	End of Borehole at 6.45m			

Installation: 50mm diameter standpipe installed to 5.60m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
4.10	4.10	Strike		

Drilled: DH

Logged: MS

Checked: FHJ

APPLiED GEOLOGY

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS02

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	1 of 2
Start	19/07/2023	**Coordinates**	E 490254.44 N 269993.15	**Scale**	1:25
End	19/07/2023	**Ground Level**	50.35m AOD	**Total Depth**	5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
					(0.25)	Compacted limestone roadstone. (MADE GROUND)			
D	0.20			50.10	0.25				
						Dark grey to black slightly silty slightly clayey SAND and GRAVEL. Sand is fine to coarse ash. Gravel is fine to coarse angular to subangular limestone, mudstone, coal fragments/tailings, clinker, fragments of wood and rare fragments of brick. (MADE GROUND)			
ES	0.50								
PID	0.50	PID = 0.0							
D	0.70					*From 0.60m bgl: no further fragments of wood.*			
D	1.00								
S	1.20	N = 7				*From 1.20m bgl: less grey and more black.*			
D	1.30					*From 1.20m bgl: loose.*			
			116mm /80%			*From 1.30m bgl: an increase in crushed coal fragments/tailings and clinker.*			
ES	1.90								
PID	1.90	PID = 0.0							
C	2.00	N = 6							
					(3.95)				
D	2.30								
			101mm /60%			*At 2.70m bgl: cobbles of angular brick.*			
D	2.90								
C	3.00	N = 9							
D	3.30								
			92mm /60%						
ES	3.90								
PID	3.90	PID = 0.0							
C	4.00	N = 8							
				46.15	4.20				
D	4.40					Very soft to soft orangish brown mottled light grey slightly silty slightly gravelly sandy CLAY. Gravel is fine to coarse angular to subangular ironstone, sandstone, mudstone and rare brick fragments. (MADE GROUND)			
			79mm /80%						
					(1.25)				
D	5.00								
						Continued next sheet			

Installation: 50mm diameter standpipe installed to 5.00m bgl.

Remarks: Scanned with CAT, Genny and GPR. Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
3.90	3.90	Seepage		

Drilled: DH

Logged: MS

Checked: FHJ

APPLiED GEOLOGY

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS02

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 2
Start	19/07/2023	**Coordinates**	E 490254.44 N 269993.15	**Scale**	1:25
End	19/07/2023	**Ground Level**	50.35m AOD	**Total Depth**	5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
S	5.00	N = 7				Very soft to soft orangish brown mottled light grey slightly silty slightly gravelly sandy CLAY. Gravel is fine to coarse angular to subangular ironstone, sandstone, mudstone and rare brick fragments. (MADE GROUND)			
				44.90	5.45	End of Borehole at 5.45m			

Installation: 50mm diameter standpipe installed to 5.00m bgl.

Remarks: Scanned with CAT, Genny and GPR. Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
3.90	3.90	Seepage		

Drilled: DH

Logged: MS

Checked: FHJ

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS03

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	1 of 2
Start	19/07/2023	**Coordinates**	E 490305.79 N 270025.53	**Scale**	1:25
End	19/07/2023	**Ground Level**	49.32m AOD	**Total Depth**	5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
					(0.15)	Compacted limestone roadstone. (MADE GROUND)			
				49.17	0.15				
ES	0.20					Light yellowish brown to brown slightly silty slightly clayey SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse angular to subangular flint. (MADE GROUND)			
PID	0.20	PID = 0.0							
D	0.40				(0.65)				
				48.52	0.80				
						Very loose to loose dark grey to black slightly silty slightly clayey sandy GRAVEL of fine to coarse angular to subangular limestone, mudstone, clinker, coal fragments/tailings and rare fragments of brick. (MADE GROUND)			
ES	1.00								
PID	1.00	PID = 0.2							
C	1.20	N = 5				*From 1.20m bgl: very loose to loose.*			
			101mm /80%			*From 1.55m to 1.90m bgl: very clayey.*			
D	1.70								
D	2.00								
C	2.00	N = 11							
ES	2.40								
PID	2.40	PID = 0.1	92mm /80%						
						At 2.90m to 3.10m bgl: band of very soft light grey to dark grey clay.			
D	3.00								
S	3.00	N = 4			(4.65)				
D	3.50		79mm /80%						
D	4.00								
C	4.00	N = 5							
			70mm /80%						
D	5.00								

Continued next sheet

Installation: 50mm diameter standpipe installed to 5.00m bgl.

Remarks: Scanned with CAT, Genny and GPR. Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
5.20	5.20	Seepage		

Drilled: DH

Logged: MS

Checked: FHJ

APPLiED GEOLOGY

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS03

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 2
Start	19/07/2023	**Coordinates**	E 490305.79 N 270025.53	**Scale**	1:25
End	19/07/2023	**Ground Level**	49.32m AOD	**Total Depth**	5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
S	5.00	N = 8				Very loose to loose dark grey to black slightly silty slightly clayey sandy GRAVEL of fine to coarse angular to subangular limestone, mudstone, clinker, coal fragments/tailings and rare fragments of brick. (MADE GROUND)		▼	
				43.87	5.45	End of Borehole at 5.45m			

Installation: 50mm diameter standpipe installed to 5.00m bgl.

Remarks: Scanned with CAT, Genny and GPR. Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
5.20	5.20	Seepage		

Drilled: DH

Logged: MS

Checked: FHJ

APPLiED GEOLOGY

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS04

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	1 of 2
Start	19/07/2023	**Coordinates**	E 490359.16 N 269873.39	**Scale**	1:25
End	19/07/2023	**Ground Level**	50.08m AOD	**Total Depth**	5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
D	0.10				(0.25)	Compacted limestone roadstone. (MADE GROUND)			
				49.83	0.25				
ES	0.30					Dark grey to black slightly silty SAND and GRAVEL. Sand is fine to coarse ash. Gravel is fine to coarse angular to subangular limestone, coal fragments/tailings, clinker and occasional to rare brick fragments. (MADE GROUND)			
PID	0.30	PID = 0.1							
D	0.60					*From 0.60m bgl: fragments of wood.*			
ES	0.70					*From 0.70m bgl: creosote odour (possibly from the wood).*			
PID	0.70	PID = 0.6			(1.15)				
D	1.00								
C	1.20	N = 7				*From 1.20m bgl: loose.*			
				48.68	1.40				
ES	1.50					Soft to firm greenish grey mottled brown slightly silty sandy slightly gravelly CLAY. Gravel is fine to coarse flint, ironstone, sandstone and occasional fragments of brick. (MADE GROUND)			
PID	1.50	PID = 0.0	101mm /80%			*At 1.50m to 1.60m bgl: band of flint and ironstone.*			
D	2.00				(1.20)				
S	2.00	N = 9							
PID	2.10	PID = 0.8							
			92mm /75%						
				47.48	2.60				
ES	2.70					Firm orangish brown slightly gravelly sandy silty CLAY. Gravel is fine to coarse angular to subangular limestone, sandstone and ironstone. (MADE GROUND)			
					(0.50)				
D	3.00								
D	3.00			46.98	3.10				
S	3.00	N = 18				Medium dense light yellowish brown slightly clayey silty slightly gravelly fine to coarse SAND. Gravel is fine to coarse rounded quartzite. (MADE GROUND)			
					(0.50)				
D	3.50		79mm /90%						
B	3.60			46.48	3.60	Firm orangish brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse angular to subangular ironstone. (MADE GROUND)			
D	4.00								
D	4.00								
S	4.00	N = 10							
D	4.50		70mm /90%		(1.85)				
D	5.00								

Continued next sheet

Installation: 50mm diameter standpipe installed to 2.60m bgl.

Remarks: Scanned with CAT, Genny and GPR. Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
4.80	4.80	Seepage		

Drilled: DH

Logged: MS

Checked: FHJ

APPLiED GEOLOGY

BOREHOLE LOG - DRIVEN CONTINUOUS SAMPLING

DCS04

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 2
Start	19/07/2023	**Coordinates**	E 490359.16 N 269873.39	**Scale**	1:25
End	19/07/2023	**Ground Level**	50.08m AOD	**Total Depth**	5.45m

Sample / Test Type	Depth (m)	Result	Dia./ Rec.	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
C	5.00	N = 8				Firm orangish brown slightly sandy slightly gravelly silty CLAY. Gravel is fine to coarse angular to subangular ironstone. (MADE GROUND)			
				44.63	5.45	End of Borehole at 5.45m			

Installation: 50mm diameter standpipe installed to 2.60m bgl.

Remarks: Scanned with CAT, Genny and GPR. Hand dug service inspection pit excavated to 1.20m bgl.

Groundwater Strikes

Depth Strike	Rose to	Remarks	Cased	Sealed
4.80	4.80	Seepage		

Drilled: DH

Logged: MS

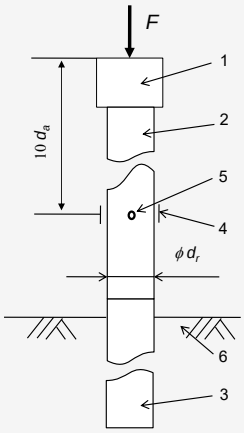
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SPT Calibration Report

Hammer Energy Measurement Report

Type of Hammer		Premier
Test No		EQU2023_34
Client		Applied Geology
Test Depth (m)		9.20
Mass of hammer	m =	63.5kg
Falling height	h =	0.76m
E_{theor} =	$m \times g \times h$ =	473J

Characteristics of the instrumented rod



Key

1 Anvil
2 Part of instrumented rod
3 Drive Rod
4 Strain Gauge
5 Accelerometer
6 Ground

F Force
d_r Diameter of rod

Fig. B.1 and B.2
BS EN ISO 22476-3 : 2005 + A1 : 2011

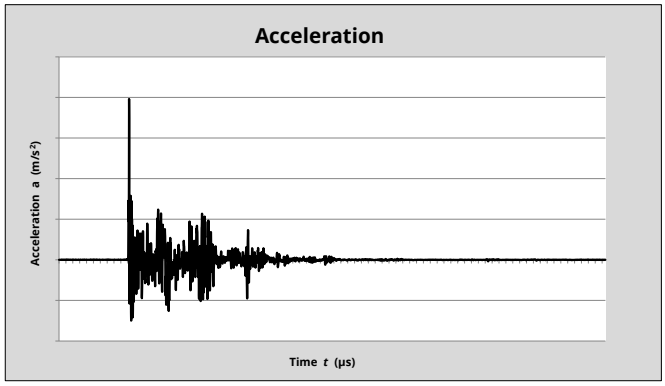
Diameter	d_r =	0.052 m
Length of instrumented rod		0.558 m
Area	A =	11.61 cm²
Modulus	E_a =	206843 MPa

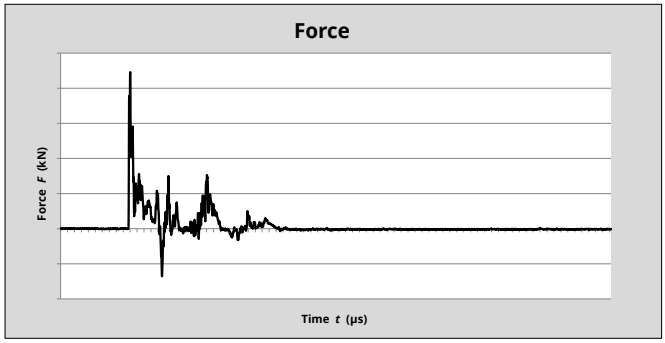
DATE OF TEST	VALID UNTIL	HAMMER ID
03/02/2023	03/02/2024	110 119

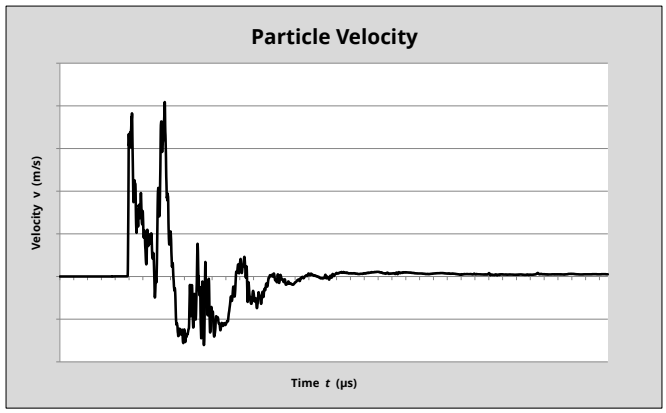
E_{meas} = **0.419** kN-m

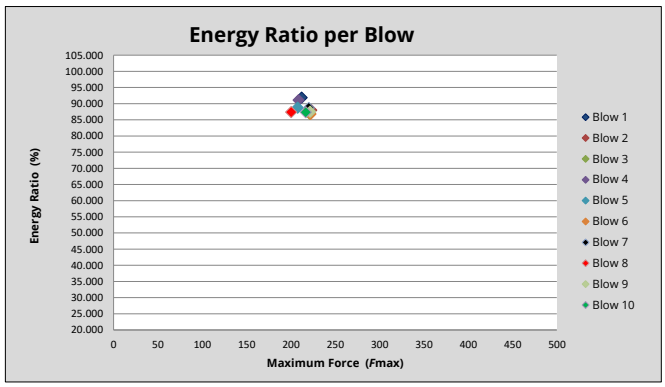
E_{theor} = **0.473** kN-m

Comments









Energy Ratio (Er) = $\frac{E_{meas}}{E_{theor}}$ **88.48%**

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Equipe SPT Analyzer Operator	Certificate prepared by	Certificate checked by	Certificate date
ks	06/03/2023	06/03/2023	06/03/2023

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BOREHOLE LOG - ROTARY

RH01

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	1 of 3
Start	17/07/2023	**Coordinates**	E 490249.54 N 270084.92	**Scale**	1:50
End	18/07/2023	**Ground Level**	49.25m AOD	**Total Depth**	20.87m

Depth (m)	TCR SCR RQD	If	Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
			ES	0.20				Yellowish brown slightly silty sandy GRAVEL of fine to coarse subangular to subrounded quartzite, brick fragments, flint, limestone and occasional coal fragments/tailings and charcoal. (MADE GROUND)			
			PID		PID = 0.0		(0.70)				
			B	0.30							
			D	0.50		48.55	0.70				
			ES	0.90				Dark grey to black slightly silty SAND and GRAVEL with occasional pockets of light yellowish brown sand. Sand is fine to coarse. Gravel is fine to coarse angular to subangular coal fragments/tailings, charcoal, clinker, ash, limestone and occasional brick fragments. (MADE GROUND) *From 1.20m bgl: loose.*			
			PID		PID = 0.0						
			D	1.20							
			S		N = 9						
			ES	2.00							
			S		N = 8		(2.80)				
			PID		PID = 0.0						
			D	2.50							
			D	3.00							
			S		N = 9						
			D	3.50		45.75	3.50	Reddish brown slightly silty/clayey slightly sandy GRAVEL of fine to coarse brick fragments, occasional flint and limestone. (MADE GROUND)			
			ES	4.00			(0.85)				
			S		N = 12						
			PID		PID = 0.0	44.90	4.35				
			D	4.40			(0.30)	Light yellowish grey to dark greyish brown slightly silty SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse angular to subangular limestone and occasional brick fragments, coal fragments/tailings and clinker. (MADE GROUND)			
						44.60	4.65				
			D	5.00							
			S		N = 9		(0.95)				
								Reddish brown slightly silty/clayey slightly sandy GRAVEL of fine to coarse brick fragments, occasional flint and limestone. (MADE GROUND)			
						43.65	5.60	*From 5.45m to 5.60m bgl: cobbles of angular limestone.*			
			D	5.80				Soft to firm light grey mottled dark grey slightly sandy slightly silty CLAY with a weak natural organic odour. (ALLUVIUM)			
			B	6.00							
			ES								
			S		N = 23		(1.40)	*From 6.00m bgl: becoming more firm locally stiff.*			
			PID		PID = 0.0						
			B	7.00		42.25	7.00	*From 6.90m bgl: mottled orangish brown.*			
			D					Medium dense orangish brown slightly silty slightly sandy GRAVEL of subangular to rounded flint, quartzite and sandstone. (RIVER TERRACE DEPOSITS)			
			S		N = 26						
			D	7.50							
			S	8.00	N = 18		(2.00)				
			D	8.50							
			D	9.00		40.25	9.00	*From 8.95m bgl: pockets of orangish brown clay.*			
			S		N = 22			Stiff becoming very stiff thinly laminated dark grey silty CLAY with occasional fine to coarse angular tabular mudstone lithorelicts. (WHITBY MUDSTONE FORMATION)			
			D	9.10							
			D	9.60			(1.00)				
10.00			D	10.00		39.25	10.00				

Continued next sheet

Installation:

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Driven continuous sampling from 1.20m to 10.00m bgl. Rotary cored from 10.00m to 20.00m bgl. Borehole backfilled with arisings on completion.

Groundwater Strikes

Depth Strike	Rise	Remarks	Cased	Sealed
18.70	0.00	Strike	9.00	
6.90	0.00	Strike	6.00	

Drilled: Dynamic Sampling UK Ltd

Logged: MS

Checked: FHJ

Diameter: 92.5mm to 20.87m
0mm to 10.00m

APPLiED GEOLOGY

BOREHOLE LOG - ROTARY

RH01

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 3
Start	17/07/2023	**Coordinates**	E 490249.54 N 270084.92	**Scale**	1:50
End	18/07/2023	**Ground Level**	49.25m AOD	**Total Depth**	20.87m

Depth (m)	TCR SCR RQD	If	Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
			S		N = 48			No recovery - material too stiff to window sample and too weak to core.	NR		
	0 0 0	0					(1.50)				
11.50			S	11.50	N >50	37.75	11.50				
			D	11.60				Extremely weak to very weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal very closely to closely spaced undulating and/or planar rough and/or smooth, open and only occasionally infilled with dark grey clay. (WHITBY MUDSTONE FORMATION)			
	100 81 67	NI 40 200					(1.41)	*From 11.50m to 11.60m bgl: non intact (likely drilling disturbance).* *At 12.34m bgl: subvertical discontinuity.*			
			D	12.90		36.34	12.91				
13.00						36.25	(0.09)	Strong thinly laminated light grey SILTSTONE. Discontinuities are subhorizontal extremely closely spaced to very closely spaced stepped and/or undulating rough and open. (WHITBY MUDSTONE FORMATION)			
	9 8 0						13.00 (1.20)	*From 12.91m to 12.93m bgl: non intact.* No recovery.			
						35.05	14.20				
14.50			D	14.50				Extremely weak to very weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal rarely subvertical extremely closely to very closely spaced stepped and/or undulating rough and open. (WHITBY MUDSTONE FORMATION)			
			S		N = 43			*At 14.20m to 14.40m bgl: non intact.* *At 14.50m to 14.70m bgl: non intact.*			
	97 58 0	NI 20 40	D	15.20			(1.80)				
16.00			D	16.00		33.25	16.00	*From 15.90m to 16.00m bgl: band of strong to very strong thinly laminated light grey siltstone.*			
								No recovery - mudstone likely scrubbed away by overlying band of strong siltstone.	NR		
	0 0 0	0					(2.40)				
17.50			S	17.50	N >50						
	40 20 12					30.85	18.40	*At 18.30m to 18.50m bgl: non intact.*			
			D	18.50				Extremely weak to very weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal extremely closely to very closely spaced stepped and/or planar undulated, rough open and occasionally infilled with dark grey clay. (WHITBY MUDSTONE FORMATION)			
		NI 20 50					(0.80)				
19.00			D	19.00							
			S		N >50	30.05	19.20				
	93 79 60	70 300 300	C	19.40 - 19.52				*From 18.90m to 19.00m bgl: band of strong to very strong thinly laminated light grey siltstone.* *From 19.00m to 19.20m bgl: non intact.*			
			C	19.80 - 20.00				Weak locally medium strong thinly laminated dark grey silty			

Continued next sheet

Installation:
Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Driven continuous sampling from 1.20m to 10.00m bgl. Rotary cored from 10.00m to 20.00m bgl. Borehole backfilled with arisings on completion.

Groundwater Strikes

Depth Strike	Rise	Remarks	Cased	Sealed
18.70	0.00	Strike	9.00	
6.90	0.00	Strike	6.00	

Drilled: Dynamic Sampling UK Ltd
Logged: MS
Checked: FHJ

Diameter: 92.5mm to 20.87m
0mm to 10.00m

APPLiED GEOLOGY

BOREHOLE LOG - ROTARY

RH01

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	3 of 3
Start	17/07/2023	**Coordinates**	E 490249.54 N 270084.92	**Scale**	1:50
End	18/07/2023	**Ground Level**	49.25m AOD	**Total Depth**	20.87m

Depth (m)	TCR SCR RQD	If	Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
			D	20.10			(1.67)	Weak locally medium strong thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal closely to medium spaced planar rough and smooth and open. *From 19.96m to 20.02m bgl: band of strong to very strong thinly laminated light grey siltstone.* *From 20.40m to 20.50m bgl: band of strong to very strong thinly laminated light grey siltstone.*			
			S	20.50	N >50	28.38	20.87	End of Borehole at 20.87m			

Installation:

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Driven continuous sampling from 1.20m to 10.00m bgl. Rotary cored from 10.00m to 20.00m bgl. Borehole backfilled with arisings on completion.

Groundwater Strikes

Depth Strike	Rise	Remarks	Cased	Sealed
18.70	0.00	Strike	9.00	
6.90	0.00	Strike	6.00	

Drilled: Dynamic Sampling UK Ltd

Logged: MS

Checked: FHJ

Diameter: 92.5mm to 20.87m
0mm to 10.00m

APPLiED GEOLOGY

BOREHOLE LOG - ROTARY

RH02

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 3
Start	18/07/2023 **Coordinates** E 490234.36 N 270046.14	**Scale**	1:50
End	20/07/2023 **Ground Level** 49.12m AOD	**Total Depth**	20.77m

Depth (m)	TCR SCR RQD	If	Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
			ES	0.10			(0.20)	Dark grey to black slightly silty SAND and GRAVEL. Sand is fine to coarse ash. Gravel is fine to coarse angular to subangular flint, limestone, mudstone and occasional brick fragments.			
			PID		PID = 0.0	48.92	0.20				
			ES	0.40			(0.50)				
			PID		PID = 0.0						
			D	0.60		48.42	0.70				
			B	0.70				(MADE GROUND)			
			D	0.80				Light yellowish brown slightly silty SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse angular to subangular flint.			
			D	1.00							
			D	1.20							
			S		N = 8			(MADE GROUND)			
							(2.10)	Loose dark grey to black silty SAND and GRAVEL. Sand is fine to coarse ash. Gravel is fine to coarse angular to subangular flint, mudstone, clinker, charcoal, coal fragments/ tailing, ash and rare concrete.			
			ES	2.00							
			S		N = 19						
			PID		PID = 0.0						
			D	2.70		46.32	2.80	(MADE GROUND) *From 2.00m bgl: medium dense.*			
			S	3.00	N = 8			Soft to firm light greyish brown mottled orangish brown slightly silty slightly sandy gravelly CLAY. Gravel is fine to coarse angular to subangular limestone, mudstone, ironstone and occasional fragments of concrete, brick and coal.			
			D	3.70				(MADE GROUND)			
			S	4.00	N = 15		(2.60)				
			D	4.70							
			S	5.00	N = 9						
						43.72	5.40	Soft greenish grey slightly sandy silty CLAY with a weak natural organic odour.			
			D	5.70			(0.60)				
			S	6.00	N = 9	43.12	6.00	(ALLUVIUM) No recovery.	NR NR NR NR NR NR NR NR		
							(0.80)				
			D	6.70		42.32	6.80				
			S	7.00	N = 23			Medium dense light yellowish brown slightly silty clayey gravelly fine to coarse SAND. Gravel is fine to coarse angular to subrounded flint.			
							(0.90)	(RIVER TERRACE DEPOSITS)			
			D	7.70		41.42	7.70				
							(0.30)	Very stiff thinly laminated dark grey slightly sandy silty CLAY with occasional (becoming frequent with depth) angular tabular mudstone lithorelicts.			
			S	8.00	N = 44	41.12	8.00	(WHITBY MUDSTONE FORMATION) No recovery. *From 8.00m to 9.00m bgl: no recovery.*	NR NR NR NR NR NR NR NR NR NR		
							(1.00)				
			D	9.00		40.12	9.00				
			S		N = 29			Stiff thinly laminated dark grey slightly sandy silty CLAY with occasional to frequent angular tabular mudstone lithorelicts. (WHITBY MUDSTONE FORMATION)			
							(1.00)				
			D	9.70							
10.00			D	10.00		39.12	10.00				

Continued next sheet

Installation:

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Driven continuous sampling from 1.20m to 10.00m bgl. Rotary cored from 10.00m to 20.50m bgl. Borehole backfilled with arisings on completion.

Groundwater Strikes

Depth Strike	Rise	Remarks	Cased	Sealed
6.80	6.80	Strike		

Drilled: Dynamic Sampling UK Ltd

Logged: MS

Checked: FHJ

Diameter: 92.5mm to 20.77m
0mm to 10.00m

APPLiED GEOLOGY

BOREHOLE LOG - ROTARY

RH02

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 3
Start	18/07/2023	**Coordinates**	E 490234.36 N 270046.14	**Scale**	1:50
End	20/07/2023	**Ground Level**	49.12m AOD	**Total Depth**	20.77m

Depth (m)	TCR SCR RQD	If	Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
			S		N >50			Very stiff thinly laminated dark grey silty CLAY with rare shell fragments and occasional to frequent tabular angular mudstone lithorelicts. Heavily disturbed from drilling processes.			
	100 0 0	NI					(1.46)	(WHITBY MUDSTONE FORMATION)			
11.50			D	11.50		37.66	11.46				
			S		N >50	37.57	(0.09)	Weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal very closely to closely spaced stepped rough and open.	NR NR		
							11.55 (0.80)		NR NR		
	42 7 7							(WHITBY MUDSTONE FORMATION)	NR NR		
			D	12.40		36.77	12.35	No recovery.	NR NR		
		NI					(0.30)	Stiff thinly laminated dark grey silty CLAY with frequent tabular angular mudstone lithorelicts. Possibly due to drilling processes.			
		NI 40 100				36.47	12.65 (0.35)				
13.00			S	13.00	N >50	36.12	13.00	(WHITBY MUDSTONE FORMATION)	NR NR		
								Extremely weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal very closely to closely spaced undulated rough and/or smooth and open.	NR NR		
	17 13 10						(1.10)		NR NR		
								(WHITBY MUDSTONE FORMATION)	NR NR		
		20 40 170	D	14.10		35.02	14.10	*From 12.89m to 13.00m bgl: non intact.*			
			C	14.20 - 14.38			(0.40)	No recovery.			
14.50			S	14.50	N >50	34.62	14.50	Extremely weak becoming weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal very closely to closely spaced planar smooth and open.	NR NR		
							(0.42)		NR NR		
			D	15.00		34.20	14.92	(WHITBY MUDSTONE FORMATION)	NR NR		
	70 37 7							No recovery.			
		NI 50 100					(1.38)	Extremely weak becoming very weak with depth thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal stepped and undulating rough and/or smooth open and on occasion infilled with dark grey clay.			
16.00			D	16.00							
			S		N >50	32.82	16.30	(WHITBY MUDSTONE FORMATION) *From 14.92m to 15.22m bgl: non intact.* *From 16.00m to 16.20m bgl: non intact.*			
	91 69 32		D	16.60				Very weak locally weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal closely to medium spaced planar on occasional stepped smooth and rough and open.			
17.50			D	17.50				(WHITBY MUDSTONE FORMATION) *From 17.50m to 17.70m bgl: non intact.*			
	95 84 27	NI 110 270									
			D	18.60			(4.47)				
			C	18.65 - 18.80							
19.00			C	19.00 - 19.21				*At 19.00m to 19.11m bgl: band of strong to very strong thinly laminated light grey siltstone.*			
	85 81 72		C	19.48 - 19.70							
								Continued next sheet			

Installation:

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Driven continuous sampling from 1.20m to 10.00m bgl. Rotary cored from 10.00m to 20.50m bgl. Borehole backfilled with arisings on completion.

Groundwater Strikes

Depth Strike	Rise	Remarks	Cased	Sealed
6.80	6.80	Strike		

Drilled: Dynamic Sampling UK Ltd

Logged: MS

Checked: FHJ

Diameter: 92.5mm to 20.77m
0mm to 10.00m

APPLIED GEOLOGY

BOREHOLE LOG - ROTARY

RH02

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	3 of 3
Start	18/07/2023	**Coordinates**	E 490234.36 N 270046.14	**Scale**	1:50
End	20/07/2023	**Ground Level**	49.12m AOD	**Total Depth**	20.77m

Depth (m)	TCR SCR RQD	If	Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
			C	20.30 - 20.45				Very weak locally weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal closely to medium spaced planar on occasional stepped smooth and rough and open.			
			D	20.50							
			S		N >50	28.35	20.77	(WHITBY MUDSTONE FORMATION)			
								End of Borehole at 20.77m			

Installation:
Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Driven continuous sampling from 1.20m to 10.00m bgl. Rotary cored from 10.00m to 20.50m bgl. Borehole backfilled with arisings on completion.

Groundwater Strikes

Depth Strike	Rise	Remarks	Cased	Sealed
6.80	6.80	Strike		

Drilled: Dynamic Sampling UK Ltd
Logged: MS
Checked: FHJ

Diameter: 92.5mm to 20.77m
0mm to 10.00m

APPLiED GEOLOGY

BOREHOLE LOG - ROTARY

RH03

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 3
Start	20/07/2023 **Coordinates** E 490274.92 N 270031.23	**Scale**	1:50
End	21/07/2023 **Ground Level** 49.08m AOD	**Total Depth**	20.28m

Depth (m)	TCR SCR RQD	If	Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
			D	0.20			(0.50)	Light yellowish brown slightly silty SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse angular to subrounded flint, quartzite and limestone.			
						48.58	0.50	(MADE GROUND)			
			ES	0.70				Black to dark grey slightly silty sandy GRAVEL of fine to coarse angular to subangular ash, coal fragments/tailings, charcoal, wood, clinker, limestone, mudstone and occasional flint and brick fragments.			
			PID		PID = 0.0			(MADE GROUND)			
			D	1.00				*From 1.20m bgl: loose.*			
			S	1.20	N = 8						
			D	2.00				*At 2.00m to 2.10m bgl: mottled light brown.*			
			S		N = 8						
			ES	2.70				*At 2.60m to 3.00m bgl: an increase in coal fragments/tailings.*			
			PID		PID = 0.1		(4.80)				
			D	3.00							
			S		N = 7			*At 3.60m to 4.00m bgl: an increase in coal fragments/tailings.*			
			D	4.00							
			S		N = 9			*At 4.40m to 4.50m bgl: mottled light brown.*			
			ES	4.70				*From 4.70m to 5.00m bgl: an increase in coal fragments/tailings and clinker.*			
			PID		PID = 1.7						
			D	5.00							
			S		N = 8						
						43.78	5.30	Soft to firm light grey slightly sandy gravelly CLAY. Gravel is fine to coarse angular to subangular mudstone, limestone, ironstone and coal fragments/tailings.			
							(0.70)	(MADE GROUND)			
			D	6.00		43.08	6.00	Soft to firm greenish grey occasionally mottled orangish brown sandy silty CLAY with a weak natural organic odour.			
			S		N = 10			(ALLUVIUM)			
			D	6.20			(0.70)				
						42.38	6.70				
							(0.30)	Soft orangish brown slightly silty sandy gravelly CLAY. Gravel is fine to coarse subangular to rounded flint.			
			D	7.00		42.08	7.00	(RIVER TERRACE DEPOSITS)			
			S		N = 27			Medium dense light yellowish brown slightly silty slightly clayey SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse subangular to rounded flint.			
								(RIVER TERRACE DEPOSITS)			
			D	8.00				*At 7.70m to 8.80m bgl: band of soft orangish brown clay.*			
			S		N = 19		(2.15)				
			D	9.00							
			S		N = 24	39.94	9.15	Stiff becoming very stiff thinly laminated dark grey silty CLAY with occasional angular tabular mudstone lithorelicts.			
							(0.85)	(WHITBY MUDSTONE FORMATION)			
10.00			D	10.00		39.08	10.00				

Continued next sheet

Installation: 50mm diameter standpipe installed to 11.00m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Driven continuous sampling from 1.20m to 10.00m bgl. Rotary cored from 10.00m to 20.00m bgl.

Groundwater Strikes

Depth Strike	Rise	Remarks	Cased	Sealed
6.90	6.30	Strike	6.00	9.00

Drilled: Dynamic Sampling UK Ltd

Logged: MS

Checked: FHJ

Diameter: 92.5mm to 20.28m
0mm to 10.00m

APPLIED GEOLOGY

BOREHOLE LOG - ROTARY

RH03

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	2 of 3
Start	20/07/2023	**Coordinates**	E 490274.92 N 270031.23	**Scale**	1:50
End	21/07/2023	**Ground Level**	49.08m AOD	**Total Depth**	20.28m

Depth (m)	TCR SCR RQD	If	Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
			D					Extremely weak becoming very weak to weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal closely to widely spaced planar smooth open and occasionally infilled with firm damp dark grey clay. (WHITBY MUDSTONE FORMATION)			
			S		N >50			*From 10.03m to 10.10m bgl: non intact.*			
	95 87 61		C	10.60 - 10.80				*From 10.51m to 10.57m bgl: non intact.*			
11.50		NI 70 700	D	11.50				*From 11.50m to 11.58m bgl: non intact.*			
			C	11.85 - 12.00			(3.40)				
	100 93 44							*From 12.30m to 12.32m bgl: non intact.*			
			C	12.65 - 12.95							
13.00			D	13.00				*From 13.00m to 13.07m bgl: non intact.*			
			C	13.07 - 13.23							
						35.68	13.40	Weak thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal on occasion subvertical very closely to medium spaced planar and/or undulating smooth and/or rough and open occasionally infilled with firm damp dark grey clay. (WHITBY MUDSTONE FORMATION)			
	97 78 78	NI 50 500	C	13.70 - 13.93							
14.50			D	14.50				*From 14.50m to 14.75m bgl: non intact.*			
			S		N >50						
	99 87 87							*At 15.16m to 15.24m bgl: subvertical discontinuity.*			
							(4.10)				
			C	15.70 - 15.92							
16.00			D	16.00							
			C	16.17 - 16.35							
	100 98 51										
17.50			D	17.50		31.58	17.50				
			S		N >50		(0.40)	No recovery - likely due to disturbance from standard penetration test undertaken at the same depth.	NR NR NR NR		
			D	18.00		31.18	17.90	Extremely weak becoming very weak with depth thinly laminated dark grey silty MUDSTONE. Discontinuities are subhorizontal closely to medium spaced planar smooth open and on occasion infilled with firm damp dark grey clay. (WHITBY MUDSTONE FORMATION)			
	72 8 8	NI 120 210					(0.92)	*From 17.90m to 17.95m bgl: non intact.*			
		180 180 180	C	18.85 - 19.00		30.26	18.82	*From 18.40m to 18.44m bgl: non intact.*			
19.00						30.08	(0.18)				
			D	19.00			19.00	Strong to extremely strong thinly laminated light grey SILTSTONE. (WHITBY MUDSTONE FORMATION)			
	89 80 80	NI 80 80	C	19.15 - 19.32			(1.28)	Very weak becoming weak with depth thinly laminated dark grey silty MUDSTONE. Discontinuities are very close to widely spaced stepped rough and open.			
			D	20.00				Continued next sheet			

Installation: 50mm diameter standpipe installed to 11.00m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Driven continuous sampling from 1.20m to 10.00m bgl. Rotary cored from 10.00m to 20.00m bgl.

Groundwater Strikes

Depth Strike	Rise	Remarks	Cased	Sealed
6.90	6.30	Strike	6.00	9.00

Drilled: Dynamic Sampling UK Ltd

Logged: MS

Checked: FHJ

Diameter: 92.5mm to 20.28m
0mm to 10.00m

APPLiED GEOLOGY

BOREHOLE LOG - ROTARY

RH03

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough			**Project No.**	AG3488-23
Client	FM Conway Ltd			**Sheet**	3 of 3
Start	20/07/2023	**Coordinates**	E 490274.92 N 270031.23	**Scale**	1:50
End	21/07/2023	**Ground Level**	49.08m AOD	**Total Depth**	20.28m

Depth (m)	TCR SCR RQD	If	Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Description of Strata	Legend	GW	Install
			S		N >50	28.80	20.28	Very weak becoming weak with depth thinly laminated dark grey silty MUDSTONE. Discontinuities are very close to widely spaced stepped rough and open. (WHITBY MUDSTONE FORMATION) *From 19.81m to 19.84m bgl: band of strong thinly laminated light grey siltstone.* *From 19.84m to 20.00m bgl: non intact.* End of Borehole at 20.28m			

Installation: 50mm diameter standpipe installed to 11.00m bgl.

Remarks: Hand dug service inspection pit excavated to 1.20m bgl. Driven continuous sampling from 1.20m to 10.00m bgl. Rotary cored from 10.00m to 20.00m bgl.

Groundwater Strikes

Depth Strike	Rise	Remarks	Cased	Sealed
6.90	6.30	Strike	6.00	9.00

Drilled: Dynamic Sampling UK Ltd

Logged: MS

Checked: FHJ

Diameter: 92.5mm to 20.28m
0mm to 10.00m

APPLiED GEOLOGY

Rotary

SPT Hammer Energy Test Report

in accordance with BSEN ISO 22476-3:2005

Dynamic Sampling Uk Ltd
Unit 8 Victory Park
Victory Road
Derby
DE248ZF

SPT Hammer Ref:	120.58
Test Date:	17/05/2023
Report Date:	17/05/2023
File Name:	120.58.spt
Test Operator:	B.HUNTER

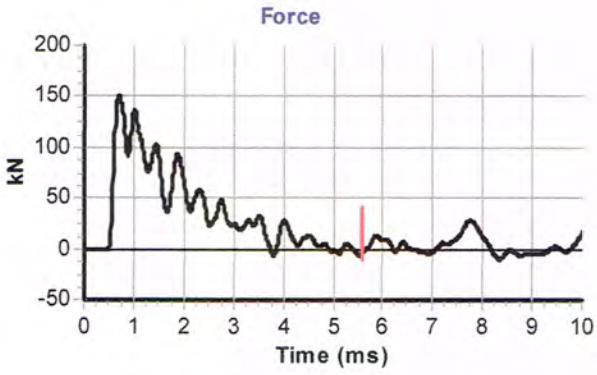
Instrumented Rod Data

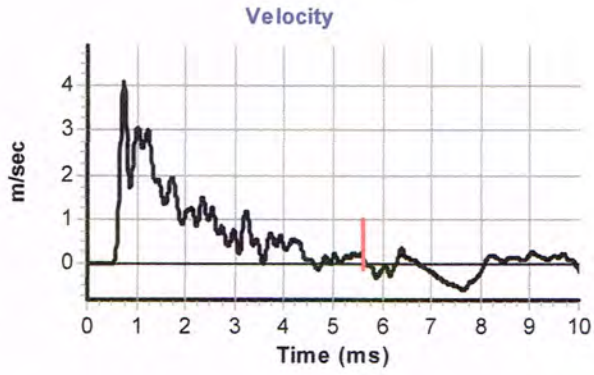
Diameter d_r (mm):	54
Wall Thickness t_r (mm):	6.6
Assumed Modulus E_a (GPa):	208
Accelerometer No.1:	62901
Accelerometer No.2:	62902

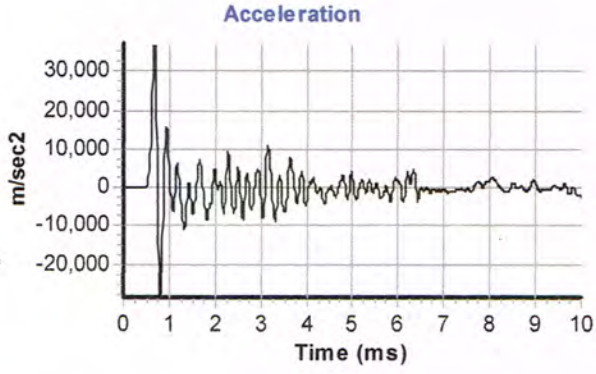
SPT Hammer Information

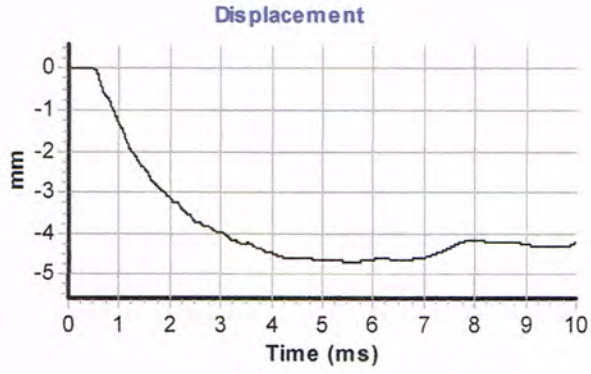
Hammer Mass m (kg):	63.5
Falling Height h (mm):	760
SPT String Length L (m):	10.0

Comments / Location









Calculations

Area of Rod A (mm2):	983
Theoretical Energy E_{theor} (J):	473
Measured Energy E_{meas} (J):	369

Energy Ratio E_r (%): **78**

Signed: B.Hunter
Title: Operations Manager

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TRIAL PIT LOG

TP01

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 1
Date	18/07/2023	**Scale**	1:25
Ground Level	49.78m AOD **Coordinates** E 490121.86 N 270181.11	**Total Depth**	3.60m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
ES	0.20					Dark grey to black slightly silty gravelly fine to coarse ashy SAND. Gravel is fine to coarse angular to subangular coal fragments/tailings, charcoal, flint, limestone and occasional fragments of brick and concrete. (MADE GROUND)		
PID	0.20	PID = 0.0						
B	0.30			(0.80)	E			
			48.98	0.80		Orangish brown slightly silty slightly clayey SAND and GRAVEL with pockets of soft orangish brown silty clay. Sand is fine to coarse. Gravel is fine to coarse angular to subangular ironstone, sandstone and occasional brick fragments. (MADE GROUND)		
ES	0.90					*From 1.20m bgl: cobbles and boulders of ironstone.*		
PID	0.90	PID = 0.0						
D	1.00			(0.50)	E			
			48.48	1.30		Soft to firm orangish brown occasionally mottled dark grey slightly sandy slightly silty slightly gravelly CLAY. Gravel is fine to coarse angular to subangular ironstone and rare to occasional coal fragments/tailings and brick fragments. (MADE GROUND)		
D	1.50							
HV	1.50	Cu = 63		(0.70)	E			
D	2.00		47.78	2.00		Firm locally soft locally stiff dark grey mottled orangish brown slightly silty slightly sandy slightly gravelly CLAY. Gravel is fine to coarse angular to rounded mudstone, ironstone and occasional flint. (MADE GROUND)		
D	2.10							
B	2.50			(1.60)	M			
D	3.00					*From 3.00m bgl: pockets of ashy sand.*		
D	3.50							
			46.18	3.60		End of Trial Pit at 3.60m		

Method: Wheeled backhoe excavator

Groundwater: Groundwater not encountered.

Stability: Stable.

Remarks: Too friable for hand vanes below 2.00m bgl. Trial pit backfilled with arisings on completion.

Length:	2.10m
Width:	0.68m
Logged:	MS
Checked:	FHJ

TRIAL PIT LOG

TP02

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 1
Date	18/07/2023	**Scale**	1:25
Ground Level	49.37m AOD **Coordinates** E 490156.74 N 270132.38	**Total Depth**	3.80m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
						Dark grey to black slightly silty gravelly fine to coarse ashy SAND. Gravel is fine to coarse angular to subangular coal fragments/tailings, charcoal, ash, limestone, occasional flint and brick fragments. (MADE GROUND)		
ES	0.40							
PID	0.40	PID = 0.0				*At 0.40m bgl: whole brick.*		
D	0.60							
D	0.90							
				(2.20)	E			
ES	1.40							
PID	1.40	PID = 0.0				*From 1.40m bgl: cobbles of concrete.*		
						From 1.60m bgl: becoming more gravelly.		
HV	2.00	Cu = 64						▼
D	2.10							
			47.17	2.20				
						Soft to firm orangish/greenish brown mottled light grey slightly gravelly slightly sandy silty CLAY. Gravel is fine to coarse angular to subangular flint, mudstone, possible ironstone and rare brick fragments and rounded crushed chalk. (MADE GROUND)		
ES	2.50							
PID	2.50	PID = 0.2						
D	2.70							
				(1.60)	E	*At 3.00m bgl: natural organic odours.*		
						At 3.20m bgl: whole brick.		
D	3.30					*From 3.30m bgl: becoming more gravelly.*		
						From 3.50m bgl: igneous gravel and pockets of orangish brown sand.		
D	3.70					*From 3.70m bgl: becoming more orangish brown.*		
			45.57	3.80		*At 3.80m bgl: cobble of chalk.*		
						End of Trial Pit at 3.80m		

Method: Wheeled backhoe excavator

Groundwater: Seepage at 2.00m bgl.

Stability: Stable.

Remarks: Trial pit backfilled with arisings on completion.

Length:	2.20m
Width:	0.70m
Logged:	MS
Checked:	FHJ

TRIAL PIT LOG

TP03

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 1
Date	18/07/2023	**Scale**	1:25
Ground Level	49.32m AOD **Coordinates** E 490223.09 N 270097.70	**Total Depth**	3.40m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
D	0.10			(0.25)		Light brown slightly slightly clayey slightly silty gravelly fine to coarse SAND. Gravel is fine to coarse angular to subangular quartzite and possible igneous rock.		
ES	0.10					(MADE GROUND)		
PID	0.10	PID = 0.0	49.07	0.25				
ES	0.40				E	Light yellowish brown slightly silty slightly clayey gravelly fine to coarse SAND. Gravel is fine to medium rounded flint.		
PID	0.40	PID = 0.0		(0.55)		(MADE GROUND)		
B	0.60				E	*At 0.60m to 0.80m bgl: pocket of pea gravel in southwest corner of pit.*		
			48.52	0.80				
ES	1.00					Dark grey to black slightly silty gravelly fine to coarse ashy SAND. Gravel is fine to coarse angular to subangular coal fragments/tailings, charcoal, limestone, occasional flint and brick fragments.		
PID	1.00	PID = 0.0				(MADE GROUND)		
						At 1.20m bgl: relict railway line possibly in situ and outcropping in the northeastern extent of pit.		
B	1.50							
D	2.00					*From 2.00m bgl: mottled reddish brown due to increase in crushed brick gravels and fused slag.*		
				(2.60)	E			
ES	2.60							
PID	2.60	PID = 0.0						
B	3.00					*At 3.00m to 3.20m bgl: band of crushed brick fragments and fused slag.*		
			45.92	3.40		End of Trial Pit at 3.40m		

Method: Wheeled backhoe excavator

Groundwater: Groundwater not encountered.

Stability: Unstable from ground level to 0.80m bgl.

Remarks: Trial pit backfilled with arisings on completion.

Length:	2.10m
Width:	1.37m
Logged:	MS
Checked:	FHJ

TRIAL PIT LOG

TP04

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 1
Date	18/07/2023	**Scale**	1:25
Ground Level	49.26m AOD **Coordinates** E 490216.28 N 270060.94	**Total Depth**	3.50m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
				(0.30)	E	Dark grey to black slightly silty SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse angular to subangular limestone, coal fragments/ tailings, flint and occasional fragments of brick. (MADE GROUND)		
ES	0.20							
PID	0.20	PID = 0.0	48.96	0.30		*At 0.30m bgl: plastic membrane at the base of this layer of Made Ground.*		
ES	0.40					Light yellowish brown slightly silty slightly clayey gravelly fine to coarse SAND. Gravel is angular to subrounded flint and occasional to rare quartzite. (MADE GROUND)		
PID	0.40	PID = 0.0						
B	0.60							
D	1.20			(1.90)	E			
D	1.60					*At 1.50m bgl: gravels of coal and ash in western sidewall.*		
						From 2.00m bgl: natural organic odour.		
			47.06	2.20		Soft to firm orangish brown light grey slightly sandy slightly gravelly silty CLAY with a weak to moderate natural organic odour. Gravel is fine to coarse angular to subangular ironstone, sandstone, flint and occasional fragments of brick. (MADE GROUND)		
D	2.30							
B	2.70							
HV	2.70	Cu = 51		(1.30)	E			
						From 3.30m bgl: becoming less soft and less mottled.		
D	3.40							
HV	3.40	Cu = 67	45.76	3.50		End of Trial Pit at 3.50m		

Method: Wheeled backhoe excavator

Groundwater: Groundwater not encountered.

Stability: Sidewall collapse from 1.60m to 2.20m bgl.

Remarks: Trial pit backfilled with arisings on completion.

Length:	2.40m
Width:	0.80m
Logged:	MS
Checked:	FHJ

TRIAL PIT LOG

TP05

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 1
Date	18/07/2023	**Scale**	1:25
Ground Level	49.07m AOD **Coordinates** E 490255.99 N 270043.97	**Total Depth**	3.40m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
ES	0.10					Light yellowish brown to brown slightly silty slightly clayey gravelly SAND with a low cobble content. Gravel is fine to coarse subangular to rounded flint and occasional quartzite. Cobbles are angular to subangular limestone. (MADE GROUND)		
PID	0.10	PID = 0.0						
D	0.30			(0.60)	E			
			48.47	0.60				
ES	0.70					Dark grey to black slightly silty SAND and GRAVEL. Sand is fine to coarse ash. Gravel is fine to coarse angular to subangular coal fragments/tailings, clinker, charcoal, occasional flint, limestone and brick fragments. (MADE GROUND)		
PID	0.70	PID = 0.1						
D	1.00							
D	1.90			(2.80)	E			
ES	2.40					*From 2.40m bgl: gravel of red slag.*		
PID	2.40	PID = 0.0						
D	2.50					*At 2.80m bgl: occasional boulders of concrete and ironstone.*		
D	3.10							
			45.67	3.40		End of Trial Pit at 3.40m		

Method: Wheeled backhoe excavator

Groundwater: Groundwater not encountered.

Stability: Stable.

Remarks: Trial pit backfilled with arisings on completion.

Length:	2.20m
Width:	0.90m
Logged:	MS
Checked:	FHJ

TRIAL PIT LOG

TP06

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 1
Date	18/07/2023	**Scale**	1:25
Ground Level	49.35m AOD **Coordinates** E 490288.86 N 270045.58	**Total Depth**	3.70m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
B	0.20			(0.85)	E	Light yellowish brown slightly silty slightly clayey SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse angular to subrounded flint and occasional to rare quartzite. (MADE GROUND)		
ES	0.50							
PID	0.50	PID = 0.0						
			48.50	0.85				
ES	1.00					Dark grey to black slightly silty SAND and GRAVEL. Sand is fine to coarse ash. Gravel is angular to subangular coal fragments/tailings, mudstone, clinker, limestone, charcoal, occasional wood, flint and brick fragments. (MADE GROUND)		
PID	1.00	PID = 0.1						
B	1.50							
D	2.00			(2.85)	E			
D	2.60							
B	3.40							
						From 3.60m bgl: more frequent fragments of crushed brick.		
			45.65	3.70		End of Trial Pit at 3.70m		

Method: Wheeled backhoe excavator

Groundwater: Groundwater not encountered.

Stability: Stable.

Remarks: Trial pit backfilled with arisings on completion.

Length:	2.20m
Width:	0.90m
Logged:	MS
Checked:	FHJ

TRIAL PIT LOG

TP07

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 1
Date	18/07/2023	**Scale**	1:25
Ground Level	50.91m AOD **Coordinates** E 490302.12 N 269945.16	**Total Depth**	3.30m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
D	0.10					Compacted limestone roadstone. (MADE GROUND)		
D	0.40			(1.10)	VH			
			49.81	1.10				
ES	1.20					Dark grey to black slightly silty SAND and GRAVEL. Sand is fine to coarse ash. Gravel is fine to coarse angular to subangular limestone, concrete, mudstone and occasional coal fragments/tailings and clinker. (MADE GROUND)		
PID	1.20	PID = 0.0						
B	1.50			(0.90)	E	*From 1.80m bgl: pockets of yellowish brown sand.*		
			48.91	2.00				
ES	2.10					Light yellowish brown to dark brown slightly silty gravelly fine to coarse ashy SAND. Gravel is fine to coarse angular to subrounded flint, mudstone, sandstone and occasional coal and wood fragments/tailings. (MADE GROUND)		
PID	2.10	PID = 0.0						
B	2.50			(1.30)	E			
D	3.30		47.61	3.30		End of Trial Pit at 3.30m		

Method: Wheeled backhoe excavator

Groundwater: Groundwater not encountered.

Stability: Stable.

Remarks: Trial pit backfilled with arisings on completion.

Length:	2.20m
Width:	0.90m
Logged:	MS
Checked:	FHJ

TRIAL PIT LOG

TP08

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 1
Date	18/07/2023	**Scale**	1:25
Ground Level	50.18m AOD **Coordinates** E 490343.00 N 269923.18	**Total Depth**	3.60m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
D	0.10			(0.20)		Compacted limestone roadstone. (MADE GROUND)		
			49.98	0.20	MH			
ES	0.30					Black slightly silty slightly clayey SAND and GRAVEL with a weak creosote odour. Sand is fine to coarse ash. Gravel is fine to coarse angular to subangular concrete, wood, coal fragments/tailings, clinker, charcoal, metal wire, mudstone and occasional to rare flint and limestone. (MADE GROUND)		
PID	0.30	PID = 0.1						
B	0.50			(0.70)	E	*At 0.25m bgl: relict wooden sleeper in northern sidewall of pit. Creosote odour possibly coming from the wood.*		
D	0.80							
			49.28	0.90		Light yellowish brown slightly silty slightly clayey SAND and GRAVEL. Sand is fine to coarse. Gravel is fine to coarse angular to subrounded flint. (MADE GROUND)		
				(0.30)	E			
			48.98	1.20		Black slightly silty slightly clayey SAND and GRAVEL with weak creosote odour. Sand is fine to coarse ash. Gravel is fine to coarse angular to subangular coal fragments/tailings, charcoal, clinker, mudstone, ash and occasional to rare brick fragments, flint and wood. (MADE GROUND)		
ES	1.30							
PID	1.30	PID = 0.0						
B	1.40							
D	2.20							
				(2.40)	E			
D	3.00							
D	3.60		46.58	3.60		End of Trial Pit at 3.60m		

Method: Wheeled backhoe excavator

Groundwater: Groundwater not encountered.

Stability: Stable.

Remarks: Trial pit backfilled with arisings on completion.

Length:	2.10m
Width:	0.90m
Logged:	MS
Checked:	FHJ

TRIAL PIT LOG

TPSS1

Project	Neilson's Sidings, off Roundhouse Way, Wellingborough	**Project No.**	AG3488-23
Client	FM Conway Ltd	**Sheet**	1 of 1
Date	18/07/2023	**Scale**	1:25
Ground Level	**Coordinates**	**Total Depth**	0.25m

Sample / Test Type	Depth (m)	Result	Level (mAoD)	Strata Depth (thickness) (m)	Ease of Dig	Description of Strata	Legend	GW
ES PID	0.20 0.20	PID = 0.0		(0.25) 0.25	E	Dark greyish brown slightly silty sandy gravelly CLAY. Gravel is fine to coarse angular to subangular limestone, granite, ash, coal fragments and wood. (MADE GROUND)		
						End of Trial Pit at 0.25m		

Method: Hand dug

Groundwater: Groundwater not encountered.

Stability: Stable.

Remarks: Hand dug pit for chemical sample of peripheral earth bund. Pit backfilled with arisings on completion.

Length:	0.25m
Width:	0.25m
Logged:	MS
Checked:	FHJ

Exploratory Hole Log Key Sheet

Sample Notation

D	Small Disturbed sample
B	Bulk Disturbed sample
ES	Environmental sample
U	Undisturbed U100 sample
UT	Undisturbed UT100 sample
C	Core sample
W	Water sample

In Situ Test Notation

S	Standard Penetration Test
S (C)	Standard Penetration Test (cone)
HV	Hand Shear Vane Test
PID	Photoionization Detector Test
MEXE	Mexecone Cone Penetrometer Test
PP	Pocket Penetrometer Test
K	Permeability Test

Results Notation

Cu	Shear Strength	kN/m^2
N	SPT N Value	-
PID	VOC Concentration	ppm
( )	U/UT Blow Count	-

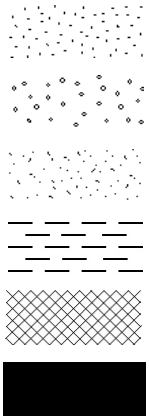
Rotary Core Notation

TCR	Total Core Recovery
SCR	Solid Core Recovery
RQD	Rock Quality Designation
FI	Fracture Index
If	Fracture Spacing
NI	Non Intact
NR	No Recovery
NA	Not Applicable

Ease of Dig

VE	Very Easy
E	Easy
M	Moderate
H	Hard
VH	Very Hard

Backfill Symbols



Sand

Gravel

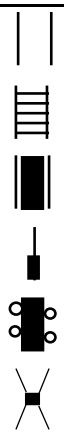
Concrete

Bentonite

Arisings

Grout

Installation Symbols



Plain Standpipe

Slotted Standpipe

Piezometer

Vibrating Wire Piezometer

Inclinometer

Extensometer
(with magnet locations)

Groundwater (GW)



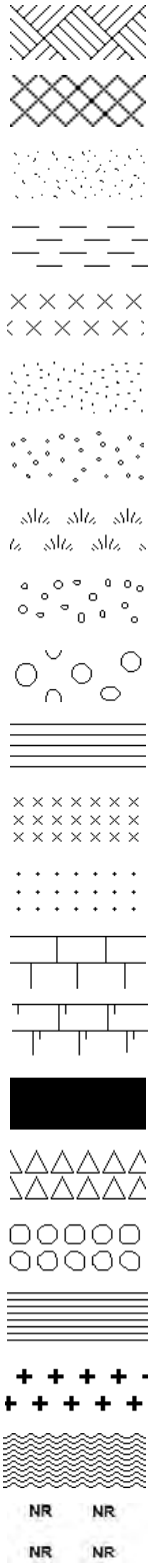
Rise

Groundwater Strike -
with Recorded Rise

Strike

Groundwater Strike -
No Recorded Rise

Legend Symbols



Topsoil

Made Ground

Concrete

Clay

Silt

Sand

Gravel

Peat

Cobbles

Boulders

Mudstone

Siltstone

Sandstone

Limestone

Chalk

Coal

Breccia

Conglomerate

Shale

Igenous Rock

Metamorphic Rock

NR NR
NR NR

No Recovery

Note: Most soils comprise a mixture of particle sizes. The soil type is graphically represented on the log and may be a combination of these symbols.

