# Site Condition and Baseline Report

## Meggitt Aircraft Braking Systems, Coventry

## Meggitt Aerospace Limited

**Date:** November 2018

**Our Ref:** JER1637

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# Quality Management

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# Amendment Record

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| 2 | 24 October 2018 | Internal Review | JS |
| 3 | 08 November 2018 | Client Review | OT |
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# Executive Summary

This document represents the Site Condition Report for Meggitt Aerospace Limited, produced in support of the permit variation application to the existing Environmental Permit (EPR/BN7109IH) to expand the permitted site area by approximately 0.45 ha (4,520 $m^2$).

To record the potential condition of the land at the time of the permit variation application, within the boundary of permit EPR/BN7109IH and the proposed extension to the boundary, RPS has reviewed all available investigation and monitoring data pertaining to the permitted and proposed development areas.

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# 1 Introduction

## 1.1 Introduction

1.1.1 RPS was requested by Meggitt Aerospace Limited (MAL) to produce a Site Condition Report (SCR) to support their application to vary environmental permit EPR/BN7109IH for their site at Holbrook, Coventry.

1.1.2 RPS has previously produced a site condition report for the permit application for this site (RPS, 2006), which is appended to this document in **Appendix A**. This previous report has been used to support Section 2 of this document, the Application Site Condition Report to update into the current SCR format as set out by the Environment Agency (EA)[1]. The most recent Site Investigation Report (SIR) (WYG, 2018), which includes the new area, has been used to inform Section 6 of this document and can be found in **Appendix B** to this document.

1.1.3 Limited site investigations were carried out by Merebrook Consulting (Merebrook Consulting, 2012) for Clowes Developments and Meggitt in 2012. This report is provided in **Appendix C** to this document.

1.1.4 Under the Environmental Permitting Regulations 2016, the MAL facility is regulated as a Part A1 installation. Part A1 installations are required to submit a Site Condition Report (SCR) setting out both the qualitative and quantitative condition of the site at permit application (in this case a variation application) to allow comparison of site conditions after cessation of operations at the site. The 'initial condition,' for the purposes of this report, refers to the condition of the site at the time of the permit application and uses the information provided from the application site condition report at the time (RPS, 2006). Section 7 of this report will be updated upon cessation of activities to compare the condition of the site to the initial report to establish if contamination of land has occurred during site occupancy and whether or not remediation will be required at permit surrender.

1.1.5 Section 6 of this SCR establishes the condition at point of varying the permit for the areas of the site within the proposed extension area (Drakes Yard and DAIPC building) and is based on the most recent SIR by WYG in June 2018 and that by Merebrook Consulting in 2012.

[1] Environment Agency, H5 Site condition report – guidance and templates: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/298106/LIT_8001_38258e.pdf

1.1.6 It should be noted that a partial permit surrender application is being submitted at the same time as this variation application. This is to surrender areas of the permit boundary which are no longer being used in the operations. The updated site plan has removed these areas from the permit boundary. An update to this SCR is being submitted with the surrender application. These applications should be reviewed simultaneously so that the correct permitted area can be included in the permit variation.

1.1.7 Photos of the proposed extension area are in **Appendix D**.

## 1.2 Key Objectives

1.2.1 The key objectives for this variation SCR are:

- To establish the extent of historical contamination and naturally occurring elements in the ground in areas where current and/or future processes may include similar potentially contaminating substances.
- To identify the Site Conditions at the site at the point of varying the permit for the facility (baseline condition) such that they may be used as a point of reference to determine whether the site has been contaminated during the site's permitted operation.
- To characterise the physical and chemical properties of the ground and to establish the site's environmental setting and vulnerability, i.e. develop a 'Conceptual Site Model'.
- To provide recommendations on whether or not land quality has been impacted upon.

1.2.2 In addition to the above key objectives, an assessment was made on whether any immediate remedial action was required for any of the contaminant sources identified at the site.

# 2 Application Site Condition Report

## 2.1 Application Phase

2.1.1 This SCR, prepared in accordance with the Environment Agency Horizontal Guidance Note H5, contains information on the condition of the operational area from 2006, when the site was first permitted (RPS, 2006). This section references the information that was available at the time of permitting for the operational area.

## 2.2 Site Condition Report Summary

| **1.0 Site details** | |
|---|---|
| Name of the applicant | Meggitt Aerospace Limited |
| Activity address | Carbon Brake Facility, Holbrook Lane, Holbrook, Coventry, Warwickshire, CV6 4AA |
| National grid reference | SP 3303 8233 |
| Site area (ha) | 0.6 |

| | |
|---|---|
| Document reference and dates for Site Condition Report at permit application and surrender | Application Site Condition Report (ASCR) (RPS, 2006) |

| | |
|---|---|
| Relevant Hazardous Substances | Details of substances stored on site and their pollution potential were provided in Sections 4 and 5 of the ASCR (RPS, 2006). |

| | |
|---|---|
| Document references for site plans including:<br>▪ Site location plan<br>▪ Plan showing activities layout<br>▪ Site drainage plan<br>▪ Plan showing pollution prevention measures in place (including impermeable surfacing, interceptors and sumps)<br>▪ Plan showing location of sensitive receptors including protected areas or sensitive habitats or species within 1 km of the site | Site Condition Report (RPS, 2006):<br>• Site Location Plan (Appendix A1)<br>• Site Layout Plans (Dunlop Aerospace Site Ownership & PPC Process Boundaries, Appendix A3)<br>• Site Drainage Plan (Appendix A4)<br>• Sensitive Receptors Plans (Appendix A5) |

| **2.0 Condition of the land at permit issue** | |
|---|---|
| Environmental setting including:<br>• geology<br>• hydrogeology<br>• surface waters (hydrology)<br>• protected areas or sensitive habitats/species within 1 km<br>• topography | Details of the environmental setting at permit issue are provided in *Section 3* of the ASCR (RPS, 2006). |
| Site Reconnaissance, to assess:<br>• damage to existing pollution prevention measures<br>• other potential migration pathways such as drains, service corridors and outfalls<br>• evidence of visual / olfactory contamination including disturbed land, discoloured soil and/or water, distressed vegetation or absence where it might be expected, subsidence and above ground deposits<br>• presence and condition of surface water features on site<br>• ponding of surface water on site<br>• land uses in the vicinity of the site | Site reconnaissance details at permit issue are provided in *Section 4* of the ASCR (RPS, 2006). |
| Pollution history including:<br>• location, nature and extent of accidents, incidents, or direct discharges that may have affected the soil or groundwater<br>• historical land-uses and associated contaminants | Pollution history details are provided in *Section 3.4* of the ASCR (RPS, 2006). |
| Evidence of historic contamination, for example, historical site investigation, assessment, remediation and verification reports (where available) | Any details regarding historical contamination near to the site are provided in *Appendix C1 (Envirocheck Report)* to the ASCR (RPS, 2006). |
| Conceptual site model | A conceptual site model is provided in *Section 6* of the ASCR (RPS, 2006). |
| Baseline soil and groundwater reference data | Details regarding baseline soil and groundwater reference data at the site are provided in *Section 6 and Appendix C2* of the ASCR (RPS, 2006). |

| 2.0 Condition of the land at permit issue | |
|---|---|
| **Supporting information** | • Source information identifying environmental setting and pollution incidents<br>• Historical Ordnance Survey plans (where provided)<br>• Site reconnaissance<br>• Historical investigation / assessment / remediation / verification reports (where provided)<br>• Baseline soil and groundwater reference data<br><br>See original ASCR (2006) and First Phase Reporting of the SPMP (2007) in Appendix A of this report |

| 3.0 Permitted activities | |
|---|---|
| Permitted activities | Details regarding permitted activities on the site are provided in *Section 1.1* of ASCR (RPS, 2006). |
| Non-permitted activities undertaken | N/A |
| Document references for:<br><br>• plan showing activity layout; and<br>• environmental risk assessment. | A site layout and boundary plan for the facility at the time of the original permit application are shown on the following drawing:<br>• *Dunlop Aerospace Site Ownership & PPC Process Boundaries (Appendix A3)*<br><br>An environmental risk assessment (ERA) was not included with the original permit application. |

# 3 Operation Site Condition Report

## 3.1 Operational Phase

3.1.1 This SCR, prepared in accordance with the Environment Agency Horizontal Guidance Note H5, contains information on the condition of the site during the operational phase of the facility. The extension area history prior to 2018 has been reviewed as part of this SCR where known, and commented on within this report. The permitted activities, site details and condition of the land for the new Drakes Yard area and DAIPC building at the time of the permit variation are detailed in sections 4, 5 and 6 of this report.

## 3.2 Site Condition Report Summary

| **4.0 Changes to the activity** | |
|---|---|
| Have there been any changes to the activity boundary? | Yes – as part of the 2018 variation additional land is to be included, these changes are shown in Drawing JER1637-PER-010. The additional land comprises raw materials storage areas and the area on which the new cooling towers will be built. Further detail is provided in *section 4.* |
| Have there been any changes to the permitted activities? | As part of the 2018 variation, in addition to the extended installation boundary noted above, the following amendments to the permitted techniques are proposed:<br>• Two new cooling towers to replace the existing units. The two new towers will be relocated to the new Drake's yard area<br>• A small-scale LNG storage system will be installed to be used during the start-up period for the furnaces<br>• An additional carbonisation furnace will be installed<br>• A replacement thermal oxidiser unit will be installed to abate emissions from the carbonisation process |
| Have any 'dangerous substances' not identified in the Application Site Condition Report been used or produced as a result of the permitted activities? | LNG storage will be added as part of the 2018 variation application. Details of the RHS which are relevant to this variation and the simultaneous surrender application are provided in *Section 4.4* of this SCR.<br>An environmental risk assessment has been |

| | |
|---|---|
| | carried out to assess the risks associated with the changes covered by the 2018 variation. |
| Checklist of supporting information | Plan showing any changes to the boundary:<br>• JER1637-PER-010<br>Plan showing extension area layout:<br>• JER1637-PER-004<br>Environmental Risk Assessment (RPS, 2018) |

| **5.0 Measures taken to protect land** | |
|---|---|
| Details of the measures taken to protect land are provided in *Section 5.5* of this SCR. | |
| Checklist of supporting information | • Records of maintenance, repair and replacement of pollution prevention measures |

| **6.0 Pollution incidents that may have had an impact on land, and their remediation** | |
|---|---|
| See *section 6* of this SCR | |
| Checklist of supporting information | |

| **7.0 Soil gas and water quality monitoring (where undertaken)** | |
|---|---|
| See *section 6.4* of this SCR | |
| Checklist of supporting information | • Appendix B – Site Investigation Report (WYG, 2018)<br>• Appendix C – Geo-Environmental Assessment (Merebrook Consulting, 2012) |

# 4 Permitted Activities

4.1.1 The following activities are permitted at the MAL Site:

- Section 1.2 A(1)(f) – Activities involving carbonisation of carbonaceous materials: Preparation and Carbonisation of material using carbon vapour deposition in electrically powered furnaces; and,
- Section 6.2 A(1)(a) – Producing carbon by means of graphitisation: Preparation and heat treatment of carbon brake discs.

4.1.2 The following directly associated activities are permitted at the MAL Site:

- Burning of waste as a fuel – boiler plant operating on waste gas from production process in addition to virgin fuels;
- Thermal oxidiser abatement plant; and
- Propane in the furnaces – storage and use of propane in the furnaces.

4.1.3 This 2018 permit variation application is being submitted in order to incorporate the following changes and improvements at the site:

- Cooling towers – There will be two new cooling towers to replace the existing units which have reached the end of their economic life. The new towers will be relocated to the Drakes Yard area. This area is not currently included in the permit boundary; therefore the variation will seek to add this land to the permitted area.
- Liquid Natural Gas (LNG) – MAL requires a small scale LNG storage system which will be used during the start-up period for the CVD furnaces in the manufacturing process.
- Lesni Project – As part of the manufacturing process an additional carbonisation furnace is to be installed to run alongside the currently installed furnace. Due to the additional capacity, a replacement thermal oxidiser unit is to be installed, which will be used to abate the emissions from the carbonisation process. This will require an additional emission point to air to be included in the permit. The current thermal oxidiser will be removed following commission of the new equipment and the associated emissions point removed from the permit as part of the variation.
- The permitted activity for Section 1.2 A(1)(j) also needs to be updated due to changes in legislation since the activity was originally permitted under the Pollution Prevention and Control (PPC) Regulations 2000. This is being updated to Section 1.2 A(1)(f) of Environmental Permitting (England and Wales) Regulations 2016.

4.1.4 These variations are intended to enhance the efficiency of the site and the operational processes taking place on it.

## 4.2 Non-permitted activities undertaken

4.2.1 All activities that are currently undertaken on the site are permitted.

## 4.3 Chemical Inventory

4.3.1 Raw materials to be stored on site will be oxidised polyacrylonitrile (OPAN) cloth and liquefied natural gas (LNG). Storage arrangements for these and other materials stored on site are detailed in Table 4-1 below.

***Table 4-1 Material Inventory***

| Substance | Nature | Max Stored (tonnes or $m^3$) | Annual Usage (tpa or $m^3$) | Storage Arrangements |
|---|---|---|---|---|
| OPAN cloth(1) | Oxidised Polyacrylonitrile | 100 tonnes | 150 tpa | Stored in sealed boxes in DAIPC building |
| LNG(2) | Liquefied natural gas | 8 tonnes (20 $m^3$) | 18 tpa | Vertical cryogenic tank |
| Treated cooling water(3) | Mains water treated with cooling water treatment chemicals | 2 x 24 $m^3$ | Cooling water is on a continuous loop system and as such there minimal usage through loss each year. | Stored in towers and pipework on an impermeable surface and bunded area. |
| Cooling water treatment chemicals*(4) | Chemicals used for Legionella control or as biocides for water treatment | Approx. 4.1 $m^3$ (breakdown given in Table 4-2) | Low usage | The chemicals are stored within bunds in a building with impermeable floors and spillage kits. The storage area is bunded with a secondary aco drain & pit. |
| Nitrogen(4) | Liquid nitrogen | 30 tonnes | Approx. 423,108 $m^3$ | Above ground steel storage tank, with fill point in bunded area |

| | | | | |
|---|---|---|---|---|
| Hydraulic Oils(4) | Oils for plant and machinery on site | 2 $m^3$<br>Stored in 1 $m^3$ IBC | 10 $m^3$ | Stored in bunded tank - no changes on storage position/place. Pumped out electrically. |
| Diesel(5) | Low sulphur diesel | 2.68 $m^3$ | 0.5 $m^3$ | Above ground steel storage tank |

(1) This was stored on site prior to the variation, but as a result of the simultaneous surrender application the location of this storage has changed as detailed here.

(2) This is a new material, the storage of which is being added to the permit as part of the 2018 variation application.

(3) Note the cooling towers are to be fed from mains water, but new tanks will be fitted on the relocated cooling tower pad for water storage and chemical treatment.

(4) The storage of these will not change, but the expected usage will increase as a result of the 2018 variation.

(5) Storage and usage of this will not change as a result of the 2018 variation.

*See Table 4-2 below.

4.3.2 The following materials are used in cooling waters for Legionella controls / Biocides. The table below sets out the specific cooling water treatment chemicals used on site, their hazardous ingredients, storage, approximate usage per day, frequency of use and typical dose rate, where the information was available.

***Table 4-2 Cooling Water Treatment Chemicals***

| Substance | Hazardous Ingredients | Storage | Approximate usage per day | Frequency of use | Typical dose rate |
|---|---|---|---|---|---|
| 1.5% CMI/MI (COPPER STABILISED) | A mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-o; Copper-(II)-nitrate-2,5-hydrate | 0.2 $m^3$<br>(8 x 25 litre drums) | 30 ml | Weekly | Not given |
| 24% GLUTARALDEHYDE | Glutaraldehyde | No longer used | N/A | N/A | N/A |
| STREAMLINE 202 (Biocide) | methyl-2H or methyl-4 (3:1) | 0.4 $m^3$<br>(16 x 25 | 30 ml | Weekly | If badly fouled, should be shock |

| | | | | | |
|---|---|---|---|---|---|
| | mixture of EC No 220-239-6 | litre drums) | | | dosed initially up to 500 ppm. After bacteriological control achieved, periodic dosing at a rate of 100-200 ppm |
| STREAMLINE 224 (Biocide) | None | 0.5 $m^3$ (20 x 25 litre drums) | Stock in 25 kg drum | Monthly | Not given |
| STREAMLINE 228 (Biocide) | Sodium hypochlorite solution (Cl active) 15% [EC No 231-668-3]; Sodium hydroxide <1% [EC No 215-185-5] | 0.8 $m^3$ in 25 litre drums; 1 $m^3$ x 2 in IBC | 10 litres | Daily | 200-400 ppm with recommended contact time 12-24 hours |
| STREAMLINE 250 (Biocide) | 1-hydroxy eythylidene-1, 1-diphosphonic acid; potassium silicate [EC No 215-199-1]; sodium hydroxide [EC No 215-185-5]; tetra potassium pyrophosphate [EC No 230-785-7]; trisodium nitrilotriacetate [EC No 225-768-6] | 0.2 $m^3$ in 25 litre drums | 1000 ml maximum | Daily | Initially twice the normal dosing rate for 5-6 days, then 100-200 ppm in the system, e.g. a cooling system operating at 4 cycles of concentration requires 25-50 ppm |

## 4.4 Relevant Hazardous Substances

4.4.1 Considering the substances identified above, we consider that the following relevant hazardous substances (RHS) could potentially impact the site condition as a result of the changes to the permitted activities:

- Cooling water treatment chemicals
- Liquid nitrogen
- Hydraulic oils

4.4.7 OPAN cloth is considered incapable of having a discernible impact on the quality of soil or groundwater. LNG is also considered incapable of having a discernible impact on the quality of soil or groundwater as in the case of a leak, it would vaporise rapidly, turning into a gas, and mixing with the air.

4.4.8 The impacts of diesel are not considered in this SCR as the quantities stored and used will not change and therefore the assessment in the ASCR (2006) is considered still relevant.

4.4.9 Liquid nitrogen will not be stored in greater quantities on site as a result of the 2018 variation. It is however expected that the usage will increase at times when both furnaces are operated simultaneously, which may increase the amount of fills needed by the storage tank. The fill point is located within a bunded area and frequent visual inspections are undertaken to ensure that any damage is found quickly and fixed. The inspections and secondary containment minimise any potential impact on land or groundwater from a spillage event.

4.4.10 Cooling water treatment chemicals and hydraulic oils will be stored and used in small quantities on site and in bunded areas. Further details of the storage arrangements, usage and dosage are in Table 4-1 and Table 4-2. Dosage will take place on the cooling tower pad, which is on an impermeable surface and within a bunded area. Spill kits are located at strategic points around the site to ensure minor spills can be effectively managed. In the event of a spillage, any spilt material will be cleaned up immediately and disposed of appropriately. Given the volumes of the materials likely to be stored and used on site the potential risk to soil or groundwater is low. All storage areas will be provided with spillage collection facilities, including spill kits, and will be located on an impermeable surface with a sealed drainage system. Staff are trained in the use of chemicals and in spillage procedures.

4.4.11 In order to prevent pollution to land and groundwater, site surfacing and drainage will be visually inspected on a regular basis. Drainage will be thoroughly inspected by an

external contractor every 6 months to ensure that there are no internal blockages. Any areas of surfacing showing wear will be monitored and repaired as soon as reasonably practicable.

4.4.12 Given the above, none of the materials used, stored or produced at the MAL site, which are new materials or materials for which quantities will have changed as a result of the 2018 variation, are considered RHS for which baseline data is required.

# 5 Site Details

## 5.1 Site Location

5.1.1 RPS understands that the MAL site currently comprises two main areas:

- The Operational Area: the area currently permitted for site operations; and,
- The Extension Area: the proposed area of extension of operations (comprising the Drake's Yard Area and DAIPC building).

5.1.2 Both areas are located at MAL's Carbon Brake Facility, Holbrook Lane, Holbrook, Coventry, West Midlands, CV6 4AA. The operational area is approximately 0.6 ha, which will be increased by 0.45 ha with the addition of the extension area. The MAL site also comprises areas outside of the permit boundary which are used for other parts of its process. These areas are not considered in this SCR, unless as part of the whole MAL site.

5.1.3 It is also worth noting that a surrender application is being submitted in parallel with this 2018 variation application to remove the following areas from the permit boundary:

- Building D4 (approx. 2,750 m2) – This is the old boiler house. The boilers were never used as part of the permitted activities/processes; they were used for heating the buildings on site. The boilers were decommissioned before 1990. Following removal of the boilers, the buildings were used for storage of the oxidised polyacrylonitrile (OPAN) cloth. This is the raw material used in the Carbonising furnace. The buildings were demolished in March 2015.
- Six steel storage containers on car park area (approx. 180 m2) – There were six shipping containers in the car park area used for storage of raw materials (OPAN) for the process. These are no longer used for raw materials storage and all raw materials have been removed. Two containers are left which are used by sub-contractors for materials storage (plumbing equipment).

5.1.4 The MAL site is located to the north of Swallow Road and West of Holbrook Lane. The extension area is located on the northern edge of the site, with a recreation ground bordering the north and east of the Drake's Yard Area.

## 5.2 Site Reconnaissance (February 2018)

5.2.1 A site walkover survey was undertaken on 2nd February 2018 by WYG, which covered the whole MAL site. The main things reported from this walkover were the access to,

topography of and surfacing of the MAL site. Further findings of the site walkover survey are detailed in the SIR in **Appendix B** (WYG, 2018).

5.2.2 The Merebrook Consulting SIR (2012) found no evidence of visible contamination in the site walkover or during ground investigastion works. The walkover identified the following buildings on the relevant parts of the MAL site:

- Operational Area – Buildings X3 and C3, comprising MAL production buildings;
- Extension Area – Building Y3, a disused foundry which now forms the Drake's Yard area, and (the northern part of) Building A2, the main production building. The walkover identified an above ground bunded tank, located to the west of Building A2; and,
- Surrender Area – Building D4, a disused boiler house which has since been demolished.

## 5.3 Surrounding area and sensitive receptors

5.3.1 The MAL site lies in a predominantly industrial and residential area, approximately 4 km north of Coventry City Centre. There is a recreational park and residential housing to the north, industrial and commercial units to the east, industrial land to the south and new build residential areas to the west of the MAL site. The Extension Area is bordered to the south by the Operational Area and further MAL site, to the west by the further MAL site and to the north and east by a recreational park. Drawing XXX sets out these areas of the MAL site.

5.3.2 The land immediately south of Swallow Road was previously occupied by parts of the MAL works. The industrial premises in this area have recently been demolished and remedial works undertaken. Ongoing hydrocarbons / chlorinated solvent remediation, by monitored natural attenuation, is described in the Remediation Strategy for this area prepared by Ramboll Environ (Ramboll Environ, 2017). Localised mitigation of soil contamination hotspots was also undertaken.

5.3.3 Other industrial premises are located to the south of the wider MAL landholding.

5.3.4 The nearest residential properties to the Operational Area are located approximately 100 m to the south of the site. The closest residential properties to the Drakes Yard Area are approximately 100 m to the north of the site. There are residential properties closer to the DAIPC building on its western edge; these are located approximately 15 m from the west border of the MAL site.

## 5.4 Site Drainage

5.4.1 Rain water runoff is collected to culvert off site.

5.4.2 There are three point source emissions to sewer, comprising: boiler blowdown; cooling water discharge; and overflow from cooling water discharge. The public water sewer into which the effluent may be discharged is the foul water sewer situated in Holbrook Lane and under the authority of Severn Trent Water.

5.4.3 The newly permitted areas are already connected to the site drainage system and as such, there shall be no changes to the site drainage as a result of the 2018 variation.

# 6 Condition of the Land at Permit Variation 2018

## 6.1 Environmental Setting

6.1.1 The following information has been taken from the British Geological Survey Geology of Britain viewer and Environment Agency Groundwater maps and reflects the condition of the overall MAL site (comprising both the operational area and Extension Area) at the time of the permit variation application in 2018. Where possible, distances relative to the Extension Area have been given. If these were not available (for example, when tools use the post code), it has been stated where the distance is taken from, i.e. the MAL site or the post code.

**Geology and Topography**

6.1.2 Based on British Geological Survey (BGS) 1:50,000 scale survey data for the site location in Coventry, the bedrock at the extension site is Keresley Member – Argillaceous Rocks and Sandstone and Conglomerate, Interbedded. The extension area shows the same geology as the rest of the MAL site.

6.1.3 The superficial deposits displayed on the geological maps studied are Thrussington Member - Diamicton.

*Site Investigation 2018*

6.1.4 The main geological units identified during the intrusive site investigation across the MAL Site are summarised in the following sections.

6.1.5 The geological sequence encountered at the MAL site generally corresponds to the published geological records and the anticipated ground conditions.

6.1.6 The site investigation report and data are provided in **Appendix B**.

*Hardstanding*

6.1.7 The 2018 site investigation encountered hardstanding within 37 no. locations from ground level to a maximum depth of 0.2 mbgl. It typically comprised dark grey to black hard asphalt underlain by grey to light grey concrete with 10 – 20 mm reinforcing bar.

*Made Ground*

6.1.8 The 2018 site investigation reported BGS records of boreholes located within the site boundary which indicate made ground to depths of between 0.8 and 3.8 mbgl underlain

by hard sandy clay. Fine red sand becoming weakly cemented sandstone was encountered at depths between 7.4 and 9.3 mbgl in one borehole.

6.1.9 The SIR encountered made ground in all exploratory locations except two of these, where concrete hardstanding overlay natural ground. It was encountered from a minimum of ground level to a maximum depth of 2 mbgl, although the typical range was from 0.1 – 1.2 mbgl. The made ground was of variable composition, predominantly clay, sand or gravel, with common brick, concrete, ash and clinker, asphalt, slate and quartzite. Rare metal, wood, coal and plastic were also present.

*Thrussington Member*

6.1.10 The site is underlain by superficial deposits comprising the Thrussington Member. The BGS Lexicon describes it as Diamicton, brown to reddish-brown with stones and matrix derived primarily from Upper Carboniferous and Triassic rocks; subordinate sand, gravel and stoneless clay and silt. Red pebbly clay and silty clay with rock fragments. The thickness can be up to 20 m, but is typically 1 – 7 m. Its parent unit is Wolston Formation, which is part of the Albion Glacigenic Group.

6.1.11 Cohesive superficial geology was encountered in the majority of exploratory locations, but occasionally absent, in the 2018 site investigation.

6.1.12 It was noted to typically comprise stiff red to orange slightly sandy slightly gravelly clay where the gravel is sub-rounded to rounded fine to coarse flint and quartzite. Cohesive superficial strata were present at between 0.4 and 6 mbgl, sporadically identified above or below granular superficial material.

6.1.13 Granular superficial geology encountered in the 2018 site investigation typically comprised red slightly gravelly slightly clayey fine to medium sand where gravel is sub-rounded to rounded quartzite and flint. Granular superficial strata were most commonly report in the central and eastern areas. Depths varied between 0.5 and 4.8 mbgl.

*Keresley Member*

6.1.14 The BGS 1:50,000 scale survey data indicates the Keresley Member is covered by the Thrussington Member and it is described in the Lexicon as a Redbed sequence; mudstone dominated in lower part but becoming increasingly arenaceous towards top. Thin Spirorbis limestone beds at some levels. Impersistent conglomerates in upper part. The thickness ranges from 197 – 306 m and its parent unit is the Salop Formation, a part of the Warwickshire Group.

6.1.15 Weak red mudstone and sandstone was encountered in the 2018 site investigation, underlying the superficial geology in all rotary boreholes and locally at the base of some of the window sample boreholes. Deeper rotary boreholes identified an alternating sequence of mudstone and sandstone bands, of thickness between 1 and 9 m (mudstone), and from 2.3 to >6.8 m (sandstone). Mudstone was encountered at a minimum depth of 2.1 mbgl and sandstone at 1.95 mbgl.

*Geological Sequence*

6.1.16 The general geological sequence identified during the ground investigation works across the MAL Site is summarised in Table 6-1.

***Table 6-1 Geological Sequence of the Site***

| Unit | Description | Thickness (m) | Basal Depth (mbGL) |
|---|---|---|---|
| Made Ground – Concrete Surface Hardstand | Hard Asphalt Hardstand (occasionally reinforced) | 0 – 0.2 | 0 – 0.2 |
| Made Ground | Variable composition, predominantly clay, sand or gravel, with common brick, concrete, ash and clinker, asphalt, slate and quartzite. Rare metal, wood, coal and plastic were also present. | 0 – 2 | 0 – 2 |
| Superficial: Thrussington Member | Cohesive: stiff red to orange slightly sandy slightly gravelly clay where the gravel is sub-rounded to rounded fine to coarse flint and quartzite<br>Granular: red slightly gravelly slightly clayey fine to medium sand where gravel is sub-rounded to rounded quartzite and flint. | - | Cohesive: 0.4 – 6<br>Granular: 0.5 – 4.8 |
| Bedrock: Keresley Member | Weak red mudstone and sandstone in an alternating sequence of bands | Mudstone: 1 – 9<br>Sandstone: 2.3 – >6.8 | Mudstone: 2.1 - 15<br>Sandstone: 1.95 - 15 |

*Surrounding Geology*

6.1.17 The geological maps indicate areas of slightly differing bedrock geology to the west and north of the site, comprising Keresley Member – Sandstone. Further east, past Holbrook Way and the A444 to the east is bedrock geology comprising Whitacre Member – Sandstone.

*Topography*

6.1.18 The site is in a predominantly level area at around 105 – 115 m elevation. The surrounding topography rises to the west until it reaches approximately 180 m at Corley. The topography stays relatively level to the north, but to the south and east, the topography decreases towards the river valley.

**Hydrogeology**

6.1.19 The Keresley Member bedrock is designated on Magic Map as a principal aquifer, described by the EA as layers of rock or drift deposits that have high intergranular and/or fracture permeability – meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer.

6.1.20 The Keresley Member is part of the Warwickshire Group, which is characterised by the BGS as a moderately productive aquifer. It is a regional, cyclic multi-layered aquifer with moderate to large yields from sandstones, up to 100 L/s from shafts. Mine water quality poor but elsewhere reasonable.

6.1.21 The superficial Thrussington Member is designated on Magic Map as secondary (undifferentiated) aquifer. In most cases, this means that the layer has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

*Source Protection Zone*

6.1.22 The western part of the MAL site, including the whole of the Drakes Yard area and the DAIPC building, is situated within a Source Protection Zone 3 (Total Catchment). This is defined as the area around a source within which all groundwater recharge is presumed to be discharged at the source. In this case, the protected source is approximately 1.1 km to the north of the western side of the site. The rest of the site is not situated within a source protection zone and therefore it is not considered the underlying groundwater is a sensitive receptor.

**Hydrology**

6.1.23 The surface water bodies within the area of this site are the following:

- River Sowe (~3km to the east)
- Coventry and Ashby Canals (~2km to the east)

6.1.24 The River Sowe near the MAL site is within the Avon Urban Rivers and Lakes operational catchment, which includes 21 water bodies.

6.1.25 The area of the River Sowe closest to the site ("Sowe - conf Breach Bk to conf Withy Bk" on the WWF UK Rivers Map), also called Hall Brook, has an overall WFD water body classification of "poor", with "poor" ecological and "good" chemical status. The reasons for not achieving good status are given as: phosphate (sewage discharge and urbanisation); macrophytes and phytobenthos combined (sewage discharge and urbanisation); invertebrates (groundwater abstraction, urbanisation and livestock); and hydrological regime (groundwater abstraction). Hall Brook is located approximately 600 m north of the extension area.

*Blythe Canals*

6.1.26 The Coventry and Ashby Canals near the MAL site are within the Blythe Canals operational catchment. The Coventry Canal is the closest open water body to the site, and is located approximately 1.8 km to the south east of the extension area.

6.1.27 The Coventry and Ashby Canals have an overall WFD water body classification of "good", with "good" ecological status and chemical status.

*Flood Risk Zone*

6.1.28 The MAL site is classified by the Environment Agency as being within a designated Flood Risk Zone 1. The Environment Agency indicative floodplain map shows that the MAL site is located in an area with 'low probability of flooding'.

*Groundwater*

6.1.29 During the intrusive investigation in 2018 groundwater was encountered in all rotary boreholes at depths between 1.5 and 6 mbgl and in some window samples at depths between 0.42 and 3.12 mbgl. These are summarised in the SIR in **Appendix B**.

**Environmental Data**

*Water Abstractions*

6.1.30 Records of water abstractions are no longer provided on the Environment Agency maps, and are not available with the Open Government License, therefore access to these was not plausible at the time of writing.

*Discharge Consents*

6.1.31 Data obtained from the Environment Agency Public Register at the time of writing, records 8 discharge consents to water and groundwater within a 2 km radius of the site post code, although there are no discharge consent within 1 km of the MAL site. The 8 within 2 km are outlined in Table 6-2 below.

6.1.32 Table 6-2 below.

***Table 6-2 Summary of Discharge Consents within 2 km of CV6 4AA***

| Licence Holder | Reference | Approx. Distance (m) from Post Code |
|---|---|---|
| Celanses Acetate Ltd | MI/S/11/25069/T/001 | 1500 |
| Acordis Foleshill Road Limited | MI/S/11/20437/T/001 | 1700 |
| Acordis Foleshill Road Limited | MI/S/11/25227/T/001 | 1700 |
| Severn Trent Water Limited | MI/S/11/12216/O/001 | 1800 |
| Severn Trent Water Limited | MI/S/11/12178/O/001 | 1900 |
| Severn Trent Water Limited | MI/S/11/25724/T/001 | 1900 |
| The Coal Authority | MI/S/11/10902/T/001 | 1900 |
| Webster Hemming & Sons Limited | MI/S/11/20146/T/001 | 2000 |

*Landfill Sites*

6.1.33 Information from the Groundsure.io map at the time of writing showed no authorised landfills within 1 km of the site.

6.1.34 Information from the Groundsure.io and Queen Mary University maps at the time of writing showed 1 historic landfill within 1 km of the Drakes Yard site. This is outlined in Table 6-3.

***Table 6-3 Summary of Historic Landfills***

| Licence Holder | Reference | License Dates | Approx. Distance (m) from Site |
|---|---|---|---|
| Fairclough Civil Engineering Limited | EAHLD27747 | License issued: 11/09/1989<br>License surrendered: 30/04/1994 | 880 |

6.1.35 The presence of this landfill site is not considered to pose a risk to the MAL site due to the distance between the landfill site and the MAL site.

*Waste Treatment or Disposal Sites*

6.1.36 There are no records of EA licensed waste operations sites within 1 km of the MAL site. There are 6 waste operations within 2 km, details of which are provided in Table 6-4.

***Table 6-4 Summary of Waste Operations Sites within 2 km***

| Licence Holder | Licence Number | Site Category | Approx. Distance (m) from Post Code |
|---|---|---|---|
| Tom White Waste Ltd | HP3193LV/A001 | S0803 No 3: 75kte HCI Waste transfer station + treatment | 1600 |
| Tom White Waste Ltd | KP3698CX/A001 | A11 : Household, Commercial & Industrial Waste transfer station | 1700 |
| Mr Rodney Hugo & Mr David Hugo | EP3398LL/A001 | S0820 No 20: 75kte Vehicle Depollution Facility | 1700 |
| Singh Mr Dyal | QP3795CK/A001 | A20 : Metal Recycling Site (mixed MRS's) | 1700 |
| Tom White Waste Limited | AB3906CT/A001 | S0803 No 3: 75kte HCI Waste transfer station + treatment | 1700 |
| Jackson Dunn Ltd | QP3195CD/V002 | A20 : Metal Recycling Site (mixed MRS's) | 2000 |

*Installations*

6.1.37 There are two permitted installations within 1 km of the MAL site, one of which is the MAL site itself. There is one other installation within 3 km of the site, details of which are provided in Table 6-5.

***Table 6-5 Summary of Installation Sites within 3 km of CV6 4AA***

| Licence Holder | Licence Number | Process | Approx. Distance (m)from Post Code |
|---|---|---|---|
| Meggitt Aerospace Ltd | BN7109IH | Gasification, liquefaction and refining; any pyrolysis heat treatment etc of coal carbonaceous material etc (unless coal drying/making charcoal), distillation and other processes<br>Carbon; producing carbon etc by incineration/graphitisation<br>Activities involving the liquefaction, gasification | 0 |

| Licence Holder | Licence Number | Process | Approx. Distance (m)from Post Code |
|---|---|---|---|
| | | with a view to making charcoal<br>Associated process | |
| Speciality Fibres and Materials | PP3838LA | Organic chemicals; plastic materials eg polymers | 1000 |
| Mil-ver Metal Company Ltd | BL4478IN | Non-ferrous metals; melting with capacity >4t/d lead/cadmium or 20t/d others<br>Non-ferrous metals; melting with capacity => 5t<br>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. | 1700 |

6.1.38 It was considered that the listed installations are unlikely to have a future impact on the ground conditions at the site due to the closest being part of the site operations and the distance of the other installations.

*Statutory Designated Sites*

6.1.39 The extension area (and wider MAL site) is in a Nitrate Vulnerable Zone (NVZ), designated for surface water (River Avon to confluence with River Severn – S590).

6.1.40 There are no designated sites within 2 km of the extension area (and further MAL site)

*Coal Authority Reports*

6.1.41 A postcode search using the Coal Authority website, indicated that, from the information currently available to the Coal Authority, a coal mining search report is recommended for this property. A Coal Authority Mining Report was appended to the Site Investigation Report (2012) in **Appendix C**. The report states that the property is in the likely zone of influence from workings in one seam of coal at 640 m to 730 m depth, and last worked in 1980. Any associated ground movement should have ceased by now.

*COMAH*

6.1.42 A postcode search using the Health & Safety Executive (HSE) COMAH 2015 Public Information Search indicated that, at the time of writing, there are no COMAH sites recorded within 4.8 km of the post code.

*Radon*

6.1.43 According to the National Radiological Protection Board's Radon Atlases of England, Wales and Scotland at the time of writing, the extension area (and MAL site) lies within the lowest band of radon potential, meaning less than 1% of homes are above the Action Level.

*Registered Radioactive Substances*

6.1.44 There is currently no information available from the EA for registered active radioactive substance users near to the site.

## 6.2 Pollution History

**Pollution incidents**

6.2.1 Details of pollution incidents throughout the history of the site were not available from Environment Agency data at the time of permit variation application. The previous site investigation reports (WYG, 2018; Merebrook Consulting, 2012) did not include details regarding pollution incidents. The Envirocheck report appended to the application SCR (RPS, 2006) included one entry for a pollution incident to controlled waters. This was a Category 2 incident on 11th December 1996 involving chemicals – solvents released to a watercourse in the Severn Catchment: Sowe area. The cause of the incident was overfilling during delivery. As 22 years has passed since the incident, it can be concluded that any environmental effects from this are no longer present in the area.

6.2.2 CAR forms for the site during the time it has been operated by MAL were requested from the EA and are included in **Appendix E** to this document. Emergency releases of gas to the atmosphere were reported in 2014, and EA inspection concluded that appropriate measures were taken to prevent the emission prior to it being detected and action was taken quickly to rectify the problem once noticed, and so no compliance breach was scored against the gas release. One minor non-compliance was recorded in 2016 due to an emissions limit exceedance; a subsequent emissions monitoring retest reported a result well below the ELV and no action was specified. The operator has confirmed that there have been no significant pollution incidents at the site during

the time of operation since the permit was issued and no known incidents on any of the additional areas to be included in the permitted boundary as part of this variation.

**Historical land uses**

6.2.3 The following account of the history of the site is based upon information concerning the wider MAL site contained in the SIR in **Appendix C** (Merebrook, 2012), and which is summarised in the most recent SIR (WYG, 2018).

6.2.4 The reports detail historical land uses of the MAL site from the late 19th Century until the present day. The site was undeveloped until the early 20th Century, when it became part of a wider industrial development. The site was formerly part of the Dunlop works (wheel and rim manufacture) and a motor works (Standard Swallow and then Jaguar), later utilised for an aircraft wheel manufacture. Parts of the site were used for munitions manufacturing during WW1. After WW1, various works occupied the site including engineering, motor car, motor panel, felt works and a foundry. The Drake's Yard area of the extension area was previously a foundry, known as Drake's Foundry.

## 6.3 Evidence of historic contamination

6.3.1 As mentioned previously, ground investigation works have been undertaken prior to this report. The following reports have previously been produced:

- RPS Group, 'First Phase Reporting of the Site Protection and Monitoring Programme for Dunlop Aerospace Braking Systems, Holbrook Lane, Coventry', reference: 'HLI 2690/001R', December 2007.
- Merebrook Consulting, 'Geo-Environmental Assessment. Stadco Meggitt Site. Clowes Developments and Meggitt Aircraft Braking Systems', reference: 'GEA-17054-12-6', 2012.
- WYG Environment, 'Meggitt Aerospace, Coventry – Geo-Environmental Site Investigation Factual and Interpretative Report', reference: 'A107448', June 2018

6.3.2 The first report concluded the following:

- Recorded concentrations of solvents and pesticides were below the detection limit for all soil samples.
- Concentrations of lead, zinc, copper and benzo(a)pyrene were recorded in excess of the commercial / industrial acceptance criteria. These samples were subjected to further statistical analysis in accordance with CLR7.
- Both the maximum value and $US_{95}$ mean value for lead were in excess of the appropriate screening level for SS3. This was determined to be a localised area of contamination and the location is not in or near the extension area.

- Zinc and copper concentrations (phytotoxic) exceeded the generic assessment criteria (GAC) at all sampled locations.
- Although the maximum concentration of benzo(a)pyrene exceeded the GAC, the $US_{95}$ mean value was below the GAC, indicating that the majority of the population was below the screening level.
- The vast majority of hydrocarbons, solvents and pesticide concentrations in the two groundwater samples were below the detection limits. Concentrations of Polycyclic Aromatic Hydrocarbons (PAHs) were marginally above the conservative EC drinking water standard in both samples.
- The elevated concentrations of lead, benzo(a)pyrene, zinc and copper are likely to be the result of an isolated constituent in the soil at that location, rather than being attributable to the constituents of the cooling liquid. The concentrations of PAHs were marginally above the EC Drinking Water Standard, but overall the results were not significant and there was no evidence that activities at the site have impaired groundwater quality.
- No biocides or other water treatment chemicals were detected.

6.3.3 The second report concluded that within the MAL site, evidence of contamination was restricted to:

- Asbestos: restricted to made ground in the central section of the site, exploratory locations MWS122, MWS126 and MWS127 (chrysotile and amosite, bundles of unbound asbestos fibres). No evidence of asbestos-containing materials was identified in exploratory logs. These exploratory locations were not in the proposed extension area.
- Metals: very localised instances of elevated cadmium (27 mg/kg maximum) and copper (at plant toxicity levels only, 1,700 mg/kg maximum).
- Petroleum hydrocarbons: slightly elevated at MTP102 (2,300 mg/kg C10-C40, predominantly C21-C40 lubricating oil range). This trial pit was not located in the extension area.

6.3.4 The latter report concluded the following:

- Results for water soluble sulphate indicate protection of concrete from sulphate attack may be required. The Design Sulphate class was assessed as DS-2, ACEC Class AC-2.
- Sporadic presence of asbestos was identified in made ground, predominantly at trace levels. No requirements for asbestos controls during excavations within the proposed development areas were indicated.

- Sporadic presence of potentially plant-toxic metals was identified, unlikely to represent a constraint assuming that clean soil cover will be provided in gardens.
- The volatile organic compound (VOC) trichloroethene (TCE) was identified, both within residential and industrial areas. Concentrations in soils at three locations (WS2, WS3, WS36), within residential development zones D and E, may require remedial action. None of these locations are within the extension area, although WS2 is not far from the DAIPC building. TCE impacted groundwater should also be assessed as a human health risk contamination source.
- Petroleum hydrocarbons, predominantly lubricating oil range, were also sporadic at low to moderate concentration. A significant part of industrial zone 2 in the east was impacted by light hydrocarbons (petrol range), requiring further assessment.
- Detailed quantitative risk assessment will be required to assess controlled waters remedial requirements.
- Remedial action will be required to mitigate contamination of soils and groundwater, to enable the partial redevelopment of the site.
- Preparation of a Remediation Strategy is recommended to identify remedial requirements based on both WYG and historical data.
- Assessment of ground gas indicates a requirement gas protection (CS2). This location is also impacted by TCE, for which remedial works may also mitigate the ground gas hazard.

## 6.4 Site Investigation Report (2018)

6.4.1 A site investigation was carried out by WYG in February 2018, to assess the sub-surface chemical and geo-technical ground conditions at the site using in-situ and laboratory testing.

6.4.2 The scope of the fieldwork programme included:

- 29 No. window sample boreholes to a maximum depth of 5.0 mbgl or refusal with in-situ standard penetration tests (SPTs);
- Installation of 12 No. window sample boreholes with gas and groundwater monitoring standpipes;
- 10 No. rotary open boreholes to a maximum depth of 15.0 mbgl with in-situ SPTs;
- Installation of all rotary boreholes with gas and groundwater monitoring standpipes;
- 6 No. return visits over a 3 month period for gas and groundwater depth monitoring;
- 2 No. return visits for groundwater quality monitoring;
- Geotechnical and contamination testing of selected made ground / soil samples from the borehole arisings;

- Contamination testing on groundwater samples;
- Provision of a factual and interpretative report.

6.4.3 Due to the presence of industrial buildings, the extent of investigations was restricted.

6.4.4 The report concluded the following:

- The ground conditions generally comprised hardstanding overlying granular made ground overlying natural clayey sand / sandy clay, which is underlain by coarse grained siltstone / fine grained sandstone.
- Groundwater was encountered in all rotary boreholes during the ground investigation at depths between 1.5 and 6.0 mbgl. Further groundwater monitoring recorded standing depths between 0.42 and 14.37 mbgl.
- Corrected SPT $N_{60}$ values obtained indicates a strong correlation between an increase in strength with depth.
- Moisture content tests returned an average value of 18.3% for the site.
- The results of the Atterberg tests indicate the cohesive materials on site generally have a low to medium plasticity and a low to intermediate volume change potential.
- Results for water soluble sulphate indicate protection of concrete from sulphate attack may be required. The Design Sulphate class was assessed as DS-2, ACEC Class AC-2.
- Sporadic presence of asbestos was identified in made ground, predominantly at trace levels. No requirements for asbestos controls during excavations within the proposed development areas were indicated.
- Sporadic presence of potentially plant-toxic metals was identified, unlikely to represent a constraint assuming that clean soil cover will be provided in gardens.
- The volatile organic compound (VOC) trichloroethene (TCE) was identified, both within residential and industrial areas. Concentrations in soils at three locations (WS2, WS3, WS36), within residential development zones D and E, may require remedial action. TCE impacted groundwater should also be assessed as a human health risk contamination source.
- Petroleum hydrocarbons, predominantly lubricating oil range, were also sporadic at low to moderate concentration. A significant part of industrial zone 2 in the east was impacted by light hydrocarbons (petrol range), requiring further assessment.
- Detailed quantitative risk assessment will be required to assess controlled waters remedial requirements.
- Remedial action will be required to mitigate contamination of soils and groundwater, to enable the partial redevelopment of the site.

- Preparation of a Remediation Strategy is recommended to identify remedial requirements based on both WYG and historical data.
- Assessment of ground gas indicates a requirement gas protection (CS2). This location is also impacted by TCE, for which remedial works may also mitigate the ground gas hazard.
- Strip or trench fill footings extending through the made ground to the stiff / medium dense superficial deposits between 2.0 and 3.0 mbgl are proposed.
- Where applicable a proprietary compressible material should be incorporated into the foundation design to protect against heave and shrinkage of cohesive soils.
- Due to the presence of groundwater during the ground investigation and monitoring visits, de-watering may need to be considered during excavations.

## 6.5 Condition of the extension area

6.5.1 The boreholes within the Drakes Yard part of the extension area were WS19 and WS20. As the DAIPC area to be added to the permitted site is part of an existing building, intrusive works were not carried out on that part of the site, but the closest boreholes were WS10, WS32 and R02.

6.5.2 The following results from the “Retained Meggitt Carbon Plant Area” in the WYG site investigation (which includes the proposed extension area) were reported.

6.5.3 Laboratory analysis has identified the following baseline concentrations of contaminants in the proposed extension area:

**Heavy metals**

- Made ground was characterised by sporadic slightly elevated metals concentrations (copper, zinc and lead). Copper concentrations of 79.9, 586, 10.8, 97.2 and 34.5 mg/kg were found in WS10, WS19, WS20 and WS32 respectively. The concentrations of zinc found in these samples were 240, 451, 15.3 and 154 mg/kg. Lead concentrations were identified to be 78.3 mg/kg in WS10, 78.8 mg/kg in WS19, 5.52 mg/kg in WS20 and 190 mg/kg in WS32.
- Low levels of arsenic, cadmium, chromium, mercury, nickel and selenium were encountered within the soil in the proposed extension area, with most of the results lying below or marginally above the laboratory detection limit.
- Maximum concentrations of 16.1, 28.1, 3.29 and 20.7 mg/kg of arsenic were identified in the respective relevant samples. Cadmium concentrations of 0.772, 0.195, 0.356 and 1.31 mg/kg respectively were also identified in these samples. The concentrations of chromium encountered in the soil samples from boreholes WS10,

WS19, WS20 and WS32 were 4.86, 38, 3.64 and 13.2 mg/kg respectively. Nickel concentrations were 41.6, 96.8, 8 and 71.2 mg/kg in the respective samples.

- Concentrations of selenium and mercury were below the laboratory detection limit in these samples, except in WS32, where it was just over the detection limit at 2.04 mg/kg. Concentrations of hexavalent chromium were also below the laboratory limit in all the relevant samples.

**Water soluble sulphate**

- Concentrations of water soluble sulphate as $SO_4$ (2:1 extract) identified in WS10, WS19, WS20 and WS32 were 0.004, 0.0791, 0.0652 and 0.0722 g/l respectively.

**Total Petroleum Hydrocarbons**

- Localised contamination by petroleum hydrocarbons (maximum 5,060 mg/kg >C8-C40 at WS22, 0.2 m) was identified. Maximum concentrations of 134, 98.5 and 164, and 2,310 mg/kg >C8-C40 (0.2 m) were identified in WS10, WS19, WS20 and WS32 respectively.

**Trichloroethene (TCE)**

- Localised contamination by TCE (maximum 4.11 mg/kg at WS20, 0.2 m) was identified. Only the TCE maximum result exceeded the industrial human health criterion.

**Polycyclic Aromatic Hydrocarbons (PAHs)**

- WS22 (0.2 m) exceeded the criterion for a number of PAH compounds, likely to be associated with the reported presence of asphalt in the made ground matrix at this location. The benzo(a)pyrene content of this sample, 124 mg/kg, indicates that the material would be classified as hazardous waste for disposal, anticipating that the PAH content relates to coal tar based asphalt in the made ground. This sample was not in the extension area, but similar, though less elevated, PAH results related to sample WS32 (0.4 m) which is in the extension area and also contained asphalt.
- The benzo(a)pyrene concentrations identified in WS10, WS19, WS20 and WS32 were 151, 61.9, 102 and 32,500 µg/kg respectively.

**Asbestos**

- Made ground was characterised by sporadic positive asbestos results (laboratory-identified ACM debris and loose fibres in soil), at WS19, 21 and 22. WS21 and 22 are not in the proposed extension area. Made ground at WS19, which is in the proposed

extension area, contained low levels of asbestos (0.0388%). Asbestos was not detected in WS10 or WS20. WS32 was not measured for asbestos.

*Groundwater Analytical Results*

6.5.4 Laboratory analysis of groundwater underlying the site has identified the following exceedances:

- The sulphate screening criterion (250 mg/L) was exceeded at WS20 in Round 2 (473 mg/L);
- The benzo(a)pyrene DWS screening criterion (0.01 µg/L) was exceeded in all but two instances;
- The PAH (sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene) DWS screening criterion (0.1 µg/L) was exceeded in all but four instances;
- The laboratory detection limit (1 µg/L) for vinyl chloride was higher than the DWS screening criterion (0.5 µg/L), which means the number of exceedances is unknown.

*Conceptual Model*

6.5.5 The site investigation undertaken by WYG provided a Preliminary Conceptual Site Model (CSM) and preliminary risk assessment for the wider MAL site, as shown in Table 6-6 below.

6.5.6 The CSM and preliminary risk assessment in Table 6-6 below have been developed to qualitatively assess potential contaminant sources, receptors and potential pollutant linkages identified at the MAL site. The risk level relevant to each linkage is stated in the context of potential risk to future site users based on a proposed plan of mixed residential and industrial development, and the retained Meggitt Carbon Facility area, as well as groundwater and plant receptors.

***Table 6-6 Conceptual site model and preliminary risk assessment***

| Potential Source | Potential Pollutant | Potential Receptor | Potential Pathway to Receptor | Associated Hazard (Severity) | Likelihood of Occurrence | Risk |
|---|---|---|---|---|---|---|
| Contaminants in made ground | *Contaminants may be present in made ground due to historical sources, or import / use of contaminated materials as required for fill / engineering purposes. No specific c sources are evident.* | | | | | |
| | Asbestos | Future residential occupiers | Inhalation | Severe | Low | Moderate |
| | | Future industrial / commercial occupiers | Inhalation | Severe | Low | Moderate |
| | TCE | Future residential occupiers | Inhalation, ingestion, skin contact | Medium | Likely (though localised) | Moderate |
| | Lead | Future residential occupiers | Inhalation, ingestion, skin contact | Medium | Low | Moderate/Low |
| | Petroleum hydrocarbons, chlorinated hydrocarbons | Groundwater | Leaching / migration through soils | Medium | Likely (some impact on groundwater within site demonstrated) | Moderate |
| | Copper, zinc | Garden / landscape planting | Root contact | Minor | Low (impact predominantly within industrial zones) | Negligible |

# 7 Surrender Site Condition Report

7.1.1 At permit surrender, the following sections of the SCR template (EPR H5) will be completed and submitted to the Environment Agency as part of the permit surrender application. Information that has been gathered over the lifetime of the Permit will be used to identify whether the land is in a satisfactory condition. If necessary, surrender reference data will be collected and remediation will be undertaken if required.

| **8.0 Decommissioning and removal of pollution risk** | |
|---|---|
| Describe how the site was decommissioned. Demonstrate that all sources of pollution risk have been removed. Describe whether the decommissioning had any impact on the land. Outline how you investigated and remedied this. | |
| Checklist of supporting information | • Site closure plan<br>• List of potential sources of pollution risk<br>• Investigation and remediation reports (where relevant) |

| **9.0 Reference data and remediation (where relevant)** | |
|---|---|
| Say whether you had to collect land and/or groundwater data. Or say that you didn't need to because the information from sections 3, 4, 5 and 6 of the Surrender Site Condition Report shows that the land has not deteriorated.<br><br>If you did collect land and/or groundwater reference data, summarise what this entailed, and what your data found. Say whether the data shows that the condition of the land has deteriorated, or whether the land at the site is in a "satisfactory state". If it isn't, summarise what you did to remedy this. Confirm that the land is now in a "satisfactory state" at surrender. | |
| Checklist of supporting information | • Land and/or groundwater data collected at application (if collected)<br>• Land and/or groundwater data collected at surrender (where needed)<br>• Assessment of satisfactory state<br>• Remediation and verification reports (where undertaken) |

| **10.0 Statement of site condition** |
|---|
| Using the information from sections 3 to 7, give a statement about the condition of the land at the site. This should confirm that:<br><br>• the permitted activities have stopped<br>• decommissioning is complete, and the pollution risk has been removed<br>• the land is in a satisfactory condition. |

# 8 Conclusions

8.1.1 RPS has undertaken an assessment of the site condition of the proposed extension area, located adjacent to the Operational Area, at Meggitt Aircraft Braking Systems, Holbrook Lane, Coventry, in support of the application to vary permit BN7109IH. The primary purpose of this report is to provide information to the Environment Agency in relation to the planned variation in operations and to provide them with a consolidated framework against which the potential future contamination issues will be assessed.

8.1.2 The published geology of the area and ground investigations at the site have indicated that the site is underlain by Made Ground, Thrussington Member underlain by bedrock of Keresley Member. Thrussington Member is classified as secondary (undifferentiated) aquifer and Keresley Member as a principal aquifer. Groundwater was identified underneath the proposed extension area during the 2018 site investigation.

8.1.3 Historical site uses have identified potential historical contamination sources, namely the previous industrial uses of the site such as for munitions and wheel manufacturing.

8.1.4 The substances associated with the materials received, stored and processed at the site with the potential for land and water contamination during site operation as a result of the 2018 variation are the cooling water treatment chemicals, liquid nitrogen and hydraulic oils. The low usage of these chemicals and the storage arrangements in place would mean contamination of land or groundwater is very unlikely and therefore these were not considered RHS for the site.

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# Glossary

| | |
|---|---|
| bgl | below ground level |
| BGS | British Geological Survey |
| CBR | California Bearing Ratio |
| COMAH | Control of Major Accident Hazards |
| DTS | Desktop Study |
| DWS | Drinking Water Standard |
| EA | Environment Agency |
| EC | European Commission |
| EPR | Environmental Permitting Regulations |
| GAC | Generic Assessment Criteria |
| GQA | General Quality Assessment |
| HSE | Health & Safety Executive |
| LNG | Liquefied Natural Gas |
| mAOD | meters Above Ordnance Datum |
| NVZ | Nitrate Vulnerable Zone |
| OPAN | Oxidised polyacrylonitrile |
| PAH | Poly Aromatic Hydrocarbons |
| PCB | Polychlorinated Biphenyl |
| PPC | Pollution Prevention and Control |
| RHS | Relevant Hazardous Substance |
| SAC | Special Area of Conservation |
| SCR | Site Condition Report |
| SIR | Site Investigation Report |
| SPA | Special Protection Area |
| SPT | Standard Penetration Test |
| SSSI | Site of Special Scientific Interest |
| TCE | Trichloroethene |

| | |
|---|---|
| TPH | Total Petroleum Hydrocarbons |
| VOC | Volatile Organic Compounds |
| WWI | World War One |

# Drawings

# Appendices

# Appendix A

## Application Site Condition Report 2006

# DUNLOP AEROSPACE BRAKING SYSTEMS

Holbrook Lane

Coventry

CV6 4AA

## Application Site Report
## in support of PPC Permit Application

**PRIVATE AND CONFIDENTIAL**

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TD4827
June 2006

| | | | |
|---|---|---|---|
| **Report Status:** | | **DRAFT** | |
| **Project Number:** | | **TD4827** | |
| | ***Consultant*** | ***Signature*** | ***Date*** |
| ***Report by:*** | Karin Crosby | | **19/07/06** |
| ***Reviewed by:*** | Heather McKay | | **19/07/06** |

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## Summary

This document represents the Application Site Report for the Dunlop Aerospace site in Holbrook Lane, Coventry, submitted as part of an application to the Environment Agency for a permit to operate an installation under Regulation 10 of the Pollution Prevention and Control (England and Wales) Regulations 2000.

A review has been carried out of the site and surrounding areas in order to describe the condition of the site and, in particular, to identify any substance in, on or under the land that may constitute a pollution risk to the land. Pollution prevention measures have been identified and an assessment of pollution potential to land has been undertaken.

# 1.0 Introduction and Background Information

RPS Health, Safety and Environment (RPS) were commissioned by Dunlop Aerospace Braking Systems to undertake an Application Site Report for their site in Holbrook Lane, Coventry, CV6 4AA.

The Application Site Report included:

- A site walkover assessment and review of relevant site documentation.
- Review of the historical land uses associated with the site to assess the potential for ground contamination.
- Review of the environmental setting to assess the sensitivity of the surrounding environment to contamination or pollution.
- Consultation with the regulatory authorities to establish whether there are any environmental issues that may impact upon the site.

This report has been prepared in accordance with the Environment Agency Horizontal Guidance H7 document "Template for an Application Site Report in PPC Applications" dated August 2003.

## 1.1 Site Location

The aerospace braking system manufacturing works in Holbrook Lane, Coventry is owned by Meggitt plc and operated by the Dunlop Aerospace Braking Systems division. The installation occupies a site of approximately 0.6 hectares in size and is located at Grid Reference SP 3303 8233. A site location plan is shown in Appendix A1.

The facility, known as the CVD (carbon vapour deposition) department, is located on the large industrial estate owned by Meggitt plc, which is approximately 25.5 hectares in size. The site is approximately 2 miles north of the centre of Coventry in a predominantly residential area. The industrial estate is surrounded by housing to the west, south and east, with a recreation ground to the immediate north and a sports field to the west. There are schools approximately 550 metres to the west and 800 metres to the north of the site.

The nearest significant watercourse, the Hall Brook, is located approximately 600 metres north. The Coventry Canal is located slightly over 2 kilometres east. The surrounding area appears predominantly flat with a slight downward slope towards the east.

The main entrance to the industrial estate is to the east of the site on Holbrook Lane. Swallow Road runs through the centre of the industrial estate with the CVD area on the north side of the road. A large extent of the external surface of the site is covered with bitumen or concrete hardstanding. There are small areas of landscaping on site and grassed areas around the site boundary.

The current layout of the works consists of the main CVD manufacturing area in the northern half of the Dunlop Aerospace Braking Systems (DABS) building, the boiler house in the east side of the building, the heat treatment facility 2 building to the south and the water treatment area and stores to the immediate west of the heat treatment building. The reservoir supplying the cooling towers on site is located approximately 100 metres to the southeast of the DABS building. There is also a storage area located to the east of the building. A site plan with main plant items is shown in Appendix A2.

## 1.2 Details of Installation

Dunlop Aerospace Braking Systems, part of the Meggitt plc group, owns the site in Holbrook Lane, Coventry. The site currently operates under an IPC authorisation, BK3140, for carbonisation and associated processes within the fuel and power industry, which is regulated by the Environment Agency.

There are currently 130 staff employed at the CVD facility in Holbrook Lane, which operates on a 24 hour basis, 7 days a week. The works produces approximately 35,000 brake discs for aircraft each year with operating activities centred mainly within the CVD building and part of the buildings to the south. This incorporates the carbonisation plant, furnaces and heat treatment areas. Other site operations include cloth-making, cutting and laying up, steam boilers, machining and finishing operations, cooling towers, oil storage and the storage reservoir.

Dunlop Aerospace Braking Systems buy boxes of oxidised polyacrylonitrile fibre (OPAN), which are stored in an area adjacent to the CVD Department. OPAN fibre is then fed through a carding machine and 2 needle punch machines to manufacture an OPAN non-woven cloth. The OPAN is continuously fed through a furnace heated to 1030°C to convert it to a carbon fibre cloth. As the cloth is carbonised, emissions are given off which are destroyed by passing through a recuperative incinerator.

The carbon cloth is then cut into circles and laid up into carbon disc preforms. The preforms are jigged using graphite jig plates, steel studs and graphite distance pieces for support during the carbon vapour deposition (CVD) process. The jigged preforms are then loaded into large CVD furnaces. These furnaces are induction heated and work at reduced pressure. Natural gas is fed into the CVD furnaces, which then cracks approximately 50% of the methane in the natural gas to carbon and hydrogen. The carbon is deposited onto the jigged preforms and the hydrogen and uncracked methane are recycled to the boiler house. When the boilers are not using recycled gas they are natural gas fired.

The boilers are used to create steam, which is used in steam ejector towers to create the vacuum to reduce the pressure in the CVD furnaces. Circulating water is used to cool the furnace induction coils and certain parts of the CVD furnaces. The circulating water is passed through a reservoir and Baltimore cooling systems, which cool the water. The reservoir is on site but not in the CVD department (see Process Boundary Map). Treatment of the cooling water is carried out by contractors.

When a CVD furnace run is completed and unloaded the jigs are broken apart. The preforms are now discs, the carbon cloth layers bonded together by the carbon deposited. Discs are then reloaded in the CVD furnaces and subjected to a second CVD cycle to deposit more carbon and achieve a minimum carbon "pick up".

Once a disc has achieved a minimum carbon "pick up" it is heat-treated. Heat Treatment is carried out in 2 facilities, old and new. Circulating water is used to cool the furnace induction coils of the heat treatment furnaces. Passing the water through heat exchangers located in the heat treatment facilities cools this water.

After heat treatment the discs are machine finished in the CVD machine shop. The finished discs are painted and the oven heated to stove the paint.

The discs are then sent to the DABS assembly and Despatch Departments. The entire process takes between 5 and 6 months to complete.

The site is protected by 24-hour security. It is fenced and gated and there are CCTV security cameras located around the site. The CVD department is manned on a 24-

hour basis and there is also a card entry system for the buildings that restricts access to personnel working in that area.

## 2.0 Objectives

The objectives of the Application Site Report are:

i) To review the historical uses of the site to identify the potential for areas of contamination to exist.

ii) To review information with respect to the environmental setting of the site in order to aid in the understanding of the nature, extent and behaviour of any contamination which may be present.

iii) To obtain sufficient information about the site to allow the development of a conceptual model. A conceptual model effectively describes the inter-relationships between all environmental media, potential receptors and contamination that may exist at the site.

iv) Assess whether there is little likelihood that land pollution or leaks to land will occur during the future life of the installation or there is a reasonable possibility that there is potential for current or future land pollution of the land from the installation.

v) To interpret the data contained within the conceptual model to propose the baseline conditions at the subject site from which future comparison can be made.

The overall objective of the initial application site report is to provide a preliminary understanding of the baseline environmental conditions at the site to be included in the application for PPC authorisation.

# 3.0 Site Setting and Sources of Desk Study Information

## 3.1 Introduction

The following sections detail the sources of desk study information searched in order to describe the condition of the installation and, in particular, to determine the potential for substances to be present in, on or under the land associated with present and past uses of the site and its surrounding areas.

### 3.2.1 Environmental Consents, Licences, Authorisations, Permits and Designations for the Site and Surrounding Area

Coventry City Council Land Charges and Environmental Protection Teams were consulted and provided information regarding planning consent history, landfilling activities, known areas of contamination, local authority authorisations and any history of complaints for the site and surrounding area.

A search was undertaken through the Envirocheck™ database to obtain:

(a) Information held by the Environment Agency regarding water abstractions, discharge consents, waste management facilities and other prescribed processes within 1000 metres of the site.

(b) Previous pollution incidents within a 1000 metres radius of the site.

(c) Information held by the British Geological Survey relating to geology and hydrogeology.

(d) Information obtained from Thomson Directories regarding industrial land use.

(e) Historical land maps.

(f) Information obtained from English Nature regarding sensitive land use.

Their responses are contained in Appendix C1.

### 3.2.1 Local Authority Planning Consents

Information regarding planning consents relating to the site, obtained from a search of the Register of Local Land Charges at Coventry City Council, is shown in Appendix C1. This register search may not include all of the planning decisions associated with the site.

There are four planning charges registered against the site which are shown below:

| Registration Date | Permission No. | Granted | Description of charge |
|---|---|---|---|
| 22/12/1982 | 29049A | 8/12/1982 | Proposed extension to existing aircraft brake material production facility |
| 17/03/1983 | 29049E | 9/3/1983 | Proposed development to existing production facility for aircraft brake materials |
| 21/05/1985 | 39250 | 15/05/1985 | Extension to existing L.P. Shop for storage and welding purposes |
| 05/02/1996 | 46411 | 30/01/1996 | Demolish existing factory building and erect new facility |

There are also two miscellaneous charges registered against the site which are shown below:

| Registration Date | Description of charge |
|---|---|
| 3 Jan 1977 | Conditions imposed in a consent pursuant to section 6 Clean Air Act 1968, relating to the height of a chimney |
| 1 April 1982 | Order under Section 11 of the Clean Air Act 1956, dated 8 September 1981, called Coventry (No.26) Smoke Control Order 1981 |

### 3.2.2 Local Authority Environmental Management Unit

Coventry City Council Environment Protection Team was contacted to provide details on local authority environmental issues in the area.

Waste Disposal Sites and Areas of Contaminated Land

There are no records of any landfill sites within 500 metres of the installation apart from an area of made ground approximately 400 metres to the north of the CVD site. Coventry City Council holds a contaminated land report for this site, which is currently a residential area. The Council does not have any records of contamination on the CVD site and it has not been identified within the Council's contaminated land inspection strategy. There are two potential sites within 500 metres of the installation that may be assessed in the future under the inspection strategy.

Specific Local Authority Concerns

Coventry City Council has records of two complaints relating to the Dunlop site. Both complaints related to noise and were not attributed to the CVD facility.

### 3.2.3 Envirocheck™ Database

Discharge Consents

According to Environment Agency records, there are no active discharge consents within 1000 metres of the site.

Prescribed Processes

The Dunlop Aerospace Braking Systems site is currently regulated by the Environment Agency under Integrated Pollution Control, permit number BK3140. The original authorisation was issued on 1st June 1995 for carbonisation and associated processes within the fuel and power industry and has been subject to a number of variations since then. The authorisation is scheduled to transfer to regulation under the Pollution Prevention and Control Regulations as a Part A(1) process.

There are 10 other active Local Authority regulated Air Pollution Control authorisations within 1000 metres of the site which are as follows:

| Name of Operator | Estimated Distance (m) | Compass Direction | Processes |
|---|---|---|---|
| Btr Siebe | 480 | E | Coating of metal and plastic |
| Dunlop Aviation Ltd. | 515 | E | Surface treatment of metals |
| Dunlop Aviation Ltd. | 515 | E | Coating of metal and plastic |
| Mayflower Vehicle Systems | 540 | E | Coating of metal and plastic |
| Trelleborg Automotive | 555 | E | Di-isocyanante processes |
| Radford Service Station | 680 | S | Petrol filling station |
| Craftsman Service Station | 695 | NW | Petrol filling station |
| Magnetto Topy Wheels Ltd. | 720 | SE | Coating of metal and plastic |
| Whitmore Park Service St. | 725 | NE | Petrol filling station |
| Unipart Eberspacher Ltd. | 940 | E | Coating of metal and plastic |

The Btr Siebe, Dunlop Aviation, Mayflower Vehicle Systems and Trelleborg Automotive sites are all on the Dunlop industrial estate.

Enforcement and Prohibition Notices

According to Environment Agency and local authority records, no Enforcement or Prohibition Notices have been served on the site or on any other sites within 1000 metres of the installation.

Waste Management Sites

Environment Agency records indicate that there is one waste management facility within 1000 metres from the site, which is exempt from licensing. Details are as follows:

| Name of Operator | Registration number | Estimated distance (m) | Compass Direction | Type of site | Waste Types |
|---|---|---|---|---|---|
| Partco Autoparts Ltd. | SL 1179 | 960 | SE | Transfer station | Used paint solvent |

Records also show that there is a registered landfill within 1000 metres of the site for which has surrendered its licence. Details are as follows:

| Name of Operator | Licence number | Location | Authorised waste | Status |
|---|---|---|---|---|
| Fairclough Civil Engineering Ltd. | SL 900 | 760 m E | Excavation materials from ex adjacent roadworks | Closed |

Hazardous Substances

There are no recorded registered Control of Major Accidents Hazard Sites (COMAH) or Notification of Installations Handling Hazardous Substances (NIHHS) sites within 1000 metres of the site.

No Planning Hazardous Substance consents exist within 1000 metres.

Radioactive Substances

No registrations have been recorded in connection with the keeping and use of radioactive materials within 1000 metres of the site.

Sensitive Land Use

There are no Sites of Scientific Special Interest, Special Protection Areas, Special Areas of Conservation or RAMSAR sites within 1000 metres of the site.

The site is approximately 750 metres from an area of Adopted Green Belt, which lies to the west. The site is also located in an area considered to be a Nitrate Vulnerable Zone.

The nearest significant watercourse, the Hall Brook, lies approximately 600 metres to the north.

The facility is located in a large industrial estate that is surrounded by housing with a recreation ground to the immediate north and a sports field to the west. Schools

have been identified approximately 550 metres to the west and 800 metres to the north of the site.

The site is within a classified Radon affected area with less than 1% of homes above the action level. No radon protective measures are necessary.

## 3.3 Geological, Hydrogeological and Hydrological Data

Geological and hydrogeological information for the site was obtained from the following sources of information and is reproduced in Appendix C2 :

- Environment Agency Policy and Practice for the Protection of Groundwater, Groundwater Vulnerability 1:100,000 Mapsheet 23
- Ordnance Survey Plan 1:10,000 series, National Grid Reference SP 3303 8233
- Environment Agency Site Source Protection Zone Map Sheet
- Historical Ordnance Survey Land Use Maps
- British Geological Borehole Archive data for a 2km radius around the centre of the site
- BGS Geological Map 1:50,000 Mapsheet
- Environment Agency Sensitive Land Uses Map
- Environment Agency Flood Map
- English Nature

## 3.4 Site Operational Records, Emergency Response Records and Records of any Land Pollution Incidents in the Vicinity of the Site

The site has a pro-active approach to the management of environment issues and is accredited to ISO 14001:2004 formal environmental management system. A list of relevant EMS procedures for minimising pollution to ground, groundwater and surface water has been reproduced in Appendix C4. Procedures include spill response plans.

The site also has documented policies regarding the communication of environmental issues with stakeholders, including the Local Authorities and the Environment Agency.

According to Environment Agency records, there has been one significant pollution incident to controlled waters within 1000 metres of the site. This occurred on the 11th December 1996 and involved the spillage of solvents into a watercourse from overfilling during delivery at a metal industry site, approximately 890 metres to the southeast. This incident was not attributable to the site.

There are no land pollution incidents identified on the Substantiated Pollution Incident Register within 1000 metres of the site.

There are no records of environmental incidents at the CVD facility however information provided by the site indicates a previous incident on the Dunlop industrial estate involving the spillage of chemicals during delivery as a result of a leaking drum. Procedures have subsequently been put in place to prevent a reoccurrence.

## 3.5 Existing Site Investigations and Assessment Reports

Dunlop Aerospace are not aware of any geotechnical investigations having been carried out on site.

The site currently abstracts water from two boreholes. Boreholes logs for the groundwater abstraction boreholes are included in Appendix C2.

The Environment Agency carried out a survey of surface water discharges from the site in June 2000. A copy of this is included in Appendix C5.

# 4.0 Site Reconnaissance

## 4.1 Introduction

The site reconnaissance visit was undertaken on 21st September 2005 by RPS Environmental Consultants (Health Safety and Environment Division) on the area shown in Appendix A1.

Within the scope identified, the purpose of the reconnaissance was to inspect the site and surrounding areas for indicators of potential land pollution. Site infrastructure was visually inspected to assess its competence and potential to cause or have caused releases to land.

The following site features were inspected.

## 4.2 Storage Tanks and Associated Pipework

An inventory taken at the site reconnaissance visit of the principal stored materials was recorded. The following table describes bulk storage tanks identified on site:

| Tank content | Location | Type of Vessel | Capacity | Fabric of Vessel | Condition | Nature and mode of any fill and draw lines and points | Nature, Mode and Frequency of Integrity Testing | Nature and Integrity of any Secondary or Tertiary Containment |
|---|---|---|---|---|---|---|---|---|
| Liquid nitrogen | West side of CVD building | Above Ground Storage Tank (AST) | 30 tonnes | Steel | Good | Fill point within bunded area | Frequent visual inspections | Please refer to Appendix D2 |
| Mains water | Boiler house | AST | 48.6 $m^3$ | Steel | Good | Fill point not within secondary containment | | |
| Boiler treatment chemical | Boiler house | AST | 125 $m^3$ | Plastic | Good | | | |
| Diesel | Water treatment facility | AST | 2.68 $m^3$ | Steel | Good | | | |

All tanks are above ground. The site currently undertakes no formal integrity testing of ASTs, however tanks are checked visually on a weekly basis. Formal integrity testing will be included in the PPC Application Proposed Improvement Plan for those tanks assessed as posing a possible risk should this be a requirement of the Environment Agency.

Water treatment and boiler treatment chemicals in 205 and 500 plastic litre drums are stored inside secondary plastic containment inside the CVD building. There are also many other small liquid storage containers located about the site, such as small oil containers, which are also stored inside the buildings. Other raw materials used in the processes on site are located in storage areas inside the buildings, the main ones being oxidised polyacrylonitrile fibre, graphite jigplates and spacers, carbon black powder, antioxidant paint, machine and hydraulic oils, filter bags and laboratory testing chemicals. OPAN fibre is also stored outside the CVD building in containers in the car park area. These raw materials are generally stored in drums or plastic containers.

## 4.3 Sumps and lagoons

A sump is present on site for boiler blow down. The sump is located next to the boiler house and has a capacity of 1.84 $m^3$. The sump is made of concrete of good condition which is frequently visually integrity tested.

A storage lagoon and a storage reservoir are also present on site for the storage of cooling water. The storage lagoon is located north of the CVD building and has a capacity of 75.6 $m^3$. The storage reservoir is located east of the CVD building and has a capacity of 862 $m^3$. Both are of concrete construction and are in good condition. Both the lagoon and the reservoir are visually integrity tested frequently.

## 4.4 Hardstanding and Bunds

The majority of the surface of the site is covered with concrete or bitumen hardstanding. The condition of the surfacing was found to be good overall. The condition is monitored on a weekly basis and repaired as necessary.

The hardstanding is fringed on most of the boundaries with strips of unmade ground covered in low-lying vegetation.

There is low-level concrete bunding around the nitrogen tank on site and its cooling pipework. Although this would not provide 110% capacity of the liquid nitrogen stored, if the tank were to leak the liquid would evaporate into nitrogen gas almost immediately and therefore the bunding is likely to provide adequate protection for leaks and spills.

The oil store in the central area of the site is roofed and drums are placed on steel grid-topped mobile bunds. The area is surrounded by concrete bunding, which has been sealed with an impermeable coating. The bunding provides at least 25% capacity of the total liquids stored inside.

The diesel tank for the water treatment pumps is double-skinned but not bunded therefore leaks from filling points and pipework may not be contained. The tank is located inside the building, which should provide containment for leaks or a failure of the tank. The building does not contain any surface water drains.

The cooling towers are also located within a brick-bunded area although this does not extend around all of the pipework and contains airbricks within the bund wall.

All bunding appears in good condition and is inspected weekly for signs of wear and tear or damage. It is generally ensured that all bunds within the installation are impermeable and provide a capacity of 110% of the storage tanks inside (unless stated otherwise in this report).

Storage lagoons and pits are visually assessed twice per year during shutdowns. The boiler blow down pit and cooling water storage reservoir are also integrity tested twice each year during site shutdowns. Formal integrity testing shall be included in the PPC Application Proposed Improvement Plan for those sumps assessed as posing a possible risk.

## 4.5 Vegetation

Areas of landscaping exist along the majority of the site boundaries. There are also some small landscaped areas located around the site. These areas are permeable and therefore at risk from potential spillages. There does not appear to be any visual evidence of stress on any of the vegetation.

## 4.6 Surface Water Features

According to information provided by the Environment Agency, the quality of the Hall Brook, located approximately 600 metres north of the site, is Grade D (fair) for river quality chemistry and river quality biology on the stretch from Electricity Line the Manor to Rowleys Green.

## 4.7 Nature of the Storage and Handling of Materials

Storage and handling of potentially polluting substances are always carried out on areas of hardstanding. The only exception is the transfer pipework for cooling water from the CVD building to and from the storage reservoir, which extends over unmade ground along the site boundary.

The majority of activities on site which may affect ground, groundwater or surface water are carried out inside the buildings except for the nitrogen, oil and gas cylinder storage, and some product and waste storage. Butane and propane gas is only utilised for development purposes. These gases are stored in a cage and are chained.

## 4.8 Surface Water and Foul Drainage

The site surface water drains via a network of underground drains located in the open areas surrounding the buildings, into the main storm system. The storm system eventually discharges to the Hall Brook. Prior to discharge from the Dunlop industrial estate, the flow is directed through a 3-stage oil interceptor. This has a cut-off valve and can be used to contain large spillages or firewater if necessary. It is located along the northern boundary of the estate, to the east of the CVD facility. All the surface water drainage from CVD areas goes through this interceptor. The interceptor is subject to a regular programme of inspection and maintenance twice per year. Any oily

Trade effluent produced as a result of process activities on site is discharged to the foul sewer under consent from Severn Trent Water Authority. Boiler blow down effluent from the CVD boiler house collects in a sump alongside the boiler house and is then discharged to the foul sewer under consent no. C210.01. There is also a discharge of cooling water to the sewer from the CVD cooling towers, which is controlled under a letter of consent from Severn Trent Water Authority. Copies of the consents are included in Appendix C1. The overflow pipe from the cooling water reservoir on site also discharges to the foul sewer. Dunlop are currently obtaining consent from the Water Authority for this discharge. Dunlop does not currently monitor the discharged effluents but will consider monitoring in the future should this be a requirement of the Environment Agency. It is proposed to install a continuous pH monitor on the boiler blow down pit discharge. The Water Authority occasionally visits the site to test effluent discharges. Domestic effluent is also collected from the various site welfare facilities and discharged into the main sewerage system on site. Foul drains on site are also cleaned out by a contractor annually.

Most of the hardstanding is in good condition and sloped towards the drainage, to prevent any migration of substances and subsequent contamination of the surrounding land and groundwater.

CCTV surveying testing of sub-surface pipework is will be carried out as part of the Company's Improvement Programme should this be required by the Environment Agency.

A site drainage map is attached in Appendix A3 and shows the location of surface water and foul drainage together with the interceptor location.

## 4.9 Other Observations

There are 8 transformers on site associated with the CVD process. These are located adjacent to the furnaces and boiler house and are shown on the Main Plant Items Plan in Appendix A2. Seven of the transformers contain over 200 litres of oil but no PCBs and one does not contain any oil. These are maintained by specialist contractors on an annual basis.

There are also two electricity substations on site. One is located on the northern side of the CVD building and the other adjacent to the boiler house. These are also maintained on an annual basis by the same contractor. There are no PCB containing materials reported to be present on site.

# 5.0 Assessment of Land Pollution Potential

The site is currently used for aerospace braking systems manufacture and has been used for various vehicle manufacturing operations since the 1930s. Prior to 1914, the site was undeveloped countryside. Various other industrial activities have also taken place across the larger site including a foundry, an Upholstery and Felt works, a Timber Works and an Engineering Works.

The likelihood of land pollution from the installation is assessed in Appendix D2.

## 5.1 Polluting Substances and Relevant Activities

A list of substances used in bulk, within the scope identified, is described in the table in section 4.2 above. An assessment of their pollution potential has been made based upon their properties, toxicity and volume stored or used. Those substances identified in Appendix D2 as giving rise to a reasonable possibility of pollution have been taken forward from section 5.2 below.

## 5.2 Preventative Measures

The pollution preventative measures (physical infrastructure and those relating to testing, inspection and maintenance) for each relevant activity associated with the potentially polluting substances have been identified and their extent and condition assessed. Results are shown in Appendix D2.

## 5.3 Assessment of the Likelihood of Land Pollution

Most of the site activities will not cause significant contamination to underlying ground and groundwater, due to the preventative measures employed on site. Some current activities on site could however potentially cause contamination of the surrounding area. These potential areas of concern have been illustrated in the conceptual site model in appendix E1 and E2. Furthermore, it is likely that historical activities on site will have caused contamination of soil and groundwater. These historical activities may have therefore affected the baseline conditions of the site. These activities are also included in the conceptual site model in appendix E1 and E2.

# 6.0 Conceptual Site Model

Steps 1 to 5 of the Environment Agency H7 (Reporting Template 1) are shown below.

## 6.1 Geology and Hydrogeology

The Geological sequence beneath the site is as follows:

1. An area of Thrussington Till deposits (red or brown pebbly clay).
2. Keresley Member argillaceous rocks with interbedded sandstones and conglomerates.

There are 112 BGS boreholes within 1000 metres of the site, 12 of which are within 500 metres.

The site lies in an area that may be affected by coal mining activity. Further details are included in Appendix C2.

The site lies on a Minor Aquifer relating to the Till deposits. There are 2 licensed groundwater abstractions within 1000 metres of the site, which are both licensed to Dunlop Ltd.

The site is not located within a Source Protection Zone.

## 6.2 Surface Water Features

There is one significant watercourse within 1000 metres of the installation. The Hall Brook is located approximately 600 metres north of the site and flows in an easterly direction. This watercourse has been classified as being of river quality D (fair).

The site is not within an indicative floodplain.

## 6.3 Results of Previous Investigations

Dunlop Aerospace are not aware of any geotechnical investigations having been carried out on site. Boreholes logs for the groundwater abstraction boreholes are included in Appendix C2.

The Environment Agency carried out a survey of surface water discharges from the site in June 2000. A copy of this is included in Appendix C5.

## 6.4 Other Receptors

No protected areas of conservation have been identified within the area.

Residential housing have been identified approximately 160 metres north, 400 metres west, 280 metres south and 500 metres east. There is a recreation ground to the immediate north and a sports field to the west. There are also schools approximately 550 metres west and 800 metres north of the site.

## 6.5 Pollution History

### 6.5.1 Land Pollution History

The company originally began operating at the site in 1914 on formerly undeveloped countryside. The site has been used for various vehicle manufacturing operations since the 1930s. According to a historical map dating back to 1937, the Standard Swallow Motor Works was located at the site. By 1949-1950 the entire Meggitt site had been developed with the Swallow Works identified as the Jaguar Works (Motor Car) and another Jaguar Works building having been constructed on the west side of the site. During this period, the Dunlop Works had also extended westwards and incorporated a Motor Panel Works to the south. By 1991-1992 the CVD building is shown in its current layout.

According to a historical map dating back to 1937, Foleshill Park was developed northeast of the site, Drake Foundry was developed approximately 60 metres northeast of the CVD area and an Upholstery and Felt works were developed on the south side of Swallow Road. By 1949-1950, the Upholstery Works became a Timber Works and an Engineering Works was identified west of this works.

Areas of recorded Local Authority Contaminated Land are described in Section 3.2.2. of this Report.

### 6.5.2 Surface Water Pollution History

There are no recorded and recent surface water pollution incidents relating to the site. For further information, please refer to section 3.4.

## 6.6 Site Zoning

The site has been divided into a series of zones based upon the site setting and the possible and actual location of potentially polluting substances. These zones are shown on in the Graphical Conceptual Site Model in appendix D2 and are listed below:

Zone A: Raw material handling
Zone B: Water treatment pumphouse
Zone C: Cooling water processes
Zone D: Historical uses
Zone E: Surrounding industrial activities

## 6.7 Summary of Conceptual Site Model (CSM)

### 6.7.1 Introduction

The findings of the desktop and site reconnaissance detailed above have been used to develop the conceptual site model (CSM) for the site. Uncertainties of the CSM are identified and their significance assessed.

The identified PACs (Potential Areas of Concern) are for areas of the site where potential contaminant sources exist or may have previously existed and could have an impact on the proposed baseline conditions at the site from which future comparison can be made. These are shown in Appendix E1. A schematic representation of the CSM is shown in Appendix E2.

### 6.7.2 Uncertainties in the CSM

In developing the CSM for the site. The following assumptions have been made:

- The thickness of the concrete hardstanding is the same across the site
- The only potentially harmful substances on site are those identified in assessment of pollution potential in appendix D2
- Permeability of the underlying soil
- Hydraulic continuity with Hall Brook.

# APPENDIX A1
# SITE LOCATION PLAN

# APPENDIX A2

# GEOLOGICAL MAPS AND CROSS SECTIONS

GeoReports

*Geology Map Extracts*

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

**Report prepared for:**

Miss A Mills
Steadings Barn
Pury Hill Business Park
Nr Alderton
Towcester
Northamptonshire
NN9 5TD

# Geology Map Extracts

This report is designed for users carrying out preliminary site assessments who require geological maps for the area around their site, as well as for those who have a general interest in their local geology.

The report contains geological map extracts taken from the BGS Digital Geological Map of Great Britain at the 1:50,000 scale (DiGMapGB-50). The various geological layers – artificial (man-made), landslip, superficial and solid (bedrock) geology - are displayed separately as 10 by 10cm extracts.

**Client's Reference:**

TD4827/AM

**Location details:**

***Site Address:***
*Dunlop Aviation Division*
*Unit A*
*Holbrook Lane*
*Coventry*
*West Midlands*
*CV6 4AA*

***Area centred at:*** *433393,282201*
***Radius of site area:*** *250 metres*

The assessment in this report is carried out for the search area defined above. If the client has submitted a site plan then this will have been used to derive the above location details.


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## Section 1: Geology of the area

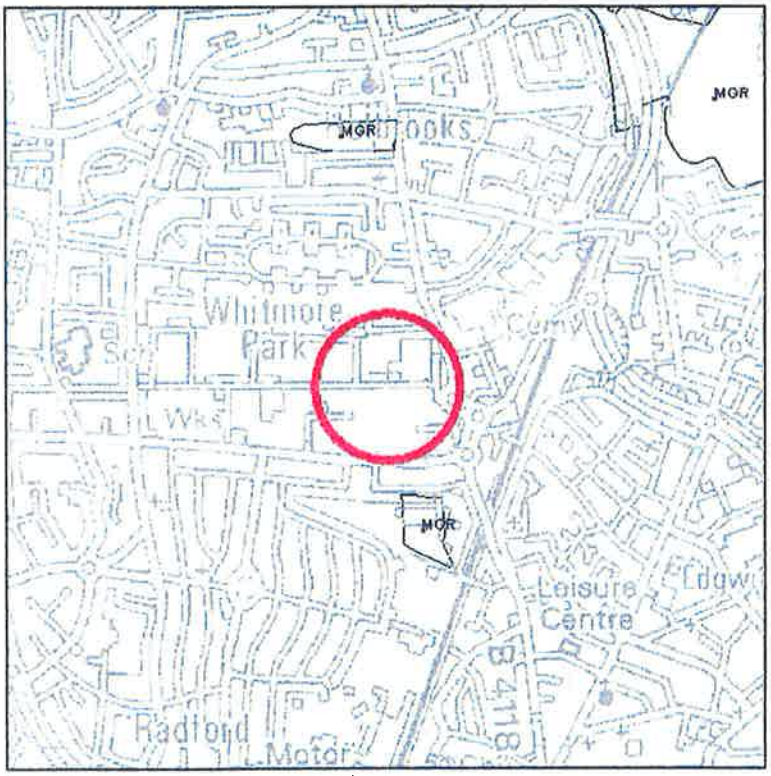
Extracts of geology maps around your site are provided in this section, taken from the BGS Digital Geological Map of Great Britain at the 1:50,000 scale (DiGMapGB-50). The first four maps show separately the four main layers of geology that may be present in an area – **artificial (man-made) deposits**, **landslip deposits**, **superficial deposits** and **bedrock**. The fifth 'combined geology' map shows all four rock layers superimposed on the same map, to show the rocks that occur at the surface just beneath the soil.

More information on DigMapGB-50 and how the various rock layers are classified can be found on the BGS website (www.bgs.ac.uk), under the DiGMap and BGS Rock Classification Scheme areas. Further descriptions of the rocks listed in the map keys can also be obtained by searching against the Computer Code on the *BGS Lexicon of named Rock Units*, which is also on the BGS Website at by following the 'GeoData' link. The computer codes are labelled on the maps to try and help in their interpretation (with a dot at the bottom left hand corner of each label). However, please treat this with caution in areas of complex geology, where some of the labels may overlap several geological formations. If in doubt, please contact BGS enquiries.

The geological formations are listed broadly in order of age in the map keys (youngest first) but only to the formation level (a formation is a package of related rocks). Within formations, please be aware that individual members may not be ordered by age.

### Artificial deposits

These include deposits moved and disturbed by man.




Scale: 1:25000 (1cm = 250m)

SITE LOCATION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***Key to Artificial deposits:***

| Map colour | Computer Code | Rock name | Rock type |
|---|---|---|---|
| | MGR | MADE GROUND (UNDIVIDED) | MADE GROUND (ex MGR),FILL,RUBBISH,ASH,SLAG,FORCED GRND,etc. |


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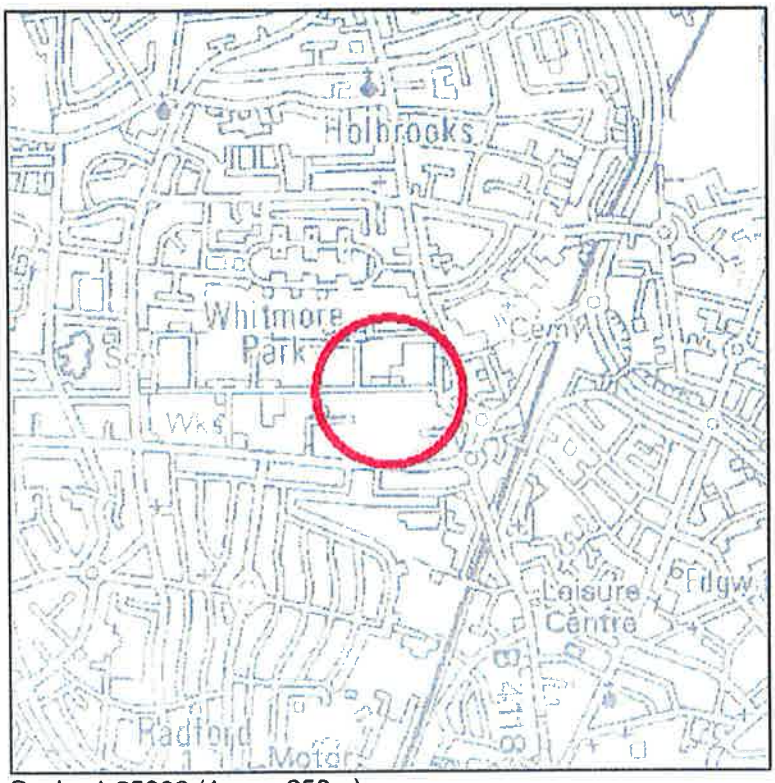
## Landslip deposits

These include natural deposits formed by sliding and mass-movement of soils and rocks on hill slopes (an alternative term for Landslip deposits is 'Mass Movement Deposits')




Scale: 1:25000 (1cm = 250m)

SITE LOCATION

***Key to Landslip deposits:***

No deposits are mapped in the search area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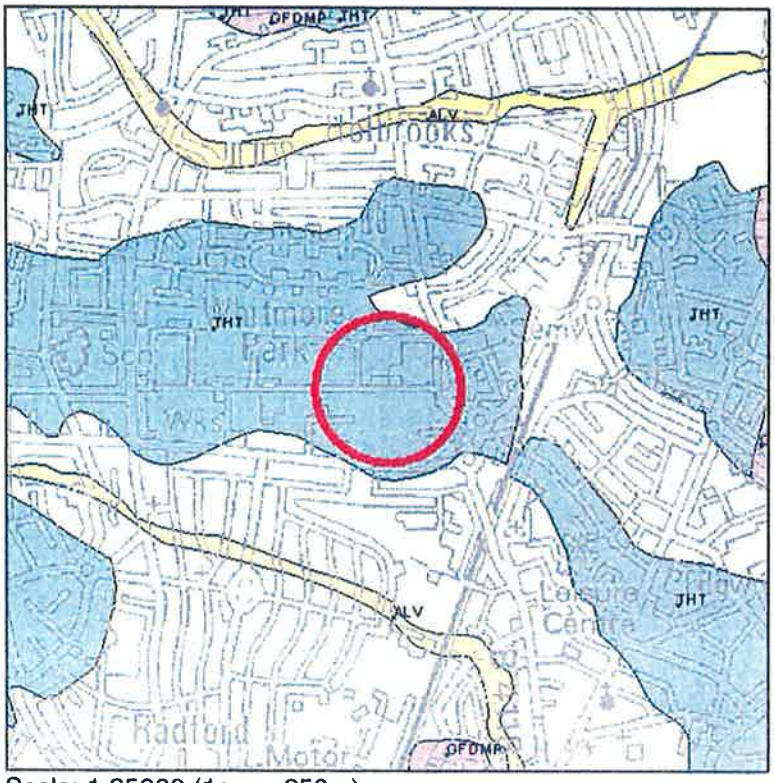
## Superficial deposits

These include fairly recent geological deposits, such as river sands and gravels, or glacial deposits, which lie on the bedrock in many areas (an alternative term for Superficial deposits is 'Drift Deposits')




Scale: 1:25000 (1cm = 250m)

SITE LOCATION

***Key to Superficial deposits:***

| Map colour | Computer Code | Rock name | Rock type |
|---|---|---|---|
| | ALV | ALLUVIUM | CLAY, SILT, SAND AND GRAVEL |
| | THT | THRUSSINGTON TILL | DIAMICTON |
| | GFDMP | GLACIOFLUVIAL DEPOSITS, UNDIFFERENTIATED (MIDDLE PLEISTOCENE) | SAND AND GRAVEL |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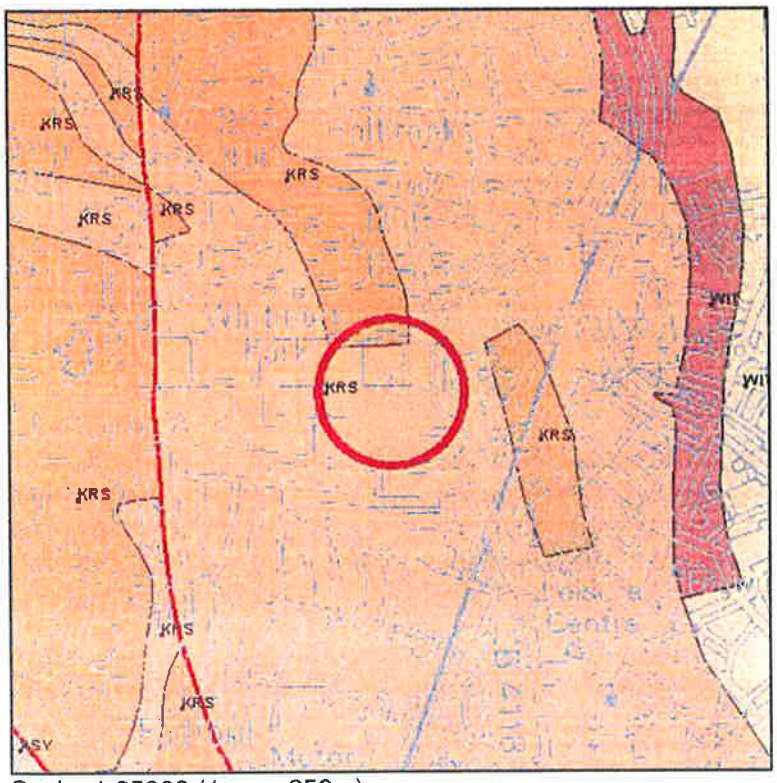
## Bedrock

Bedrock forms the ground underlying the whole of an area, upon which the other geological layers listed above may lie (an alternative term for Bedrock is 'Solid Geology')




Scale: 1:25000 (1cm = 250m)

SITE LOCATION

Fault

Coal, ironstone or other mineral vein

Note: Faults and Coals, ironstone & mineral veins are shown for illustration and to aid interpretation of the map. Not all such features are shown and their absence on the map face does not necessarily mean that none are present

***Key to Bedrock geology:***

| Map colour | Computer Code | Rock name | Rock type |
|---|---|---|---|
| | ASY | ALLESLEY MEMBER | ARGILLACEOUS ROCKS AND [SUBEQUAL/SUBORDINATE] SANDSTONE AND CONGLOMERATE, INTE |
| | KRS | KERESLEY MEMBER | ARGILLACEOUS ROCKS AND [SUBEQUAL/SUBORDINATE] SANDSTONE AND CONGLOMERATE, INTE |
| | KRS | KERESLEY MEMBER | SANDSTONE |
| | WIT | WHITACRE MEMBER | MUDSTONE AND SANDSTONE |
| | WIT | WHITACRE MEMBER | SANDSTONE |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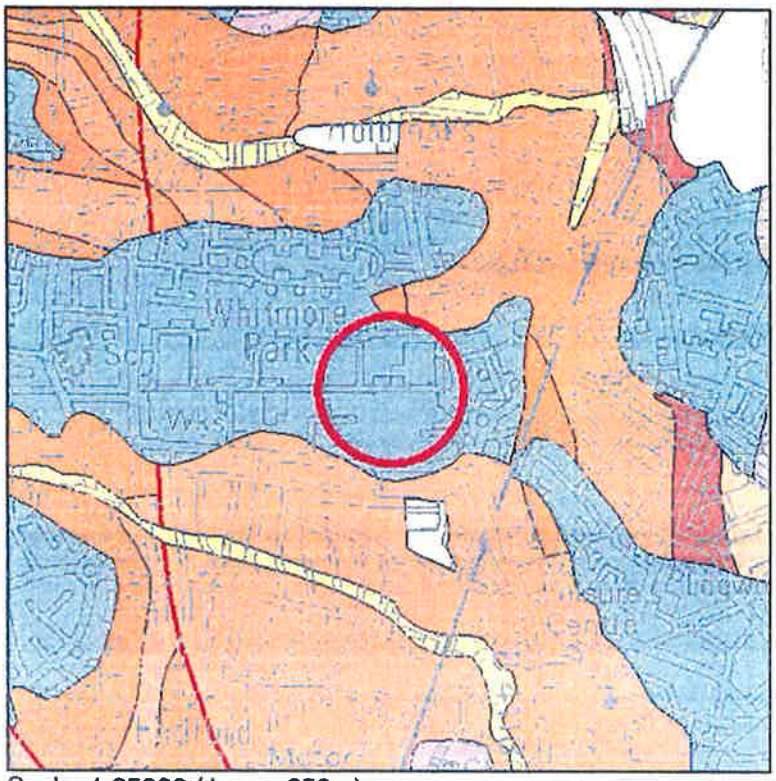
## Combined 'Surface Geology' Map

This map shows all four rock layers overlaid from the previous maps.




Scale: 1:25000 (1cm = 250m)

SITE LOCATION

***Please see the Keys to the Artificial, Landslip, Superficial and Bedrock geology maps.***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## Section 2: More detailed geological reports available from BGS

This report forms part of a range of advice reports offered by the BGS Enquiry Service, including more detailed reports describing site geology and geological hazards. For details on these please contact:

BGS Central Enquiries Desk
British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Tel: 0115 936 3143
Fax: 0115 936 3276
Email: enquiries@bgs.ac.uk

Or visit the Enquiry Service pages on the BGS website at www.bgs.ac.uk

## Section 3: Terms and Conditions

### General Terms & Conditions

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- The data, information and related records supplied in this report by BGS can only be indicative and should not be taken as a substitute for specialist interpretations, professional advice and/or detailed site investigations. You must seek professional advice before making technical interpretations on the basis of the materials provided.
- Geological observations and interpretations are made according to the prevailing understanding of the subject at the time. The quality of such observations and interpretations may be affected by the availability of new data, by subsequent advances in knowledge, improved methods of interpretation, and better access to sampling locations.
- Raw data may have been transcribed from analogue to digital format, or may have been acquired by means of automated measuring techniques. Although such processes are subjected to quality control to ensure reliability where possible, some raw data may have been processed without human intervention and may in consequence contain undetected errors.
- Detail, which is clearly defined and accurately depicted on large-scale maps, may be lost when small-scale maps are derived from them.
- Although samples and records are maintained with all reasonable care, there may be some deterioration in the long term.
- The most appropriate techniques for copying original records are used, but there may be some loss of detail and dimensional distortion when such records are copied.
- Data may be compiled from the disparate sources of information at BGS's disposal, including material donated to BGS by third parties, and may not originally have been subject to any verification or other quality control process.
- Data, information and related records, which have been donated to BGS, have been produced for a specific purpose, and that may affect the type and completeness of the data recorded and any interpretation. The nature and purpose of data collection, and the age of the resultant material may render it unsuitable for certain applications/uses. You must verify the suitability of the material for your intended usage.
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- The topography shown on any map extracts is based on the latest OS mapping and is not necessarily the same as that used in the original compilation of the BGS geological map, and to which the geological linework available at that time was fitted.

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GeoReports

*Geology Map Extracts*

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

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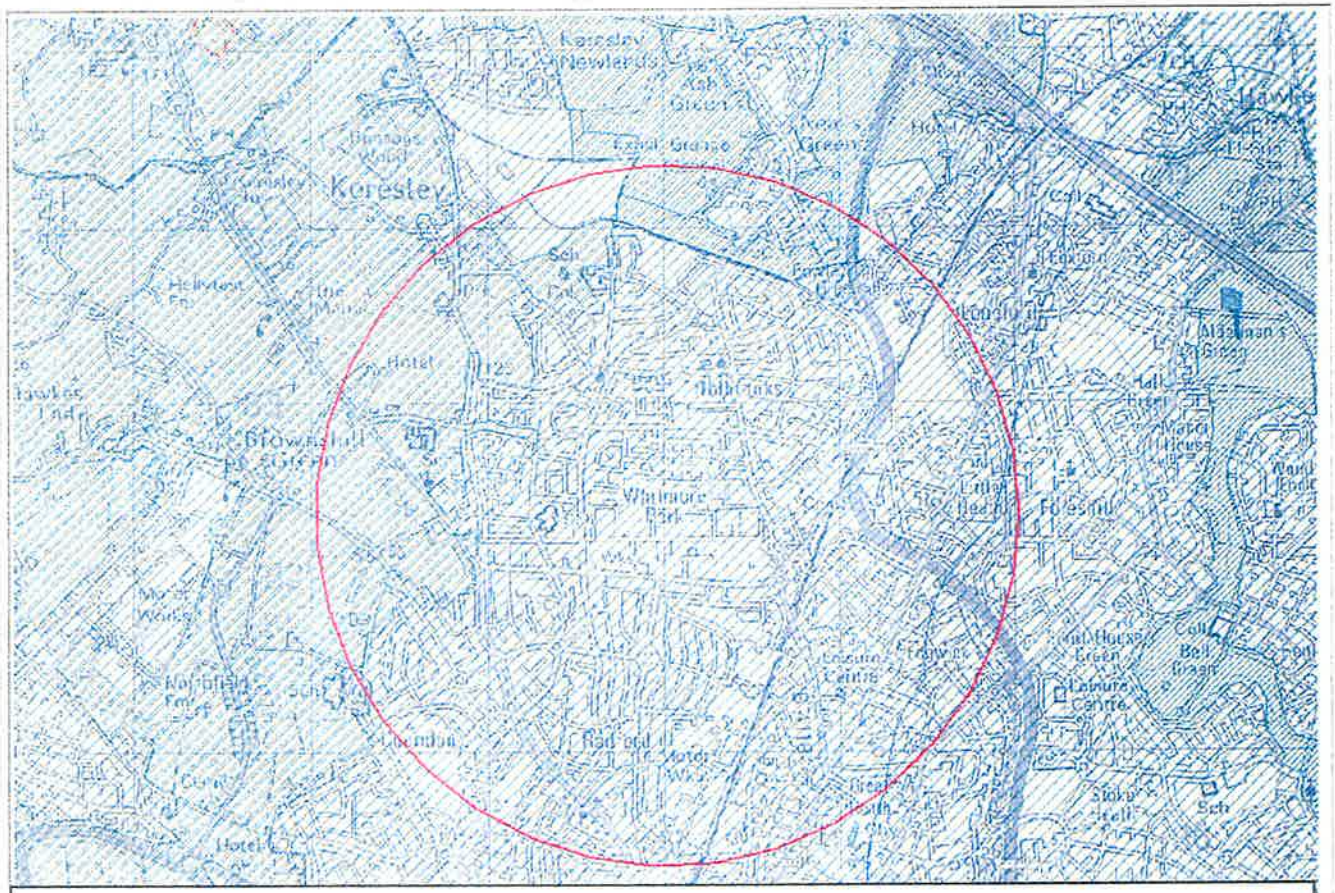
# APPENDIX A3
# SITE LAYOUT PLANS

# APPENDIX A4
# SITE DRAINAGE PLANS

# APPENDIX A5
# SENSITIVE RECEPTORS PLANS



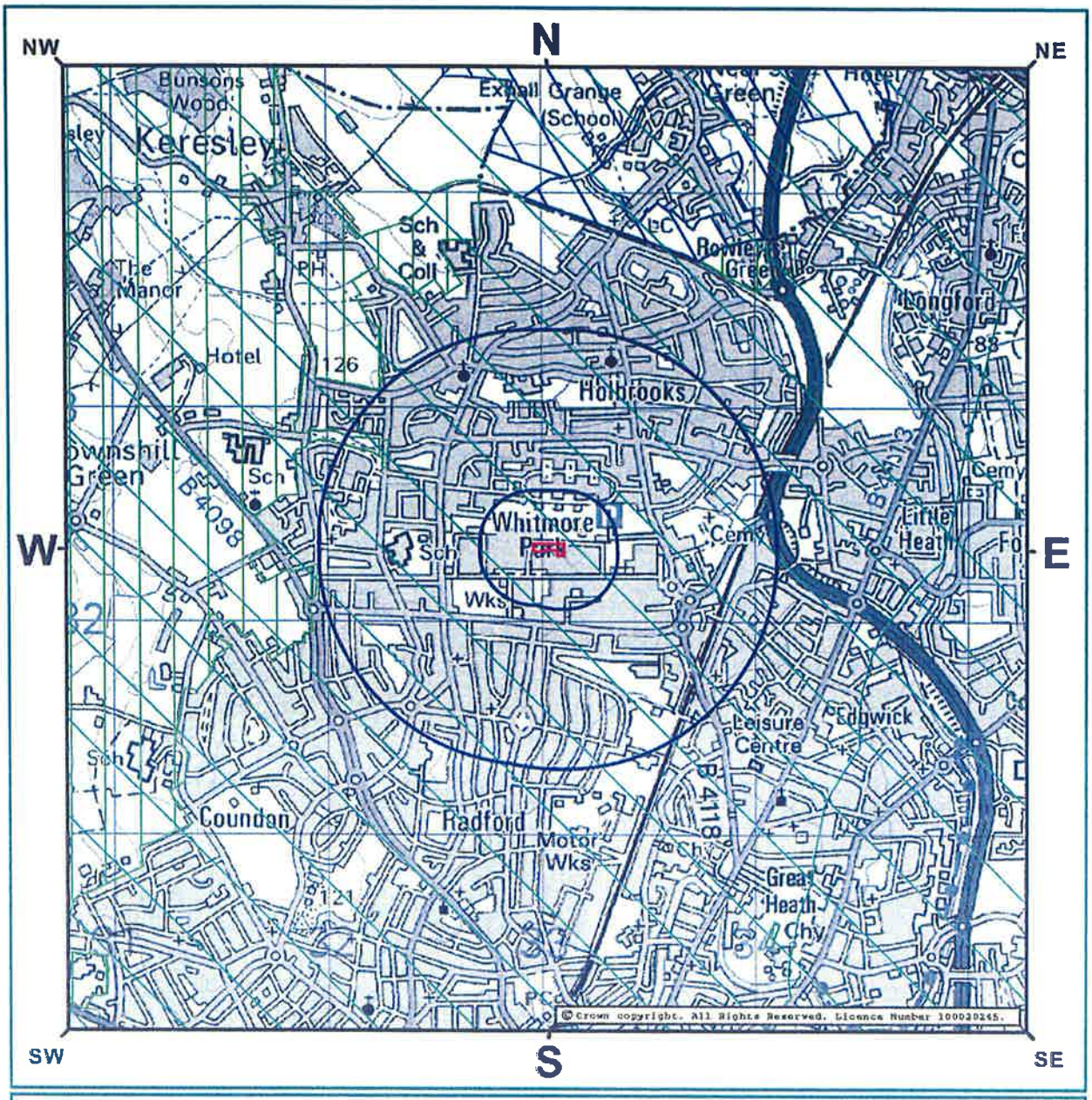

Radius 2 kilometres

Dunlop Aerospace
Braking Systems

MEGGITT

**Site Sensitivity Map**

- Nitrate Vulnerable Zones (England)
- Local Nature Reserves (England)
- Ramsar Sites (England)
- Special Protection Areas (England)
- Special Areas of Conservation (England)
- Sites of Special Scientific Interest (England)
- Green Belt (England)
- Areas of Outstanding Natural Beauty (England)
- Scheduled Monuments (England)




## KEY

### General

- Specified Site
- Bearing Reference Point
- Buffer

### Sensitive Land Uses

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

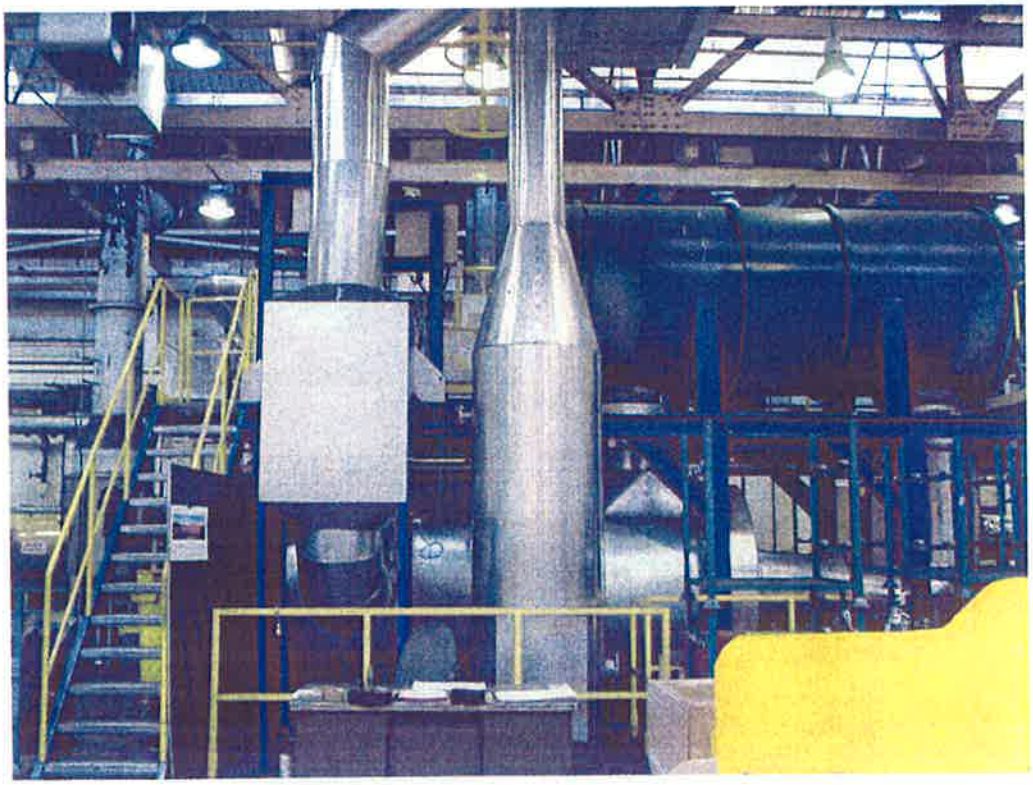
# APPENDIX B1
# PHOTOGRAPHS

## SITE PHOTOGRAPHS

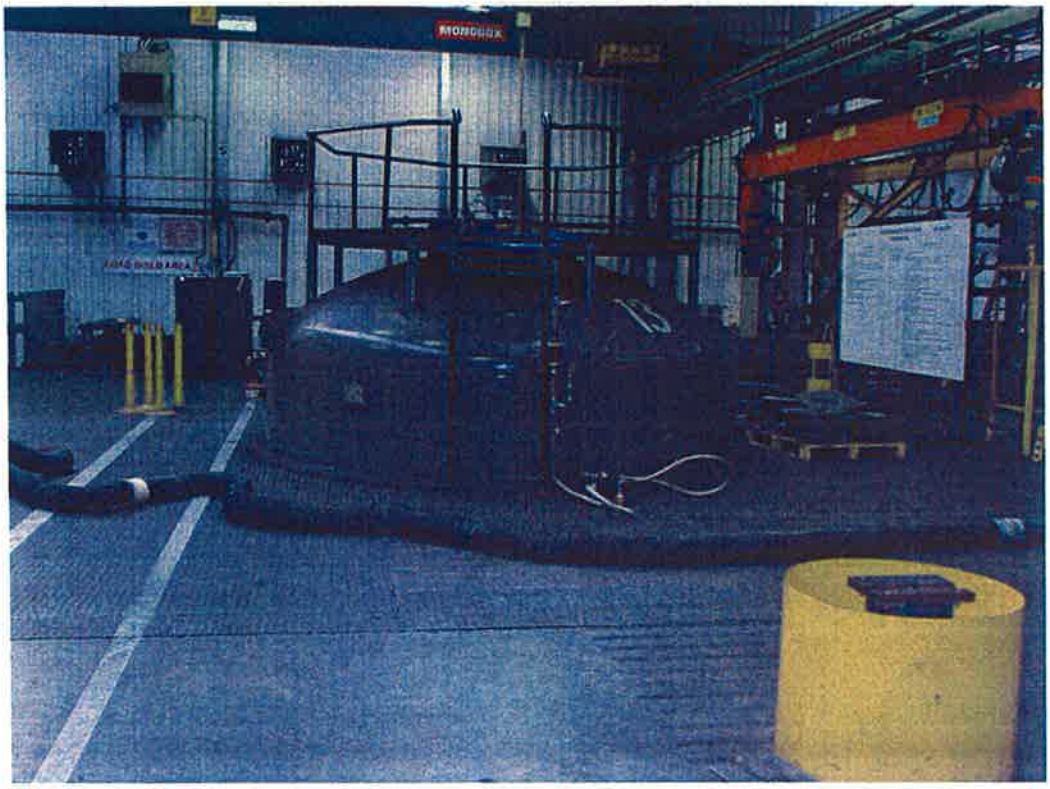
**DCE filter extraction unit for cutting and laying area**

**Liquid nitrogen tank for carbonisation process**

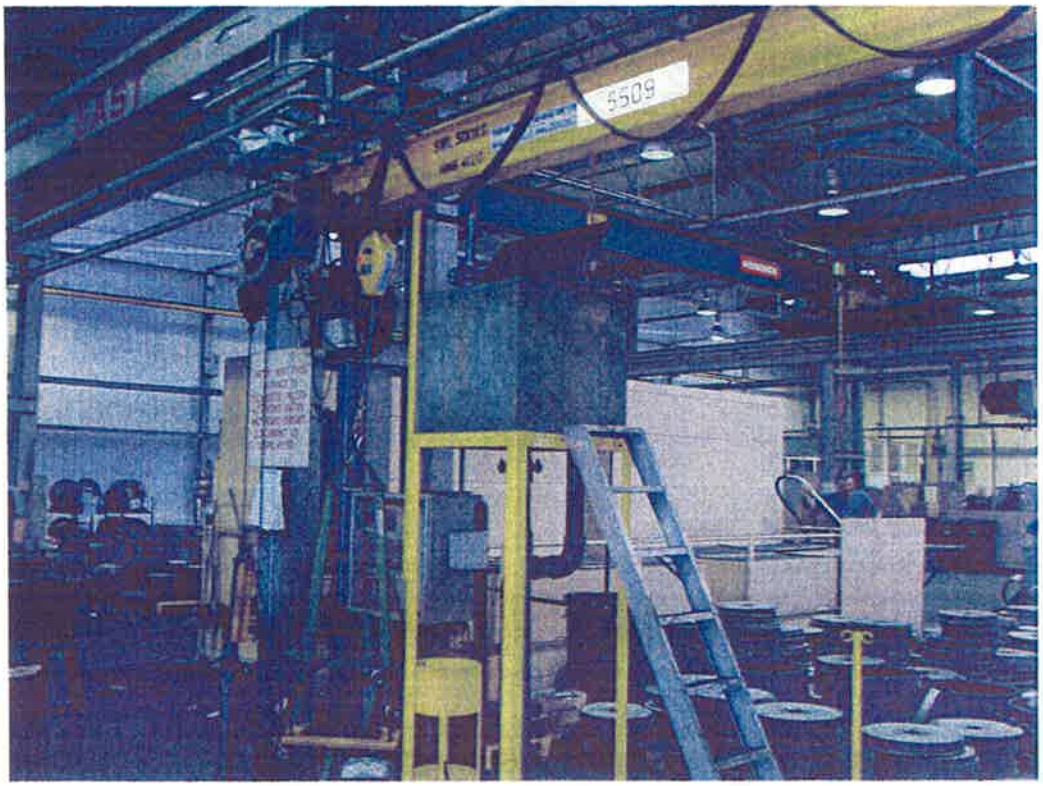
**Carbonisation furnace**



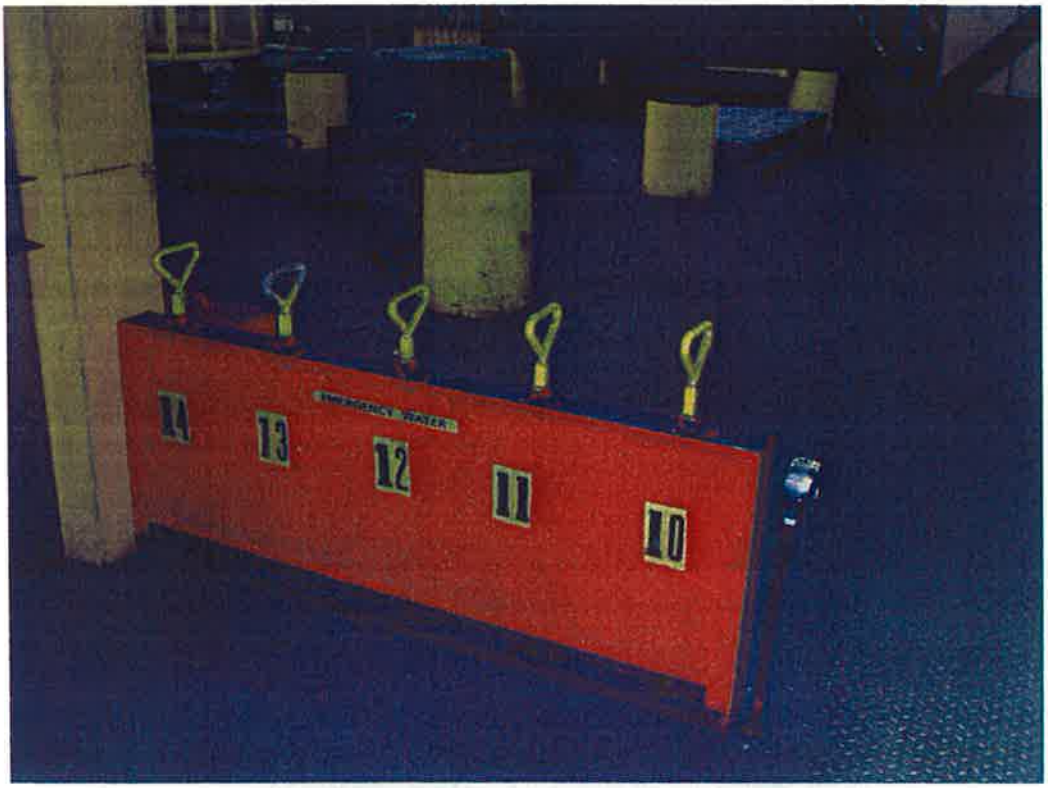
**Recuperative incineration abatement for carbonisation process**



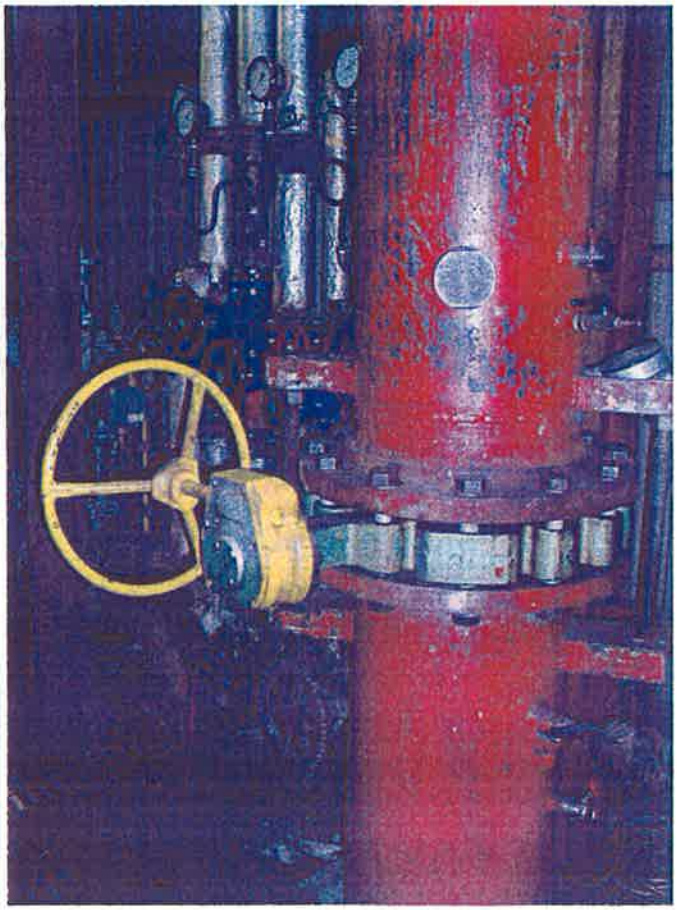
**Carbon vapour deposition (CVD) furnace**




**Water top-up tank for CVD furnace**

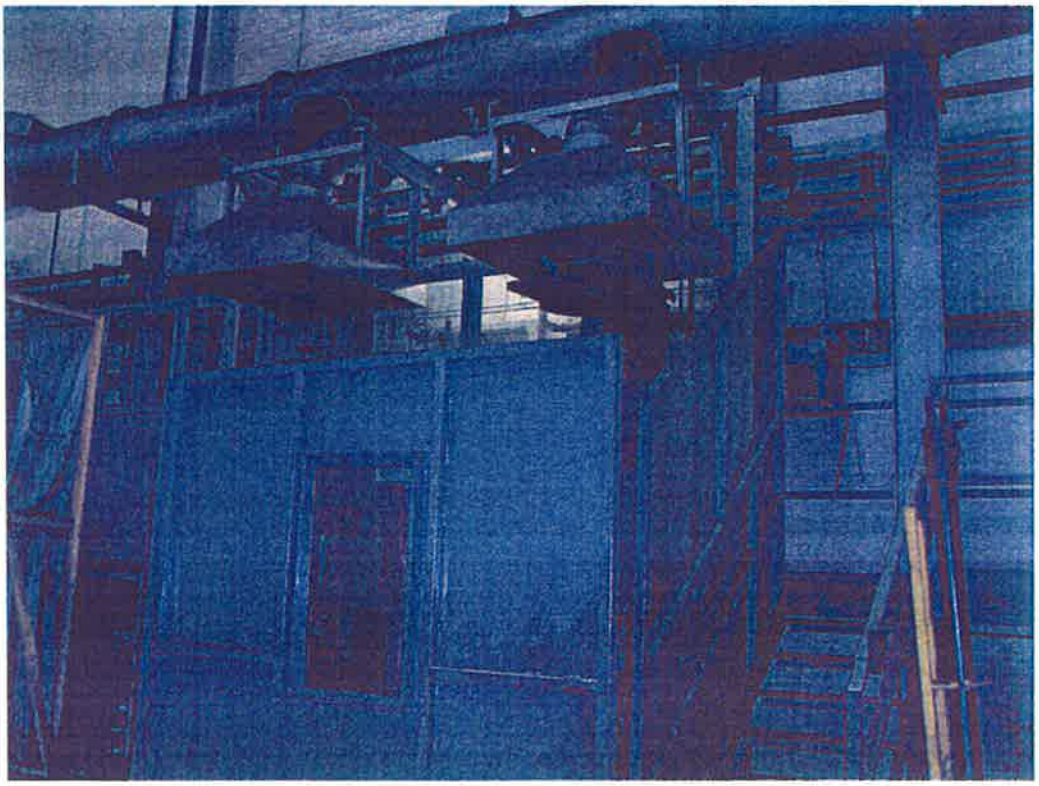



**Emergency water for furnaces**



**Pump for furnace exhaust gases**

**Booster pumps for furnace exhaust gases**

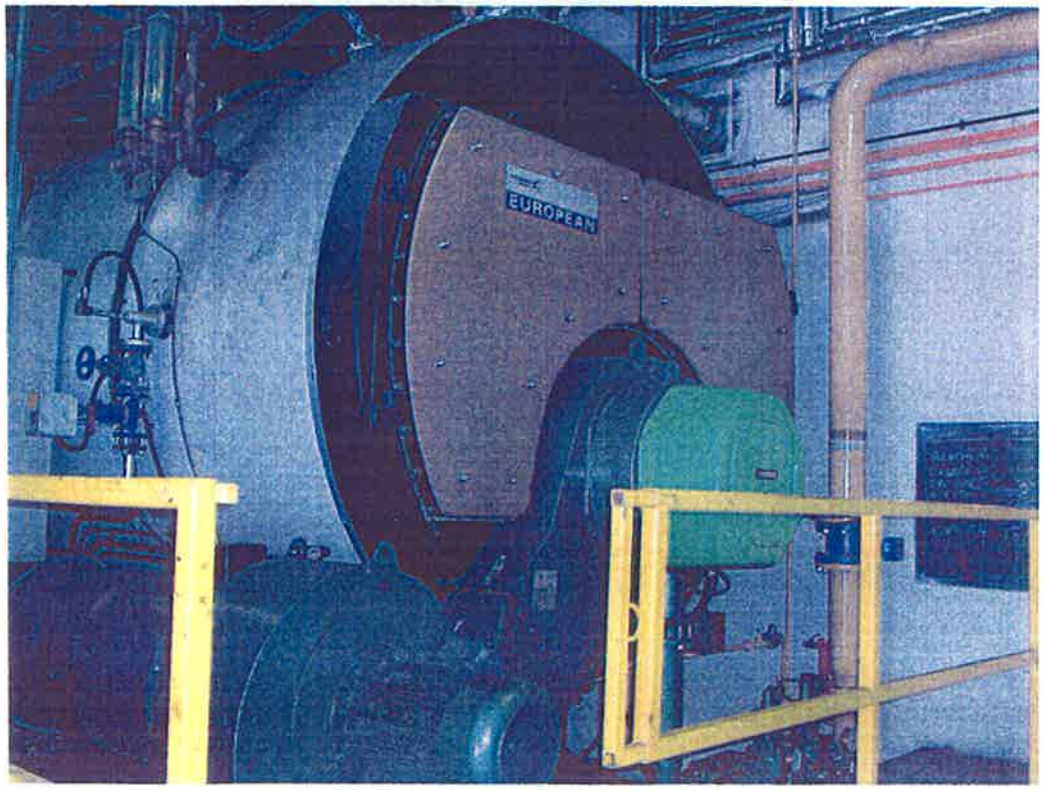


**Heat treatment facility**

**Emission points for heat treatment facility**

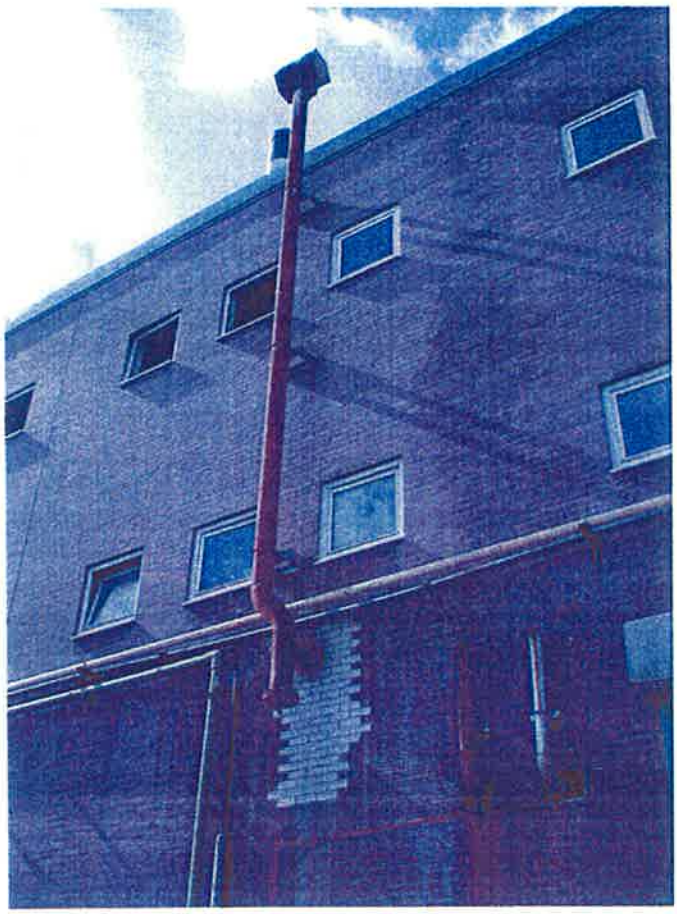
**Filter bags on individual machining units**

**Filter bags for ducted machining emissions**




**Gas boiler**

**Stacks from gas boiler units**



**Steam vent from boilerhouse**

Cooling water treatment pumphouse

Cooling water treatment chemicals

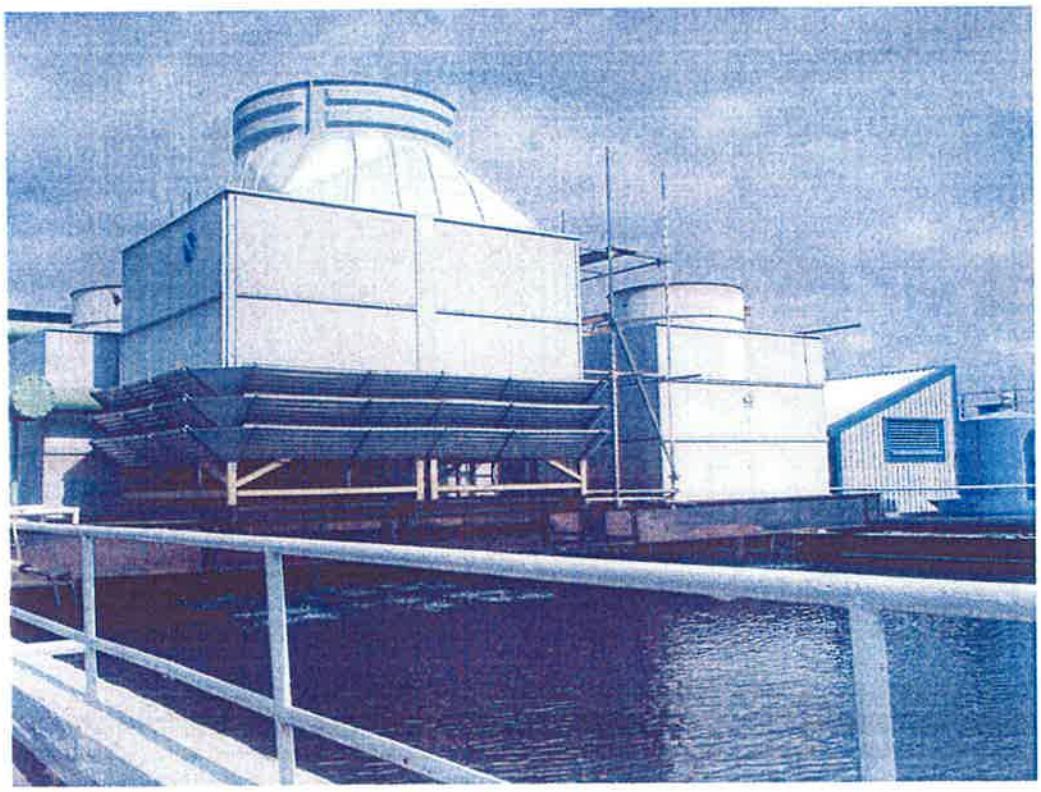
**Diesel tank for water treatment pumps**

**Cooling tower for furnaces**

**Mains gas and cooling water pipework**

**Electricity substation**

**Holding tank for furnace cooling water**



**Storage reservoir for furnace cooling water**

**Waste recycling bins**

**Storage of gas cylinders from laboratory**

# APPENDIX C1

# ENVIRONMENTAL CONSENTS, LICENCES, AUTHORISATIONS AND PERMITS FOR SITE AND SURROUNDING AREA

Envirocheck®
A Landmark® product

# Envirocheck® Report

## Datasheet

**Report on:**
Dunlop Aviation Division
Unit A2, Holbrook Lane
Coventry
CV6 4AA

**National Grid Reference :**

433030, 282330

**Prepared For :**
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**Client Details:**

Dunlop Aerospace Ltd.,Holbrook Lane,Coventry,CV6 4AA,

**Your Reference:**

Ms A Mills,TD4827/AM

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**Introduction**

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity Datasheet places great emphasis on statutory data provided by the Environment Agency and the Scottish Environment Protection Agency; it also incorporates data from English Nature (and the Scottish and Welsh equivalents), the Environment Agency (and the Scottish equivalent) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the legend database to 1km from a single point or a site boundary provided by the client

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

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| Data Type | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|---|---|---|---|
| **Agency & Hydrological** | | | | |
| Air Pollution Controls | | | 2 | 16 |
| Air Pollution Control Enforcements | | | | |
| Contaminated Land Register Entries and Notices | | | | |
| Discharge Consents | | | | |
| Enforcement and Prohibition Notices | | | | |
| Integrated Pollution Controls | | | | 7 |
| Integrated Pollution Prevention And Control | | | | |
| Nearest Surface Water Feature | | Yes | | |
| Pollution Incidents to Controlled Waters | | | | 1 |
| Substantiated Pollution Incident Register | | | | |
| Prosecutions Relating to Authorised Processes | | | | |
| Prosecutions Relating to Controlled Waters | | | | |
| Water Industry Act Referrals | | | 1 | |
| Registered Radioactive Substances | | | | |
| River Quality | | | | 1 |
| River Quality Biology Sampling Points | | | | |
| River Quality Chemistry Sampling Points | | | | |
| Water Abstractions | | 2 | | (*14) |
| Groundwater Vulnerability | Yes | | | |
| Source Protection Zones | | | 2 | |
| Extreme Flooding from Rivers or Sea without Defences | | | | |
| Flooding from Rivers or Sea without Defences | | | | |
| Areas Benefiting from Flood Defences | | | | |
| Flood Water Storage Areas | | | | |
| Flood Defences | | | | |
| River Flood Data (Scotland) | | | | |
| **Waste** | | | | |
| BGS Recorded Landfill Sites | | | | |
| Integrated Pollution Control Registered Waste Sites | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | | | | |
| Licensed Waste Management Facilities (Locations) | | | | |
| Local Authority Recorded Landfill Sites | | | | |
| Registered Landfill Sites | | | | 1 |
| Registered Waste Transfer Sites | | | | 1 |
| Registered Waste Treatment or Disposal Sites | | | | |

| Data Type | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|---|---|---|---|
| **Hazardous Substances** | | | | |
| Control of Major Accident Hazards Sites (COMAH) | | | | |
| Explosive Sites | | | | |
| Notification of Installations Handling Hazardous Substances (NIHHS) | | | | |
| Planning Hazardous Substance Consents | | | | |
| Planning Hazardous Substance Enforcements | | | | |
| **Geological** | | | | |
| BGS Boreholes | | 2 | 10 | 100 |
| BGS Recorded Mineral Sites | | | | |
| BGS 1:625,000 Solid Geology | Yes | | | |
| Brine Compensation Areas | | | | |
| Coal Mining Affected Areas | Yes | | | |
| Shallow Mining Hazards | | | | |
| Compressible Ground Subsidence Hazards | | | | |
| Ground Dissolution Subsidence Hazards | | | | |
| Gulls And Cambering Subsidence Hazards | | | | |
| Landslip Subsidence Hazards | Yes | | | |
| Swelling Clay Subsidence Hazards | | | | |
| Mining Instability | Yes | | | |
| Natural and Mining Cavities | | | | |
| Radon Affected Areas | Yes | | | |
| Radon Protection Measures | Yes | | | |
| **Industrial Land Use** | | | | |
| Contemporary Trade Directory Entries | | | 7 | 100 |
| Fuel Station Entries | | | | 3 |

| Data Type | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|---|---|---|---|
| **Sensitive Land Uses** | | | | |
| Areas of Adopted Green Belt | | | | 1 |
| Areas of Unadopted Green Belt | | | | |
| Areas of Outstanding Natural Beauty | | | | |
| Environmentally Sensitive Areas | | | | |
| Forest Parks | | | | |
| Local Nature Reserves | | | | |
| Marine Nature Reserves | | | | |
| National Nature Reserves | | | | |
| National Parks | | | | |
| National Scenic Areas | | | | |
| Nitrate Sensitive Areas | | | | |
| Nitrate Vulnerable Zones | 1 | | | |
| Ramsar Sites | | | | |
| Sites of Special Scientific Interest | | | | |
| Special Areas of Conservation | | | | |
| Special Protection Areas | | | | |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Air Pollution Controls** | | | | |
| 1 | Name: Btr Siebe<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4QX<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 50/1<br>Dated: Not Supplied<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/23 Coating of metal and plastic<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the address or location | E | 484 | 1 | 433590<br>282300 |
| | **Air Pollution Controls** | | | | |
| 2 | Name: Btr Siebe<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4QX<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 51<br>Dated: Not Supplied<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/23 Coating of metal and plastic<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the address or location | E | 484 | 1 | 433590<br>282300 |
| | **Air Pollution Controls** | | | | |
| 3 | Name: Dunlop Aviation Ltd<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4AA<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 156<br>Dated: Not Supplied<br>Process Type: Local Authority Air Pollution Control<br>Description: PG4/1 Processes for the surface treatment of metals<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the address or location | E | 514 | 1 | 433600<br>282170 |
| | **Air Pollution Controls** | | | | |
| 3 | Name: Dunlop Aviation Ltd<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4AA<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 157<br>Dated: 14th March 2002<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/23 Coating of metal and plastic<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the address or location | E | 514 | 1 | 433600<br>282170 |
| | **Air Pollution Controls** | | | | |
| 4 | Name: Mayflower Vehicle Systems<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4AW<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 58<br>Dated: 1st May 1996<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/23 Coating of metal and plastic<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Unknown | SE | 540 | 1 | 433580<br>282050 |
| | **Air Pollution Controls** | | | | |
| 5 | Name: Trelleborg Automotive<br>Location: Holbrook Lane,COVENTRY,CV6 4AA<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 50<br>Dated: 18th February 1994<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/29 Di-Isocyanate processes<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the address or location | E | 555 | 1 | 433620<br>282110 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Air Pollution Controls** | | | | |
| 5 | Name: Dunlop Suspensions & Components<br>Location: Holbrook Lane,COVENTRY,CV6 4AA<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 51<br>Dated: 20th January 1995<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/29 Di-isocyanate processes<br>Status: Authorisation revoked<br>Positional Accuracy: Manually positioned to the address or location | E | 556 | 1 | 433620 282110 |
| | **Air Pollution Controls** | | | | |
| 5 | Name: Dunlop Aviaton Division<br>Location: Holbrook Lane,Foleshill,COVENTRY,CV6 4AA<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 65<br>Dated: 1st June 1995<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/23 Coating of metal and plastic<br>Status: Authorisation revoked<br>Positional Accuracy: Manually positioned to the address or location | SE | 564 | 1 | 433620 282090 |
| | **Air Pollution Controls** | | | | |
| 6 | Name: Stp Windows<br>Location: Newport Road,Holbrooks,COVENTRY,West Midlands,CV6 4BQ<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 89<br>Dated: 9th August 1996<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/2 Manufacture of timber and wood-based products<br>Status: Authorisation revoked<br>Positional Accuracy: Manually positioned to the address or location | E | 655 | 1 | 433760 282280 |
| | **Air Pollution Controls** | | | | |
| 7 | Name: Radford Service Station,Petrol Express<br>Location: Jubilee Crescent,Radford,COVENTRY,West Midlands,CV6 3EX<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 139<br>Dated: 22nd December 1998<br>Process Type: Local Authority Air Pollution Control<br>Description: PG1/14 Petrol filling station<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the address or location | S | 678 | 1 | 432950 281640 |
| | **Air Pollution Controls** | | | | |
| 8 | Name: Craftsman Service Station,Mpk Filling Station Ltd<br>Location: 497 Beake Avenue,COVENTRY,West Midlands,CV6 2HT<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 118<br>Dated: 18th December 1998<br>Process Type: Local Authority Air Pollution Control<br>Description: PG1/14 Petrol filling station<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Automatically positioned to the address | NW | 696 | 1 | 432590 282950 |
| | **Air Pollution Controls** | | | | |
| 9 | Name: Magnetto Topy Wheels (Uk) Ltd<br>Location: Holbrook Lane,COVENTRY,CV6 4AA<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 41<br>Dated: 25th September 1993<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/23 Coating of metal and plastic<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 722 | 1 | 433690 281880 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Air Pollution Controls** | | | | |
| 10 | Name: Whitmore Park Service Station,Shell Uk Ltd<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4DG<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 124<br>Dated: 22nd December 1998<br>Process Type: Local Authority Air Pollution Control<br>Description: PG1/14 Petrol filling station<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the address or location | NE | 724 | 1 | 433420 283010 |
| | **Air Pollution Controls** | | | | |
| 11 | Name: Timber Truss & Buildpack Ltd<br>Location: Lythals Lane,COVENTRY,West Midlands,CV6 6FW<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 96<br>Dated: 30th June 1998<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/3 Chemical treatment of timber and wood-based products<br>Status: Authorisation either revoked or cancelled<br>Positional Accuracy: Unknown | E | 905 | 1 | 433940 282700 |
| | **Air Pollution Controls** | | | | |
| 11 | Name: D.D.G. Ltd<br>Location: 255 Lythalls Lane,COVENTRY,West Midlands,CV6 6FY<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 151<br>Dated: 13th January 2000<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/2 Manufacture of timber and wood-based products<br>Status: Authorisation revoked<br>Positional Accuracy: Manually positioned to the address or location | E | 938 | 1 | 433980 282690 |
| | **Air Pollution Controls** | | | | |
| 12 | Name: Tps Autos<br>Location: Unit 14 Boston Place,Foleshill,COVENTRY,West Midlands,CV6 5NN<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 149<br>Dated: 30th June 1999<br>Process Type: Local Authority Air Pollution Control<br>Description: PG1/14 Petrol filling station<br>Status: Authorisation revoked<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 918 | 1 | 433870 281800 |
| | **Air Pollution Controls** | | | | |
| 13 | Name: Premier Exhaust<br>Location: Beresford Avenue,COVENTRY,CV6 5LZ<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 61<br>Dated: 1st September 1993<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/23 Coating of metal and plastic<br>Status: Authorisation revoked<br>Positional Accuracy: Unknown | E | 929 | 1 | 434030 282170 |
| | **Air Pollution Controls** | | | | |
| 14 | Name: Unipart Eberspacher Ltd<br>Location: Beresford Avenue,COVENTRY,West Midlands,CV6 5<br>Authority: Coventry City Council, Environmental Health Department<br>Permit Reference: 158<br>Dated: 18th March 2002<br>Process Type: Local Authority Air Pollution Control<br>Description: PG6/23 Coating of metal and plastic<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the address or location | E | 941 | 1 | 434050 282280 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Integrated Pollution Controls** | | | | |
| 15 | Name: Dunlop Aerospace Ltd<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4AA<br>Authority: Environment Agency, Midlands Region<br>Permit Reference: BE1402<br>Dated: 24th November 1998<br>Process Type: IPC minor (non-substantial) variation to previous variation<br>Description: 1.2 A (A) Carbonisation and associated processes within the Fuel & Power Industry<br>Status: Authorisation superseded by a substantial or non substantial variation<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 527 | 2 | 433630 282220 |
| | **Integrated Pollution Controls** | | | | |
| 15 | Name: Dunlop Aerospace Ltd<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4AA<br>Authority: Environment Agency, Midlands Region<br>Permit Reference: AV1246<br>Dated: 26th March 1996<br>Process Type: IPC minor (non-substantial) variation to previous variation<br>Description: 1.2 A (A) Carbonisation and associated processes within the Fuel & Power Industry<br>Status: Authorisation superseded by a substantial or non substantial variation<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 527 | 2 | 433630 282220 |
| | **Integrated Pollution Controls** | | | | |
| 15 | Name: Dunlop Aerospace Ltd<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4AA<br>Authority: Environment Agency, Midlands Region<br>Permit Reference: AZ8129<br>Dated: 26th February 1998<br>Process Type: IPC minor (non-substantial) variation to previous variation<br>Description: 1.2 A (A) Carbonisation and associated processes within the Fuel & Power Industry<br>Status: Authorisation superseded by a substantial or non substantial variation<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 527 | 2 | 433630 282220 |
| | **Integrated Pollution Controls** | | | | |
| 15 | Name: Dunlop Aerospace Ltd<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4AA<br>Authority: Environment Agency, Midlands Region<br>Permit Reference: AG8624<br>Dated: 1st June 1995<br>Process Type: IPC application for process that was regulated by HMIP for air releases under previous legislation<br>Description: 1.2 A (A) Carbonisation and associated processes within the Fuel & Power Industry<br>Status: Authorisation superseded by a substantial or non substantial variation<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 527 | 2 | 433630 282220 |
| | **Integrated Pollution Controls** | | | | |
| 15 | Name: Dunlop Aerospace Ltd<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4AA<br>Authority: Environment Agency, Midlands Region<br>Permit Reference: BE9888<br>Dated: 30th March 1999<br>Process Type: IPC minor (non-substantial) variation to previous variation<br>Description: 1.2 A (A) Carbonisation and associated processes within the Fuel & Power Industry<br>Status: Authorisation superseded by a substantial or non substantial variation<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 527 | 2 | 433630 282220 |
| | **Integrated Pollution Controls** | | | | |
| 15 | Name: Dunlop Aerospace Ltd<br>Location: Holbrook Lane,COVENTRY,West Midlands,CV6 4AA<br>Authority: Environment Agency, Midlands Region<br>Permit Reference: Bi1889<br>Dated: 11th December 2000<br>Process Type: IPC minor (non-substantial) variation to previous variation<br>Description: 1.2 A (A) Carbonisation and associated processes within the Fuel & Power Industry<br>Status: Authorisation superseded by a substantial or non substantial variation<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 527 | 2 | 433630 282220 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Integrated Pollution Controls** | | | | |
| 15 | Name: Dunlop Aerospace Ltd<br>Location: Holbrook Lane,COVENTRY,CV6 4AA<br>Authority: Environment Agency, Midlands Region<br>Permit Reference: Bk3140<br>Dated: 21st May 2001<br>Process Type: IPC major (substantial) variation<br>Description: 1.2 A (A) Carbonisation and associated processes within the Fuel & Power Industry<br>Status: Application has been authorised and any conditions apply to the operator<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 527 | 2 | 433630<br>282220 |
| | **Pollution Incidents to Controlled Waters** | | | | |
| 16 | Property Type: Metal industry<br>Location: Location Details Not Specified<br>Authority: Environment Agency, Midlands Region<br>Pollutant: Chemicals - Solvents<br>Note: Public Health Risk; Amenity Affected<br>Incident Date: 11th December 1996<br>Incident Reference: 2601309<br>Catchment Area: Severn Catchment : Sowe<br>Receiving Water: Watercourse<br>Cause of Incident: Overfilling During Delivery<br>Severity of Incident: Category 2 - Significant Incident<br>Positional Accuracy: Located by supplier to within 100m | SE | 894 | 2 | 433920<br>281940 |
| | **Water Industry Act Referrals** | | | | |
| 17 | Name: Dunlop Ltd<br>Location: Aviation Division,Holbrook Lane,COVENTRY,West Midlands,CV6 4AA<br>Authority: Environment Agency, Midlands Region<br>Permit Reference: AG5048<br>Dated: 17th September 1992<br>Process Type: Permissions or amendments to discharge under the Water Industry Act 1991<br>Description: Processes which result in the discharge of Special Category effluents under The Trade Effluents (Prescribed Processes and Substances) Regulations<br>Status: Application received by the EA but is not yet authorised<br>Positional Accuracy: Manually positioned to the address or location | SE | 432 | 2 | 433500<br>282130 |
| | **River Quality** | | | | |
| | Name: Hall Bk<br>GQA Grade: River Quality E<br>Reach: Watery Ln Br Keresley To Rowleys Green<br>Estimated Distance of Reach (km): 2.3<br>Flow Rate: Flow less than 0.31 cumecs<br>Flow Type: River<br>Year: 2000 | N | 557 | 2 | 433150<br>282920 |
| | **Water Abstractions** | | | | |
| 18 | Operator: Dunlop Ltd<br>Licence Number: 18/54/11/0028<br>Permit Version: 100<br>Location: Holbrook Lane,Foleshill - Borehole<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Other Industrial/Commercial/Public Services: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Holbrook Lane,Foleshill<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 9th December 1997<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | SE | 143 | 2 | 433200<br>282200 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Water Abstractions** | | | | |
| 19 | Operator: Dunlop Ltd<br>Licence Number: 18/54/11/0029<br>Permit Version: 100<br>Location: Holbrook Lane,Foleshill - Borehole<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Other Industrial/Commercial/Public Services: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Holbrook Lane,Foleshill<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 1st April 2005<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | S | 207 | 2 | 433100<br>282100 |
| | **Water Abstractions** | | | | |
| | Operator: Severn Trent Water Limited<br>Licence Number: 18/54/11/0130<br>Permit Version: 100<br>Location: Watery Lane Pumping Station - Borehole (1)<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Public Water Supply: Potable Water Supply - Direct<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Watery Lane Pumping Station, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 27th April 1990<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | NW | 1252 | 2 | 432440<br>283500 |
| | **Water Abstractions** | | | | |
| | Operator: Severn Trent Water Limited<br>Licence Number: 18/54/11/0130<br>Permit Version: 100<br>Location: Watery Lane Pumping Station - Borehole (2)<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Public Water Supply: Potable Water Supply - Direct<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Watery Lane Pumping Station, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 27th April 1990<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | NW | 1281 | 2 | 432510<br>283560 |
| | **Water Abstractions** | | | | |
| | Operator: Jaguar Cars Ltd<br>Licence Number: 18/54/11/0020 /1<br>Permit Version: Not Supplied<br>Location: Jaguar Works<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Industrial Processing ( Miscellaneous)<br>Abstraction Type: Not Supplied<br>Source: Groundwater<br>Daily Rate (m3): 818<br>Yearly Rate (m3): 261395<br>Details: Status: Revoked; Lapsed Or Cancelled<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | S | 1485 | 2 | 433260<br>280830 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Water Abstractions**<br>Operator: Acordis Acetate Chemicals Limited<br>Licence Number: 18/54/11/0148<br>Permit Version: 1<br>Location: Foleshill Road Works, Little Heath - Borehole 3<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Chemicals: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Two Areas At Foleshill Road, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 4th April 2000<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | E | 1616 | 2 | 434700<br>282600 |
| | **Water Abstractions**<br>Operator: Acetate Products Ltd<br>Licence Number: 18/54/11/0148<br>Permit Version: 2<br>Location: Foleshill Road Works, Little Heath - Borehole 3<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Chemicals: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Two Areas At Foleshill Road, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 5th September 2003<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | E | 1616 | 2 | 434700<br>282600 |
| | **Water Abstractions**<br>Operator: Acetate Products Ltd<br>Licence Number: 18/54/11/0148<br>Permit Version: 3<br>Location: Foleshill Road Works, Little Heath - Borehole 3<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Chemicals: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Two Areas At Foleshill Road, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 1st July 2004<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | E | 1616 | 2 | 434700<br>282600 |
| | **Water Abstractions**<br>Operator: Acordis Acetate Chemicals Limited<br>Licence Number: 18/54/11/0034,1<br>Permit Version: Not Supplied<br>Location: Foleshill Road Works<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Industrial Processing ( Miscellaneous)<br>Abstraction Type: Not Supplied<br>Source: Groundwater<br>Daily Rate (m3): 3273<br>Yearly Rate (m3): 1184727<br>Details: 4 Boreholes<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | E | 1663 | 2 | 434750<br>282580 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Water Abstractions**<br>Operator: Acordis Acetate Chemicals Limited<br>Licence Number: 18/54/11/0006,1<br>Permit Version: Not Supplied<br>Location: Works At Foleshill Road<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Industrial Processing ( Miscellaneous)<br>Abstraction Type: Not Supplied<br>Source: Groundwater<br>Daily Rate (m3): 6137<br>Yearly Rate (m3): 1954780<br>Details: 4 Boreholes<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | SE | 1678 | 2 | 433780<br>280770 |
| | **Water Abstractions**<br>Operator: Acordis Acetate Chemicals Limited<br>Licence Number: 18/54/11/0148<br>Permit Version: 1<br>Location: Foleshill Road Works, Little Heath - Borehole 8<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Chemicals: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Two Areas At Foleshill Road, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 4th April 2000<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | SE | 1752 | 2 | 434000<br>280800 |
| | **Water Abstractions**<br>Operator: Acetate Products Ltd<br>Licence Number: 18/54/11/0148<br>Permit Version: 2<br>Location: Foleshill Road Works, Little Heath - Borehole 8<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Chemicals: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Two Areas At Foleshill Road, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 5th September 2003<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | SE | 1752 | 2 | 434000<br>280800 |
| | **Water Abstractions**<br>Operator: Acetate Products Ltd<br>Licence Number: 18/54/11/0148<br>Permit Version: 3<br>Location: Foleshill Road Works, Little Heath - Borehole 8<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Chemicals: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Two Areas At Foleshill Road, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 1st July 2004<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | SE | 1752 | 2 | 434000<br>280800 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Water Abstractions**<br>Operator: Acordis Acetate Chemicals Limited<br>Licence Number: 18/54/11/0148<br>Permit Version: 1<br>Location: Foleshill Road Works, Little Heath - Borehole 1<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Chemicals: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Two Areas At Foleshill Road, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 4th April 2000<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | E | 1814 | 2 | 434900<br>282600 |
| | **Water Abstractions**<br>Operator: Acetate Products Ltd<br>Licence Number: 18/54/11/0148<br>Permit Version: 2<br>Location: Foleshill Road Works, Little Heath - Borehole 1<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Chemicals: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Two Areas At Foleshill Road, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 5th September 2003<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | E | 1814 | 2 | 434900<br>282600 |
| | **Water Abstractions**<br>Operator: Acetate Products Ltd<br>Licence Number: 18/54/11/0148<br>Permit Version: 3<br>Location: Foleshill Road Works, Little Heath - Borehole 1<br>Authority: Environment Agency, Midlands Region<br>Abstraction: Chemicals: Process Water<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Groundwater<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Two Areas At Foleshill Road, Coventry<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 1st July 2004<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | E | 1814 | 2 | 434900<br>282600 |
| | **Groundwater Vulnerability**<br>Geological Classification: Minor Aquifer (Variably permeable) - These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers<br>Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise<br>Map Sheet: Sheet 23 Leicestershire<br>Scale: 1:100,000 | - | 0 | 2 | 433030<br>282330 |
| | **Drift Deposits**<br>Drift Deposit: Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium<br>Map Sheet: Sheet 23 Leicestershire<br>Scale: 1:100,000 | - | 0 | 2 | 433030<br>282330 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Source Protection Zones**<br>Name: Various<br>Source: Environment Agency, Head Office<br>Reference: Not Supplied<br>Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source. | NW | 329 | 2 | 432820 282660 |
| | **Source Protection Zones**<br>Name: Watery Lane<br>Source: Environment Agency, Head Office<br>Reference: Md305<br>Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater. | NW | 459 | 2 | 432790 282790 |
| | **Extreme Flooding from Rivers or Sea without Defences**<br>Description None | - | - | - | - |
| | **Flooding from Rivers or Sea without Defences**<br>Description None | - | - | - | - |
| | **Areas Benefiting from Flood Defences**<br>Description None | - | - | - | - |
| | **Flood Water Storage Areas**<br>Description None | - | - | - | - |
| | **Flood Defences**<br>Description None | - | - | - | - |
| | **River Flood Data (Scotland)**<br>Description None | - | - | - | - |

| Map ID | Details | | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|---|
| | **Local Authority Landfill Coverage** | | | | | |
| | Name: | Coventry City Council<br>- Has supplied landfill data | - | 0 | 3 | 433030<br>282330 |
| | **Registered Landfill Sites** | | | | | |
| 22 | Licence Holder: | Fairclough Civil Engineering Ltd | E | 758 | 2 | 433850<br>282460 |
| | Licence Reference: | SL 900 | | | | |
| | Site Location: | Old Railway Sidings At Three Spires,Lythalls Lane,Coventry,West Midlands | | | | |
| | Licence Easting: | 434100 | | | | |
| | Licence Northing: | 282500 | | | | |
| | Operator Location: | Wartell Bank Ind Estate,KINGSWINFORD,West Midlands,DY6 7BD | | | | |
| | Authority: | Environment Agency - Midlands Region, Lower Severn Area | | | | |
| | Site Category: | Landfill | | | | |
| | Maximum Input Rate: | Very Large (Equal to or greater than 250,000 tonnes per year) | | | | |
| | Waste Source Restrictions: | Waste produced/controlled by licence holder | | | | |
| | Status: | Licence lapsed/cancelled/defunct/not applicable/surrendered | | | | |
| | Dated: | 1st September 1989 | | | | |
| | Preceded By Licence: | Not Given | | | | |
| | Superseded By Licence: | Not Given | | | | |
| | Positional Accuracy: | Manually positioned to the road within the address or location | | | | |
| | Boundary Accuracy: | Not Applicable | | | | |
| | Authorised Waste | Excavation Mat'Ls Ex Adj.Roadworks | | | | |
| | Prohibited Waste | Liquid/Sludge Wastes<br>Poisonous, Noxious, Polluting Wastes | | | | |
| | **Registered Waste Transfer Sites** | | | | | |
| 23 | Licence Holder: | Partco Autoparts Ltd | SE | 963 | 2 | 433780<br>281620 |
| | Licence Reference: | SL 1179 | | | | |
| | Site Location: | Unit 23 Stag Industrial Estate,Lockhurst Lane,COVENTRY,West Midlands,CV6 7SH | | | | |
| | Operator Location: | Lea Francis House,Station Road,Balsall Common,COVENTRY,West Midlands,CV7 7FD | | | | |
| | Authority: | Environment Agency - Midlands Region, Lower Severn Area | | | | |
| | Site Category: | Transfer | | | | |
| | Maximum Input Rate: | Very Small (Less than 10,000 tonnes per year) | | | | |
| | Waste Source Restrictions: | Some restriction on source of waste | | | | |
| | Licence Status: | Site exempt from licence | | | | |
| | Dated: | 1st January 1993 | | | | |
| | Preceded By Licence: | Not Given | | | | |
| | Superseded By Licence: | Not Given | | | | |
| | Positional Accuracy: | Manually positioned to the road within the address or location | | | | |
| | Boundary Quality: | Not Supplied | | | | |
| | Authorised Waste | Max.Storage In Licence<br>Used Paint Solvent (Prev,Supplied) | | | | |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS Boreholes** | | | | |
| 24 | BGS Reference: Sp38sw120<br>Drilled Length (m): 152.7<br>Borehole Name: Dunlop Factory Foleshill Coventry | SE | 164 | 4 | 433210<br>282180 |
| | **BGS Boreholes** | | | | |
| 25 | BGS Reference: Sp38sw101<br>Drilled Length (m): 163.98<br>Borehole Name: Dunlop Rim & Wheel Co 2 | S | 180 | 4 | 433040<br>282130 |
| | **BGS Boreholes** | | | | |
| 26 | BGS Reference: Sp38sw565<br>Drilled Length (m): 1.21<br>Borehole Name: Shops & Maisonettes At Everdon Road | N | 280 | 4 | 432940<br>282640 |
| | **BGS Boreholes** | | | | |
| 27 | BGS Reference: Sp38sw171<br>Drilled Length (m): 2.2<br>Borehole Name: Holbrook Lane/Everdon Road No.2 Coventry | NE | 359 | 4 | 433370<br>282600 |
| | **BGS Boreholes** | | | | |
| 27 | BGS Reference: Sp38sw170<br>Drilled Length (m): 2.1<br>Borehole Name: Holbrook Lane/Everdon Road No.1 Coventry | NE | 382 | 4 | 433400<br>282600 |
| | **BGS Boreholes** | | | | |
| 28 | BGS Reference: Sp38sw190<br>Drilled Length (m): 5.48<br>Borehole Name: Beake Avenue No.5 | W | 400 | 4 | 432580<br>282200 |
| | **BGS Boreholes** | | | | |
| 28 | BGS Reference: Sp38sw189<br>Drilled Length (m): 5.48<br>Borehole Name: Beake Avenue No.4 | W | 432 | 4 | 432560<br>282160 |
| | **BGS Boreholes** | | | | |
| 29 | BGS Reference: Sp38sw1010<br>Drilled Length (m): 6.22<br>Borehole Name: Burnaby Road Sws 1 | SE | 406 | 4 | 433300<br>281950 |
| | **BGS Boreholes** | | | | |
| 30 | BGS Reference: Sp38sw188<br>Drilled Length (m): 5.48<br>Borehole Name: Beake Avenue No.3 | SW | 427 | 4 | 432580<br>282130 |
| | **BGS Boreholes** | | | | |
| 30 | BGS Reference: Sp38sw187<br>Drilled Length (m): 5.48<br>Borehole Name: Beake Avenue No.2 | SW | 464 | 4 | 432560<br>282090 |
| | **BGS Boreholes** | | | | |
| 31 | BGS Reference: Sp38sw186<br>Drilled Length (m): 6.7<br>Borehole Name: Beake Avenue No.1 | SW | 469 | 4 | 432580<br>282050 |
| | **BGS Boreholes** | | | | |
| 32 | BGS Reference: Sp38sw1011<br>Drilled Length (m): 2.65<br>Borehole Name: Burnaby Road Sws 2 | SE | 475 | 4 | 433350<br>281900 |
| | **BGS Boreholes** | | | | |
| 33 | BGS Reference: Sp38sw15<br>Drilled Length (m): 3<br>Borehole Name: Holbrooks Lane Bh57 Coventry | E | 518 | 4 | 433620<br>282250 |
| | **BGS Boreholes** | | | | |
| 34 | BGS Reference: Sp38sw1012<br>Drilled Length (m): 6.24<br>Borehole Name: Burnaby Road Sws 3 | SE | 544 | 4 | 433400<br>281850 |
| | **BGS Boreholes** | | | | |
| 35 | BGS Reference: Sp38sw1013<br>Drilled Length (m): 6.37<br>Borehole Name: Burnaby Road Sws 4 | SE | 604 | 4 | 433500<br>281850 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 36 | **BGS Boreholes**<br>BGS Reference: Sp38sw520<br>Drilled Length (m): 8<br>Borehole Name: Parkville Highway/Glentworth Aveue | NW | 616 | 4 | 432560 282830 |
| 37 | **BGS Boreholes**<br>BGS Reference: Sp38sw354<br>Drilled Length (m): 1.52<br>Borehole Name: Whitmore Park Primary School | W | 659 | 4 | 432300 282360 |
| 38 | **BGS Boreholes**<br>BGS Reference: Sp38sw1014<br>Drilled Length (m): 5.55<br>Borehole Name: Burnaby Road Sws 5 | SE | 674 | 4 | 433550 281800 |
| 39 | **BGS Boreholes**<br>BGS Reference: Sp38sw613<br>Drilled Length (m): 8<br>Borehole Name: Glentworth Avenue Area Ga3 | NW | 685 | 4 | 432470 282840 |
| 40 | **BGS Boreholes**<br>BGS Reference: Sp38sw38<br>Drilled Length (m): 7.62<br>Borehole Name: Coventry Corp Sewerage Bh K12 | N | 689 | 4 | 433120 283050 |
| 41 | **BGS Boreholes**<br>BGS Reference: Sp38sw163<br>Drilled Length (m): 11.9<br>Borehole Name: Industrial Ext.Newport Rd Coventry | E | 695 | 4 | 433800 282300 |
| 42 | **BGS Boreholes**<br>BGS Reference: Sp38sw788<br>Drilled Length (m): Not Supplied<br>Borehole Name: Kingswood Close Bh2 | SE | 697 | 4 | 433740 282020 |
| 42 | **BGS Boreholes**<br>BGS Reference: Sp38sw792<br>Drilled Length (m): Not Supplied<br>Borehole Name: Kingswood Close Tp1 | SE | 711 | 4 | 433760 282030 |
| 42 | **BGS Boreholes**<br>BGS Reference: Sp38sw787<br>Drilled Length (m): Not Supplied<br>Borehole Name: Kingswood Close Bh1 | E | 713 | 4 | 433770 282050 |
| 42 | **BGS Boreholes**<br>BGS Reference: Sp38sw793<br>Drilled Length (m): Not Supplied<br>Borehole Name: Kingswood Close Tp2 | SE | 715 | 4 | 433760 282020 |
| 42 | **BGS Boreholes**<br>BGS Reference: Sp38sw794<br>Drilled Length (m): Not Supplied<br>Borehole Name: Kingswood Close Tp3 | SE | 718 | 4 | 433750 281990 |
| 42 | **BGS Boreholes**<br>BGS Reference: Sp38sw795<br>Drilled Length (m): Not Supplied<br>Borehole Name: Kingswood Close Tp4 | SE | 741 | 4 | 433780 282000 |
| 43 | **BGS Boreholes**<br>BGS Reference: Sp38sw612<br>Drilled Length (m): 5<br>Borehole Name: Glentworth Avenue Area Ga2 | NW | 702 | 4 | 432630 282980 |
| 44 | **BGS Boreholes**<br>BGS Reference: Sp38sw94<br>Drilled Length (m): 5<br>Borehole Name: Foleshill-Holbrooks By-Pass Bh39 Warks | E | 708 | 4 | 433800 282170 |
| 44 | **BGS Boreholes**<br>BGS Reference: Sp38sw387<br>Drilled Length (m): 1.52<br>Borehole Name: Holbrook Lane Primary School No.2 | E | 737 | 4 | 433820 282130 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 45 | **BGS Boreholes**<br>BGS Reference: Sp38sw615<br>Drilled Length (m): 6.1<br>Borehole Name: Glentworth Avenue Area Ga5 | W | 709 | 4 | 432250 282330 |
| 46 | **BGS Boreholes**<br>BGS Reference: Sp38sw424<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate School Extension Nos.1-4 | N | 710 | 4 | 432960 283070 |
| 47 | **BGS Boreholes**<br>BGS Reference: Sp38sw1015<br>Drilled Length (m): 4.56<br>Borehole Name: Burnaby Road Sws 6 | SE | 711 | 4 | 433650 281850 |
| 48 | **BGS Boreholes**<br>BGS Reference: Sp38sw386<br>Drilled Length (m): 1.52<br>Borehole Name: Holbrook Lane Primary School No.1 | E | 725 | 4 | 433800 282100 |
| 48 | **BGS Boreholes**<br>BGS Reference: Sp38sw388<br>Drilled Length (m): 1.52<br>Borehole Name: Holbrook Lane Primary School No.3 | E | 763 | 4 | 433840 282100 |
| 49 | **BGS Boreholes**<br>BGS Reference: Sp38sw378<br>Drilled Length (m): .91<br>Borehole Name: Halford Lane No.11 | W | 733 | 4 | 432260 282580 |
| 49 | **BGS Boreholes**<br>BGS Reference: Sp38sw357<br>Drilled Length (m): 2<br>Borehole Name: Halford Lane Sheltered Flats No.3a | W | 771 | 4 | 432230 282610 |
| 50 | **BGS Boreholes**<br>BGS Reference: Sp38sw389<br>Drilled Length (m): Not Supplied<br>Borehole Name: Holbrook Lane Health Centre No.1-6 | NE | 739 | 4 | 433370 283050 |
| 50 | **BGS Boreholes**<br>BGS Reference: Sp38sw166<br>Drilled Length (m): 2.8<br>Borehole Name: Health Ctr Holbrooks A-F Coventry | NE | 739 | 4 | 433370 283050 |
| 51 | **BGS Boreholes**<br>BGS Reference: Sp38sw397<br>Drilled Length (m): 1.52<br>Borehole Name: Jubilee Crescent Multi-Purpose Bldg No.4 | S | 739 | 4 | 432820 281600 |
| 51 | **BGS Boreholes**<br>BGS Reference: Sp38sw395<br>Drilled Length (m): 1.52<br>Borehole Name: Jubilee Crescent Multi-Purpose Bldg No.2 | S | 776 | 4 | 432830 281560 |
| 51 | **BGS Boreholes**<br>BGS Reference: Sp38sw394<br>Drilled Length (m): 1.21<br>Borehole Name: Jubilee Crescent Multi-Purpose Bldg No.1 | S | 780 | 4 | 432810 281560 |
| 52 | **BGS Boreholes**<br>BGS Reference: Sp38sw522<br>Drilled Length (m): 6.1<br>Borehole Name: Halford Lane/Greens Road Coventry | W | 744 | 4 | 432250 282100 |
| 53 | **BGS Boreholes**<br>BGS Reference: Sp38sw789<br>Drilled Length (m): Not Supplied<br>Borehole Name: Kingswood Close Bh3 | E | 748 | 4 | 433800 282030 |
| 53 | **BGS Boreholes**<br>BGS Reference: Sp38sw790<br>Drilled Length (m): Not Supplied<br>Borehole Name: Kingswood Close Bh3a | E | 748 | 4 | 433800 282030 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS Boreholes** | | | | |
| 54 | BGS Reference: Sp38sw791<br>Drilled Length (m): Not Supplied<br>Borehole Name: Kingswood Close Bh4 | SE | 750 | 4 | 433780 281980 |
| | **BGS Boreholes** | | | | |
| 55 | BGS Reference: Sp38sw1032<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry Tp6 | N | 752 | 4 | 433240 283100 |
| | **BGS Boreholes** | | | | |
| 55 | BGS Reference: Sp38sw1033<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry Tp7 | N | 758 | 4 | 433270 283100 |
| | **BGS Boreholes** | | | | |
| 55 | BGS Reference: Sp38sw1024<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T9 | N | 770 | 4 | 433280 283110 |
| | **BGS Boreholes** | | | | |
| 55 | BGS Reference: Sp38sw1023<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T8 | N | 771 | 4 | 433240 283120 |
| | **BGS Boreholes** | | | | |
| 55 | BGS Reference: Sp38sw1030<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry Tp4 | N | 775 | 4 | 433260 283120 |
| | **BGS Boreholes** | | | | |
| 55 | BGS Reference: Sp38sw1026<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T11 | N | 785 | 4 | 433260 283130 |
| | **BGS Boreholes** | | | | |
| 55 | BGS Reference: Sp38sw1028<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry Tp2 | N | 787 | 4 | 433270 283130 |
| | **BGS Boreholes** | | | | |
| 55 | BGS Reference: Sp38sw1027<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry Tp1 | N | 791 | 4 | 433240 283140 |
| | **BGS Boreholes** | | | | |
| 56 | BGS Reference: Sp38sw364<br>Drilled Length (m): .91<br>Borehole Name: Cottage Farm Road Sheltered Flats No.7 | W | 759 | 4 | 432210 282480 |
| | **BGS Boreholes** | | | | |
| 56 | BGS Reference: Sp38sw363<br>Drilled Length (m): 3<br>Borehole Name: Cottage Farm Road Sheltered Flats No.6 | W | 762 | 4 | 432210 282500 |
| | **BGS Boreholes** | | | | |
| 57 | BGS Reference: Sp38sw359<br>Drilled Length (m): 2<br>Borehole Name: Cottage Farm Road Sheltered Flats No.2 | W | 762 | 4 | 432200 282420 |
| | **BGS Boreholes** | | | | |
| 57 | BGS Reference: Sp38sw365<br>Drilled Length (m): 3<br>Borehole Name: Cottage Farm Road Sheltered Flats No.8 | W | 803 | 4 | 432160 282440 |
| | **BGS Boreholes** | | | | |
| 58 | BGS Reference: Sp38sw1025<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T10 | N | 768 | 4 | 433310 283100 |
| | **BGS Boreholes** | | | | |
| 58 | BGS Reference: Sp38sw1031<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry Tp5 | N | 775 | 4 | 433300 283110 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS Boreholes** | | | | |
| 58 | BGS Reference: Sp38sw1029<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry Tp3 | N | 792 | 4 | 433290<br>283130 |
| | **BGS Boreholes** | | | | |
| 58 | BGS Reference: Sp38sw1022<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T7 | N | 799 | 4 | 433280<br>283140 |
| | **BGS Boreholes** | | | | |
| 59 | BGS Reference: Sp38sw396<br>Drilled Length (m): 1.52<br>Borehole Name: Jubilee Crescent Multi-Purpose Bldg No.3 | S | 772 | 4 | 432860<br>281560 |
| | **BGS Boreholes** | | | | |
| 60 | BGS Reference: Sp38sw373<br>Drilled Length (m): 1.21<br>Borehole Name: Halford Lane No.6 | W | 772 | 4 | 432240<br>282640 |
| | **BGS Boreholes** | | | | |
| 60 | BGS Reference: Sp38sw356<br>Drilled Length (m): 1<br>Borehole Name: Halford Lane Sheltered Flats No.2a | W | 785 | 4 | 432230<br>282650 |
| | **BGS Boreholes** | | | | |
| 60 | BGS Reference: Sp38sw355<br>Drilled Length (m): 1<br>Borehole Name: Halford Lane Sheltered Flats No.1a | NW | 787 | 4 | 432240<br>282680 |
| | **BGS Boreholes** | | | | |
| 61 | BGS Reference: Sp38sw370<br>Drilled Length (m): 1.21<br>Borehole Name: Halford Lane No.3 | NW | 777 | 4 | 432260<br>282700 |
| | **BGS Boreholes** | | | | |
| 62 | BGS Reference: Sp38sw358<br>Drilled Length (m): 2<br>Borehole Name: Cottage Farm Road Sheltered Flats No.1 | W | 778 | 4 | 432210<br>282570 |
| | **BGS Boreholes** | | | | |
| 62 | BGS Reference: Sp38sw362<br>Drilled Length (m): 2<br>Borehole Name: Cottage Farm Road Sheltered Flats No.5 | W | 788 | 4 | 432190<br>282530 |
| | **BGS Boreholes** | | | | |
| 62 | BGS Reference: Sp38sw377<br>Drilled Length (m): 1.52<br>Borehole Name: Halford Lane No.10 | W | 800 | 4 | 432190<br>282580 |
| | **BGS Boreholes** | | | | |
| 63 | BGS Reference: Sp38sw93<br>Drilled Length (m): 9<br>Borehole Name: Foleshill-Holbrooks By-Pass Bh38 Warks | E | 785 | 4 | 433890<br>282300 |
| | **BGS Boreholes** | | | | |
| 64 | BGS Reference: Sp38sw423<br>Drilled Length (m): 1.52<br>Borehole Name: Parkgate Primary School | N | 789 | 4 | 433030<br>283150 |
| | **BGS Boreholes** | | | | |
| 65 | BGS Reference: Sp38sw128<br>Drilled Length (m): 76.8<br>Borehole Name: Moat House Keresley Coventry | W | 799 | 4 | 432160<br>282350 |
| | **BGS Boreholes** | | | | |
| 66 | BGS Reference: Sp38sw1021<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T6 | N | 811 | 4 | 433240<br>283160 |
| | **BGS Boreholes** | | | | |
| 66 | BGS Reference: Sp38sw1020<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T5 | N | 814 | 4 | 433260<br>283160 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS Boreholes** | | | | |
| 66 | BGS Reference: Sp38sw1019<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T4 | N | 819 | 4 | 433280 283160 |
| | **BGS Boreholes** | | | | |
| 66 | BGS Reference: Sp38sw1018<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T3 | N | 824 | 4 | 433260 283170 |
| | **BGS Boreholes** | | | | |
| 66 | BGS Reference: Sp38sw1016<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T1 | N | 834 | 4 | 433260 283180 |
| | **BGS Boreholes** | | | | |
| 66 | BGS Reference: Sp38sw1017<br>Drilled Length (m): Not Supplied<br>Borehole Name: Parkgate Road Coventry T2 | N | 836 | 4 | 433270 283180 |
| | **BGS Boreholes** | | | | |
| 67 | BGS Reference: Sp38sw375<br>Drilled Length (m): 1.21<br>Borehole Name: Halford Lane No.8 | W | 821 | 4 | 432180 282620 |
| | **BGS Boreholes** | | | | |
| 67 | BGS Reference: Sp38sw372<br>Drilled Length (m): 1.52<br>Borehole Name: Halford Lane No.5 | W | 835 | 4 | 432180 282660 |
| | **BGS Boreholes** | | | | |
| 68 | BGS Reference: Sp38sw398<br>Drilled Length (m): Not Supplied<br>Borehole Name: Beake Avenue/Links Road Nos.1-2 | SW | 826 | 4 | 432650 281560 |
| | **BGS Boreholes** | | | | |
| 69 | BGS Reference: Sp38sw521<br>Drilled Length (m): 7<br>Borehole Name: Halford Lane Coventry | NW | 837 | 4 | 432280 282850 |
| | **BGS Boreholes** | | | | |
| 69 | BGS Reference: Sp38sw614<br>Drilled Length (m): 7<br>Borehole Name: Glentworth Avenue Area Ga4 | NW | 840 | 4 | 432270 282840 |
| | **BGS Boreholes** | | | | |
| 70 | BGS Reference: Sp38sw369<br>Drilled Length (m): 1.52<br>Borehole Name: Halford Lane No.2 | NW | 840 | 4 | 432200 282720 |
| | **BGS Boreholes** | | | | |
| 71 | BGS Reference: Sp38sw366<br>Drilled Length (m): .91<br>Borehole Name: Cottage Farm Road Sheltered Flats No.9 | W | 842 | 4 | 432120 282430 |
| | **BGS Boreholes** | | | | |
| 71 | BGS Reference: Sp38sw367<br>Drilled Length (m): 3<br>Borehole Name: Cottage Farm Road Sheltered Flats No.10 | W | 884 | 4 | 432080 282450 |
| | **BGS Boreholes** | | | | |
| 72 | BGS Reference: Sp38sw265<br>Drilled Length (m): 3.35<br>Borehole Name: Church Of The Holy Family Holbrooks No.1 | NW | 844 | 4 | 432690 283160 |
| | **BGS Boreholes** | | | | |
| 72 | BGS Reference: Sp38sw266<br>Drilled Length (m): 3.35<br>Borehole Name: Church Of The Holy Family Holbrooks No.2 | NW | 847 | 4 | 432680 283160 |
| | **BGS Boreholes** | | | | |
| 72 | BGS Reference: Sp38sw267<br>Drilled Length (m): 6.09<br>Borehole Name: Church Of The Holy Family Holbrooks No.3 | N | 853 | 4 | 432690 283170 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| 72 | **BGS Boreholes**<br>BGS Reference: Sp38sw268<br>Drilled Length (m): 3.65<br>Borehole Name: Church Of The Holy Family Holbrooks No.4 | N | 872 | 4 | 432690 283190 |
| 73 | **BGS Boreholes**<br>BGS Reference: Sp38sw434<br>Drilled Length (m): 1.52<br>Borehole Name: Bruce Road/Links Road No.2 | SW | 853 | 4 | 432480 281620 |
| 73 | **BGS Boreholes**<br>BGS Reference: Sp38sw433<br>Drilled Length (m): 1.21<br>Borehole Name: Bruce Road/Links Road No.1 | SW | 859 | 4 | 432470 281620 |
| 74 | **BGS Boreholes**<br>BGS Reference: Sp38sw92<br>Drilled Length (m): 10<br>Borehole Name: Foleshill-Holbrooks By-Pass Bh37 Warks | E | 854 | 4 | 433950 282460 |
| 4 | **BGS Boreholes**<br>BGS Reference: Sp38sw928<br>Drilled Length (m): 3<br>Borehole Name: Land At Lythalls Lane Coventry | E | 861 | 4 | 433950 282510 |
| 74 | **BGS Boreholes**<br>BGS Reference: Sp38sw927<br>Drilled Length (m): 3<br>Borehole Name: Land At Lythalls Lane Coventry | E | 866 | 4 | 433960 282480 |
| 75 | **BGS Boreholes**<br>BGS Reference: Sp38sw376<br>Drilled Length (m): 1.21<br>Borehole Name: Halford Lane No.9 | W | 868 | 4 | 432120 282580 |
| 76 | **BGS Boreholes**<br>BGS Reference: Sp38sw374<br>Drilled Length (m): 1.21<br>Borehole Name: Halford Lane No.7 | W | 875 | 4 | 432130 282640 |
| 76 | **BGS Boreholes**<br>BGS Reference: Sp38sw371<br>Drilled Length (m): 1.21<br>Borehole Name: Halford Lane No.4 | W | 889 | 4 | 432130 282680 |
| 77 | **BGS Boreholes**<br>BGS Reference: Sp38sw929<br>Drilled Length (m): 3.3<br>Borehole Name: Land At Lythalls Lane Coventry | E | 877 | 4 | 433960 282540 |
| 77 | **BGS Boreholes**<br>BGS Reference: Sp38sw930<br>Drilled Length (m): 3.5<br>Borehole Name: Land At Lythalls Lane Coventry | E | 892 | 4 | 433980 282520 |
| 77 | **BGS Boreholes**<br>BGS Reference: Sp38sw931<br>Drilled Length (m): 3.4<br>Borehole Name: Land At Lythalls Lane Coventry | E | 908 | 4 | 433990 282550 |
| 78 | **BGS Boreholes**<br>BGS Reference: Sp38sw368<br>Drilled Length (m): 1.21<br>Borehole Name: Halford Lane No.1 | NW | 899 | 4 | 432140 282730 |
| 79 | **BGS Boreholes**<br>BGS Reference: Sp38sw426<br>Drilled Length (m): 1<br>Borehole Name: Sidney Stringer S.C.S. No.1 | SE | 938 | 4 | 433440 281430 |
| 79 | **BGS Boreholes**<br>BGS Reference: Sp38sw428<br>Drilled Length (m): 2<br>Borehole Name: Sidney Stringer S.C.S. No.3 | SE | 974 | 4 | 433460 281400 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **BGS Boreholes** | | | | |
| 80 | BGS Reference: Sp38sw125<br>Drilled Length (m): Not Supplied<br>Borehole Name: Courtaulds Ltd Little Heath Coventry | SE | 943 | 4 | 433900<br>281800 |
| | **BGS Boreholes** | | | | |
| 81 | BGS Reference: Sp38sw360<br>Drilled Length (m): 2<br>Borehole Name: Cottage Farm Road Sheltered Flats No.3 | W | 944 | 4 | 432020<br>282450 |
| | **BGS Boreholes** | | | | |
| 82 | BGS Reference: Sp38sw91<br>Drilled Length (m): 13<br>Borehole Name: Foleshill-Holbrooks By-Pass Bh34 Warks | E | 954 | 4 | 434050<br>282470 |
| | **BGS Boreholes** | | | | |
| 83 | BGS Reference: Sp38sw361<br>Drilled Length (m): 2<br>Borehole Name: Cottage Farm Road Sheltered Flats No.4 | W | 972 | 4 | 432010<br>282570 |
| | **BGS Boreholes** | | | | |
| 84 | BGS Reference: Sp38sw427<br>Drilled Length (m): 2<br>Borehole Name: Sidney Stringer S.C.S. No.2 | SE | 976 | 4 | 433490<br>281410 |
| | **BGS Boreholes** | | | | |
| 85 | BGS Reference: Sp38sw16<br>Drilled Length (m): 5<br>Borehole Name: Lockhurst Lane Bh56 Coventry | SE | 991 | 4 | 433800<br>281600 |
| | **BGS Boreholes** | | | | |
| 86 | BGS Reference: Sp38sw687<br>Drilled Length (m): 2<br>Borehole Name: Queen Marys Rd.Edgwick Coventry Tp1 | SE | 1000 | 4 | 433900<br>281700 |
| | **BGS 1:625,000 Solid Geology** | | | | |
| | Description: Westphalian and Stephanian, undivided, of Barren Red lithology | - | 0 | 4 | 433030<br>282330 |
| | **Coal Mining Affected Areas** | | | | |
| | Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report. | - | 0 | 5 | 433030<br>282330 |
| | **Shallow Mining Hazards** | | | | |
| | Description No Hazard | - | - | - | - |
| | **Compressible Ground Subsidence Hazards** | | | | |
| | Description No Hazard | - | - | - | - |
| | **Ground Dissolution Subsidence Hazards** | | | | |
| | Description No Hazard | - | - | - | - |
| | **Gulls And Cambering Subsidence Hazards** | | | | |
| | Description No Hazard | - | - | - | - |
| | **Landslip Subsidence Hazards** | | | | |
| | Risk: Low<br>Source: British Geological Survey, National Geoscience Information Service | - | 0 | 4 | 433030<br>282330 |
| | **Swelling Clay Subsidence Hazards** | | | | |
| | Description No Hazard | - | - | - | - |
| | **Mining Instability** | | | | |
| | Mining Evidence: Inconclusive Coal Mining<br>Source: Ove Arup & Partners<br>Boundary Quality: As Supplied | - | 0 | - | 433030<br>282330 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| **Radon Affected Areas** | | | | | |
| Description: | Less than 1% of homes are above the Action Level | W | 0 | 6 | 433000 282330 |
| Source: | Health Protection Agency | | | | |
| **Radon Affected Areas** | | | | | |
| Description: | Less than 1% of homes are above the Action Level | - | 0 | 6 | 433030 282330 |
| Source: | Health Protection Agency | | | | |
| **Radon Protection Measures** | | | | | |
| Type: | No radon protective measures are necessary | - | 0 | 4 | 433030 282330 |
| Source: | British Geological Survey, National Geoscience Information Service | | | | |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
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| | **Contemporary Trade Directory Entries** | | | | |
| 87 | Name: Dunlop Equipment<br>Location: Unit P3,Holbrook Lane,Coventry,West Midlands,CV6 4QY<br>Classification: Aviation Engineers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 307 | - | 433390 282200 |
| | **Contemporary Trade Directory Entries** | | | | |
| 88 | Name: Sps Technologies Ltd<br>Location: Burnaby Rd,Coventry,West Midlands,CV6 4AE<br>Classification: Fasteners & Fixing Devices<br>Status: Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location | S | 331 | - | 433160 281980 |
| | **Contemporary Trade Directory Entries** | | | | |
| 89 | Name: Superior Systems<br>Location: 39,Deerhurst Road,Coventry,West Midlands,CV6 4EJ<br>Classification: Automation Systems & Equipment<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NW | 355 | - | 432800 282680 |
| | **Contemporary Trade Directory Entries** | | | | |
| 90 | Name: J & S Professional Cleaning Service<br>Location: 17,Foxglove Close,Coventry,West Midlands,CV6 4DX<br>Classification: Commercial Cleaning Services<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 456 | - | 433250 282790 |
| | **Contemporary Trade Directory Entries** | | | | |
| 91 | Name: J P Cleaning Services<br>Location: 290,Telfer Road,Coventry,CV6 3DR<br>Classification: Cleaning Services - Commercial<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | S | 465 | - | 432890 281870 |
| | **Contemporary Trade Directory Entries** | | | | |
| 92 | Name: Clean N Fresh<br>Location: 89,Guardhouse Road,Coventry,West Midlands,CV6 3DU<br>Classification: Carpet, Curtain & Upholstery Cleaners<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SW | 481 | - | 432750 281890 |
| | **Contemporary Trade Directory Entries** | | | | |
| 93 | Name: Trans Autos<br>Location: 210,Holbrook Lane,Coventry,CV6 4DD<br>Classification: Car Breakdown & Recovery Services<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | NE | 488 | - | 433530 282600 |
| | **Contemporary Trade Directory Entries** | | | | |
| 94 | Name: T J<br>Location: 164,Holbrook Lane,Coventry,CV6 4BY<br>Classification: Catering Equipment<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | E | 522 | - | 433630 282340 |
| | **Contemporary Trade Directory Entries** | | | | |
| 94 | Name: Autohaus Performance & Styling Ltd<br>Location: 164,Holbrook Lane,Coventry,West Midlands,CV6 4BY<br>Classification: Garage Services<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 522 | - | 433630 282340 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
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| | **Contemporary Trade Directory Entries** | | | | |
| 94 | Name: R S Motor Engineers<br>Location: 8,Jackson Road,COVENTRY,CV6 4BT<br>Classification: Garage Services<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 527 | - | 433630<br>282310 |
| | **Contemporary Trade Directory Entries** | | | | |
| 94 | Name: C P S<br>Location: 8,Jackson Road,Coventry,CV6 4BT<br>Classification: Garage Services<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | E | 527 | - | 433630<br>282310 |
| | **Contemporary Trade Directory Entries** | | | | |
| 95 | Name: Comfort Car Sales<br>Location: 232,Holbrook Lane,Coventry,West Midlands,CV6 4DD<br>Classification: Car Dealers - Used<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 523 | - | 433520<br>282680 |
| | **Contemporary Trade Directory Entries** | | | | |
| 96 | Name: Grime To A Shine<br>Location: 42,Burnaby Road,Coventry,CV6 4BB<br>Classification: Cleaning Services - Domestic<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | SE | 529 | - | 433530<br>281990 |
| | **Contemporary Trade Directory Entries** | | | | |
| 96 | Name: Lawrence Carpet & Upholstery Cleaning Services<br>Location: 38,Burnaby Road,Coventry,CV6 4BB<br>Classification: Carpet, Curtain & Upholstery Cleaners<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | SE | 539 | - | 433540<br>281990 |
| | **Contemporary Trade Directory Entries** | | | | |
| 97 | Name: A1 Domestics Ltd<br>Location: 225,Holbrook Lane,Coventry,CV6 4DE<br>Classification: Domestic Appliances - Servicing, Repairs & Parts<br>Status: Active<br>Positional Accuracy: Automatically positioned in the proximity of the address | NE | 529 | - | 433450<br>282760 |
| | **Contemporary Trade Directory Entries** | | | | |
| 98 | Name: S A S C O<br>Location: 50,Rotherham Road,Coventry,CV6 4FE<br>Classification: Electronic Engineers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | N | 540 | - | 433230<br>282890 |
| | **Contemporary Trade Directory Entries** | | | | |
| 99 | Name: Coventry Engineering<br>Location: 126,Holbrook Lane,Coventry,CV6 4BN<br>Classification: Engineers - General<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | E | 555 | - | 433650<br>282210 |
| | **Contemporary Trade Directory Entries** | | | | |
| 100 | Name: J Kendall<br>Location: 262,Holbrook Lane,Coventry,CV6 4DD<br>Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 569 | - | 433500<br>282770 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
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| | **Contemporary Trade Directory Entries** | | | | |
| 100 | Name: Trelleborg Automotive (Uk) Ltd<br>Location: Holbrook La,Coventry,West Midlands,CV6 4QX<br>Classification: Car Component Manufacturers<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | NE | 581 | - | 433470 282810 |
| | **Contemporary Trade Directory Entries** | | | | |
| 101 | Name: Coventry Vehicle Centre Ltd<br>Location: Jackson Rd,Coventry,West Midlands,CV6 4BT<br>Classification: Garage Services<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 573 | - | 433680 282330 |
| | **Contemporary Trade Directory Entries** | | | | |
| 101 | Name: G P Pallets<br>Location: 5 Jackson Rd,Holbrooks,Coventry,West Midlands,CV6 4BT<br>Classification: Pallets, Crates & Packing Cases<br>Status: Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 574 | - | 433680 282330 |
| | **Contemporary Trade Directory Entries** | | | | |
| 101 | Name: P G & A R Engineering<br>Location: Unit 5 Jackson Ct,Jackson Rd,Holbrooks,Coventry,West Midlands,CV6 4BT<br>Classification: Precision Engineers<br>Status: Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 587 | - | 433690 282340 |
| | **Contemporary Trade Directory Entries** | | | | |
| 101 | Name: Peter Scott Diamonds & Abrasives Ltd<br>Location: Jackson Rd,Coventry,West Midlands,CV6 4BT<br>Classification: Diamond Tool Manufacturers<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 592 | - | 433700 282340 |
| | **Contemporary Trade Directory Entries** | | | | |
| 101 | Name: Scott Peter<br>Location: Jackson Rd,Coventry,West Midlands,CV6 2BT<br>Classification: Diamond Tool Manufacturers<br>Status: Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 593 | - | 433700 282340 |
| | **Contemporary Trade Directory Entries** | | | | |
| 102 | Name: Focus Plumbing & Heating Ltd<br>Location: 53,Chesholme Road,Coventry,West Midlands,CV6 4FQ<br>Classification: Boilers - Servicing, Replacements & Repairs<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | N | 595 | - | 432810 282940 |
| | **Contemporary Trade Directory Entries** | | | | |
| 103 | Name: Nord Power Ltd<br>Location: Jackson Rd,Coventry,West Midlands,CV6 4BT<br>Classification: Car Breakers & Dismantlers<br>Status: Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location | E | 602 | - | 433710 282340 |
| | **Contemporary Trade Directory Entries** | | | | |
| 103 | Name: Expert Uk Ltd<br>Location: Unit 2,Newport Road,Coventry,CV6 4BQ<br>Classification: Automation Systems & Equipment<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | E | 625 | - | 433730 282380 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
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| | **Contemporary Trade Directory Entries** | | | | |
| 103 | Name: Abaca<br>Location: Unit 2,Jackson Road,Coventry,West Midlands,CV6 4BT<br>Classification: Engineers - General<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 625 | - | 433730 282380 |
| | **Contemporary Trade Directory Entries** | | | | |
| 103 | Name: Stp Windows Ltd<br>Location: Unit 1,Newport Road,Holbrooks,Coventry,CV6 4BQ<br>Classification: Window Frames - Sales & Service<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | E | 625 | - | 433730 282380 |
| | **Contemporary Trade Directory Entries** | | | | |
| 103 | Name: D & M Engineering<br>Location: Unit 2,Newport Road,Coventry,CV6 4BQ<br>Classification: Engineers - General<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | E | 625 | - | 433730 282380 |
| | **Contemporary Trade Directory Entries** | | | | |
| 103 | Name: Autohaus Werkshoppe Ltd<br>Location: Unit 2,Newport Road,Holbrooks,Coventry,West Midlands,CV6 4BQ<br>Classification: Garage Services<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 625 | - | 433730 282380 |
| | **Contemporary Trade Directory Entries** | | | | |
| 104 | Name: Arctic Refrigeration<br>Location: 344,Grangemouth Road,Coventry,CV6 3FL<br>Classification: Refrigerators & Freezers - Servicing & Repairs<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | S | 604 | - | 433040 281700 |
| | **Contemporary Trade Directory Entries** | | | | |
| 105 | Name: Exhausts Unlimited<br>Location: 9-12,College Road,Coventry,CV6 4BH<br>Classification: Exhaust & Shock Absorber Centres<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | E | 632 | - | 433720 282180 |
| | **Contemporary Trade Directory Entries** | | | | |
| 105 | Name: Coventry Car & Commercial Ltd<br>Location: 1-8,College Road,Coventry,CV6 4BH<br>Classification: Car Dealers<br>Status: Inactive<br>Positional Accuracy: Automatically positioned in the proximity of the address | E | 637 | - | 433730 282210 |
| | **Contemporary Trade Directory Entries** | | | | |
| 106 | Name: George Burdekin Ltd<br>Location: Bridge House,9-13,Holbrook Lane,Coventry,CV6 4AD<br>Classification: Engineers - General<br>Status: Inactive<br>Positional Accuracy: Automatically positioned in the proximity of the address | SE | 652 | - | 433660 281960 |
| | **Contemporary Trade Directory Entries** | | | | |
| 107 | Name: Paul Newman Domestics<br>Location: 41,Glentworth Avenue,Coventry,West Midlands,CV6 2HU<br>Classification: Washing Machines - Servicing & Repairs<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NW | 654 | - | 432540 282860 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Contemporary Trade Directory Entries** | | | | |
| 107 | Name: Europart Coventry<br>Location: 41,Glentworth Avenue,Coventry,CV6 2HU<br>Classification: Domestic Appliances - Servicing, Repairs & Parts<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NW | 654 | - | 432540 282860 |
| | **Contemporary Trade Directory Entries** | | | | |
| 108 | Name: A To Z<br>Location: 274,Holbrook Lane,Coventry,West Midlands,CV6 4DH<br>Classification: Car Body Repairs<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 666 | - | 433470 282910 |
| | **Contemporary Trade Directory Entries** | | | | |
| 109 | Name: Engine Management Diagnostics<br>Location: 16,Headington Avenue,Coventry,CV6 2GY<br>Classification: Car Engine Tuning & Diagnostic Services<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | NW | 668 | - | 432370 282680 |
| | **Contemporary Trade Directory Entries** | | | | |
| 110 | Name: Plumbase Coventry<br>Location: Unit 7b,Kingswood Cl,Coventry,West Midlands,CV6 4AZ<br>Classification: Central Heating Supplies & Equipment<br>Status: Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 678 | - | 433720 282020 |
| | **Contemporary Trade Directory Entries** | | | | |
| 111 | Name: Aquarius Manufacturing Co<br>Location: 289,Holbrook Lane,Coventry,CV6 4DF<br>Classification: Blinds, Awnings & Canopies<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | NE | 684 | - | 433420 282970 |
| | **Contemporary Trade Directory Entries** | | | | |
| 112 | Name: Model Display Cases<br>Location: 111,Blackwatch Road,Coventry,CV6 3GU<br>Classification: Cabinet Makers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 687 | - | 433370 281670 |
| | **Contemporary Trade Directory Entries** | | | | |
| 113 | Name: Craftsman Garage<br>Location: 497,Beake Avenue,Coventry,CV6 2HT<br>Classification: Garage Services<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NW | 696 | - | 432590 282950 |
| | **Contemporary Trade Directory Entries** | | | | |
| 113 | Name: Craftsman Service Station<br>Location: 497,Beake Avenue,Coventry,CV6 2HT<br>Classification: Petrol Filling Stations<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NW | 696 | - | 432590 282950 |
| | **Contemporary Trade Directory Entries** | | | | |
| 114 | Name: Jubilee Crescent Dry Cleaners<br>Location: 34,Jubilee Crescent,Coventry,CV6 3ET<br>Classification: Dry Cleaners<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | S | 703 | - | 432970 281610 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Contemporary Trade Directory Entries** | | | | |
| 114 | Name: Petrol Express<br>Location: Jubilee Cres,Coventry,West Midlands,CV6 3EX<br>Classification: Petrol Filling Stations<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | S | 708 | - | 432940 281610 |
| | **Contemporary Trade Directory Entries** | | | | |
| 115 | Name: A G Gears Of Coventry<br>Location: Phoenix House,Holbrook Lane,Coventry,CV6 4AD<br>Classification: Gear Cutters<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 725 | - | 433650 281820 |
| | **Contemporary Trade Directory Entries** | | | | |
| 115 | Name: Pailton Engineering Ltd<br>Location: Phoenix House,Holbrook Lane,Coventry,CV6 4AD<br>Classification: Precision Engineers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 725 | - | 433650 281820 |
| | **Contemporary Trade Directory Entries** | | | | |
| 115 | Name: Federal Mogul Sintered Products Ltd<br>Location: Holbrook Lane,Coventry,West Midlands,CV6 4BG<br>Classification: Engineers - General<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 725 | - | 433650 281820 |
| | **Contemporary Trade Directory Entries** | | | | |
| 116 | Name: A S Motor Trade Centre<br>Location: 38-42,Holbrook Lane,Coventry,CV6 4AB<br>Classification: Car Dealers - Used<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 732 | - | 433740 281940 |
| | **Contemporary Trade Directory Entries** | | | | |
| 116 | Name: Holbrook Motor Services<br>Location: 38-42,Holbrook Lane,Coventry,CV6 4AB<br>Classification: Garage Services<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | SE | 732 | - | 433740 281940 |
| | **Contemporary Trade Directory Entries** | | | | |
| 116 | Name: Holbrook Accident Repairs<br>Location: 38-42,Holbrook Lane,Coventry,CV6 4AB<br>Classification: Car Body Repairs<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 732 | - | 433740 281940 |
| | **Contemporary Trade Directory Entries** | | | | |
| 116 | Name: Graylands Ltd<br>Location: 38-42,Holbrook Lane,Coventry,CV6 4AB<br>Classification: Car Dealers - Used<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 732 | - | 433740 281940 |
| | **Contemporary Trade Directory Entries** | | | | |
| 116 | Name: Holbrook Motor Services<br>Location: 38-42,Holbrook Lane,Coventry,CV6 4AB<br>Classification: Mot Testing Centres<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 732 | - | 433740 281940 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Contemporary Trade Directory Entries** | | | | |
| 116 | Name: Midland Reprographics Systems Ltd<br>Location: Unit 7,Holbrook Industrial Estate,Holbrook Lane,Coventry,West Midlands,CV6 4AB<br>Classification: Photocopiers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 740 | - | 433740 281930 |
| | **Contemporary Trade Directory Entries** | | | | |
| 117 | Name: Guest Trucks<br>Location: Kingswood Close,Coventry,West Midlands,CV6 4BJ<br>Classification: Commercial Vehicle Dealers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 733 | - | 433810 282110 |
| | **Contemporary Trade Directory Entries** | | | | |
| 118 | Name: Exel Safeway<br>Location: West Av,Coventry,West Midlands,CV6 4QA<br>Classification: Distribution Services<br>Status: Active<br>Positional Accuracy: Manually positioned within the geographical locality | NE | 745 | - | 433340 283070 |
| | **Contemporary Trade Directory Entries** | | | | |
| 119 | Name: D S Industrial Coventry Ltd<br>Location: 22,Holbrook Lane,Coventry,CV6 4AB<br>Classification: Asbestos Products & Removal<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | SE | 758 | - | 433730 281870 |
| | **Contemporary Trade Directory Entries** | | | | |
| 119 | Name: A & S Domestics<br>Location: 10,Holbrook Lane,Coventry,West Midlands,CV6 4AB<br>Classification: Washing Machines - Servicing & Repairs<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 783 | - | 433740 281840 |
| | **Contemporary Trade Directory Entries** | | | | |
| 119 | Name: A I C<br>Location: 8,Holbrook Lane,Coventry,West Midlands,CV6 4AB<br>Classification: Wrought Ironwork<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 786 | - | 433740 281840 |
| | **Contemporary Trade Directory Entries** | | | | |
| 120 | Name: Orman Engineering<br>Location: Unit 1,Kingswood Close,Coventry,CV6 4AZ<br>Classification: Precision Engineers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 758 | - | 433810 282030 |
| | **Contemporary Trade Directory Entries** | | | | |
| 121 | Name: Dale'S<br>Location: 315,Holbrook Lane,Coventry,CV6 4DG<br>Classification: Hardware<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | NE | 772 | - | 433400 283070 |
| | **Contemporary Trade Directory Entries** | | | | |
| 121 | Name: V O R Airbreaking Ltd<br>Location: 341,Holbrook Lane,Coventry,CV6 4DG<br>Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | NE | 800 | - | 433400 283100 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Contemporary Trade Directory Entries** | | | | |
| 121 | Name: Rate Engineering<br>Location: 341,Holbrook Lane,Coventry,CV6 4DG<br>Classification: Engineers - General<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 800 | - | 433400 283100 |
| | **Contemporary Trade Directory Entries** | | | | |
| 121 | Name: Cv Airbrakes Ltd<br>Location: 341,Holbrook Lane,Coventry,West Midlands,CV6 4DG<br>Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 800 | - | 433400 283100 |
| | **Contemporary Trade Directory Entries** | | | | |
| 122 | Name: Darwin Motors<br>Location: 318,Holbrook Lane,Coventry,CV6 4DJ<br>Classification: Car Dealers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 795 | - | 433460 283070 |
| | **Contemporary Trade Directory Entries** | | | | |
| 123 | Name: Max Spielmann<br>Location: 92-94,Jubilee Crescent,Coventry,West Midlands,CV6 3ES<br>Classification: Photographic Processors<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | S | 809 | - | 432970 281500 |
| | **Contemporary Trade Directory Entries** | | | | |
| 124 | Name: George Burdekin Ltd<br>Location: 9-11 Holbrook Lane,Coventry,West Midlands,CV6 4AD<br>Classification: Engineers - General<br>Status: Active<br>Positional Accuracy: Manually positioned to the address or location | SE | 810 | - | 433690 281750 |
| | **Contemporary Trade Directory Entries** | | | | |
| 124 | Name: A1 Turning<br>Location: 7,Holbrook Lane,Coventry,CV6 4AD<br>Classification: Nuts, Bolts & Fixings<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 822 | - | 433710 281750 |
| | **Contemporary Trade Directory Entries** | | | | |
| 124 | Name: Dunlop Aerospace<br>Location: Holbrook La,Coventry,West Midlands,CV6 4AA<br>Classification: Aviation Engineers<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 829 | - | 433720 281750 |
| | **Contemporary Trade Directory Entries** | | | | |
| 124 | Name: Magnetto Topy Wheels (Uk) Ltd<br>Location: Holbrook La,Coventry,West Midlands,CV6 4QZ<br>Classification: Wheel Manufacturers<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 829 | - | 433720 281750 |
| | **Contemporary Trade Directory Entries** | | | | |
| 125 | Name: Trevor Watkins<br>Location: 63,Owenford Road,Coventry,CV6 3FQ<br>Classification: Washing Machines - Servicing & Repairs<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | S | 817 | - | 433190 281490 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Contemporary Trade Directory Entries** | | | | |
| 126 | Name: Mann Egerton<br>Location: 99,Parkgate Road,Coventry,CV6 4GB<br>Classification: Car Dealers<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | N | 820 | - | 433090 283180 |
| | **Contemporary Trade Directory Entries** | | | | |
| 127 | Name: Vision Clean<br>Location: 8,Cottage Farm Road,Coventry,CV6 2FX<br>Classification: Cleaning Services - Commercial<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | W | 825 | - | 432190 282650 |
| | **Contemporary Trade Directory Entries** | | | | |
| 128 | Name: W G Goddard & Sons Ltd<br>Location: Durbar Av,Coventry,West Midlands,CV6 5LU<br>Classification: Road Haulage Services<br>Status: Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 847 | - | 433830 281880 |
| | **Contemporary Trade Directory Entries** | | | | |
| 128 | Name: Raymech<br>Location: Unit 3 Durbar Av,Coventry,West Midlands,CV6 5LZ<br>Classification: Sheet Metal Work<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 849 | - | 433830 281860 |
| | **Contemporary Trade Directory Entries** | | | | |
| 129 | Name: Mr Fast'Ner<br>Location: 351-357,Holbrook Lane,Coventry,CV6 4DG<br>Classification: Nuts, Bolts & Fixings<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 856 | - | 433400 283160 |
| | **Contemporary Trade Directory Entries** | | | | |
| 129 | Name: Avalon<br>Location: 318,Holbrook Lane,Coventry,CV6 4DJ<br>Classification: Car Dealers<br>Status: Inactive<br>Positional Accuracy: Automatically positioned in the proximity of the address | NE | 883 | - | 433450 283170 |
| | **Contemporary Trade Directory Entries** | | | | |
| 129 | Name: Holbrook Car Centre<br>Location: 318,Holbrook Lane,Coventry,CV6 4DJ<br>Classification: Car Dealers<br>Status: Inactive<br>Positional Accuracy: Automatically positioned in the proximity of the address | NE | 883 | - | 433450 283170 |
| | **Contemporary Trade Directory Entries** | | | | |
| 130 | Name: Sovereign<br>Location: Durbar Av,Coventry,West Midlands,CV6 5QF<br>Classification: Car Dealers<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 861 | - | 433810 281810 |
| | **Contemporary Trade Directory Entries** | | | | |
| 130 | Name: Royal View Windows<br>Location: 10,Durbar Avenue,Coventry,West Midlands,CV6 5LU<br>Classification: Window Frame Manufacturers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 883 | - | 433810 281780 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Contemporary Trade Directory Entries** | | | | |
| 131 | Name: Touch & Go<br>Location: Venture House,1-2,Holbrook Lane,Coventry,CV6 4AF<br>Classification: Lighting Manufacturers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 892 | - | 433640 281600 |
| | **Contemporary Trade Directory Entries** | | | | |
| 132 | Name: Sparkle Clean Cleaning Services<br>Location: 106,Stevenson Road,Coventry,CV6 2JW<br>Classification: Cleaning Services - Commercial<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | SW | 897 | - | 432240 281790 |
| | **Contemporary Trade Directory Entries** | | | | |
| 133 | Name: Quality Clean<br>Location: 11,Whitmore Park Road,Coventry,CV6 4DN<br>Classification: Commercial Cleaning Services<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 905 | - | 433500 283170 |
| | **Contemporary Trade Directory Entries** | | | | |
| 134 | Name: Hey Machine Tools<br>Location: Lythalls Lane,Coventry,CV6 6FX<br>Classification: Tool Design, Manufacturers & Makers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 905 | - | 433940 282700 |
| | **Contemporary Trade Directory Entries** | | | | |
| 134 | Name: Bailey Buildbase<br>Location: Lythalls Lane,Coventry,CV6 6HX<br>Classification: Builders' Merchants<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 916 | - | 433970 282660 |
| | **Contemporary Trade Directory Entries** | | | | |
| 134 | Name: B K L Joinery Ltd<br>Location: 255,Lythalls Lane,Coventry,CV6 6FW<br>Classification: Staircase, Balustrade & Handrail Manufacturers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 936 | - | 433990 282660 |
| | **Contemporary Trade Directory Entries** | | | | |
| 134 | Name: D D G Ltd<br>Location: 255,Lythalls Lane,Coventry,West Midlands,CV6 6FW<br>Classification: Joinery Manufacturers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | E | 936 | - | 433990 282660 |
| | **Contemporary Trade Directory Entries** | | | | |
| 135 | Name: Coventry Mobility Centre<br>Location: 22,Parkville Highway,Coventry,CV6 4HZ<br>Classification: Stairlifts - Manufacturers & Installers<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | N | 919 | - | 432770 283260 |
| | **Contemporary Trade Directory Entries** | | | | |
| 136 | Name: G M E Springs<br>Location: 23,Boston Place,Coventry,CV6 5NN<br>Classification: Spring Manufacturers & Distributors<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 920 | - | 433860 281780 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Contemporary Trade Directory Entries** | | | | |
| 136 | Name: T P S Autos Ltd<br>Location: 14 Boston Pl,Coventry,West Midlands,CV6 5NN<br>Classification: Garage Services<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 935 | - | 433870 281770 |
| | **Contemporary Trade Directory Entries** | | | | |
| 137 | Name: Staircraft Joinery<br>Location: Boston Pl,Coventry,West Midlands,CV6 5NN<br>Classification: Staircase, Balustrade & Handrail Manufacturers<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 921 | - | 433810 281720 |
| | **Contemporary Trade Directory Entries** | | | | |
| 137 | Name: Allen Group Ltd<br>Location: Unit 1,Boston Place,Coventry,CV6 5NN<br>Classification: Trailers & Towing Equipment<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 927 | - | 433840 281740 |
| | **Contemporary Trade Directory Entries** | | | | |
| 137 | Name: C M R Engineering Ltd<br>Location: Unit 2 Boston Pl,Coventry,West Midlands,CV6 5NN<br>Classification: Engineers - General<br>Status: Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 937 | - | 433840 281720 |
| | **Contemporary Trade Directory Entries** | | | | |
| 137 | Name: M A Rick Engineering Ltd<br>Location: 9 Boston Pl,Coventry,West Midlands,CV6 5NN<br>Classification: Precision Engineers<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 938 | - | 433870 281760 |
| | **Contemporary Trade Directory Entries** | | | | |
| 137 | Name: T & J Engineering (Coventry) Ltd<br>Location: 12a Boston Pl,Coventry,West Midlands,CV6 5NN<br>Classification: Engineers - General<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 939 | - | 433870 281760 |
| | **Contemporary Trade Directory Entries** | | | | |
| 137 | Name: Polydynamics Division Of Allen Group Ltd<br>Location: Unit 1-5 Boston Pl,Coventry,West Midlands,CV6 5NN<br>Classification: Hose, Tubing & Fittings<br>Status: Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 946 | - | 433870 281750 |
| | **Contemporary Trade Directory Entries** | | | | |
| 137 | Name: Excel Autobodies<br>Location: Boston Pl,Coventry,West Midlands,CV6 5NN<br>Classification: Car Body Repairs<br>Status: Active<br>Positional Accuracy: Manually positioned to the road within the address or location | SE | 948 | - | 433850 281730 |
| | **Contemporary Trade Directory Entries** | | | | |
| 138 | Name: Unipart Eberspacher Exhaust Systems<br>Location: Durbar Avenue,Coventry,CV6 5LZ<br>Classification: Exhaust System Manufacturers & Wholesalers<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | E | 932 | - | 434040 282330 |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| | **Contemporary Trade Directory Entries** | | | | |
| 139 | Name: Classic Fork Trucks Ltd<br>Location: Unit 1,Durbar Avenue Industrial Estate,Durbar Avenue,Coventry,CV6 5QF<br>Classification: Fork Lift Trucks<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 936 | - | 433950<br>281900 |
| | **Contemporary Trade Directory Entries** | | | | |
| 140 | Name: H V D S Air Filters<br>Location: 36,Bennetts Road South,Coventry,CV6 2FP<br>Classification: Filter Manufacturers & Suppliers<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | W | 972 | - | 431990<br>282430 |
| | **Contemporary Trade Directory Entries** | | | | |
| 141 | Name: Robinsons & Sons<br>Location: 2,Wheelwright Lane,Coventry,CV6 4HF<br>Classification: Door Manufacturers - Domestic<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | NE | 972 | - | 433430<br>283280 |
| | **Contemporary Trade Directory Entries** | | | | |
| 141 | Name: B M Domestics<br>Location: 6,Wheelwright Buildings,Hen Lane,Coventry,West Midlands,CV6 4LB<br>Classification: Washing Machines - Servicing & Repairs<br>Status: Inactive<br>Positional Accuracy: Automatically positioned to the address | NE | 990 | - | 433430<br>283300 |
| | **Contemporary Trade Directory Entries** | | | | |
| 141 | Name: Melnyk Launderette<br>Location: 4,Hen Lane,Coventry,CV6 4LB<br>Classification: Laundries & Launderettes<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 998 | - | 433450<br>283300 |
| | **Contemporary Trade Directory Entries** | | | | |
| 142 | Name: Dave Mac<br>Location: 1-3,Northey Road,Coventry,CV6 5NF<br>Classification: Garage Services<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | SE | 974 | - | 433830<br>281650 |
| | **Contemporary Trade Directory Entries** | | | | |
| 143 | Name: Pharos Engineering Ltd<br>Location: 228,Lythalls Lane,Coventry,CV6 6HY<br>Classification: Engineers - General<br>Status: Active<br>Positional Accuracy: Automatically positioned to the address | NE | 986 | - | 433990<br>282780 |
| | **Contemporary Trade Directory Entries** | | | | |
| 144 | Name: Perfect Finish Bodyshop Ltd<br>Location: Unit 21,Albion Ind Est,Endemere Rd,Coventry,West Midlands,CV6 5PY<br>Classification: Car Body Repairs<br>Status: Active<br>Positional Accuracy: Manually positioned to the address or location | SE | 994 | - | 433730<br>281530 |
| | **Fuel Station Entries** | | | | |
| 145 | Name: Petrol Express Radford<br>Location: 24 JUBILEE CRESCENT,RADFORD,COVENTRY,WEST MIDLANDS,CV6 3EX<br>Brand: Texaco<br>Premises Type: Petrol Station<br>Status: Open<br>Positional Accuracy: Automatically positioned to the address | S | 692 | - | 432960<br>281630 |

| Map ID | Details | | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|---|
| | **Fuel Station Entries** | | | | | |
| 146 | Name: | Mpk Craftsmans Service Station | NW | 696 | - | 432590 282950 |
| | Location: | Beake Avenue,Halmesbury Road,Holbrooks,COVENTRY,West Midlands,CV6 2HT | | | | |
| | Brand: | Jet | | | | |
| | Premises Type: | Petrol Station | | | | |
| | Status: | Open | | | | |
| | Positional Accuracy: | Automatically positioned to the address | | | | |
| | **Fuel Station Entries** | | | | | |
| 147 | Name: | Shell Whitmore Park | NE | 715 | - | 433410 283010 |
| | Location: | Holebrook Lane,Holbrooks,COVENTRY,West Midlands,CV6 4DG | | | | |
| | Brand: | SHELL | | | | |
| | Premises Type: | Petrol Station | | | | |
| | Status: | Open | | | | |
| | Positional Accuracy: | Automatically positioned to the address | | | | |

| Map ID | Details | Compass Direction | Estimated Distance From Site | Contact | NGR |
|---|---|---|---|---|---|
| **Areas of Adopted Green Belt** | | | | | |
| Authority: | Coventry City Council | NW | 771 | 7 | 432280 |
| Plan Name: | The Coventry Development Plan 2001 | | | | 282720 |
| Status: | Adopted | | | | |
| Plan Date: | 9th December 2001 | | | | |
| **Nitrate Vulnerable Zones** | | | | | |
| Name: | Not Supplied | - | 0 | 8 | 433030 |
| Description: | Surface Water | | | | 282330 |
| Source: | Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | | | | |

| Data Type | Version | Update Cycle |
|---|---|---|
| **Agency & Hydrological** | | |
| **Air Pollution Controls**<br>Coventry City Council Environmental Health Department | April-2005 | Annual Rolling Update |
| **Air Pollution Control Enforcements**<br>Coventry City Council Environmental Health Department | April-2004 | Annual Rolling Update |
| **Contaminated Land Register Entries and Notices**<br>Coventry City Council Environmental Health Department | September-2004 | Annual Rolling Update |
| **Discharge Consents**<br>Environment Agency Midlands Region | July-2005 | Quarterly |
| **Integrated Pollution Controls**<br>Environment Agency Midlands Region | July-2005 | Quarterly |
| **Integrated Pollution Prevention And Control**<br>Environment Agency Midlands Region | July-2005 | Quarterly |
| **Pollution Incidents to Controlled Waters**<br>Environment Agency Midlands Region | December-1999 | Not Applicable |
| **Substantiated Pollution Incident Register**<br>Environment Agency - Midlands Region Lower Severn Area | July-2005 | Quarterly |
| **Water Industry Act Referrals**<br>Environment Agency Midlands Region | July-2005 | Quarterly |
| **Registered Radioactive Substances**<br>Environment Agency Midlands Region | July-2005 | Quarterly |
| **River Quality**<br>Environment Agency Head Office | November-2001 | Not Applicable |
| **River Quality Biology Sampling Points**<br>Environment Agency Head Office | October-2004 | Annually |
| **River Quality Chemistry Sampling Points**<br>Environment Agency Head Office | June-2005 | Annually |
| **Water Abstractions**<br>Environment Agency Midlands Region | July-2005 | Quarterly |
| **Groundwater Vulnerability**<br>Environment Agency Head Office | January-1999 | Not Applicable |
| **Drift Deposits**<br>Environment Agency Head Office | January-1999 | Not Applicable |
| **Source Protection Zones**<br>Environment Agency Head Office | April-2005 | Variable |
| **Extreme Flooding from Rivers or Sea without Defences**<br>Environment Agency Head Office | February-2005 | Quarterly |

| Data Type | Version | Update Cycle |
|---|---|---|
| **Agency & Hydrological** | | |
| **Flooding from Rivers or Sea without Defences**<br>Environment Agency Head Office | February-2005 | Quarterly |
| **Areas Benefiting from Flood Defences**<br>Environment Agency Head Office | February-2005 | Quarterly |
| **Flood Water Storage Areas**<br>Environment Agency Head Office | February-2005 | Quarterly |
| **Flood Defences**<br>Environment Agency Head Office | February-2005 | Quarterly |
| **River Flood Data (Scotland)**<br>Centre for Ecology and Hydrology | September-1999 | Not Applicable |

| Data Type | Version | Update Cycle |
|---|---|---|
| **Waste** | | |
| **BGS Recorded Landfill Sites**<br>British Geological Survey National Geoscience Information Service | June-1996 | Not Applicable |
| **Integrated Pollution Control Registered Waste Sites**<br>Environment Agency Midlands Region | July-2005 | Quarterly |
| **Licensed Waste Management Facilities (Landfill Boundaries)**<br>Environment Agency - Midlands Region Lower Severn Area | June-2005 | Quarterly |
| **Licensed Waste Management Facilities (Locations)**<br>Environment Agency - Midlands Region Lower Severn Area | April-2005 | Quarterly |
| **Local Authority Landfill Coverage**<br>Coventry City Council Planning Department | May-2000 | Not Applicable |
| **Local Authority Recorded Landfill Sites**<br>Coventry City Council Planning Department | May-2000 | Not Applicable |
| **Registered Landfill Sites**<br>Environment Agency - Midlands Region Lower Severn Area | March-2003 | Variable |
| **Registered Waste Transfer Sites**<br>Environment Agency - Midlands Region Lower Severn Area | March-2003 | Variable |
| **Registered Waste Treatment or Disposal Sites**<br>Environment Agency - Midlands Region Lower Severn Area | March-2003 | Variable |

| Data Type | Version | Update Cycle |
|---|---|---|
| **Hazardous Substances** | | |
| **Control of Major Accident Hazards Sites (COMAH)**<br>Health and Safety Executive | May-2001 | Variable |
| **Explosive Sites**<br>Health and Safety Executive | April-2005 | Bi-Annually |
| **Notification of Installations Handling Hazardous Substances (NIHHS)**<br>Health and Safety Executive | November-2000 | Not Applicable |
| **Planning Hazardous Substance Consents**<br>Coventry City Council Planning Department | July-2004 | Annual Rolling Update |
| **Planning Hazardous Substance Enforcements**<br>Coventry City Council Planning Department | July-2004 | Annual Rolling Update |

| Data Type | Version | Update Cycle |
|---|---|---|
| **Geological** | | |
| **BGS Boreholes**<br>British Geological Survey National Geoscience Information Service | July-2005 | Quarterly |
| **BGS Recorded Mineral Sites**<br>British Geological Survey National Geoscience Information Service | April-2005 | Bi-Annually |
| **BGS 1:625,000 Solid Geology**<br>British Geological Survey National Geoscience Information Service | August-1996 | Not Applicable |
| **Brine Compensation Areas**<br>Cheshire Brine Subsidence Compensation Board | November-2002 | As notified |
| **Coal Mining Affected Areas**<br>The Coal Authority Mining Report Service | December-2003 | As notified |
| **Shallow Mining Hazards**<br>British Geological Survey National Geoscience Information Service | August-2002 | Variable |
| **Compressible Ground Subsidence Hazards**<br>British Geological Survey National Geoscience Information Service | August-2002 | Variable |
| **Ground Dissolution Subsidence Hazards**<br>British Geological Survey National Geoscience Information Service | August-2002 | Variable |
| **Gulls And Cambering Subsidence Hazards**<br>British Geological Survey National Geoscience Information Service | August-2002 | Variable |
| **Landslip Subsidence Hazards**<br>British Geological Survey National Geoscience Information Service | August-2002 | Variable |
| **Swelling Clay Subsidence Hazards**<br>British Geological Survey National Geoscience Information Service | August-2002 | Variable |
| **Mining Instability**<br>Ove Arup & Partners | October-2000 | Not Applicable |
| **Natural and Mining Cavities**<br>Peter Brett Associates Consulting Engineers | October-2001 | Variable |
| **Radon Affected Areas**<br>Health Protection Agency | January-2003 | Not Applicable |
| **Radon Protection Measures**<br>British Geological Survey National Geoscience Information Service | August-2002 | Variable |

# Data Currency

| Data Type | Version | Update Cycle |
|---|---|---|
| **Industrial Land Use** | | |
| **Contemporary Trade Directory Entries**<br>Thomson Directories | May-2005 | Bi-Annually |
| **Fuel Station Entries**<br>Catalist Ltd (Fuel Station Data) | August-2005 | Quarterly |

| Data Type | Version | Update Cycle |
|---|---|---|
| **Sensitive Land Uses** | | |
| **Areas of Adopted Green Belt** | | |
| North Warwickshire Borough Council Planning Administration | April-2004 | As notified |
| Coventry City Council | December-2001 | As notified |
| Nuneaton And Bedworth Borough Council Planning Department | June-2002 | As notified |
| **Areas of Unadopted Green Belt** | | |
| North Warwickshire Borough Council Planning Administration | April-2004 | As notified |
| Coventry City Council | December-2001 | As notified |
| Nuneaton And Bedworth Borough Council Planning Department | June-2002 | As notified |
| **Areas of Outstanding Natural Beauty** | | |
| The Countryside Agency | October-2004 | Annually |
| **Environmentally Sensitive Areas** | | |
| Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | December-2004 | Annually |
| **Forest Parks** | | |
| Forestry Commission | April-1997 | Not Applicable |
| **Local Nature Reserves** | | |
| Coventry City Council | September-1999 | As notified |
| Nuneaton And Bedworth Borough Council Planning Department | September-1999 | As notified |
| **Marine Nature Reserves** | | |
| English Nature | December-2004 | Bi-Annually |
| **National Nature Reserves** | | |
| English Nature | December-2004 | Bi-Annually |
| **National Parks** | | |
| The Countryside Agency | October-2004 | Annually |
| **Nitrate Sensitive Areas** | | |
| Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | December-2003 | Not Applicable |
| **Nitrate Vulnerable Zones** | | |
| Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | March-2005 | Annually |
| **Ramsar Sites** | | |
| English Nature | December-2004 | Bi-Annually |
| **Sites of Special Scientific Interest** | | |
| English Nature | December-2004 | Bi-Annually |
| **Special Areas of Conservation** | | |
| English Nature | December-2004 | Bi-Annually |
| **Special Protection Areas** | | |
| English Nature | December-2004 | Bi-Annually |

Some of the organisations who provide data which is used within the report

| | |
|---|---|
| Ordnance Survey | Ordnance Survey® Licensed Partner |
| Environment Agency | ENVIRONMENT AGENCY |
| Scottish Environment Protection Agency | SEPA Scottish Environment Protection Agency |
| The Coal Authority | THE COAL AUTHORITY |
| British Geological Survey | BGS 1835 British Geological Survey NATURAL ENVIRONMENT RESEARCH COUNCIL |
| Centre for Ecology and Hydrology | CEH Centre for Ecology & Hydrology NATURAL ENVIRONMENT RESEARCH COUNCIL |
| Countryside Council for Wales | CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES |
| Scottish Natural Heritage | SCOTTISH NATURAL HERITAGE |
| English Nature<br>Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, English Nature who retain the copyright and Intellectual Property Rights for the data | ENGLISH NATURE |
| National Radiological Protection Board | nrpb National Radiological Protection Board |
| Ove Arup<br>The Data provided above was obtained on Licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The information and data supplied in the product are derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data. | ARUP |

| Contact | Name and Address | |
|---|---|---|
| 1 | **Coventry City Council Environmental Health Department**<br>Broadgate House<br>Broadgate<br>Coventry<br>West Midlands<br>CV1 1NH<br>www.coventry.gov.uk | Telephone 02476 831807 |
| 2 | **Environment Agency National Customer Contact Centre (NCCC)**<br>PO Box 544<br>Templeborough<br>Rotherham<br>S60 1BY<br>enquiries@environment-agency.gov.uk | Telephone 08708 506 506 |
| 3 | **Coventry City Council Planning Department**<br>Council House<br>Earl Street<br>Coventry<br>West Midlands<br>CV1 5RS<br>www.coventry.gov.uk | Telephone 02476 833333<br>Fax 01203 220432 |
| 4 | **British Geological Survey Enquiry Service**<br>British Geological Survey<br>Kingsley Dunham Centre<br>Keyworth<br>Nottingham<br>Nottinghamshire<br>NG12 5GG<br>enquiries@bgs.ac.uk<br>www.bgs.ac.uk | Telephone 0115 936 3143<br>Fax 0115 936 3276 |
| 5 | **The Coal Authority Mining Report Service**<br>200 Lichfield Lane<br>Mansfield<br>Nottinghamshire<br>NG18 4RG<br>thecoalauthority@coal.gov.uk | Telephone 0845 7626848<br>DX 716176 Mansfield 5 |

| Contact | Name and Address | |
|---|---|---|
| 6 | **Health Protection Agency**<br>Chilton<br>Didcot<br>Oxfordshire<br>OX11 0RQ | Telephone 01235 831600<br>Fax 01235 833891 |
| 7 | **Coventry City Council**<br>Tower Block<br>Much Park Street<br>Coventry<br>West Midlands<br>CV1 2PY<br>www.coventry.gov.uk | Telephone 024 7683 3333<br>Fax 024 7622 0432 |
| 8 | **Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)**<br>Government Buildings<br>Otley Road<br>Lawnswood<br>Leeds<br>West Yorkshire<br>LS16 5QT | Telephone 0113 2613333<br>Fax 0113 230 0879 |
| | **Catalist Ltd (Fuel Station Data)**<br>Richmond House<br>22 Richmond Hill<br>Clifton<br>Bristol<br>Avon<br>BS8 1BA<br>Mark@catalist-uk.com | Telephone 0117 923 7113<br>Fax 0117 923 7166 |
| | **Landmark Information Group Limited**<br>The Smith Centre<br>Henley On Thames<br>Oxfordshire<br>RG9 6AB<br>customerservices@landmarkinfo.co.uk<br>www.landmark-information.co.uk | Telephone 0870 850 6670<br>Fax 0870 850 6671 |

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

British Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ref no: ISGR/...../.....

Your ref/order no. (if required): .....

## BOREHOLE RECORDS ORDER FORM

Please note this order form is only to be used for the supply of borehole records from the National Geological Records Centre (NGRC) identified from Landmark Reports

Name:-
Address:-

Company:-

Telephone Number:-

Fax Number:-

Date:-

With repect to the following boreholes I would like to: -

Enquire about the costs ☐ Purchase copies ☐ New Leaflet ☐

| BGS Registration number: | | | |
|---|---|---|---|
| Quarter Sheet | Number | Suffix | Name |
| | | | |
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Note: More than 10 records can be ordered, but it is advisable to discuss your requirements first with NGRC staff

**Unit price £13(+VAT) per borehole. Minimum charge £26(+VAT)**

Method of delivery, please indicate preferred option.

1st class post ☐ Special delivery (guaranteed next day before 12:30pm.) ☐ Fax ☐
(Note 1st. class postage is included in the unit charge. Additional charges are made for fax or special delivery)

Please return this form to: - The Records Officer, National Geological Records Centre, British Geological Survey, Keyworth, Nottingham, NG12 5GG. Tel: 0115936 3109 Fax: 0115936 3276
E-mail: ngis@bgs.ac.uk

# LANDMARK TERMS AND CONDITIONS

**Definitions**

**"Account"** means the credit account established by a Member with Landmark.

**"Agreement"** means the agreement between Ourselves created by Your acceptance of these Terms.

**"Authorised Reseller"** means an agent or reseller of Landmark whom Landmark has duly appointed to resell its Reports and Services.

**"Client"** means the individual or organisation to whom You provide professional services and/or Your professional advisors where applicable.

**"Content"** means any data, computing and information services and software, and other content and documentation or support materials and updates included in and/or supplied by or through the Websites, in Reports or Services or in any other way by Landmark and shall include Landmark developed and Third Party Content.

**"Designated Users"** means individuals appointed by Members to transact across the Member's Account.

**"Intellectual Property Rights"** means all forms of intellectual property or protective rights recognised in law.

**"Member"** means the person, firm or organisation who establishes and/or uses the Account.

**"Order"** means the request for Services from Landmark by You.

**"Property Site"** means a land site on which a Member requests Landmark provide either a Report or any other Service.

References to**"We", "Us"** and **"Our"** are references to Landmark Information Group Limited ("Landmark"), whose registered office is 7 Abbey Court, Eagle Way, Exeter, EX2 7HY. Where You are not ordering the Services directly from Landmark, but from an Authorised Reseller, references to "Landmark" or "We", "Us" and "Our" shall be construed so as to mean either Landmark and/or the Authorised Reseller as the context shall indicate.

References to **"You/Your/Yourself"** refer to the contracting party who places an Order with Landmark and for whom the Services are to be provided by Landmark.

**"Report"** includes any information that Landmark supplies to You including all reports, services, datasets, software or information contained in them.

**"Services"** means the provision of any service by Landmark pursuant to these Terms which at the sole discretion of Landmark, may be time limited, for the purposes of evaluation only, offer reduced functionality, offer limited access to the Content, or be free of charge including but not limited to the report(s), data, information or other services undertaken by Landmark.

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**1. Terms and Conditions**

a. These Terms govern the relationship between You and Landmark whether You are an unregistered visitor to the Website or a registered Member purchasing Landmark products or Services from Landmark.

b. Where these Terms are not expressly accepted by You they will be deemed to have been accepted by You, and You agree to be bound by these Terms when You place any Order, or pay for any Services provided or Reports ordered.

c. If the person communicating with Landmark is an Authorised Reseller, they must ensure that You agree to these Terms.

d. The headings in these Terms are for convenience only and shall not affect the meaning or interpretation of any part of these Terms.

e. We may modify these Terms, and may discontinue or revise any or all other aspects of the Services at our sole discretion, with immediate effect and without prior notice. Any amendment or variation to these Terms shall be posted on our Websites. Continued use of the Services by You shall be deemed an acceptance by You to be bound by any such amendments to the Terms.

f. Landmark reserves the right to refuse to supply Services to You or any other potential client without notice or reason.

**2. Reports**

Whilst Landmark will use reasonable care and skill in providing the Services to You the Services are provided on the express basis that You acknowledge and agree to the following:-

a. The information and data supplied in the Services are derived from publicly available records and other third party sources and Landmark does not warrant the accuracy or completeness of such information or data; and

b. The information and data supplied in the Services are derived solely from those sources specifically cited in the Report Landmark does not claim that these sources represent an exhaustive or comprehensive list of all sources that might be consulted; and

c. Landmark does not guarantee that all past or current land uses or features will be identified in the Report; and

d. The Services provided by Landmark are professional business to business services and not intended for use or interpretation by persons other than professional persons skilled in the use of property and environmental information; and

e. Landmark shall not be responsible for error or corruption in the Report resulting from inaccuracy or omission in primary or secondary information and data, inaccurate processing of information and data by third parties, computer malfunction or corruption of data whilst in the course of conversion, geo-coding, processing by computer or electronic means, or in the course of transmission by telephone or other communication link, or printing.

f. Landmark reserves the right, without limitation, to change the Reports or Services on offer at any time.

**3. Intellectual Property**

a. You acknowledge that all Intellectual Property Rights in the Report and Services are and shall remain owned by either Landmark or our Suppliers and nothing in these Terms purports to transfer, assign or grant any rights to You in respect of the Intellectual Property Rights.

b. Subject to clause 6.f, You are entitled to make the following use of the Services and Reports subject always to these Terms and You may, without further charge, make the Report or Services available to;

   i. any person who purchases the whole of the Property Site,

   ii. any person who provides funding secured on the whole of the Property Site,

   iii. any person for whom You act in a professional or commercial capacity, and

   iv. any person who acts for You in a professional or commercial capacity.

   Accordingly Landmark shall have the same duties and obligations to those persons in respect of the Services as it has to You.

c. Each of those persons referred to in Clause 3.b. shall have the benefit and the burden of Your rights and obligations under these Terms. The limitations of Landmark's liability as set out in Clause 6 shall apply.

d. The Report is to be used solely for the benefit of You and Your Client and such persons as are set out in Clause 3.b, and Landmark excludes all liability to all other persons unless Landmark has expressly agreed in writing to the assignment of the benefit of the Report and has been paid Landmark's reasonable fees for so doing.

e. All parties given access to the Services agree that they will treat as strictly private and confidential the Services and all information which they obtain from the Services and shall restrict any disclosure to employees or professional advisors to enable the relevant party to conduct its internal business The requirement in this clause to treat the Services as confidential shall include a requirement to maintain adequate security measures to safeguard the Services from unauthorised access, use or copying.

f. Each recipient of the Services agrees (and agrees it will cause its employees, agents or contractors who may from time to time have access to the Services to agree) it will not, except as permitted herein or by separate agreement with Landmark:-

   i. effect or attempt to effect any modification, merger or change to the Service, nor permit any other person to do so; or

   ii. copy, use, market, re-sell, distribute, merge, alter, add to or carry on any redistribution, reproduction, translation, publication, reduction to any electronic medium or machine readable form or commercially exploit or in any other way deal with or utilise or (except as expressly permitted by applicable law) reverse engineer, decompile or disassemble the Services, Reports, Content or Website; or

   iii. remove, alter or in any way change any trademark or proprietary marking in any element of the Services and You acknowledge the ownership of the Content is as per this Clause, where such Content is incorporated or used into Your own documents, reports, systems or services whether or not these are supplied to any third party.

   iv. create any product which is derived directly or indirectly from the data contained in the Services

g. You shall acknowledge the ownership of the Content where such is incorporated into Your own documents, reports, systems or services whether or not these are supplied to any third party.

h. You are permitted to make five copies of any Report, but are not authorised to re-sell the Report, any part thereof or any copy thereof unless you are an Authorised Reseller. Further copies may not be made in whole or in part without the prior written permission of Landmark who shall be entitled to make a charge for each additional copy.

   i. You hereby agree to fully indemnify Landmark against any claim losses or other damages suffered by Landmark as a result any breach by any recipient of the Services of these Terms.

   j. You agree that You will comply with any reasonable instructions that We may give from time to time with regard to the use of the Intellectual Property Rights, including but not limited to acknowledging that the Services and Reports are confidential to You, Your Client or the persons set out in Clause 3.b.

   k. The mapping contained in any Services is protected by Crown Copyright and must not be used for any purpose outside the context of the Services or as specifically provided by these Terms.

**4. Charges**

a. Landmark may grant You a credit limit in order to allow You to transact with it or set up an Account and reserves the right to withdraw any such credit limit at any time without prior notice.

b. You are fully responsible for all charges that accumulate on Your Account.

c. VAT at the prevailing rate shall be payable in addition to the Landmark Fees. You shall pay any other applicable indirect taxes related to Your use of the Services.

d. An individual or a monthly invoice showing all Orders created will be generated subject to these Terms. You will pay the Landmark Fees at the rates set out in Landmark's or its Authorised Reseller's invoice. The Landmark Fees are payable in full within 28 days without deduction, counterclaim or set off. You acknowledge that time is of the essence with respect to the payment of such invoices. Non-payment of Landmark Fees may, at Our sole discretion result in Landmark terminating or limiting the use of Your Account and its provision of Services to You. Landmark reserve the right to amend the Landmark Fees from time to time and the Services will be charged at the Landmark Fee applicable at the date on which the Service is ordered.

e. We may charge interest on late payment at a rate equal to 8% per annum above the base lending rate of National Westminster Bank plc.

f. Landmark or its Authorised Reseller shall not be obliged to invoice any party other than You for the provision of Services, but where Landmark or its Authorised Reseller does so invoice any third party at Your request, and such invoice is not accepted or remains unpaid, Landmark or its Authorised Reseller shall have the option at any time to cancel such invoice and invoice You direct for such Services. Where Your order comprises a number of Services or severable elements within any one or more Services, any failure by Landmark or its Authorised Reseller to provide an element or elements of the Services shall not prejudice Landmark's or its Authorised Reseller's ability to require payment in respect of the Services delivered to You

**5. Termination**

a. Landmark may suspend or terminate Your rights under these Terms without any liability to You with immediate effect if at any time:-

   i. You fail to make any payment due in accordance with Clause 4;

   ii. You repeatedly breach or commit or cause to be committed any material breach of these Terms; or

   iii. You commit a breach and You fail to remedy the breach within 7 days of receipt of a written notice to do so Landmark may remedy the breach and recover the costs thereof from You; or

   iv. You commit an act of bankruptcy or insolvency, are unable to pay Your debts as or when they fall due or make any composition or arrangement with Your creditors, or go into liquidation whether voluntary or compulsory, or if any order is made or a resolution is passed for Your winding up (except for the purpose of a solvent amalgamation or reconstruction), or if You cease or prepare to cease trading, or if You suffer the appointment of a receiver, administrative receiver, administrator or similar officer over the whole or part of any of Your assets.

b. If Your rights are terminated under this Clause and You have made an advance payment We will refund You a reasonable proportion of the balance as determined by Us in relation to the value of Services previously purchased.

c. We may suspend the Agreement between You and Landmark for an indefinite period without notice and at any time if in Our opinion You are in breach of any of the provisions of these Terms.

**6. Liability**

a. We provide warranties and accept liability only to the extent stated in this Clause 6.

b. Nothing in these Terms excludes either party's liability for death or personal injury caused by that party's

negligence or willful default.

c. As most of the information contained in the Services is provided to Landmark by others, Landmark cannot control its accuracy or completeness, nor is it within the scope of Landmark's Services to check the information on the ground. Accordingly, subject to clause 6b, Landmark will only be liable to You for any loss or damage caused by its negligence or wilful default and neither Landmark nor any person providing information contained in any Services shall in any other circumstances be liable for any inaccuracies, faults or omissions in the Services nor shall Landmark have any liability if the Services are used otherwise than in accordance with these Terms.

d. Save as precluded by law, Landmark shall not be liable for any indirect or consequential loss, damage or expenses (including loss of profits, loss of contracts, business or goodwill) howsoever arising out of any problem, event, action or default by Landmark or any indirect or consequential loss of any nature whatsoever or for any physical damage to or loss of Your tangible property, any other direct loss, damage, cost or expense of any kind or any indirect or consequential loss, damage, cost or expense of any kind, whether any of the above arise under contract, tort (including negligence), an indemnity or contribution or otherwise.

e. In any event, and notwithstanding anything contained in these Terms, Landmark's liability in contract, tort (including negligence or breach of statutory duty) or otherwise howsoever arising by reason or in connection with this Contract (except in relation to death or personal injury) shall be limited to an aggregate amount not exceeding £1 million if the complaint is in relation to a Report on residential property and an amount not exceeding £10 million in respect of any other Report or Service purchased from Landmark except in so far as Landmark will not be liable for any defect, failure or omission relating to Services that is not notified to Landmark within six months of the date of the issue becoming apparent and in any event, within one year of the date of the Report if the complaint is in relation to a Report on residential property and within six years of the date of the Report in respect of any other Report or Service. Where any claim relates to either a part of the Services that is not chargeable or if You have been in breach of any part of these Terms Landmark's liability shall be limited to £1,000

f. No person may rely on the Report more than 12 months after its original date.

g. You acknowledge that:-

i. You shall have no claim or recourse against any Third Party Content supplier nor any of our other Suppliers. You will not in any way hold us responsible for any selection or retention of, or the acts of omissions of Third Party Content suppliers or other Suppliers (including those with whom We have contracted to operate various aspects or parts of the Service) in connection with the Services (for the avoidance of doubt Landmark is not a Third Party Content supplier). Landmark does not promise that the supply of the Services will be uninterrupted or error free or provide any particular facilities or functions, or that the Content will always be complete, accurate, precise, free from defects of any other kind, computer viruses, software locks or other similar code although Landmark will use reasonable efforts to correct any inaccuracies within a reasonable period of them becoming known to us;

ii. Landmark's only obligation is to exercise the reasonable skill and care in providing environmental property risk information to persons acting in a professional or commercial capacity and You hereby acknowledge that You are such a person;

iii. no physical inspection of the Property Site reported on is carried out as part of any Services offered by Landmark and as such We do not warrant that all land uses or features whether past or current will be identified in the Services and the Services do not include any information relating to the actual state or condition of any Property Site nor should they be used or taken to indicate or exclude actual fitness or unfitness of a Property Site for any particular purpose nor should it be relied upon for determining saleability or value or used as a substitute for any physical investigation or inspection;

iv. You should carefully inspect the Property Site, and take any other advice that would be reasonably prudent to do prior to making any decision about the Property Site to which any Report or Service relates and not rely exclusively on the Report or any other Landmark Services in terms of valuing the Property Site;

v. Landmark will not be held liable in any way if a Report on residential property is used for commercial property or more than the one residential property for which it was ordered;

vi. the Services have not been prepared to meet Your or anyone else's individual requirements; that You assume the entire risk as to the suitability of the Services and waive any claim of detrimental reliance upon the same; and You confirm You are solely responsible for the selection or omission of any specific part of the Content;

vii. You shall be solely responsible for maintaining the confidentiality of Your passwords (including Your Designated Users' password(s)) and You will notify us immediately that You become aware of any unauthorised access to, use or copying of any part of Services or document or report derived or downloaded there from by anyone;

viii. You must observe and comply with all applicable regulations and legislation;

ix. We offer no warranty for the performance of any linked internet service not operated by Us;

x. You will on using the Services make a reasonable inspection of any results to satisfy Yourself that there are no defects or failures. In the event that there is a material defect You will notify us in writing of such defect within seven days of its discovery;

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xii. any support or assistance provided to You in connection with these Terms is at Your risk;

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k. Time shall not be of the essence with respect to the provision of the Services.