General Notes

1. Details of the standpipe/piezometer are given on the log. The 'Install' column shows a graphical representation of the installed including depth of instruments including slotted section or piezometer depth, and backfill details.

2. Standard Penetration Test is defined in BS EN ISO 17892. Total N value is shown on the logs, full details of the test increments, equipment references, water and casing levels shown on the SPT Summary Sheet.

APPLiED GEOLOGY

APPENDIX D

Ground Gas Monitoring and Flow Results

Project Number: AG3488-23

Project Name: Neilson's Sidings, off Roundhouse Way, Wellingborough

Date and Time of Monitoring: 31st July 12.00 to 14.00

Phase of Monitoring: 1 of 4

BH No.	Flow Range (litres/hr over 3 mins)			Differential Pressure (mb)	Methane % v/v		Carbon dioxide % v/v		Oxygen % v/v		Diameter of installation (mm)	Water level (m bgl)
	Max	Min	Avg		Peak	Steady	Peak	Steady	Min	Steady		
DCS01	<0.1	<0.1	<0.1	-0.31	<0.1	<0.1	7.6	7.6	12.1	13.5	50	2.42
DCS02	<0.1	<0.1	<0.1	-1.16	<0.1	<0.1	10.1	3.9	17.3	17.3	50	3.94
DCS03	<0.1	<0.1	<0.1	0.02	<0.1	<0.1	5.2	5.1	15.5	15.5	50	Dry
DCS04	<0.1	<0.1	<0.1	-0.94	<0.1	<0.1	2.6	2.6	17.6	17.6	50	Dry
CP01	<0.1	<0.1	<0.1	0.03	<0.1	<0.1	2.5	2.5	12.2	12.3	50	3.02
CP03	*										50	*
RH03	<0.1	<0.1	<0.1	0.02	<0.1	<0.1	3.4	3.4	4.8	4.8	50	5.92

Additional gases (if required)

BH No.	VOCs (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)	Diameter of installation (mm)
DCS01	<0.1	<0.1	<0.1	50
DCS02	<0.1	29	<0.1	50
DCS03	<0.1	<0.1	<0.1	50
DCS04	<0.1	1	<0.1	50
CP01	1.2	4	<0.1	50
CP03	*			50
RH03	<0.1	436	<0.1	50

Borehole specific comments/observations
DCS01= no pertinent information to note
DCS02= Carbon monoxide initially 76ppm stabilised at 29ppm
DCS03= Carbon monoxide initially 12ppm stabilised to less than detection limit
DCS04= no pertinent information to note
CP01= no pertinent information to note
CP03= Could not monitor as stockpile had been place over the installation. Request for this to be relocated prior to visit 2.
RH03= Carbon monoxide initially 497ppm stabilised at 436ppm

Meteorological Data

Atmospheric Pressure (mb)	Start: 998
Atmospheric Pressure (mb)	Finish: 997
Pressure Rising or Falling	Falling over a 24hour period
Weather Conditions	Overcast infrequent showers
Atmospheric Oxygen (% vol)	21.2
Wind Speed & Direction	Slight easterly wind
Ambient Air Temperature (°C)	20.0

Site Data

Monitoring Personnel	Melissa Southworth
GPS Instrument	
Gasmeter Serial Number	G505737
PID Serial Number	109598
Ground Conditions (vegetation stress, visual contamination):	

General Notes:

1. Instrument specification data and calibration information provided on a separate sheet

APPLiED GEOLOGY

Ground Gas Monitoring and Flow Results

Project Number: AG3488-23

Project Name: Neilson's Sidings, off Roundhouse Way, Wellingborough

Date and Time of Monitoring: 14th August 12.00 to 14.00

Phase of Monitoring: 2 of 4

BH No.	Flow Range (litres/hr over 3 mins)			Differential Pressure (mb)	Methane % v/v		Carbon dioxide % v/v		Oxygen % v/v		Diameter of installation (mm)	Water level (m bgl)
	Max	Min	Avg		Peak	Steady	Peak	Steady	Min	Steady		
DCS01	<0.1	<0.1	<0.1	-0.03	0.2	0.1	8.2	8.2	10.5	10.5	50	2.45
DCS02	<0.1	<0.1	<0.1	1.09	0.1	0.1	12.5	12.5	1.8	1.8	50	3.95
DCS03	<0.1	<0.1	<0.1	0.18	0.1	0.1	6.2	5.8	15.3	15.3	50	Dry
DCS04	-0.1	<0.1	-0.1	-0.03	0.1	0.1	15.5	15.5	4.6	4.6	50	Dry
CP01	<0.1	<0.1	<0.1	0.03	0.1	0.1	5.0	4.6	12.4	12.4	50	3.08
CP03	*										50	3.50
RH03	<0.1	<0.1	<0.1	-0.02	0.1	0.1	2.8	2.8	10.6	10.6	50	6.00

Additional gases (if required)

BH No.	VOCs (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)	Diameter of installation (mm)
DCS01	1.1	<0.1	1	50
DCS02	0.1	1	<0.1	50
DCS03	0.4	<0.1	1	50
DCS04	0.3	1	1	50
CP01	0.8	1	1	50
CP03	*			50
RH03	1.3	1	1	50

Borehole specific comments/observations
DCS01= no pertinent information to note
DCS02= relative pressure climbing so was stopped after 3 minutes.
DCS03= no pertinent information to note
DCS04= no pertinent information to note
CP01= no pertinent information to note
CP03= Could only dip for groundwater as the cover and upper pipework had been damaged following the removal of the former stockpile of limestone.
RH03= no pertinent information to note

Meteorological Data

Atmospheric Pressure (mb)	Start: 1004
Atmospheric Pressure (mb)	Finish: 1004
Pressure Rising or Falling	Falling over a 24hour period
Weather Conditions	Mild and cloudy
Atmospheric Oxygen (% vol)	20.7
Wind Speed & Direction	19mph north westerly
Ambient Air Temperature (°C)	19.0

Site Data

Monitoring Personnel	Melissa Southworth
GPS Instrument	
Gasmeter Serial Number	G506760
PID Serial Number	109597
Ground Conditions (vegetation stress, visual contamination):	

General Notes:

1. Instrument specification data and calibration information provided on a separate sheet

APPLiED GEOLOGY

Ground Gas Monitoring and Flow Results

Project Number: AG3488-23

Project Name: Neilson's Sidings, off Roundhouse Way, Wellingborough

Date and Time of Monitoring: 22nd August 12.00 to 14.00

Phase of Monitoring: 3 of 4

BH No.	Flow Range (litres/hr over 3 mins)			Differential Pressure (mb)	Methane % v/v		Carbon dioxide % v/v		Oxygen % v/v		Diameter of installation (mm)	Water level (m bgl)
	Max	Min	Avg		Peak	Steady	Peak	Steady	Min	Steady		
DCS01	<0.1	<0.1	<0.1	-0.02	0.2	0.2	8.1	8.1	10.6	10.6	50	2.49
DCS02	<0.1	<0.1	<0.1	-0.09	<0.1	<0.1	3.5	3.4	15.8	15.8	50	3.97
DCS03	<0.1	-0.1	-0.1	-0.02	<0.1	<0.1	5.9	5.9	14.3	14.3	50	Dry
DCS04	<0.1	<0.1	<0.1	-0.02	<0.1	<0.1	4.0	4.0	15.7	15.7	50	Dry
CP01	<0.1	<0.1	<0.1	0.03	<0.1	<0.1	5.1	5.1	14.0	14.0	50	3.13
CP03	*										50	
RH03	<0.1	-0.1	<0.1	0.09	<0.1	<0.1	2.6	2.6	12.2	12.2	50	6.23

Additional gases (if required)

BH No.	VOCs (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)	Diameter of installation (mm)
DCS01	/	0	0	50
DCS02	/	1	1	50
DCS03	/	1	1	50
DCS04	/	1	0	50
CP01	/	1	0	50
CP03	*			50
RH03	/	1	0	50

Borehole specific comments/observations
DCS01= no pertinent information to note
DCS02= no pertinent information to note
DCS03= no pertinent information to note
DCS04= no pertinent information to note
CP01= no pertinent information to note
CP03= Could not be located following a surface scrap of the area. Installation likely buried or damaged.
RH03= no pertinent information to note

Meteorological Data

Atmospheric Pressure (mb)	Start: 1015
Atmospheric Pressure (mb)	Finish: 1015
Pressure Rising or Falling	Falling over a 24hr period
Weather Conditions	Dry and sunny
Atmospheric Oxygen (% vol)	21.0
Wind Speed & Direction	12mph
Ambient Air Temperature (°C)	22.0

Site Data

Monitoring Personnel	Melissa Southworth
GPS Instrument	
Gasmeter Serial Number	G505737
PID Serial Number	

Ground Conditions (vegetation stress, visual contamination):

General Notes:

1. Instrument specification data and calibration information provided on a separate sheet

APPLiED GEOLOGY

Ground Gas Monitoring and Flow Results

Project Number: AG3488-23

Project Name: Neilson's Sidings, off Roundhouse Way, Wellingborough

Date and Time of Monitoring: 1st Sept 12.00 to 14.00

Phase of Monitoring: 4 of 4

BH No.	Flow Range (litres/hr over 3 mins)			Differential Pressure (mb)	Methane % v/v		Carbon dioxide % v/v		Oxygen % v/v		Diameter of installation (mm)	Water level (m bgl)
	Max	Min	Avg		Peak	Steady	Peak	Steady	Min	Steady		
DCS01	<0.1	<0.1	<0.1	0.14	<0.1	<0.1	7.4	7.4	11.3	11.3	50	2.50
DCS02	<0.1	<0.1	<0.1	-0.02	0.1	0.1	13.9	12.7	4.2	6.1	50	3.94
DCS03	<0.1	<0.1	<0.1	0.05	0.1	0.1	11.4	5.0	6.4	15.2	50	Dry
DCS04	<0.1	<0.1	<0.1	0.03	0.1	0.1	10.2	10.2	7.6	7.6	50	Dry
CP01	<0.1	<0.1	<0.1	1.06	<0.1	<0.1	5.2	5.2	12.9	15.2	50	3.19
CP03	*										50	
RH03	<0.1	<0.1	<0.1	0.03	<0.1	<0.1	5.0	2.9	12.5	12.6	50	6.07

Additional gases (if required)

BH No.	VOCs (ppm)	Carbon Monoxide (ppm)	Hydrogen Sulphide (ppm)	Diameter of installation (mm)
DCS01	0.7	1	1	50
DCS02	<0.1	<0.1	1	50
DCS03	0.1	<0.1	1	50
DCS04	0.2	<0.1	1	50
CP01	0.7	1	1	50
CP03	*			50
RH03	1.1	1	1	50

Borehole specific comments/observations
DCS01= no pertinent information to note
DCS02= no pertinent information to note
DCS03= no pertinent information to note
DCS04= no pertinent information to note
CP01= no pertinent information to note
CP03= Could not be located following a surface scrap of the area. Installation likely buried or damaged prior to visit 3.
RH03= no pertinent information to note

Meteorological Data

Atmospheric Pressure (mb)	Start: 1006
Atmospheric Pressure (mb)	Finish: 1006
Pressure Rising or Falling	Rising over a 24hr period
Weather Conditions	Dry and cloudy
Atmospheric Oxygen (% vol)	20.6
Wind Speed & Direction	5mph NNE
Ambient Air Temperature (°C)	17.0

Site Data

Monitoring Personnel	Melissa Southworth
GPS Instrument	
Gasmeter Serial Number	G506760
PID Serial Number	
Ground Conditions (vegetation stress, visual contamination):	

General Notes:

1. Instrument specification data and calibration information provided on a separate sheet

APPLiED GEOLOGY

Gas Monitoring Equipment Specification and Accuracy Details

Instrument Specifications

Instrument	Atmospheric Pressure Range	Temperature Range	Flow Range	Flow Resolution	Borehole Pressure Range
GA5000	500-1500 mb +/- 5 mb	-10°C to + 50°C	0-20 lt/hr +/- 0.3 l/hr	0.1l/hr	.+500/-500 mbar +/- 4 mbar
Phocheck Tiger	-	-20 to + 60°C (Certified to -15 to + 45°C)	-	-	-

Instrument Accuracy

Instrument		Methane	Lower Explosive Limit	Carbon Dioxide	Oxygen	Volatile Organic Compounds	Hydrogen Sulphide	Carbon Monoxide
GA5000	Detection Range	0-100%	-	0 -100%	0-25%	NA	0 -50ppm response <30 secs	0 - 1000ppm response <30 Secs
	Detection Accuracy	.+/- 0.5% @ 0 to 70%, +/-1.5% @ 70 to 100% Response < 10 secs	N/A	.+/- 0.5% @ 0 to 60%, +/-1.5% @ 60 to 100% Response < 10 secs	.+/- 1.0% @ 0 to 25%, Response < 20 secs	NA	.+/- 1.5% FS	.+/- 2% of FS
Phocheck Tiger	Detection Range	N/A	N/A	N/A	N/A	1 ppb - 10,000 ppm	N/A	N/A
	Detection Accuracy	N/A	N/A	N/A	N/A	+/- 1ppb +- 5% of actual displayed accuracy +/- One digit Response < 2sec	N/A	N/A

Calibration Frequency

Instruments are calibrated annually.

Details of the instrument calibration certificates and service records are available if required.

Equipment Serial Numbers

GA5000 (G503948, G505383, G505737)

Phocheck Tiger - (T-108308, T-109597, T-109598, T-110423)

APPLiED GEOLOGY

APPENDIX E

SOIL CHEMICAL RESULTS COMPARED AGAINST SCREENING VALUES FOR HUMAN HEALTH

Site: Neilson's Sidings, off Roundhouse Way, Wellingborough
Job No: AG3488-23

Land Use: Commercial / Industrial
Dataset: Made Ground
Soil Organic Matter (%) 6.0 %

Exploratory Hole Reference		TP08	TP05	CP04	TP01	SS1	TP03	TP02	RH02	DCS03	CP03	No. of samples	Commercial / Industrial	Source/Justification
Depth (m)		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00	0.8			
Strata		Made Ground												
	Units													
Organic Matter (%)	%	8.7	37	6.8	42	9	39	18	60	28	7.1	10		
pH		8	7.8	8.5	7.8	7.8	7.6	8.1	7.6	7.8	8	10		
Abestos Identification		No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	10		
Arsenic	mg/kg	22	33	16	18	23	32	20	21	28	43	10	640	LQM/CIEH S4UL (2015)
Cadmium	mg/kg	0.89	0.11	0.32	0.53	0.66	0.4	0.38	< 0.10	0.4	0.14	10	190	LQM/CIEH S4UL (2015)
Chromium	mg/kg	24	24	22	18	32	25	20	17	34	61	10		LQM/CIEH S4UL (2015)
Chromium (Hexavalent)	mg/kg	**< 0.50**	**< 0.50**	**< 0.50**	**< 0.50**	**< 0.50**	**< 0.50**	**< 0.50**	**< 0.50**	**< 0.50**	**< 0.50**	10		LQM/CIEH S4UL (2015)
Copper	mg/kg	110	340	50	960	84	300	530	310	420	40	10	68000	LQM/CIEH S4UL (2015)
Lead	mg/kg	64	57	34	170	75	110	160	140	370	32	10	2330	C4SL (2014)
Mercury	mg/kg	0.3	0.27	0.33	0.19	0.21	0.39	0.17	0.31	0.18	**< 0.05**	10	1100	LQM/CIEH S4UL (2015)
Nickel	mg/kg	28	56	21	33	29	35	25	69	43	37	10	980	LQM/CIEH S4UL (2015)
Selenium	mg/kg	**3.2**	**2.5**	**0.97**	**2.8**	**1.6**	**1.9**	**2.8**	**2.5**	**2.1**	**2**	10	12000	LQM/CIEH S4UL (2015)
Zinc	mg/kg	370	110	180	620	180	250	190	110	210	110	10	730000	LQM/CIEH S4UL (2015)
Boron	mg/kg	**< 50**	**< 50**	**< 50**	**< 50**	67	56	57	84	51	**< 50**	10	240000	LQM/CIEH S4UL (2015)
Beryllium	mg/kg	1.9	5.1	1.1	8.5	1.9	3.8	3.8	6.8	3.7	2.2	10	12	LQM/CIEH S4UL (2015)
Vanadium	mg/kg	62	71	41	69	49	55	43	50	62	98	10	9000	LQM/CIEH S4UL (2015)
Naphthalene	mg/kg	3.6	7.8	5.3	8.9	4.8	6.9	3.1	9.5	7.6	2.7	10	1100	LQM/CIEH S4UL (2015)
Acenaphthylene	mg/kg	**< 0.10**	**< 0.10**	0.21	**< 0.10**	**< 0.10**	0.14	**< 0.10**	0.2	0.15	**< 0.10**	10	100000	LQM/CIEH S4UL (2015)
Acenaphthene	mg/kg	**< 0.10**	**< 0.10**	6.8	**< 0.10**	0.42	**< 0.10**	0.37	0.2	0.14	0.74	10	100000	LQM/CIEH S4UL (2015)
Fluorene	mg/kg	**< 0.10**	**< 0.10**	7.1	**< 0.10**	0.51	0.17	0.25	0.31	0.15	0.58	10	71000	LQM/CIEH S4UL (2015)
Phenanthrene	mg/kg	0.49	0.29	24	0.78	2.1	0.55	1.9	2.3	1.5	2.5	10	23000	LQM/CIEH S4UL (2015)
Anthracene	mg/kg	0.14	**< 0.10**	4.8	0.19	0.47	0.12	0.52	0.4	0.4	0.48	10	540000	LQM/CIEH S4UL (2015)
Fluoranthene	mg/kg	0.84	0.2	10	0.66	1.7	0.75	1.7	2.1	2.7	1.8	10	23000	LQM/CIEH S4UL (2015)
Pyrene	mg/kg	0.78	0.17	6.4	0.6	1.2	0.63	1.6	1.7	2.3	1.2	10	54000	LQM/CIEH S4UL (2015)
Benzo[a]anthracene	mg/kg	0.32	**< 0.10**	1.2	0.27	0.36	**< 0.10**	0.96	0.67	1.5	0.37	10		Genotoxic PAH see Benzo(a)pyrene
Chrysene	mg/kg	0.29	**< 0.10**	1	0.33	0.38	**< 0.10**	1.2	0.56	1.5	0.33	10		Genotoxic PAH see Benzo(a)pyrene
Benzo[b]fluoranthene	mg/kg	0.41	**< 0.10**	0.89	0.38	0.5	**< 0.10**	1.4	0.53	2.4	0.34	10		Genotoxic PAH see Benzo(a)pyrene
Benzo[k]fluoranthene	mg/kg	0.19	**< 0.10**	0.28	0.19	0.18	**< 0.10**	0.41	0.19	0.83	**< 0.10**	10		Genotoxic PAH see Benzo(a)pyrene
Benzo[a]pyrene	mg/kg	**< 0.10**	**< 0.10**	0.46	**< 0.10**	0.23	**< 0.10**	1.1	0.45	1.8	**< 0.10**	10	76	C4SL (2014)
Dibenzo[a,h]anthracene	mg/kg	**< 0.10**	**< 0.10**	**< 0.10**	**< 0.10**	**< 0.10**	**< 0.10**	**< 0.10**	**< 0.10**	**< 0.10**	**< 0.10**	10		Genotoxic PAH see Benzo(a)pyrene
Indeno[1,2,3-cd]pyrene	mg/kg	**< 0.10**	**< 0.10**	**< 0.10**	**< 0.10**	0.27	**< 0.10**	0.71	**< 0.10**	1.6	**< 0.10**	10		Genotoxic PAH see Benzo(a)pyrene
Benzo[g,h,i]perylene	mg/kg	0.25	**< 0.10**	0.22	**< 0.10**	0.21	**< 0.10**	0.76	0.29	1.4	**< 0.10**	10		Genotoxic PAH see Benzo(a)pyrene
Total of 16 PAHs	mg/kg	7.3	8.5	69	12	13	9.3	16	19	26	11	10		
Phenols (Total)	mg/kg	**< 0.10**	**< 0.10**	**< 0.10**	**< 0.10**	0.37	**< 0.10**	**< 0.10**	0.11	**< 0.10**	**< 0.10**	10	1300	LQM/CIEH S4UL (2015)
Benzene	mg/kg	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	10	90	LQM/CIEH S4UL (2015)
Toluene	mg/kg	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	10	180000	LQM/CIEH S4UL (2015)
Ethylbenzene	mg/kg	**<0.001**	**<0.001**	0.0025	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	0.0017	0.0032	10	27000	LQM/CIEH S4UL (2015)
m&p Xylene	mg/kg	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	10	30000	LQM/CIEH S4UL (2015)
o-Xylene	mg/kg	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	**<0.001**	10	33000	LQM/CIEH S4UL (2015)
Aliphatic TPH >C5-C6	mg/kg	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	10	12000	LQM/CIEH S4UL (2015)
Aliphatic TPH >C6-C8	mg/kg	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	10	40000	LQM/CIEH S4UL (2015)
Aliphatic TPH >C8-C10	mg/kg	**< 0.05**	**< 0.05**	**< 0.05**	0.11	**< 0.05**	**< 0.05**	**< 0.05**	0.19	**< 0.05**	**< 0.05**	10	11000	LQM/CIEH S4UL (2015)
Aliphatic TPH >C10-C12	mg/kg	**< 2.0**	**< 2.0**	2.2	**< 2.0**	**< 2.0**	**< 2.0**	**< 2.0**	**< 2.0**	3.9	**< 2.0**	10	47000	LQM/CIEH S4UL (2015)
Aliphatic TPH >C12-C16	mg/kg	1.1	1.1	1.6	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	7.2	**< 1.0**	10	90000	LQM/CIEH S4UL (2015)
Aliphatic TPH >C16-C21	mg/kg	**< 2.0**	**< 2.0**	5	2.2	**< 2.0**	**< 2.0**	5.2	2.3	12	6.7	10	-	-
Aliphatic TPH >C21-C35	mg/kg	**< 3.0**	**< 3.0**	18	6.9	3.3	**< 3.0**	15	7.7	12	36	10	No Risk	LQM/CIEH S4UL (2015)
Aliphatic TPH >C35-C44	mg/kg	**< 10**	**< 10**	**< 10**	**< 10**	**< 10**	**< 10**	**< 10**	**< 10**	**< 10**	**< 10**	10	No Risk	LQM/CIEH S4UL (2015)
Total Aliphatic Hydrocarbons	mg/kg	5.1	**< 10**	27	11	**< 10**	**< 10**	23	13	35	44	10		
Aromatic TPH >C5-C7	mg/kg	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	10	86000	LQM/CIEH S4UL (2015)
Aromatic TPH >C7-C8	mg/kg	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	10	180000	LQM/CIEH S4UL (2015)
Aromatic TPH >C8-C10	mg/kg	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	**< 0.05**	10	17000	LQM/CIEH S4UL (2015)
Aromatic TPH >C10-C12	mg/kg	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	10	34000	LQM/CIEH S4UL (2015)
Aromatic TPH >C12-C16	mg/kg	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	9.5	**< 1.0**	2.7	**< 1.0**	10	38000	LQM/CIEH S4UL (2015)
Aromatic TPH >C16-C21	mg/kg	5	3.6	6.3	4	2.4	2.3	49	3.4	24	6.6	10	28000	LQM/CIEH S4UL (2015)
Aromatic TPH >C21-C35	mg/kg	160	2.9	26	4.1	7.2	**< 2.0**	91	15	310	**< 2.0**	10	28000	LQM/CIEH S4UL (2015)
Aromatic TPH >C35-C44	mg/kg	25	1.7	1.9	1.8	**< 1.0**	1.1	1.8	**< 1.0**	39	1.2	10	28000	LQM/CIEH S4UL (2015)
Total Aromatic Hydrocarbons	mg/kg	190	**< 10**	35	**< 10**	**< 10**	**< 10**	150	19	370	**< 10**	10		
Total Petroleum Hydrocarbons	mg/kg	190	**< 10**	61	21	15	**< 10**	170	32	410	53	10		
Methyl Tert-Butyl Ether	µg/kg	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	**< 1.0**	10	1	Limit of detection

Key -
Value within sample set exceeds screening value

LQM/CIEH S4UL Reference No. S4UL3159 (2015)
Values in **bold** are reported at the laboratory limit of detection
Benzo(a)pyrene has been used as a 'surrogate marker for genotoxic PAH' as discussed in Appendix E of CL:AIRE SP1010 'Development of C4SL for Assessment of Land Affected by Contamination', December 2013.
This allows assessment of the combined carcinogenic risk associated with genotoxic PAH using only b(a)p. Genotoxic PAHs include Benz(a)pyrene, Benzo(a)anthracene, Chrysene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(ah)anthracene, Indeno(123cd)pyrene, Benzo(ghi)perylene and have been marked w

SUMMARY OF LEACHATE TEST RESULTS

Site Neilson's Sidings, off Roundhouse Way, Wellingborough
Job Number AG3488-23
Type of Water Leachate

Determinand	Limit of Detection	Hazardous or Non-Hazardous^	Sample Identity / Depth / Sampled Date	TP08 0.30	TP05 2.40	CP04 0.80	No. of samples (n)	Waters Screening Value	Source & Justification
				18th of July					
pH		-	-	8.5	8.5	8.4	3	-	-
Arsenic		**Haz**	µg l-¹	0.53	0.78	0.45	3	10	Detection Limit
Cadmium		**Non Haz**	µg l-¹	**< 0.11**	**< 0.11**	**< 0.11**	3	5	UK Drinking Water Standards (2010)
Chromium (Total)		*Non Haz*	µg l-¹	**< 0.50**	**< 0.50**	**< 0.50**	3	50	UK Drinking Water Standards (2010)
Copper		**Non Haz**	µg l-¹	2.2	1.2	0.58	3	2000	UK Drinking Water Standards (2010)
Lead		**Haz**	µg l-¹	**< 0.50**	**< 0.50**	**< 0.50**	3	10	UK Drinking Water Standards (2010)
Mercury		**Haz**	µg l-¹	**< 0.05**	**< 0.05**	**< 0.05**	3	0.5	Detection limit
Nickel		**Non Haz**	µg l-¹	0.77	**< 0.50**	**< 0.50**	3	20	UK Drinking Water Standards (2010)
Selenium		**Non Haz**	µg l-¹	**< 0.50**	**< 0.50**	**< 0.50**	3	10	UK Drinking Water Standards (2010)
Zinc		**Non Haz**	µg l-¹	11	12	8.6	3	5000	UK Drinking Water Standards (2010)
Boron		*Non Haz*	µg l-¹	**< 10**	**< 10**	**< 10**	3	1000	UK Drinking Water Standards (2010)
Beryllium		*Non Haz*	µg l-¹	**< 1.0**	**< 1.0**	**< 1.0**	3	-	Not of health concern at the levels found in drinking water
Vanadium		*Non Haz*	µg l-¹	0.7	1.2	**< 0.50**	3	20	EQS
Sulphate		*Non Haz*	mg l-¹	3.3	4.9	7.5	3	250	UK Drinking Water Standards (2010)
Phenol		**Non Haz**	µg l-¹	**< 0.030**	**< 0.030**	**< 0.030**	3	7.7	WFD Environmental Standard, 2010
Naphthalene		**Non Haz**	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit
Acenaphthylene		*Haz*	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit
Acenaphthene		**Haz**	µg l-¹	**< 0.10**	**< 0.10**	5.2	3	0.5	Detection limit
Fluorene		*Haz*	µg l-¹	**< 0.10**	**< 0.10**	3.5	3	0.5	Detection limit
Phenanthrene		*Haz*	µg l-¹	**< 0.10**	**< 0.10**	2.7	3	0.5	Detection limit
Anthracene		**Haz**	µg l-¹	**< 0.10**	**< 0.10**	0.76	3	0.5	Detection limit
Fluoranthene		**Haz**	µg l-¹	**< 0.10**	**< 0.10**	0.93	3	0.5	Detection limit
Pyrene		**Haz**	µg l-¹	**< 0.10**	**< 0.10**	0.87	3	0.5	Detection limit
Benzo[a]anthracene		*Haz*	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit
Chrysene		*Haz*	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit
Benzo[b]fluoranthene		**Haz**	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit
Benzo[k]fluoranthene		**Haz**	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit
Benzo[a]pyrene		**Haz**	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit
Dibenz(a,h)Anthracene		*Haz*	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit
Indeno(1,2,3-c,d)Pyrene		**Haz**	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit
Benzo[g,h,i]perylene		**Haz**	µg l-¹	**< 0.10**	**< 0.10**	**< 0.10**	3	0.5	Detection limit

Key-
Result exceeds test Detection Limit (for Haz determinands)
Result exceeds Screening Value (for Non Haz determinands)
Values in bold at the limit of detection

^ Note: Hazardous and non-hazardous substances determined by JAGDAG (Jan 2017) and published at http://www.wfduk.org/sites/default/files/Media/170116%20Substance%20Determinationsfinal.pdf. These are mai
For substances not assessed by JAGDAG, Applied Geology has assumed a determination based on our understanding of the behaviour of the chemical. These determinations are highlighted in yellow.

APPLiED GEOLOGY

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Final Report

Report No.:	23-25469-1
Initial Date of Issue:	07-Aug-2023
Re-Issue Details:	
Client	Applied Geology
Client Address:	The Old Barn Fulbrook Lane Sherbourne Warwick Warwickshire CV35 8AR
Contact(s):	Frankie Hadley Jones Lab Results Melissa Southworth
Project	AG3488-23 Neilson's Sidings, off Roundhouse Way
Quotation No.:	Q17-09497
Order No.:	19584
No. of Samples:	24
Turnaround (Wkdays):	5
Date Approved:	07-Aug-2023
Approved By:	
Details:	Stuart Henderson, Technical Manager

Date Received:	28-Jul-2023
Date Instructed:	28-Jul-2023
Results Due:	03-Aug-2023

Results - Soil

Project: AG3488-23 Neilson's Sidings, off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25469	23-25469	23-25469	23-25469	23-25469	23-25469	23-25469	23-25469	23-25469
Quotation No.: Q17-09497			**Chemtest Sample ID.:**		1680437	1680438	1680439	1680440	1680441	1680442	1680443	1680444	1680445
			Sample Location:		DCS01	CP04	CP02	CP01	RH01	CP03	CP02	CP04	RH03
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		5.00	7.30	4.80	6.30	6.00	4.60	6.00	8.50	9.00
			Bottom Depth (m):		5.00	7.30	4.80	6.30	6.00	4.60	6.00	8.50	9.00
			Date Sampled:		19-Jul-2023	21-Jul-2023	25-Jul-2023	20-Jul-2023	17-Jul-2023	24-Jul-2023	25-Jul-2023	21-Jul-2023	20-Jul-2023
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Magnesium (Water Soluble)	N	2120	g/l	0.010	0.037	0.031	0.030	0.012	0.028				
Sulphate (Acid Soluble)	U	2430	%	0.010	0.086	0.054	0.088	0.035	0.070				
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.092	0.010	0.24	0.012	0.055	< 0.010	0.033	0.11	0.013
Sulphate (Total)	U	2430	%	0.010									
Moisture	N	2030	%	0.020	19	17	23	15	35	17	17	16	10
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	None	None	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Clay	Loam
pH	M	2010		4.0	7.8	7.6	7.5	7.7	7.6	7.5	7.5	7.8	8.3
Magnesium (Water Soluble)	N	2120	mg/l	10.000						14			
Total Sulphur	U	2175	%	0.010	0.063	0.12	0.48	0.014	0.077				
Chloride (Water Soluble)	M	2220	g/l	0.010									
Nitrate (Water Soluble)	N	2220	g/l	0.010									

Results - Soil

Project: AG3488-23 Neilson's Sidings, off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**	23-25469	23-25469	23-25469	23-25469	23-25469	23-25469	23-25469	23-25469	23-25469
Quotation No.: Q17-09497			**Chemtest Sample ID.:**	1680446	1680447	1680448	1680449	1680450	1680451	1680452	1680453	1680454
			Sample Location:	RH01	RH03	RH01	RH01	RH02	RH03	RH01	CP04	CP01
			Sample Type:	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):	7.50	20.00	12.90	18.50	14.10	16.00	9.60	9.00	8.00
			Bottom Depth (m):	7.50	20.00	12.90	18.50	14.10	16.00	9.60	9.00	8.00
			Date Sampled:	17-Jul-2023	20-Jul-2023	17-Jul-2023	17-Jul-2023	21-Jul-2023	20-Jul-2023	17-Jul-2023	21-Jul-2023	20-Jul-2023
Determinand	**Accred.**	**SOP**	**Units**	**LOD**								
Magnesium (Water Soluble)	N	2120	g/l	0.010		0.044	0.063	0.062	0.042	0.085	0.049	0.028	0.029
Sulphate (Acid Soluble)	U	2430	%	0.010		0.048	0.11	0.10	0.12	0.079	0.066	0.052	0.076
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.20	0.10	0.12	0.16	0.075	0.24	0.15	0.025	0.051
Sulphate (Total)	U	2430	%	0.010									
Moisture	N	2030	%	0.020	14	14	12	24	19	14	17	23	19
Soil Colour	N	2040		N/A	Brown	Brown	Grey	Grey	Grey	Grey	Grey	Grey	Grey
Other Material	N	2040		N/A	Stones	Stones	None	None	None	None	None	None	None
Soil Texture	N	2040		N/A	Sand	Clay	Loam	Clay	Clay	Loam	Clay	Clay	Clay
pH	M	2010		4.0	8.3	8.2	8.0	8.1	8.2	8.0	8.2	7.7	8.1
Magnesium (Water Soluble)	N	2120	mg/l	10.000									
Total Sulphur	U	2175	%	0.010		0.61	0.42	1.1	1.2	2.1	0.83	0.082	0.58
Chloride (Water Soluble)	M	2220	g/l	0.010									
Nitrate (Water Soluble)	N	2220	g/l	0.010									

Results - Soil

Project: AG3488-23 Neilson's Sidings, off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25469	23-25469	23-25469	23-25469	23-25469	23-25469
Quotation No.: Q17-09497			**Chemtest Sample ID.:**		1680455	1680456	1680457	1680458	1680459	1680460
			Sample Location:		CP02	CP01	CP03	RH01	RH03	CP04
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		9.00	1.00	0.50	2.50	5.00	3.50
			Bottom Depth (m):		9.00	1.00	0.50	2.50	5.00	3.50
			Date Sampled:		25-Jul-2023	20-Jul-2023	24-Jul-2023	17-Jul-2023	20-Jul-2023	21-Jul-2023
Determinand	**Accred.**	**SOP**	**Units**	**LOD**						
Magnesium (Water Soluble)	N	2120	g/l	0.010	0.038	0.035	0.021	0.020	0.034	0.032
Sulphate (Acid Soluble)	U	2430	%	0.010	0.060					
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.055	0.049	0.077	0.043	0.11	0.065
Sulphate (Total)	U	2430	%	0.010		0.26	0.22	0.14	0.35	0.55
Moisture	N	2030	%	0.020	16	11	20	8.7	20	11
Soil Colour	N	2040		N/A	Grey	Black	Brown	Brown	Black	Black
Other Material	N	2040		N/A	None	Stones and Roots	Stones	Stones and Roots	Stones	Stones
Soil Texture	N	2040		N/A	Clay	Loam	Loam	Loam	Clay	Loam
pH	M	2010		4.0	8.1	8.0	7.9	8.1	7.9	8.0
Magnesium (Water Soluble)	N	2120	mg/l	10.000						
Total Sulphur	U	2175	%	0.010	0.65	0.49	0.27	0.46	0.57	0.36
Chloride (Water Soluble)	M	2220	g/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	< 0.010
Nitrate (Water Soluble)	N	2220	g/l	0.010		< 0.010	< 0.010	< 0.010	< 0.010	0.023

Test Methods

SOP	Title	Parameters included	Method summary
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2175	Total Sulphur in Soils	Total Sulphur	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2220	Water soluble Chloride in Soils	Chloride	Aqueous extraction and measuremernt by 'Aquakem 600' Discrete Analyser using ferric nitrate / mercuric thiocyanate.
2430	Total Sulphate in soils	Total Sulphate	Acid digestion followed by determination of sulphate in extract by ICP-OES.

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

eurofins | Chemtest
Eurofins Chemtest Ltd
Depot Road
Newmarket
CB8 0AL
Tel: 01638 606070
Email: info@chemtest.com

Amended Report

Report No.:	23-25484-2		
Initial Date of Issue:	03-Aug-2023	**Date of Re-Issue:**	04-Aug-2023
Re-Issue Details:	This report has been revised and directly supersedes 23-25484-1 in its entirety		
Client	Applied Geology		
Client Address:	The Old Barn Fulbrook Lane Sherbourne Warwick Warwickshire CV35 8AR		
Contact(s):	Frankie Hadley Jones Lab Results Melissa Southworth		
Project	AG3488-23 Neilson's Sidings off Roundhouse Way		
Quotation No.:		**Date Received:**	28-Jul-2023
Order No.:	19579	**Date Instructed:**	28-Jul-2023
No. of Samples:	10		
Turnaround (Wkdays):	5	**Results Due:**	03-Aug-2023
Date Approved:	03-Aug-2023		
Approved By:			
Details:	Stuart Henderson, Technical Manager		

Results - Leachate

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology				**Chemtest Job No.:**		23-25484	23-25484	23-25484
Quotation No.:				**Chemtest Sample ID.:**		1680533	1680534	1680535
				Sample Location:		TP08	TP05	CP04
				Sample Type:		SOIL	SOIL	SOIL
				Top Depth (m):		0.30	2.40	0.80
				Bottom Depth (m):		0.30	2.40	0.80
				Date Sampled:		18-Jul-2023	18-Jul-2023	21-Jul-2023
Determinand	**Accred.**	**SOP**	**Type**	**Units**	**LOD**			
pH	U	1010	10:1		N/A	8.5	8.5	8.4
Sulphate	U	1220	10:1	mg/l	1.0	3.3	4.9	7.5
Magnesium	U	1455	10:1	mg/l	0.20	0.77	0.51	0.40
Arsenic (Dissolved)	U	1455	10:1	µg/l	0.20	0.53	0.78	0.45
Boron (Dissolved)	U	1455	10:1	µg/l	10.0	< 10	< 10	< 10
Beryllium (Dissolved)	U	1455	10:1	µg/l	1.00	< 1.0	< 1.0	< 1.0
Cadmium (Dissolved)	U	1455	10:1	µg/l	0.11	< 0.11	< 0.11	< 0.11
Chromium (Dissolved)	U	1455	10:1	µg/l	0.50	< 0.50	< 0.50	< 0.50
Copper (Dissolved)	U	1455	10:1	µg/l	0.50	2.2	1.2	0.58
Mercury (Dissolved)	U	1455	10:1	µg/l	0.05	< 0.05	< 0.05	< 0.05
Nickel (Dissolved)	U	1455	10:1	µg/l	0.50	0.77	< 0.50	< 0.50
Lead (Dissolved)	U	1455	10:1	µg/l	0.50	< 0.50	< 0.50	< 0.50
Selenium (Dissolved)	U	1455	10:1	µg/l	0.50	< 0.50	< 0.50	< 0.50
Vanadium (Dissolved)	U	1455	10:1	µg/l	0.50	0.70	1.2	< 0.50
Zinc (Dissolved)	U	1455	10:1	µg/l	2.5	11	12	8.6
Chromium (Trivalent)	N	1490	10:1	µg/l	20	< 20	< 20	< 20
Chromium (Hexavalent)	U	1490	10:1	µg/l	20	< 20	< 20	< 20
Naphthalene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Acenaphthylene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Acenaphthene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	5.2
Fluorene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	3.5
Phenanthrene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	2.7
Anthracene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	0.76
Fluoranthene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	0.93
Pyrene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	0.87
Benzo[a]anthracene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Chrysene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[b]fluoranthene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[k]fluoranthene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[a]pyrene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Dibenz(a,h)Anthracene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Benzo[g,h,i]perylene	U	1800	10:1	µg/l	0.10	< 0.10	< 0.10	< 0.10
Total Of 16 PAH's	U	1800	10:1	µg/l	2.0	< 2.0	< 2.0	14
Total Phenols	U	1920	10:1	mg/l	0.030	< 0.030	< 0.030	< 0.030

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680533	1680534	1680535	1680536	1680537	1680538	1680539	1680540	1680541
			Sample Location:		TP08	TP05	CP04	TP01	SS1	TP03	TP02	RH02	DCS03
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Bottom Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Date Sampled:		18-Jul-2023	18-Jul-2023	21-Jul-2023	18-Jul-2023	25-Jul-2023	18-Jul-2023	18-Jul-2023	18-Jul-2023	19-Jul-2023
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Organic Matter	M	2625	%	0.40	8.7	37	6.8	42	9.0	39	18	60	28
Arsenic	M	2455	mg/kg	0.5	22	33	16	18	23	32	20	21	28
Cadmium	M	2455	mg/kg	0.10	0.89	0.11	0.32	0.53	0.66	0.40	0.38	< 0.10	0.40
Chromium	M	2455	mg/kg	0.5	24	24	22	18	32	25	20	17	34
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Chromium (Trivalent)	N	2490	mg/kg	1.0	24	24	22	18	32	25	20	17	34
Copper	M	2455	mg/kg	0.50	110	340	50	960	84	300	530	310	420
Lead	M	2455	mg/kg	0.50	64	57	34	170	75	110	160	140	370
Magnesium (Water Soluble)	N	2120	g/l	0.010	0.028	0.041	0.026	0.045	0.096	0.096	0.034	0.13	0.040
Mercury	M	2455	mg/kg	0.05	0.30	0.27	0.33	0.19	0.21	0.39	0.17	0.31	0.18
Nickel	M	2455	mg/kg	0.50	28	56	21	33	29	35	25	69	43
Selenium	M	2455	mg/kg	0.25	3.2	2.5	0.97	2.8	1.6	1.9	2.8	2.5	2.1
Vanadium	U	2455	mg/kg	0.5	62	71	41	69	49	55	43	50	62
Zinc	M	2455	mg/kg	0.50	370	110	180	620	180	250	190	110	210
Naphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Naphthalene	M	2800	mg/kg	0.10	3.6	7.8	5.3	8.9	4.8	6.9	3.1	9.5	7.6
Acenaphthylene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10	< 0.10	0.21	< 0.10	< 0.10	0.14	< 0.10	0.20	0.15
Acenaphthene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Acenaphthene	M	2800	mg/kg	0.10	< 0.10	< 0.10	6.8	< 0.10	0.42	< 0.10	0.37	0.20	0.14
Fluorene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Fluorene	M	2800	mg/kg	0.10	< 0.10	< 0.10	7.1	< 0.10	0.51	0.17	0.25	0.31	0.15
Phenanthrene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Phenanthrene	M	2800	mg/kg	0.10	0.49	0.29	24	0.78	2.1	0.55	1.9	2.3	1.5
Anthracene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Anthracene	M	2800	mg/kg	0.10	0.14	< 0.10	4.8	0.19	0.47	0.12	0.52	0.40	0.40
Fluoranthene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Fluoranthene	M	2800	mg/kg	0.10	0.84	0.20	10	0.66	1.7	0.75	1.7	2.1	2.7
Pyrene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Pyrene	M	2800	mg/kg	0.10	0.78	0.17	6.4	0.60	1.2	0.63	1.6	1.7	2.3
Benzo[a]anthracene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.32	< 0.10	1.2	0.27	0.36	< 0.10	0.96	0.67	1.5
Chrysene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Chrysene	M	2800	mg/kg	0.10	0.29	< 0.10	1.0	0.33	0.38	< 0.10	1.2	0.56	1.5
Benzo[b]fluoranthene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.41	< 0.10	0.89	0.38	0.50	< 0.10	1.4	0.53	2.4
Benzo[k]fluoranthene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680533	1680534	1680535	1680536	1680537	1680538	1680539	1680540	1680541
			Sample Location:		TP08	TP05	CP04	TP01	SS1	TP03	TP02	RH02	DCS03
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Bottom Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Date Sampled:		18-Jul-2023	18-Jul-2023	21-Jul-2023	18-Jul-2023	25-Jul-2023	18-Jul-2023	18-Jul-2023	18-Jul-2023	19-Jul-2023
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	0.19	< 0.10	0.28	0.19	0.18	< 0.10	0.41	0.19	0.83
Benzo[a]pyrene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	0.46	< 0.10	0.23	< 0.10	1.1	0.45	1.8
Dibenz(a,h)Anthracene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.27	< 0.10	0.71	< 0.10	1.6
Benzo[g,h,i]perylene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	0.25	< 0.10	0.22	< 0.10	0.21	< 0.10	0.76	0.29	1.4
Total Of 16 PAH's	N	2800	mg/kg	2.0	7.3	8.5	69	12	13	9.3	16	19	26
Phenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Phenol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Resorcinol	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	0.082	< 0.020	< 0.020	< 0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10	< 0.10	< 0.10	< 0.10	0.37	< 0.10	< 0.10	0.11	< 0.10
Benzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	2.5	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	1.7
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.019	0.12	0.19	0.023	0.55	0.29	0.11	0.34	0.13
ACM Type	U	2192		N/A	-	-	-	-	-	-	-	-	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected	No Asbestos Detected
Moisture	N	2030	%	0.020	8.6	15	12	10	9.9	17	11	23	14
Soil Colour	N	2040		N/A	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown	Brown
Other Material	N	2040		N/A	Stones	Stones	Stones	Stones	Stones and Roots	Stones	Stones	Stones	Stones
Soil Texture	N	2040		N/A	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand	Sand
pH	M	2010		4.0	8.0	7.8	8.5	7.8	7.8	7.6	8.1	7.6	7.8
Boron	N	2455	mg/kg	50.00	< 50	< 50	< 50	< 50	67	56	57	84	51
Beryllium	U	2455	mg/kg	0.5	1.9	5.1	1.1	8.5	1.9	3.8	3.8	6.8	3.7
Aliphatic VPH >C5-C6	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C6-C7	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aliphatic VPH >C7-C8	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680533	1680534	1680535	1680536	1680537	1680538	1680539	1680540	1680541
			Sample Location:		TP08	TP05	CP04	TP01	SS1	TP03	TP02	RH02	DCS03
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Bottom Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Date Sampled:		18-Jul-2023	18-Jul-2023	21-Jul-2023	18-Jul-2023	25-Jul-2023	18-Jul-2023	18-Jul-2023	18-Jul-2023	19-Jul-2023
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Aliphatic VPH >C6-C8 (Sum)	N	2780	mg/kg	0.10	< 0.10	< 0.10	< 0.10						
Aliphatic VPH >C8-C10	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	0.11	< 0.05	< 0.05	< 0.05	0.19	< 0.05
Total Aliphatic VPH >C5-C10	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aliphatic EPH >C10-C12	M	2690	mg/kg	2.00	< 2.0	< 2.0	2.2	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	3.9
Aliphatic EPH >C12-C16	M	2690	mg/kg	1.00	1.1	1.1	1.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	7.2
Aliphatic EPH >C16-C21	M	2690	mg/kg	2.00	< 2.0	< 2.0	5.0	2.2	< 2.0	< 2.0	5.2	2.3	12
Aliphatic EPH >C21-C35	M	2690	mg/kg	3.00	< 3.0	< 3.0	18	6.9	3.3	< 3.0	15	7.7	12
Aliphatic EPH >C35-C40	N	2690	mg/kg	10.00	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10
Total Aliphatic EPH >C10-C35	M	2690	mg/kg	5.00	5.1	< 5.0	27	11	5.5	< 5.0	23	13	35
Total Aliphatic EPH >C10-C40	N	2690	mg/kg	10.00	< 10	< 10	27	11	< 10	< 10	23	13	35
Aromatic VPH >C5-C7	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C7-C8	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Aromatic VPH >C8-C10	U	2780	mg/kg	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Total Aromatic VPH >C5-C10	U	2780	mg/kg	0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25	< 0.25
Aromatic EPH >C10-C12	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
Aromatic EPH >C12-C16	U	2690	mg/kg	1.00	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	9.5	< 1.0	2.7
Aromatic EPH >C16-C21	U	2690	mg/kg	2.00	5.0	3.6	6.3	4.0	2.4	2.3	49	3.4	24
Aromatic EPH >C21-C35	U	2690	mg/kg	2.00	160	2.9	26	4.1	7.2	< 2.0	91	15	310
Aromatic EPH >C35-C40	N	2690	mg/kg	1.00	25	1.7	1.9	1.8	< 1.0	1.1	1.8	< 1.0	39
Total Aromatic EPH >C10-C35	U	2690	mg/kg	5.00	160	6.5	33	8.0	9.7	< 5.0	150	19	330
Total Aromatic EPH >C10-C40	N	2690	mg/kg	10.00	190	< 10	35	< 10	< 10	< 10	150	19	370
Total VPH >C5-C10	U	2780	mg/kg	0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50
Total EPH >C10-C35	U	2690	mg/kg	10.00	170	< 10	59	19	15	< 10	170	32	370
Total EPH >C10-C40	N	2690	mg/kg	10.00	190	< 10	61	21	15	< 10	170	32	410
Dichlorodifluoromethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Chloromethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Vinyl Chloride	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Bromomethane	M	2760	µg/kg	20	< 20	< 20	< 20						
Chloroethane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0						
Trichlorofluoromethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,1-Dichloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Trans 1,2-Dichloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,1-Dichloroethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
cis 1,2-Dichloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Bromochloromethane	U	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0						
Trichloromethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,1,1-Trichloroethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680533	1680534	1680535	1680536	1680537	1680538	1680539	1680540	1680541
			Sample Location:		TP08	TP05	CP04	TP01	SS1	TP03	TP02	RH02	DCS03
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Bottom Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Date Sampled:		18-Jul-2023	18-Jul-2023	21-Jul-2023	18-Jul-2023	25-Jul-2023	18-Jul-2023	18-Jul-2023	18-Jul-2023	19-Jul-2023
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Tetrachloromethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,1-Dichloropropene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,2-Dichloroethane	M	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0						
Trichloroethene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,2-Dichloropropane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Dibromomethane	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Bromodichloromethane	M	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0						
cis-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10						
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	< 10	< 10	< 10						
1,1,2-Trichloroethane	M	2760	µg/kg	10	< 10	< 10	< 10						
Tetrachloroethene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,3-Dichloropropane	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0						
Dibromochloromethane	U	2760	µg/kg	10	< 10	< 10	< 10						
1,2-Dibromoethane	M	2760	µg/kg	5.0	< 5.0	< 5.0	< 5.0						
Chlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,1,1,2-Tetrachloroethane	M	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0						
Styrene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Tribromomethane	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Isopropylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Bromobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,2,3-Trichloropropane	N	2760	µg/kg	50	< 50	< 50	< 50						
N-Propylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
2-Chlorotoluene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,3,5-Trimethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
4-Chlorotoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Tert-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,2,4-Trimethylbenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Sec-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,3-Dichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
4-Isopropyltoluene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,4-Dichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
N-Butylbenzene	U	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,2-Dichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	< 50	< 50	< 50						
1,2,4-Trichlorobenzene	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
Hexachlorobutadiene	N	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0						
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	< 2.0	< 2.0	< 2.0						

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680533	1680534	1680535	1680536	1680537	1680538	1680539	1680540	1680541
			Sample Location:		TP08	TP05	CP04	TP01	SS1	TP03	TP02	RH02	DCS03
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Bottom Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Date Sampled:		18-Jul-2023	18-Jul-2023	21-Jul-2023	18-Jul-2023	25-Jul-2023	18-Jul-2023	18-Jul-2023	18-Jul-2023	19-Jul-2023
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
N-Nitrosodimethylamine	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2-Chlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Bis-(2-Chloroethyl)Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
1,3-Dichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
1,2-Dichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Bis(2-Chloroisopropyl)Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Hexachloroethane	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
N-Nitrosodi-n-propylamine	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
4-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Nitrobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Isophorone	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2,4-Dimethylphenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Bis(2-Chloroethoxy)Methane	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2,4-Dichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
1,2,4-Trichlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
4-Chloroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Hexachlorobutadiene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
4-Chloro-3-Methylphenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2-Methylnaphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
4-Nitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2,4,6-Trichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2,4,5-Trichlorophenol	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2-Chloronaphthalene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2-Nitroaniline	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Dimethylphthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2,6-Dinitrotoluene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
3-Nitroaniline	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Dibenzofuran	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
4-Chlorophenylphenylether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
2,4-Dinitrotoluene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Diethyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
4-Nitroaniline	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484	23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680533	1680534	1680535	1680536	1680537	1680538	1680539	1680540	1680541
			Sample Location:		TP08	TP05	CP04	TP01	SS1	TP03	TP02	RH02	DCS03
			Sample Type:		SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL	SOIL
			Top Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Bottom Depth (m):		0.30	2.40	0.80	0.20	0.20	1.00	0.40	2.00	1.00
			Date Sampled:		18-Jul-2023	18-Jul-2023	21-Jul-2023	18-Jul-2023	25-Jul-2023	18-Jul-2023	18-Jul-2023	18-Jul-2023	19-Jul-2023
			Asbestos Lab:		COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY	COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**									
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Azobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
4-Bromophenylphenyl Ether	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Hexachlorobenzene	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Pentachlorophenol	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Carbazole	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Di-N-Butyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Butylbenzyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						
Di-N-Octyl Phthalate	M	2790	mg/kg	0.50	< 0.50	< 0.50	< 0.50						

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680542
			Sample Location:		CP03
			Sample Type:		SOIL
			Top Depth (m):		0.8
			Bottom Depth (m):		0.8
			Date Sampled:		24-Jul-2023
			Asbestos Lab:		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Organic Matter	M	2625	%	0.40	7.1
Arsenic	M	2455	mg/kg	0.5	43
Cadmium	M	2455	mg/kg	0.10	0.14
Chromium	M	2455	mg/kg	0.5	61
Chromium (Hexavalent)	N	2490	mg/kg	0.50	< 0.50
Chromium (Trivalent)	N	2490	mg/kg	1.0	61
Copper	M	2455	mg/kg	0.50	40
Lead	M	2455	mg/kg	0.50	32
Magnesium (Water Soluble)	N	2120	g/l	0.010	0.020
Mercury	M	2455	mg/kg	0.05	< 0.05
Nickel	M	2455	mg/kg	0.50	37
Selenium	M	2455	mg/kg	0.25	2.0
Vanadium	U	2455	mg/kg	0.5	98
Zinc	M	2455	mg/kg	0.50	110
Naphthalene	M	2790	mg/kg	0.50	
Naphthalene	M	2800	mg/kg	0.10	2.7
Acenaphthylene	M	2790	mg/kg	0.50	
Acenaphthylene	N	2800	mg/kg	0.10	< 0.10
Acenaphthene	M	2790	mg/kg	0.50	
Acenaphthene	M	2800	mg/kg	0.10	0.74
Fluorene	M	2790	mg/kg	0.50	
Fluorene	M	2800	mg/kg	0.10	0.58
Phenanthrene	M	2790	mg/kg	0.50	
Phenanthrene	M	2800	mg/kg	0.10	2.5
Anthracene	M	2790	mg/kg	0.50	
Anthracene	M	2800	mg/kg	0.10	0.48
Fluoranthene	M	2790	mg/kg	0.50	
Fluoranthene	M	2800	mg/kg	0.10	1.8
Pyrene	M	2790	mg/kg	0.50	
Pyrene	M	2800	mg/kg	0.10	1.2
Benzo[a]anthracene	M	2790	mg/kg	0.50	
Benzo[a]anthracene	M	2800	mg/kg	0.10	0.37
Chrysene	M	2790	mg/kg	0.50	
Chrysene	M	2800	mg/kg	0.10	0.33
Benzo[b]fluoranthene	M	2790	mg/kg	0.50	
Benzo[b]fluoranthene	M	2800	mg/kg	0.10	0.34
Benzo[k]fluoranthene	M	2790	mg/kg	0.50	

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680542
			Sample Location:		CP03
			Sample Type:		SOIL
			Top Depth (m):		0.8
			Bottom Depth (m):		0.8
			Date Sampled:		24-Jul-2023
			Asbestos Lab:		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Benzo[k]fluoranthene	M	2800	mg/kg	0.10	< 0.10
Benzo[a]pyrene	M	2790	mg/kg	0.50	
Benzo[a]pyrene	M	2800	mg/kg	0.10	< 0.10
Dibenz(a,h)Anthracene	M	2790	mg/kg	0.50	
Dibenz(a,h)Anthracene	N	2800	mg/kg	0.10	< 0.10
Indeno(1,2,3-c,d)Pyrene	M	2790	mg/kg	0.50	
Indeno(1,2,3-c,d)Pyrene	M	2800	mg/kg	0.10	< 0.10
Benzo[g,h,i]perylene	M	2790	mg/kg	0.50	
Benzo[g,h,i]perylene	M	2800	mg/kg	0.10	< 0.10
Total Of 16 PAH's	N	2800	mg/kg	2.0	11
Phenol	M	2790	mg/kg	0.50	
Phenol	M	2920	mg/kg	0.020	< 0.020
Resorcinol	M	2920	mg/kg	0.020	< 0.020
Cresols	M	2920	mg/kg	0.020	< 0.020
1-Naphthol	N	2920	mg/kg	0.020	< 0.020
Trimethylphenols	M	2920	mg/kg	0.020	< 0.020
Total Phenols	M	2920	mg/kg	0.10	< 0.10
Benzene	M	2760	µg/kg	1.0	< 1.0
Toluene	M	2760	µg/kg	1.0	3.2
Ethylbenzene	M	2760	µg/kg	1.0	< 1.0
m & p-Xylene	M	2760	µg/kg	1.0	< 1.0
o-Xylene	M	2760	µg/kg	1.0	< 1.0
Sulphate (2:1 Water Soluble) as SO4	M	2120	g/l	0.010	0.086
ACM Type	U	2192		N/A	-
Asbestos Identification	U	2192		N/A	No Asbestos Detected
Moisture	N	2030	%	0.020	22
Soil Colour	N	2040		N/A	Brown
Other Material	N	2040		N/A	Stones
Soil Texture	N	2040		N/A	Sand
pH	M	2010		4.0	8.0
Boron	N	2455	mg/kg	50.00	< 50
Beryllium	U	2455	mg/kg	0.5	2.2
Aliphatic VPH >C5-C6	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C6-C7	U	2780	mg/kg	0.05	< 0.05
Aliphatic VPH >C7-C8	U	2780	mg/kg	0.05	< 0.05

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680542
			Sample Location:		CP03
			Sample Type:		SOIL
			Top Depth (m):		0.8
			Bottom Depth (m):		0.8
			Date Sampled:		24-Jul-2023
			Asbestos Lab:		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Aliphatic VPH >C6-C8 (Sum)	N	2780	mg/kg	0.10	
Aliphatic VPH >C8-C10	U	2780	mg/kg	0.05	< 0.05
Total Aliphatic VPH >C5-C10	U	2780	mg/kg	0.25	< 0.25
Aliphatic EPH >C10-C12	M	2690	mg/kg	2.00	< 2.0
Aliphatic EPH >C12-C16	M	2690	mg/kg	1.00	< 1.0
Aliphatic EPH >C16-C21	M	2690	mg/kg	2.00	6.7
Aliphatic EPH >C21-C35	M	2690	mg/kg	3.00	36
Aliphatic EPH >C35-C40	N	2690	mg/kg	10.00	< 10
Total Aliphatic EPH >C10-C35	M	2690	mg/kg	5.00	44
Total Aliphatic EPH >C10-C40	N	2690	mg/kg	10.00	44
Aromatic VPH >C5-C7	U	2780	mg/kg	0.05	< 0.05
Aromatic VPH >C7-C8	U	2780	mg/kg	0.05	< 0.05
Aromatic VPH >C8-C10	U	2780	mg/kg	0.05	< 0.05
Total Aromatic VPH >C5-C10	U	2780	mg/kg	0.25	< 0.25
Aromatic EPH >C10-C12	U	2690	mg/kg	1.00	< 1.0
Aromatic EPH >C12-C16	U	2690	mg/kg	1.00	< 1.0
Aromatic EPH >C16-C21	U	2690	mg/kg	2.00	6.6
Aromatic EPH >C21-C35	U	2690	mg/kg	2.00	< 2.0
Aromatic EPH >C35-C40	N	2690	mg/kg	1.00	1.2
Total Aromatic EPH >C10-C35	U	2690	mg/kg	5.00	7.7
Total Aromatic EPH >C10-C40	N	2690	mg/kg	10.00	< 10
Total VPH >C5-C10	U	2780	mg/kg	0.50	< 0.50
Total EPH >C10-C35	U	2690	mg/kg	10.00	51
Total EPH >C10-C40	N	2690	mg/kg	10.00	53
Dichlorodifluoromethane	U	2760	µg/kg	1.0	
Chloromethane	M	2760	µg/kg	1.0	
Vinyl Chloride	M	2760	µg/kg	1.0	
Bromomethane	M	2760	µg/kg	20	
Chloroethane	U	2760	µg/kg	2.0	
Trichlorofluoromethane	M	2760	µg/kg	1.0	
1,1-Dichloroethene	M	2760	µg/kg	1.0	
Trans 1,2-Dichloroethene	M	2760	µg/kg	1.0	
1,1-Dichloroethane	M	2760	µg/kg	1.0	
cis 1,2-Dichloroethene	M	2760	µg/kg	1.0	
Bromochloromethane	U	2760	µg/kg	5.0	
Trichloromethane	M	2760	µg/kg	1.0	
1,1,1-Trichloroethane	M	2760	µg/kg	1.0	

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680542
			Sample Location:		CP03
			Sample Type:		SOIL
			Top Depth (m):		0.8
			Bottom Depth (m):		0.8
			Date Sampled:		24-Jul-2023
			Asbestos Lab:		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Tetrachloromethane	M	2760	µg/kg	1.0	
1,1-Dichloropropene	U	2760	µg/kg	1.0	
1,2-Dichloroethane	M	2760	µg/kg	2.0	
Trichloroethene	N	2760	µg/kg	1.0	
1,2-Dichloropropane	M	2760	µg/kg	1.0	
Dibromomethane	M	2760	µg/kg	1.0	
Bromodichloromethane	M	2760	µg/kg	5.0	
cis-1,3-Dichloropropene	N	2760	µg/kg	10	
Trans-1,3-Dichloropropene	N	2760	µg/kg	10	
1,1,2-Trichloroethane	M	2760	µg/kg	10	
Tetrachloroethene	M	2760	µg/kg	1.0	
1,3-Dichloropropane	U	2760	µg/kg	2.0	
Dibromochloromethane	U	2760	µg/kg	10	
1,2-Dibromoethane	M	2760	µg/kg	5.0	
Chlorobenzene	M	2760	µg/kg	1.0	
1,1,1,2-Tetrachloroethane	M	2760	µg/kg	2.0	
Styrene	M	2760	µg/kg	1.0	
Tribromomethane	U	2760	µg/kg	1.0	
Isopropylbenzene	M	2760	µg/kg	1.0	
Bromobenzene	M	2760	µg/kg	1.0	
1,2,3-Trichloropropane	N	2760	µg/kg	50	
N-Propylbenzene	U	2760	µg/kg	1.0	
2-Chlorotoluene	M	2760	µg/kg	1.0	
1,3,5-Trimethylbenzene	M	2760	µg/kg	1.0	
4-Chlorotoluene	U	2760	µg/kg	1.0	
Tert-Butylbenzene	U	2760	µg/kg	1.0	
1,2,4-Trimethylbenzene	M	2760	µg/kg	1.0	
Sec-Butylbenzene	U	2760	µg/kg	1.0	
1,3-Dichlorobenzene	M	2760	µg/kg	1.0	
4-Isopropyltoluene	U	2760	µg/kg	1.0	
1,4-Dichlorobenzene	M	2760	µg/kg	1.0	
N-Butylbenzene	U	2760	µg/kg	1.0	
1,2-Dichlorobenzene	M	2760	µg/kg	1.0	
1,2-Dibromo-3-Chloropropane	U	2760	µg/kg	50	
1,2,4-Trichlorobenzene	M	2760	µg/kg	1.0	
Hexachlorobutadiene	N	2760	µg/kg	1.0	
1,2,3-Trichlorobenzene	U	2760	µg/kg	2.0	

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680542
			Sample Location:		CP03
			Sample Type:		SOIL
			Top Depth (m):		0.8
			Bottom Depth (m):		0.8
			Date Sampled:		24-Jul-2023
			Asbestos Lab:		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
Methyl Tert-Butyl Ether	M	2760	µg/kg	1.0	< 1.0
N-Nitrosodimethylamine	M	2790	mg/kg	0.50	
2-Chlorophenol	M	2790	mg/kg	0.50	
Bis-(2-Chloroethyl)Ether	M	2790	mg/kg	0.50	
1,3-Dichlorobenzene	M	2790	mg/kg	0.50	
1,4-Dichlorobenzene	N	2790	mg/kg	0.50	
1,2-Dichlorobenzene	M	2790	mg/kg	0.50	
2-Methylphenol	M	2790	mg/kg	0.50	
Bis(2-Chloroisopropyl)Ether	M	2790	mg/kg	0.50	
Hexachloroethane	N	2790	mg/kg	0.50	
N-Nitrosodi-n-propylamine	M	2790	mg/kg	0.50	
4-Methylphenol	M	2790	mg/kg	0.50	
Nitrobenzene	M	2790	mg/kg	0.50	
Isophorone	M	2790	mg/kg	0.50	
2-Nitrophenol	N	2790	mg/kg	0.50	
2,4-Dimethylphenol	N	2790	mg/kg	0.50	
Bis(2-Chloroethoxy)Methane	M	2790	mg/kg	0.50	
2,4-Dichlorophenol	M	2790	mg/kg	0.50	
1,2,4-Trichlorobenzene	M	2790	mg/kg	0.50	
4-Chloroaniline	N	2790	mg/kg	0.50	
Hexachlorobutadiene	M	2790	mg/kg	0.50	
4-Chloro-3-Methylphenol	M	2790	mg/kg	0.50	
2-Methylnaphthalene	M	2790	mg/kg	0.50	
4-Nitrophenol	N	2790	mg/kg	0.50	
Hexachlorocyclopentadiene	N	2790	mg/kg	0.50	
2,4,6-Trichlorophenol	M	2790	mg/kg	0.50	
2,4,5-Trichlorophenol	M	2790	mg/kg	0.50	
2-Chloronaphthalene	M	2790	mg/kg	0.50	
2-Nitroaniline	M	2790	mg/kg	0.50	
Dimethylphthalate	M	2790	mg/kg	0.50	
2,6-Dinitrotoluene	M	2790	mg/kg	0.50	
3-Nitroaniline	N	2790	mg/kg	0.50	
Dibenzofuran	M	2790	mg/kg	0.50	
4-Chlorophenylphenylether	M	2790	mg/kg	0.50	
2,4-Dinitrotoluene	M	2790	mg/kg	0.50	
Diethyl Phthalate	M	2790	mg/kg	0.50	
4-Nitroaniline	M	2790	mg/kg	0.50	

Results - Soil

Project: AG3488-23 Neilson's Sidings off Roundhouse Way

Client: Applied Geology			**Chemtest Job No.:**		23-25484
Quotation No.:			**Chemtest Sample ID.:**		1680542
			Sample Location:		CP03
			Sample Type:		SOIL
			Top Depth (m):		0.8
			Bottom Depth (m):		0.8
			Date Sampled:		24-Jul-2023
			Asbestos Lab:		COVENTRY
Determinand	**Accred.**	**SOP**	**Units**	**LOD**	
2-Methyl-4,6-Dinitrophenol	N	2790	mg/kg	0.50	
Azobenzene	M	2790	mg/kg	0.50	
4-Bromophenylphenyl Ether	M	2790	mg/kg	0.50	
Hexachlorobenzene	M	2790	mg/kg	0.50	
Pentachlorophenol	N	2790	mg/kg	0.50	
Carbazole	M	2790	mg/kg	0.50	
Di-N-Butyl Phthalate	M	2790	mg/kg	0.50	
Butylbenzyl Phthalate	M	2790	mg/kg	0.50	
Bis(2-Ethylhexyl)Phthalate	N	2790	mg/kg	0.50	
Di-N-Octyl Phthalate	M	2790	mg/kg	0.50	

Test Methods

SOP	Title	Parameters included	Method summary
1010	pH Value of Waters	pH	pH Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	Filtration of samples followed by direct determination by inductively coupled plasma mass spectrometry (ICP-MS).
1490	Hexavalent Chromium in Waters	Chromium [VI]	Automated colorimetric analysis by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
1800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Waters by GC-MS	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Pentane extraction / GCMS detection
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	pH	pH Meter
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2192	Asbestos	Asbestos	Polarised light microscopy / Gravimetry
2455	Acid Soluble Metals in Soils	Metals, including: Arsenic; Barium; Beryllium; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Vanadium; Zinc	Acid digestion followed by determination of metals in extract by ICP-MS.
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2690	EPH A/A Split	Aliphatics: >C10–C12, >C12–C16, >C16–C21, >C21– C35, >C35– C40 Aromatics: >C10–C12, >C12–C16, >C16– C21, >C21– C35, >C35–C40	Acetone/Heptane extraction / GCxGC FID detection
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2780	VPH A/A Split	Aliphatics: >C5–C6, >C6–C7,>C7–C8,>C8-C10 Aromatics: >C5–C7,>C7-C8,>C8–C10	Water extraction / Headspace GCxGC FID detection
2790	Semi-Volatile Organic Compounds (SVOCs) in Soils by GC-MS	Semi-volatile organic compounds(cf. USEPA Method 8270)	Acetone/Hexane extraction / GC-MS

Test Methods

SOP	Title	Parameters included	Method summary
2800	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-MS	Acenaphthene*; Acenaphthylene; Anthracene*; Benzo[a]Anthracene*; Benzo[a]Pyrene*; Benzo[b]Fluoranthene*; Benzo[ghi]Perylene*; Benzo[k]Fluoranthene; Chrysene*; Dibenz[ah]Anthracene; Fluoranthene*; Fluorene*; Indeno[123cd]Pyrene*; Naphthalene*; Phenanthrene*; Pyrene*	Dichloromethane extraction / GC-MS
2920	Phenols in Soils by HPLC	Phenolic compounds including Resorcinol, Phenol, Methylphenols, Dimethylphenols, 1-Naphthol and TrimethylphenolsNote: chlorophenols are excluded.	60:40 methanol/water mixture extraction, followed by HPLC determination using electrochemical detection.
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key

U	UKAS accredited
M	MCERTS and UKAS accredited
N	Unaccredited
S	This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for this analysis
SN	This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited for this analysis
T	This analysis has been subcontracted to an unaccredited laboratory
I/S	Insufficient Sample
U/S	Unsuitable Sample
N/E	not evaluated
<	"less than"
>	"greater than"
SOP	Standard operating procedure
LOD	Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation
The results relate only to the items tested
Uncertainty of measurement for the determinands tested are available upon request
None of the results in this report have been recovery corrected
All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis
All Asbestos testing is performed at the indicated laboratory
Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

A - Date of sampling not supplied
B - Sample age exceeds stability time (sampling to extraction)
C - Sample not received in appropriate containers
D - Broken Container
E - Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt
All water samples will be retained for 14 days from the date of receipt
Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to:
customerservices@chemtest.com

Test Amendment Notice

Date:	6420 → 7
PSL Contract Reference:	22/8/23
PSL Technician/Test Area:	BH - ROCK
Contract Title:	
Engineer/Client Details:	MELISSA SOUTHWORTH
Sample Details:	RH03 @ 10.60 - 10.80 @ 18.85 - 19.00 RH02 @ 14.20-14.38 @ 20.30 - 20.45 RH01 @ 19.80 - 20.00
Testing required:	UCS

Details of Unsuitability

The above sample cannot be performed due to the following reasons:

1 The Sample has not been received

2 There is insufficient material for the required testing:

Sample Mass received (g) .....

Sample Mass required (g) .....

3 The sample has been previsouly tested

4 The sample has been misplaced in the laboratory

5 The sample is unsuitable for testing because ....there is insufficient dimensions available for UCS testing.....

.....

Please advise action required:

1 Perform the testing on the following sampl .....

2 Combine samples has follows for testing: .....

3 Perform the following alternative testing: .....

4 Perform a non standard test:

5 Take no further action

6 Undertake the following instructions: .....

.....

.....

Signed ..... Date .....

(Project Engineer)

PSL
PROFESSIONAL SOILS LABORATORY

LABORATORY REPORT

Contract Number: PSL23/6420

Report Date: 23 August 2023

Client's Reference: 19580

Client Name: Applied Geology Limited
The Old Barn
Church Farm
Fulbrook Lane
Sherbourne
Warwick

For the attention of: Melissa Southworth

Contract Title: Neilson's Sidings, off Roundhouse Way, Wellingborough

Date Received: 2/8/2023
Date Commenced: 2/8/2023
Date Completed: 23/8/2023

Notes: Opinions and Interpretations are outside the UKAS Accreditation

A copy of the Laboratory Schedule of accredited tests as issued by UKAS is attached to this report. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced other than in full, without the prior written approval of the laboratory.

Checked and Approved Signatories:

L Knight
(Assistant Laboratory Manager)

R Berriman
(Associate Director)

S Royle
(Laboratory Manager)

A Watkins
(Managing Director)

S Eyre
(Senior Technical Coordinator)

A Fry
(Section Manager)

5 – 7 Hexthorpe Road,
Hexthorpe,
Doncaster,
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Email: rberriman@prosoils.co.uk
awatkins@prosoils.co.uk

SUMMARY OF LABORATORY SOIL DESCRIPTIONS

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Description of Sample
CP01		UT	8.60	9.05	Stiff grey CLAY.
CP03		UT	5.20	5.65	Firm brown mottled grey slightly sandy CLAY.
CP03		UT	8.00	8.45	Stiff grey slightly sandy CLAY.
CP04		UT	7.50	7.95	Firm brown mottled grey slightly gravelly slightly sandy CLAY.
CP04		UT	9.70	10.15	Firm brown mottled grey slightly gravelly slightly sandy CLAY.
TP01		B	0.30		MADE GROUND dark brown very sandy slightly silty gravel.
TP03		B	0.60		MADE GROUND brown very gravelly slightly silty sand.
TP06		B	1.50		MADE GROUND brown very sandy slightly silty gravel.
CP02		B	6.50	7.80	Brown sandy silty GRAVEL.
CP04		B	7.95	8.50	Brown mottled grey slightly gravelly sandy CLAY.
CP01		B	6.50	6.95	Brown very gravelly silty very clayey SAND.
CP03		D	4.10		Brown slightly gravelly sandy CLAY.
RH01		D	5.80		Brown mottled grey CLAY with some organic material.
CP03		D	6.00		Brown mottled grey slightly sandy CLAY.
CP01		D	7.10		Brown mottled grey slightly sandy CLAY.
CP02		D	8.00		Brown mottled grey slightly sandy CLAY.
RH02		D	9.00		Brown mottled grey slightly sandy CLAY.

SUMMARY OF SOIL CLASSIFICATION TESTS

(BS1377 : PART 2 : 1990)

Hole Number	Sample Number	Sample Type	Top Depth m	Base Depth m	Moisture Content % Clause 3.2	Linear Shrinkage % Clause 6.5	Particle Density Mg/m^3 Clause 8.2	Liquid Limit % Clause 4.3/4	Plastic Limit % Clause 5.3	Plasticity Index % Clause 5.4	Passing .425mm %	Remarks
CP03		UT	5.20	5.65	29			65	27	38	100	High Plasticity CH
CP03		UT	8.00	8.45	24			61	26	35	100	High Plasticity CH
CP04		UT	7.50	7.95	25			55	24	31	96	High Plasticity CH
CP04		UT	9.70	10.15	28			57	26	31	98	High Plasticity CH
CP03		D	4.10		20			41	19	22	98	Intermediate Plasticity CI
RH01		D	5.80		50			97	37	60	100	Extremely High Plasticity CE
CP03		D	6.00		32			63	26	37	100	High Plasticity CH
CP01		D	7.10		21			58	25	33	100	High Plasticity CH
CP02		D	8.00		18			54	24	30	100	High Plasticity CH
RH02		D	9.00		27			51	22	29	100	High Plasticity CH

SYMBOLS : **NP : Non Plastic** *** : Liquid Limit and Plastic Limit Wet Sieved.**

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

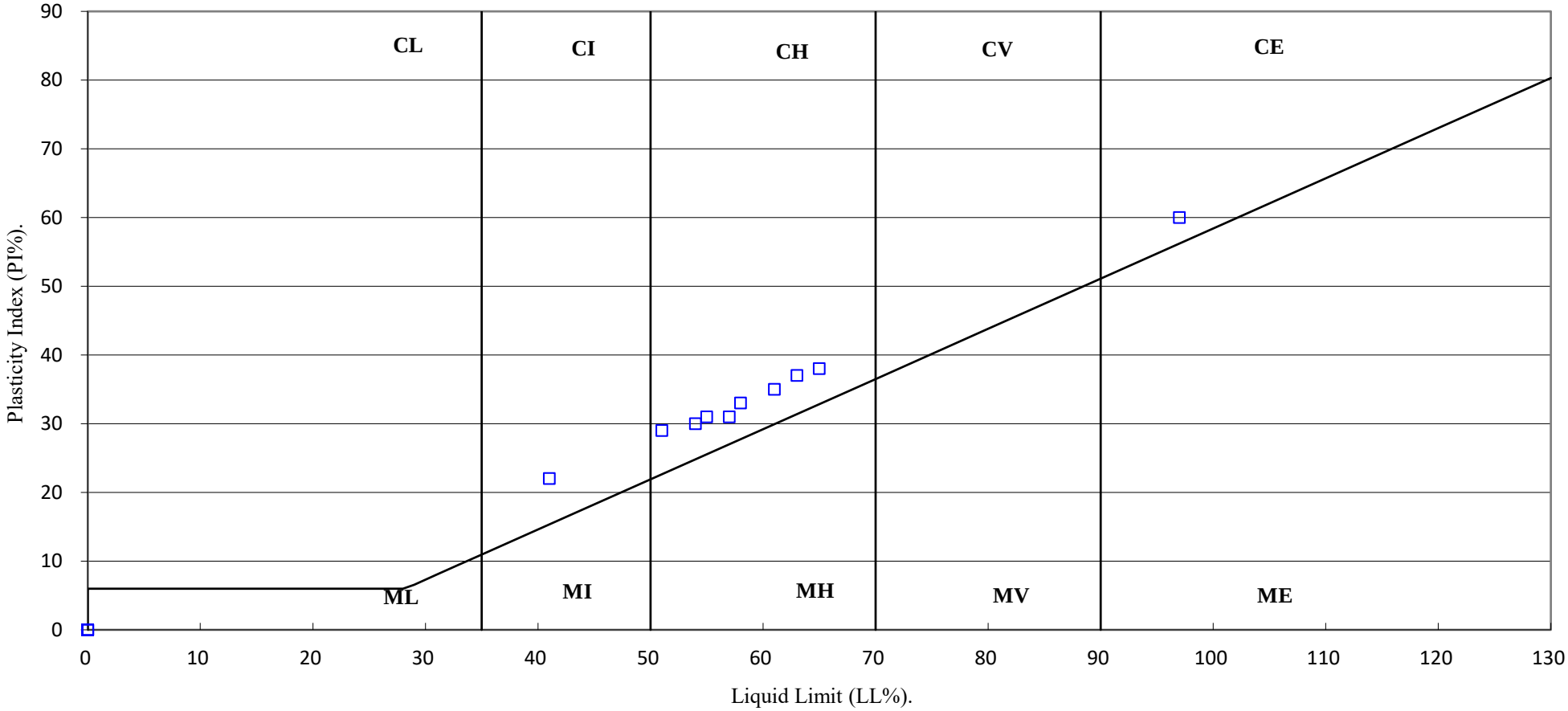
Contract No:

PSL23/6420

Client Ref:

19580

PLASTICITY CHART FOR CASAGRANDE CLASSIFICATION.



UKAS TESTING 4043 / PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY	**Neilson's Sidings, off Roundhouse Way, Wellingborough**	**Contract No:**
		PSL23/6420
		Client Ref:
		19580

PARTICLE SIZE DISTRIBUTION TEST

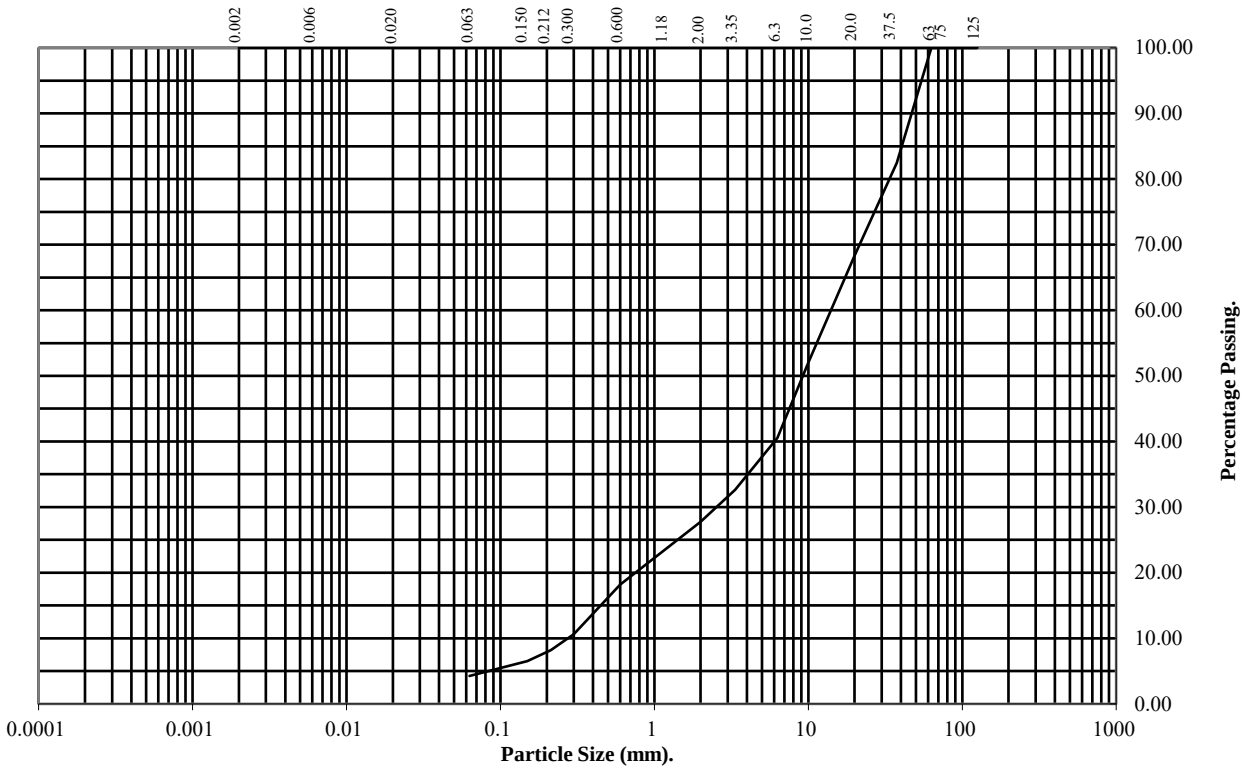
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP01 **Top Depth (m):** 0.30

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	82
20	68
10	52
6.3	41
3.35	33
2	28
1.18	24
0.6	18
0.3	11
0.212	8
0.15	7
0.063	4

Soil Fraction	Total Percentage
Cobbles	0
Gravel	72
Sand	24
Silt/Clay	4

Remarks:
See Summary of Soil Descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: PSL23/6420

Client Ref: 19580

PARTICLE SIZE DISTRIBUTION TEST

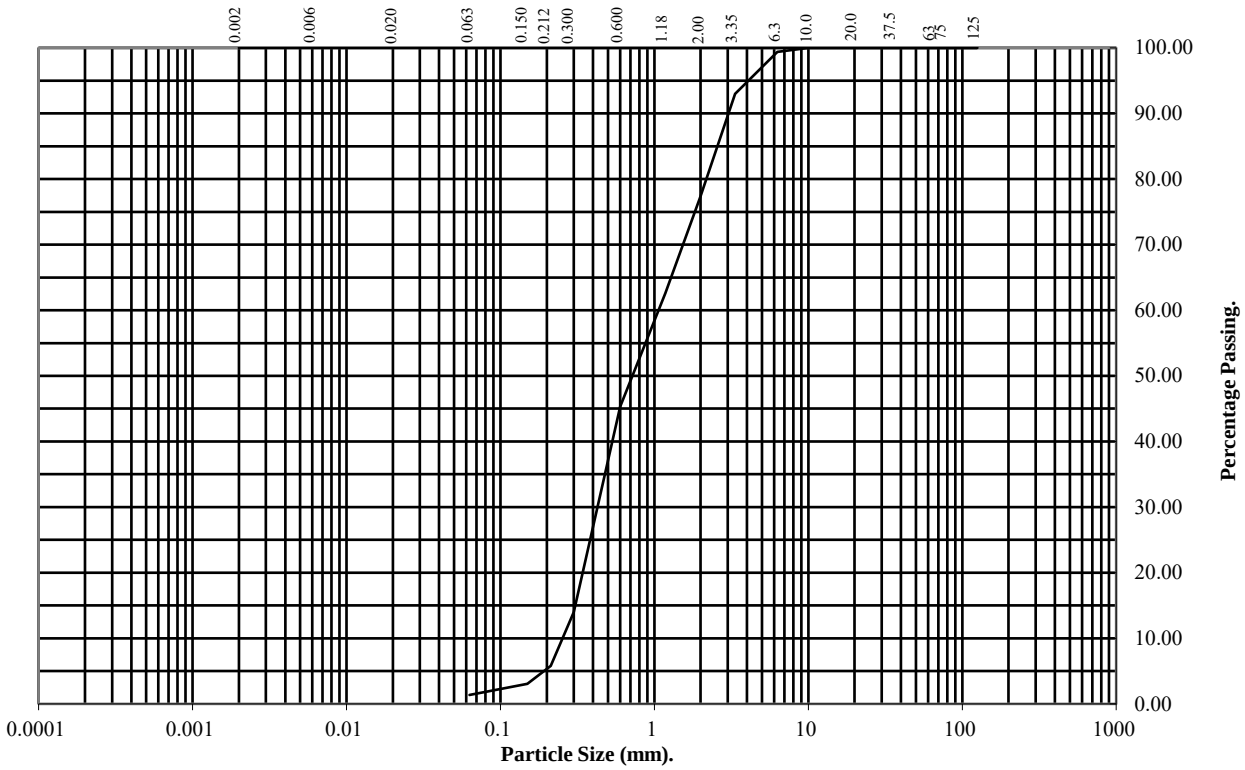
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP03 **Top Depth (m):** 0.60

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	99
3.35	93
2	77
1.18	63
0.6	45
0.3	14
0.212	6
0.15	3
0.063	1

Soil Fraction	Total Percentage
Cobbles	0
Gravel	23
Sand	76
Silt/Clay	1

Remarks:
See Summary of Soil Descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: PSL23/6420

Client Ref: 19580

PARTICLE SIZE DISTRIBUTION TEST

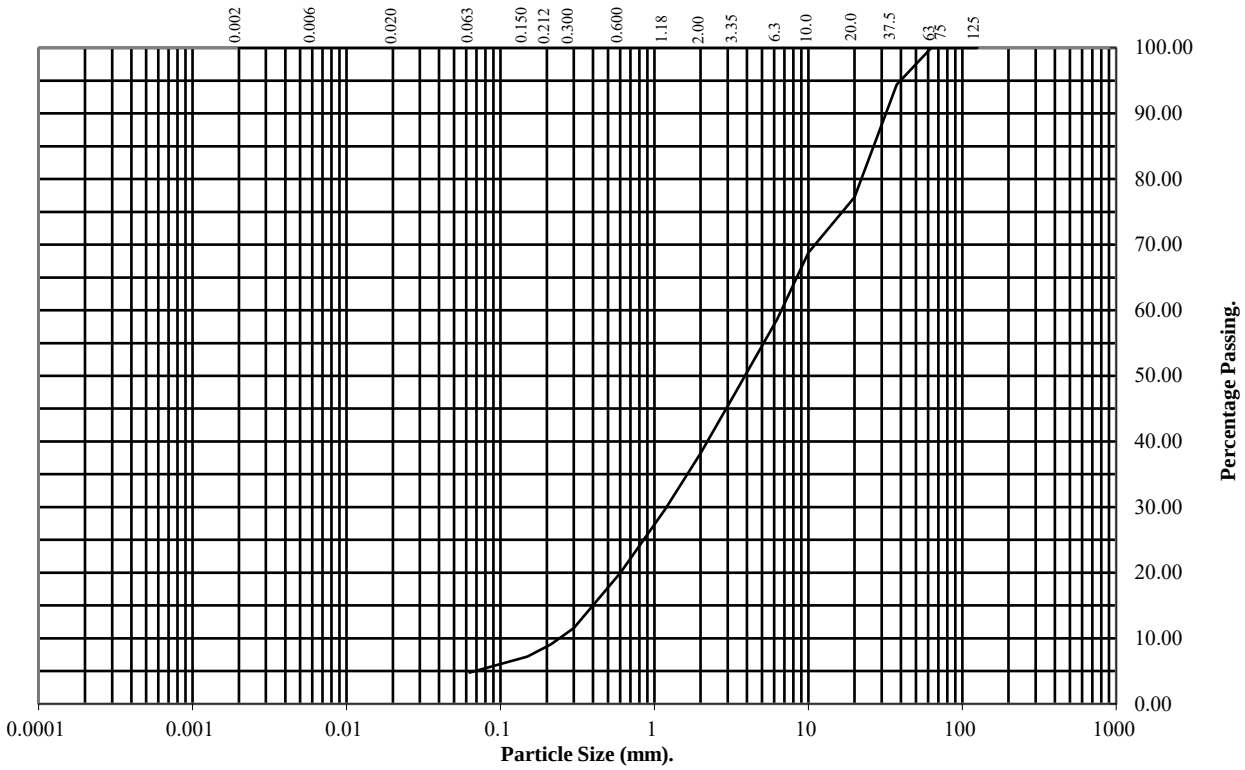
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: TP06 **Top Depth (m):** 1.50

Sample Number: **Base Depth(m):**

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	94
20	77
10	69
6.3	59
3.35	47
2	38
1.18	30
0.6	20
0.3	12
0.212	9
0.15	7
0.063	5

Soil Fraction	Total Percentage
Cobbles	0
Gravel	62
Sand	33
Silt/Clay	5

Remarks:

See Summary of Soil Descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: PSL23/6420

Client Ref: 19580

PARTICLE SIZE DISTRIBUTION TEST

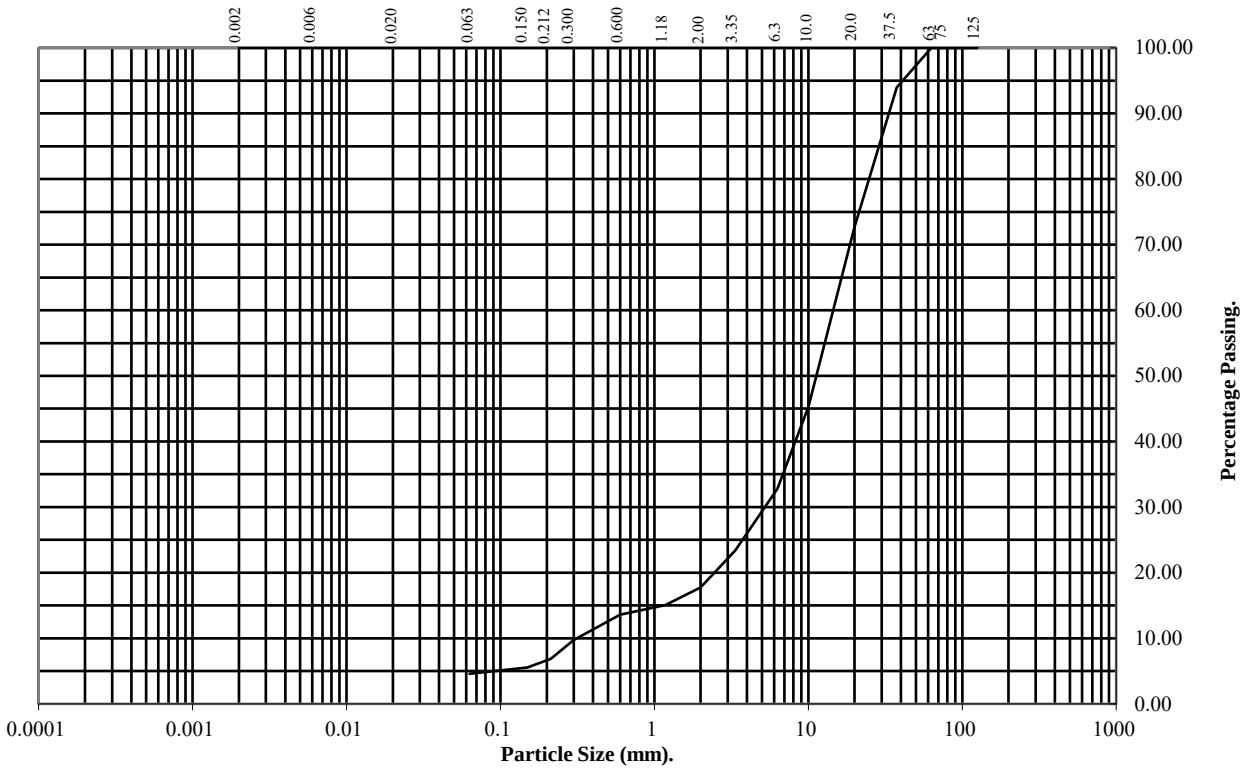
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: CP02 **Top Depth (m):** 6.50

Sample Number: **Base Depth(m):** 7.80

Sample Type: B



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	94
20	73
10	45
6.3	33
3.35	23
2	18
1.18	15
0.6	14
0.3	10
0.212	7
0.15	6
0.063	5

Soil Fraction	Total Percentage
Cobbles	0
Gravel	82
Sand	13
Silt/Clay	5

Remarks:

See Summary of Soil Descriptions

UKAS TESTING 4043

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Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: PSL23/6420

Client Ref: 19580

PARTICLE SIZE DISTRIBUTION TEST

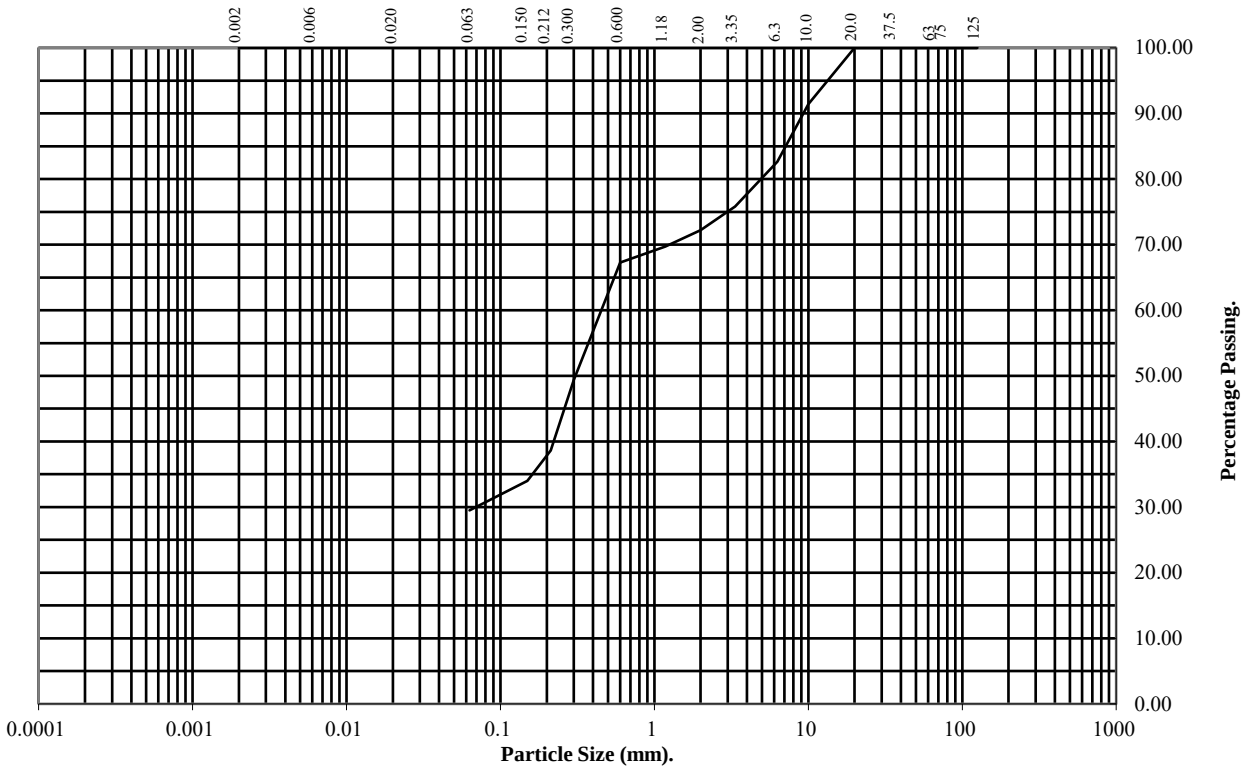
BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number: **CP01** **Top Depth (m):** **6.50**

Sample Number: **Base Depth(m):** **6.95**

Sample Type: **B**



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	91
6.3	83
3.35	76
2	72
1.18	70
0.6	67
0.3	49
0.212	39
0.15	34
0.063	30

Soil Fraction	Total Percentage
Cobbles	0
Gravel	28
Sand	42
Silt/Clay	30

Remarks:

See Summary of Soil Descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: **PSL23/6420**

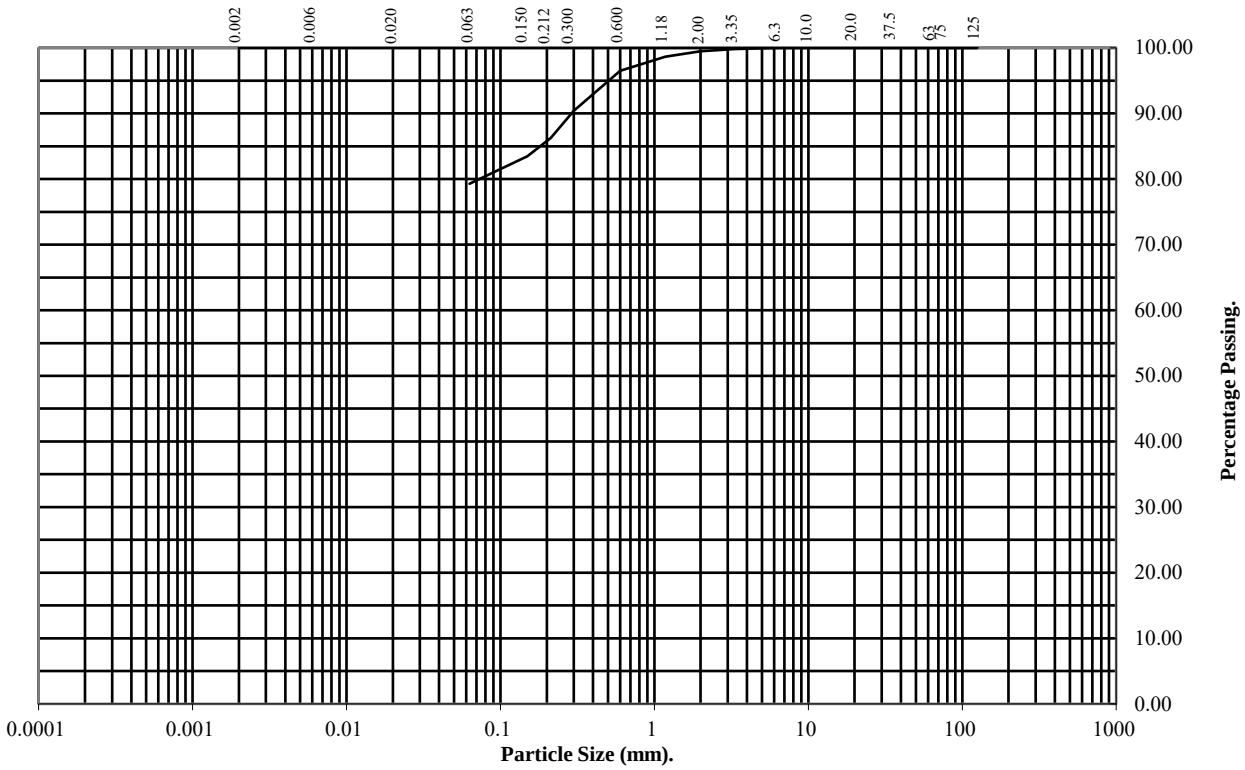
Client Ref: **19580**

PARTICLE SIZE DISTRIBUTION TEST

BS1377 : Part 2 : 1990

Wet Sieve, Clause 9.2

Hole Number:	**CP04**	**Top Depth (m):**	**7.95**
Sample Number:		**Base Depth(m):**	**8.50**
Sample Type:	**B**		



BS Test Sieve (mm)	Percentage Passing
125	100
75	100
63	100
37.5	100
20	100
10	100
6.3	100
3.35	100
2	99
1.18	99
0.6	97
0.3	90
0.212	86
0.15	84
0.063	79

Soil Fraction	Total Percentage
Cobbles	0
Gravel	1
Sand	20
Silt/Clay	79

Remarks:
See Summary of Soil Descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No:
PSL23/6420
Client Ref:
19580

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

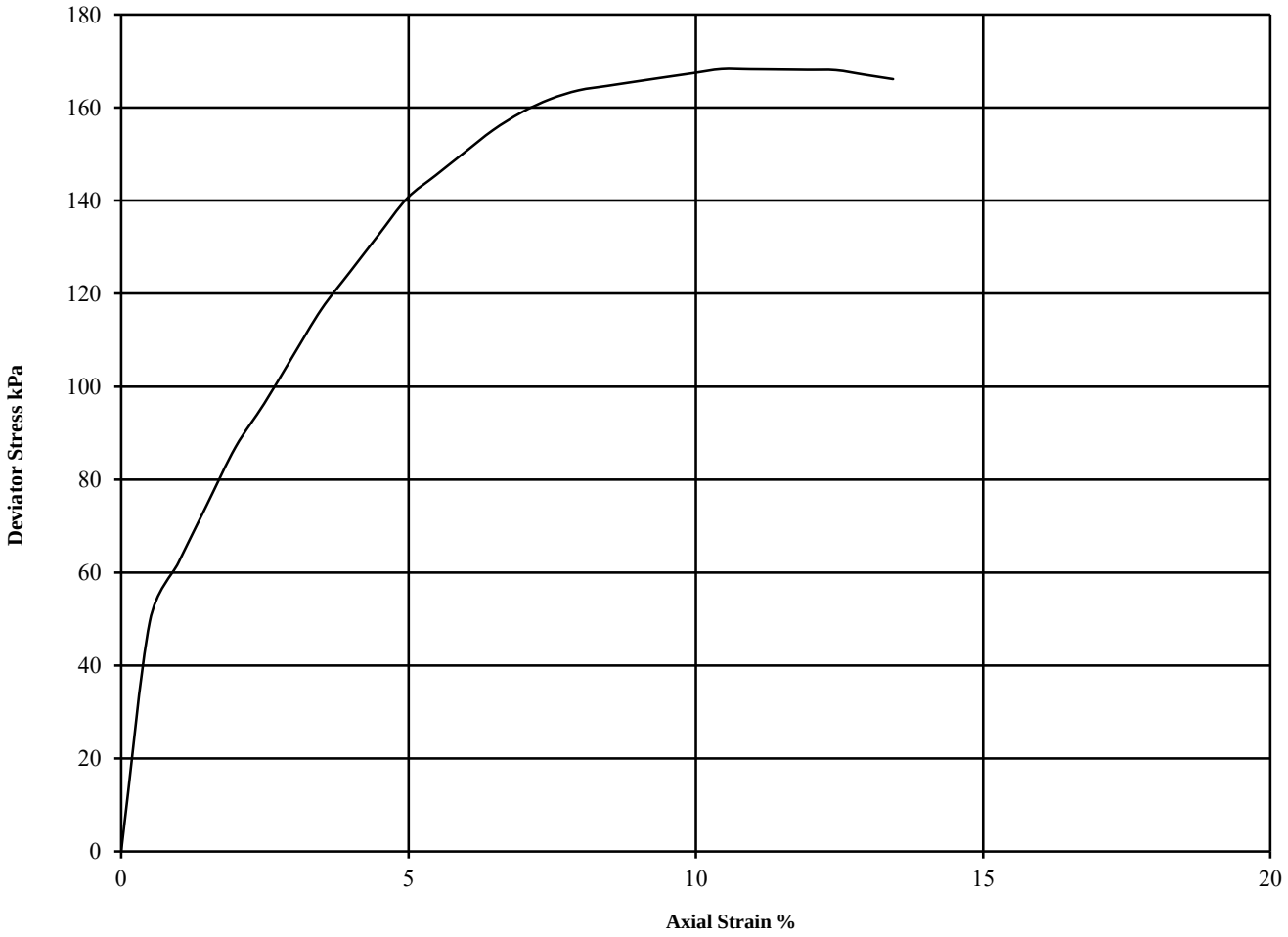
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP01 **Top Depth (m):** 8.60

Sample Number: **Base Depth (m):** 9.05

Sample Type UT



Diameter (mm):		103	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.35
1	24	1.97	1.60	180	168	84	10.4	Plastic	See summary of soil descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: PSL23/6420

Client Ref: 19580

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

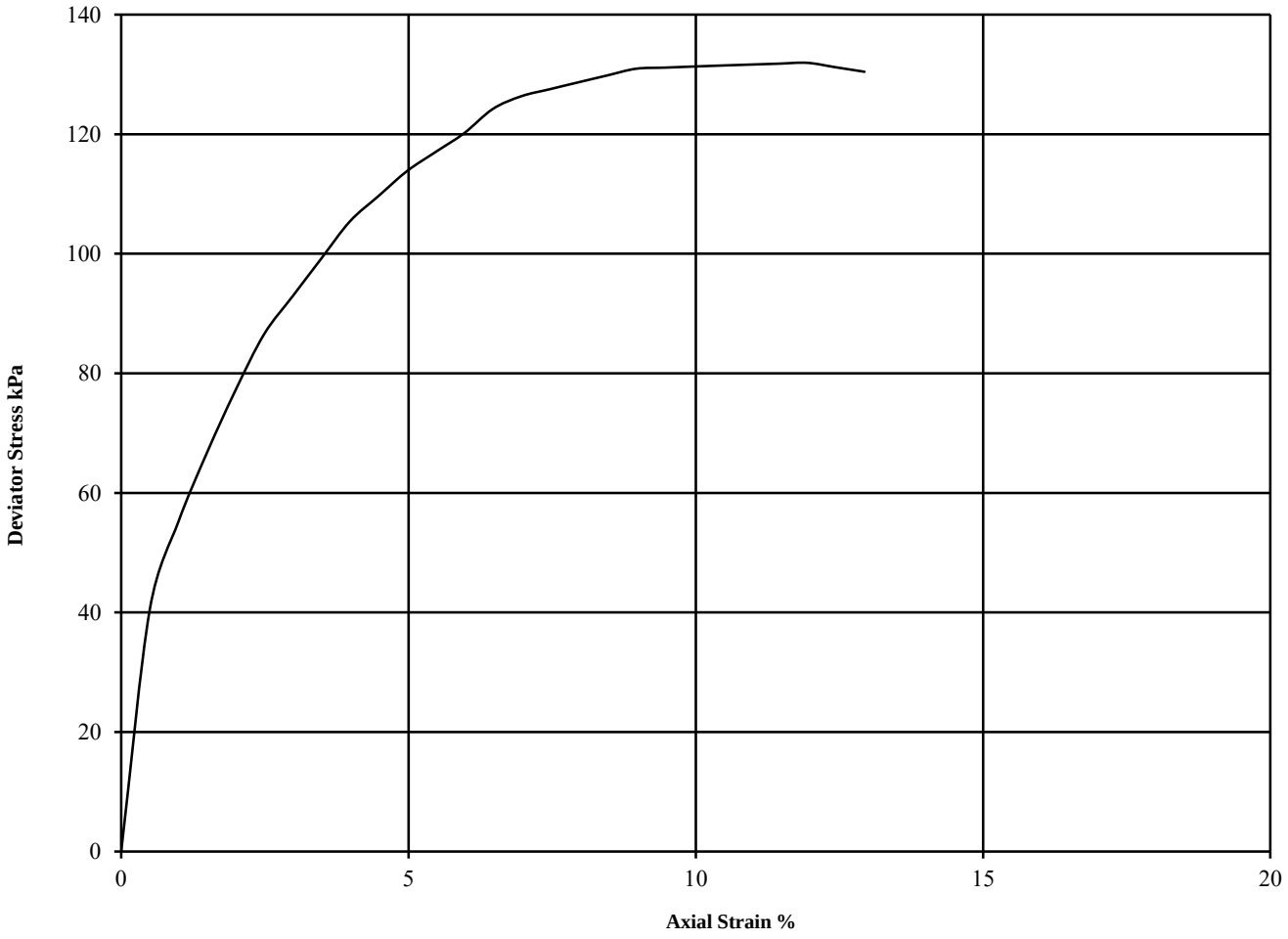
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP03 **Top Depth (m):** 5.20

Sample Number: **Base Depth (m):** 5.65

Sample Type UT



Diameter (mm):		103	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.35
1	29	1.90	1.48	100	132	66	11.9	Plastic	See summary of soil descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: PSL23/6420

Client Ref: 19580

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

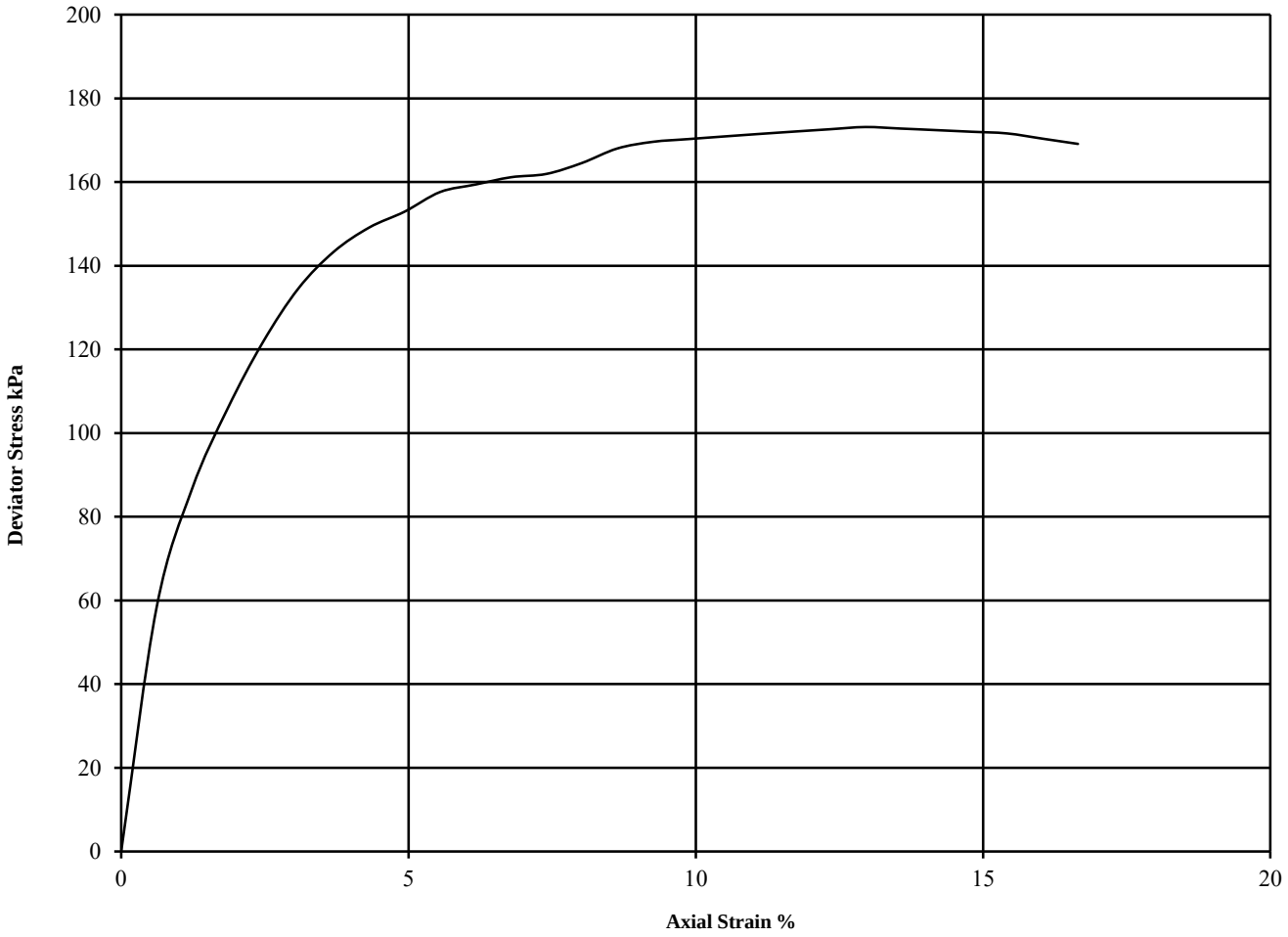
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP03 **Top Depth (m):** 8.00

Sample Number: **Base Depth (m):** 8.45

Sample Type UT



Diameter (mm):		103	Height (mm):		167	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.34
1	24	1.92	1.55	160	173	87	13.0	Plastic	See summary of soil descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: PSL23/6420