**7. Events Beyond Our Control**

You acknowledge that Landmark shall not be liable for any delay, interruption or failure in the provision of the Services which are caused or contributed to by any circumstance which is outside our reasonable control including but not limited to, lack of power, telecommunications failure or overload, computer malfunction, inaccurate processing of data, or delays in receiving, loading or checking data, corruption of data whilst in the course of conversion, geo-coding, processing by computer in the course of electronic communication, or printing.

**8. Severability**

If any provision of these Terms are found by either a court or other competent authority to be void, invalid, illegal or unenforceable, that provision shall be deemed to be deleted from these Terms and never to have formed part of these Terms and the remaining provisions shall continue in full force and effect.

**9. Governing Law**

This Agreement shall be governed by and construed in accordance with English law and each party agrees irrevocably submit to the exclusive jurisdiction of the English courts as regards any claim or matter arising under this Agreement. If any dispute arises out of or in connection with this agreement (a "Dispute") the parties undertake that, prior to the commencement of Court proceedings, they will seek to have the Dispute resolved amicably by use of an alternative dispute resolution procedure acceptable to both parties with the assistance of the Centre for Dispute Resolution (CEDR) if required, by written notice initiating that procedure. If the Dispute has not been resolved to the satisfaction of either party within 60 days of initiation of the procedure or if either party fails or refuses to participate in or withdraws from participating in the procedure then either party may refer the Dispute to the Court.

**10. Entire Agreement**

a. These Terms, together with the prices and delivery details set out on our Websites and Your Order comprise the whole of our agreement relating to the supply of Services to You by Landmark. No prior stipulation, agreement, promotional material or statement whether written or oral made by any sales or other person or representative on our behalf should be understood as a variation of these Terms or as an authorised representation about the nature or quality of any Services offered for sale by us. Save for fraud or misrepresentation, Landmark shall have no liability for any such representation being untrue or misleading.

b. These Terms shall prevail at all times to the exclusion of all other terms and conditions including any terms and conditions which You may purport to apply even if such other provisions are submitted in a later document or purport to exclude or override these Terms and neither the course of conduct between parties nor trade practice shall act to modify these Terms.

**11. General**

a. You shall not without our prior written consent assign, or transfer in any way the benefit of these Terms in whole or in part or any of Your obligations under these Terms save as provided by Clause 3.b. Your right to use the Services, operate Your Account or to designate users is not transferable

b. Landmark may assign its rights and obligations under these Terms without prior notice or any limitation.

c. We may authorise or allow our contractors and other third parties to provide to Us and/or to You services necessary or related to the Services and to perform Our obligations and exercise Our rights under these Terms, which may include collecting payment on Our behalf.

d. No waiver on our part to exercise, and no delay in exercising, any right, power or provision hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or provision hereunder preclude the exercise of that or any other right, power or provision.

e. References in these Terms to any legislation shall be construed as references to the same as amended or re-enacted from time to time and shall include subordinate legislation or regulations.

f. Unless otherwise stated in these Terms, all notices from You to Landmark must be in writing and sent to the Landmark registered office (or in the case of an Authorised Reseller, to its registered office address) and all notices from Us to You will be displayed on our Websites from time to time.

g. A person who is not a party to any contract made pursuant to these Terms shall have no right under the Contract (Right of Third Parties) Act 1999 to enforce any terms of such contract and Landmark shall not be liable to any such third party in respect of any Services supplied.

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# Envirocheck® Report:

## Historical Map List

**Report on:**

Dunlop Aviation Division
Unit A2, Holbrook Lane
CoventryCV6 4AA

**National Grid Reference :**

433030, 282330

**Prepared For :**

Rps Consultants Ltd
545301
9a Pury Hill
Alderton Road
Towcester
NorthamptonshireNN12 7LS

**Client Details:**

Dunlop Aerospace Ltd.,Holbrook Lane,Coventry,CV6 4AA,

**Your Reference**

Ms A Mills,TD4827/AM

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**Ordnance Survey County Series Published 1889** (1)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 021_03 | 1:2,500 | 1889 |
| Warwickshire | 021_04 | 1:2,500 | 1889 |

**Ordnance Survey County Series Published 1905 to 1906** (2)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 021_03 | 1:2,500 | 1905 |
| Warwickshire | 021_04 | 1:2,500 | 1906 |

**Ordnance Survey County Series Published 1913** (3)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 021_03 | 1:2,500 | 1913 |
| Warwickshire | 021_04 | 1:2,500 | 1913 |

**Ordnance Survey County Series Published 1936 to 1937** (4)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 021_03 | 1:2,500 | 1936 |
| Warwickshire | 021_04 | 1:2,500 | 1937 |

**Ordnance Survey Plan Published 1951** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281 | 1:2,500 | 1951 |
| Ordnance Survey Plan | SP3282 | 1:2,500 | 1951 |
| Ordnance Survey Plan | SP3381 | 1:2,500 | 1951 |
| Ordnance Survey Plan | SP3382 | 1:2,500 | 1951 |

**Ordnance Survey Plan Published 1953 to 1968** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281 | 1:2,500 | 1955 |
| Ordnance Survey Plan | SP3282 | 1:2,500 | 1953 |
| Ordnance Survey Plan | SP3382 | 1:2,500 | 1968 |

**Ordnance Survey Plan Published 1959** (3)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282 | 1:2,500 | 1959 |

**Ordnance Survey Plan Published 1968** (4)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282 | 1:2,500 | 1968 |

**Ordnance Survey Plan Published 1949 to 1950** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281NE | 1:1,250 | 1949 |
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1949 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1949 |
| Ordnance Survey Plan | SP3381NW | 1:1,250 | 1950 |
| Ordnance Survey Plan | SP3382NW | 1:1,250 | 1950 |
| Ordnance Survey Plan | SP3382SW | 1:1,250 | 1950 |

**Ordnance Survey Plan Published 1952 to 1968** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281NE | 1:1,250 | 1953 |
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1952 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1952 |
| Ordnance Survey Plan | SP3381NW | 1:1,250 | 1966 |
| Ordnance Survey Plan | SP3382NW | 1:1,250 | 1968 |
| Ordnance Survey Plan | SP3382SW | 1:1,250 | 1968 |

**Ordnance Survey Plan Published 1954 to 1970** (3)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281NE | 1:1,250 | 1970 |
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1958 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1954 |

**Ordnance Survey Plan Published 1957 to 1963** (4)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1963 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1957 |

**Additional SIMs Published 1957 to 1991** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1957 |
| Ordnance Survey Plan | SP3382SW | 1:1,250 | 1991 |

**Additional SIMs Published 1991** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1991 |

**Large-Scale National Grid Data Published 1992** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281NE | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3381NW | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3382NW | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3382SW | 1:1,250 | 1992 |

**Large-Scale National Grid Data Published 1993** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1993 |

**Large-Scale National Grid Data Published 1993** (3)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1993 |

**Ordnance Survey County Series Published 1890** (1)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 016_SE | 1:10,560 | 1890 |
| Warwickshire | 021_NE | 1:10,560 | 1890 |

**Ordnance Survey County Series Published 1905 to 1906** (2)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 016_SE | 1:10,560 | 1905 |
| Warwickshire | 021_NE | 1:10,560 | 1906 |

**Ordnance Survey County Series Published 1914 to 1919** (3)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 016_SE | 1:10,560 | 1919 |
| Warwickshire | 021_NE | 1:10,560 | 1914 |

**Ordnance Survey County Series Published 1938** (4)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 016_SE | 1:10,560 | 1938 |
| Warwickshire | 021_NE | 1:10,560 | 1938 |

**Ordnance Survey Plan Published 1955** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,560 | 1955 |

**Ordnance Survey Plan Published 1962** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,560 | 1962 |

**Ordnance Survey Plan Published 1970** (3)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,560 | 1970 |

**Ordnance Survey Plan Published 1982** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,000 | 1982 |

**Ordnance Survey Plan Published 1995** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,000 | 1995 |

**10K Raster Mapping Published 1999** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,000 | 1999 |

Currently we do not have agreement with Ordnance Survey to provide Large Scale National Grid Data from 1996 onwards.

Envirocheck®
A Landmark® product

# Envirocheck® Report:

## Historical Map List

**Report on:**

Dunlop Aviation Division
Unit A2, Holbrook Lane
CoventryCV6 4AA

**National Grid Reference :**

433030, 282330

**Prepared For :**

Rps Consultants Ltd
545301
9a Pury Hill
Alderton Road
Towcester
NorthamptonshireNN12 7LS

**Client Details:**

Dunlop Aerospace Ltd.,Holbrook Lane,Coventry,CV6 4AA,

**Your Reference**

Ms A Mills,TD4827/AM

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**Ordnance Survey County Series Published 1889** (1)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 021_03 | 1:2,500 | 1889 |
| Warwickshire | 021_04 | 1:2,500 | 1889 |

**Ordnance Survey County Series Published 1905 to 1906** (2)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 021_03 | 1:2,500 | 1905 |
| Warwickshire | 021_04 | 1:2,500 | 1906 |

**Ordnance Survey County Series Published 1913** (3)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 021_03 | 1:2,500 | 1913 |
| Warwickshire | 021_04 | 1:2,500 | 1913 |

**Ordnance Survey County Series Published 1936 to 1937** (4)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 021_03 | 1:2,500 | 1936 |
| Warwickshire | 021_04 | 1:2,500 | 1937 |

**Ordnance Survey Plan Published 1951** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281 | 1:2,500 | 1951 |
| Ordnance Survey Plan | SP3282 | 1:2,500 | 1951 |
| Ordnance Survey Plan | SP3381 | 1:2,500 | 1951 |
| Ordnance Survey Plan | SP3382 | 1:2,500 | 1951 |

**Ordnance Survey Plan Published 1953 to 1968** **(2)**

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281 | 1:2,500 | 1955 |
| Ordnance Survey Plan | SP3282 | 1:2,500 | 1953 |
| Ordnance Survey Plan | SP3382 | 1:2,500 | 1968 |

**Ordnance Survey Plan Published 1959** **(3)**

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282 | 1:2,500 | 1959 |

**Ordnance Survey Plan Published 1968** **(4)**

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282 | 1:2,500 | 1968 |

**Ordnance Survey Plan Published 1949 to 1950** **(1)**

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281NE | 1:1,250 | 1949 |
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1949 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1949 |
| Ordnance Survey Plan | SP3381NW | 1:1,250 | 1950 |
| Ordnance Survey Plan | SP3382NW | 1:1,250 | 1950 |
| Ordnance Survey Plan | SP3382SW | 1:1,250 | 1950 |

**Ordnance Survey Plan Published 1952 to 1968** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281NE | 1:1,250 | 1953 |
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1952 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1952 |
| Ordnance Survey Plan | SP3381NW | 1:1,250 | 1966 |
| Ordnance Survey Plan | SP3382NW | 1:1,250 | 1968 |
| Ordnance Survey Plan | SP3382SW | 1:1,250 | 1968 |

**Ordnance Survey Plan Published 1954 to 1970** (3)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281NE | 1:1,250 | 1970 |
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1958 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1954 |

**Ordnance Survey Plan Published 1957 to 1963** (4)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1963 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1957 |

**Additional SIMs Published 1957 to 1991** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1957 |
| Ordnance Survey Plan | SP3382SW | 1:1,250 | 1991 |

**Additional SIMs Published 1991** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1991 |

**Large-Scale National Grid Data Published 1992** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3281NE | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3282SE | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3381NW | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3382NW | 1:1,250 | 1992 |
| Ordnance Survey Plan | SP3382SW | 1:1,250 | 1992 |

**Large-Scale National Grid Data Published 1993** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1993 |

**Large-Scale National Grid Data Published 1993** (3)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP3282NE | 1:1,250 | 1993 |

**Ordnance Survey County Series Published 1890** (1)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 016_SE | 1:10,560 | 1890 |
| Warwickshire | 021_NE | 1:10,560 | 1890 |

**Ordnance Survey County Series Published 1905 to 1906** (2)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 016_SE | 1:10,560 | 1905 |
| Warwickshire | 021_NE | 1:10,560 | 1906 |

**Ordnance Survey County Series Published 1914 to 1919** (3)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 016_SE | 1:10,560 | 1919 |
| Warwickshire | 021_NE | 1:10,560 | 1914 |

**Ordnance Survey County Series Published 1938** (4)

| County | Mapsheet | Scale | Year |
|---|---|---|---|
| Warwickshire | 016_SE | 1:10,560 | 1938 |
| Warwickshire | 021_NE | 1:10,560 | 1938 |

**Ordnance Survey Plan Published 1955** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,560 | 1955 |

**Ordnance Survey Plan Published 1962** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,560 | 1962 |

**Ordnance Survey Plan Published 1970** (3)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,560 | 1970 |

**Ordnance Survey Plan Published 1982** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,000 | 1982 |

**Ordnance Survey Plan Published 1995** (2)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,000 | 1995 |

**10K Raster Mapping Published 1999** (1)

| National Grid Series | Mapsheet | Scale | Year |
|---|---|---|---|
| Ordnance Survey Plan | SP38SW | 1:10,000 | 1999 |

Currently we do not have agreement with Ordnance Survey to provide Large Scale National Grid Data from 1996 onwards.

Form LLC1. *(Local Land Charges Rules 1977 Schedule 1, Form C)*

**The duplicate of this form must also be completed: a carbon copy will suffice**

**For directions, notes and fees see overleaf.**

**Official Number** 3183
*(To be completed by the registering authority)*

# Register of local land charges

# Requisition for search and official certificate of search

Insert name and address of registering authority in space below

LOCAL LAND CHARGES TEAM
COVENTRY CITY COUNCIL
COUNCIL HOUSE (Rm 18)
EARL STREET
COVENTRY
CV1 5RR

## Requisition for search

*(A separate requisition must be made in respect of each parcel of land except as explained overleaf)*

fold

An official search is required in *Part(s)* 3 *of*[1] the register of local land charges kept by the above-named registering authority for subsisting registrations against the land [defined in the attached plan and] described below.

LLC1 REPLIES ONLY
NO CON29 ENQUIRIES
OFFICIALLY SUBMITTED

Description of land sufficient to enable it to be identified

DUNLOP AVIATION DIVISION
UNIT A2
HOLBROOK LANE
COVENTRY
CV6 4AA

LLC1 REPLIES ONLY
NO CON29 ENQUIRIES
OFFICIALLY SUBMITTED

Name and address to which certificate is to be sent

ANDREA MILLS
RPS HEALTH, SAFETY AND ENVIRONMENT
STEADINGS BARN
PURY HILL BUSINESS PARK
NR. ALDERTON
TOWCESTER
NORTHAMPTONSHIRE NN12 7LS

Signature of applicant *(or his solicitor)*

Date 22/09/05

Telephone number 01327 811111

Reference TD/48 3/7/AM

LLC1 REPLIES ONLY
NO CON29 ENQUIRIES
OFFICIALLY SUBMITTED

**Enclosure**
Cheque/~~Money Order~~/~~Postal Order~~/~~Giro~~

## Official certificate of search

To be completed by authorised officer

It is hereby certified that the search requested above reveals ~~no subsisting registrations~~[1]

*or* the 6 registrations described in the Schedule hereto[1] up to and including the date of this certificate.

Signed.....

On behalf of .....

Date

COVENTRY DISTRICT COUNCIL
LEGAL AND DEMOCRATIC SERVICES DIRECTORATE
- 6 OCT 2005
LOCAL LAND CHARGES

1 Delete if inappropriate. Otherwise insert Part(s) in which search is required.

2 Delete if inappropriate. (A plan should be furnished in duplicate if it is desired that a copy should be returned.)

3 Delete inapplicable words. (The Parts of the Schedule should be securely attached to the certificate and the number of registrations disclosed should be inserted in the space provided. Only Parts which disclose subsisting registrations should be sent.)

4 Insert name of registering authority.

# LOCAL LAND CHARGES ACT 1975

## PARTICULARS OF REGISTRATIONS

Part 4 - Miscellaneous Charges

COVENTRY DISTRICT COUNCIL
LEGAL AND DEMOCRATIC SERVICES DIRECTORATE
- 6 OCT 2005
LOCAL LAND CHARGES

Coventry City Council

| Description of charge (including reference to appropriate statutory provision) | Originating authority | Place where relevant documents may be inspected | Date of registration |
|---|---|---|---|
| Order under Sec. 11 Clean Air Act 1956 dated 8th September 1981 called Coventry (No.26) Smoke Control Order 1981<br><br>Operative 1st April 1982 | Coventry City Council | City Services Directorate<br>Broadgate House<br>Broadgate<br>COVENTRY | 01/04/82 |

# LOCAL LAND CHARGES ACT, 1975

## PARTICULARS OF REGISTRATIONS

Part 3(b) - other planning charges

COVENTRY DISTRICT COUNCIL
LEGAL AND DEMOCRATIC SERVICES
DIRECTORATE
- 6 OCT 2005
LOCAL LAND CHARGES

Coventry City Council

| Description of charge (including reference to appropriate statutory provision) | Originating authority | Place where relevant documents may be inspected | Date of registration |
|---|---|---|---|
| Town Planning Permission no. 46411 granted on 30.1.96 pursuant Sec.70 Town and Country Planning Act, 1990, subject to conditions, for DEMOLISH EXISTING FACTORY BUILDING & ERECT NEW FACTORY | Coventry City Council | Directorate of City Development<br>Tower Block<br>Much Park Street<br>COVENTRY | 5. 2.96 |

# LOCAL LAND CHARGES ACT, 1975

## PARTICULARS OF REGISTRATIONS

Part 3(b) - other planning charges

COVENTRY DISTRICT COUNCIL
LEGAL AND DEMOCRATIC SERVICES DIRECTORATE
- 6 OCT 2005
LOCAL LAND CHARGES

Coventry City Council

| Description of charge (including reference to appropriate statutory provision) | Originating authority | Place where relevant documents may be inspected | Date of registration |
|---|---|---|---|
| Town Planning Permission no. 39250 granted on 15.5.85 pursuant Sec.29 Town and Country Planning Act, 1971, subject to conditions, for EXTENSION TO EXISTING L.P. SHOP FOR STORAGE & WELDING PURPOSES | Coventry City Council | Directorate of City Development<br>Tower Block<br>Much Park Street<br>COVENTRY | 21.5.85 |

# LOCAL LAND CHARGES ACT, 1975

## PARTICULARS OF REGISTRATIONS

Part 4 - miscellaneous charges

COVENTRY DISTRICT COUNCIL
LEGAL AND DEMOCRATIC SERVICES
DIRECTORATE
- 6 OCT 2005
LOCAL LAND CHARGES

Coventry City Council

| Description of charge (including reference to appropriate statutory provision) | Originating authority | Place where relevant documents may be inspected | Date of registration |
|---|---|---|---|
| Conditions imposed in a consent pursuant Sec. 6 Clean Air Act, 1968, relating to the height of a chimney | Coventry City Council | Directorate of Housing and Environmental Services<br>Broadgate House<br>Broadgate<br>Coventry | 3.1.77 |

# LOCAL LAND CHARGES ACT, 1975

## PARTICULARS OF REGISTRATIONS

Part 3(b) - other planning charges

COVENTRY DISTRICT COUNCIL
LEGAL AND DEMOCRATIC SERVICES DIRECTORATE
- 6 OCT 2005
LOCAL LAND CHARGES

Coventry City Council

| Description of charge (including reference to appropriate statutory provision) | Originating authority | Place where relevant documents may be inspected | Date of registration |
|---|---|---|---|
| Town Planning Permission no. 29049A granted on 8.12.82 pursuant Sec.29 Town and Country Planning Act, 1971, subject to conditions, for PROPOSED EXTENSION TO EXISTING AIRCRAFT BRAKE MATERIAL PRODUCTION FACILITY | Coventry City Council | Directorate of City Development<br>Tower Block<br>Much Park Street<br>COVENTRY | 22.12.82 |
| Town Planning Permission no. 29049E granted on 9.3.85 pursuant Sec.29 Town and Country Planning Act, 1971, subject to conditions, for PROPOSED DEVELOPMENT TO EXISTING PRODUCTION FACILITY FOR AIRCRAFT BRAKE MATERIALS | Coventry City Council | Directorate of City Development<br>Tower Block<br>Much Park Street<br>COVENTRY | 17.3.83 |

andchar/frma-std

Coventry City Council

RECEIVED
3 - OCT 2005

**City Services Directorate**
Public Protection

Environmental Health
Environmental Protection
Broadgate House
Broadgate
Coventry
CV1 1NH

Telephone 024 7683 1832

**Please contact Janine Dickinson**
**Direct line 02476 832364**
**Fax 02476 831840**
**janine.dickinson@coventry.gov.uk**

Andrea Mills
RPS Health, Safety and Environment
Steadings Barn
Pury Hill Business Park
Nr Alderton
Towcester
Northamptonshire NN12 7LS

Your reference TD4827/AM
Our reference 205030877
29 September 2005

Dear Ms Mills

**RE: Request for Information: Dunlop Aviation Division, Holbrook Lane, Coventry, CV6 4AA**

Further to your request for information on the quality of land on which the above site is situated, a review of the records held by this Office has now been completed, including geological survey data, land quality statements submitted by developers, waste disposal licences and landfill gas monitoring data. A systematic analysis of the 1:10,000 and 1:10,560 scale mapping between 1888 and 1995 has been carried out. However, this review did not include a survey of previous planning uses which may or may not reveal that the site had been subject to a potentially contaminative use, at some point in the past.

1. There is an area of made ground within 500 metres of the site. This area of made ground is marked in white on the enclosed plan.

2. We have no records of any contamination on the site, however we hold one report for a contaminated site, which lies within 500 metres of the boundary of the site. Please see the enclosed plan for the location of the known area of contamination, which is outlined in blue.

   The site has not been identified within the City Councils contaminated land inspection strategy, however there is no guarantee that the site will not be investigated in the future as part of the Council's strategy. There are 2 potential sites that lie within 500 metres of the site boundary, which may be assessed in the future under the City Councils contaminated land inspection strategy.

3. There are several Part B processes within 500 metres of the site, these are marked in pink on the enclosed plan.

4. There have been two complaints relating to this site in the past. Please see details below:

   Complaint May 2005 – Noise from skip delivery. Outcome – informal action

SGS UKAS QUALITY MANAGEMENT 005
SGS UKAS ENVIRONMENTAL MANAGEMENT 005

*Director of City Services*
Stephen L Pickering
*Head of Service*
Michael J Green
Head of Public Protection

Complaint June 2001 – Generator noise. Outcome – informal action

Please note that while the information supplied above is correct as far as our records are concerned, no liability can be accepted should actual ground conditions prove to be at variance with it.

The Environmental Protection Section is continually seeking to improve the services we provide. We value your feedback and to facilitate this I have enclosed a satisfaction survey (and prepaid envelope) for your reply.

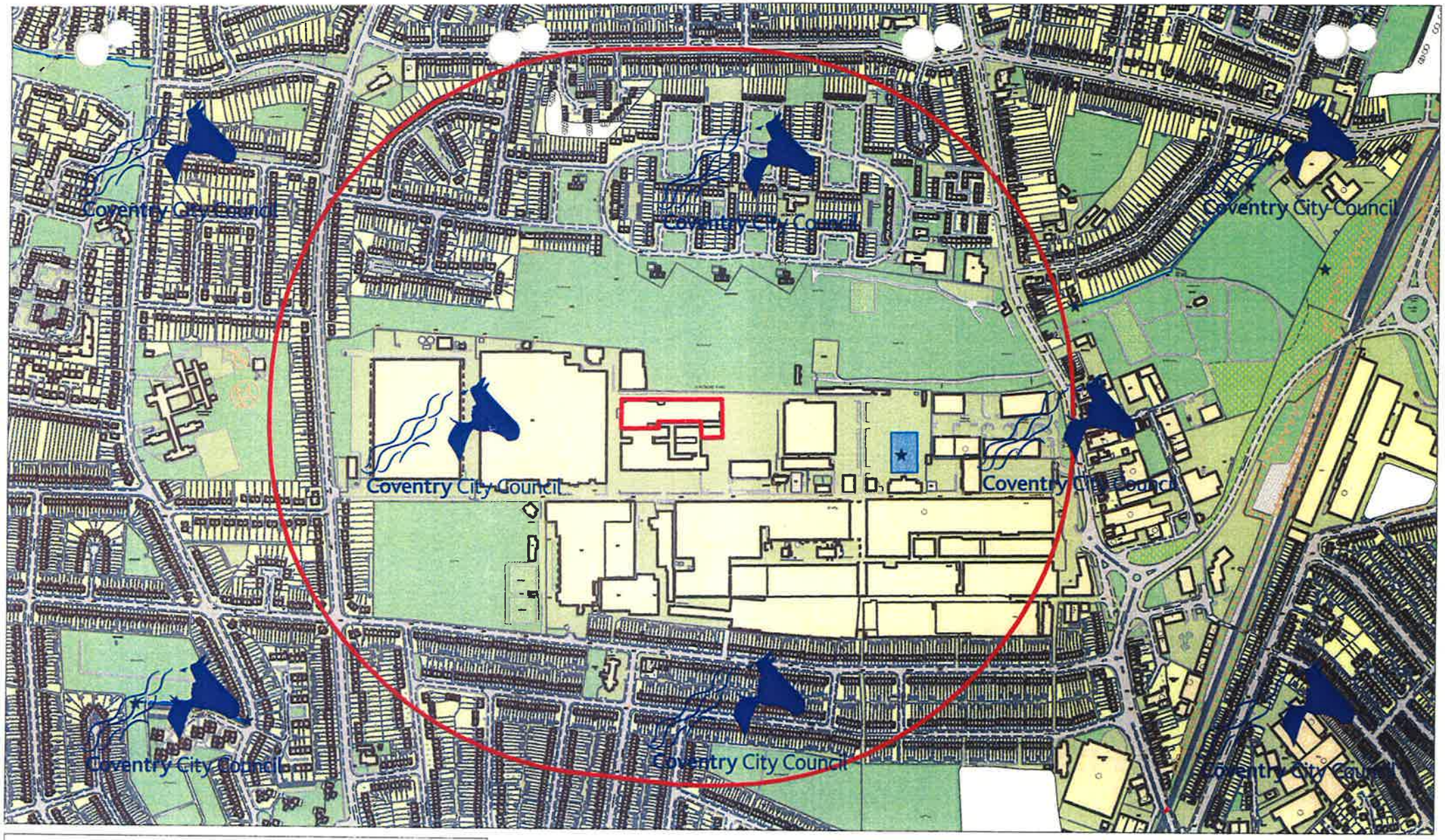
Should you require any further assistance on this matter please do not hesitate to contact me.

An invoice for £55-00 charge for the Land Quality Search will be sent to you.

Yours sincerely

Janine Dickinson

Janine Dickinson
**Environmental Protection Officer**




City Services Directorate
Environmental Health
Environmental Protection
Broadgate House, Broadgate
Coventry, CV1 1NH

Tel: 024 7683 1832
Fax: 024 7683 1840

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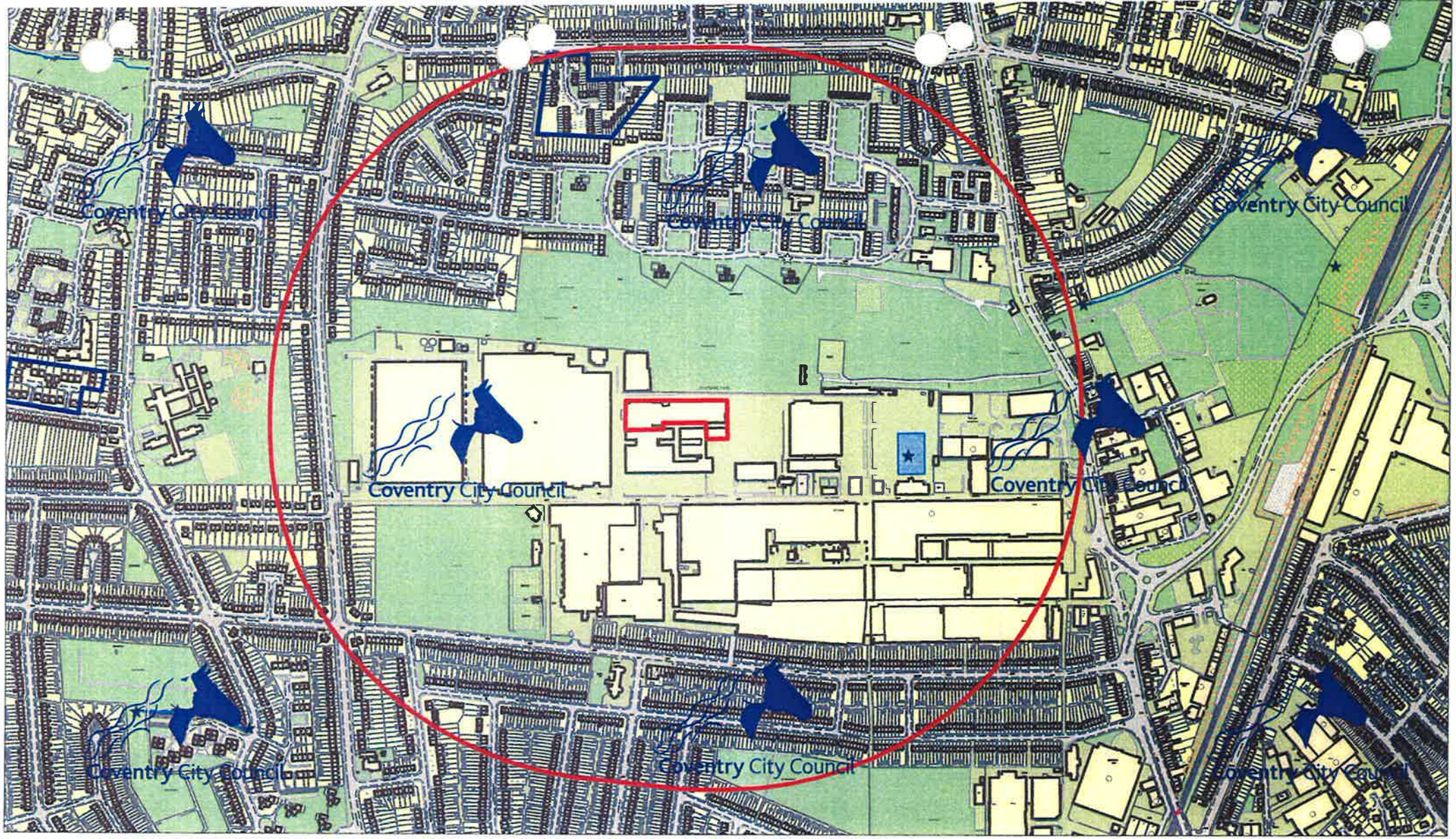


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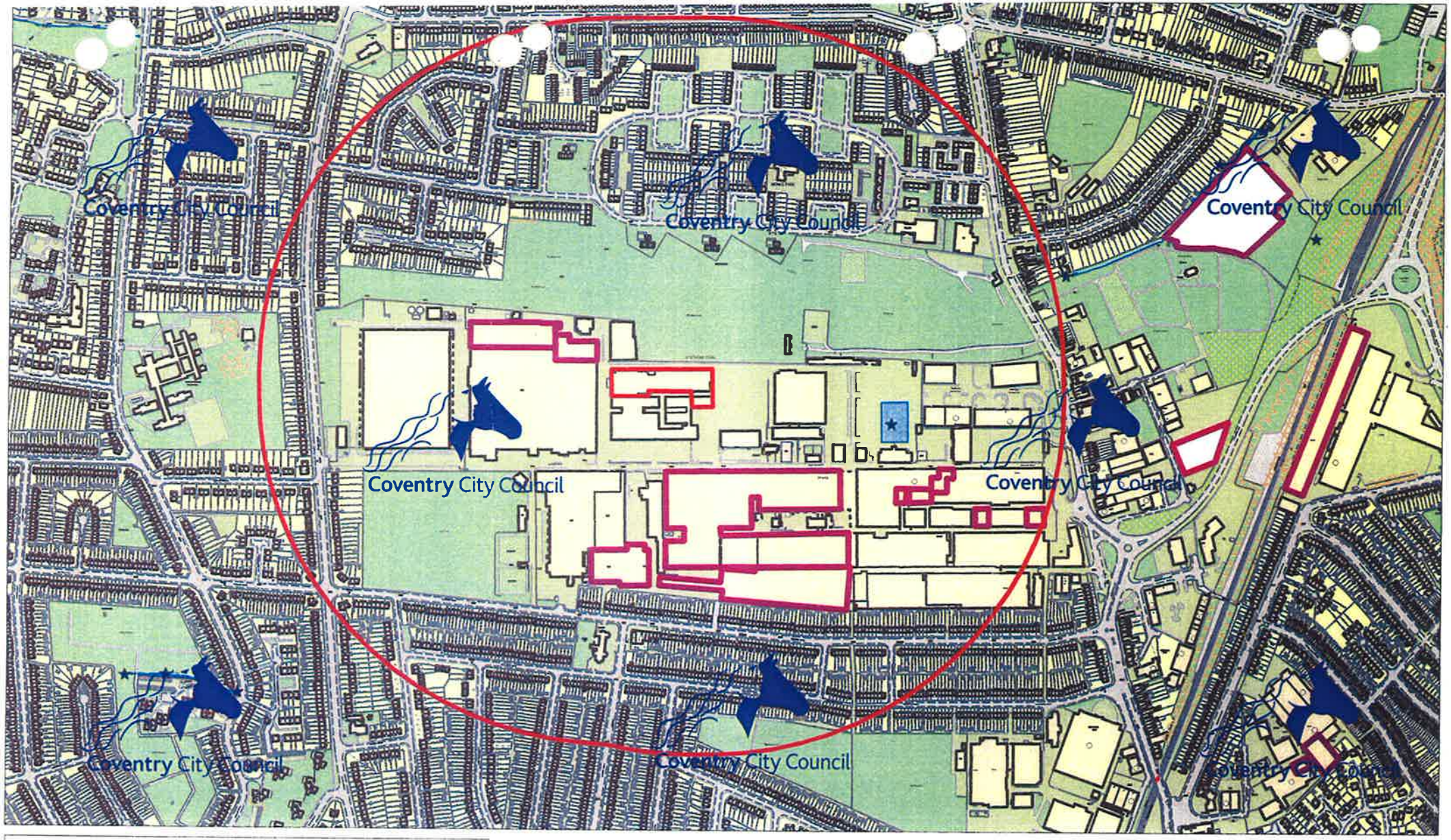


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I hereby certify that this is a typed copy of the wording of the document to which it purports to relate. Signed: A B Wickham Date: 19 December 1997

Serial No. 18/54/11/28

**SEVERN RIVER AUTHORITY**
**Water Resources Act 1963**
**Water Resources (Licences) Regulations 1965**

**LICENCE OF RIGHT TO ABSTRACT WATER**

THE SEVERN RIVER AUTHORITY hereby grant a licence to-

~~Dunlop Rim & Wheel Co. Ltd~~
of Holbrook Lane,
Foleshill,
Coventry.

**See attached Sheet dated** 19.12.97

(hereinafter referred to as "the licence holder") to abstract water from the source of supply described in the Schedule overleaf, subject to the provisions specified in such Schedule.

This licence shall remain in force until revoked ~~[expire on the day of 19 .]~~

DATED this 24th day of March, 1966.

PORTLAND HOUSE,
CHURCH STREET,
MALVERN, WORCS.

Signed: J.V. MORLEY
Clerk of the Authority.

**Fees and Charges.**

The fee payable by the licence holder under Section 57 of the Act on (the grant of this licence and annually thereafter is £5. (or such other sum as is for the time being prescribed by order of the Minister of Housing and Local Government), ~~and receipt of the said sum for the current year is hereby acknowledged.~~ In addition, charges may be payable pursuant to Part V of the Act in respect of water authorised to be abstracted under a licence.

**Offences.**

Attention is drawn to the following offences under the Act. It is an offence:-

(1) to fail to comply with a condition or requirement of a licence. Penalty, a fine (not exceeding £100 in the case of summary conviction) [Section 49];

Continued on Page 2

20/01/2006 12:51 024/66686604 FACILITIES DEPT PAGE 02/12

## LICENCE OF RIGHT TO ABSTRACT WATER (cont'd)

(2) to construct or extend any well, borehole or other work whereby water may be abstracted from underground strata, or instal or modify any machinery or apparatus whereby additional quantities of water may be abstracted from underground strata, unless the abstraction of the water, or additional quantities of water, is authorised by licence under the Act and the well, borehole or other work as constructed or extended, or the machinery or apparatus as installed or modified, complies with the requirements of the licence. Penalty as in (1) [Sections 23(2) and 49];

(3) wilfully to alter or to interfere with a measuring device required by a licence to be used, so as to prevent it from measuring correctly. Penalty, imprisonment, or a fine, or both [Section 115].

## IMPORTANT NOTICE
## TO A SUCCESSOR TO THIS LICENCE

If you have become the holder of this licence, in accordance with section 32(1), or regulations made under section 32(3), of the Water Resources Act 1963, by succeeding to the previous licence holder's occupation of land specified in the licence as land on which water abstracted in pursuance of the licence is to be used, you should note that by virtue of section 32(2) of the above Act (or corresponding provisions in the regulations under section 32(3), you will cease to be the holder of the licence at the end of a period of one month from the date on which you became the occupier of the land in question unless before the end of that period you have given the River Authority notice of the change in the occupation of the land.

**IMPORTANT: This is a valuable document.**

**Please retain in a place of safe-keeping.**

Continued on Page 3

20/01/2006 12:31 0247666860 4 FACILITIES DEPT PAGE 03/12

## SCHEDULE

## PROVISIONS OF LICENCE

### SOURCE OF SUPPLY AND AUTHORISED PLACE(S) OF ABSTRACTION

Borehole of 12 inches to 18 inches diameter not exceeding 500 feet deep at SP. 332822 at the Company's premises at Holbrook Lane, Foleshill, Coventry.

### LAND(S) ON WHICH WATER IS AUTHORISED TO BE USED

Company's premises at Holbrook Lane, Foleshill, Coventry.

### PURPOSE(S) FOR WHICH WATER IS AUTHORISED TO BE USED

Process of Manufacture, Cooling and Boiler Feed.

### QUANTITY OF WATER AUTHORISED TO BE ABSTRACTED DURING A PERIOD OR PERIODS SPECIFIED

Not exceeding 320,000 gallons per day nor 116,800,000 gallons in any calendar year.

### AUTHORISED MEANS OF ABSTRACTION

Pump of capacity not exceeding 21,500 gallons per hour.

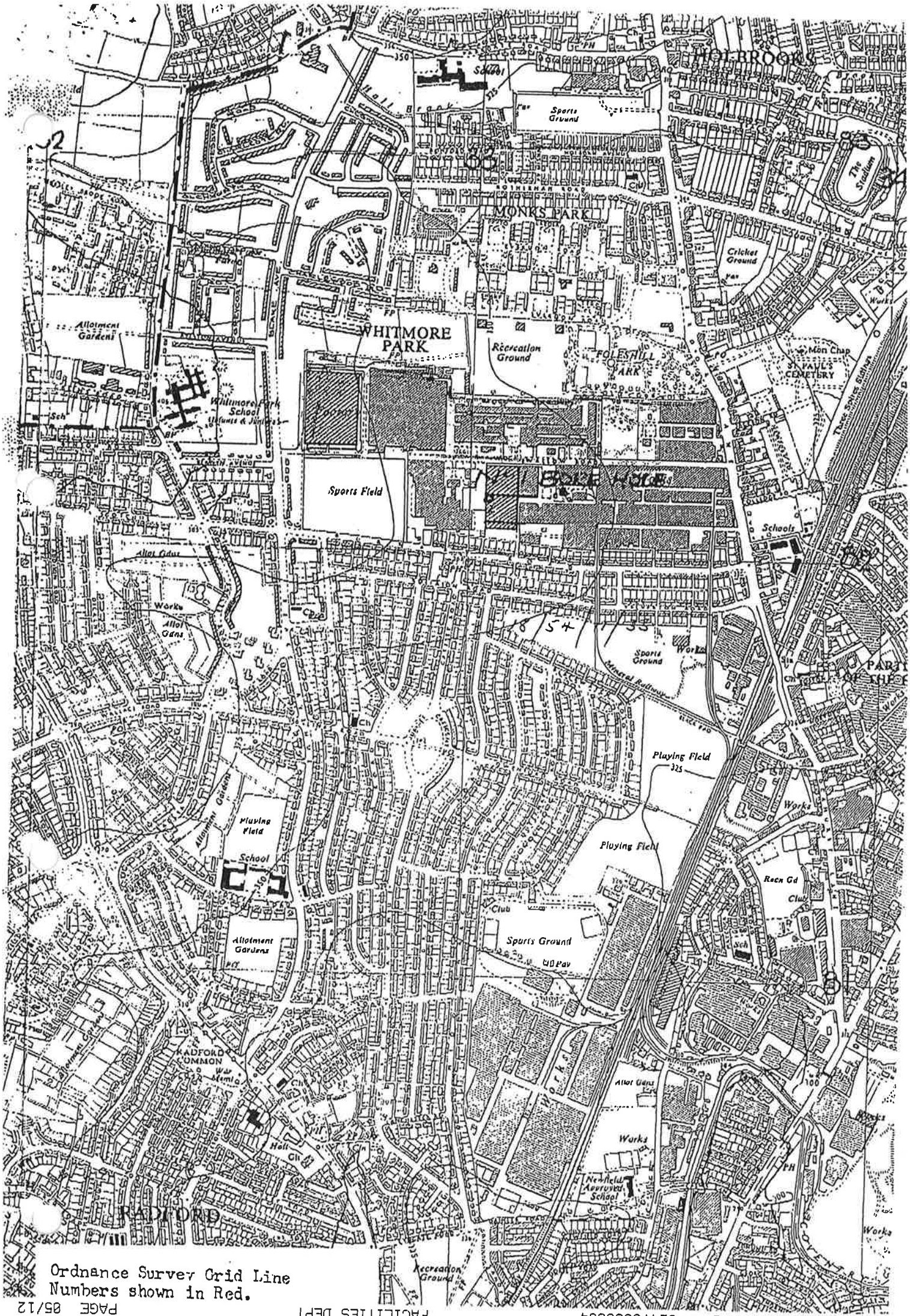
### MEANS TO BE USED FOR MEASURING OR ASSESSING QUANTITIES OF WATER AUTHORISED BY THIS LICENCE TO BE ABSTRACTED

Meter.

### PROVISIONS FOR DETERMINING, BY MEASUREMENT OR ASSESSMENT, THE QUANTITY OF WATER TAKEN TO HAVE BEEN ABSTRACTED DURING THE PERIOD(S) SPECIFIED

Meter reading to be recorded daily and made available for inspection by authorised representative of the River Authority.

### OTHER CONDITIONS SUBJECT TO WHICH ABSTRACTION IS AUTHORISED




Ordnance Survey Grid Line
Numbers shown in Red.

**ENVIRONMENT AGENCY**

**CHANGE OF TRADING TITLE OF HOLDER OF LICENCE SERIAL NO. 18/54/11/28**

With effect from 9 December 1997 the holder of this licence is **DUNLOP LTD** .

Dated: 19 December 1997

P. Bailey

**Area Flood Defence & Water Resources Manager**

I hereby certify that this is a typed copy of the wording of the document to which it purports to relate. Signed: ABWinkbottom Date: 19 December 1997

Serial No. 18/54/11/29

**SEVERN RIVER AUTHORITY**
**Water Resources Act 1963**
**Water Resources (Licences) Regulations 1965**

**LICENCE OF RIGHT TO ABSTRACT WATER**

THE SEVERN RIVER AUTHORITY hereby grant a licence to-

~~Dunlop Rim & Wheel Co. Ltd.,~~
of Holbrook Lane,
Foleshill,
Coventry.

See attached Sheet dated 19.12.97.

(hereinafter referred to as "the licence holder") to abstract water from the source of supply described in the Schedule overleaf, subject to the provisions specified in such Schedule.

This licence shall remain in force until revoked ~~[expire on the day of 19 .]~~

DATED this 24th day of March, 1966.

PORTLAND HOUSE,
CHURCH STREET,
MALVERN, WORCS.

Signed: J.V. MORLEY
Clerk of the Authority.

**Fees and Charges.**

The fee payable by the licence holder under Section 57 of the Act on (the grant of this licence and annually thereafter is £5. (or such other sum as is for the time being prescribed by order of the Minister of Housing and Local Government), ~~and receipt of the said sum for the current year is hereby acknowledged.~~ In addition, charges may be payable pursuant to Part V of the Act in respect of water authorised to be abstracted under a licence.

**Offences.**

Attention is drawn to the following offences under the Act. It is an offence:-

(1) to fail to comply with a condition or requirement of a licence. Penalty, a fine (not exceeding £100 in the case of summary conviction) [Section 49];

Continued on Page 2

20/01/2006 12:31 02475668604 FACILITIES DEPT PAGE 07/12

## LICENCE OF RIGHT TO ABSTRACT WATER (cont'd)

(2) to construct or extend any well, borehole or other work whereby water may be abstracted from underground strata, or instal or modify any machinery or apparatus whereby additional quantities of water may be abstracted from underground strata, unless the abstraction of the water, or additional quantities of water, is authorised by licence under the Act and the well, borehole or other work as constructed or extended, or the machinery or apparatus as installed or modified, complies with the requirements of the licence. Penalty as in (1) [Sections 23(2) and 49];

(3) wilfully to alter or to interfere with a measuring device required by a licence to be used, so as to prevent it from measuring correctly. Penalty, imprisonment, or a fine, or both [Section 115].

## IMPORTANT NOTICE
## TO A SUCCESSOR TO THIS LICENCE

If you have become the holder of this licence, in accordance with section 32(1), or regulations made under section 32(3), of the Water Resources Act 1963, by succeeding to the previous licence holder's occupation of land specified in the licence as land on which water abstracted in pursuance of the licence is to be used, you should note that by virtue of section 32(2) of the above Act (or corresponding provisions in the regulations under section 32(3), you will cease to be the holder of the licence at the end of a period of one month from the date on which you became the occupier of the land in question unless before the end of that period you have given the River Authority notice of the change in the occupation of the land.

**IMPORTANT: This is a valuable document.**

**Please retain in a place of safe-keeping.**

Continued on Page 3

## SCHEDULE

### PROVISIONS OF LICENCE

**SOURCE OF SUPPLY AND AUTHORISED PLACE(S) OF ABSTRACTION**

Borehole not exceeding 541 feet deep at SP/331821 at Company's Works, at Holbrook Lane, Foleshill, Coventry.

**LAND(S) ON WHICH WATER IS AUTHORISED TO BE USED**

Holbrook Lane Works, Foleshill, Coventry.

**PURPOSE(S) FOR WHICH WATER IS AUTHORISED TO BE USED**

Process of manufacture, cooling and boiler feed.

**QUANTITY OF WATER AUTHORISED TO BE ABSTRACTED DURING A PERIOD OR PERIODS SPECIFIED**

Not exceeding 320,000 gallons per day nor 66,370,000 gallons in any calendar year.

**AUTHORISED MEANS OF ABSTRACTION**

Pump of capacity not exceeding 18,000 gallons per hour.

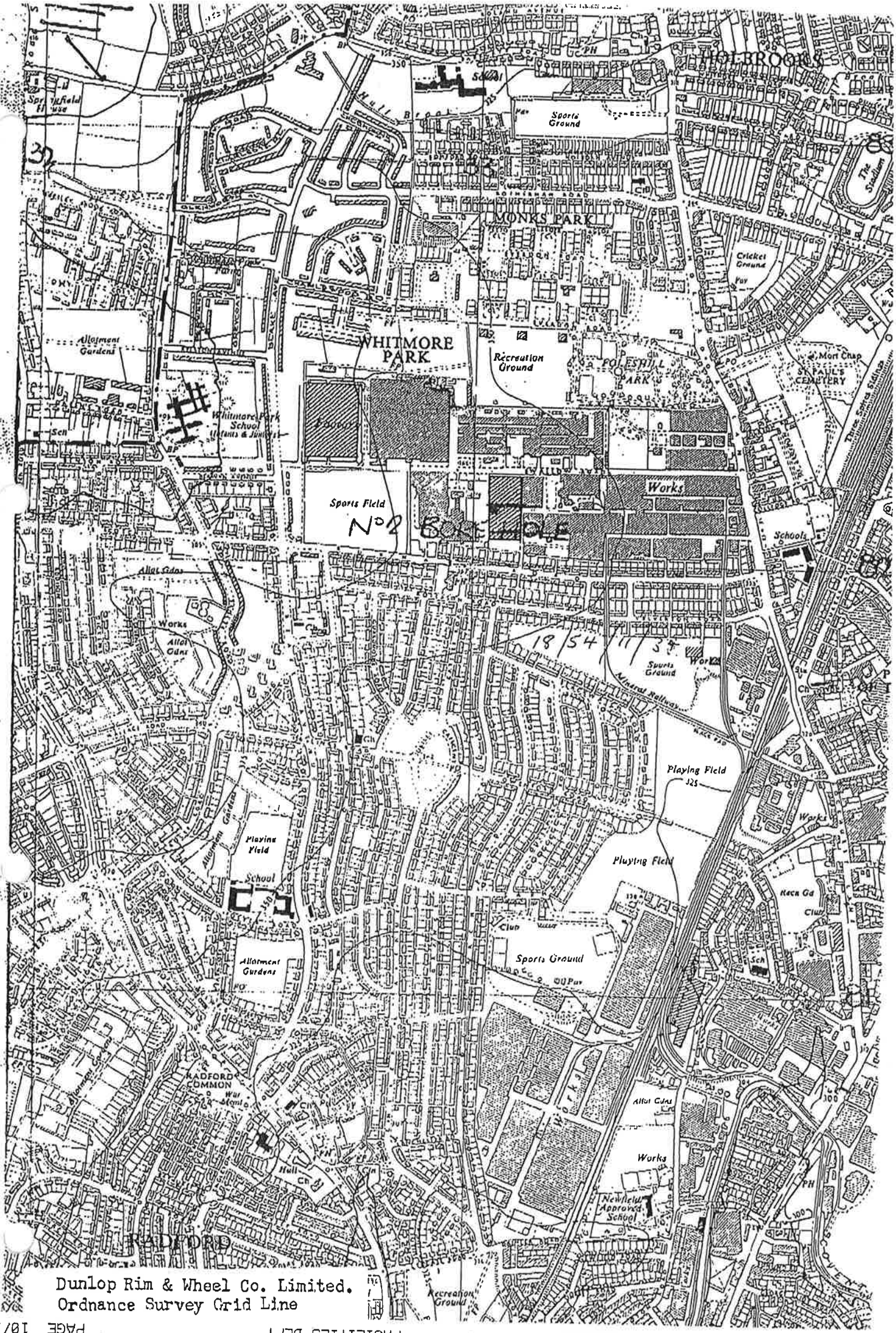
**MEANS TO BE USED FOR MEASURING OR ASSESSING QUANTITIES OF WATER AUTHORISED BY THIS LICENCE TO BE ABSTRACTED**

Meter.

**PROVISIONS FOR DETERMINING, BY MEASUREMENT OR ASSESSMENT, THE QUANTITY OF WATER TAKEN TO HAVE BEEN ABSTRACTED DURING THE PERIOD(S) SPECIFIED**

Meter reading to be recorded daily and made available for inspection by authorised representative of the River Authority.

**OTHER CONDITIONS SUBJECT TO WHICH ABSTRACTION IS AUTHORISED**




Dunlop Rim & Wheel Co. Limited.
Ordnance Survey Grid Line

**ENVIRONMENT AGENCY**

**CHANGE OF TRADING TITLE OF HOLDER OF LICENCE SERIAL NO. 18/54/11/29**

With effect from 9 December 1997 the holder of this licence is **DUNLOP LTD** .

Dated: 19 December 1997

P. Bailey

**Area Flood Defence & Water Resources Manager**

Severn Trent Water Limited
Water Industry Act 1991

CONSENT NO. C210.01
DIRECTION NO.1

# Direction to vary conditions of consent to discharge trade effluent to the public foul water sewer

To:
Dunlop Limited,
Aviation Division,
Holbrook Lane,
Coventry.

**Whereas**

Trade effluent is now discharged from the premises known as Dunlop Limited, Aviation Division, and situated at Holbrook Lane, Coventry under a consent dated 1st August 1989 issued by Severn Trent Water Authority

Now Therefore Severn Trent Water Limited (hereinafter called "The Sewerage Undertaker"). Hereby Direct under the powers conferred on them by Section 124 of the Water Industry Act 1991, that subject as hereinafter specified as from 1st December 1992 the Consent dated the 1st August 1989 be varied and the following conditions substituted for the conditions previously attached thereto.

**Sewer affected**

1. The public sewer into which the trade effluent may be discharged is the foul water sewer(s) situated in Holbrook Lane, Coventry

**Nature or composition**

2. The trade effluent to be discharged shall consist solely of waste waters specified in the trade effluent notice served in respect of the premises and derived from Boiler Blowdown, C.V.D.Boiler House

**Maximum volume**

3. The maximum volume of trade effluent to be discharged in any continuous period of 24 hours shall not exceed ....2.0.... cubic metres

**Maximum rate**

4. The highest rate at which the trade effluent may be discharged shall not exceed ....0.5.... litres per second

**Period of discharge**

5. The trade effluent shall only be discharged into the public sewer between ....00.00.... hours and ....24.00.... hours

**Quality conditions**

6. a. The trade effluent to be discharged shall not contain any of the substances or properties listed in Appendix I hereto in amounts or proportions other than those which comply with the limits there stated and shall not contain any substances or properties not listed in Appendix I except with the prior written permission of the Sewerage Undertaker and on such terms and conditions as are set out therein.

   b. The trade effluent to be discharged shall not contain any prescribed substances listed in Schedule 1 to the Trade Effluents (Prescribed Processes and Substances) Regulations 1989 insofar as they are in a concentration greater than the background concentration (as defined in the said Regulations).

   c. Where the trade effluent derives from a prescribed process mentioned in Schedule 2 to the said Regulations,it shall not contain asbestos (as defined in the said Regulations) and chloroform in a concentration greater than the background concentration (as defined in the said Regulations);

**Inspection chamber**

7. An inspection chamber or manhole shall be provided and maintained in connection with each pipe through which the trade effluent is to be discharged into the public sewer, and such inspection chamber or manhole shall be so constructed and maintained as to enable a person readily to obtain samples of the trade effluent so discharged.

**Quality and volume measurement**

8. (a) Apparatus adequate for measuring and automatically recording the volume, rate and composition of trade effluent so discharged shall be provided with every such pipe and such apparatus shall be maintained and tested to the satisfaction of the Sewerage Undertaker.

(b) If the measuring and recording apparatus ceases to record or is suspected of not measuring correctly, then the Sewerage Undertaker shall have the right to make estimates of the volume and composition of the trade effluent until such time as the said apparatus is again operating to the satisfaction of the Sewerage Undertaker.

(c) The foregoing provisions of this condition shall be of no effect so long as there is provided and maintained to the satisfaction of the Sewerage Undertaker some other method approved by the Sewerage Undertaker of sampling the trade effluent or determining, measuring and recording the volume and composition of the trade effluent so discharged.

(d) Records of the volume and composition of the trade effluent discharged into the sewer shall be kept available at all times for inspection by any authorised representative of the Sewerage Undertaker and copies of such records shall be sent to the Sewerage Undertaker on demand.

**Payment**

9. Payment shall be made to the Sewerage Undertaker for the reception, treatment and disposal of the trade effluent discharged into the public foul water sewer in accordance with the Sewerage Undertakers Charging Scheme in force from time to time.

All sums payable to the Sewerage Undertaker under this condition shall become due and payable on demand.

Dated 17TH Day of SEPTEMBER 1992.

For and on behalf of the Sewerage Undertaker

.....

District Manager

Address of District

NOTE: Your attention is drawn to the right of appeal to the Director General of Water Services conferred by Section 126 of the Water Industry Act 1991.

ST.444

APPENDIX I

CONSENT NO. C210.01
DIRECTION NO.1

1. The trade effluent shall have a pH value of not less than 6 nor greater than 10 in the recognised scale.

2. The Chemical Oxygen Demand of the trade effluent shall not exceed 600 milligrams per litre.

3. The Suspended Solids in the trade effluent shall not exceed 600 milligrams per litre

4. The effluent shall be free from physically separable, dispersed or emulsified oil or soluble oil.

5. The temperature of the trade effluent shall not exceed 43 degrees Centigrade

A shaken sample to be used except for COD where the sample shall be supernatant after 1 hour settlement.

Severn Trent Water

# Trade effluent charge calculation

The payment to be made by the occupier(s) of the premises from which the trade effluent is discharged for the whole or any part of any period of twelve calendar months commencing on 1 April in any year shall be calculated as follows:

1. The Volume of trade effluent discharged in cubic metres multiplied by C, where

$$C = R + V + \frac{Ot}{Os} B + \frac{St}{Ss} S$$

C = Total charge per cubic metre of trade effluent.

R = One third of the amount determined by the Sewerage Undertaker as the average cost to the Sewerage Undertaker for the year of charge of receiving into its sewers (other than those used solely for surface water) and conveying one cubic metre of sewage to the Sewerage Undertaker's sewage treatment works.

V = The amount determined by the Sewerage Undertaker as the average cost for the year of charge of primary treatment and other volumetric treatment costs in the treatment of one cubic metre of sewage at the Sewerage Undertaker's sewage treatment works.

Ot = The Chemical Oxygen Demand (COD) of the trade effluent in milligrams per litre (mg/l) after one hour quiescent settlement.

Os = The estimated average Chemical Oxygen Demand (COD) of settled sewage in milligrams per litre (mg/l) at the Sewerage Undertaker's works as determined by the Sewerage Undertaker for the purpose of the year of charge.

B = The amount determined by the Sewerage Undertaker as the average cost to the Sewerage Undertaker for the year of charge of biological treatment of one cubic metre of sewage at the Sewerage Undertaker's sewage treatment works.

St = The total suspended solids in the trade effluent in milligrams per litre (mg/l) at the pH of the trade effluent.

Ss = The estimated average amount of suspended solids in milligrams per litre (mg/l), determined on a shaken sample, in sewage received for treatment at the Sewerage Undertaker's works as determined by the Sewerage Undertaker for the purposes of the year of charge.

S = The amount determined by the Sewerage Undertaker as the average cost to the Sewerage Undertaker for the year of charge, of primary sludge treatment and disposal of one cubic metre of sewage at the Sewerage Undertaker's sewage treatment works.

2. Minimum charge for small volumes: where the product of the volume of trade effluent in cubic metres and the unit charges calculated from the above formula is less than the minimum charge determined by the Sewerage Undertaker for the year of charge, then that minimum charge shall be paid.

3. The Sewerage Undertaker will notify the occupier(s) of the premises from which trade effluent is discharged of the factors in the above formula, on which the Sewerage Undertaker's trade effluent charges will be based for each year of charge, prior to 1 April in any year.



09/03/2006 14:06 02476668604 FACILITIES DEPT PAGE 05/12

Appendix 4
Water Industry Act 1991

Severn Trent Water

# Offences

Your attention is drawn to the provisions of the following Sections:-

Section 121 of the Water Industry Act 1991, which provides inter alia that the occupier of the premises from which trade effluent is discharged in contravention of any condition imposed on a consent shall be guilty of an offence and be liable on summary conviction to a fine not exceeding the statutory maximum or on conviction on indictment, to a fine.

Section 111 of the Water Industry Act 1991, the effect of which is given here below,in relation to a discharge of trade effluent which may not comply with either the description stated by the occupier in the trade effluent notice or with any condition in a consent or direction issued under the Act:-

1. No person shall throw, empty or turn, or suffer or permit to be thrown or emptied or to pass, into any public sewer, or into any drain or sewer communicating with a public sewer:-

   (a) Any matter likely to injure the sewer or drain, or to interfere with the free flow of its contents, or to affect prejudicially the treatment and disposal of its contents; or

   (b) Any chemical refuse or waste steam, or any liquid of a temperature higher than one hundred and ten degrees Fahrenheit, being refuse or steam which, or a liquid which when so heated, is, either alone or in combination with the contents of the sewer or drain, dangerous, or the cause of a nuisance, or injuries or likely to cause injuries to health; or

   (c) Any petroleum spirit, or carbide of calcium.

2. A person who contravenes any of the provisions of this Section shall be liable:-

   (a) On summary conviction to a fine not exceeding the Statutory maximum and to a further fine not exceeding £50 for each day on which the offence continues after conviction;

   (b) On conviction on indictment, to imprisonment for a term not exceeding two years or a fine or both.

3. In respect of the imposition of a daily penalty -

   (a) the Court may fix a reasonable date from the date of Conviction for Compliance with any directions given by the Court; and

   (b) where a Court has fixed such a period, the daily penalty shall not be imposed in respect of any day before the end of that period.

4. In this Section the expression "petroleum spirit" means any such:-

   (a) Crude petroleum

   (b) Oil made from petroleum, or from coal, shale, peat or other bituminous substances; or

   (c) Product of petroleum or mixture containing petroleum,

as, when tested in the manner prescribed by or under the Petroleum (Consolidation) Act 1928, gives off an inflammable vapour at a temperature of less than seventy-three degrees Fahrenheit.



09/03/2006 14:06 02475668604 FACILITIES DEPT PAGE 06/12

**Severn Trent Water**

Severn Trent Water Ltd
PO Box 51
Raynesway
Derby DE21 7JA
Tel 01332 683369
Fax 01332 683357
Direct Line 01926 406191

Contact Robin Priestley
Your Ref
Our Ref

24 February 2006

The Company Secretary
Dunlop Aerospace Limited
Holbrook Lane
Coventry
Warwickshire
CV6 4AA
F.A.O. Mr N Davies

Dear Sirs,

**Water Industry Act 1991**
**Consent for Discharge of CVD cooling towers to the public foul water sewer**

This letter defines the conditions under which Severn Trent Water Limited gives its consent to the discharge of trade effluent from Dunlop Aerospace Braking Systems, Holbrook Lane, Coventry, Warwickshire, CV6 4AA to the public foul water sewer.

**Definitions**

In the conditions below the following definitions are to be applied:

"the Company" means Dunlop Aerospace Limited.

"the Sewerage Undertaker" means Severn Trent Water Limited, whose offices are situated at 2297 Coventry Road, Birmingham B26 3PU and any of its staff or employees and any other duly authorised person engaged in sewerage functions.

"the Site" means the site occupied by the Company at Holbrook Lane, Coventry, Warwickshire, CV6 4AA .

"the Sewer" means the foul water sewer serving the Site.

"the Effluent" means the waste water discharged to the foul sewer serving the Site.

**CONTINUATION**

## Conditions

1. The Sewerage Undertaker hereby gives its consent, subject as appears below, to the discharge of the Effluent to the Sewer.

2. The Effluent shall consist solely of waste water derived from CVD cooling towers.

3. The Effluent shall not contain any of the substances or properties listed below in amounts or proportions other than those which comply with the limits stated and shall not contain any substances or properties not listed except with prior written permission of the Sewerage Undertaker.

   a. The temperature of the Effluent shall not exceed 43° Centigrade (110° Fahrenheit).

   b. The Effluent shall be free from physically separable, dispersed or emulsified oil and soluble oils, and from materials immiscible with water.

   c. There shall be eliminated from the Effluent, before it is discharged into the Sewer, any matter which either alone or in combination with any matter with which it is likely to come into contact while it is passing through any sewers is likely to injure or obstruct any such sewers or cause injury to and/or damage to the health of any person lawfully present in such sewers, pumping stations or sewage treatment works or to make difficult or expensive the treatment or disposal of their contents and in particular but without prejudice to the generality of the foregoing the following matters:-

      i). petroleum spirit;

      ii). calcium carbide;

      iii). halogenated hydrocarbons;

      iv). any flammable materials;

      v). any other matter which for any operational or environmental reason may be notified in writing to the Company by the Sewerage Undertaker at any time.

   d. The Effluent shall not contain any special category effluent defined in Section 138 Water Industry Act 1991 as amended from time to time in a concentration greater than background concentration as defined in the Trade Effluents (Prescribed Processes and Substances) Regulations 1989.

**CONTINUATION**

4. The maximum rate at which the Effluent may be discharged shall not exceed 2 litres per second, and the maximum volume discharged in any period of 24 hours shall not exceed 8.5 cubic metres.

5. The Effluent shall only be discharged to the Sewer between 00:00 hours and 23:59 hours.

6. The Company shall pay charges to the Sewerage Undertaker for the reception, treatment and disposal of the Effluent discharged to the Sewer. Such charges shall be calculated at the Sewerage Undertaker's published charges for measured used water in force from time to time, and upon the volume of water supplied to the Site.

   All sums payable on demand.

7. The Company's attention is drawn to the provisions of Section 122 Water Industry Act 1991 (right to appeal to the Director General of Water Services against any Condition attached to a consent) and Section 124 Water Industry Act 1991 (right of Sewerage Undertaker to vary the conditions attached to a consent).

Yours faithfully

Kevin Triggs

K. Triggs
**Business Services Manager**

# APPENDIX C2

# GEOLOGICAL AND HYDROGEOLOGICAL DATA

The soils within the site location are freely draining, slightly acid, loamy soils comprising superficial deposits of Thrussington Till overlying Keresley Member argillaceous rocks with interbedded sandstones and conglomerates. The superficial deposits extend 375 metres to the north, in excess of 1000 metres to the west, 750 metres to the east and 250 metres to the south of the site. The solid geology extends to at least 1000 metres around the site to the south, east and west, with an area of Keresley Member sandstone to the immediate north. These geological layers are reported to be in excess of 100 metres thick.

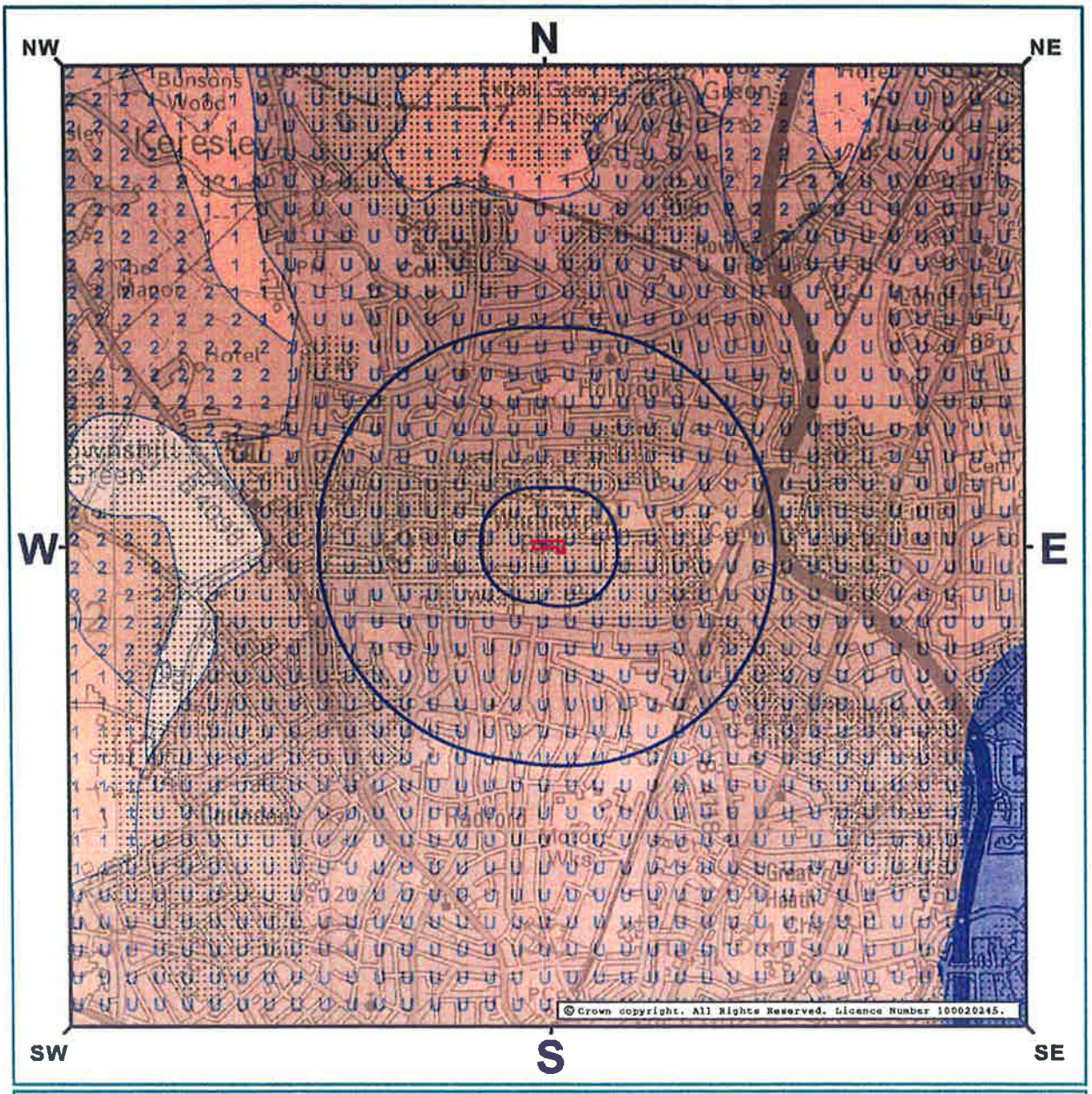
The site lies in an area that may be affected by coal mining activity. Information provided by the site has indicated that there may have been some minor subsidence on site in relation to nearby mining activities. According to BGS records there is a low risk of landslip subsidence on the site.

Information from Environment Agency Mapsheet 23 indicates that the site lies over an area of Minor Aquifer relating to the Till deposits. These can be fractured or potentially fractured rocks, which do not have a primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers.

There are 2 licensed groundwater abstractions within 1000 metres of the site, which are both licensed to Dunlop Ltd. Licence numbers 18/54/11/28 and 18/54/11/29 are both for the abstraction of up to 320,000 gallons of groundwater per day for the manufacturing processes, cooling and boiler feed.

Zone 3 of the Groundwater Source Protection Zone for the abstractions at the Watery Lane Pumping Station boreholes extends to within approximately 330 metres northwest of the site, with Zone 2 approximately 450 metres from the site. These boreholes lie approximately 1300 metres to the northwest of the site.

# Groundwater Vulnerability Map




## KEY

### General

- Specified Site
- Bearing Reference Point
- Buffer

### Groundwater Vulnerability

**Geological Classes**

- Major Aquifer (High Permeable)
  - High (H) 1, 2, 3, U
  - Intermediate (I) 1, 2
  - Low
- Minor Aquifer (Variable Permeable)
  - High (H) 1, 2, 3, U
  - Intermediate (I) 1, 2
  - Low
- Non Aquifer (Negligibly Permeable)

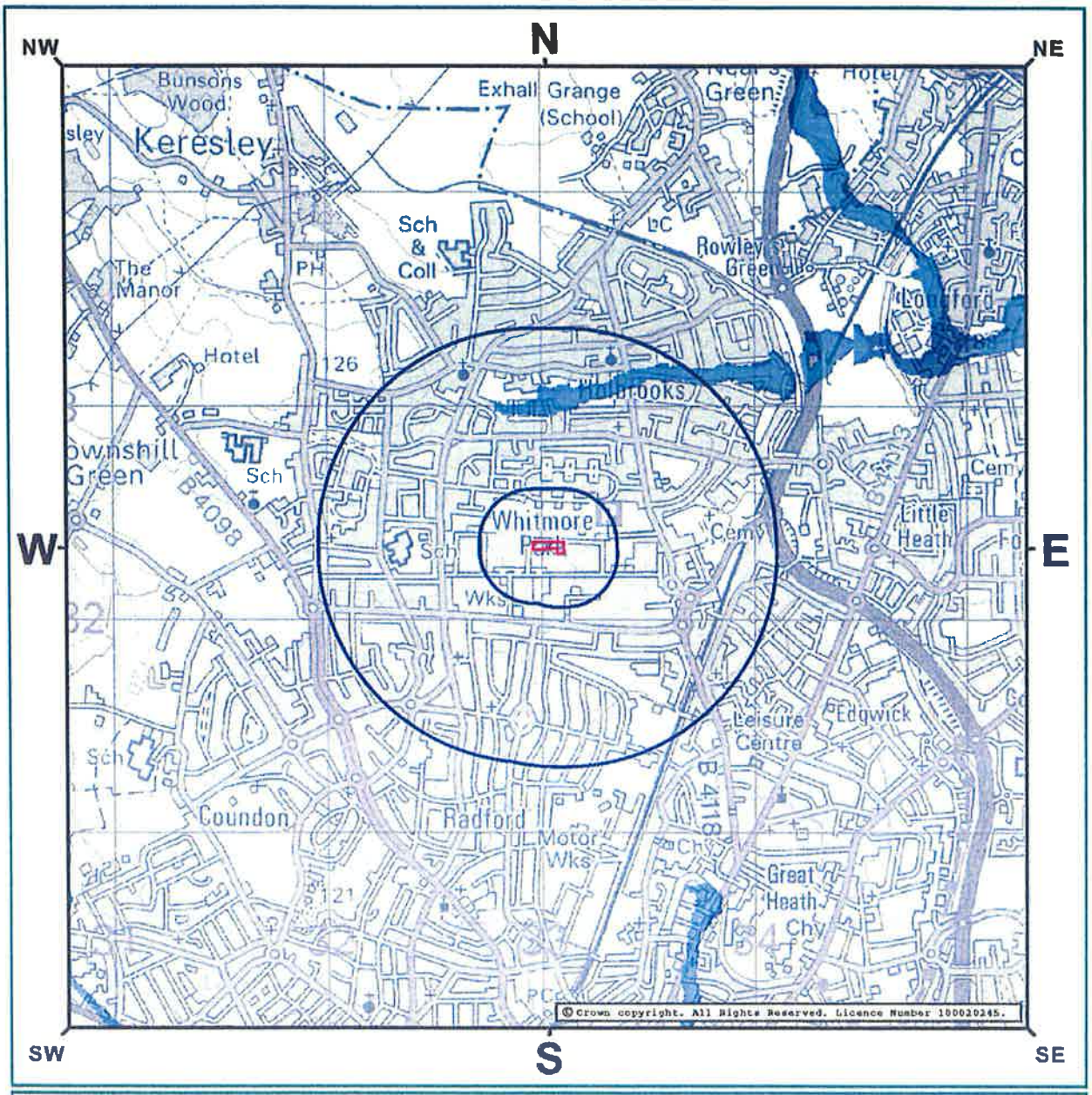
**Soil Classes**

- Drift Deposit

# APPENDIX C3
# HYDROLOGICAL DATA

There is one significant watercourse within 1000 metres of the installation for which the Environment Agency holds hydrological data. The Hall Brook is located approximately 600 m north of the site. The quality of the brook is Grade D (Fair) for river chemistry and river biology on the stretch from Electricity Line the Manor to Rowleys Green. The river flow rate is less than 0.31 cumecs.

The site is not within an indicative floodplain area but is approximately 600 metres south of the fluvial floodplain of the Hall Brook.




# KEY

## General

- Specified Site
- Bearing Reference Point
- Buffer

## Agency & Hydrological

### Environment Agency

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

# APPENDIX C4
# EMS PROCEDURES

Please refer to Appendix 13.

# APPENDIX C5

# SURVEY OF SURFACE WATER DISCHARGES

# Report Summary

UKAS 1314 0897 1229 1811 1812

STL COVENTRY

SEVERN TRENT SERVICES

*Mr F Brookes*
*Dunlop Aviation*

*Holbrook Lane*
*Coventry*

*CV6 4AA*

**Report Number : TH/104062/2001 Issue 1**

| | | | |
|---|---|---|---|
| Number of Samples included in report | 2 | Job Received : | 07 March 2001 |
| Number of test results included in report | 28 | Analysis Commenced | 07 March 2001 |

Signed : J. Keightley

Name : J. Keightley Date : 19 March 2001

Title : Production Manager

Unless otherwise stated Severn Trent Laboratories was not responsible for sampling
Information on the methods of analysis and performance characteristics are available on request
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory



Severn Trent Laboratories Ltd
STL Business Centre, Torrington Avenue, Coventry CV4 9GU Tel : 02476 421213 Fax : 02476 856575

# Certificate of Analysis

UKAS 1314 0897 1229 1811 1812

STL COVENTRY

SEVERN TRENT SERVICES

Sample 1 of 2 Laboratory Number : 808749

Report Number : TH /104062/2001 Issue 1

Sample Source : Dunlop Aviation

Sample Point Description : Dunlop Aviation

Sample Description : BOREHOLE 1

Sample Date : 07 March 2001 Sample Received : 07 March 2001 Analysis Complete : 19 March 2001

| Test Description | Result | Units | Accreditation | Method |
|---|---|---|---|---|
| Trichloroethene | 13 | ug/l | C | WSO25 |
| Arsenic, Total as As | <1 | ug/l | C | WAS014 |
| Lead , Total as Pb | <10 | ug/l | C | WAS012 |
| Chromium , Total as Cr | <5 | ug/l | C | WAS012 |
| Nickel , Total as Ni | <7 | ug/l | C | WAS012 |
| Zinc , Total as Zn | <30 | ug/l | C | WAS012 |
| Total Coliforms confirmed | ND | cfu/100ml | C | W10 |
| Escherichia coli confirmed | ND | cfu/100ml | C | W10 |
| Total Coliform presump | ND | cfu/100ml | C | W10 |
| E.coli presumptive | ND | cfu/100ml | C | W10 |
| Total count 22C 3days | 62 | cfu/ml | C | W1 |
| Total count 37C 1 day | ND | cfu/ml | C | W1 |
| Faecal strep confirmed | ND | cfu/100ml | C | W7 |
| Sulph. red. clos.confirmed | ND | cfu/20ml | C | W8 |

Accreditation Codes : * = Not UKAS accredited B = Analysed at Bridgend C = Analysed at Coventry R = Analysed at Runcorn S = Sub-contracted analysis



Severn Trent Laboratories Ltd
STL Business Centre, Torrington Avenue, Coventry CV4 9GU Tel : 02476 421213 Fax : 02476 856575

# Certificate of Analysis

UKAS 1314 0897 1228 1811 1812

STL COVENTRY

SEVERN TRENT SERVICES

Sample 2 Laboratory Number : 808750

of 2 Report Number : TH /104062/2001 Issue 1

Sample Source : Dunlop Aviation

Sample Point Description : Dunlop Aviation

Sample Description : BOREHOLE 2

Sample Date : 07 March 2001 Sample Received : 07 March 2001 Analysis Complete : 19 March 2001

| Test Description | Result | Units | Accreditation | Method |
|---|---|---|---|---|
| Trichloroethene | 19 | ug/l | C | WSO25 |
| Arsenic, Total as As | <1 | ug/l | C | WAS014 |
| Lead , Total as Pb | 6690 | ug/l | C | WAS012 |
| Chromium , Total as Cr | 7210 | ug/l | C | WAS012 |
| Nickel , Total as Ni | 7270 | ug/l | C | WAS012 |
| Zinc , Total as Zn | 6890 | ug/l | C | WAS012 |
| Total Coliforms confirmed | ND | cfu/100ml | C | W10 |
| Escherichia coli confirmed | ND | cfu/100ml | C | W10 |
| Total Coliform presump | ND | cfu/100ml | C | W10 |
| E.coli presumptive | ND | cfu/100ml | C | W10 |
| Total count 22C 3days | 333 | cfu/ml | C | W1 |
| Total count 37C 1 day | ND | cfu/ml | C | W1 |
| Faecal strep confirmed | ND | cfu/100ml | C | W7 |
| Sulph. red. clos.confirmed | ND | cfu/20ml | C | W8 |

Accreditation Codes : * = Not UKAS accredited B = Analysed at Bridgend C = Analysed at Coventry R = Analysed at Runcorn S = Sub-contracted analysis

Signed : J. Keightley

Name : J. Keightley Date : 19 March 2001

Title : Production Manager



Severn Trent Laboratories Ltd
STL Business Centre, Torrington Avenue, Coventry CV4 9GU Tel : 02476 421213 Fax : 02476 856575

SEVERN TRENT SERVICES

RECEIVED
16 AUG 2000
ESTATE MANAGEMENT

**STL Coventry**
STL Business Centre
Torrington Avenue
Coventry CV4 9GU
United Kingdom

Tel +44 (0)24 7642 1213
Fax +44 (0)24 7685 6575
sales@stl-analytical.co.uk
www.stl-analytical.co.uk

***Mr Brookes***
***Dunlop Aviation***

***Holbrook Lane***
***Coventry CV6 4AA***

15 August 2000

**Test Report : TH/ 90470/ 2000**

Dear Mr Brookes,

Analysis of your sample(s) submitted on 07/08/00 is now complete and we have pleasure in enclosing the appropriate test report(s).

Should you have any query on the report(s) or any part of our service we will be happy to discuss your requirements.

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

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

To place an order or to arrange collection of samples via our courier service please ring **CUSTOMER SERVICES on 02476 856562.**

Yours Sincerely,

Signed : J. Keightley

Name : J. Keightley

Title : Section Manager

NAMAS
TESTING
No. 1314
No. 0897
No. 1229
No. 1811
No. 1812

INVESTOR IN PEOPLE

ISO 9001 BSI UKAS QUALITY MANAGEMENT 006
Cert No. Q6687
Field Services

ISO 14001 BSI UKAS ENVIRONMENTAL MANAGEMENT 006
Cert No. E10269

A part of Severn Trent Plc
Environmental Leadership

Severn Trent Laboratories Ltd
Registered in England & Wales Registration No. 2148934
Registered Office: 2297 Coventry Road, Birmingham B26 3PU

# Report Summary

NAMAS
TESTING
No. 1314
No. 0897
No. 1229
No. 1811
No. 1812

STL COVENTRY

SEVERN TRENT SERVICES

*Mr F Brookes*
*Dunlop Aviation*

*Holbrook Lane*
*Coventry*

*CV6 4AA*

## Report Number : TH/ 90470/2000 Issue 1

| | | | |
|---|---|---|---|
| Number of Samples included in report | 1 | Job Received : | **07 August 2000** |
| Number of test results included in report | 14 | Analysis Commenced | **08 August 2000** |

Signed : Name : **L. Roberts** Date : 15 August 2000

Unless otherwise stated Severn Trent Laboratories was not responsible for sampling
Information on the methods of analysis and performance characteristics are available on request
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory



**Severn Trent Laboratories Ltd**
STL Business Centre, Torrington Avenue, Coventry CV4 9GU Tel : 02476 421213 Fax : 02476 856575

# Certificate of Analysis

NAMAS TESTING No. 1114 No. 0887 No. 1229 No. 1811 No. 1812

STL COVENTRY

SEVERN TRENT SERVICES

Sample 1 of 1 Laboratory Number : 716901 Report Number : TH/ 90470/2000 Issue 1

Sample Source : Dunlop Aviation
Sample Point Description : Dunlop Aviation
Sample Description : WATER SAMPLE

Sample Date : Sample Received : 07 August 2000 Analysis Complete : 14 August 2000

| Test Description | Result | Units | Accreditation | Method |
|---|---|---|---|---|
| Arsenic , Total as As | <1 | ug/l | | WAS014 |
| Lead , Total as Pb | 20 | ug/l | | WAS012 |
| Chromium , Total as Cr | <5 | ug/l | | WAS012 |
| Nickel , Total as Ni | 8 | ug/l | | WAS012 |
| Zinc , Total as Zn | <30 | ug/l | | WAS012 |
| Trichloroethylene | 11 | ug/l | * | |
| Total Coliforms confirmed | ND | cfu/100ml | | W10 |
| Escherichia coli confirmed | ND | cfu/100ml | | W10 |
| Total Coliform presump | ND | cfu/100ml | | W10 |
| E.coli presumptive | ND | cfu/100ml | | W10 |
| Total count 22C 3days | 710 | cfu/ml | | W1 |
| Total count 37C 1 day | 9 | cfu/ml | | W1 |
| Faecal strep confirmed | ND | cfu/100ml | | W7 |
| Sulph. red. clos.confirmed | ND | cfu/20ml | | W8 |

* = Not UKAS accredited S = Sub-contracted analysis

Signed : L Roberts Name : L. Roberts Date : 15 August 2000

Private Water Supply Reg (1991)

## Results of the Dunlop factory survey from 29/06/00 to 09/07/00.

The main source of data for the Dunlop factory survey was a single YSI water quality monitor installed under a manhole cover to the east of the complex. Three other monitors placed both upstream and downstream of the factory gathered additional background data for the site (this data was obtained before the start date of the site drainage survey). All the monitors used were equipped with sensors that recorded dissolved oxygen (DO), ammonium, pH, specific conductivity, and temperature. A location map highlighting the positions of all four monitors is on page three.

**Dunlop site drainage.**

The plot of DO (see p 4) has no diurnal peaks and troughs; instead it has a characteristic flat profile because very little light penetrates to the subterranean culvert. The overall levels of dissolved oxygen in the Dunlop culvert were very good (minimum=77.80%, maximum=99%, average=96%). However DO levels during monitoring did experience several periods of short term decrease (see page 4). The DO drop events all occurred after rainfall had probably washed surface detritus into the culvert. Ammonium levels during the run were at times slightly above acceptable limits for discharge into a freshwater system. Most peaks in ammonium coincided with rainfall events, but three peaks did not. The three anomalous peaks are highlighted on page four, each peak exceeded 3.70 mg/l and did not correspond to a period of even brief rainfall (going by the Finham rain data), nor did they cause any kind of variation in the specific conductivity readings. The pH and conductivity readings broadly reflect a response to rainfall in that pH drops and conductivity increases after rainfall, and both pH and conductivity remained at acceptable levels throughout the survey.

In general the water flowing through the sample point on the Dunlop site was of an acceptable quality. The three ammonium anomalies perhaps represent some kind of pollution event that originated from the site itself. An important fact to remember when analysing data from the monitors is that the rainfall data is taken from a tipping bucket raingauge at Finham, over five miles away from the Dunlop site. This means that the anomalous peaks on the graph may in fact have been a response to a rainfall event that was local to the Dunlop site.

**Additional monitoring sites; a brief overview.**

**Holbrook lane.**

This monitor was installed in a culvert that runs from the Dunlop site into the Hall Brook from the 10/03/00 to 20/03/00. The four perameters were stable up until the fourteenth of March, after this time the readings began to fluctuate because of rainfall events (see p 5). The data obtained again indicated that the general quality of the site drainage water was reasonably good.

**Foleshill park upstream of Dunlop drainage input.**

Unfortunately the data obtained from this site (see p 6) is of no analytical value as the section of culvert the monitor was in experienced low flows several times during the monitoring period.

**Foleshill park at Dunlop storm drainage input to Hall Brook.**

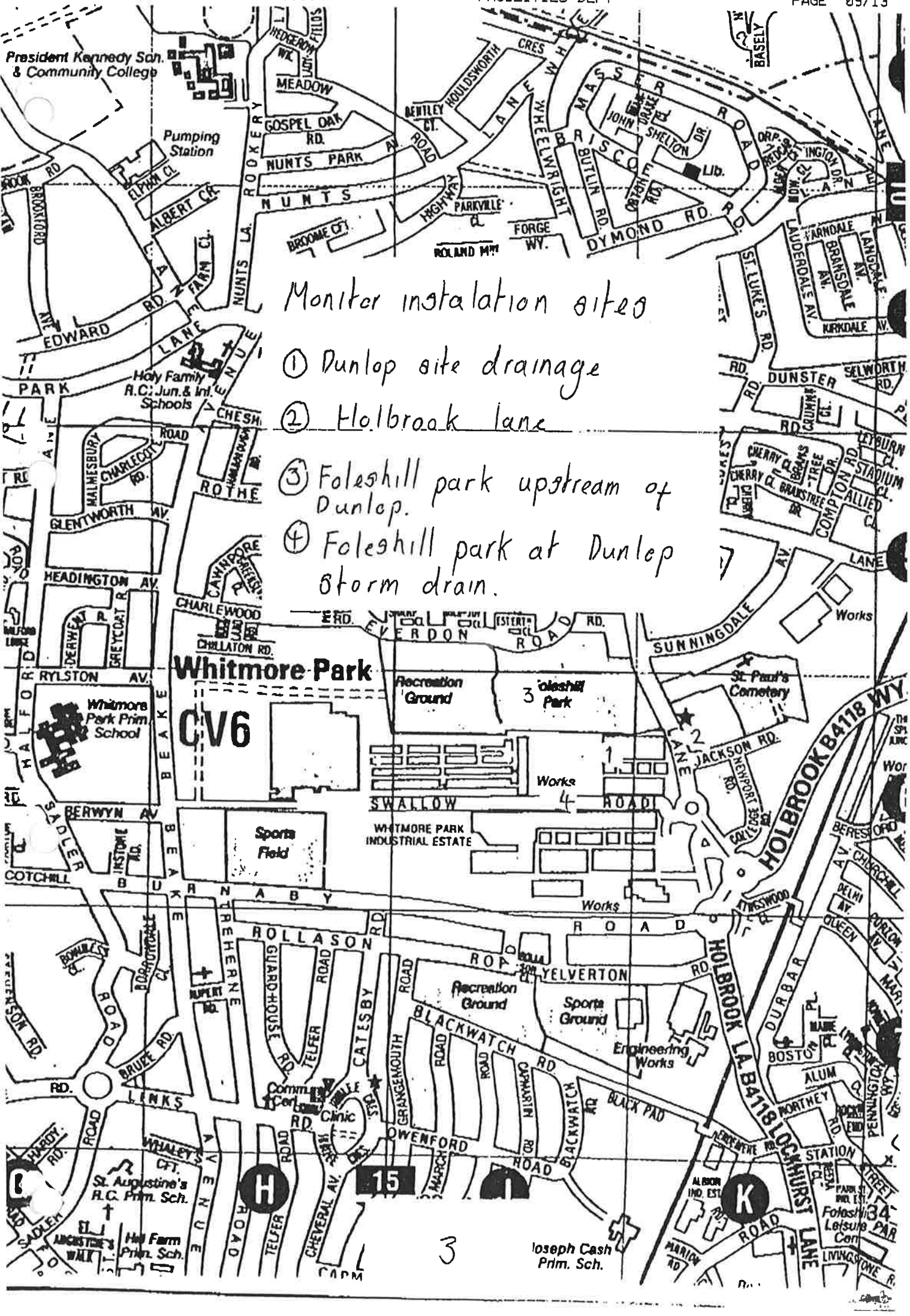
The water quality at this point appears to relatively poor. Although the DO levels remained quite high the variability from day to day was unusually high. The other three perameters followed the same sort of variable pattern. The most notable trend on the plot (see p 7) was the unusually high specific conductivity readings. Normal conductivity levels are around 0.2 to 0.5 mS/cm, the average at the Dunlop storm drainage was significantly larger 0.95 mS/cm with peaks reaching 13.2 mS/cm. The high conductivity levels suggests the water has a higher than normal amount of suspended solids in the water, perhaps caused by dust and debris from the site washing into the drains.

Basically the readings from this site indicate that the water flowing through the culvert during the survey period did not contain high amounts of ammonium, but the water was washing some sort of suspended solid off the site into the Hall Brook.

**Conclusions.**

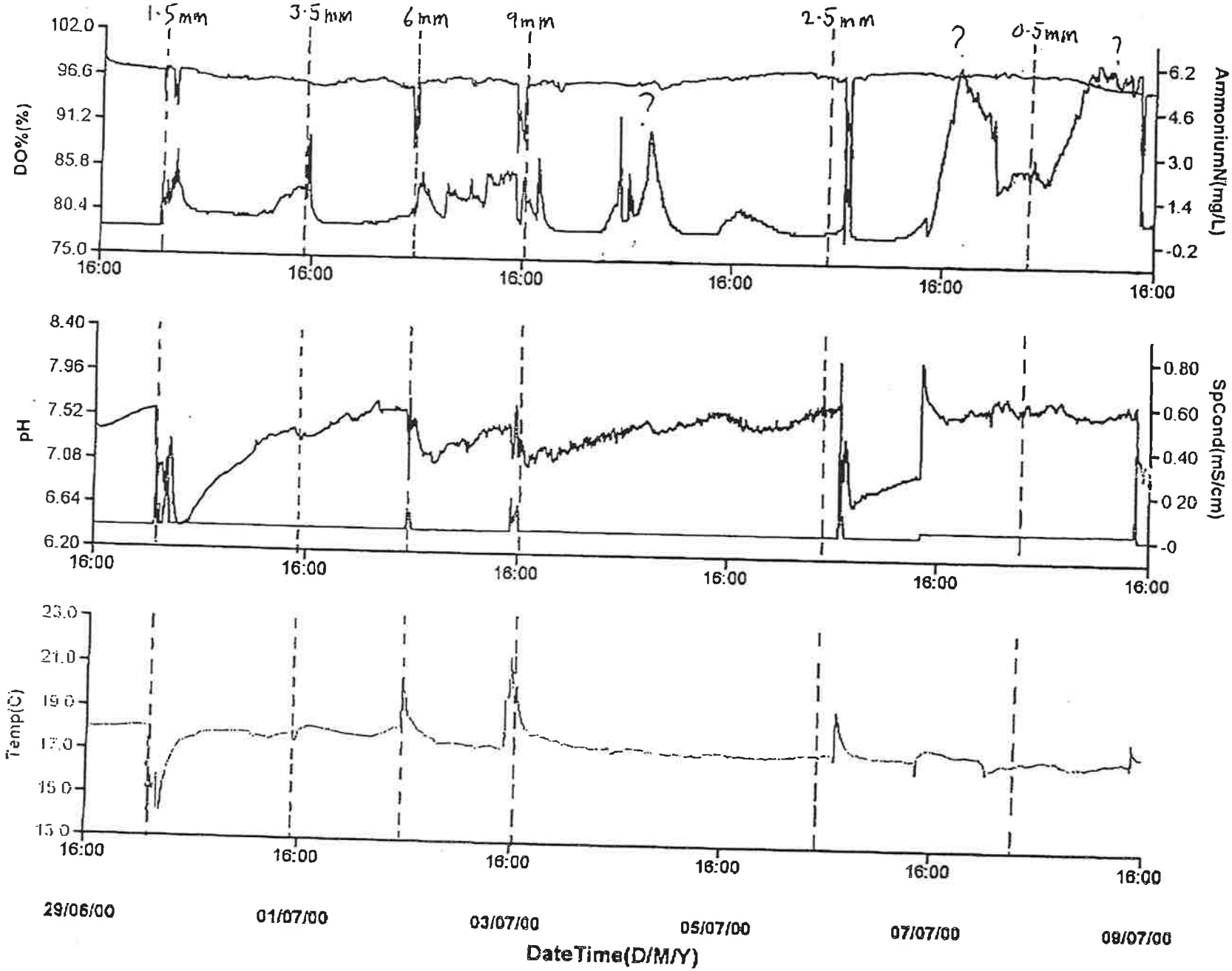
The monitoring run both on site and around the site have had limited success. The main conclusion that can be drawn from the survey is that the site drainage appeared to be relatively clean. However, at times the ammonium levels were above acceptable limits and the data from the site storm drainage indicates that unacceptable levels of some sort of surface residue are washing into the Hall Brook. The second conclusion is that due to the lack of data from the Foleshill monitor upstream of the works no firm idea can be given as to the water quality flowing into the site.

The only way to resolve the problems encountered on this run would be to repeat the survey using the same locations. The monitors would also be running at the same time to give an accurate comparison of what occurs both upstream, on, and downstream of the Dunlop site.


Monitor instalation sites
① Dunlop site drainage
② Holbrook lane
③ Foleshill park upstream of Dunlop.
④ Foleshill park at Dunlop storm drain.
President Kennedy Sch. & Community College
Pumping Station
Holy Family R.C. Jun. & Inf. Schools
Whitmore Park
CV6
Recreation Ground
Foleshill Park
Whitmore Park Prim. School
Sports Field
WHITMORE PARK INDUSTRIAL ESTATE
Works
St. Paul's Cemetery
Recreation Ground
Sports Ground
Engineering Works
Community Clinic
St. Augustine's R.C. Prim. Sch.
Hill Farm Prim. Sch.
Joseph Cash Prim. Sch.
Foleshill Leisure Cen.
HOLBROOK B4118 WY
HOLBROOK LA B4118 LOCKHURST LANE
15
3

# Dunlop site drainage

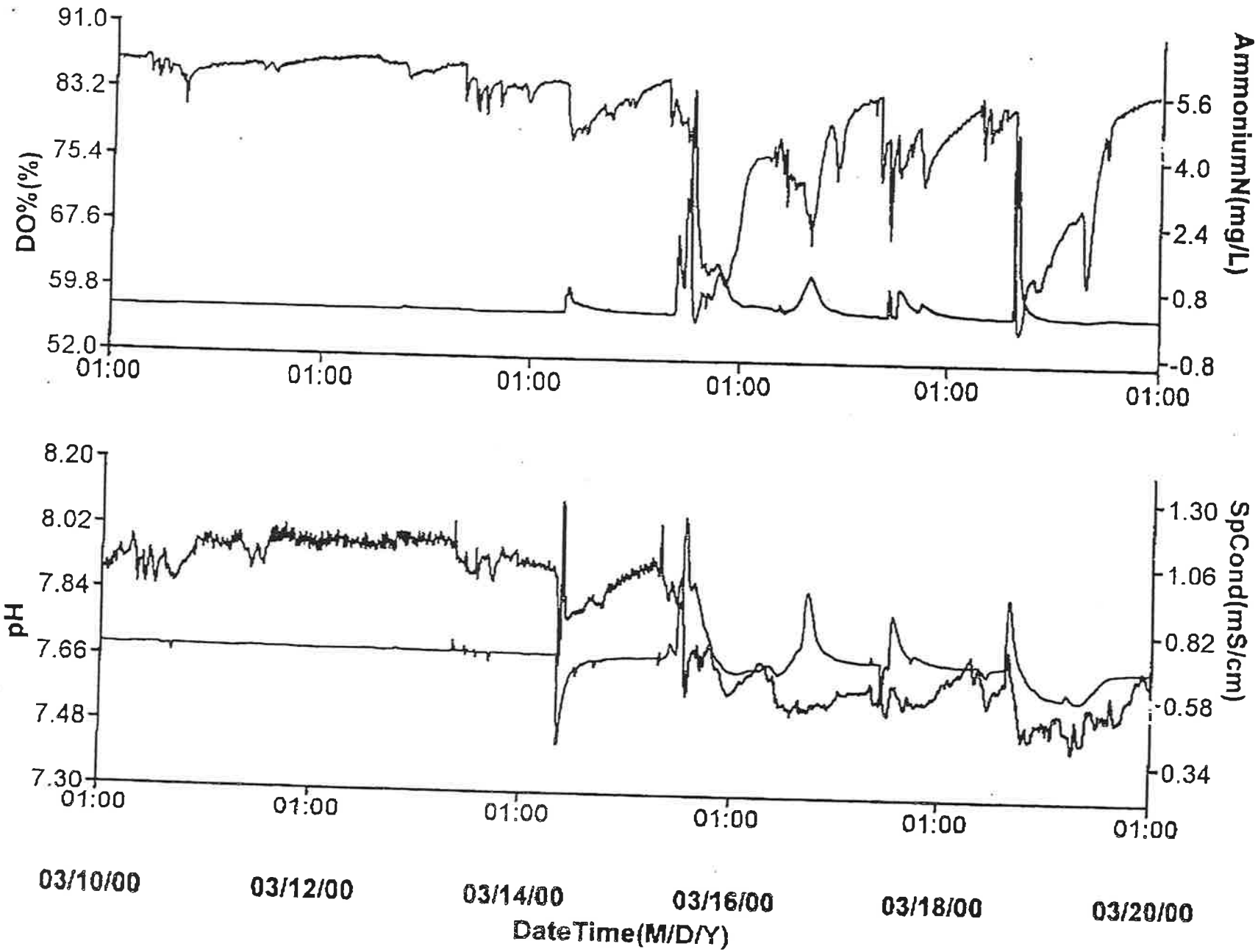
Run from 29/06/2000 to 09/07/2000.




4

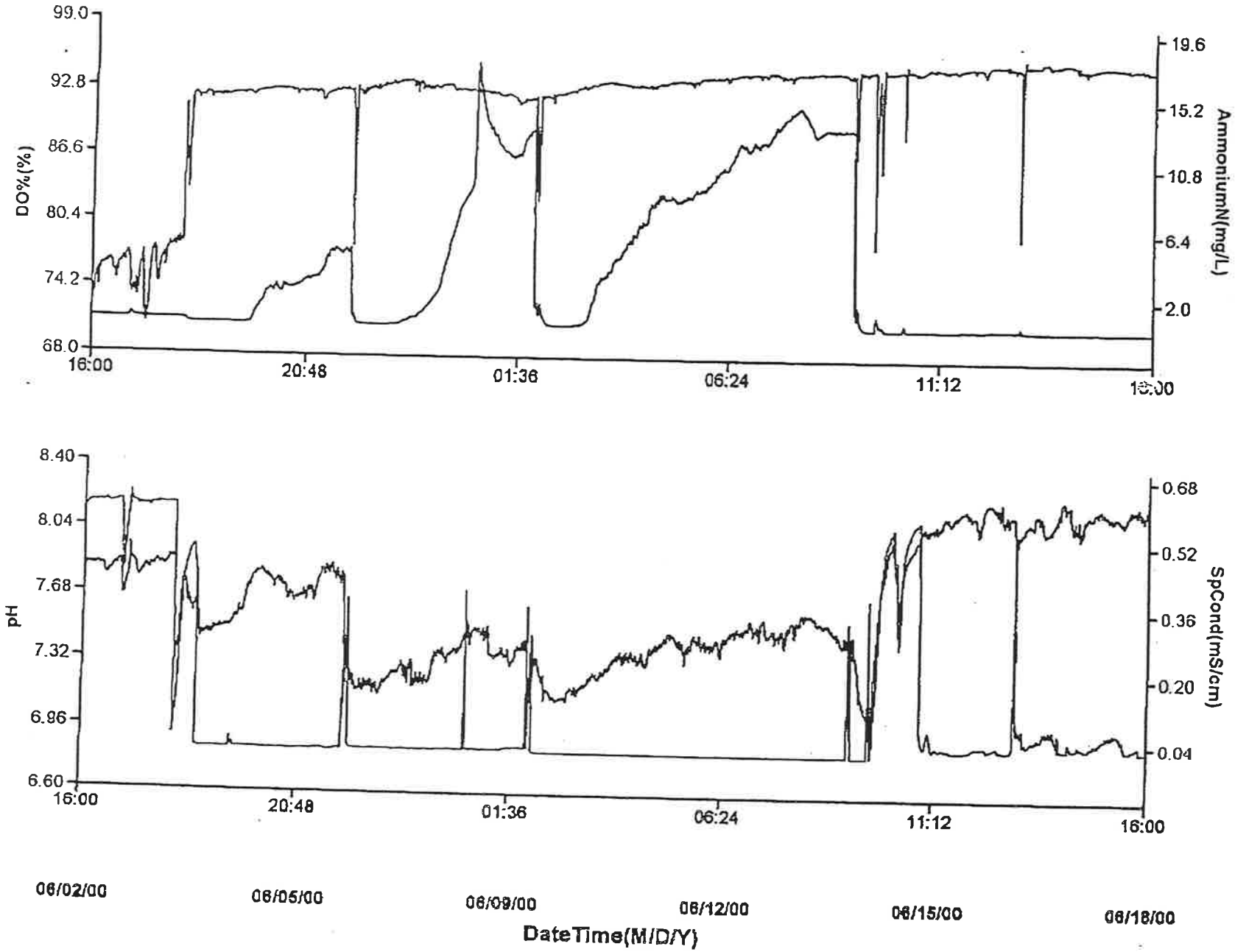
# Holbrook Lane M/H number 534 Hall Brook Dunlop Arm.

SP.3[illegible]8 8239. Run from 10/03/2000 to 20/03/2000.



# Foleshill Park upstream of main factory drainage.

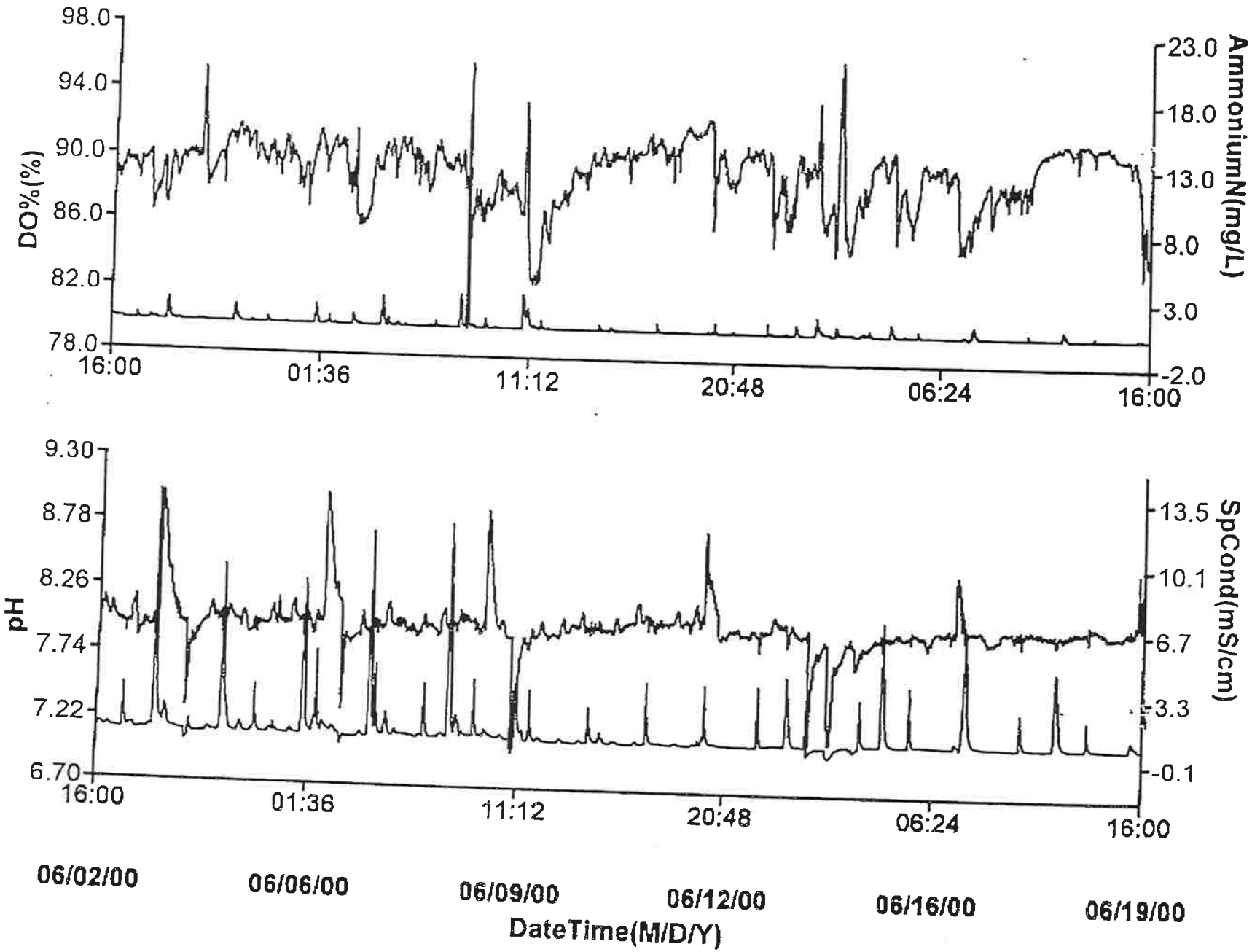
S 0349 8250. Run from 02/06/2000 to 19/06/2000.




6

# Poleshill Park at Factory storm drainage input Hall Brook Dunlop A...

SP.3535 8239. Run from 02/06/2000 to 19/06/2000.



# Report Summary

UKAS 1314 0897 1229 1812

STL COVENTRY

SEVERN TRENT SERVICES



*Mr F Brookes*
*Dunlop Aviation*

*Holbrook Lane*
*Coventry*

*CV6 4AA*

**Date of Issue : 26 February 2002**

**Report Number : TH/135152/2002 Issue 1**

| | | | |
|---|---|---|---|
| Number of Samples included in report | 1 | Sample Date : | 14 February 2002 |
| | | Job Received : | 14 February 2002 |
| Number of test results included in report | 14 | Analysis Commenced : | 15 February 2002 |

Signed : Name : **M. Rink** Date : 26 February 2002

Title : **Production Manager**

Unless otherwise stated Severn Trent Laboratories was not responsible for sampling
Information on the methods of analysis and performance characteristics are available on request
Opinions and interpretations expressed herein are outside the scope of UKAS accreditation
Tests marked 'Not UKAS Accredited' in this Report/Certificate are not included in the UKAS Accreditation Schedule for our laboratory



**Severn Trent Laboratories Ltd**
STL Business Centre, Torrington Avenue, Coventry CV4 9GU Tel : 02476 421213 Fax : 02476 856575

# Certificate of Analysis

UKAS 1314 0697 1229 1812

STL COVENTRY

SEVERN TRENT SERVICES

Sample Source : Dunlop Aviation

Order No :

Report Number : TH/135152/2002 Issue 1

| Sample No. | Sample Description | Test Description | Result | Accreditation | Method |
|---|---|---|---|---|---|
| 146298 | Bore Hole No.1 | Trichloroethene ug/l | 11 | C | WSO25 |
| | | Arsenic, Total as As ug/l | <1 | C | WAS014 |
| | | Lead , Total as Pb ug/l | <10 | C | WAS012 |
| | | Chromium , Total as Cr ug/l | <5 | C | WAS012 |
| | | Nickel , Total as Ni ug/l | <7 | C | WAS012 |
| | | Zinc , Total as Zn ug/l | <30 | C | WAS012 |
| | | Total Coliforms confirmed cfu/100ml | 0 | C | W10 |
| | | Escherichia coli confirmed cfu/100ml | 0 | C | W10 |
| | | Total Coliform presump cfu/100ml | 0 | C | W10 |
| | | E.coli presumptive cfu/100ml | 0 | C | W10 |
| | | Total count 22C 3days cfu/ml | 21 | C | W1 |
| | | Total count 37C 1 day cfu/ml | 0 | C | W1 |
| | | Faecal strep confirmed cfu/100ml | 0 | C | W7 |
| | | Sulph. red. clos.confirmed cfu/20ml | 0 | C | W8 |

Signed : M Rink

Name : M. Rink

Date : 26 February 2002

Title : Production Manager

Accreditation Codes : * = Not UKAS accredited B = Analysed at Bridgend C = Analysed at Coventry R = Analysed at Runcorn S = Sub-contracted analysis

For Microbiological determinands 0 = Not Detected



Severn Trent Laboratories Ltd
STL Business Centre, Torrington Avenue, Coventry CV4 9GU Tel : 02476 421213 Fax : 02476 856575

SEVERN TRENT SERVICES

**STL Coventry**
STL Business Centre
Torrington Avenue
Coventry CV4 9GU
United Kingdom

Tel +44 (0)24 7642 1213
Fax +44 (0)24 7685 6575
sales@stl-analytical.co.uk
www.stl-analytical.co.uk

***Mr Brookes***
***Dunlop Aviation***

***Holbrook Lane***
***Coventry CV6 4AA***

19 March 2001

**Test Report : TH /104062/2001**

Dear Mr Brookes,

Analysis of your sample(s) submitted on 07/03/01 is now complete and we have pleasure in enclosing the appropriate test report(s).

Should you have any query on the report(s) or any part of our service we will be happy to discuss your requirements.

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

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

To place an order or to arrange collection of samples via our courier service please ring **CUSTOMER SERVICES on 02476 856562.**

Yours Sincerely,

Signed : J. Keightley

Name : J. Keightley

Title : Section Manager

UKAS TESTING 1314 0897 1223 1911 1812

INVESTOR IN PEOPLE

ISO 9001 UKAS QUALITY MANAGEMENT 006 Cert No. Q6687 Field Services

ISO 14001 UKAS ENVIRONMENTAL MANAGEMENT 008 Cert No. E10269

A part of Severn Trent Plc
Environmental Leadership

Severn Trent Laboratories Ltd
Registered in England & Wales Registration No. 2148934
Registered Office: 2297 Coventry Road, Birmingham B26 3PU

# APPENDIX D1

# POTENTIALLY POLLUTING SUBSTANCES

A number of potentially polluting substances have been identified on site, namely organics, inorganics, metals, solvents, acids and alkalis. Migration of organic contaminants will be limited in the shallow layers of soil, as contaminants will adsorb to clay, decreasing their permeability. Organic compounds will therefore provide an on-going source of pollution to local soil and groundwater, as it will continue to desorb into the soil-water medium.

Oils cause a threat to ground and surface water through infiltration and surface run-off respectively. Migration of oils will be restricted by the clay top layer of soil. Oils are less dense than water and often insoluble in water, and therefore will float on top of the water table.

The migration of inorganic contaminants in soil and water is related to their aqueous solubility, which may be enhanced by an alteration in soil pH. All metallic nitrates, most ammonium salts and most sulphates are extremely water-soluble. The presence of sulphate in the ground may affect the integrity of concrete and cement-based building materials.

The highest level of contamination is likely to be found closest to the surface of the ground and a general decrease in concentration with depth would be expected. Metals have varying degrees of solubility, depending on the nature of the associated anion. The movement of metal through the soil is significantly retarded by the presence of clay minerals and organic matter.

Solvents are likely to be volatile with moderate to high vapour pressures. They will readily partition from the liquid phase to the vapour phase resulting in a high concentration in the soil pore space above the unsaturated zone. Some solvents are persistent in underlying groundwater. The higher the natural organic matter and clay content of the soil, the greater the degree of adsorption and the greater the reduction in contaminant migration.

Acids are highly permeable in soils and ground water, migrating in a disassociated form, namely the hydrogen ion and corresponding anion. Alkalis are also highly permeable. Mineral acids and alkalis are not biodegradable and are therefore may be persistent in soils and groundwater. However, hydrochloric acid will react chemically with other materials in ground and groundwater. Acids and alkalis are corrosive and a spillage could therefore increase the mobility of other contaminants. Acid spillages near buildings could also affect the integrity of concrete and cement used in foundations.

More information on substances utilised on site can be found in section B 2.4 of the main application document.

# APPENDIX D2
# ASSESSMENT OF LAND POLLUTION POTENTIAL

| Site Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management/ competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Raw material storage area | OPAN, carbon black, liquid nitrogen, oils, diesel, boiler treatment and water treatment chemicals, biocides, antioxidant paint and laboratory chemicals | Delivery and unloading of raw materials | Spillage from road tanker or lorry in yard potentially migrating to underlying ground, groundwater and surface water. | No evidence or records of contamination of surrounding area. | Spill kits on vehicles and on site. Operating procedures and work instructions in place. | Road tanker or lorry | Tankers and lorries are covered and compliant to British Standard and DOT/ADR Regulations. | Operational areas of the site are covered in concrete or bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | None | Yes | Yes | Yes | X | |
| | Hydraulic and cutting oils | Storage of oils | Spillage from containers leading to potential migration of contaminants to underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Steel or plastic drums or containers. | Visual inspections and incident reporting in accordance with site policy and procedures. | Containers stored within a bunded area. | Weekly visual inspection of bund integrity. Reporting and corrective action in accordance with site policy and procedures. | Bunded area on concrete hardstanding. | Yes | Yes | Yes | X | |
| | Liquid nitrogen | Storage of nitrogen | Spillage from tank or during transfer of nitrogen leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Storage within double-skinned steel tank. | The tank is rented and maintained under a service contract with the supplier. | Low-level concrete bunding. | Weekly visual inspection of bund and pipework integrity. Reporting and corrective action in accordance with site policy and procedures. | Tank located on concrete hardstanding. | Yes. Although the bunded area is too small to contain 110% capacity of the tank, liquid nitrogen would immediately evaporate to a gaseous form following contact with air. | Yes | Yes | X | |
| | OPAN | Storage in old boiler house | Punctured containers or insecure connections to delivery lines may result in migration of contaminants to ground, groundwater and surface water. | No evidence or records of contamination of surrounding area. | Spill kits on vehicles and on site. Operating procedures and work instructions in place for delivery of raw materials. | Potential hazardous and liquid materials are located within containers. | Visual inspections and incident reporting in accordance with site policy and procedures. | Unloading area covered in concrete or bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | None | Yes | Yes | Yes | X | |

| Site Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management/ competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Antioxidant paint, oils, laboratory chemicals and other process chemicals | Chemical storage inside CVD building | Punctured containers may result in migration of contaminants to ground, groundwater and surface water. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Plastic, glass and steel containers. | Visual inspections and incident reporting in accordance with site policy and procedures. | Liquid chemicals stored within dedicated chemical store. | Visual inspections and incident reporting in accordance with site policy and procedures. | Chemical store located internally. | Yes | Yes | Yes | X | |
| Storage of product | CVD finished part stores | CVD machine shop | Failure of containment resulting in potential migration of contaminants to ground, groundwater and surface water. | No evidence or records of contamination of surrounding area. | Operating procedures and work instructions in place. | Storage in dedicated store. | Visual inspections and incident reporting in accordance with site policy and procedures. | Dedicated store on concrete hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Store located internally | Yes | Yes | Yes | X | |
| Boiler house | Water contaminated with boiler treatment chemicals | Steam generation | Failure of containment of boilers or pipework and spillage of contaminated water to ground, groundwater or surface water. | No evidence or records of contamination of surrounding area. | Operating procedures and work instructions in place. | Steel boilers / pipework | Visual inspections and incident reporting in accordance with site policy and procedures. | Concrete and metal floors under boilers/ pipework. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Boilers/pipework located within a building. | Yes | Yes | Yes | X | |
| | Boiler treatment chemical | Storage and transfer of boiler treatment chemicals | Failure of containment leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Steel tank | Visual inspections and incident reporting in accordance with site policy and procedures. | Tank located within a bunded area. | Weekly visual inspection of bund and pipework integrity. Reporting and corrective action in accordance with site policy and procedures. | Tank located internally. | Yes | Yes | Yes | X | |
| | Boiler blow down water | Storage of water from blow down pit | Failure of containment of sump and spillage of contaminated water to ground. | No evidence or records of contamination of surrounding area. | Operating procedures and work instructions in place. | Concrete sump | Visual inspections and incident reporting in accordance with site policy and procedures. | Concrete sump located internally. | N/A | None | Yes | Yes | Yes | X | |

| Site Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management/ competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water treatment pump house | Cooling water containing biocides and water treatment chemicals | Process cooling | Failure of containment of tank leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Operating procedures and work instructions in place. | Steel tank | Maintained by contractor under service agreement. Visual inspections and incident reporting in accordance with site policy and procedures. | Steel tank located on concrete hardstanding/ metal floor. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Tank located internally | Yes | Yes | Yes | X | |
| | Water treatment chemicals containing sodium bromide and hypochloride | Storage of water treatment chemicals | Failure of containment of drums leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Plastic drums | Visual inspections and incident reporting in accordance with site policy and procedures. | Drums are located within plastic secondary containment. | Visual inspections and incident reporting in accordance with site policy and procedures. | Drums located internally on concrete hardstanding. | Yes | Yes | Yes | X | |
| | Diesel | Storage of diesel | Spillage from diesel tank resulting in contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Procedures for filling and dispensing diesel from tank. | Diesel stored in a double skinned tank. | Visual inspections and incident reporting in accordance with site policy and procedures. | Diesel tank is on a platform above concrete hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Tank is located within a building | No. Although the tank is located within a building, it is recommended that fill points and associated pipework are located within a concrete bund to prevent spills during filling and dispensing. | Yes | Yes | | X |
| Air emission abatement | Brake disc machining dust | Storage of filter bag plant in central yard | Potential failure of containment leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Operating procedures and work instructions in place. | Filter bags | Visual inspections and incident reporting in accordance with site policy and procedures. | Filter bags located within steel containers. | Visual inspections and incident reporting in accordance with site policy and procedures. | Containers located on hardstanding. | Yes | Yes | Yes | X | |

| Site Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management/ competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cooling water systems | Water containing biocides and other water treatment chemicals | Storage of cooling water for cooling towers in pump house | Potential failure of containment leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Cooling plant | Visual inspections and incident reporting in accordance with site policy and procedures. | Brick bunded area located below plant. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Plant located on hardstanding | No. The brick bund is unlikely to be able to hold large spills. | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | | X |
| | Water containing biocides and other water treatment chemicals | Transfer of cooling water to and from storage reservoir via pipework | Failure of containment of above ground pipework leading to potential contamination of underlying ground and groundwater . | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Steel pipework | Visual inspections and incident reporting in accordance with site policy and procedures. | Concrete or bitumen hardstanding in places. No secondary containment in other areas. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. Drains are cleaned out when necessary | External site drains discharge to petrol interceptor which flows to public surface water sewer. Isolation valve installed to contain large spillages on site | Yes | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | X | |
| | Water containing biocides and other water treatment chemicals | Temporary storage of water in tank associated with Hotwell lagoon (furnaces 10 and 11) | Failure of containment leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Steel tank | Reporting and corrective action in accordance with site policy and procedures. | Tank located on concrete or bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | None | No | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | | X |
| | Water containing biocides and other water treatment chemicals | Storage of water in Hotwell lagoon (furnaces 10,11 and 12) | Failure of containment of lagoon leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Concrete block lagoon | Reporting and corrective action in accordance with site policy and procedures. | Lagoon surrounded by concrete/bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. Drains are cleaned out when necessary. | None | No | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | | X |
| | Water containing biocides and other water treatment chemicals | Storage of water in fire station reservoir (east of CVD building) | Failure of containment of reservoir leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Brick/ concrete reservoir | Reporting and corrective action in accordance with site policy and procedures. | Reservoir surrounded by concrete/bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. Drains are cleaned out when necessary. | None | Yes | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | | X |

| Site Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management/ competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trans-formers and electricity substations | Oils (do not contain PCB's). | Use of oil as part of operation. | Failure of containment of plant leading to potential migration of contaminants to underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Substations and transformers are kept secured. Operating procedures and work instructions in place. | Substation or transformer | Maintained by specialist contractors. | Located on concrete hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | None | Yes | Yes | Yes | X | |

# APPENDIX E1

# CONCEPTUAL SITE MODEL – TABULAR

The information obtained by way of this assessment has been summarised and forms the basis for the preliminary conceptual site model to be used when proposing the baseline conditions at the subject site.

The conceptual model describes the inter-relationship (linkage) between all environmental media, receptors and contamination that may exist at the site. The model has been developed following identification of:

- potential or known sources of contamination
- potential migration pathways
- potential on site and off site receptors

From evaluation of the information obtained by this Application Site Report it is concluded that there are potential areas of concern (PAC) where potential contaminant sources exist or may have previously existed and hence where there is a potential for ground contamination to have occurred. The identified PACs are for areas of the site where potential contaminant sources exist or may have previously existed and have an impact on the proposed baseline conditions at the site from which future comparison can be made. The identification of PACs allows the site to be zoned in relation to the potential for contamination to exist. The locations of the PACs across the site are shown on the following page. PACs are outlined in the following table and the Zoning Map.