Client Ref: 19580

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

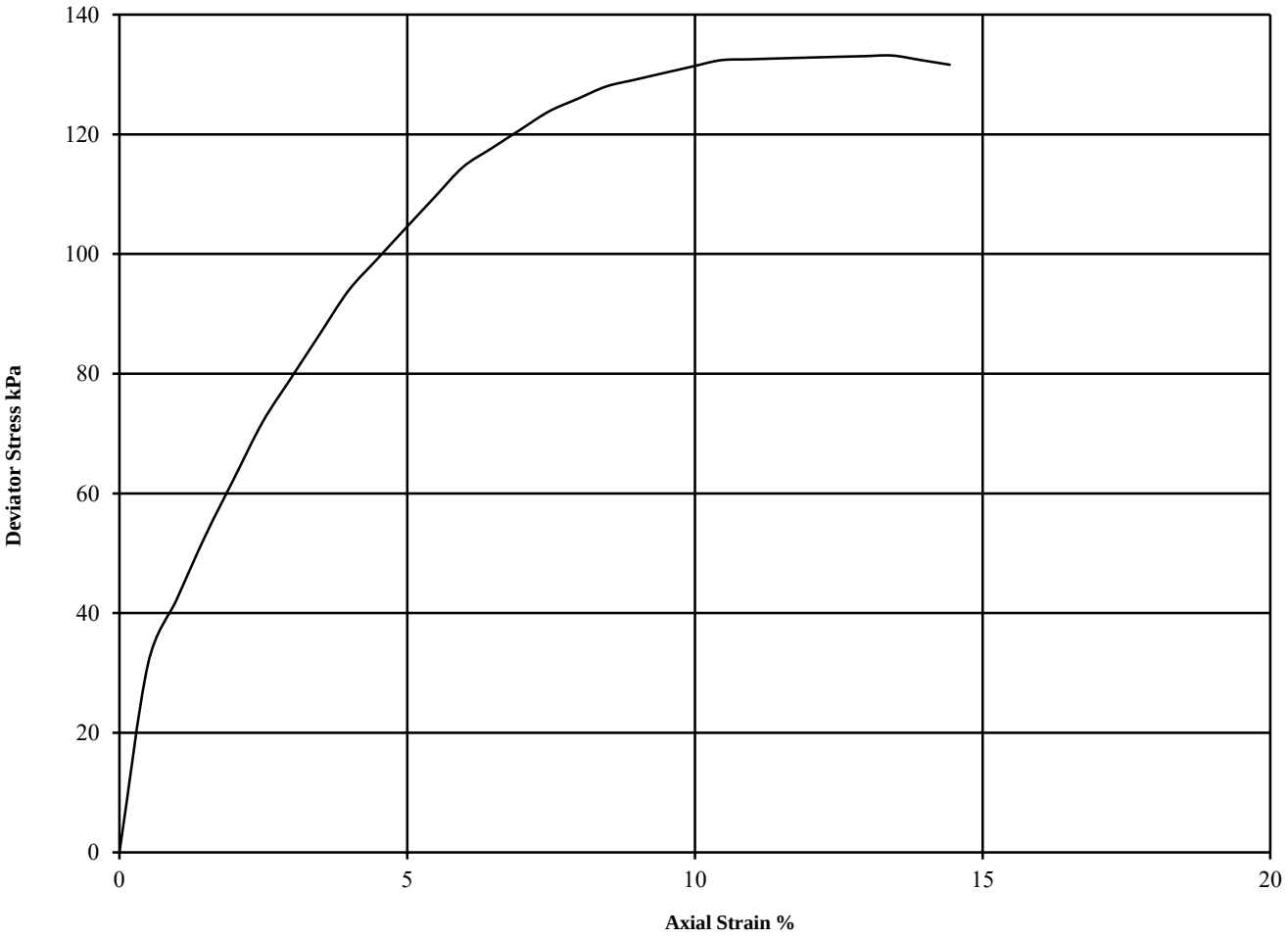
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP04 **Top Depth (m):** 7.50

Sample Number: **Base Depth (m):** 7.95

Sample Type UT



Diameter (mm):		103	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.34
1	25	2.03	1.62	150	133	67	13.4	Plastic	See summary of soil descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: PSL23/6420

Client Ref: 19580

UNDRAINED SHEAR STRENGTH IN TRIAXIAL COMPRESSION

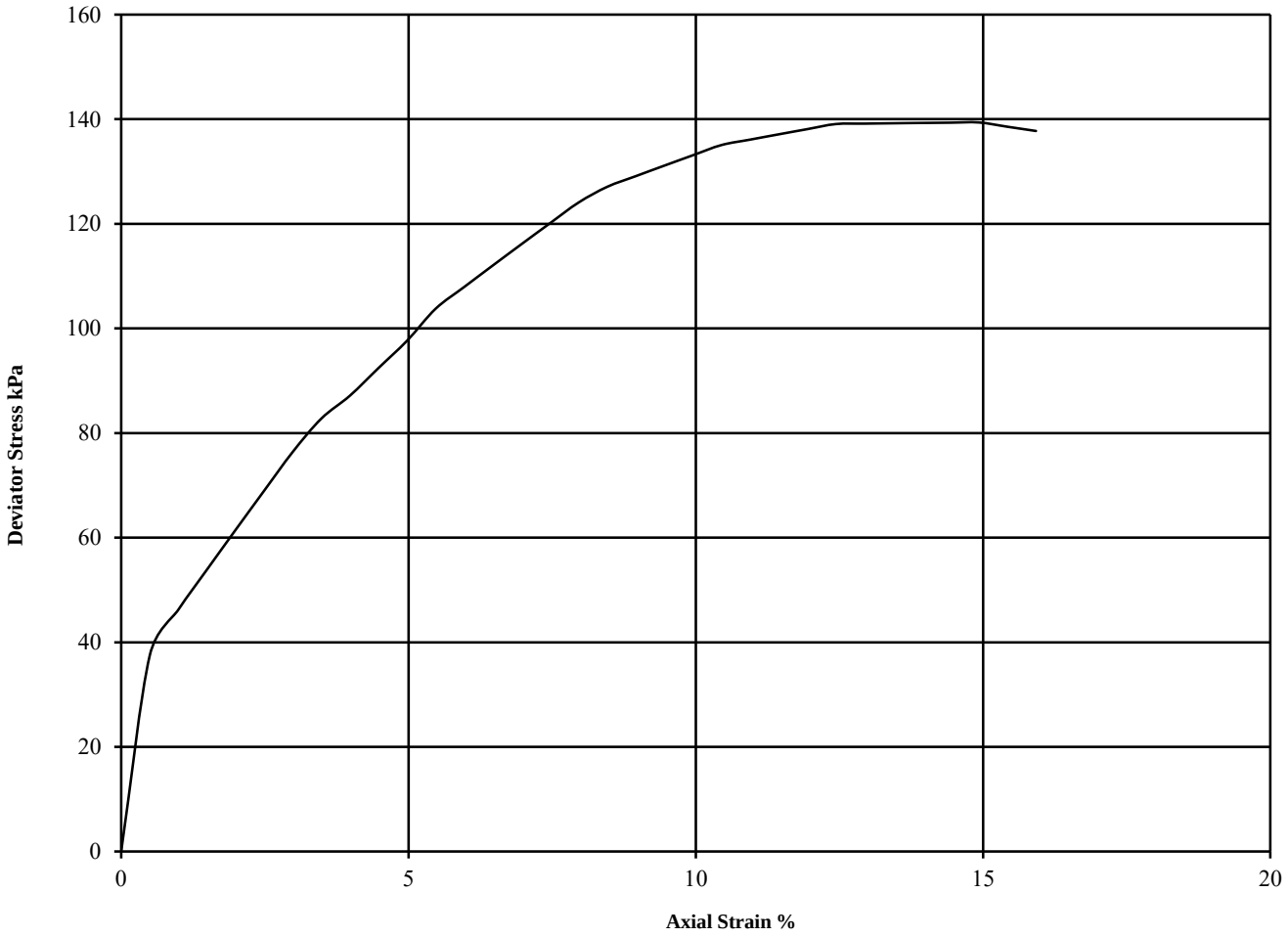
WITHOUT MEASUREMENT OF PORE PRESSURE

BS1377 : Part7 : 1990: Clause 8

Hole Number: CP04 **Top Depth (m):** 9.70

Sample Number: **Base Depth (m):** 10.15

Sample Type UT



Diameter (mm):		103	Height (mm):		207	Test:	UU Single Stage		Remarks:
Specimen	Moisture Content (%)	Bulk Density (Mg/m3)	Dry Density (Mg/m3)	Cell Pressure (kPa) θ_3	Corr. Max. Deviator Stress (kPa) $(\theta_1-\theta_3)_f$	Shear Strength Cu (kPa) $^1/_2(\theta_1-\theta_3)_f$	Failure Strain (%)	Mode of Failure	Undisturbed Sample Sample taken from top of tube Rate of strain = 2 %/min Latex Membrane used 0.2 mm thick, Correction applied 0.34
1	28	1.77	1.38	200	139	70	14.9	Plastic	See summary of soil descriptions

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No: PSL23/6420

Client Ref: 19580

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		Area	D_e^2	D_e	Failure Load (P)		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	W	D	(mm2)		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
RH01	19.80		A	Perp	85	37	3145	4004.34	63.28	-	0.93	0.23	1.112	0.26	Valid	
RH02	14.20		A	Perp	85	42	3570	4545.47	67.42	-	0.86	0.19	1.144	0.22	Valid	
RH02	20.30		A	Perp	85	41	3485	4437.24	66.61	-	0.86	0.19	1.138	0.22	Valid	
RH03	10.60		A	Perp	85	36	3060	3896.11	62.42	-	0.87	0.22	1.105	0.25	Valid	
RH03	12.65		A	Perp	85	38	3230	4112.56	64.13	-	0.56	0.14	1.119	0.15	Valid	
RH03	18.85		A	Perp	85	46	3910	4978.37	70.56	-	1.02	0.20	1.168	0.24	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular, U = Random

A = Axial, D = Diametral, I = Irregular

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No:

PSL23/6420

Client Ref:

19580

SUMMARY OF POINT LOAD TEST RESULTS

ISRM Suggested Methods : 2007

Borehole Number	Depth (m)	Sample Ref	Test Type	Orientation	Dimensions (mm)		D_e^2	D_e	Failure Load		I_s	Corr Fac	I_{s50}	Failure Type	Remarks
				Par / Perp	L	D		(mm)	(Mpa)	(kN)	(MPa)	F	(MPa)		
RH01	19.80		D	Par	-	85	7225	85.00	-	0.53	0.073	1.270	0.09	Valid	
RH02	14.20		D	Par	-	85	7225	85.00	-	0.42	0.058	1.270	0.07	Valid	
RH02	20.30		D	Par	-	85	7225	85.00	-	0.45	0.062	1.270	0.08	Valid	
RH03	10.60		D	Par	-	85	7225	85.00	-	0.51	0.071	1.270	0.09	Valid	
RH03	12.65		D	Par	-	85	7225	85.00	-	0.22	0.030	1.270	0.04	Valid	
RH03	18.85		D	Par	-	85	7225	85.00	-	0.50	0.069	1.270	0.09	Valid	

Note All testing carried out on samples at as received water content

Par = parallel, Perp = perpendicular, U = Random

UKAS TESTING 4043

PSL PROFESSIONAL SOILS LABORATORY A PHENNA GROUP COMPANY

Neilson's Sidings, off Roundhouse Way, Wellingborough

Contract No:

PSL23/6420

Client Ref:

19580

UNIAXIAL COMPRESSIVE STRENGTH

ISRM Suggested Methods - Rock Characterization Testing and Monitoring 1974 - 2006

Borehole Number:	**RH02**	**Top Depth (m):**	**19.00**
Sample Number:	**-**	**Base Depth (m):**	**19.21**
Sample Type:	**core**	**Sample Date:**	**21/07/2023**
Storage Condition:	**Sealed in core box**	**Date of Receipt**	**02/08/2023**
Sample Description:	**MUDSTONE**		

Specimen Details/Conditions	
Diameter - mm:	85.11
Height - mm:	200.17
Water Content - %:	19.3
Sample Mass - g:	2459.8
Bulk Density - Mg/m^3:	2.16
Dry Density - Mg/m^3:	1.81
Height Ratio: * Sample does not comply with H:D ratio	2.4
Degree of Saturation - %:	102
Assumed Specific Gravity for Degree of Saturation:	2.75

Test Result	
Load Frame/Machine:	CM1/Controls
Date of test:	22/08/2023
Test Duration - mins:	00:20
Orientation:	Unknown
Stress Rate - MPa/s:	0.06
Strain at Failure - kN:	7.20
Unconfined Compressive Strength - Mpa:	1.27
Mode of Failure:	Vertical Shear

Remarks: -

UNIAXIAL COMPRESSIVE STRENGTH

ISRM Suggested Methods - Rock Characterization Testing and Monitoring 1974 - 2006

Borehole Number:	**RH03**	**Top Depth (m):**	**12.65**
Sample Number:	**-**	**Base Depth (m):**	**12.95**
Sample Type:	**core**	**Sample Date:**	**24/07/2023**
Storage Condition:	**Sealed in core box**	**Date of Receipt**	**02/08/2023**
Sample Description:	**MUDSTONE**		

Specimen Details/Conditions	
Diameter - mm:	85.02
Height - mm:	200.08
Water Content - %:	19.7
Sample Mass - g:	2454.1
Bulk Density - Mg/m^3:	2.16
Dry Density - Mg/m^3:	1.81
Height Ratio: * Sample does not comply with H:D ratio	2.4
Degree of Saturation - %:	103
Assumed Specific Gravity for Degree of Saturation:	2.75

Test Result	
Load Frame/Machine:	CM1/Controls
Date of test:	22/08/2023
Test Duration - mins:	00:15
Orientation:	Unknown
Stress Rate - MPa/s:	0.06
Strain at Failure - kN:	4.70
Unconfined Compressive Strength - Mpa:	0.828
Mode of Failure:	Vertical Shear

Remarks: -

UNIAXIAL COMPRESSIVE STRENGTH

ISRM Suggested Methods - Rock Characterization Testing and Monitoring 1974 - 2006

Borehole Number:	**RH03**	**Top Depth (m):**	**13.70**
Sample Number:	**-**	**Base Depth (m):**	**13.93**
Sample Type:	**core**	**Sample Date:**	**24/07/2023**
Storage Condition:	**Sealed in core box**	**Date of Receipt**	**02/08/2023**
Sample Description:	**MUDSTONE**		

Specimen Details/Conditions	
Diameter - mm:	85.02
Height - mm:	200.11
Water Content - %:	19.0
Sample Mass - g:	2455.6
Bulk Density - Mg/m^3:	2.16
Dry Density - Mg/m^3:	1.82
Height Ratio: * Sample does not comply with H:D ratio	2.4
Degree of Saturation - %:	102
Assumed Specific Gravity for Degree of Saturation:	2.75

Test Result	
Load Frame/Machine:	CM1/Controls
Date of test:	22/08/2023
Test Duration - mins:	00:20
Orientation:	Unknown
Stress Rate - MPa/s:	0.07
Strain at Failure - kN:	7.40
Unconfined Compressive Strength - Mpa:	1.3
Mode of Failure:	Vertical Shear

Remarks: -

UNIAXIAL COMPRESSIVE STRENGTH

ISRM Suggested Methods - Rock Characterization Testing and Monitoring 1974 - 2006

Borehole Number:	**RH03**	**Top Depth (m):**	**15.70**
Sample Number:	**-**	**Base Depth (m):**	**15.92**
Sample Type:	**core**	**Sample Date:**	**24/07/2023**
Storage Condition:	**Sealed in core box**	**Date of Receipt**	**02/08/2023**
Sample Description:	**MUDSTONE**		

Specimen Details/Conditions	
Diameter - mm:	85.05
Height - mm:	200.10
Water Content - %:	19.1
Sample Mass - g:	2459.2
Bulk Density - Mg/m^3:	2.16
Dry Density - Mg/m^3:	1.82
Height Ratio: * Sample does not comply with H:D ratio	2.4
Degree of Saturation - %:	102
Assumed Specific Gravity for Degree of Saturation:	2.75

Test Result	
Load Frame/Machine:	CM1/Controls
Date of test:	22/08/2023
Test Duration - mins:	00:18
Orientation:	Unknown
Stress Rate - MPa/s:	0.07
Strain at Failure - kN:	6.80
Unconfined Compressive Strength - Mpa:	1.2
Mode of Failure:	Vertical Shear

Remarks: -

POINT LOAD INDEX TEST RESULTS

Date Cored/Sampled	17th to the 24th of July 2023
Date Tested	31st July 2023

Tested By	KH
Approved By	MS

BH No.	Sample No.	Depth (m bgl)	Test Type[3]	Orientation[4]	Failure Valid (Y/N)	W (mm)	D (mm)	De^2 (mm^2)	De (mm)	P (kN)	Is (MPa)	F	Is(50) (MPa)
RH01	1.00	19.40 to 19.52	A	perpendicular	Y	85	77	8332.27	91.28	0.58	0.07	1.31	0.09
RH01	1.00	19.40 to 19.52	D	parallel	Y	115	85	7225.00	85.00	0.37	0.05	1.27	0.07
RH02	2.00	18.65 to 18.80	A	perpendicular	Y	85	120	12985.36	113.95	0.85	0.07	1.45	0.09
RH02	2.00	18.65 to 18.80	D	parallel	Y	160	85	7225.00	85.00	0.55	0.08	1.27	0.10
RH02	3.00	19.48 to 19.70	A	perpendicular	Y	85	110	11903.25	109.10	0.62	0.05	1.42	0.07
RH02	3.00	19.48 to 19.70	D	parallel	Y	210	85	7225.00	85.00	0.56	0.08	1.27	0.10
RH03	4.00	11.85 to 12.00	A	perpendicular	Y	85	110	11903.25	109.10	0.44	0.04	1.42	0.05
RH03	4.00	11.85 to 12.00	D	parallel	Y	145	85	7225.00	85.00	0.30	0.04	1.27	0.05
RH03	5.00	13.07 to 13.23	A	perpendicular	Y	85	115	12444.30	111.55	0.42	0.03	1.43	0.05
RH03	5.00	13.07 to 13.23	D	parallel	Y	147	85	7225.00	85.00	0.46	0.06	1.27	0.08
RH03	6.00	16.17 to 16.35	A	perpendicular	Y	85	110	11903.25	109.10	0.41	0.03	1.42	0.05
RH03	6.00	16.17 to 16.35	D	parallel	Y	205	85	7225.00	85.00	0.50	0.07	1.27	0.09
RH03	7.00	19.15 to 19.32	A	perpendicular	Y	85	105	11362.19	106.59	0.54	0.05	1.41	0.07
RH03	7.00	19.15 to 19.32	D	parallel	Y	165	85	7225.00	85.00	0.46	0.06	1.27	0.08

Notes:
1. Testing undertaken in accordance with ISRM Suggested Methods 1985
2. All samples tested at as-received moisture content unless otherwise stated.
3. A = Axial, D = Diametral, I = Irregular Lump
4. Par = parallel, Per = perpendicular (to planes of weakness)

Comments:

Client:	FM Conway Ltd
Project:	Neilson's Sidings, off Roundhouse Way, Wellingborough
Project No:	AG3488-23

APPLiED GEOLOGY

APPENDIX F

APPENDIX F

STANDARD FIELDWORK AND ASSESSMENT PROCEDURES

Scope of Work

The scope of work undertaken is defined in Section 1 of the Report. It should be noted that Applied Geology Limited does not provide arboricultural surveys, specialist surveys for the detection of invasive plant species (such as Japanese Knotweed) or protected species of wildlife. Information from environmental and ecological datasets is included from a review of the MAGIC (Multi-Agency Geographic Information for the Countryside) website, however, if a full assessment of Environmental or Ecological aspects is required, it is recommended that other specialists are consulted. Similarly, information on flood risk is included; obtained from the Environment Agency Web site and the GroundSure report; but this is not intended to be a full hydrological study and, if a flood risk assessment is needed, additional analysis by others is recommended to confirm this aspect of the development. Also, whilst our field staff have undergone asbestos awareness training, Applied Geology does not undertake asbestos surveys or provide specific advice relating to asbestos-containing materials. Any suspected asbestos-containing materials observed by our field staff will be mentioned in the report but further assessment by others may be required.

Fieldwork

Fieldwork is generally carried out in accordance with BS5930 (2015) “Code of Practice for Site Investigations” and BS10175 (2011) Investigation of Potentially Contaminated Sites, unless otherwise stated.

Prior to commencement on site, statutory services plans are generally obtained and verbal enquiries are also made regarding the positions of private or statutory services on site. Prior to excavation or drilling, locations are scanned with a cable avoidance tool (CAT) and service pits are generally excavated at borehole positions, where possible.

Descriptions and depths of the various strata recovered are presented on the exploratory hole records, reproduced in the report appendices, together with sample depths, the results of in-situ testing, comments on groundwater inflows, and any other pertinent information. The strata descriptions are in general accordance with BS5930:2015. Disturbed plastic pot and glass amber jar samples are recovered from the various strata and stored and transported in cool boxes, where relevant, for possible future laboratory testing.

Light cable percussion boreholes are generally drilled using a Pilcon Wayfarer or Dando rig and are advanced using equipment to bore 200/150mm diameter boreholes. Disturbed plastic pot samples are recovered from all deposits encountered to allow examination and laboratory testing. Certain strata are cased off due to their tendency to collapse, particularly in the presence of groundwater inflows and/or to reduce the risk of cross contamination. In situ Standard Penetration Tests, using Split Spoon (SPT) and Cone (CPT) are undertaken in the boreholes to provide a measure of the relative density of the granular (coarse grained) deposits or shear strength of the clay/chalk/ weathered rock deposits using industry recognised correlation guidelines of shear strength against SPT “N” value results. Within the fine grained (cohesive) deposits, “undisturbed” 100mm driven open tube samples were recovered from the various deposits to provide samples for examination and laboratory testing. On encountering groundwater, boring is usually suspended for 20 minutes while any rise in water level is recorded. Full details of the groundwater observations and monitoring results during boring operations are included on the borehole records. All boreholes without monitoring wells installed are usually backfilled with arisings upon completion, unless otherwise stated on the individual logs.

Unless otherwise stated on the relevant logs, trial pits are excavated using a wheeled backhoe excavator, usually with a 0.6m wide bucket. The excavations are logged from the ground surface by an Engineering Geologist / Geo-environmental Engineer and relevant field testing, appropriate to the soils encountered, is carried out on samples brought to the surface. Representative disturbed soil

samples are collected from selected horizons for subsequent laboratory testing. The trial pits are usually unshored and where reasonable, left open for a period of time to allow observations of pit stability and depth and inflow rate of any groundwater ingress. The excavations are backfilled with arisings prior to moving on to the next position. Any trial pits carried out as part of this or previous investigations may represent soft spots and conduits/sumps for groundwater or surface water. In excavations, such materials may also be loose and unstable.

Driven Continuous Sampling (DCS) boreholes are drilled using a track mounted Global mini-rig or similar using sampling tubes of varying diameter (decreasing with depth). Samples of the deposits encountered are recovered in 1m long clear plastic liners, which are logged and sub-sampled on site by an Engineering Geologist. Generally for geotechnical investigations, during the drilling process in-situ Standard Penetration Tests (SPTs) are undertaken at selected depths to provide a measure of the relative density of the granular (coarse grained) deposits or shear strength of the clay/chalk/ weathered rock deposits using industry recognised correlation guidelines of shear strength against SPT “N” value results. Groundwater seepages are noted during drilling if encountered. All boreholes without monitoring wells installed are usually backfilled with arisings upon completion.

Unless specifically stated in the report, exploratory hole locations should be regarded as approximate. Consideration should be given to accurate location of the exploratory holes where it is considered they may impact on proposed development.

It should be noted that groundwater levels at any particular site may fluctuate due to rainfall, seasonal variations etc and, therefore, levels may be different to those measured during the course of the fieldwork and monitoring period.

Laboratory Testing

The geotechnical testing was carried out in accordance with BS 1377:1990 Method of Tests for Soils for Civil Engineering Purposes and was undertaken by a UKAS accredited specialist laboratory. Chemical testing was undertaken by a UKAS accredited specialist chemical testing laboratory and MCERTS accredited methods, in accordance with Environment Agency recommendations, were specified where available.

Contamination Assessment – Human Health

Applied Geology Limited has followed the guidance given in the CLR 11 publication and other available guidance to assess the contaminant concentrations. Details of the methodology followed are briefly outlined below.

The available chemical data is sorted into appropriate datasets depending on sampling regime and ground conditions. An initial generic quantitative risk assessment is undertaken on this data using statistical tests, where appropriate, and relevant screening values. Risk to human health has been initially assessed by comparing soil results against various published screening criteria. These have been sourced from the following, in order of preference:

- DEFRA. Category 4 Screening Levels (C4SL), March 2014;
- LQM/CIEH S4UL for Human Health Risk Assessment (S4UL), 2015*;
- Environment Agency/DEFRA, Soil Guideline Values (SGV) published in 2009;
- EIC/AGS/CL:AIRE Soil Generic Assessment Criteria (GAC), 2010.

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Except for lead and benzo(a)pyrene, the assessments will be carried out by comparing results against the LQM/CIEH S4UL in the first instance, where these values are exceeded, then reference will be made to the C4SLs where such exist. Lead will only be compared to the C4SL because no S4UL exists for lead. For Benzo(a)pyrene, Applied Geology has chosen to adopt the approach presented by the C4SL committee rather than the approach proposed by LQM/CIEH. Further discussion on this is presented below.

It is our view, and the view of others in the industry, that the C4SL were derived for use in both the Part IIA system and through the planning system, as they allow identification of those sites that fall within Category 4 (not contaminated) and are therefore able to be developed with no further remedial action. The C4SLs are considered to represent a contamination level that is 'low' from a toxicological view point, which we therefore consider to be 'acceptable' under planning.

Historically, the level of contamination has been assessed with reference to SGV values which were derived to represent a 'minimal' level of contamination. The SGVs are still valid and can be used alongside C4SL, however both screening values are only intended to provide guidance as to the level of contamination and, where concentrations fall below these screening values, the site is not contaminated (and is within Category 4). Exceedance of a SGV/S4UL/C4SL does not automatically indicate that an 'unacceptable' risk exists at a site; simply that further consideration of that particular contaminant is required.

At this time, there are two toxicological methodologies that can be used in the derivation of screening criteria for PAHs; Relative Potency Factor (RPFs) or the Surrogate Marker approach. Applied Geology has chosen (based on the latest guidance from the Health Protection Agency (HPA) to use the surrogate marker approach proposed in the C4SL methodology, whereby benzo(a)pyrene can be used as a surrogate marker for all 'genotoxic' (gene damaging) PAHs. The surrogate marker approach estimates the toxicity of a mixture of PAHs in an environmental matrix by using data from toxicity studies in which a PAH mixture of known composition was tested. Exposure to the surrogate marker benzo(a)pyrene is assumed to represent exposure to all the PAHs in the environmental matrix. Thus, the level of toxicity ascribed to the surrogate represents the toxicity of the PAH mixture. This allows an assessment of the combined carcinogenic risk associated with genotoxic PAHs using only benzo(a)pyrene. In order to confirm that the mixture of genotoxic PAH in the soil is similar to the coal tar mixture used in the toxicological study, various PAH ratios are plotted and checked to see that they fall within the limits set in HPA, 2010.

Contamination Assessment – Water Quality

Risks to water quality has been assessed by following the Environment Agency guidance on groundwater protection (previously known as GP3), updated on their website in March 2017, see https://www.gov.uk/government/policies/water-quality and 'The Environment Agency's approach to groundwater protection' (March 2017 Version 1.0).

For hazardous substances, which should be prevented from entering groundwater, the screening criteria are initially set as the limit of detection, however, if groundwater has already been impacted, an appropriate environmental standard will then be used. For hazardous substances, background quality may also be taken into account.

For non-hazardous compounds, their release should not result in any pollution or significant risk of pollution in the future, as such comparison with UK DWS or EQS standards will allow determination of whether pollution could occur. Typically screening criteria will be sourced from the following:

- Environmental Standards (ES), which are defined in European legislation such as the Water Framework Directive (WFD) (2000/60/EC) and the Priority Substances Directive (PSD) (2008/105/EC) a daughter directive of the WFD.
- The River Basin Districts Typology, Standards and Groundwater Threshold Values (Water Framework Directive) (England and Wales) Direction, 2010.
- UK Water Supply (Water Quality) Regulations, 2010.
- UK quality standards for water to be used for direct abstraction to potable supply e.g. Surface Water (Abstraction for Drinking Water) (Classification) Regulations, 1996.
- World Health Organisation (WHO) Guidelines for Drinking Water Quality.

Re-use of Soils and Waste Soil Disposal

It is noted that if any excavated material is to be reused on site, a Waste Management Plan (WMP) and / or a Materials Management Plan (MMP) will probably be required. Any such materials must be suitable for re-use without further treatment, and only the quantity necessary for the specified works should be used. Any materials not within these definitions may need to be considered as waste whereby a Waste Management Licence Exemption may also be required.

A specific categorisation and assessment of potential waste soils arising from the proposed development has not been undertaken as part of the investigation, unless otherwise detailed in the report text. However, generic comments and advice are made below for the reader.

All waste soils should be sorted to prevent mixtures of waste types. Where possible, any waste soil should be recycled and the volume of soil to be disposed of should be minimised. Any excavated soil material and excess spoil disposed of off-site should be treated as Waste and classified as Inert, Non-hazardous or Hazardous, prior to removal from site, as required by the “Duty of Care” (Environmental Protection Act, 1990) legislation together with Annex II of Directive 1999/31/EC (“Landfill Directive”). Initially, Basic Characterisation of the waste is required whereby the material should be described and its source of origin recorded (a site plan, exploratory hole records and the certificates of chemical analysis in this report should be included). This should also include data on its composition and leaching behaviour, its European Waste Catalogue (EWC) code, and where relevant any hazardous properties according to Annex III of Directive 91/689/EEC. This information should be provided to the licensed waste contractor.

Soils excavated on many sites would generally fall under the EWC description “Soil and Stones”, EWC code 17 05 04. Waste Acceptance Criteria (WAC) testing is required for many Inert wastes and generally for all Hazardous Waste but not for non-hazardous waste. There are certain restrictions for inert wastes regarding topsoil and peat. Any asbestos must be disposed of by suitably licensed contractors to a suitably licensed facility.

Health & Safety Aspects

As outlined within the HSE publication ‘Successful Health and Safety Management - HSG65’, this report should inform your development of safe systems of work and information as an input into the safety management system.

When developing risk control systems we suggest making reference to the CIRIA report 132 "A guide for safe working on contaminated sites" and the HSE document "Protection of workers and the general public during the development of contaminated land – HSG66". All risk control measures should be in accordance with the guidelines laid down within the Management of Health and Safety at Work Regulations 1999.

The contents of this report may be used to supplement the contents of the Health and Safety File as required under the Construction Design and Management (CDM) Regulations.

Where excavations are undertaken on site, trench support or the angle of batter should be designed by an appropriately qualified engineer or competent person to suit the required depth and the ground and groundwater conditions. Care should be taken when digging excavations to prevent undermining or causing loss of support to the foundations of the nearby adjoining structures. Surcharging such as from spoil or vehicle movements close to excavation sides should be avoided. Practical guidance on trench excavation is given in CIRIA Report 97 Trenching Practice. Guidance on groundwater control is given in CIRIA Report 113 Control of groundwater for temporary works. Temporary works should be designed by a suitably qualified engineer or a competent person particularly where personnel access is necessary, in accordance with the requirements of the Construction (Design and Management) (CDM) Regulations.

APPENDIX 6

Working Plan, Process Flow Diagrams and ISO14001 Certificate

Conway Eurovia Industries Ltd

Wellingborough Recycling Facility

WRF 001 WORKING PLAN

DOCUMENT CONTROL AND AMENDMENT RECORD

DOCUMENT CONTROL				
	ORIGINAL	**REV 1**	**REV 2**	**REV 3**
DOCUMENT REF	WRF 001 WP			
VERSION	01 Draft			
DATE OF ISSUE	18th February 2026			
PREPARED BY	Melissa Bomford			
CHECKED BY	Andrew Cox			
APPROVED BY	Andy Newell			
CONTROLLED COPY	Integrated Management System (IMS)			

All printed and electronic copies held anywhere other than the IMS will be deemed uncontrolled.

AMENDMENT RECORD	
	AMENDMENT
REV 1	
REV 2	
REV 3	

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1. PURPOSE & SCOPE

This Working Plan has been developed for the purpose of identifying and providing documented procedures to be adopted to manage our permissible waste activities including how we will control the management of the wastes that are transferred to, stored, treated, used and transferred from this facility.

The Working Plan covers the waste activities conducted at the Wellingborough Recycling Facility based at: -

Conway Eurovia Industries Wellingborough Depot
Land at Neilson Rail Sidings
Wellingborough,
Northamptonshire
NN8 4BH

The Wellingborough Recycling Facility is subject to the implementation of the conditions stipulated within the Environmental Permit **EPR ..... TBD .....** as issued by the Environment Agency under the Environmental Permitting (England and Wales) Regulations 2016.

The Recycling Facility will process non-hazardous asphalt road planings, asphalt plant waste and asphalt returns, by mechanical processing to produce Recycled Asphalt Pavement (RAP) of differing grades. The RAP will be used in the manufacture of asphalt by the on-site Asphalt Plant (not regulated by the EA) and exported to other facilities.

2. DEFINITIONS

Asphalt Waste Containing Coal Tar (AWCCT): EWC: 17 03 01* bituminous mixtures containing coal tar is deemed as hazardous and is not an acceptable waste stream under the Environmental Permit or this Working Plan but may be found in acceptable waste streams and will require specific actions when identified.

Asphalt Road Planings – Non-hazardous asphalt arisings produced by the planing of asphalt road pavement layers.

Recycled Asphalt Pavement (RAP) - Recycled Asphalt Pavement shall be derived from the incoming waste streams and in accordance with the requirements of the WRAP Quality Protocol to include the management of incoming inert waste streams and implementation of required and relevant sampling and testing to ensure specification criteria is met. The methods adopted to manage this element of the productivity processes shall be detailed within the Factory Production Control Manual developed for this purpose and specific to the Wellingborough activities.

Mechanical processing plant - An industrial facility that utilises machinery and equipment to alter the physical properties of raw materials or intermediate products—such as size, shape, or texture—through physical forces rather than chemical reactions.

Re-Use of Surplus Products – Surplus asphalt products from the on-site asphalt plant shall be recovered and re-used within further production processes by the means of Crushing, Screening

and Storage in preparation for re-use. The surplus product will not have been considered for disposal and therefore will not have been classified as a waste.

Asphalt Returns - Asphalt which has been produced and loaded onto vehicles and is no longer required by the customer and is returned to the plant.

Induction: Information and instruction on the site rules and requirements for attending the site. There will be a Full Induction for permanent site personnel or those who attend regularly and a shorter version for Site Visitors.

Permissible Wastes: A list of wastes as defined by the European Waste Catalogue, that are accepted at this facility and are included within the Environmental Permit.

Personal Protective Equipment (PPE): Minimum standards for attendance on site and operational areas and the conducting of site-specific activities.

Security Office/Weighbridge: Primary location for visitors and drivers to report to when attending the Wellingborough Recycling Facility.

Visitors: Visitors shall include anyone not permanently working at the facility to include visiting staff, clients, external authorities, subcontractors, etc.

3. RESPONSIBILITIES

Unit/Recycling Manager

- To ensure that this procedure is available for reference at point of use.
- To assist the Technically Competent Person in fulfilling their duties for compliance with this procedure.
- Manage and ensure compliance with this procedure.
- Provide all supervisors and operatives with adequate training and information to comply with this procedure. All training should be recorded with staff confirming their attendance by signing an attendance sheet.
- Maintain records of supervisor and operative training.

Technically Competent Person (TCP)

- To manage and ensure compliance with this procedure.
- To assist the Unit/Recycling Manager in fulfilling their duties for compliance with this procedure.
- To complete any necessary inspections/audits, identify non-conformances, raise corrective actions and manage actions to conclusion.
- Manage and report (with assistance from SHEQ Team) all enforcement authority interactions including approved responses.

Supervisors and Operatives

- Shall be responsible for ensuring the day-to-day process compliance and report to their Line Manager on any issues raised.
- Have a working awareness of this procedure.

- Complete training, as required.

SHEQ Department

- To complete audits, identify non-conformances, raise corrective actions and manage actions to conclusion.
- Provide technical and subject matter support.
- Assist with enforcement authority interactions and responses

Responsibilities are listed throughout the procedure below. Individuals may conduct multiple roles.

4. MINIMUM AUDIT REQUIREMENTS

- The procedure should be audited twice on an annual basis and at least three months apart.
- One audit should be completed by the Technically Competent Person assigned to the Wellingborough Recycling Facility.
- One audit should be conducted by an independent auditor who could be either a Technically Competent Person responsible for another location or a member of the SHEQ Department.

5. PROCEDURE

5.1 General Risk Assessments

Generic Risk Assessments have been developed for the Wellingborough Recycling Facility. The General Risk Assessment is referenced WRF GRA 001, and the Environmental Risk Assessment shall be referenced WRF ERA 001. Both to be included in the Document Register for this facility.

The Environmental Risk Assessment shall include: -

- Dust
- Odour
- Noise
- Flooding
- Accidents
- Groundwater
- Surface Water
- Unauthorised Access

The Risk Assessment shall be reviewed annually or whenever another reason for review is identified such as incident or new technology or plant.

5.2 General Access and Site Security

The following security measures shall be implemented at this facility: -

- All delivery drivers must report to the site office/weighbridge before being allowed to enter the facility.
- Access to the site is controlled at point of entry to the facility.
- The site is surrounded by perimeter security fencing.
- CCTV cameras are positioned around the site to ensure that all activities are monitored.
- All HGV drivers must report to the Weighbridge Office on arrival at the site and be directed from there.
- All Site Personnel MUST be fully inducted for the Wellingborough Recycling Facility.
- All visitors MUST report to the weighbridge and be directed from there or escorted as required.
- Any non-inducted Visitors MUST always be escorted.
- Pedestrian visitors must be advised to use the relevant Pedestrian Routes and advised of crossing route requirements.

5.3 Personal Protective Equipment (PPE)

- The Designated Safe Walking Route is defined as a non-PPE required area.
- Minimum PPE in operational areas is: -
    - Approved Safety Helmet or Bump Cap when authorised by SHEQ.
    - Approved Safety Glasses.
    - Approved High Visibility Jacket (Long Sleeved).
    - Approved High Visibility Trousers.
    - Approved Safety Boots with Ankle Support.
    - Approved Gloves.
- This includes Delivery Personnel and Visitors when in operational areas.
- All other Personal Protective Equipment shall be in accordance with relevant Risk Assessments and Safe Systems of Work for specific work activities.

5.4 Hours of Operation

Under the conditions of the site planning permission, the following activities would have no restriction placed upon them:

- The Manufacture and Distribution of Asphalt.
- The Importation of Road Planings.
- The Distribution of Recycled material.

The physical treatment, mechanical processing, will predominantly be undertaken during the following operating hours: -

07:00 to 17:00 Monday to Sunday.

5.5 Permissible Activities and Incoming Waste Streams

The following is summarised information as extracted from **EPR ..... TBD .....** with reference to activities authorised at the Wellingborough Recycling Facility: -

Activity Ref A1:

Activity listed in Schedule 1 of the EP Regulations	Description of specified activity and WFD Annex I and II operations	Limits of specified activity and waste types
Awaiting Permit Information		

The following identifies the permissible incoming waste streams accepted under Activity Ref A1 (Treatment and Storage of Non-Hazardous Asphalt Planings): -

Waste Code:	Description:
17	Construction and Demolition Wastes (including excavated soil from contaminated sites)
17 03	**Bituminous Mixtures, Coal Tar and Tarred Products**
17 03 02	Bituminous Mixtures other than those mentioned in 17 03 01*

- There is a limit of 200,000 tonnes of imported waste per annum.
- A total amount of 50,000 tonnes of processed and unprocessed planings will be stored at any one time.
- The waste shall be subject to a Factory Production Control Procedure for the compliance of achieving WRAP Quality Protocol specifications.
- The above procedure would also include tests and checks for the inclusion of Asphalt Waste Containing Coal Tar (AWCCT) which is summarised below: -

The following identifies the potential for incoming wastes containing coal tar and are not permissible for treatment on-site, but temporary storage may be required within a quarantined area: -

Waste Code:	Description:
17	Construction and Demolition Wastes (including excavated soil from contaminated sites)
17 03	**Bituminous Mixtures, Coal Tar and Tarred Products**
17 03 01*	Bituminous Mixtures Containing Coal Tar

- Further checks will be conducted at the receiving facility to confirm acceptability and suitability of road planings for processing. See Waste Acceptance section of this Working Plan.

5.6 Waste Acceptance

See Appendix B for Waste Pre-Acceptance & Waste Acceptance Process Flow Diagrams.

The following process shall be adopted on receipt of the waste at the Weighbridge: -

- On arrival at the Wellingborough Recycling Facility, the driver must report to the weighbridge and present them with the relevant completed documentation: -

  - Waste Transfer Note.

- The incoming waste shall be visually inspected at the weighbridge. If the load does not appear to be compliant an Olfactory Test shall be conducted.
- If after visual and olfactory inspection and any necessary PAK testing, coal tar is potentially present within the incoming asphalt road planings:

  - The driver will be turned away from site and not allowed to tip the load.

- The vehicle will only be permitted to tip if the Waste Acceptance Criteria Tests are acceptable to the following criteria: -

  - Waste matches description and EWC Code.
  - No significant odours of concern.
  - No significant discolouration when using PAK marker spray.
  - No significant visual concerns such as contaminated content.

- If satisfactory, the vehicle shall be directed to an Unloading Area where it shall be unloaded and then subject to additional visual and olfactory tests.
- If satisfactory, it shall be pushed up by a loading shovel into the primary waste stockpiles.
- When a waste input from a vehicle is deemed to be unsatisfactory with an indication of the presence of AWCCT, the following process shall be adopted: -
  - The vehicle shall be rejected and a record maintained of the decision (Record on Waste Transfer Note)
  - The Driver/Operator shall be advised of potential hazardous content as the reason for rejection.
- Where the load has been tipped before identifying potential of AWCCT, the materials shall be relocated to the defined Quarantine Area.
  - The Quarantine Area is designed to hold a maximum of 100 tonnes of AWCCT (approximately 5 loads/vehicles).
  - The Quarantine Area is designed and managed to adequately separate the AWCCT and Road Planings and to prevent any surface water run-off.
- Following the identification of potential AWCCT presence, additional testing requirements shall be introduced for the purpose of determining the extent of the contamination -
  - Identify the contract where the potential AWCCT waste is being received from.
  - Conduct visual, olfactory and PAK Testing on the next 2 loads.
  - Where loads are confirmed as potentially containing AWCCT, advise client and haulage supplier that the waste stream is not suitable for acceptance at this facility to allow them to arrange an alternative disposal route which is permitted to accept AWCCT.
  - Where loads are confirmed as AWCCT Negative, continue visual, olfactory and PAK testing on a reduced basis as determined by Risk Assessment minimum testing requirement of an average of 1 load in 10.
  - Where AWCCT is identified further, see steps in attached flow diagrams.

- Records shall be maintained of all inspections, testing, rejected waste, remedial actions, risk assessments and decision making.

5.7 Waste Storage and Treatment

All wastes shall be stored in accordance with the Site Layout Plan as identified in Appendix A.

The treatment of wastes such as the use of the mechanical processes shall be conducted in a covered shed with a side curtain (for access) which will minimise noise, odour and dust.

Following treatment, product shall be transferred to the Wellingborough Asphalt Plant for use in the production of asphalt products or exported to other facilities.

5.8 Control of Dust, Mud, Litter and Pests

- Waste storage and treatment activities will be undertaken in the RAP shed to mitigate against dust, odour and noise emissions. There will be side curtained access.
- No vehicles will travel on unmade ground to minimise potential for airborne dust particles.
- No vehicles will travel on unmade ground to minimise potential for mud being tracked onto public roads.
- All loaded vehicles shall remain sheeted during transportation until arrival at the weighbridge
- All loaded vehicles leaving site will be sheeted.
- Standard Sprinkler systems for the external areas
- The RAP building is enclosed, the conveyor change over points will be covered.
- Areas outside the storage and treatment areas will be kept clear of mud, litter and other debris.
- Scavenging animals, birds and other pests are assessed as unlikely due to the type of waste, but the situation will be monitored and control measures adopted as necessary.
- Use of roadsweeper as per necessary
- Environmental daily check sheets will be completed at least 3 times per day including dust, odour and noise checks

Where required by the Environment Agency, a specific monitoring plan for the control of dust, mud, litter and pests shall be produced and implemented.

5.9 Equipment

The equipment required to conduct the activities shall include but not necessarily restricted to: -

- Loading Shovel.
- Granulator.
- Screener.
- Crusher.

All equipment shall be maintained in accordance with Manufacturer's Instructions.

A Planned Maintenance Programme shall be developed and included within the Wellingborough Recycling Facility Management System.

5.10 Sampling and Testing

With the exception of information provided under Waste Acceptance; sampling and testing of the product will be conducted to align with the requirements of the Factory Production Control Manual as produced under the WRAP Quality Protocol.

5.11 Drainage System

A Drainage Maintenance Process shall be developed and included within the Wellingborough Recycling Facility Management System. This will include a layout drawing of the drainage and a scheduled maintenance programme of cleaning and inspection (including necessary sampling and monitoring requirements) with repairs completed as required.

5.12 Site Monitoring Protection Plan

A Site Monitoring Plan shall be developed and managed to include relevant activities for maintaining the site and the product. This will include but not restricted to: -

- Drainage Maintenance Schedule.
- Surface Water Management (where applicable).
- WRAP Quality Protocol Sampling and Testing Requirements.
- Technical Competence Person Attendance.
- Inspections and Audits.
- Environment Agency Visits.

5.13 Competencies

A Training Matrix shall be maintained for all persons on site and specifically those with waste management activities. Competencies will include but not restricted to: -

- WAMITAB Qualified Qualifications including Continuing Competence.
- Plant and Equipment Training Records.
- Accident Prevention and Management.
- Environmental Spill Response.
- Management System Training.

6. ASSOCIATED DOCUMENTS & RECORDS

- Environmental Permit **EPR ..... TBD .....**
- WRF 001 Working Plan (this document).
- Wellingborough Recycling Facility: Factory Production Control Manual.
- WRAP Quality Protocol.
- Risk Assessments.
- Training Matrixes and Training Records.
- Maintenance Schedules and Records.
- Layout Drawings.

- Other management system documentation.

This list is not exhaustive but is indicative of requirements. This list will be updated as the Management System develops.

7. VERSION CONTROL

A version of this document shall be maintained on the Integrated Management System SharePoint Site which will be deemed the Master Document. All other copies held elsewhere, shall be deemed uncontrolled.

8. APPENDICES

8.1 Appendix A: Site Layout Plan:
8.2 Appendix B: Waste Acceptance Process Flows

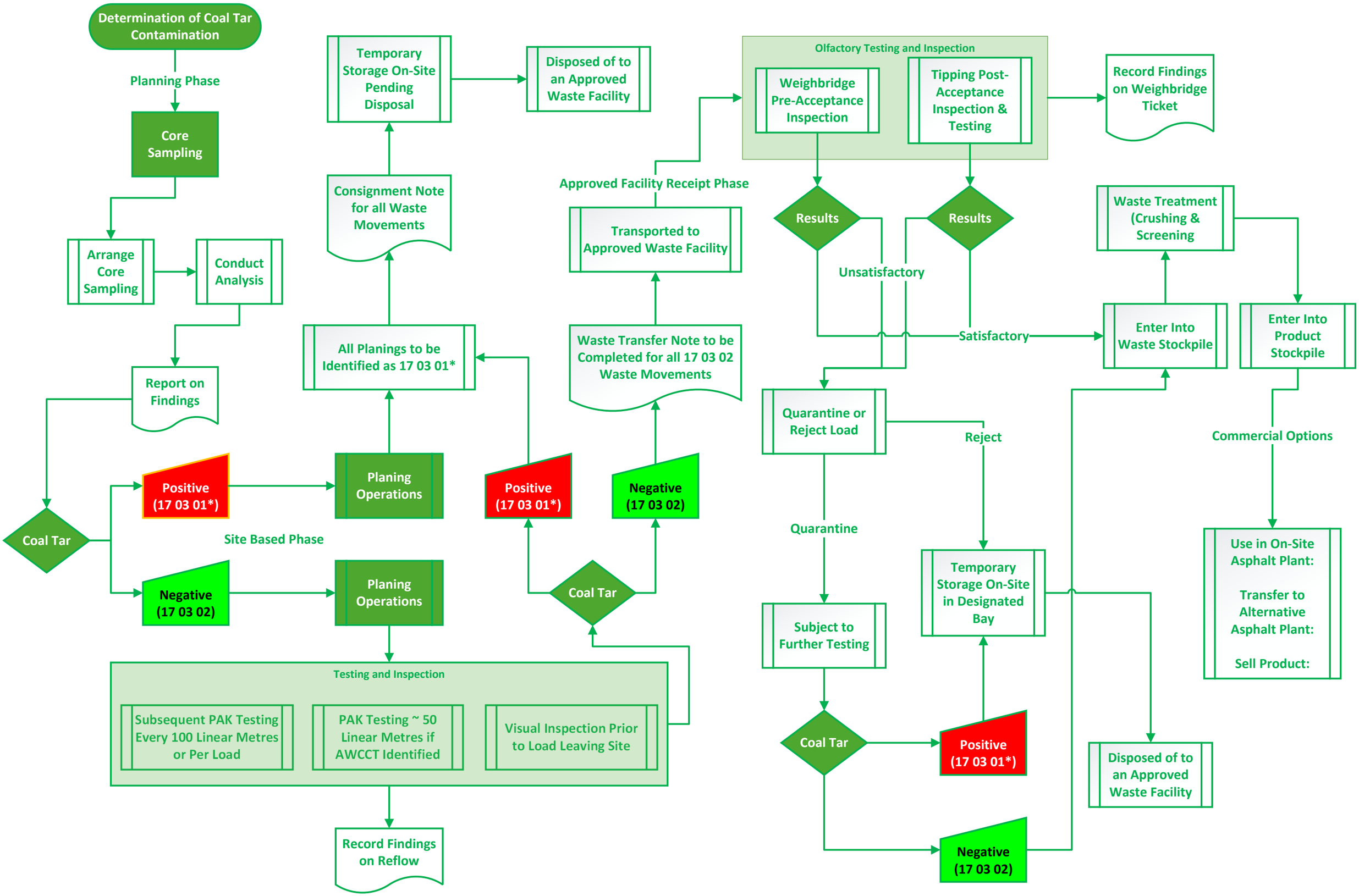
8.1 Appendix A: Site Layout Plan

To be inserted when fully constructed and developed.

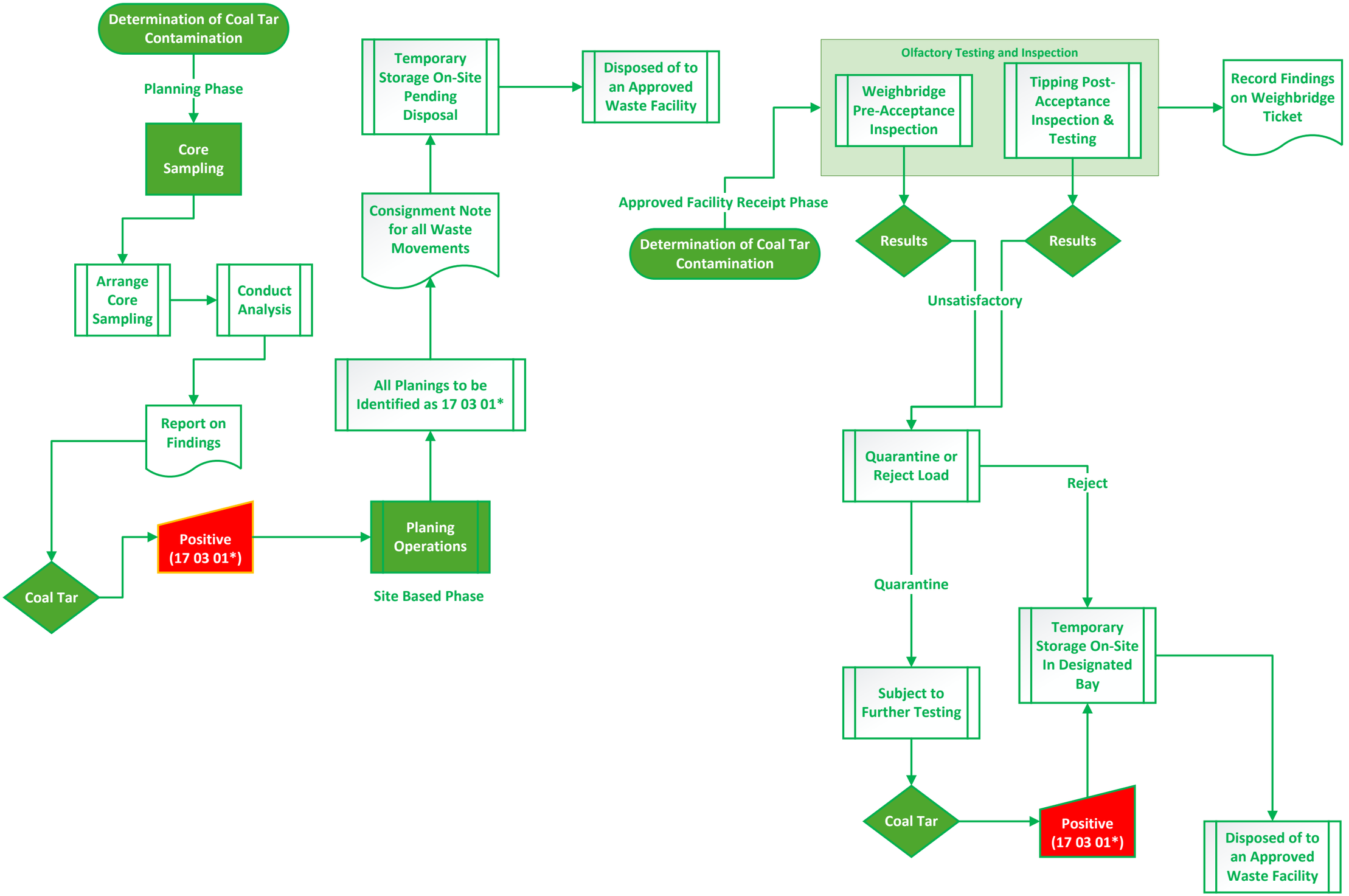
8.2 Appendix B: Waste Acceptance Process Flow

To be inserted when fully developed and agreed. Current versions provided as a separate document within the application documentation.

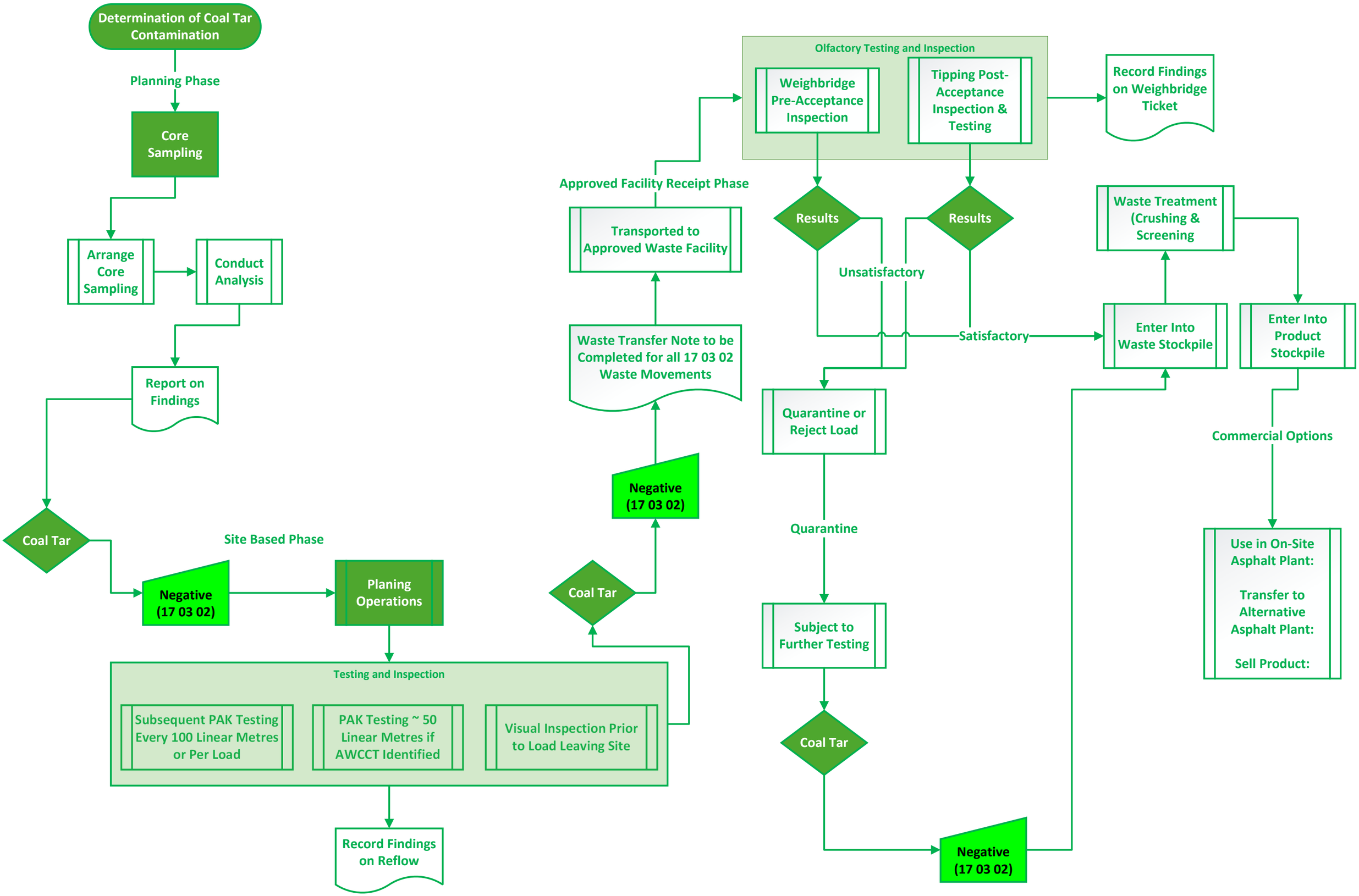
DUAL HAZARDOUS AND NON-HAZARDOUS PROCESS FLOW



HAZARDOUS PROCESS FLOW



NON-HAZARDOUS PROCESS FLOW



Certificate of Registration

ENVIRONMENTAL MANAGEMENT SYSTEM - ISO 14001:2015

This is to certify that:

F M Conway Limited
Vestry Road
Sevenoaks
TN14 5EL
United Kingdom

Holds Certificate Number: EMS 73876

and operates an Environmental Management System which complies with the requirements of ISO 14001:2015 for the following scope:

Please see scope page.

For and on behalf of BSI:

Matt Page, Managing Director Assurance - UK & Ireland

Original Registration Date: 2003-03-19
Effective Date: 2024-07-03
Latest Revision Date: 2024-06-28
Expiry Date: 2027-07-02

...making excellence a habit.™

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.
An electronic certificate can be authenticated online.
Printed copies can be validated at www.bsigroup.com/ClientDirectory

Information and Contact: BSI, Kitemark Court, Davy Avenue, Knowlhill, Milton Keynes MK5 8PP. Tel: + 44 345 080 9000
BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: EMS 73876

Registered Scope:

The significant activities undertaken by FM Conway Ltd include but are not restricted to:

- Highway Maintenance including Carriageway and Footpath Reconstruction.
- Civil Engineering and Construction Projects
- Traffic and Environmental Improvement Schemes
- Production of Asphalt and other Road Laying Materials including RAP to Specification
- Concrete Production to Specification
- Recycling by Crushing, Screening and Washing of Highway Arisings for Production of Aggregates
- The Application of Road Marking Materials and Road Studs to Road Surfaces
- The Overseeing and/or Installation and/or Maintenance of Highway Electrical Works
- Static Temporary Traffic Management on Motorways and High Speed Dual Carriageways Including on-line Widening Schemes
- Installing, Maintaining and Removing Temporary Traffic Management on Rural and Urban Roads
- Professional Services provision of Appropriately Qualified Management to Include CDM-C.
- Hard and Soft Landscaping
- Machine and Hand Lay Surfacing
- Specialist Surfacing Materials including Decorative and BBA HAPAS Approved Anti-Skid
- Sewage and Drainage Works including Installation and Repair
- Gully Cleansing to Include Recycling and Re-Use of Waste Streams
- CCTV Surveys
- Building Maintenance
- Structure Installation, Repair and Refurbishment
- Ductwork Installation
- Winter Maintenance including Provision of Gritting Activities
- Emergency and Re-Active Maintenance including Highway Repairs, Flooding, Traffic Accidents, etc.
- Maintenance of Fleet Plant, Vehicles and Equipment.
-The production of asphaltic materials.

Original Registration Date: 2003-03-19
Effective Date: 2024-07-03
Latest Revision Date: 2024-06-28
Expiry Date: 2027-07-02

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: EMS 73876

Location	Registered Activities
F M Conway Limited Vestry Road Sevenoaks TN14 5EL United Kingdom	The significant activities undertaken by FM Conway Ltd include but are not restricted to: - Highway Maintenance including Carriageway and Footpath Reconstruction. - Civil Engineering and Construction Projects - Traffic and Environmental Improvement Schemes - Production of Asphalt and other Road Laying Materials including RAP to Specification - Concrete Production to Specification - Recycling by Crushing, Screening and Washing of Highway Arisings for Production of Aggregates - The Application of Road Marking Materials and Road Studs to Road Surfaces - The Overseeing and/or Installation and/or Maintenance of Highway Electrical Works - Static Temporary Traffic Management on Motorways and High Speed Dual Carriageways Including on-line Widening Schemes - Installing, Maintaining and Removing Temporary Traffic Management on Rural and Urban Roads - Professional Services provision of Appropriately Qualified Management to Include CDM-C. - Hard and Soft Landscaping - Machine and Hand Lay Surfacing - Specialist Surfacing Materials including Decorative and BBA HAPAS Approved Anti-Skid - Sewage and Drainage Works including Installation and Repair - Gully Cleansing to Include Recycling and Re-Use of Waste Streams - CCTV Surveys - Building Maintenance - Structure Installation, Repair and Refurbishment - Ductwork Installation - Winter Maintenance including Provision of Gritting Activities - Emergency and Re-Active Maintenance including Highway Repairs, Flooding, Traffic Accidents, etc. - Maintenance of Fleet Plant, Vehicles and Equipment. -The production of asphaltic materials.

Original Registration Date: 2003-03-19
Latest Revision Date: 2024-06-28

Effective Date: 2024-07-03
Expiry Date: 2027-07-02

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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

Certificate No: EMS 73876

Location	Registered Activities
F M Conway Ltd Erith Wharf Church Manor Way Erith DA8 1DF United Kingdom	The production of asphaltic materials.
F M Conway Limited Hollybush Lane Aldershot GU11 2PX United Kingdom	The production of asphaltic materials.
F M Conway Limited West Theale Industrial Estate Wigmore Lane Theale RG7 5HH United Kingdom	The production of asphaltic materials.
F M Conway Limited Coomber Way Croydon CR0 4TQ United Kingdom	The production of asphaltic materials.

Original Registration Date: 2003-03-19

Effective Date: 2024-07-03

Latest Revision Date: 2024-06-28

Expiry Date: 2027-07-02

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract.
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BSI Assurance UK Limited, registered in England under number 7805321 at 389 Chiswick High Road, London W4 4AL, UK.
A Member of the BSI Group of Companies.

APPENDIX 7

Technically Competent Management

CIWM

Continuing Competence Certificate

This certificate confirms that

Andrew Newell

Has met the relevant requirements of the Continuing Competence scheme for the following award(s) which will remain current for two years from 23/06/2025

TSH	Transfer - Hazardous Waste
TSNH	Transfer - Non Hazardous Waste

Expiry Date: 23/06/2027

Verification date: 17/06/2025

Authorised:

Responsible Officer

Learner ID: 124328

Certificate No.: 5283392

Date of Issue: 23/06/2025

CIWM Chief Executive Officer

The Chartered Institution of Wastes Management





Scan code on reverse to authenticate that this is a genuine pape

CIWM

Qualification Title:

CIWM (WAMITAB) Level 4 Certificate in Waste and Resource Management

Qualification Accreditation Number:

603/3581/6

This Certificate is awarded to

Andrew Newell

Verification date: 29/03/2023

Authorised:

Katie Cockburn
Professional Services Director

Learner ID: 124328

Certificate No.: 5222637

Date of Issue: 03/04/2023

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APPENDIX 8

Dust Emissions Management Plan

DUST EMISSIONS MANAGEMENT PLAN, V1

for a Road Planings Storage and Recycling Facility on

Land at Neilson Rail Sidings, Wellingborough, Northamptonshire, NN8 4BH

Report prepared on behalf of:
Conway Eurovia Industries Limited

Report Date:
March 2026

This Dust Emissions Management Plan was prepared by PDE Consulting Limited on behalf of Conway Eurovia Industries Limited

consulting limited
chartered surveyors

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w: pdeconsulting.co.uk

Dust Emissions Management Plan - Revision History

The following revision history sheet will be completed to detail any issued changes to this documentation:

Version No.	Version Date	Description
Original	March 2026	Original Dust Emissions Management Plan (DEMP) produced in support of a new permit application.

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DRAWINGS

Permit Boundary Plan	Drawing No. KD.WLBR.1.D.024	Scale: 1:1250@A3
RAP Shed Internal	Drawing No. 11968-WML-20-GF-DR-S-2002	Scale 1:100@A1
RAP Shed Elevations	Drawing No. KD.WLBR.1.D.014	Scale: 1:500@A3
Dust Receptor Plan	Drawing No. KD.WLDR.1.D.025	Scale: 1:10,000@A3

APPENDICES

Appendix 1 Environmental Daily Check Sheet
Appendix 2 Accident / Incident Report Form
Appendix 3 Dust Complaint Form

1. INTRODUCTION

Scope

1.1 This Dust Emissions Management Plan (DEMP) has been prepared by PDE Consulting Limited (the 'Agent') on behalf of Conway Eurovia Industries Limited (CEIL) (the 'Operator'). It has been prepared to support an application for a new environmental permit for a Road Planings Storage and Recycling Facility to be located on land at Neilson Rail Sidings, Wellingborough, Northamptonshire, NN8 4BH (the 'Site')

1.2 This DEMP has been produced to support a new environmental permit application for the storage and treatment of road planings.

1.3 The recycling facility will store and mechanically process non-hazardous asphalt road planings (EWC code 17 03 02) to produce Recycled Asphalt Pavement (RAP). The RAP will subsequently be used in the adjacent asphalt manufacturing process, also operated by the Operator. RAP may also be transported to other CEIL asphalt plants and depots for use in asphalt manufacturing, storage, or sold to third-party customers on a commercial basis.

1.4 The proposed permit boundary is shown in green on Drawing Number KD.WLBR.1.D.024. Total annual throughputs of road planings will be limited to 200,000 tonnes per annum (tpa).

1.5 The Site is located within the administrative area of North Northamptonshire Council (NNC). The adjacent asphalt plant will be operated in accordance with a Part B permit issued by NNC.

1.6 According to the Defra website[1] the Site is not located within an Air Quality Management Area (AQMA), and there are no AQMAs within NNC. The nearest AQMA is Bedford Town Centre AQMA, located over 22 kilometres (km) to the south of the Site and within the administrative area of Bedford Borough Council.

1.7 This DEMP has been completed in accordance with the following EA guidance:

- https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit;
- https://www.gov.uk/guidance/non-hazardous-and-inert-waste-appropriate-measures-for-permitted-facilities; and
- Example Dust & Particulate Emissions Management Plan (version 12).

Implementing the DEMP

1.8 The Site Manager, reporting to the Technically Competent Manager (TCM), will ensure that the procedures in this DEMP are adhered to.

1.9 The Site Manager will have the authority to modify or stop operations to reduce emissions on a temporary or permanent basis until the risk of emissions has subsided.

1.10 The Site Manager will ensure that all members of staff are aware of the dust management procedures.

[1] http://uk-air.defra.gov.uk/aqma/

1.11 Staff at all levels will receive the necessary training and instruction in their duties relating to the control of all operations and the potential sources of dust emissions.

1.12 This document will form part of the Site specific Environmental Management System (EMS) for the waste operation. A copy of the EMS will be kept on Site in the weighbridge office.

Review of the DEMP

1.13 This DEMP will be reviewed as follows:

- When changes are made to the Site, operations or equipment that affect the activities covered by the permit;
- Whenever an application is made to change ('vary') the permit;
- After any accident, complaint or breach of the permit; and
- If a new environmental problem or issue is encountered, and new measures have been implemented to control it.

1.14 Any revisions or changes will be logged in the revision history table at the beginning of the document.

2. OPERATIONS

Site Location and Setting

2.1 The Site lies within the administrative boundary of NNC, sitting in the northeast of Wellingborough. The Site forms part of an operational railway sidings known as Neilson Rail Ridings. The National Grid Reference (NGR) for the approximate centre of the Site is SP 90275 69958.

2.2 The Site forms part of an operational railway sidings known as Neilson Rail Sidings at Wellingborough which comprises an existing railhead with ancillary facilities including areas of surfaced yard space. The Site is bounded to the north and east by the River Ise corridor, beyond which is open land and industrial development to the east. To the west lies the rail sidings and ancillary facilities, with the Finedon Road Industrial Estate beyond. To the south lies further operational railway land.

2.3 There are a number of waste operations being undertaken in proximity to the Site including those listed in Table 3.

2.4 The nearest residential receptors to the Site are at Teal Lane, off Nest Lane, approximately 700 metres (m) to the west.

Waste Activities (Source)

2.5 The Site will be used for the storage and treatment of road planings only.

2.6 Imported road planings will be used to produce RAP. RAP is waste asphalt that has been processed in accordance with the WRAP Protocol for the production of aggregates from inert waste and meets the requirements of the product standards BS EN 13108-8 Bituminous mixtures – Reclaimed Asphalt.

2.7 The storage and mechanical processing of road planings will be undertaken in the RAP shed. The RAP shed to be fully roofed with curtained / slide doors at entrance and exit. Details of the layout and elevations of the proposed RAP shed are shown on Drawing Reference KD.WLBR.1.D.014.

2.8 Internally the RAP shed will house the plant and machinery required to recycle road planings which will consist of a loader, an excavator, a granulator and a screener.

2.9 The granulator in the RAP shed will include a feed hopper with a magnetic screen to remove any anomalies / foreign bodies before material goes into granulator. The granulator will produce 6 mm and 20 mm RAP. Any oversize material will be directed back through the granulator.

2.10 All conveyors will be covered. There shall be purpose built partitioning and stock bay walls which shall segregate the inter-related uses. A schematic of the inside of the RAP building is presented on Drawing No. 11968-WML-20-GF-DR-S-2002.

2.11 All HGVs arrive via the main Site entrance where each load will be weighed and the appropriate documentation checked at the weighbridge.

2.12 Once the paperwork has been checked and approved the driver will be directed to the RAP shed to deposit their load.

2.13 Within the shed, a loading shovel shall transfer the imported road planings to a granulator which will separate the component fractions, typically, into smaller particle sizes.

2.14 Once the particle size has been reduced, the materials will be screened into the respective various sizes and stockpiled within dedicated bays until they are required for use in the asphalt manufacturing process, or transported off Site to be used elsewhere. All of the reception, treatment and storage of road planings shall be undertaken in the RAP shed.

2.15 On an annual basis, it is expected that around 200,000 tpa of road planings will be imported to the Site for recycling with all the materials being imported using HGV's with an average payload capacity of 20 t. It is anticipated that approximately 50 % of the planings will be imported on a back haul basis using the returning HGVs associated with the export of asphalt.

2.16 A maximum quantity of 50,000 tonnes of processed and unprocessed planings will be stored on Site at any one time. The maximum treatment capacity of the crusher / screener is 1,000 tonnes per day.

2.17 Once the planings have been recycled, they will be used within the on-Site asphalt manufacturing process, or transported off Site to be used elsewhere. It is expected that 150,000 tpa of planings will be used within the asphalt plant and that the balance of 50,000 tpa of planings shall be transported from Site as a recycled aggregate.

2.18 Approved working hours, in accordance with the granting of planning permission, are:

- Road planings recycling - 07:00-17:00 Monday to Sunday, including bank holidays.
- Offloading by train - 07:00-23:00 Monday to Sunday, including bank holidays.
- Manufacture and distribution of asphalt, importation of road planings and distribution of recycled planings - continuous, including Sundays and bank holidays.

2.19 Waste imported to the Site will be subjected to mechanical processing with associated storage, all of which are undertaken with extensive dust suppression systems in place. In general, the activities with the potential to generate and / or release dust and particulate matter comprise the following:

- Vehicles entering and / or leaving the Site with mud on wheels, and tracking dust on to or off the Site;
- Vehicles and plant moving around the Site kicking up dust;
- Road vehicles tipping waste;
- Movement of waste materials around the Site;
- Treatment of waste by crushing and screening, including wastes dropping from conveyors into stockpiles;
- Waste stockpiles;
- All Site surfaces; and
- Particulate emissions from the exhaust of vehicles / plant / machinery on Site.

Surfacing and Drainage

2.20 As stated previously, the storage and treatment of road planings will be undertaken in the RAP shed. Within the RAP shed, the bays will be concreted and the remaining areas will be surfaced in hardstanding (asphalt).

2.21 There will be no water based suppression systems in the RAP shed and therefore no water management systems will be required.

Dust Suppression

2.22 A dust suppression system will be installed around the RAP shed and the wider Site to keep the ground wet and stop dust becoming airborne. Large scale rainwater harvesting is proposed to be undertaken from the roof of the main building to provide water for the dust suppression systems on the Site.

2.23 The locations of the proposed dust suppression units are indicated on Drawing Number KD.WLBR.1.D.024, indicative examples of units to be utilised on Site include:

- Corgin Atomiser Airo – Air-atomising, low-volume suppression system for controlling dust and odour emissions:
  - Powerful and directional, ultra-fine, air-atomised mist;
  - Effective capture of fine airborne dust and odours;
  - Variable adjustment to achieve 'non-wetting' spray;
  - Water usage as low as 1 litre/hr per nozzle;
  - Additive Auto-Dosing system;
  - Configurable and adaptable modular system; and
  - Water droplets sized to capture inhalable and respirable dust.

- Corgin Mistcannon A-Type – Mobile dust suppression unit for controlling large-scale dust emissions:
  - Powerful, oscillating MistCannon;
  - Up to 80m throw range;
  - Mobile design;
  - Water saving function; and
  - Remote control option.

2.24 Five 30,000 litre capacity rainwater harvesting storage tanks will be installed to support the water demand from the suppression system as shown on Drawing Number KD.WLBR.1.D.02.

Housekeeping

2.25 Environmental control checks will be in place for the regular inspection and maintenance of the recycling activity, including Site surfacing, plant and external dust suppression units.

2.26 In accordance with https://www.gov.uk/guidance/control-and-monitor-emissions-for-your-environmental-permit the following is undertaken to minimise the impacts of vehicle movements on the Site:

- Using enclosed vehicles, skips or containers wherever possible, or covering them if this is not possible (unless they're empty);
- Enforcing speed limits;
- Reducing idling on Site;
- Minimising the number of access points to the Site;
- Surfacing roadways suitably to make them easy to clean;
- Making sure vehicles keep to surfaced roads;
- Regularly cleaning and dampening roadways; and
- Making sure road-going vehicles do not enter unmade ground and muddy areas (including waste stockpiles) to reduce muddy track-out.

2.27 Staff in the weighbridge office will be able to visually inspect the front access area. If they notice dust being raised from vehicles, they will inform the Site Manager to arrange for this area to be mechanically swept.

2.28 A sweeper will be on call throughout the day and will be called as and when required, to sweep all accessible operational areas and roadways to ensure there is no build-up of materials that could become airborne.

2.29 Hand-held wheel cleaning equipment (or equivalent) will be available at the Site for use as necessary before leaving the Site. Vehicles will be instructed to use the wheel cleaning equipment if necessary, prior to returning to the local road network. The wheel cleaning equipment will be maintained in full working order.

2.30 As part of the daily environmental control checks, an initial and final Site inspection is completed at the start and end of each working day to check that the Site is in a condition that has a low potential to release dust outside of normal operational hours. The on-Site weather station will be consulted by Site staff to identify forecasts of weather events or storms which may have the potential to increase the risk of the release of particulate matter from the Site outside operational hours and additional control measures such as dampening of Site surfacing and stockpiles prior to the end of the working day will be implemented as necessary.

2.31 The daily environmental control checklist is presented in Appendix 1. Any problem that is observed is reported to the Site Manager who is responsible for investigating the cause and implementing any remedial action as necessary. Incidents and remedial measures taken are recorded in the Site diary.

Out of Hours

2.32 If Site staff observe dust emissions from the recycling area, outside of the operational hours of the recycling activity, they will activate the dust suppression system.

3. METEOROLOGY (PATHWAY)

Meteorology

3.1 Unlike many other atmospheric pollutants, the generation of fugitive dust is particularly dependent upon weather conditions and the nature of the operations.

3.2 The prevailing meteorological conditions at any site will be dependent upon many factors, including its location in relation to macroclimatic conditions as well as more site specific, microclimatic conditions. The most significant meteorological factor is the predominant wind direction and wind speeds. Consequently, data has been collected regarding the predominant wind speeds and directions appropriate to the Site.

3.3 The distance from the source to the receptor location plays an important role in the potential impact experienced as airborne dust, dust deposition rates and detection concentrations fall off rapidly with increasing distance from the source. The very largest dust particles usually only travel 10 m to 20 m before being deposited and the vast majority of dust is deposited within 100 m of the source.

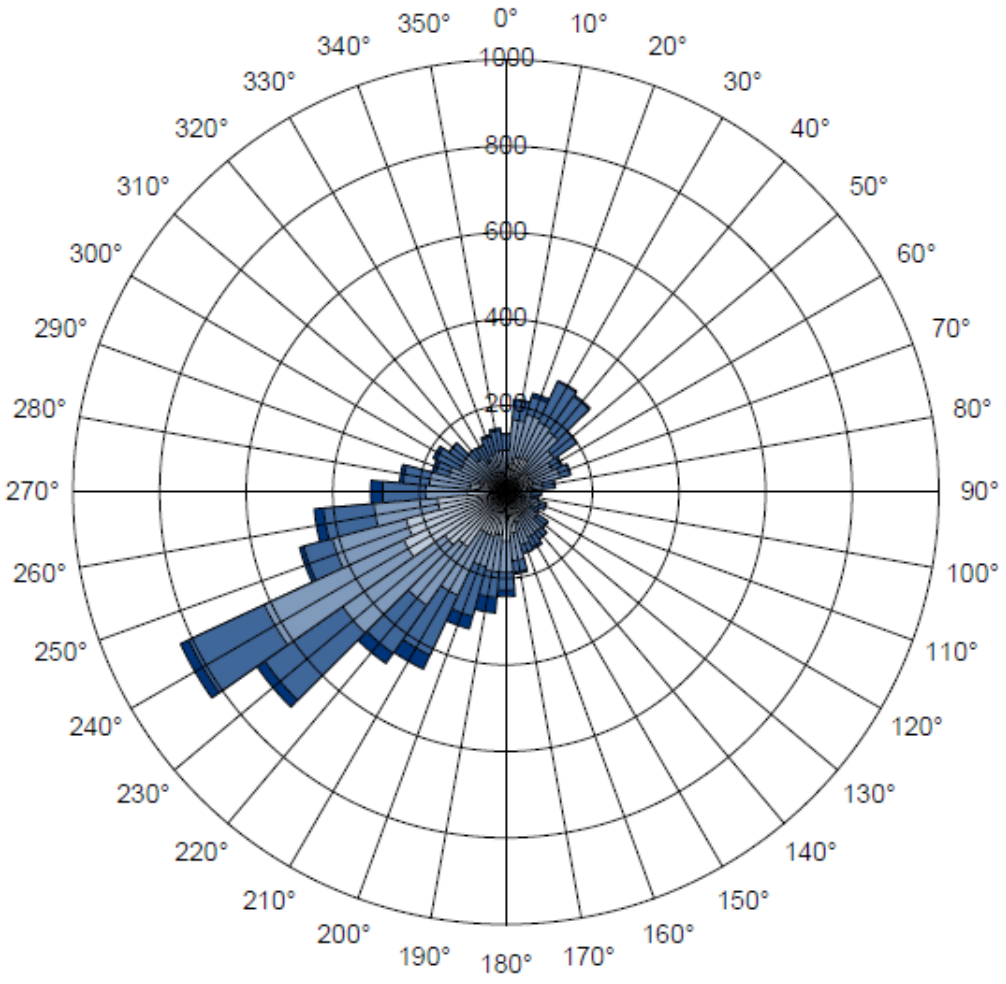
Local Wind Speeds and Directions

3.4 Wind speed and direction data from Bedford Meteorological Station observing station for the period 2023 have been obtained from the Air Quality and Odour Assessment (AQOA) (Tetra Tech, October 2024) which was undertaken to support the planning application. The meteorological data indicates that the prevailing winds are mainly from the south-west.

3.5 The Bedford Meteorological Station is located approximately 18 km south east of the Site and has the facilities to calculate both wind speed and wind direction.

3.6 The location and measurements taken at the station are appropriate for characterisation of the wind climate at the Site. Wind speed and direction data from the observing station are presented in the wind rose in Figure 1.

Figure 1: Wind Rose data for Bedford Monitoring Station



4. POTENTIAL SENSITIVE RECEPTORS

4.1 Sensitive receptors include, but are not limited to, environmental habitat sites, hospitals, schools, protected species sites, childcare facilities, elderly housing and convalescent facilities. These are areas where the occupants are more susceptible to the adverse effects of exposure to high levels of dust and particulates.

4.2 It is also necessary to consider clean industry and manufacturing processes such as, but not limited to, powder coaters and paint shops, offices, diesel generators, busy roads, power stations, food manufacturing and food outlets, agricultural land, the location of solar panels or air conditioning systems in the near vicinity, and areas of car parking.

4.3 Potentially sensitive receptors identified within 1 km of the proposed permit boundary are listed in Table 1 and shown on Drawing Number KD.WLDR.1.D.025.

Table 1: Potential Sensitive Receptor Locations

Ref No.	Land Use	Description	Direction from permit boundary	Distance from permit boundary (m)
1	Railway Line	Transport	West	10
2	River Ise	Controlled Waters	East	30
3	Paterson Road	Transport	West	290
4	Rank Hovis PLC - Finedon Flour Mill	Food manufacturing	South west	315
5	Powdat Enamellers Ltd	Powder coating	West	420
6	Sanders Road	Transport	West	420
7	The Breakfast Barn Ltd.	Food outlet	South east	480
8	Rixon Road	Transport	South west	530
9	Finedon Road	Transport	South east	550
10	Mighty Splash Wellingborough Swim School	Recreation	South east	655
11	Ladywell Allotments	Recreation	South west	685
12	Teal Lane	Residential	South west	700
13	212 Wellingborough Road	Residential	East	720
14	Diana's Health and Fitness	Recreation	South west	770
15	The Locomotive (Pub)	Recreation	South west	815
16	Hillside Farm Nurseries	Plant nursery	North east	850
17	Properties off Hillside Road	Residential	South west	850
18	Virani Food Products	Food manufacturing	South west	1000

4.4 It is concluded in the AQOA that:

"*It is considered that after the implementation of the proposed odour and dust suppressions technologies during site operations, the residual impact of odour and dust will be 'negligible' at all receptors*".

4.5 As stated previously all waste operations will be undertaken within the RAP shed. The suppression technologies referenced in Section 4.4 are the proposed suppression units, shown on Drawing Number KD.WLBR.1.D.024.

Other Dust / Particulate Emitting Operators

4.6 Examples of other potentially dusty operations located within 500 m of the Site are listed in Table 2.

Table 2: Other Dust Emitting Operators

Company/ Environmental Permit Number	Address	Type of Facility	Distance and direction from Site boundary
VEKA Recycling Ltd. / GB3802TJ	VEKA Recycling Ltd., 1-4 Nielson Road, Wellingborough, NN8 4PE	Non-hazardous waste treatment facility	150 m West
F & R Cawley Ltd. / JP3494NM	Neilson Road Depot, Off Paterson Road, Wellingborough, Northants, NN8 4BZ	Hazardous waste transfer station	250 m North West
GRS (Roadstone) Ltd / EPR/LB3733AF	Wellingborough Railhead, Meadow Close, Wellingborough, NN8 4BH	Non-hazardous waste treatment facility	250 m South

4.7 As well as the potential sources of emissions described above, vehicle movements associated with the operations of this business, and others in the industrial estate, are likely to produce fugitive emissions from vehicle movements and point source emissions from exhausts.

5. MITIGATION MEASURES

5.1 The Site will be used for the processing of road planings only which have significantly less emissions when compared to processing dry aggregates.

5.2 In accordance with EA guidance, Table 3 presents the source pathway receptor model for the Site.

Table 3: Source-Pathway-Receptor Routes

Source	Pathway	Receptor	Type of impact	Where relationship can be interrupted
Mud	Tracking dust on wheels and vehicles, then mud dropping off wheels / vehicles when dry.	Receptor No 9 in Table 1.	Visual soiling, also consequent resuspension as airborne particulates.	Vehicles will not travel on un-made ground. Use of road sweeper.
Debris	Falling off lorries.	Receptor No 9 in Table 1.	Visual soiling, also consequent resuspension as airborne particulates.	Materials will be imported and exported from Site in sheeted HGV's. Use of road sweeper.
Tipping, storage, and treatment of wastes	Atmospheric dispersion.	All receptors in Table 1.	Visual soiling and airborne particulates.	Minimise source strength by shielding of stockpiles from wind whipping and positioning sources away from receptors. All waste activities will be undertaken in a building.
Vehicle exhaust emissions	Atmospheric dispersion.	All receptors in Table 1.	Airborne particulates.	Regulatory controls and best-practice measures to minimise source strength.
Non road going machinery exhaust emissions	Atmospheric dispersion.	All receptors in Table 1.	Airborne particulates.	Regulatory controls and best-practice measures to minimise source strength.

5.3 Table 4 provides details of mitigation measures to be employed at the Site to break the source-pathway-receptor model at the Site.

5.4 The mitigation measures proposed include preventative and remedial measures forming the Site-specific contingency plan to be utilised during dry conditions which will break the potential source-pathway-receptor linkages identified at the Site.

Table 4: Summary of Mitigation Measures

Abatement Measure	Description / Effect	Use on Site
Preventative Measures		
Enclosure within a building	Creating a solid barrier between the source of dust and particulates and receptors is likely to be the most effective method of control.	Road planings will be stored and treated in the proposed RAP shed. Details of the layout and elevations of the proposed RAP shed are shown on Drawing Nos. KD.WLBR.1.D.014 and 11968-WML-20-GF-DR-S-2002.
Cover conveyors and picking stations.	Covering conveyors and picking stations will minimise dust dispersion.	All conveyors in the RAP shed will be covered.
Hardstanding of unmade ground	Creating an easy to clean impermeable surface, using materials such as concrete as opposed to unmade (rocky or muddy) ground within the Site and on Site haul roads. This should reduce the amount of dust and particulate generated at ground level by vehicles and Site activities.	The entire Site is surfaced in concrete / asphalt. The external areas are regularly cleaned to prevent the tracking of mud outside of the permit boundary. The Site surfacing allows easy cleaning and prevents wind-whipping. There are regular inspections and maintenance of surfaced areas. Vehicles delivering wastes to the Site will not travel on un-made ground.
Appropriate sizing of operations (waste throughput, vehicle size, operational hours)	Managing the amount of activity on Site as well as associated traffic movements will result in reduced emissions and reduced re-suspension of particulates from the Site.	The operation has been sized appropriately, with particular regard to dust, noise and vehicle movements. Annual throughputs of planings will be limited to 200,000 tonnes per annum. With regards to the proposed working hours for road planings recycling, they are: 07:00-17:00 Monday to Sunday, including bank holidays.
Site / process layout in relation to receptors	Locating particulate emitting activities at a greater distance from receptors may reduce receptor exposure.	The Site is located in an industrial area and the nearest residential receptor is located over 700 m to the west of the Site.
Good house-keeping	Having a consistent, regular housekeeping regime that is supported by management, will ensure the Site is regularly checked and issues remedied to prevent and remove dust and particulate build up.	Housekeeping procedures will be in place for the regular inspection and maintenance of the recycling area and associated infrastructure, including Site surfacing, plant and dust suppression units. Inspections will pay particular attention to signs of damage, deterioration, and leakage. Records will be kept detailing action taken. Any identified faults will be repaired as soon as practicable. A road sweeper will be available to clean the highway outside the Site and the Site. A road sweeper will be

Abatement Measure	Description / Effect	Use on Site
		on call throughout the day and will be called as and when required.
Sheeting of vehicles	Prevents the escape of debris, dust and particulates from vehicles as they travel.	All vehicles delivering wastes to the Site or transferring materials from Site will be sheeted.
Site speed limit, 'no idling' policy and minimisation of vehicle movements on site.	Reducing vehicle movements and idling will reduce emissions from vehicles.	All vehicles. Enforcement of a 10 mph speed limit on Site will reduce re-suspension of particulates by vehicle wheels. The Non-Road Mobile Machinery will be operated when required. If the plant is not being used, the engine will be switched off. For vehicles waiting to load or unload, the drivers will be encouraged to switch off their engines.
Minimisation of waste storage heights and volumes on site	Minimising the height at which waste is handled should reduce the distance over which debris, dust and particulates could be blown and dispersed by winds. Reducing storage volumes should reduce the surface area over which particulates can be mobilised.	All wastes will be stored and treated in a building so that wind whipping cannot occur. The maximum volume of processed and unprocessed material to be stored in the RAP shed at any one time will be approximately 50,000 tonnes.
All site vehicles will be maintained in accordance with the manufacturer's instructions.	To ensure optimum operation conditions. Plant and vehicles will be regularly serviced and equipped with effective exhausts to minimise exhaust emissions.	All vehicles.
Remedial Measures		
Water suppression with atomisers and/ or mist sprays	Damping down of Site areas using atomisers and / or mist sprays can reduce dust and particulate re-suspension and will assist in the cleaning of the Site when combined with sweeping. Uses less water than water bowsers.	A dust suppression system will be installed around the RAP shed and the wider Site to keep the ground wet and stop dust becoming airborne. Large scale rainwater harvesting is proposed to be undertaken from the roof of the main building to provide water for the dust suppression systems on the Site. The locations of the proposed dust suppression units are indicated on Drawing Number KD.WLBR.1.D.024.
Use crushing and screening plant within their design capacity and maintaining good standards of all plant and equipment.	To minimise dust emissions during processing.	All relevant plant.

Abatement Measure	Description / Effect	Use on Site
Road sweepers	Road sweeping vehicles dampen down dusts whilst brushing and collecting dust and particulates from the road surface, particularly at the kerbside.	Vehicles will not track mud outside of the permit boundary. A road sweeper will be on call throughout the day and will be called as and when required.
Good Site Management	Record all dust and air quality complaints, identify cause(s), take appropriate measures to reduce emissions in a timely manner, and record the measures taken.	All staff.
Staff training	Provide training to the Site personnel on dust mitigation. Training should also cover 'emergency preparedness plans' to react quickly in case of any failure of the planned dust mitigation.	All staff.
Communication	Maintain good communication to help alleviate anxieties between the Operator and the surrounding communities.	All staff.

Dust Monitoring

5.5 During all Site operations continuous visual monitoring for emissions of particulate matter shall be undertaken by suitably trained Site personnel.

5.6 In addition to the continuous visual monitoring, a specific routine monitoring schedule will be undertaken, comprising visual monitoring of the permitted operations three times per day.

5.7 The results of the on-Site monitoring of visible dust will be recorded on the environmental daily check sheet presented in Appendix 1.

5.8 The forms will be kept on-Site for Senior Management to review at any time.

Dust Action Plan

5.9 In the event that any dust or particulates arising from the Site are released outside the permit boundary in such quantities or concentrations that they are likely to cause pollution of the environment or harm to human health, the actions specified below will be implemented:

- The Site Manager or his nominee will be informed immediately;
- The source will be identified and damped down;
- If the source is a particular waste stream, consideration will be given to suspending acceptance of that waste until appropriate measures are in place to control the release of nuisance emissions from the waste; and
- If deemed necessary, the Site Manager will instruct the suspension of any operation causing visible dust emissions until such time as the situation has been resolved.

Following a Complaint

5.10 Following receipt of a complaint regarding dust, all dusty operations may be ceased, and the following actions should be taken:

- The complaint must be investigated fully as soon as possible and the source of the dust identified;
- Following identification of the dust source, suitable remediation measures will be employed as detailed above;
- Once the dust source has been identified and mitigated, operations can be resumed;
- If the identified source of dust is deemed to require more thorough investigation or remediation i.e. the source of the dust is not immediately apparent, then dusty operations will be suspended until such a time as it has been identified;
- A record of the complaint together with the remediation actions and a completed Incident Report form will be kept on Site and will be available for review at any time should Senior Management, Local Council or EA request them; and
- If the complainant has requested feedback then this will be provided once the issue has been resolved.

5.11 Whether a single or multiple complaints are received, the above procedure will be followed.

5.12 If three complaints are received about the same issue then the activity causing the complaint will be stopped until further investigations are undertaken.

5.13 In accordance with standard permit conditions, the EA shall be notified without delay following the detection of any significant adverse environmental effects.

5.14 All dust complaints will be discussed with Senior Management and appropriate actions taken to make any necessary improvements.

5.15 Reporting forms for incidents and complaints are presented in Appendices 2 and 3.

Community Engagement

5.16 The Operator is conscious of the potential impact on the environment of its activities and strives to manage and minimise those impacts. They recognise the importance of community engagement and strives to build a positive working relationship with local residents and businesses across all of its sites. Contact details for the Site are displayed on the signage at the Site entrance.

6. ABNORMAL EVENTS

6.1 EA guidance provides that a DEMP must provide an assessment of reasonably foreseeable abnormal events that are likely to put pressure on your Site processes and the steps the Site will take to mitigate against this.

6.2 For example, you could experience equipment breakdown, power failure, high winds, drought, fire, flood, or you may be short staffed etc.

6.3 EA guidance provides that there may be other documents that cover this information e.g. management plans, business continuity plans; therefore, information can be pulled from these other documents to complete this table.

6.4 A number of these scenarios are already considered in the Accident Management Plan and the Environmental Risk Assessment.

6.5 Table 5 provides details of the recovery steps for each event; that is, what is done on Site to plan for these foreseeable issues.

Table 5: Abnormal Events

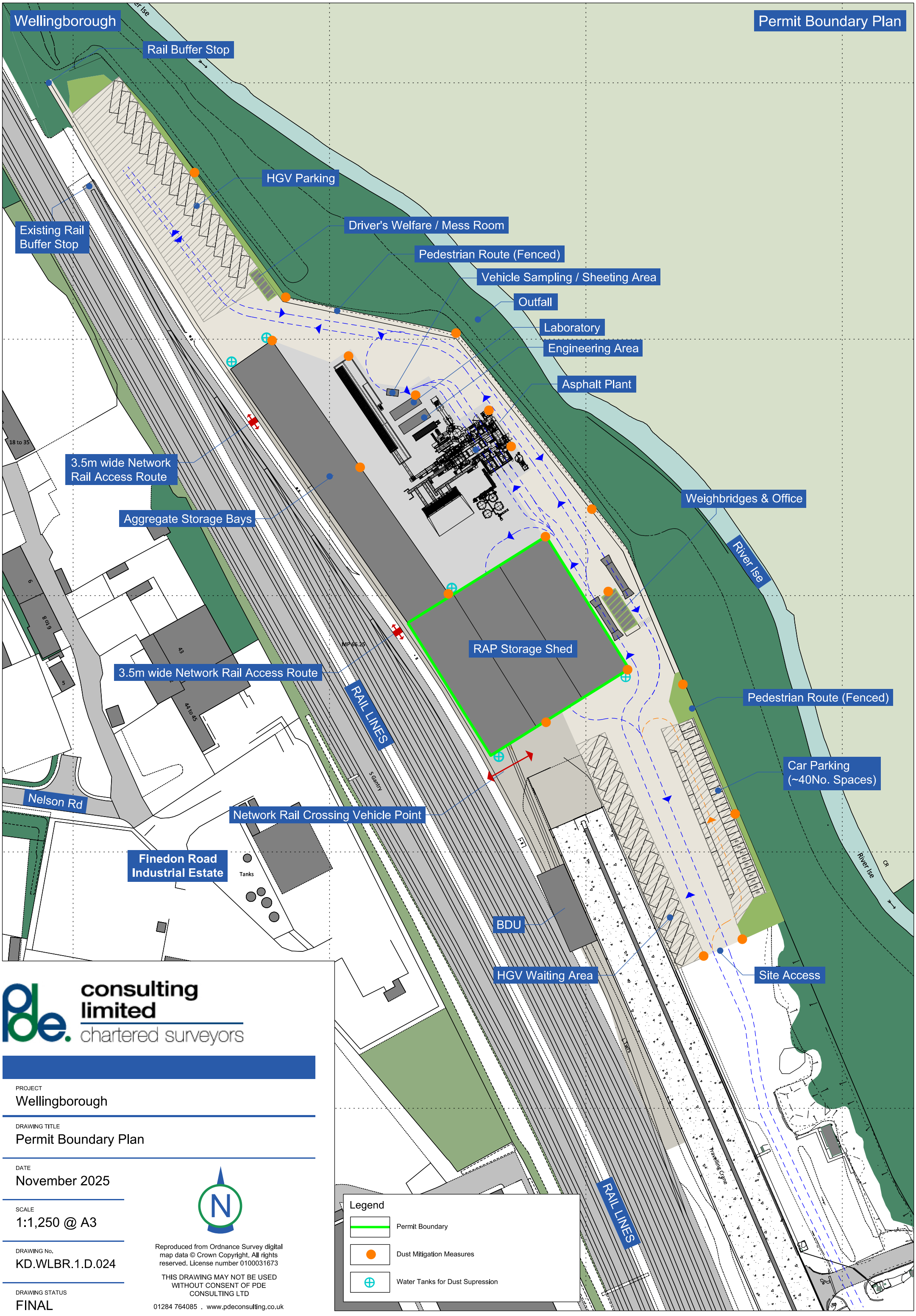
Abnormal Event	Recovery Steps
Equipment breakdown	Regular maintenance of plant will limit the likelihood of equipment breakdown. Mobile plant only – repair or replace. Keep spare parts on site. Cancel further waste imports if necessary.
Power failure	Maintenance of up to date plans showing location of utilities. Provision of standby facilities. Cancel further waste imports if necessary.
High winds	Wastes will be stored and treated within the RAP shed therefore waste operations should not be affected by high winds.
Drought	Check weather forecasts daily. In periods of prolonged dry weather dust monitoring will be increased and it may be necessary to wet surfaces and clean the Site on a more regular basis. The proposed dust management measures in this DEMP will continue to be effective.
Fire	The nature of the Site and operations undertaken means that fire is unlikely. Wastes are not combustible. Plant is limited to mobile plant only. Appropriate fire-fighting equipment will be available on-Site. In the event of a fire staff will dial 999. Reduce or stop waste activities accordingly.
Flood	The risk of flooding is unlikely as the Site is located in Flood Zone 1 (lowest risk). Reduce or stop waste activities accordingly.
Staff Absence	Ensure that staff are trained in multiple roles e.g. if the weighbridge operative is on leave other staff have the necessary training to cover the operation of the weighbridge. If there are insufficient staff available to operate the Site within the permit conditions, waste activities will be reduced or stopped accordingly.

DRAWINGS

Permit Boundary Plan	Drawing No. KD.WLBR.1.D.024	Scale: 1:1250@A3
RAP Shed Internal	Drawing No. 11968-WML-20-GF-DR-S-2002	Scale 1:100@A1
RAP Shed Elevations	Drawing No. KD.WLBR.1.D.014	Scale: 1:500@A3
Dust Receptor Plan	Drawing No. KD.WLDR.1.D.025	Scale: 1:10,000@A3

Wellingborough

Permit Boundary Plan



pde. consulting limited
chartered surveyors

PROJECT
Wellingborough

DRAWING TITLE
Permit Boundary Plan

DATE
November 2025

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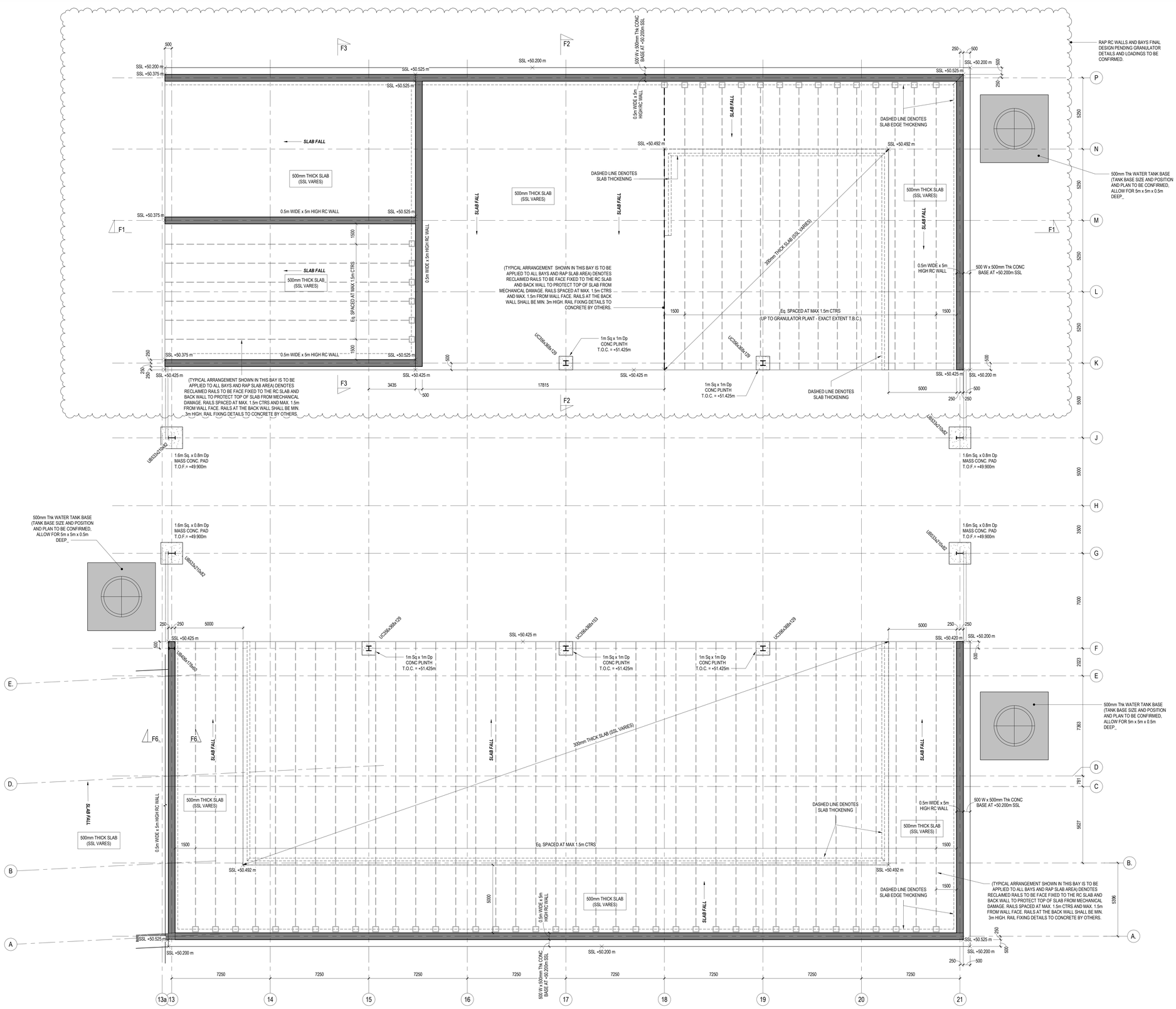
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RAP BUILDING GROUND FLOOR PLAN

(SCALE 1 : 100)

GENERAL NOTES

1. DO NOT SCALE FROM THIS DRAWING WORK TO FIGURED DIMENSIONS ONLY.
2. NO DEVIATION FROM THE DETAILS SHOWN ON THIS DRAWING IS ALLOWED WITHOUT PRIOR PERMISSION IN WRITING.
3. ALL DRAWINGS ARE TO BE READ IN CONJUNCTION WITH ALL ARCHITECTS, ENGINEERS AND SPECIALISTS DRAWINGS AND THE SPECIFICATION.
4. THE CONTRACTOR SHALL INCORPORATE ALL THE REQUIREMENTS OF THE PRE-TENDER STAGE HEALTH & SAFETY PLAN.
5. FOR CONCRETE QUALITIES REFER TO SPECIFICATION E10/105A, E10/105B AND E10/106A.
6. CONCRETE FINISHES
   CONCEALED CONCRETE FACES:
   FORMED FINISHES - BASIC FINISH E20/610A
   WORKED FINISHES - TAMPED FINISH E41/210
   EXPOSED CONCRETE FACES:
   FORMED FINISHES - FINE SMOOTH FINISH E20/630A
   WORKED FINISHES - SMOOTH FLOAT FINISH E41/310

RESIDUAL RISK REGISTER

GROUND FLOOR SLAB HAS BEEN DESIGNED TO SUPPORT THE AGGREGATE MATERIAL - REFER TO DRAWINGS FOR ASSUMED MATERIAL PROFILES.

OPERATIONAL RISK

IT IS LIKELY THAT LOADING SHOVEL OPERATION WILL CAUSE DAMAGE THE STRUCTURE AND CAUSE MAINTENANCE ISSUES DURING OPERATIONAL PHASE OF THIS DEVELOPMENT. WHILST CONSIDERATIONS ARE MADE TO PROVIDE APPROPRIATE PROTETCION TO AREAS AT MOST RISK, THE END USER SHALL ENSURE RIGOROUS TRAINING AND DISCIPLINE FOR PLANT OPERATORS TO MINIMISE THE RISK OF DAMAGE TO STRUCTURE.

ANY DAMAGE TO STRUCTURE SHOULD BE INSPECTED BY QUALIFIED AND COMPETENT STRUCTURAL ENGINEER AND REMEDIATED TO THEIR RECOMMENDATIONS.

SHOULD STAFF DISCIPLINE PROVE TO BE INEFFECTIVE, IT MAY BE NECESSARY TO RETRO-FIT ADDITIONAL PROTECTION MEASURES TO PREVENT REOCCURING DAMAGES.

NOTE:

HOLDING DOWN BOLTS TO BE INCLUDED IN CIVIL WORKS SCOPE.

HOT ROLLED STEELWORK TO BE INCLUDED IN M&E CONTRACTORS SCOPE.

TEMPORARY WORKS

THE CONTRACTOR MUST APPOINT A TEMPORARY WORKS COORDINATOR WHO WILL BE RESPONSIBLE FOR IDENTIFYING TEMPORARY WORKS REQUIRED TO FACILITATE CONSTRUCTION. THIS MAY INCLUDE ACCESS, PROPPING, CRANE PLATFORMS, PILING MAT ETC.

WML CONSULTING ARE NOT RESPONSIBLE FOR TEMPORARY WORKS DESIGN EXCEPT BY ADDITIONAL APPOINTMENT. WHERE THE REQUIREMENT FOR TEMPORARY WORKS IS NOTED ON WML DRAWINGS, THESE ARE INDICATIVE ONLY AND REFLECT AN ASSUMED METHOD OF CONSTRUCTION.

WML DRAWINGS DO NOT HIGHLIGHT ALL AREAS WHERE TEMPORARY WORKS MAY BE REQUIRED AS THIS WILL BE DETERMINED BY THE METHOD AND SEQUENCE OF CONSTRUCTION ADOPTED BY THE CONTRACTOR.

METHOD STATEMENTS AND TEMPORARY WORKS DESIGNS IMPACT ON THE PRIMARY STRUCTURE AND SHOULD BE FORWARDED TO WML FOR REVIEW PRIOR TO PROGRESSION OF WORKS.