**Potential Areas of Contamination**

| PAC No. | Zone | PAC Description | Reason(s) for Concern | Potential Contaminants |
|---|---|---|---|---|
| **On Site Concerns** | | | | |
| 1 | A | Raw material storage area | The bunded area surrounding the nitrogen tank cannot hold 110% capacity of the nitrogen tank | Nitrogen |
| 2 | B | Water treatment pumphouse | Filling points for the diesel storage tank are not located within a bunded area | Hydrocarbons |
| 3 | C | Cooling water processes | No formal integrity testing has been carried out for the lagoons. The hardstanding below the plant is unlikely to hold large spillages. Pipework transporting cooling water from the lagoon is located above unmade ground in some areas. | Acids/ alkalis, inorganic compounds |
| 4 | D | Historical uses | The site and surrounding area have been utilised for industrial activities since the 1930s. | Metals, hydrocarbons, inorganic compounds, solvents, pesticides |
| **Off site concerns** | | | | |
| 5 | N/A | Industrial uses in the surrounding area. | The site is located in a largely industrial area. | Metals, inorganic compounds, solvents, hydrocarbons. |

The identified PACs are for areas of the site where potential contaminant sources exist or may have previously existed and have an impact on the proposed baseline conditions at the site from which future comparison can be made. The identification of PACs allows the site to be zoned in relation to the potential for contamination to exist. The locations of the PACs across the site are shown on the following page.

## Potential Pollutant Linkages

### *Potential Receptors*

**Human receptors**

- Current site users.[Ref 1] [1]
- Construction workers should ground works be required.[2]
- Off site human receptors.[3]

**Controlled water**

- Perched groundwater within made ground.[4]
- Minor aquifer located at depth.[5]
- Hall Brook.[6]

**Buildings**

- Site buildings currently on the site.[7]

### *Potential Contamination Migration Pathways*

**Surface run-off**

- Contaminated surface run-off due to spills or leaks on the surface may result in contamination of the drainage system. However, the majority of the site where raw materials are stored are not located near surface water drains.
- Surface drains on part of the site discharge to the adjacent Hall Brook. [8] [Ref 2]

**Leaching to groundwater**

- Any contamination present within the soil has the potential to leach into the underlying aquifer.[9]
- Groundwater may therefore be considered as a potential contamination migration pathway.[10]

**Dermal Contact with Soil / Groundwater / Surface Water**

- The majority of the site is covered by hardstanding and therefore the potential for dermal contact with contaminated soil or groundwater is unlikely. Dermal contact is however likely in landscaped areas.[11]
- Shallow groundwater may be in hydraulic continuity with nearby watercourses and therefore may be considered a potential migration pathway.[12]
-

**Soil Ingestion / Groundwater Ingestion**

- Given the use of the site ingestion of soil is considered to be unlikely.
- Shallow groundwater is abstracted for potable supply at the site. [13]

Notes

1. Reference numbers 1-6 refer to targets illustrated on Figure 2.
2. Reference numbers 7-13 refer to migration pathways shown on Figure 2.
3. Where no reference number is present, a pollutant linkage is not considered to exist.

In order to effectively illustrate the inter-relationship between the potential contamination on the site and the migration pathways and receptors, the conceptual model has been depicted on the following page.

# APPENDIX E2
# CONCEPTUAL SITE MODEL - SCHEMATIC

*Notes:*

**Potential Areas of Concern (PAC)**

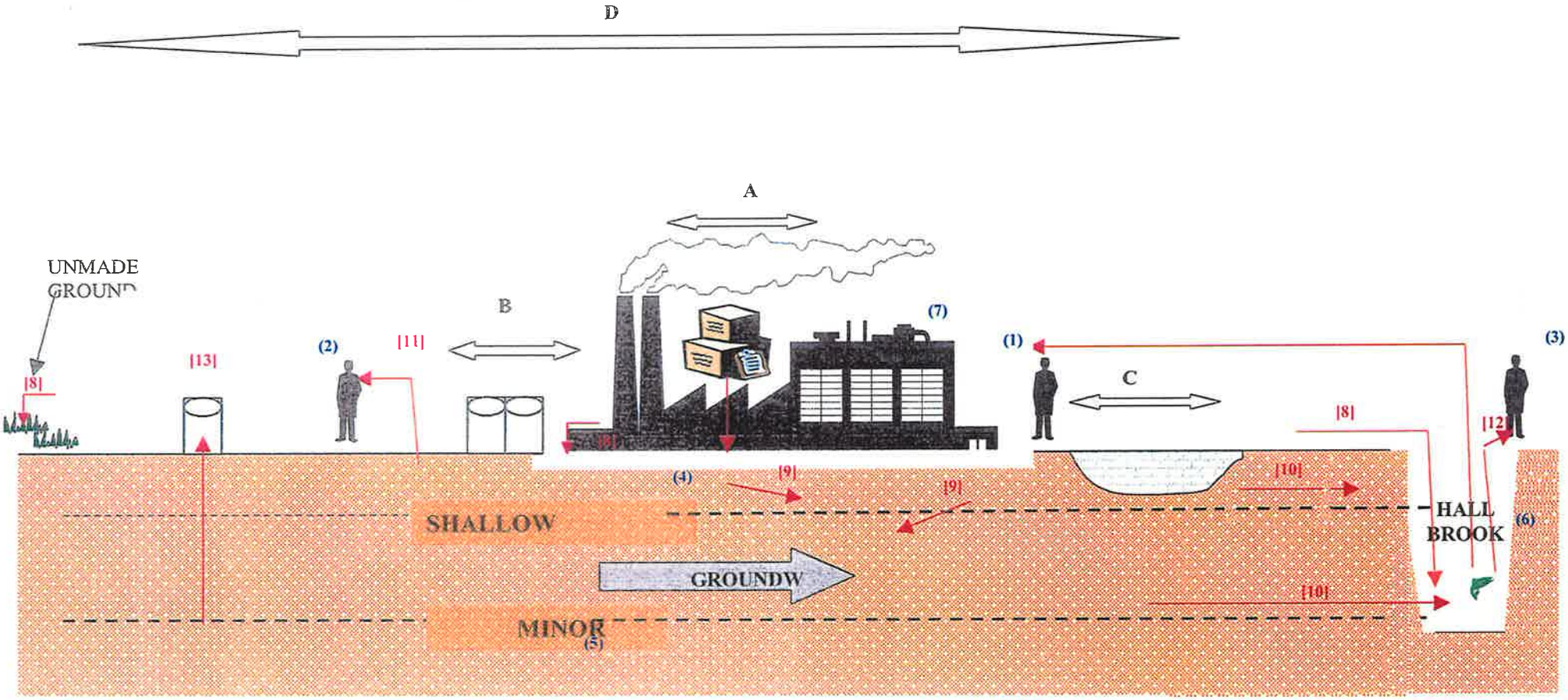
A: Raw material storage areas
B: Water treatment pumphouse
C: Cooling water processes
D: Historical uses

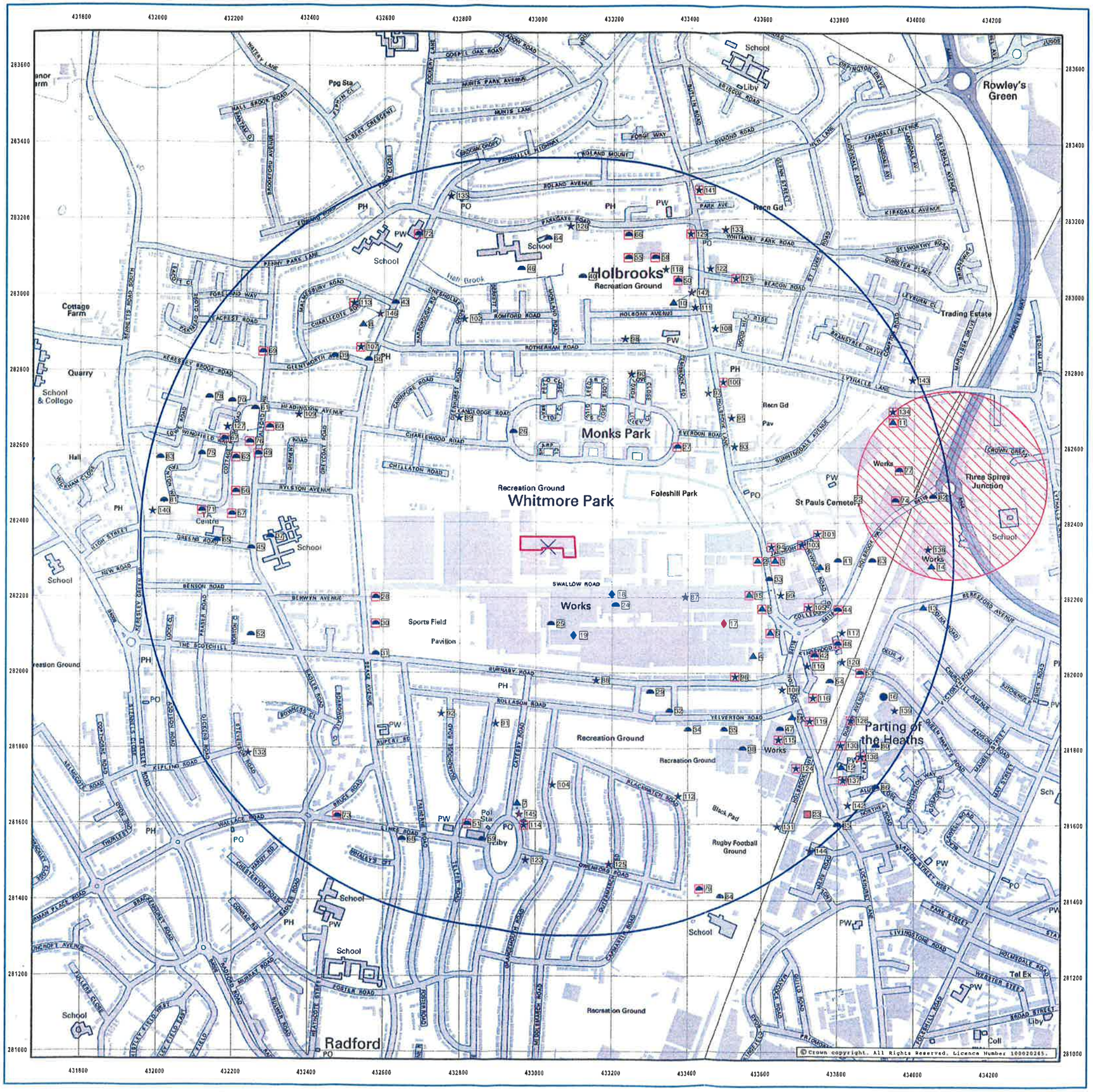
**Potential Targets**

(1) Site occupants
(2) Construction workers
(3) Off site human receptors
(4) Shallow groundwater
(5) Minor aquifer
(6) Surface water
(7) Site buildings

**Potential Pathways**

[8] Surface Drainage
[9] Soil Leaching
[10] Lateral groundwater migration
[11] Dermal contact / ingestion of soil
[12] Dermal contact / ingestion of surface water
[13] Abstraction of groundwater






# Envirocheck®

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## CLIENT DETAILS

**Envirocheck Order No. EC13881811_1_1**
(13-Sep-2005 16:31)

**Customer Ref:** Ms A Mills,TD4827/AM
RPS Consultants Ltd
9A PURY HILL ALDERTON ROAD
TOWCESTER
NORTHAMPTONSHIRE NN12 7LS

## SITE DETAILS

**Grid Reference 433030 282330**

Dunlop Aviation Division
Unit A2, Holbrook Lane

Coventry
CV6 4AA

## KEY TO THE LEGEND DATABASE

### General

- Specified Site
- Bearing Reference Point
- Buffer (1000m)
- Reference Number
- Several of Type at Location

### Agency and Hydrological

- Air Pollution Control
- Air Pollution Control Enforcement
- Point Location of Contaminated Land Register Entry or Notice
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement Or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Pollution Incident to Controlled Waters
- Substantiated Pollution Incident Register
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Quality Sampling Point
- Water Abstraction
- Water Industry Act Referral

### Waste

- Point Location of BGS Recorded Landfill Site
- BGS Recorded Landfill Site
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facilities (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Point Location of Local Authority Recorded Landfill Site
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Point Location of Registered Waste Transfer Site
- Registered Waste Transfer Site
- Point Location of Registered Waste Treatment or Disposal Site
- Registered Waste Treatment or Disposal Site

### Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

### Geological

- BGS Borehole
- BGS Recorded Mineral Site

### Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

ENVIRONMENT AGENCY

British Geological Survey

Ordnance Survey® Licensed Partner

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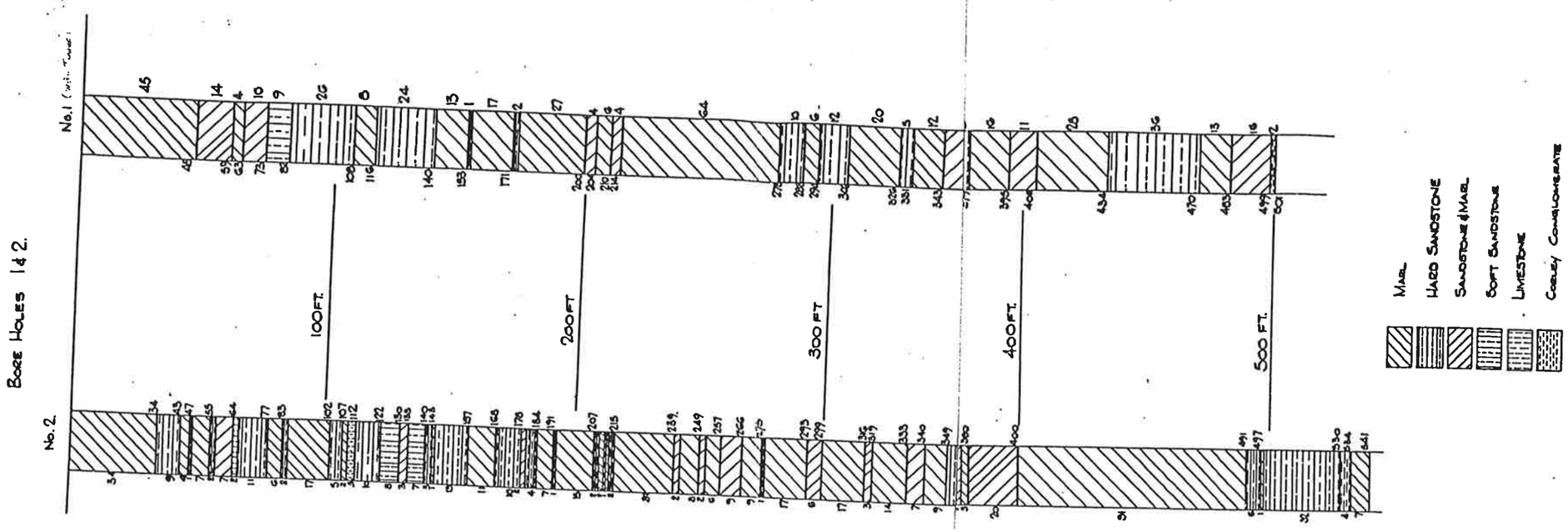
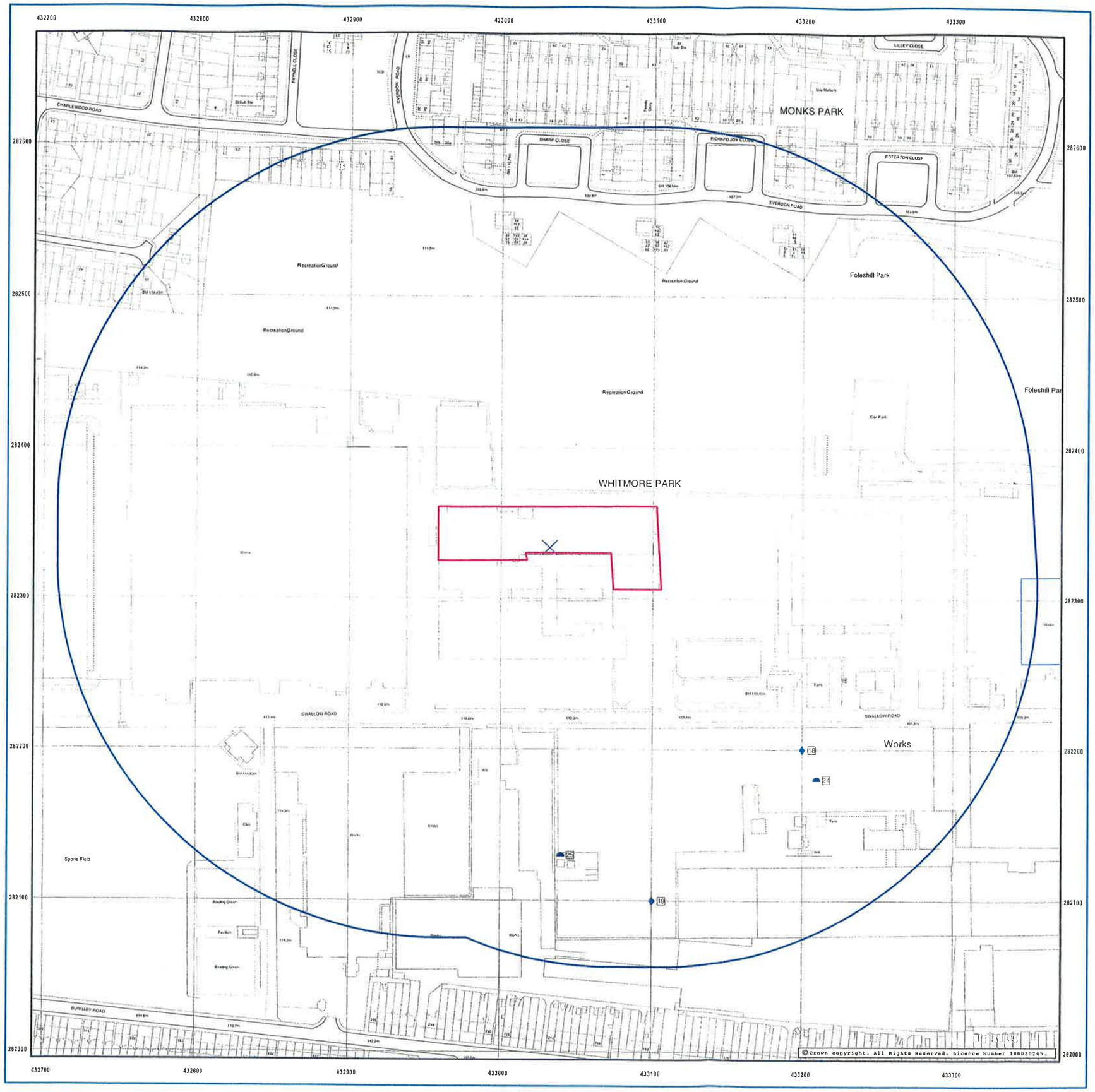



6/F 6

| | | |
|---|---|---|
| TITLE Comparison of Strata. From No's 1 & 2 Boreholes | | |
| DEPARTMENT Services | | |
| DRAWN F.S. | TRACED J. Jones 11.5.50. | CHECKED [illegible] |
| DATE 13.1.50. | SCALE 1" = 20 FT. | |
| DRG. No. CE/1938/6/F6/L | | |

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**CLIENT DETAILS** Envirocheck Order No. EC13881811_1_1
(12-Sep-2005 16:33)

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**SITE DETAILS** Grid Reference 433030 282330

Dunlop Aviation Division
Unit A2, Holbrook Lane

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CV6 4AA

## KEY TO THE LEGEND DATABASE

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- Specified Site
- Bearing Reference Point
- Buffer (250m)
- Reference Number
- Several of Type at Location
- Pylon
- Overhead Transmission Line

### Agency and Hydrological

- Air Pollution Control
- Air Pollution Control Enforcement
- Point Location of Contaminated Land Register Entry or Notice
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement Or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Pollution Incident to Controlled Waters
- Substantiated Pollution Incident Register
- Prosecution Relating to Authorised Processes
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- Registered Waste Treatment or Disposal Site

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- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

### Geological

- BGS Borehole
- BGS Recorded Mineral Site

### Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

ENVIRONMENT AGENCY
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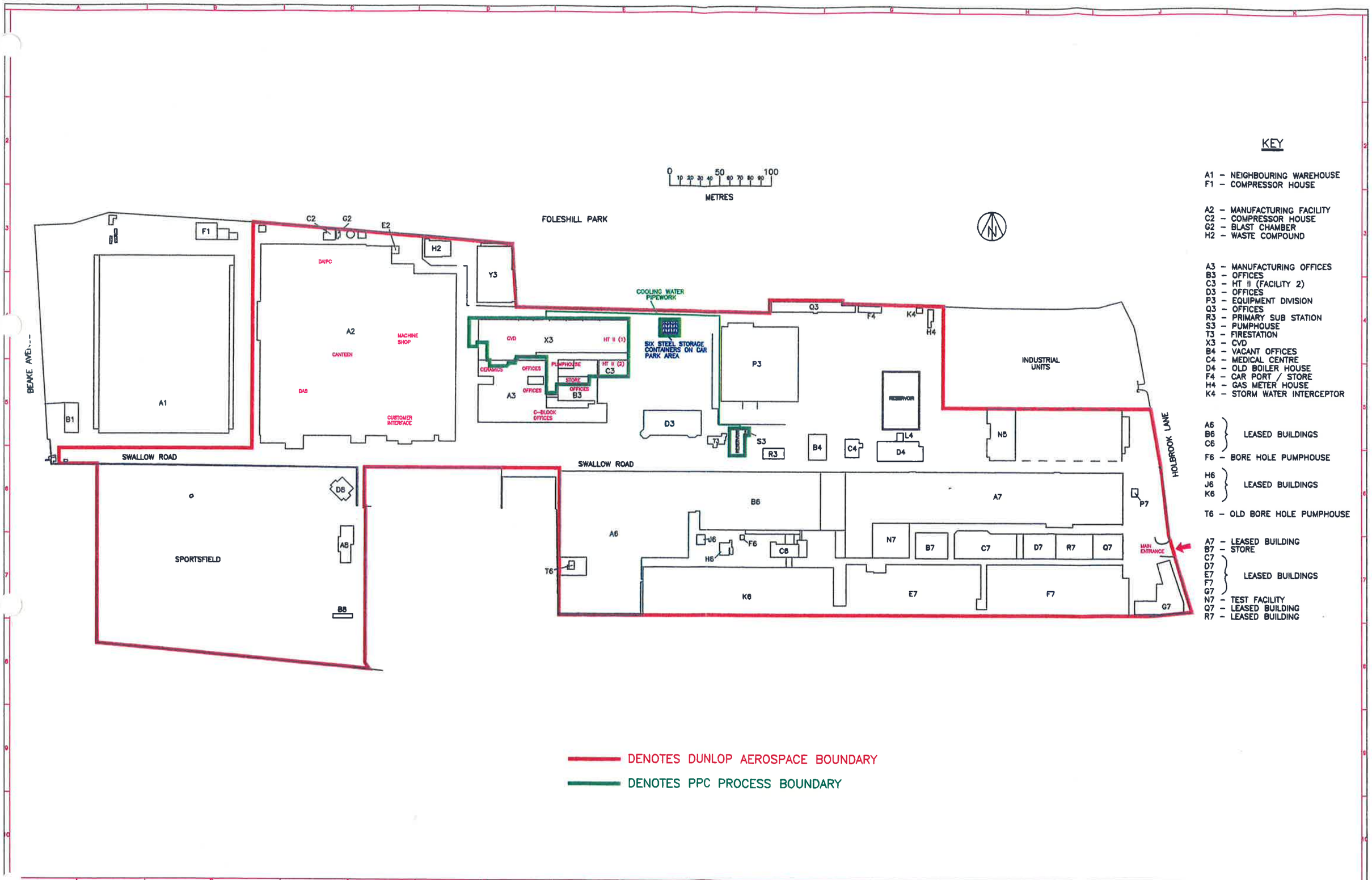



## KEY

A1 – NEIGHBOURING WAREHOUSE
F1 – COMPRESSOR HOUSE

A2 – MANUFACTURING FACILITY
C2 – COMPRESSOR HOUSE
G2 – BLAST CHAMBER
H2 – WASTE COMPOUND

A3 – MANUFACTURING OFFICES
B3 – OFFICES
C3 – HT II (FACILITY 2)
D3 – OFFICES
P3 – EQUIPMENT DIVISION
Q3 – OFFICES
R3 – PRIMARY SUB STATION
S3 – PUMPHOUSE
T3 – FIRESTATION
X3 – CVD
B4 – VACANT OFFICES
C4 – MEDICAL CENTRE
D4 – OLD BOILER HOUSE
F4 – CAR PORT / STORE
H4 – GAS METER HOUSE
K4 – STORM WATER INTERCEPTOR

A6, B6, C6 – LEASED BUILDINGS
F6 – BORE HOLE PUMPHOUSE
H6, J6, K6 – LEASED BUILDINGS
T6 – OLD BORE HOLE PUMPHOUSE
A7 – LEASED BUILDING
B7 – STORE
C7, D7, E7, F7, Q7 – LEASED BUILDINGS
N7 – TEST FACILITY
Q7 – LEASED BUILDING
R7 – LEASED BUILDING

DENOTES DUNLOP AEROSPACE BOUNDARY

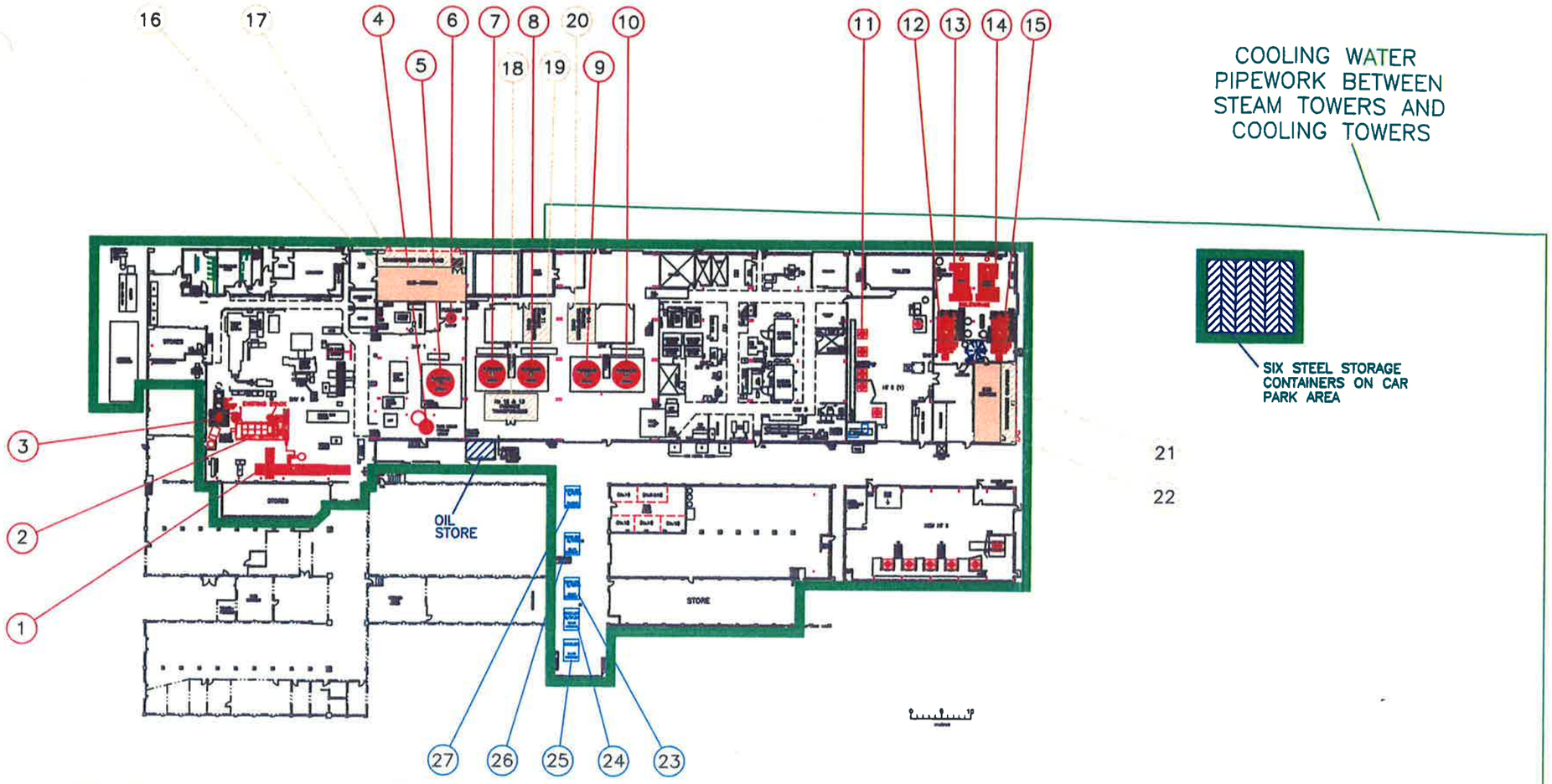
DENOTES PPC PROCESS BOUNDARY

| DRG. No. | ISSUE | DATE | MADE BY | CHECKED | MODIFICATION | OPERATIONS DIRECTOR | MANAGER C.V.D. | TEAM LEADER C.V.D. | MANAGER A.M.I.MRV | MANAGER SITE FACILITIES | SAFETY & ENVI. OFFICER | CHIEF OF SECURITY |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | |

TITLE

DUNLOP AEROSPACE
SITE OWNERSHIP & PPC PROCESS BOUNDARIES

DRG.No.




## KEY PLANT ITEMS

1 RK FURNACE
2 ABATEMENT PLANT
3 No.17 PIT FURNACE
4 RAPID CARBON FURNACE
5 No.10 FURNACE
6 No.9 FURNACE
7 No.11 FURNACE
8 No.12 FURNACE
9 No.13 FURNACE
10 No.14 FURNACE
11 HEATING COIL (13 OFF)
12 No.4 BOILER
13 No.2 BOILER
14 No.1 BOILER
15 No.3 BOILER

## SUB STATIONS & TRANSFORMERS

16 SUB STATION 20
17 TRANSFORMER COMPOUND
18 TRANSFORMERS (No.12 & No.13 FUNACES)
19 TRANSFORMER No. 11 FURNACE
20 TRANSFORMER No. 14 FURNACE
21 SUB STATION 20A
22 TRANSFORMER COMPOUND

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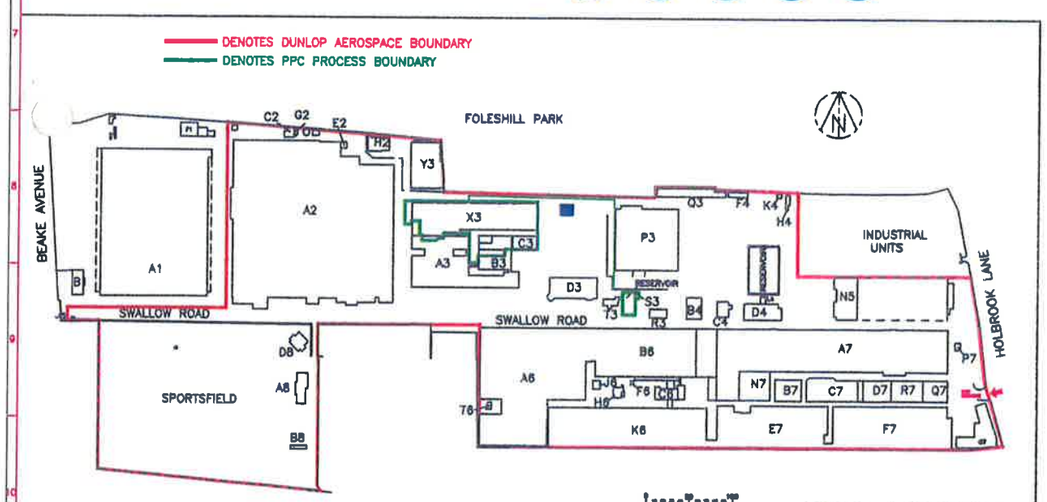


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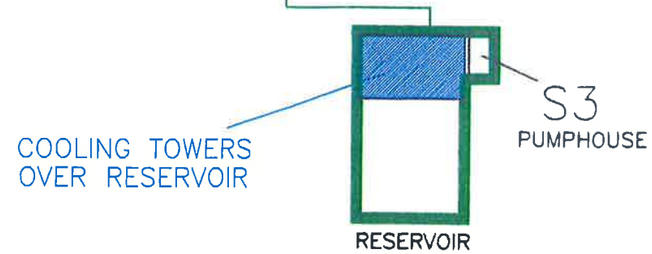


DENOTES PPC PROCESS BOUNDARY

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
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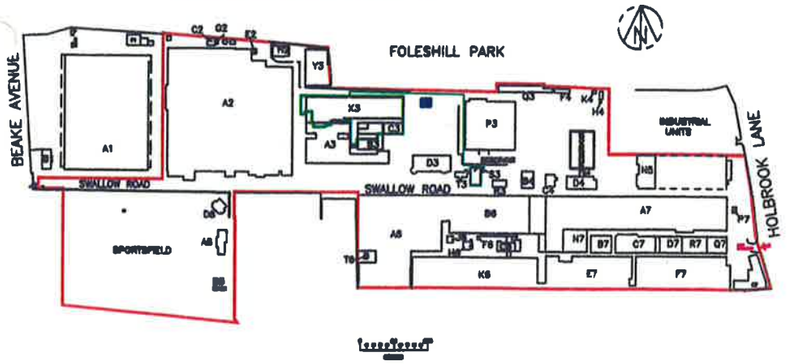
DENOTES PPC PROCESS BOUNDARY

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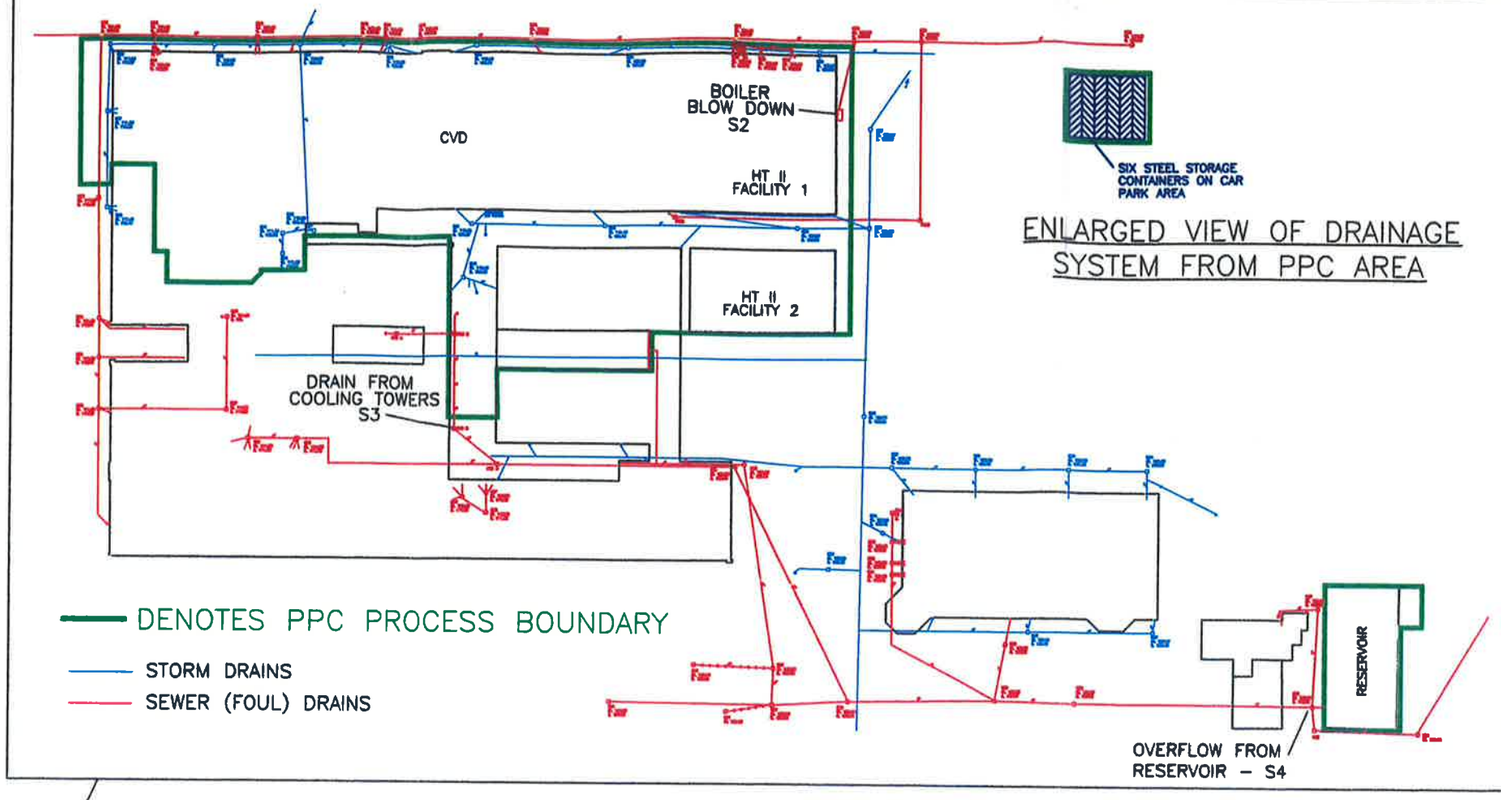
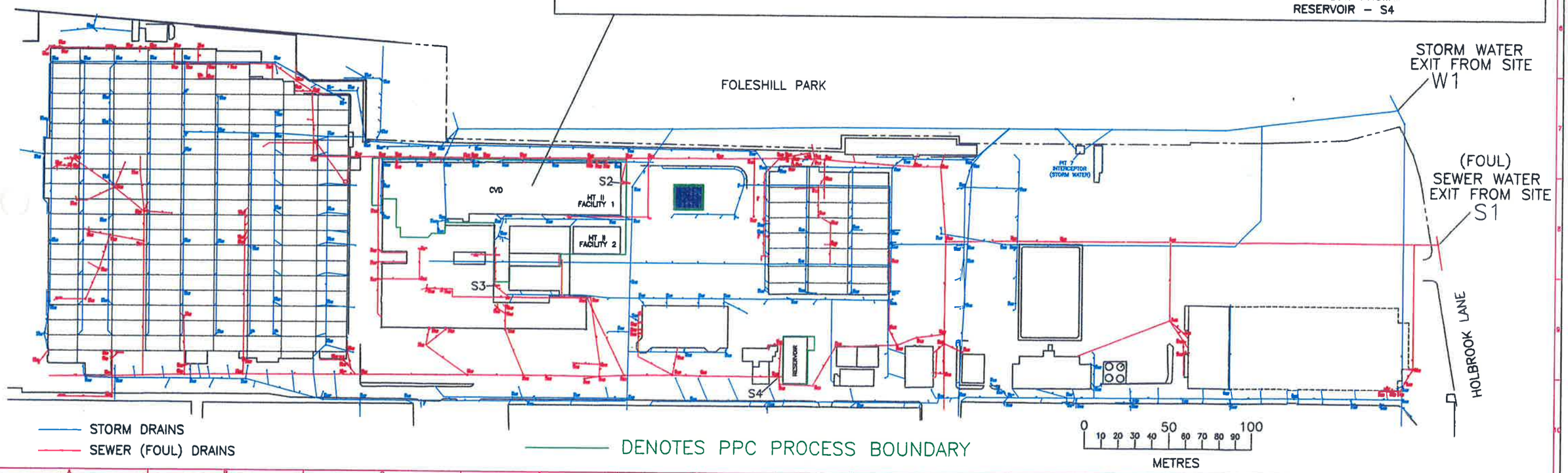



ENLARGED VIEW OF DRAINAGE SYSTEM FROM PPC AREA

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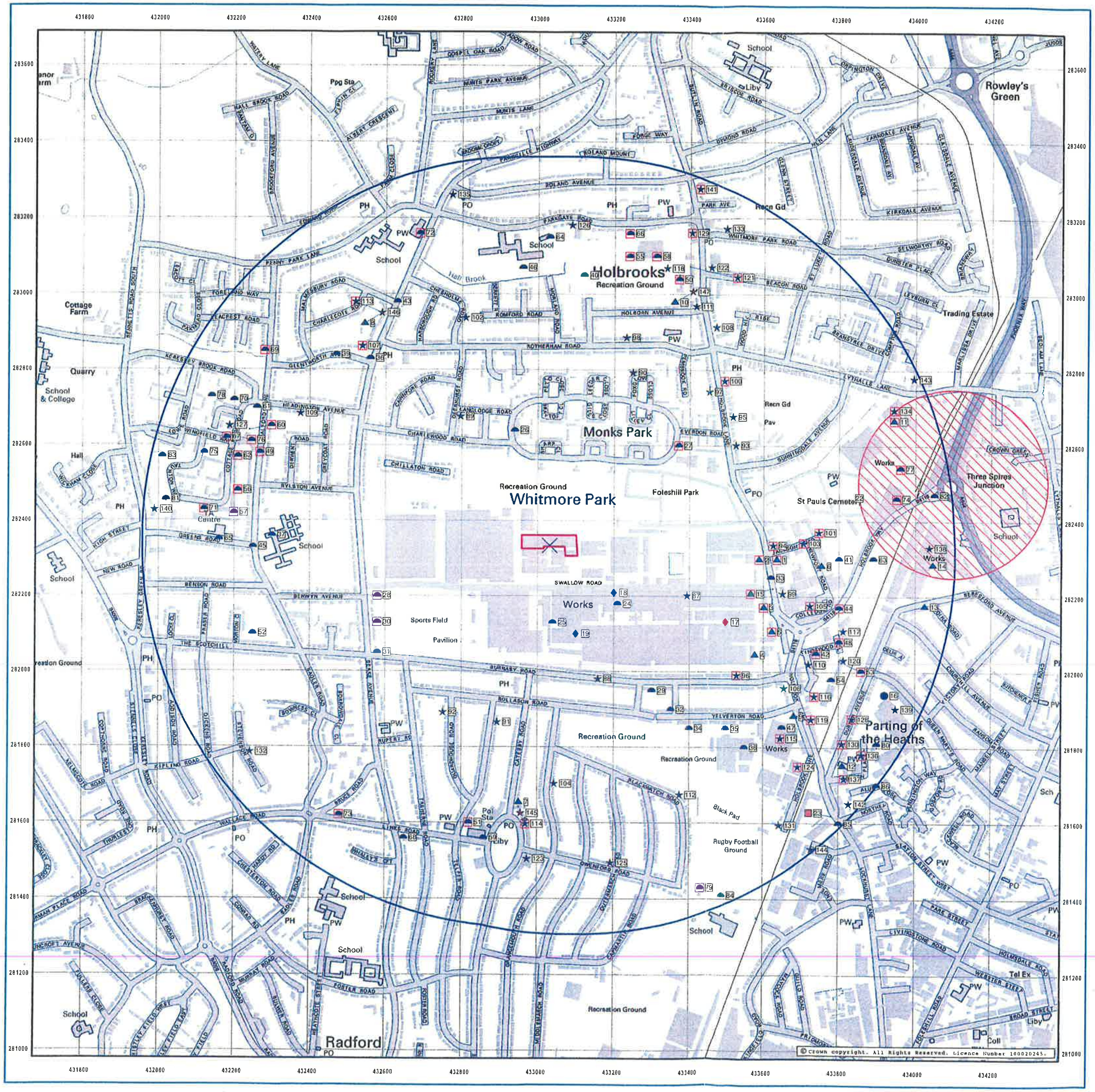


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**CLIENT DETAILS**

Envirocheck Order No. EC13881811_1_1

(13-Sep-2005 16:31)

Customer Ref: Ms A Mills,TD4827/AM
RPS Consultants Ltd
9A PURY HILL ALDERTON ROAD
TOWCESTER
NORTHAMPTONSHIRE NN12 7LS

**SITE DETAILS**

Grid Reference 433030 282330

Dunlop Aviation Division
Unit A2, Holbrook Lane

Coventry
CV6 4AA

## KEY TO THE LEGEND DATABASE

### General

- Specified Site
- Bearing Reference Point
- Buffer (1000m)
- Reference Number
- Several of Type at Location

### Agency and Hydrological

- Air Pollution Control
- Air Pollution Control Enforcement
- Point Location of Contaminated Land Register Entry or Notice
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement Or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Pollution Incident to Controlled Waters
- Substantiated Pollution Incident Register
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Quality Sampling Point
- Water Abstraction
- Water Industry Act Referral

### Waste

- Point Location of BGS Recorded Landfill Site
- BGS Recorded Landfill Site
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facilities (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Point Location of Local Authority Recorded Landfill Site
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Point Location of Registered Waste Transfer Site
- Registered Waste Transfer Site
- Point Location of Registered Waste Treatment or Disposal Site
- Registered Waste Treatment or Disposal Site

### Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

### Geological

- BGS Borehole
- BGS Recorded Mineral Site

### Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry

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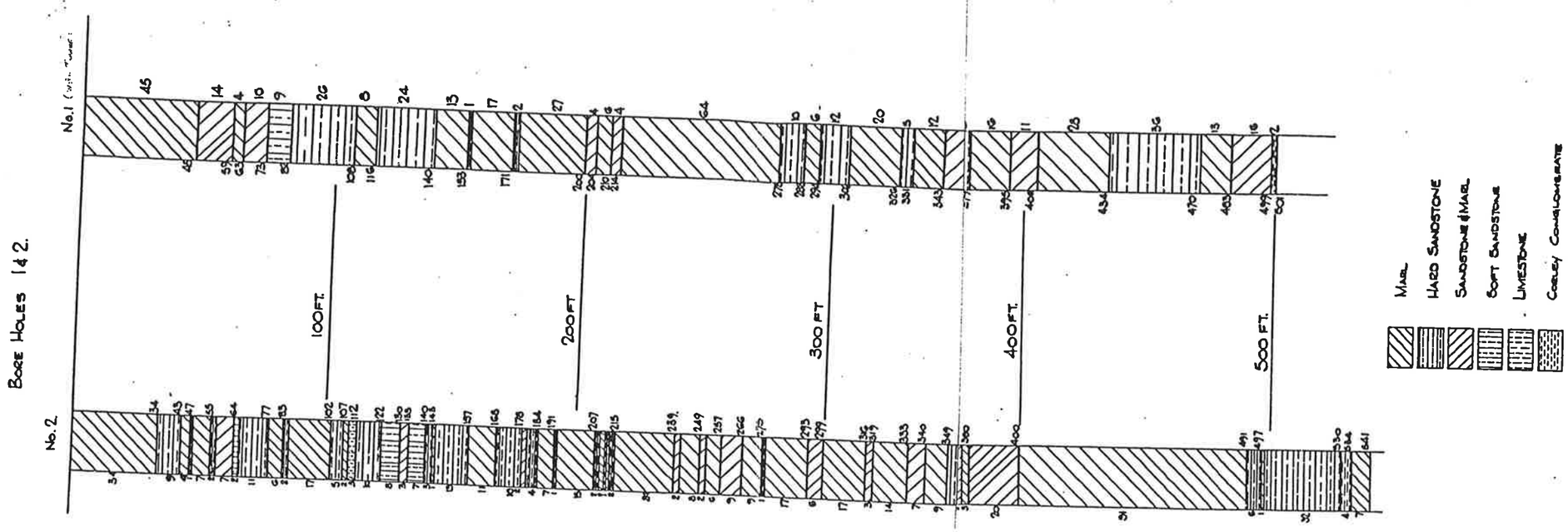
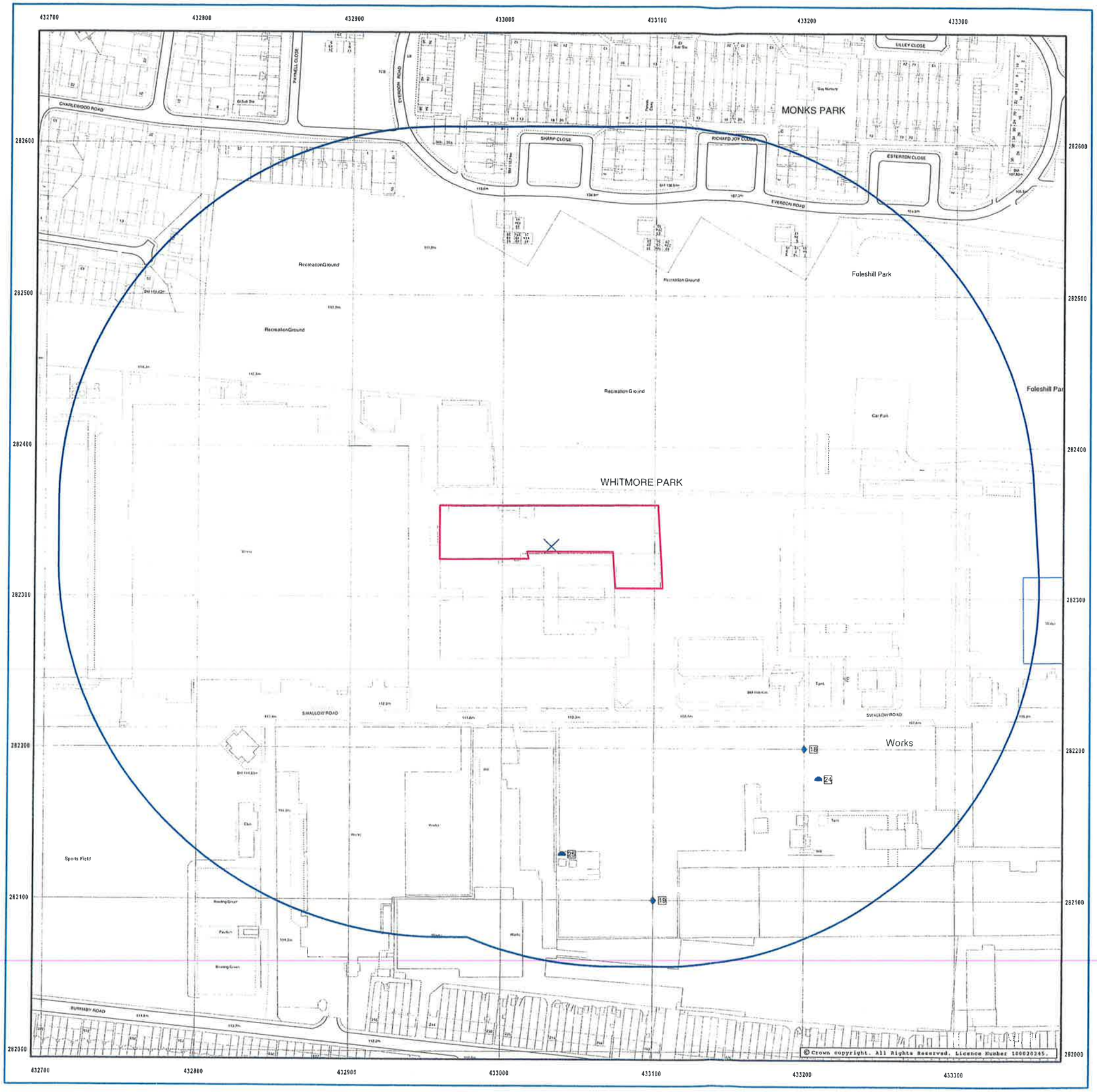



6/F 6

| | | |
|---|---|---|
| TITLE Comparison of Strata. From No's 1 & 2 Boreholes | | |
| DEPARTMENT Services | | |
| DRAWN F.S. | TRACED Jones 11.5.50. | CHECKED Sadler |
| DATE 13.1.50. | SCALE 1" = 20 FT. | |
| DRG. No. CE/1954/6/F6/1 | | |

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CV6 4AA

## KEY TO THE LEGEND DATABASE

### General

- Specified Site
- Bearing Reference Point
- Buffer (250m)
- Reference Number
- Several of Type at Location
- Pylon
- Overhead Transmission Line

### Agency and Hydrological

- Air Pollution Control
- Air Pollution Control Enforcement
- Point Location of Contaminated Land Register Entry or Notice
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement Or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Pollution Incident to Controlled Waters
- Substantiated Pollution Incident Register
- Prosecution Relating to Authorised Processes
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- River Network or Water Feature
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ENVIRONMENT AGENCY
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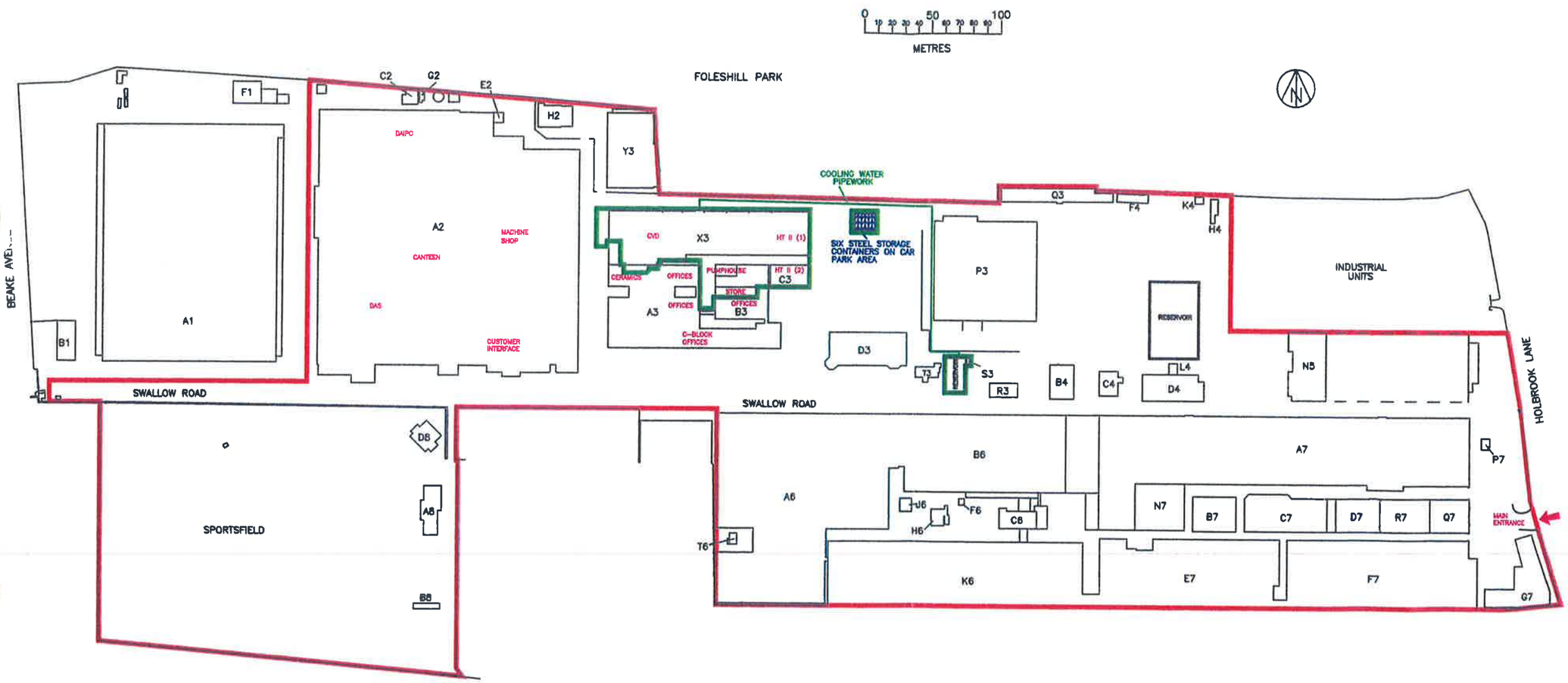


## KEY

A1 – NEIGHBOURING WAREHOUSE
F1 – COMPRESSOR HOUSE

A2 – MANUFACTURING FACILITY
C2 – COMPRESSOR HOUSE
G2 – BLAST CHAMBER
H2 – WASTE COMPOUND

A3 – MANUFACTURING OFFICES
B3 – OFFICES
C3 – HT II (FACILITY 2)
D3 – OFFICES
P3 – EQUIPMENT DIVISION
Q3 – OFFICES
R3 – PRIMARY SUB STATION
S3 – PUMPHOUSE
T3 – FIRESTATION
X3 – CVD
B4 – VACANT OFFICES
C4 – MEDICAL CENTRE
D4 – OLD BOILER HOUSE
F4 – CAR PORT / STORE
H4 – GAS METER HOUSE
K4 – STORM WATER INTERCEPTOR

A6, B6, C6 – LEASED BUILDINGS
F6 – BORE HOLE PUMPHOUSE
H6, J6, K6 – LEASED BUILDINGS
T6 – OLD BORE HOLE PUMPHOUSE
A7 – LEASED BUILDING
B7 – STORE
C7, D7, E7, F7, G7 – LEASED BUILDINGS
N7 – TEST FACILITY
Q7 – LEASED BUILDING
R7 – LEASED BUILDING

DENOTES DUNLOP AEROSPACE BOUNDARY

DENOTES PPC PROCESS BOUNDARY

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|---|---|---|---|---|---|---|---|---|---|---|---|---|
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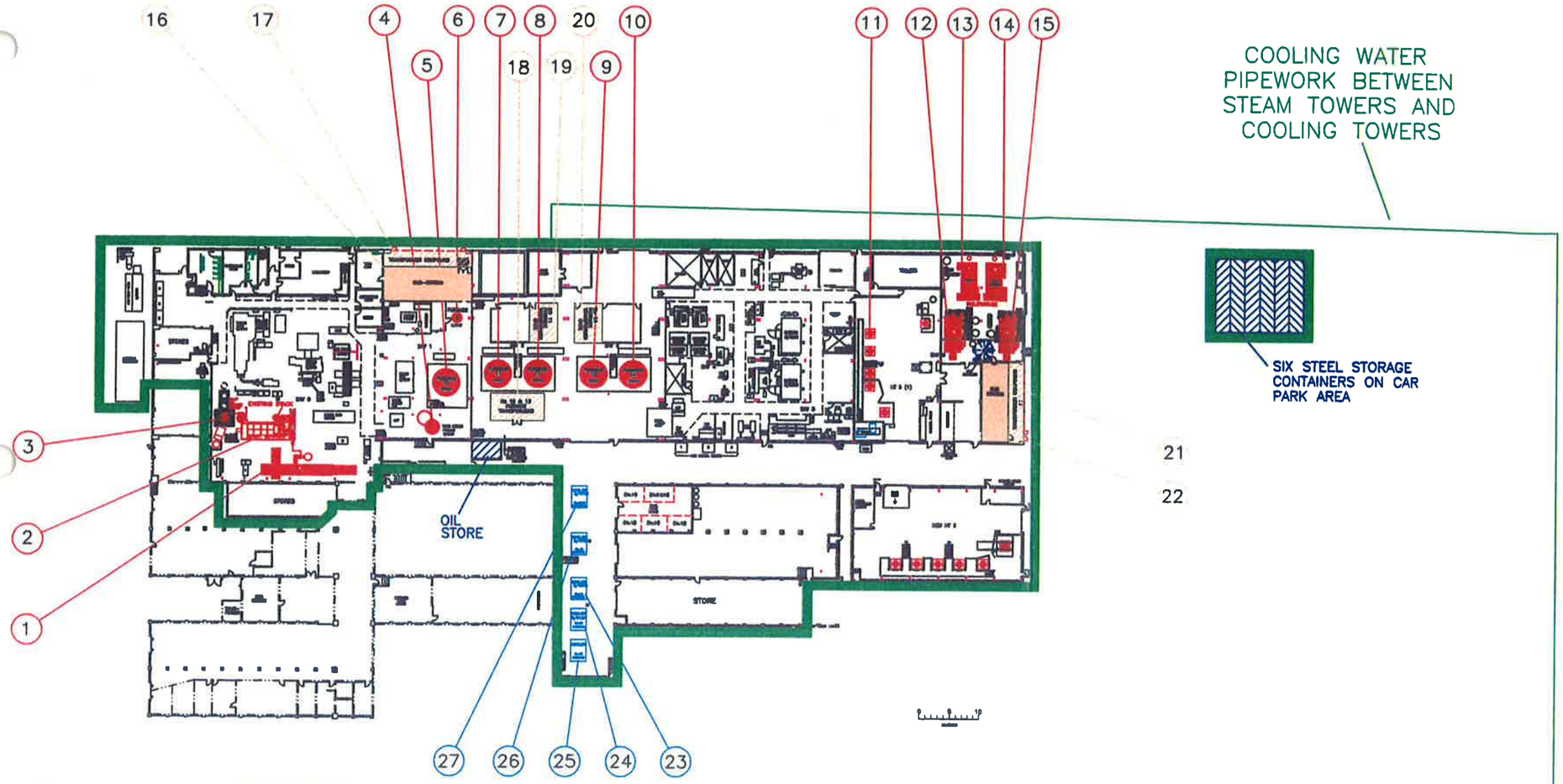
TITLE

DUNLOP AEROSPACE
SITE OWNERSHIP & PPC PROCESS BOUNDARIES

DRG.No.




## KEY PLANT ITEMS

1 RK FURNACE
2 ABATEMENT PLANT
3 No.17 PIT FURNACE
4 RAPID CARBON FURNACE
5 No.10 FURNACE
6 No.9 FURNACE
7 No.11 FURNACE
8 No.12 FURNACE
9 No.13 FURNACE
10 No.14 FURNACE
11 HEATING COIL (13 OFF)
12 No.4 BOILER
13 No.2 BOILER
14 No.1 BOILER
15 No.3 BOILER

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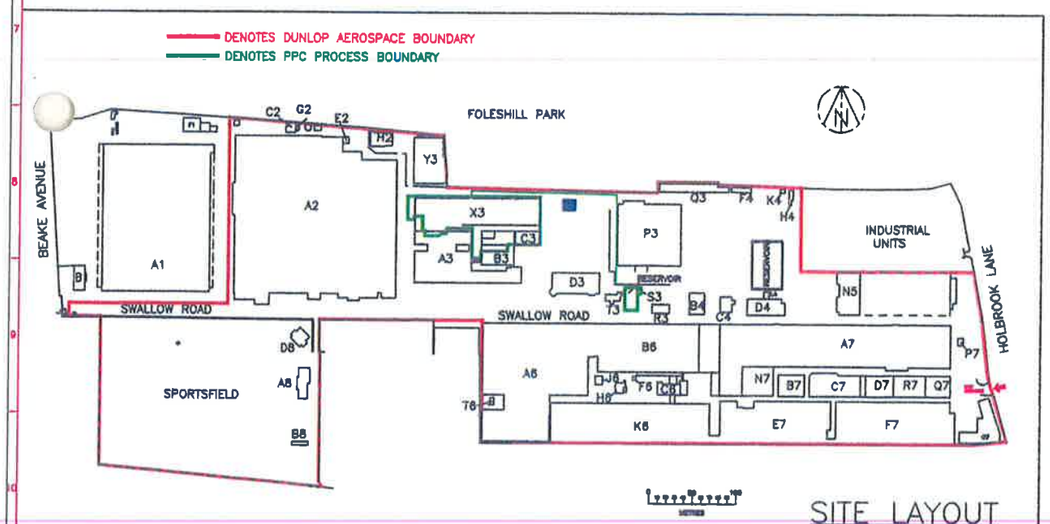
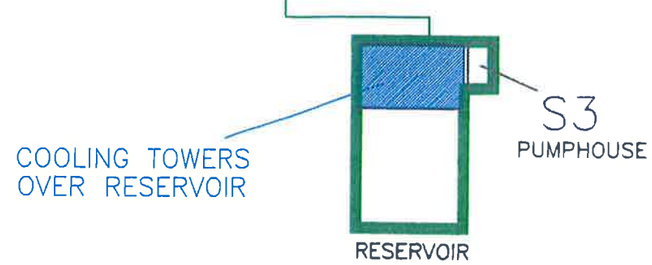



SITE LAYOUT
NOT TO SCALE




DENOTES PPC PROCESS BOUNDARY

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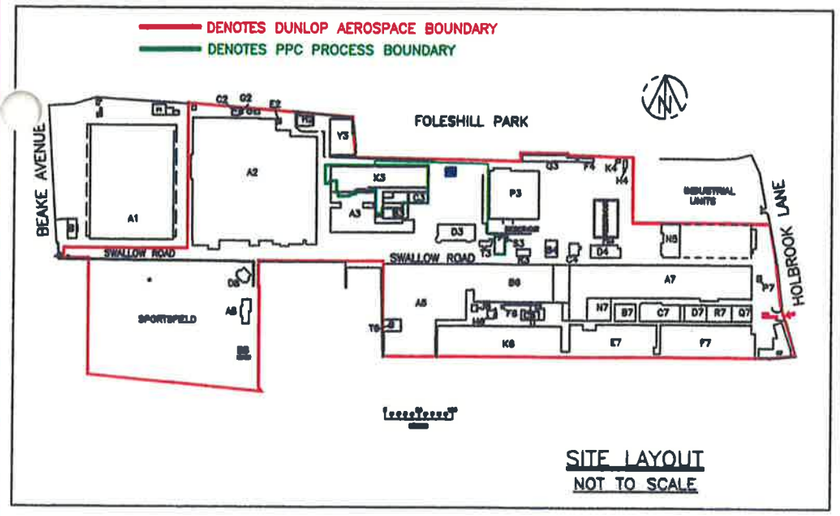


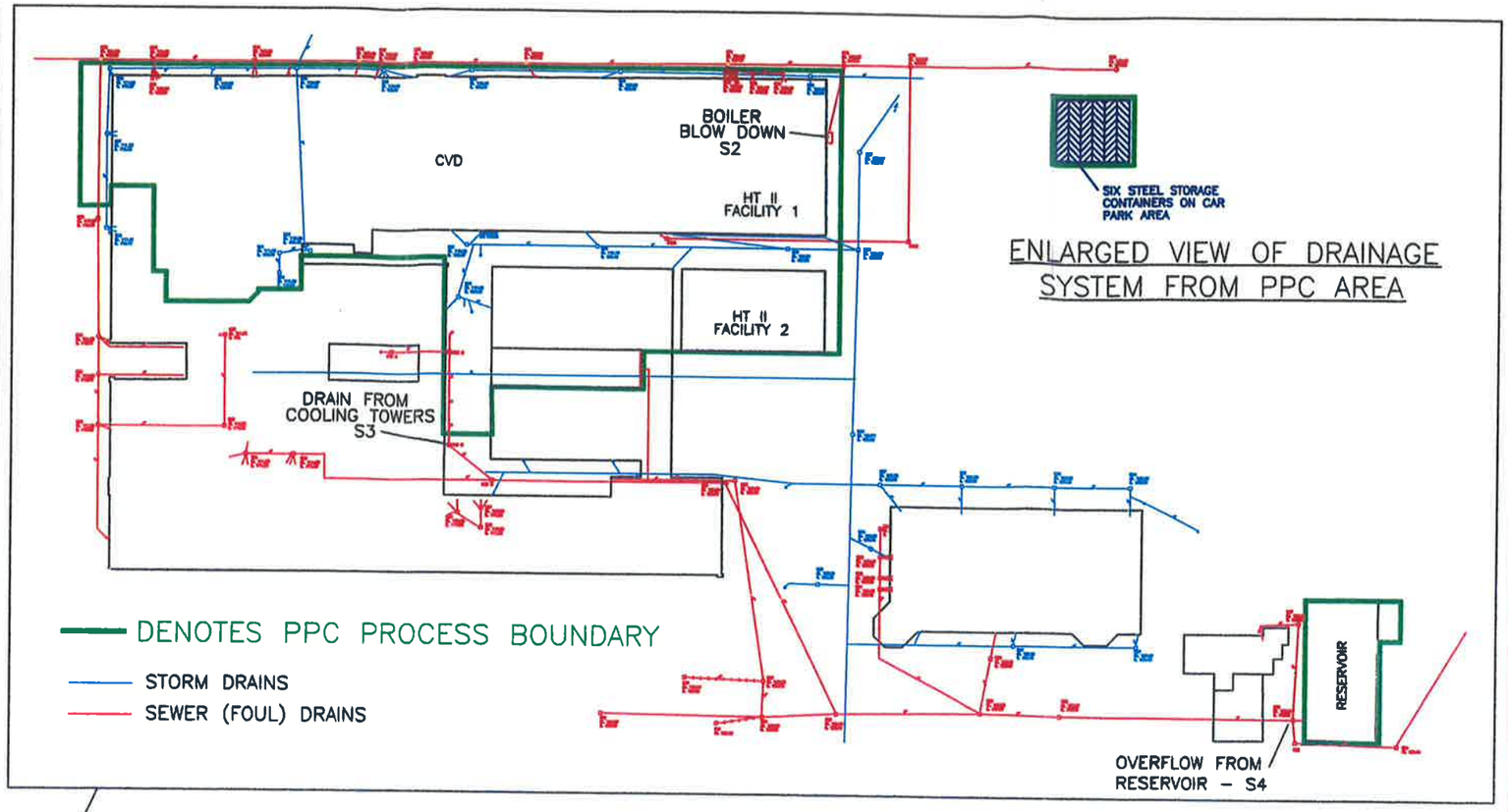


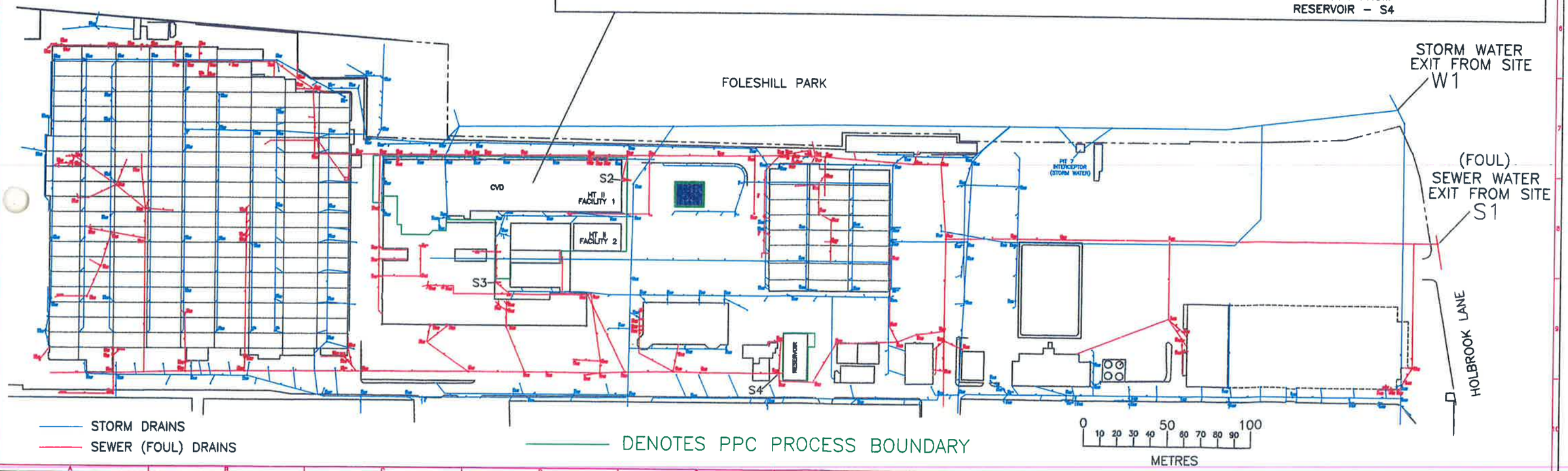


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TITLE

DRG.No.

*FINAL*

# FIRST PHASE REPORTING OF THE SITE PROTECTION AND MONITORING PROGRAMME

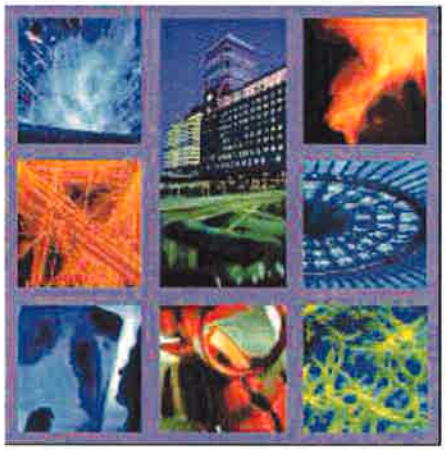
FOR

# DUNLOP AEROSPACE BRAKING SYSTEMS, HOLBROOK LANE, COVENTRY

**WHERE REFERENCE DATA IS REQUIRED**

**December 2007**

**PRIVATE AND CONFIDENTIAL**



**RPS Health, Safety & Environment**
**185 Park Street**
**London**
**SE1 9DY**

**Tel: 020 7928 0999**
**Fax: 020 7928 0708**
**Web: www.rpsgroup.com/hsed**

**HLI 2690/001R**
**December 2007**

| This report has been prepared within the RPS Group Quality Management System to British Standard EN ISO 9001 : 2000. | | | |
|---|---|---|---|
| Report Type: | | First phase reporting of the SPMP | |
| Report Status: | | FINAL | |
| Project Reference: | | HLI2690 | |
| | Consultant | Signature | Date |
| Report Author: | D. Lothian | D Lothian | 21/12/2007 |
| Technical Review: | Dr. J. Page | J.O. Page | 21/12/2007 |

**RPS HEALTH, SAFETY & ENVIRONMENT**

**FIRST PHASE REPORTING OF THE SITE PROTECTION AND MONITORING PROGRAMME**

General Notes

The following notes should be read in conjunction with the report:

1. This report contains only that available factual data for the site which was obtained from the sources described in the text. These data were related to the site on the basis of the location information made available to RPS and its sub-consultants by the client.

2. The assessment of the site is based on information supplied by the client and on site inspections by RPS and its sub-consultants. Relevant information was also obtained from other sources.

3. The report reflects both the information provided to RPS and its sub-consultants in documents made available for review and the results of observations and consultations by RPS staff and its sub-consultants.

4. Where data have been supplied by the client or other sources, including that from previous site audits or investigations, it has been assumed that the information is correct but no warranty is given to that effect. While reasonable care and skill has been applied in review of this data no responsibility can be accepted by RPS for inaccuracies in the data supplied.

5. This report is prepared and written in the context of the proposals stated in the introduction to this report and its contents should not be used out of context. Furthermore new information, developing practices and changes in legislation may necessitate revised interpretation of the report after its original submission.

6. The copyright in the written materials shall remain the property of the RPS Company but with a royalty-free perpetual licence to the client deemed to be granted on payment in full to the RPS Company by the client of the outstanding amounts.

7. The report is provided for sole use by the addressees and is confidential to them and their professional advisors. No responsibility whatsoever for the contents of the report will be accepted to any person other than the Addressees.

8. The Operating Company and its sub-consultants undertakes to maintain adequate insurance cover for Public Liability and Professional Indemnity Insurance during the course of the Services and for six years after completion thereof providing always that such insurance is available at commercially reasonable rates. Details of these policies are available on request. If such insurance ceases to be available at commercial reasonable rates then the Operating Company shall promptly notify the client.

9. The liability of the Operating Company (and all other companies in the RPS Group and its sub-consultants) in both contract and tort (if any) shall be limited to a period of six years following completion of the Services as indicated by the production of a final version of written report. This limitation shall not apply to claims resulting in personal injury or death.

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2.0 Intrusive Investigation
- 2.1 Investigation and Sampling Strategy
- 2.2 Sample Locations
- 2.3 Analytical Strategy
- 2.4 Findings of the Ground Investigation
  - 2.4.1 Summary of Site Physical Conditions and refinement of Conceptual Site Model
- 2.5 Data Interpretation
  - 2.5.1 Statistical Analysis of Data (including further delineation of Zones)
  - 2.5.2 Confirmed Sources of Identified Elevated Levels of Pollutants
  - 2.5.3 Unknown Sources of Identified Elevated Levels of Pollutants

3.0 Statement of Reference Data

4.0 Monitoring Programme
- 4.1 Environmental Monitoring Programme
- 4.2 Infrastructure Monitoring Programme
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Appendices

**SUMMARY**

This document represents the first report of the Site Protection and Monitoring Programme (SPMP) for *Dunlop Aerospace Braking Systems* submitted to the Environment Agency in pursuance of Condition 2.10.10 of the Permit No. BN7109IH (the "Permit") authorising the operation of *Dunlop Aerospace Braking Systems, Holbrook Lane, Coventry* (the"installation").

An intrusive investigation was undertaken to characterise substances identified as being present or potentially present in, on or under the ground in the Application Site Report (ASR) submitted with the Permit Application. The scope of the investigation is detailed within the Design SPMP submitted in pursuance of Condition 4.1.7 of the above mentioned Permit. This document should be read in conjunction with both documents.

This report sets the reference data for the installation which are summarised in Section 4 and Appendix G. The monitoring programme for the site is presented in Section 4 of the Design SPMP.

## 1.0 Introduction

RPS was commissioned by RPS Health, Safety and Environment on behalf of Dunlop Aerospace Braking Systems, Coventry to undertake a limited soil and groundwater investigation and collect reference data for the installation.

## 1.1 Site Location

The installation is located at Holbrook Lane, Coventry, CV6 4AA. The centre of the site is located at National Grid Reference SP 3303 8233 and covers an area of approximately 0.6 Ha. The site is part of a large industrial estate owned by Meggitt plc, which covers an area of approximately 25.5 Ha. A plan of the site is shown in Figure 2 of Appendix A1.

The site is currently used for aerospace braking systems manufacture. It has been in use for vehicle manufacturing operations since the 1930s following its initial development during the 1910s. Other industrial activities recorded within the surrounding industrial estate include a foundry, and a timber and engineering works. The industrial estate is surrounded by residential housing to the west, south and east, with a recreation ground to the immediate north and a sports field further to the west.

The site is within an area of low environmental sensitivity as detailed within the PPC Application Site Condition Report. There are no Sites of Special Scientific Interest (SSSI), Special Protection Areas, Special Areas of Conservation or RAMSAR sites within 1000 metres of the site. The site is located in an area considered to be a Nitrate Vulnerable Zone and is approximately 750 metres from an area of unadopted green belt land. The site is situated over a minor aquifer.

Information obtained from British Geological Survey Digital Geological Map of Great Britain 1:50,000 series shows the geological sequence beneath the site is as follows:

- Superficial deposits of Thrussington Till (Pebbly clay).
- Solid Geology is Keresley Member (Argillaceous rocks with interbedded sandstone and conglomerates).

The soils within the site location are freely draining, slightly acidic, loamy soils which are assumed to have a high leaching potential.

## 2.0 Intrusive Investigations

### 2.1 Investigation and Sampling Strategy

The investigations and sampling undertaken at the site was in accordance with Section 3 and Appendices B, C and D of the Design SPMP. No amendments or variations to the Design SPMP occurred.

### 2.2 Sample Locations

The number and location of samples remain the same as specified in the Design SPMP.

A total of 6No. shallow soil samples were taken at approximately twenty metre intervals from areas of unmade ground beneath the cooling water transport pipe, along the site boundary. These were considered to constitute the only significant areas of unmade ground on the site. Sample locations for the site are shown on Figure 3 of Appendix A1.

The installation currently abstracts groundwater from two boreholes on site (approximately 10m apart), for industrial processes (e.g. cooling) as well as non-drinking domestic use (e.g. toilet water). Groundwater samples were taken from the water mains within building X3.

Samples have been referenced using the classification system detailed in the Design SPMP (Section 3.2)

***Table 1***

| Site Operation | Sample Number | Sampled as specified (Y/N) | Amended to (Sample Number) | Shown on Figure | Described in Appendix |
|---|---|---|---|---|---|
| Cooling water system | SS01 | Y | - | A1 | D1 |
| | SS02 | Y | - | A1 | D1 |
| | SS03 | Y | - | A1 | D1 |
| | SS04 | Y | - | A1 | D1 |
| | SS05 | Y | - | A1 | D1 |
| | SS06 | Y | - | A1 | D1 |
| | BH101 | N | S01 | A1 | D2 |
| | BH102 | N | S02 | A1 | D2 |

The findings of the investigation are discussed in Section 2.4 below and a brief description of the ground conditions are reproduced in Appendix D.

## 2.3 Analytical Strategy

### 2.3.1 Justification of Analytical Suites

The analytical suites specified in the Design SPMP were used in the analysis of samples from the investigation to collect reference data.

### 2.3.2 Justification of Analytical / Field Technique and Detection Limits

The laboratory / field analytical techniques and detection limits for each analysis were as specified in the Design SPMP.

### 2.3.3 Laboratory Accreditation / Quality Assurance and Quality Control

#### 2.3.3.1 Laboratory Accreditation

All laboratory analytical techniques undertaken are within UKAS Accreditation.

#### 2.3.3.2 Quality Control

There were no modifications to the specified sampling and analytical quality assurance and quality control plan.

## 2.4 Findings of the Ground Investigation

### 2.4.1 Summary of Site Physical Conditions and Refinement of Conceptual Site Model

Six shallow soil samples were taken from the unmade ground beneath the cooling water transport pipework along part of the northern boundary of the site. Samples were generally extracted from between 0.1 and 0.2m below ground level (bgl) at approximately 20m intervals (sample locations shown in Appendix A1). Soil samples generally comprised dark grey to brown sandy soil with frequent gravels (see Appendix A2 for photographs). The area beneath the pipework was by and large well vegetated (shrubs), and soil samples commonly contained rootlets at the near surface. No vegetation die back, nor olfactory or visual evidence of contamination was noted during the sampling. RPS did not observe any cooling water spillages / leakages from the aboveground pipework.

Two groundwater samples were taken from the mains water supply within the CVD building (X3, see Appendix A Figure 2). No visual or olfactory evidence of contamination was noted during sampling.

Upon completion of the reference data collection, no significant sources of soil and / or groundwater contamination are considered to be present at the site.

## 2.5 Data Interpretation

### 2.5.1 Statistical Analysis of Data

As specified in the Design SPMP the soil and groundwater samples were submitted for analysis for metals, hydrocarbons, inorganic compounds, solvents and pesticides.

*Soil Analysis*

Recorded concentrations of solvents and pesticides were below the detection limit for all soil samples. A summary of soil analysis results is provided in Table 2, including the minimum and maximum values, and the calculated $US_{95}$ values.

***Table 2: Summary of Soil Analysis Results***

| Determinand | Unit | No. Samples Analysed | GAC Value | Range | | $US_{95}$ Mean Value | Max Value ID | No. > GAC |
|---|---|---|---|---|---|---|---|---|
| | | | | Min | Max | | | |
| **Zootoxic Compounds** | | | | | | | | |
| pH | $mg.kg^{-1}$ | 6 | - | 6.9 | 9.4 | 8.48 | - | - |
| Arsenic | $mg.kg^{-1}$ | 6 | 500 | 14 | 25 | 22.60 | SS6 | 0 |
| Cadmium | $mg.kg^{-1}$ | 6 | 1400 | 0.9 | 3.7 | 3.15 | SS1 | 0 |
| Chromium (total) | $mg.kg^{-1}$ | 6 | 5000 | 33 | 260 | 158.44 | SS1 | 0 |
| Lead | $mg.kg^{-1}$ | 6 | 750 | 140 | 2000 | 1162.89 | **SS3** | 1 |
| Mercury | $mg.kg^{-1}$ | 6 | 480 | 1.4 | 1.4 | 1 | SS3 | 0 |
| Selenium | $mg.kg^{-1}$ | 6 | 8000 | < d.l | < d.l | - | - | 0 |
| Nickel | $mg.kg^{-1}$ | 6 | 5000 | 40 | 100 | 87.95 | SS1 | 0 |
| Cyanide (total) | $mg.kg^{-1}$ | 6 | - | 1 | 3.8 | 3.74 | SS5 | - |
| PAH (total) | $mg.kg^{-1}$ | 6 | 765,680* | 4.96 | 358.19 | 208.61 | SS2 | - |
| Naphthalene | $mg.kg^{-1}$ | 6 | 290* | < d.l | 0.61 | 0.31 | SS2 | 0 |
| Benzo(a)pyrene | $mg.kg^{-1}$ | 6 | 28.1* | 0.4 | 51 | 27.80 | **SS2** | 1 |
| Total Aliphatics (C5-C35) | $mg.kg^{-1}$ | 6 | 1,290,999* | 79 | 380 | 312 | SS1 | - |
| Total Aromatics (C5-C35) | $mg.kg^{-1}$ | 6 | **31,722*** | 64 | 1000 | 770.38 | SS1 | - |
| TPH | $mg.kg^{-1}$ | 6 | **1,322,722*** | 150 | 1400 | 1031.33 | SS1 | - |
| **Phytotoxic Compounds** | | | | | | | | |
| Zinc | $mg.kg^{-1}$ | 6 | 200 at pH 6 -7 | 920 | 2500 | 1935.03 | **SS5** | 6 |
| Copper | $mg.kg^{-1}$ | 6 | 135** at < pH 6 - 7 | 190 | 1100 | 750.84 | **SS1** | 6 |
| Nickel | $mg.kg^{-1}$ | 6 | 5000 | 40 | 100 | 87.95 | SS6 | 0 |
| Boron | $mg.kg^{-1}$ | 6 | 3** at pH 7 | 1.3 | 2 | 1.83 | SS6 | 0 |

*GAC derived using CLEA values unless otherwise specified.*

*< d.l = concentration less than level of detection*

**GAC using RPS in-house standard for a commercial / industrial land use*

***GAC based on MAFF*

Concentrations of lead, zinc, copper and benzo(a)pyrene were recorded in excess of the commercial / industrial acceptance criteria. These samples were subjected to further statistical analysis through the maximum value test, in accordance with CLR7.

The maximum value test enables the identification of outliers within the data set. The results of the maximum value test are presented in Table 3.

***Table 3. Maximum Value Test***

| **Determinand** | GAC ($mg.kg^{-1}$) | Number of Samples | $US_{95}$ | Maximum value ($mg.kg^{-1}$) | T Value | **T Critical** | **Outlier ? (Y/N)** |
|---|---|---|---|---|---|---|---|
| Lead | 750 | 6 | 1162.89 | 2000 | 1.83 | 1.82 | Yes |
| Benzo(a)pyrene | 28.1 | 6 | 27.80 | 51 | 1.59 | 1.82 | No |
| Zinc | 200 at pH 6 -7 | 6 | 1935.03 | 2500 | 1.78 | 1.82 | No |
| Copper | 135** at < pH 6 - 7 | 6 | 750.84 | 1100 | 1.63 | 1.82 | No |

Both the maximum value and $US_{95}$ Mean Value for lead were in excess of the appropriate screening level for SS3. Statistical analysis through the Maximum Value Test indicates that the sample recovered from this location did not belong to the same statistical population as the remainder of the data and was hence considered a localised area of elevated contamination, i.e. a contamination 'hotspot'. Removal of this sample data reduces the $US_{95}$ to below the GAC, and no outliers were identified in the remaining data.

Zinc and copper concentrations (phytotoxixic) exceeded the GAC at all sampled locations. Additional statistical analysis indicates that the samples of greatest concentration belong to the same statistical population as the remainder of the data.

Although the maximum concentration of benzo(a)pyrene exceeded the GAC, the $US_{95}$ Mean Value was below the GAC, indicating that the majority of the population is below the screening level. Additional statistical analysis indicates that this sample belongs to the same statistical population as the remainder of the data.

*Groundwater analysis*

The vast majority of hydrocarbons, solvent, and pesticide concentrations in the two groundwater samples were below the detection limits. A summary of soil analysis results is provided in Table 4.

***Table 4: Summary of Groundwater Concentrations Compared to the EQS***

| Determinand | Unit | GAC value | No. Samples Analysed | Range | |
|---|---|---|---|---|---|
| | | | | Min | Max |
| pH | mg/l | - | 2 | 7.1 | 7.2 |
| Arsenic | mg/l | 0.05 | 2 | <d.l | <d.l |
| Cadmium | mg/l | 0.005 | 2 | <d.l | <d.l |
| Chromium (total) | mg/l | 0.01** | 2 | 0.005 | 0.006 |
| Lead | mg/l | 0.01** | 2 | <d.l | <d.l |
| Mercury | mg/l | 0.001 | 2 | <d.l | <d.l |
| Selenium | mg/l | - | 2 | <d.l | <d.l |
| Nickel | mg/l | 0.1** | 2 | <d.l | <d.l |
| Cyanide (total) | mg/l | 0.05*** | 2 | <d.l | <d.l |
| Zinc | mg/l | 0.05 | 2 | 0.017 | 0.06 |
| Copper | mg/l | 0.006** | 2 | 0.040 | 0.059 |
| Boron | mg/l | 2 | 2 | 0.16 | 0.16 |
| PAH (total) | mg/l | **0.0001*** ** | **2** | **0.0006** | **0.0008** |
| Naphthalene | mg/l | 0.01 | 2 | 0.0005 | 0.0007 |
| Benzo(a)pyrene | mg/l | 0.00001*** | 2 | <d.l | <d.l |
| Total Aliphatics (C5-C35) | mg/l | - | 2 | <d.l | <d.l |
| Total Aromatics (C5-C35) | mg/l | - | 2 | <d.l | <d.l |
| TPH | mg/l | 0.01 | 2 | <d.l | <d.l |
| Trichloroethene | mg/l | 0.01 | 2 | <d.l | 0.002 |
| Cis-1,2 Dichloroethene | mg/l | - | 2 | 0.002 | 0.002 |

*< d.l = concentration less than level of detection*

*Based on EQS Freshwater guideline unless specified.*

**** Based on conservative water hardness of 50-100mg/l$CaCO_3$**

***** Based on EC Drinking Water Standard**

The results indicate that all but one of the determinands were below the GAC. Concentrations of Polycyclic Aromatic Hydrocarbons (PAHs) were marginally above the conservative EC drinking water standard in both samples, recorded at 0.0006mg/l and 0.0008mg/l.

### 2.5.2 Confirmed Sources of Identified Elevated Levels of Pollutants

The elevated concentrations of lead, benzo(a)pyrene, zinc and copper within the shallow soils are not necessarily attributable to the constituents of the cooling liquid. Statistical analysis of the elevated lead sample indicates that this sample represents a localised hot-spot, and therefore is likely to be a result of an isolated constituent of the soil at that location. The $US_{95}$ indicates that the general population of benzo(a)pyrene and lead were below the relevant screening values, suggesting that no significant source of contamination exists on site.

The concentrations of zinc and copper were also in excess of the screening values at all sample locations. However, this is also likely to be as a result of the constituents of the unmade ground as opposed to the leaking of solution from the cooling pipework.
The concentrations of PAHs were marginally above the conservative EC Drinking Water Standard, but overall the results were not significant and there is no evidence that activities at the site have impaired groundwater quality.

### 2.5.3 Unknown Sources of Identified Elevated Levels of Pollutants

Overall the concentrations of pollutants within the groundwater are considered to be negligible, and there were no biocides or other water treatment chemicals detected.

The possible source of all elevated levels of pollutants within the ground are discussed within Section 2.5.2 above.

## 3.0 Statement of Reference Data

Reference Data for the site have been collected by this report and are presented in summary as Appendix G2.

## 4.0 Inspection and Monitoring Programme

The investigations to collect reference data have not led to any amendments to the monitoring and inspection programme.

## 5.0 Other Issues

The site will ensure that staff receive general environmental awareness training to ensure that preventative action is taken in order to minimise the potential for ground or groundwater contamination. Training shall be documented and reviewed, as described in procedure EP4 of the EMS Manual.

## 6.0 References

Reference material used in the compilation of the report includes:

- IPPC H7 Guidance on the Protection of Land Under the PPC Regime: Application Site Report and Site Protection Monitoring Programme
- Installation Application Site Report ("the ASR")
- Design of a SPMP requiring reference data to be collected, July 2007.

## 7.0 Glossary

| | |
|---|---|
| PPC | Pollution Prevention and Control |
| PAC | Potential Area of Contamination |
| ASR | Application Site Report |
| SPMP | Site Protection and Monitoring Programme |
| CSM | Conceptual Site Model |
| SSSI | Site of Special Scientific Interest |
| EMS | Environmental Management System |

## APPENDIX A

## FIGURES AND PLANS

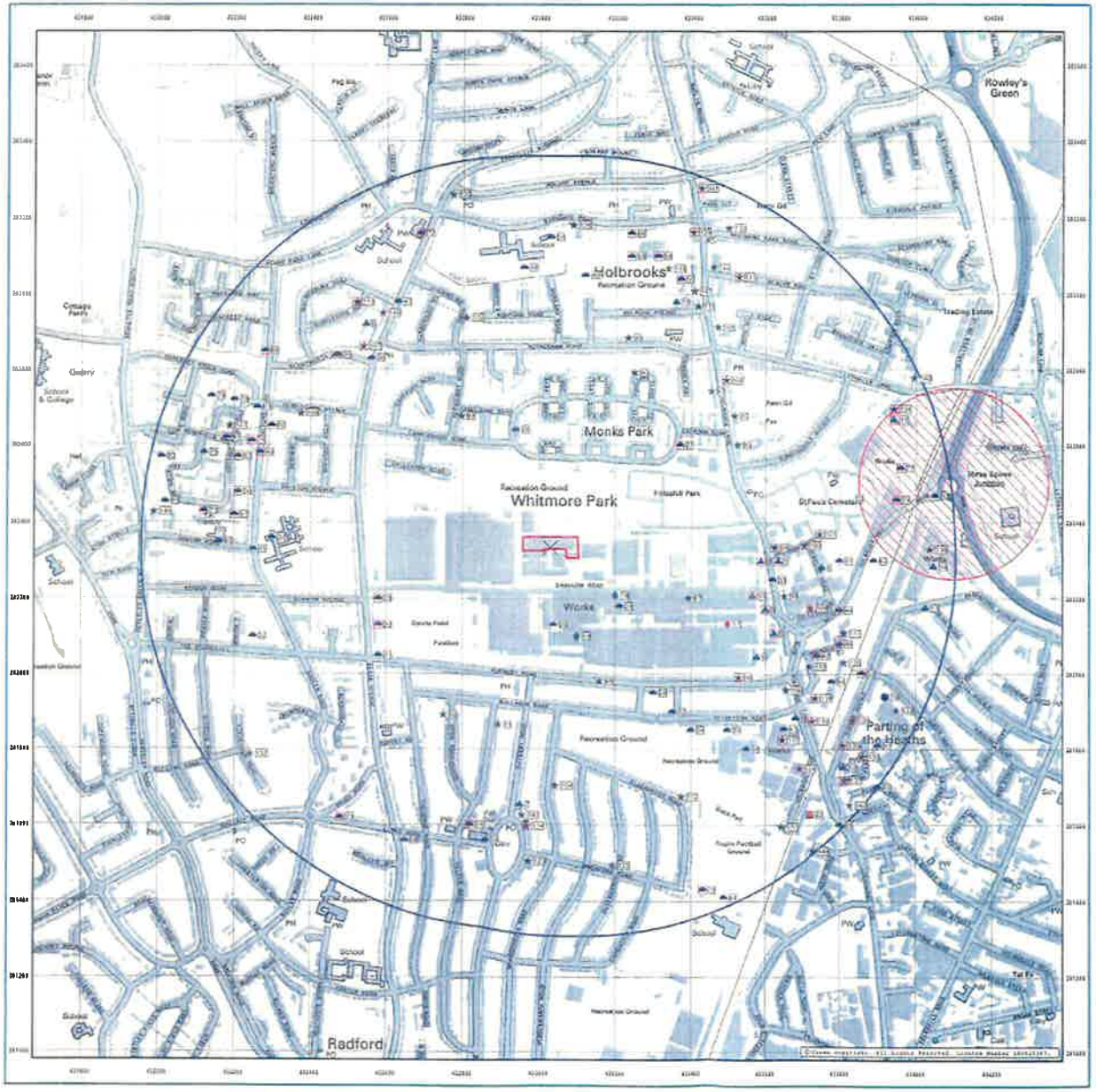
**Contents**

A1 Plans (site location, site layout, sample locations)

A2 Photographs

A3 Diagramatic Representation of Conceptual Site Model

## Appendix A1 - Figure 1 - Site Location Plan




Envirocheck

**CLIENT DETAILS** Envirocheck Order No. EC13881811_1_1

Customer Ref: MR A WILL TOWLETHAN
RPS Consultants Ltd
8A FURY HILL ALDERTON ROAD
TORCESTER
NORTHAMPTONSHIRE NN12 7LS

**SITE DETAILS** Grid Reference 433030 282330

Dunlop Aviation Division
Unit A2, Holbrook Lane

Coventry
CV6 4AA

### KEY TO THE LEGEND DATABASE

**General**
- Specified Site
- Bearing Reference Point
- Buffer (1000m)
- Reference Number
- Several of Type at Location

**Agency and Hydrological**
- Air Pollution Control
- Air Pollution Control Enforcement
- Point Location of Contaminated Land Register Entry or Notice
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement Or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Pollution Incident to Controlled Waters
- Substantiated Pollution Incident Register
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Quality Sampling Point
- Water Abstraction
- Water Industry Act Referral

**Waste**
- Point Location of BGS Recorded Landfill Site
- BGS Recorded Landfill Site
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facilities (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Point Location of Local Authority Recorded Landfill Site
- Local Authority Recorded Landfill Site
- Registered Landfill Site
- Point Location of Registered Waste Transfer Site
- Registered Waste Transfer Site
- Point Location of Registered Waste Treatment or Disposal Site
- Registered Waste Treatment or Disposal Site

**Hazardous Substances**
- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

**Geological**
- BGS Borehole
- BGS Recorded Mineral Site

**Industrial Land Use**
- Contemporary Trade Directory Entry
- Fuel Station Entry

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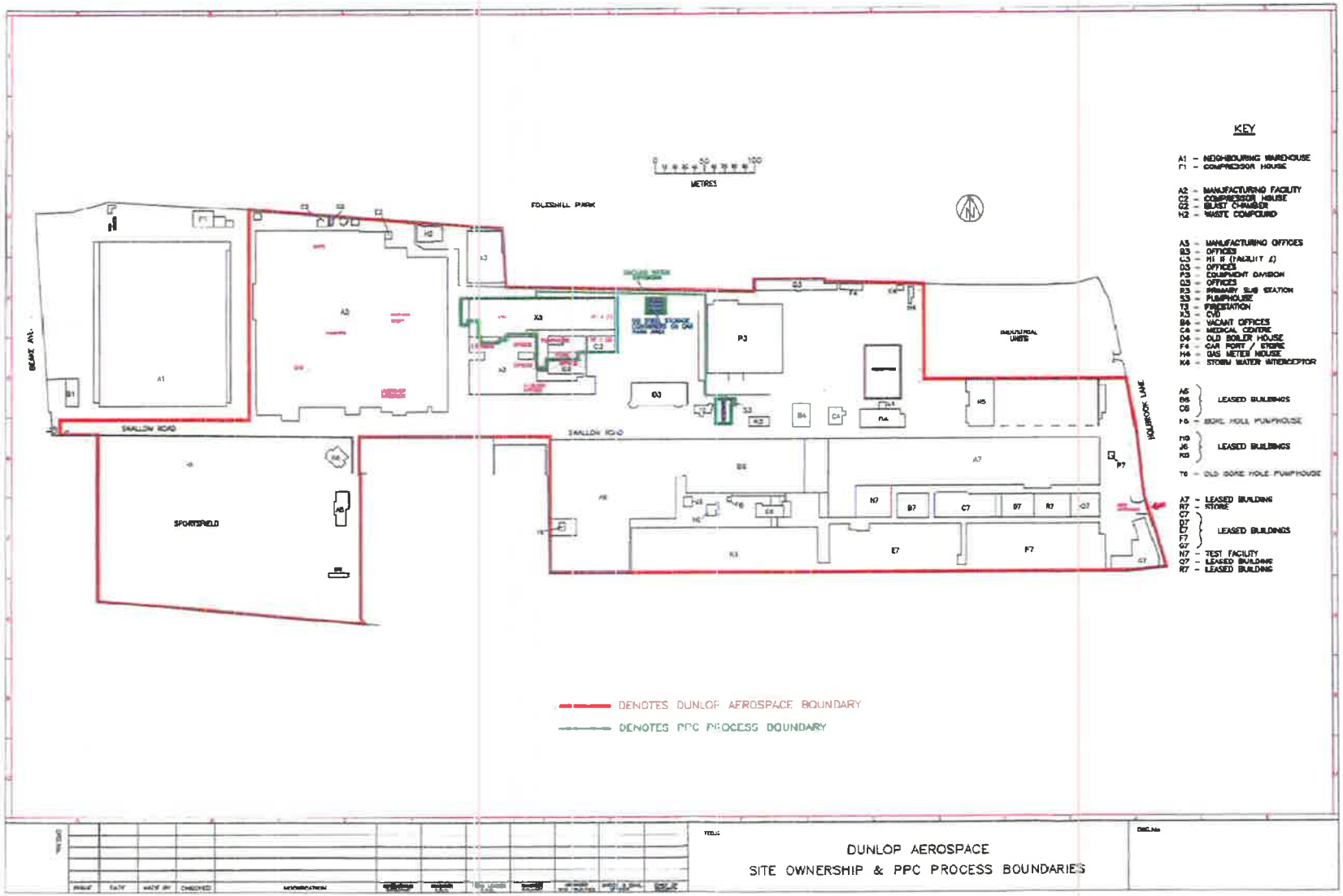
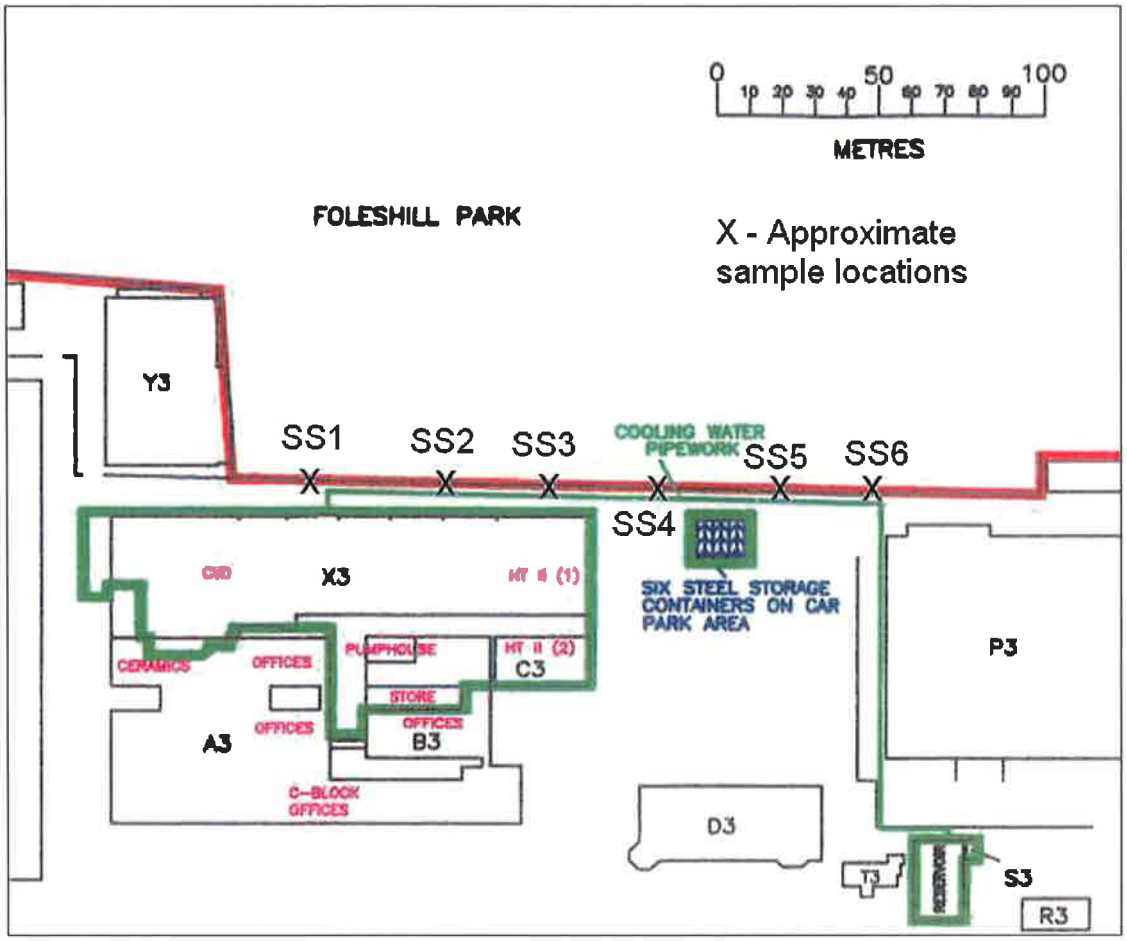
## Appendix A1 - Figure 2 – Site Layout Plan



**Appendix A1 - Figure 3 – Sample Location Plan**



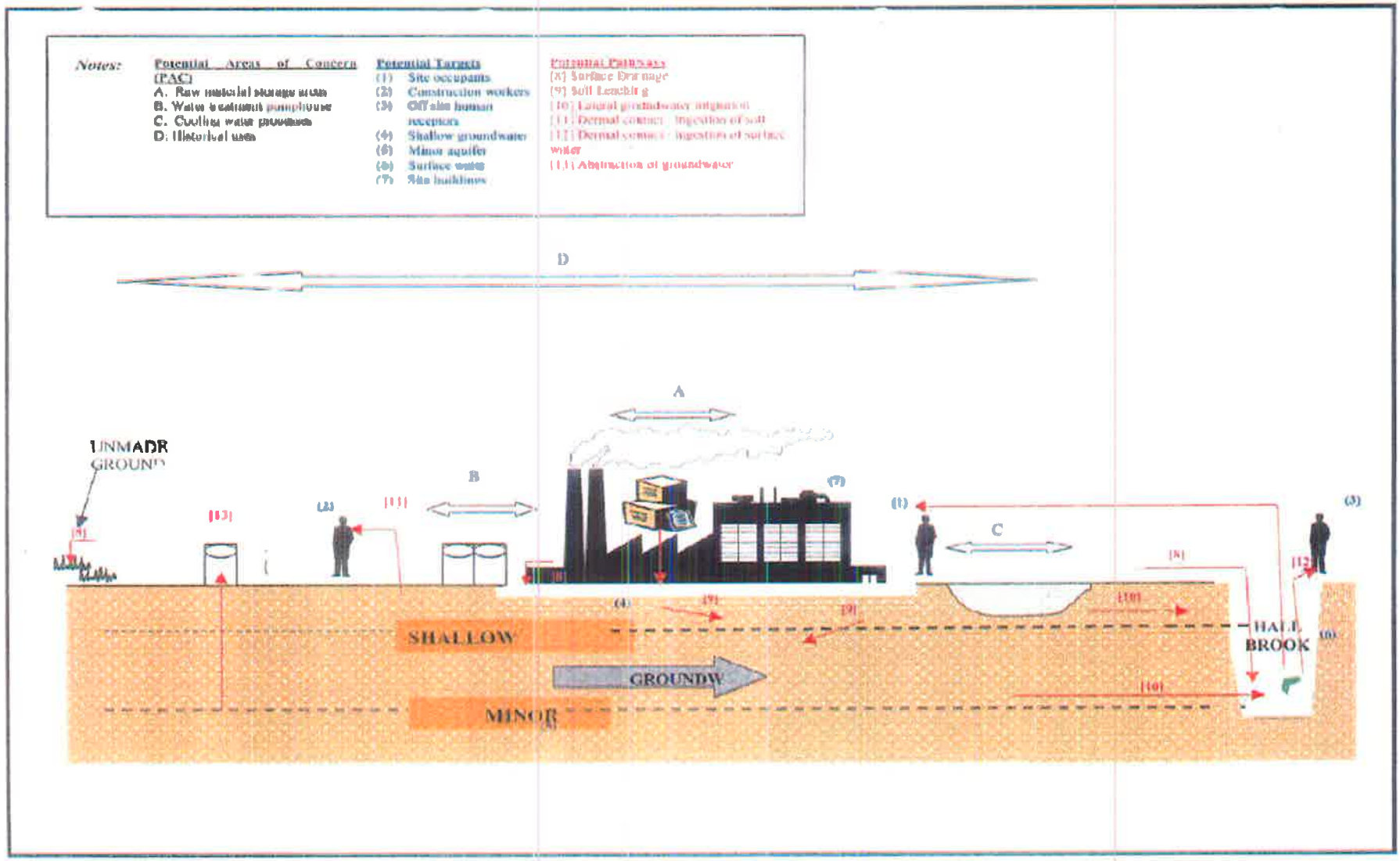
## Appendix A2 – Photographs

**Figure 1 – Cooling Water Pipework, looking east**

**Figure 2 – Vegetation beneath pipeline**

**Figure 3 – Example of generally encountered near surface soil conditions (SS4)**

## Appendix A3 – Diagrammatic Representation of Conceptual Site Model



**APPENDIX B**

**INVESTIGATION AND SAMPLING PROTOCOLS**

Contents

B1 Soil

B2 Groundwater

B3 Soil-gas and Vapours

B4 Surface Water

B5 Infrastructure

**Appendix B1 – Soil**

Shallow soil samples were taken from the surface down to a depth of between 10 and 15 centimetres. This is because it was generally assumed that the highest level of contamination will occur at the surface and there was limited space to access the unmade ground due to the position of the pipework. The samples were packaged in such a way to enable the laboratory to accurately test for contaminants. The samples were analysed for a range of metals, hydrocarbons, inorganic compounds, solvents and pesticides i.e. pollutants that may be present based on present potential contaminants and historical site usage.

**Appendix B2 – Groundwater**

Representative samples of the groundwater from the two boreholes were taken. The samples were collected in suitable glass containers that will enable the laboratory to accurately test for contaminants. The groundwater was analysed for conductivity, total metal, suspended solids, pH, a wide range of metals, general appearance, hydrocarbons, inorganic compounds, solvents and pesticides.

**Appendix B3 – Soil-gas and Vapours**

No soil-gas and vapour investigation was undertaken at the site.

**Appendix B4 – Surface Water**

No surface water investigation was undertaken at the site.

**Appendix B5 – Infrastructure**

Details of infrastructure monitoring and inspection are provided under separate cover (Ref: HLC2989/001R).

**APPENDIX C**

**ANALYTICAL PROTOCOLS AND LABORATORY ACCREDITATION**

**Contents**

C1 Tables

C2 Analytical Techniques

**C1 – Table showing analytical techniques**

| Determinand | Method | UKAS Accredition |
|---|---|---|
| **Groundwater** | | |
| pH | Ion Selective Electrode | Lab Reference No. |
| Conductivity | Ion Selective Electrode | Lab Reference No |
| Chemical Oxygen Demand | Dichromate Oxidation | Lab Reference No |
| Suspended Solids | Gravimetric | Lab Reference No |
| Total Metal Content | Inductively Coupled Plasma | Lab Reference No |
| Copper | Inductively Coupled Plasma | Lab Reference No |
| Lead | Inductively Coupled Plasma | Lab Reference No |
| Zinc | Inductively Coupled Plasma | Lab Reference No |
| Iron | Inductively Coupled Plasma | Lab Reference No |
| Chromium | Inductively Coupled Plasma | Lab Reference No |
| Tin | Inductively Coupled Plasma | Lab Reference No |
| Polynuclear Aromatic Hydrocarbons | Gas Chromatography | Lab Reference No |
| Total petroleum hydrocarbons | Gas Chromatography | Lab Reference No |
| Oil and Grease | Infra-red Spectrometry | Lab Reference No |
| Pesticides | As yet unknown | Lab Reference No |
| Solvents | As yet unknown | Lab Reference No |
| Inorganic Compounds | As yet unknown | Lab Reference No |
| **Soil** | | |
| pH | Ion Selective Electrode | Lab Reference No |
| Chemical Oxygen Demand | Dichromate Oxidation | Lab Reference No |
| Suspended Solids | Gravimetric | Lab Reference No |
| Copper | Inductively Coupled Plasma | Lab Reference No |
| Lead | Inductively Coupled Plasma | Lab Reference No |
| Zinc | Inductively Coupled Plasma | Lab Reference No |
| Iron | Inductively Coupled Plasma | Lab Reference No |
| Chromium | Inductively Coupled Plasma | Lab Reference No |
| Tin | Inductively Coupled Plasma | Lab Reference No |
| Polynuclear Aromatic Hydrocarbons | Gas Chromatography | Lab Reference No |
| Total petroleum hydrocarbons | Gas Chromatography | Lab Reference No |
| Oil and Grease | Infra-red Spectrometry | Lab Reference No |
| Pesticides | As yet unknown | Lab Reference No |
| Solvents | As yet unknown | Lab Reference No |
| Inorganic Compounds | As yet unknown | Lab Reference No |

**C2 – Table showing limits of detection**

| Determinand | Limit of Detection |
|---|---|
| **Groundwater** | |
| pH | Ion Selective Electrode |
| Conductivity | Ion Selective Electrode |
| Chemical Oxygen Demand | Dichromate Oxidation |
| Suspended Solids | Gravimetric |
| Total Metal Content | Inductively Coupled Plasma |
| Copper | Inductively Coupled Plasma |
| Lead | Inductively Coupled Plasma |
| Zinc | Inductively Coupled Plasma |
| Iron | Inductively Coupled Plasma |
| Chromium | Inductively Coupled Plasma |
| Tin | Inductively Coupled Plasma |
| Polynuclear Aromatic Hydrocarbons | Gas Chromatography |
| Total petroleum hydrocarbons | Gas Chromatography |
| Oil and Grease | Infra-red Spectrometry |
| Pesticides | As yet unknown |
| Solvents | As yet unknown |
| Inorganic Compounds | As yet unknown |
| **Soil** | |
| pH | Ion Selective Electrode |
| Chemical Oxygen Demand | Dichromate Oxidation |
| Suspended Solids | Gravimetric |
| Copper | Inductively Coupled Plasma |
| Lead | Inductively Coupled Plasma |
| Zinc | Inductively Coupled Plasma |
| Iron | Inductively Coupled Plasma |
| Chromium | Inductively Coupled Plasma |
| Tin | Inductively Coupled Plasma |
| Polynuclear Aromatic Hydrocarbons | Gas Chromatography |
| Total petroleum hydrocarbons | Gas Chromatography |
| Oil and Grease | Infra-red Spectrometry |
| Pesticides | As yet unknown |
| Solvents | As yet unknown |
| Inorganic Compounds | As yet unknown |

## APPENDIX D

## RECORDS OF INVESTIGATION FINDINGS

**Contents**

D1 – Soil Sample Logging

D2 – Groundwater Sampling

**D1 – Soil Sample Logging**

Sampled: 15th November 2007

SS1 – (Made Ground) Dark brown slightly clayey SAND with regular large rounded gravels and rootlets. *Note: No hydrocarbon or staining. No vegetation die back.*

SS2 – (Made Ground) Light brown slightly clayey SAND with regular rounded gravels, occasional brick pieces and rootlets. *Note: No hydrocarbon or staining. No vegetation die back.*

SS3 – (Made Ground) Light brown slightly clayey SAND with regular rounded gravels, occasional clay tiles pieces and rootlets. *Note: No hydrocarbon or staining. No vegetation die back.*

SS4 – (Made Ground) Loose brown very slightly clayey SAND with rounded gravels, and rootlets. *Note: No hydrocarbon or staining. No vegetation die back.*

SS5 – (Made Ground) Light brown slightly clayey SAND with rootlets. *Note: No hydrocarbon or staining. No vegetation die back.*

SS6 – (Made Ground) Loose dark brown slightly clayey SAND with regular rounded gravels, and rootlets. *Note: No hydrocarbon or staining. No vegetation die back.*

**D2 – Groundwater Sampling**

Sampled: 15th November 2007

Groundwater samples were taken from two locations within building X3. General mains water in the building is abstracted from the groundwater, and therefore two samples were taken from the mains water supply. The samples were collected in suitable glass containers.

## APPENDIX E

## ANALYTICAL DATA AND STATISTICAL ANALYSIS

**Contents**

E1 Soil

E2 Groundwater

John Page
RPS Health Safety & Environment
185 Park Street
London
SE1 9DY

04 December 2007

# TEST REPORT

Our Report Number: 07-42169

Your Order Reference: Instructions of 19/11/2007

6 soil samples submitted for analysis on 19/11/2007

Project Code: HLI2690

*Laboratory analysis started on 19/11/2007*
*All laboratory analysis completed by 04 December 2007*

Rexona Rahman
Analytical Reporting Manager
**ALCONTROL TECHNICHEM**

Sharon Googh
Project Co-Ordinator
**ALCONTROL TECHNICHEM**

Test methods are documented in house procedures or where appropriate standard methods. Non accredited tests (if applicable) are identified on each page. Procedures for sampling are outside the scope of the laboratory UKAS accreditation. Opinions and interpretations expressed herein are outside the scope of our UKAS accreditation. All samples connected with this report , including any 'on hold', will be stored and disposed of according to company policy. A copy of this policy is available on request.

# ALcontrol Technichem
# Sample Description

**Matrix: Soil**

**Job Number: 07-42169**
**Client: RPS Health Safety & Environment**
**Project Code: HLI2690**

| Laboratory Reference No | Sample Reference | Sample Depth (m) | Date Sampled | Sample Description |
|---|---|---|---|---|
| | | | | |
| 278441 | SS1 | 0.15 | 15/11/07 | Dark grey sand with gravel |
| 278442 | SS2 | 0.1 | 15/11/07 | Brown sand with gravel |
| 278443 | SS3 | 0.2 | 15/11/07 | Brown sand with gravel |
| 278444 | SS4 | 0.15 | 15/11/07 | Dark grey sand with gravel |
| 278445 | SS5 | 0.15 | 15/11/07 | Dark grey sand with gravel |
| 278446 | SS6 | 0.15 | 15/11/07 | Dark grey sand with gravel |

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS1 | SS2 | SS3 | SS4 | SS5 | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | 0.1 | 0.2 | 0.15 | 0.15 | | | |
| Date Sampled | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | | | |
| Date Scheduled | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | | | |
| Laboratory Reference No | 278441 | 278442 | 278443 | 278444 | 278445 | | | |
| Analysis | | | | | | | | |
| | | | | | | | | |
| Moisture Content (Dry Weight) | 16.5 | 7.7 | 10.5 | 10.8 | 7.4 | | % | 0.1 |
| Moisture Content (Wet Weight) | 14.2 | 7.2 | 9.5 | 9.7 | 6.9 | | % | 0.1 |
| Arsenic | 14 | 16 | 24 | 16 | 18 | 069S[IM] | mg/kg | 3 |
| Barium | 980 | 240 | 2200 | 500 | 460 | 069S[IM] | mg/kg | 10 |
| Beryllium | 1.9 | 2.1 | 1.8 | 1.4 | 1.6 | 069S[IM] | mg/kg | 0.5 |
| Boron (W/S) | 1.3 | 1.6 | 1.6 | 1.5 | 1.8 | 016S[IM] | mg/kg | 0.5 |
| Cadmium | 3.7 | 0.9 | 2.2 | 2.5 | 2.3 | 069S[IM] | mg/kg | 0.5 |
| Chromium | 260 | 67 | 45 | 33 | 63 | 069S[IM] | mg/kg | 10 |
| Chromium (Hexavalent) | < 5 | < 5 | < 5 | < 5 | 24 | 007S | mg/kg | 5 |
| Copper | 1100 | 530 | 350 | 190 | 450 | 069S[IM] | mg/kg | 5 |
| Iron | 44000 | 74000 | 41000 | 36000 | 61000 | 069S | mg/kg | 200 |
| Lead | 310 | 270 | 2000 | 140 | 330 | 069S[IM] | mg/kg | 10 |
| Mercury | < 0.6 | < 0.6 | 1.4 | < 0.6 | < 0.6 | 069S[IM] | mg/kg | 0.6 |
| Nickel | 90 | 65 | 48 | 40 | 70 | 069S[IM] | mg/kg | 4 |
| Selenium | < 2.5 | < 2.5 | < 2.5 | < 2.5 | < 2.5 | 069S[IM] | mg/kg | 2.5 |
| Sulphate (Total Acid Soluble) as SO4 | 860 | 500 | 3500 | 650 | 730 | 025a[IM] | mg/kg | 200 |
| Tin | 98 | 70 | 450 | 20 | 31 | METS | mg/kg | 5 |
| Vanadium | 48 | 44 | 43 | 33 | 42 | 069S[IM] | mg/kg | 3 |
| Zinc | 1600 | 1200 | 1400 | 1300 | 2500 | 069S[IM] | mg/kg | 10 |
| Total Cyanide | 1.0 | 3.7 | 3.2 | 1.2 | 3.8 | 061S[IM] | mg/kg | 1 |
| W/S Nitrate as N | 2.5 | 2.7 | 12 | 4.9 | < 2.2 | 073S[I] | mg/kg | 2.2 |
| pH | 8.0 | 7.6 | 9.4 | 7.4 | 7.1 | 084S[IM] | pH Units | 1 |
| alpha-HCH | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| beta-HCH | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| gamma-HCH (lindane) | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| Heptachlor | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| Aldrin | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| Cis-Heptachlor Epoxide | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| o,p-DDE | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS1 | SS2 | SS3 | SS4 | SS5 | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | 0.1 | 0.2 | 0.15 | 0.15 | | | |
| Date Sampled | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | | | |
| Date Scheduled | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | | | |
| Laboratory Reference No | 278441 | 278442 | 278443 | 278444 | 278445 | | | |
| Analysis | | | | | | | | |
| alpha-Endosulphan | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| Dieldrin | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| o,p-TDE | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| Endrin | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| beta-Endosulphan | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S | mg/kg | 0.1 |
| o,p-DDT | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| Endosulphan sulphate | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| o,p-Methoxychlor | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 076S[I] | mg/kg | 0.1 |
| Dichlorvos | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S[I] | mg/kg | 0.1 |
| Mevinphos | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S | mg/kg | 0.1 |
| Diazinon | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S[I] | mg/kg | 0.1 |
| Disulfoton | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S[I] | mg/kg | 0.1 |
| Methyl-Parathion | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S[I] | mg/kg | 0.1 |
| Fenitrothion | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S | mg/kg | 0.1 |
| Malathion | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S[I] | mg/kg | 0.1 |
| Parathion | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S[I] | mg/kg | 0.1 |
| Ethion | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S[I] | mg/kg | 0.1 |
| Azinphos-methyl | < 0.1 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 077S | mg/kg | 0.1 |

[I] ISO 17025 accredited.
[H] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS6 | | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | | | | | | | |
| Date Sampled | 15/11/07 | | | | | | | |
| Date Scheduled | 19/11/07 | | | | | | | |
| Laboratory Reference No | 278446 | | | | | | | |
| Analysis | | | | | | | | |
| | | | | | | | | |
| Moisture Content (Dry Weight) | 8.1 | | | | | | % | 0.1 |
| Moisture Content (Wet Weight) | 7.5 | | | | | | % | 0.1 |
| Arsenic | 25 | | | | | 069S[IM] | mg/kg | 3 |
| Barium | 690 | | | | | 069S[IM] | mg/kg | 10 |
| Beryllium | 2.9 | | | | | 069S[IM] | mg/kg | 0.5 |
| Boron (W/S) | 2.0 | | | | | 016S[IM] | mg/kg | 0.5 |
| Cadmium | 2.8 | | | | | 069S[IM] | mg/kg | 0.5 |
| Chromium | 63 | | | | | 069S[IM] | mg/kg | 10 |
| Chromium (Hexavalent) | < 5 | | | | | 007S | mg/kg | 5 |
| Copper | 280 | | | | | 069S[IM] | mg/kg | 5 |
| Iron | 46000 | | | | | 069S | mg/kg | 200 |
| Lead | 470 | | | | | 069S[IM] | mg/kg | 10 |
| Mercury | < 0.6 | | | | | 069S[IM] | mg/kg | 0.6 |
| Nickel | 100 | | | | | 069S[IM] | mg/kg | 4 |
| Selenium | < 2.5 | | | | | 069S[IM] | mg/kg | 2.5 |
| Sulphate (Total Acid Soluble) as SO4 | 760 | | | | | 025a[IM] | mg/kg | 200 |
| Tin | 120 | | | | | METS | mg/kg | 5 |
| Vanadium | 53 | | | | | 069S[IM] | mg/kg | 3 |
| Zinc | 920 | | | | | 069S[IM] | mg/kg | 10 |
| Total Cyanide | 3.3 | | | | | 061S[IM] | mg/kg | 1 |
| W/S Nitrate as N | < 2.2 | | | | | 073S[I] | mg/kg | 2.2 |
| pH | 6.9 | | | | | 084S[IM] | pH Units | 1 |
| alpha-HCH | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| beta-HCH | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| gamma-HCH (lindane) | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| Heptachlor | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| Aldrin | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| Cis-Heptachlor Epoxide | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| o,p-DDE | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS6 | | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | | | | | | | |
| Date Sampled | 15/11/07 | | | | | | | |
| Date Scheduled | 19/11/07 | | | | | | | |
| Laboratory Reference No | 278446 | | | | | | | |
| Analysis | | | | | | | | |
| alpha-Endosulphan | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| Dieldrin | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| o,p-TDE | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| Endrin | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| beta-Endosulphan | < 0.1 | | | | | 076S | mg/kg | 0.1 |
| o,p-DDT | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| Endosulphan sulphate | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| o,p-Methoxychlor | < 0.1 | | | | | 076S[I] | mg/kg | 0.1 |
| Dichlorvos | < 0.1 | | | | | 077S[I] | mg/kg | 0.1 |
| Mevinphos | < 0.1 | | | | | 077S | mg/kg | 0.1 |
| Diazinon | < 0.1 | | | | | 077S[I] | mg/kg | 0.1 |
| Disulfoton | < 0.1 | | | | | 077S[I] | mg/kg | 0.1 |
| Methyl-Parathion | < 0.1 | | | | | 077S[I] | mg/kg | 0.1 |
| Fenitrothion | < 0.1 | | | | | 077S | mg/kg | 0.1 |
| Malathion | < 0.1 | | | | | 077S[I] | mg/kg | 0.1 |
| Parathion | < 0.1 | | | | | 077S[I] | mg/kg | 0.1 |
| Ethion | < 0.1 | | | | | 077S[I] | mg/kg | 0.1 |
| Azinphos-methyl | < 0.1 | | | | | 077S | mg/kg | 0.1 |

[I] ISO 17025 accredited.
[H] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS1 | SS2 | SS3 | SS4 | SS5 | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | 0.1 | 0.2 | 0.15 | 0.15 | | | |
| Date Sampled | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | | | |
| Date Scheduled | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | | | |
| Laboratory Reference No | 278441 | 278442 | 278443 | 278444 | 278445 | | | |
| Analysis | | | | | | | | |
| * * PAH SUITE * * | | | | | | | | |
| Naphthalene | < 0.1 | 0.61 | < 0.1 | < 0.1 | < 0.1 | 022S[IM] | mg/kg | 0.1 |
| Acenaphthylene | 0.43 | 0.43 | < 0.1 | < 0.1 | < 0.1 | 022S[IM] | mg/kg | 0.1 |
| Acenaphthene | 0.72 | < 0.1 | < 0.1 | < 0.1 | < 0.1 | 022S[IM] | mg/kg | 0.1 |
| Fluorene | 0.65 | 0.16 | < 0.1 | < 0.1 | < 0.1 | 022S[IM] | mg/kg | 0.1 |
| Phenanthrene | 10 | 14 | 0.43 | 1.6 | 0.61 | 022S[IM] | mg/kg | 0.1 |
| Anthracene | 3.8 | 4.0 | 0.14 | 0.14 | 0.12 | 022S[IM] | mg/kg | 0.1 |
| Fluoranthene | 34 | 39 | 1.6 | 2.9 | 1.6 | 022S[IM] | mg/kg | 0.1 |
| Pyrene | 29 | 130 | 4.1 | 3.2 | 2.6 | 022S[IM] | mg/kg | 0.1 |
| Benzo(a)anthracene | 15 | 17 | 0.57 | 0.64 | 0.67 | 022S[IM] | mg/kg | 0.1 |
| Chrysene | 12 | 11 | 0.59 | 1.1 | 0.64 | 022S[IM] | mg/kg | 0.1 |
| Benzo(b)fluoranthene | 13 | 11 | 0.57 | 0.91 | 1.1 | 022S[IM] | mg/kg | 0.1 |
| Benzo(k)fluoranthene | 5.5 | 11 | 0.46 | 0.65 | 0.37 | 022S[IM] | mg/kg | 0.1 |
| Benzo(a)pyrene | 13 | 51 | 1.3 | 1.0 | 1.3 | 022S[IM] | mg/kg | 0.1 |
| Indeno(1,2,3-cd)pyrene | 5.6 | 14 | 0.43 | 0.51 | 0.73 | 022S[IM] | mg/kg | 0.1 |
| Dibenzo(a,h)anthracene | 1.6 | 1.2 | < 0.1 | < 0.1 | 0.11 | 022S[IM] | mg/kg | 0.1 |
| Benzo(g,h,i)perylene | 6.0 | 51 | 1.0 | 0.86 | 1.6 | 022S[IM] | mg/kg | 0.1 |
| PAH (Sum of EPA 16) | 150.63 | 358.19 | 11.23 | 13.58 | 11.42 | 022S[I] | mg/kg | 1.6 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS6 | | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | | | | | | | |
| Date Sampled | 15/11/07 | | | | | | | |
| Date Scheduled | 19/11/07 | | | | | | | |
| Laboratory Reference No | 278446 | | | | | | | |
| Analysis | | | | | | | | |
| * * PAH SUITE * * | | | | | | | | |
| Naphthalene | < 0.1 | | | | | 022S[IM] | mg/kg | 0.1 |
| Acenaphthylene | < 0.1 | | | | | 022S[IM] | mg/kg | 0.1 |
| Acenaphthene | < 0.1 | | | | | 022S[IM] | mg/kg | 0.1 |
| Fluorene | < 0.1 | | | | | 022S[IM] | mg/kg | 0.1 |
| Phenanthrene | 0.37 | | | | | 022S[IM] | mg/kg | 0.1 |
| Anthracene | 0.11 | | | | | 022S[IM] | mg/kg | 0.1 |
| Fluoranthene | 0.97 | | | | | 022S[IM] | mg/kg | 0.1 |
| Pyrene | 0.89 | | | | | 022S[IM] | mg/kg | 0.1 |
| Benzo(a)anthracene | 0.40 | | | | | 022S[IM] | mg/kg | 0.1 |
| Chrysene | 0.44 | | | | | 022S[IM] | mg/kg | 0.1 |
| Benzo(b)fluoranthene | 0.63 | | | | | 022S[IM] | mg/kg | 0.1 |
| Benzo(k)fluoranthene | 0.23 | | | | | 022S[IM] | mg/kg | 0.1 |
| Benzo(a)pyrene | 0.40 | | | | | 022S[IM] | mg/kg | 0.1 |
| Indeno(1,2,3-cd)pyrene | 0.23 | | | | | 022S[IM] | mg/kg | 0.1 |
| Dibenzo(a,h)anthracene | < 0.1 | | | | | 022S[IM] | mg/kg | 0.1 |
| Benzo(g,h,i)perylene | 0.30 | | | | | 022S[IM] | mg/kg | 0.1 |
| PAH (Sum of EPA 16) | 4.96 | | | | | 022S[I] | mg/kg | 1.6 |

[I] ISO 17025 accredited.
[IM] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS1 | SS2 | SS3 | SS4 | SS5 | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | 0.1 | 0.2 | 0.15 | 0.15 | | | |
| Date Sampled | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | | | |
| Date Scheduled | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | | | |
| Laboratory Reference No | 278441 | 278442 | 278443 | 278444 | 278445 | | | |
| Analysis | | | | | | | | |
| * * CWG SUITE * * | | | | | | | | |
| Aliphatic C5-C6 | 0.08 | 0.08 | 0.06 | 0.06 | 0.08 | CWGS | mg/kg | 0.01 |
| Aliphatic >C6-C8 | 0.07 | 0.09 | 0.06 | 0.06 | 0.07 | CWGS | mg/kg | 0.01 |
| Aliphatic >C8-C10 | < 0.01 | 0.02 | 0.01 | < 0.01 | 0.01 | CWGS | mg/kg | 0.01 |
| Aliphatic >C10-C12 | 0.03 | 0.02 | < 0.01 | < 0.01 | < 0.01 | CWGS | mg/kg | 0.01 |
| Aliphatic >C12-C16 | < 5 | < 5 | < 5 | < 5 | 17 | CWGS[I] | mg/kg | 5 |
| Aliphatic >C16-C21 | 46 | 9.0 | 7.0 | < 5 | 140 | CWGS[I] | mg/kg | 5 |
| Aliphatic >C21-C35 | 330 | 150 | 87 | 79 | 220 | CWGS[I] | mg/kg | 5 |
| Total Aliphatics (C5-C35) | 380 | 160 | 95 | 79 | 370 | CWGS | mg/kg | 5 |
| Aromatic C6-C7 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | CWGS | mg/kg | 0.01 |
| Aromatic >C7-C8 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | CWGS | mg/kg | 0.01 |
| Aromatic >C8-C10 | 0.01 | 0.03 | 0.02 | 0.02 | 0.02 | CWGS | mg/kg | 0.01 |
| Aromatic >C10-C12 | 0.04 | 0.02 | 0.01 | 0.01 | < 0.01 | CWGS | mg/kg | 0.01 |
| Aromatic >C12-C16 | 16 | < 5 | < 5 | < 5 | < 5 | CWGS[I] | mg/kg | 5 |
| Aromatic >C16-C21 | 100 | 48 | < 5 | 7.9 | 27 | CWGS[I] | mg/kg | 5 |
| Aromatic >C21-C35 | 880 | 920 | 66 | 73 | 130 | CWGS[I] | mg/kg | 5 |
| Total Aromatics (C5-C35) | 1000 | 970 | 66 | 81 | 160 | CWGS | mg/kg | 5 |
| Volatile Hydrocarbons (C5-C12) | 0.24 | 0.26 | 0.16 | 0.15 | 0.18 | CWGS | mg/kg | 0.01 |
| Extractable Hydrocarbons (C12-C35) | 1400 | 1100 | 160 | 160 | 530 | CWGS | mg/kg | 5 |
| Total Hydrocarbons (C5-C35) | 1400 | 1100 | 160 | 160 | 530 | CWGS | mg/kg | 5 |
| MTBE | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | CWGS[IM] | mg/kg | 0.01 |
| Benzene | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | CWGS[IM] | mg/kg | 0.01 |
| Toluene | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | CWGS[IM] | mg/kg | 0.01 |
| Ethylbenzene | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | CWGS[IM] | mg/kg | 0.01 |
| m,p-Xylenes | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | CWGS[IM] | mg/kg | 0.01 |
| o-Xylene | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | CWGS[IM] | mg/kg | 0.01 |
| 1,3,5-Trimethylbenzene | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | CWGS[IM] | mg/kg | 0.01 |
| 1,2,4-Trimethylbenzene | < 0.010 | < 0.010 | < 0.010 | < 0.010 | < 0.010 | CWGS[IM] | mg/kg | 0.01 |
| | | | | | | | | |
| | | | | | | | | |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS6 | | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | | | | | | | |
| Date Sampled | 15/11/07 | | | | | | | |
| Date Scheduled | 19/11/07 | | | | | | | |
| Laboratory Reference No | 278446 | | | | | | | |
| Analysis | | | | | | | | |
| * * CWG SUITE * * | | | | | | | | |
| Aliphatic C5-C6 | < 0.01 | | | | | CWGS | mg/kg | 0.01 |
| Aliphatic >C6-C8 | 0.19 | | | | | CWGS | mg/kg | 0.01 |
| Aliphatic >C8-C10 | 0.06 | | | | | CWGS | mg/kg | 0.01 |
| Aliphatic >C10-C12 | 0.13 | | | | | CWGS | mg/kg | 0.01 |
| Aliphatic >C12-C16 | < 5 | | | | | CWGS[I] | mg/kg | 5 |
| Aliphatic >C16-C21 | 6.8 | | | | | CWGS[I] | mg/kg | 5 |
| Aliphatic >C21-C35 | 74 | | | | | CWGS[I] | mg/kg | 5 |
| Total Aliphatics (C5-C35) | 82 | | | | | CWGS | mg/kg | 5 |
| Aromatic C6-C7 | < 0.01 | | | | | CWGS | mg/kg | 0.01 |
| Aromatic >C7-C8 | < 0.01 | | | | | CWGS | mg/kg | 0.01 |
| Aromatic >C8-C10 | 0.10 | | | | | CWGS | mg/kg | 0.01 |
| Aromatic >C10-C12 | 0.19 | | | | | CWGS | mg/kg | 0.01 |
| Aromatic >C12-C16 | < 5 | | | | | CWGS[I] | mg/kg | 5 |
| Aromatic >C16-C21 | 5.5 | | | | | CWGS[I] | mg/kg | 5 |
| Aromatic >C21-C35 | 58 | | | | | CWGS[I] | mg/kg | 5 |
| Total Aromatics (C5-C35) | 64 | | | | | CWGS | mg/kg | 5 |
| Volatile Hydrocarbons (C5-C12) | 0.67 | | | | | CWGS | mg/kg | 0.01 |
| Extractable Hydrocarbons (C12-C35) | 150 | | | | | CWGS | mg/kg | 5 |
| Total Hydrocarbons (C5-C35) | 150 | | | | | CWGS | mg/kg | 5 |
| MTBE | < 0.010 | | | | | CWGS[IM] | mg/kg | 0.01 |
| Benzene | < 0.010 | | | | | CWGS[IM] | mg/kg | 0.01 |
| Toluene | < 0.010 | | | | | CWGS[IM] | mg/kg | 0.01 |
| Ethylbenzene | < 0.010 | | | | | CWGS[IM] | mg/kg | 0.01 |
| m,p-Xylenes | < 0.010 | | | | | CWGS[IM] | mg/kg | 0.01 |
| o-Xylene | < 0.010 | | | | | CWGS[IM] | mg/kg | 0.01 |
| 1,3,5-Trimethylbenzene | < 0.010 | | | | | CWGS[IM] | mg/kg | 0.01 |
| 1,2,4-Trimethylbenzene | < 0.010 | | | | | CWGS[IM] | mg/kg | 0.01 |
| | | | | | | | | |
| | | | | | | | | |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS1 | SS2 | SS3 | SS4 | SS5 | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | 0.1 | 0.2 | 0.15 | 0.15 | | | |
| Date Sampled | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | | | |
| Date Scheduled | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | | | |
| Laboratory Reference No | 278441 | 278442 | 278443‡ | 278444 | 278445‡ | | | |
| Analysis | | | | | | | | |
| * * VOC SUITE * * | | | | | | | | |
| Dichlorodifluoromethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Chloromethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Vinyl Chloride | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| Bromomethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| Chloroethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Trichlorofluoromethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 1,1-Dichloroethene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S | ug/kg | 25 |
| 112-Trichloro-122-Trifluoroethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| Dichloromethane | < 50 | < 50 | < 500 | < 50 | < 500 | 071S[I] | ug/kg | 50 |
| Carbon Disulfide | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Trans-1,2 Dichloroethene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S | ug/kg | 25 |
| MTBE | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| 1,1 -Dichloroethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| Cis-1,2 Dichloroethene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Bromochloromethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Chloroform | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 2,2-Dichloropropane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 1,1,1-Trichloroethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| 1,2-Dichloroethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| 1,1-Dichloropropene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Benzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| Carbon Tetrachloride | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Dibromomethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 1,2-Dichloropropane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Trichloroethene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Bromodichloromethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Cis-1,3 Dichloropropene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Trans-1,3 Dichloropropene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 1,1,2-Trichloroethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS1 | SS2 | SS3 | SS4 | SS5 | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | 0.1 | 0.2 | 0.15 | 0.15 | | | |
| Date Sampled | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | | | |
| Date Scheduled | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | | | |
| Laboratory Reference No | 278441 | 278442 | 278443‡ | 278444 | 278445‡ | | | |
| Analysis | | | | | | | | |
| * * VOC SUITE Cont.. * * | | | | | | | | |
| Toluene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| 1,3 -Dichloropropane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Dibromochloromethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 1,2-Dibromoethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Tetrachloroethene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S | ug/kg | 25 |
| 1,1,1,2-Tetrachloroethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| Chlorobenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Ethyl Benzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| m,p-Xylenes | < 50 | < 50 | < 500 | < 50 | < 500 | 071S[I] | ug/kg | 50 |
| Bromoform | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Styrene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| o-Xylene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| 1,1,2,2 Tetrachloroethane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| 1,2,3-Trichloropropane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Isopropylbenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| Bromobenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| n-propylbenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 2-Chlorotoluene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 4-Chlorotoluene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 1,3,5 Trimethylbenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| tert-butylbenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 1,2,4 Trimethylbenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| sec-butylbenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 1,3 Dichlorobenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| 1,4 Dichlorobenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| 4-Isopropyltoluene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[IM] | ug/kg | 25 |
| 1,2 Dichlorobenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| n-butylbenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| 1,2,4-Trichlorobenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S | ug/kg | 25 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS1 | SS2 | SS3 | SS4 | SS5 | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | 0.1 | 0.2 | 0.15 | 0.15 | | | |
| Date Sampled | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | 15/11/07 | | | |
| Date Scheduled | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | 19/11/07 | | | |
| Laboratory Reference No | 278441 | 278442 | 278443‡ | 278444 | 278445‡ | | | |
| Analysis | | | | | | | | |
| * * VOC SUITE Cont.. * * | | | | | | | | |
| 1,2-Dibromo-3-Chloropropane | < 25 | < 25 | < 250 | < 25 | < 250 | 071S[I] | ug/kg | 25 |
| Hexachlorobutadiene | < 50 | < 50 | < 500 | < 50 | < 500 | 071S | ug/kg | 50 |
| 1,2,3-Trichlorobenzene | < 25 | < 25 | < 250 | < 25 | < 250 | 071S | ug/kg | 25 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS6 | | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | | | | | | | |
| Date Sampled | 15/11/07 | | | | | | | |
| Date Scheduled | 19/11/07 | | | | | | | |
| Laboratory Reference No | 278446‡ | | | | | | | |
| Analysis | | | | | | | | |
| * * VOC SUITE * * | | | | | | | | |
| Dichlorodifluoromethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Chloromethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Vinyl Chloride | < 250 | | | | | 071S[I] | ug/kg | 25 |
| Bromomethane | < 250 | | | | | 071S[I] | ug/kg | 25 |
| Chloroethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Trichlorofluoromethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 1,1-Dichloroethene | < 250 | | | | | 071S | ug/kg | 25 |
| 112-Trichloro-122-Trifluoroethane | < 250 | | | | | 071S[I] | ug/kg | 25 |
| Dichloromethane | < 500 | | | | | 071S[I] | ug/kg | 50 |
| Carbon Disulfide | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Trans-1,2 Dichloroethene | < 250 | | | | | 071S | ug/kg | 25 |
| MTBE | < 250 | | | | | 071S[I] | ug/kg | 25 |
| 1,1 -Dichloroethane | < 250 | | | | | 071S[I] | ug/kg | 25 |
| Cis-1,2 Dichloroethene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Bromochloromethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Chloroform | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 2,2-Dichloropropane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 1,1,1-Trichloroethane | < 250 | | | | | 071S[I] | ug/kg | 25 |
| 1,2-Dichloroethane | < 250 | | | | | 071S[I] | ug/kg | 25 |
| 1,1-Dichloropropene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Benzene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| Carbon Tetrachloride | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Dibromomethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 1,2-Dichloropropane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Trichloroethene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Bromodichloromethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Cis-1,3 Dichloropropene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Trans-1,3 Dichloropropene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 1,1,2-Trichloroethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |

[I] ISO 17025 accredited.
[N] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS6 | | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | | | | | | | |
| Date Sampled | 15/11/07 | | | | | | | |
| Date Scheduled | 19/11/07 | | | | | | | |
| Laboratory Reference No | 278446‡ | | | | | | | |
| Analysis | | | | | | | | |
| * * VOC SUITE Cont.. * * | | | | | | | | |
| Toluene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| 1,3 -Dichloropropane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Dibromochloromethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 1,2-Dibromoethane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Tetrachloroethene | < 250 | | | | | 071S | ug/kg | 25 |
| 1,1,1,2-Tetrachloroethane | < 250 | | | | | 071S[I] | ug/kg | 25 |
| Chlorobenzene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Ethyl Benzene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| m,p-Xylenes | < 500 | | | | | 071S[I] | ug/kg | 50 |
| Bromoform | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Styrene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| o-Xylene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| 1,1,2,2 Tetrachloroethane | < 250 | | | | | 071S[I] | ug/kg | 25 |
| 1,2,3-Trichloropropane | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Isopropylbenzene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| Bromobenzene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| n-propylbenzene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 2-Chlorotoluene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 4-Chlorotoluene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 1,3,5 Trimethylbenzene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| tert-butylbenzene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 1,2,4 Trimethylbenzene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| sec-butylbenzene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 1,3 Dichlorobenzene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| 1,4 Dichlorobenzene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| 4-Isopropyltoluene | < 250 | | | | | 071S[IM] | ug/kg | 25 |
| 1,2 Dichlorobenzene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| n-butylbenzene | < 250 | | | | | 071S[I] | ug/kg | 25 |
| 1,2,4-Trichlorobenzene | < 250 | | | | | 071S | ug/kg | 25 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42169**
**Matrix : Soil**
**Project Code: HLI2690**

**Client : RPS Health Safety Environment**

| Sample Reference | SS6 | | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | 0.15 | | | | | | | |
| Date Sampled | 15/11/07 | | | | | | | |
| Date Scheduled | 19/11/07 | | | | | | | |
| Laboratory Reference No | 278446‡ | | | | | | | |
| Analysis | | | | | | | | |
| * * VOC SUITE Cont.. * * | | | | | | | | |
| 1,2-Dibromo-3-Chloropropane | < 250 | | | | | 071S[I] | ug/kg | 25 |
| Hexachlorobutadiene | < 500 | | | | | 071S | ug/kg | 50 |
| 1,2,3-Trichlorobenzene | < 250 | | | | | 071S | ug/kg | 25 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.
‡Denotes detection limits raised due to matrix interference.

# ALcontrol Technichem
# Table Of Results - Appendix

**Job Number : 07-42169**

**Client : RPS Health Safety Environment**

**Project Code: HLI2690**

**Summary of methods contained within report :**

| Method No. | Reference | Description | Wet/Dry Analysis |
|---|---|---|---|
| 071S | In-house method based on EPA624 "Volatile Organic Compounds in Soils/Sludges" | Determination of volatile organic compounds in soil samples by headspace GC-MS | W |
| 061S | In-house method based on Method 4500-CN, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992 | Determination of cyanides and thiocyanate in soil samples by continuous flow colorimetry (Skalar) | W |
| 022S | In-house method | Determination of PAH compounds in soil samples by hexane / acetone extraction followed by GC-MS detection | W |
| CWGS | In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9 | Determination of "CWG" banded petroleum hydrocarbons in soil samples using a combination of headspace GC-FID (C5-C12) and hexane:acetone extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards | W |
| 077S | In-house method | Determination of organophosphorus pesticides in soil samples by hexane/acetone extraction followed by GC-MS detection | W |
| 076S | In-house method | Determination of organochlorine pesticides in soil samples by hexane/acetone extraction followed by GC-MS detection | W |
| 084S | In-house method referencing BS1377: Part 3: 1990 and Second Site Property: Environmental Assessment Guidance Version 3: March 2003 | Determination of pH by addition of water followed by electrometric measurement | D |
| 069S | In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986 | Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection | D |
| 025a | In-house method based on BS1377 Part 3, "Chemical and Electrochemical Tests", 1990 | Determination of hydrochloric acid soluble sulphate in soil samples by Inductively Coupled Plasma - Optical Emission Spectrometry (ICP-OES) | D |

# ALcontrol Technichem
# Table Of Results - Appendix

**Job Number : 07-42169**

**Client : RPS Health Safety Environment**

**Project Code: HLI2690**

**Summary of methods contained within report :**

| Method No. | Reference | Description | Wet/Dry Analysis |
|---|---|---|---|
| 016S | In-house method | Determination of water soluble boron by 2:1 extraction in hot water followed by ICP-OES detection | D |
| METS | In-house method based on MEWAM "Methods for the Determination of Metals in Soil", HMSO, 1986 | Determination of metals in soil samples by aqua-regia digestion followed by ICP-OES detection | D |
| 073S | In-house method based on BS1377 Part 3, "Chemical and Electrochemical Tests", 1990 | Determination of water soluble anion content in soils using a 2:1 water:soil extration ratio followed by ion chromatographic determination with electrical conductivity detector | D |
| 007S | In-house method based on Method 3500-Cr, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992 | Determination of hexavalent chromium in soil samples by water extraction and colorimetric detection | D |

**Soil results are expressed on a dry weight basis. Where the test uses as-received sample, a moisture correction factor is applied to the wet weight result. This factor is determined gravimetrically using weight loss on drying at 30º (+/-5) C.**

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42901**
**Matrix : Water**
**Project Code: HL12989**

**Project Name: Dunlap Aerospace**
**Client : RPS Health Safety Environment**

| Sample Reference | S1 | S2 | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | - | - | | | | | | |
| Date Sampled | 29/11/07 | 29/11/07 | | | | | | |
| Date Scheduled | 03/12/07 | 03/12/07 | | | | | | |
| Laboratory Reference No | 282085 | 282086 | | | | | | |
| Analysis | | | | | | | | |
| Arsenic (Dissolved) | < 0.005 | < 0.005 | | | | 080W[I] | mg/l | 0.005 |
| Barium (Dissolved) | 0.068 | 0.070 | | | | 080W[I] | mg/l | 0.005 |
| Beryllium (Dissolved) | < 0.001 | < 0.001 | | | | 080W[I] | mg/l | 0.001 |
| Boron (Dissolved) | 0.16 | 0.16 | | | | 080W[I] | mg/l | 0.005 |
| Cadmium (Dissolved) | < 0.001 | < 0.001 | | | | 080W[I] | mg/l | 0.001 |
| Chromium (Dissolved) | 0.005 | 0.006 | | | | 080W[I] | mg/l | 0.005 |
| Chromium (Hexavalent) | < 0.01 | < 0.01 | | | | 007W[I] | mg/l | 0.01 |
| Copper (Dissolved) | 0.059 | 0.040 | | | | 080W[I] | mg/l | 0.005 |
| Iron (Dissolved) | < 0.02 | < 0.02 | | | | 080W[I] | mg/l | 0.02 |
| Lead (Dissolved) | < 0.005 | < 0.005 | | | | 080W[I] | mg/l | 0.005 |
| Mercury (Dissolved) | < 0.00005 | < 0.00005 | | | | 080W[I] | mg/l | 0.00005 |
| Nickel (Dissolved) | < 0.005 | < 0.005 | | | | 080W[I] | mg/l | 0.005 |
| Selenium (Dissolved) | < 0.005 | < 0.005 | | | | 080W[I] | mg/l | 0.005 |
| Tin (Dissolved) | < 0.01 | < 0.01 | | | | METS | mg/l | 0.01 |
| Vanadium (Dissolved) | < 0.005 | < 0.005 | | | | 080W[I] | mg/l | 0.005 |
| Zinc (Dissolved) | 0.060 | 0.017 | | | | 080W[I] | mg/l | 0.005 |
| Total Cyanide | < 0.02 | < 0.02 | | | | 061W[I] | mg/l | 0.02 |
| Nitrate as N | 10 | 11 | | | | 086W[I] | mg/l | 0.5 |
| pH | 7.2 | 7.1 | | | | 084W[I] | pH Units | 1 |
| Sulphate as SO4 | 79 | 82 | | | | 086W[I] | mg/l | 10 |
| alpha-HCH | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| beta-HCH | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| gamma-HCH (lindane) | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| Heptachlor | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| Aldrin | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| Cis-Heptachlor Epoxide | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| o,p-DDE | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| alpha-Endosulphan | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| Dieldrin | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| o,p-TDE | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |

[I] ISO 17025 accredited.
[N] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42901**
**Matrix : Water**
**Project Code: HL12989**

**Project Name: Dunlap Aerospace**
**Client : RPS Health Safety Environment**

| Sample Reference | S1 | S2 | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | - | - | | | | | | |
| Date Sampled | 29/11/07 | 29/11/07 | | | | | | |
| Date Scheduled | 03/12/07 | 03/12/07 | | | | | | |
| Laboratory Reference No | 282085 | 282086 | | | | | | |
| Analysis | | | | | | | | |
| * * PAH SUITE * * | | | | | | | | |
| Naphthalene | 0.0007 | 0.0005 | | | | 022W[I] | mg/l | 0.0001 |
| Acenaphthylene | 0.0002 | 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Acenaphthene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Fluorene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Phenanthrene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Anthracene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Fluoranthene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Pyrene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Benzo(a)anthracene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Chrysene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Benzo(b)fluoranthene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Benzo(k)fluoranthene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Benzo(a)pyrene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Indeno(1,2,3-cd)pyrene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Dibenzo(a,h)anthracene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| Benzo(g,h,i)perylene | < 0.0001 | < 0.0001 | | | | 022W[I] | mg/l | 0.0001 |
| PAH (Sum of EPA 16) | 0.0008 | 0.0006 | | | | 022W[I] | mg/l | 0.0001 |

[I] ISO 17025 accredited.
[K] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42901**
**Matrix : Water**
**Project Code: HL12989**

**Project Name: Dunlap Aerospace**
**Client : RPS Health Safety Environment**

| Sample Reference | S1 | S2 | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | - | - | | | | | | |
| Date Sampled | 29/11/07 | 29/11/07 | | | | | | |
| Date Scheduled | 03/12/07 | 03/12/07 | | | | | | |
| Laboratory Reference No | 282085 | 282086 | | | | | | |
| Analysis | | | | | | | | |
| * * VOC SUITE * * | | | | | | | | |
| Vinyl Chloride | < 0.01 | < 0.01 | | | | 040W[I] | mg/l | 0.01 |
| Chloroethane | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Trichlorofluoromethane | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| 1,1-Dichloroethene | < 0.001 | < 0.001 | | | | 040W | mg/l | 0.001 |
| 112-Trichloro-122-Trifluoroethane | < 0.025 | < 0.025 | | | | 040W[I] | mg/l | 0.025 |
| Dichloromethane | < 0.050 | < 0.050 | | | | 040W[I] | mg/l | 0.05 |
| Trans-1,2 Dichloroethene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| MTBE | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| 1,1 -Dichloroethane | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Cis-1,2 Dichloroethene | 0.002 | 0.002 | | | | 040W[I] | mg/l | 0.001 |
| Chloroform | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| 1,1,1-Trichloroethane | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| 1,2-Dichloroethane | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Benzene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Carbon Tetrachloride | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Trichloroethene | 0.002 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Bromodichloromethane | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Cis-1,3 Dichloropropene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Trans-1,3 Dichloropropene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| 1,1,2-Trichloroethane | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Toluene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Dibromochloromethane | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Tetrachloroethene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Chlorobenzene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Ethyl Benzene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| m,p-Xylenes | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| Bromoform | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| o-Xylene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results

**Job Number : 07-42901**
**Matrix : Water**
**Project Code: HL12989**

**Project Name: Dunlap Aerospace**
**Client : RPS Health Safety Environment**

| Sample Reference | S1 | S2 | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | - | - | | | | | | |
| Date Sampled | 29/11/07 | 29/11/07 | | | | | | |
| Date Scheduled | 03/12/07 | 03/12/07 | | | | | | |
| Laboratory Reference No | 282085 | 282086 | | | | | | |
| Analysis | | | | | | | | |
| Endrin | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| beta-Endosulphan | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| o,p-DDT | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| Endosulphan sulphate | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| o,p-Methoxychlor | < 0.1 | < 0.1 | | | | 076W | ug/l | 0.1 |
| Dichlorvos | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |
| Mevinphos | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |
| Diazinon | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |
| Disulfoton | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |
| Methyl-Parathion | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |
| Fenitrothion | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |
| Malathion | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |
| Parathion | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |
| Ethion | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |
| Azinphos-methyl | < 0.1 | < 0.1 | | | | 077W | ug/l | 0.1 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
## Table Of Results

**Job Number : 07-42901**
**Matrix : Water**
**Project Code: HL12989**

**Project Name: Dunlap Aerospace**
**Client : RPS Health Safety Environment**

| Sample Reference | S1 | S2 | | | | Method No | Units | LOD |
|---|---|---|---|---|---|---|---|---|
| Sample Depth (m) | - | - | | | | | | |
| Date Sampled | 29/11/07 | 29/11/07 | | | | | | |
| Date Scheduled | 03/12/07 | 03/12/07 | | | | | | |
| Laboratory Reference No | 282085 | 282086 | | | | | | |
| Analysis | | | | | | | | |
| 1,1,2,2 Tetrachloroethane | < 0.001 | < 0.001 | | | | 040W | mg/l | 0.001 |
| * * VOC SUITE Cont.. * * | | | | | | | | |
| 1,3,5 Trimethylbenzene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| 1,2,4 Trimethylbenzene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| 1,3 Dichlorobenzene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| 1,4 Dichlorobenzene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |
| 1,2 Dichlorobenzene | < 0.001 | < 0.001 | | | | 040W[I] | mg/l | 0.001 |

[I] ISO 17025 accredited.
[M] MCERTS accredited for sand, loam and clay.

# ALcontrol Technichem
# Table Of Results - Appendix

**Job Number : 07-42901**

**Project Code: HL12989**

**Project Name: Dunlap Aerospace**
**Client : RPS Health Safety Environment**

**Summary of methods contained within report :**

| Method No. | Reference | Description | Wet/Dry Analysis |
|---|---|---|---|
| METS | In-house method based on MEWAM "Inductively Coupled Plasma Spectrometry", HMSO, 1996 | Determination of metals in aqueous samples by nitric digestion followed by ICP-OES detection | |
| CWGW | In-house method based on "Total Petroleum Hydrocarbon Criteria Working Group" series, 1998-9 | Determination of "CWG" banded petroleum hydrocarbons in aqueous samples using a combination of headspace GC-FID (C5-C12) and pentane extraction / silica-alumina aliphatic - aromatic split / GC-FID (C12-C35) techniques with banding by comparison to alkane standards | |
| 086W | In-house method | Determination of anion content in aqueous samples using ion chromatographic determination with electrical conductivity detector | |
| 084W | In-house method | Determination of pH in aqueous samples by direct electrometric measurement | |
| 080W | In-house method based on MEWAM "Inductively Coupled Plasma Spectrometry", HMSO, 1996 | Determination of metals in aqueous samples by nitric acid digestion followed by Inductively Coupled Plasma - Mass Spectrometry detection (ICP-MS) | |
| 077W | In-house method | Determination of organophosphorus pesticides in aqueous samples by dichloromethane extraction followed by GC-MS detection | |
| 076W | In-house method | Determination of organochlorine pesticides in aqueous samples by dichloromethane extraction followed by GC-MS detection | |
| 061W | In-house method based on Method 4500-CN, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992 | Determination of cyanides and thiocyanate in aqueous samples by continuous flow colorimetry (Skalar) | |
| 040W | In-house method based on EPA624 "Volatile Organic Compounds in Waste Waters" | Determination of volatile organic compounds in aqueous samples by headspace GC-MS | |

# ALcontrol Technichem
# Table Of Results - Appendix

**Job Number : 07-42901**

**Project Code: HL12989**

**Project Name: Dunlap Aerospace**
**Client : RPS Health Safety Environment**

**Summary of methods contained within report :**

| Method No. | Reference | Description | Wet/Dry Analysis |
|---|---|---|---|
| 022W | In-house method | Determination of PAH compounds in aqueous samples by pentane extraction followed by GC-MS detection | |
| 007W | In-house method based on Method 3500-Cr, "Standard Methods for the Examination of Water and Waste Water", APHA AWWA WEF, Edition 18, 1992 | Determination of hexavalent chromium in aqueous samples by ICP-OES screen | |

## APPENDIX F

## QUALITY ASSURANCE AND QUALITY CONTROL

**Contents**

F1 Sampling and Analytical Quality Assurance and Quality Control Plan

F2 Results of the Sampling and Analytical Quality Assurance and Quality Control Plan

***All laboratory analytical techniques undertaken are within UKAS Accreditation.***

## APPENDIX G

## REFERENCE DATA

**Contents**

G1 Chemical Inventory for Installation

G2 Reference Data

**The analytical suites specified in the Design SPMP were used in the analysis of samples from the investigation to collect reference data.**

## APPENDIX H

## INSPECTION AND MONITORING PROTOCOLS

**Contents**

H1 Monitoring Protocols

H2 Inspection, Testing and Maintenance Protocols

H3 Reporting Procedures

**H1 – Environmental Monitoring Protocols**

The groundwater will continue to be analysed on a fortnightly basis in-house. It will be analysed for: pH, Conductivity, Chemical Oxygen Demand, Suspended Solids, Total Metal Content, Appearance, Calcium, Potassium, Nickel, Sodium, Magnesium, Iron, Lead, Chromium, Tin, Zinc and Copper.

It is not proposed to carry out on-going externally analysed groundwater or surface water monitoring and neither is it proposed to carry out any ongoing ground or soil-gas and vapours monitoring unless requested by the Environment Agency following the collection of reference data.

**H2 – Infrastructure Monitoring Protocols**

| Item | Visual Inspection Frequency | Further Annual Inspection Required | Checklist |
|---|---|---|---|
| **Above Ground Process Plant and Equipment** | | | |
| Boiler Plant | Daily | Annual | Audit Schedule |
| Furnaces | Daily | Annual | Audit Schedule |
| Substations | Daily | Annual | Audit Schedule |
| Transformers | Daily | Annual | Audit Schedule |
| **Site Surfacing** | | | |
| Condition | Weekly | Annual | Outside areas miscellaneous |
| **Site Boundaries** | | | |
| Condition of Boundary walls, fencing and kerbing | Not documented | Annually | Outside areas miscellaneous |
| **Tanks and Bunds** | | | |
| Steel Tanks (Including: Liquid Nitrogen, Mains Water & Diesel Storage tanks) | Weekly | Annually | Tank and Associated Pipe work |
| Plastic Tanks (Including Boiler and Water Treatment Chemicals Storage) | Weekly | Annually | Tank And Associated Pipe work |
| Bunds (Including Oil Stores, Chemical and Paint Shop Stores & Cooling Tower and associated pipework) | Weekly | Annually | Bund and Associated Pipe work |
| **Other Storage Vessels** | | | |
| Drums | Weekly | Annually | Storage Areas |
| Plastic Containers | Weekly | Annually | Storage Areas |
| | | | |
| **Sub Surface Structures** | | | |
| Subsurface pipework | Biannually | Annually | Drainage and Subsurface Structures |
| Interceptor | Biannually | Annually | Drainage and Subsurface Structures |
| Foul Drain/Sewer | Not routinely tested | Annually | Drainage and Subsurface Structures |
| Storm Drain | Not routinely tested | Annually | Drainage and Subsurface Structures |
| **Unbunded External Pipe work Over Unmade Ground** | | | |
| Cooling Water Transfer Pipework | Weekly | Annually | Pipe work |
| **Sumps and Storage Reservoirs** | | | |
| Sumps (Including pump sumps, oil store sumps, boiler house blowdown) | Weekly, Biannual Integrity Tests | Annually | Sumps and Storage Reservoirs |
| Storage Lagoon (Fire station storage) | Weekly, Biannual Integrity | Annually | Sumps and Storage Reservoirs |

| Item | Visual Inspection Frequency | Further Annual Inspection Required | Checklist |
|---|---|---|---|
| | Tests | | |
| Storage Reservoir | Weekly, Biannual Integrity Tests | Annually | Sumps and Storage Reservoirs |

**H3 – Data recording and reporting procedures**

# Dunlop Aerospace Braking Systems Site Infrastructure Monitoring Checklist

## OUTSIDE AREAS MISCELLANEOUS CHECKLIST

Concrete hard standing:

- Check for any areas of damage Y/N
- Check if any drainage covers need attention Y/N
- Check for any damage to raised kerbs Y/N

Boundary Areas:

- Check for damage to fencing/gates Y/N
- Check for damage to kerbs at site boundaries Y/N
- Check for problems with unmade ground at site boundaries Y/N
- Check hedgerow condition Y/N

Where a problem is found, provide details:……
……
……

| Additional Problems/Observations: |
|---|
| |

| Date of inspection | Signed |
|---|---|
| …… | …… |

| Actions undertaken: |
|---|
| |

Signed: …… Date: ……

Position……

# Dunlop Aerospace Braking Systems Site Infrastructure Monitoring Checklist

## TANK AND ASSOCIATED PIPE WORK CHECKLIST

Tank:

- Check for cracks and damage to walls of tank Y/N
- Check for cracks or damage to floor and top of tank Y/N
- Check for visual evidence of leaks/spills outside tank Y/N
- Check outlet point is secured Y/N
- Check fill point secure Y/N

Associated Pipe work:

- Check for visible damage to pipe work Y/N
- Check for visible leak from pipe work Y/N

Where a problem is found, provide details:.....
.....
.....

| Additional Problems/Observations: |
|---|
| |

| Date of inspection | Signed |
|---|---|
| ..... | ..... |

| Actions undertaken: |
|---|
| |

Signed: ..... Date: .....

Position.....

# Dunlop Aerospace Braking Systems Site Infrastructure Monitoring Checklist

## BUND AND ASSOCIATED PIPEWORK CHECKLIST

Bund:

| | |
|---|---|
| - Check for cracks or damage to inside walls of bund | Y/N |
| - Check for cracks or damage to outside wall of bund | Y/N |
| - Check for visual evidence of leaks/spills outside bund | Y/N |
| - Check for rainwater inside bund | Y/N |
| - Check bund impermeable and resistant to stored material | Y/N |
| - Check capacity of bund 110% of storage tank | Y/N |
| - Check fill point secure | Y/N |
| - Check dispensing point secure | Y/N |

Associated Pipe work:

| | |
|---|---|
| - Check for visible damage to pipe work | Y/N |
| - Check for visible leak from pipe work | Y/N |

Where a problem is found, provide details:.....
.....
.....

| Additional Problems/Observations: |
|---|
| |

| Date of inspection | Signed |
|---|---|
| ..... | ..... |

| Actions undertaken: |
|---|
| |

Signed: ..... Date: .....

Position.....

# Dunlop Aerospace Braking Systems Site Infrastructure Monitoring Checklist

## STORAGE AREAS CHECKLIST

Storage area:

- Check appropriate materials stored Y/N
- Check there is no damage to containers visible Y/N
- Check containers lidded/sealed Y/N
- Check there are no leaks/spills visible Y/N
- Check there is no damage to impervious coating visible Y/N
- Check there is no damage to hard standing visible Y/N
- Check the floor and wall render/sealant are in place Y/N
- Check there are no leaks/spills visible Y/N
- Check spill kits are present and complete Y/N
- Check there are no empty oil drums Y/N

Where a problem is found, provide details:.....
.....
.....

| Additional Problems/Observations: |
|---|
| |

| Date of inspection | Signed |
|---|---|
| ..... | ..... |

| Actions undertaken: |
|---|
| |

Signed: ..... Date: .....

Position.....

# Dunlop Aerospace Braking Systems Site Infrastructure Monitoring Checklist

**DRAINAGE AND SUBSURFACE STRUCTURES CHECKLIST**
(For use only where visual inspection is feasible)

Open drains and gullies, surface and foul drainage systems:

- Check if drains are blocked with debris Y/N
- Check for damage to drain covers Y/N
- Check pipes for leaks and damage Y/N

Interceptor:

- Check for any signs of damage Y/N
- Check condition of contents Y/N

Where a problem is found, provide details:……
……
……

| Additional Problems/Observations: |
|---|
| |

| Date of inspection | Signed |
|---|---|
| …… | …… |

| Actions undertaken: |
|---|
| |

Signed: …… Date: ……

Position……

# Dunlop Aerospace Braking Systems Site Infrastructure Monitoring Checklist

## MISCELLANEOUS PIPEWORK CHECKLIST

Pipe work:

| | |
|---|---|
| - Check for visible damage to pipe | Y/N |
| - Check for visible leak from pipe | Y/N |
| - Check for signs of rust or corrosion | Y/N |
| - Check integrity of pipe joints | Y/N |

Where a problem is found, provide details:.....
.....
.....

| Additional Problems/Observations: |
|---|
| |

| Date of inspection | Signed |
|---|---|
| ..... | ..... |

| Actions undertaken: |
|---|
| |

Signed: ..... Date: .....

Position.....

# Dunlop Aerospace Braking Systems Site Infrastructure Monitoring Checklist

## SUMPS AND STORAGE RESERVOIR CHECKLIST

Sumps:

- Check for any areas of damage to floor and walls Y/N
- Check for any liquid in sump that will need to be removed Y/N

Storage Reservoirs:

- Check for damage to walls where visible Y/N
- Check for any visible leaks Y/N

Where a problem is found, provide details:……
……
……

| Additional Problems/Observations: |
|---|
| |

| Date of inspection | Signed |
|---|---|
| …… | …… |

| Actions undertaken: |
|---|
| |

Signed: …… Date: ……

Position……

## APPENDIX I

## OTHER ISSUES

**Contents**

I1 ASR Conceptual Site Model

I2 ASR Table D2

**I1 – ASR Conceptual Site Model – Tabular**

| PAC No. | PAC Description | Reason(s) for Concern | Potential Contaminants |
|---|---|---|---|
| **On Site Concern (Present Use)** | | | |
| 1 | Raw material storage area | The bunded area surrounding the nitrogen tank can not hold 110% capacity of the nitrogen tank | Nitrogen |
| 2 | Water treatment pumphouse | Filling points for the diesel storage tank are not located within a bunded area | Hydrocarbons |
| 3 | Cooling water processes | No formal integrity testing has been carried out for the lagoons. The hardstanding below the plant is unlikely to plant is unlikely to hold large spillages and the pipework transporting cooling water is located above unmade ground in some areas | Acids/Alkalis, inorganic compounds |
| 4 | Historical uses | The site and surrounding area have been utilised for industrial activities since the 1930s | Metals, Hydrocarbons, inorganic compounds, solvents, pesticides |
| **Off Site Concerns** | | | |
| 1 | Industrial uses in the surrounding area | The site is located in a largely industrial area | Metals, inorganic compounds, solvents, hydrocarbons |

## I2 – ASR TABLE D2

| Site Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management/ competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Raw material storage area | OPAN, carbon black, liquid nitrogen, oils, diesel, boiler treatment and water treatment chemicals, biocides, antioxidant paint and laboratory chemicals | Delivery and unloading of raw materials | Spillage from road tanker or lorry in yard potentially migrating to underlying ground, groundwater and surface water. | No evidence or records of contamination of surrounding area. | Spill kits on vehicles and on site. Operating procedures and work instructions in place. | Road tanker or lorry | Tankers and lorries are covered and compliant to British Standard and DOT/ADR Regulations. | Operational areas of the site are covered in concrete or bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | None | Yes | Yes | Yes | X | |
| | Hydraulic and cutting oils | Storage of oils | Spillage from containers leading to potential migration of contaminants to underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Steel or plastic drums or containers. | Visual inspections and incident reporting in accordance with site policy and procedures. | Containers stored within a bunded area. | Weekly visual inspection of bund integrity. Reporting and corrective action in accordance with site policy and procedures. | Bunded area on concrete hardstanding. | Yes | Yes | Yes | X | |
| | Liquid nitrogen | Storage of nitrogen | Spillage from tank or during transfer of nitrogen leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Storage within double-skinned steel tank. | The tank is rented and maintained under a service contract with the supplier. | Low-level concrete bunding. | Weekly visual inspection of bund and pipework integrity. Reporting and corrective action in accordance with site policy and procedures. | Tank located on concrete hardstanding. | Yes. Although the bunded area is too small to contain 110% capacity of the tank, liquid nitrogen would immediately evaporate to a gaseous form following contact with air. | Yes | Yes | X | |
| | OPAN | Storage in old boiler house | Punctured containers or insecure connections to delivery lines may result in migration of contaminants to ground, groundwater and surface water. | No evidence or records of contamination of surrounding area. | Spill kits on vehicles and on site. Operating procedures and work instructions in place for delivery of raw materials. | Potential hazardous and liquid materials are located within containers. | Visual inspections and incident reporting in accordance with site policy and procedures. | Unloading area covered in concrete or bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | None | Yes | Yes | Yes | X | |

| Site Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management/ competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Antioxidant paint, oils, laboratory chemicals and other process chemicals | Chemical storage inside CVD building | Punctured containers may result in migration of contaminants to ground, groundwater and surface water. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Plastic, glass and steel containers | Visual inspections and incident reporting in accordance with site policy and procedures. | Liquid chemicals stored within dedicated chemical store. | Visual inspections and incident reporting in accordance with site policy and procedures. | Chemical store located internally. | Yes | Yes | Yes | X | |
| Storage of product | CVD finished part stores | CVD machine shop | Failure of containment resulting in potential migration of contaminants to ground, groundwater and surface water. | No evidence or records of contamination of surrounding area. | Operating procedures and work instructions in place. | Storage in dedicated store. | Visual inspections and incident reporting in accordance with site policy and procedures. | Dedicated store on concrete hardstanding | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Store located internally | Yes | Yes | Yes | X | |
| Boiler house | Water contaminated with boiler treatment chemicals | Steam generation | Failure of containment of boilers or pipework and spillage of contaminated water to ground, groundwater or surface water. | No evidence or records of contamination of surrounding area. | Operating procedures and work instructions in place. | Steel boilers / pipework | Visual inspections and incident reporting in accordance with site policy and procedures. | Concrete and metal floors under boilers/ pipework. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Boilers/pipework located within a building. | Yes | Yes | Yes | X | |
| | Boiler treatment chemical | Storage and transfer of boiler treatment chemicals | Failure of containment leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area | Spill kits on site. Operating procedures and work instructions in place. | Steel tank | Visual inspections and incident reporting in accordance with site policy and procedures. | Tank located within a bunded area. | Weekly visual inspection of bund and pipework integrity. Reporting and corrective action in accordance with site policy and procedures. | Tank located internally. | Yes | Yes | Yes | X | |
| | Boiler blow down water | Storage of water from blow down pit | Failure of containment of sump and spillage of contaminated water to ground. | No evidence or records of contamination of surrounding area. | Operating procedures and work instructions in place. | Concrete sump | Visual inspections and incident reporting in accordance with site policy and procedures. | Concrete sump located internally. | N/A | None | Yes | Yes | Yes | X | |

| Site Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management/ competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Water treatment pump house | Cooling water containing biocides and water treatment chemicals | Process cooling | Failure of containment of tank leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Operating procedures and work instructions in place. | Steel tank | Maintained by contractor under service agreement. Visual inspections and incident reporting in accordance with site policy and procedures. | Steel tank located on concrete hardstanding/ metal floor. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Tank located internally | Yes | Yes | Yes | X | |
| | Water treatment chemicals containing sodium bromide and hypochloride | Storage of water treatment chemicals | Failure of containment of drums leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Plastic drums | Visual inspections and incident reporting in accordance with site policy and procedures. | Drums are located within plastic secondary containment. | Visual inspections and incident reporting in accordance with site policy and procedures. | Drums located internally on concrete hardstanding. | Yes | Yes | Yes | X | |
| | Diesel | Storage of diesel | Spillage from diesel tank resulting in contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Procedures for filling and dispensing diesel from tank. | Diesel stored in a double skinned tank. | Visual inspections and incident reporting in accordance with site policy and procedures. | Diesel tank is on a platform above concrete hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Tank is located within a building | No. Although the tank is located within a building, it is recommended that fill points and associated pipework are located within a concrete bund to prevent spills during filling and dispensing. | Yes | Yes | | X |
| Air emission abatement | Brake disc machining dust | Storage of filter bag plant in central yard | Potential failure of containment leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area | Operating procedures and work instructions in place | Filter bags | Visual inspections and incident reporting in accordance with site policy and procedures. | Filter bags located within steel containers. | Visual inspections and incident reporting in accordance with site policy and procedures. | Containers located on hardstanding. | Yes | Yes | Yes | X | |

| Site Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management/ competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Cooling water systems | Water containing biocides and other water treatment chemicals | Storage of cooling water for cooling towers in pump house | Potential failure of containment leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Cooling plant | Visual inspections and incident reporting in accordance with site policy and procedures. | Brick bunded area located below plant. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | Plant located on hardstanding | No. The brick bund is unlikely to be able to hold large spills. | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | | X |
| | Water containing biocides and other water treatment chemicals | Transfer of cooling water to and from storage reservoir via pipework | Failure of containment of above ground pipework leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Steel pipework | Visual inspections and incident reporting in accordance with site policy and procedures. | Concrete or bitumen hardstanding in places. No secondary containment in other areas. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. Drains are cleaned out when necessary | External site drains discharge to petrol interceptor which flows to public surface water sewer. Isolation valve installed to contain large spillages on site | Yes | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | X | |
| | Water containing biocides and other water treatment chemicals | Temporary storage of water in tank associated with Hotwell lagoon (furnaces 10 and 11) | Failure of containment leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Steel tank | Reporting and corrective action in accordance with site policy and procedures. | Tank located on concrete or bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | None | No | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | | X |
| | Water containing biocides and other water treatment chemicals | Storage of water in Hotwell lagoon (furnaces 10,11 and 12) | Failure of containment of lagoon leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Concrete block lagoon | Reporting and corrective action in accordance with site policy and procedures. | Lagoon surrounded by concrete/bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. Drains are cleaned out when necessary. | None | No | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | | X |
| | Water containing biocides and other water treatment chemicals | Storage of water in fire station reservoir (east of CVD building) | Failure of containment of reservoir leading to potential contamination of underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Spill kits on site. Operating procedures and work instructions in place. | Brick/ concrete reservoir | Reporting and corrective action in accordance with site policy and procedures. | Reservoir surrounded by concrete/bitumen hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. Drains are cleaned out when necessary. | None | Yes | No. Formal integrity testing of bunding shall be included in the Proposed Improvement Plan | Yes | | X |

| Site/ Operation or Site Zone | Substance/s | Relevant Activity | Potential for pollution from the relevant activity | Records of pollution | Existence of pollution prevention measures | Nature of primary containment | Testing and inspection of primary containment | Nature of secondary containment | Testing and inspection of secondary containment | Nature of tertiary containment | Adequacy of pollution prevention measures | Are proposed integrity testing measures adequate | Adequate documented management system to demonstrate operator management competence ? | Little likelihood of pollution | Reasonable possibility of pollution |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Trans-formers and electricity substations | Oils (do not contain PCB's). | Use of oil as part of operation. | Failure of containment of plant leading to potential migration of contaminants to underlying ground and groundwater. | No evidence or records of contamination of surrounding area. | Substations and transformers are kept secured. Operating procedures and work instructions in place. | Substation or transformer | Maintained by specialist contractors. | Located on concrete hardstanding. | Weekly visual inspection of hardstanding integrity. Reporting and corrective action in accordance with site policy and procedures. | None | Yes | Yes | Yes | X | |

# Appendix B

## Site Investigation Report 2018 (WYG)

# Meggitt Aerospace, Coventry

## Geo-Environmental Site Investigation Factual and Interpretative Report

A107448

Meggitt Aerospace Limited
June 2018
WYG Environment

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# 1.0 Executive Summary

| | |
|---|---|
| **Proposed Development** | Mixed residential and industrial development is proposed (including the retention of the Meggitt Carbon Factory). |
| **Site Conditions** | The site is located approximately 4km north of Coventry City Centre. The central and western section of the site is occupied by office buildings, large industrial units and carparking areas, currently in use by Meggitt Aircraft Braking Systems. Areas of hardstanding and several recently demolished former building footprints occupy the east of the site. Swallow Road runs along the southern boundary of the site, providing access to the whole site. |
| **Ground Investigation** | The ground investigation was undertaken from 5 to 16 February 2018.<br>The investigation comprised 29 No. window sample boreholes, 12 No. installed with gas and groundwater monitoring standpipes and 10 No. rotary open holed boreholes all installed with standpipes.<br>Due to the presence of industrial buildings, the extent of investigations was severely restricted, particularly within proposed Residential Zone D. |
| **Ground Conditions** | The ground conditions generally comprise concrete / asphalt hardstanding overlying granular made ground which is underlain by natural clayey sand / sandy clay. Coarse grained siltstone / fine grained sandstone was encountered locally in some window sample boreholes and in all rotary boreholes. |
| **Geotechnical Assessment** | Corrected SPT $N_{60}$ values obtained indicated a strong correlation between an increase in strength with depth.<br>Moisture content tests returned an average value of 18.3% for the site.<br>The results of the Atterberg tests indicates that the cohesive materials on site generally have a low to medium plasticity and a low to intermediate volume change potential.<br>Results for water soluble sulphate indicate no requirement for protection of concrete from sulphate attack. The Design Sulphate class was assessed as DS-2, ACEC Class AC-2. |
| **Contamination Assessment** | Sporadic presence of asbestos was identified in made ground, predominantly at trace concentration. Sporadic presence of potentially plant-toxic metals was also identified.<br>The volatile organic compound trichloroethene was identified both within residential and industrial areas. Human health risk applicable to the |

| | |
|---|---|
| | industrial areas was rare, though more widespread within residential development areas. Groundwater was also locally impacted.<br>Petroleum hydrocarbons, predominantly lubricating oil range, were also sporadic at low to moderate concentration. A zone of impact by petrol-range hydrocarbons was identified, predominantly affecting groundwater, in Industrial Zone 2.<br>Assessment of ground gas indicates a potential requirement for localised gas protection to CS2. Localised protection from organic vapour may also be required. |
| **Conclusions and Recommendations** | Further investigation will be required on completion of demolition, particularly within the residential development zones where a high proportion of the development area was inaccessible.<br>Identified contamination by asbestos, petroleum hydrocarbons and chlorinated hydrocarbons (particularly TCE) will require remedial action. A Remediation Strategy should be prepared to identify requirements specific to development proposals. Detailed Quantitative Risk assessment is likely to be required to inform the Strategy, particularly relating to controlled waters.<br>Strip or trench fill footings extending through the made ground to the stiff / medium dense superficial deposits between 2.0 and 3.0mbgl are proposed.<br>Where applicable a proprietary compressible material should be incorporated into the foundation design to protect against heave and shrinkage of cohesive soils.<br>Due to the presence of groundwater during the ground investigation and monitoring visits, de-watering may need to be considered during groundworks. |
| This sheet is intended as a summary of the assessment of the site in relation to ground contamination and geotechnical conditions. It does not provide a definitive engineering analysis. | |

# 2.0 Introduction

## 2.1 Instruction

WYG Environment (WYG) were commissioned by Meggitt Aerospace to conduct a geo-environmental investigation at the manufacturing site off Holbrook Lane, Coventry. The ground investigation has been carried out in line with BS10175 [1] and BS5930: 2015 (incorporating amendment 2) [2].

## 2.2 Scope of Services

The investigation was undertaken to assess the sub-surface chemical and geotechnical ground conditions at the site using in-situ and laboratory testing. The scope of investigation was based on site investigation design prepared by G&J Geo-environmental Consultants Limited. Parts of the site currently occupied by buildings were excluded.

The scope of the fieldwork programme included:

- 29 No. window sample boreholes to a maximum depth of 5.0m bgl or refusal with in-situ standard penetration tests (SPTs);
- Installation of 12 No. window sample boreholes with gas and groundwater monitoring standpipes;
- 10 No. rotary open boreholes to a maximum depth of 15.0m bgl with in-situ SPTs;
- Installation of all rotary boreholes with gas and groundwater monitoring standpipes;
- 6 No. return visits over a three-month period for gas and groundwater depth monitoring;
- 2 No. return visits for groundwater quality monitoring;
- Geotechnical and contamination testing of selected made ground/ soil samples from the borehole arisings;
- Contamination testing on groundwater samples;
- Provision of a factual and interpretative report.

## 2.3 Terms and Conditions

Attention is drawn to the report conditions, included in Appendix A, and to the terms and conditions of the engagement.

# 3.0 Site Details

## 3.1 General

Site location and layout plans are included as Figure 1.

## 3.2 Site Location

The site is located off Holbrook Lane, Coventry, approximately 4.0km north of Coventry City Centre. Salient site details are summarised in Table 1.

Table 1: Site Location

| | |
|---|---|
| **Site Address** | Meggitt Aircraft Braking Systems,<br>Holbrook Lane,<br>Coventry,<br>CV6 4AA |
| **NGR (Centre of Site)** | 433178mE, 282309mN |

## 3.3 Site Description

A site walkover was conducted by WYG on 2nd February 2018. The site is rectangular in shape and occupies an area of approximately 12.3 hectares. It can be accessed via the main entrance off Holbrook Lane to the east and a secondary entrance off Beake Avenue to the west. Swallow Road runs along the southern boundary of the site from east to west, providing access to the whole site.

The ground is generally flat and is predominantly tarmac, with a rectangular section of concrete present to the east in 'New Industrial Zone 2' on the new development masterplan. The central and western section of the site is occupied by office buildings, large industrial units and carparking areas, currently in use by Meggitt Aircraft Braking Systems. Areas of hardstanding and several recently demolished former building footprints occupy the east of the site. Swallow Road runs along the southern boundary of the site from east to west, providing access to the whole site.

The site can be sub-divided into three main sections; The eastern section, which encompasses 'Industrial Zone 1 and 2' on the masterplan, comprises open derelict land which is the site of former industrial buildings, including a water reservoir and a garage, the footprints of which are still present. The western section of the site encompasses 'Residential Zone D' on the

masterplan and comprises an operational industrial test house for aircraft braking systems with a decommissioned water tank and pump house along the northern boundary. The central section comprises of an operational carbon processing factory with two in-use gas storage tanks as part of the 'Existing Industrial Zone' on the masterplan, together with operational commercial offices and a tarmac car park which dominate the area within 'Residential Zone E' on the masterplan.

Buildings present within the site (based on data included in a Geo-Environmental Assessment report prepared by Meerbrook Consulting [3]) include (from west to east):

**Building A2** – Meggitt Aircraft Braking Systems, main production building. An above-ground, bunded, tank is located to the west of the building.

**Buildings C2, G2, F2 and E2** – Disused ancillary buildings including a pump house.

**Building H2** – Stores and waste handling.

**Building Y3** – Disused foundry

**Buildings A3, B3, C3, X3, D3, P3** – Meggitt Aircraft Control Systems production and office buildings. Car parking to north of D3, to the south of A3 and immediately east of P3.

**Buildings T3, R3, B4, C4, D4** - Largely disused ancillary buildings including a fire station, boiler house and nurse's station. In this area are also located a cooling water plant and substation.

**Building Q3, F4, K4, H4 -** Disused single storey buildings. F4 used as storage for road salt and machinery. To the south of these buildings are disused parking areas and a fire fighting water reservoir.

**Building N5** currently in use by others.

Building identifications are shown in Figure 6 - Meerbrook Site Investigation Locations.

No evidence of visible contamination was identified by WYG walkover or during ground investigation works.

## 3.4 Surrounding Land Uses

Table 2: Surrounding Land Uses

| Boundary | Description |
|---|---|
| North | Holbrook Park with residential beyond. |
| East | Industrial and commercial units. |
| South | Open recently demolished land with Industrial units beyond. |
| West | New build residential areas. |

The land immediately south of Swallow Road was previously occupied by parts of the Meggitt works (and its predecessors). The industrial premises in this area have recently been demolished, and remedial works undertaken. Ongoing hydrocarbons / chlorinated solvent remediation, by monitored natural attenuation, is described in the Remediation Strategy for this area prepared by Ramboll Environ [13]. Localised mitigation of soil contamination hotspots was also undertaken.

Other industrial premises are located to the south of the wider Meggitt landholding. No further information is available regarding contamination potential associated with these works.

## 3.5 Proposed development

A masterplan has been prepared by PCPT Architects Limited, reproduced in Appendix F. Residential development is proposed in the west (former Building A2 area) and central areas. Two industrial zones are proposed to the east, with associated car parking and service yard areas. The existing Carbon Factory (Buildings A3, B3, C3 and X3; refer to Figure 2) is to be retained in its current use.

## 3.6 Previous Reports

Limited previous investigation was undertaken by Meerbrook Consulting [3], for Clowes Developments and Meggitt Aircraft Braking Systems, in 2012, including land to the south of Swallow Road.

The report included an assessment of site history that identified industrial development of the site since the 1920s. The site was formerly a part of the Dunlop works (wheel and rim manufacture); motor works (Standard Swallow, subsequently Jaguar), later utilised for an aircraft wheel manufacture. Parts of the site were used for munitions manufacturing during

WW1. Land to the south of Swallow Road was also a part of the works development.

Contamination investigations were undertaken predominantly outside the building footprints and comprised window sample and cable percussion boreholes and trial pits. Selected samples were selected for contamination analysis, with some variation in test suite between samples.

Within the current study area, evidence of contamination was restricted to:

**Asbestos:** restricted to made ground in the central section of the site (proposed residential area), exploratory locations MWS122, MWS126, MWS127 (chrysotile and amosite, bundles of unbound asbestos fibres). No evidence of asbestos-containing materials was identified in exploratory logs.

**Metals:** Very localised instances of elevated cadmium (27mg/kg maximum) and copper (at plant toxicity levels only, maximum 1,700mg/kg).

**Petroleum hydrocarbons:** Slightly elevated at MTP102 (2,300mg/kg C10-C40, predominantly C21-C40 lubricating oil range).

# 4.0 Published Geology

## 4.1 Geology

Details of the geology underlying the site have been obtained from the following sources:

- Envirocheck 1:50,000 Geological Plan Extracts – derived from BGS Sheet 169 Coventry, 1994;
- BGS GeoIndex Website.

### 4.1.1 Superficial Geology

The site is underlain by superficial deposits comprising the Thrussington Member. The BGS Lexicon of Named Rock Units gives the following generic description of the Thrussington Member:

*'Diamicton. Superficial Deposits formed up to 2 million years ago in the Quaternary Period. Local environment previously dominated by ice age conditions'*

### 4.1.2 Solid Geology

The BGS GeoIndex website and the 1:50,000 scale geological plan indicates the bedrock underlying the site is the Keresley Member. The BGS Lexicon of Named Rock Units gives the following generic description of the Keresley Member:

*'Redbed sequence; mudstone dominated in lower part but becoming increasingly arenaceous towards top. Thin Spirorbis limestone beds at some levels. Impersistent conglomerates in upper part.'*

### 4.1.3 Structural Geology

The 1:50,000 scale geological map does not show any faults within the site boundary or immediate surrounding area.

### 4.1.4 Historic BGS Borehole Information

Three historic BGS recorded boreholes are located within the site boundary. Available logs indicate made ground to depths of between 0.8 to 3.8m bgl underlain by hard sandy CLAY. Fine red SAND becoming weakly cemented sandstone was encountered at depths between 7.4 and 9.3m bgl in one borehole.

Copies of the BGS borehole records are included in Appendix H.

# 5.0 Fieldwork

The locations of exploratory holes are shown on the Exploratory Hole Location Plan, included as Figure 2. The exploratory holes were supervised, logged and sampled by a WYG Engineer. Fieldworks were undertaken in accordance with BS5930:2015 [2]. Locations were based on a tentative location plan prepared by G & J GeoEnvironmental, predominantly targeting areas which were not investigated in the earlier Meerbrook investigation. A small number of locations were targeted to further investigate previously identified sources (WS1, WS3 - minor solvent contamination in groundwater; R1 – elevated carbon monoxide; R9 – significant TCE in groundwater to the south of Swallow Road; WS46, 47, 54 – hydrocarbons, and WS33, 34, 35 - asbestos). Due to services and vehicle access constraints, it was not possible to locate all exploratory locations exactly where proposed by G & J GeoEnvironmental.

Field work was undertaken between the 5th February and the 16th February 2018. All exploratory locations were marked out and service cleared before breaking any ground.

## 5.1 Window Sample Boreholes

29 No. window sample boreholes were advanced through the sub-surface strata using window sample techniques to a maximum depth of 5.0mbgl. Sampling of the recovered materials was undertaken at discrete intervals and at changes in material.

Standard penetration tests (SPTs) were carried out at selected intervals throughout the window sample boreholes.

Standpipes were installed in 12 No. window sample boreholes. Details of the installations are provided in the borehole records attached as Appendix B. Representative samples of soils were scheduled for geotechnical and chemical laboratory analysis.

## 5.2 Rotary Boreholes

Ten rotary open holed boreholes using air mist techniques were advanced to 15.0mbgl.

In-situ SPTs were carried out at 1.5m intervals throughout the rotary boreholes.

Standpipes were installed in all rotary boreholes, details of which are provided in the borehole records, Appendix B.

## 5.3 Concrete Coring

28 No. locations required coring through concrete / asphalt hardstanding for window sample and rotary boreholes to follow on.

## 5.4 Groundwater sampling

Groundwater sampling was undertaken from installed boreholes where groundwater was present. Initial sampling was undertaken using disposable PVC bailing tubes, following well development and purging. The use of bailers allows targeted sampling of any floating free product layer on the groundwater surface (LNAPL – Light Non-Aqueous Phase Liquid); avoids the potential for cross-contamination associated with techniques such as submersible pumps, and is relatively rapid. Lowering of the bailer through the borehole water column also tends to result in a sample representative of the full borehole response zone, suitable for initial assessment. Consideration of the use of techniques such as low flow sampling may be preferred for more targeted sampling to inform any future detailed quantitative risk assessment studies. Groundwater samples for metals analysis were filtered prior to despatch to the laboratory, in order to minimise dissolution of contaminants associated with sediments, and allow acidification of samples to prevent precipitation of metals less soluble when oxidised (eg. iron) and co-precipitation of other metals. Samples were placed in appropriate containers as specified by the testing laboratory, as appropriate to the determinands. Sample temperature was retained below 9$^{o}$C in transit, in accordance with the laboratory preservation protocol.

## 5.5 Geotechnical Laboratory Testing

Following the completion of fieldwork, selected samples recovered during the investigation were submitted to a UKAS accredited geotechnical laboratory for testing.

The testing suite undertaken comprised:

- 29 No. Water Content;
- 14 No. Atterberg Limits;
- 6 No. BRE SD1 Concrete Aggressivity Suite.

The results of the geotechnical testing are discussed in Section 7.3 and attached in Appendix C.

## 5.6 Contamination Laboratory Testing

Selected soil samples from the ground investigations works were scheduled for contamination testing. 34No. Screening contamination suites were undertaken, comprising:

- Metals (As, Cd, Cr, Cu, Hg, Ni, Pb, Se, Zn);
- Boron (hot water soluble);
- pH value;
- Cyanide (free);
- Water Soluble Sulphate as $SO_4$;
- Speciated PAHs (US EPA 16 priority pollutants);
- Extractable petroleum hydrocarbons;
- Volatile Organic Compounds;
- Chromium (hexavalent).

Samples containing demolition materials (concrete, brick) were also screened for asbestos. Samples that tested positive for asbestos were then scheduled for quantitative asbestos analysis (detection limit, 0.001%)

The results of the chemical analytical testing are discussed in Section 9.0 and attached in Appendix D.

Selected water samples from the ground investigation works were also scheduled for contamination testing.

# 6.0 Encountered Subsurface Conditions

The ground conditions across the site generally comprise concrete / asphalt hardstanding overlying granular MADE GROUND which is underlain by natural clayey SAND / sandy CLAY. Coarse grained SILTSTONE / fine grained SANDSTONE was encountered locally in some boreholes.

## 6.1 Hardstanding

Hardstanding was encountered within 37 No. locations from ground level to a maximum depth of 0.2m bgl. Typically comprising dark grey to black hard asphalt underlain by grey to light grey concrete with 10-20mm reinforcing bar.

## 6.2 Made Ground

Made ground was encountered in all exploratory locations (except WS49 and WS53, where concrete hardstanding overlay natural ground) from a minimum of ground level to a maximum depth of 2.0mbgl although having a typical depth range from 0.1 – 1.2m bgl. Made ground was of variable composition, predominantly clay, sand or gravel, with common brick, concrete, ash and clinker, asphalt, slate and quartzite. Rare metal, wood, coal and plastic were present.

Observations indicative of contamination are summarised in Table 3.

Table 3 Evidence of Contamination

| Location | Strata | Depth, mbgl | Description |
|---|---|---|---|
| WS28 | Made ground | 0.8 – 1.1 | MG with potential asbestos-containing material |
| WS49 | NG Clay | 1.3 - >3.0 | Strong hydrocarbon odour |
| WS51 | NG Clay | 1.1 - 32 | Hydrocarbon odour |
| | NG Sand | 3.2 – 4.8 | Hydrocarbon odour |

## 6.3 Superficial Geology

### 6.3.1 Cohesive superficial geology

Cohesive superficial geology was encountered in the majority of exploratory locations, but occasionally absent. Typically comprising stiff red to orange slightly sandy slightly gravelly CLAY. Gravel is sub-rounded to rounded fine to coarse flint and quartzite.

Cohesive superficial strata were present at between 0.4 and 6.0mbgl, sporadically identified above or below granular superficial material.

### 6.3.2 Granular superficial geology

Granular superficial geology typically comprised red slightly gravelly slightly clayey fine to medium SAND. Gravel is sub-rounded to rounded quartzite and flint.

Granular superficial strata were most commonly reported in the central (boreholes WS29-36) and eastern (boreholes WS50-52) areas. Depths varied between 0.5 and 4.8mbgl.

## 6.4 Solid Geology

Weak red MUDSTONE and SANDSTONE was encountered underlying the superficial geology in all rotary boreholes and locally at the base of some of the window sample boreholes. Deeper rotary boreholes identified an alternating sequence of mudstone and sandstone bands, thickness 1.0 – 9.0m (mudstone), 2.3 - >6.8m (sandstone). Mudstone was encountered at a minimum depth of 2.1mbgl; sandstone at 1.95mbgl.

## 6.5 Ground Conditions, Summary

Table 4 summarises the observed depth and thickness of strata encountered.

Table 4 Encountered Ground Conditions, Summary

| Strata | Depth, minimum<br>m bgl | Depth, maximum<br>m bgl |
|---|---|---|
| Hardstanding | 0.0 | 0.2 |
| Made ground | 0.0 | 2.0 |
| Superficial, cohesive | 0.4 | 6.0 |
| Superficial, granular | 0.5 | 4.8 |
| Solid, mudstone | 2.1 | 15.0 |
| Solid, sandstone | 1.95 | 15.0 |

## 6.6 Groundwater

Groundwater was encountered during the ground investigation in all rotary boreholes at depths between 1.5 and 6.0mbgl. Groundwater levels encountered during monitoring rounds are presented below in Table 5.

Table 5: Groundwater levels during monitoring rounds.

| Borehole ID | Groundwater Depth (mbgl) | | | | | |
|---|---|---|---|---|---|---|
| | Round 1 | Round 2 | Round 3 | Round 4 | Round 5 | Round 6 |
| WS01 | 1.07 | 1.0 | 1.25 | 1.30 | 1.58 | 1.30 |
| WS02 | 3.02 | 2.80 | 2.95 | 2.97 | 2.98 | 3.12 |
| WS20 | 1.82 | 1.12 | 1.35 | 1.60 | 1.55 | 0.72 |
| WS21 | 1.05 | 1.09 | 1.10 | 1.02 | 1.10 | 1.12 |
| WS22 | 1.5 | 1.42 | 1.55 | 1.40 | 1.56 | 1.56 |
| WS29 | Dry | Dry | Dry | Dry | Dry | Dry |
| WS32 | Dry | Dry | Dry | Dry | Dry | Dry |
| WS35 | Dry | Dry | Dry | Dry | Dry | Dry |
| WS36 | Dry | Dry | Dry | Dry | Dry | Dry |
| WS45 | Dry | Dry | Dry | Dry | Dry | Dry |
| WS46 | Dry | Dry | Dry | Dry | Dry | Dry |
| WS48 | 0.5 | 0.45 | 0.65 | 0.67 | 1.85 | 0.87 |
| WS49 | 1.06 | 1.73 | 1.30 | 1.35 | 0.73 | 1.95 |
| WS51 | 1.06 | 1.48 | 2.35 | 2.50 | 0.42 | 1.38 |
| R1 | - | - | - | - | - | - |
| R2 | 2.96 | 2.62 | 2.97 | 3.03 | 2.98 | 3.24 |
| R5 | DRY | 1.42 | Dry | Dry | Dry | Dry |
| R6 | 14.37 | 14.37 | Dry | Dry | Dry | 14.28 |
| R7 | 6.80 | 6.53 | 6.50 | 6.90 | 6.95 | 7.15 |
| R8 | 8.99 | 11.55 | 5.38 | 11.60 | 11.50 | 11.95 |
| R9 | 12.53 | 12.35 | 8.71 | 11.96 | 11.80 | 12.65 |
| R10 | 10.26 | 10.29 | - | - | - | 12.65 |
| R11 | 11.98 | 11.14 | 11.30 | 11.30 | 11.30 | 11.58 |
| R12 | 8.63 | 7.67 | 8.10 | 8.00 | 8.20 | 6.74 |

# 7.0 Geotechnical Assessment

## 7.1 Window Sample Standard Penetration Tests

86 Standard Penetration Tests (SPTs) were carried out at 1.0m intervals throughout the window sample boreholes. The energy ratio of the SPT hammers used were 86% and 72% in comparison to the British Standard of 60%. The corrected SPT $N_{60}$ results are summarised within Table 6.

Table 6: Summary of Window Sample SPT N60 results

| | Cohesive Made Ground | Clay | Sand | Granular Made Ground | Silt | Mudstone | Sandstone |
|---|---|---|---|---|---|---|---|
| Number of tests | 1 | 48 | 18 | 5 | 2 | 9 | 3 |
| Minimum Corrected N Value | 25.2 | 4.3 | 7.5 | 4.5 | 26.9 | 18 | 45 |
| Maximum Corrected N Value | 25.2 | 50 | 50 | 50 | 50 | 50 | 50 |
| Average Corrected N Value | 25.2 | 24.1 | 28.3 | 17.1 | 38.4 | 36.2 | 48.3 |

A plot of corrected SPT $N_{60}$ values versus depth is included as Figure 3 and uncorrected N values are included on logs attached in Appendix B.

## 7.2 Rotary Standard Penetration Tests

75 Standard Penetration Tests (SPTs) were carried out at 1.5m intervals throughout the Rotary open boreholes. The energy ratio of the SPT hammer used was 79% in comparison to the British Standard of 60%. The corrected SPT $N_{60}$ results are summarised within Table 7.

Table 7: Summary of Rotary SPT N60 results

| | Clay | Sand | Mudstone | Sandstone |
|---|---|---|---|---|
| Number of tests | 10 | 10 | 24 | 31 |

| | | | | |
|---|---|---|---|---|
| Minimum Corrected N Value | 3 | 10.9 | 50 | 50 |
| Maximum Corrected N Value | 50 | 49.4 | 50 | 50 |
| Average Corrected N Value | 19 | 23.2 | 50 | 50 |

A plot of corrected SPT $N_{60}$ values versus depth is included as Figure 4 and uncorrected N values are included on logs attached in Appendix B.

## 7.3 Geotechnical Laboratory Analysis Results

### 7.3.1 Moisture Content

29 No. moisture content determinations were carried out on samples recovered from the site. A plot of moisture content versus depth is included as Figure 5. The results are summarised in Table 8.

Table 8: Summary of Moisture Content Results

| Stratum | No. of Tests | Moisture Content | | |
|---|---|---|---|---|
| | | Minimum | Maximum | Average |
| Clay | 16 | 9.7 | 25 | 18.7 |
| Granular Made Ground | 8 | 6.7 | 38 | 21 |
| Silt | 5 | 9.2 | 19 | 15 |

Results for the moisture content tests returned a site average of 18.3%.

### 7.3.2 Atterberg Limits Tests

13 No. Atterberg Limits tests were carried out on deposits from across the site. The results are summarised in Table 9.

Table 9: Summary of Atterberg Limits Test Results

| Location Reference | Depth (m) | Stratum | Liquid Limit (%) | Plastic Limit (%) | Plasticity Index (%) | Modified Plasticity Index | Plasticity | Volume Change Potential |
|---|---|---|---|---|---|---|---|---|
| WS01 | 2.0-3.0 | Clay | 40 | 20 | 20 | 20 | Medium | Intermediate |
| WS46 | 1.2-2.0 | Clay | 40 | 22 | 18 | 17.82 | Low | Intermediate |
| WS46 | 2.0-3.0 | Clay | 48 | 24 | 24 | 24 | Medium | Intermediate |
| WS51 | 2.0-3.0 | Clay | 44 | 21 | 23 | 22.31 | Medium | Intermediate |
| WS02 | 1.5 | Clay | 34 | 18 | 16 | 16 | Low | Low |
| WS03 | 0.6 | Clay | 32 | 18 | 14 | 13.3 | Low | Low |
| WS03 | 1.6 | Clay | 27 | 17 | 10 | 10 | Low | Low |
| WS22 | 1.5 | Clay | 41 | 20 | 21 | 21 | Medium | Intermediate |
| WS35 | 2.4 | Clay | 35 | 17 | 16 | 16 | Low | Low |
| WS46 | 3.5 | Clay | 35 | 19 | 16 | 16 | Low | Low |
| WS49 | 1.4 | Clay | 29 | 17 | 12 | 12 | Low | Low |
| WS51 | 1.2 | Clay | 41 | 20 | 21 | 21 | Medium | Intermediate |
| WS28 | 2.0 | Clay | 30 | 19 | 11 | 11 | Low | Low |

The results of the Atterberg Limits test indicate that the clays on site have a low to medium plasticity and have a low to intermediate volume change potential in accordance with NHBC Chapter 4.2 [4]

### 7.3.3 Sulphates

Results for water soluble sulphate indicate protection of concrete from sulphate attack may be required. The Design Sulphate class was assessed as DS-2, ACEC Class AC-2 in accordance with the guidance given in BRE Special Digest 1 [5].

# 8.0 Contamination Assessment Criteria

## 8.1 Soils

A Generic Quantitative Risk Assessment (GQRA) has been undertaken by comparing recorded concentrations of chemical constituents in soil with Generic Assessment Criteria (GAC) to identify whether, at the concentrations recorded, the presence of the constituent has the potential to adversely affect the health of site users.

If the recorded concentrations of a particular constituent are below the GAC then the risk is considered to be acceptable. Where a substance is recorded at concentrations higher than GAC this does not necessarily indicate that a particular risk is present, but signifies the requirement to undertake further review / assessment in line with the UK tiered risk assessment framework.

The Soil Screening Values (SSVs) used to screen analytical results derive from various sources. Preferentially WYG have used Category 4 Screening Levels (C4SL) derived by DEFRA with CL:AIRE (Contaminated Land: Applications in Real Environments) [6]. C4SLs are currently available for arsenic, benzene, benzo(a)pyrene, cadmium, chromium VI and lead.

Where C4SLs are unavailable, 'Suitable for Use Levels' (S4ULs) developed by LQM/CIEH [7] have been applied. The LQM/CIEH S4ULs are based on minimal or tolerable risk intended to be protective of human health.

An SSV for 'Easily Liberatable Cyanide' has also been generated by WYG, based on potential short-term exposure.

SSVs are available for a number of land uses. Based on current proposals, criteria for 'Residential with Plant Uptake' use have been applied where residential development is proposed, 'Commercial / Industrial' in proposed industrial areas, including the retained Meggitt land. SSVs are provided in Appendix E.

# 9.0 Contamination Assessment

## 9.1 General

Contamination testing was undertaken on 29 samples of made ground at depths between 0.1 to 1.1mgbl. 5No. samples of natural ground exhibiting odour evidence of hydrocarbons contamination were also tested.

19No. samples were screened for asbestos. The positive asbestos samples were subsequently analysed for quantitative asbestos.

Discussion of results has been sub-divided to reflect the proposed development type, as indicated in the masterplan (Appendix F), comprising residential (Residential zones D and E); industrial (Zone 1) and the retained Meggitt land (Carbon Factory).

No investigation was possible within the current buildings and consequently assessment has been restricted to peripheral areas.

## 9.2 Residential Development Areas

No significant metals contamination, relating to human health or plant toxicity, was identified within residential development areas. A single result indicating elevated lead (1,640mg/kg; criterion 200mg/kg) was identified at WS33, on the boundary between the retained Meggitt area and Residential Zone E.

Made ground at WS21, Zone D, contained trace levels of asbestos (<0.001%) as asbestos-containing material (ACM) debris containing chrysotile.

No positive asbestos results were obtained within Zone E by WYG. However, a number of samples from this area were found to contain asbestos in the earlier Meerbrook investigation [3].

The chlorinated hydrocarbon trichloroethene (TCE) was commonly encountered at concentrations in excess of the residential criterion (0.034mg/kg).

Detectable concentrations of other chlorinated hydrocarbons including 1,1,1-trichloroethane and cis-1,2-dichloroethene (DCE) were also recorded at WS36. 1,1,1-trichloroethane was present at concentrations below human health screening value; no generic screening value is available for DCE. The presence of DCE is indicative of natural degradation of TCE. Further degradation to vinyl chloride was not evident, though the analytical detection limit exceeded

the screening criterion.

The distribution of moderately elevated TCE indicates multiple historical sources, likely to relate to the use of TCE as a degreasing solvent. The notably elevated concentrations in two samples from WS36, located within Residential Zone E adjacent to Swallow Road, suggests a significant source in this area.

Slightly elevated concentrations of petroleum hydrocarbons were identified at two locations in the eastern Residential Zone E (WS34, 1,770mg/kg >C8-C40 and WS43, 3,960mg/kg). In both cases, the >C21-C40 range was predominant, typical of lubricating / heavy fuel oil.

Exceedances of human health screening criteria applicable to the current Masterplan are summarised in Table 10. In the absence of a quantitative criterion for asbestos, all positive screening results are included.

Table 10: Residential Development Zone: Concentrations Exceeding Human Health Criteria

| Contaminant | Location | Criterion, mg/kg | Concentration, mg/kg |
|---|---|---|---|
| Lead | WS33, 0.4m [1] | 200 | 1,690 |
| Asbestos | WS21, 0.5m | - | <0.001% |
| TCE | WS2, 0.2m | 0.034 | 0.623 |
| | WS2, 1.1m | | 0.400 |
| | WS3, 0.2m | | 0.430 |
| | WS36, 0.2m | | 48.000 |
| | WS36, 0.5m | | 4.060 |

[1] Location adjacent to Residential Zone E boundary

## 9.3 Industrial Development Area

Localised contamination by potentially plant-toxic metals was identified in made ground at WS47 (copper 1,580mg/kg; zinc 1,910mg/kg). Made ground at this location was described as black ashy gravel / clinker. Plant toxicity is unlikely to be of concern within the industrial zone.

Made ground at WS52 and WS54 contained trace levels of asbestos (<0.001%) as loose fibres of amosite and chrysotile.

Trichloroethene was detected at WS52, exceeding the residential screening value but below the commercial criterion applicable in this area.

Hydrocarbon odours were noted in natural ground at WS49 and WS51. Samples from WS49 did not identify any significant total petroleum hydrocarbons concentration, though volatile hydrocarbons in the >C8-C10 range exceeded the residential, but not commercial, screening value. At WS51, the total hydrocarbons concentration was moderately elevated (1.8m sample, 3,020mg/kg, predominantly >C12-C16 diesel range). Slightly elevated concentrations were also identified at WS45-48, 50 and WS52, not exceeding 4,280mg/kg >C8-C40. With the exception of WS51, most hydrocarbons band data indicate the contaminant to relate to lubricating / heavy fuel oils. At WS52, more significant concentrations of more volatile petroleum hydrocarbons, >C8-C10, were also present, suggesting either a mixed source or degradation products from heavier hydrocarbons. Volatile aromatic hydrocarbons (including toluene, trimethylbenzene and butylbenzene) were detected at WS49, 51 and 52 at low concentrations, below human health risk thresholds.

Exceedances of human health screening criteria applicable to the current Masterplan are summarised in Table 11.

Table 11: Industrial Development Zone: Concentrations Exceeding Human Health Criteria

| Contaminant | Location | Criterion[1], mg/kg | Concentration, mg/kg |
|---|---|---|---|
| Asbestos | WS52, 0.3m | - | <0.001% |
| | WS54, 0.2m | - | <0.001% |

## 9.4 Retained Meggitt Carbon Plant Area

No redevelopment is proposed in this area.

Made ground was characterised by sporadic slightly elevated metals concentrations (copper, zinc and lead) and sporadic positive asbestos results (laboratory-identified ACM debris and loose fibres in soil), at WS19, 21 and 22. Made ground at WS21 and WS22 contained trace levels of asbestos (<0.001%); made ground at WS19 contained low levels of asbestos (0.0388%). Suspected asbestos-containing materials were only identified during fieldwork at WS28, 0.8 – 1.0m, confirmed as asbestos cement containing chrysotile.

Metal and asbestos contamination are not likely to constrain development of the adjoining residential areas, as no plausible pathways exist for migration.

Localised contamination by petroleum hydrocarbons (maximum 5,060mg/kg >C8-C40 at WS22, 0.2m) and TCE (maximum 4.11mg/kg at WS20, 0.2m) was identified. Only the TCE maximum result exceeded the Industrial human health criterion. Whilst unlikely to represent

any human health risk to site occupiers in the continued industrial use scenario, the possibility of migration from sources within this area to adjoining residential development areas may require consideration.

Sample WS22, 0.2m exceeded the Industrial criterion for a number of PAH compounds, likely to be associated with the reported presence of asphalt in the made ground matrix at this location. The benzo(a)pyrene content of this sample, 124mg/kg, indicates that the material would be classified as hazardous waste for disposal, anticipating that the PAH content relates to coal tar based asphalt in the made ground. Similar, though less elevated, PAH results related to sample WS32, 0.4m, which also contained asphalt.

Exceedances of human health screening criteria applicable to the current Masterplan are summarised in Table 12.

Table 12: Retained Carbon Plant: Concentrations Exceeding Human Health Criteria

| Contaminant | Location | Criterion[1], mg/kg | Concentration, mg/kg |
|---|---|---|---|
| Asbestos | WS19, 0.2m | - | 0.0388% |
| | WS21, 0.5m | | <0.001% |
| | WS22, 0.2m | | <0.001% |
| | WS28, 0.9m | | Present (ACM bulk sample) |
| TCE | WS20, 0.2m | 2.6 | 4.11 |
| Benzo(b)fluoranthene | WS22, 0.2m | 44 | 158 |
| Benzo(a)pyrene | WS22, 0.2m | 77 | 124 |
| Dibenzo(a,h)anthracene | WS22,0.2m | 3.6 | 15.0 |
| | WS32, 0.4m | 3.6 | 4.53 |

## 9.5 Asphalt Waste Assessment

Three samples of asphalt hard surfacing were tested to assess waste classification. Asphalt waste containing coal tar is assessed as Hazardous Waste due to carcinogenic content.

Environment Agency publication WM3 [8] indicates that asphalt should be assessed as containing coal tar if the benzo(a)pyrene content exceeds 50mg/kg.

Sample WS44, obtained from the industrial development area east of building P3, contained benzo(a)pyrene at 89.0mg/kg and is assessed as Hazardous Waste for disposal. Samples from WS3 and WS33, from the western and eastern residential areas respectively, were below the 50mg/kg threshold and are assessed as non-hazardous.

## 9.6 Leachability Analysis

21 samples were scheduled for leachability testing (10:1 CEN leach test). Results have been assessed based on Waste Acceptance Criteria for inert wastes (as mg/kg) to identify any materials which may have potential for pollution of groundwater. The leachability suite comprised:

- Ammoniacal nitrogen;
- pH;
- Sulphate;
- Metals (As, B, Cd, Cr, Cu, Hg, Pb, Ni, Se, Zn);
- Cyanide, total.

In almost all cases, leachable concentrations of the analysed determinands were below the 'inert waste' threshold and no pollution risk is identified. Sample WS36, 0.2m, exceeded the criteria for sulphate, nickel and cadmium, and was acidic (at pH5.94). Total nickel concentration in made ground from WS36, 0.2m was not elevated, and therefore, it is considered likely that the elevated leachable nickel concentration was associated with the leachate acidity. Sample WS50, 0.5m, also slightly exceeded the sulphate 'inert' criterion.

## 9.7 Controlled Waters

The superficial deposits of the Thrussington Member are classified as a Secondary (undifferentiated) Aquifer. Bedrock deposits of the Keresley Member are classified as a Principal Aquifer. The northwest and west of the site is within a groundwater Source Protection Zone III (Total Catchment); the balance of the site is not within a Source Protection Zone.

Open waterbodies are not located within the site or within the surrounding area. The nearest open waterbody is the Coventry Canal located 1.17km southeast.

Groundwater samples were collected from selected boreholes on 29 March 2018, 5 March 2018 and 6 June 2018. Laboratory transcripts are included in Appendix D.

Groundwater quality was compared against the Drinking Water Standards, DWS [9], considered most applicable in the absence of surface water in the near vicinity (250m) of the site. Groundwater exceedances are as follows:

- The sulphate screening criterion (250mg/L) was marginally exceeded in four instances (WS21 – Round 1, 282mg/L; R09, WS20 & WS49 – Round 2, 442, 473 & 390mg/L);
- The selenium screening criterion (10µg/L) was marginally exceeded in two instances (WS21 – Round 1, 14.8µg/L; WS49 – Round 2, 12.2µg/L);
- The benzo(a)pyrene DWS screening criterion (0.01µg/L) was exceeded in all but two instances. The highest benzo(a)pyrene concentration was encountered at WS51 (19.30µg/L) from Round 2;
- The PAH (sum of benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene and indeno(1,2,3-cd)pyrene) DWS screening criterion (0.1µg/L) was exceeded in all but four instances. The highest PAH concentration was encountered at WS51 (68.0µg/L) from Round 2;
- The trichloroethene DWS screening criterion (10µg/L) was typically exceeded in groundwater sampled from two boreholes (WS21 – Round 1, 146 µg/L; WS22 – Round 2, 175µg/L; WS21 and WS22 – Round 3, 33.6 and 219µg/L). WS21 and WS22 are adjacent, at the southeastern edge of Residential Zone D;
- The vinyl chloride DWS screening criterion (0.5µg/L) was exceeded in one borehole (WS49 – Round 2, 29.6µg/L). However, it should be noted that the laboratory detection limit (1µg/L) was higher than the screening criterion, so a greater number of exceedances is plausible. Vinyl chloride is a degradation product of TCE, recorded at 8.6µg/l at this location, potentially indicating a historical contamination event, now largely degraded;
- The ethylbenzene and xylene DWS screening criteria (300 and 500µg/L) were exceeded in one instance (R12 – Round 2, 598µg/L and 4806µg/L, respectively). The benzene DWS screening criterion (1.0µg/L) was exceeded in one instance (WS49 – Round 2, 42.4µg/L);
- The 1,2-Dichloroethene (calculated as the sum of cis-1,2-Dichloroethene and trans-1,2-Dichloroethene) DWS screening criterion (50µg/L) was exceeded by approximately two-fold in one instance (WS49 – Round 2, 124.86µg/L)

In the absence of an EQS criterion for petroleum hydrocarbons, results have been assessed based on the Surface Waters (abstraction for drinking water) Regulations 'DW2' criterion, 'water suitable for abstraction with normal chemical and physical treatment', 200µg/L. Evidence of petroleum hydrocarbon contamination of groundwater was identified in 14No. samples tested, with total concentrations (>C10-C40) between 202µg/L – 283,000µg/L. The hydrocarbon composition showed >C21-C28 (indicative of lubricating / heavy fuel oils) to be predominant in all instances, except at R12 and WS49 where >C10-C12 (indicative of petrol or other light hydrocarbon) predominated (217,000µg/l at R12). >C10-C12 also contributed substantially to the total hydrocarbon concentration at WS51. The presence of >C10-C12 and other light hydrocarbons in the vicinity of WS48-51 and R12 indicates a significant impact in this area, the southeast of Industrial Zone 2.

The localised impacts by TCE (WS21, WS22) and petroleum hydrocarbons (particularly the group of impacted locations at WS48-52 and R12) will require further detailed assessment of risk to controlled waters. The impacted groundwater should also be assessed as a potential source of vapour, with regard to the human health inhalation pathway. Groundwater (which may be perched water within the made ground) was recorded at between 1.0 and 2.0m at these locations. Further investigations are likely to be required to provide data for this assessment, which may not be practicable pending further demolition.

## 9.8 Preliminary Conceptual Model

The investigation has provided data to inform development of a conceptual model as follows:

**Contamination Sources**

The site has the potential for contamination of soils and groundwater associated with an extended period of industrial use since the 1920s. Potential contaminants are typical of those associated with engineering / manufacturing, including metals; petroleum hydrocarbons (fuel, lubricants); chlorinated hydrocarbons (degreasing solvents, paints and coatings) and asbestos (building materials, friction materials, insulation).

The contamination testing suite utilised reflects a broad range of the expected contaminants, in both soils and groundwater.

**Receptors**

Assessment has taken into account the anticipated future redevelopment of parts of the site, based on the current Masterplan, including residential and new industrial / commercial activity.

Receptors considered include future residential occupiers; occupants of industrial premises; controlled waters (principally, underlying groundwater); building materials and plant toxicity (applicable to residential gardens and landscaped areas).

**Pathways**

Human health risks due to contamination may arise from soil ingestion; ingestion of crop plants grown in residential gardens; inhalation of airborne particulates and gases / vapours and dermal contact.

The contamination risk assessment has assessed the materials tested, allowing for the material to be present at or close to the surface and available for direct contact (via soil ingestion, creation of airborne dust, dermal contact, etc.). However, most materials tested represent made ground, physically unsuitable for retention at the surface in gardens and landscaping areas. Consequently, the assessment represents a conservative approach, identifying materials with the potential for health hazards in the unlikely event that they were retained at surface without cover. Similarly, although plant toxicity has been assessed, direct planting of the tested materials is unlikely.

Controlled waters risks have been assessed primarily based on testing of groundwater encountered within boreholes, and comparison of water quality with generic standards for drinking water. Whilst this preliminary assessment indicates the potential for impacts on groundwater outside the site boundary, current assessment does not provide quantitative assessment of risk, required to inform the derivation of a remediation strategy.

By considering the sources, pathways and receptors, an assessment of the environmental risks can be made with reference to the significance and degree of the risk. The assessment is based on the consideration of whether the source of contamination can reach a receptor and hence whether it is of major or minor significance. The qualitative risk assessment is undertaken in accordance with BS10175:2011 and CIRIA Document C552, Contaminated land risk assessment: A Guide to Good Practice. The source – pathway – receptor linkages are developed around the information presented above.

Table 13 Categorisation of Risk

| Category | Definition |
|---|---|
| Severe | Acute risks to human health, catastrophic damage to buildings/property, major pollution of controlled waters |
| Medium | Chronic risk to human health, pollution of sensitive controlled waters, significant effects on sensitive ecosystems or species, significant damage to buildings or structures |
| Mild | Pollution of non-sensitive waters, minor damage to buildings or structures |
| Minor | Requirement for protective equipment during site works to mitigate health effects, damage to non-sensitive ecosystems or species |

The likelihood of an event (probability) takes into account both the presence of the hazard and target and the integrity of the pathway and has been assessed based on the categories given below.

Table 14 Categorisation of Probability

| Category | Definition |
|---|---|
| High Likelihood | Pollutant linkage may be present, and risk is almost certain to occur in long term, or there is evidence of harm to the receptor |
| Likely | Pollutant linkage may be present, and it is probable that the risk will occur over the long term |
| Low Likelihood | Pollutant linkage may be present, and there is a possibility of the risk occurring, although there is no certainty that it will do so |
| Unlikely | Pollutant linkage may be present, but the circumstances under which harm would occur are improbable |

The potential severity of the risk and the probability of the risk occurring have been combined in accordance with the following matrix in order to give a level of risk for each potential hazard.

Table 15 Risk Matrix Categories

| | | Potential Severity | | | |
|---|---|---|---|---|---|
| | | **Severe** | **Medium** | **Mild** | **Minor** |
| Probability of Risk | High Likelihood | Very High | High | Moderate | Moderate/ Low |
| | Likely | High | Moderate | Moderate/ Low | Low |
| | Low Likelihood | Moderate | Moderate/ Low | Low | Negligible |
| | Unlikely | Moderate/ Low | Low | Negligible | Negligible |

Potential risks / constraints identified are summarised in Table 16.

Table 16 – Summary Conceptual Model

| Potential Source | Potential Pollutant | Potential Receptor | Potential Pathway to Receptor | Associated Hazard (Severity) | Likelihood of Occurrence | Risk |
|---|---|---|---|---|---|---|
| Contaminants in made ground | Contaminants may be present in made ground due to historical sources, or import / use of contaminated materials as required for fill / engineering purposes. No specific current sources are evident. | | | | | |
| | Asbestos | Future residential occupiers | Inhalation | Severe | Low | Moderate |
| | | Future industrial / commercial occupiers | Inhalation | Severe | Low | Moderate |
| | TCE | Future residential occupiers | Inhalation, ingestion, skin contact | Medium | Likely (though localised) | Moderate |
| | Lead | Future residential occupiers | Inhalation, ingestion, skin contact | Medium | Low | Moderate/ Low |
| | Petroleum hydrocarbons<br>Chlorinated hydrocarbons | Groundwater | Leaching / migration through soils | Medium | Likely (some impact on groundwater within site demonstrated) | Moderate |
| | Copper, zinc | Garden / landscape planting | Root contact | Minor | Low (impact predominantly within industrial zones) | Negligible |

## 9.9 Summary

Made ground throughout the investigation area is characterised by sporadic elevated metals concentrations, most commonly copper and zinc, consistent with historical engineering activities or imported fill. As testing relates to made ground which would not be physically suitable for retention close to the surface in gardens or areas of landscape planting, the metals contamination does not represent any significant risk to human health or plant growth.

Materials visually identified as suspect ACM were rare, encountered only at a single location within the retained Meggitt area, WS28, 0.9m. However, laboratory analysis identified the presence of detectable asbestos, as loose fibres or unspecified ACM debris, in 5 of 19 samples tested. Trace levels of asbestos (<0.001%) were identified in made ground from WS21, WS22, WS52 and WS54. Low levels of asbestos (0.0388%) in made ground were found at WS19. Based on the CL:AIRE Work Category Decision Support Tool [10], the CAR Regulations [11] would not apply when disturbing ground at WS21, WS22, WS52 and WS54 due to the low concentration present. As no ground disturbance works are currently proposed at WS19, the CAR Regulations do not apply. Therefore, no controls for management of asbestos are required during the proposed redevelopment works.

Petroleum hydrocarbons were commonly identified at low to moderate concentration, predominantly characterised as lubricating / heavy fuel oil range. Significant contamination by lighter hydrocarbons (petrol range) was identified in groundwater in the east of the site in the vicinity of WS48, 49, 51 and R12. Measured concentrations are not considered to represent any significant human health risk because the contamination was associated with made ground which would not remain at surface. Groundwater has shown evidence of petroleum hydrocarbons and PAH impact, consistent with evidence of contamination in soils.

Chlorinated hydrocarbons, most significantly trichloroethene (TCE), were widespread in soil at concentrations exceeding residential human health criteria. Notably elevated concentrations were identified at WS36, within the eastern residential Zone E. Made ground exceeding the relevant human health screening criteria may represent a human health risk by indoor inhalation, due to potential for migration through overlying cover materials / building floor structures. Chlorinated hydrocarbons, most commonly TCE, were detected in several groundwater samples. The TCE concentration exceeded the DWS criterion in two instances, both by a substantial margin, and vinyl chloride concentration exceeded the DWS criterion in one instance.

Remedial action will be required to mitigate contamination of soils and groundwater to

enable the proposed partial redevelopment of the site. Preparation of a Remediation Strategy is recommended to identify remedial requirements, taking into account both WYG and historical data.

# 10.0 Gas Assessment

Ground gas monitoring has been undertaken on six occasions over an eight week period. Results are included in Appendix G.

The maximum methane concentration (1.0%) was recorded from WS49 during Round 1; the maximum carbon dioxide concentration (12.0%) was recorded from WS36 during Round 1. Flow rates recorded from WS36 and WS49 during Round 1 were 2.5L/hr and 0.0L/hr, respectively. Hazardous gas flow rate did not exceed 0.07 L/h on any occasion, at any location. Based on guidance in CIRIA C665 [12], the site falls within Characteristic Gas Situation (CS) 1, assessed on hazardous gas flow alone.

At WS36, the concentration of carbon dioxide was frequently in excess of 5%, maximum 12.0%. CIRIA guidance suggests that consideration should be given to a precautionary increase to CS2 where carbon dioxide typically exceeds 5%. Although the measured concentration was not significantly greater than may be found in typical organic soils, localised gas protection is recommended in the vicinity of WS36.

Slightly elevated carbon monoxide concentrations were noted sporadically during the gas monitoring. Elevated results were most commonly associated with WS36, maximum concentration 34ppm (Round 4) marginally exceeding the occupational exposure limit (30ppm). Borehole WS36, and others at which carbon monoxide was detected at more elevated concentrations, coincided with locations at which chlorinated hydrocarbons (TCE) and/or hydrocarbon vapours may be anticipated due to elevated concentrations in soils or groundwater. Correspondence with the manufacturer did not indicate any known cross-sensitivity of the instrument carbon monoxide sensor to TCE. However, comparison of analysis of a laboratory gas sample with the field instrument suggests that the indicated carbon monoxide was not replicated by laboratory analysis methods (Table 17). The carbon monoxide sensor is known to be cross-sensitive to hydrogen, but this was not identified by laboratory analysis.

Table 17 - Borehole WS36 – Comparison of Laboratory and Field Instrument Gas Data

| | Methane, % | Carbon Dioxide, % | Oxygen, % | Carbon Monoxide, ppm | Hydrogen, ppm |
|---|---|---|---|---|---|
| Field Instrument | 0.0 | 11.8 | 8.2 | 33 | - |
| Laboratory | <0.05 | 9.23 | 8.86 | <1 | <0.5 |

During most monitoring rounds at R12, the field instrument indicated concentrations of methane above the limit of the analyser. Groundwater samples from this location had recorded substantial concentrations of volatile petroleum hydrocarbons, with strong odour. The gas analyser methane sensor is known to be cross-sensitive to petroleum hydrocarbons vapour. Vapour monitoring, using a photo-ionisation detector (PID), recorded elevated vapour concentrations from R12, indicating that the methane result was likely to be erroneous.

Depleted oxygen concentrations (<10%) were observed on several occasions during the monitoring programme . Controls for working in confined spaces will need to be implemented during any excavation works.

Summary gas monitoring data is included in Table 18.

Table 18 – Summary of Gas Monitoring Data

| Installation | Maximum Concentration | | | Peak flow[2], l/h | |
|---|---|---|---|---|---|
| | Methane, % | Carbon Dioxide, % | Carbon Monoxide, ppm | Methane | Carbon Dioxide |
| R1 | 0.1 | 1.1 | 1.0 | 0.000 | 0.000 |
| R2 | 0.2 | 7.1 | 5.0 | 0.000 | 0.003 |
| R5 | 0.1 | 8.6 | 5.0 | -0.004 | 0.002 |
| R6 | 0.1 | 2.9 | 3.0 | 0.001 | 0.015 |
| R7 | 0.1 | 3.0 | 5.0 | 0.000 | 0.000 |
| R8 | 0.1 | 1.8 | 3.0 | -0.002 | 0.003 |
| R9 | 0.1 | 1.6 | 2.0 | 0.000 | 0.011 |
| R10 | 0.4 | 4.6 | 1.0 | 0.002 | 0.023 |
| R11 | 0.4 | 3.5 | 3.0 | -0.002 | 0.004 |
| R12 | (>>>)[1] | 3.7 | 3.0 | - | 0.064 |
| WS01 | 0.1 | 0.8 | 4.0 | 0.000 | 0.001 |
| WS02 | 0.2 | 8.4 | 0.0 | 0.000 | 0.010 |
| WS20 | 0.2 | 4.0 | 3.0 | 0.000 | 0.003 |
| WS21 | 0.1 | 2.5 | 2.0 | 0.000 | 0.001 |
| WS22 | 0.1 | 2.9 | 1.0 | 0.000 | 0.003 |
| WS29 | 0.1 | 0.5 | 2.0 | 0.000 | 0.001 |
| WS32 | 0.1 | 11.6 | 10.0 | 0.000 | 0.000 |
| WS35 | 0.2 | 0.4 | 3.0 | 0.000 | 0.000 |
| WS36 | 0.1 | 12.0 | 34.0 | 0.000 | 0.009 |
| WS45 | 0.4 | 3.7 | 2.0 | 0.000 | 0.002 |
| WS46 | 0.2 | 6.2 | 3.6 | 0.000 | 0.003 |
| WS48 | 0.6 | 1.4 | 2.0 | 0.000 | 0.000 |
| WS49 | 1.0 | 3.2 | 20.0 | 0.015 | 0.023 |
| WS51 | 1.3 | 7.6 | 7.0 | 0.002 | 0.009 |

[1] Over-range indicated due to hydrocarbon vapour [2] Maximum positive flow

# 11.0 Preliminary Engineering Assessment

The following section provides details and comments relating to the construction as currently proposed. Residential development is proposed in the west and central areas. Two industrial zones are proposed to the east, with associated car parking and service yard areas. The existing Carbon Factory is to be retained in its current use.

## 11.1 Foundation Design

The ground conditions generally comprise concrete / asphalt hardstanding overlying granular made ground which is underlain by natural clayey sand / sandy clay. Coarse grained siltstone / fine grained sandstone was encountered locally in some window sample boreholes and all rotary boreholes. Corrected SPT $N_{60}$ values obtained indicates a strong correlation between an increase in strength with depth with values ranging from 4 to 28 at 1.2mbgl with an average of 13, 5 to 50 at 2.0mbgl with an average of 28 and 19 to 50 at 3.0mbgl with an average of 36. It is understood that a residential development and two industrial zones are proposed, however foundation design will be dependent on measurements of post remediation ground levels and most likely comprise a mixture of strip and trench fill foundations. It is likely that suspended floor slabs will be required in all residential properties.

## 11.2 Protection of buried concrete

The sulphate data assessed with section 7.3.3 indicates a design sulphate class of DS-2, ACEC Class AC-2, and protection of buried concrete may be required for the site.

## 11.3 Geotechnical Constraints

The results for the Atterberg Limits tests indicate that the cohesive material on site hold a low to medium plasticity and a low to intermediate volume change potential in accordance with NHBC guidelines. Where applicable a propriety compressible material should be incorporated into the foundation design to protect against heave and shrinkage of cohesive soils.

Groundwater was encountered in all rotary boreholes during the ground investigation at depths at 1.5 and 6.0mbgl, and in 17 of the installed boreholes during monitoring at depths between 0.45 and 14.37mbgl. Groundwater should be incorporated into the foundation design, particularly if foundation design is likely to extend past 3.0mbgl. De-watering may therefore be required during excavations.

# 12.0 Summary and Conclusions

- WYG Environment (WYG) were commissioned by Meggitt Aerospace to conduct a ground investigation at the manufacturing site off Holbrook Lane, Coventry.
- The ground investigation was undertaken from the 5th to the 16th February 2018.
- The ground investigation was undertaken from the 5th to the 16th February 2018.
- The investigation comprised 29 No. window sample boreholes, 12 No. installed with gas and groundwater monitoring standpipes and 10 No. rotary open holed boreholes all installed with standpipes.
- The ground conditions generally comprised hardstanding overlying granular made ground overlying natural clayey sand / sandy clay, which is underlain by coarse grained siltstone / fine grained sandstone.
- Groundwater was encountered in all rotary boreholes during the ground investigation at depths between 1.5 and 6.0mbgl. Further groundwater monitoring recorded standing depths between 0.42 and 14.37mbgl.
- Corrected SPT $N_{60}$ values obtained indicated a strong correlation between an increase in strength with depth.
- Moisture content tests returned an average value of 18.3% for the site.
- The results of the Atterberg tests indicate the cohesive materials on site generally have a low to medium plasticity and a low to intermediate volume change potential.
- Results for water soluble sulphate indicate protection of concrete from sulphate attack may be required. The Design Sulphate class was assessed as DS-2, ACEC Class AC-2.
- Sporadic presence of asbestos was identified in made ground, predominantly at trace levels. No requirements for asbestos controls during excavations within the proposed development areas were indicated.
- Sporadic presence of potentially plant-toxic metals was identified, unlikely to represent a constraint assuming that clean soil cover will be prpvided in gardens.
- The volatile organic compound trichloroethene was identified both within residential and industrial areas. Concentrations in soils at three locations (WS2, WS3, WS36), within residential development Zones D and E, may require remedial action. TCE impacted groundwater should also be assessed as a human health risk contamination source.
- Petroleum hydrocarbons, predominantly lubricating oil range, were also sporadic at low

to moderate concentration. A significant part of Industrial Zone 2 in the east was impacted by light hydrocarbons (petrol range), requiring further assessment.

- Detailed quantitative risk assessment will be required to assess controlled waters remedial requirements.
- Remedial action will be required to mitigate contamination of soils and groundwater, to enable the partial redevelopment of the site.
- Preparation of a Remediation Strategy is recommended to identify remedial requirements based on both WYG and historical data.
- Assessment of ground gas indicates a requirement gas protection (CS2). This location is also impacted by TCE, for which remedial works may also mitigate the ground gas hazard.
- Strip or trench fill footings extending through the made ground to the stiff / medium dense superficial deposits between 2.0 and 3.0mbgl are proposed.
- Where applicable a proprietary compressible material should be incorporated into the foundation design to protect against heave and shrinkage of cohesive soils.
- Due to the presence of groundwater during the ground investigation and monitoring visits, de-watering may need to be considered during excavations.

# 13.0 References


1. BS10175:2011+A1:2013. Investigation of Potentially Contaminated Sites: Code of Practice. British Standards Institution.
2. BS5930:2015 Code of Practice for Site Investigations, British Standards Institution.
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4. BS8004:1986 Code of practice for foundations. British Standards Institution NHBC Standards, 2017. Chapter 4.2 Building Near Trees
5. BRE Special Digest 1, 2005: Concrete in Aggressive Ground
6. DEFRA, 2014. SP1010: Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document
7. Nathaniel C.P., McCaffrey, C., Gillet, A.G., Ogden R.C., and Nathaniel, J.F. 2015. The LQM/CIEH S4ULs for Human Health Risk Assessment (Copyright Land Quality Management Limited Reproduced with Permission; publication number S4UL3193)
8. Environment Agency. Waste Classification – Guidance on the classification and assessment of waste (1st edition 2015). Technical Guidance WM3
9. DWS, 2010. The Water Supply (Water Quality) Regulations 2010.
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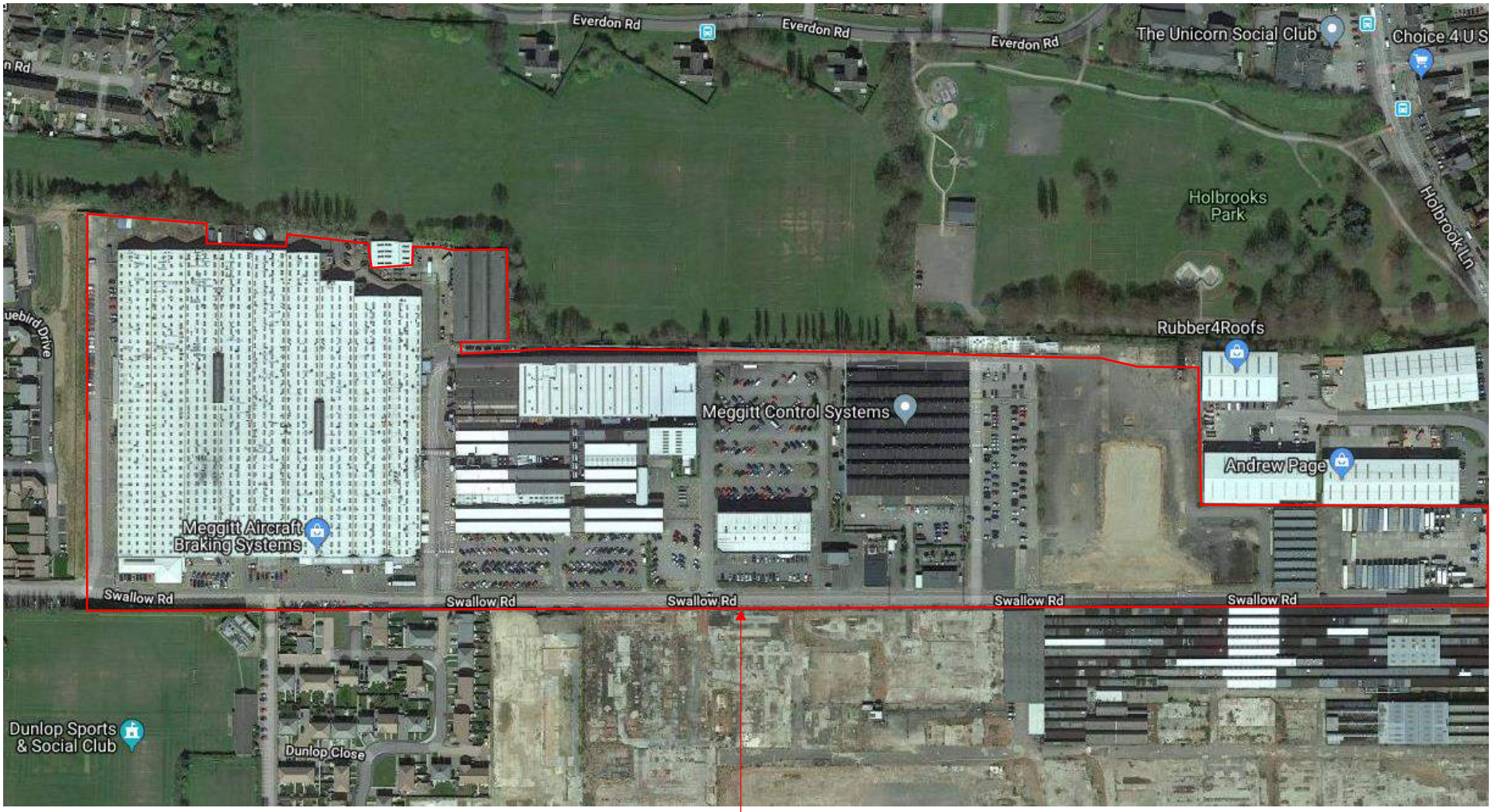
11. CL:AIRE, 2016. Control of Asbestos Regulations 2012 – Interpretation for Managing and Working with Asbestos in Soil and Construction and Demolition Materials: Industry guidance.
12. CIRIA C665, 2007. Assessing Risks Posed by Hazardous Ground Gases to Buildings.
13. Ramboll Environ, February 2017. Meggitt Aircraft Braking Systems, Coventry. Remediation Strategy. Ref. UK15-23312_RS. For Meggitt plc.