WML PROPOSED CONSTRUCTION SEQUENCE:

- UNDERTAKE BULK EARTHWORKS TO ACHIEVE REQUIRED FORMATION LEVELS FOR PILING MAT
- INSTALL PILING MAT / LOAD DISTRIBUTION MATTRESS
- INSTALL CMCs
- CROP FRESHLY CAST CMC CONCRETE TO REQUIRED LEVEL AND REINSTATE LOAD DISTRIBUTION MATTRESS - REFER TO GROUND IMPROVEMENT CONTRACTORS DETAILS
- TRIM AND LEVEL OFF LOAD DISTRIBUTION MATTRESS TO REQUIRED SLAB FORMATION LEVELS
- LAY SEPARATION MEMBRANE
- CONSTRUCT CONCRETE BLINDING AND RC SLAB

NOTE:

- ALLOW FOR MIN. 125kg/m3 REINFORCEMENT

PRELIMINARY DRAWING

Rev	Amendment	Date	By	Chkd
P01	PRELIMINARY ISSUE	11.07.25	DB	MS

Project
WELLINGBOROUGH ASPHALT AND RECYCLING FACILITY

Client
FM CONWAY

Title
RAP BUILDING GROUND FLOOR GA

WML Job No.	Drawn	Checked	Date	Scale
11968	DB	MS	JUNE 25	As indicated @ A1

WML CONSULTING Civil, Structural & Geotechnical Engineers
Third Floor South Metropolitan House Station Road Cheadle Hulme SK8 7AZ
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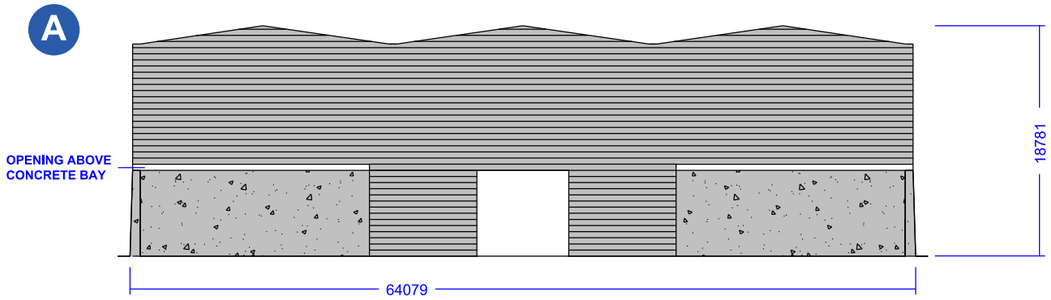
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Revision P01

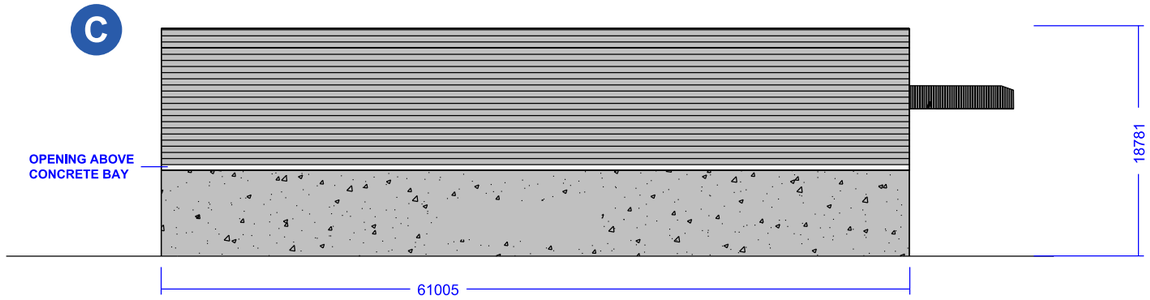
Wellingborough

RAP Shed

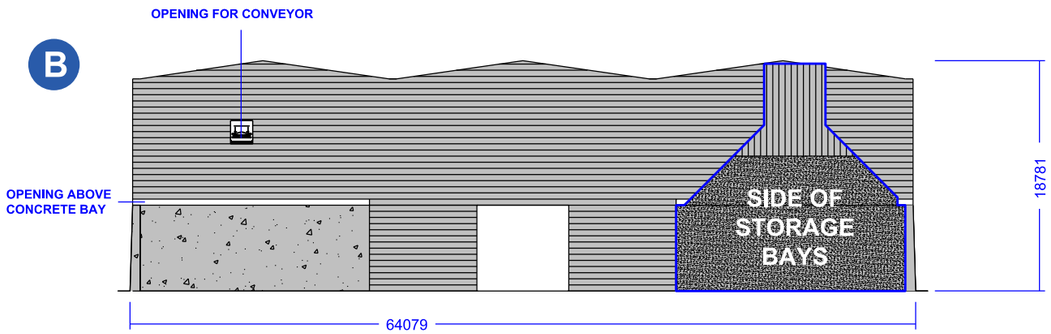
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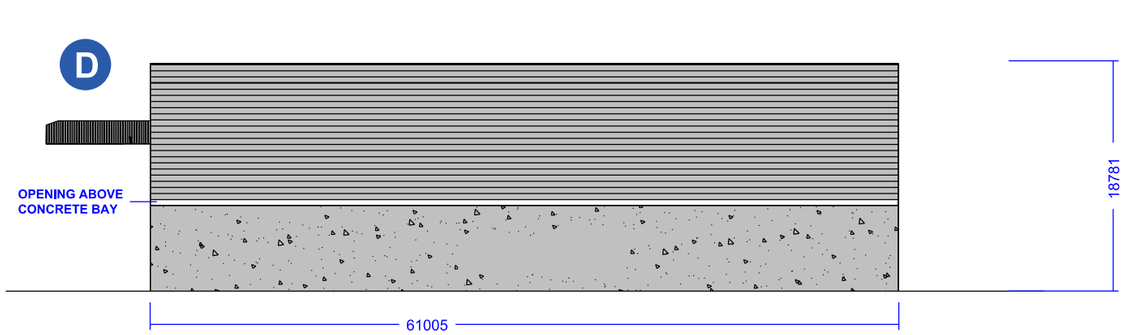
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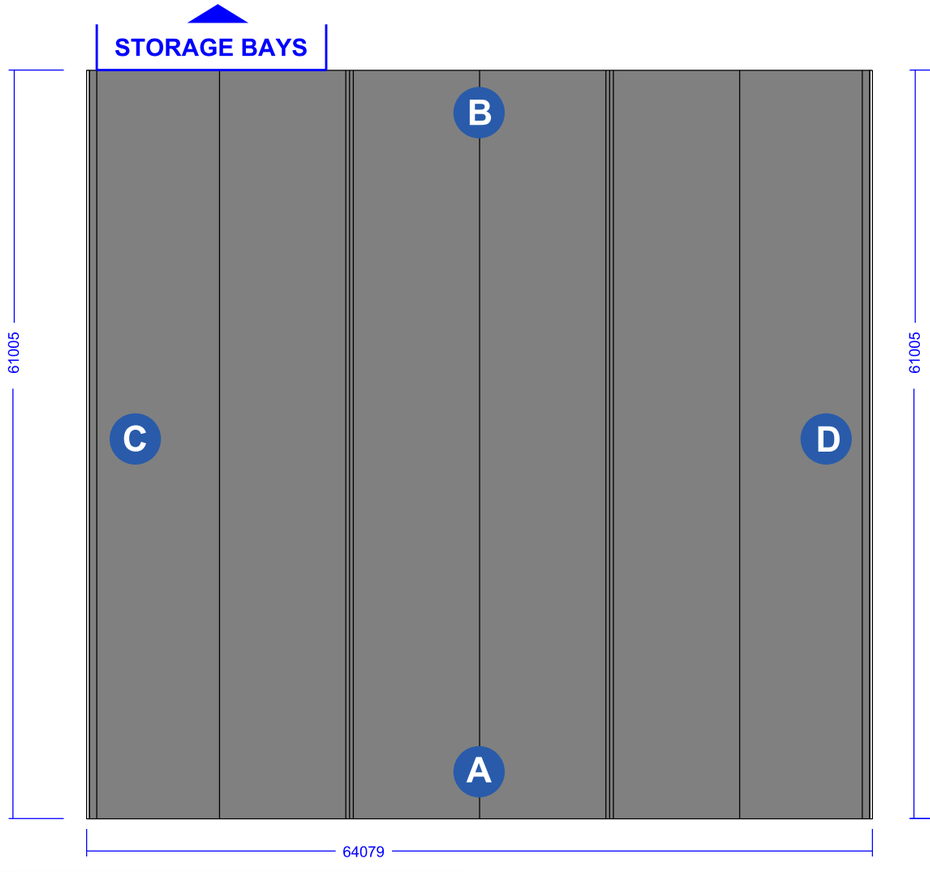
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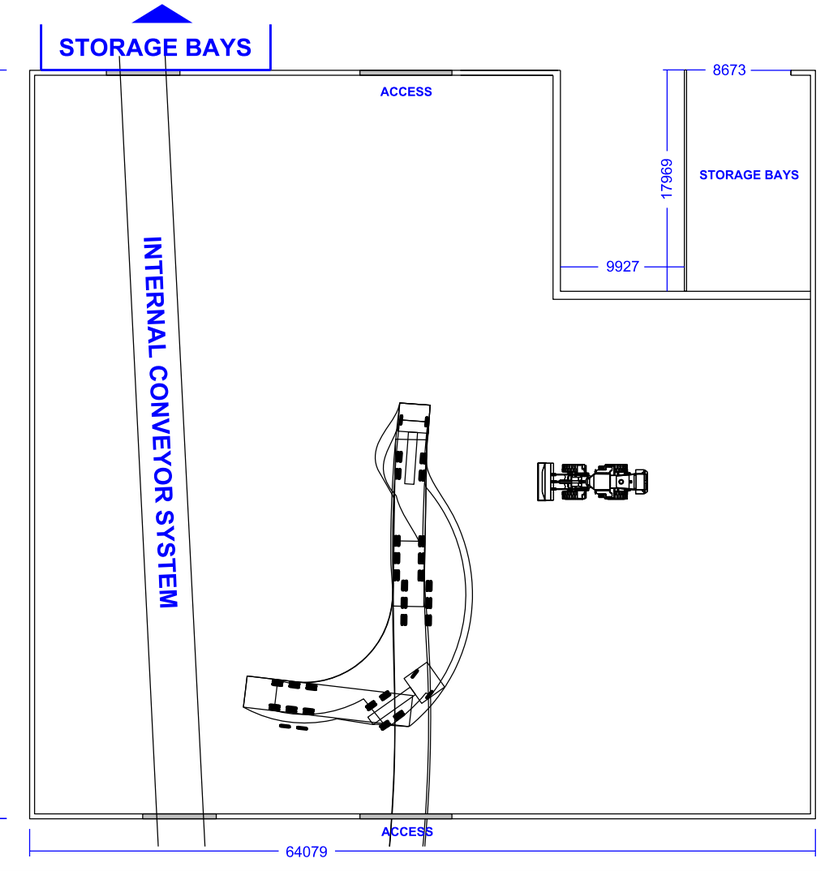


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Proposed Roof Plan & Floor Plan





Elevations

SCALE

0 25

metres

pde. consulting limited chartered surveyors

PROJECT
Wellingborough

DRAWING TITLE
RAP Shed

DATE
October 2024

SCALE
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DRAWING No.
KD.WLBR.1.D.014

DRAWING STATUS
FINAL

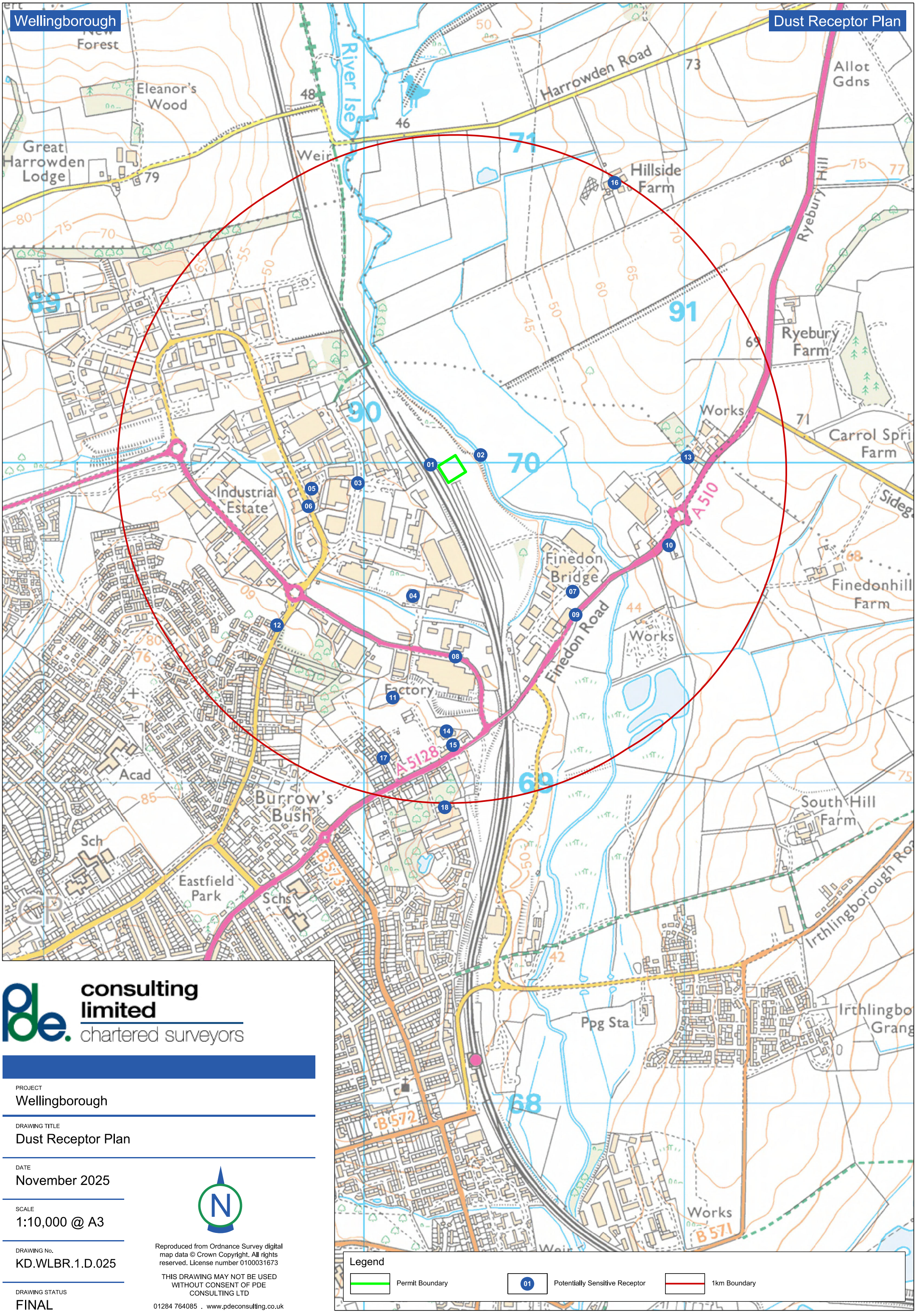
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Wellingborough

Dust Receptor Plan



Legend

Permit Boundary

01 Potentially Sensitive Receptor

1km Boundary

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PROJECT
Wellingborough

DRAWING TITLE
Dust Receptor Plan

DATE
November 2025

SCALE
1:10,000 @ A3

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APPENDIX 1

Environmental Daily Check Sheet

Wellingborough Recycling – Daily Environmental & Housekeeping Checklist	Date:	

Pre-start Briefing
(E.g. Production requirements / Weather forecast / IBCs of water available for mobile jet mister)

	Start of Shift	**During Shift**	**End of Shift**
General Observations			
Time of checks:			
Position of observations:	☐ Recycling shed ☐ Weighbridge ☐ Aggregate storage bays	☐ Recycling shed ☐ Weighbridge ☐ Aggregate storage bays	☐ Recycling shed ☐ Weighbridge ☐ Aggregate storage bays
Weather conditions:	☐ Dry ☐ Wet ☐ Changeable	☐ Dry ☐ Wet ☐ Changeable	☐ Dry ☐ Wet ☐ Changeable
Wind direction from on-site weather station: *Indicate with a directional arrow*	North West East South	North West East South	North West East South
All wastes are contained within the Recycling Shed in the designated bays and/or stockpiles:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
All waste bays and stockpiles are clearly labelled:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
All waste stockpile heights and volumes are compliant with the Environmental Permit: *If no, add information in the comments section below*	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Drop heights from plant and equipment are suitable and not causing dust emissions:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Condition of recycling area (e.g. surface, spillages, debris):	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory
Site is tidy:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Site is secure (no evidence of trespassing, locks in place etc.):	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Road sweeper on-site:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Any complaints received during operations: *If yes, include details and remedial actions in comments*	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Vehicle sheeting policy being adhered to:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
All plant being managed to ensure noise generation is minimised:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Granulator Plant (located within Recycling Shed)			
Granulator in operation:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Hoods on granulator discharge points in place:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Visual airborne dust/smoke from granulator: *If unsatisfactory, cease operation until rectified, escalate immediately and record remedials*	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory

Errors on systems: *Detail any errors, escalation and remedial actions in comments*	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Recycling Shed & Roadways			
Dust mitigation/suppression system at entrance and exit to Recycling Shed started prior to recycling operations commencing and are functioning correctly:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Site-wide dust suppression systems started prior to recycling operations commencing and are functioning correctly:	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Visual airborne dust from waste stockpiles, recycling shed and roadways: *If unsatisfactory, escalate immediately and record remedials*	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory
Errors on systems: *Detail any errors, escalation and remedial actions in comments*	☐ Yes ☐ No	☐ Yes ☐ No	☐ Yes ☐ No
Condition of site roadways (e.g. surface, spillages, debris): *If unsatisfactory, escalate and record remedials*	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory
Conditions of site drainage (e.g. blockages, pooling surface water) *If unsatisfactory, escalate and record remedials*	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory	☐ Satisfactory ☐ Unsatisfactory
Person Carrying Out Checks			
Additional comments/details of any remedial actions taken:			
Name:			
Signature:			
Designated Site Responsible Person			
Additional comments/details of any remedial actions taken:			
Name:			
Signature:			
Time & Date:			

***Note: This form must be completed in full, including those carrying out the inspection and signed off by the designated responsible person.**

APPENDIX 2

Accident / Incident Report Form

Accident (and Incident) Record

Record of accidents, other incidents or near misses

Date and time of the incident	
What happened, what was it about?	
Was anyone else aware of this – other witnesses? If so who?	
What caused it?	
What have you done to make sure that it does not happen again?	
Was there any **significant pollution** or **environmental damage** to land, water or protected areas – for example: dust, odour or noise pollution outside the site or spillage of polluting liquids onto the ground, or at a site of special scientific interest, or into a drain or a watercourse? If so what?	
If there was, then you must take steps to prevent further damage and notify the Environment Agency on 0800 807060 and any other relevant regulators ASAP. Have you done so? Yes / No	Who did you phone? At what time did you phone?
You must also write or send an email to confirm this to the local office (see your accident management plan for the address) Have you done so?	Yes/No What date did you contact?
Please print your name and sign	

Continue on a separate sheet if you do not have enough room.
Keep the completed form in the file to discuss with your auditors or regulators when they visit.

DRAFT EXAMPLE ONLY

APPENDIX 3

Dust Complaint Form

DUST COMPLAINT FORM

Customer Name:	Address:
Customer Contact:	
Tel. No.:	

Complaint Ref. No.	Date:

Complaint Details & Root Cause
Signed: ..... **Date**

Investigation Details:
Investigation by: _____ **Position:** _____
Times Start: _____ **Finish:** _____
Weather Conditions:_____

Environment Agency Feedback:
Public Recommendation / Feedback

DRAFT EXAMPLE ONLY

APPENDIX 9

Noise Impact Assessment

Walker Beak Mason Limited
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ACOUSTIC CONSULTANTS

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Erection and Operation of an Asphalt Plant, Road Planings Recycling Facility, Ancillary Facilities and Access Neilson Sidings, Wellingborough Noise Impact Assessment

Date 14 October 2024

Author Sarah Large

WBM is the trading name of Walker Beak Mason Limited
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WBM

WBM (the trading name of Walker Beak Mason Limited) is an established independent acoustic consultancy specialising in architectural & building acoustics, environmental noise, planning issues and expert work. WBM is a member of the Association of Noise Consultants and is also a Corporate Member of the Institute of Environmental Management & Assessment. The consultants are members of the Institute of Acoustics.

This report has been prepared with all reasonable skill, care and diligence as appropriate for an acoustic consultancy practice under the terms and brief agreed with our Client. The document is the copyright of WBM and no third party may rely upon this document without the prior and express written agreement of WBM.

Document Control

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1 Introduction

FM Conway Limited are submitting a planning application to North Northamptonshire Council for the erection and operation of an asphalt plant, and road planings recycling facility, ancillary facilities and access on land at Neilson Rail Sidings, Wellingborough in Northamptonshire.

This report sets out the calculated noise levels arising from the operation of the proposed facility at the nearest dwellings to the site using a BS 4142:2014+A1:2019 assessment.

The calculated noise levels are compared with representative background sound levels at the nearest dwellings. These have been determined from attended noise surveys (as well as unattended measurements using an installed sound level meter) undertaken by WBM in November and December 2023.

This comparison of the calculated noise levels arising from the operation of the facility with the background sound levels established in November and December 2023 forms the basis for the BS 4142:2014+A1:2019 assessment method for the nearest dwellings to the site.

To aid comprehension, a glossary of acoustic terms is presented in Appendix A .

Site plans showing the layout of the proposed asphalt plant and road planings recycling facility are presented in Appendix B.

The survey locations for the attended sample measurements and sound level meter install location used by WBM in November and December 2023 are shown on plans in Appendix C.

The details and tabulated results of the attended noise surveys conducted by WBM in November and December 2023 are provided in Appendix D.

The details of the sound level meter installed on site and the results from that meter in graphical and tabular form are presented in Appendix E.

The assumptions included in the creation of the SoundPLAN noise model for the calculations are detailed in Appendix F. SoundPLAN noise calculation plots presenting the calculated noise levels from the proposed facility are presented in Appendix G.

The full breakdown of the BS4142 assessment is included as Appendix H.

2 Site Description

The planning application site “the site” is located to the north east of Wellingborough on operational railway sidings forming part of the wider Neilson Sidings. The site is bound to the north and east by the river Ise corridor, beyond which is open land and industrial development to the east. To the west lies the rail sidings and the London to Sheffield mainline railway with the Finedon Road Industrial Estate beyond. To the south lies further railway land.

The nearest residential development to the site lies beyond Finedon Industrial Estate (to the south west of the site), along Finedon Road and Hillside Road. A number of isolated dwellings are located to the north, north east and east of the site. To the south of the site the Stanton Cross Strategic Sustainable Urban Extension is undergoing construction. The nearest noise sensitive development within this area (residential dwellings, a school) lies to the south east of the development site.

The main noise sources in the locality affecting all residential receptors are from transportation links, road, rail and air traffic, with road traffic noise being the most dominant. Noise from activity at the Finedon Industrial Estate is also part of the sound environment at dwellings along Finedon Road / Hillside Road and at isolated dwellings to the north, north east and immediate east of the site.

2.1 Proposed Development

The proposed development is for the erection and operation of an asphalt plant and road planings recycling facility, ancillary facilities and access. The works will include:

- An asphalt plant, including ancillary equipment;
- Aggregate importation and storage via rail and road (mainly by rail),
- Road planings, additive importation and storage;
- A building for the storage and recycling of road planings;
- Aggregate storage bays, feed hoppers, conveyors and associated equipment;
- Weighbridges;
- The onward distribution of products via road;
- Modest welfare and office facilities;
- Water tanks and dust suppression system;
- Fuel tanks;

- Site lighting and CCTV;
- HGV and car parking; and
- Associated landscaping.

Site plans showing the layout of the proposed asphalt plant and road planings recycling facility are presented in Appendix B.

The site will operate 24 hours per day, 7 days per week, with the following restrictions on night time (23:00 – 07:00) activity:

- No trains will deliver aggregate to the site beyond 23:00;
- The recycling (RAP) operations will only take place between 07:00 and 17:00;
- The only mobile plant to operate at night time is the loading shovel working in and around the aggregate storage bays.

3 Guidance

3.1 National Planning Guidance

Noise Policy Statement for England

The Noise Policy Statement for England (NPSE) was published in March 2010. The aim of the document is to "…*provide clarity regarding current policies and practices to enable noise management decisions to be made within the wider context, at the most appropriate level, in a cost-effective manner and in a timely fashion*".

The long term vision of noise policy is to "*Promote good health and a good quality of life through the effective management of noise within the context of Government policy on sustainable development*".

The long term vision is supported by three aims:

"*Through the effective management and control of environmental, neighbour and neighbourhood noise within the context of Government policy on sustainable development:*

- *avoid significant adverse impacts on health and quality of life;*
- *mitigate and minimise adverse impacts on health and quality of life; and*
- *where possible, contribute to the improvement of health and quality of life*."

The Explanatory Note to the NPSE introduces the concepts of observed effect levels with regard to noise.

NOEL (No Observed Effect Level) - this is the level below which no effect can be detected, i.e. below this level there is no detectable effect on health and quality of life due to noise.

LOAEL (Lowest Observed Adverse Effect Level) – this is the level above which adverse effects on health and quality of life can be detected due to noise.

SOAEL (Significant Observed Adverse Effect Level) – this is the level above which significant adverse effects on health and quality of life occur due to noise.

With regard to the first aim of the NPSE, any noise impacts that are above SOAEL should be avoided.

Where the impact lies somewhere between LOAEL and SOAEL, the second aim of the NPSE requires that all reasonable steps should be taken to mitigate and minimise adverse effects on health and quality of life. However, as stated in paragraph 2.24 of the Explanatory Note to the NPSE "*This does not mean that such adverse effects cannot occur*".

National Planning Policy Framework

The National Planning Policy Framework (NPPF) sets out the Government's planning policies for England. The latest version was published in December 2024.

At the heart of the National Planning Policy Framework is a presumption in favour of sustainable development.

Section 15 of the NPPF (Conserving and enhancing the natural environment) refers specifically to noise in the following paragraphs:

"*187. Planning policies and decisions should contribute to and enhance the natural and local environment by…*

(e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability..."

"*198. Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:*

a) mitigate and reduce to a minimum potential adverse impacts resulting from noise from new development – and avoid noise giving rise to significant adverse impacts on health and the quality of life;

b) identify and protect tranquil areas which have remained relatively undisturbed by noise and are prized for their recreational and amenity value for this reason…"

Paragraph 198(a) also refers to the Explanatory Note to NPSE, 2010.

Technical guidance on noise was originally provided in more detail in the accompanying document "*Technical Guidance to the National Planning Policy Framework*", dated March 2012, which was superseded in March 2014 by the Planning Practice Guidance.

Planning Practice Guidance Noise

Technical guidance on noise is provided by Planning Practice Guidance, published by the Ministry of Housing, Communities & Local Government. Planning Practice Guidance Noise (PPGN) was published in March 2014 and most recently updated in July 2019. This document provides advice on how planning can manage potential noise impacts in new development. It makes reference to the Explanatory Note of the NPSE and also the NPPF.

Paragraph 005 Reference ID: 30-005-20190722 of the PPGN provides guidance on how to establish if noise is likely to be a concern, including the noise exposure hierarchy which summarises the effects of noise exposure and gives examples of outcomes. The noise exposure hierarchy table is reproduced below.

These outcomes can be referred to in the consideration of the effects of impacts and relate to the concepts of observed effect levels with regard to noise introduced in the Explanatory Note to the NPSE.

Response	Examples of Outcomes	Increasing effect level	Action
No Observed Effect Level			
Not present	No Effect	No Observed Effect	No specific measures required
No Observed Adverse Effect Level			
Present and not intrusive	Noise can be heard, but does not cause any change in behaviour, attitude or other physiological response. Can slightly affect the acoustic character of the area but not such that there is a change in the quality of life	No Observed Adverse Effect	No specific measures required
Lowest Observed Adverse Effect Level			
Present and intrusive	Noise can be heard and causes small changes in behaviour, attitude or other physiological response, e.g. turning up volume of television; speaking more loudly; where there is no alternative ventilation, having to close windows for some of the time because of the noise. Potential for some reported sleep disturbance. Affects the acoustic character of the area such that there is a small actual or perceived change in the quality of life.	Observed Adverse Effect	Mitigate and reduce to a minimum
Significant Observed Adverse Effect Level			
Present and disruptive	The noise causes a material change in behaviour and/or attitude, e.g. avoiding certain activities during periods of intrusion; where there is no alternative ventilation, having to keep windows closed most of the time because of the noise. Potential for sleep disturbance resulting in difficulty in getting to sleep, premature awakening and difficulty in getting back to sleep. Quality of life diminished due to change in acoustic character of the area.	Significant Observed Adverse Effect	Avoid
Present and very disruptive	Extensive and regular changes in behaviour, attitude or other physiological response and/or an inability to mitigate effect of noise leading to psychological stress, e.g. regular sleep deprivation/awakening; loss of appetite, significant, medically definable harm, e.g. auditory and non-auditory	Unacceptable Adverse Effect	Prevent

3.2 Local Planning Guidance

North Northamptonshire Joint Core Strategy Adopted July 2016

The North Northamptonshire Joint Core Strategy (JCS) is part of the current Local Plan. The Joint Core Strategy adopted in July 2016 provides the strategic planning policies for the future development of the area from 2016 to 2031.

Policy 8 "*North Northamptonshire Place Shaping Principles"* states that development should ensure quality of life and safer and healthier communities by:

- Protecting amenity by not resulting in an unacceptable impact on the amenities of future occupiers, neighbouring properties or the wider area, by reason of noise, vibration, smell, light or other pollution, loss of light or overlooking;
- Preventing both new and existing development from contributing to or being adversely affected by unacceptable levels of soil, air, light, water or noise pollution or land instability;
- Incorporate ecologically sensitive design and features for biodiversity to deliver 'Biodiversity by Design'.

Northamptonshire Minerals and Waste Local Plan (Adopted July 2017)

The Northamptonshire Minerals and Waste Local Plan (NMWLP) , is the land use planning strategy for minerals and waste related development in the County. It provides the basis for investment in new minerals and waste development in Northamptonshire, and where in the county it should go to. The plan period is from 2011 to 2031.

Policy 18 "*Addressing the impact of proposed minerals and waste development*" states that proposals for minerals and waste development must demonstrate that the following matters have been considered and addressed:

- Protecting Northamptonshire's natural resources and key environmental designations (including heritage assets),
- Avoiding and / or minimising potentially adverse impacts to an acceptable level, specifically addressing air emissions (including dust), odour, bioaerosols, noise and vibration, slope stability, vermin and pests, birdstrike, litter, land use conflict and cumulative impact,
- Impacts on flood risk as well as the flow and quantity of surface and groundwater,
- Ensuring built development is of a design and layout that has regard to its visual appearance in the context of the defining characteristics of the local area,

- Ensuring access is sustainable, safe and environmentally acceptable, and
- Ensuring that local amenity is protected.

North Northamptonshire Council Screening and Scoping Response

North Northamptonshire Council provided a Screening and Scoping document (Application Ref. No. NW/24/00320/SCQ) dated 25 June 2024 which included the following text relating to noise:

"*Air Quality and Noise*

The site is within an existing industrial location, and it is noted that the closest residential properties are well over 700 metres from the site. However, any full planning application should be accompanied by a technical air quality assessment and a technical noise assessment to determine the effect of the Proposed Development on local air quality, and those closest residential properties regarding the effects of noise and dust and any mitigation required."

The document also included the following text relating to cumulative development:

"Cumulative Development

The Proposed Development would not be locally significant in this regard.

The nature of the use and its impact on noise, air quality and other pollution issues can be considered adequately as part of the normal planning process through the submission of technical reports that deal with noise, waste, air quality and a flood risk assessment and drainage strategy."

3.3 British Standard 4142: 2014+A1:2019

British Standard (BS) 4142:2014+A1:2019 "*Methods for rating and assessing industrial and commercial sound*" describes methods for assessing the likely effects of sound of an industrial and/or commercial nature on residential properties. It includes the assessment of sound from industrial and manufacturing processes, M&E plant and equipment, loading and unloading of goods and materials, and mobile plant/vehicles on the site. It can be used to assess sound from proposed, new, modified or additional industrial / commercial sources, at existing or new premises used for residential purposes.

The standard describes methods to measure and determine ambient, background and residual sound levels, and the rating levels of industrial / commercial sound.

BS 4142:2014+A1:2019 is not intended to be used for the derivation or assessment of internal sound levels, or for the assessment of non-industrial / commercial sources such as recreational activities, motorsport, music and entertainment, shooting grounds, construction and demolition, domestic animals, people, and public address systems for speech.

Ambient sound is defined in BS 4142: 2014+A1:2019 as "*totally encompassing sound in a given situation at a given time, usually composed of sound from many sources near and far*". It comprises the residual sound and the specific sound when present.

Residual sound is defined in BS 4142: 2014+A1:2019 as "*ambient sound remaining at the assessment location when the specific sound source is suppressed to such a degree that it does not contribute to the ambient sound*".

The background sound level is the $L_{A90,\,T}$ of the residual sound level, and is the underlying level of sound. Measurements of background sound level should be undertaken at the assessment location where possible or at a comparable location.

The measurement time interval should be sufficient to obtain a representative value (normally not less than 15 minutes) and the monitoring duration should reflect the range of background sound levels across the assessment period. The background sound level used for the assessment should be representative of the period being assessed.

The specific sound level is the $L_{Aeq,Tr}$ of the sound source being assessed over the reference time interval, T_r. BS 4142:2014+A1:2019 advises that T_r should be 1 hour during the day and 15 minutes at night.

The rating level is the specific sound level plus any adjustment for the characteristics of the sound (tone, impulse, intermittent or other acoustic feature).

The standard describes subjective and objective methods to establish the appropriate adjustment. The adjustments for the different features and assessment methods are summarised in the table below.

Acoustic Feature	Adjustment for Acoustic Feature		
	Subjective Methods	**Objective Methods**	
Tonality	+2 dB if just perceptible +4 dB if clearly perceptible +6 dB if highly perceptible	Third Octave Analysis	Narrow Band Analysis
		+6 dB if tones identified	Sliding scale of 0 to +6 dB depending on audibility of tone
Impulsivity	+3 dB if just perceptible +6 dB if clearly perceptible +9 dB if highly perceptible	Sliding scale of 0 to +9 dB depending on prominence of impulsive sound	
Intermittency	+ 3 dB if intermittency is readily distinctive	n/a	
Other	+ 3 dB if neither tonal nor impulsive, but otherwise readily distinctive	n/a	

Where tonal and impulsive characteristics are present in the specific sound within the same reference period then these two corrections can both be taken into account. If one feature is dominant, it might be appropriate to apply a single correction. The rating level is equal to the specific sound level if there are no features present.

The level of impact is assessed by comparing the rating level of the specific sound source with the background sound level. Other factors that may require consideration include the absolute level of sound, the character and level of the residual sound compared to the specific sound, and the sensitivity of the receptor and scope for mitigation.

When the rating level is above the background sound level, a difference of around +5 dB is likely to indicate an adverse impact and a difference of around +10 dB or more is likely to indicate a significant adverse impact, depending on the context.

The lower the rating level with respect to the background sound level, the less likely it is that the specific sound source will have an adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

4 Assessment Methodology

4.1 Determining Receptor Sensitivity

The consequence of a noise impact will be dependent on the receptor and its sensitivity. A summary of the sensitivity of potential noise receptors is provided in the table below.

Receptor Sensitivity & Methodology for Assessing Sensitivity of Receptors	
Sensitivity	**Example of Receptor**
Very High	World Heritage Sites Grade I Listed Buildings
High	Residential properties (permanent tenants) and schools and hospitals
Medium	Transient residential receptors such as users of hotels, users of public footpaths
Low	Commercial premises
Negligible	Assets with very little or no surviving cultural heritage interest

This assessment is focused on the residential dwellings closest to the site which are all considered as being of high sensitivity.

4.2 Determining Impact Magnitude

The significance of effects arising from the proposed site operations on residential receptors is summarised in the following table. The criteria are based on the definitions in BS 4142:2014+A1:2019 following a likely indication of an adverse impact ('moderate' impact magnitude) and a likely indication of a significant adverse impact ('substantial' impact magnitude).

Assessing Magnitude of Impact for Calculated Site Noise Levels	
Impact Magnitude	**Excess of Rating Over Background Sound Level dB $L_{Aeq,1hour}$ (free field)**
Slight	< L_{A90} + 5*
Moderate	> L_{A90} + 5 and < L_{A90} + 10*
Substantial	> L_{A90} + 10*

* Depending on the context

Any assessment following BS 4142:2014+A1:2019 should consider the role of context and whether this might change an initial assessment of impact that is based on the simple numerical difference between site noise level (plus any adjustment for acoustic characteristics) and the background sound level.

4.3 Determining Significance and Nature of Effects

The significance of effect is determined by combining the magnitude of impact with the sensitivity of the receptor.

In this assessment any significance of effect that is defined as being above moderate/minor (i.e. moderate, major/moderate or major) is considered to be adverse. Any significance of effect below and including moderate/minor is considered to represent a “good standard of amenity”.

Significance of Effects Matrix					
		Magnitude of Impact			
		Substantial	**Moderate**	**Slight**	**Negligible**
Sensitivity	**Very High**	Major	Major	Major/Moderate	Neutral
	High	Major	Major/Moderate	Moderate/Minor	Neutral
	Medium	Major/Moderate	Moderate	Minor	Neutral
	Low	Moderate/Minor	Minor	Minor/Neutral	Neutral

4.4 Assessment Assumption Limitations

The greatest limitation of the assessment and the largest level of uncertainty is whether the proposed activity will give rise to the calculated noise level at the receiver locations in practice. Uncertainty is considered In Section 8.4 as part of the BS4142:2014:+A:2019 assessment.

5 Noise Surveys

5.1 Measurement Description

Attended sample measurements were undertaken on Wednesday 29 November 2023 (daytime), Friday 15 December 2023 (daytime) and Tuesday 19 to Wednesday 20 December 2023 (night time) and have been used to obtain the existing baseline noise levels at locations representative of the nearest residential dwellings / areas to the site.

Sample measurements were undertaken at the locations described in Table 5.1 below. A plan showing the measurement locations is provided in Appendix C.

Table 5.1 – Assessment and Measurement Locations

Assessment Location		**Monitoring Location(s)**	
A	Home Farm	1a / 1b	Free field location at roadside
B	Hillside Farm	1c / 1d / 1e	1c - free field location at roadside 1d - free field location at entrance to Hillside 1e – free field location along footpath
C	212 Wellingborough Road / Greenacres / The Hollies	2	Free field location at road side / entrance to The Hollies
D	Finedon Hill Farm	3	Free field location at gated entrance to farm track, just off main road
E	Finedon Road	4a / 4b	4a – free field location along path to allotments in line with rear gardens of dwellings 4b – free field location at end of hillside road at entrance to allotments
F	Stanton Cross proposed housing and school	5	Free field location along South Hill Lane, Station Road, Wellingborough near boarding to construction site

In addition to the sample measurements, a sound level meter was installed on the planning application site on Wednesday 29 November 2023 to obtain further information particularly with regard to the night time sound environment. Unfortunately, the cable connecting the microphone and sound level meter was irreparably damaged on site during the survey at approximately 09:30 on 30 November 2023.

The results from the installed meter up to 07:00 on 30 November 2023 have been used to supplement the sample noise measurements, i.e. the results up the point where there is no obvious damage to the sound level meter cable. The data has only been used to inform night time background and ambient sound levels in the absence of any activity taking place on the site.

The survey details and results are presented in Appendices C, D and E.

5.2 Results

A summary of the range and average background ($L_{A90,15\ minute}$) and ambient / residual ($L_{Aeq,15\ minute}$) levels at each location is presented in the following table. The arithmetic averages of the background sound levels ($L_{A90,15min}$) and the logarithmic averages of the residual sound levels ($L_{Aeq,15min}$) are provided.

Table 5.2 – Summary of Sample Measurements

Assessment Location		Average (Range) of Results dB			
		Background Level $L_{A90,15min}$	Residual Level $L_{Aeq,15min}$	Background Level $L_{A90,15min}$	Residual Level $L_{Aeq,15min}$
		Daytime (07:00 – 23:00)		Night time (23:00 – 07:00)	
A	Home Farm	43 (37-46)	51 (50-53)	39*	48*
B	Hillside Farm	43 (42-44)	63 (57-65)	38 (37-38)	42 (41-42)
C	212 Wellingborough Road / Greenacres / The Hollies	54 (49-59)	69 (67-69)	38 (38-39)	51 (49-52)
D	Finedon Hill Farm	50 (47-53)	67 (66-68)	38*	52*
E	Finedon Road	47 (45-48)	52 (51-52)	36 (36-37)	40 (39-40)
F	Stanton Cross	44 (41-47)	50 (49-51)	38*	41*

* One sample taken

Whilst there was some limited activity on site during some of the daytime attended sample surveys this was not audible at the monitoring locations and as such for the purposes of the BS 4142+A1:2019 assessment, the measured $L_{Aeq,T}$ levels can be treated as residual levels and $L_{A90,T}$ levels as un-influenced background sound levels.

The full results of the daytime installed sound level meter measurements are presented in Appendix E and summarised in Table 5.3 below, which presents the arithmetic average of the background sound levels ($L_{A90,15min}$) and the logarithmic average of the residual sound levels ($L_{Aeq,15min}$) . The modal values for the $L_{A90,T}$ and $L_{Aeq,T}$ results are also provided.

Table 5.3 – Summary of Installed Sound Level Meter Measurements

Site Operational Period	Average Background Level dB $L_{A90,15min}$		Average Residual Level dB $L_{Aeq,15min}$	
	Mean*	Mode	Mean*	Mode
Daytime (07:00 – 23:00)	45	42	50	47
Night time (23:00 – 07:00)	38	34	44	39/45**

*The arithmetic average of the values is presented.
** There are two peaks in the modal average at 39dB $L_{Aeq,15min}$ and 45dB $L_{Aeq,15min}$.

The full results in Appendix E show that the background levels at the install location were lowest between 00:30 and 04:30 hours at night. The sample measurements considered representative of Assessment Locations A and D (where single samples were measured at Survey Locations 1a and 3) were undertaken during this 'quietest' period of night. The sample measurement considered representative of Assessment Location F (Survey Location 5) was undertaken in an earlier part of the night however the result obtained at that location was similar to other background level results obtained in the 'quietest' part of the night. Further comments on the baseline survey results are provided in the consideration of Uncertainty, see Section 7.4.

5.3 Determination of Representative Residual and Background Sound Levels

Representative Residual and Background Sound Levels:

The following Table 5.4 presents the representative residual ($L_{Aeq,T}$) and background ($L_{A90,T}$) sound levels at the six residential assessment locations based on the data obtained by WBM in November and December 2023.

The presented levels are based on the average sound levels from the baseline noise survey data for the periods 07:00 to 23:00 (daytime) and 23:00 to 07:00 (night time). The values in the table have been used to inform the BS 4142:2014+A1:2019 assessment.

Table 5.4 – Summary of Representative Residual and Background Sound Levels

Assessment Location	Daytime (07:00 – 23:00)		Night-time (23:00 – 07:00)	
	Representative Residual Sound Level dB $L_{Aeq, T}$	Representative Background Sound Level dB $L_{A90, T}$	Representative Residual Sound Level dB $L_{Aeq, T}$	Representative Background Sound Level dB $L_{A90, T}$
A. Home Farm	51	43	48	39
B. Hillside Farm	63	43	42	38
C. The Hollies	69	54	51	38
D. Finedon Hill Farm	67	50	52	38
E. Finedon Road	52	47	40	36
F. Stanton Cross	50	44	41	38

6 Embedded Mitigation

The proposed development includes a number of mitigation measures identified at the outset of the proposal and which have been included in the noise modelling and associated calculations as described below.

All conveyors at the site are enclosed. Noise generating operations have been enclosed within buildings wherever possible to minimise the noise footprint of the site. This includes the asphalt plant, where the mixer and burner are clad (1mm sheet steel, R_w=25dB) and 4mm PVC strips (R_w=10dB) are included at the entrance and exit to the load out points.

Unloading of aggregate from rail delivery is undertaken using a bottom discharge unit, which removes the need for additional mobile plant for unloading operations using an external material handler. Unloading takes place within a building, providing screening between the source of noise and nearby residential receptors.

Recycling operations, including use of an excavator, screener, granulator / shredder and loading shovel, take place within a building. This again helps to reduce the noise footprint of the site. It is understood that the granulator / shredder and the screener will be electrically powered, generating a much lower sound power level than equivalent machinery which is typically powered by a diesel engine, therefore reducing noise levels at source.

Night time operations have been limited such that:

- No trains will deliver aggregate to the site beyond 23:00;
- The recycling (RAP) operations will only take place between 07:00 and 17:00;
- The only mobile plant to operate at night time is the loading shovel working in and around the aggregate storage bays.

7 Calculation of Site Noise Levels

7.1 Calculation Methodology

Site noise calculations of the proposed operations were undertaken using SoundPLAN noise mapping software, following the calculation methodology set out in ISO 9613-2.

A digital ground model (DGM) was created using local ground heights to cover the area including both the site and the nearest residential dwellings to the proposed development. The six locations representative of the nearest residential dwellings to the site have been used for site noise calculations. The assessment locations are shown on a plan in Appendix C.

The following scenarios were modelled:

- Proposed operations daytime (07:00 to 23:00 hours); and
- Proposed operations night-time (23:00 to 07:00 hours).

Table 7.1 below sets out the sources operating during these modelled scenarios.

Table 7.1 – Summary of Operational Sources Daytime / Night time

Sources	**Site Operational Period**	
	Daytime (07:00 – 23:00)	**Night time (23:00 – 07:00)**
Asphalt Plant	Asphalt plant mixer, burner and 2x load out points. Conveyors	Asphalt plant mixer, burner and 2x load out points. Conveyors
Rail Unloading	Train movement Bottom discharge unit dropping aggregate. Conveyor to RAP building	None

Sources	Site Operational Period	
	Daytime (07:00 – 23:00)	**Night time (23:00 – 07:00)**
RAP Storage Building	Conveyor with tripper point Excavator Granulator / shredder Screener Loading shovel Tipping of RAP	Tipping of RAP
HGV Movements	12 HGVs per hour	
Aggregate Storage Building	Conveyor with tripper point	None
Loading Shovel	Working between asphalt plant and aggregate storage building	
Telehandler	Working in yard	None

The sound power levels used for the various noise sources were based on data provided by the client, manufacturers' data sheets or measurements of similar plant/operations undertaken by WBM on sites of a similar nature.

The calculations assume that the area is mainly 100% hard ground apart from grassed areas based on visual review of aerial photography which have been included as 100% soft ground.

The calculations do not include existing buildings which could provide some additional barrier attenuation to represent a worst case scenario.

Details of sound power level data and assumptions used for the SoundPLAN noise model are presented in Appendix F.

The SoundPLAN noise contour plots for the proposed site operations during daytime and night-time periods covering the assessment area are presented in Appendix G.

7.2 Calculation Results

The site noise level (specific sound level) has been calculated over the reference time interval of 1 hour during the day and 15 minutes at night in accordance with the methodology set out in BS 4142:2014+A1:2019.

Noise levels have been calculated at a receiver height of 1.5m above local ground level.

A comparison of the calculated daytime noise levels at the six assessment locations with the representative daytime background and residual sound levels at those locations is set out in Table 7.2.

Table 7.2 – Summary of Calculated Daytime (07:00 – 23:00) Site Noise Levels

Assessment Location	Calculated Site Noise Level dB $L_{Aeq,1\ hour}$	Representative Background Sound Level dB $L_{A90,15\ min}$	Representative Residual Sound Level dB $L_{Aeq,15\ min}$
A. Home Farm	35	43	51
B. Hillside Farm	41	43	63
C. The Hollies	46	54	69
D. Finedon Hill Farm	40	50	67
E. Finedon Road	40	47	52
F. Stanton Cross (South Hill Lane)	36	44	50

A comparison of the calculated night time noise levels at the six assessment locations with the representative night-time background and residual sound levels at those locations is set out in Table 7.3.

Table 7.3 – Summary of Calculated Night-time (23:00 – 07:00) Site Noise Levels

Assessment Location	Calculated Site Noise Level dB $L_{Aeq,15\ minute}$	Representative Background Sound Level dB $L_{A90,15\ min}$	Representative Residual Sound Level dB $L_{Aeq,15\ min}$
A. Home Farm	32	39	48
B. Hillside Farm	37	38	42
C. The Hollies	38	38	51
D. Finedon Hill Farm	32	38	52
E. Finedon Road	32	36	40
F. Stanton Cross (South Hill Lane)	29	38	41

An assessment has been undertaken in accordance with BS 4142:2014+A1:2019 "*Methods for Rating and assessing industrial and commercial sound*" for the nearest dwellings to the site operations in the following section.

8 BS 4142: 2014+A1:2019 Assessment

The information to be reported, as specified in Section 12 of BS 4142:2014+A1:2019, is set in full in Appendix H (where relevant). The findings are summarised on the following pages.

For the BS4142 assessment, an initial estimate of the impact of the specific sound is found by subtracting the measured background sound level from the rating level. The rating level is the specific sound level plus any acoustic feature correction(s) applicable for the specific sound as perceived at the assessment location.

Considering the existing ambient sound environment in the area, the nature of the proposed operations as well as the distances between the site and the receptors, one would not expect any acoustic features of the noise to be readily distinguishable at the dwellings and an acoustic feature correction would not be appropriate. For the purposes of this assessment, the rating level is therefore the same as the specific sound level.

When the rating level is above the background sound level, a difference of around +5 dB is likely to indicate an adverse impact and a difference of around +10 dB or more is likely to indicate a significant adverse impact, depending on the context.

The lower the rating level with respect to the background sound level, the less likely it is that the specific sound source will have an adverse impact. Where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

8.1 Assessment of Normal Daytime (07:00-23:00) Operations

The difference between the calculated daytime site noise levels (the rating levels) and the representative daytime background sound levels is:

- -8dB(A) at Home Farm;
- -2dB(A) at Hillside Farm;
- -8dB(A) at The Hollies;
- -10dB(A) at Finedon Hill Farm;
- -7dB(A) at Finedon Road; and
- -8dB(A) at Stanton Cross (South Hill Lane)

The daytime calculated site noise levels are below the representative background sound levels at all of the nearest assessment locations. The lower the rating level with respect to the background sound level, the less likely it is that the specific sound source will have an adverse impact and where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

8.2 Assessment of Normal Night-time (23:00-07:00) Operations

The difference between the calculated night-time site noise levels (the rating levels) and the representative night-time background sound levels is:

- -7dB(A) at Home Farm;
- -1dB(A) at Hillside Farm;
- 0dB(A) at The Hollies;
- -6dB(A) at Finedon Hill Farm;
- -4dB(A) at Finedon Road; and
- -9dB(A) at Stanton Cross (South Hill Lane)

The night time calculated site noise levels are equal to or below the representative background sound levels at all of the nearest assessment locations. The lower the rating level with respect to the background sound level, the less likely it is that the specific sound source will have an adverse impact and where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

8.3 Context

BS 4142:2014+A1:2019 states that "*An effective assessment cannot be conducted without an understanding of the reason(s) for the assessment and the context in which the sound occurs/will occur.*" Contextual factors that could impact the assessment are discussed in this section.

The proposed development intends to operate parts of the site 24 hours a day, 7 days a week and activity on site could therefore conflict with periods of the day and week when greater freedom from noise would normally be expected, for example evenings and weekend periods. However, various key sources of noise are not proposed to run at night time with only minimal site operation to reduce the noise footprint of the site during more noise sensitive periods. Night time site noise levels are calculated to be equal to or a good margin below existing representative background sound levels.

The site is located within an area of long established industry. Existing and established operations at Finedon Road Industrial State include use of mobile plant and machinery that was audible at some locations during the attended sample measurements undertaken by WBM in November / December 2023. Plant / machinery to be used at the site will not introduce new noise characteristics to the area and should not be perceived as novel sources. Residents within close proximity of the site and the existing Finedon Industrial Estate should already have an expectation of some audible industrial noise given the character of the locality.

The London to Sheffield mainline railway is located to the west of the site (running north to south) and rail movements within the site are unlikely to be distinguishable from existing movements along this network.

The existing sound environment in the locality is controlled by local and distant road traffic noise, including regular HGV movements due to the proximity of the industrial estate and other nearby commercial and agricultural land uses. HGV movements within the site are unlikely to be distinguishable from other existing commercial / industrial operations.

Residual sound levels in the area ranged from 50-69 dB $L_{Aeq,15min}$ during daytime and 40-52 dB $L_{Aeq,15min}$ during night time. Daytime site noise levels are calculated to be below the existing representative residual sound levels by 12 to 27 dB(A). Night time site noise levels are calculated to be below the existing representative sound levels by 5 to 20 dB(A). Noise from the site is therefore unlikely to control or dominate the sound environment at the nearest residential dwellings to the site.

In summary, there are several important contextual considerations relevant for this site that could both increase and decrease the sensitivity of the assessment. On balance it is concluded that the initial assessment of impact does not need to be modified for context and the numerical difference between the calculated site noise level (the rating level) and the background sound level provides an accurate assessment of the impact.

8.4 Uncertainty

Background sound levels have been measured in different wind directions and over separate days to provide typical background sound levels over a range of conditions. It is noted that BS 4142:2014+A1:2019 advises that a typical background sound level should be quantified as opposed to simply presenting the lowest measured value. The average background sound level has been used in the assessment and this is considered a reasonable approach.

Whilst limited sample noise measurements were obtained during the night time period the data from these samples is comparable to the night-time average value derived from the installed sound level meter (recorded between 23:00 and 07:00) giving confidence that the sample measurements are representative of an average value over a longer period. Background sound levels have been measured at several locations at the start of the night time period and during a period when background sound levels can be expected to fall to their lowest values, with little variation observed. The background sound level data is therefore considered representative and not subject to any significant uncertainty.

One of the largest levels of uncertainty is whether the proposed activity gives rise to the calculated noise level at the receiver locations considered. The measurements and assessment have been based on a realistic worst case scenario during the proposed daytime and night time operations. For the majority of the time, the scenario as modelled will not occur because there will be some variability in the site operations and all mobile plant and machinery may not operate simultaneously for the proportion of the time used in the model.

No adjustment for acoustic character has been used in the assessment. Given the separation distance between the site and the nearest residential receptors and the character of the locality, it is not expected that any acoustic features of the noise would be readily distinguishable at the dwellings.

Should it be considered that an acoustic feature correction is necessary for the nearest dwellings to the site, this would mostly appropriately be considered as 'other acoustic feature' as there are no sources on site expected to generate cyclic (intermittent), impulsive and tonal noise character.

Inclusion of a +3dB 'other acoustic feature' correction would result in the following differences between calculated site noise levels and background sound levels for daytime / night-time respectively:

- -5dB(A) / -4dB(A) at Home Farm;
- +1dB(A) / +2dB(A) at Hillside Farm;
- -5dB(A) / +3dB(A) at The Hollies;
- -7dB(A) / -3dB(A) at Finedon Hill Farm;
- -4dB(A) / -1dB(A) at Finedon Road; and
- -5dB(A) / -6dB(A) at Stanton Cross (South Hill Lane)

At the majority of dwellings calculated site noise levels including a +3dB(A) acoustic feature correction would be below the representative background sound level during both daytime and night time and at all dwellings they would be below the point at which adverse noise impact might be expected to occur. Inclusion of an acoustic feature correction does not change the conclusions of the assessment.

Site noise levels have been calculated at 1.5m height and compared to background sound levels which were measured at 1.5m height. At night time, impact is arguably more appropriately assessed for first floor bedrooms using a receiver height of 4m. A change in receiver height from 1.5m to 4m has been investigated at two of the dwellings where the margin between the calculated site noise level and background sound level is lowest: at Location B: Hillside Farm and at Location C: The Hollies. Calculated site noise levels at night time at these two locations are 3dB(A) higher at 4m height than at 1.5m height.

Background sound levels at 4m height have not been measured, but are typically found to be ~2dB(A) higher than those measured level at 1.5m height due to a combination of reduced ground absorption effects and a reduction in screening effects at the higher measurement height. Assessment at 4m height for night time could therefore result in a net 1dB(A) increase. This would result in a difference between the night time calculated site noise level and representative background sound level of 0dB(A) at Hillside Farm and +1dB(A) at The Hollies. Accounting for a +3dB(A) acoustic feature correction, this would increase to +3dB(A) at Hillside Farm and +4dB(A) at The Hollies.

Thus, even accounting for the worst case potential increase in impact arising from uncertainty, the assessment indicates that site noise would be below the point at which adverse impact might be expected to arise. It is noted again that in practice, an acoustic feature correction is not expected to be applicable and in most cases site noise should be below the representative background sound levels. In any event, uncertainty does not change the initial assessment of the impacts.

8.5 Assessment of the Impacts

The daytime calculated site noise levels are below the representative background sound levels at all of the nearest assessment locations. The night time calculated site noise levels are equal to or below the representative background sound levels at all of the nearest assessment locations.

The lower the rating level with respect to the background sound level, the less likely it is that the specific sound source will have an adverse impact and where the rating level does not exceed the background sound level, this is an indication of the specific sound source having a low impact, depending on the context.

Both context and uncertainty have been considered, but were found not to change the initial, numerical assessment of impact.

The daytime and night time soundscape for the six receiver locations considered will continue to be affected by distant and local road traffic noise and occasional rail and air traffic.

9 Likely Significant Environmental Effects

For the purposes of an assessment following BS 4142:2014+A1:2019, the calculated site noise level (the 'specific' sound level) should be adjusted for any acoustic characteristics to give the 'rating' sound level and then compared to the representative background sound level. As noted above, an acoustic feature correction is not considered appropriate in this case. As such the calculated site noise level is the same as the rating noise level.

An assessment following BS 4142:2014+A1:2019 requires the user to consider the impacts of both context and uncertainty on the assessment and whether this might change the conclusions. Both context and uncertainty have been considered, but were found not to change the initial, numerical assessment of impact.

A comparison of the calculated site noise levels at the nearest dwellings and the excess of the rating level over the background sound level is provided for daytime operations in the following table. The impact magnitude criteria (see Section 4.2) and the significance of effects as defined in Section 4.3 is also provided.

Daytime Operations (07:00 – 23:00)					
Location	**Receptor Sensitivity**	**Calculated Site Noise Level dB $L_{Aeq,}$ 1hour free field**	**Excess Over Rating Over Background Sound Level dB(A)**	**Magnitude of Impact**	**Significance of Effects**
A. Home Farm	High	35	-8	Moderate/Minor	Good standard of amenity
B. Hillside Farm	High	41	-2	Moderate/Minor	Good standard of amenity
C. The Hollies	High	46	-8	Moderate/Minor	Good standard of amenity
D. Finedon Hill Farm	High	40	-10	Moderate/Minor	Good standard of amenity
E. Finedon Road	High	40	-7	Moderate/Minor	Good standard of amenity
F. Stanton Cross (South Hill Lane)	High	36	-8	Moderate/Minor	Good standard of amenity

A comparison of the calculated site noise levels at the nearest dwellings and the excess of the rating level over the background sound level is provided for night time operations in the following table. The impact magnitude criteria (see Section 4.2) and the significance of effects as defined in Section 4.3 is also provided.

Night-time Operations (23:00 – 07:00)					
Location	**Receptor Sensitivity**	**Calculated Site Noise Level dB $L_{Aeq,}$ 15min free field**	**Excess Over Rating Over Background Sound Level dB(A)**	**Magnitude of Impact**	**Significance of Effects**
A. Home Farm	High	32	-7	Moderate/Minor	Good standard of amenity
B. Hillside Farm	High	37	-1	Moderate/Minor	Good standard of amenity
C. The Hollies	High	38	0	Moderate/Minor	Good standard of amenity
D. Finedon Hill Farm	High	32	-6	Moderate/Minor	Good standard of amenity
E. Finedon Road	High	32	-4	Moderate/Minor	Good standard of amenity
F. Stanton Cross (South Hill Lane)	High	29	-9	Moderate/Minor	Good standard of amenity

After considering the assessment of impacts and taking account of whether or not context and uncertainty could change the assessment, it is concluded that there are no likely significant effects. For all of the nearest residential dwellings considered, site noise levels are calculated below or equal to the background sound levels and this is a positive indication of a low level of impact. The impact magnitude is slight and a good standard of amenity should be expected.

10 Cumulative Impact of Proposals

The Scoping and Screening Opinion dated 25 June 2024 (Application Ref. No. NW/24/00320/SCQ) that was provided by North Northamptonshire Council includes the following statement relating to “Cumulative Development”:

"Cumulative Development

The Proposed Development would not be locally significant in this regard.

The nature of the use and its impact on noise, air quality and other pollution issues can be considered adequately as part of the normal planning process through the submission of technical reports that deal with noise, waste, air quality and a flood risk assessment and drainage strategy."

The planning application site is located on operational railway sidings and within a large area of industrial development. Further employment development is proposed to the east of the site as part of the Stanton Cross expansion. Whilst the site will add to the existing commercial / industrial character of the area, including operations during night time and weekend periods, the proposals do not introduce novel sources. Calculated site noise levels are a good margin below the existing residual sound levels in the locality and it is expected that the sound environment at the nearest dwellings to the site will continue to be controlled by existing transportation noise sources.

11 Summary and Conclusions

FM Conway Limited are submitting a planning application to North Northamptonshire Council for the erection and operation of an asphalt plant and road planings recycling facility, ancillary facilities and access on land at Neilson Rail Sidings, Wellingborough in Northamptonshire.

This report sets out the calculated noise levels arising from the operation of the proposed facility, for use in a BS 4142:2014+A1:2019 assessment for the nearest dwellings to the site.

The calculated noise levels are compared with representative background sound levels at the nearest dwellings to the site. Background sound levels have been determined from attended noise surveys undertaken by WBM in November and December 2023.

This comparison of the calculated noise levels arising from the operation of the facility with the background sound levels established in November and December 2023 forms the basis for the BS 4142:2014+A1:2019 assessment method for the nearest dwellings to the site.

In accordance with the BS 4142:2014+A1:2019 assessment methodology both context and uncertainty have been considered, but were found not to change the initial, numerical assessment of impact, which is summarised for each assessment location below.

Home Farm

The calculations demonstrate a daytime rating level of 35 dB $L_{Ar,Tr}$ at Home Farm which is 8 dB(A) below the representative daytime background sound level of 43 dB $L_{A90,T}$ and a night-time rating level at Home Farm of 32 dB $L_{Ar,Tr}$, which is 7 dB(A) below than the representative night-time background sound level of 39 dB $L_{A90,T}$. The representative daytime residual level at Home Farm is 51 dB $L_{Aeq,T}$, the representative night-time residual level is 48 dB $L_{Aeq,T}$.

The conclusion for the dwelling at Home Farm is that the assessment indicates no adverse impact during the daytime or night-time.

Hillside Farm

The calculations demonstrate a daytime rating level of 41 dB $L_{Ar,Tr}$ at Hillside Farm which 2 dB(A) below the representative daytime background sound level of 43 dB $L_{A90,T}$ and a night-time rating level for Hillside Farm of 37 dB $L_{Ar,Tr}$ which is 1 dB(A) below the representative night-time background sound level of 38 dB $L_{A90,T}$.

The representative daytime residual level at Hillside Farm is 63 dB $L_{Aeq,T}$, whereas the average night-time residual level is 42 dB $L_{Aeq,T}$.

The conclusion for the dwelling at Hillside Farm is that the assessment indicates no adverse impact during the daytime or night-time.

The Hollies

The calculations demonstrate a daytime rating level of 46 dB $L_{Ar,Tr}$ at The Hollies which is 8 dB(A) below the representative daytime background sound level of 54 dB $L_{A90,T}$ and a night-time rating level for The Hollies of 38 dB $L_{Ar,Tr}$ which is equal to the representative night-time background sound level of 38 dB $L_{A90,T}$.