# 14.0 Figures and Appendices

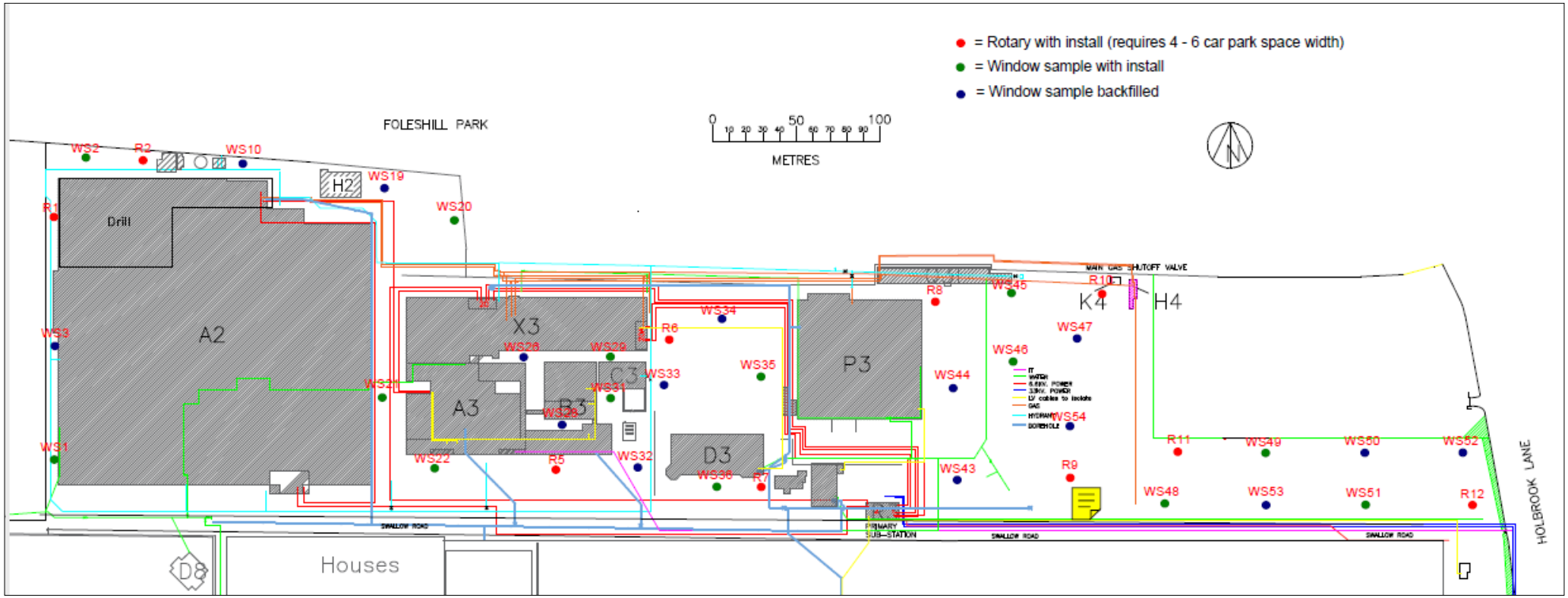
# Figure 1 – Local Location Plan



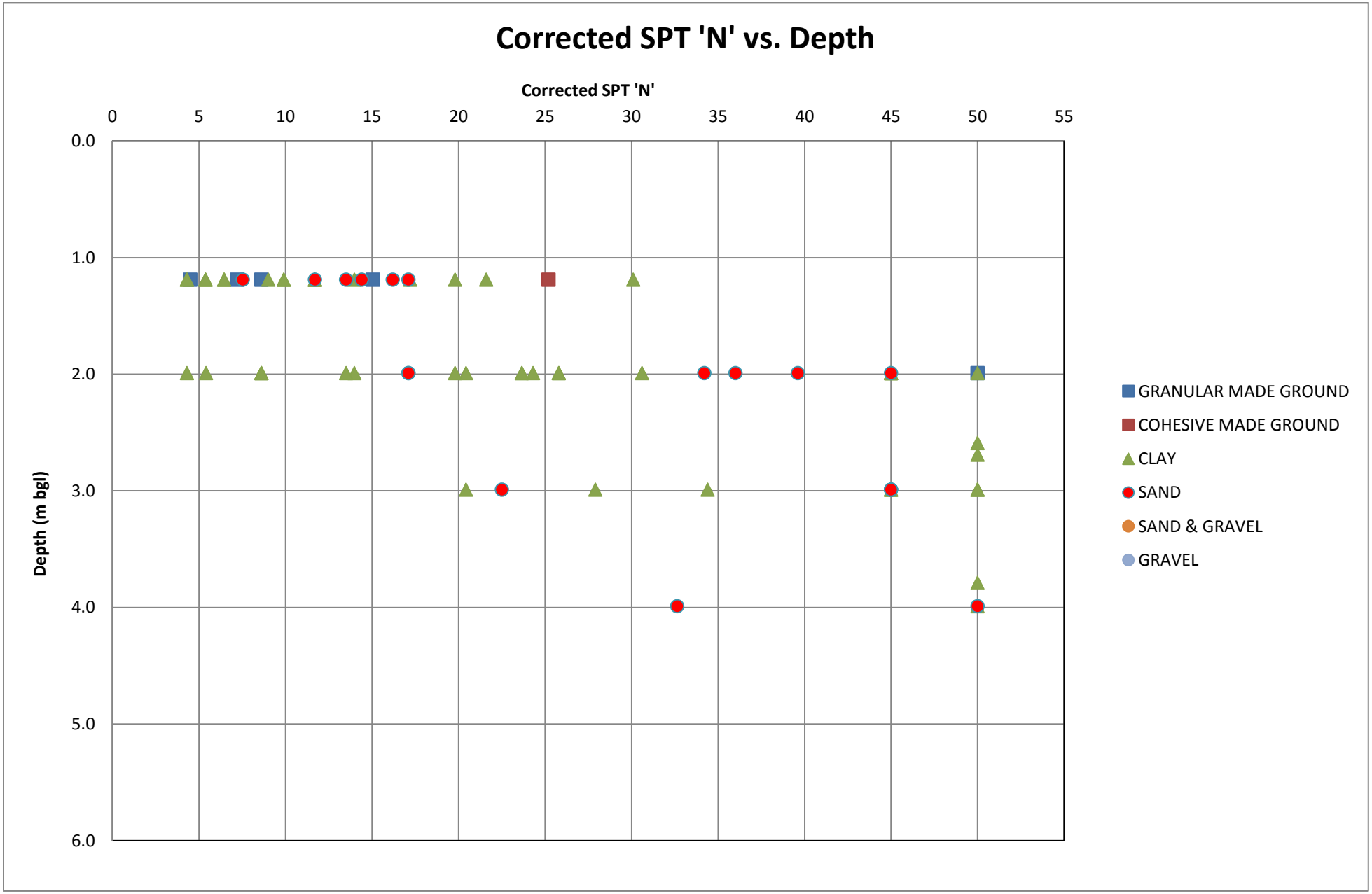

Site Location Outline

# Figure 2 – Exploratory Borehole Location Plan

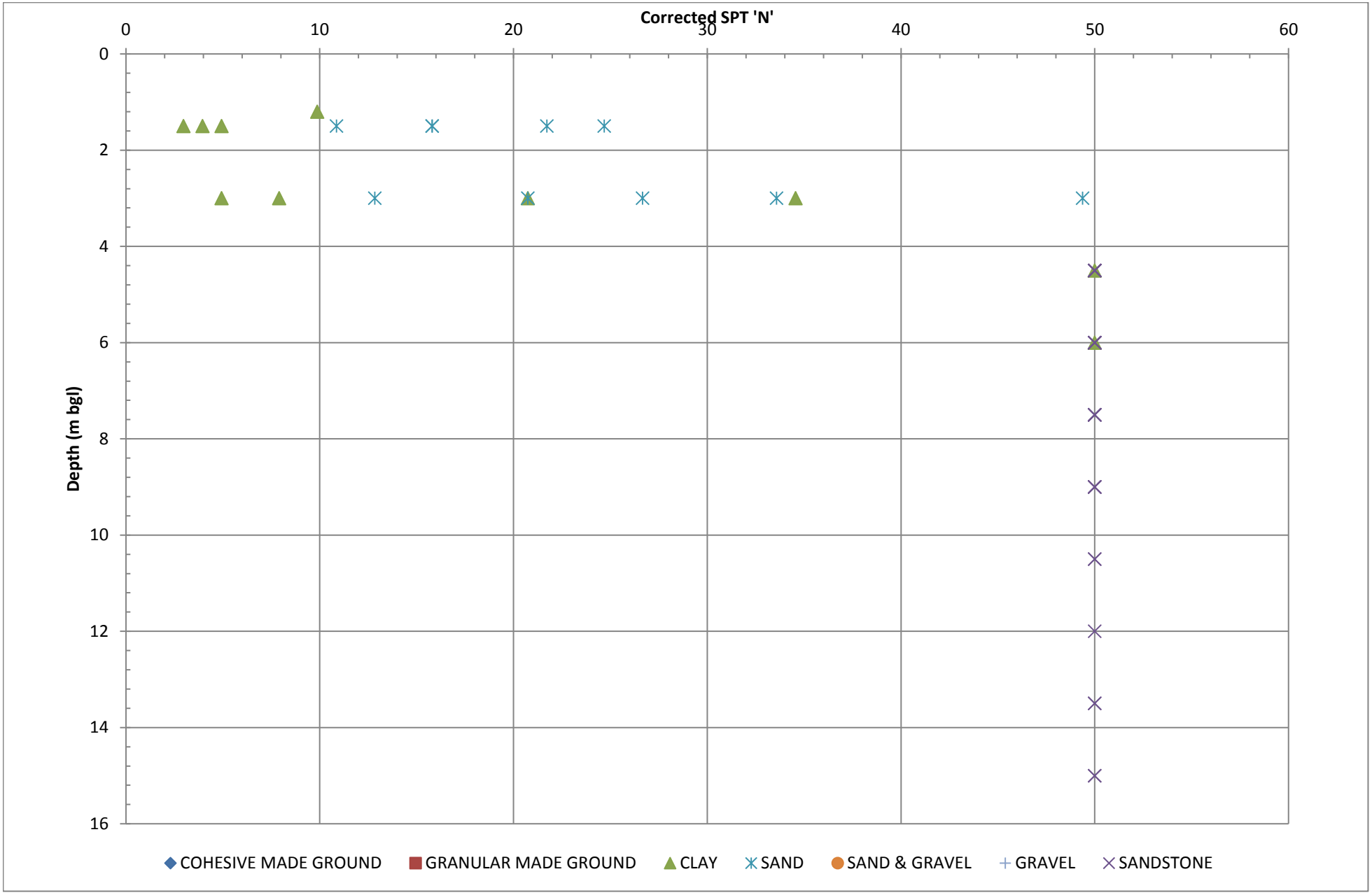
Figure 2: Exploratory Hole Location Plan



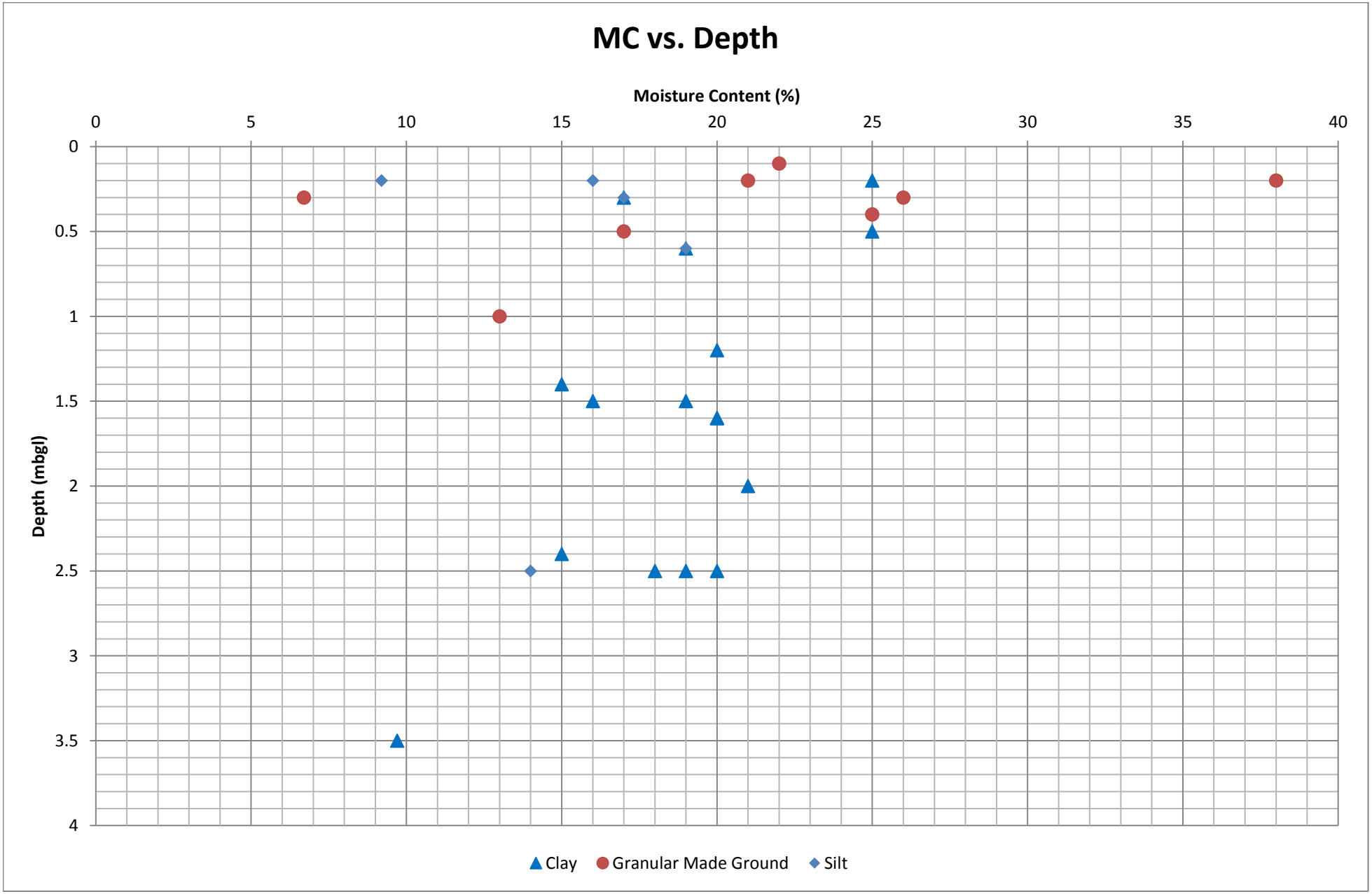
## Figure 3 – SPT 'N' Value v Depth (Window Samples)


Corrected SPT 'N' vs. Depth
Corrected SPT 'N'
0
5
10
15
20
25
30
35
40
45
50
55
0.0
1.0
2.0
3.0
4.0
5.0
6.0
Depth (m bgl)
GRANULAR MADE GROUND
COHESIVE MADE GROUND
CLAY
SAND
SAND & GRAVEL
GRAVEL

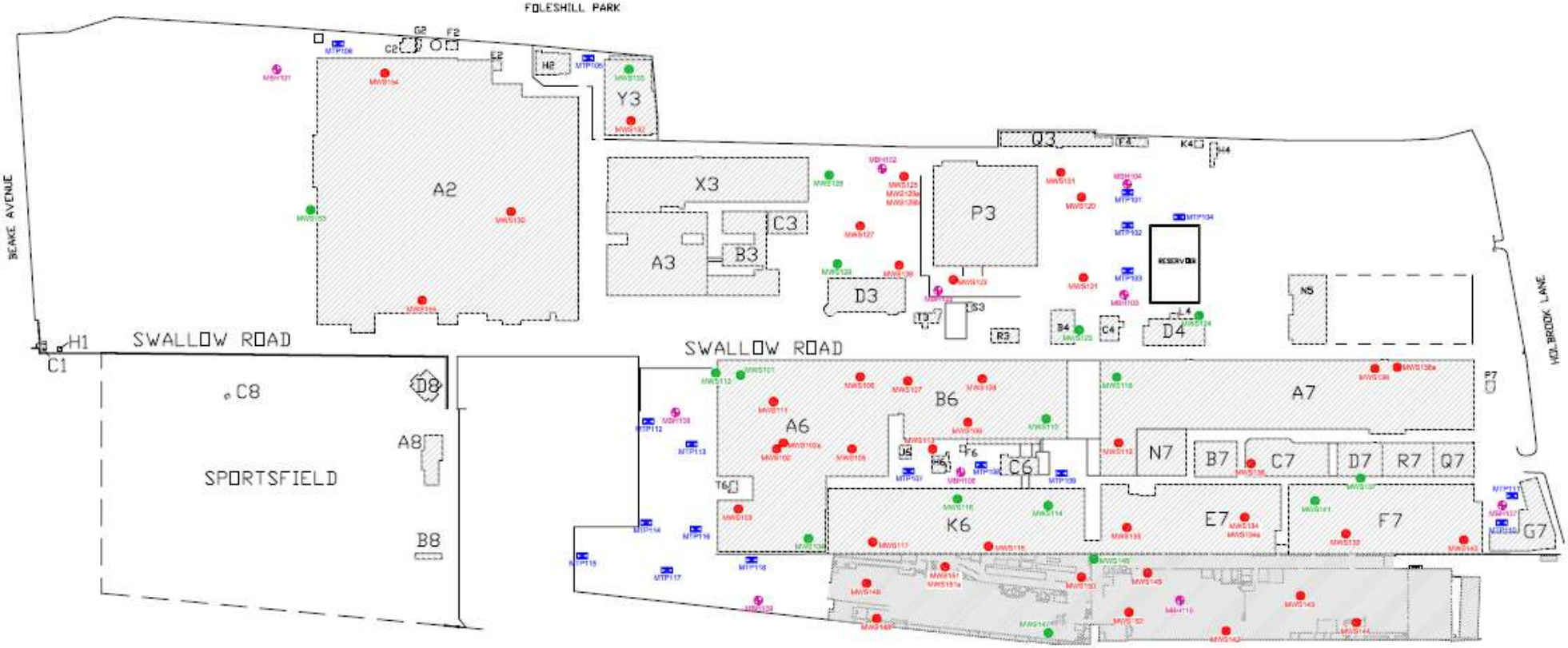
## Figure 4 – SPT 'N' Value v Depth (Rotary)


Corrected SPT 'N'
0
10
20
30
40
50
60
Depth (m bgl)
0
2
4
6
8
10
12
14
16
COHESIVE MADE GROUND
GRANULAR MADE GROUND
CLAY
SAND
SAND & GRAVEL
GRAVEL
SANDSTONE

## Figure 5 – Moisture Content versus Depth


MC vs. Depth
Moisture Content (%)
0
5
10
15
20
25
30
35
40
Depth (mbgl)
0
0.5
1
1.5
2
2.5
3
3.5
4
Clay
Granular Made Ground
Silt

## Figure 6 - Meerbrook Site Investigation Locations




Legend

- MWSref — Approximate Merebrook window sample location with reference
- MWSref — Approximate Merebrook window sample (with installed standpipe) location with reference
- MTPref — Approximate Merebrook trial pit location with reference
- MBHref — Approximate Merebrook borehole location with reference

merebrook consulting

Client: Clowes Developments/Meggitt Aerospace Ltd

Project: Meggitt/Stadco Coventry

Drg Title: Site Investigation Locations

| | | | |
|---|---|---|---|
| Job No. 17054a | Drg No. 17054a-004-001 | Revision - | |
| Scale N.T.S. | Date Feb 2012 | Paper Dimensions (A1) 791 x 594 | |
| Drawn D.M.S. | Checked R.M. | Approved L.S. | |

# Appendix A – Report Conditions

# Report Conditions

GROUND INVESTIGATION

This report is produced solely for the benefit of Meggitt Aerospace and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the site.

This report is based on a visual site inspection, reference to accessible referenced historical records, information supplied by those parties referenced in the text and preliminary discussions with local and Statutory Authorities. Some of the opinions are based on unconfirmed data and information and are presented as the best that can be obtained without further extensive research. Where ground contamination is suspected but no physical site test results are available to confirm this, the report must be regarded as initial advice only, and further assessment should be undertaken prior to activities related to the site. Where test results undertaken by others have been made available these can only be regarded as a limited sample. The possibility of the presence of contaminants, perhaps in higher concentrations, elsewhere on the site cannot be discounted.

Whilst confident in the findings detailed within this report because there are no exact UK definitions of these matters, being subject to risk analysis, we are unable to give categoric assurances that they will be accepted by Authorities or Funds etc. without question as such bodies often have unpublished, more stringent objectives. This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to WYGE. In time improved practices or amended legislation may necessitate a re-assessment.

The assessment of ground conditions within this report is based upon the findings of the study undertaken. We have interpreted the ground conditions in between locations on the assumption that conditions do not vary significantly. However, no investigation can inspect each and every part of the site and therefore changes or variances in the physical and chemical site conditions as described in this report cannot be discounted.

The report is limited to those aspects of land contamination specifically reported on and is necessarily restricted and no liability is accepted for any other aspect especially concerning gradual or sudden pollution incidents. The opinions expressed cannot be absolute due to the limitations of time and resources imposed by the agreed brief and the possibility of unrecorded previous use and abuse of the site and adjacent sites. The report concentrates on the site as defined in the report and provides an opinion on surrounding sites. If migrating pollution or contamination (past or present) exits further extensive research will be required before the effects can be better determined.

# Appendix B – Exploratory Hole Logs

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432754.00 | Northing: | 282397.00 |
| Level: | 116.00mAOD | Depth: | 9.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R1**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 16/02/2018 |
| Finish Date: | 16/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand dug pit | DSUK |
| 1.20 | 9.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 9.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 3.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| Brick and concrete fill. Rockoller through concrete between 0.7 and 0.9mbgl (drillers description) | | |
| Soft brown sandy CLAY (drillers description) | 0.90 | 115.10 |
| Loose red fine gravelly SAND (drillers description) | 1.40 | 114.60 |
| Weak red SANDSTONE (drillers description) | 3.30 | 112.70 |
| EOH at 9.00m - | 9.00 | 107.00 |

Legend

Water Level (m)

Inst / Backfill

**Samples, Tests and Rotary Coring**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 1.50 | | SPT(C) 1.50m, N=16 (1,3/3,4,4,5) |
| 3.00 | | SPT(C) 3.00m, N=21 (11,9/8,5,4,4) |
| 4.50 | | SPT(C) 4.50m, 50 (8,8/50 for 210mm) |
| 6.00 | | SPT(C) 6.00m, 50 (25 for 115mm/50 for 30mm) |
| 7.50 | | SPT(C) 7.50m, 50 (25 for 55mm/50 for 20mm) |
| 9.00 | | SPT(C) 9.00m, 50 (25 for 45mm/50 for 25mm) |

Depth scale: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

**Observations / Remarks**

Groundwater encountered at 3.0mbgl

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| 3.00 | - | - | 0 | 0.00 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433373.22 | Northing: | 282351.94 |
| Level: | 105.95mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R10**

Sheet 1 of 2

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 15.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 3.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 12/02/2018 |
| Finish Date: | 13/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Hand dug trial pit (drillers description) | | | | | | | | |
| Soft reddish brown silty CLAY (drillers description) | | 1.20 | 104.75 | | | | | SPT(C) 1.50m, N=5 (1,1/1,1,2,1) |
| | | | | | | | | SPT(C) 3.00m, N=21 (2,2/3,3,7,8) |
| Red weak SANDSTONE (drillers description) | | 3.30 | 102.65 | | | | | |
| | | | | | | | | SPT(C) 4.50m, 50 (25 for 50mm/50 for 55mm) |
| | | | | | | | | SPT(C) 6.00m, 50 (25 for 45mm/50 for 30mm) |
| | | | | | | | | SPT(C) 7.50m, 50 (25 for 25mm/50 for 30mm) |
| | | | | | | | | SPT(C) 9.00m, 50 (25 for 35mm/50 for 35mm) |
| Red weak MUDSTONE with occasional sandstone bands (drillers description) | | 9.80 | 96.15 | | | | | |

Continued on Next Page

**Observations / Remarks**

Groundwater encountered at 4.5mbgl.

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| 4.50 | - | - | 0 | 0.00 | |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433373.22 | Northing: | 282351.94 |
| Level: | 105.95mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R10**

Sheet 2 of 2

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 12/02/2018 |
| Finish Date: | 13/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 15.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 3.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SPT(C) 10.50m, 50 (25 for 30mm/50 for 30mm) |
| | | | | | | | | SPT(C) 12.00m, 50 (25 for 30mm/50 for 25mm) |
| | | | | | | | | SPT(C) 13.50m, 50 (25 for 35mm/50 for 25mm) |
| EOH at 15.00m - Full Depth | | 15.00 | 90.95 | | | | | SPT(C) 15.00m, 50 (25 for 30mm/50 for 35mm) |

11 12 13 14 15 16 17 18 19 20

**Observations / Remarks**

Groundwater encountered at 4.5mbgl.

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433409.56 | Northing: | 282274.22 |
| Level: | 105.55mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R11**

Sheet 1 of 2

| Method, Plant and Crew | | | | | Diameter | | Casing | | Drilling Progress by Time | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Date | Time | Depth (m) | Casing (m) | Water (m) |
| 0.00 | 1.20 | Inspection Pit | Hand dig pit | DSUK | 15.00 | 100 | 3.00 | 100 | | | | | |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK | | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 13/02/2018 |
| Finish Date: | 13/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Had dug trial pit - Rockroller between 0.3-0.7mbgl through concrete (drillers description) | | | | | | | | |
| Red brown soft clayey loose SAND (drillers description) | | 1.20 | 104.35 | | | | | SPT(C) 1.50m, N=25 (1,5/5,6,7,7) |
| Weak red SANDSTONE (drillers description) | | 3.10 | 102.45 | | | | | SPT(C) 3.00m, 50 (25 for 85mm/50 for 35mm) |
| Weak red MUDSTONE (drillers description) | | 6.00 | 99.55 | | | | | SPT(C) 4.50m, 50 (25 for 40mm/50 for 30mm) |
| Weak red SANDSTONE (drillers description) | | 8.20 | 97.35 | | | | | SPT(C) 6.00m, 50 (7,7/50 for 95mm) |
| | | | | | | | | SPT(C) 7.50m, 50 (25 for 70mm/50 for 80mm) |
| | | | | | | | | SPT(C) 9.00m, 50 (12,13/50 for 55mm) |

Continued on Next Page

**Observations / Remarks**

Groundwater encountered at 6.0mbgl

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

| Location Details | | | |
|---|---|---|---|
| Easting: | 433409.56 | Northing: | 282274.22 |
| Level: | 105.55mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

Status: DRAFT

Borehole Number: **R11**



| Method, Plant and Crew | | | | | Diameter | | Casing | | Drilling Progress by Time | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Date | Time | Depth (m) | Casing (m) | Water (m) |
| 0.00 | 1.20 | Inspection Pit | Hand dig pit | DSUK | 15.00 | 100 | 3.00 | 100 | | | | | |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK | | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 13/02/2018 |
| Finish Date: | 13/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SPT(C) 10.50m, 50 (25 for 60mm/50 for 45mm) |
| | | | | | | | | SPT(C) 12.00m, 50 (25 for 40mm/50 for 30mm) |
| | | | | | | | | SPT(C) 13.50m, 50 (25 for 30mm/50 for 35mm) |
| EOH at 15.00m - Full Depth | | 15.00 | 90.55 | | | | | SPT(C) 15.00m, 50 (25 for 25mm/50 for 30mm) |

Depth scale: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

| Observations / Remarks |
|---|
| Groundwater encountered at 6.0mbgl |

| Flushing | | | | |
|---|---|---|---|---|
| From (m) | To (m) | Return Min % | Colour | Type |
| | | | | |

| Hammer Information | |
|---|---|
| Serial No. | Energy Ratio % |
| SC.01 | 79 |

| Groundwater | | | | | |
|---|---|---|---|---|---|
| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
| | | | | | |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433564.09 | Northing: | 282237.45 |
| Level: | 103.71mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R12**

Sheet 1 of 2

| Method, Plant and Crew | | | | | Diameter | | Casing | | Drilling Progress by Time | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Date | Time | Depth (m) | Casing (m) | Water (m) |
| 0.00 | 1.20 | Inspection Pit | Hand dug pit | DSUK | 15.00 | 100 | 3.00 | 100 | | | | | |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK | | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 14/02/2018 |
| Finish Date: | 14/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| MADE GROUND comprising concrete and brick fill (drillers description) | | | | | | | | |
| Brown soft silty CLAY (drillers description) | | 0.80 | 102.91 | | | | | |
| Reddish brown clayey loose SAND (drillers description) | | 1.20 | 102.51 | | | | | SPT(C) 1.50m, N=16 (2,3/3,4,4,5) |
| | | | | | | | | SPT(C) 3.00m, N=34 (6,7/8,8,8,10) |
| Weak red SANDSTONE (drillers description) | | 3.20 | 100.51 | | | | | SPT(C) 4.50m, 50 (25 for 60mm/50 for 50mm) |
| | | | | | | | | SPT(C) 6.00m, 50 (25 for 20mm/50 for 20mm) |
| | | | | | | | | SPT(C) 7.50m, 50 (25 for 30mm/50 for 25mm) |
| Weak red MUDSTONE (drillers description) | | 8.20 | 95.51 | | | | | |
| | | | | | | | | SPT(C) 9.00m, 50 (7,9/50 for 85mm) |
| Weak red SANDSTONE (drillers description) | | 9.20 | 94.51 | | | | | |

Continued on Next Page

Observations / Remarks

Groundwater encountered at 5.5mbgl

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| 5.50 | - | - | 0 | 0.00 | |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433564.09 | Northing: | 282237.45 |
| Level: | 103.71mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

Status: DRAFT

Borehole Number: **R12**

Sheet 2 of 2

| Method, Plant and Crew | | | | | Diameter | | Casing | | Drilling Progress by Time | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Date | Time | Depth (m) | Casing (m) | Water (m) |
| 0.00 | 1.20 | Inspection Pit | Hand dug pit | DSUK | 15.00 | 100 | 3.00 | 100 | | | | | |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK | | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 14/02/2018 |
| Finish Date: | 14/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SPT(C) 10.50m, 50 (25 for 55mm/50 for 60mm) |
| Weak red MUDSTONE (drillers description) | | 11.80 | 91.91 | | | | | SPT(C) 12.00m, 50 (25 for 70mm/50 for 80mm) |
| | | | | | | | | SPT(C) 13.50m, 50 (25 for 50mm/50 for 60mm) |
| EOH at 15.00m - Full Depth | | 15.00 | 88.71 | | | | | SPT(C) 15.00m, 50 (25 for 90mm/50 for 80mm) |

11 12 13 14 15 16 17 18 19 20

**Observations / Remarks**

Groundwater encountered at 5.5mbgl

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432787.52 | Northing: | 282439.64 |
| Level: | 114.00mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

Status: DRAFT

Borehole Number: **R2**

Sheet 1 of 2

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 14/02/2018 |
| Finish Date: | 14/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand dug pit | DSUK |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 15.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 3.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Hand dug trial pit (drillers description) | | | | | | | | |
| Soft red silty CLAY (drillers description) | | 1.20 | 112.80 | | | | | SPT(C) 1.50m, N=4 (1,0/1,1,1,1) |
| | | | | | | | | SPT(C) 3.00m, N=5 (1,0/1,1,2,1) |
| Weak red MUDSTONE (drillers description) | | 3.70 | 110.30 | | | | | SPT(C) 4.50m, 50 (25 for 125mm/50 for 105mm) |
| | | | | | | | | SPT(C) 6.00m, 50 (3,4/50 for 250mm) |
| | | | | | | | | SPT(C) 7.50m, 50 (25 for 85mm/50 for 70mm) |
| | | | | | | | | SPT(C) 9.00m, 50 (25 for 40mm/50 for 20mm) |

Continued on Next Page

**Observations / Remarks**

Groundwater encountered at 3.0mbgl

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| 3.00 | - | - | 0 | 0.00 | |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432787.52 | Northing: | 282439.64 |
| Level: | 114.00mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R2**

Sheet 2 of 2

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 14/02/2018 |
| Finish Date: | 14/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand dug pit | DSUK |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 15.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 3.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SPT(C) 10.50m, 50 (25 for 30mm/50 for 30mm) |
| | | | | | | | | SPT(C) 12.00m, 50 (25 for 95mm/50 for 60mm) |
| Weak red SANDSTONE (drillers description) | | 12.70 | 101.30 | | | | | |
| | | | | | | | | SPT(C) 13.50m, 50 (25 for 60mm/50 for 35mm) |
| EOH at 15.00m - Full Depth | | 15.00 | 99.00 | | | | | SPT(C) 15.00m, 50 (35 for 30mm/50 for 25mm) |

Depth scale: 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

**Observations / Remarks**

Groundwater encountered at 3.0mbgl

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432944.42 | Northing: | 282365.11 |
| Level: | 111.07mAOD | Depth: | 6.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R5**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 15/02/2018 |
| Finish Date: | 15/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand dug pit | DSUK |
| 1.20 | 6.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 6.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 3.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| Hand dug trial pit (drillers description) | | |
| Brown soft silty CLAY (drillers description) | 1.20 | 109.87 |
| Red soft sandy CLAY (drillers description) | 1.70 | 109.37 |
| EOH at 6.00m - Borehole collapse | 6.00 | 105.07 |

**Samples, Tests and Rotary Coring**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| | | SPT(C) 1.50m, N=3 (1,0/1,0,1,1) |
| | | SPT(C) 3.00m, N=8 (1,1/2,2,2,2) |
| | | SPT(C) 4.50m, 50 (25 for 85mm/50 for 65mm) |
| | | SPT(C) 6.00m, 50 (25 for 35mm/50 for 20mm) |

**Observations / Remarks**

Groundwater encountered at 5.0mbgl. Borehole terminated at 6.0mbgl due to collapse.

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| 5.00 | - | - | 0 | 0.00 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433113.00 | Northing: | 282338.00 |
| Level: | 111.00mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R6**

Sheet 1 of 2

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 15/02/2018 |
| Finish Date: | 15/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand dug pit | DSUK |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 15.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 3.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| Brick and concrete fill (drillers description) | | |
| Brown gravelly SAND (drillers description) | 0.70 | 110.30 |
| Weak red MUDSTONE | 2.60 | 108.40 |

Legend | Water Level (m) | Inst / Backfill

**Samples, Tests and Rotary Coring**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| | | SPT(C) 1.50m, N=5 (1,2/1,1,2,1) |
| | | SPT(C) 3.00m, N=25 (4,5/6,6,6,7) |
| | | SPT(C) 4.50m, 50 (6,12/50 for 95mm) |
| | | SPT(C) 6.00m, N=43 (4,8/10,11,11,11) |
| | | SPT(C) 7.50m, 50 (25 for 95mm/50 for 115mm) |
| | | SPT(C) 9.00m, 50 (12,12/50 for 85mm) |

1 2 3 4 5 6 7 8 9 10

Continued on Next Page

**Observations / Remarks**

Groundwater encountered at 5.0mbgl.

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| 5.00 | - | - | 0 | 0.00 | |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433113.00 | Northing: | 282338.00 |
| Level: | 111.00mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

Status: DRAFT

Borehole Number: **R6**



**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand dug pit | DSUK |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 15.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 3.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 15/02/2018 |
| Finish Date: | 15/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | SPT(C) 10.50m, 50 (25 for 85mm/50 for 70mm) |
| Weak red SANDSTONE | | 11.20 | 99.80 | | | | | SPT(C) 12.00m, 50 (25 for 95mm/50 for 85mm) |
| | | | | | | | | SPT(C) 13.50m, 50 (25 for 65mm/50 for 80mm) |
| EOH at 15.00m - Full Depth | | 15.00 | 96.00 | | | | | SPT(C) 15.00m, 50 (25 for 50mm/50 for 60mm) |

11 12 13 14 15 16 17 18 19 20

**Observations / Remarks**

Groundwater encountered at 5.0mbgl.

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433181.49 | Northing: | 282235.25 |
| Level: | 108.71mAOD | Depth: | 8.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R7**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 15/02/2018 |
| Finish Date: | 16/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand dug pit | DSUK |
| 1.20 | 8.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 8.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 8.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Hand dug trial pit (drillers description) | | | | | | | | |
| Red loose gravelly SAND (drillers description) | | 1.20 | 107.51 | | | | | SPT(C) 1.50m, N=11 (1,2/2,3,3,3) |
| | | | | | | | | SPT(C) 3.00m, N=27 (2,4/6,6,8,7) |
| Weak red SANDSTONE (drillers description) | | 3.20 | 105.51 | | | | | SPT(C) 4.50m, 50 (25 for 50mm/50 for 35mm) |
| | | | | | | | | SPT(C) 6.00m, 50 (25 for 40mm/50 for 60mm) |
| | | | | | | | | SPT(C) 7.50m, 50 (25 for 60mm/50 for 45mm) |
| EOH at 8.00m - | | 8.00 | 100.71 | | | | | |

Depth scale: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10

**Observations / Remarks**

Groundwater encountered at 5.5mbgl

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433270.92 | Northing: | 282357.38 |
| Level: | 106.71mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R8**

Sheet 1 of 2

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 12/02/2018 |
| Finish Date: | 12/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.50 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.50 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 15.00 | 150 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 15.00 | 150 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| CONCRETE | | |
| Soft dark brown silty gravelly CLAY (drillers description) | 0.40 | 106.31 |
| Dark reddish brown clayey SAND (drillers description) | 1.50 | 105.21 |
| Red weak SANDSTONE with occasional clay bands (drillers description) | 3.70 | 103.01 |
| Continued on Next Page | 10.00 | 96.71 |

Legend | Water Level (m) | Inst / Backfill

**Samples, Tests and Rotary Coring**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 1.50 | | SPT(C) 1.50m, N=22 (3,4/4,5,6,7) |
| 3.00 | | SPT(C) 3.00m, N=13 (3,3/3,3,3,4) |
| 4.50 | | SPT(C) 4.50m, 50 (25 for 30mm/50 for 30mm) |
| 6.00 | | SPT(C) 6.00m, 50 (25 for 35mm/50 for 30mm) |
| 7.50 | | SPT(C) 7.50m, 50 (25 for 35mm/50 for 30mm) |
| 9.00 | | SPT(C) 9.00m, 50 (25 for 40mm/50 for 35mm) |

**Observations / Remarks**

Groundwater encountered at 1.5mbgl.

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| 1.50 | - | - | 0 | 0.00 | |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433270.92 | Northing: | 282357.38 |
| Level: | 106.71mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R8**

Sheet 2 of 2

| Method, Plant and Crew | | | | | Diameter | | Casing | | Drilling Progress by Time | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Date | Time | Depth (m) | Casing (m) | Water (m) |
| 0.00 | 1.50 | Inspection Pit | Hand Dug Pit | DSUK | 15.00 | 150 | 15.00 | 150 | | | | | |
| 1.50 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK | | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 12/02/2018 |
| Finish Date: | 12/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Dark red weak MUDSTONE with sandstone bands (drillers description) | | | | | | | | SPT(C) 10.50m, 50 (25 for 40mm/50 for 45mm) |
| | | | | | | | | SPT(C) 12.00m, 50 (25 for 35mm/50 for 40mm) |
| | | | | | | | | SPT(C) 13.50m, 50 (25 for 40mm/50 for 45mm) |
| EOH at 15.00m - Full Depth | | 15.00 | 91.71 | | | | | SPT(C) 15.00m, 50 (25 for 30mm/50 for 25mm) |

11 12 13 14 15 16 17 18 19 20

**Observations / Remarks**

Groundwater encountered at 1.5mbgl.

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433362.79 | Northing: | 282259.68 |
| Level: | 105.76mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R9**

Sheet 1 of 2

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 15.00 | 100 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 3.00 | 100 |

**Drilling Progress by Time**

| Date | Time | Depth (m) | Casing (m) | Water (m) |
|---|---|---|---|---|
| | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 13/02/2018 |
| Finish Date: | 13/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Hand dug pit (drillers description) | | | | | | | | |
| Red brown soft silty CLAY (drillers description) | | 1.20 | 104.56 | | | | | SPT(C) 1.50m, N=10 (1,1/2,3,2,3) |
| | | | | | | | | SPT(C) 3.00m, N=35 (2,4/7,8,8,12) |
| Red weak SANDSTONE (drillers description) | | 3.70 | 102.06 | | | | | |
| | | | | | | | | SPT(C) 4.50m, 50 (25 for 60mm/50 for 55mm) |
| | | | | | | | | SPT(C) 6.00m, 50 (25 for 30mm/50 for 25mm) |
| | | | | | | | | SPT(C) 7.50m, 50 (25 for 40mm/50 for 30mm) |
| | | | | | | | | SPT(C) 9.00m, 50 (25 for 70mm/50 for 25mm) |

Continued on Next Page

**Observations / Remarks**

Groundwater encountered at 4.5mbgl

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| 4.50 | - | - | 0 | 0.00 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433362.79 | Northing: | 282259.68 |
| Level: | 105.76mAOD | Depth: | 15.00m |
| Logger: | JP | Type: | RO |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **R9**

Sheet 2 of 2

| Method, Plant and Crew | | | | | Diameter | | Casing | | Drilling Progress by Time | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Date | Time | Depth (m) | Casing (m) | Water (m) |
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK | 15.00 | 100 | 3.00 | 100 | | | | | |
| 1.20 | 15.00 | Rotary Open Hole | Comachio MC 450 | DSUK | | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 13/02/2018 |
| Finish Date: | 13/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples, Tests and Rotary Coring: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Red weak MUDSTONE with sandstone bands (drillers description) | | 10.50 | 95.26 | | | | | SPT(C) 10.50m, 50 (25 for 55mm/50 for 30mm) |
| | | | | | | | | SPT(C) 12.00m, 50 (25 for 60mm/50 for 30mm) |
| | | | | | | | | SPT(C) 13.50m, 50 (25 for 50mm/50 for 30mm) |
| EOH at 15.00m - Full Depth | | 15.00 | 90.76 | | | | | SPT(C) 15.00m, 50 (25 for 45mm/50 for 25mm) |

11 12 13 14 15 16 17 18 19 20

**Observations / Remarks**

Groundwater encountered at 4.5mbgl

**Flushing**

| From (m) | To (m) | Return Min % | Colour | Type |
|---|---|---|---|---|
| | | | | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| SC.01 | 79 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Time (min) | Rose To (m) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432751.00 | Northing: | 282255.00 |
| Level: | 117.00mAOD | Depth: | 3.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS01**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 09/02/2018 |
| Finish Date: | 09/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Pitting Tools | DSUK |
| 1.20 | 3.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 87 |
| 3.00 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill |
|---|---|---|---|---|
| Asphalt | | | | |
| MADE GROUND comprising purple brown to black slightly silty sandy GRAVEL. Gravel is fine to coarse sub-angular to sub-rounded asphalt, concrete, brick, slate and quartzite with rare metal. | 0.12 | 116.88 | | |
| Red slightly gravelly slightly clayey SAND. Sand is fine to medium. Gravel is sub-rounded to rounded quartzite. | 0.50 | 116.50 | | |
| Soft brown slightly gravelly slightly sandy CLAY. Gravel is sub-angular to rounded quartz. *Red in colour and no gravel from 1.7mbgl* *Becoming stiff and very friable from 2.4mbgl.* | 1.40 | 115.60 | | |
| EOH at 3.00m - Refusal | 3.00 | 114.00 | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.30 | D1 | |
| 0.30 | ES1 | |
| 0.60 | D2 | |
| | | SPT(C) 1.20m, N=7 (3,3/2,2,1,2) |
| 1.50 | D3 | |
| 2.00 | D4 | SPT(C) 2.00m, N=24 (3,3/4,5,6,9) |
| 2.00 - 3.00 | B1 | |
| 3.00 | D5 | SPT(C) 3.00m, 50 (10,13/50 for 265mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Hole terminated at 3.0mbgl due to refusal .

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 0.00 | 1.20 | 250 | 100 | |
| 1.20 | 2.00 | 87 | 100 | |
| 2.00 | 3.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| | |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432766.54 | Northing: | 282442.74 |
| Level: | 114.42mAOD | Depth: | 3.60m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS02**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 09/02/2018 |
| Finish Date: | 09/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 3.60 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 87 |
| 3.00 | 77 |
| 3.60 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| CONCRETE | 0.15 | 114.27 |
| MADE GROUND comprising soft dark brown slightly sandy slightly gravelly CLAY with low cobble content. Sand is fine to coarse. Gravel is sub-angular fine to coarse brick, concrete, mudstone and flint. Cobbles are sub-angular mudstone and brick. | 0.50 | 113.92 |
| MADE GROUND comprising firm orangeish brown slightly gravelly silty CLAY. Gravel is sub-rounded fine to medium flint and mudstone. | 1.00 | 113.42 |
| MADE GROUND comprising black ashy GRAVEL of sub-angular fine to coarse clinker, brick and flint. | 1.40 | 113.02 |
| Very stiff oragneish brown slightly gravelly silty CLAY. Gravel is sub-angular fine to medium flint. | 2.90 | 111.52 |
| Weak weathered orangeish brown MUDSTONE | 3.40 | 111.02 |
| Weak weathered orangeish brown SANDSTONE | 3.60 | 110.82 |
| EOH at 3.60m - Refusal | | |

Legend | Water Level (m) | Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.20 | D2 | |
| 0.20 | ES1 | |
| 0.60 | D3 | |
| 1.10 | D4 | |
| 1.10 | ES5 | SPT(C) 1.20m, N=8 (2,2/2,2,2,2) |
| 1.50 | D6 | |
| | | SPT(C) 2.00m, N=22 (2,3/4,6,6,6) |
| 3.00 | D7 | SPT(C) 3.00m, N=23 (3,4/4,5,6,8) |
| 3.50 | D8 | |
| | | SPT(C) 3.60m, 50 (25 for 105mm/50 for 135mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.6mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |
| 3.00 | 2.00 | 77 | 100 | |
| 3.60 | 3.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432749.12 | Northing: | 282320.81 |
| Level: | 114.77mAOD | Depth: | 3.00m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS03**

Sheet 1 of 1

| Method, Plant and Crew | | | | | Diameter | | Casing | | Groundwater | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK | 1.20 | 250 | 1.20 | 100 | | | | | | |
| 1.20 | 3.00 | Window Sampler | Premier Tracker 110 | DSUK | 2.00 | 77 | | | | | | | | |
| | | | | | 3.00 | 67 | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 09/02/2018 |
| Finish Date: | 09/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples and Testing: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| CONCRETE | | | | | | | | |
| MADE GROUND comprising orangeish brown to black ashy GRAVEL of sub-angular fine to coarse brick, concrete and clinker. | | 0.18 | 114.59 | | | 0.20<br>0.30 | D1<br>ES2 | |
| Firm greyish orange slightly gravelly silty CLAY. Gravel is sub-rounded fine to medium flint. | | 0.50 | 114.27 | | | 0.60 | D3 | |
| | | | | | | | | SPT(C) 1.20m, N=4 (1,0/1,1,1,1) |
| *Becoming orangeish brown in colour from 1.6mbgl* | | | | | | 1.60 | D4 | |
| | | | | | | | | SPT(C) 2.00m, N=13 (2,2/2,2,4,5) |
| Weak weathered orangeish brown MUDSTONE. | | 2.10 | 112.67 | | | 2.20 | D5 | |
| EOH at 3.00m - Refusal | | 3.00 | 111.77 | | | 3.00 | D6 | SPT(C) 3.00m, 50 (25 for 105mm/50 for 180mm) |

Observations / Remarks

Groundwater not encountered. Borehole terminated at 3.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |
| 3.00 | 2.00 | 67 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432862.92 | Northing: | 282435.10 |
| Level: | 112.55mAOD | Depth: | 3.50m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS10**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 09/02/2018 |
| Finish Date: | 09/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 3.50 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 3.00 | 77 |
| 3.50 | 67 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| CONCRETE | | |
| MADE GROUND comprising black ashy GRAVEL. Gravel is sub-angular to sub-rounded fine to coarse clinker, concrete and mudstone. | 0.16 | 112.39 |
| Firm orangeish brown slightly gravelly silty CLAY. Gravel is sub-angular fine to medium flint. | 0.60 | 111.95 |
| *Soft from 1.3mbgl* | | |
| *Stiff from 1.9mbgl* | | |
| Weak weathered reddish orange MUDSTONE | 2.80 | 109.75 |
| EOH at 3.50m - Refusal | 3.50 | 109.05 |

Legend | Water Level (m) | Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.20 | D2 | |
| 0.20 | ES1 | |
| 0.70 | D3 | |
| | | SPT(C) 1.20m, N=5 (1,1/1,1,1,2) |
| 1.40 | D4 | |
| 2.00 | D5 | SPT(C) 2.00m, N=19 (2,2/3,4,5,7) |
| 3.00 | D6 | SPT(C) 3.00m, N=25 (3,3/4,5,7,9) |
| | | SPT(C) 3.50m, 50 (12,12/50 for 210mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.5mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |
| 3.00 | 2.00 | 77 | 100 | |
| 3.50 | 3.00 | 67 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432940.27 | Northing: | 282423.69 |
| Level: | 111.08mAOD | Depth: | 3.00m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS19**

Sheet 1 of 1

| Method, Plant and Crew | | | | | Diameter | | Casing | | Groundwater | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK | 1.20 | 250 | 1.20 | 100 | | | | | | |
| 1.20 | 3.00 | Window Sampler | Premier Tracker 110 | DSUK | 3.00 | 77 | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 07/02/2018 |
| Finish Date: | 07/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples and Testing: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| CONCRETE | | 0.19 | 110.89 | | | 0.20<br>0.20 | D2<br>ES1 | |
| MADE GROUND comprising black gravelly SILT with medium cobble content. Gravel is sub-angular fine to coarse brick, clinker, concrete and flint. Cobbles are angular to sub-angular brick. | | 0.40 | 110.68 | | | 0.50<br>0.50 | D4<br>ES3 | |
| MADE GROUND comprising firm dark orangeish brown silty gravelly CLAY. Gravel is sub-angular to sub-rounded fine to coarse brick, concrete, clinker and flint. | | 1.00 | 110.08 | | | 1.10<br>1.30 - 2.00 | D5<br>B6 | SPT(C) 1.20m, N=5 (0,0/1,1,1,2) |
| Firm orangeish brown slightly gravelly silty CLAY. Gravel is sub-rounded fine to medium flint.<br>*Silt lense between 1.1 and 1.2mbgl*<br>*Stiff from 1.3mbgl* | | | | | | 2.00 - 3.00 | B7 | SPT(C) 2.00m, N=8 (1,1/1,2,2,3) |
| EOH at 3.00m - Refusal | | 3.00 | 108.08 | | | | | SPT(C) 3.00m, 50 (7,9/50 for 275mm) |

Observations / Remarks

Groundwater not encountered. Borehole terminated at 3.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |
| 3.00 | 2.00 | 77 | 90 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432982.51 | Northing: | 282402.10 |
| Level: | 110.82mAOD | Depth: | 4.00m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS20**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 07/02/2018 |
| Finish Date: | 07/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 4.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 87 |
| 4.00 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| CONCRETE | | |
| MADE GROUND black slightly gravelly SILT. Gravel is sub-angular fine to medium flint, brick and clinker. | 0.18 | 110.64 |
| Firm dark orangeish brown slightly silty slightly gravelly CLAY. Gravel is sub-rounded fine to medium flint and wood.<br>*No wood from 1.4mbgl*<br>*Silt lense at 1.5mbgl*<br>*Stiff from 2.75mbgl*<br>*No gravel from 2.8mbgl*<br>*Hard from 3.0mbgl* | 1.00 | 109.82 |
| EOH at 4.00m - Refusal | 4.00 | 106.82 |

Legend

Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.20 | D2 | |
| 0.20 | ES1 | |
| 0.80 | ES3 | |
| 1.10 | D4 | SPT(C) 1.20m, N=6 (1,1/1,2,1,2) |
| 1.50 - 2.50 | B5 | |
| | | SPT(C) 2.00m, N=8 (1,1/2,2,2,2) |
| 2.80 | D6 | |
| 3.00 - 4.00 | B7 | SPT(C) 3.00m, N=32 (3,5/6,8,9,9) |
| | | SPT(C) 4.00m, 50 (8,9/50 for 245mm) |

Water Level (m)

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 4.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |
| 3.00 | 2.00 | 77 | 100 | |
| 4.00 | 3.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number

**A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432944.45 | Northing: | 282294.26 |
| Level: | 111.54mAOD | Depth: | 4.00m |
| Logger: | SC +SC | Type: | WS |
| | | Inclination: | ° |

**Status**: DRAFT

**Borehole Number**: **WS21**

Sheet 1 of 1

| Method, Plant and Crew | | | | | Diameter | | Casing | | Groundwater | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
| 0.00 | 1.20 | Inspection Pit | Hand Pitting Tools | DSUK | 1.20 | 250 | 1.20 | 250 | | | | | | |
| 1.20 | 4.00 | Window Sampler | Premier Tracker 110 | DSUK | 2.00 | 77 | | | | | | | | |
| | | | | | 4.00 | 67 | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 08/02/2018 |
| Finish Date: | 08/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples and Testing: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Asphalt | | 0.13 | 111.41 | | | | | |
| Concrete with 10mm reinforcement bar. | | 0.29 | 111.25 | | | | | |
| MADE GROUND comprising dark brown to black slightly clayey slightly sandy GRAVEL with medium cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick, coal, ash, clinker and quartzite with rare metal. Cobbles are angular to sub-angular brick and concrete. | | 0.70 | 110.84 | | | 0.50<br>0.50 | D2<br>ES1 | |
| Yellowish brown to light brown gravelly SAND. Gravel is sub-angular to rounded fine to coarse quartzite. | | 1.10 | 110.44 | | | 0.90 | D3 | |
| Soft to firm red slightly silty CLAY with fine to medium sand lenses throughout.<br>*Slightly gravelly between 1.7 and 1.9mbgl. Gravel is sub-rounded quartzite.* | | 2.60 | 108.94 | | | 1.20<br>2.00 | D4<br>D5 | SPT(C) 1.20m, N=13 (1,1/2,4,3,4)<br>SPT(C) 2.00m, N=22 (2,2/3,7,6,6) |
| Red weak MUDSTONE | | 4.00 | 107.54 | | | 2.80<br>4.00 | D6<br>D7 | SPT(C) 3.00m, N=44 (6,8/10,9,11,14)<br>SPT(C) 4.00m, N=50 (7,9/10,12,13,15) |
| EOH at 4.00m - Refusal | | | | | | | | |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Hole terminated at 4.0mbgl.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |
| 3.00 | 2.00 | 67 | 90 | |
| 4.00 | 3.00 | 67 | 85 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 432971.21 | Northing: | 282252.86 |
| Level: | 111.60mAOD | Depth: | 2.90m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS22**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 09/02/2018 |
| Finish Date: | 09/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 2.90 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 87 |
| 2.90 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| Asphalt | | |
| MADE GROUND comprising dark brown to black ashy GRAVEL with abundant rootlets. Gravel is sub-angular fine to coarse clinker and asphalt. | 0.15 | 111.44 |
| Firm to stiff orangeish brown slightly gravelly silty CLAY. Gravel is sub-rounded fine tom coarse flint. *Black discolouration (no odour) at 0.8mbgl* *Stiff from 1.5mbgl* | 0.50 | 111.10 |
| Weak weathered orangeish brown MUDSTONE | 2.50 | 109.10 |
| EOH at 2.90m - Refusal | 2.90 | 108.70 |

Legend

Water Level (m)

Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.20 | D2 | |
| 0.20 | ES1 | |
| 0.60 | D4 | |
| 0.60 | ES3 | |
| | | SPT(C) 1.20m, N=6 (0,0/1,2,1,2) |
| 1.50 | D5 | |
| | | SPT(C) 2.00m, N=8 (1,1/2,1,2,3) |
| 2.60 | D6 | |
| | | SPT(C) 2.90m, 50 (25 for 145mm/50 for 160mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 2.9mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |
| 2.90 | 2.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number

**A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433021.00 | Northing: | 282327.00 |
| Level: | 112.00mAOD | Depth: | 3.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | ° |

**Status**: DRAFT

**Borehole Number**: **WS26**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 07/02/2018 |
| Finish Date: | 07/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 3.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 3.00 | 67 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill |
|---|---|---|---|---|---|
| Asphalt | | 0.06 | 111.94 | | |
| Concrete with 20mm reinforcing bar. | | 0.22 | 111.78 | | |
| MADE GROUND comprising brown slightly silty slightly clayey gravelly SAND with medium cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick and quartzite with rare metal. Cobbles are angular to sub-rounded brick and concrete. | | | | | |
| Stiff red slightly gravelly CLAY. Gravel is sub-rounded to rounded quartzite. | | 0.90 | 111.10 | | |
| *No gravel and slightly silty from 1.2mbgl.* | | | | | |
| *Soft between 2.0 and 2.3mbgl.* | | | | | |
| Weak red MUDSTONE | | 2.30 | 109.70 | | |
| EOH at 3.00m - Refusal | | 3.00 | 109.00 | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.30 | D2 | |
| 0.30 | ES1 | |
| 1.00 | D3 | SPT(C) 1.20m, N=10 (1,1/2,2,3,3) |
| 2.00 | D4 | SPT(C) 2.00m, N=27 (4,4/4,5,7,11) |
| 3.00 | D5 | SPT(C) 3.00m, 50 (7,7/50 for 290mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 67 | 100 | |
| 3.00 | 2.00 | 67 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number

**A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433051.28 | Northing: | 282281.15 |
| Level: | 109.85mAOD | Depth: | 2.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | ° |

**Status**: DRAFT

**Borehole Number**: **WS28**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 08/02/2018 |
| Finish Date: | 08/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 2.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill |
|---|---|---|---|---|---|
| Concrete paving slab | | 0.04 | 109.81 | | |
| MADE GROUND comprising brown to dark brown slightly silty very gravelly SAND with medium cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick, quartzite, and sandstone with rare metal. Cobbles are angular to sub-angular brick, concrete and clinker. | | | | | |
| MADE GROUND comprising firm brown to reddish brown slightly gravelly CLAY. Gravel is sub-angular to sub-rounded fine to coarse slate and brick with potential asbestos containing material. | | 0.80 | 109.05 | | |
| Stiff red slightly silty CLAY | | 1.10 | 108.75 | | |
| EOH at 2.00m - Refusal | | 2.00 | 107.85 | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.30 | D2 | |
| 0.30 | ES1 | |
| 0.90 | ACM | |
| 0.90 | D4 | |
| 0.90 | ES3 | |
| 1.20 | D6 | SPT(C) 1.20m, N=11 (1,1/2,3,3,3) |
| 2.00 | D7 | SPT(C) 2.00m, 50 (4,5/50 for 240mm) |

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 2.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433093.00 | Northing: | 282328.00 |
| Level: | 112.00mAOD | Depth: | 3.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | ° |

**Status**: DRAFT

**Borehole Number**: **WS29**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 07/02/2018 |
| Finish Date: | 07/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 3.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 3.00 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| Asphalt | | |
| MADE GROUND comprising light grey to dark brown slightly silty very gravelly SAND with medium cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick, quartzite and sandstone with rare metal. | 0.20 | 111.80 |
| Red fine to medium SAND<br>*Very compact from 2.5mbgl* | 1.30 | 110.70 |
| EOH at 3.00m - Refusal | 3.00 | 109.00 |

Legend

Water Level (m)

Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.50 | D2 | |
| 0.50 | ES1 | |
| 1.00 | D4 | |
| 1.00 | ES3 | SPT(C) 1.20m, N=5 (1,1/1,1,1,2) |
| 1.50 | D5 | |
| 2.00 | D6 | SPT(C) 2.00m, N=38 (6,8/10,10,9,9) |
| 3.00 | D7 | SPT(C) 3.00m, 50 (8,13/50 for 190mm) |

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |
| 3.00 | 2.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433081.39 | Northing: | 282296.11 |
| Level: | 109.60mAOD | Depth: | 3.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | ° |

**Status**: DRAFT

**Borehole Number**: **WS31**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 08/02/2018 |
| Finish Date: | 08/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 3.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 77 |
| 3.00 | 67 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples and Testing: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Asphalt | | 0.10 | 109.50 | | | | | |
| MADE GROUND comprising black slightly sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse quartzite, tarmacadam, concrete and rare brick. | | 0.30 | 109.30 | | | | | |
| MADE GROUND comprising firm brown to reddish brown slightly gravelly slightly silty CLAY with medium cobble content. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick and quartzite. Cobbles are angular to sub-angular brick and concrete. | | | | | | 0.50<br>0.50 | D2<br>ES1 | |
| Red slightly clayey slightly silty SAND<br>*No clay from 1.5mbgl.* | | 1.20 | 108.40 | | | 1.30 | D3 | SPT(C) 1.20m, N=19 (2,2/3,3,6,7) |
| | | | | | | 2.00 | D4 | SPT(C) 2.00m, N=40 (3,4/6,10,14,10) |
| EOH at 3.00m - Refusal | | 3.00 | 106.60 | | | 3.00 | D5 | SPT(C) 3.00m, 50 (9,12/50 for 220mm) |

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |
| 3.00 | 2.00 | 67 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433092.81 | Northing: | 282248.46 |
| Level: | 109.67mAOD | Depth: | 2.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | ° |

**Status**: DRAFT

**Borehole Number**: **WS32**

Sheet 1 of 1

| Method, Plant and Crew | | | | | Diameter | | Casing | | Groundwater | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK | 1.20 | 250 | 1.20 | 100 | | | | | | |
| 1.20 | 2.00 | Window Sampler | Premier Tracker 110 | DSUK | 2.00 | 77 | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 08/02/2018 |
| Finish Date: | 08/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples and Testing: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Asphalt | | 0.09 | 109.58 | | | | | |
| MADE GROUND comprising black slightly sandy GRAVEL. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse quartzite, asphalt, concrete and rare brick. | | | | | | 0.40<br>0.40 | D2<br>ES1 | |
| MADE GROUND comprising stiff brown slightly gravelly slightly silty CLAY with medium cobble content. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick, quartzite and sandstone with rare metal and slate. Cobbles are angular to sub-angular brick and concrete.<br>*Concrete broken out at 0.8mbgl* | | 0.50 | 109.17 | | | 0.70<br>0.70 | D4<br>ES3 | |
| | | | | | | | | SPT(C) 1.20m, N=28 (25 for 75mm/10,5,6,7) |
| Firm red slightly silty CLAY with lenses of red to yellow brown fine to medium sand throughout. | | 1.30 | 108.37 | | | 1.40 | D5 | |
| EOH at 2.00m - Refusal | | 2.00 | 107.67 | | | 2.00 | D6 | SPT(C) 2.00m, 50 (5,4/50 for 210mm) |

Observations / Remarks

Groundwater not encountered. Borehole terminated at 2.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433113.87 | Northing: | 282334.59 |
| Level: | 109.07mAOD | Depth: | 2.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | ° |

**Status**: DRAFT

**Borehole Number**: **WS33**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 06/02/2018 |
| Finish Date: | 06/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 2.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 87 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill |
|---|---|---|---|---|
| Asphalt | 0.05 | 109.02 | | |
| Concrete with 10mm reinforcing bar | 0.25 | 108.82 | | |
| MADE GROUND comprising dark brown to black slightly silty gravelly SAND. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick, clinker, slate, quartzite and metal. | 0.70 | 108.37 | | |
| Brown to light brown clayey slightly gravelly SAND. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to medium quartzite and sandstone. | 1.95 | 107.12 | | |
| Red weak SANDSTONE | 2.00 | 107.07 | | |
| EOH at 2.00m - Refusal | | | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.40 | D2 | |
| 0.40 | ES1 | |
| 0.80 | D4 | |
| 0.80 | ES3 | |
| | | SPT(C) 1.20m, N=16 (1,2/3,4,4,5) |
| 1.80 | D5 | |
| 2.00 | D6 | SPT(C) 2.00m, 50 (8,9/50 for 220mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 2.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.00 | 87 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number

**A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433149.84 | Northing: | 282350.25 |
| Level: | 108.20mAOD | Depth: | 3.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS34**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 07/02/2018 |
| Finish Date: | 07/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 77 |
| 3.00 | 67 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples and Testing: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Asphalt | | 0.12 | 108.08 | | | | | |
| MADE GROUND comprising dark brown to grey slightly silty very gravelly SAND with low cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse brick, concrete, asphalt, plastic and metal. Cobbles are angular to sub-angular brick. | | | | | | 0.30<br>0.30 | D2<br>ES1 | |
| Red slightly clayey fine to medium SAND<br>*Slightly gravelly between 1.0 to 1.3mbgl. Gravel is sub-angular to sub-rounded fine to coarse sandstone and quartzite.* | | 0.90 | 107.30 | | | 1.00 | D3 | SPT(C) 1.20m, N=13 (2,3/3,3,3,4) |
| | | | | | | 2.00<br>2.00 - 3.00 | D4<br>B5 | SPT(C) 2.00m, N=19 (3,3/4,4,4,7) |
| EOH at 3.00m - Refusal | | 3.00 | 105.20 | | | | | SPT(C) 3.00m, 50 (25 for 115mm/50 for 110mm) |

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |
| 3.00 | 2.00 | 67 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433169.13 | Northing: | 282298.27 |
| Level: | 108.91mAOD | Depth: | 3.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | 90° |

Status: DRAFT

Borehole Number: **WS35**

Sheet 1 of 1

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 3.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 3.00 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 07/02/2018 |
| Finish Date: | 07/02/2018 |

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| Asphalt | 0.14 | 108.77 |
| MADE GROUND comprising dark grey to brown slightly silty very gravelly SAND with medium cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick, quartzite and metal. Cobbles are sub-angular brick and concrete. | 1.40 | 107.51 |
| Red slightly silty fine to coarse SAND<br>*Slightly clayey and no silt from 1.8mbgl* | 2.30 | 106.61 |
| Stiff red slightly silty CLAY with occasional sand lenses. | 3.00 | 105.91 |
| EOH at 3.00m - Refusal | | |

Legend / Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.30 | D2 | |
| 0.30 | ES1 | |
| 1.20 | D4 | SPT(C) 1.20m, N=8 (3,2/1,1,1,5) |
| 1.20 | ES3 | |
| 1.50 | D5 | |
| 2.00 | D6 | SPT(C) 2.00m, N=19 (5,5/4,5,4,6) |
| 2.40 | D7 | |
| 3.00 | D8 | SPT(C) 3.00m, 50 (4,4/50 for 240mm) |

Water Level (m)

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 80 | |
| 3.00 | 2.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433130.88 | Northing: | 282243.11 |
| Level: | 109.22mAOD | Depth: | 3.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | ° |

Status: DRAFT

Borehole Number: **WS36**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 08/02/2018 |
| Finish Date: | 08/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 3.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 77 |
| 3.00 | 67 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| Asphalt | 0.09 | 109.14 |
| MADE GROUND comprising dark grey to black clayey GRAVEL. Gravel is sub-angular to sub-rounded fine to coarse concrete brick and slate. | 0.30 | 108.92 |
| MADE GROUND comprising firm reddish brown slightly silty gravelly CLAY. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick, slate and metal. | 1.00 | 108.22 |
| Red to reddish brown slightly gravelly slightly silty slightly clayey SAND. Gravel is sub-angular to sub-rounded fine to coarse quartzite and siltstone. *No gravel from 1.3mbgl* *No sand or silt from 2.7mbgl* | 2.85 | 106.38 |
| Red weak MUDSTONE | 3.00 | 106.22 |
| EOH at 3.00m - Refusal | | |

Legend

Water Level (m)

Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.20 | D2 | |
| 0.20 | ES1 | |
| 0.50 | D4 | |
| 0.50 | ES3 | |
| 1.10 | D5 | SPT(C) 1.20m, N=15 (1,2/3,4,4,4) |
| 2.00 | D6 | SPT(C) 2.00m, N=44 (5,5/6,11,13,14) |
| 2.90 | D7 | |
| | | SPT(C) 3.00m, 50 (25 for 85mm/50 for 40mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.00 | 77 | 100 | |
| 3.00 | 2.00 | 67 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433287.48 | Northing: | 282246.19 |
| Level: | 106.85mAOD | Depth: | 2.70m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

Status: DRAFT

Borehole Number: **WS43**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 06/02/2018 |
| Finish Date: | 06/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 2.70 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.70 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| MADE GROUND comprising dark greyish brown gravelly SAND with medium cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse brick, concrete and clinker. Cobbles are sub-angular brick. | 0.80 | 106.05 |
| MADE GROUND comprising soft to firm orangeish brown slightly gravelly slightly sandy CLAY. Sand is fine to coarse. Gravel is sub-angular fine to medium brick and concrete. | 1.20 | 105.65 |
| Firm orangeish brown slightly silty CLAY<br>*Stiff from 2.2mbgl*<br>*Very stiff, slightly sandy and no silt from 2.5mbgl* | 2.70 | 104.15 |
| EOH at 2.70m - Refusal | | |

Legend / Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.10 | D1 | |
| 0.30 | ES2 | |
| 0.90 | D4 | |
| 0.90 | ES3 | |
| 1.20 - 2.00 | B5 | SPT(C) 1.20m, N=16 (2,3/3,4,4,5) |
| 2.00 - 2.70 | B6 | SPT(C) 2.00m, N=24 (4,5/6,6,6,6) |
| | | SPT(C) 2.70m, 50 (25 for 125mm/50 for 135mm) |

Water Level (m)

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 2.7mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |
| 3.00 | 2.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433292.96 | Northing: | 282299.64 |
| Level: | 106.45mAOD | Depth: | 2.60m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS44**

Sheet 1 of 1

| Method, Plant and Crew | | | | | Diameter | | Casing | | Groundwater | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK | 1.20 | 250 | 1.20 | 100 | | | | | | |
| 1.20 | 2.60 | Window Sampler | Premier Tracker 110 | DSUK | 2.60 | 77 | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 06/02/2018 |
| Finish Date: | 06/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples and Testing: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Asphalt | | 0.12 | 106.33 | | | | | |
| MADE GROUND comprising light greyish brown very sandy GRAVEL with low cobble content. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse flint, mudstone, brick and concrete. Cobbles are sub-angular concrete. | | | | | | 0.20<br>0.20 | D2<br>ES1 | |
| Stiff orangeish brown slightly silty CLAY | | 0.75 | 105.70 | | | 0.80 | D3 | |
| | | | | | | 1.20 - 2.00 | B4 | SPT(C) 1.20m, N=28 (3,4/6,7,7,8) |
| *Becoming very stiff from 2.0mbgl* | | | | | | | | SPT(C) 2.00m, N=22 (3,4/3,4,7,8) |
| *Becoming hard from 2.4mbgl* | | | | | | | | |
| Light greyish brown weak MUDSTONE | | 2.50 | 103.95 | | | | | |
| EOH at 2.60m - Refusal | | 2.60 | 103.85 | | | 2.60 | D5 | SPT(C) 2.60m, 50 (11,13/50 for 115mm) |

1 2 3 4 5 6 7 8 9 10

Observations / Remarks

Groundwater not encountered. Borehole terminated at 2.6mbgl due to refusal.

Sampling Runs

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 77 | 100 | |
| 2.60 | 2.00 | 77 | 100 | |

Hammer Information

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number

**A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433318.02 | Northing: | 282355.59 |
| Level: | 106.54mAOD | Depth: | 2.00m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS45**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 06/02/2018 |
| Finish Date: | 06/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 2.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 87 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill |
|---|---|---|---|---|---|
| Asphalt | | 0.10 | 106.44 | | |
| MADE GROUND comprising light yellowish brown clayey GRAVEL with low cobble content. Gravel is sub-angular fine to coarse concrete and brick. Cobbles are sub-angular concrete. | | 0.20 | 106.34 | | |
| MADE GROUND comprising black ashy GRAVEL. Gravel is sub-angular to sub-rounded clinker and asphalt. | | 0.50 | 106.04 | | |
| Firm orangeish brown slightly silty CLAY<br>*Very stiff from 1.2mbgl* | | | | | |
| Light orangeish brown slightly clayey SILT | | 1.65 | 104.89 | | |
| EOH at 2.00m - Refusal | | 2.00 | 104.54 | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.10 | D1 | |
| 0.15 | ES2 | |
| 0.20 | D3 | |
| 0.30 | ES4 | |
| 0.50 | D5 | |
| 1.20 | D6 | SPT(C) 1.20m, N=13 (1,1/2,3,4,4) |
| 1.70 | D7 | |
| | | SPT(C) 2.00m, 50 (25 for 135mm/50 for 200mm) |

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 2.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433317.53 | Northing: | 282314.88 |
| Level: | 106.67mAOD | Depth: | 3.80m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS46**

Sheet 1 of 1

| Method, Plant and Crew | | | | | Diameter | | Casing | | Groundwater | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK | 1.20 | 250 | 1.20 | 100 | | | | | | |
| 1.20 | 3.80 | Window Sampler | Premier Tracker 110 | DSUK | 2.00 | 87 | | | | | | | | |
| | | | | | 3.80 | 77 | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 06/02/2018 |
| Finish Date: | 06/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples and Testing: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| Asphalt | | 0.10 | 106.57 | | | | | |
| MADE GROUND light yellowish brown clayey GRAVEL with low cobble content. Gravel is sub-angular to sub-rounded fine to coarse concrete and brick. Cobbles are sub-angular concrete. | | 0.40 | 106.27 | | | 0.20<br>0.30<br>0.40<br>0.50 | D1<br>ES2<br>D3<br>ES4 | |
| MADE GROUND comprising black ashy GRAVEL. Gravel is sub-angular to sub-rounded fine to coarse clinker and asphalt | | 0.70 | 105.97 | | | 0.70 | D5 | |
| Firm orangeish brown slightly silty slightly gravelly CLAY. Gravel is sub-rounded coarse flint. | | | | | | 1.20 - 2.00 | B6 | SPT(C) 1.20m, N=4 (1,1/1,1,1,1) |
| | | | | | | 2.00 - 3.00 | B7 | SPT(C) 2.00m, N=4 (1,0/1,1,1,1) |
| | | | | | | | | SPT(C) 3.00m, N=19 (1,2/2,4,6,7) |
| *Very stiff from 3.2mbgl* | | | | | | | | |
| *Hard from 3.4mbgl* | | | | | | 3.50 | D8 | |
| EOH at 3.80m - Refusal | | 3.80 | 102.87 | | | | | SPT(C) 3.80m, 50 (25 for 60mm/50 for 95mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.8mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |
| 3.00 | 2.00 | 77 | 100 | |
| 3.80 | 3.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433354.01 | Northing: | 282340.16 |
| Level: | 106.33mAOD | Depth: | 2.00m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS47**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 07/02/2018 |
| Finish Date: | 07/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 2.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 87 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill |
|---|---|---|---|---|---|
| Asphalt | | 0.07 | 106.26 | | |
| MADE GROUND comprising black ashy GRAVEL. Gravel is angular to sub-angular fine to coarse clinker, concrete and asphalt. | | 0.40 | 105.93 | | |
| Orangeish brown slightly gravelly SILT. Gravel is sub-rounded fine to coarse flint and mudstone. | | 1.35 | 104.98 | | |
| Firm dark orangeish brown slightly gravelly very silty CLAY. Gravel is sub-rounded fine to medium flint. | | 2.00 | 104.33 | | |
| EOH at 2.00m - Refusal | | | | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.10 | D2 | |
| 0.10 | ES1 | |
| 0.50 | D3 | |
| | | SPT(C) 1.20m, N=25 (3,4/5,6,7,7) |
| 1.50 | D4 | |
| | | SPT(C) 2.00m, 50 (7,10/50 for 265mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 2.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number

**A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433403.29 | Northing: | 282243.83 |
| Level: | 105.40mAOD | Depth: | 2.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS48**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 09/02/2018 |
| Finish Date: | 09/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Window Sampler | Hand Pittitng Tools | DSUK |
| 1.20 | 2.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| MADE GROUND comprising dark grey to black slightly sandy slightly silty GRAVEL. Gravel is fine to coarse sub-angular to sub-rounded asphalt, concrete, brick, metal and quartzite. | 0.70 | 104.70 |
| Stiff red slightly silty slightly sandy CLAY. Sand is fine. | 2.00 | 103.40 |
| EOH at 2.00m - Refusal | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.20 | D1 | |
| 0.20 | ES1 | |
| 0.80 | D2 | |
| 1.20 - 2.00 | D3 | SPT(C) 1.20m, N=24 (3,5/4,6,6,8) |
| | | SPT(C) 2.00m, 50 (6,14/50 for 235mm) |

Legend | Water Level (m) | Inst / Backfill

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Hole terminated at 2.0mbgl.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 0.00 | 1.20 | 250 | 100 | |
| 1.20 | 2.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| | |

Project Number

**A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433461.43 | Northing: | 282269.86 |
| Level: | 103.69mAOD | Depth: | 3.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS49**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 06/02/2018 |
| Finish Date: | 06/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 3.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 3.00 | 87 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| Concrete with 10mm reinforcing bar | | |
| Soft red to reddish brown slightly silty slightly silty gravelly CLAY. Gravel is sub-angular to sub-rounded fine to medium quartzite and sandstone. | 0.27 | 103.42 |
| Stiff red slightly silty sandy friable CLAY with strong hydrocarbon odour throughout.<br>*Silty and slightly sandy from 1.6mbgl* | 1.30 | 102.39 |
| EOH at 3.00m - Refusal | 3.00 | 100.69 |

Legend | Water Level (m) | Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.30 | ES1 | |
| 0.40 - 1.00 | B2 | |
| | | SPT(C) 1.20m, N=13 (1,1/2,3,3,5) |
| 1.40 | D3 | |
| 1.50 | ES4 | |
| 2.00 | D5 | SPT(C) 2.00m, N=34 (8,10/7,8,10,9) |
| 2.50 | ES6 | |
| 3.00 | D7 | SPT(C) 3.00m, 50 (7,10/50 for 220mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 3.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |
| 3.00 | 2.00 | 87 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433519.00 | Northing: | 282272.24 |
| Level: | 103.73mAOD | Depth: | 4.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS50**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 06/02/2018 |
| Finish Date: | 06/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 4.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 87 |
| 3.00 | 77 |
| 4.00 | 67 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|
| | | | | | |

**Strata Description**

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill |
|---|---|---|---|---|---|
| CONCRETE with 10mm reinforcing bar | | | | | |
| MADE GROUND comprising dark brown slightly silty gravelly SAND. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick, quartzite, metal and wood. | | 0.20 | 103.53 | | |
| Stiff red brown to grey slightly gravelly slightly silty CLAY. Gravel is sub-angular to sub-rounded fine to coarse quartzite and sandstone. *Red in colour from 1.2mbgl* *Slightly sandy from 2.2mbgl* *Sandy and no silt from 2.5mbgl* | | 0.90 | 102.83 | | |
| Red slightly clayey fine to medium SAND | | 3.00 | 100.73 | | |
| EOH at 4.00m - Refusal | | 4.00 | 99.73 | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.50 | D2 | |
| 0.50 | ES1 | |
| 1.00 | D4 | |
| 1.00 | ES3 | |
| 1.00 - 2.00 | B5 | SPT(C) 1.20m, N=22 (1,2/4,5,6,7) |
| | | SPT(C) 2.00m, N=6 (1,1/2,2,1,1) |
| 2.50 | D6 | |
| 3.00 | D7 | SPT(C) 3.00m, N=25 (2,2/4,6,7,8) |
| 4.00 | D8 | SPT(C) 4.00m, 50 (5,6/50 for 259mm) |

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 4.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |
| 3.00 | 2.00 | 77 | 100 | |
| 4.00 | 3.00 | 67 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

**Project Number**: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433521.34 | Northing: | 282236.72 |
| Level: | 103.62mAOD | Depth: | 5.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS51**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 05/02/2018 |
| Finish Date: | 05/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 5.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 3.00 | 87 |
| 5.00 | 77 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Depth (m) | Reduced Level (mAOD) |
|---|---|---|
| CONCRETE with 10mm reinforcing bar | | |
| MADE GROUND comprising dark brown slightly silty gravelly SAND. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse concrete, bricks, quartzite, metal and wood. | 0.22 | 103.40 |
| MADE GROUND comprising soft brown to light grey mottled black slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to coarse quartzite and brick with rare wood and coal. | 0.80 | 102.82 |
| Firm slightly sandy slightly gravelly CLAY. Sand is fine to coarse. Gravel is sub-angular to sub-rounded fine to medium sandstone and quartzite with hydrocarbon odour throughout. | 1.10 | 102.52 |
| Red to reddish brown clayey fine to medium SAND with hydrocarbon odour. | 3.20 | 100.42 |
| Hard red to fine to medium grained SANDSTONE | 4.80 | 98.82 |
| EOH at 5.00m - Refusal | 5.00 | 98.62 |

Legend

Water Level (m)

Inst / Backfill

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.30 | D2 | |
| 0.30 | ES1 | |
| 0.90 | D4 | |
| 0.90 | ES3 | |
| 1.20 | D5 | SPT(C) 1.20m, N=13 (1,2/3,2,4,4) |
| 1.80 | ES6 | |
| 2.00 - 3.00 | B7 | SPT(C) 2.00m, N=15 (2,2/3,3,4,5) |
| | | SPT(C) 3.00m, N=31 (5,5/7,6,9,9) |
| 3.50 | ES8 | |
| 4.00 | D9 | SPT(C) 4.00m, N=32 (5,4/5,7,9,11) |
| 5.00 | D10 | SPT(C) 5.00m, 50 (25 for 30mm/50 for 15mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 5.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |
| 3.00 | 2.00 | 87 | 100 | |
| 4.00 | 3.00 | 77 | 100 | |
| 5.00 | 4.00 | 77 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number

**A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433562.60 | Northing: | 282271.32 |
| Level: | 103.69mAOD | Depth: | 2.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | 90° |

**Status**: DRAFT

**Borehole Number**: **WS52**

Sheet 1 of 1

| Method, Plant and Crew | | | | | Diameter | | Casing | | Groundwater | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| From (m) | To (m) | Type | Plant Used | Crew | Depth (m) | Diam (mm) | Depth(m) | Diam (mm) | Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK | 1.20 | 250 | 1.20 | 100 | | | | | | |
| 1.20 | 2.00 | Window Sampler | Premier Tracker 110 | DSUK | 2.00 | 87 | | | | | | | | |

| | |
|---|---|
| Scale: | 1:50 |
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 05/02/2018 |
| Finish Date: | 05/02/2018 |

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill | Samples and Testing: Depth (m) | Ref | Tests / Results |
|---|---|---|---|---|---|---|---|---|
| CONCRETE with 10mm reinforcing bar | | | | | | | | |
| MADE GROUND comprising dark brown slightly silty gravelly fine to coarse SAND. Gravel is sub-angular to sub-rounded fine to coarse concrete, brick, metal, wood and quartzite. | | 0.20 | 103.49 | | | 0.30<br>0.30 | D2<br>ES1 | |
| Brown to reddish brown slightly gravelly slightly clay fine to medium SAND. Gravel is sub-angular to sub-rounded fine to medium quartzite. | | 1.00 | 102.69 | | | 1.00 | D3 | SPT(C) 1.20m, N=18 (3,4/3,5,5,5) |
| Red to reddish brown fine to coarse SAND | | 1.35 | 102.34 | | | 1.50 | D4 | |
| EOH at 2.00m - Refusal | | 2.00 | 101.69 | | | 2.00 | D5 | SPT(C) 2.00m, 50 (5,8/50 for 270mm) |

1 2 3 4 5 6 7 8 9 10

Observations / Remarks

Groundwater not encountered. Borehole terminated at 2.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433465.04 | Northing: | 282242.69 |
| Level: | 103.65mAOD | Depth: | 2.00m |
| Logger: | SC | Type: | WS |
| | | Inclination: | 90° |

Status: DRAFT

Borehole Number: **WS53**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 06/02/2018 |
| Finish Date: | 06/02/2018 |

**Method, Plant and Crew**

| From (m) | To (m) | Type | Plant Used | Crew |
|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK |
| 1.20 | 2.00 | Window Sampler | Premier Tracker 110 | DSUK |

**Diameter**

| Depth (m) | Diam (mm) |
|---|---|
| 1.20 | 250 |
| 2.00 | 87 |

**Casing**

| Depth(m) | Diam (mm) |
|---|---|
| 1.20 | 100 |

**Groundwater**

| Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|

**Strata Description**

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill |
|---|---|---|---|---|---|
| Concrete with 10mm reinforcing bar | | | | | |
| Stiff red to reddish brown slightly gravelly silty CLAY. Gravel is sub-angular to sub-rounded fine to medium quartzite and sandstone | | 0.40 | 103.25 | | |
| Stiff red slightly silty sandy CLAY. Sand if fine to medium | | 1.30 | 102.35 | | |
| EOH at 2.00m - Refusal | | 2.00 | 101.65 | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.60 | D2 | |
| 0.60 | ES1 | |
| 1.00 | D3 | |
| 1.30 | D4 | SPT(C) 1.20m, N=11 (1,2/2,3,3,3) |
| 2.00 | D5 | SPT(C) 2.00m, 50 (11,12/50 for 232mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 2.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.71 | 72 |

Project Number: **A107448**

| Project: | **Meggitt** |
|---|---|
| Location: | **Coventry** |
| Client: | **Homes England** |

**Location Details**

| | | | |
|---|---|---|---|
| Easting: | 433365.23 | Northing: | 282287.86 |
| Level: | 105.27mAOD | Depth: | 2.00m |
| Logger: | JP | Type: | WS |
| | | Inclination: | 90° |

Status: DRAFT

Borehole Number: **WS54**

Sheet 1 of 1

| Scale: | 1:50 |
|---|---|
| Checked By: | SM |
| Approved By: | SDC |
| Start Date: | 07/02/2018 |
| Finish Date: | 07/02/2018 |

**Method, Plant and Crew / Diameter / Casing / Groundwater**

| From (m) | To (m) | Type | Plant Used | Crew | Diameter Depth (m) | Diameter Diam (mm) | Casing Depth(m) | Casing Diam (mm) | Strike (m) | Casing (m) | Sealed (m) | Rose To (m) | Time (mins) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 1.20 | Inspection Pit | Hand Dug Pit | DSUK | 1.20 | 250 | 1.20 | 100 | | | | | | |
| 1.20 | 2.00 | Window Sampler | Premier Tracker 110 | DSUK | 2.00 | 100 | | | | | | | | |

**Strata Description**

| Strata Description | Legend | Depth (m) | Reduced Level (mAOD) | Water Level (m) | Inst / Backfill |
|---|---|---|---|---|---|
| MADE GROUND comprising light reddish brown sandy GRAVEL with medium cobble content. Sand is fine to coarse. Gravel is sub-angular fine to coarse brick, concrete, wood, metal and flint. Cobbles are angular to sub-angular brick. | | | | | |
| EOH at 2.00m - Refusal | | 2.00 | 103.27 | | |

**Samples and Testing**

| Depth (m) | Ref | Tests / Results |
|---|---|---|
| 0.10 | D1 | |
| 0.20 | ES2 | |
| 0.50 - 1.50 | B3 | |
| 1.00 | ES4 | |
| | | SPT(C) 1.20m, N=14 (4,4/4,3,4,3) |
| | | SPT(C) 2.00m, 50 (11,12/50 for 235mm) |

1 2 3 4 5 6 7 8 9 10

**Observations / Remarks**

Groundwater not encountered. Borehole terminated at 2.0mbgl due to refusal.

**Sampling Runs**

| From (m) | To (m) | Diam (mm) | Recovery % | Remarks |
|---|---|---|---|---|
| 1.20 | 0.00 | 250 | 100 | |
| 2.00 | 1.20 | 87 | 100 | |

**Hammer Information**

| Serial No. | Energy Ratio % |
|---|---|
| 110.50 | 86 |

Project Number: **A107448**

# Appendix C – Geotechnical Laboratory Results

Nicholls Colton Group
7 - 11 Harding Street
Leicester
LE1 4DH

**WYG Environment Planning Transport Ltd.**
Purchase Ledger Department
PO Box 364
Leeds
LS6 2WQ

## Analytical Test Report: L18/0391/WYG/001

| | | | |
|---|---|---|---|
| Your Project Reference: | **Meggitt, Coventry** | Samples Received on: | 16/02/2018 |
| Your Order Number: | NOT/1316 | Testing Instruction Received: | 06/03/2018 |
| Report Issue Number: | 1 | Sample Tested: | 06/03 to 15/03/2018 |
| Samples Analysed: | 6 Soils | Report issued: | 15/03/2018 |

Signed

**James Gane**
Commercial Manager
Nicholls Colton Group

Notes:

**General**

Please refer to Methodologies tab for details pertaining to the analytical methods undertaken.

Samples will be retained for 14 days after issue of this report unless otherwise requested.

Moisture Content was determined in accordance with NC method statement MS - CL - Sample Prep, oven dried at <30˚C.

Moisture Content is reported as a percentage of the dry mass of soil, this calculation is in accordance with BS1377, Part 2, 1990, Clause 3.2

Stone Content was determined in accordance with NC method statement MS - CL - Sample Prep and refers to the percentage of stones retained on a 10mm BS test sieve.

With the exception of Sulphate and Sulphur which are crushed over the 2mm test sieve, concentrations are reported as a percentage mass of the dry soil passing the 10mm BS test sieve. As received samples have been corrected for moisture content but not stone content.

Samples were supplied by customer, results are representative of the material provided

**Deviating Samples**

| | |
|---|---|
| Samples were received in suitable containers | **Yes** |
| A date and time of sampling was provided | **Yes** |
| Sample holding times were exceeded prior to analysis of determinants | **Yes** |

Where samples do not meet one or more of the above criteria they will be classed as deviating, this means data may not be representative of the sample at the time of sampling and it is possible that results provided may be compromised.

**Accreditation Key**

UKAS = UKAS Accreditation, MCERTS = MCERTS Accreditation, u = Unaccredited

Date of Issue 24.01.2017
Owned by Emily Blissett - Customer Services Supervisor
Authorised by James Gane - Commercial Manager
J:\Public\Projects\2018\L18\WYG - WYG Nottingham\L18-0391-WYG\[L18-0391-WYG-002.xlsx]Results

Nicholls Colton Group
7 - 11 Harding Street
Leicester
LE1 4DH

**L18/0391/WYG/001**

**Project Reference - Meggitt, Coventry**

**Analytical Test Results - BRE Suite**

| NC Reference | | | 18-7081 | 18-7082 | 18-7083 | 18-7084 | 18-7085 | 18-7086 |
|---|---|---|---|---|---|---|---|---|
| Client Sample Reference | | | WS01 | WS10 | WS21 | WS26 | WS36 | WS52 |
| Client Sample Location | | | D1 | D2 | D2 | D2 | D4 | D2 |
| Depth - Top (m) | | | 0.30 | 0.20 | 0.50 | 0.30 | 0.50 | 0.30 |
| Depth - Bottom (m) | | | 0.30 | 0.20 | 0.50 | 0.30 | 0.50 | 0.30 |
| Date of Sampling | | | 16/02/2018 | 16/02/2018 | 16/02/2018 | 16/02/2018 | 16/02/2018 | 16/02/2018 |
| Time of Sampling | | | Not provided | Not provided | Not provided | Not provided | Not provided | Not provided |
| Sample Matrix | | | Sand | Sand | Clay | Clay | Sand | Loam |
| **Determinant** | **Units** | **Accreditation** | | | | | | |
| Water soluble sulphate | (mg/l) | u | 89 | 96 | 220 | 170 | 590 | 930 |
| Acid Soluble Sulphate | (%) | u | 0.07 | 0.08 | 0.15 | 0.29 | 0.17 | 0.45 |
| Total Sulphur | (%) | u | 0.10 | 0.07 | 0.08 | 0.11 | 0.06 | 0.17 |
| pH Value | pH Units | MCERTS | 9.1 | 9.0 | 8.6 | 9.5 | 7.9 | 11.2 |

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**L18/0391/WYG/001**

**Project Reference - Meggitt, Coventry**

**Sample Descriptions**

| NC Reference | Client Sample Reference | Sample Location | Description | Passing 2mm test sieve (%) |
|---|---|---|---|---|
| 18-7081 | WS01 | D1 | Black/dark brown silty crushed rock. | 33 |
| 18-7082 | WS10 | D2 | Dark brown slightly silty clayey crushed rock. | 48 |
| 18-7083 | WS21 | D2 | Brown gravelly clay with crushed rock and brick. | 39 |
| 18-7084 | WS26 | D2 | Brown slightly silty slightly gravelly clay with crushed rock and occasional brick. | 28 |
| 18-7085 | WS36 | D4 | Brown clayey slightly gravelly sand. | 95 |
| 18-7086 | WS52 | D2 | Brown slightly gravelly clayey silt with crushed rock and occasional brick and wood. | 46 |

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**L18/0391/WYG/001**

**Project Reference - Meggitt, Coventry**

**Analysis Methodologies**

| Matrix | Determinant | Sample condition for analysis | Test Method used |
|---|---|---|---|
| Soil | pH | As Received | In house method statement - MS - CL - pH in soils (using a 1:3 soil to water extraction) |
| Soil | Sulphate (w/s) | Oven Dried | In house method statement - MS - CL - Anions by Aquakem |
| Soil | Acid Sulphate | Oven Dried | In house method statement - MS - CL - BRE Analysis |
| Soil | Total Sulphur | Oven Dried | In house method statement - MS - CL - BRE Analysis |

Nicholls Colton Group
7 - 11 Harding Street
Leicester
LE1 4DH

**Nicholls Colton Group**

**Cover Sheet**

**WYG Environment Planning Transport Ltd.**
Purchase Ledger Department
PO Box 364
Leeds
LS6 2WQ

**Analytical Test Report: L18/0391/WYG/002**

| | | | |
|---|---|---|---|
| Your Project Reference: | **Meggitt, Coventry** | Samples Received on: | 16/02/2018 |
| Your Order Number: | NOT/1316 | Testing Instruction Received: | 06/03/2018 |
| Report Issue Number: | 1 | Sample Tested: | 07 to 14/03/2018 |
| Samples Analysed: | 29 Soils | Report issued: | 15/03/2018 |

Signed

**Lee Harbottle**
GCM Operations Manager
Nicholls Colton Group

Notes:

Samples will be retained for 14 days after issue of this report unless otherwise requested.

Sample preparation was in accordance with BS1377:Part 1:2016.

The results included within the report are representative of the samples submitted for analysis.

A certificate of sampling was not supplied.

Samples were provided by client

**1377 Plasticity Index**

Testing was in accordance with BS1377:Part 2:1990 Clauses 3, 4.4 (one-point) & 5.

The material was prepared from its natural state.

**1377 Moisture Content**

Moisture content testing was in accordance with BS1377 : Part 2 :1990 Clause 3.2.3.2 (medium).

**1377 Particle Density**

Sample preparation was in accordance with BS 1377 : Part 1 : 2016.

Testing was in accordance with BS 1377 : Part 2 : 1990 Clause 8.2 gas jar method.

Date of Issue 10.03.2017

Owned by Emily Blissett - Customer Services Supervisor

Authorised by James Gane - Commercial Manager

J:\Public\Projects\2018\L18\WYG - WYG Nottingham\L18-0391-WYG\[L18-0391-WYG-001.xlsx]Cover Sheet

Nicholls Colton Group
7 - 11 Harding Street
Leicester
LE1 4DH

**L18/0391/WYG/002**

**Meggitt, Coventry**

**Material Analysis Results**

| NC Reference | 18-5084 | 18-5093 | 18-5094 | 18-5098 |
|---|---|---|---|---|
| Client Sample Reference | WS01 | WS46 | WS46 | WS51 |
| Client Sample Location | B6 | B1 | B2 | B1 |
| Sample Depth (m) | 2.0-3.0 | 1.2-2.0 | 2.0-3.0 | 2.0-3.0 |
| Date of Sampling | Not provided | Not provided | Not provided | Not provided |
| Sample type | Disturbed | Disturbed | Disturbed | Disturbed |
| Visual Description | Red/brown slightly silty clay. | Brown/red slightly silty clay. | Brown/red slightly silty clay. | Red/brown slightly silty slightly gravelly clay. |

| BS Test Sieve (mm) | Specification | Units | | | | |
|---|---|---|---|---|---|---|
| 0.425 | | % Passing | 100 | 99 | 100 | 97 |
| Moisture Content | | (%) | 18 | 20 | 20 | 19 |
| Liquid Limit | | (%) | 40 | 40 | 48 | 44 |
| Plastic Limit | | (%) | 20 | 22 | 24 | 21 |
| Plasticity Index | | (%) | 20 | 18 | 24 | 23 |
| Particle Density | | ($Mg/m^3$) | - | - | - | - |

Nicholls Colton Group
7 - 11 Harding Street
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**L18/0391/WYG/002**

**Meggitt, Coventry**

**Material Analysis Results**

| NC Reference | | | 18-5108 | 18-5112 | 18-5113 | 18-5134 |
|---|---|---|---|---|---|---|
| Client Sample Reference | | | WS02 | WS03 | WS03 | WS22 |
| Client Sample Location | | | D6 | D3 | D4 | D5 |
| Sample Depth (m) | | | 1.50 | 0.60 | 1.60 | 1.50 |
| Date of Sampling | | | Not provided | Not provided | Not provided | Not provided |
| Sample type | | | Disturbed | Disturbed | Disturbed | Disturbed |
| Visual Description | | | Brown/red slightly silty clay. | Brown slightly silty slightly gravelly clay. | Red/brown silty clay. | Red/brown clay. |
| **BS Test Sieve (mm)** | **Specification** | **Units** | | | | |
| 0.425 | | **% Passing** | 100 | 95 | 100 | 100 |
| Moisture Content | | **(%)** | 16 | 19 | 20 | 19 |
| Liquid Limit | | **(%)** | 34 | 32 | 27 | 41 |
| Plastic Limit | | **(%)** | 18 | 18 | 17 | 20 |
| Plasticity Index | | **(%)** | 16 | 14 | 10 | 21 |
| Particle Density | | **($Mg/m^3$)** | - | - | - | - |

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**L18/0391/WYG/002**

**Meggitt, Coventry**

**Material Analysis Results**

| NC Reference | | | 18-5167 | 18-5186 | 18-5187 | 18-5192 |
|---|---|---|---|---|---|---|
| Client Sample Reference | | | WS35 | WS46 | WS47 | WS49 |
| Client Sample Location | | | D7 | D8 | D2 | D3 |
| Sample Depth (m) | | | 2.40 | 3.50 | 0.10 | 1.40 |
| Date of Sampling | | | Not provided | Not provided | Not provided | Not provided |
| Sample type | | | Disturbed | Disturbed | Disturbed | Disturbed |
| Visual Description | | | Red/brown slightly silty clay. | Red/brown clay with mudstone. | Dark brown shale. | Brown/red slightly silty clay. |
| **BS Test Sieve (mm)** | **Specification** | **Units** | | | | |
| 0.425 | | **% Passing** | 100 | 100 | 36 | 100 |
| Moisture Content | | **(%)** | 15 | 9.7 | 22 | 15 |
| Liquid Limit | | **(%)** | 35 | 35 | 33 | 29 |
| Plastic Limit | | **(%)** | 17 | 19 | Non-Plastic | 17 |
| Plasticity Index | | **(%)** | 16 | 16 | | 12 |
| Particle Density | | **($Mg/m^3$)** | - | - | - | - |

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**L18/0391/WYG/002**

**Meggitt, Coventry**

**Material Analysis Results**

| NC Reference | | | 18-5202 | 18-6949 | 18-5089 | 18-5100 |
|---|---|---|---|---|---|---|
| Client Sample Reference | | | WS51 | WS28 | WS34 | WS01 |
| Client Sample Location | | | D5 | D7 | B5 | D1 |
| Sample Depth (m) | | | 1.20 | 2.00 | 2.50 | 0.30 |
| Date of Sampling | | | Not provided | Not provided | Not provided | Not provided |
| Sample type | | | Disturbed | Disturbed | Disturbed | Disturbed |
| Visual Description | | | Red/brown slightly silty clay. | Red/brpown silty clay. | Brown slightly gravelly clayey sandy silt. | Black/dark brown silty crushed rock. |
| **BS Test Sieve (mm)** | **Specification** | **Units** | | | | |
| 0.425 | | **% Passing** | 100 | 100 | - | - |
| Moisture Content | | **(%)** | 20 | 21 | 14 | 26 |
| Liquid Limit | | **(%)** | 41 | 30 | - | - |
| Plastic Limit | | **(%)** | 20 | 19 | - | - |
| Plasticity Index | | **(%)** | 21 | 11 | - | - |
| Particle Density | | **($Mg/m^3$)** | - | - | 2.68 | - |

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**L18/0391/WYG/002**

**Meggitt, Coventry**

**Material Analysis Results**

| NC Reference | 18-5106 | 18-5106 | 18-5111 | 18-5116 |
|---|---|---|---|---|
| Client Sample Reference | WS02 | WS02 | WS03 | WS10 |
| Client Sample Location | D2 | D3 | D1 | D2 |
| Sample Depth (m) | 0.20 | 0.60 | 0.20 | 0.20 |
| Date of Sampling | Not provided | Not provided | Not provided | Not provided |
| Sample type | Disturbed | Disturbed | Disturbed | Disturbed |
| Visual Description | Brown slightly silty clay with crushed rock. | Brown slightly gravelly clayey silt. | Dark brown shale. | Dark brown slightly silty clayey crushed rock. |

| BS Test Sieve (mm) | Specification | Units | | | | |
|---|---|---|---|---|---|---|
| 0.425 | | % Passing | - | - | - | - |
| Moisture Content | | (%) | 25 | 19 | 21 | 38 |
| Liquid Limit | | (%) | - | - | - | - |
| Plastic Limit | | (%) | - | - | - | - |
| Plasticity Index | | (%) | - | - | - | - |
| Particle Density | | ($Mg/m^3$) | - | - | - | - |

Nicholls Colton Group
7 - 11 Harding Street
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**L18/0391/WYG/002**

**Meggitt, Coventry**

**Material Analysis Results**

| NC Reference | | | 18-5124 | 18-5127 | 18-5136 | 18-5152 |
|---|---|---|---|---|---|---|
| Client Sample Reference | | | WS20 | WS21 | WS26 | WS32 |
| Client Sample Location | | | D2 | D2 | D2 | D2 |
| Sample Depth (m) | | | 0.20 | 0.50 | 0.30 | 0.40 |
| Date of Sampling | | | Not provided | Not provided | Not provided | Not provided |
| Sample type | | | Disturbed | Disturbed | Disturbed | Disturbed |
| Visual Description | | | Brown sandy silt with occasional slag. | Brown gravelly clay with crushed rock and brick. | Brown slightly silty slightly gravelly clay with crushed rock and occasional brick. | Black silty crushed rock and brick. |
| **BS Test Sieve (mm)** | **Specification** | **Units** | | | | |
| 0.425 | | **% Passing** | - | - | - | - |
| Moisture Content | | **(%)** | 9.2 | 25 | 17 | 25 |
| Liquid Limit | | **(%)** | - | - | - | - |
| Plastic Limit | | **(%)** | - | - | - | - |
| Plasticity Index | | **(%)** | - | - | - | - |
| Particle Density | | **($Mg/m^3$)** | - | - | - | - |

Nicholls Colton Group
7 - 11 Harding Street
Leicester
LE1 4DH

**L18/0391/WYG/002**

**Meggitt, Coventry**

**Material Analysis Results**

| NC Reference | 18-5160 | 18-5161 | 18-5170 | 18-5176 |
|---|---|---|---|---|
| Client Sample Reference | WS34 | WS34 | WS36 | WS44 |
| Client Sample Location | D2 | D3 | D4 | D2 |
| Sample Depth (m) | 0.30 | 1.00 | 0.50 | 0.20 |
| Date of Sampling | Not provided | Not provided | Not provided | Not provided |
| Sample type | Disturbed | Disturbed | Disturbed | Disturbed |
| Visual Description | Grey crushed rock. | Brown silty sand with crushed rock. | Brown clayey slightly gravelly sand. | Brown gravelly silt with crushed rock and brick. |

| BS Test Sieve (mm) | Specification | Units | | | | |
|---|---|---|---|---|---|---|
| 0.425 | | % Passing | - | - | - | - |
| Moisture Content | | (%) | 6.7 | 13 | 17 | 16 |
| Liquid Limit | | (%) | - | - | - | - |
| Plastic Limit | | (%) | - | - | - | - |
| Plasticity Index | | (%) | - | - | - | - |
| Particle Density | | ($Mg/m^3$) | - | - | - | - |

Nicholls Colton Group
7 - 11 Harding Street
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LE1 4DH

**L18/0391/WYG/002**

**Meggitt, Coventry**

**Material Analysis Results**

| **NC Reference** | **18-5206** |
|---|---|
| Client Sample Reference | WS52 |
| Client Sample Location | D2 |
| Sample Depth (m) | 0.30 |
| Date of Sampling | Not provided |
| Sample type | Disturbed |
| Visual Description | Brown slightly gravelly clayey silt with crushed rock and occasional brick and wood. |

| **BS Test Sieve (mm)** | **Specification** | **Units** | |
|---|---|---|---|
| 0.425 | | **% Passing** | - |
| Moisture Content | | **(%)** | 17 |
| Liquid Limit | | **(%)** | - |
| Plastic Limit | | **(%)** | - |
| Plasticity Index | | **(%)** | - |
| Particle Density | | **($Mg/m^3$)** | - |

# Appendix D – Contamination Laboratory Results

Unit 7-8 Hawarden Business Park
Manor Road (off Manor Lane)
Hawarden
Deeside
CH5 3US
Tel: (01244) 528700
Fax: (01244) 528701
email: hawardencustomerservices@alsglobal.com
Website: www.alsenvironmental.co.uk

WYG Geo-Environment
Newstead Court
Little Oak Drive
Nottingham
Nottinghamshire
NG15 0DR

**Attention:** David Howes

# CERTIFICATE OF ANALYSIS

| | |
|---|---|
| **Date:** | 21 February 2018 |
| **Customer:** | H_WYG_ANN |
| **Sample Delivery Group (SDG):** | 180213-19 |
| **Your Reference:** | A107448 |
| **Location:** | Meggitt, Coventry |
| **Report No:** | 445329 |

We received 51 samples on Tuesday February 13, 2018 and 35 of these samples were scheduled for analysis which was completed on Wednesday February 21, 2018. Accredited laboratory tests are defined within the report, but opinions, interpretations and on-site data expressed herein are outside the scope of ISO 17025 accreditation.

Should this report require incorporation into client reports, it must be used in its entirety and not simply with the data sections alone.

Chemical testing (unless subcontracted) performed at ALS Environmental Hawarden (Method codes TM) or ALS Environmental Aberdeen (Method codes S).

Approved By:

**Sonia McWhan**

Operations Manager

ALS Life Sciences Limited. Registered Office: Units 7 & 8 Hawarden Business Park, Manor Road, Hawarden, Deeside, CH5 3US. Registered in England and Wales No. 4057291.

# Received Sample Overview

| Lab Sample No(s) | Customer Sample Ref. | AGS Ref. | Depth (m) | Sampled Date |
|---|---|---|---|---|
| 17036566 | NO ID | | | |
| 17036516 | WS1 | | 0.30 | 09/02/2018 |
| 17036517 | WS2 | | 0.20 | 09/02/2018 |
| 17036518 | WS2 | | 1.10 | 09/02/2018 |
| 17036519 | WS3 | | 0.20 | 09/02/2018 |
| 17036520 | WS10 | | 0.20 | 09/02/2018 |
| 17036521 | WS19 | | 0.20 | 07/02/2018 |
| 17036522 | WS19 | | 0.50 | 07/02/2018 |
| 17036523 | WS20 | | 0.20 | 07/02/2018 |
| 17036524 | WS20 | | 0.80 | 07/02/2018 |
| 17036525 | WS21 | | 0.50 | 08/02/2018 |
| 17036526 | WS22 | | 0.20 | 09/02/2018 |
| 17036527 | WS22 | | 0.60 | 09/02/2018 |
| 17036528 | WS26 | | 0.30 | 07/02/2018 |
| 17036529 | WS28 | | 0.30 | 08/02/2018 |
| 17036530 | WS28 | | 0.90 | 08/02/2018 |
| 17036531 | WS29 | | 0.50 | 07/02/2018 |
| 17036532 | WS29 | | 1.00 | 07/02/2018 |
| 17036533 | WS31 | | 0.50 | 08/02/2018 |
| 17036534 | WS32 | | 0.40 | 08/02/2018 |
| 17036535 | WS32 | | 0.70 | 08/02/2018 |
| 17036536 | WS33 | | 0.40 | 06/02/2018 |
| 17036537 | WS33 | | 0.80 | 06/02/2018 |
| 17036538 | WS34 | | 0.30 | 07/02/2018 |
| 17036539 | WS35 | | 0.30 | 07/02/2018 |
| 17036540 | WS35 | | 1.20 | 07/02/2018 |
| 17036541 | WS36 | | 0.20 | 08/02/2018 |
| 17036565 | WS36 | | 0.50 | 08/02/2018 |
| 17036542 | WS43 | | 0.10 | 06/02/2018 |
| 17036544 | WS43 | | 0.90 | 06/02/2018 |
| 17036545 | WS44 | | 0.20 | 06/02/2018 |
| 17036546 | WS45 | | 0.15 | 06/02/2018 |
| 17036547 | WS45 | | 0.30 | 06/02/2018 |
| 17036548 | WS46 | | 0.10 | 06/02/2018 |
| 17036549 | WS46 | | 0.50 | 06/02/2018 |
| 17036550 | WS47 | | 0.10 | 07/02/2018 |
| 17036551 | WS48 | | 0.20 | 06/02/2018 |
| 17036552 | WS49 | | 0.30 | 06/02/2018 |
| 17036553 | WS49 | | 1.50 | 06/02/2018 |
| 17036554 | WS49 | | 2.50 | 06/02/2018 |
| 17036555 | WS50 | | 0.50 | 06/02/2018 |
| 17036556 | WS50 | | 1.00 | 06/02/2018 |
| 17036557 | WS51 | | 0.30 | 05/02/2018 |
| 17036558 | WS51 | | 0.90 | 05/02/2018 |
| 17036559 | WS51 | | 1.80 | 05/02/2018 |
| 17036560 | WS51 | | 3.50 | 05/02/2018 |
| 17036561 | WS52 | | 0.30 | 05/02/2018 |
| 17036562 | WS53 | | 0.60 | 06/02/2018 |
| 17036563 | WS54 | | 0.20 | 07/02/2018 |
| 17036564 | WS54 | | 1.00 | 07/02/2018 |
| 17040174 | WS28_ASB | | 0.90 | 08/02/2018 |

**Maximum Sample/Coolbox Temperature (°C) :** **4.8**

**ISO5667-3 Water quality - Sampling - Part3 -**
During Transportation samples shall be stored in a cooling device capable of maintaining a temperature of (5±3)°C.

ALS have data which show that a cool box with 4 frozen icepacks is capable of maintaining pre-chilled samples at a temperature of (5±3)°C for a period of up to 24hrs.

**Only received samples which have had analysis scheduled will be shown on the following pages.**

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| Lab Sample No(s) | | | 17036517 | | | 17036518 | | | 17036519 | | | 17036520 | | | 17036521 | | | 17036523 | | | 17036525 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Customer Sample Reference** | | | WS2 | | | WS2 | | | WS3 | | | WS10 | | | WS19 | | | WS20 | | | WS21 |
| **AGS Reference** | | | | | | | | | | | | | | | | | | | | | |
| **Depth (m)** | | | 0.20 | | | 1.10 | | | 0.20 | | | 0.20 | | | 0.20 | | | 0.20 | | | 0.50 |
| **Container** | | | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB |
| **Sample Type** | | | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| Ammoniacal Nitrogen | All | NDPs: 0 Tests: 21 | X | | | | | | X | | | X | | | X | | | X | | | X |
| Anions by Kone (soil) | All | NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | | X | | | X | | |
| Anions by Kone (w) | All | NDPs: 0 Tests: 21 | X | | | | | | X | | | X | | | X | | | X | | | X |
| Asbestos ID in Solid Samples | All | NDPs: 0 Tests: 19 | X | | | X | | | X | | | X | | | X | | | X | | | X |
| Boron Water Soluble | All | NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | | X | | | X | | |
| CEN Readings | All | NDPs: 0 Tests: 21 | X | | | | | | X | | | X | | | X | | | X | | | X |
| Cyanide Comp/Free/Total/Thiocyanate | All | NDPs: 0 Tests: 54 | X | X | | | X | | X | X | | X | X | | X | X | | X | X | | X |
| Dissolved Metals by ICP-MS | All | NDPs: 0 Tests: 21 | X | | | | | | X | | | X | | | X | | | X | | | X |
| Hexavalent Chromium (s) | All | NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | | X | | | X | | |
| Mercury Dissolved | All | NDPs: 0 Tests: 21 | X | | | | | | X | | | X | | | X | | | X | | | X |
| Metals in solid samples by OES | All | NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | | X | | | X | | |
| PAH by GCMS | All | NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | | X | | | X | | |
| pH | All | NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | | X | | | X | | |
| pH Value of Filtered Water | All | NDPs: 0 Tests: 21 | X | | | | | | X | | | X | | | X | | | X | | | X |
| Phenols by HPLC (S) | All | NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | | X | | | X | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17036534 | WS32 | | 0.40 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| 17036533 | WS31 | | 0.50 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | X | | X | | | X | X | X | | X | | | | X | |
| 17036531 | WS29 | | 0.50 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | X | | X | | | X | X | X | | X | | | | X | |
| 17036530 | WS28 | | 0.90 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| 17036529 | WS28 | | 0.30 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | X | | X | | | X | X | X | | X | | | | X | |
| 17036528 | WS26 | | 0.30 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | X | | X | | | X | X | X | | X | | | | X | |
| 17036526 | WS22 | | 0.20 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | X | | X | X | | X | X | X | | X | | | | X | |
| 17036525 | WS21 | | 0.50 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| **Lab Sample No(s)** | 17036517 | | | 17036518 | | | 17036519 | | | 17036520 | | | 17036521 | | | 17036523 | | | 17036525 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Customer Sample Reference** | WS2 | | | WS2 | | | WS3 | | | WS10 | | | WS19 | | | WS20 | | | WS21 |
| **AGS Reference** | | | | | | | | | | | | | | | | | | | |
| **Depth (m)** | 0.20 | | | 1.10 | | | 0.20 | | | 0.20 | | | 0.20 | | | 0.20 | | | 0.50 |
| **Container** | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB |
| **Sample Type** | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| Sample description / All / NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | | X | | | X | | |
| TPH c6-40 Value of soil / All / NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | | X | | | X | | |
| VOC MS (S) / All / NDPs: 0 Tests: 34 | | | X | | | X | | | X | | | X | | | X | | | X | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 17036534 | WS32 | | 0.40 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| 17036533 | WS31 | | 0.50 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |
| 17036531 | WS29 | | 0.50 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |
| 17036530 | WS28 | | 0.90 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| 17036529 | WS28 | | 0.30 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |
| 17036528 | WS26 | | 0.30 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |
| 17036526 | WS22 | | 0.20 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |
| 17036525 | WS21 | | 0.50 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab Sample No(s)** | | | | | 17036536 | | | | 17036538 | | | | 17036539 | | | | 17036541 | | | | 17036565 |
| **Customer Sample Reference** | | | | | WS33 | | | | WS34 | | | | WS35 | | | | WS36 | | | | WS36 |
| **AGS Reference** | | | | | | | | | | | | | | | | | | | | | |
| **Depth (m)** | | | | | 0.40 | | | | 0.30 | | | | 0.30 | | | | 0.20 | | | | 0.50 |
| **Container** | | | | | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) |
| **Sample Type** | | | | | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| Ammoniacal Nitrogen | All | NDPs: 0 Tests: 21 | | | X | | | | | | X | | | X | | | | | | | |
| Anions by Kone (soil) | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | X | | | X | | X | | | X | |
| Anions by Kone (w) | All | NDPs: 0 Tests: 21 | | | X | | | | | | X | | | X | | | | | | | |
| Asbestos ID in Solid Samples | All | NDPs: 0 Tests: 19 | | | X | | | X | | | | | | X | | | | | X | | |
| Boron Water Soluble | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | X | | | X | | X | | | X | |
| CEN Readings | All | NDPs: 0 Tests: 21 | | | X | | | | | | X | | | X | | | | | | | |
| Cyanide Comp/Free/Total/Thiocyanate | All | NDPs: 0 Tests: 54 | | | X | X | | | X | | X | X | | X | X | | X | | | X | |
| Dissolved Metals by ICP-MS | All | NDPs: 0 Tests: 21 | | | X | | | | | | X | | | X | | | | | | | |
| Hexavalent Chromium (s) | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | X | | | X | | X | | | X | |
| Mercury Dissolved | All | NDPs: 0 Tests: 21 | | | X | | | | | | X | | | X | | | | | | | |
| Metals in solid samples by OES | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | X | | | X | | X | | | X | |
| PAH by GCMS | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | X | | | X | | X | | | X | |
| pH | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | X | | | X | | X | | | X | |
| pH Value of Filtered Water | All | NDPs: 0 Tests: 21 | | | X | | | | | | X | | | X | | | | | | | |
| Phenols by HPLC (S) | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | X | | | X | | X | | | X | |

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab Sample No(s)** | | | | | 17036542 | | | | 17036545 | | | | | | | | | | | | |
| **Customer Sample Reference** | | | | | WS43 | | | | WS44 | | | | | | | | | | | | |
| **AGS Reference** | | | | | | | | | | | | | | | | | | | | | |
| **Depth (m)** | | | | | 0.10 | | | | 0.20 | | | | | | | | | | | | |
| **Container** | | | | | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | | | | | | | | | | | | |
| **Sample Type** | | | | | S | S | S | S | S | | | | | | | | | | | | |
| Ammoniacal Nitrogen | All | NDPs: 0 Tests: 21 | | | | | | X | | | | | | | | | | | | | |
| Anions by Kone (soil) | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | | | | | | | | | | |
| Anions by Kone (w) | All | NDPs: 0 Tests: 21 | | | | | | X | | | | | | | | | | | | | |
| Asbestos ID in Solid Samples | All | NDPs: 0 Tests: 19 | | | X | | | X | | | | | | | | | | | | | |
| Boron Water Soluble | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | | | | | | | | | | |
| CEN Readings | All | NDPs: 0 Tests: 21 | | | | | | X | | | | | | | | | | | | | |
| Cyanide Comp/Free/Total/Thiocyanate | All | NDPs: 0 Tests: 54 | | | | X | | X | X | | | | | | | | | | | | |
| Dissolved Metals by ICP-MS | All | NDPs: 0 Tests: 21 | | | | | | X | | | | | | | | | | | | | |
| Hexavalent Chromium (s) | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | | | | | | | | | | |
| Mercury Dissolved | All | NDPs: 0 Tests: 21 | | | | | | X | | | | | | | | | | | | | |
| Metals in solid samples by OES | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | | | | | | | | | | |
| PAH by GCMS | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | | | | | | | | | | |
| pH | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | | | | | | | | | | |
| pH Value of Filtered Water | All | NDPs: 0 Tests: 21 | | | | | | X | | | | | | | | | | | | | |
| Phenols by HPLC (S) | All | NDPs: 0 Tests: 34 | | | | X | | | X | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 17036557 | WS51 | | 0.30 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | | | | X | | | | | | | | | | | |
| 17036555 | WS50 | | 0.50 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | X | | X | | | X | X | X | | X | | | | X | |
| 17036554 | WS49 | | 2.50 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| 17036553 | WS49 | | 1.50 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| 17036551 | WS48 | | 0.20 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | | | | X | | | | | | | | | | | |
| 17036550 | WS47 | | 0.10 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | X | | X | X | | X | X | X | | X | | | | X | |
| 17036549 | WS46 | | 0.50 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| 17036546 | WS45 | | 0.15 | 60g VOC (ALE215) | S | | | | | | | | | | | | | | | |
| | | | | 250g Amber Jar (ALE210) | S | | X | | | X | | X | | X | | X | X | X | | X |
| | | | | 1kg TUB | S | X | | X | X | | X | X | X | | X | | | | X | |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| **Lab Sample No(s)** | 17036536 | | | 17036538 | | | 17036539 | | | 17036541 | | | 17036565 | | | 17036542 | | | 17036545 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Customer Sample Reference** | WS33 | | | WS34 | | | WS35 | | | WS36 | | | WS36 | | | WS43 | | | WS44 | |
| **AGS Reference** | | | | | | | | | | | | | | | | | | | | |
| **Depth (m)** | 0.40 | | | 0.30 | | | 0.30 | | | 0.20 | | | 0.50 | | | 0.10 | | | 0.20 | |
| **Container** | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) |
| **Sample Type** | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S | S |
| Sample description — All — NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | X | | | X | | | X | |
| TPH c6-40 Value of soil — All — NDPs: 0 Tests: 34 | | X | | | X | | | X | | | X | | X | | | X | | | X | |
| VOC MS (S) — All — NDPs: 0 Tests: 34 | | | X | | | X | | | X | | | X | | X | | | X | X | | |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 17036557 | WS51 | | 0.30 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |
| 17036555 | WS50 | | 0.50 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |
| 17036554 | WS49 | | 2.50 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| 17036553 | WS49 | | 1.50 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| 17036551 | WS48 | | 0.20 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |
| 17036550 | WS47 | | 0.10 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |
| 17036549 | WS46 | | 0.50 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| 17036546 | WS45 | | 0.15 | 60g VOC (ALE215) | S | | | | X |
| | | | | 250g Amber Jar (ALE210) | S | | X | X | |
| | | | | 1kg TUB | S | | | | |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab Sample No(s)** | | | 17036559 | | 17036560 | | | 17036561 | | 17036562 | | 17036563 | | 17040174 |
| **Customer Sample Reference** | | | WS51 | | WS51 | | | WS52 | | WS53 | | WS54 | | WS28_ASB |
| **AGS Reference** | | | | | | | | | | | | | | |
| **Depth (m)** | | | 1.80 | | 3.50 | | | 0.30 | | 0.60 | | 0.20 | | 0.90 |
| **Container** | | | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 250g TUB |
| **Sample Type** | | | S | S | S | S | S | S | S | S | S | S | S | S |
| Ammoniacal Nitrogen | All | NDPs: 0 Tests: 21 | | | | | X | | | X | X | | | |
| Anions by Kone (soil) | All | NDPs: 0 Tests: 34 | X | | X | | | X | | X | | X | | |
| Anions by Kone (w) | All | NDPs: 0 Tests: 21 | | | | | X | | | X | X | | | |
| Asbestos ID in Solid Samples | All | NDPs: 0 Tests: 19 | | | | | X | | | | X | | | |
| Asbestos Identification | All | NDPs: 0 Tests: 1 | | | | | | | | | | | | X |
| Boron Water Soluble | All | NDPs: 0 Tests: 34 | X | | X | | | X | | X | | X | | |
| CEN Readings | All | NDPs: 0 Tests: 21 | | | | | X | | | X | X | | | |
| Cyanide Comp/Free/Total/Thiocyanate | All | NDPs: 0 Tests: 54 | X | | X | | X | X | | X | X | X | | |
| Dissolved Metals by ICP-MS | All | NDPs: 0 Tests: 21 | | | | | X | | | X | X | | | |
| Hexavalent Chromium (s) | All | NDPs: 0 Tests: 34 | X | | X | | | X | | X | | X | | |
| Mercury Dissolved | All | NDPs: 0 Tests: 21 | | | | | X | | | X | X | | | |
| Metals in solid samples by OES | All | NDPs: 0 Tests: 34 | X | | X | | | X | | X | | X | | |
| PAH by GCMS | All | NDPs: 0 Tests: 34 | X | | X | | | X | | X | | X | | |
| pH | All | NDPs: 0 Tests: 34 | X | | X | | | X | | X | | X | | |
| pH Value of Filtered Water | All | NDPs: 0 Tests: 21 | | | | | X | | | X | X | | | |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

X Test

N No Determination Possible

Sample Types -

S - Soil/Solid
UNS - Unspecified Solid
GW - Ground Water
SW - Surface Water
LE - Land Leachate
PL - Prepared Leachate
PR - Process Water
SA - Saline Water
TE - Trade Effluent
TS - Treated Sewage
US - Untreated Sewage
RE - Recreational Water
DW - Drinking Water Non-regulatory
UNL - Unspecified Liquid
SL - Sludge
G - Gas
OTH - Other

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Lab Sample No(s)** | | | 17036559 | | 17036560 | | | 17036561 | | 17036562 | | 17036563 | | 17040174 |
| **Customer Sample Reference** | | | WS51 | | WS51 | | | WS52 | | WS53 | | WS54 | | WS28_ASB |
| **AGS Reference** | | | | | | | | | | | | | | |
| **Depth (m)** | | | 1.80 | | 3.50 | | | 0.30 | | 0.60 | | 0.20 | | 0.90 |
| **Container** | | | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 1kg TUB | 1kg TUB | 250g Amber Jar (ALE210) | 60g VOC (ALE215) | 250g TUB |
| **Sample Type** | | | S | S | S | S | S | S | S | S | S | S | S | S |
| Phenols by HPLC (S) | All | NDPs: 0 Tests: 34 | X | | X | | | X | | X | | X | | |
| Sample description | All | NDPs: 0 Tests: 34 | X | | X | | | X | | X | | X | | |
| TPH c6-40 Value of soil | All | NDPs: 0 Tests: 34 | X | | X | | | X | | X | | X | | |
| VOC MS (S) | All | NDPs: 0 Tests: 34 | | X | | X | | | X | X | | | X | |

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# Sample Descriptions

## Grain Sizes

| very fine | <0.063mm | fine | 0.063mm - 0.1mm | medium | 0.1mm - 2mm | coarse | 2mm - 10mm | very coarse | >10mm |
|---|---|---|---|---|---|---|---|---|---|

| Lab Sample No(s) | Customer Sample Ref. | Depth (m) | Colour | Description | Inclusions | Inclusions 2 |
|---|---|---|---|---|---|---|
| 17036517 | WS2 | 0.20 | Dark Brown | Sandy Loam | Stones | Brick |
| 17036518 | WS2 | 1.10 | Black | Sand | Stones | Brick |
| 17036519 | WS3 | 0.20 | Black | Sand | Stones | Brick |
| 17036520 | WS10 | 0.20 | Black | Sand | Stones | Brick |
| 17036521 | WS19 | 0.20 | Black | Sand | Stones | Brick |
| 17036523 | WS20 | 0.20 | Black | Sand | Stones | None |
| 17036525 | WS21 | 0.50 | Black | Sand | Stones | Brick |
| 17036526 | WS22 | 0.20 | Black | Sand | Stones | Vegetation |
| 17036528 | WS26 | 0.30 | Dark Brown | Sandy Clay Loam | Stones | Brick |
| 17036529 | WS28 | 0.30 | Dark Brown | Loamy Sand | Stones | Brick |
| 17036530 | WS28 | 0.90 | Dark Brown | Sandy Clay Loam | Stones | Brick |
| 17036531 | WS29 | 0.50 | Dark Brown | Sandy Loam | Stones | None |
| 17036533 | WS31 | 0.50 | Dark Brown | Sandy Loam | Stones | Brick |
| 17036534 | WS32 | 0.40 | Black | Stone/Soil | Stones | Crushed Brick |
| 17036536 | WS33 | 0.40 | Dark Brown | Sandy Loam | Stones | None |
| 17036538 | WS34 | 0.30 | Light Brown | Sand | Stones | Crushed Brick |
| 17036539 | WS35 | 0.30 | Light Brown | Stone/Soil | Stones | None |
| 17036541 | WS36 | 0.20 | Dark Brown | Sandy Loam | Stones | None |
| 17036565 | WS36 | 0.50 | Dark Brown | Sandy Loam | Brick | Stones |
| 17036542 | WS43 | 0.10 | Dark Brown | Sand | Stones | Brick |
| 17036545 | WS44 | 0.20 | Dark Brown | Loamy Sand | Stones | Brick |
| 17036546 | WS45 | 0.15 | Dark Brown | Loamy Sand | Stones | None |
| 17036549 | WS46 | 0.50 | Black | Sand | Stones | Vegetation |
| 17036550 | WS47 | 0.10 | Black | Sand | Stones | Crushed Brick |
| 17036551 | WS48 | 0.20 | Black | Sand | Stones | Crushed Brick |
| 17036553 | WS49 | 1.50 | Red | Silty Clay Loam | None | None |
| 17036554 | WS49 | 2.50 | Red | Silty Clay Loam | Stones | None |
| 17036555 | WS50 | 0.50 | Dark Brown | Sand | Stones | Crushed Brick |
| 17036557 | WS51 | 0.30 | Dark Brown | Loamy Sand | Stones | Vegetation |
| 17036559 | WS51 | 1.80 | Red | Silty Clay Loam | None | None |
| 17036560 | WS51 | 3.50 | Red | Silty Clay Loam | None | None |
| 17036561 | WS52 | 0.30 | Dark Brown | Sand | Stones | Crushed Brick |
| 17036562 | WS53 | 0.60 | Red | Silt Loam | Stones | None |
| 17036563 | WS54 | 0.20 | Dark Brown | Sand | Stones | Crushed Brick |

These descriptions are only intended to act as a cross check if sample identities are questioned, and to provide a log of sample matrices with respect to MCERTS validation. They are not intended as full geological descriptions.

We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally ocurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample.

Other coarse granular materials such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS2 | WS2 | WS3 | WS10 | WS19 | WS20 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.20 | 1.10 | 0.20 | 0.20 | 0.20 | 0.20 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 09/02/2018 | 09/02/2018 | 09/02/2018 | 09/02/2018 | 07/02/2018 | 07/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036517 | 17036518 | 17036519 | 17036520 | 17036521 | 17036523 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Moisture Content Ratio (% of as received sample) | % | PM024 | 21 | 21 | 14 | 22 | 15 | 7.6 |
| Phenol | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.1 M |
| Cresols | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.1 M |
| Xylenols | <0.015 mg/kg | TM062 (S) | <0.015 M | <0.015 M | <0.015 M | <0.015 M | <0.015 M | <0.15 M |
| Phenols, Total Detected monohydric | <0.035 mg/kg | TM062 (S) | <0.035 M | <0.035 M | <0.035 M | <0.035 M | <0.035 M | <0.035 M |
| pH | 1 pH Units | TM133 | 7.57 M | 7.89 M | 8.2 M | 9.35 M | 8.17 M | 10.2 M |
| Chromium, Hexavalent | <0.6 mg/kg | TM151 | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # |
| Cyanide, Free | <1 mg/kg | TM153 | <1 M | <1 M | <1 M | <1 M | <1 M | <1 M |
| TPH >C6-C8 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C8-C10 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C10-C12 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C12-C16 | <10 mg/kg | TM154 | 15.4 | <10 | <10 | <10 | <10 | 28.1 |
| TPH >C16-C21 | <10 mg/kg | TM154 | 69.5 | <10 | <10 | <10 | <10 | 50.7 |
| TPH >C21-C40 | <10 mg/kg | TM154 | 243 | <10 | 30 | 134 | 86.8 | 73.4 |
| TPH >C6-C40 | <10 mg/kg | TM154 | 328 | <10 | 38.8 | 140 | 101 | 165 |
| TPH >C8-40 | <10 mg/kg | TM154 | 315 # | <10 # | 38.1 # | 134 # | 98.5 # | 164 # |
| Arsenic | <0.6 mg/kg | TM181 | 35.9 M | 14.2 M | 5.14 M | 16.1 M | 28.1 M | 3.29 M |
| Cadmium | <0.02 mg/kg | TM181 | 0.493 M | 1.77 M | 0.233 M | 0.772 M | 0.195 M | 0.356 M |
| Chromium | <0.9 mg/kg | TM181 | 10.6 M | 7.71 M | 7.52 M | 4.86 M | 38 M | 3.64 M |
| Copper | <1.4 mg/kg | TM181 | 43.4 M | 115 M | 37.3 M | 79.9 M | 586 M | 10.8 M |
| Lead | <0.7 mg/kg | TM181 | 46.1 M | 26.9 M | 13.5 M | 78.3 M | 78.8 M | 5.52 M |
| Mercury | <0.14 mg/kg | TM181 | <0.14 M | <0.14 M | <0.14 M | <0.14 M | <0.14 M | <0.14 M |
| Nickel | <0.2 mg/kg | TM181 | 22.2 M | 52.2 M | 17.2 M | 41.6 M | 96.8 M | 8 M |
| Selenium | <1 mg/kg | TM181 | 2.14 # | <1 # | <1 # | <1 # | <1 # | <1 # |
| Zinc | <1.9 mg/kg | TM181 | 95.8 M | 163 M | 36 M | 240 M | 451 M | 15.3 M |
| Boron, water soluble | <1 mg/kg | TM222 | 1.65 M | 1.39 M | <1 M | 2.62 M | <1 M | <1 M |
| Water Soluble Sulphate as SO4 2:1 Extract | <0.004 g/l | TM243 | 0.149 M | 0.0403 M | 0.0094 M | 0.004 M | 0.0791 M | 0.0652 M |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS21 | WS22 | WS26 | WS28 | WS28 | WS29 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.20 | 0.30 | 0.30 | 0.90 | 0.50 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 09/02/2018 | 07/02/2018 | 08/02/2018 | 08/02/2018 | 07/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036525 | 17036526 | 17036528 | 17036529 | 17036530 | 17036531 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Moisture Content Ratio (% of as received sample) | % | PM024 | 21 | 16 | 14 | 13 | 13 | 7 |
| Phenol | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.01 M |
| Cresols | <0.01 mg/kg | TM062 (S) | <0.01 M | 0.0595 M | <0.01 M | <0.01 M | <0.01 M | <0.01 M |
| Xylenols | <0.015 mg/kg | TM062 (S) | <0.015 M | <0.015 M | <0.015 M | <0.015 M | <0.015 M | <0.015 M |
| Phenols, Total Detected monohydric | <0.035 mg/kg | TM062 (S) | <0.035 M | 0.0595 M | <0.035 M | <0.035 M | <0.035 M | <0.035 M |
| pH | 1 pH Units | TM133 | 9.09 M | 8.15 M | 9.44 M | 8.9 M | 8.62 M | 10.1 M |
| Chromium, Hexavalent | <0.6 mg/kg | TM151 | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # |
| Cyanide, Free | <1 mg/kg | TM153 | <1 M | <1 M | <1 M | <1 M | <1 M | <1 M |
| TPH >C6-C8 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C8-C10 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C10-C12 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | 23.3 |
| TPH >C12-C16 | <10 mg/kg | TM154 | <10 | 174 | <10 | <10 | <10 | <10 |
| TPH >C16-C21 | <10 mg/kg | TM154 | 50.8 | 1410 | 15.2 | 51.7 | 12.5 | <10 |
| TPH >C21-C40 | <10 mg/kg | TM154 | 356 | 3470 | 462 | 834 | 151 | 98.6 |
| TPH >C6-C40 | <10 mg/kg | TM154 | 408 | 5060 | 477 | 888 | 164 | 133 |
| TPH >C8-40 | <10 mg/kg | TM154 | 388 # | 4930 # | 465 # | 873 # | 160 # | 132 # |
| Arsenic | <0.6 mg/kg | TM181 | 10.3 M | 12.1 M | 60.4 M | 24.2 M | 12.4 M | 10.5 M |
| Cadmium | <0.02 mg/kg | TM181 | 0.339 M | 0.674 M | 1.12 M | 0.474 M | 1.48 M | 0.608 M |
| Chromium | <0.9 mg/kg | TM181 | 13.7 M | 11 M | 20.4 M | 7.31 M | 22.3 M | 13.6 M |
| Copper | <1.4 mg/kg | TM181 | 47.6 M | 82.1 M | 221 M | 134 M | 457 M | 240 M |
| Lead | <0.7 mg/kg | TM181 | 63.2 M | 48.8 M | 60.6 M | 30.5 M | 93.2 M | 165 M |
| Mercury | <0.14 mg/kg | TM181 | <0.14 M | <0.14 M | 0.241 M | 0.143 M | 0.244 M | <0.14 M |
| Nickel | <0.2 mg/kg | TM181 | 26.8 M | 63 M | 41.1 M | 19.2 M | 46 M | 26.3 M |
| Selenium | <1 mg/kg | TM181 | <1 # | 3.96 # | 2.43 # | <1 # | <1 # | <1 # |
| Zinc | <1.9 mg/kg | TM181 | 83.4 M | 154 M | 296 M | 101 M | 450 M | 168 M |
| Boron, water soluble | <1 mg/kg | TM222 | 1.53 M | 2.79 M | <1 M | <1 M | <1 M | 1.19 M |
| Water Soluble Sulphate as SO4 2:1 Extract | <0.004 g/l | TM243 | 0.0384 M | 0.0838 M | 0.121 M | 0.0204 M | 0.125 M | 0.249 M |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS31 | WS32 | WS33 | WS34 | WS35 | WS36 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.40 | 0.40 | 0.30 | 0.30 | 0.20 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 08/02/2018 | 06/02/2018 | 07/02/2018 | 07/02/2018 | 08/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036533 | 17036534 | 17036536 | 17036538 | 17036539 | 17036541 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Moisture Content Ratio (% of as received sample) | % | PM024 | 15 | 23 | 15 | 5.8 | 6 | 9.1 |
| Phenol | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.01 # | <0.01 M |
| Cresols | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | 0.0472 M | 0.0106 M | <0.01 # | <0.01 M |
| Xylenols | <0.015 mg/kg | TM062 (S) | <0.015 M | <0.015 M | 0.0236 M | <0.015 M | <0.015 # | <0.015 M |
| Phenols, Total Detected monohydric | <0.035 mg/kg | TM062 (S) | <0.035 M | <0.035 M | 0.0708 M | <0.035 M | <0.035 # | <0.035 M |
| pH | 1 pH Units | TM133 | 8.4 M | 8.38 M | 6.38 M | 9.43 M | 9.87 # | 4.71 M |
| Chromium, Hexavalent | <0.6 mg/kg | TM151 | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # |
| Cyanide, Free | <1 mg/kg | TM153 | <1 M | <1 M | <1 M | <1 M | <1 # | <1 M |
| TPH >C6-C8 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C8-C10 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C10-C12 | <10 mg/kg | TM154 | <10 | <10 | <10 | 26.4 | <10 | <10 |
| TPH >C12-C16 | <10 mg/kg | TM154 | 11.9 | 20.9 | <10 | 16.1 | <10 | <10 |
| TPH >C16-C21 | <10 mg/kg | TM154 | 86.7 | 395 | 25.8 | 212 | <10 | <10 |
| TPH >C21-C40 | <10 mg/kg | TM154 | 434 | 2030 | 291 | 1520 | 27.4 | 14.6 |
| TPH >C6-C40 | <10 mg/kg | TM154 | 533 | 2450 | 323 | 1780 | 28.7 | 19 |
| TPH >C8-40 | <10 mg/kg | TM154 | 519 # | 2310 # | 315 # | 1770 # | 28.7 # | 18.8 # |
| Arsenic | <0.6 mg/kg | TM181 | 21.7 M | 20.7 M | 37.2 M | 2.59 M | 1.89 # | 25.6 M |
| Cadmium | <0.02 mg/kg | TM181 | 1.15 M | 1.31 M | 0.631 M | 0.216 M | 0.231 # | 0.43 M |
| Chromium | <0.9 mg/kg | TM181 | 17 M | 13.2 M | 19.6 M | 3.48 M | 5.16 # | 19.9 M |
| Copper | <1.4 mg/kg | TM181 | 70.6 M | 97.2 M | 147 M | 34.5 M | 33 # | 88.5 M |
| Lead | <0.7 mg/kg | TM181 | 191 M | 190 M | 1640 M | 21.5 M | 13.9 # | 49.8 M |
| Mercury | <0.14 mg/kg | TM181 | <0.14 M | 0.168 M | <0.14 M | <0.14 M | <0.14 # | <0.14 M |
| Nickel | <0.2 mg/kg | TM181 | 34 M | 71.2 M | 40.3 M | 11.2 M | 14.5 # | 42.4 M |
| Selenium | <1 mg/kg | TM181 | <1 # | 2.04 # | 2.58 # | <1 # | <1 # | 2.48 # |
| Zinc | <1.9 mg/kg | TM181 | 256 M | 154 M | 535 M | 65.7 M | 66 # | 97.3 M |
| Boron, water soluble | <1 mg/kg | TM222 | 1.27 M | <1 M | 4 M | <1 M | <1 # | <1 M |
| Water Soluble Sulphate as SO4 2:1 Extract | <0.004 g/l | TM243 | 0.0728 M | 0.0722 M | 0.0064 M | 0.0285 M | 0.0121 # | 1.95 M |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS36 | WS43 | WS44 | WS45 | WS46 | WS47 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.10 | 0.20 | 0.15 | 0.50 | 0.10 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 07/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036565 | 17036542 | 17036545 | 17036546 | 17036549 | 17036550 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Moisture Content Ratio (% of as received sample) | % | PM024 | 11 | 10 | 13 | 5.7 | 22 | 14 |
| Phenol | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | 0.057 M | <0.01 M | <0.01 M | <0.01 M |
| Cresols | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | 0.0228 M | 0.0212 M | <0.01 M | <0.01 M |
| Xylenols | <0.015 mg/kg | TM062 (S) | <0.015 M | <0.015 M | 0.0456 M | 0.0954 M | <0.015 M | <0.015 M |
| Phenols, Total Detected monohydric | <0.035 mg/kg | TM062 (S) | <0.035 M | <0.035 M | 0.125 M | 0.117 M | <0.035 M | <0.035 M |
| pH | 1 pH Units | TM133 | 7.75 M | 8.58 M | 11.8 M | 8.23 M | 8.52 M | 7.59 M |
| Chromium, Hexavalent | <0.6 mg/kg | TM151 | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # |
| Cyanide, Free | <1 mg/kg | TM153 | <1 M | <1 M | <1 M | <1 M | <1 M | <1 M |
| TPH >C6-C8 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C8-C10 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C10-C12 | <10 mg/kg | TM154 | 12.9 | <10 | <10 | <10 | <10 | <10 |
| TPH >C12-C16 | <10 mg/kg | TM154 | 104 | <10 | 15.3 | 14.9 | 50.8 | 12.9 |
| TPH >C16-C21 | <10 mg/kg | TM154 | 162 | 107 | 94.1 | 238 | 88.8 | 117 |
| TPH >C21-C40 | <10 mg/kg | TM154 | 189 | 3890 | 657 | 1100 | 398 | 749 |
| TPH >C6-C40 | <10 mg/kg | TM154 | 469 | 4000 | 769 | 1360 | 549 | 880 |
| TPH >C8-40 | <10 mg/kg | TM154 | 465 # | 3960 # | 762 # | 1350 # | 523 # | 865 # |
| Arsenic | <0.6 mg/kg | TM181 | 14.4 M | 11.9 M | 9.33 M | 4.03 M | 13.2 M | 20.2 M |
| Cadmium | <0.02 mg/kg | TM181 | 0.729 M | 0.47 M | 0.266 M | 0.887 M | 1.63 M | 3.46 M |
| Chromium | <0.9 mg/kg | TM181 | 2.31 M | 25.6 M | 9.48 M | 51.2 M | 13 M | 54.9 M |
| Copper | <1.4 mg/kg | TM181 | 37 M | 29.5 M | 54.5 M | 69.3 M | 106 M | 1580 M |
| Lead | <0.7 mg/kg | TM181 | 37.1 M | 22 M | 26.2 M | 12.7 M | 49 M | 264 M |
| Mercury | <0.14 mg/kg | TM181 | <0.14 M | <0.14 M | <0.14 M | <0.14 M | <0.14 M | <0.14 M |
| Nickel | <0.2 mg/kg | TM181 | 21.7 M | 22.2 M | 11.8 M | 65.9 M | 51.5 M | 74.3 M |
| Selenium | <1 mg/kg | TM181 | 2.26 # | <1 # | <1 # | <1 # | 1.92 # | <1 # |
| Zinc | <1.9 mg/kg | TM181 | 75.7 M | 208 M | 74.1 M | 118 M | 124 M | 1910 M |
| Boron, water soluble | <1 mg/kg | TM222 | 1.26 M | <1 M | 1.15 M | <1 M | 5.7 M | <1 M |
| Water Soluble Sulphate as SO4 2:1 Extract | <0.004 g/l | TM243 | 1.95 M | 1.5 M | 0.459 M | 0.0093 M | 0.0497 M | 0.0169 M |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS48 | WS49 | WS49 | WS50 | WS51 | WS51 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.20 | 1.50 | 2.50 | 0.50 | 0.30 | 1.80 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 06/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 05/02/2018 | 05/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036551 | 17036553 | 17036554 | 17036555 | 17036557 | 17036559 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Moisture Content Ratio (% of as received sample) | % | PM024 | 11 | 12 | 7.6 | 8.6 | 12 | 14 |
| Phenol | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.01 M |
| Cresols | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.01 M | <0.01 M |
| Xylenols | <0.015 mg/kg | TM062 (S) | <0.015 M | <0.015 M | <0.015 M | <0.015 M | <0.015 M | <0.015 M |
| Phenols, Total Detected monohydric | <0.035 mg/kg | TM062 (S) | <0.035 M | <0.035 M | <0.035 M | <0.035 M | <0.035 M | <0.035 M |
| pH | 1 pH Units | TM133 | 10.9 M | 8.69 M | 9.01 M | 10.6 M | 11.5 M | 8.03 M |
| Chromium, Hexavalent | <0.6 mg/kg | TM151 | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # | <0.6 # |
| Cyanide, Free | <1 mg/kg | TM153 | <1 M | <1 M | <1 M | <1 M | <1 M | <1 M |
| TPH >C6-C8 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | <10 | <10 |
| TPH >C8-C10 | <10 mg/kg | TM154 | <10 | <10 | 134 | <10 | <10 | 51 |
| TPH >C10-C12 | <10 mg/kg | TM154 | <10 | <10 | 84 | <10 | <10 | 426 |
| TPH >C12-C16 | <10 mg/kg | TM154 | 40.1 | <10 | <10 | 12.7 | 44.4 | 1820 |
| TPH >C16-C21 | <10 mg/kg | TM154 | 130 | <10 | <10 | 111 | 162 | 373 |
| TPH >C21-C40 | <10 mg/kg | TM154 | 1310 | 17.9 | 45.5 | 951 | 1020 | 400 |
| TPH >C6-C40 | <10 mg/kg | TM154 | 1490 | 17.9 | 268 | 1070 | 1230 | 3070 |
| TPH >C8-40 | <10 mg/kg | TM154 | 1470 # | 17.6 # | 267 # | 1070 # | 1220 # | 3020 # |
| Arsenic | <0.6 mg/kg | TM181 | 8.61 M | 4.88 M | 3.94 M | 7.29 M | 6.59 M | 5.59 M |
| Cadmium | <0.02 mg/kg | TM181 | 1.18 M | 0.214 M | 0.223 M | 0.329 M | 0.326 M | 0.141 M |
| Chromium | <0.9 mg/kg | TM181 | 404 M | 16.1 M | 11.2 M | 14.3 M | 19.1 M | 23.1 M |
| Copper | <1.4 mg/kg | TM181 | 38.8 M | 14.1 M | 15.6 M | 43 M | 36.6 M | 17.8 M |
| Lead | <0.7 mg/kg | TM181 | 27.4 M | 16 M | 7.58 M | 112 M | 83.3 M | 10.5 M |
| Mercury | <0.14 mg/kg | TM181 | <0.14 M | <0.14 M | <0.14 M | <0.14 M | 0.142 M | <0.14 M |
| Nickel | <0.2 mg/kg | TM181 | 18.3 M | 25.8 M | 19.8 M | 19.4 M | 17.9 M | 32.9 M |
| Selenium | <1 mg/kg | TM181 | 3.1 # | <1 # | <1 # | <1 # | <1 # | <1 # |
| Zinc | <1.9 mg/kg | TM181 | 70.3 M | 37 M | 43.1 M | 206 M | 162 M | 47.8 M |
| Boron, water soluble | <1 mg/kg | TM222 | 1.56 M | <1 M | <1 M | 2.97 M | 4.53 M | <1 M |
| Water Soluble Sulphate as SO4 2:1 Extract | <0.004 g/l | TM243 | 0.123 M | 0.0507 M | 0.0517 M | 0.321 M | 0.102 M | 0.0256 M |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS51 | WS52 | WS53 | WS54 | | |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 3.50 | 0.30 | 0.60 | 0.20 | | |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | | |
| Date Sampled | | | 05/02/2018 | 05/02/2018 | 06/02/2018 | 07/02/2018 | | |
| Sample Time | | | . | . | . | . | | |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | | |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | | |
| Lab Sample No.(s) | | | 17036560 | 17036561 | 17036562 | 17036563 | | |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Moisture Content Ratio (% of as received sample) | % | PM024 | 14 | 13 | 14 | 7.9 | | |
| Phenol | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | <0.01 M | <0.01 M | | |
| Cresols | <0.01 mg/kg | TM062 (S) | <0.01 M | <0.01 M | <0.01 M | <0.01 M | | |
| Xylenols | <0.015 mg/kg | TM062 (S) | <0.015 M | <0.015 M | <0.015 M | <0.015 M | | |
| Phenols, Total Detected monohydric | <0.035 mg/kg | TM062 (S) | <0.035 M | <0.035 M | <0.035 M | <0.035 M | | |
| pH | 1 pH Units | TM133 | 8.65 M | 10.9 M | 8.6 M | 11.8 M | | |
| Chromium, Hexavalent | <0.6 mg/kg | TM151 | <0.6 # | <0.6 # | <0.6 # | <0.6 # | | |
| Cyanide, Free | <1 mg/kg | TM153 | <1 M | <1 M | <1 M | <1 M | | |
| TPH >C6-C8 | <10 mg/kg | TM154 | <10 | <10 | <10 | <10 | | |
| TPH >C8-C10 | <10 mg/kg | TM154 | <10 | 70.7 | <10 | <10 | | |
| TPH >C10-C12 | <10 mg/kg | TM154 | <10 | 36.6 | <10 | <10 | | |
| TPH >C12-C16 | <10 mg/kg | TM154 | 32.7 | 73.9 | <10 | <10 | | |
| TPH >C16-C21 | <10 mg/kg | TM154 | <10 | 524 | <10 | 22.8 | | |
| TPH >C21-C40 | <10 mg/kg | TM154 | 39.4 | 3650 | <10 | 235 | | |
| TPH >C6-C40 | <10 mg/kg | TM154 | 95.4 | 4360 | <10 | 260 | | |
| TPH >C8-40 | <10 mg/kg | TM154 | 93.7 # | 4280 # | <10 # | 258 # | | |
| Arsenic | <0.6 mg/kg | TM181 | 7.77 M | 7.81 M | 9.45 M | 9.53 M | | |
| Cadmium | <0.02 mg/kg | TM181 | 0.196 M | 0.384 M | 0.231 M | 0.373 M | | |
| Chromium | <0.9 mg/kg | TM181 | 23 M | 31.8 M | 20.9 M | 14.4 M | | |
| Copper | <1.4 mg/kg | TM181 | 35 M | 47.8 M | 26.9 M | 11.9 M | | |
| Lead | <0.7 mg/kg | TM181 | 15.8 M | 128 M | 12.1 M | 19.1 M | | |
| Mercury | <0.14 mg/kg | TM181 | <0.14 M | <0.14 M | <0.14 M | <0.14 M | | |
| Nickel | <0.2 mg/kg | TM181 | 43.8 M | 19.7 M | 36.4 M | 14.6 M | | |
| Selenium | <1 mg/kg | TM181 | <1 # | <1 # | <1 # | <1 # | | |
| Zinc | <1.9 mg/kg | TM181 | 66.7 M | 224 M | 50.3 M | 84.2 M | | |
| Boron, water soluble | <1 mg/kg | TM222 | <1 M | 2.9 M | 1.08 M | <1 M | | |
| Water Soluble Sulphate as SO4 2:1 Extract | <0.004 g/l | TM243 | 0.0283 M | 0.122 M | 0.0308 M | 0.131 M | | |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## PAH by GCMS

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS2 | WS2 | WS3 | WS10 | WS19 | WS20 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.20 | 1.10 | 0.20 | 0.20 | 0.20 | 0.20 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 09/02/2018 | 09/02/2018 | 09/02/2018 | 09/02/2018 | 07/02/2018 | 07/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036517 | 17036518 | 17036519 | 17036520 | 17036521 | 17036523 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Naphthalene-d8 % recovery** | % | TM218 | 93.2 | 99.5 | 95.2 | 106 | 91.7 | 94.6 |
| Acenaphthene-d10 % recovery** | % | TM218 | 91.5 | 97.2 | 92.8 | 104 | 90.7 | 92.3 |
| Phenanthrene-d10 % recovery** | % | TM218 | 89.4 | 95.3 | 89.9 | 98.5 | 87.8 | 91.2 |
| Chrysene-d12 % recovery** | % | TM218 | 84 | 90.7 | 81.8 | 94.2 | 83.3 | 89.1 |
| Perylene-d12 % recovery** | % | TM218 | 90.7 | 95.2 | 83 | 96.2 | 85.3 | 90.8 |
| Naphthalene | <9 µg/kg | TM218 | 44.7 M | 12 M | 79.1 M | 40.8 M | 83.8 M | 1980 M |
| Acenaphthylene | <12 µg/kg | TM218 | <12 M | <12 M | <12 M | 29.6 M | <12 M | 37 M |
| Acenaphthene | <8 µg/kg | TM218 | <8 M | <8 M | <8 M | <8 M | 12.2 M | <8 M |
| Fluorene | <10 µg/kg | TM218 | <10 M | <10 M | <10 M | <10 M | <10 M | 28.9 M |
| Phenanthrene | <15 µg/kg | TM218 | 122 M | 31.8 M | 270 M | 193 M | 153 M | 1020 M |
| Anthracene | <16 µg/kg | TM218 | 24.1 M | <16 M | 22.6 M | 40.5 M | <16 M | 179 M |
| Fluoranthene | <17 µg/kg | TM218 | 139 M | 28.3 M | 117 M | 319 M | 142 M | 423 M |
| Pyrene | <15 µg/kg | TM218 | 155 M | 24.1 M | 98.6 M | 250 M | 90.3 M | 399 M |
| Benz(a)anthracene | <14 µg/kg | TM218 | 112 M | <14 M | 72.4 M | 117 M | 81 M | 229 M |
| Chrysene | <10 µg/kg | TM218 | 99.9 M | <10 M | 49 M | 178 M | 105 M | 233 M |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | 189 M | 27.5 M | 104 M | 441 M | 120 M | 191 M |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | 60.6 M | <14 M | 25.3 M | 106 M | 35.1 M | 43.8 M |
| Benzo(a)pyrene | <15 µg/kg | TM218 | 141 M | <15 M | 41.8 M | 151 M | 61.9 M | 102 M |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | 92.5 M | <18 M | 43.2 M | 160 M | 44.9 M | 37.5 M |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | 31.8 M | <23 M | <23 M | 33.2 M | <23 M | <23 M |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | 159 M | <24 M | 89.8 M | 216 M | 80.8 M | 101 M |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | 1370 | 124 | 1010 | 2270 | 1010 | 5000 |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## PAH by GCMS

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS21 | WS22 | WS26 | WS28 | WS28 | WS29 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.20 | 0.30 | 0.30 | 0.90 | 0.50 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 09/02/2018 | 07/02/2018 | 08/02/2018 | 08/02/2018 | 07/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036525 | 17036526 | 17036528 | 17036529 | 17036530 | 17036531 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Naphthalene-d8 % recovery** | % | TM218 | 94.8 | 96.8 | 92.4 | 96 | 92.2 | 92 |
| Acenaphthene-d10 % recovery** | % | TM218 | 94 | 89.6 | 89.8 | 87.8 | 84.5 | 89.8 |
| Phenanthrene-d10 % recovery** | % | TM218 | 91.1 | 89.8 | 87.8 | 81.3 | 80.9 | 89.4 |
| Chrysene-d12 % recovery** | % | TM218 | 84.3 | 103 | 89.6 | 77.7 | 77.3 | 92.4 |
| Perylene-d12 % recovery** | % | TM218 | 87.6 | 89.2 | 98.2 | 82.5 | 80.8 | 99.4 |
| Naphthalene | <9 µg/kg | TM218 | 100 M | 1080 M | <9 M | 109 M | 15.4 M | 13.4 M |
| Acenaphthylene | <12 µg/kg | TM218 | <12 M | 1530 M | <12 M | 166 M | 14.3 M | 13.6 M |
| Acenaphthene | <8 µg/kg | TM218 | <8 M | 18800 M | <8 M | 144 M | 10.9 M | 25.6 M |
| Fluorene | <10 µg/kg | TM218 | <10 M | 20800 M | <10 M | 142 M | <10 M | 26 M |
| Phenanthrene | <15 µg/kg | TM218 | 289 M | 275000 M | 42 M | 349 M | 110 M | 506 M |
| Anthracene | <16 µg/kg | TM218 | 22.5 M | 85300 M | <16 M | 230 M | 31.7 M | 119 M |
| Fluoranthene | <17 µg/kg | TM218 | 110 M | 399000 M | 94.8 M | 717 M | 316 M | 1040 M |
| Pyrene | <15 µg/kg | TM218 | 95.7 M | 316000 M | 102 M | 703 M | 263 M | 859 M |
| Benz(a)anthracene | <14 µg/kg | TM218 | 74.4 M | 153000 M | 73.6 M | 513 M | 198 M | 528 M |
| Chrysene | <10 µg/kg | TM218 | 44.4 M | 123000 M | 60.7 M | 433 M | 159 M | 480 M |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | 124 M | 158000 M | 93.4 M | 865 M | 302 M | 591 M |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | 24.1 M | 60600 M | 29 M | 410 M | 87.2 M | 238 M |
| Benzo(a)pyrene | <15 µg/kg | TM218 | 50.5 M | 124000 M | 70.4 M | 810 M | 216 M | 528 M |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | 57.4 M | 55100 M | 46.6 M | 598 M | 157 M | 382 M |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | <23 M | 15000 M | <23 M | <230 M | 39.8 M | 89.5 M |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | 113 M | 66200 M | 84.5 M | 851 M | 232 M | 546 M |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | 1110 | 1870000 | 697 | 7040 | 2150 | 5980 |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## PAH by GCMS

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS31 | WS32 | WS33 | WS34 | WS35 | WS36 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.40 | 0.40 | 0.30 | 0.30 | 0.20 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 08/02/2018 | 06/02/2018 | 07/02/2018 | 07/02/2018 | 08/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036533 | 17036534 | 17036536 | 17036538 | 17036539 | 17036541 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Naphthalene-d8 % recovery** | % | TM218 | 91.1 | 98.8 | 92.8 | 94.6 | 93.4 | 99.9 |
| Acenaphthene-d10 % recovery** | % | TM218 | 88.1 | 92.2 | 87.7 | 89.3 | 90.3 | 98.4 |
| Phenanthrene-d10 % recovery** | % | TM218 | 86.9 | 87.3 | 86.9 | 89.4 | 89.5 | 98.4 |
| Chrysene-d12 % recovery** | % | TM218 | 82.1 | 91.2 | 82.4 | 87.2 | 85.7 | 80.9 |
| Perylene-d12 % recovery** | % | TM218 | 86.1 | 88.6 | 83.8 | 93.3 | 90.2 | 73.7 |
| Naphthalene | <9 µg/kg | TM218 | 36 M | 388 M | 71.7 M | <9 M | <9 # | 13.8 M |
| Acenaphthylene | <12 µg/kg | TM218 | 26.5 M | 451 M | 18.4 M | <12 M | <12 # | <12 M |
| Acenaphthene | <8 µg/kg | TM218 | 25.8 M | 459 M | 14.6 M | <8 M | 42.5 # | <8 M |
| Fluorene | <10 µg/kg | TM218 | 27.4 M | 491 M | 20.7 M | <10 M | 50.6 # | <10 M |
| Phenanthrene | <15 µg/kg | TM218 | 373 M | 6600 M | 187 M | 21.1 M | 484 # | <15 M |
| Anthracene | <16 µg/kg | TM218 | 86.8 M | 2690 M | 45.8 M | <16 M | 150 # | <16 M |
| Fluoranthene | <17 µg/kg | TM218 | 916 M | 41900 M | 297 M | 31.2 M | 471 # | <17 M |
| Pyrene | <15 µg/kg | TM218 | 778 M | 43000 M | 257 M | 30.1 M | 354 # | <15 M |
| Benz(a)anthracene | <14 µg/kg | TM218 | 525 M | 27400 M | 198 M | 16 M | 223 # | <14 M |
| Chrysene | <10 µg/kg | TM218 | 497 M | 21900 M | 184 M | 17.2 M | 169 # | <10 M |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | 763 M | 33600 M | 289 M | 30.6 M | 212 # | <15 M |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | 269 M | 14600 M | 92.5 M | <14 M | 99.2 # | <14 M |
| Benzo(a)pyrene | <15 µg/kg | TM218 | 547 M | 32500 M | 183 M | 27.6 M | 180 # | <15 M |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | 317 M | 17400 M | 109 M | <18 M | 89.6 # | <18 M |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | 118 M | 4530 M | 33.4 M | <23 M | 25 # | <23 M |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | 489 M | 21400 M | 178 M | 35.9 M | 132 # | <24 M |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | 5790 | 269000 | 2180 | 210 | 2680 | <118 |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## PAH by GCMS

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS36 | WS43 | WS44 | WS45 | WS46 | WS47 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.10 | 0.20 | 0.15 | 0.50 | 0.10 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 07/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036565 | 17036542 | 17036545 | 17036546 | 17036549 | 17036550 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Naphthalene-d8 % recovery** | % | TM218 | 113 | 85.8 | 94.1 | 93.8 | 88.4 | 110 |
| Acenaphthene-d10 % recovery** | % | TM218 | 112 | 83.1 | 90.5 | 88.4 | 94.3 | 106 |
| Phenanthrene-d10 % recovery** | % | TM218 | 111 | 81.2 | 89.3 | 90.7 | 82.5 | 104 |
| Chrysene-d12 % recovery** | % | TM218 | 102 | 77.7 | 93.5 | 99.9 | 64 | 102 |
| Perylene-d12 % recovery** | % | TM218 | 102 | 87.4 | 101 | 108 | 63.1 | 98.1 |
| Naphthalene | <9 µg/kg | TM218 | 11.1 M | <45 M | 410 M | 70.7 M | 729 M | 96.2 M |
| Acenaphthylene | <12 µg/kg | TM218 | 22.8 M | <60 M | 24.7 M | 834 M | <12 M | 724 M |
| Acenaphthene | <8 µg/kg | TM218 | <8 M | 73.3 M | 557 M | 2540 M | 79.4 M | 64.7 M |
| Fluorene | <10 µg/kg | TM218 | <10 M | <50 M | 283 M | 1310 M | 71.9 M | 66.7 M |
| Phenanthrene | <15 µg/kg | TM218 | 57.3 M | 543 M | 2810 M | 9920 M | 1240 M | 1310 M |
| Anthracene | <16 µg/kg | TM218 | 45.8 M | 201 M | 689 M | 6630 M | 217 M | 1350 M |
| Fluoranthene | <17 µg/kg | TM218 | 141 M | 1480 M | 3080 M | 58500 M | 717 M | 14900 M |
| Pyrene | <15 µg/kg | TM218 | 186 M | 1480 M | 2760 M | 54400 M | 646 M | 17400 M |
| Benz(a)anthracene | <14 µg/kg | TM218 | 111 M | 692 M | 1390 M | 24100 M | 311 M | 7170 M |
| Chrysene | <10 µg/kg | TM218 | 68.6 M | 538 M | 1090 M | 18300 M | 218 M | 5280 M |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | 214 M | 1340 M | 1250 M | 27900 M | 517 M | 10800 M |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | 74.4 M | 436 M | 512 M | 11700 M | 104 M | 4580 M |
| Benzo(a)pyrene | <15 µg/kg | TM218 | 118 M | 970 M | 1140 M | 26100 M | 226 M | 9590 M |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | 189 M | 549 M | 573 M | 13000 M | 155 M | 4930 M |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | 35.8 M | 165 M | 145 M | 3340 M | 35.8 M | 1300 M |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | 328 M | 792 M | 772 M | 17400 M | 365 M | 6160 M |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | 1600 | 9260 | 17500 | 276000 | 5630 | 85700 |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## PAH by GCMS

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS48 | WS49 | WS49 | WS50 | WS51 | WS51 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.20 | 1.50 | 2.50 | 0.50 | 0.30 | 1.80 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 06/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 05/02/2018 | 05/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036551 | 17036553 | 17036554 | 17036555 | 17036557 | 17036559 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Naphthalene-d8 % recovery** | % | TM218 | 92.5 | 96.5 | 92.5 | 91 | 92.7 | 96.9 |
| Acenaphthene-d10 % recovery** | % | TM218 | 90.9 | 91.1 | 88.2 | 88.7 | 88.3 | 94.4 |
| Phenanthrene-d10 % recovery** | % | TM218 | 87.1 | 90.9 | 87.6 | 87.3 | 86.9 | 90.7 |
| Chrysene-d12 % recovery** | % | TM218 | 86.9 | 87.7 | 85.4 | 90.9 | 89.8 | 95.5 |
| Perylene-d12 % recovery** | % | TM218 | 91.2 | 89.7 | 92.1 | 86.6 | 99.6 | 96.3 |
| Naphthalene | <9 µg/kg | TM218 | 452 M | <9 M | <9 M | 27.2 M | 221 M | 136 M |
| Acenaphthylene | <12 µg/kg | TM218 | 17.9 M | <12 M | <12 M | 35.6 M | 28.2 M | 52.2 M |
| Acenaphthene | <8 µg/kg | TM218 | 52.1 M | <8 M | <8 M | 13.4 M | 142 M | 147 M |
| Fluorene | <10 µg/kg | TM218 | 54.9 M | <10 M | <10 M | 14.8 M | 107 M | 101 M |
| Phenanthrene | <15 µg/kg | TM218 | 1110 M | <15 M | <15 M | 192 M | 1240 M | 56.7 M |
| Anthracene | <16 µg/kg | TM218 | 211 M | <16 M | <16 M | 79.3 M | 182 M | <16 M |
| Fluoranthene | <17 µg/kg | TM218 | 1170 M | <17 M | <17 M | 758 M | 1100 M | <17 M |
| Pyrene | <15 µg/kg | TM218 | 1130 M | <15 M | <15 M | 942 M | 916 M | <15 M |
| Benz(a)anthracene | <14 µg/kg | TM218 | 675 M | <14 M | <14 M | 588 M | 545 M | 20.5 M |
| Chrysene | <10 µg/kg | TM218 | 561 M | <10 M | <10 M | 551 M | 463 M | <10 M |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | 824 M | <15 M | <15 M | 799 M | 728 M | <15 M |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | 276 M | <14 M | <14 M | 248 M | 252 M | <14 M |
| Benzo(a)pyrene | <15 µg/kg | TM218 | 567 M | <15 M | <15 M | 498 M | 486 M | <15 M |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | 297 M | <18 M | <18 M | 299 M | 269 M | <18 M |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | 79.2 M | <23 M | <23 M | 92.8 M | 82.2 M | <23 M |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | 585 M | <24 M | <24 M | 418 M | 361 M | <24 M |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | 8060 | <118 | <118 | 5560 | 7120 | 513 |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## PAH by GCMS

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Component | LOD/Units | Method | WS51 | WS52 | WS53 | WS54 | | |
|---|---|---|---|---|---|---|---|---|
| Customer Sample Ref. | | | WS51 | WS52 | WS53 | WS54 | | |
| Depth (m) | | | 3.50 | 0.30 | 0.60 | 0.20 | | |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | | |
| Date Sampled | | | 05/02/2018 | 05/02/2018 | 06/02/2018 | 07/02/2018 | | |
| Sample Time | | | . | . | . | . | | |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | | |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | | |
| Lab Sample No.(s) | | | 17036560 | 17036561 | 17036562 | 17036563 | | |
| AGS Reference | | | | | | | | |
| Naphthalene-d8 % recovery** | % | TM218 | 103 | 102 | 95.7 | 105 | | |
| Acenaphthene-d10 % recovery** | % | TM218 | 101 | 101 | 93.4 | 100 | | |
| Phenanthrene-d10 % recovery** | % | TM218 | 97.9 | 98.8 | 90.8 | 99.4 | | |
| Chrysene-d12 % recovery** | % | TM218 | 95.9 | 99.6 | 83.9 | 102 | | |
| Perylene-d12 % recovery** | % | TM218 | 101 | 109 | 87.1 | 106 | | |
| Naphthalene | <9 µg/kg | TM218 | <9 M | 98 M | <9 M | 26 M | | |
| Acenaphthylene | <12 µg/kg | TM218 | <12 M | 32.6 M | <12 M | 19.5 M | | |
| Acenaphthene | <8 µg/kg | TM218 | <8 M | 93.6 M | <8 M | 101 M | | |
| Fluorene | <10 µg/kg | TM218 | <10 M | 54.1 M | <10 M | 35.3 M | | |
| Phenanthrene | <15 µg/kg | TM218 | <15 M | 517 M | <15 M | 985 M | | |
| Anthracene | <16 µg/kg | TM218 | <16 M | 135 M | <16 M | 196 M | | |
| Fluoranthene | <17 µg/kg | TM218 | <17 M | 965 M | <17 M | 1640 M | | |
| Pyrene | <15 µg/kg | TM218 | <15 M | 888 M | <15 M | 1290 M | | |
| Benz(a)anthracene | <14 µg/kg | TM218 | <14 M | 546 M | <14 M | 883 M | | |
| Chrysene | <10 µg/kg | TM218 | <10 M | 504 M | <10 M | 686 M | | |
| Benzo(b)fluoranthene | <15 µg/kg | TM218 | <15 M | 630 M | <15 M | 1110 M | | |
| Benzo(k)fluoranthene | <14 µg/kg | TM218 | <14 M | 259 M | <14 M | 442 M | | |
| Benzo(a)pyrene | <15 µg/kg | TM218 | <15 M | 494 M | <15 M | 885 M | | |
| Indeno(1,2,3-cd)pyrene | <18 µg/kg | TM218 | <18 M | 318 M | <18 M | 515 M | | |
| Dibenzo(a,h)anthracene | <23 µg/kg | TM218 | <23 M | 101 M | <23 M | 141 M | | |
| Benzo(g,h,i)perylene | <24 µg/kg | TM218 | <24 M | 488 M | <24 M | 682 M | | |
| PAH, Total Detected USEPA 16 | <118 µg/kg | TM218 | <118 | 6120 | <118 | 9650 | | |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS2 | WS2 | WS3 | WS10 | WS19 | WS20 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.20 | 1.10 | 0.20 | 0.20 | 0.20 | 0.20 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 09/02/2018 | 09/02/2018 | 09/02/2018 | 09/02/2018 | 07/02/2018 | 07/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036517 | 17036518 | 17036519 | 17036520 | 17036521 | 17036523 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Dibromofluoromethane** | % | TM116 | 114 | 113 | 140 | 127 | 121 | 123 |
| Toluene-d8** | % | TM116 | 96.4 | 96.4 | 91.3 | 93.4 | 93.1 | 86.6 |
| 4-Bromofluorobenzene** | % | TM116 | 90.5 | 95.7 | 78.2 | 79.4 | 76 | 65.6 |
| Dichlorodifluoromethane | <6 µg/kg | TM116 | <60 M | <60 M | <60 M | <60 M | <120 M | <120 M |
| Chloromethane | <7 µg/kg | TM116 | <70 # | <70 # | <70 # | <70 # | <140 # | <140 # |
| Vinyl Chloride | <6 µg/kg | TM116 | <60 M | <60 M | <60 M | <60 M | <120 M | <120 M |
| Bromomethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Chloroethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Trichlorofluoromethane | <6 µg/kg | TM116 | <60 M | <60 M | <60 M | <60 M | <120 M | <120 M |
| 1,1-Dichloroethene | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <200 # | <200 # |
| Carbon Disulphide | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | <140 M | <140 M |
| Dichloromethane | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <200 # | <200 # |
| Methyl Tertiary Butyl Ether | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| trans-1,2-Dichloroethene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| 1,1-Dichloroethane | <8 µg/kg | TM116 | <80 M | <80 M | <80 M | <80 M | <160 M | <160 M |
| cis-1,2-Dichloroethene | <6 µg/kg | TM116 | <60 M | <60 M | <60 M | <60 M | <120 M | <120 M |
| 2,2-Dichloropropane | <10 µg/kg | TM116 | <100 | <100 | <100 | <100 | <200 | <200 |
| Bromochloromethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Chloroform | <8 µg/kg | TM116 | <80 M | <80 M | <80 M | <80 M | <160 M | <160 M |
| 1,1,1-Trichloroethane | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | 586 M | <140 M |
| 1,1-Dichloropropene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Carbontetrachloride | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| 1,2-Dichloroethane | <5 µg/kg | TM116 | <50 M | <50 M | <50 M | <50 M | <100 M | <100 M |
| Benzene | <9 µg/kg | TM116 | <90 M | <90 M | <90 M | <90 M | <180 M | <180 M |
| Trichloroethene | <9 µg/kg | TM116 | 623 # | 400 # | 430 # | <90 # | 294 # | 4110 # |
| 1,2-Dichloropropane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Dibromomethane | <9 µg/kg | TM116 | <90 M | <90 M | <90 M | <90 M | <180 M | <180 M |
| Bromodichloromethane | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | <140 M | <140 M |
| cis-1,3-Dichloropropene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Toluene | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | <140 M | <140 M |
| trans-1,3-Dichloropropene | <10 µg/kg | TM116 | <100 | <100 | <100 | <100 | <200 | <200 |
| 1,1,2-Trichloroethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| 1,3-Dichloropropane | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | <140 M | <140 M |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS2 | WS2 | WS3 | WS10 | WS19 | WS20 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.20 | 1.10 | 0.20 | 0.20 | 0.20 | 0.20 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 09/02/2018 | 09/02/2018 | 09/02/2018 | 09/02/2018 | 07/02/2018 | 07/02/2018 |
| Sample Time | | | - | - | - | - | - | - |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036517 | 17036518 | 17036519 | 17036520 | 17036521 | 17036523 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Tetrachloroethene | <5 µg/kg | TM116 | <50 M | <50 M | <50 M | <50 M | <100 M | <100 M |
| Dibromochloromethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| 1,2-Dibromoethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Chlorobenzene | <5 µg/kg | TM116 | <50 M | <50 M | <50 M | <50 M | <100 M | <100 M |
| 1,1,1,2-Tetrachloroethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Ethylbenzene | <4 µg/kg | TM116 | <40 M | <40 M | <40 M | <40 M | <80 M | <80 M |
| p/m-Xylene | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <200 # | <200 # |
| o-Xylene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Styrene | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <200 # | <200 # |
| Bromoform | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Isopropylbenzene | <5 µg/kg | TM116 | <50 # | <50 # | <50 # | <50 # | <100 # | <100 # |
| 1,1,2,2-Tetrachloroethane | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <200 # | <200 # |
| 1,2,3-Trichloropropane | <16 µg/kg | TM116 | <160 M | <160 M | <160 M | <160 M | <320 M | <320 M |
| Bromobenzene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| Propylbenzene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| 2-Chlorotoluene | <9 µg/kg | TM116 | <90 M | <90 M | <90 M | <90 M | <180 M | <180 M |
| 1,3,5-Trimethylbenzene | <8 µg/kg | TM116 | <80 M | <80 M | <80 M | <80 M | <160 M | <160 M |
| 4-Chlorotoluene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| tert-Butylbenzene | <14 µg/kg | TM116 | <140 M | <140 M | <140 M | <140 M | <280 M | <280 M |
| 1,2,4-Trimethylbenzene | <9 µg/kg | TM116 | <90 # | <90 # | <90 # | <90 # | <180 # | <180 # |
| sec-Butylbenzene | <10 µg/kg | TM116 | <100 | <100 | <100 | <100 | <200 | <200 |
| 4-Isopropyltoluene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| 1,3-Dichlorobenzene | <8 µg/kg | TM116 | <80 M | <80 M | <80 M | <80 M | <160 M | <160 M |
| 1,4-Dichlorobenzene | <5 µg/kg | TM116 | <50 M | <50 M | <50 M | <50 M | <100 M | <100 M |
| n-Butylbenzene | <11 µg/kg | TM116 | <110 | <110 | <110 | <110 | <220 | <220 |
| 1,2-Dichlorobenzene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <200 M | <200 M |
| 1,2-Dibromo-3-chloropropane | <14 µg/kg | TM116 | <140 M | <140 M | <140 M | <140 M | <280 M | <280 M |
| Tert-amyl methyl ether | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <200 # | <200 # |
| 1,2,4-Trichlorobenzene | <20 µg/kg | TM116 | <200 | <200 | <200 | <200 | <400 | <400 |
| Hexachlorobutadiene | <20 µg/kg | TM116 | <200 | <200 | <200 | <200 | <400 | <400 |
| Naphthalene | <13 µg/kg | TM116 | <130 M | <130 M | <130 M | <130 M | <260 M | <260 M |
| 1,2,3-Trichlorobenzene | <20 µg/kg | TM116 | <200 # | <200 # | <200 # | <200 # | <400 # | <400 # |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS21 | WS22 | WS26 | WS28 | WS28 | WS29 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.20 | 0.30 | 0.30 | 0.90 | 0.50 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 09/02/2018 | 07/02/2018 | 08/02/2018 | 08/02/2018 | 07/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036525 | 17036526 | 17036528 | 17036529 | 17036530 | 17036531 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Dibromofluoromethane** | % | TM116 | 109 | 127 | 108 | 110 | 108 | 119 |
| Toluene-d8** | % | TM116 | 98.6 | 92.7 | 101 | 98.9 | 99.8 | 97 |
| 4-Bromofluorobenzene** | % | TM116 | 87 | 77.2 | 97.4 | 90.5 | 92.8 | 81.3 |
| Dichlorodifluoromethane | <6 µg/kg | TM116 | <60 M | <60 M | <60 M | <60 M | <60 M | <6 M |
| Chloromethane | <7 µg/kg | TM116 | <70 # | <70 # | <70 # | <70 # | <70 # | <7 # |
| Vinyl Chloride | <6 µg/kg | TM116 | <60 M | <60 M | <60 M | <60 M | <60 M | <6 M |
| Bromomethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Chloroethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Trichlorofluoromethane | <6 µg/kg | TM116 | <60 M | <60 M | <60 M | <60 M | <60 M | <6 M |
| 1,1-Dichloroethene | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <100 # | <10 # |
| Carbon Disulphide | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | <70 M | <7 M |
| Dichloromethane | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <100 # | <10 # |
| Methyl Tertiary Butyl Ether | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| trans-1,2-Dichloroethene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| 1,1-Dichloroethane | <8 µg/kg | TM116 | <80 M | <80 M | <80 M | <80 M | <80 M | <8 M |
| cis-1,2-Dichloroethene | <6 µg/kg | TM116 | <60 M | <60 M | <60 M | <60 M | <60 M | <6 M |
| 2,2-Dichloropropane | <10 µg/kg | TM116 | <100 | <100 | <100 | <100 | <100 | <10 |
| Bromochloromethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Chloroform | <8 µg/kg | TM116 | <80 M | <80 M | <80 M | <80 M | <80 M | <8 M |
| 1,1,1-Trichloroethane | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | <70 M | <7 M |
| 1,1-Dichloropropene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Carbontetrachloride | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| 1,2-Dichloroethane | <5 µg/kg | TM116 | <50 M | <50 M | <50 M | <50 M | <50 M | <5 M |
| Benzene | <9 µg/kg | TM116 | <90 M | <90 M | <90 M | <90 M | <90 M | <9 M |
| Trichloroethene | <9 µg/kg | TM116 | <90 # | <90 # | <90 # | <90 # | <90 # | 182 # |
| 1,2-Dichloropropane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Dibromomethane | <9 µg/kg | TM116 | <90 M | <90 M | <90 M | <90 M | <90 M | <9 M |
| Bromodichloromethane | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | <70 M | <7 M |
| cis-1,3-Dichloropropene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Toluene | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | <70 M | <7 M |
| trans-1,3-Dichloropropene | <10 µg/kg | TM116 | <100 | <100 | <100 | <100 | <100 | <10 |
| 1,1,2-Trichloroethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| 1,3-Dichloropropane | <7 µg/kg | TM116 | <70 M | <70 M | <70 M | <70 M | <70 M | <7 M |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS21 | WS22 | WS26 | WS28 | WS28 | WS29 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.20 | 0.30 | 0.30 | 0.90 | 0.50 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 09/02/2018 | 07/02/2018 | 08/02/2018 | 08/02/2018 | 07/02/2018 |
| Sample Time | | | - | - | - | - | - | - |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036525 | 17036526 | 17036528 | 17036529 | 17036530 | 17036531 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Tetrachloroethene | <5 µg/kg | TM116 | <50 M | <50 M | <50 M | <50 M | <50 M | <5 M |
| Dibromochloromethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| 1,2-Dibromoethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Chlorobenzene | <5 µg/kg | TM116 | <50 M | <50 M | <50 M | <50 M | <50 M | <5 M |
| 1,1,1,2-Tetrachloroethane | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Ethylbenzene | <4 µg/kg | TM116 | <40 M | <40 M | <40 M | <40 M | <40 M | <4 M |
| p/m-Xylene | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <100 # | <10 # |
| o-Xylene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Styrene | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <100 # | <10 # |
| Bromoform | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Isopropylbenzene | <5 µg/kg | TM116 | <50 # | <50 # | <50 # | <50 # | <50 # | <5 # |
| 1,1,2,2-Tetrachloroethane | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <100 # | <10 # |
| 1,2,3-Trichloropropane | <16 µg/kg | TM116 | <160 M | <160 M | <160 M | <160 M | <160 M | <16 M |
| Bromobenzene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| Propylbenzene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| 2-Chlorotoluene | <9 µg/kg | TM116 | <90 M | <90 M | <90 M | <90 M | <90 M | <9 M |
| 1,3,5-Trimethylbenzene | <8 µg/kg | TM116 | <80 M | <80 M | <80 M | <80 M | <80 M | <8 M |
| 4-Chlorotoluene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| tert-Butylbenzene | <14 µg/kg | TM116 | <140 M | <140 M | <140 M | <140 M | <140 M | <14 M |
| 1,2,4-Trimethylbenzene | <9 µg/kg | TM116 | <90 # | <90 # | <90 # | <90 # | <90 # | <9 # |
| sec-Butylbenzene | <10 µg/kg | TM116 | <100 | <100 | <100 | <100 | <100 | <10 |
| 4-Isopropyltoluene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| 1,3-Dichlorobenzene | <8 µg/kg | TM116 | <80 M | <80 M | <80 M | <80 M | <80 M | <8 M |
| 1,4-Dichlorobenzene | <5 µg/kg | TM116 | <50 M | <50 M | <50 M | <50 M | <50 M | <5 M |
| n-Butylbenzene | <11 µg/kg | TM116 | <110 | <110 | <110 | <110 | <110 | <11 |
| 1,2-Dichlorobenzene | <10 µg/kg | TM116 | <100 M | <100 M | <100 M | <100 M | <100 M | <10 M |
| 1,2-Dibromo-3-chloropropane | <14 µg/kg | TM116 | <140 M | <140 M | <140 M | <140 M | <140 M | <14 M |
| Tert-amyl methyl ether | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <100 # | <100 # | <10 # |
| 1,2,4-Trichlorobenzene | <20 µg/kg | TM116 | <200 | <200 | <200 | <200 | <200 | <20 |
| Hexachlorobutadiene | <20 µg/kg | TM116 | <200 | <200 | <200 | <200 | <200 | <20 |
| Naphthalene | <13 µg/kg | TM116 | <130 M | <130 M | <130 M | <130 M | <130 M | <13 M |
| 1,2,3-Trichlorobenzene | <20 µg/kg | TM116 | <200 # | <200 # | <200 # | <200 # | <200 # | <20 # |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS31 | WS32 | WS33 | WS34 | WS35 | WS36 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.40 | 0.40 | 0.30 | 0.30 | 0.20 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 08/02/2018 | 06/02/2018 | 07/02/2018 | 07/02/2018 | 08/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036533 | 17036534 | 17036536 | 17036538 | 17036539 | 17036541 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Dibromofluoromethane** | % | TM116 | 96.7 | 101 | 116 | 124 | 105 | 105 |
| Toluene-d8** | % | TM116 | 95.6 | 98.9 | 92.8 | 89.5 | 97.5 | 99.3 |
| 4-Bromofluorobenzene** | % | TM116 | 73.1 | 80.3 | 84.2 | 87.3 | 86.6 | 91 |
| Dichlorodifluoromethane | <6 µg/kg | TM116 | <60 M | <60 # | <60 M | <6 M | <6 # | <120 M |
| Chloromethane | <7 µg/kg | TM116 | <70 # | <70 # | <70 # | <7 # | <7 # | <140 # |
| Vinyl Chloride | <6 µg/kg | TM116 | <60 M | <60 # | <60 M | <6 M | <6 # | <120 M |
| Bromomethane | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Chloroethane | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Trichlorofluoromethane | <6 µg/kg | TM116 | <60 M | <60 # | <60 M | <6 M | <6 # | <120 M |
| 1,1-Dichloroethene | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <10 # | <10 # | <200 # |
| Carbon Disulphide | <7 µg/kg | TM116 | <70 M | <70 # | <70 M | <7 M | <7 # | <140 M |
| Dichloromethane | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <10 # | <10 # | <200 # |
| Methyl Tertiary Butyl Ether | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| trans-1,2-Dichloroethene | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| 1,1-Dichloroethane | <8 µg/kg | TM116 | <80 M | <80 # | <80 M | <8 M | <8 # | <160 M |
| cis-1,2-Dichloroethene | <6 µg/kg | TM116 | <60 M | <60 # | <60 M | <6 M | <6 # | 11000 M |
| 2,2-Dichloropropane | <10 µg/kg | TM116 | <100 | <100 | <100 | <10 | <10 | <200 |
| Bromochloromethane | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Chloroform | <8 µg/kg | TM116 | <80 M | <80 # | <80 M | <8 M | <8 # | <160 M |
| 1,1,1-Trichloroethane | <7 µg/kg | TM116 | <70 M | <70 # | <70 M | - M | <7 # | 672 M |
| 1,1-Dichloropropene | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Carbontetrachloride | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | - M | <10 # | <200 M |
| 1,2-Dichloroethane | <5 µg/kg | TM116 | <50 M | <50 # | <50 M | <5 M | <5 # | <100 M |
| Benzene | <9 µg/kg | TM116 | <90 M | <90 # | <90 M | <9 M | <9 # | <180 M |
| Trichloroethene | <9 µg/kg | TM116 | 833 # | <90 # | <90 # | <9 # | <9 # | 48000 # |
| 1,2-Dichloropropane | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Dibromomethane | <9 µg/kg | TM116 | <90 M | <90 # | <90 M | <9 M | <9 # | <180 M |
| Bromodichloromethane | <7 µg/kg | TM116 | <70 M | <70 # | <70 M | <7 M | <7 # | <140 M |
| cis-1,3-Dichloropropene | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Toluene | <7 µg/kg | TM116 | <70 M | <70 # | <70 M | <7 M | <7 # | <140 M |
| trans-1,3-Dichloropropene | <10 µg/kg | TM116 | <100 | <100 | <100 | <10 | <10 | <200 |
| 1,1,2-Trichloroethane | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| 1,3-Dichloropropane | <7 µg/kg | TM116 | <70 M | <70 # | <70 M | <7 M | <7 # | <140 M |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS31 | WS32 | WS33 | WS34 | WS35 | WS36 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.40 | 0.40 | 0.30 | 0.30 | 0.20 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 08/02/2018 | 06/02/2018 | 07/02/2018 | 07/02/2018 | 08/02/2018 |
| Sample Time | | | - | - | - | - | - | - |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036533 | 17036534 | 17036536 | 17036538 | 17036539 | 17036541 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Tetrachloroethene | <5 µg/kg | TM116 | <50 M | <50 # | <50 M | <5 M | <5 # | <100 M |
| Dibromochloromethane | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| 1,2-Dibromoethane | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Chlorobenzene | <5 µg/kg | TM116 | <50 M | <50 # | <50 M | <5 M | <5 # | <100 M |
| 1,1,1,2-Tetrachloroethane | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Ethylbenzene | <4 µg/kg | TM116 | <40 M | <40 # | <40 M | <4 M | <4 # | <80 M |
| p/m-Xylene | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <10 # | <10 # | <200 # |
| o-Xylene | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Styrene | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <10 # | <10 # | <200 # |
| Bromoform | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Isopropylbenzene | <5 µg/kg | TM116 | <50 # | <50 # | <50 # | <5 # | <5 # | <100 # |
| 1,1,2,2-Tetrachloroethane | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <10 # | <10 # | <200 # |
| 1,2,3-Trichloropropane | <16 µg/kg | TM116 | <160 M | <160 # | <160 M | <16 M | <16 # | <320 M |
| Bromobenzene | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| Propylbenzene | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| 2-Chlorotoluene | <9 µg/kg | TM116 | <90 M | <90 # | <90 M | <9 M | <9 # | <180 M |
| 1,3,5-Trimethylbenzene | <8 µg/kg | TM116 | <80 M | <80 # | <80 M | <8 M | <8 # | <160 M |
| 4-Chlorotoluene | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| tert-Butylbenzene | <14 µg/kg | TM116 | <140 M | <140 # | <140 M | <14 M | <14 # | <280 M |
| 1,2,4-Trimethylbenzene | <9 µg/kg | TM116 | <90 # | <90 # | <90 # | <9 # | <9 # | <180 # |
| sec-Butylbenzene | <10 µg/kg | TM116 | <100 | <100 | <100 | <10 | <10 | <200 |
| 4-Isopropyltoluene | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| 1,3-Dichlorobenzene | <8 µg/kg | TM116 | <80 M | <80 # | <80 M | <8 M | <8 # | <160 M |
| 1,4-Dichlorobenzene | <5 µg/kg | TM116 | <50 M | <50 # | <50 M | <5 M | <5 # | <100 M |
| n-Butylbenzene | <11 µg/kg | TM116 | <110 | <110 | <110 | <11 | <11 | <220 |
| 1,2-Dichlorobenzene | <10 µg/kg | TM116 | <100 M | <100 # | <100 M | <10 M | <10 # | <200 M |
| 1,2-Dibromo-3-chloropropane | <14 µg/kg | TM116 | <140 M | <140 # | <140 M | <14 M | <14 # | <280 M |
| Tert-amyl methyl ether | <10 µg/kg | TM116 | <100 # | <100 # | <100 # | <10 # | <10 # | <200 # |
| 1,2,4-Trichlorobenzene | <20 µg/kg | TM116 | <200 | <200 | <200 | <20 | <20 | <400 |
| Hexachlorobutadiene | <20 µg/kg | TM116 | <200 | <200 | <200 | <20 | <20 | <400 |
| Naphthalene | <13 µg/kg | TM116 | <130 M | <130 # | <130 M | <13 M | <13 # | <260 M |
| 1,2,3-Trichlorobenzene | <20 µg/kg | TM116 | <200 # | <200 # | <200 # | <20 # | <20 # | <400 # |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS36 | WS43 | WS44 | WS45 | WS46 | WS47 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.10 | 0.20 | 0.15 | 0.50 | 0.10 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 07/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036565 | 17036542 | 17036545 | 17036546 | 17036549 | 17036550 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Dibromofluoromethane** | % | TM116 | 118 | 164 | 7.53 2 | 106 | 113 | 122 |
| Toluene-d8** | % | TM116 | 95.7 | 75.3 | 79.2 2 | 98.7 | 94.8 | 94.6 |
| 4-Bromofluorobenzene** | % | TM116 | 84.1 | 69.6 | 72.1 2 | 93.6 | 89.1 | 78.6 |
| Dichlorodifluoromethane | <6 µg/kg | TM116 | <6 M | <6 M | <6 2 M | <120 M | <120 M | <120 M |
| Chloromethane | <7 µg/kg | TM116 | <7 # | <7 # | <7 2 # | <140 # | <140 # | <140 # |
| Vinyl Chloride | <6 µg/kg | TM116 | <6 M | <6 M | <6 2 M | <120 M | <120 M | <120 M |
| Bromomethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Chloroethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Trichlorofluoromethane | <6 µg/kg | TM116 | <6 M | <6 M | <6 2 M | <120 M | <120 M | <120 M |
| 1,1-Dichloroethene | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <200 # | <200 # | <200 # |
| Carbon Disulphide | <7 µg/kg | TM116 | <7 M | <7 M | <7 2 M | <140 M | <140 M | <140 M |
| Dichloromethane | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <200 # | <200 # | <200 # |
| Methyl Tertiary Butyl Ether | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| trans-1,2-Dichloroethene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| 1,1-Dichloroethane | <8 µg/kg | TM116 | <8 M | <8 M | <8 2 M | <160 M | <160 M | <160 M |
| cis-1,2-Dichloroethene | <6 µg/kg | TM116 | 1060 M | <6 M | <6 2 M | <120 M | <120 M | <120 M |
| 2,2-Dichloropropane | <10 µg/kg | TM116 | <10 | <10 | <10 2 | <200 | <200 | <200 |
| Bromochloromethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Chloroform | <8 µg/kg | TM116 | <8 M | <8 M | <8 2 M | <160 M | <160 M | <160 M |
| 1,1,1-Trichloroethane | <7 µg/kg | TM116 | 104 M | <7 M | <7 2 M | <140 M | <140 M | <140 M |
| 1,1-Dichloropropene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Carbontetrachloride | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| 1,2-Dichloroethane | <5 µg/kg | TM116 | <5 M | <5 M | <5 2 M | <100 M | <100 M | <100 M |
| Benzene | <9 µg/kg | TM116 | <9 M | <9 M | <9 2 M | <180 M | <180 M | <180 M |
| Trichloroethene | <9 µg/kg | TM116 | 4060 # | <9 # | <9 2 # | <180 # | <180 # | <180 # |
| 1,2-Dichloropropane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Dibromomethane | <9 µg/kg | TM116 | <9 M | <9 M | <9 2 M | <180 M | <180 M | <180 M |
| Bromodichloromethane | <7 µg/kg | TM116 | <7 M | <7 M | <7 2 M | <140 M | <140 M | <140 M |
| cis-1,3-Dichloropropene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Toluene | <7 µg/kg | TM116 | <7 M | <7 M | <7 2 M | <140 M | <140 M | <140 M |
| trans-1,3-Dichloropropene | <10 µg/kg | TM116 | <10 | <10 | <10 2 | <200 | <200 | <200 |
| 1,1,2-Trichloroethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| 1,3-Dichloropropane | <7 µg/kg | TM116 | <7 M | <7 M | <7 2 M | <140 M | <140 M | <140 M |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS36 | WS43 | WS44 | WS45 | WS46 | WS47 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.50 | 0.10 | 0.20 | 0.15 | 0.50 | 0.10 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 08/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 07/02/2018 |
| Sample Time | | | - | - | - | - | - | - |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036565 | 17036542 | 17036545 | 17036546 | 17036549 | 17036550 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Tetrachloroethene | <5 µg/kg | TM116 | 39.4 M | <5 M | <5 2 M | <100 M | <100 M | <100 M |
| Dibromochloromethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| 1,2-Dibromoethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Chlorobenzene | <5 µg/kg | TM116 | <5 M | <5 M | <5 2 M | <100 M | <100 M | <100 M |
| 1,1,1,2-Tetrachloroethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Ethylbenzene | <4 µg/kg | TM116 | <4 M | <4 M | 11.5 2 M | <80 M | <80 M | <80 M |
| p/m-Xylene | <10 µg/kg | TM116 | <10 # | <10 # | 33.4 2 # | <200 # | <200 # | <200 # |
| o-Xylene | <10 µg/kg | TM116 | <10 M | <10 M | 26.2 2 M | <200 M | <200 M | <200 M |
| Styrene | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <200 # | <200 # | <200 # |
| Bromoform | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Isopropylbenzene | <5 µg/kg | TM116 | <5 # | <5 # | <5 2 # | <100 # | <100 # | <100 # |
| 1,1,2,2-Tetrachloroethane | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <200 # | <200 # | <200 # |
| 1,2,3-Trichloropropane | <16 µg/kg | TM116 | <16 M | <16 M | <16 2 M | <320 M | <320 M | <320 M |
| Bromobenzene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| Propylbenzene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| 2-Chlorotoluene | <9 µg/kg | TM116 | <9 M | <9 M | <9 2 M | <180 M | <180 M | <180 M |
| 1,3,5-Trimethylbenzene | <8 µg/kg | TM116 | <8 M | <8 M | <8 2 M | <160 M | <160 M | <160 M |
| 4-Chlorotoluene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| tert-Butylbenzene | <14 µg/kg | TM116 | <14 M | <14 M | <14 2 M | <280 M | <280 M | <280 M |
| 1,2,4-Trimethylbenzene | <9 µg/kg | TM116 | <9 # | <9 # | <9 2 # | <180 # | <180 # | <180 # |
| sec-Butylbenzene | <10 µg/kg | TM116 | <10 | <10 | <10 2 | <200 | <200 | <200 |
| 4-Isopropyltoluene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| 1,3-Dichlorobenzene | <8 µg/kg | TM116 | <8 M | <8 M | <8 2 M | <160 M | <160 M | <160 M |
| 1,4-Dichlorobenzene | <5 µg/kg | TM116 | <5 M | <5 M | <5 2 M | <100 M | <100 M | <100 M |
| n-Butylbenzene | <11 µg/kg | TM116 | <11 | <11 | <11 2 | <220 | <220 | <220 |
| 1,2-Dichlorobenzene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <200 M | <200 M | <200 M |
| 1,2-Dibromo-3-chloropropane | <14 µg/kg | TM116 | <14 M | <14 M | <14 2 M | <280 M | <280 M | <280 M |
| Tert-amyl methyl ether | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <200 # | <200 # | <200 # |
| 1,2,4-Trichlorobenzene | <20 µg/kg | TM116 | <20 | <20 | <20 2 | <400 | <400 | <400 |
| Hexachlorobutadiene | <20 µg/kg | TM116 | <20 | <20 | <20 2 | <400 | <400 | <400 |
| Naphthalene | <13 µg/kg | TM116 | <13 M | <13 M | 201 2 M | <260 M | <260 M | <260 M |
| 1,2,3-Trichlorobenzene | <20 µg/kg | TM116 | <20 # | <20 # | <20 2 # | <400 # | <400 # | <400 # |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS48 | WS49 | WS49 | WS50 | WS51 | WS51 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.20 | 1.50 | 2.50 | 0.50 | 0.30 | 1.80 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 06/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 05/02/2018 | 05/02/2018 |
| Sample Time | | | . | . | . | . | . | . |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036551 | 17036553 | 17036554 | 17036555 | 17036557 | 17036559 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Dibromofluoromethane** | % | TM116 | 119 | 117 | 105 | 109 | 93.9 | 107 |
| Toluene-d8** | % | TM116 | 93.6 | 100 | 101 | 87.9 | 88.5 | 86.9 |
| 4-Bromofluorobenzene** | % | TM116 | 84.6 | 99.9 | 104 | 71.7 | 82.7 | 77.1 |
| Dichlorodifluoromethane | <6 µg/kg | TM116 | <120 M | <6 M | <60 M | <6 M | <6 M | <6 M |
| Chloromethane | <7 µg/kg | TM116 | <140 # | <7 # | <70 # | <7 # | <7 # | <7 # |
| Vinyl Chloride | <6 µg/kg | TM116 | <120 M | <6 M | <60 M | <6 M | <6 M | <6 M |
| Bromomethane | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Chloroethane | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Trichlorofluoromethane | <6 µg/kg | TM116 | <120 M | <6 M | <60 M | <6 M | <6 M | <6 M |
| 1,1-Dichloroethene | <10 µg/kg | TM116 | <200 # | <10 # | <100 # | <10 # | <10 # | <10 # |
| Carbon Disulphide | <7 µg/kg | TM116 | <140 M | <7 M | <70 M | <7 M | <7 M | <7 M |
| Dichloromethane | <10 µg/kg | TM116 | <200 # | <10 # | <100 # | <10 # | <10 # | <10 # |
| Methyl Tertiary Butyl Ether | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| trans-1,2-Dichloroethene | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| 1,1-Dichloroethane | <8 µg/kg | TM116 | <160 M | <8 M | <80 M | <8 M | <8 M | <8 M |
| cis-1,2-Dichloroethene | <6 µg/kg | TM116 | <120 M | <6 M | <60 M | <6 M | <6 M | <6 M |
| 2,2-Dichloropropane | <10 µg/kg | TM116 | <200 | <10 | <100 | <10 | <10 | <10 |
| Bromochloromethane | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Chloroform | <8 µg/kg | TM116 | <160 M | <8 M | <80 M | <8 M | <8 M | <8 M |
| 1,1,1-Trichloroethane | <7 µg/kg | TM116 | <140 M | <7 M | <70 M | <7 M | - M | <7 M |
| 1,1-Dichloropropene | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Carbontetrachloride | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | - M | <10 M |
| 1,2-Dichloroethane | <5 µg/kg | TM116 | <100 M | <5 M | <50 M | <5 M | <5 M | <5 M |
| Benzene | <9 µg/kg | TM116 | <180 M | <9 M | <90 M | <9 M | <9 M | <9 M |
| Trichloroethene | <9 µg/kg | TM116 | <180 # | <9 # | <90 # | <9 # | <9 # | <9 # |
| 1,2-Dichloropropane | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Dibromomethane | <9 µg/kg | TM116 | <180 M | <9 M | <90 M | <9 M | <9 M | <9 M |
| Bromodichloromethane | <7 µg/kg | TM116 | <140 M | <7 M | <70 M | <7 M | <7 M | <7 M |
| cis-1,3-Dichloropropene | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Toluene | <7 µg/kg | TM116 | <140 M | <7 M | <70 M | <7 M | <7 M | <7 M |
| trans-1,3-Dichloropropene | <10 µg/kg | TM116 | <200 | <10 | <100 | <10 | <10 | <10 |
| 1,1,2-Trichloroethane | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| 1,3-Dichloropropane | <7 µg/kg | TM116 | <140 M | <7 M | <70 M | <7 M | <7 M | <7 M |

09:15:38 21/02/2018

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

| Results Legend | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS48 | WS49 | WS49 | WS50 | WS51 | WS51 |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 0.20 | 1.50 | 2.50 | 0.50 | 0.30 | 1.80 |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Date Sampled | | | 06/02/2018 | 06/02/2018 | 06/02/2018 | 06/02/2018 | 05/02/2018 | 05/02/2018 |
| Sample Time | | | - | - | - | - | - | - |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 | 180213-19 |
| Lab Sample No.(s) | | | 17036551 | 17036553 | 17036554 | 17036555 | 17036557 | 17036559 |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Tetrachloroethene | <5 µg/kg | TM116 | <100 M | <5 M | <50 M | <5 M | <5 M | <5 M |
| Dibromochloromethane | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| 1,2-Dibromoethane | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Chlorobenzene | <5 µg/kg | TM116 | <100 M | <5 M | <50 M | <5 M | <5 M | <5 M |
| 1,1,1,2-Tetrachloroethane | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Ethylbenzene | <4 µg/kg | TM116 | <80 M | <4 M | <40 M | <4 M | <4 M | <4 M |
| p/m-Xylene | <10 µg/kg | TM116 | <200 # | <10 # | <100 # | <10 # | <10 # | <10 # |
| o-Xylene | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Styrene | <10 µg/kg | TM116 | <200 # | <10 # | <100 # | <10 # | <10 # | <10 # |
| Bromoform | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Isopropylbenzene | <5 µg/kg | TM116 | <100 # | <5 # | <50 # | <5 # | <5 # | <5 # |
| 1,1,2,2-Tetrachloroethane | <10 µg/kg | TM116 | <200 # | <10 # | <100 # | <10 # | <10 # | <10 # |
| 1,2,3-Trichloropropane | <16 µg/kg | TM116 | <320 M | <16 M | <160 M | <16 M | <16 M | <16 M |
| Bromobenzene | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| Propylbenzene | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| 2-Chlorotoluene | <9 µg/kg | TM116 | <180 M | <9 M | <90 M | <9 M | <9 M | <9 M |
| 1,3,5-Trimethylbenzene | <8 µg/kg | TM116 | <160 M | <8 M | <80 M | <8 M | <8 M | 46.7 M |
| 4-Chlorotoluene | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| tert-Butylbenzene | <14 µg/kg | TM116 | <280 M | <14 M | <140 M | <14 M | <14 M | <14 M |
| 1,2,4-Trimethylbenzene | <9 µg/kg | TM116 | <180 # | <9 # | 542 # | <9 # | <9 # | <9 # |
| sec-Butylbenzene | <10 µg/kg | TM116 | <200 | <10 | <100 | <10 | <10 | 81.1 |
| 4-Isopropyltoluene | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| 1,3-Dichlorobenzene | <8 µg/kg | TM116 | <160 M | <8 M | <80 M | <8 M | <8 M | <8 M |
| 1,4-Dichlorobenzene | <5 µg/kg | TM116 | <100 M | <5 M | <50 M | <5 M | <5 M | <5 M |
| n-Butylbenzene | <11 µg/kg | TM116 | <220 | <11 | 195 | <11 | <11 | <11 |
| 1,2-Dichlorobenzene | <10 µg/kg | TM116 | <200 M | <10 M | <100 M | <10 M | <10 M | <10 M |
| 1,2-Dibromo-3-chloropropane | <14 µg/kg | TM116 | <280 M | <14 M | <140 M | <14 M | <14 M | <14 M |
| Tert-amyl methyl ether | <10 µg/kg | TM116 | <200 # | <10 # | <100 # | <10 # | <10 # | <10 # |
| 1,2,4-Trichlorobenzene | <20 µg/kg | TM116 | <400 | <20 | <200 | <20 | <20 | <20 |
| Hexachlorobutadiene | <20 µg/kg | TM116 | <400 | <20 | <200 | <20 | <20 | <20 |
| Naphthalene | <13 µg/kg | TM116 | <260 M | <13 M | <130 M | <13 M | 124 M | <13 M |
| 1,2,3-Trichlorobenzene | <20 µg/kg | TM116 | <400 # | <20 # | <200 # | <20 # | <20 # | <20 # |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS51 | WS52 | WS53 | WS54 | | |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 3.50 | 0.30 | 0.60 | 0.20 | | |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | | |
| Date Sampled | | | 05/02/2018 | 05/02/2018 | 06/02/2018 | 07/02/2018 | | |
| Sample Time | | | . | . | . | . | | |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | | |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | | |
| Lab Sample No.(s) | | | 17036560 | 17036561 | 17036562 | 17036563 | | |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Dibromofluoromethane** | % | TM116 | 105 | 123 | 105 2 | 18 | | |
| Toluene-d8** | % | TM116 | 100 | 90.4 | 101 2 | 78.7 | | |
| 4-Bromofluorobenzene** | % | TM116 | 96.2 | 68.9 | 99.2 2 | 76.4 | | |
| Dichlorodifluoromethane | <6 µg/kg | TM116 | <6 M | <6 M | <6 2 M | <6 M | | |
| Chloromethane | <7 µg/kg | TM116 | <7 # | <7 # | <7 2 # | <7 # | | |
| Vinyl Chloride | <6 µg/kg | TM116 | <6 M | <6 M | <6 2 M | <6 M | | |
| Bromomethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Chloroethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Trichlorofluoromethane | <6 µg/kg | TM116 | <6 M | <6 M | <6 2 M | <6 M | | |
| 1,1-Dichloroethene | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <10 # | | |
| Carbon Disulphide | <7 µg/kg | TM116 | <7 M | <7 M | <7 2 M | <7 M | | |
| Dichloromethane | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <10 # | | |
| Methyl Tertiary Butyl Ether | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| trans-1,2-Dichloroethene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| 1,1-Dichloroethane | <8 µg/kg | TM116 | <8 M | <8 M | <8 2 M | <8 M | | |
| cis-1,2-Dichloroethene | <6 µg/kg | TM116 | <6 M | 15.6 M | <6 2 M | <6 M | | |
| 2,2-Dichloropropane | <10 µg/kg | TM116 | <10 | <10 | <10 2 | <10 | | |
| Bromochloromethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Chloroform | <8 µg/kg | TM116 | <8 M | <8 M | <8 2 M | <8 M | | |
| 1,1,1-Trichloroethane | <7 µg/kg | TM116 | <7 M | <7 M | <7 3 M | <7 M | | |
| 1,1-Dichloropropene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Carbontetrachloride | <10 µg/kg | TM116 | <10 M | <10 M | <10 3 M | <10 M | | |
| 1,2-Dichloroethane | <5 µg/kg | TM116 | <5 M | <5 M | <5 3 M | <5 M | | |
| Benzene | <9 µg/kg | TM116 | <9 M | <9 M | <9 2 M | <9 M | | |
| Trichloroethene | <9 µg/kg | TM116 | <9 # | 171 # | <9 2 # | <9 # | | |
| 1,2-Dichloropropane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Dibromomethane | <9 µg/kg | TM116 | <9 M | <9 M | <9 2 M | <9 M | | |
| Bromodichloromethane | <7 µg/kg | TM116 | <7 M | <7 M | <7 2 M | <7 M | | |
| cis-1,3-Dichloropropene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Toluene | <7 µg/kg | TM116 | <7 M | 8.13 M | <7 2 M | <7 M | | |
| trans-1,3-Dichloropropene | <10 µg/kg | TM116 | <10 | <10 | <10 2 | <10 | | |
| 1,1,2-Trichloroethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| 1,3-Dichloropropane | <7 µg/kg | TM116 | <7 M | <7 M | <7 2 M | <7 M | | |

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## VOC MS (S)

**Results Legend**

| | |
|---|---|
| # | ISO17025 accredited. |
| M | *m*CERTS accredited. |
| aq | Aqueous / settled sample. |
| diss.filt | Dissolved / filtered sample. |
| tot.unfilt | Total / unfiltered sample. |
| * | Subcontracted test. |
| ** | % recovery of the surrogate standard to check the efficiency of the method. The results of individual compounds within samples aren't corrected for the recovery |
| (F) | Trigger breach confirmed |
| 1-5&+§@ | Sample deviation (see appendix) |

| Customer Sample Ref. | | | WS51 | WS52 | WS53 | WS54 | | |
|---|---|---|---|---|---|---|---|---|
| Depth (m) | | | 3.50 | 0.30 | 0.60 | 0.20 | | |
| Sample Type | | | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | | |
| Date Sampled | | | 05/02/2018 | 05/02/2018 | 06/02/2018 | 07/02/2018 | | |
| Sample Time | | | - | - | - | - | | |
| Date Received | | | 13/02/2018 | 13/02/2018 | 13/02/2018 | 13/02/2018 | | |
| SDG Ref | | | 180213-19 | 180213-19 | 180213-19 | 180213-19 | | |
| Lab Sample No.(s) | | | 17036560 | 17036561 | 17036562 | 17036563 | | |
| AGS Reference | | | | | | | | |
| **Component** | **LOD/Units** | **Method** | | | | | | |
| Tetrachloroethene | <5 µg/kg | TM116 | <5 M | <5 M | <5 2 M | <5 M | | |
| Dibromochloromethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| 1,2-Dibromoethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Chlorobenzene | <5 µg/kg | TM116 | <5 M | <5 M | <5 2 M | <5 M | | |
| 1,1,1,2-Tetrachloroethane | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Ethylbenzene | <4 µg/kg | TM116 | <4 M | <4 M | <4 2 M | <4 M | | |
| p/m-Xylene | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <10 # | | |
| o-Xylene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Styrene | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <10 # | | |
| Bromoform | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Isopropylbenzene | <5 µg/kg | TM116 | <5 # | <5 # | <5 2 # | <5 # | | |
| 1,1,2,2-Tetrachloroethane | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <10 # | | |
| 1,2,3-Trichloropropane | <16 µg/kg | TM116 | <16 M | <16 M | <16 2 M | <16 M | | |
| Bromobenzene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| Propylbenzene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| 2-Chlorotoluene | <9 µg/kg | TM116 | <9 M | <9 M | <9 2 M | <9 M | | |
| 1,3,5-Trimethylbenzene | <8 µg/kg | TM116 | <8 M | <8 M | <8 2 M | <8 M | | |
| 4-Chlorotoluene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| tert-Butylbenzene | <14 µg/kg | TM116 | <14 M | <14 M | <14 2 M | <14 M | | |
| 1,2,4-Trimethylbenzene | <9 µg/kg | TM116 | <9 # | <9 # | <9 2 # | <9 # | | |
| sec-Butylbenzene | <10 µg/kg | TM116 | <10 | <10 | <10 2 | <10 | | |
| 4-Isopropyltoluene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| 1,3-Dichlorobenzene | <8 µg/kg | TM116 | <8 M | <8 M | <8 2 M | <8 M | | |
| 1,4-Dichlorobenzene | <5 µg/kg | TM116 | <5 M | <5 M | <5 2 M | <5 M | | |
| n-Butylbenzene | <11 µg/kg | TM116 | <11 | <11 | <11 2 | <11 | | |
| 1,2-Dichlorobenzene | <10 µg/kg | TM116 | <10 M | <10 M | <10 2 M | <10 M | | |
| 1,2-Dibromo-3-chloropropane | <14 µg/kg | TM116 | <14 M | <14 M | <14 2 M | <14 M | | |
| Tert-amyl methyl ether | <10 µg/kg | TM116 | <10 # | <10 # | <10 2 # | <10 # | | |
| 1,2,4-Trichlorobenzene | <20 µg/kg | TM116 | <20 | <20 | <20 2 | <20 | | |
| Hexachlorobutadiene | <20 µg/kg | TM116 | <20 | <20 | <20 2 | <20 | | |
| Naphthalene | <13 µg/kg | TM116 | <13 M | <13 M | <13 2 M | <13 M | | |
| 1,2,3-Trichlorobenzene | <20 µg/kg | TM116 | <20 # | <20 # | <20 2 # | <20 # | | |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## Asbestos Identification - Bulk

| | | Date of Analysis | Analysed by | Comments | Actinolite, Fibrous | Anthophyllite, Fibrous | Asbestos, Amosite (brown) | Asbestos, Chrysotile (white) | Asbestos, Crocidolite (blue) | Non-asbestos fibre | Tremolite, Fibrous |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS28_ASB<br>0.90<br>SOLID<br>08/02/2018 00:00:00<br>13/02/2018 11:52:47<br>180213-19<br>17040174<br>TM048 | 22/02/18 | Christian Hallam | Material typical of Asbestos Cement | Not Detected (#) | Not Detected (#) | Not Detected (#) | Detected (#) | Not Detected (#) | Not Detected | Not Detected (#) |

# Asbestos Identification - Solid Samples

| | | Date of Analysis | Analysed By | Comments | Amosite (Brown) Asbestos | Chrysotile (White) Asbestos | Crocidolite (Blue) Asbestos | Fibrous Actinolite | Fibrous Anthophyllite | Fibrous Tremolite | Non-Asbestos Fibre |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS2<br>0.20<br>SOLID<br>09/02/2018 00:00:00<br>14/02/2018 11:23:52<br>180213-19<br>17036517<br>TM048 | 20/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS2<br>1.10<br>SOLID<br>09/02/2018 00:00:00<br>14/02/2018 11:22:08<br>180213-19<br>17036518<br>TM048 | 20/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS3<br>0.20<br>SOLID<br>09/02/2018 00:00:00<br>14/02/2018 11:18:41<br>180213-19<br>17036519<br>TM048 | 20/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS10<br>0.20<br>SOLID<br>09/02/2018 00:00:00<br>14/02/2018 11:20:30<br>180213-19<br>17036520<br>TM048 | 20/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS19<br>0.20<br>SOLID<br>07/02/2018 00:00:00<br>14/02/2018 10:05:44<br>180213-19<br>17036521<br>TM048 | 20/02/2018 | Marcin Magdziarek | Soil containing ACM debris | Not Detected (#) | Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS20<br>0.20<br>SOLID<br>07/02/2018 00:00:00<br>14/02/2018 10:02:13<br>180213-19<br>17036523<br>TM048 | 20/02/2018 | James Richards | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |

Validated

# CERTIFICATE OF ANALYSIS

**SDG:** 180213-19 **Client Reference:** A107448 **Report Number:** 445329
**Location:** Meggitt, Coventry **Order Number:** NOT/1305 **Superseded Report:**

| | | Date of Analysis | Analysed By | Comments | Amosite (Brown) Asbestos | Chrysotile (White) Asbestos | Crocidolite (Blue) Asbestos | Fibrous Actinolite | Fibrous Anthophyllite | Fibrous Tremolite | Non-Asbestos Fibre |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS21<br>0.50<br>SOLID<br>08/02/2018 00:00:00<br>14/02/2018 10:04:09<br>180213-19<br>17036525<br>TM048 | 20/02/2018 | Marcin Magdziarek | Soil containing ACM debris | Not Detected (#) | Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS22<br>0.20<br>SOLID<br>09/02/2018 00:00:00<br>14/02/2018 11:34:02<br>180213-19<br>17036526<br>TM048 | 20/02/2018 | Marcin Magdziarek | Loose fibre in soil | Detected (#) | Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS33<br>0.40<br>SOLID<br>06/02/2018 00:00:00<br>14/02/2018 11:49:00<br>180213-19<br>17036536<br>TM048 | 20/02/2018 | James Richards | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS34<br>0.30<br>SOLID<br>07/02/2018 00:00:00<br>14/02/2018 11:28:22<br>180213-19<br>17036538<br>TM048 | 20/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS36<br>0.20<br>SOLID<br>08/02/2018 00:00:00<br>14/02/2018 11:26:38<br>180213-19<br>17036541<br>TM048 | 19/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS43<br>0.10<br>SOLID<br>06/02/2018 00:00:00<br>14/02/2018 11:43:34<br>180213-19<br>17036542<br>TM048 | 20/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Detected |

Validated

# CERTIFICATE OF ANALYSIS

**SDG:** 180213-19 **Client Reference:** A107448 **Report Number:** 445329
**Location:** Meggitt, Coventry **Order Number:** NOT/1305 **Superseded Report:**

| | | Date of Analysis | Analysed By | Comments | Amosite (Brown) Asbestos | Chrysotile (White) Asbestos | Crocidolite (Blue) Asbestos | Fibrous Actinolite | Fibrous Anthophyllite | Fibrous Tremolite | Non-Asbestos Fibre |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS44<br>0.20<br>SOLID<br>06/02/2018 00:00:00<br>14/02/2018 11:41:50<br>180213-19<br>17036545<br>TM048 | 20/02/2018 | James Richards | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS45<br>0.15<br>SOLID<br>06/02/2018 00:00:00<br>14/02/2018 11:45:33<br>180213-19<br>17036546<br>TM048 | 20/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS47<br>0.10<br>SOLID<br>07/02/2018 00:00:00<br>14/02/2018 11:51:46<br>180213-19<br>17036550<br>TM048 | 19/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS48<br>0.20<br>SOLID<br>06/02/2018 00:00:00<br>14/02/2018 11:53:18<br>180213-19<br>17036551<br>TM048 | 20/02/2018 | James Richards | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS51<br>0.30<br>SOLID<br>05/02/2018 00:00:00<br>14/02/2018 11:58:35<br>180213-19<br>17036557<br>TM048 | 19/02/2018 | Marcin Magdziarek | - | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS52<br>0.30<br>SOLID<br>05/02/2018 00:00:00<br>14/02/2018 13:33:24<br>180213-19<br>17036561<br>TM048 | 19/02/2018 | Marcin Magdziarek | loose fibres in soil | Detected (#) | Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

| | | Date of Analysis | Analysed By | Comments | Amosite (Brown) Asbestos | Chrysotile (White) Asbestos | Crocidolite (Blue) Asbestos | Fibrous Actinolite | Fibrous Anthophyllite | Fibrous Tremolite | Non-Asbestos Fibre |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Cust. Sample Ref.<br>Depth (m)<br>Sample Type<br>Date Sampled<br>Date Receieved<br>SDG<br>Original Sample<br>Method Number | WS54<br>0.20<br>SOLID<br>07/02/2018 00:00:00<br>14/02/2018 12:01:05<br>180213-19<br>17036563<br>TM048 | 19/02/2018 | Marcin Magdziarek | Loose fibres in soil | Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected (#) | Not Detected |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.114 | **Natural Moisture Content (%)** | 26.6 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 79 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036517 | | | |
| **Sampled Date** | 09-Feb-2018 | | | |
| **Customer Sample Ref.** | WS2 | | | |
| **Depth (m)** | 0.20 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 8 | <0.001 | 80 | <0.01 | - | - | - |
| Sulphate (soluble) | 51.3 | <2 | 513 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.000856 | <0.0005 | 0.00856 | <0.005 | - | - | - |
| Boron | 0.0848 | <0.005 | 0.848 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.00163 | <0.0003 | 0.0163 | <0.003 | - | - | - |
| Lead | <0.0002 | <0.0002 | <0.002 | <0.002 | - | - | - |
| Nickel | 0.000475 | <0.0004 | 0.00475 | <0.004 | - | - | - |
| Selenium | 0.000645 | <0.0005 | 0.00645 | <0.005 | - | - | - |
| Zinc | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 8.22 |
| Conductivity (µS/cm) | 204.00 |
| Temperature (ºC) | 21.10 |
| Volume Leachant (Litres) | 0.876 |

Mcerts Certification does not apply to leachates
21/02/2018 09:16:27

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.105 | **Natural Moisture Content (%)** | 16.3 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 86 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036519 | | | |
| **Sampled Date** | 09-Feb-2018 | | | |
| **Customer Sample Ref.** | WS3 | | | |
| **Depth (m)** | 0.20 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 8.4 | <0.001 | 84 | <0.01 | - | - | - |
| Sulphate (soluble) | 5.8 | <2 | 58 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00747 | <0.0005 | 0.0747 | <0.005 | - | - | - |
| Boron | 0.0244 | <0.005 | 0.244 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.00243 | <0.0003 | 0.0243 | <0.003 | - | - | - |
| Lead | 0.000462 | <0.0002 | 0.00462 | <0.002 | - | - | - |
| Nickel | 0.000511 | <0.0004 | 0.00511 | <0.004 | - | - | - |
| Selenium | 0.00117 | <0.0005 | 0.0117 | <0.005 | - | - | - |
| Zinc | 0.00153 | <0.001 | 0.0153 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 8.34 |
| Conductivity (µS/cm) | 334.00 |
| Temperature (ºC) | 21.00 |
| Volume Leachant (Litres) | 0.885 |

Mcerts Certification does not apply to leachates
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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.116 | **Natural Moisture Content (%)** | 28.2 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 78 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036520 | | | |
| **Sampled Date** | 09-Feb-2018 | | | |
| **Customer Sample Ref.** | WS10 | | | |
| **Depth (m)** | 0.20 | | | |

| **Eluate Analysis** | **C2** Conc$^n$ in 10:1 eluate (mg/l) | | **A2** 10:1 conc$^n$ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 9 | <0.001 | 90 | <0.01 | - | - | - |
| Sulphate (soluble) | 3.7 | <2 | 37 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | 0.0000299 | <0.00001 | 0.000299 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.0066 | <0.0005 | 0.066 | <0.005 | - | - | - |
| Boron | 0.107 | <0.005 | 1.07 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.00397 | <0.0003 | 0.0397 | <0.003 | - | - | - |
| Lead | 0.00176 | <0.0002 | 0.0176 | <0.002 | - | - | - |
| Nickel | 0.00116 | <0.0004 | 0.0116 | <0.004 | - | - | - |
| Selenium | 0.00111 | <0.0005 | 0.0111 | <0.005 | - | - | - |
| Zinc | 0.00468 | <0.001 | 0.0468 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 8.90 |
| Conductivity (µS/cm) | 166.00 |
| Temperature (ºC) | 20.90 |
| Volume Leachant (Litres) | 0.875 |

Mcerts Certification does not apply to leachates
21/02/2018 09:16:27

09:15:38 21/02/2018

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.106 | **Natural Moisture Content (%)** | 17.6 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 85 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036521 | | | |
| **Sampled Date** | 07-Feb-2018 | | | |
| **Customer Sample Ref.** | WS19 | | | |
| **Depth (m)** | 0.20 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 7.9 | <0.001 | 79 | <0.01 | - | - | - |
| Sulphate (soluble) | 23.8 | <2 | 238 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00129 | <0.0005 | 0.0129 | <0.005 | - | - | - |
| Boron | 0.0333 | <0.005 | 0.333 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.00278 | <0.0003 | 0.0278 | <0.003 | - | - | - |
| Lead | <0.0002 | <0.0002 | <0.002 | <0.002 | - | - | - |
| Nickel | 0.000812 | <0.0004 | 0.00812 | <0.004 | - | - | - |
| Selenium | <0.0005 | <0.0005 | <0.005 | <0.005 | - | - | - |
| Zinc | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 7.73 |
| Conductivity (µS/cm) | 166.00 |
| Temperature (ºC) | 19.50 |
| Volume Leachant (Litres) | 0.884 |

Mcerts Certification does not apply to leachates
21/02/2018 09:16:27

09:15:38 21/02/2018

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.097 | **Natural Moisture Content (%)** | 8.23 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 92.4 |
| **Particle Size <4mm** | >95% | | |

| | |
|---|---|
| **Case** | |
| **SDG** | 180213-19 |
| **Lab Sample Number(s)** | 17036523 |
| **Sampled Date** | 07-Feb-2018 |
| **Customer Sample Ref.** | WS20 |
| **Depth (m)** | 0.20 |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 9.9 | <0.001 | 99 | <0.01 | - | - | - |
| Sulphate (soluble) | <10 | <10 | <100 | <100 | - | - | - |
| Mercury Dissolved (CVAF) | 0.0000767 | <0.00001 | 0.000767 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.0059 | <0.0005 | 0.059 | <0.005 | - | - | - |
| Boron | 0.038 | <0.005 | 0.38 | <0.05 | - | - | - |
| Cadmium | 0.000578 | <0.00008 | 0.00578 | <0.0008 | - | - | - |
| Chromium | 0.00161 | <0.001 | 0.0161 | <0.01 | - | - | - |
| Copper | 0.0288 | <0.0003 | 0.288 | <0.003 | - | - | - |
| Lead | 0.00162 | <0.0002 | 0.0162 | <0.002 | - | - | - |
| Nickel | 0.00771 | <0.0004 | 0.0771 | <0.004 | - | - | - |
| Selenium | 0.000574 | <0.0005 | 0.00574 | <0.005 | - | - | - |
| Zinc | 0.00584 | <0.001 | 0.0584 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 9.79 |
| Conductivity (µS/cm) | 266.00 |
| Temperature (ºC) | 21.00 |
| Volume Leachant (Litres) | 0.893 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.113 | **Natural Moisture Content (%)** | 26.6 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 79 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036525 | | | |
| **Sampled Date** | 08-Feb-2018 | | | |
| **Customer Sample Ref.** | WS21 | | | |
| **Depth (m)** | 0.50 | | | |

| **Eluate Analysis** | **C2** Conc$^n$ in 10:1 eluate (mg/l) | | **A2** 10:1 conc$^n$ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 8.5 | <0.001 | 85 | <0.01 | - | - | - |
| Sulphate (soluble) | 17.4 | <2 | 174 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00456 | <0.0005 | 0.0456 | <0.005 | - | - | - |
| Boron | 0.0506 | <0.005 | 0.506 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.00303 | <0.0003 | 0.0303 | <0.003 | - | - | - |
| Lead | 0.00181 | <0.0002 | 0.0181 | <0.002 | - | - | - |
| Nickel | 0.000814 | <0.0004 | 0.00814 | <0.004 | - | - | - |
| Selenium | 0.00219 | <0.0005 | 0.0219 | <0.005 | - | - | - |
| Zinc | 0.00175 | <0.001 | 0.0175 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 7.81 |
| Conductivity (µS/cm) | 209.00 |
| Temperature (ºC) | 20.90 |
| Volume Leachant (Litres) | 0.876 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.107 | **Natural Moisture Content (%)** | 19 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 84 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036526 | | | |
| **Sampled Date** | 09-Feb-2018 | | | |
| **Customer Sample Ref.** | WS22 | | | |
| **Depth (m)** | 0.20 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 8 | <0.001 | 80 | <0.01 | - | - | - |
| Sulphate (soluble) | 10.4 | <2 | 104 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00743 | <0.0005 | 0.0743 | <0.005 | - | - | - |
| Boron | 0.0233 | <0.005 | 0.233 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.00108 | <0.0003 | 0.0108 | <0.003 | - | - | - |
| Lead | 0.000428 | <0.0002 | 0.00428 | <0.002 | - | - | - |
| Nickel | 0.00165 | <0.0004 | 0.0165 | <0.004 | - | - | - |
| Selenium | 0.000727 | <0.0005 | 0.00727 | <0.005 | - | - | - |
| Zinc | 0.00139 | <0.001 | 0.0139 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 8.84 |
| Conductivity (µS/cm) | 212.00 |
| Temperature (ºC) | 21.00 |
| Volume Leachant (Litres) | 0.883 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.104 | **Natural Moisture Content (%)** | 16.3 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 86 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036528 | | | |
| **Sampled Date** | 07-Feb-2018 | | | |
| **Customer Sample Ref.** | WS26 | | | |
| **Depth (m)** | 0.30 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 8.8 | <0.001 | 88 | <0.01 | - | - | - |
| Sulphate (soluble) | 13.3 | <2 | 133 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | 0.000019 | <0.00001 | 0.00019 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.0153 | <0.0005 | 0.153 | <0.005 | - | - | - |
| Boron | 0.0492 | <0.005 | 0.492 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | 0.00583 | <0.001 | 0.0583 | <0.01 | - | - | - |
| Copper | 0.00525 | <0.0003 | 0.0525 | <0.003 | - | - | - |
| Lead | 0.00093 | <0.0002 | 0.0093 | <0.002 | - | - | - |
| Nickel | 0.000667 | <0.0004 | 0.00667 | <0.004 | - | - | - |
| Selenium | 0.00247 | <0.0005 | 0.0247 | <0.005 | - | - | - |
| Zinc | 0.00241 | <0.001 | 0.0241 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 8.93 |
| Conductivity (µS/cm) | 104.00 |
| Temperature (ºC) | 19.80 |
| Volume Leachant (Litres) | 0.885 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.103 | **Natural Moisture Content (%)** | 14.9 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 87 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036529 | | | |
| **Sampled Date** | 08-Feb-2018 | | | |
| **Customer Sample Ref.** | WS28 | | | |
| **Depth (m)** | 0.30 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 8.5 | <0.001 | 85 | <0.01 | - | - | - |
| Sulphate (soluble) | 6.2 | <2 | 62 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.0176 | <0.0005 | 0.176 | <0.005 | - | - | - |
| Boron | 0.0141 | <0.005 | 0.141 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | 0.00214 | <0.001 | 0.0214 | <0.01 | - | - | - |
| Copper | 0.00259 | <0.0003 | 0.0259 | <0.003 | - | - | - |
| Lead | 0.000699 | <0.0002 | 0.00699 | <0.002 | - | - | - |
| Nickel | <0.0004 | <0.0004 | <0.004 | <0.004 | - | - | - |
| Selenium | 0.000831 | <0.0005 | 0.00831 | <0.005 | - | - | - |
| Zinc | 0.00114 | <0.001 | 0.0114 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 8.51 |
| Conductivity (µS/cm) | 73.60 |
| Temperature (ºC) | 20.40 |
| Volume Leachant (Litres) | 0.887 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.097 | **Natural Moisture Content (%)** | 7.53 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 93 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036531 | | | |
| **Sampled Date** | 07-Feb-2018 | | | |
| **Customer Sample Ref.** | WS29 | | | |
| **Depth (m)** | 0.50 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 9.8 | <0.001 | 98 | <0.01 | - | - | - |
| Sulphate (soluble) | 41.2 | <2 | 412 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.0134 | <0.0005 | 0.134 | <0.005 | - | - | - |
| Boron | 0.0535 | <0.005 | 0.535 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | 0.00223 | <0.001 | 0.0223 | <0.01 | - | - | - |
| Copper | 0.0231 | <0.0003 | 0.231 | <0.003 | - | - | - |
| Lead | 0.000706 | <0.0002 | 0.00706 | <0.002 | - | - | - |
| Nickel | 0.00107 | <0.0004 | 0.0107 | <0.004 | - | - | - |
| Selenium | 0.0017 | <0.0005 | 0.017 | <0.005 | - | - | - |
| Zinc | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 10.22 |
| Conductivity (µS/cm) | 199.00 |
| Temperature (ºC) | 20.20 |
| Volume Leachant (Litres) | 0.893 |

Mcerts Certification does not apply to leachates
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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.106 | **Natural Moisture Content (%)** | 17.6 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 85 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036533 | | | |
| **Sampled Date** | 08-Feb-2018 | | | |
| **Customer Sample Ref.** | WS31 | | | |
| **Depth (m)** | 0.50 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 8.1 | <0.001 | 81 | <0.01 | - | - | - |
| Sulphate (soluble) | 34.7 | <2 | 347 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00146 | <0.0005 | 0.0146 | <0.005 | - | - | - |
| Boron | 0.0903 | <0.005 | 0.903 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.00231 | <0.0003 | 0.0231 | <0.003 | - | - | - |
| Lead | 0.000453 | <0.0002 | 0.00453 | <0.002 | - | - | - |
| Nickel | 0.000959 | <0.0004 | 0.00959 | <0.004 | - | - | - |
| Selenium | 0.00159 | <0.0005 | 0.0159 | <0.005 | - | - | - |
| Zinc | 0.00218 | <0.001 | 0.0218 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 7.36 |
| Conductivity (µS/cm) | 227.00 |
| Temperature (ºC) | 19.50 |
| Volume Leachant (Litres) | 0.884 |

Mcerts Certification does not apply to leachates
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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.106 | **Natural Moisture Content (%)** | 17.6 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 85 |
| **Particle Size <4mm** | >95% | | |

| | |
|---|---|
| **Case** | |
| **SDG** | 180213-19 |
| **Lab Sample Number(s)** | 17036536 |
| **Sampled Date** | 06-Feb-2018 |
| **Customer Sample Ref.** | WS33 |
| **Depth (m)** | 0.40 |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | 0.413 | <0.2 | 4.13 | <2 | - | - | - |
| pH Value of Filtered Water | 7.2 | <0.001 | 72 | <0.01 | - | - | - |
| Sulphate (soluble) | 9 | <2 | 90 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00129 | <0.0005 | 0.0129 | <0.005 | - | - | - |
| Boron | 0.268 | <0.005 | 2.68 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.000441 | <0.0003 | 0.00441 | <0.003 | - | - | - |
| Lead | 0.00319 | <0.0002 | 0.0319 | <0.002 | - | - | - |
| Nickel | 0.0154 | <0.0004 | 0.154 | <0.004 | - | - | - |
| Selenium | 0.0033 | <0.0005 | 0.033 | <0.005 | - | - | - |
| Zinc | 0.0456 | <0.001 | 0.456 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 6.41 |
| Conductivity (µS/cm) | 357.00 |
| Temperature (ºC) | 19.70 |
| Volume Leachant (Litres) | 0.884 |

Mcerts Certification does not apply to leachates
21/02/2018 09:16:27

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Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.096 | **Natural Moisture Content (%)** | 6.38 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 94 |
| **Particle Size <4mm** | >95% | | |

| | |
|---|---|
| **Case** | |
| **SDG** | 180213-19 |
| **Lab Sample Number(s)** | 17036539 |
| **Sampled Date** | 07-Feb-2018 |
| **Customer Sample Ref.** | WS35 |
| **Depth (m)** | 0.30 |

| **Eluate Analysis** | **$C_2$** Conc$^n$ in 10:1 eluate (mg/l) | | **$A_2$** 10:1 conc$^n$ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 10 | <0.001 | 100 | <0.01 | - | - | - |
| Sulphate (soluble) | 4 | <2 | 40 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00225 | <0.0005 | 0.0225 | <0.005 | - | - | - |
| Boron | 0.0112 | <0.005 | 0.112 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.0021 | <0.0003 | 0.021 | <0.003 | - | - | - |
| Lead | <0.0002 | <0.0002 | <0.002 | <0.002 | - | - | - |
| Nickel | <0.0004 | <0.0004 | <0.004 | <0.004 | - | - | - |
| Selenium | <0.0005 | <0.0005 | <0.005 | <0.005 | - | - | - |
| Zinc | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 10.33 |
| Conductivity (µS/cm) | 113.00 |
| Temperature (ºC) | 19.60 |
| Volume Leachant (Litres) | 0.894 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.099 | **Natural Moisture Content (%)** | 10 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 90.9 |
| **Particle Size <4mm** | >95% | | |

| | |
|---|---|
| **Case** | |
| **SDG** | 180213-19 |
| **Lab Sample Number(s)** | 17036541 |
| **Sampled Date** | 08-Feb-2018 |
| **Customer Sample Ref.** | WS36 |
| **Depth (m)** | 0.20 |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | 0.608 | <0.2 | 6.08 | <2 | - | - | - |
| pH Value of Filtered Water | 5.2 | <0.001 | 52 | <0.01 | - | - | - |
| Sulphate (soluble) | 1610 | <10 | 16100 | <100 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00163 | <0.0005 | 0.0163 | <0.005 | - | - | - |
| Boron | 0.0211 | <0.005 | 0.211 | <0.05 | - | - | - |
| Cadmium | 0.00526 | <0.00008 | 0.0526 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.0448 | <0.0003 | 0.448 | <0.003 | - | - | - |
| Lead | 0.00186 | <0.0002 | 0.0186 | <0.002 | - | - | - |
| Nickel | 0.215 | <0.0004 | 2.15 | <0.004 | - | - | - |
| Selenium | 0.00121 | <0.0005 | 0.0121 | <0.005 | - | - | - |
| Zinc | 0.249 | <0.001 | 2.49 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 5.94 |
| Conductivity (µS/cm) | 2,240.00 |
| Temperature (ºC) | 19.70 |
| Volume Leachant (Litres) | 0.891 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.104 | **Natural Moisture Content (%)** | 14.9 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 87 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036545 | | | |
| **Sampled Date** | 06-Feb-2018 | | | |
| **Customer Sample Ref.** | WS44 | | | |
| **Depth (m)** | 0.20 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 12 | <0.001 | 120 | <0.01 | - | - | - |
| Sulphate (soluble) | 73.5 | <2 | 735 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.000983 | <0.0005 | 0.00983 | <0.005 | - | - | - |
| Boron | 0.00573 | <0.005 | 0.0573 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | 0.00531 | <0.001 | 0.0531 | <0.01 | - | - | - |
| Copper | 0.00895 | <0.0003 | 0.0895 | <0.003 | - | - | - |
| Lead | 0.000298 | <0.0002 | 0.00298 | <0.002 | - | - | - |
| Nickel | 0.00455 | <0.0004 | 0.0455 | <0.004 | - | - | - |
| Selenium | <0.0005 | <0.0005 | <0.005 | <0.005 | - | - | - |
| Zinc | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 15-Feb-2018 |
| pH (pH Units) | 11.69 |
| Conductivity (µS/cm) | 1,120.00 |
| Temperature (ºC) | 19.60 |
| Volume Leachant (Litres) | 0.887 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.095 | **Natural Moisture Content (%)** | 6.04 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 94.3 |
| **Particle Size <4mm** | >95% | | |

| | |
|---|---|
| **Case** | |
| **SDG** | 180213-19 |
| **Lab Sample Number(s)** | 17036546 |
| **Sampled Date** | 06-Feb-2018 |
| **Customer Sample Ref.** | WS45 |
| **Depth (m)** | 0.15 |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 8.1 | <0.001 | 81 | <0.01 | - | - | - |
| Sulphate (soluble) | 9.5 | <2 | 95 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00109 | <0.0005 | 0.0109 | <0.005 | - | - | - |
| Boron | 0.0251 | <0.005 | 0.251 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.000772 | <0.0003 | 0.00772 | <0.003 | - | - | - |
| Lead | <0.0002 | <0.0002 | <0.002 | <0.002 | - | - | - |
| Nickel | <0.0004 | <0.0004 | <0.004 | <0.004 | - | - | - |
| Selenium | <0.0005 | <0.0005 | <0.005 | <0.005 | - | - | - |
| Zinc | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 16-Feb-2018 |
| pH (pH Units) | 7.51 |
| Conductivity (µS/cm) | 90.20 |
| Temperature (ºC) | 19.10 |
| Volume Leachant (Litres) | 0.895 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.105 | **Natural Moisture Content (%)** | 16.3 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 86 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036550 | | | |
| **Sampled Date** | 07-Feb-2018 | | | |
| **Customer Sample Ref.** | WS47 | | | |
| **Depth (m)** | 0.10 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 7.4 | <0.001 | 74 | <0.01 | - | - | - |
| Sulphate (soluble) | 6.1 | <2 | 61 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | 0.0000185 | <0.00001 | 0.000185 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00708 | <0.0005 | 0.0708 | <0.005 | - | - | - |
| Boron | 0.0674 | <0.005 | 0.674 | <0.05 | - | - | - |
| Cadmium | 0.000532 | <0.00008 | 0.00532 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.0464 | <0.0003 | 0.464 | <0.003 | - | - | - |
| Lead | 0.00472 | <0.0002 | 0.0472 | <0.002 | - | - | - |
| Nickel | 0.00258 | <0.0004 | 0.0258 | <0.004 | - | - | - |
| Selenium | 0.000833 | <0.0005 | 0.00833 | <0.005 | - | - | - |
| Zinc | 0.393 | <0.001 | 3.93 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 16-Feb-2018 |
| pH (pH Units) | 6.77 |
| Conductivity (µS/cm) | 58.10 |
| Temperature (ºC) | 20.20 |
| Volume Leachant (Litres) | 0.885 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.099 | **Natural Moisture Content (%)** | 9.41 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 91.4 |
| **Particle Size <4mm** | >95% | | |

| | |
|---|---|
| **Case** | |
| **SDG** | 180213-19 |
| **Lab Sample Number(s)** | 17036555 |
| **Sampled Date** | 06-Feb-2018 |
| **Customer Sample Ref.** | WS50 |
| **Depth (m)** | 0.50 |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 11 | <0.001 | 110 | <0.01 | - | - | - |
| Sulphate (soluble) | 108 | <2 | 1080 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00186 | <0.0005 | 0.0186 | <0.005 | - | - | - |
| Boron | 0.156 | <0.005 | 1.56 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | 0.0088 | <0.001 | 0.088 | <0.01 | - | - | - |
| Copper | 0.00559 | <0.0003 | 0.0559 | <0.003 | - | - | - |
| Lead | 0.00271 | <0.0002 | 0.0271 | <0.002 | - | - | - |
| Nickel | <0.0004 | <0.0004 | <0.004 | <0.004 | - | - | - |
| Selenium | 0.00124 | <0.0005 | 0.0124 | <0.005 | - | - | - |
| Zinc | 0.00146 | <0.001 | 0.0146 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 16-Feb-2018 |
| pH (pH Units) | 10.92 |
| Conductivity (µS/cm) | 460.00 |
| Temperature (ºC) | 19.80 |
| Volume Leachant (Litres) | 0.892 |

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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.103 | **Natural Moisture Content (%)** | 14.9 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 87 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036561 | | | |
| **Sampled Date** | 05-Feb-2018 | | | |
| **Customer Sample Ref.** | WS52 | | | |
| **Depth (m)** | 0.30 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 11 | <0.001 | 110 | <0.01 | - | - | - |
| Sulphate (soluble) | 38.4 | <2 | 384 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00426 | <0.0005 | 0.0426 | <0.005 | - | - | - |
| Boron | 0.0914 | <0.005 | 0.914 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | 0.00288 | <0.001 | 0.0288 | <0.01 | - | - | - |
| Copper | 0.016 | <0.0003 | 0.16 | <0.003 | - | - | - |
| Lead | 0.000751 | <0.0002 | 0.00751 | <0.002 | - | - | - |
| Nickel | 0.00104 | <0.0004 | 0.0104 | <0.004 | - | - | - |
| Selenium | 0.00256 | <0.0005 | 0.0256 | <0.005 | - | - | - |
| Zinc | 0.0019 | <0.001 | 0.019 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 16-Feb-2018 |
| pH (pH Units) | 10.70 |
| Conductivity (µS/cm) | 298.00 |
| Temperature (ºC) | 21.00 |
| Volume Leachant (Litres) | 0.887 |

Mcerts Certification does not apply to leachates
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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.090 | **Natural Moisture Content (%)** | 0 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 100 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036562 | | | |
| **Sampled Date** | 06-Feb-2018 | | | |
| **Customer Sample Ref.** | WS53 | | | |
| **Depth (m)** | 0.60 | | | |

| **Eluate Analysis** | **C2** Concⁿ in 10:1 eluate (mg/l) | | **A2** 10:1 concⁿ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 7.6 | <0.001 | 76 | <0.01 | - | - | - |
| Sulphate (soluble) | 6 | <2 | 60 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | <0.0005 | <0.0005 | <0.005 | <0.005 | - | - | - |
| Boron | 0.0471 | <0.005 | 0.471 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |
| Copper | 0.000575 | <0.0003 | 0.00575 | <0.003 | - | - | - |
| Lead | 0.000343 | <0.0002 | 0.00343 | <0.002 | - | - | - |
| Nickel | 0.000465 | <0.0004 | 0.00465 | <0.004 | - | - | - |
| Selenium | <0.0005 | <0.0005 | <0.005 | <0.005 | - | - | - |
| Zinc | 0.0109 | <0.001 | 0.109 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 16-Feb-2018 |
| pH (pH Units) | 7.38 |
| Conductivity (µS/cm) | 32.80 |
| Temperature (ºC) | 19.70 |
| Volume Leachant (Litres) | 0.900 |

Mcerts Certification does not apply to leachates
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# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## CEN 10:1 SINGLE STAGE LEACHATE TEST

## CEN ANALYTICAL RESULTS

**REF : BS EN 12457/2**

| | | | |
|---|---|---|---|
| **Client Reference** | | **Site Location** | Meggitt, Coventry |
| **Mass Sample taken (kg)** | 0.098 | **Natural Moisture Content (%)** | 8.58 |
| **Mass of dry sample (kg)** | 0.090 | **Dry Matter Content (%)** | 92.1 |
| **Particle Size <4mm** | >95% | | |

| | | | | |
|---|---|---|---|---|
| **Case** | | | | |
| **SDG** | 180213-19 | | | |
| **Lab Sample Number(s)** | 17036563 | | | |
| **Sampled Date** | 07-Feb-2018 | | | |
| **Customer Sample Ref.** | WS54 | | | |
| **Depth (m)** | 0.20 | | | |

| **Eluate Analysis** | **C2** Conc$^n$ in 10:1 eluate (mg/l) | | **A2** 10:1 conc$^n$ leached (mg/kg) | | | | |
|---|---|---|---|---|---|---|---|
| | **Result** | **Limit of Detection** | **Result** | **Limit of Detection** | | | |
| Ammoniacal Nitrogen as N | <0.2 | <0.2 | <2 | <2 | - | - | - |
| pH Value of Filtered Water | 11 | <0.001 | 110 | <0.01 | - | - | - |
| Sulphate (soluble) | 80.1 | <2 | 801 | <20 | - | - | - |
| Mercury Dissolved (CVAF) | <0.00001 | <0.00001 | <0.0001 | <0.0001 | - | - | - |
| Total Cyanide (W) | <0.05 | <0.05 | <0.5 | <0.5 | - | - | - |
| Arsenic | 0.00131 | <0.0005 | 0.0131 | <0.005 | - | - | - |
| Boron | 0.00903 | <0.005 | 0.0903 | <0.05 | - | - | - |
| Cadmium | <0.00008 | <0.00008 | <0.0008 | <0.0008 | - | - | - |
| Chromium | 0.0279 | <0.001 | 0.279 | <0.01 | - | - | - |
| Copper | 0.0589 | <0.0003 | 0.589 | <0.003 | - | - | - |
| Lead | <0.0002 | <0.0002 | <0.002 | <0.002 | - | - | - |
| Nickel | 0.00487 | <0.0004 | 0.0487 | <0.004 | - | - | - |
| Selenium | <0.0005 | <0.0005 | <0.005 | <0.005 | - | - | - |
| Zinc | <0.001 | <0.001 | <0.01 | <0.01 | - | - | - |

### Leach Test Information

| | |
|---|---|
| Date Prepared | 16-Feb-2018 |
| pH (pH Units) | 11.49 |
| Conductivity (µS/cm) | 807.00 |
| Temperature (ºC) | 19.60 |
| Volume Leachant (Litres) | 0.892 |

Mcerts Certification does not apply to leachates
21/02/2018 09:16:27

09:15:38 21/02/2018

# Table of Results - Appendix

| Method No | Reference | Description |
|---|---|---|
| ASB_PREP | | |
| PM001 | | Preparation of Samples for Metals Analysis |
| PM024 | Modified BS 1377 | Soil preparation including homogenisation, moisture screens of soils for Asbestos Containing Material |
| PM115 | | Leaching Procedure for CEN One Stage Leach Test 2:1 & 10:1 1 Step |
| TM048 | HSG 248, Asbestos: The analysts' guide for sampling, analysis and clearance procedures | Identification of Asbestos in Bulk Material |
| TM062 (S) | National Grid Property Holdings Methods for the Collection & Analysis of Samples from National Grid Sites version 1 Sec 3.9 | Determination of Phenols in Soils by HPLC |
| TM099 | BS 2690: Part 7:1968 / BS 6068: Part2.11:1984 | Determination of Ammonium in Water Samples using the Kone Analyser |
| TM116 | Modified: US EPA Method 8260, 8120, 8020, 624, 610 & 602 | Determination of Volatile Organic Compounds by Headspace / GC-MS |
| TM133 | BS 1377: Part 3 1990;BS 6068-2.5 | Determination of pH in Soil and Water using the GLpH pH Meter |
| TM151 | Method 3500D, AWWA/APHA, 20th Ed., 1999 | Determination of Hexavalent Chromium using Kone analyser |
| TM152 | Method 3125B, AWWA/APHA, 20th Ed., 1999 | Analysis of Aqueous Samples by ICP-MS |
| TM153 | Method 4500A,B,C, I, M AWWA/APHA, 20th Ed., 1999 | Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate using the Skalar SANS+ System Segmented Flow Analyser |
| TM154 | In - house Method | Determination of Petroleum Hydrocarbons by EZ Flash GC-FID in the Carbon range C6-C40 |
| TM181 | US EPA Method 6010B | Determination of Routine Metals in Soil by iCap 6500 Duo ICP-OES |
| TM183 | BS EN 23506:2002, (BS 6068-2.74:2002) ISBN 0 580 38924 3 | Determination of Trace Level Mercury in Waters and Leachates by PSA Cold Vapour Atomic Fluorescence Spectrometry |
| TM184 | EPA Methods 325.1 & 325.2, | The Determination of Anions in Aqueous Matrices using the Kone Spectrophotometric Analysers |
| TM218 | Determination of PAH by GCMS Microwave extraction | The determination of PAH in soil samples by microwave extraction and GC-MS |
| TM222 | In-House Method | Determination of Hot Water Soluble Boron in Soils (10:1 Water:soil) by IRIS Emission Spectrometer |
| TM227 | Standard methods for the examination of waters and wastewaters 20th Edition, AWWA/APHA Method 4500. | Determination of Total Cyanide, Free (Easily Liberatable) Cyanide and Thiocyanate |
| TM243 | | Mixed Anions In Soils By Kone |
| TM256 | The measurement of Electrical Conductivity and the Laboratory determination of pH Value of Natural, Treated and Wastewaters. HMSO, 1978. ISBN 011 751428 4. | Determination of pH in Water and Leachate using the GLpH pH Meter |

NA = not applicable.