The representative daytime residual level at The Hollies is 69 dB $L_{Aeq,T}$, whereas the average night-time residual level is 51 dB $L_{Aeq,T}$.

The conclusion for the dwelling at The Hollies is that the assessment indicates no adverse impact during the daytime or night-time.

Finedon Hill Farm

The calculations demonstrate a daytime rating level of 40 dB $L_{Ar,Tr}$ at Finedon Hill Farm which is 10 dB(A) below the representative daytime background sound level of 50 dB $L_{A90,T}$ and a night-time rating level for Finedon Hill Farm of 32 dB $L_{Ar,Tr}$ which is 6 dB(A) below the representative night-time background sound level of 38 dB $L_{A90,T}$.

The representative daytime residual level at Finedon Hill Farm is 67 dB $L_{Aeq,T}$, whereas the average night-time residual level is 52 dB $L_{Aeq,T}$.

The conclusion for the dwelling at Finedon Hill Farm is that the assessment indicates no adverse impact during the daytime or night-time.

Finedon Road

The calculations demonstrate a daytime rating level of 40 dB $L_{Ar,Tr}$ at the dwellings on Finedon Road which is 7 dB(A) below the representative daytime background sound level of 47 dB $L_{A90,T}$ and a night-time rating level for the dwellings on Finedon Road of 32 dB $L_{Ar,Tr}$ which is 4 dB(A) below the average night-time background sound level of 36 dB $L_{A90,T}$.

The representative daytime residual level at the dwellings on Finedon Road is 52 dB $L_{Aeq,T}$, whereas the average night-time residual level is 40 dB $L_{Aeq,T}$.

The conclusion for the dwellings on Finedon Road is that the assessment indicates no adverse impact during the daytime or night-time.

Stanton Cross

The calculations demonstrate a daytime rating level of 36 dB $L_{Ar,Tr}$ at the new housing at Stanton Cross (South Hill Lane) which is 8 dB(A) below the representative daytime background sound level of 44 dB $L_{A90,T}$ and a night-time rating level of 29 dB $L_{Ar,Tr}$ which is 9 dB below the representative night-time background sound level of 38 dB $L_{A90,T}$.

The representative daytime residual level at the new housing at Stanton Cross (South Hill Lane) is 50 dB $L_{Aeq,T}$, the average night-time residual level is 41 dB $L_{Aeq,T}$.

The conclusion for the new housing at Stanton Cross (South Hill Lane) is that the assessment indicates no adverse impact during the daytime or night-time.

Conclusions

It is expected that the site will be generally inaudible at all the receiver locations during the daytime, but may be just audible to audible at the receiver locations during the night-time. The daytime and night time soundscape for the six assessment locations considered will continue to be affected by distant and local road traffic noise and occasional rail and air traffic.

The comparison of the calculated noise levels arising from the operation of the proposed development has been compared to existing background and residual sound levels in the area and it is concluded that whilst site noise may be audible at times during night time, there should be no adverse impact arising from the proposals at the nearest residential dwellings.

Cumulative impact has been considered, but as calculated site noise levels are a good margin below the existing residual sound levels in the locality it is expected that the sound environment at the nearest dwellings to the site will continue to be controlled by existing transportation noise sources.

For all of the nearest residential dwellings considered, site noise levels are calculated below or equal to the background sound levels and this is a positive indication of a low level of impact. The impact magnitude is slight and a good standard of amenity should be expected. With regard to national planning guidance, noise impact from the site is expected to fall within the "*no observed adverse effect level*":

After considering the assessment of impacts and taking account of whether or not context and uncertainty could change the assessment, it is concluded that there are no likely significant noise effects.

Sarah Large MA (Cantab) MSc Dip (IoA) MIOA
Senior Consultant

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Appendix A – Glossary of Acoustic Terms

General Noise and Acoustics

The following section describes some of the parameters that are used to quantify noise.

Decibels dB

Noise levels are measured in decibels. The decibel is the logarithmic ratio of the sound pressure to a reference pressure ($2x10^{-5}$ Pascals). The decibel scale gives a reasonable approximation to the human perception of relative loudness. In terms of human hearing, audible sounds range from the threshold of hearing (0 dB) to the threshold of pain (140 dB).

A-weighted Decibels dB(A)

The 'A'-weighting filter emulates human hearing response for low levels of sound. The filter network is incorporated electronically into sound level meters. Sound pressure levels measured using an 'A'-weighting filter have units of dB(A) which is a single figure value to represent the overall noise level for the entire frequency range.

A change of 3 dB(A) is the smallest change in noise level that is perceptible under normal listening conditions. A change of 10 dB(A) corresponds to a doubling or halving of loudness of the sound. The background noise level in a quiet bedroom may be around 20 –30 dB(A); normal speech conversation around 60 dB(A) at 1 m; noise from a very busy road around 70-80 dB(A) at 10m; the level near a pneumatic drill around 100 dB(A).

Façade Noise Level

Façade noise measurements are those undertaken near to reflective surfaces such as walls, usually at a distance of 1m from the surface. Façade noise levels at 1m from a reflective surface are normally around 3 dB greater than those obtained under freefield conditions.

Freefield Noise Level

Freefield noise measurements are those undertaken away from any reflective surfaces other than the ground.

Frequency Hz

The frequency of a noise is the number of pressure variations per second, and relates to the "pitch" of the sound. Hertz (Hz) is the unit of frequency and is the same as cycles per second. Normal, healthy human hearing can detect sounds from around 20 Hz to 20 kHz.

Octave and Third-Octave Bands

Two frequencies are said to be an octave apart if the frequency of one is twice the frequency of the other. The octave bandwidth increases as the centre frequency increases. Each bandwidth is 70% of the band centre frequency.

Two frequencies are said to be a third-octave apart if the frequency of one is 1.26 times the other. The third octave bandwidth is 23% of the band centre frequency.

There are recognised octave band and third octave band centre frequencies. The octave or third-octave band sound pressure level is determined from the energy of the sound which falls within the boundaries of that particular octave of third octave band.

Appendix A (continued)

Day Evening Night Level L_{den}

The day evening night level is the average A-weighted sound level over a 24 hour period, determined from the L_{day} ($L_{Aeq,12hr}$ 7am-7pm), $L_{evening}$ ($L_{Aeq,4hr}$ 7pm-11pm) and L_{night} ($L_{Aeq,8hr}$ 11pm-7am), with a 5 dB penalty added to the $L_{evening}$ and a 10 dB penalty added to the L_{night}.

Equivalent Continuous Sound Pressure Level $L_{Aeq,T}$

The 'A'-weighted equivalent continuous sound pressure level $L_{Aeq,T}$, is a notional steady level which has the same acoustic energy as the actual fluctuating noise over the same time period T. The $L_{Aeq,T}$ unit is dominated by higher noise levels, for example, the $L_{Aeq,T}$ average of two equal time periods at, for example, 70 dB(A) and 50 dB(A) is not 60 dB(A) but 67 dB(A).

The $L_{Aeq,}$ is the chosen unit of BS 7445-1:2003 "Description and Measurement of Environmental noise".

Maximum Sound Pressure Level L_{Amax}

The L_{Amax} value describes the overall maximum 'A'-weighted sound pressure level over the measurement interval. Maximum levels are measured with either a fast or slow time weighted, denoted as $L_{Amax,f}$ or $L_{Amax,s}$ respectively.

Noise Rating NR

The noise rating level is a single figure index obtained from an octave band analysis of a noise. The NR level is obtained by comparing the octave band sound pressure levels to a set of reference curves and the highest NR curve that is intersected by the sound pressure levels gives the NR level.

Sound Exposure Level L_{AE} or SEL

The sound exposure level is a notional level which contains the same acoustic energy in 1 second as a varying 'A'-weighted noise level over a given period of time. It is normally used to quantify short duration noise events such as aircraft flyover or train passes.

Statistical Parameters L_N

In order to cover the time variability aspects, noise can be analysed into various statistical parameters, i.e. the sound level which is exceeded for N% of the time. The most commonly used are the $L_{A01,T}$, $L_{A10,T}$ and the $L_{A90,T}$.

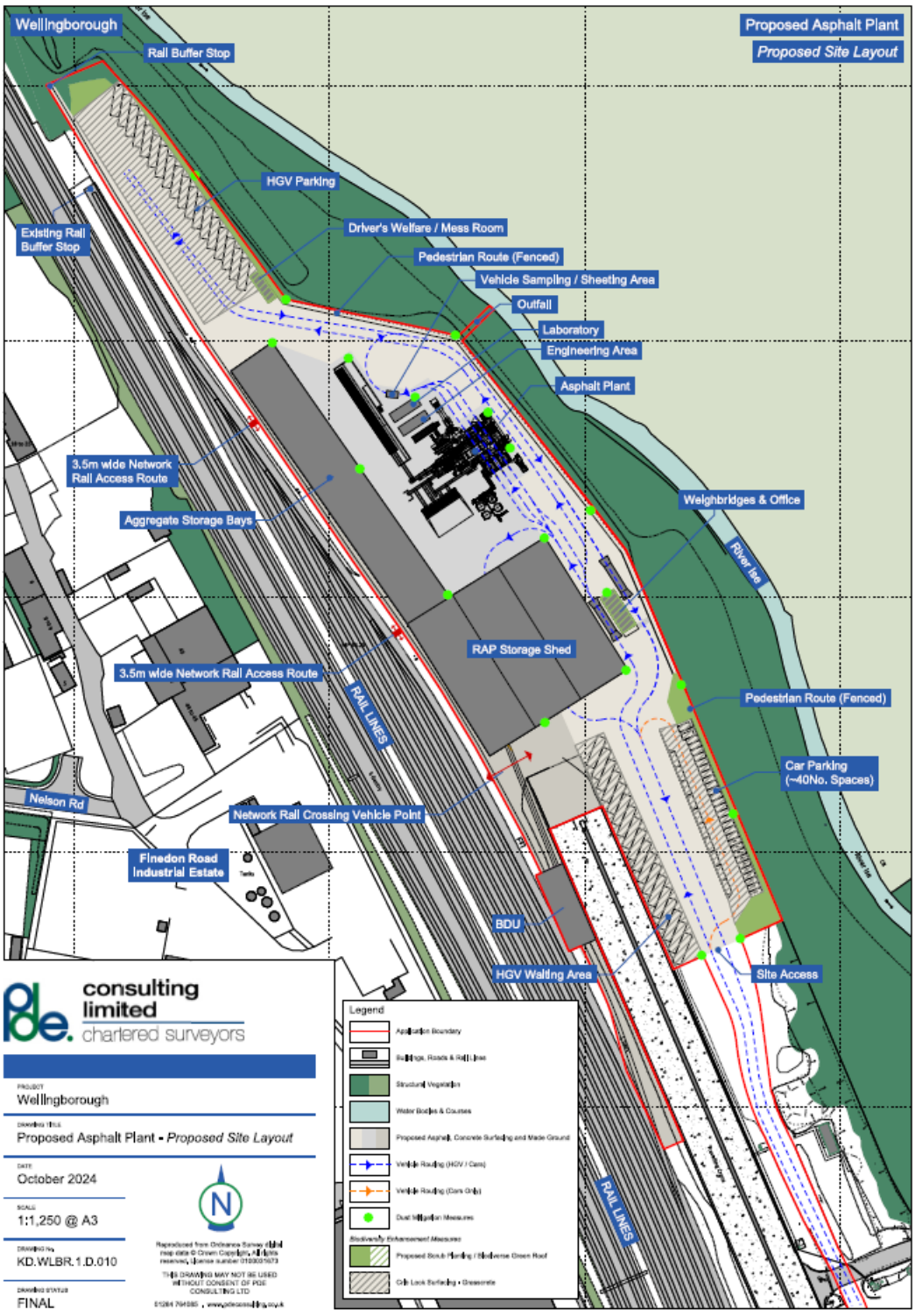
$L_{A01,T}$ is the 'A'-weighted level exceeded for 1% of the time interval T and is often used to gives an indication of the upper maximum level of a fluctuating noise signal.

$L_{A10,T}$ is the 'A'-weighted level exceeded for 10% of the time interval T and is often used to describe road traffic noise. It gives an indication of the upper level of a fluctuating noise signal. For high volumes of continuous traffic, the $L_{A10,T}$ unit is typically 2–3 dB(A) above the $L_{Aeq,T}$ value over the same period.

$L_{A90,T}$ is the 'A'-weighted level exceeded for 90% of the time interval T, and is often used to describe the underlying background noise level.

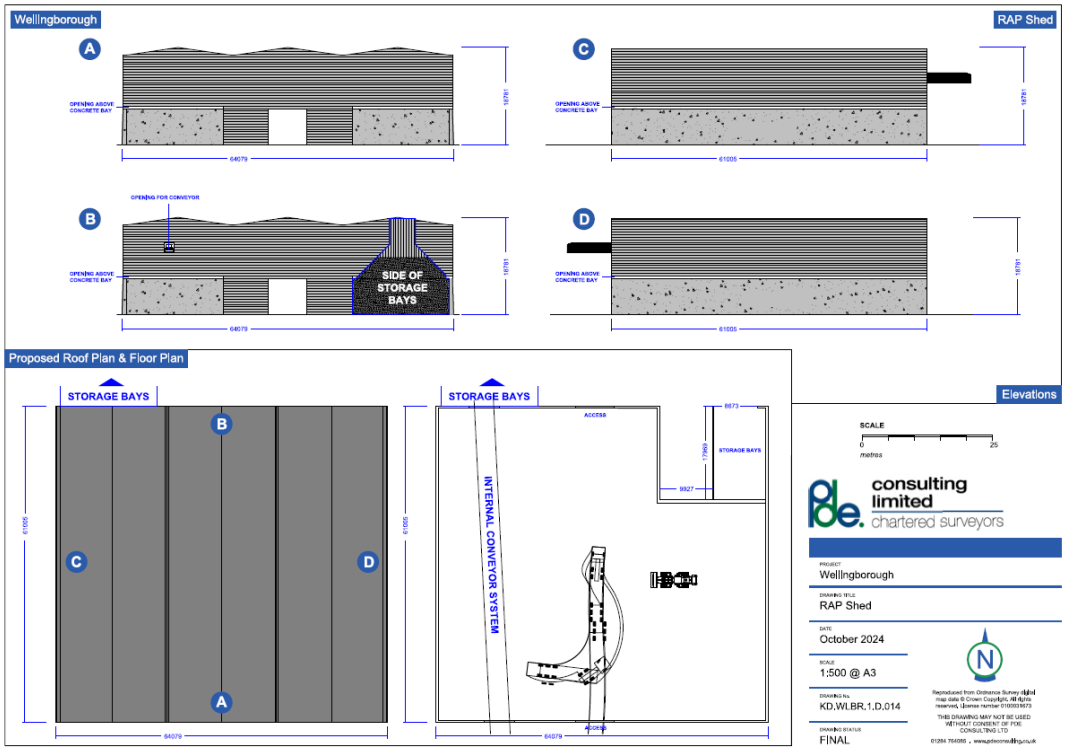
Appendix B – Site Plans

Proposed Site Layout:

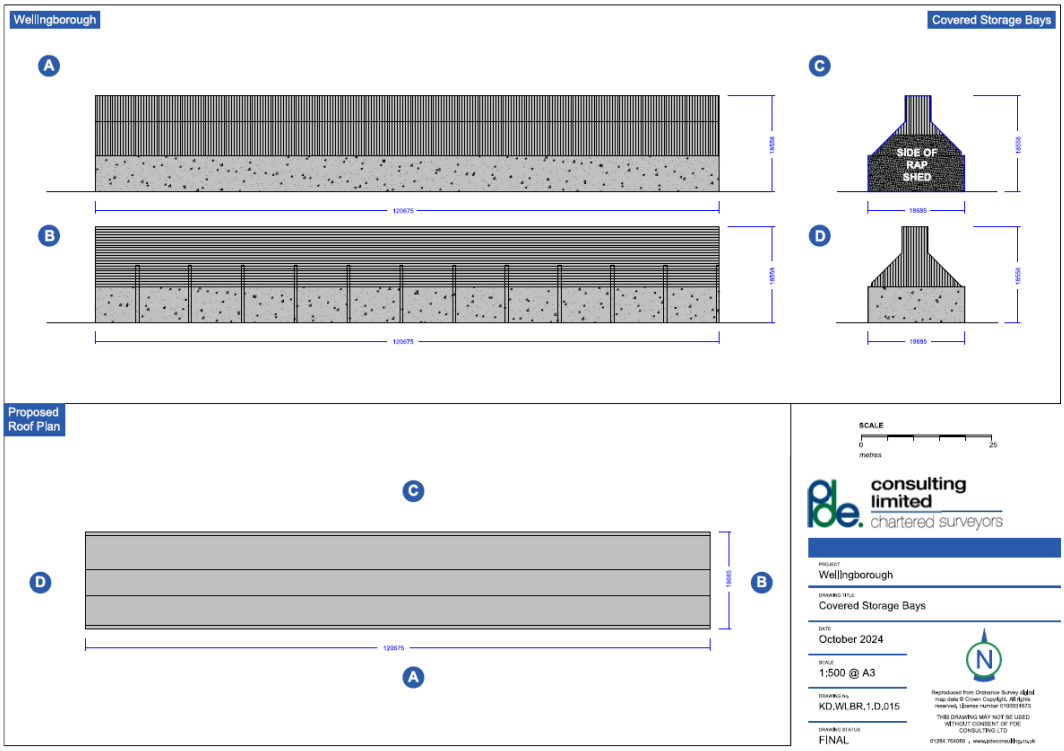


Appendix B (continued)

RAP Shed:

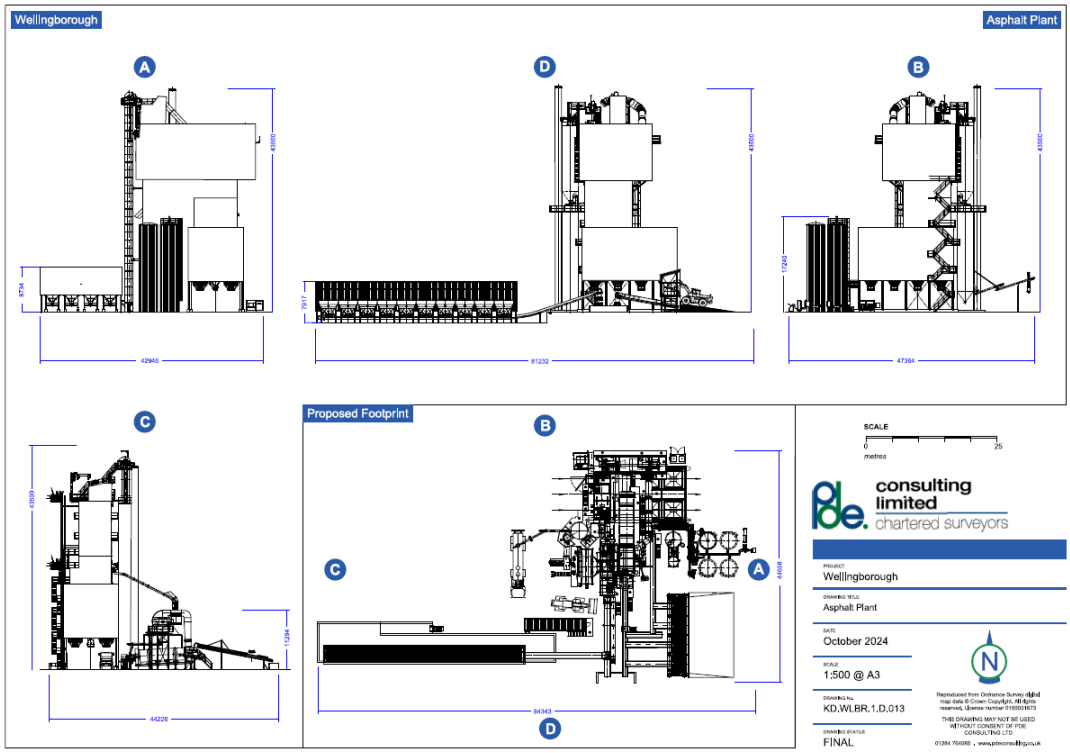


Aggregate Storage Bays:

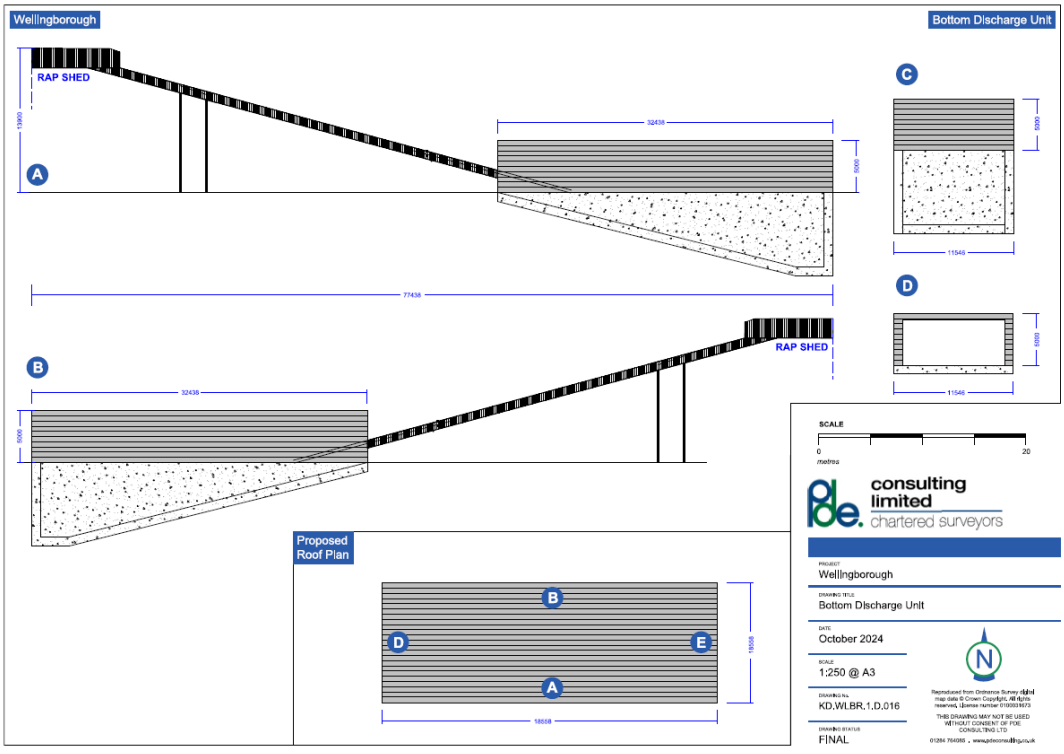


Appendix B (continued)

Asphalt Plant:

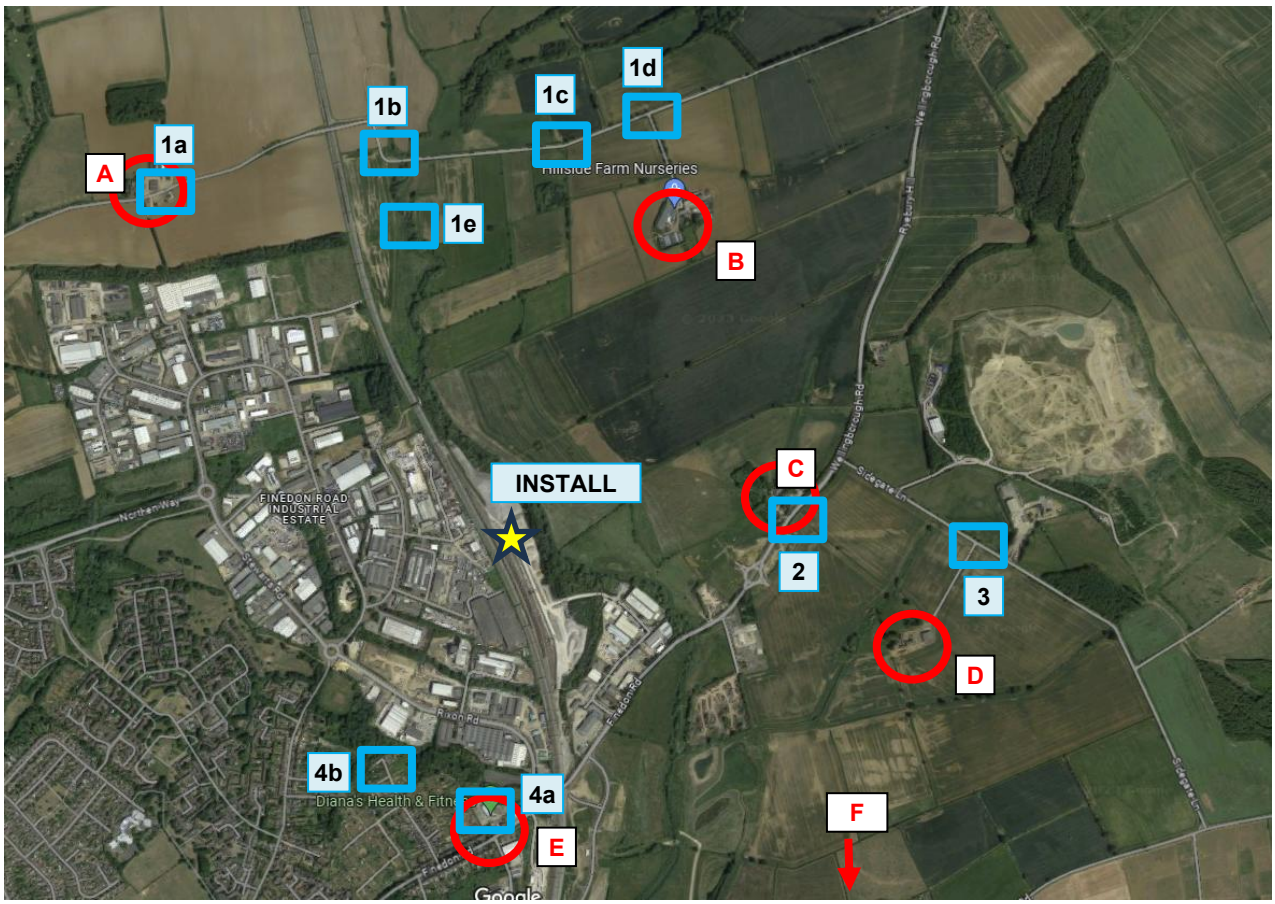


Bottom Discharge Unit:



Appendix C – Noise Survey and Assessment Locations

Figure C.1 – Noise Survey and Assessment Locations (Existing Residential)



Assessment Location		Monitoring Location(s)	
A	Home Farm	1a / 1b	free field location at roadside
B	Hillside Farm	1c / 1d / 1e	1c - free field location at roadside 1d - free field location at entrance to Hillside 1e - Nurseries free field location along footpath
C	212 Wellingborough Road / Greenacres / The Hollies	2	free field location at road side / entrance to The Hollies
D	Finedon Hill Farm	3	free field location at gated entrance to farm track, just off main road
E	Finedon Road	4a / 4b	4a – free field location along path to allotments in line with rear gardens of dwellings 4b – free field location at end of Hillside Road at entrance to allotments
F	Stanton Cross proposed housing and school	5	free field location along South Hill Lane, off Irthlingborough Road, Wellingborough near boarding to construction site

Appendix C (continued)

Figure C.2 – Noise Survey and Assessment Locations (Stanton Cross)



Note: the right hand side of the image shows the Stanton Cross Masterplan as sourced online [https://www.stantoncross.co.uk/map-of-stanton-cross] and accessed 20/12/2023.

Assessment Location		Monitoring Location(s)	
F	Stanton Cross proposed housing and school	5	free field location along South Hill Lane, off Irthlingborough Road, Wellingborough near boarding to construction site

Appendix D – Survey Details and Results – Sample Measurements

Date and Locations of Survey

Wednesday 29 November 2023 between 12:30 and 14:50

Friday 15 December 2023 between 11:40 and 16:00

Tuesday 19 to Wednesday 20 December 2023 between 23:19 and 02:52

Noise measurement locations as shown on the plans in Appendix D.

Survey carried out by

Wednesday 29 November 2023 & Friday 15 December 2023 – Sarah Large

Tuesday 19 to Wednesday 20 December 2023 – Jayan Mistry

Weather Conditions

Wednesday 29 November 2023 between 12:30 and 14:50

Dry, sunny, 10% cloud, still 0m/s (NE wind direction), 3°C.

Friday 15 December 2023 between 11:40 and 16:00

Dry, 100% cloudy, still 0m/s (SW wind direction), 8°C

Tuesday 19 to Wednesday 20 December 2023 between 23:19 and 02:52

Dry, 100% cloudy, light breeze 1-2m/s (W wind direction), 6°C

Instrumentation and Calibration

The instrumentation used (including serial number in brackets) is tabulated below. The sensitivity of the meters was verified on site immediately before and after the survey using the field calibrator. The measured calibration levels were as follows:

Instrumentation	Date	Start Cal	End Cal
Norsonic 140 Sound Level Meter (1403136) Norsonic 1251 Calibrator (31992)	29/11/2023	113.8 dB(A)	113.8 dB(A)
	15/12/2023	113.8 dB(A)	113.7 dB(A)
	19/12/2023 – 20/12/2023	113.7 dB(A)	113.9 dB(A)

Appendix D (continued)

The meters and calibrators are tested monthly against Norsonic Calibrators, type 1253 (serial number 22906) and type 1256 (serial number 125626100) both with UKAS approved laboratory certificates of calibration. In addition, the meters and calibrators undergo traceable calibration at an external laboratory every two years.

Survey Details

Attended sample measurements of 15 minute duration were taken at the locations shown on the plan in Appendix D and as detailed above. For all surveys the microphone was at a height of between 1.2 and 1.5 metres above local ground level, with a windshield used throughout.

Observations

Daytime

The dominant source of ambient and background sound was local and distant road traffic. Noise from the nearby Finedon Road Industrial Estate was also noted during some measurements. Aircraft movements were noted during the survey but did not contribute significantly to the measured background / ambient sound levels.

Night time

The dominant source of ambient and background sound was distant road traffic with some distant jet aircraft movements. There was a low level of broadband noise from the industrial estate audible at locations to the north and east of the site.

Results

Wednesday 29 November 2023 between 12:30 and 14:50

Location	Start Time	Results dB (T = 15 minutes)				Comments / Observations
		$L_{Aeq,T}$	$L_{Amax,f}$	$L_{A10,T}$	$L_{A90,T}$	
2	12:31	67	79	72	49	Road traffic noise, light and jet aircraft, distant plant noise from industrial estate.
3	12:53	67	90	70	47	Intermittent road traffic noise, distant road traffic, distant light aircraft, occasional noise from lorries at landfill site.
5	13:17	49	66	50	41	Distant road traffic noise, distant construction activity (engines, reverse alarms), children's voices in distance, jet aircraft.
4a	13:45	52	78	55	45	Road traffic noise, constant plant noise from industrial estate, car drive by, helicopter fly over (noisy).
1e	14:12	57	71	58	42	Distant construction noise, trains, aircraft (including helicopter fly over).
1b	14:32	50	70	50	37	Local road traffic noise (intermittent / infrequent) distant construction noise, trains, distant aircraft.

Appendix D (continued)

Friday 15 December 2023 between 11:40 and 16:00

Location	Start Time	Results dB (T = 15 minutes)				Comments / Observations
		$L_{Aeq,T}$	$L_{Amax,f}$	$L_{A10,T}$	$L_{A90,T}$	
1a	11:41	53	78	51	46	Distant (constant) road traffic noise, intermittent sawing and material movement at farm, birdsong, sporadic local car passes, intermittent noise from industrial estate just audible.
1c	12:01	63	86	58	44	Distant road traffic noise, distant construction / industrial noise, birds, sporadic local car passes.
2	12:21	69	82	73	55	Constant local road traffic noise.
3	12:40	66	84	71	49	Local and distant road traffic noise, broadband noise from industrial estate, engine noise and whine audible from landfill site.
5	12:59	51	67	53	47	Local and distant road traffic noise, construction activity nearby, children's voices in distance, light aircraft.
4a	13:26	52	67	56	47	Road traffic noise, engine noise from industrial estate, chainsaw at allotments for ~5 mins at start, cars at fitness centre car park, light aircraft, local car passes.
2	13:48	69	84	73	59	Constant road traffic noise, light aircraft.
1a	14:10	50	73	49	46	Distant road traffic noise, birdsong, just audible broadband noise, tonal reverse alarms and impact noises from industrial estate, local car passes.
1c	14:29	65	87	60	44	Local road traffic passes, distant road traffic noise, distant industrial / construction noise (whine), railway noise, jet aircraft.
1c	14:45	64	85	60	44	Road traffic noise in distance, distant railway noise, local car passes, distant construction / industrial noise (whine and impact noise).
3	15:04	68	80	73	53	Local road traffic noise dominant, distant road traffic, broadband noise from industrial estate just audible in lulls, engine noise at landfill site, birds, helicopter.
4a	15:27	51	70	52	47	Road traffic noise, engine noise at site to north of allotments, cars at fitness centre carpark, local car passes.
4a	15:43	51	68	52	48	Road traffic noise, car movements in fitness centre car park, tonal reverse alarms from direction of industrial estate, birds, helicopter.

Appendix D (continued)

Tuesday 19 to Wednesday 20 December 2023 between 23:19 and 02:52

Location	Start Time	Results dB (T = 15 minutes)				Comments / Observations
		$L_{Aeq,T}$	$L_{Amax,f}$	$L_{A10,T}$	$L_{A90,T}$	
5	23:19	41	59	43	38	Distant road traffic noise from A6. Infrequent local road traffic noise on Irthlingborough road. Occasional creaking of metal gate. Intermittent mid-level clangs of fairy lights on metal gate. Distant large aircraft movement.
4b	23:50	40	65	42	36	Wind in trees. Distant road traffic noise. Occasional road traffic noise on Finedon road. Distant large aircraft movements. Occasional clang of metal gate.
2	00:16	49	71	49	38	Distant road traffic noise. Rare local road traffic noise on A510. Distant large aircraft movements.
1c	00:40	41	71	40	37	Distant road traffic noise. Wind in trees. Distant broadband noise from industrial estate. Distant large aircraft movement.
1a	01:04	48	70	46	39	Distant road traffic noise. Wind in trees. Low-level broadband noise from industrial estate and occasional reverse bleepers. Infrequent local road traffic noise.
1c	01:25	42	57	45	38	Distant road traffic noise. Wind in trees. Distant broadband noise from industrial estate.
3	01:50	52	76	46	38	Distant road traffic noise. Wind in trees. Distant broadband noise from industrial estate. Infrequent local road traffic noise.
4b	02:13	39	62	41	37	Distant road traffic noise. Wind in trees. Occasional creaks of metal gate and fences at allotment.
2	02:37	52	74	51	39	Wind in trees. Occasional local road traffic noise. Distant road traffic noise. Distant broadband noise from industrial estate.

Appendix E – Survey Details and Results – Installed Sound Level Meter

Date and Locations of Survey

Wednesday 29 November 2023 12:00 to 07:00 on 30 November 2023

Noise measurement location on site as shown on the plan in Appendix D.

Equipment installed and collected by

Sarah Large

Weather Conditions

A weather station was installed on site but was damaged during the survey. Weather records have been taken from a local weather station as summarised below:

Date / Time	Temp (°C)	Wind (m/s)	Wind direction	Weather
29/11/2023 12:00	2	3.1	N	Sunny
29/11/2023 13:00	3	2.7	NNW	Sunny
29/11/2023 14:00	2	0.9	NW	Sunny
29/11/2023 15:00	2	1.3	NNW	Sunny
29/11/2023 16:00	0	0.9	NW	Part cloudy
29/11/2023 17:00	0	2.7	Wind direction	Clear
29/11/2023 18:00	-1	1.3	NW	
29/11/2023 20:00	-2	1.3	NNW	Clear
30/11/2023 00:00	-4	1.3	NNW	Fog
30/11/2023 01:00	-3	1.3	NNW	Fog
30/11/2023 02:00	-3	3.1	N	Fog
30/11/2023 03:00	-3	3.1	N	Fog
30/11/2023 04:00	-3	3.1	N	Fog
30/11/2023 05:00	-4	2.2	N	Fog
30/11/2023 06:00	-3	1.3	NNE	Fog
30/11/2023 07:00	-1	2.7	NNE	Cloudy

Instrumentation and Calibration

The instrumentation used (including serial number in brackets) is tabulated below. The sensitivity of the meter was verified on site immediately before the survey using the field calibrator. The measured calibration levels were as follows:

Instrumentation	Start Cal	End Cal
Rion NL-52 Sound Level Meter (420716)	93.8 dB(A)	N/A
Rion NC-74 Calibrator (34425557)		

Appendix E (continued)

The meter and calibrator are tested monthly against Norsonic Calibrators, type 1253 (serial number 22906) and type 1256 (serial number 125626100) both with UKAS approved laboratory certificates of calibration. In addition, the meter and calibrator undergo traceable calibration at an external laboratory every two years.

As the cable connecting the microphone and sound level meter was irreparably damaged on site during the survey, it was not possible to calibrate the measurement chain on site in the same conditions as during the survey installation. However, calibration was undertaken when back in the office with the kit using reference calibrations listed with the following results:

Calibration Details					
Calibrator Norsonic Type 1256 Serial Number 125626100					
Calibration Value, Lc	114.06	dB	Campbell Associates - 03/11/23 (U45866)		
Correction for Lab mic, ΔLr	0	dB			
Correction for SLM mic, ΔLv	0	dB	No correction for 250Hz		
Corrected Value: Lc-ΔLr+ΔLv	114.1	dB	Meter Reading:	**113.9**	dB C
Calibrator Norsonic Type 1253 Serial Number 22906					
Calibration Value, Lc	123.99	dB	Campbell Associates - 09/06/2023 (U44465)		
Correction for Lab mic, ΔLr	0	dB			
Correction for SLM mic, ΔLv	-0.15	dB	Confirmed correction factor at 1kHz		
Corrected Value: Lc-ΔLr+ΔLv	123.8	dB	Meter Reading:	**123.9**	dB C
Calibrator RION Type NC-74 Serial Number 34425557					
Calibration Certificate Date			03/02/2022		
Calibration Laboratory			ANV		
SLM Cal Certificate			TCRT22/1087		
Calibrator Adjusted Indicated Level	94.0	dB	Meter Reading:	**93.9**	dB A

Appendix E (continued)

Survey Details

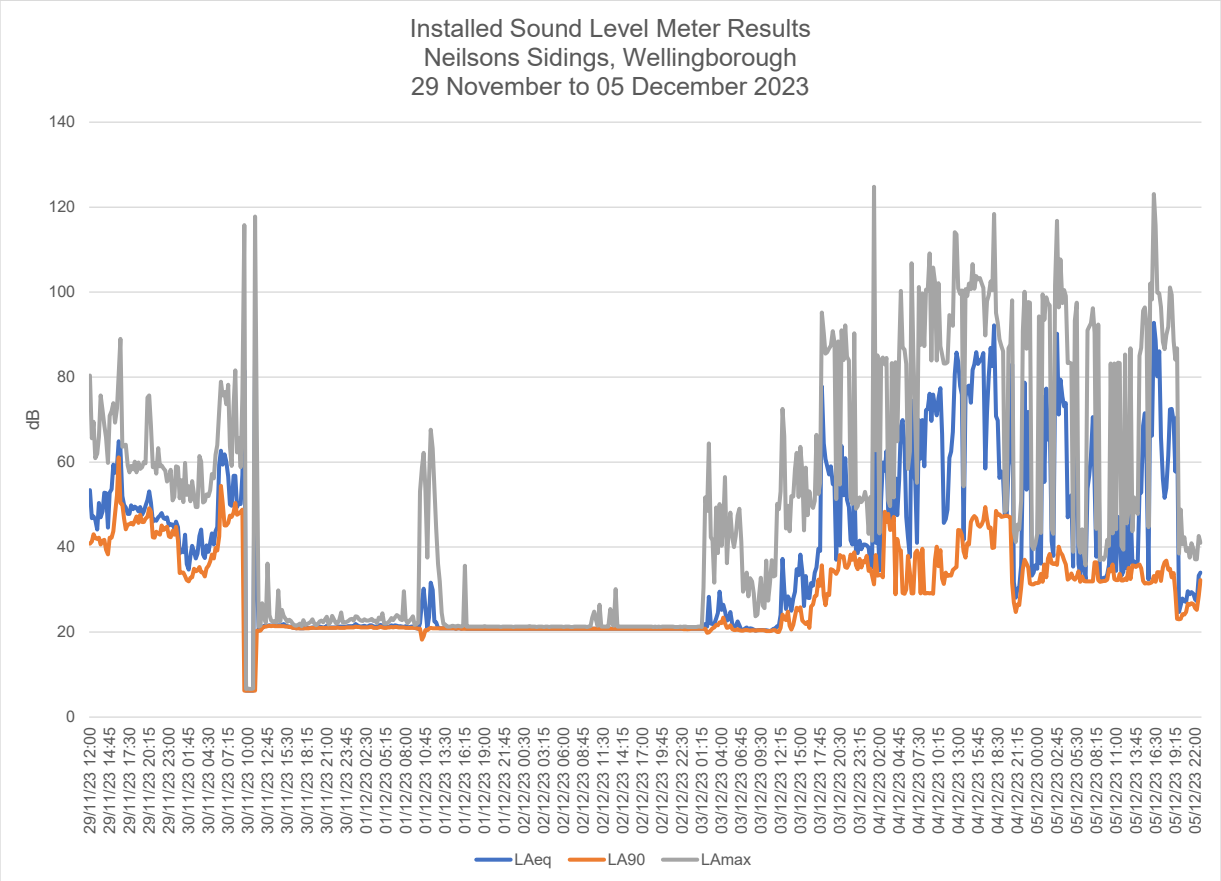
The meter was set to record continuous measurements of 15 minute duration. The microphone was at a height of between 1.2 and 1.5 metres above local ground level, with a windshield used throughout.

The cable connecting the microphone and sound level meter was irreparably damaged on site during the survey at approximately 09:30 on 30 November 2023. This can be seen by a large spike in the recorded levels and a flat lining of measured sound levels in the following few days. The cable appears to have undergone further damage on 05 December 2023, which ceased a signal being sent to the sound level meter and therefore the meter stopped recording. There was no visible damaged to the sound level meter or microphone and this is verified with the monthly calibration checks set out above.

Survey Results

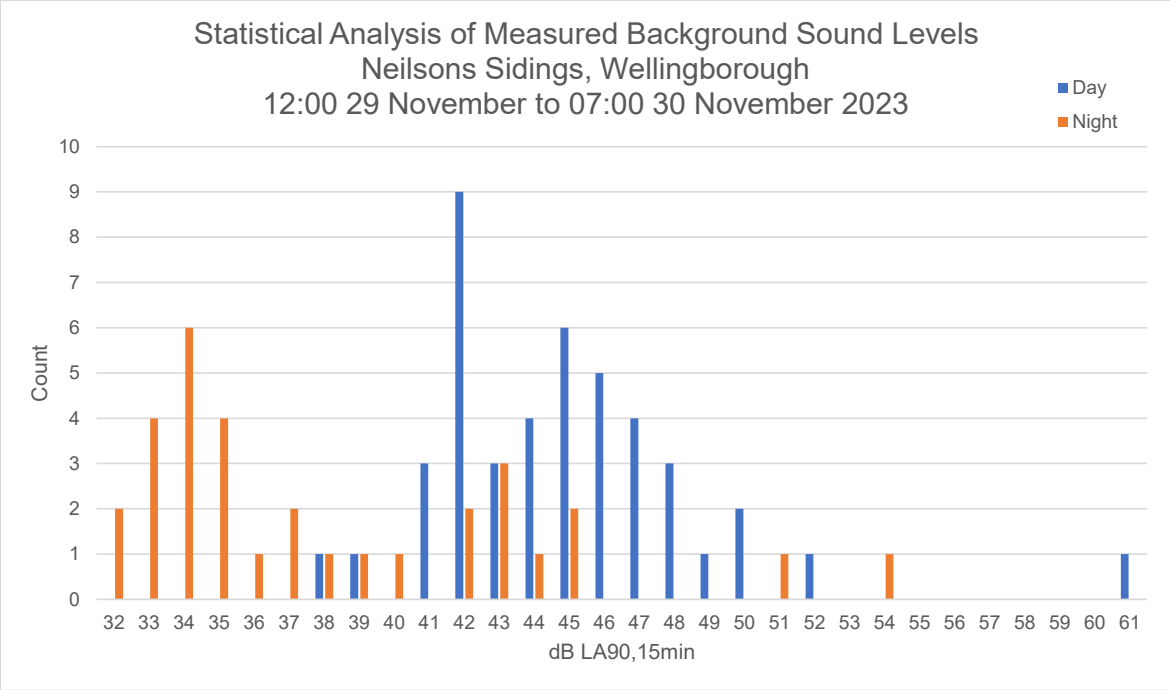
The results from the survey are shown graphically below, only data up until 07:00 on 30 November 2023 has been used to inform the survey results and this is tabulated below. The data has only been used to inform night time background and ambient sound levels in the absence of works taking place on the site.

Chart E.1 Installed Sound Level Meter Time History



Appendix E (continued)

Chart E.2 Installed Sound Level Meter Results – Statistical Analysis for Data Between 12:00 on 29 November and 07:00 on 30 November 2023



Appendix E (continued)

Table E.1 Installed Sound Level Meter Results

Start Time	Measured Level dB T=15minutes		Start Time	Measured Level dB T=15minutes	
	$L_{Aeq,T}$	$L_{A90,T}$		$L_{Aeq,T}$	$L_{A90,T}$
29/11/2023 12:00	53	41	29/11/2023 21:30	47	43
29/11/2023 12:15	47	41	29/11/2023 21:45	47	43
29/11/2023 12:30	47	43	29/11/2023 22:00	48	45
29/11/2023 12:45	46	42	29/11/2023 22:15	47	44
29/11/2023 13:00	44	42	29/11/2023 22:30	47	45
29/11/2023 13:15	50	42	29/11/2023 22:45	47	45
29/11/2023 13:30	47	41	29/11/2023 23:00	45	43
29/11/2023 13:45	48	42	29/11/2023 23:15	45	42
29/11/2023 14:00	53	42	29/11/2023 23:30	45	44
29/11/2023 14:15	53	39	29/11/2023 23:45	44	43
29/11/2023 14:30	45	38	30/11/2023 00:00	46	45
29/11/2023 14:45	53	42	30/11/2023 00:15	45	42
29/11/2023 15:00	54	42	30/11/2023 00:30	39	34
29/11/2023 15:15	59	44	30/11/2023 00:45	39	34
29/11/2023 15:30	58	48	30/11/2023 01:00	39	34
29/11/2023 15:45	59	52	30/11/2023 01:15	43	33
29/11/2023 16:00	65	61	30/11/2023 01:30	36	32
29/11/2023 16:15	63	50	30/11/2023 01:45	35	32
29/11/2023 16:30	52	50	30/11/2023 02:00	38	33
29/11/2023 16:45	50	47	30/11/2023 02:15	40	33
29/11/2023 17:00	49	44	30/11/2023 02:30	39	35
29/11/2023 17:15	48	45	30/11/2023 02:45	37	34
29/11/2023 17:30	48	45	30/11/2023 03:00	39	35
29/11/2023 17:45	50	46	30/11/2023 03:15	43	35
29/11/2023 18:00	49	45	30/11/2023 03:30	44	34
29/11/2023 18:15	50	46	30/11/2023 03:45	38	34
29/11/2023 18:30	49	47	30/11/2023 04:00	37	33
29/11/2023 18:45	48	46	30/11/2023 04:15	40	35
29/11/2023 19:00	49	48	30/11/2023 04:30	39	36
29/11/2023 19:15	48	46	30/11/2023 04:45	41	37
29/11/2023 19:30	48	46	30/11/2023 05:00	43	38
29/11/2023 19:45	50	47	30/11/2023 05:15	41	37
29/11/2023 20:00	51	47	30/11/2023 05:30	44	40
29/11/2023 20:15	53	49	30/11/2023 05:45	45	39
29/11/2023 20:30	51	48	30/11/2023 06:00	59	43
29/11/2023 20:45	46	42	30/11/2023 06:15	63	54
29/11/2023 21:00	47	42	30/11/2023 06:30	59	51
29/11/2023 21:15	46	44	30/11/2023 06:45	62	45

Appendix F - SoundPLAN Noise Mapping Assumptions

Calculations were undertaken using SoundPLAN 9.1.

Noise calculations were made using the methods detailed in ISO 9613-2: 2024 on a 10 metre grid at a calculation height of 1.5 metres above local ground level to represent ground floor level. For some receiver locations an additional calculation height of 4m has also been used.

The calculations assume a mixture of 100% hard ground across the non-grassed portions of the calculation area and 100% soft ground for the grassed portions.

Sound power level data has been included based on details provided by the applicant, using manufacturer's data and using information contained within the WBM plant noise database of previous measurements of similar plant items to those to be used on site.

A summary of the data input into the SoundPLAN calculations is presented in the following table. None of the noise sources have been entered with a specific source directivity and are therefore assumed to be omnidirectional sources.

Table F.1: SoundPLAN Assumptions

Plant Item	Grid Reference (x, y)	Sound Power Level dB L_{WA}	Source Height (m)	On time
Asphalt Plant				
Mixer (*)	9.404, 5.800**	112	11	100%
Burner (*)	9.649, 5.800**	96	19	50%
Load Out Point x2 (*)	4.963, 5.800** 14.259, 5.700**	104	3.5	75% (daytime) 100% (night-time)
Conveyors (enclosed)	1) 490254.83, 270051.65 to 490238.28, 270044.21	64/metre	4	100%
	2) 490247.63, 270051.27 to 490237.64, 270035.37	64/metre	4	100%
	3) 490246.24, 270054.05 to 490225.41, 270056.09	64/metre	4	100%
	4) 490236.51, 270043.33 to 490240.67, 270037.52	64/metre	4	100%
	5) 490242.69, 270040.80 to 490243.95, 270039.28	64/metre	4	100%
	6)490245.60, 270042.94 to 490246.61 to 270041.43	64/metre	4	100%

(*) Noise source within building
(**) Grid references within the building

Appendix F (continued)

Table F.1: SoundPLAN Assumptions (continued)

Plant Item	Grid Reference (x, y)	Sound Power Level dB L_{WA}	Source Height (m)	On time
Proposed Rail Unloading				
Bottom Discharge Unit (*)	6.600, 15.900**	106	1	100%
Train Movement outside building	S of BDU: 490364.70, 269695.51 to 490296.18, 269861.78	105 (78 per metre at 0.5 km/h)	2	75%
	N of BDU: 490280.99, 269891.59 to 490218.78, 269986.77	105 (78 per metre at 0.5 km/h)	2	75%
Train Movement inside building (*)	6.600, 0.400 to 6.700, 31.100**	105 (78 per metre at 0.5 km/h)	2	75%
Conveyor to RAP (enclosed)	490288.47, 269895.04 to 490269.18, 269940.84	64/metre	1 to 10	100%
Proposed RAP Storage Building				
Conveyor (*)	14.000, 2.300 to 14.100, 60.800**	64/metre	10	100%
Granulator / shredder (*)	24.900, 30.000**	99	2	100%
Screener (*)	24.700, 36.800**	100	3	100%
Loading Shovel (*)	38.600, 29.000**	109	2	100%
Excavator (*)	29.800, 33.000**	104	2	100%
Tipping of RAP (*)	46.100, 28.600**	107	0.5	10%
Proposed Aggregate Storage Bays Building				
Tripper Head (*)	8.900, 0.000 to 9.000, 114.500**	64/metre	10	100%
Falling Material (*)	11.100, 62.000**	101	0.5	100%

(*) Noise source within building (**) Grid references within the building

Appendix F (continued)

Table F.1: SoundPLAN Assumptions (continued)

Plant Item	Grid Reference (x, y)	Sound Power Level dB L_{WA}	Source Height (m)	On time
Mobile Plant				
Telehandler	490247.37, 270013.13	104	2	100%
HGVs on Site and Access Road	In: 490349.21, 269861.84 to 490283.47, 270028.83	104 (62 per metre at 15 km/h)	2	12 per hour
	Out: 490238.93, 270082.93 to 490354.73, 269863.41	104 (62 per metre at 15 km/h)	2	12 per hour
	West In: 490279.52, 270029.22 to 490262.58, 270054.50	104 (62 per metre at 15 km/h)	2	6 per hour
	West Out: 490252.33, 270066.74 to 490240.51, 270082.14	104 (62 per metre at 15 km/h)	2	6 per hour
	East In: 490282.28, 270028.83 to 490265.74, 270055.68	104 (62 per metre at 15 km/h)	2	6 per hour
	East Out: 490255.88, 270069.5 to 490241.69, 270082.93	104 (62 per metre at 15 km/h)	2	6 per hour
Loading Shovel	1) 490250.61, 270026.24 2) 490217.95, 270042.79	109	2	33% at 2 locations
Loading Shovel	490219.08, 270042.08 to 490249.62, 270024.50	104 (64 per metre at 10km/h)	2	4 per hour

(*) Noise source within building
(**) Grid references within the building

Appendix F (continued)

Additional information requested by the Environment Agency as set out in the online document "*Noise impact assessments involving calculations or modelling*" for noise calculations is set out in the following tables.

Table F.2: General Information You Must Provide

Information	Comment
The site location and layout	See plans in Appendix B
Your proposed activities and sources of any noise	See description in Section 2.1.
Local receptors and reasons for selection	See description in Section 4.1 and plans in Appendix C. The locations were chosen as being representative of the nearest residential dwellings to the site.
Your noise remediation approach	Embedded mitigation measures are set out in Section 5.
Map showing the site and surrounding area including receptors	See plans in Appendix B and C.
Site plan including the site boundary	See plans in Appendix B
Full noise survey report if you have carried out a BS 4142 assessment	See in particular Section 7 and Appendix G.
Description of the noise mitigation measures you propose using and supporting evidence, such as the manufacturer's engineering specification for items that mitigate noise emissions, or calculations of the screening effect of barriers.	See Section 5. Barrier calculations have been undertaken within the SoundPLAN noise mapping software, following ISO9613-2.

Table F.3: Receptor Information

Information	Receptor					
	A: Home Farm	B: Hillside Farm	C: 212 Wellingborough Road / Greenacres / The Hollies	D: Finedon Hill Farm	E: Finedon Road	F: Stanton Cross
Grid references	489270.35 270894.98	490754.27 270817.72	491055.26 270044.90	491414.11 269663.53	490257.80 269126.96	491295.90 268854.15
Addresses or other identification	N/A	N/A	N/A	N/A	N/A	N/A
Number of storeys	2	2	1/ 2	2	2	2
Sensitivity	High	High	High	High	High	High
BS4142 background sound level L_{A90}	See Table 4.4					
Specific and rating levels for site activities	See Section 6.2 and Section 7.					
Rationale for applying or not applying acoustic penalties	See Section 7.					
Numerical impacts	See Section 7.					

Appendix F (continued)

Table F.4: Noise Data You Must Provide

Fixed and mobile plant					
Description	**Grid references**	**Referenced or derived sound power levels**	**Height**	**Directivities**	**Operating times**
The information for all fixed and mobile plant is provided in Table F.1.					
Noise emitting buildings					
Description	**Corner grid references**	**Heights**	**Octave band reverberant sound pressure calculations or measurements**	**Referenced octave band transmission coefficients**	**Façade and roof emissions**
Asphalt plant	490249.56, 270049.58 490265.73, 270058.72 490259.63, 270068.76 490243.64, 270059.64	38.8	The calculations were undertaken using the industrial buildings feature of SoundPLAN. SoundPLAN does not produce values of internal noise within the building as part of the calculation output. . The SoundPLAN files can be provided to the EA on request. Information regarding the noise sources within the building is provided in table F.1.		
Rail unloading	490291.6 269860.7 490304.6 269866.2 490292.4 269895.8 490279 269889.9	4.6			
RAP building	490262.5 269937.7 490316.2 269971.2 490283.5 270022.5 490230.6 269990.2	17.28			
Aggregate storage building	490228.6 269990.6 490244.8 270001.6 490177.4 270098.8 490162.4 270087.7	17.28			

Appendix F (continued)

Table F.4: Noise Data You Must Provide (continued)

Aperture emissions				
Description	**Grid references**	**Dimensions**	**Sound power levels**	**Opening times**
Asphalt plant north opening	X [m] Y [m] 16.0 0.0 3.0 0.1 3.0 4.0 16.0 4.0	X: 13.00 Y: 4.00 51.35m^2	Information regarding the noise sources within the building is provided in table F.1.	
Asphalt plant south opening	X [m] Y [m] 16.0 0.0 3.0 0.0 3.0 4.0 16.0 4.0	X: 13.00 Y: 4.00 51.35m^2		
Rail unloading (n)	X [m] Y [m] 14.1 0.1 0.1 0.1 0.1 4.6 14.1 4.6	X: 14.0 Y: 4.5 63m^2	Information regarding the noise sources within the building is provided in table F.1.	
Rail unloading (s)	X [m] Y [m] 14.6 0.0 0.1 0.0 0.1 4.6 14.6 4.6	X: 14.5 Y: 4.6 66.7m^2		
RAP (S opening)	X [m] Y [m] 34.0 0.0 29.0 0.0 29.0 6.5 34.0 6.5	X: 5.0 Y: 6.55 32.75m^2	Information regarding the noise sources within the building is provided in Table F.1.	
RAP (N opening)	X [m] Y [m] 34.0 0.0 29.0 0.0 29.0 6.5 34.0 6.5	X: 5.0 Y: 6.5 32.5m^2		
Aggregate storage building	X [m] Y [m] 117.8 0.0 0.4 0.0 0.4 9.8 117.8 9.8	X: 117.4 Y: 9.8 1150.52m^2	Information regarding the noise sources within the building is provided in table F.1.	

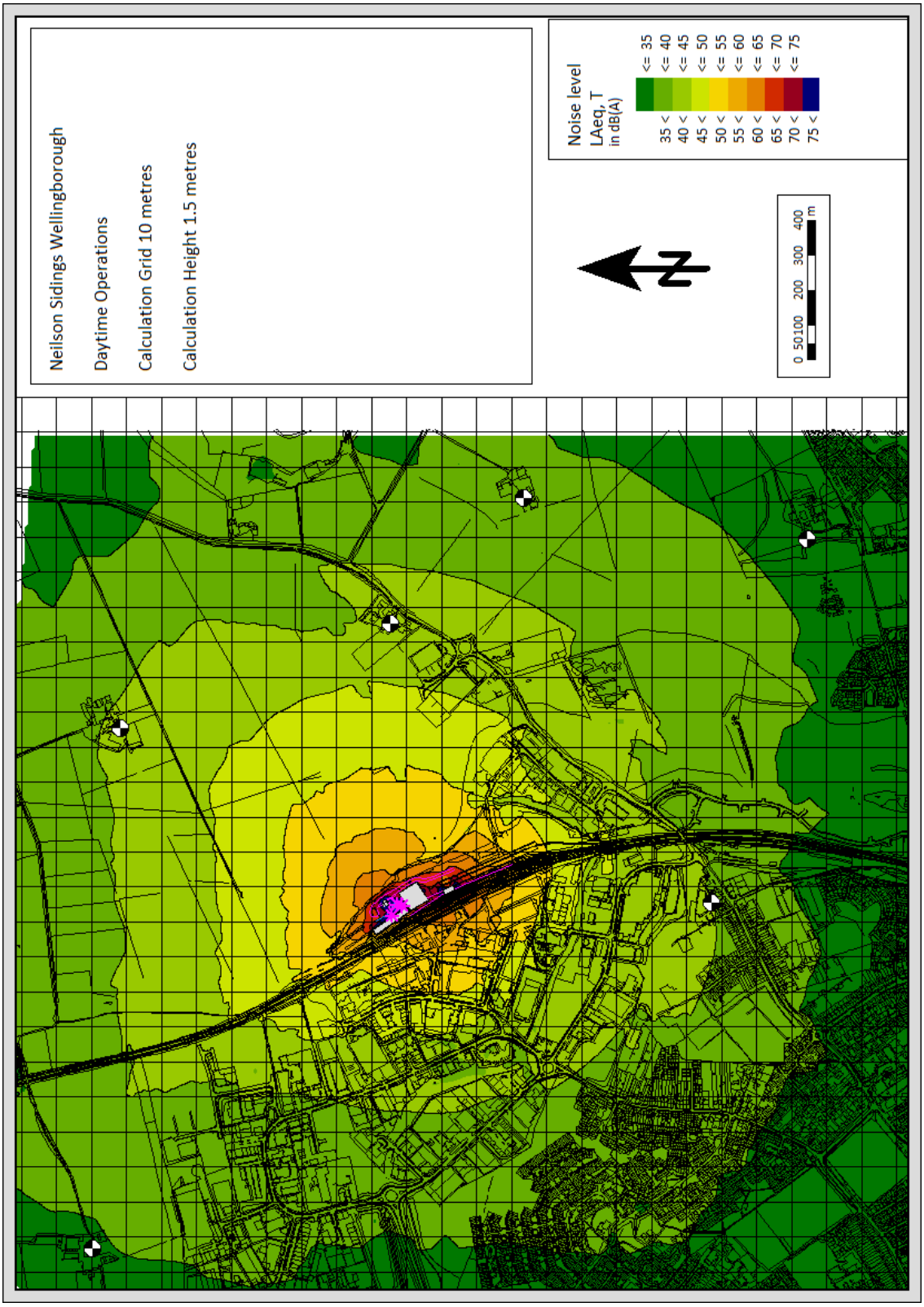
Appendix F (continued)

Table F.4: Noise Data You Must Provide (continued)

<table>
<tr><td colspan="5">Site traffic</td></tr>
<tr><td>Description</td><td>Grid references for site roads</td><td>Vehicle sound power levels</td><td>Traffic numbers</td><td>Traffic speed</td></tr>
<tr><td colspan="5">The information for all HGV routes within the site is provided in Table F.1.</td></tr>
<tr><td colspan="5">Site acoustic barriers</td></tr>
<tr><td>Description</td><td>Grid references at ends</td><td>Construction details</td><td>Thicknesses</td><td>Height(s)</td></tr>
<tr><td>Storage bays north</td><td>490205.11, 270089.45 to 490226.67, 270057.36</td><td colspan="2"><table><tr><td></td><td>Reflection loss [dB]</td><td>Absorption coeff.</td><td>Reflection coeff.</td></tr><tr><td>Left</td><td>1</td><td>0.2056718</td><td>0.7943282</td></tr><tr><td>Right</td><td>1</td><td>0.2056718</td><td>0.7943282</td></tr></table></td><td>7.92</td></tr>
<tr><td>Asphalt plant bay wall</td><td>490235.99, 270033.73 to 490255.82, 270032.33</td><td colspan="2"><table><tr><td></td><td>Reflection loss [dB]</td><td>Absorption coeff.</td><td>Reflection coeff.</td></tr><tr><td>Left</td><td>1</td><td>0.2056718</td><td>0.7943282</td></tr><tr><td>Right</td><td>1</td><td>0.2056718</td><td>0.7943282</td></tr></table></td><td>4</td></tr>
</table>

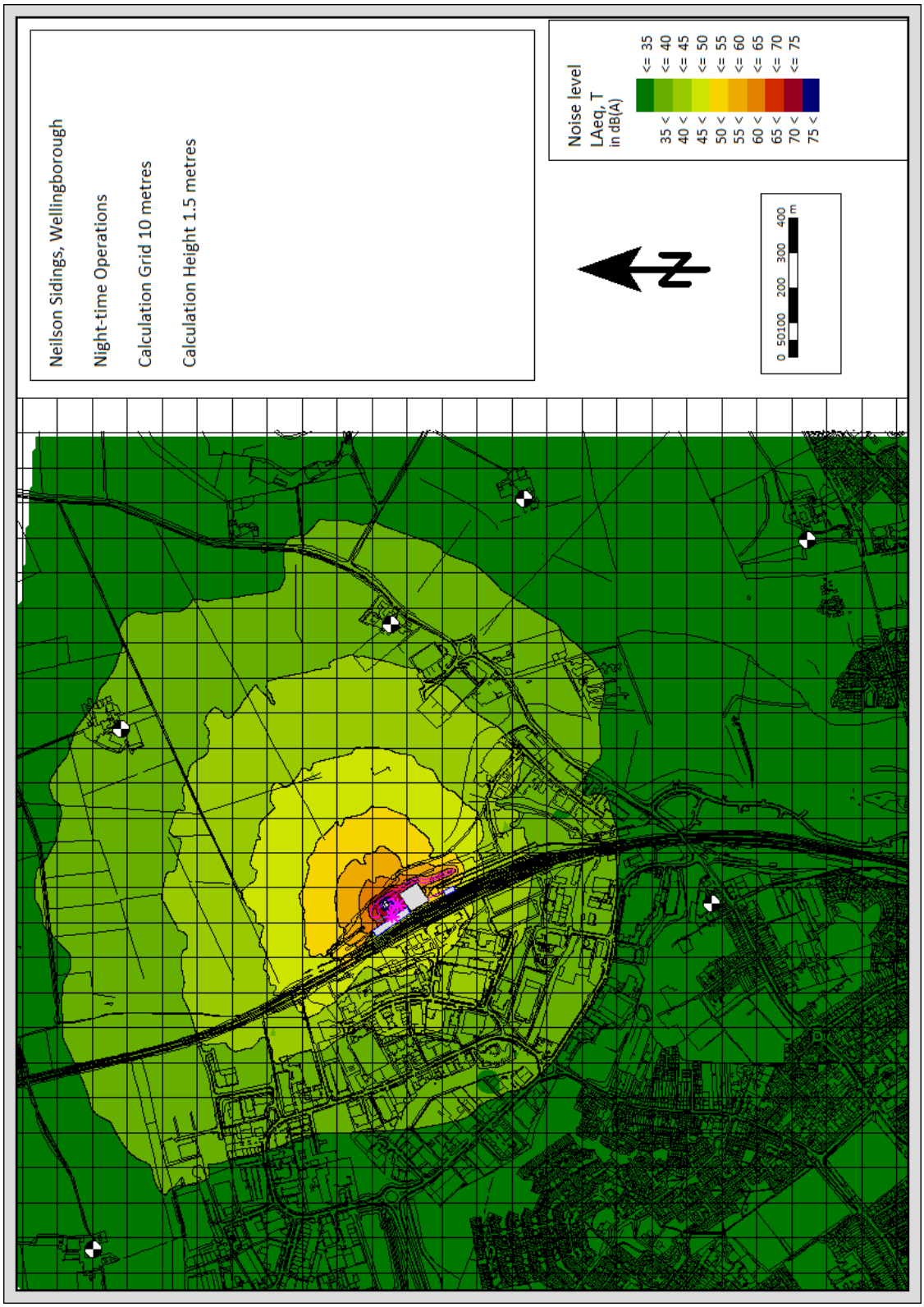
Appendix G – SoundPLAN Noise Plots

Site Operations (07:00-23:00):



Appendix G (continued)

Site Operations (23:00-07:00):



Appendix H – BS 4142 : 2014 + A1: 2019 Information to be Reported

(a) Statement of Qualifications

See details about The Author on page 2 of this report.

(b) Source Being Assessed

1) Description of the main sound sources and of the specific sound

The sources under investigation are the proposed asphalt plant, rail fed road planings recycling facility and the additional infrastructure and use of the access road. The proposed development is described in Section 2.1. The noise sources used in the modelling are listed in Appendix F and would give rise to the specific sound levels at the off-site receiver locations.

2) Hours of operation

The hours of operation are described in Section 2.1.

3) Mode of operation (e.g. continuous, twice a day, only in hot weather)

The hours of operation are described in Section 2.1. A summary of the noise sources that would operate during daytime and night time is provided in Table 7.1.

4) Statement of operational rates of the main sound sources (e.g. maximum load setting, 50% max rate, low load setting)

The measurements and assessment have been based on a "*maximum load setting*" i.e. with all sources operating simultaneously. The operational on times for each source are provided in Appendix F.

5) Description of premises in which the main sound sources are situated (if applicable).

The asphalt plant will be located on the eastern side of the site and will be fully clad with openings for the entrance/loading/exit of wagons. It will be serviced by bays to the south of the plant using a loading shovel.

The other proposed structures will be located on the western side of the site adjacent to the rail line.

The Bottom Discharge Unit (BDU) for unloading of trains will be within a purpose built structure open to the north and south for train movement through the building.

Appendix H (continued)

The RAP Storage Building will be served by a conveyor from the BDU with a tripper head depositing the material within the building where it will be managed using a loading shovel/excavator.

The conveyor/tripper head will continue into the aggregate storage bays building.

Plans showing the proposed site layout are provided in Appendix B.

(c) Subjective Impressions

1) Dominance or audibility of the specific sound

The specific source is not yet in place, but it is expected that the specific sound is likely to be inaudible at the nearest dwellings to the site during the daytime, but may be just audible to audible at some of the nearest dwellings to the site during the night-time operations.

2) Main sources contributing to the residual sound.

The main noise sources in the locality affecting all residential receptors are from transportation links, road, rail and air traffic, with road traffic noise being the most dominant. Noise from activity at the Finedon Industrial Estate was also part of the sound environment at dwellings along Finedon Road / Hillside Road and at isolated dwellings to the north, north east and immediate east of the site.

(d) The Existing Context and Sensitivity of Receptor

The site is located in an area of long established industry and is surrounded by major transportation links (road and rail). The nearest residential receptors are located in a mixed use area (with residential / transportation / commercial / industrial uses) and whilst some dwellings are immediately surrounded by farmland, expansion of the Stanton Cross development will introduce more mixed use areas of housing and employment to the south and east of the site.

With regard to sensitivity, the receptor locations are residential properties and are therefore considered to be of “High” sensitivity.

Appendix H (continued)

(e) Measurement Locations and Justification

Measurement locations, their distance from the specific sound source, the topography of the intervening ground and any reflecting surface other than the ground, including a photograph, or a dimensioned sketch with a north marker. A justification for the choice of measurement locations should also be included.

The measurement locations used for the consideration of the baseline noise data were chosen as being representative of the existing and permitted residential properties nearest to the site. The closest residential receptors are over 700m from the site. The assessment locations are shown on a plan in Appendix C.

The topography between the site and the nearest dwellings is generally flat with some moderate undulation. This has been accounted for the in SoundPLAN noise modelling. A digital ground model (DGM) was created using local ground heights to cover the area including both the site and the nearest residential dwellings to the proposed development. The calculations assume a mixture of 100% hard ground across the non-grassed portions of the calculation area and 100% soft ground for the grassed portions.

(f) Sound Measuring Systems, Including Calibrator / Pistonphone

1) Type
140 (sample measurements)
NL-52 (installed meter)

2) Manufacturer
Norsonic (sample measurements)
RION (installed meter)

3) Serial number
1403136 (sample measurements)
420716 (installed meter)

Appendix H (continued)

4) Details of the latest verification test including dates

S/N 1403136:

Date of Calibration 25/01/2022 as set out in Campbell Associates Certificate Number 39992 dated 25/01/2022. Correct level with associated calibrator (Norsonic 1251 serial number 31992)

S/N 420716:

Date of Calibration 03/02/2022 as set out in ANV Certificate Number TCRT22/1087 dated 03/02/2022. Correct level with associated calibrator (RION NC-74 serial number 34425557)

(g) Operational Test

1) *Reference level(s) of calibrator, multi-function calibrator or pistonphone;*

S/N 1403136: 114.0 dB(A);

S/N 420716: 94.0 dB(A).

2) *Meter reading(s) before and after measurements with calibrator, multi-function calibrator or pistonphone applied.*

See Appendix D.

(h) Weather Conditions

1) Wind speed(s) and direction(s)

See Appendices D and E.

2) Presence of conditions likely to lead to temperature inversion (e.g. calm nights with little cloud cover) None.

3) Precipitation None.

4) Fog None.

5) Wet ground None.

6) Frozen ground or snow coverage None.

7) Temperature:

See Appendices D and E.

Appendix H (continued)

8) Cloud Cover

See Appendices D and E.

(i) Date(s) and Time(s) of Measurements

See Appendices D and E.

(j) Measurement Time Intervals

15 minutes

(k) Reference Time Interval(s)

The reference time interval is 1 hour for the daytime assessment between 07:00 to 23:00 hours and 15 minutes for the night-time assessment between 23:00 and 07:00 hours and therefore a 1 hour assessment period is used for daytime and a 15 minute assessment period is used for night-time.

(l) Specific Sound Level

1) Measured sound level(s)

The specific sound level could not be measured but has been determined from calculation based on sound level data provided by the operator and contained within the WBM plant noise database.

2) Residual sound level(s) and method of determination

The representative residual sound levels (daytime and night-time) were determined from the attended noise surveys at the six locations at which measurements were taken in November and December 2023 and are provided in Table 5.4.

3) Ambient sound level(s) and method of determination

The proposed development site is not yet operational and whilst there was some daytime activity on the site during the surveys this was not audible at the monitoring locations. As such, the ambient sound level is the same as the residual sound level.

Appendix H (continued)

4) Specific sound level(s) and method of determination

The specific sound levels for the six assessment locations have been determined from calculation and are provided for daytime operations in Table 7.2 and for night time operations in Table 7.3.

5) Justification of methods

Calculation was used as the proposed new development is not yet in place and therefore cannot be measured at the nearest dwellings.

6) Details of any corrections applied

No corrections have been applied to the calculations. See the Potential Impact of Uncertainty section.

(m) Background Sound Level(s)

Background sound level(s) and measurement time interval(s) and, in the case of measurements taken at an equivalent location, the reasons for presuming it to be equivalent.

15-minute attended sample measurements were undertaken in November and December 2023 to establish representative background sound levels at the six survey locations chosen as representative of the nearest dwellings to the site. Table 5.2 and Table 5.3 provide the average and the range of background sound levels measured during the daytime and night time surveys.

(n) Rating Level(s)

1) Specific sound level(s)

The specific sound levels for the six assessment locations have been determined from calculation and are provided for daytime operations in Table 7.2 and for night time operations in Table 7.3.

2) Any acoustic features of the specific sound

The potential adjustments for the different features and assessment methods are summarised in the table in Section 3.3 of this report.

Appendix H (continued)

Considering the existing ambient sound environment in the area during the daytime, the nature of the proposed operations as well as the distances between the site and the receptors, one would not expect any acoustic features of the noise to be readily distinguishable at the dwellings and an acoustic feature correction would not be appropriate. For the purposes of this assessment, the specific sound level used is therefore the same as the rating level for daytime operations.

Acoustic feature correction is discussed further in Section 8.3 “Context” and Section 8.4 “Uncertainty”.

3) Rating level(s)

The rating levels are therefore 0 dB above the specific noise levels and are the same as stated for daytime operations in Table 7.2 and for night time operations in Table 7.3.

(o) Excess of the rating level(s) over background sound level(s)

Excess of the rating level(s) over the measured background sound level(s) and the initial estimate of the impacts

The excess of the rating level over the measured background sound level and the initial estimate of the impacts is provided for daytime operations in Section 8.1 and for night time operations in Section 8.2.

(p) Conclusions of the assessment after taking context into account

Context is discussed in Section 8.3. The conclusions for each assessment location are set out in Section 10. Consideration of context was found not to change the initial estimate of impacts.

Appendix H (continued)

(q) The potential impact of uncertainty

Section 10 of BS 4142:2014+A1:2019 states: "*Consider the level of uncertainty in the data and associated calculations. Where the level of uncertainty could affect the conclusion, take reasonably practicable steps to reduce the level of uncertainty. Report the level and potential effects of uncertainty*."

Uncertainty is discussed in Section 8.4. Consideration of uncertainty was found not to change the initial estimate of impacts or the conclusions for noise impact at the assessment locations.

APPENDIX 10

Noise Management Plan

NOISE MANAGEMENT PLAN, V1

for a Road Planings Storage and Recycling Facility on

Land at Neilson Rail Sidings, Wellingborough, Northamptonshire, NN8 4BH

Report prepared on behalf of:
Conway Eurovia Industries Limited

Report Date:
March 2026

This Noise Management Plan was prepared by PDE Consulting Limited on behalf of Conway Eurovia Industries Limited

Noise Management Plan – Version Log

Version No.	Version date	Description
V1	February 2026	Original Noise Management Plan (NMP) produced in support of a new permit application

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TABLES

Table 1: Potentially Sensitive Receptor Locations 5

FIGURES

Figure 1: Potentially Sensitive Receptor Locations.....5

DRAWINGS

Permit Boundary Plan	Drawing Number	KD.WLBR.1.D.024	Scale 1:1250@A3
RAP Shed	Drawing Number	KD.WLBR.1.D.014	Scale 1:500@A3

APPENDICES

Appendix 1 Accident / Incident Report Form
Appendix 2 Noise Complaint Form

1. INTRODUCTION

Background

1.1 This Noise Management Plan (NMP) has been prepared by PDE Consulting Limited (the 'Agent') on behalf of Conway Eurovia Industries Limited (CEIL) (the 'Operator'). This NMP has been prepared to support an application for a new environmental permit for a Road Planings Storage and Recycling Facility to be located on land at Neilson Rail Sidings, Wellingborough, Northamptonshire, NN8 4BH (the 'Site')

1.2 The recycling facility will process non-hazardous asphalt road planings (EWC code 17 03 02) by mechanical crushing and screening to produce Recycled Asphalt Pavement (RAP). The RAP will subsequently be used in the adjacent asphalt manufacturing process, also operated by the Operator. RAP may also be transported to other CEIL asphalt plants and depots for use in asphalt manufacturing, storage, or sold to third-party customers on a commercial basis.

1.3 The proposed permit boundary is shown in green on Drawing Number KD.WLBR.1.D.024. Total annual throughputs of road planings will be limited to 200,000 tonnes per annum (tpa).

1.4 The Site is located within the administrative area of North Northamptonshire Council (NNC). The adjacent asphalt plant will be operated in accordance with a Part B permit issued by NNC.

1.5 The Site forms part of an operational railway sidings known as Neilson Rail Sidings at Wellingborough which comprises an existing railhead with ancillary facilities including areas of surfaced yard space. The Site is bounded to the north and east by the River Ise corridor, beyond which is open land and industrial development to the east. To the west lies the rail sidings and ancillary facilities, with the Finedon Road Industrial Estate beyond. To the south lies further operational railway land.

1.6 The nearest residential receptors to the Site are located on Teal Lane, off Nest Lane, approximately 700 metres (m) to the south west of the Site.

1.7 This NMP has been produced in accordance with Environment Agency (EA) NMP Template V1.1 26 May 2022.

Regulatory Requirements

1.8 The standard noise condition for environmental permits requires that:

"Emissions from the activities shall be free from noise at levels likely to cause pollution outside the site, as perceived by an authorised officer of the Environment Agency, unless the operator has used appropriate measures, including, but not limited to, those specified in any approved noise and vibration management plan to prevent or where that is not practicable, to minimise, the noise and vibration".

1.9 This condition requires an operator to take appropriate measures to prevent or minimise noise. The measures required need to be what are reasonable, good practice and balances the costs and benefits to prevent or minimise noise.

1.10 Guidance on the EA website (www.gov.uk) states that the following measures must be considered to prevent and minimise noise emissions:

- Factor noise levels in to your plant design, and your plans for maintaining and operating your plant;
- Position noisy operations (that increase the noise in any area above background noise) away from delivery or vehicle routes;
- Use noise reduction equipment like balancing fans and fixing loose covers on noisy operations;
- Isolate noisy operations through measures like acoustic enclosures, silencers, closed doors and walls;
- Avoid noisy work during evenings and weekends;
- Switch off your entire plant, or specific vehicles, ventilation units and equipment, when they are not in use;
- Tell the EA and neighbours about any temporary work alterations that could cause significant noise; and
- Don't carry out such work on weekends or evenings after 5pm.

1.11 The same guidance also states that if complaints are received, noise levels must be monitored at different locations and times on Site to identify the problem and / or stop that activity until sufficient mitigation measures have been developed. The hierarchy for the control of noise emissions is as follows:

- **Prevent** generation of noise at source by good design and maintenance.
- **Minimise** or contain noise at source by observing good operational techniques and management practice.
- **Use physical barriers** or enclosures to prevent transmission to other media.
- **Increase the distance** between the source and receiver.
- **Sympathetic timing** and control of unavoidably noisy operations.

1.12 A NMP must be written explaining how noise will be prevented and minimised and state if it is likely that noise will cause nuisance beyond the Site boundary.

1.13 The aim of this NMP is to:

- Ensure compliance with the mitigation measures proposed in section 4 of this report;
- Formalise actions to be taken in the event of a noise complaint;
- Ensure any noise complaints are dealt with effectively and a record maintained;
- Investigate noise complaints and implement measures to prevent further occurrences; and
- Inform continuing improvements to noise control and Site management and update the NMP reflecting such improvements.

1.14 This document forms part of the Site specific Environmental Management System (EMS) for the waste operation. A copy of the EMS is kept on Site.

1.15 Staff at all levels will receive the necessary training and instruction in their duties relating to the control of all operations and the potential sources of noise emissions.

Review of the NMP

1.16 This NMP will be reviewed as follows:

- When changes are made to your Site, operations or equipment that affect the activities covered by your permit;
- Whenever an application is made to change ('vary') the permit;
- After any accident, complaint or breach of your permit; and
- If a new environmental problem or issue is encountered, and you have implemented new measures to control it.

1.17 Any revisions or changes will be logged in a revision history table at the beginning of the document.

2. OPERATIONS

2.1 The Site will be used for the storage and treatment of road planings only.

2.2 The storage and mechanical processing of road planings will be undertaken in a RAP shed. Details of the layout and elevations of the proposed RAP shed are shown on Drawing Reference KD.WLBR.1.D.014.

2.3 Internally the RAP shed will house the plant and machinery required to recycle road planings which will consist of a loader, an excavator, a granulator and a screener.

2.4 All HGVs arrive via the main Site entrance where each load will be weighed and the appropriate documentation checked at the weighbridge.

2.5 Once the paperwork has been checked and approved the driver will be directed to the RAP shed to deposit their load.

2.6 Within the shed, a loading shovel shall transfer the imported road planings to a granulator which will separate the component fractions, typically, into smaller particle sizes.

2.7 Once the particle size has been reduced, the materials will be screened into the respective various sizes and stockpiled within dedicated bays until they are required for use in the asphalt manufacturing process, or transported off Site to be used elsewhere . All of the reception, treatment and storage shall be completed within the road planings processing shed.

3. POTENTIAL SENSITIVE RECEPTORS

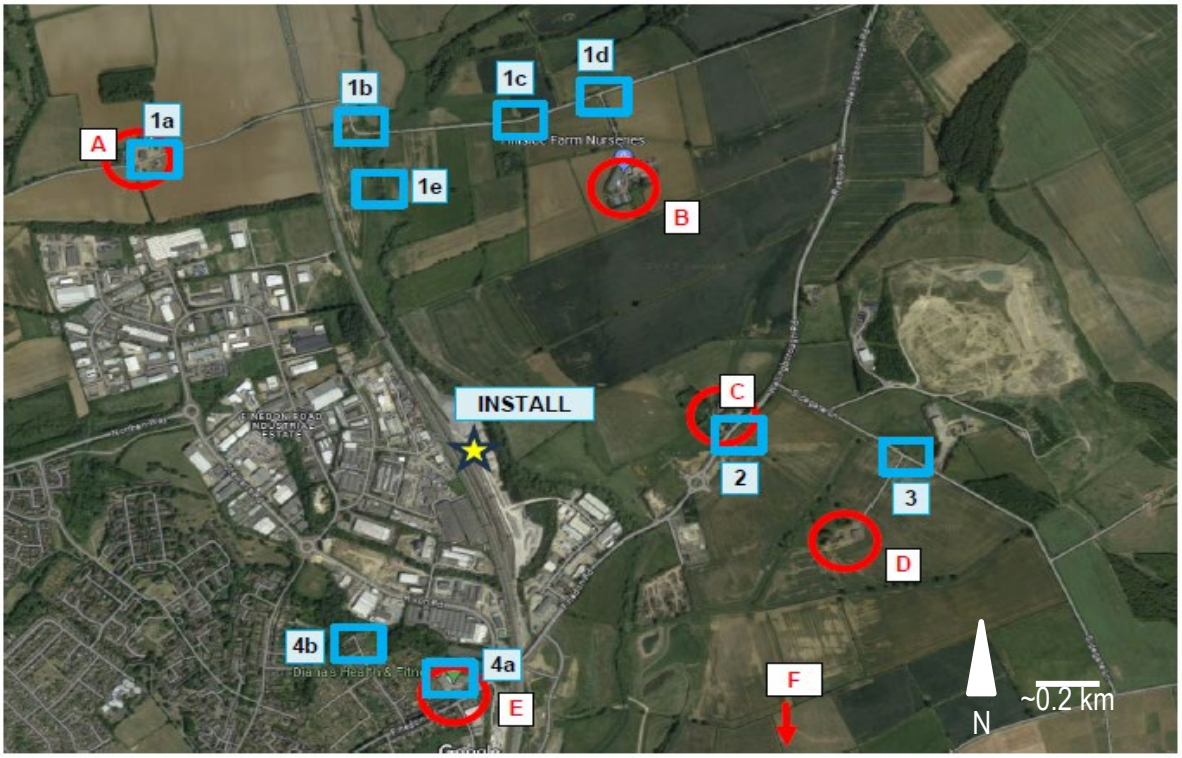
3.1 A Noise Impact Assessment (NIA) (WBM Limited, October 2024) has been produced in accordance with BS 4142:2014 to support the permit application for the proposed waste operation.

3.2 Table 1 presents the receptor locations that have been selected in the NIA which are representative of the closest residential receptors to the Site. The receptor locations are shown on Figure 1 which is taken from the NIA. It should be noted that Receptor F in Figure 1 refers to 'Stanton Cross Proposed Housing and School'; given this development has not yet been constructed and it is over 1 km from the Site, it has not been considered further in this NMP.

Table 1: Potentially Sensitive Receptor Locations

Ref No.	Land Use	Direction from permit boundary	Distance from permit boundary (m)
A	Home Farm	North west	1,300
B	Hillside Farm	North east	850
C	212 Wellingborough Road / Greenacres / The Hollies	East	750
D	Finedon Hill Farm	South east	1,100
E	Finedon Road	South	550

Figure 1: Potentially Sensitive Receptor Locations



Conclusions of the Noise Impact Assessment

3.3 The NIA considers the existing baseline noise environment at the nearest residential dwellings to the Site and compares this to the anticipated noise levels arising from the proposed waste operation.

3.4 Baseline noise monitoring was undertaken on Wednesday 29 November 2023 (daytime); Friday 15 December 2023 (daytime) and Tuesday 19 to Wednesday 20 December 2023 (night time). Sample measurements were undertaken at locations that were considered representative of the nearest residential dwellings / areas of the Site.

3.5 A total of six potentially sensitive residential receptors were identified within proximity to the Site, being located to the north, east and south of the Site boundary (See Table 1 and Figure 1).

3.6 The dominant noise sources found in the area include local and distant road traffic noise, with some sound distant jet aircraft movements recorded during the night . Localised specific sources include wind in trees, movement of metal gates and distant broadband noise.

3.7 Results from the baseline noise monitoring have been modelled using SoundPLAN to create a visual representation of calculated noise levels across the wider area in the vicinity of the Site. The model files have been provided alongside this application.

3.8 For the BS4142 assessment, an initial estimate of the impact of the specific sound is found by subtracting the measured background sound level from the rating level. The rating level is the specific sound level plus any acoustic feature correction(s) applicable for the specific sound as perceived at the assessment location.

3.9 When the rating level is above the background sound level, a difference of around +5 dB is likely to indicate an adverse impact and a difference of around +10 dB or more is likely to indicate a significant adverse impact, depending on the context.

3.10 The difference between the calculated daytime site noise levels (the rating levels) and the representative daytime background sound levels is:

- -8dB(A) at Home Farm;
- -2dB(A) at Hillside Farm;
- -8dB(A) at The Hollies;
- -10dB(A) at Finedon Hill Farm;
- -7dB(A) at Finedon Road;

3.11 The NIA therefore concludes that:

"*The comparison of the calculated noise levels arising from the operation of the proposed development has been compared to existing background and residual sound levels in the area and it is concluded that whilst site noise may be audible at times during night time, there should be no adverse impact arising from the proposals at the nearest residential dwellings".*

4. MITIGATION MEASURES

4.1 The following measures will be employed to mitigate against potential noise emissions from the activities:

- Noise generating operations e.g. crushing and screening will take place in a building;
- Unloading of road planings will also take place within an enclosed building;
- The granulator / shredder and screener, will be electrically-powered and therefore generate a comparatively lower sound level than equivalent diesel-engine machinery;
- Timing – road planings recycling operations - 07:00-17:00 Mon-Sun;
- Site operating plans have been designed to minimise materials handling and vehicle movements;
- Switching off plant and vehicles when not in use – no idling policy;
- All Site vehicles will be maintained in accordance with the manufacturer's instructions;
- Maintaining equipment specifically to reduce noise levels, for example fixing loose covers;
- White noise reversing alarms are specified on mobile plant and road going vehicles;
- The employment of reduced drop heights;
- Reducing or stopping activities that are causing the noise until either the circumstances have changed or other appropriate measures have been put in place to allow the operations to re-commence without significant noise;
- Site speed limit, 'no idling' policy and minimisation of vehicle movements on Site; and
- Ensure regular maintenance of the access roads to repair 'pot holes' which serves to significantly reduce noise generated from empty vehicles.

4.2 The in-built design features to reduce noise emissions, the mitigation measures highlighted above and the findings from the NIA demonstrate that noise emissions from the Site will not cause nuisance. Furthermore, the above measures are considered reasonable, good practice and balance the costs and benefits to prevent and minimise noise.

Noise Action Plan

4.3 In the unlikely event of a noise complaint, the following action plan will be followed:

- The complaint must be investigated fully and the source of the noise identified;
- Identified source(s) of the noise relating to the complaint will be ceased and / or additional mitigation provided;
- The Accident and Incident Record (Appendix 1 of this NMP) should be completed. Upon completion, this procedure ensures that the root cause has been identified; consideration has been given to prevent recurrence of root cause, the EA is notified if pollution has been caused and a written record exists;
- Once the source has been identified, mitigated and recorded operations can be resumed;
- A record of the complaint together with the remediation actions and a completed Incident Report form will be kept on Site;
- A review of the Site specific mitigation measures detailed above will be undertaken.

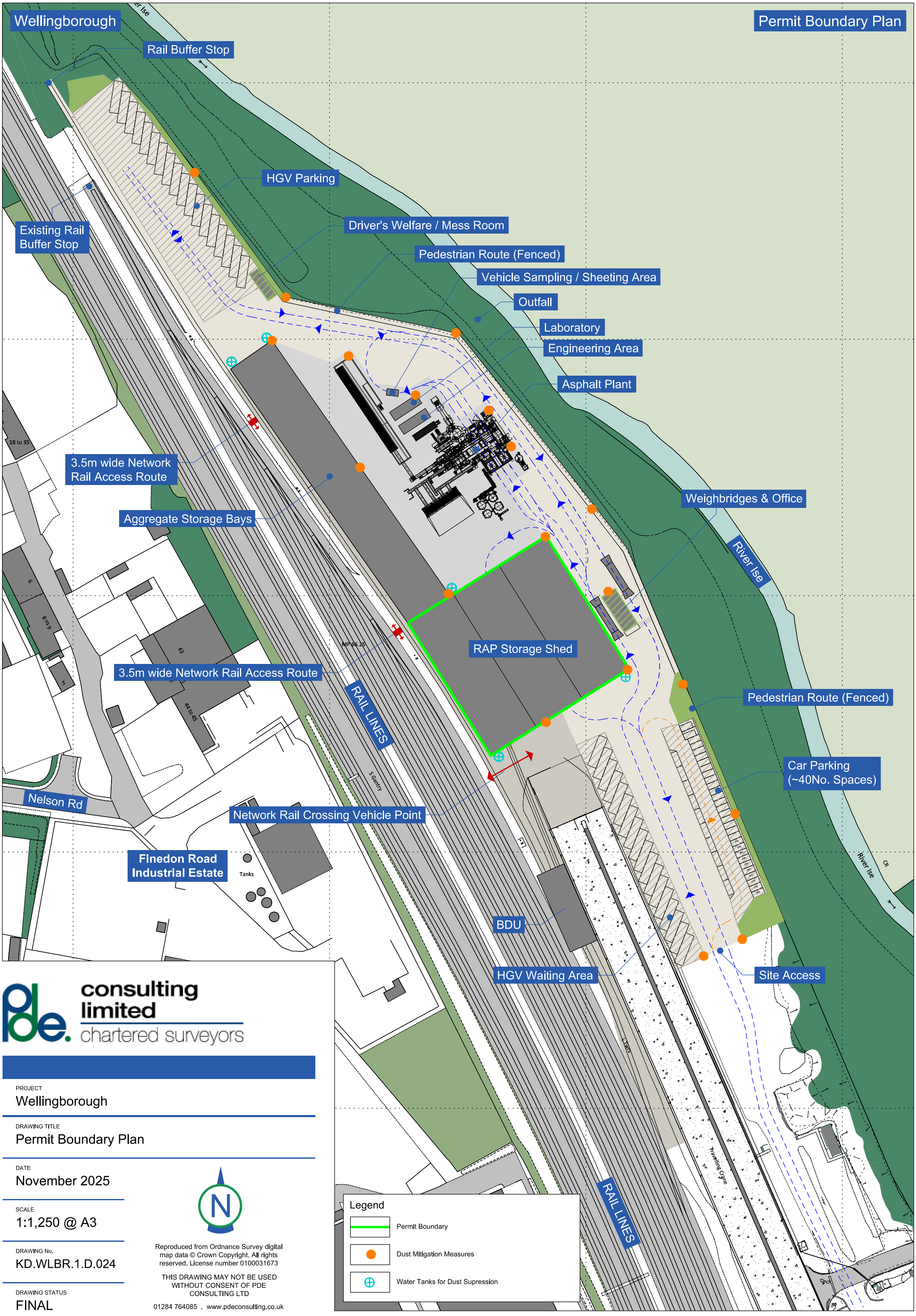
4.4 Any noise complaints will be thoroughly investigated and noise complaint form (see Appendix 2) will be completed.

DRAWINGS

Permit Boundary Plan	Drawing No. KD.WLBR.1.D.024	Scale 1:1250@A3
RAP Shed	Drawing Number KD.WLBR.1.D.014	Scale 1:500@A3

Wellingborough

Permit Boundary Plan



pde. consulting limited
chartered surveyors

PROJECT
Wellingborough

DRAWING TITLE
Permit Boundary Plan

DATE
November 2025

SCALE
1:1,250 @ A3

DRAWING No.
KD.WLBR.1.D.024

DRAWING STATUS
FINAL

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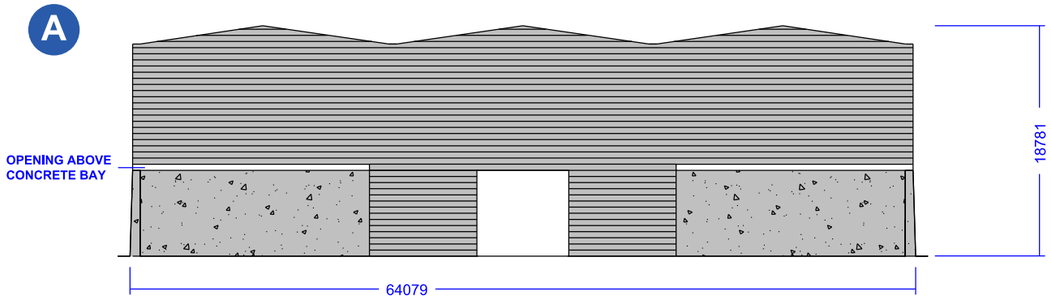
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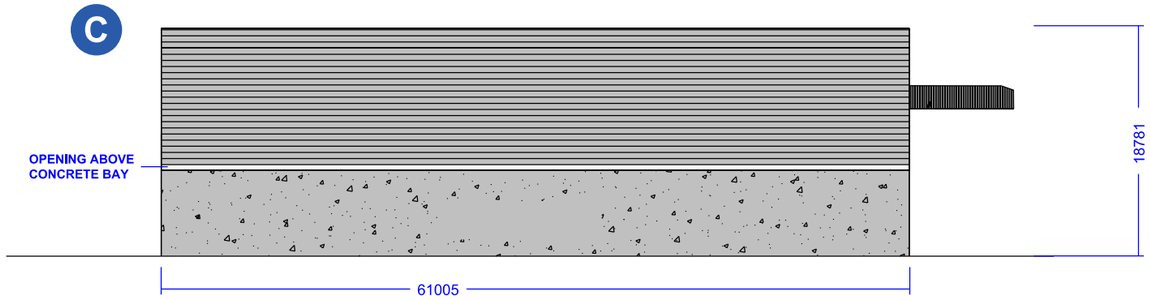
Wellingborough

RAP Shed

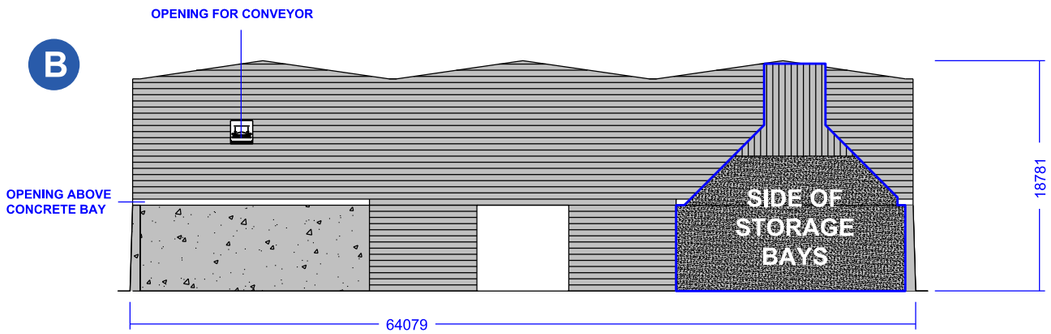
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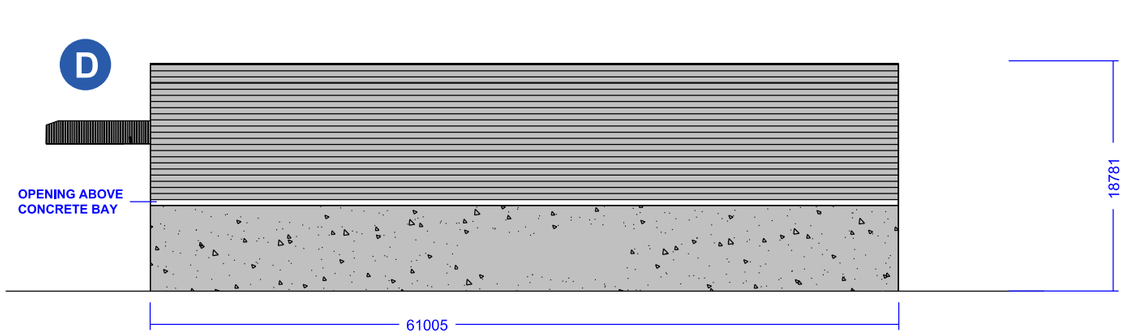
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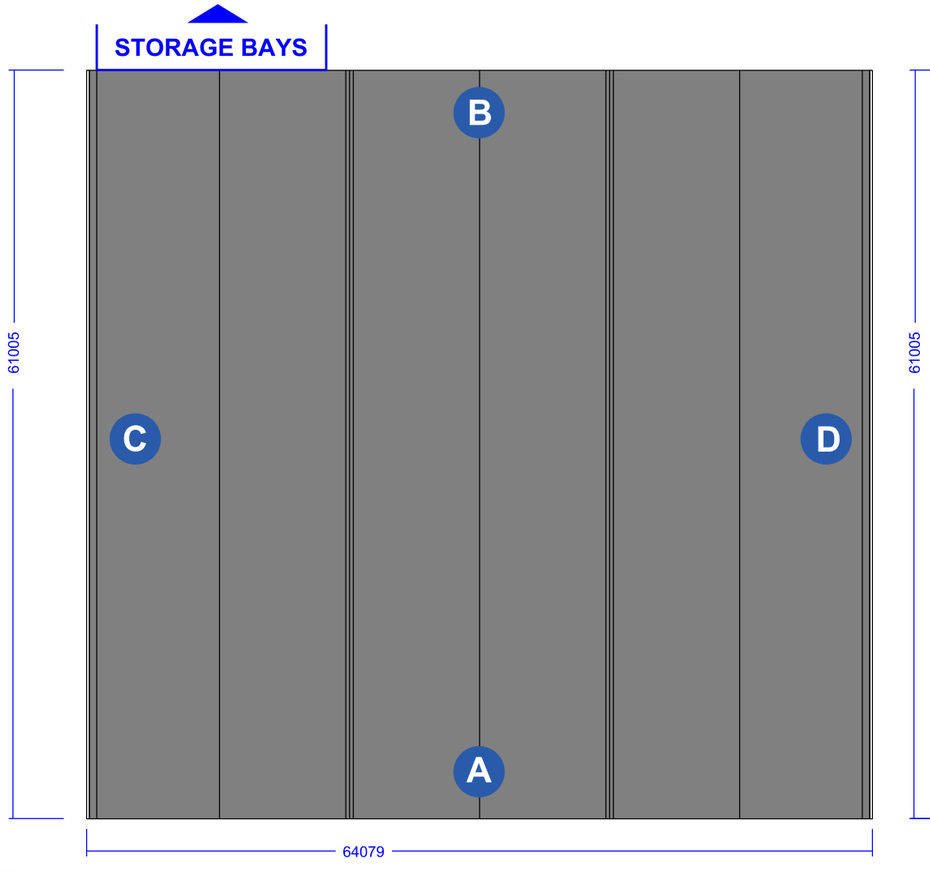
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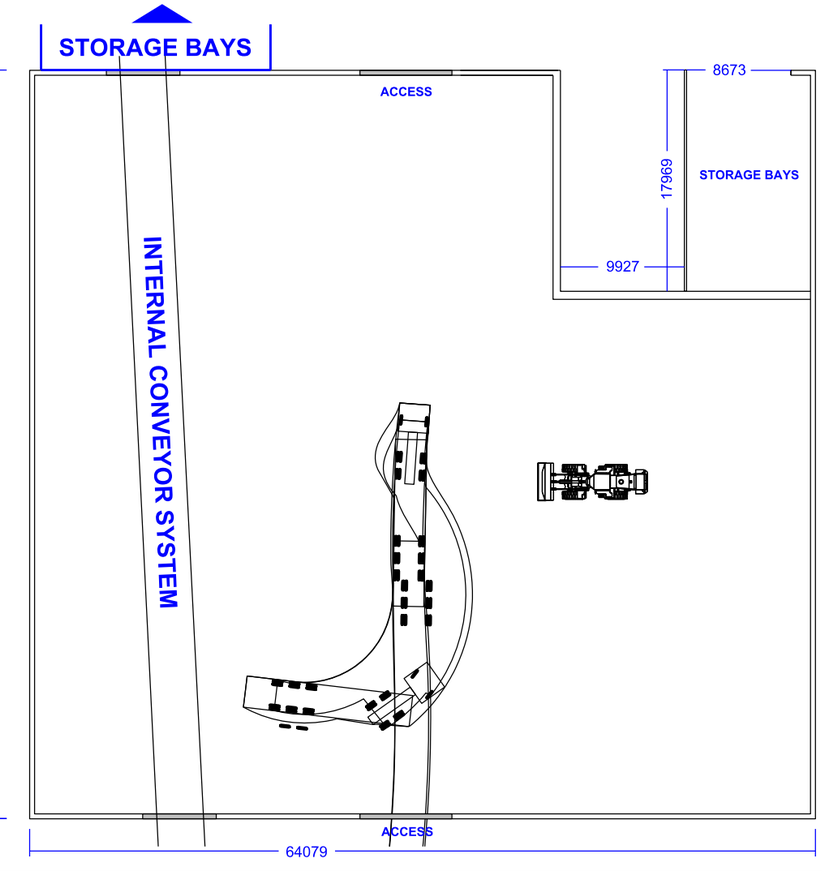


D



Proposed Roof Plan & Floor Plan





Elevations

SCALE

0 25

metres

pde. consulting limited chartered surveyors

PROJECT
Wellingborough

DRAWING TITLE
RAP Shed

DATE
October 2024

SCALE
1:500 @ A3

DRAWING No.
KD.WLBR.1.D.014

DRAWING STATUS
FINAL

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APPENDIX 1

Accident / Incident Report Form

Accident (and Incident) Record

Record of accidents, other incidents or near misses

Date and time of the incident	
What happened, what was it about?	
Was anyone else aware of this – other witnesses? If so who?	
What caused it?	
What have you done to make sure that it does not happen again?	
Was there any **significant pollution** or **environmental damage** to land, water or protected areas – for example: dust, odour or noise pollution outside the site or spillage of polluting liquids onto the ground, or at a site of special scientific interest, or into a drain or a watercourse? If so what?	
If there was, then you must take steps to prevent further damage and notify the Environment Agency on 0800 807060 and any other relevant regulators ASAP. Have you done so? Yes / No	Who did you phone? At what time did you phone?
You must also write or send an email to confirm this to the local office (see your accident management plan for the address) Have you done so?	Yes/No What date did you contact?
Please print your name and sign	

DRAFT EXAMPLE ONLY

Continue on a separate sheet if you do not have enough room.
Keep the completed form in the file to discuss with your auditors or regulators when they visit.

APPENDIX 2

Noise Complaint Form

COMPLAINT FORM

Customer Name:	Address:
Customer Contact:	

Complaint Ref. No.	Time and Date:

Complaint Description of Noise (hiss/hum/rumble/continuous/intermittent)
Any other previous known complaints relating to installation (all aspects, not just noise)
Potential noise sources that could give rise to the complaint
Action Taken
Signed: .....……..... **Date:** .....…….....

Investigation Details:

Investigation by: _____ **Position:** _____

Times Start: _____ **Finish:** _____

Weather Conditions: _____

Environment Agency Feedback:
Public Recommendation / Feedback

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APPENDIX 11

Environmental Risk Assessment

Data and information				Judgement				Action (by permitting)	
Receptor	**Source**	**Harm**	**Pathway**	**Probability of exposure**	**Consequence**	**Magnitude of risk**	**Justification for magnitude**	**Risk management**	**Residual risk**
What is at risk? What do I wish to protect?	**What is the agent or process with potential to cause harm?**	**What are the harmful consequences if things go wrong?**	**How might the receptor come into contact with the source?**	**How likely is this contact?**	**How severe will the consequences be if this occurs?**	**What is the overall magnitude of the risk?**	**On what did I base my judgement?**	**How can I best manage the risk to reduce the magnitude?**	**What is the magnitude of the risk after management?**
Local human population.	Releases of particulate matter (dusts) and micro-organisms (bioaerosols).	Harm to human health - respiratory irritation and illness.	Air transport then inhalation.	Low	Medium	**Low**	Permitted waste types are single stream non hazardous and have a low potential to produce bioaerosols.	There are no residential receptors within 700m of the Site. The Site is not located within an AQMA. Sprinklers will be installed in external areas. Refer to the Dust Emissions Management Plan for further details.	Low
Local human population.	As above.	Nuisance - dust on cars, clothing etc.	Air transport then deposition.	Low	Low	**Low**	As above. Local residents often sensitive to dust.	As above. Receptors absent.	Very low
Local human population, livestock and wildlife.	Litter.	Nuisance, loss of amenity and harm to animal health.	Air transport then deposition.	Low	Low	**Low**	Local residents often sensitive to litter, however permitted waste types have negligible litter potential.	As above. Appropriate measures include clearing litter arising from the activities from affected areas outside the Site.	Very low
Local human population.	Waste, litter and mud on local roads.	Nuisance, loss of amenity, road traffic accidents.	Vehicles entering and leaving Site.	Low	Medium	**Medium**	Road safety, local residents often sensitive to mud on roads.	All vehicles importing and exporting materials to or from the Site will be sheeted to prevent materials escaping the vehicle body. Vehicles will not travel on unmade ground.	Low
Local human population.	Odour.	Nuisance, loss of amenity.	Air transport then inhalation.	Low	Medium	**Low**	Local residents often sensitive to odour, however permitted waste types have a low odour potential.	Waste storage and treatment activities are undertaken under cover. Residential receptors are absent.	Low
Local human population.	Noise and vibration.	Nuisance, loss of amenity, loss of sleep.	Noise through the air and vibration through the ground.	Low	Medium	**Medium**	Local residents often sensitive to noise and vibration but residential receptors are absence in this case.	A Noise Impact Assessment (WBM Acoustic Consultants, October 2024) was produced to support the planning and permit applications. The NIA sets out the calculated noise levels arising from the operation of the proposed facility, for use in a BS 4142:2014+A1:2019 assessment. It concluded that there will be no adverse impact arising from the proposals at the nearest residential.	Low

Local human population.	Scavenging animals and scavenging birds.	Harm to human health - from waste carried off site and faeces. Nuisance and loss of amenity.	Air transport and over land.	Low	Low	**Low**	Permitted wastes unlikely to attract scavenging animals and birds.	Emissions of substances not controlled by emission limits (including those from scavenging animals, scavenging birds and other pests) shall not cause pollution.	Very low
Local human population	Pests (e.g. flies).	Harm to human health, nuisance, loss of amenity.	Air transport and over land.	Low	Medium	**Low**	Permitted waste types unlikely to attract pests.	As above.	Very low
Local human population and local environment.	Flooding of site.	If waste is washed off Site it may contaminate buildings / gardens / natural habitats downstream.	Flood waters.	Low	Low	**Low**	Permitted waste types are non-hazardous so any waste washed off site will add to the volume of the local post-flood clean up workload, rather than the hazard.	Waste storage and treatment activities are undertaken in a building. The Site is located in Flood Zone 1 (lowest risk).	Very low
Local human population and / or livestock after gaining unauthorised access to the waste operation.	All on-site hazards: wastes; machinery and vehicles.	Bodily injury.	Direct physical contact.	Medium	Low	**Low**	Permitted waste types are non hazardous therefore only a low magnitude risk is estimated.	Site security measures will prevent unauthorised access. Appropriate measures include perimeter security fencing and CCTV cameras positioned around the site.	Low
Local human population and local environment.	Arson and / or vandalism causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff, firefighters or arsonists/vandals. Pollution of water or land.	Air transport of smoke. Spillages and contaminated firewater by direct run-off from site and via surface water drains and ditches.	Medium	Low	**Low**	Permitted waste types do not include sludges or liquids and are non hazardous, so only a low magnitude risk is estimated.	An emergency plan will be located onsite which details the procedure in the event of a fire. Fire fighting equipment will also be in place to deal with any fires that may occur on Site.	Low
Local human population and local environment.	Accidental fire causing the release of polluting materials to air (smoke or fumes), water or land.	Respiratory irritation, illness and nuisance to local population. Injury to staff or firefighters. Pollution of water or land.	As above.	Low	Low	**Low**	As above.	As above (excluding comments on access to waste). Permitted activities do not include the burning of waste.	Low

All surface waters close to and downstream of site.	Spillage of liquids, leachate from waste, contaminated rainwater run-off from waste e.g. containing suspended solids.	Acute effects: oxygen depletion, fish kill and algal blooms.	Direct run-off from site across ground surface, via surface water drains, ditches etc.	Low	Low	**Low**	Permitted waste types do not include sludges or liquids so only a low magnitude risk is estimated.	All liquids shall be provided with secondary containment including non - wastes such as fuels.	Very low
All surface waters close to and downstream of site.	As above.	Chronic effects: deterioration of water quality.	As above. Indirect run-off via the soil layer.	Low	Low	**Low**	Waste types are non-hazardous so harm is likely to be temporary and reversible.	As above. Pollution protection measures will be installed.	Very low
Abstraction from watercourse downstream of facility (for agricultural or potable use).	As above.	Acute effects, closure of abstraction intakes.	Direct run-off from site across ground surface, via surface water drains, ditches etc. then abstraction.	Low	Low	**Low**	Watercourse must have medium / high flow for abstraction to be permitted, which will dilute contaminated run-off.	There are no surface water abstractions within 1km of the Site.	Very low
Groundwater.	As above.	Chronic effects: contamination of groundwater, requiring treatment of water or closure of borehole.	Transport through soil/groundwater then extraction at borehole.	Low	Low	**Low**	Permitted wastes unlikely to contaminate groundwater.	The site wil be surfaced. It is directly underlain by made ground then mudstone. The Site is not located directly upon a Principal or Secondary aquifer. The Site is not located with a groundwater source protection zone.	Very low
Local human population.	Contaminated waters used for recreational purposes.	Harm to human health - skin damage or gastro-intestinal illness.	Direct contact or ingestion.	Low	Medium	**Low**	Unlikely to occur, but might restrict recreational use.	Waste operations will be contained with a building.	Very low
Protected sites - European sites and SSSI's, including fish migratory routes in SSSIs	Any.	Harm to protected site through toxic contamination, nutrient enrichment, smothering, disturbance, predation etc.	Any.	Medium	Medium	**Medium**	Waste operations may cause harm to and deterioration of nature conservation sites. The Upper Nene Valley Gravel Pits Site of Special Interest (SSSI), Special Protection Area (SPA) and Ramsar site lies approximately 1.6 km south east of the Site. This area is nationally and internationally important for breeding bird assemblage and wintering birds. There are no other statutory designated sites within 2 km of the Site.	Waste storage and treatment activities will be undertaken in a building, with appropriate mitigation therefore there is no mechanism whereby site activities could impact the identified protected sites. An Ecological Impact Assessment (EclA) (Wilkinson Associates, October 2024) was undertaken in support of the planning application of the proposed road planing recycling facility and the adjacent asphalt plant which concluded that it would not have significant adverse effects on any designated sites, including the Upper Nene Valley Gravel Pits SSSI, SPA & Ramsar	Very low

Appendix 12

Accident / Incident Reporting Form

Accident (and Incident) Record

Record of accidents, other incidents or near misses

Date and time of the incident	
What happened, what was it about?	
Was anyone else aware of this – other witnesses? If so who?	
What caused it?	
What have you done to make sure that it does not happen again?	
Was there any **significant pollution** or **environmental damage** to land, water or protected areas – for example: dust, odour or noise pollution outside the site or spillage of polluting liquids onto the ground, or at a site of special scientific interest, or into a drain or a watercourse? If so what?	
If there was, then you must take steps to prevent further damage and notify the Environment Agency on 0800 807060 and any other relevant regulators ASAP. Have you done so? Yes / No	Who did you phone? At what time did you phone?
You must also write or send an email to confirm this to the local office (see your accident management plan for the address) Have you done so?	Yes/No What date did you contact?
Please print your name and sign	

Continue on a separate sheet if you do not have enough room.
Keep the completed form in the file to discuss with your auditors or regulators when they visit.

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