Chemical testing (unless subcontracted) performed at ALS Environmental Hawarden (Method codes TM) or ALS Environmental Aberdeen (Method codes S).

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## Test Completion Dates

| **Lab Sample No(s)** | 17036517 | 17036518 | 17036519 | 17036520 | 17036521 | 17036523 | 17036525 | 17036526 | 17036528 | 17036529 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Customer Sample Ref.** | WS2 | WS2 | WS3 | WS10 | WS19 | WS20 | WS21 | WS22 | WS26 | WS28 |
| **AGS Ref.** | | | | | | | | | | |
| **Depth** | 0.20 | 1.10 | 0.20 | 0.20 | 0.20 | 0.20 | 0.50 | 0.20 | 0.30 | 0.30 |
| **Type** | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Ammoniacal Nitrogen | 19-Feb-2018 | | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 |
| Anions by Kone (soil) | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 |
| Anions by Kone (w) | 20-Feb-2018 | | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| Asbestos ID in Solid Samples | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | | |
| Boron Water Soluble | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| CEN 10:1 Leachate (1 Stage) | 16-Feb-2018 | | 16-Feb-2018 | 16-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 |
| CEN Readings | 19-Feb-2018 | | 19-Feb-2018 | 19-Feb-2018 | 17-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 |
| Cyanide Comp/Free/Total/Thiocyanate | 20-Feb-2018 | 16-Feb-2018 | 21-Feb-2018 | 21-Feb-2018 | 21-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| Dissolved Metals by ICP-MS | 20-Feb-2018 | | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| Hexavalent Chromium (s) | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 |
| Mercury Dissolved | 20-Feb-2018 | | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| Metals in solid samples by OES | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| PAH by GCMS | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 |
| pH | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 |
| pH Value of Filtered Water | 19-Feb-2018 | | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| Phenols by HPLC (S) | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 |
| Sample description | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 |
| TPH c6-40 Value of soil | 16-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 |
| VOC MS (S) | 17-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 |

| **Lab Sample No(s)** | 17036530 | 17036531 | 17036533 | 17036534 | 17036536 | 17036538 | 17036539 | 17036541 | 17036565 | 17036542 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Customer Sample Ref.** | WS28 | WS29 | WS31 | WS32 | WS33 | WS34 | WS35 | WS36 | WS36 | WS43 |
| **AGS Ref.** | | | | | | | | | | |
| **Depth** | 0.90 | 0.50 | 0.50 | 0.40 | 0.40 | 0.30 | 0.30 | 0.20 | 0.50 | 0.10 |
| **Type** | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Ammoniacal Nitrogen | | 19-Feb-2018 | 19-Feb-2018 | | 19-Feb-2018 | | 19-Feb-2018 | 19-Feb-2018 | | |
| Anions by Kone (soil) | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 |
| Anions by Kone (w) | | 20-Feb-2018 | 20-Feb-2018 | | 20-Feb-2018 | | 20-Feb-2018 | 20-Feb-2018 | | |
| Asbestos ID in Solid Samples | | | | | 20-Feb-2018 | 20-Feb-2018 | | 19-Feb-2018 | | 20-Feb-2018 |
| Boron Water Soluble | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| CEN 10:1 Leachate (1 Stage) | | 15-Feb-2018 | 15-Feb-2018 | | 15-Feb-2018 | | 15-Feb-2018 | 15-Feb-2018 | | |
| CEN Readings | | 17-Feb-2018 | 17-Feb-2018 | | 17-Feb-2018 | | 17-Feb-2018 | 17-Feb-2018 | | |
| Cyanide Comp/Free/Total/Thiocyanate | 16-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 16-Feb-2018 | 20-Feb-2018 | 16-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 |
| Dissolved Metals by ICP-MS | | 20-Feb-2018 | 20-Feb-2018 | | 20-Feb-2018 | | 20-Feb-2018 | 20-Feb-2018 | | |
| Hexavalent Chromium (s) | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 |
| Mercury Dissolved | | 20-Feb-2018 | 20-Feb-2018 | | 20-Feb-2018 | | 20-Feb-2018 | 20-Feb-2018 | | |
| Metals in solid samples by OES | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 |
| PAH by GCMS | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 |
| pH | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 |
| pH Value of Filtered Water | | 20-Feb-2018 | 20-Feb-2018 | | 20-Feb-2018 | | 20-Feb-2018 | 20-Feb-2018 | | |
| Phenols by HPLC (S) | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 |
| Sample description | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 |
| TPH c6-40 Value of soil | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 |
| VOC MS (S) | 19-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 17-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 17-Feb-2018 |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

| **Lab Sample No(s)** | 17036545 | 17036546 | 17036549 | 17036550 | 17036551 | 17036553 | 17036554 | 17036555 | 17036557 | 17036559 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Customer Sample Ref.** | WS44 | WS45 | WS46 | WS47 | WS48 | WS49 | WS49 | WS50 | WS51 | WS51 |
| **AGS Ref.** | | | | | | | | | | |
| **Depth** | 0.20 | 0.15 | 0.50 | 0.10 | 0.20 | 1.50 | 2.50 | 0.50 | 0.30 | 1.80 |
| **Type** | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Ammoniacal Nitrogen | 19-Feb-2018 | 19-Feb-2018 | | 19-Feb-2018 | | | | 19-Feb-2018 | | |
| Anions by Kone (soil) | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| Anions by Kone (w) | 20-Feb-2018 | 20-Feb-2018 | | 20-Feb-2018 | | | | 20-Feb-2018 | | |
| Asbestos ID in Solid Samples | 20-Feb-2018 | 20-Feb-2018 | | 19-Feb-2018 | 20-Feb-2018 | | | | 19-Feb-2018 | |
| Boron Water Soluble | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 |
| CEN 10:1 Leachate (1 Stage) | 15-Feb-2018 | 16-Feb-2018 | | 16-Feb-2018 | | | | 16-Feb-2018 | | |
| CEN Readings | 17-Feb-2018 | 17-Feb-2018 | | 17-Feb-2018 | | | | 17-Feb-2018 | | |
| Cyanide Comp/Free/Total/Thiocyanate | 20-Feb-2018 | 21-Feb-2018 | 16-Feb-2018 | 21-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 20-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 |
| Dissolved Metals by ICP-MS | 20-Feb-2018 | 20-Feb-2018 | | 20-Feb-2018 | | | | 20-Feb-2018 | | |
| Hexavalent Chromium (s) | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 |
| Mercury Dissolved | 20-Feb-2018 | 20-Feb-2018 | | 20-Feb-2018 | | | | 20-Feb-2018 | | |
| Metals in solid samples by OES | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 |
| PAH by GCMS | 15-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 15-Feb-2018 | 19-Feb-2018 |
| pH | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 |
| pH Value of Filtered Water | 20-Feb-2018 | 19-Feb-2018 | | 19-Feb-2018 | | | | 20-Feb-2018 | | |
| Phenols by HPLC (S) | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 17-Feb-2018 |
| Sample description | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 |
| TPH c6-40 Value of soil | 16-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 |
| VOC MS (S) | 18-Feb-2018 | 19-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 |

| **Lab Sample No(s)** | 17036560 | 17036561 | 17036562 | 17036563 | 17040174 |
|---|---|---|---|---|---|
| **Customer Sample Ref.** | WS51 | WS52 | WS53 | WS54 | WS28_ASB |
| **AGS Ref.** | | | | | |
| **Depth** | 3.50 | 0.30 | 0.60 | 0.20 | 0.90 |
| **Type** | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) | Soil/Solid (S) |
| Ammoniacal Nitrogen | | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | |
| Anions by Kone (soil) | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | |
| Anions by Kone (w) | | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | |
| Asbestos ID in Solid Samples | | 19-Feb-2018 | | 19-Feb-2018 | |
| Asbestos Identification | | | | | 20-Feb-2018 |
| Boron Water Soluble | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | |
| CEN 10:1 Leachate (1 Stage) | | 16-Feb-2018 | 16-Feb-2018 | 16-Feb-2018 | |
| CEN Readings | | 19-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | |
| Cyanide Comp/Free/Total/Thiocyanate | 16-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | |
| Dissolved Metals by ICP-MS | | 20-Feb-2018 | 20-Feb-2018 | 20-Feb-2018 | |
| Hexavalent Chromium (s) | 19-Feb-2018 | 20-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | |
| Mercury Dissolved | | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | |
| Metals in solid samples by OES | 20-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | |
| PAH by GCMS | 16-Feb-2018 | 16-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | |
| pH | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | 15-Feb-2018 | |
| pH Value of Filtered Water | | 19-Feb-2018 | 19-Feb-2018 | 20-Feb-2018 | |
| Phenols by HPLC (S) | 16-Feb-2018 | 16-Feb-2018 | 17-Feb-2018 | 16-Feb-2018 | |
| Sample description | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | 14-Feb-2018 | |
| TPH c6-40 Value of soil | 16-Feb-2018 | 19-Feb-2018 | 19-Feb-2018 | 16-Feb-2018 | |
| VOC MS (S) | 19-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | 17-Feb-2018 | |

# ASSOCIATED AQC DATA

## Ammoniacal Nitrogen

| Component | Method Code | QC 1707 | QC 1718 | QC 1712 |
|---|---|---|---|---|
| Ammoniacal Nitrogen as N | TM099 | **99.6**<br>93.47 : 108.25 | **100.8**<br>93.47 : 108.25 | **101.2**<br>93.47 : 108.25 |

## Anions by Kone (soil)

| Component | Method Code | QC 1746 | QC 1732 | QC 1799 | QC 1797 |
|---|---|---|---|---|---|
| Chloride (soluble) | TM243 | 89.30 : 110.70 | 89.30 : 110.70 | 89.30 : 110.70 | 89.30 : 110.70 |
| Water Soluble Sulphate as SO4 2:1 Extract | TM243 | 88.38 : 118.74 | 88.38 : 118.74 | 88.38 : 118.74 | 88.38 : 118.74 |

## Anions by Kone (w)

| Component | Method Code | QC 1716 | QC 1797 |
|---|---|---|---|
| Chloride | TM184 | 92.93 : 115.43 | **101.0**<br>92.93 : 115.43 |
| Phosphate (Ortho as PO4) | TM184 | 96.40 : 108.40 | 96.40 : 108.40 |
| Sulphate (soluble) | TM184 | **100.8**<br>90.53 : 113.03 | **100.8**<br>90.53 : 113.03 |
| TON as NO3 | TM184 | 96.26 : 111.21 | 96.26 : 111.21 |

## Boron Water Soluble

| Component | Method Code | QC 1748 | QC 1780 | QC 1764 |
|---|---|---|---|---|
| Water Soluble Boron | TM222 | **99.5**<br>84.27 : 109.96 | **97.0**<br>84.27 : 109.96 | **97.5**<br>84.27 : 109.96 |

## Cyanide Comp/Free/Total/Thiocyanate

| Component | Method Code | QC 1790 | QC 1798 | QC 1734 | QC 1787 | QC 1764 | QC 1720 |
|---|---|---|---|---|---|---|---|
| Free Cyanide | TM153 | **96.5**<br>84.60 : 110.40 | **95.2**<br>84.60 : 110.40 | **94.1**<br>84.60 : 110.40 | | | |
| Free Cyanide (W) | TM227 | | | | **101.5**<br>93.25 : 112.75 | **100.0**<br>93.25 : 112.75 | **98.5**<br>93.25 : 112.75 |
| Thiocyanate | TM153 | **91.02**<br>83.02 : 103.47 | **89.22**<br>83.02 : 103.47 | **88.62**<br>83.02 : 103.47 | | | |
| Thiocyanate (W) | TM227 | | | | **103.75**<br>97.75 : 109.75 | **103.5**<br>97.75 : 109.75 | **102.5**<br>97.75 : 109.75 |
| Total Cyanide | TM153 | **102.14**<br>87.53 : 111.13 | **100.71**<br>87.53 : 111.13 | **102.86**<br>87.53 : 111.13 | | | |
| Total Cyanide (W) | TM227 | | | | **103.75**<br>95.25 : 111.75 | **102.5**<br>95.25 : 111.75 | **101.5**<br>95.25 : 111.75 |

Validated

# CERTIFICATE OF ANALYSIS

| | | | | | |
|---|---|---|---|---|---|
| **SDG:** | 180213-19 | **Client Reference:** | A107448 | **Report Number:** | 445329 |
| **Location:** | Meggitt, Coventry | **Order Number:** | NOT/1305 | **Superseded Report:** | |

## Cyanide Comp/Free/Total/Thiocyanate

| Component | Method Code | QC 1748 |
|---|---|---|
| Free Cyanide (W) | TM227 | **100.75**<br>93.25 : 112.75 |
| Thiocyanate (W) | TM227 | **102.75**<br>97.75 : 109.75 |
| Total Cyanide (W) | TM227 | **102.75**<br>95.25 : 111.75 |

## Dissolved Metals by ICP-MS

| Component | Method Code | QC 1723 | QC 1728 |
|---|---|---|---|
| Aluminium | TM152 | **100.33**<br>89.90 : 110.02 | **99.0**<br>89.90 : 110.02 |
| Antimony | TM152 | **100.5**<br>79.80 : 122.00 | **102.17**<br>79.80 : 122.00 |
| Arsenic | TM152 | **100.17**<br>90.42 : 111.32 | **102.67**<br>90.42 : 111.32 |
| Barium | TM152 | **101.0**<br>92.02 : 112.48 | **101.33**<br>92.02 : 112.48 |
| Beryllium | TM152 | **96.83**<br>86.15 : 118.35 | **100.5**<br>86.15 : 118.35 |
| Bismuth | TM152 | **97.67**<br>88.90 : 106.90 | **99.5**<br>88.90 : 106.90 |
| Borate | TM152 | **97.53**<br>88.00 : 112.00 | **100.0**<br>88.00 : 112.00 |
| Boron | TM152 | **97.67**<br>86.68 : 117.67 | **99.67**<br>86.68 : 117.67 |
| Cadmium | TM152 | **97.83**<br>92.07 : 109.87 | **100.33**<br>92.07 : 109.87 |
| Chromium | TM152 | **99.5**<br>90.87 : 108.50 | **100.0**<br>90.87 : 108.50 |
| Cobalt | TM152 | **97.67**<br>84.39 : 114.26 | **98.5**<br>84.39 : 114.26 |
| Copper | TM152 | **98.17**<br>91.20 : 110.79 | **98.83**<br>91.20 : 110.79 |
| Lead | TM152 | **99.33**<br>85.65 : 113.58 | **99.67**<br>85.65 : 113.58 |
| Lithium | TM152 | **98.5**<br>89.26 : 119.04 | **100.83**<br>89.26 : 119.04 |
| Manganese | TM152 | **98.67**<br>90.63 : 109.13 | **99.5**<br>90.63 : 109.13 |
| Molybdenum | TM152 | **99.33**<br>87.00 : 108.89 | **101.33**<br>87.00 : 108.89 |
| Nickel | TM152 | **99.33**<br>92.11 : 110.56 | **99.67**<br>92.11 : 110.56 |
| Phosphorus | TM152 | **103.33**<br>90.52 : 115.47 | **102.5**<br>90.52 : 115.47 |
| Selenium | TM152 | **99.5**<br>88.44 : 113.86 | **100.17**<br>88.44 : 113.86 |
| Silver | TM152 | **91.67**<br>76.93 : 112.73 | **93.0**<br>76.93 : 112.73 |
| Strontium | TM152 | **102.0**<br>90.72 : 114.82 | **101.67**<br>90.72 : 114.82 |
| Tellurium | TM152 | **97.5**<br>86.97 : 108.87 | **99.17**<br>86.97 : 108.87 |

## Dissolved Metals by ICP-MS

| | | QC 1723 | QC 1728 |
|---|---|---|---|
| Thallium | TM152 | **97.33**<br>80.92 : 114.72 | **98.17**<br>80.92 : 114.72 |
| Titanium | TM152 | **99.0**<br>90.08 : 111.18 | **99.17**<br>90.08 : 111.18 |
| Tungsten | TM152 | **101.5**<br>91.72 : 109.22 | **102.83**<br>91.72 : 109.22 |
| Uranium | TM152 | **94.67**<br>90.58 : 113.28 | **96.5**<br>90.58 : 113.28 |
| Vanadium | TM152 | **102.5**<br>88.43 : 114.30 | **100.33**<br>88.43 : 114.30 |
| Zinc | TM152 | **99.33**<br>86.52 : 115.27 | **100.33**<br>86.52 : 115.27 |

## Hexavalent Chromium (s)

| Component | Method Code | QC 1714 | QC 1721 | QC 1776 |
|---|---|---|---|---|
| Hexavalent Chromium | TM151 | **96.0**<br>90.20 : 107.00 | **96.0**<br>90.20 : 107.00 | **102.0**<br>90.20 : 107.00 |

## Mercury Dissolved

| Component | Method Code | QC 1742 | QC 1718 | QC 1781 |
|---|---|---|---|---|
| Mercury Dissolved (CVAF) | TM183 | **100.0**<br>73.51 : 120.83 | **97.6**<br>73.51 : 120.83 | **93.7**<br>73.51 : 120.83 |

## Metals in solid samples by OES

| Component | Method Code | QC 1773 | QC 1730 | QC 1738 | QC 1769 |
|---|---|---|---|---|---|
| Aluminium | TM181 | **94.07**<br>75.13 : 109.48 | **90.37**<br>79.04 : 112.63 | **90.37**<br>79.04 : 112.63 | **94.07**<br>75.13 : 109.48 |
| Antimony | TM181 | **101.93**<br>84.48 : 110.90 | **100.0**<br>86.83 : 114.87 | **99.23**<br>86.83 : 114.87 | **101.54**<br>84.48 : 110.90 |
| Arsenic | TM181 | **97.43**<br>83.14 : 108.73 | **96.92**<br>82.60 : 102.80 | **97.69**<br>82.60 : 102.80 | **96.92**<br>83.14 : 108.73 |
| Barium | TM181 | **96.88**<br>77.47 : 102.53 | **93.75**<br>81.38 : 110.22 | **93.75**<br>81.38 : 110.22 | **98.44**<br>77.47 : 102.53 |
| Beryllium | TM181 | **98.29**<br>84.19 : 106.77 | **98.97**<br>84.81 : 107.80 | **99.32**<br>84.81 : 107.80 | **95.89**<br>84.19 : 106.77 |
| Boron | TM181 | **92.37**<br>76.55 : 106.69 | **90.68**<br>85.36 : 111.96 | **92.94**<br>85.36 : 111.96 | **93.5**<br>76.55 : 106.69 |
| Cadmium | TM181 | **104.79**<br>86.37 : 111.59 | **96.28**<br>87.76 : 109.47 | **96.28**<br>87.76 : 109.47 | **100.0**<br>86.37 : 111.59 |
| Chromium | TM181 | **102.95**<br>81.29 : 118.71 | **95.99**<br>81.29 : 118.71 | **96.62**<br>81.29 : 118.71 | **100.42**<br>81.29 : 118.71 |
| Cobalt | TM181 | **100.0**<br>85.45 : 109.14 | **96.87**<br>88.00 : 108.30 | **97.18**<br>88.00 : 108.30 | **99.06**<br>85.45 : 109.14 |
| Copper | TM181 | **96.22**<br>81.33 : 103.33 | **93.01**<br>84.91 : 106.21 | **93.74**<br>84.91 : 106.21 | **94.03**<br>81.33 : 103.33 |

## Metals in solid samples by OES

| | | QC 1773 | QC 1730 | QC 1738 | QC 1769 |
|---|---|---|---|---|---|
| Iron | TM181 | **102.08**<br>82.44 : 111.71 | **97.92**<br>82.96 : 114.27 | **97.22**<br>82.96 : 114.27 | **100.0**<br>82.44 : 111.71 |
| Lead | TM181 | **94.68**<br>83.33 : 106.95 | **97.02**<br>85.19 : 108.04 | **95.53**<br>85.19 : 108.04 | **94.26**<br>83.33 : 106.95 |
| Manganese | TM181 | **91.92**<br>80.56 : 102.33 | **94.55**<br>82.29 : 105.35 | **94.75**<br>82.29 : 105.35 | **92.73**<br>80.56 : 102.33 |
| Mercury | TM181 | **100.39**<br>84.13 : 111.85 | **99.61**<br>87.62 : 110.64 | **99.61**<br>87.62 : 110.64 | **100.0**<br>84.13 : 111.85 |
| Molybdenum | TM181 | **101.16**<br>84.19 : 110.39 | **95.37**<br>86.47 : 109.19 | **96.14**<br>86.47 : 109.19 | **98.84**<br>84.19 : 110.39 |
| Nickel | TM181 | **100.7**<br>84.19 : 109.77 | **97.67**<br>87.56 : 108.11 | **97.9**<br>87.56 : 108.11 | **98.6**<br>84.19 : 109.77 |
| Phosphorus | TM181 | **92.51**<br>73.47 : 116.86 | **91.92**<br>77.53 : 107.97 | **91.47**<br>77.53 : 107.97 | **90.42**<br>73.47 : 116.86 |
| Selenium | TM181 | **97.03**<br>81.32 : 108.59 | **96.14**<br>85.50 : 107.61 | **97.63**<br>85.50 : 107.61 | **94.96**<br>81.32 : 108.59 |
| Strontium | TM181 | **98.1**<br>84.70 : 105.87 | **95.77**<br>82.37 : 105.96 | **95.77**<br>82.37 : 105.96 | **96.19**<br>84.70 : 105.87 |
| Thallium | TM181 | **99.22**<br>81.19 : 105.37 | **96.87**<br>85.06 : 112.06 | **96.87**<br>85.06 : 112.06 | **98.05**<br>81.19 : 105.37 |
| Tin | TM181 | **102.84**<br>85.92 : 110.00 | **95.39**<br>85.70 : 112.34 | **96.1**<br>85.70 : 112.34 | **99.29**<br>85.92 : 110.00 |
| Titanium | TM181 | **91.54**<br>73.44 : 113.17 | **92.31**<br>80.40 : 114.25 | **94.62**<br>80.40 : 114.25 | **98.46**<br>73.44 : 113.17 |
| Vanadium | TM181 | **96.32**<br>78.62 : 101.47 | **89.57**<br>79.08 : 102.49 | **90.18**<br>79.08 : 102.49 | **95.09**<br>78.62 : 101.47 |
| Zinc | TM181 | **100.52**<br>85.64 : 110.14 | **98.6**<br>86.18 : 108.79 | **99.13**<br>86.18 : 108.79 | **98.08**<br>85.64 : 110.14 |

## PAH by GCMS

| Component | Method Code | QC 1717 | QC 1760 | QC 1774 | QC 1738 | QC 1752 |
|---|---|---|---|---|---|---|
| Acenaphthene | TM218 | **93.0**<br>82.60 : 105.38 | **98.5**<br>78.95 : 114.22 | **90.5**<br>82.97 : 108.44 | **92.5**<br>82.97 : 108.44 | **99.0**<br>78.95 : 114.22 |
| Acenaphthylene | TM218 | **91.5**<br>73.64 : 111.66 | **84.0**<br>72.87 : 102.50 | **84.5**<br>77.27 : 104.05 | **85.0**<br>77.27 : 104.05 | **87.5**<br>72.87 : 102.50 |
| Anthracene | TM218 | **92.0**<br>73.49 : 107.13 | **94.0**<br>77.17 : 105.56 | **88.0**<br>78.18 : 102.20 | **90.0**<br>78.18 : 102.20 | **94.0**<br>77.17 : 105.56 |
| Benz(a)anthracene | TM218 | **103.5**<br>87.82 : 118.79 | **101.0**<br>80.47 : 122.11 | **107.0**<br>80.40 : 121.27 | **111.0**<br>80.40 : 121.27 | **102.5**<br>80.47 : 122.11 |
| Benzo(a)pyrene | TM218 | **110.0**<br>83.39 : 123.49 | **101.0**<br>86.85 : 124.60 | **102.5**<br>86.92 : 120.63 | **101.0**<br>86.92 : 120.63 | **100.0**<br>86.85 : 124.60 |
| Benzo(b)fluoranthene | TM218 | **105.0**<br>80.60 : 126.56 | **103.0**<br>81.46 : 113.62 | **104.0**<br>82.24 : 121.86 | **100.0**<br>82.24 : 121.86 | **104.5**<br>81.46 : 113.62 |
| Benzo(ghi)perylene | TM218 | **100.0**<br>80.86 : 109.92 | **100.5**<br>79.07 : 113.26 | **104.5**<br>76.26 : 118.18 | **92.0**<br>76.26 : 118.18 | **100.5**<br>79.07 : 113.26 |
| Benzo(k)fluoranthene | TM218 | **102.0**<br>87.91 : 119.03 | **100.0**<br>86.00 : 117.59 | **94.0**<br>86.60 : 115.15 | **99.5**<br>86.60 : 115.15 | **99.0**<br>86.00 : 117.59 |
| Chrysene | TM218 | **92.5**<br>85.34 : 115.46 | **98.0**<br>88.35 : 118.80 | **102.0**<br>86.11 : 112.00 | **107.0**<br>86.11 : 112.00 | **94.0**<br>88.35 : 118.80 |
| Dibenzo(ah)anthracene | TM218 | **102.5**<br>82.98 : 121.47 | **99.0**<br>85.70 : 123.10 | **102.0**<br>83.84 : 116.37 | **93.0**<br>83.84 : 116.37 | **98.0**<br>85.70 : 123.10 |
| Fluoranthene | TM218 | **95.5**<br>82.03 : 107.26 | **101.0**<br>80.37 : 111.80 | **97.0**<br>81.23 : 104.94 | **95.5**<br>81.23 : 104.94 | **101.0**<br>80.37 : 111.80 |

## PAH by GCMS

| | | QC 1717 | QC 1760 | QC 1774 | QC 1738 | QC 1752 |
|---|---|---|---|---|---|---|
| Fluorene | TM218 | **95.5**<br>81.48 : 108.26 | **98.5**<br>79.98 : 109.78 | **92.5**<br>83.68 : 108.62 | **94.5**<br>83.68 : 108.62 | **97.5**<br>79.98 : 109.78 |
| Indeno(123cd)pyrene | TM218 | **102.5**<br>84.02 : 120.55 | **98.5**<br>85.41 : 122.03 | **102.5**<br>83.72 : 116.90 | **92.5**<br>83.72 : 116.90 | **98.0**<br>85.41 : 122.03 |
| Naphthalene | TM218 | **93.5**<br>84.06 : 108.38 | **93.0**<br>82.33 : 112.21 | **87.0**<br>81.32 : 109.34 | **87.5**<br>81.32 : 109.34 | **96.5**<br>82.33 : 112.21 |
| Phenanthrene | TM218 | **91.5**<br>78.68 : 107.87 | **99.0**<br>80.52 : 110.11 | **90.0**<br>82.06 : 103.85 | **92.5**<br>82.06 : 103.85 | **98.5**<br>80.52 : 110.11 |
| Pyrene | TM218 | **94.5**<br>81.96 : 108.90 | **100.5**<br>79.57 : 110.12 | **96.0**<br>81.04 : 103.65 | **96.0**<br>81.04 : 103.65 | **101.0**<br>79.57 : 110.12 |

## pH

| Component | Method Code | QC 1763 | QC 1765 | QC 1735 | QC 1745 |
|---|---|---|---|---|---|
| pH | TM133 | **101.04**<br>99.25 : 102.83 | **100.78**<br>99.63 : 103.42 | **100.65**<br>99.63 : 103.42 | **101.95**<br>99.63 : 103.42 |

## pH Value of Filtered Water

| Component | Method Code | QC 1796 | QC 1773 |
|---|---|---|---|
| pH Value of Filtered Water | TM256 | **101.08**<br>99.73 : 102.16 | **101.08**<br>99.73 : 102.16 |

## Phenols by HPLC (S)

| Component | Method Code | QC 1700 | QC 1711 | QC 1715 |
|---|---|---|---|---|
| 2.3.5 Trimethyl-Phenol by HPLC (S) | TM062 (S) | **101.95**<br>70.10 : 89.90 | **102.6**<br>70.10 : 89.90 | **94.81**<br>70.10 : 89.90 |
| 2-Isopropyl Phenol by HPLC (S) | TM062 (S) | **87.13**<br>72.23 : 101.87 | **88.89**<br>72.23 : 101.87 | **92.98**<br>84.69 : 104.79 |
| Catechol by HPLC (S) | TM062 (S) | **115.24**<br>47.70 : 158.70 | **112.38**<br>47.70 : 158.70 | **101.9**<br>24.84 : 108.44 |
| Cresols by HPLC (S) | TM062 (S) | **95.62**<br>83.70 : 114.90 | **96.66**<br>83.70 : 114.90 | **91.65**<br>72.20 : 110.60 |
| Napthol by HPLC (S) | TM062 (S) | **116.43**<br>71.00 : 98.00 | **117.86**<br>71.00 : 98.00 | **111.43**<br>91.99 : 139.23 |
| Phenol by HPLC (S) | TM062 (S) | **105.96**<br>68.00 : 98.00 | **111.26**<br>68.00 : 98.00 | **107.28**<br>82.00 : 107.15 |
| Resorcinol HPLC (S) | TM062 (S) | **131.45**<br>61.95 : 145.05 | **137.74**<br>61.95 : 145.05 | **120.75**<br>96.51 : 136.70 |
| Xylenols by HPLC (S) | TM062 (S) | **100.62**<br>83.04 : 110.82 | **102.6**<br>83.04 : 110.82 | **97.6**<br>82.47 : 110.25 |

## TPH c6-40 Value of soil

## TPH c6-40 Value of soil

| Component | Method Code | QC 1783 | QC 1702 | QC 1746 | QC 1719 | QC 1758 |
|---|---|---|---|---|---|---|
| Diesel QC | TM154 | **99.36**<br>87.23 : 107.46 | **101.69**<br>89.39 : 107.96 | **102.06**<br>87.23 : 107.46 | **103.86**<br>87.23 : 107.46 | **103.05**<br>87.23 : 107.46 |
| Lube Oil QC | TM154 | **97.97**<br>88.86 : 105.23 | **101.42**<br>89.27 : 107.48 | **96.09**<br>88.86 : 105.23 | **102.01**<br>88.86 : 105.23 | **100.96**<br>88.86 : 105.23 |
| TPH C6-40 Corrected | TM154 | **98.75**<br>89.38 : 104.63 | **101.5**<br>90.11 : 106.95 | **99.0**<br>89.38 : 104.63 | **103.0**<br>89.38 : 104.63 | **102.0**<br>89.38 : 104.63 |

## VOC MS (S)

| Component | Method Code | QC 1763 | QC 1719 | QC 1789 | QC 1703 | QC 1713 | QC 1704 |
|---|---|---|---|---|---|---|---|
| 1,1,1,2-tetrachloroethane | TM116 | **103.0**<br>77.56 : 115.55 | **99.4**<br>77.56 : 115.55 | **103.4**<br>77.56 : 115.55 | **107.2**<br>77.56 : 115.55 | **97.0**<br>77.56 : 115.55 | **105.4**<br>77.56 : 115.55 |
| 1,1,1-Trichloroethane | TM116 | **107.2**<br>74.97 : 113.76 | **99.4**<br>74.97 : 113.76 | **109.4**<br>74.97 : 113.76 | **110.8**<br>74.97 : 113.76 | **105.2**<br>74.97 : 113.76 | **102.8**<br>74.97 : 113.76 |
| 1,1,2-Trichloroethane | TM116 | **100.6**<br>77.12 : 116.04 | **101.4**<br>77.12 : 116.04 | **103.8**<br>77.12 : 116.04 | **112.8**<br>77.12 : 116.04 | **100.0**<br>77.12 : 116.04 | **101.8**<br>77.12 : 116.04 |
| 1,1-Dichloroethane | TM116 | **110.4**<br>74.46 : 129.15 | **107.6**<br>74.46 : 129.15 | **113.6**<br>74.46 : 129.15 | **117.2**<br>74.46 : 129.15 | **110.8**<br>74.46 : 129.15 | **108.8**<br>74.46 : 129.15 |
| 1,2-Dichloroethane | TM116 | **115.8**<br>92.57 : 128.78 | **111.4**<br>92.57 : 128.78 | **124.2**<br>92.57 : 128.78 | **130.8**<br>92.57 : 128.78 | **115.8**<br>92.57 : 128.78 | **119.4**<br>92.57 : 128.78 |
| 1,4-Dichlorobenzene | TM116 | **103.2**<br>72.76 : 126.34 | **94.8**<br>72.76 : 126.34 | **98.8**<br>72.76 : 126.34 | **104.2**<br>72.76 : 126.34 | **94.6**<br>72.76 : 126.34 | **101.2**<br>72.76 : 126.34 |
| 2-Chlorotoluene | TM116 | **95.0**<br>69.73 : 114.13 | **92.0**<br>69.73 : 114.13 | **95.8**<br>69.73 : 114.13 | **96.8**<br>69.73 : 114.13 | **85.6**<br>69.73 : 114.13 | **94.6**<br>69.73 : 114.13 |
| 4-Chlorotoluene | TM116 | **85.6**<br>66.90 : 112.46 | **87.2**<br>66.90 : 112.46 | **95.8**<br>66.90 : 112.46 | **95.0**<br>66.90 : 112.46 | **83.6**<br>66.90 : 112.46 | **91.8**<br>66.90 : 112.46 |
| Benzene | TM116 | **106.0**<br>81.05 : 117.28 | **105.0**<br>81.05 : 117.28 | **109.2**<br>81.05 : 117.28 | **106.6**<br>81.05 : 117.28 | **105.6**<br>81.05 : 117.28 | **104.2**<br>81.05 : 117.28 |
| Carbon Disulphide | TM116 | **97.6**<br>74.91 : 122.14 | **93.6**<br>74.91 : 122.14 | **98.4**<br>74.91 : 122.14 | **97.6**<br>74.91 : 122.14 | **92.8**<br>74.91 : 122.14 | **90.2**<br>74.91 : 122.14 |
| Carbontetrachloride | TM116 | **113.4**<br>77.80 : 119.23 | **106.6**<br>77.80 : 119.23 | **115.0**<br>77.80 : 119.23 | **113.6**<br>77.80 : 119.23 | **105.2**<br>77.80 : 119.23 | **111.8**<br>77.80 : 119.23 |
| Chlorobenzene | TM116 | **101.8**<br>75.00 : 115.53 | **94.6**<br>75.00 : 115.53 | **100.4**<br>75.00 : 115.53 | **102.4**<br>75.00 : 115.53 | **95.2**<br>75.00 : 115.53 | **101.0**<br>75.00 : 115.53 |
| Chloroform | TM116 | **109.2**<br>77.34 : 121.84 | **107.6**<br>77.34 : 121.84 | **113.8**<br>77.34 : 121.84 | **116.2**<br>77.34 : 121.84 | **107.4**<br>77.34 : 121.84 | **111.8**<br>77.34 : 121.84 |
| Chloromethane | TM116 | **117.0**<br>52.63 : 138.74 | **109.8**<br>52.63 : 138.74 | **123.6**<br>52.63 : 138.74 | **118.6**<br>52.63 : 138.74 | **122.4**<br>52.63 : 138.74 | **114.2**<br>52.63 : 138.74 |
| Cis-1,2-Dichloroethene | TM116 | **114.4**<br>80.67 : 126.72 | **107.6**<br>80.67 : 126.72 | **109.6**<br>80.67 : 126.72 | **117.6**<br>80.67 : 126.72 | **110.4**<br>80.67 : 126.72 | **107.6**<br>80.67 : 126.72 |
| Dibromomethane | TM116 | **100.4**<br>67.80 : 121.75 | **98.8**<br>67.80 : 121.75 | **109.0**<br>67.80 : 121.75 | **118.2**<br>67.80 : 121.75 | **99.4**<br>67.80 : 121.75 | **103.4**<br>67.80 : 121.75 |
| Dichloromethane | TM116 | **112.4**<br>81.11 : 133.25 | **110.8**<br>81.11 : 133.25 | **113.8**<br>81.11 : 133.25 | **124.6**<br>81.11 : 133.25 | **110.6**<br>81.11 : 133.25 | **117.2**<br>81.11 : 133.25 |
| Ethylbenzene | TM116 | **95.2**<br>72.53 : 109.84 | **92.6**<br>72.53 : 109.84 | **99.2**<br>72.53 : 109.84 | **97.4**<br>72.53 : 109.84 | **89.8**<br>72.53 : 109.84 | **98.2**<br>72.53 : 109.84 |
| Hexachlorobutadiene | TM116 | **88.8**<br>12.82 : 152.73 | **67.6**<br>12.82 : 152.73 | **104.8**<br>12.82 : 152.73 | **87.4**<br>12.82 : 152.73 | **60.4**<br>12.82 : 152.73 | **88.0**<br>12.82 : 152.73 |
| Isopropylbenzene | TM116 | **80.6**<br>54.46 : 125.44 | **80.8**<br>54.46 : 125.44 | **89.0**<br>54.46 : 125.44 | **82.6**<br>54.46 : 125.44 | **78.6**<br>54.46 : 125.44 | **78.8**<br>54.46 : 125.44 |
| Naphthalene | TM116 | **104.8**<br>80.86 : 128.81 | **107.2**<br>80.86 : 128.81 | **101.4**<br>80.86 : 128.81 | **102.8**<br>80.86 : 128.81 | **110.8**<br>80.86 : 128.81 | **117.6**<br>80.86 : 128.81 |
| o-Xylene | TM116 | **88.2**<br>67.46 : 102.22 | **84.8**<br>67.46 : 102.22 | **88.0**<br>67.46 : 102.22 | **87.4**<br>67.46 : 102.22 | **80.0**<br>67.46 : 102.22 | **84.6**<br>67.46 : 102.22 |

## VOC MS (S)

| | | QC 1763 | QC 1719 | QC 1789 | QC 1703 | QC 1713 | QC 1704 |
|---|---|---|---|---|---|---|---|
| p/m-Xylene | TM116 | **91.6**<br>68.32 : 108.91 | **85.8**<br>68.32 : 108.91 | **93.5**<br>68.32 : 108.91 | **90.2**<br>68.32 : 108.91 | **83.4**<br>68.32 : 108.91 | **85.8**<br>68.32 : 108.91 |
| Sec-Butylbenzene | TM116 | **76.6**<br>46.09 : 121.51 | **76.2**<br>46.09 : 121.51 | **90.6**<br>46.09 : 121.51 | **77.8**<br>46.09 : 121.51 | **70.4**<br>46.09 : 121.51 | **71.2**<br>46.09 : 121.51 |
| Tetrachloroethene | TM116 | **101.2**<br>76.95 : 121.02 | **96.4**<br>76.95 : 121.02 | **104.0**<br>76.95 : 121.02 | **101.8**<br>76.95 : 121.02 | **96.4**<br>76.95 : 121.02 | **98.4**<br>76.95 : 121.02 |
| Toluene | TM116 | **98.6**<br>74.24 : 107.42 | **94.2**<br>74.24 : 107.42 | **101.0**<br>74.24 : 107.42 | **100.8**<br>74.24 : 107.42 | **91.6**<br>74.24 : 107.42 | **94.8**<br>74.24 : 107.42 |
| Trichloroethene | TM116 | **101.8**<br>77.61 : 111.54 | **98.4**<br>77.61 : 111.54 | **103.0**<br>77.61 : 111.54 | **100.4**<br>77.61 : 111.54 | **97.4**<br>77.61 : 111.54 | **97.6**<br>77.61 : 111.54 |
| Trichlorofluoromethane | TM116 | **105.4**<br>71.31 : 128.41 | **98.2**<br>71.31 : 128.41 | **106.2**<br>71.31 : 128.41 | **106.0**<br>71.31 : 128.41 | **100.8**<br>71.31 : 128.41 | **103.8**<br>71.31 : 128.41 |
| Vinyl Chloride | TM116 | **114.0**<br>68.26 : 133.45 | **108.2**<br>68.26 : 133.45 | **117.6**<br>68.26 : 133.45 | **109.0**<br>68.26 : 133.45 | **116.0**<br>68.26 : 133.45 | **109.8**<br>68.26 : 133.45 |

| Component | Method Code | QC 1745 |
|---|---|---|
| 1,1,1,2-tetrachloroethane | TM116 | **96.6**<br>77.56 : 115.55 |
| 1,1,1-Trichloroethane | TM116 | **98.6**<br>74.97 : 113.76 |
| 1,1,2-Trichloroethane | TM116 | **93.6**<br>77.12 : 116.04 |
| 1,1-Dichloroethane | TM116 | **102.2**<br>74.46 : 129.15 |
| 1,2-Dichloroethane | TM116 | **111.2**<br>92.57 : 128.78 |
| 1,4-Dichlorobenzene | TM116 | **99.4**<br>72.76 : 126.34 |
| 2-Chlorotoluene | TM116 | **96.0**<br>69.73 : 114.13 |
| 4-Chlorotoluene | TM116 | **85.2**<br>66.90 : 112.46 |
| Benzene | TM116 | **103.0**<br>81.05 : 117.28 |
| Carbon Disulphide | TM116 | **95.8**<br>74.91 : 122.14 |
| Carbontetrachloride | TM116 | **106.6**<br>77.80 : 119.23 |
| Chlorobenzene | TM116 | **96.0**<br>75.00 : 115.53 |
| Chloroform | TM116 | **102.2**<br>77.34 : 121.84 |
| Chloromethane | TM116 | **108.8**<br>52.63 : 138.74 |
| Cis-1,2-Dichloroethene | TM116 | **105.2**<br>80.67 : 126.72 |
| Dibromomethane | TM116 | **90.4**<br>67.80 : 121.75 |
| Dichloromethane | TM116 | **105.6**<br>81.11 : 133.25 |
| Ethylbenzene | TM116 | **93.6**<br>72.53 : 109.84 |
| Hexachlorobutadiene | TM116 | **62.6**<br>12.82 : 152.73 |

## VOC MS (S)

| | | QC 1745 |
|---|---|---|
| Isopropylbenzene | TM116 | **83.2**<br>54.46 : 125.44 |
| Naphthalene | TM116 | **106.8**<br>80.86 : 128.81 |
| o-Xylene | TM116 | **82.6**<br>67.46 : 102.22 |
| p/m-Xylene | TM116 | **86.2**<br>68.32 : 108.91 |
| Sec-Butylbenzene | TM116 | **75.0**<br>46.09 : 121.51 |
| Tetrachloroethene | TM116 | **100.6**<br>76.95 : 121.02 |
| Toluene | TM116 | **95.4**<br>74.24 : 107.42 |
| Trichloroethene | TM116 | **95.8**<br>77.61 : 111.54 |
| Trichlorofluoromethane | TM116 | **98.8**<br>71.31 : 128.41 |
| Vinyl Chloride | TM116 | **105.8**<br>68.26 : 133.45 |

The above information details the reference name of the analytical quality control sample (AQC) that has been run with the samples contained in this report for the different methods of analysis.
The figure detailed is the percentage recovery result for the AQC.
The subscript numbers below are the percentage recovery lower control limit (LCL) and the upper control limit (UCL). The percentage recovery result for the AQC should be between these limits to be statistically in control.

# Appendix

## General

1. Results are expressed on a dry weight basis (dried at 35ºC) for all soil analyses except for the following: NRA and CEN Leach tests, flash point LOI, pH, ammonium as NH4 by the BRE method, VOC TICs and SVOC TICs.

2. Samples will be run in duplicate upon request, but an additional charge may be incurred.

3. If sufficient sample is received a sub sample will be retained free of charge for 30 days after analysis is completed (e-mailed) for all sample types unless the sample is destroyed on testing. The prepared soil sub sample that is analysed for asbestos will be retained for a period of 6 months after the analysis date. All bulk samples will be retained for a period of 6 months after the analysis date. All samples received and not scheduled will be disposed of one month after the date of receipt unless we are instructed to the contrary. Once the initial period has expired, a storage charge will be applied for each month or part thereof until the client cancels the request for sample storage. ALS reserve the right to charge for samples received and stored but not analysed.

4. With respect to turnaround, we will always endeavour to meet client requirements wherever possible, but turnaround times cannot be absolutely guaranteed due to so many variables beyond our control.

5. We take responsibility for any test performed by sub-contractors (marked with an asterisk). We endeavour to use UKAS/MCERTS Accredited Laboratories, who either complete a quality questionnaire or are audited by ourselves. For some determinands there are no UKAS/MCERTS Accredited Laboratories, in this instance a laboratory with a known track record will be utilised.

6. When requested, the individual sub sample scheduled will be analysed in house for the presence of asbestos fibres and asbestos containing material by our documented in house method TM048 based on HSG 248 (2005), which is accredited to ISO17025. If a specific asbestos fibre type is not found this will be reported as “Not detected”. If no asbestos fibre types are found all will be reported as “Not detected” and the sub sample analysed deemed to be clear of asbestos. If an asbestos fibre type is found it will be reported as detected (for each fibre type found). Testing can be carried out on asbestos positive samples, but, due to Health and Safety considerations, may be replaced by alternative tests or reported as No Determination Possible (NDP). The quantity of asbestos present is not determined unless specifically requested.

7. If no separate volatile sample is supplied by the client, or if a headspace or sediment is present in the volatile sample, the integrity of the data may be compromised. This will be flagged up as an invalid VOC on the test schedule and the result marked as deviating on the test certificate.

8. If appropriate preserved bottles are not received preservation will take place on receipt. However, the integrity of the data may be compromised.

9. NDP - No determination possible due to insufficient/unsuitable sample.

10. Metals in water are performed on a filtered sample, and therefore represent dissolved metals - total metals must be requested separately.

11. Results relate only to the items tested.

12. LoDs (Limit of Detection) for wet tests reported on a dry weight basis are not corrected for moisture content.

13. **Surrogate recoveries** - Surrogates are added to your sample to monitor recovery of the test requested. A % recovery is reported, results are not corrected for the recovery measured. Typical recoveries for organics tests are 70-130%, they are generally wider for volatiles analysis, 50-150%. Recoveries in soils are affected by organic rich or clay rich matrices. Waters can be affected by remediation fluids or high amounts of sediment. Test results are only ever reported if all of the associated quality checks pass; it is assumed that all recoveries outside of the values above are due to matrix affect.

14. **Product analyses** - Organic analyses on products can only be semi-quantitative due to the matrix effects and high dilution factors employed.

15. Phenols monohydric by HPLC include phenol, cresols (2-Methylphenol, 3-Methylphenol and 4-Methylphenol) and Xylenols (2,3 Dimethylphenol, 2,4 Dimethylphenol, 2,5 Dimethylphenol, 2,6 Dimethylphenol, 3,4 Dimethyphenol, 3,5 Dimethylphenol).

16. Total of 5 speciated phenols by HPLC includes Phenol, 2,3,5-Trimethyl Phenol, 2-Isopropylphenol, Cresols and Xylenols (as detailed in 15).

17. Stones/debris are not routinely removed. We always endeavour to take a representative sub sample from the received sample.

18. In certain circumstances the method detection limit may be elevated due to the sample being outside the calibration range. Other factors that may contribute to this include possible interferences. In both cases the sample would be diluted which would cause the method detection limit to be raised.

19. Mercury results quoted on soils will not include volatile mercury as the analysis is performed on a dried and crushed sample.

20. For leachate preparations other than Zero Headspace Extraction (ZHE) volatile loss may occur.

21. For the BSEN 12457-3 two batch process to allow the cumulative release to be calculated, the volume of the leachate produced is measured and filtered for all tests. We therefore cannot carry out any unfiltered analysis. The tests affected include volatiles GCFID/GCMS and all subcontracted analysis.

22. We are accredited to MCERTS for sand, clay and loam/topsoil, or any of these materials - whether these are derived from naturally occurring soil profiles, or from fill/made ground, as long as these materials constitute the major part of the sample. Other coarse granular material such as concrete, gravel and brick are not accredited if they comprise the major part of the sample.

23. Analysis and identification of specific compounds using GCFID is by retention time only, and we routinely calibrate and quantify for benzene, toluene, ethylbenzenes and xylenes (BTEX). For total volatiles in the C5-C12 range, the total area of the chromatogram is integrated and expressed as ug/kg or ug/l. Although this analysis is commonly used for the quantification of gasoline range organics (GRO), the system will also detect other compounds such as chlorinated solvents, and this may lead to a falsely high result with respect to hydrocarbons only. It is not possible to specifically identify these non-hydrocarbons, as standards are not routinely run for any other compounds, and for more definitive identification, volatiles by GCMS should be utilised.

24. **Tentatively Identified Compounds (TICs)** are non-target peaks in VOC and SVOC analysis. All non-target peaks detected with a concentration above the LoD are subjected to a mass spectral library search. Non-target peaks with a library search confidence of >75% are reported based on the best mass spectral library match. When a non-target peak with a library search confidence of <75% is detected it is reported as “mixed hydrocarbons”. Non-target compounds identified from the scan data are semi-quantified relative to one of the deuterated internal standards, under the same chromatographic conditions as the target compounds. This result is reported as a semi-quantitative value and reported as Tentatively Identified Compounds (TICs). TICs are outside the scope of UKAS accreditation and are not moisture corrected.

## Sample Deviations

If a sample is classed as deviated then the associated results may be compromised.

| | |
|---|---|
| 1 | **Container with Headspace provided for volatiles analysis** |
| 2 | **Incorrect container received** |
| 3 | **Deviation from method** |
| 4 | **Holding time exceeded before sample received** |
| 5 | **Samples exceeded holding time before presevation was performed** |
| § | **Sampled on date not provided** |
| ♦ | **Sample holding time exceeded in laboratory** |
| @ | **Sample holding time exceeded due to sampled on date** |
| & | **Sample Holding Time exceeded - Late arrival of instructions.** |

## Asbestos

Identification of Asbestos in Bulk Materials & Soils

The results for identification of asbestos in bulk materials are obtained from supplied bulk materials which have been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

The results for identification of asbestos in soils are obtained from a homogenised sub sample which has been examined to determine the presence of asbestos fibres using ALS (Hawarden) in-house method of transmitted/polarised light microscopy and central stop dispersion staining, based on HSG 248 (2005).

| Asbestos Type | Common Name |
|---|---|
| Chrysotile | White Asbestos |
| Amosite | Brown Asbestos |
| Crocidolite | Blue Asbestos |
| Fibrous Actinolite | - |
| Fibrous Anthophyllite | - |
| Fibrous Tremolite | - |

**Visual Estimation Of Fibre Content**

Estimation of fibre content is not permitted as part of our UKAS accredited test other than: - Trace - Where only one or two asbestos fibres were identified.

**Further guidance on typical asbestos fibre content of manufactured products can be found in HSG 264.**

**The identification of asbestos containing materials and soils falls within our schedule of tests for which we hold UKAS accreditation, however opinions, interpretations and all other information contained in the report are outside the scope of UKAS accreditation.**

# Appendix E – Contamination Assessment Criteria

# Appendix E1 – Contamination Assessment Criteria

WYG Tier One Human Health Screening Values, Issue 15.
Residential With Plant Uptake

| Determinand | Units | SOIL ORGANIC MATTER | | | SOURCE |
|---|---|---|---|---|---|
| | | 1% | 2.5% | 6% | |
| pH | | <5, >9 | | | |
| Asbestos | % | Presence | | | |
| | | | | | |
| **HEAVY METALS/METALLOIDS** | | | | | |
| Arsenic | mg/kg | 37 | | | C4SL |
| Cadmium | mg/kg | 22 | | | C4SL |
| Chromium (III) | mg/kg | 910 | | | CIEH/LQM S4ULs |
| Chromium (VI) | mg/kg | 21 | | | C4SL |
| Lead | mg/kg | 200 | | | C4SL |
| Mercury (Elemental) | mg/kg | | 1.2 | | CIEH/LQM S4ULs |
| Mercury (Inorganic) | mg/kg | 40 | | | CIEH/LQM S4ULs |
| Mercury (Methyl) | mg/kg | | 11 | | CIEH/LQM S4ULs |
| Nickel | mg/kg | 180 | | | CIEH/LQM S4ULs |
| Selenium | mg/kg | 250 | | | CIEH/LQM S4ULs |
| Beryllium | mg/kg | 1.7 | | | CIEH/LQM S4ULs |
| Boron | mg/kg | 290 | | | CIEH/LQM S4ULs |
| Vanadium | mg/kg | 410 | | | CIEH/LQM S4ULs |
| Copper | mg/kg | 2,400 | | | CIEH/LQM S4ULs |
| Zinc | mg/kg | 3,700 | | | CIEH/LQM S4ULs |
| | | | | | |
| **GENERAL INORGANICS** | | | | | |
| Easily Liberatable Cyanide (free) | mg/kg | 24 | | | Acute effects infant 1 dose 3g soil |
| | | | | | |
| **US EPA PRIORITY PAHs** | | | | | |
| Acenaphthene | mg/kg | 210 | 510 | 1100 | CIEH/LQM S4ULs |
| Acenaphthylene | mg/kg | 170 | 420 | 920 | CIEH/LQM S4ULs |
| Anthracene | mg/kg | 2,400 | 5,400 | 11,000 | CIEH/LQM S4ULs |
| Benzo(a)anthracene | mg/kg | 7.2 | 11 | 13 | CIEH/LQM S4ULs |
| Benzo(b)fluoranthene | mg/kg | 2.6 | 3.3 | 3.7 | CIEH/LQM S4ULs |
| Benzo(k)fluoranthene | mg/kg | 77 | 93 | 100 | CIEH/LQM S4ULs |
| Benzo(g,h,i)perylene | mg/kg | 320 | 340 | 350 | CIEH/LQM S4ULs |
| Benzo(a)pyrene | mg/kg | 5 | 5 | 5 | C4SL, CLEA v1.071 |
| Chrysene | mg/kg | 15 | 22 | 27 | CIEH/LQM S4ULs |
| Di-benzo(a,h)anthracene | mg/kg | 0.24 | 0.28 | 0.30 | CIEH/LQM S4ULs |

| Determinand | Units | SOIL ORGANIC MATTER | | | SOURCE |
|---|---|---|---|---|---|
| | | 1% | 2.5% | 6% | |
| Fluoranthene | mg/kg | 280 | 560 | 890 | CIEH/LQM S4ULs |
| Fluorene | mg/kg | 170 | 400 | 860 | CIEH/LQM S4ULs |
| Indeno(1,2,3-cd)pyrene | mg/kg | 27 | 36 | 41 | CIEH/LQM S4ULs |
| Naphthalene | mg/kg | 2.3 | 5.6 | 13 | CIEH/LQM S4ULs |
| Phenanthrene | mg/kg | 95 | 220 | 440 | CIEH/LQM S4ULs |
| Pyrene | mg/kg | 620 | 1200 | 2000 | CIEH/LQM S4ULs |
| | | | | | |
| **Phenolics** | | | | | |
| Phenol | mg/kg | 120 | 200 | 380 | CIEH/LQM S4ULs |
| | | | | | |
| **TPH** | | | | | |
| TPH Aliphatic >C5-6 | mg/kg | 42 | 78 | 160 | CIEH/LQM S4ULs |
| TPH Aliphatic >C6-8 | mg/kg | 100 | 230 | 530 | CIEH/LQM S4ULs |
| TPH Aliphatic >C8-10 | mg/kg | 27 | 65 | 150 | CIEH/LQM S4ULs |
| TPH Aliphatic >C10-12 | mg/kg | 130 | 330 | 770 | CIEH/LQM S4ULs |
| TPH Aliphatic >C12-16 | mg/kg | 1,100 | 2,400 | 4,400 | CIEH/LQM S4ULs |
| TPH Aliphatic >C16-35 | mg/kg | 65,000 | 92,000 | 110,000 | CIEH/LQM S4ULs |
| TPH Aliphatic >C35-44 | mg/kg | 65,000 | 92,000 | 110,000 | CIEH/LQM S4ULs |
| TPH Aromatic >EC5-7 (Benzene) | mg/kg | 0.2 | 0.41 | 0.87 | C4SL, CLEA v1.071 |
| TPH Aromatic >EC7-8 | mg/kg | 130 | 290 | 660 | CIEH/LQM S4ULs |
| TPH Aromatic >EC8-10 | mg/kg | 34 | 83 | 190 | CIEH/LQM S4ULs |
| TPH Aromatic >EC10-12 | mg/kg | 74 | 180 | 380 | CIEH/LQM S4ULs |
| TPH Aromatic >EC12-16 | mg/kg | 140 | 330 | 660 | CIEH/LQM S4ULs |
| TPH Aromatic >EC16-21 | mg/kg | 260 | 540 | 930 | CIEH/LQM S4ULs |
| TPH Aromatic >EC21-35 | mg/kg | 1,100 | 1,500 | 1,700 | CIEH/LQM S4ULs |
| TPH Aromatic >EC35-44 | mg/kg | 1,100 | 1,500 | 1,700 | CIEH/LQM S4ULs |
| TPH Aliphatic & Aromatic >EC44-70 | mg/kg | 1,600 | 1,800 | 1,900 | CIEH/LQM S4ULs |

# Appendix E2 – Contamination Assessment Criteria

WYG Tier One Human Health Screening Values, Issue 15.
Commercial / Industrial

| Determinand | Units | SOIL ORGANIC MATTER | | | SOURCE |
|---|---|---|---|---|---|
| | | 1% | 2.5% | 6% | |
| pH | | <5, >9 | | | |
| Asbestos | % | Presence | | | |
| | | | | | |
| **HEAVY METALS/METALLOIDS** | | | | | |
| Arsenic | mg/kg | 640 | | | C4SL |
| Cadmium | mg/kg | 410 | | | C4SL |
| Chromium (III) | mg/kg | 8,600 | | | CIEH/LQM S4ULs |
| Chromium (VI) | mg/kg | 49 | | | C4SL |
| Lead | mg/kg | 2,300 | | | C4SL |
| Mercury (Elemental) | mg/kg | 58 | | | CIEH/LQM S4ULs |
| Mercury (Inorganic) | mg/kg | 1,100 | | | CIEH/LQM S4ULs |
| Mercury (Methyl) | mg/kg | 320 | | | CIEH/LQM S4ULs |
| Nickel | mg/kg | 980 | | | CIEH/LQM S4ULs |
| Selenium | mg/kg | 12,000 | | | CIEH/LQM S4ULs |
| Berylium | mg/kg | 12 | | | CIEH/LQM S4ULs |
| Boron | mg/kg | 240,000 | | | CIEH/LQM S4ULs |
| Vanadium | mg/kg | 9,000 | | | CIEH/LQM S4ULs |
| Copper | mg/kg | 68,000 | | | CIEH/LQM S4ULs |
| Zinc | mg/kg | 730,000 | | | CIEH/LQM S4ULs |
| | | | | | |
| **GENERAL INORGANICS** | | | | | |
| Easily Liberatable Cyanide (free) | mg/kg | 40 | | | WYG derived considering acute effects |
| | | | | | |
| **US EPA PRIORITY PAHs** | | | | | |
| Acenaphthene | mg/kg | 84,000 | 97,000 | 100,000 | CIEH/LQM S4ULs |
| Acenaphthylene | mg/kg | 83,000 | 97,000 | 100,000 | CIEH/LQM S4ULs |
| Anthracene | mg/kg | 520,000 | 540,000 | 540,000 | CIEH/LQM S4ULs |
| Benzo(a)anthracene | mg/kg | 170 | 170 | 180 | CIEH/LQM S4ULs |
| Benzo(b)fluoranthene | mg/kg | 44 | 44 | 45 | CIEH/LQM S4ULs |
| Benzo(k)fluoranthene | mg/kg | 1,200 | 1,200 | 1,200 | CIEH/LQM S4ULs |
| Benzo(g,h,i)perylene | mg/kg | 3,900 | 4,000 | 4,000 | CIEH/LQM S4ULs |
| Benzo(a)pyrene | mg/kg | 77 | 77 | 77 | C4SL, CLEA v1.071 |
| Chrysene | mg/kg | 350 | 350 | 350 | CIEH/LQM S4ULs |
| Di-benzo(a,h)anthracene | mg/kg | 3.5 | 3.6 | 3.6 | CIEH/LQM S4ULs |

| Determinand | Units | SOIL ORGANIC MATTER | | | SOURCE |
|---|---|---|---|---|---|
| | | 1% | 2.5% | 6% | |
| Fluoranthene | mg/kg | 23,000 | 23,000 | 23,000 | CIEH/LQM S4ULs |
| Fluorene | mg/kg | 63,000 | 68,000 | 71,000 | CIEH/LQM S4ULs |
| Indeno(1,2,3-cd)pyrene | mg/kg | 500 | 510 | 510 | CIEH/LQM S4ULs |
| Naphthalene | mg/kg | 190 | 460 | 1,100 | CIEH/LQM S4ULs |
| Phenanthrene | mg/kg | 22,000 | 22,000 | 23,000 | CIEH/LQM S4ULs |
| Pyrene | mg/kg | 54,000 | 54,000 | 54,000 | CIEH/LQM S4ULs |
| | | | | | |
| **Phenolics** | | | | | |
| Phenol | mg/kg | 440 | 690 | 1,300 | CIEH/LQM S4ULs |
| | | | | | |
| **TPH** | | | | | |
| TPH Aliphatic >C5-6 | mg/kg | 3,200 | 5,900 | 12,000 | CIEH/LQM S4ULs |
| TPH Aliphatic >C6-8 | mg/kg | 7,800 | 17,000 | 40,000 | CIEH/LQM S4ULs |
| TPH Aliphatic >C8-10 | mg/kg | 2,000 | 4,800 | 11,000 | CIEH/LQM S4ULs |
| TPH Aliphatic >C10-12 | mg/kg | 9,700 | 23,000 | 47,000 | CIEH/LQM S4ULs |
| TPH Aliphatic >C12-16 | mg/kg | 59,000 | 82,000 | 90,000 | CIEH/LQM S4ULs |
| TPH Aliphatic >C16-35 | mg/kg | 1,000,000 | 1,000,000 | 1,000,000 | CIEH/LQM S4ULs |
| TPH Aliphatic >C35-44 | mg/kg | 1,000,000 | 1,000,000 | 1,000,000 | CIEH/LQM S4ULs |
| TPH Aromatic >EC5-7 (Benzene) | mg/kg | 27 | 50 | 98 | C4SL, CLEA v1.071 |
| TPH Aromatic >EC7-8 | mg/kg | 56,000 | 110,000 | 180,000 | CIEH/LQM S4ULs |
| TPH Aromatic >EC8-10 | mg/kg | 3,500 | 8,100 | 17,000 | CIEH/LQM S4ULs |
| TPH Aromatic >EC10-12 | mg/kg | 16,000 | 28,000 | 34,000 | CIEH/LQM S4ULs |
| TPH Aromatic >EC12-16 | mg/kg | 36,000 | 37,000 | 38,000 | CIEH/LQM S4ULs |
| TPH Aromatic >EC16-21 | mg/kg | 28,000 | 28,000 | 28,000 | CIEH/LQM S4ULs |
| TPH Aromatic >EC21-35 | mg/kg | 28,000 | 28,000 | 28,000 | CIEH/LQM S4ULs |
| TPH Aromatic >EC35-44 | mg/kg | 28,000 | 28,000 | 28,000 | CIEH/LQM S4ULs |
| TPH Aliphatic & Aromatic >EC44-70 | mg/kg | 28,000 | 28,000 | 28,000 | CIEH/LQM S4ULs |

# Appendix F – Development Masterplan

**PCPT Architects Ltd. Drawing 3844 AD(0) 003 A**

## Area Schedule

| Zone | Hectares | Acres |
|---|---|---|
| Residential A | 2.7 | 6.7 |
| Residential B | o m i t t e d | |
| Residential C | 4.9 | 12.1 |
| Residential D | 4.1 | 10.1 |
| Residential E | 1.7 | 4.2 |
| *sub total* | 13.4 | 33.0 |
| Industrial 1 | 2.1 | 5.1 |
| Industrial 2 | 0.8 | 2.0 |
| *sub total* | 2.9 | 7.1 |
| Public Open Space | 4.4 | 10.9 |
| Carbon Factory | 3.0 | 7.4 |
| Other (inc main access road) | 2.5 | 6.1 |
| Total | 26.2 | 64.7 |

Typical Industrial/Unit

Industrial Site Area:
2.9 hectares (7.1 acres)

8 units, giving total of
9,800sqm (105,490sqft)
gross external

A- E=98 no.
F-G=26 no.
total =124 (19%)

A- E=236 no.
F-G=74 no.
total =310 (49%)

A- E=89 no.
F-G=32 no.
total =121 (19%)

A- E=42 no.
F-G=42 no.
total =84 (13%)

Total Residential Site area:
A-E=14.1 Hectares (34.8 Acres)+
F-G=3.9 Hectares (9.6 Acres)
total= 18 Hectares (44.4 Acres)

Density =36 units per hectare

A-E=465 units
F-G=174 units

total =639 units

Public open space

Revision A - Amendment to Zone F and G - Faded out as a later planned phase

Client

HCA & Thomas Lister

Project Name

# Holbrook Lane Redevelopment

Coventry

## Master Plan Layout Option 1

Feasibility Study

PCPT Architects Limited
14 Hylton Street
Jewellery Quarter
Birmingham
B18 6HN

T: 0121 523 9335

design@pcptarchitects.co.uk

| Scale | Date |
|---|---|
| 1:1000 @ A0 | Mar 17 |
| Drawn by | Checked by |
| DJW/ BT | |
| Plot Date | |

| Drawing No. | Revision |
|---|---|
| 3844 AD(0) 003 | A |

Copyright PCPT Architects Limited.
Work to figured dimensions only.
Report any discrepancies immediately.

AutoCAD reference:
H:\Drawings\3844 Project Titles\3844 AD(0)001

# Appendix G – Monitoring

**WYG ENVIRONMENT**

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | HE | **Job No:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt, Coventry | **Date:** | 20-Mar-18 | **Monitored By:** | **JP** |
| **Weather:** | Drizzle | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] (% vol) | | Steady [2] (% vol) | | | (ppm) | | Flow rate (l/hr) | | | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $CH_4$ | $CO_2$ | $CH_4$ | $CO_2$ | $O_2$ | CO | $H_2S$ | Total gas | Peak $CH_4$ | Peak $CO_2$ | | | | | |
| R12 | 0.00 | 0.1 | 2.8 | 0.1 | 2.8 | 1.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1017 | 8.63 | 15.00 | 8.63 | |
| WS51 | 0.00 | 0.8 | 0.1 | 0.7 | 0.0 | 17.8 | 7.0 | 0.0 | 2.2 | | 0.002 | 1020 | 1.06 | 4.70 | 1.06 | |
| WS49 | 0.00 | 1.0 | 0.9 | 1.0 | 0.9 | 18.3 | 20.0 | 0.0 | 2.5 | 0.000 | 0.023 | 1020 | 1.06 | 3.00 | 1.06 | |
| R11 | 0.00 | 0.4 | 2.1 | 0.1 | 2.1 | 19.6 | 0.0 | 0.0 | -0.6 | 0.000 | -0.013 | 1020 | 11.98 | 15.01 | 11.98 | |
| WS45 | 0.00 | 0.4 | 3.7 | 0.1 | 3.3 | 15.7 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1020 | DRY | 2.07 | DRY | |
| WS46 | 0.00 | 0.2 | 6.2 | 0.2 | 6.2 | 15.0 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1020 | DRY | 3.78 | DRY | |
| R9 | 0.00 | 0.1 | 0.7 | 0.1 | 0.7 | 21.0 | 0.0 | 0.0 | -1.2 | 0.000 | -0.008 | 1020 | 12.53 | 15.07 | 12.53 | |
| R7 | 0.00 | 0.1 | 1.9 | 0.1 | 1.9 | 20.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1020 | 6.80 | 8.10 | 6.80 | |
| WS36 | 0.00 | 0.1 | 12.0 | 0.1 | 12.0 | 7.4 | 20.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1020 | DRY | 2.88 | DRY | |
| WS32 | 0.00 | 0.1 | 0.2 | 0.1 | 0.0 | 5.9 | 4.0 | 0.0 | 0.0 | | 0.000 | 1020 | DRY | 1.89 | DRY | |
| WS22 | 0.00 | 0.1 | 0.6 | 0.1 | 0.6 | 21.1 | 0.0 | 0.0 | 0.1 | 0.000 | 0.001 | 1021 | 1.50 | 2.94 | 1.50 | |
| R5 | 0.00 | 0.1 | 2.4 | 0.1 | 2.4 | 13.9 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1020 | DRY | 5.12 | DRY | |
| WS01 | 0.00 | 0.1 | 0.3 | 0.0 | 0.0 | 22.1 | 1.0 | 0.0 | 0.2 | | 0.001 | 1020 | 1.07 | 3.04 | 1.07 | |
| R1 | 0.00 | 0.1 | 0.6 | 0.0 | 0.6 | 21.4 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1020 | _ | _ | _ | Unable to remove gas bung |
| WS48 | 0.00 | 0.1 | 0.0 | 0.1 | 0.0 | 21.7 | 1.0 | 0.0 | 0.0 | | 0.000 | 1020 | 0.50 | 2.00 | 0.50 | |
| WS20 | 0.00 | 0.2 | 2.8 | 0.1 | 2.8 | 14.4 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1019 | 1.82 | 4.02 | 1.82 | |
| | | | | | | | | | | | | | | | | |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.1 | 0.1 | 21.6 | 1017 |
| After Monitoring | 0.1 | 0.1 | 21.4 | 1020 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | HE | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggit, Coventry | **Date:** | 29-Mar-18 | **Monitored By:** | **SC + SK** |
| **Weather:** | Sunny, clear | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WS02 | 0.00 | 0.2 | 5.6 | 0.2 | 5.6 | 15.2 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 988 | 3.02 | 3.60 | 3.02 | |
| R2 | 0.00 | 0.2 | 2.5 | 0.2 | 2.5 | 11.2 | 3.0 | 0.0 | 0.0 | 0.000 | 0.000 | 990 | 2.96 | 14.78 | 2.96 | |
| WS21 | 0.00 | 0.1 | 2.5 | 0.1 | 2.5 | 16.7 | 0.0 | 0.0 | -0.1 | 0.000 | -0.003 | 989 | 1.05 | 3.97 | 1.05 | |
| WS35 | 0.00 | 0.2 | 0.4 | 0.2 | 0.4 | 20.6 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 989 | DRY | 2.91 | DRY | |
| R6 | 0.00 | 0.1 | 2.9 | 0.1 | 2.9 | 14.8 | 0.0 | 0.0 | 0.5 | 0.001 | 0.015 | 989 | 14.37 | 14.47 | 14.37 | |
| WS29 | 0.00 | 0.1 | 0.4 | 0.1 | 0.4 | 20.2 | 0.0 | 0.0 | -0.1 | 0.000 | 0.000 | 989 | DRY | 2.99 | DRY | |
| R8 | 0.00 | 0.1 | 1.8 | 0.1 | 1.8 | 14.9 | 0.0 | 0.0 | 0.1 | 0.000 | 0.002 | 989 | 8.99 | 14.55 | 8.99 | |
| R10 | 0.00 | 0.4 | 4.6 | 0.4 | 4.6 | 6.9 | 1.0 | 0.0 | 0.5 | 0.002 | 0.023 | 989 | 10.26 | 14.94 | 10.26 | |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.0 | 0.1 | 21.1 | 988 |
| After Monitoring | 0.0 | 0.1 | 21.1 | 989 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt | **Date:** | 05-Apr-18 | **Monitored By:** | **JP** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] | | Steady [2] | | | | | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | $CH_4$ (% vol) | $CO_2$ (% vol) | $CH_4$ (% vol) | $CO_2$ (% vol) | $O_2$ (% vol) | CO (ppm) | $H_2S$ (ppm) | | | | | | | | |
| WS21 | 0.00 | 0.0 | 0.8 | 0.0 | 0.8 | 19.3 | 0.0 | 0.0 | 0.1 | 0.000 | 0.001 | 1006 | 1.09 | 4.01 | 1.09 | |
| WS20 | 0.00 | 0.1 | 3.3 | 0.0 | 3.3 | 15.3 | 0.0 | 0.0 | 0.1 | 0.000 | 0.003 | 1005 | 1.12 | 4.10 | 1.12 | |
| R6 | 0.00 | 0.0 | 0.1 | 0.0 | 0.1 | 21.1 | 0.0 | 0.0 | -3.3 | 0.000 | -0.003 | 1006 | 14.37 | 14.47 | 14.37 | |
| WS29 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 21.2 | 2.0 | 0.0 | 0.1 | 0.000 | 0.000 | 1006 | DRY | 2.95 | DRY | |
| WS35 | 0.00 | 0.0 | 0.1 | 0.0 | 0.1 | 20.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1006 | DRY | 2.91 | DRY | |
| R12 | 0.00 | | 1.2 | | 1.2 | 13.0 | 1.0 | 0.0 | 5.3 | 0.000 | 0.064 | 1006 | 7.67 | 14.92 | 7.67 | CH4 above detectable limit |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.2 | 0.1 | 20.6 | 1003 |
| After Monitoring | 0.1 | 0.1 | 20.1 | 1006 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt | **Date:** | 05-Apr-18 | **Monitored By:** | **JP** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WS51 | 0.00 | 0.6 | 0.1 | 0.6 | 0.0 | 12.5 | 0.0 | 0.0 | 0.4 | 0.002 | 0.000 | 1003 | 1.48 | 4.66 | 1.48 | |
| WS49 | 0.00 | 0.6 | 0.4 | 0.6 | 0.4 | 18.0 | 11.0 | 0.0 | 2.5 | 0.015 | 0.010 | 1005 | 1.73 | 2.97 | 1.73 | |
| R11 | 0.00 | 0.1 | 0.1 | 0.1 | 0.1 | 19.9 | 0.0 | 0.0 | -2.2 | -0.002 | -0.002 | 1005 | 11.14 | 15.03 | 11.14 | |
| WS48 | 0.00 | | | | | | | | | | | | 0.45 | 2.01 | 0.45 | |
| R9 | 0.00 | | | | | | | | | | | | 12.35 | 15.03 | 12.35 | |
| WS46 | 0.00 | 0.1 | 2.7 | 0.1 | 2.4 | 19.1 | 0.0 | 0.0 | 0.1 | 0.000 | 0.003 | 1006 | DRY | 3.85 | DRY | |
| WS45 | 0.00 | 0.1 | 0.5 | 0.1 | 0.5 | 19.3 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1006 | DRY | 2.23 | DRY | |
| R10 | 0.00 | | | | | | | | | | | 1006 | 10.29 | 14.83 | 10.29 | |
| R8 | 0.00 | 0.1 | 0.1 | 0.1 | 0.1 | 20.3 | 0.0 | 0.0 | -1.5 | -0.002 | -0.002 | 1005 | 11.55 | 14.82 | 11.55 | |
| R7 | 0.00 | 0.1 | 0.1 | 0.1 | 0.1 | 19.3 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1005 | 6.53 | 7.97 | 6.53 | |
| WS36 | 0.00 | 0.1 | 6.3 | 0.1 | 6.3 | 15.9 | 9.0 | 0.0 | 0.1 | 0.000 | 0.006 | 1005 | DRY | 2.83 | DRY | |
| WS32 | 0.00 | 0.1 | 0.1 | 0.1 | 0.1 | 6.7 | 4.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1005 | DRY | 1.86 | DRY | |
| R5 | 0.00 | 0.1 | 2.6 | 0.1 | 2.6 | 10.4 | 1.0 | 0.0 | -4.0 | -0.004 | -0.104 | 1005 | 4.56 | 5.02 | 4.56 | |
| WS22 | 0.00 | 0.1 | 0.2 | 0.1 | 0.2 | 20.3 | 1.0 | 0.0 | -0.1 | 0.000 | 0.000 | 1005 | 1.42 | 3.91 | 1.42 | |
| R1 | 0.00 | 0.1 | 0.6 | 0.1 | 0.6 | 20.0 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1005 | - | - | - | Bung stuck, unable to dip and sample |
| R2 | 0.00 | 0.1 | 3.5 | 0.1 | 3.5 | 16.3 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1005 | 2.62 | 14.89 | 2.62 | |
| WS02 | 0.00 | 0.0 | 5.2 | 0.0 | 5.2 | 15.6 | 0.0 | 0.0 | 0.2 | 0.000 | 0.010 | 1005 | 2.80 | 3.65 | 2.80 | |
| WS01 | 0.00 | 0.0 | 0.1 | 0.0 | 0.1 | 20.6 | 4.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1005 | 1.00 | 3.08 | 1.00 | |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.2 | 0.1 | 20.6 | 1003 |
| After Monitoring | 0.1 | 0.1 | 20.1 | 1006 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt, Coventry | **Date:** | 18-Apr-18 | **Monitored By:** | **JP** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R12 | 0.00 | >>> | 2.8 | >>> | 2.8 | 2.9 | 2.0 | 1.0 | -1.3 | #VALUE! | -0.036 | 1017 | 8.10 | 15.00 | 8.10 | |
| WS51 | 0.00 | 0.0 | 0.1 | 0.0 | 0.1 | 11.9 | 2.0 | 1.0 | 9.1 | 0.000 | 0.009 | 1017 | 2.35 | 4.75 | 2.35 | |
| WS49 | 0.00 | 0.1 | 0.1 | 0.1 | 0.1 | 20.2 | 3.0 | 0.0 | 0.3 | 0.000 | 0.000 | 1016 | 1.30 | 3.04 | 1.30 | |
| WS48 | 0.00 | 0.0 | 0.2 | 0.0 | 0.2 | 21.3 | 1.0 | 0.0 | -0.1 | 0.000 | 0.000 | 1016 | 0.65 | 2.00 | 0.65 | |
| R11 | 0.00 | 0.0 | 0.8 | 0.0 | 0.8 | 20.2 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1015 | 11.30 | 13.00 | 11.30 | |
| WS45 | 0.00 | 0.0 | 0.7 | 0.0 | 0.7 | 20.2 | 1.0 | 0.0 | 0.1 | 0.000 | 0.001 | 1015 | 2.50 | DRY | 2.50 | |
| WS46 | 0.00 | 0.0 | 4.3 | 0.0 | 3.4 | 18.7 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1015 | DRY | 3.94 | DRY | |
| R9 | 0.00 | 0.0 | 0.3 | 0.0 | 0.3 | 20.7 | 1.0 | 0.0 | -0.3 | 0.000 | -0.001 | 1016 | 8.71 | 15.16 | 8.71 | |
| R7 | 0.00 | 0.0 | 2.2 | 0.0 | 2.2 | 18.3 | 1.0 | 0.0 | 0.0 | | | 1016 | 6.50 | 7.10 | 6.50 | |
| WS36 | 0.00 | 0.0 | 7.0 | 0.0 | 7.0 | 15.0 | 24.0 | 0.0 | 0.1 | 0.000 | 0.007 | 1016 | DRY | 2.90 | DRY | |
| WS32 | 0.00 | 0.0 | 0.1 | 0.0 | 0.0 | 4.9 | 3.0 | 0.0 | 0.0 | | | 1016 | DRY | 1.92 | DRY | |
| WS22 | 0.00 | 0.0 | 1.4 | 0.0 | 1.6 | 19.2 | 1.0 | 0.0 | 0.2 | 0.000 | 0.003 | 1016 | 1.55 | 2.95 | 1.55 | |
| R5 | 0.00 | 0.0 | 0.4 | 0.0 | 0.4 | 20.4 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1016 | DRY | 5.07 | DRY | |
| WS01 | 0.00 | 0.0 | 0.4 | 0.0 | 0.4 | 18.8 | 1.0 | 0.0 | 0.0 | | | 1016 | 1.25 | 3.28 | 1.25 | |
| R1 | 0.00 | 0.0 | 0.7 | 0.0 | 0.7 | 19.8 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1016 | - | - | - | Bung stuck in standpipe undable to dip |
| WS48 | 0.00 | 0.0 | 0.2 | 0.0 | 0.2 | 21.3 | 1.0 | 0.0 | -0.1 | | | 1016 | 0.65 | 2.00 | 0.65 | |
| WS20 | 0.00 | 0.0 | 2.7 | 0.0 | 2.7 | 13.7 | 1.0 | 0.0 | 0.0 | | | 1016 | 1.35 | 4.13 | 1.35 | |
| | | | | | | | | | | | | | | | | |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.1 | 0.1 | 20.9 | 1015 |
| After Monitoring | 0.1 | 0.1 | 21.0 | 1015 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt, Coventry | **Date:** | 18-Apr-18 | **Monitored By:** | **JP** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WS02 | 0.00 | 0.1 | 4.6 | 0.1 | 4.6 | 16.9 | 0.0 | 0.0 | 0.1 | 0.000 | 0.005 | 1015 | 2.95 | 3.60 | 2.95 | |
| R2 | 0.00 | 0.1 | 3.2 | 0.1 | 3.2 | 16.3 | 1.0 | 0.0 | 0.1 | 0.000 | 0.003 | 1015 | 2.97 | 15.00 | 2.97 | |
| WS21 | 0.00 | 0.0 | 0.4 | 0.0 | 0.4 | 19.9 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1016 | 1.10 | 4.01 | 1.10 | |
| WS35 | 0.00 | 0.0 | 0.2 | 0.0 | 0.2 | 21.3 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1016 | DRY | 2.95 | DRY | |
| R6 | 0.00 | 0.0 | 1.5 | 0.0 | 1.5 | 17.6 | 2.0 | 0.0 | -0.4 | 0.000 | -0.006 | 1016 | DRY | 14.36 | DRY | |
| WS29 | 0.00 | 0.0 | 0.2 | 0.0 | 0.2 | 21.0 | 2.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1016 | DRY | 3.00 | DRY | |
| R8 | 0.00 | 0.0 | 0.3 | 0.0 | 0.3 | 16.0 | 2.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1016 | 5.38 | 14.75 | 5.38 | |
| R10 | 0.00 | | | | | | | | | | | | | | | |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.1 | 0.1 | 20.9 | 1015 |
| After Monitoring | 0.1 | 0.1 | 21.0 | 1015 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt | **Date:** | 08-May-18 | **Monitored By:** | **JP** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R12 | 0.00 | >>> | 2.5 | >>> | 2.5 | 5.4 | 2.0 | 0.0 | -0.4 | #VALUE! | -0.010 | 998 | 8.00 | 15.00 | 8.00 | |
| WS51 | 0.00 | 0.0 | 0.1 | 0.0 | 0.1 | 12.1 | 1.0 | 1.0 | 9.3 | 0.000 | 0.009 | 998 | 2.50 | 4.80 | 2.50 | |
| WS49 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 21.2 | 2.0 | 0.0 | 0.0 | 0.000 | 0.000 | 998 | 1.35 | 4.70 | 1.35 | |
| WS48 | 0.00 | 0.0 | 0.1 | 0.0 | 0.0 | 21.6 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 998 | 0.67 | 2.00 | 0.67 | |
| R11 | 0.00 | 0.0 | 3.5 | 0.0 | 3.5 | 17.1 | 2.0 | 0.0 | 0.1 | 0.000 | 0.004 | 998 | 11.30 | 13.00 | 11.30 | |
| WS45 | 0.00 | 0.0 | 1.0 | 0.0 | 1.0 | 19.6 | 2.0 | 0.0 | 0.1 | 0.000 | 0.001 | 998 | DRY | 2.00 | DRY | |
| WS46 | 0.00 | 0.0 | 0.0 | 3.6 | 0.0 | 19.4 | 3.6 | 2.0 | 0.0 | 0.000 | 0.000 | 998 | DRY | 4.90 | DRY | |
| R9 | 0.00 | 0.0 | 1.6 | 0.0 | 1.6 | 7.4 | 2.0 | 0.0 | 0.7 | 0.000 | 0.011 | 997 | 11.96 | 15.20 | 11.96 | |
| R7 | 0.00 | 0.0 | 3.0 | 0.0 | 3.0 | 16.6 | 4.0 | 0.0 | 0.0 | | | 998 | 6.90 | 7.15 | 6.90 | |
| WS36 | 0.00 | 0.0 | 9.0 | 0.0 | 9.0 | 10.7 | 34.0 | 0.0 | 0.1 | 0.000 | 0.009 | 998 | DRY | 2.90 | DRY | |
| WS32 | 0.00 | 0.0 | 0.3 | 0.0 | 0.0 | 1.0 | 2.0 | 0.0 | 0.0 | | | 998 | DRY | 1.90 | DRY | |
| WS22 | 0.00 | 0.0 | 2.0 | 0.0 | 1.0 | 19.6 | 1.0 | 0.0 | 0.1 | 0.000 | 0.002 | 998 | 1.40 | 2.60 | 1.40 | |
| R5 | 0.00 | 0.0 | 1.7 | 0.0 | 1.7 | 18.3 | 1.0 | 0.0 | 0.1 | 0.000 | 0.002 | 998 | DRY | 5.15 | DRY | |
| WS01 | 0.00 | 0.0 | 0.8 | 0.0 | 0.3 | 18.9 | 2.0 | 0.0 | 0.0 | | | 996 | 1.30 | 3.10 | 1.30 | |
| R1 | 0.00 | 0.0 | 0.7 | 0.0 | 0.7 | 19.6 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 996 | - | - | - | Bung stuck unable to dip |
| WS48 | 0.00 | 0.0 | 0.1 | 0.0 | 0.0 | 21.6 | 1.0 | 0.0 | 0.0 | | | 998 | 0.67 | 2.00 | 0.67 | |
| WS20 | 0.00 | 0.0 | 3.4 | 0.0 | 3.4 | 14.2 | 2.0 | 0.0 | 0.0 | | | 2 | 1.60 | 4.20 | 1.60 | |
| | | | | | | | | | | | | | | | | |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.1 | 0.1 | 21.1 | 996 |
| After Monitoring | 0.1 | 0.0 | 21.0 | 998 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt | **Date:** | 08-May-18 | **Monitored By:** | **JP** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WS02 | 0.00 | 0.1 | 6.7 | 0.1 | 6.7 | 12.7 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 996 | 2.97 | 3.60 | 2.97 | |
| R2 | 0.00 | 0.1 | 1.4 | 0.1 | 1.4 | 18.4 | 0.0 | 0.0 | -1.9 | -0.002 | -0.027 | 996 | 3.03 | 15.00 | 3.03 | |
| WS21 | 0.00 | 0.0 | 0.7 | 0.0 | 0.7 | 19.5 | 2.0 | 0.0 | 0.1 | 0.000 | 0.001 | 998 | 1.02 | 4.00 | 1.02 | |
| WS35 | 0.00 | 0.0 | 0.1 | 0.0 | 0.1 | 21.0 | 3.0 | 0.0 | 0.1 | 0.000 | 0.000 | 997 | DRY | 2.95 | DRY | |
| R6 | 0.00 | 0.0 | 1.8 | 0.0 | 1.8 | 15.9 | 3.0 | 0.0 | 0.7 | 0.000 | 0.013 | 998 | DRY | 14.50 | DRY | |
| WS29 | 0.00 | 0.0 | 0.3 | 0.0 | 0.3 | 19.9 | 2.0 | 0.0 | 0.0 | 0.000 | 0.000 | 998 | DRY | 3.00 | DRY | |
| R8 | 0.00 | 0.0 | 0.5 | 0.0 | 0.5 | 14.5 | 3.0 | 0.0 | 0.5 | 0.000 | 0.003 | 998 | 11.60 | 14.75 | 11.60 | |
| | | | | | | | | | | | | | | | | Bung stuck unable to dip |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.1 | 0.1 | 21.1 | 996 |
| After Monitoring | 0.1 | 0.0 | 21.0 | 998 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt, Coventry | **Date:** | 16-May-18 | **Monitored By:** | **JP** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R12 | 0.00 | >>> | 2.7 | >>> | 2.7 | 6.6 | 3.0 | 0.0 | -0.6 | #VALUE! | -0.016 | 1018 | 8.20 | 15.00 | 8.20 | |
| WS51 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 21.0 | 1.0 | 0.0 | 0.1 | 0.000 | 0.000 | 1018 | 0.42 | 4.73 | 0.42 | |
| WS49 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 21.2 | 2.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1018 | 0.73 | 3.00 | 0.73 | |
| WS48 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.9 | 2.0 | 0.0 | | | 1018 | 1.85 | 2.00 | 1.85 | |
| R11 | 0.00 | 0.0 | 1.2 | 0.0 | 1.2 | 19.9 | 3.0 | 0.0 | 0.1 | 0.000 | 0.001 | 1018 | 11.20 | 13.00 | 11.30 | |
| WS45 | 0.00 | 0.0 | 1.7 | 0.0 | 1.7 | 18.6 | 1.0 | 0.0 | 0.1 | 0.000 | 0.002 | 1018 | DRY | 4.80 | DRY | |
| WS46 | 0.00 | 0.0 | 2.8 | 0.0 | 2.8 | 19.8 | 1.0 | 0.0 | 0.1 | 0.000 | 0.003 | 1018 | DRY | 3.90 | DRY | |
| R9 | 0.00 | 0.0 | 0.4 | 0.0 | 0.4 | 20.5 | 2.0 | 0.0 | -0.5 | 0.000 | -0.002 | 1018 | 11.80 | 15.00 | 11.80 | |
| R7 | 0.00 | 0.0 | 2.4 | 0.0 | 2.4 | 18.1 | 5.0 | 0.0 | 0.0 | | | 1017 | 6.95 | 8.13 | 6.95 | |
| WS36 | 0.00 | 0.0 | 9.9 | 0.0 | 9.9 | 11.0 | 28.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1016 | DRY | 2.86 | DRY | |
| WS32 | 0.00 | 0.0 | 0.7 | 0.0 | 0.0 | 6.9 | 2.0 | 0.0 | 0.0 | | | 1016 | DRY | 1.90 | DRY | |
| WS22 | 0.00 | 0.0 | 2.3 | 0.0 | 2.3 | 17.4 | 0.0 | 0.0 | 0.1 | 0.000 | 0.002 | 1016 | 1.56 | 2.93 | 1.56 | |
| R5 | 0.00 | 0.0 | 0.5 | 0.0 | 0.5 | 20.2 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1016 | DRY | 5.06 | DRY | |
| WS01 | 0.00 | 0.0 | 0.5 | 0.0 | 0.5 | 18.2 | 0.0 | 0.0 | 0.1 | | | 1015 | 1.58 | 3.14 | 1.58 | |
| R1 | 0.00 | 0.0 | 0.8 | 0.0 | 0.8 | 19.7 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1015 | - | - | - | Bung stuck unable to dip |
| WS48 | 0.00 | 0.0 | 0.0 | 0.0 | 0.0 | 19.9 | 2.0 | 0.0 | 0.0 | | | 1018 | 1.85 | 2.00 | 1.85 | |
| WS20 | 0.00 | 0.0 | 4.0 | 0.0 | 4.0 | 13.7 | 1.0 | 0.0 | 0.1 | | | 1016 | 1.55 | 4.11 | 1.55 | |
| | | | | | | | | | | | | | | | | |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.1 | 0.1 | 21.1 | 1015 |
| After Monitoring | 0.1 | 0.1 | 21.0 | 1018 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

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Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt, Coventry | **Date:** | 16-May-18 | **Monitored By:** | **JP** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WS02 | 0.00 | 0.1 | 8.4 | 0.1 | 8.4 | 10.3 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1015 | 2.98 | 3.62 | 2.98 | |
| R2 | 0.00 | 0.1 | 4.9 | 0.1 | 4.9 | 12.8 | 3.0 | 0.0 | -1.2 | -0.001 | -0.059 | 1015 | 2.98 | 3.62 | 2.98 | |
| WS21 | 0.00 | 0.0 | 0.8 | 0.0 | 0.8 | 18.5 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1016 | 1.10 | 4.01 | 1.10 | |
| WS35 | 0.00 | 0.0 | 0.2 | 0.0 | 0.2 | 20.9 | 2.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1018 | DRY | 2.95 | DRY | |
| R6 | 0.00 | 0.0 | 0.1 | 0.0 | 0.1 | 20.9 | 2.0 | 0.0 | -0.5 | 0.000 | -0.001 | 1018 | DRY | 14.50 | DRY | |
| WS29 | 0.00 | 0.0 | 0.5 | 0.0 | 0.5 | 20.1 | 2.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1017 | DRY | 3.00 | DRY | |
| R8 | 0.00 | 0.0 | 0.5 | 0.0 | 0.5 | 15.4 | 2.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1018 | 11.50 | 14.50 | 11.50 | |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.1 | 0.1 | 21.1 | 1015 |
| After Monitoring | 0.1 | 0.1 | 21.0 | 1018 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

**WYG ENVIRONMENT**

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt, Coventry | **Date:** | 06-Jun-18 | **Monitored By:** | **SK** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WS32 | 0.00 | 0.1 | 11.6 | 0.1 | 11.6 | 5.9 | 1.0 | 0.0 | -0.2 | 0.000 | -0.023 | 1002 | 3.12 | 3.59 | 3.12 | |
| R2 | 0.00 | 0.1 | 7.1 | 0.1 | 7.1 | 6.9 | 5.0 | 0.0 | -2.9 | -0.003 | -0.206 | 1002 | 3.24 | 14.66 | 3.24 | |
| R1 | 0.00 | 0.1 | 1.1 | 0.1 | 1.1 | 18.9 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1005 | | | 0.00 | |
| WS01 | 0.00 | 0.0 | 0.5 | 0.0 | 0.5 | 18.5 | 0.0 | 0.0 | -0.1 | 0.000 | -0.001 | 1006 | 1.30 | 3.10 | 1.30 | |
| WS36 | 0.00 | 0.0 | 11.8 | 0.0 | 11.8 | 8.2 | 33.0 | 0.0 | -0.1 | 0.000 | -0.012 | 1005 | DRY | 2.85 | DRY | |
| WS32 | 0.00 | 0.0 | 0.1 | 0.0 | 0.1 | 4.1 | 10.0 | 0.0 | -0.2 | 0.000 | 0.000 | 1005 | DRY | 1.69 | DRY | |
| R5 | 0.00 | 0.0 | 8.6 | 0.0 | 8.6 | 19.2 | 5.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1006 | DRY | 5.03 | DRY | |
| R6 | 0.00 | 0.0 | 2.8 | 0.0 | 2.8 | 13.3 | 3.0 | 0.0 | 0.1 | 0.000 | 0.003 | 1005 | 14.28 | 14.48 | 14.28 | |
| WS35 | 0.00 | 0.0 | 0.2 | 0.0 | 0.2 | 20.2 | 2.0 | 0.0 | 0.0 | | | 1006 | DRY | 2.95 | DRY | |
| WS29 | 0.00 | 0.0 | 0.3 | 0.0 | 0.3 | 19.9 | 2.0 | 0.0 | 0.2 | 0.000 | 0.001 | 1006 | DRY | | DRY | |
| WS21 | 0.00 | 0.0 | 1.3 | 0.0 | 1.3 | 19.4 | 1.0 | 0.0 | 0.0 | | | 1005 | 1.12 | 3.98 | 1.12 | No free product |
| WS22 | 0.00 | 0.0 | 2.9 | 0.0 | 2.9 | 18.1 | 0.0 | 0.0 | 0.1 | 0.000 | 0.003 | 1006 | 1.56 | 2.91 | 1.56 | |
| WS20 | 0.00 | 0.0 | 3.6 | 0.0 | 3.4 | 15.1 | 3.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1006 | 0.72 | 4.09 | 0.72 | |
| R7 | 0.00 | 0.0 | 2.5 | 0.0 | 2.5 | 18.1 | 5.0 | 0.0 | 0.0 | | | 1006 | 7.15 | 8.09 | 7.15 | |
| R8 | 0.00 | 0.0 | 0.7 | 0.0 | 0.7 | 19.1 | 0.0 | 0.0 | 0.1 | 0.000 | 0.001 | 1006 | 11.95 | 14.49 | 11.95 | |
| WS46 | 0.00 | 0.0 | 1.8 | 0.0 | 1.8 | 17.9 | 1.0 | 0.0 | 0.0 | | | 1006 | DRY | 2.00 | DRY | |
| WS45 | 0.00 | 0.1 | 1.5 | 0.1 | 1.5 | 18.8 | 0.0 | 0.0 | 0.1 | | | 1006 | DRY | 4.80 | DRY | |
| R10 | 0.00 | 0.0 | | | | | | | | | | | 12.65 | 14.99 | 12.65 | |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.1 | 0.1 | 21.1 | 1002 |
| After Monitoring | 0.1 | 0.1 | 21.0 | 1006 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# WYG ENVIRONMENT

Geneva Building, Lakeview Drive, Sherwood Business Park, Annesley, Nottinghamshire, NG15 0ED
Tel: 01623 684550 Fax: 01623 684551

## GROUNDWATER / GAS MONITORING RECORD SHEET

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | Meggitt Aerospace | **Job No.:** | A107448 | **Instruments Used:** | Dip Meter & Infra Red Gas Analyser |
| **Project:** | Meggitt, Coventry | **Date:** | 06-Jun-18 | **Monitored By:** | **SK** |
| **Weather:** | Sunny | | | | |

| Installation No. | Elevation of cover (m agl) | Peak [1] $CH_4$ (% vol) | Peak [1] $CO_2$ (% vol) | Steady [2] $CH_4$ (% vol) | Steady [2] $CO_2$ (% vol) | Steady [2] $O_2$ (% vol) | Steady [2] CO (ppm) | Steady [2] $H_2S$ (ppm) | Total gas flow rate (l/hr) | Peak $CH_4$ flow rate (l/hr) | Peak $CO_2$ flow rate (l/hr) | Atmospheric Pressure (mbar) | Water Depth to Cover (m bgl) | Base Depth (m bgl) | Water Level (m bgl) | Remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| R9 | 0.00 | 0.0 | 0.4 | 0.0 | 0.4 | 20.1 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1006 | 12.65 | 14.99 | 12.65 | |
| R11 | 0.00 | 0.1 | 0.1 | 0.1 | 0.4 | 19.9 | 0.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1006 | 11.58 | 15.01 | 11.58 | |
| R12 | 0.00 | >> | 3.7 | >> | 3.7 | 0.4 | 2.0 | 0.0 | 0.0 | #VALUE! | 0.000 | 1005 | 6.74 | 14.83 | 6.74 | No free product |
| WS48 | 0.00 | 0.6 | 1.4 | 0.0 | 1.4 | 12.3 | 1.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1006 | 0.87 | 1.98 | 0.87 | |
| WS49 | 0.00 | 0.7 | 3.2 | 0.7 | 3.2 | 16.7 | 3.0 | 0.0 | 0.0 | 0.000 | 0.000 | 1006 | 1.95 | 2.96 | 1.95 | |
| WS51 | 0.00 | 1.3 | 7.6 | 0.4 | 7.6 | 7.2 | 2.0 | 0.0 | -0.2 | -0.003 | -0.015 | 1006 | 1.38 | 4.69 | 1.38 | No free product |

**Background Gas Levels:**

| | $CH_4$ (%) | $CO_2$ (%) | $O_2$ (%) | Atmos. (mbar) |
|---|---|---|---|---|
| Before Monitoring | 0.1 | 0.1 | 21.1 | 1002 |
| After Monitoring | 0.1 | 0.1 | 21.0 | 1006 |

| Characteristic Gas Situation | |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |

[1] The peak reading is the maximum recorded level during a monitoring event.

[2] The steady reading is the level which remained constant after approximately 1 minute.

# Appendix H – BGS Borehole Records

FOUNDATION ENGINEERING Ltd.

**BOREHOLE LOG**

**SOIL MECHANICS DEPT.**

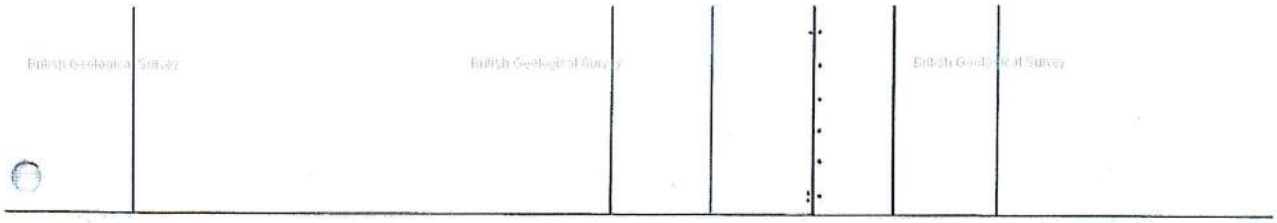
FIGURE 2.

LOCATION : COVENTRY – DUNLOP FACTORY BOREHOLE No. : 2

BOREHOLE DIA. : 6 IN. GROUND LEVEL :

DATE (Start) : 17TH AUGUST 1961. WATER LEVEL . :

| Dates | Description | Thickness | Depth | Sample | Remarks |
|---|---|---|---|---|---|
| | MADE GROUND – ASH, RUBBLE | 3'-6" | 0'-0" | | |
| | | | 3'-6" | 1 | |
| | | | | 2 + | N = 45 |
| | HARD RED MARL, SANDY, FRIABLE AND MOTTLED GREY IN PLACES | | | 3 + | N = 46 |
| | | 21'-0" | | 4 + | N = 100/10 IN. |
| | | | | 5 + | N = 100/10 IN |
| | | | 24'-6" | 6 + | N = 100/6 IN. |
| | VERY COMPACT FINE RED SAND BECOMING A NEARLY CEMENTED SANDSTONE | 6'-0" PENETRATED | | | |
| | | | 30'-6" | + | N = 100/6 IN. |
| | | | END OF BOREHOLE | | |



**BOREHOLE SCALE : 1″=5′ • : DISTURBED SAMPLE ▮ : UNDISTURBED SAMPLE + STANDARD PENETRATION TEST**

FOUNDATION ENGINEERING Ltd.

**BOREHOLE LOG**

**SOIL MECHANICS DEPT.**

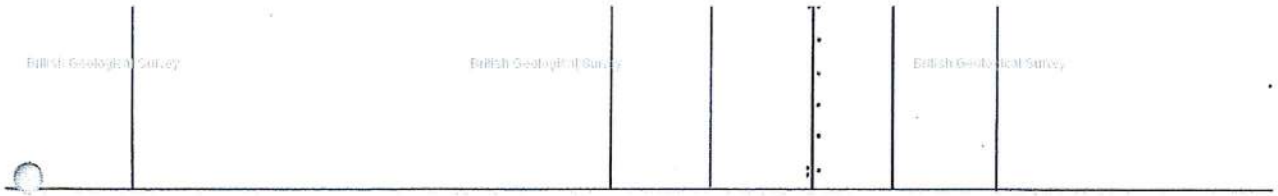
FIGURE 3.

LOCATION : COVENTRY - DUNLOP FACTORY BOREHOLE No. : 3

BOREHOLE DIA. : 6 in GROUND LEVEL :

DATE (Start) : 14TH AUGUST 1961 WATER LEVEL :

| Dates | Description | Thickness | Depth | Sample | Remarks |
|---|---|---|---|---|---|
| | MADE GROUND - ASH AND RUBBLE | 2'-8" | 0'-0" | | |
| | | | 2'-8" | 1, 2, 3 + | A B — SAMPLES A AND B TAKEN FROM ADJACENT PIT. N = 47 |
| | | | | 4 | |
| | HARD RED MARL MOTTLED GREY IN PLACES AND VERY SANDY BETWEEN 4'-8" AND 10'-0" | 27'-4" PENETRATED | | 5 + | N = 62 |
| | | | | 6 + | N = 100/6 in. |
| | | | | 7 + | N = 100/6 in. |
| | | | | 8 | |
| | | | 30'-0" | + | N = 100/6 in. |
| | | | END OF BOREHOLE | | |



**BOREHOLE SCALE : 1″=5′ • : DISTURBED SAMPLE ▮ : UNDISTURBED SAMPLE + STANDARD PENETRATION TEST**

British Geological Survey

FOUNDATION ENGINEERING Ltd.

**BOREHOLE LOG**

**SOIL MECHANICS DEPT.**

FIGURE 1.

LOCATION : COVENTRY – DUNLOP FACTORY

BOREHOLE No. : 1

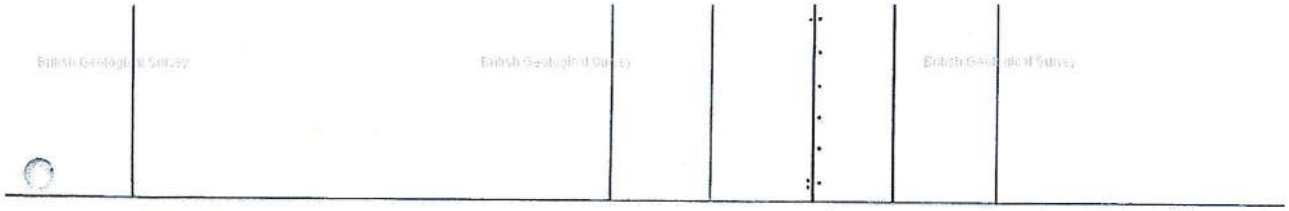
BOREHOLE DIA. : 6 in.

GROUND LEVEL :

DATE (Start) : 21st AUGUST 1961

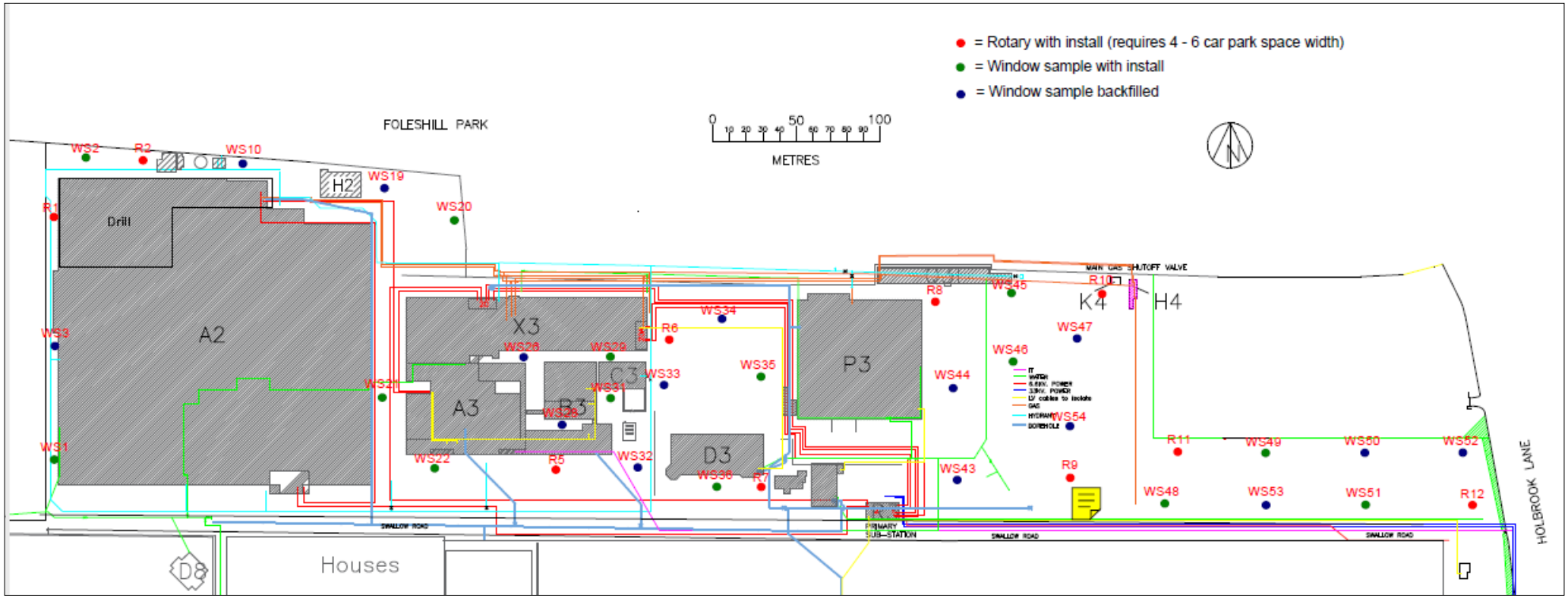
WATER LEVEL :

| Dates | Description | Thickness | Depth | Sample | Remarks |
|---|---|---|---|---|---|
| | MADE GROUND – ASH AND SAND | 6'-0" | 0'-0" | | |
| | MADE GROUND – VERY SOFT BLACK SANDY SILT, FRAGMENTS OF TIMBER. | 7'-6" | 5'-0" | 1 + | N = 4 |
| | | | | 2 + | N = 3 |
| | HARD RED AND GREY MARL | 18'-0" PENETRATED | 12'-6" | 3 + | N = 100/6 in. |
| | | | | 4 + | N = 100/9 in. |
| | | | | 5 + | N = 100/5 in. |
| | | | 30'-6" | 6 + | N = 100/5 in. |
| | | | END OF BOREHOLE | | |



**BOREHOLE SCALE : 1″=5′ • : DISTURBED SAMPLE ▮ : UNDISTURBED SAMPLE + STANDARD PENETRATION TEST**

Figure 2: Exploratory Hole Location Plan



# Appendix C

## Site Investigation Report 2012 (Merebrook Consulting)

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# GEO-ENVIRONMENTAL ASSESSMENT
# STADCO MEGGITT SITE
# CLOWES DEVELOPMENTS AND MEGGITT AIRCRAFT BRAKING SYSTEMS
# GEA-17054-12-6

AN idom GROUP COMPANY

merebrook consulting

GEO-ENVIRONMENTAL ASSESSMENT
STADCO MEGGITT SITE
CLOWES DEVELOPMENTS AND
MEGGITT AIRCRAFT BRAKING
SYSTEMS
GEA-17054-12-6

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## EXECUTIVE SUMMARY

A Geo-Environmental Assessment was requested by Clowes Developments and Meggitt Aircraft Braking Systems Limited. The purpose of the assessment was to identify any contaminative issues associated with former land use at Stadco/Meggitt Site, Coventry. This information may then be used to implement a remedial strategy in accordance with current legislation (Part IIA of The Environmental Protection Act 1990).

**Site details**

| | |
|---|---|
| Approximate site area | 27 ha |
| Current/previous use | Munitions filling factory. Heavy engineering - motor vehicle manufacture (Jaguar), wheels and hubs manufacture and aerospace (Dunlop, latterly Meggitt). |
| Proposed use | Mixed use development with residential and industrial units. Retained aerospace production buildings and a replacement Meggitt facility |

**Phase 1 (Non-intrusive Investigation)**

| | |
|---|---|
| Expected geology | Drift deposits (Glacial Till) over Keresley Member fine silty sandstones and sandy siltstones |
| Groundwater | Drift deposits classified as unproductive strata whilst solid geology classified as Principal Aquifer. Groundwater typically 8-10 m below ground level. |
| Surface water | Reservoir on site to store process water/fire fighting water. Culverted watercourse to the east. |
| Hazardous gas | Not in a radon affected area. Low risk of gas ingress. |

**Phase 2 (Exploratory Investigation)**

| | |
|---|---|
| Contamination | Soils unaffected by contamination over large areas. Locally soils impacted by hydrocarbons, heavy metals in former plating shop. Asbestos fibres in soil under slabs in areas of demolished buildings. Groundwater contains widespread low to moderate hydrocarbons and localised but widely spaced occurrence of chlorinated solvents. Solvent source not identified, but off-site component is possible. |
| Geotechnical issues | Pad or strip footings possible over much of the site. Locally deeper fill may require piled foundation solution. Deep tunnels and pits will require at least partial break down and controlled backfillling |

**Recommendations**

| | |
|---|---|
| Remediation | Close management of made ground to ensure no asbestos fibre release during demolition and construction. Encapsulate affected soils under cover or slabs if possible or remove from site.<br>Localised excavation and treatment of hydrocarbon affected soils.<br>Undertake further assessment of groundwater contamination. |

| | |
|---|---|
| | Possible solutions: enhance degradation of chlorinated solvents in groundwater by *in situ* treatment. Monitor off-site migration and attenuation. |
| Waste classification | Mostly non-hazardous. Some hydrocarbon contaminated soils and soil with high metals levels (former plating shop) likely to be classed as hazardous. |

## SECTION 1 INTRODUCTION

**1.1** Clowes Developments and Meggitt Aircraft Braking Systems (Clowes and Meggitt) propose to develop an area of land located off Holbrook Lane in Coventry. The proposed development is understood to consist of a mixed end use comprising residential and industrial units. Merebrook Consulting Limited (Merebrook) has been jointly commissioned by Clowes and Meggitt to undertake site investigation works and to advise on the geo-environmental implications of the redevelopment of the site for the proposed end use.

**1.2** The objectives of the investigation are to:

*i.* Assess surface and sub-surface ground conditions present at the site;

*ii.* Identify hazards associated with ground contamination which may place constraints on the site and the proposed development;

*iii.* Evaluate the risks associated with any identified hazards;

*iv.* Provide preliminary recommendations for the mitigation of any significant risks identified; and

*v.* Provide preliminary geotechnical recommendations

**1.3** A Phase 1 (Non-intrusive Investigation) and a Phase 2a (Preliminary Exploratory Investigation) have been undertaken for the subject site.

**1.4** This report presents the findings of the environmental investigation and provides an interpretation of the environmental conditions that exist at the site. The contaminative status of the site and the implications with respect to development have been interpreted in accordance with the current government guidance on source-pathway-receptor risk assessment. This report uses a Tier 1 risk assessment to ascribe a conservative qualitative appraisal of the hazards associated with the site.

**1.5** This report has been prepared for Clowes Developments and Meggitt Aircraft Braking Systems for the sole purpose described above and no extended duty of care to any third party is implied or offered. Third parties making reference to the report should consult Clowes Developments, Meggitt Aircraft Braking Systems and Merebrook as to the extent to which the findings may be appropriate for their use.

# SECTION 2 PHASE 1 (NON-INTRUSIVE INVESTIGATION)

## 2.1 INTRODUCTION

2.1.1 The non-intrusive investigation has been conducted with reference to the documents and sources detailed in Table 1 below:

Table 1: Published Data and Information Sources

| SOURCE DATA | GROUNDSURE DATA |
|---|---|
| BGS 1:50,000 Series Geological Sheet Sheet 169 Coventry and on-line 1:50 000 scale geological viewer | Ordnance Survey (OS) historical maps scaled at 1:10,560, 1:10,000, 1:2,500 and 1:1,250 dated 1887-2011 |
| BGS British Regional Geology: Central England | Water abstraction, discharge and pollution data |
| Radon: guidance on protection measures for new dwellings | Registered waste management sites |
| Environment Agency online data maps | Mining records and natural ground stability data |
| UK National Air Quality Archive, online | Protected areas of environmentally sensitive land use or conservation |
| | Other relevant designations and/or authorisations and Trade Directory entries |

2.1.2 The above sources are all authoritative and it is believed that they are reasonably reliable. However, independent verification of the information supplied has not necessarily been carried out and Merebrook cannot be held liable for inaccuracies or deficiencies in the information.

## 2.2 SITE SETTING

2.2.1 The total site occupies an area of approximately 27 ha located at National Grid Reference (NGR) 433258,282191 in the Holbrooks area in the north of the city of Coventry.

2.2.2 A site inspection walkover was carried out by Merebrook accompanied by representatives of the clients in December 2011. Historically consisting of a single facility, the site is currently divided into two areas of ownership: forming the southern part of the site is the elongated Stadco facility which produces automotive parts which covers around 6.25 ha. The Meggitt aerospace facility which forms the majority of the site at around 21 ha.

2.2.3 The general arrangement of the site is shown on drawing 304-001 (Appendix 1) and should be referred to for the following description of the main site features.

## 2.3 MEGGITT AREA

2.3.1 The Meggitt area is approximately 800 m long (east-west) and 300 m wide (north-south) and is divided into two roughly equal areas by Swallow Road, which runs east to west. The site slopes gently down to the east. To the north of Swallow Road are contained most of the active areas of the facility including employee parking areas. From west to east these include:

Building A2 – Meggitt Aircraft Braking Systems, main production building. Land to the west is open ground outside the Meggitt owned area but was formerly part of the wider Jaguar and Dunlop facility.

Buildings C2, G2, F2 and E2 – disused ancillary buildings including a pump house.

Building H2 – stores and waste handling.

Building Y3 – disused foundry

Buildings A3, B3, C3, X3, D3, P3 – Meggitt Aircraft Control Systems production and office buildings. Car parking to north of D3, to the front of A3 and immediately east of P3.

Buildings T3, R3, B4, C4, D4, largely disused ancillary buildings including a fire station, boiler house and nurse's station. In this area are also located a cooling water plant and substation.

Building Q3, K4, H4, disused single storey buildings. F4 used as storage for road salt and machinery. To the south of these buildings are disused parking areas and a reservoir which serves as a store for fire fighting water.

Building N5 currently in use by others and outside the scope of the investigation.

To the south of Swallow Road the site is more extensively covered by buildings, the majority of which are disused having been vacated some years previously, the exception being Buildings A7 and N7 which are currently leased to Dunlop. The key features from this disused area are listed below:

Buildings A6, B6 former production areas (pressing, machining and fabrication), B6 formerly housed Dunlop hub works and test area.

Building K6 - former paint shop.

Buildings J6, H6, F6, C6, located in central yard area, include former goods in/out and diesel tank to northern side of H6.

Buildings B7, C7, D7, R7, Q7, E7 and F7. Comprise some of the oldest buildings on site and included the plating works (E7). Building G7 are disused offices with parking to the rear.

P7 – security office by main entrance with weighbridge and parking areas.

## 2.4 STADCO AREA

2.4.1 This elongate facility comprises four main zones, which include from west to east:

External area of slab extending south from Swallow Road, along the west and south of Meggitt building A6. This is a demolished former Stadco production area. Land immediately west is another demolished factory currently under different ownership. An elongate bund of demolition materials has been placed along the boundary between the two demolished areas.

The central third of the Stadco facility is currently the most active in terms of production of automotive parts (body panels and members), containing pressing, finishing and fabrication and storage, small areas of staff facilities and offices along the southern edge. A central tunnel around 5 m deep runs under this area which transported swarf and metal trimmings. This area also contains the now disused painting shop which comprised a series of enclosed areas for paint spraying and curing, with parts fed along a moving line. This area also contains a number of sumps and pits associated with the painting process.

The eastern third (excluding the easternmost offices) contains large open areas mostly disused with the exception of specialist body panel and prototype works mostly at the eastern end. A maintenance department is located in the south-west of this area. It is also communicated that historically solvents had been used in this area. A covered roadway runs along the north of this area, adjacent to the neighbouring Meggitt buildings E7 and F7.

Eastern end of the site comprises a two-storey office building (design and administration), staff parking area, security hut and main substation.

2.4.2 Surrounding land uses include: Whitmore Park to the north, residential development to the south along Burnaby Road, Swallowgate Business Park and Holbrook Lane with businesses to the east and a sports ground and demolished areas of former works to the west.

2.4.3 The client has provided outline development proposals showing the main areas for classes of development. This will include consolidation of the Meggitt facility into a new production building located in the central northern part of the site.

## 2.5 GEOLOGY

2.5.1 The underlying geology has been inferred from the 1:50 000 published geological sheet and the British Geological Survey on line viewer facility, the latter providing the most up to date mapping and definitions of geological units.

2.5.2 The BGS geological map Sheet 169 Coventry indicates that the site is overlain by drift deposits comprising glacial till, described as brown or reddish brown pebbly clay. These deposits may be locally absent in the south western corner of the site.

2.5.3 The BGS Online lexicon and the Groundsure report indicate that the drift deposits comprise the Thrussington Member described as a diamicton (poorly sorted clay with gravel and cobbles).

2.5.4 The underlying solid geology comprises the Keresley Member (previously Coventry Sandstone (Middle Part)), part of the Meriden Formation, described as red-brown mudstone and sandstone with subordinate lenticular conglomerates and thin limestones.

## 2.6 HYDROGEOLOGY

2.6.1 From 1 April 2010 the EA's Groundwater Protection Policy has been using aquifer designations that are consistent with the Water Framework Directive (WFD). These designations reflect the importance of aquifers in terms of groundwater as a resource (drinking water supply) but also their role in supporting surface water flows and wetland ecosystems. The aquifer designation data is based on geological mapping undertaken by the EA.

2.6.2 The drift deposits are classified as Unproductive Strata whilst the underlying solid geology is classified as a Principal Aquifer – defined as geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale.

2.6.3 There are two groundwater abstractions located on the site, both of which are for process water.

2.6.4 The north-western corner of the site is located within an EA designated source protection zone – Zone 3 Total Catchment.

## 2.7 HYDROLOGY AND DRAINAGE

2.7.1 The nearest surface water feature is a reservoir located on the site. Off-site surface water features include Springfield Brook which flows west to east 450 m to the south-west of the site. An unnamed stream issues along northern boundary of St Paul's Cemetery around 200 m to the east, presumably exiting from a culverted section.

2.7.2 There are no surface water abstractions recorded within 1 km of the site.

2.7.3 The site does not lie within an area at risk of flooding from rivers.

2.7.4 Storm water is positively drained with details of at least two main easterly outfalls being made available for the Meggitt site. These include a surface water drain along the northern boundary exiting to Whitmore Park and the mains sewerage system and also a drain along Swallow Road which discharges into the mains system near the main site entrance. It is understood that part of the surface water discharge from the site enters into a culverted stream to the east.

## 2.8 CURRENT SITE ISSUES

2.8.1 Potentially significant environmental issues have been identified within relevant distances of the site, based on the database of records supplied by Groundsure. These relate to the following searches:

*i.* Water discharge or pollution incidents within 250 m of the site;

*ii.* Waste management sites within 250 m of the site;

*iii.* Statutory authorisations within 50 m of the site;

*iv.* Planning applications or trade directory entries of possible contaminative use within 50 m of the site; and

*v.* Special protection or conservation areas within 50 m of the site.

2.8.2 The following potentially significant environmental issues have been identified by the above searches:

*i.* There are two current Part A(1) environmental permits issued to Meggitt Plc for activities on site comprising surface treating metals and plastics;

*ii.* There are two current Part B environmental permits relating to the site issued to Stadco Coventry Ltd and Dunlop Aviation Ltd for various coating processes;

*iii.* A radioactive substances licence issued to Dunlop Ltd on site for the keeping and use of radioactive substances has been cancelled or revoked;

*iv.* An Environment Agency recorded pollution incident occurred at the site on 21 July 2002 involving smoke release, however the incident was classed as minor. A second pollution incident was recorded on 25 April 2003 23 m north involving acids and this too was classified as minor-no impact. A third pollution incident was recorded on 6 September 2003 involving firefighting run-off at a site 187 m north. This was also classified as minor-no impact;

*v.* A pollution incident occurred on 16 May 2000 to the River Sowe 127 m south west of the site. The incident was classified as significant impact to land but no impact to water. No further details are available;

*vi.* There is one recorded historic landfill within 250 m of the site at Railway Sidings, Three Spines Bridge which was licenced to accept inert waste. The licence was surrendered on 30 April 1994;

*vii.* There are various potentially contaminative industrial activities listed on the site including tanks, unspecified works or factories, an electrical sub-station and aviation engineers (Meggitt); and

*viii.* The site is situated within a nitrate sensitive area which relates to the application of agricultural fertilisers.

**2.9 INDICATIVE GROUND STABILITY HAZARDS**

2.9.1 All natural ground subsidence hazards are listed as null to low.

2.9.2 There are no natural or man-made cavities listed within 1km of the site.

**2.10 RADON GAS**

2.10.1 With reference to the GroundSure report, the site is not shown to lie within a Radon Affected Area as defined by the Health Protection Agency. Guidance issued by the Buildings Research Establishment (BRE-211) indicates that no radon protection measures are necessary at the site.

**2.11 COAL MINING AREA**

2.11.1 The Groundsure report indicates that the site lies within a coal mining area. A report obtained from The Coal Authority states that the property is in the likely zone of influence from workings in one seam of coal at 640 m to 730 m depth, and last worked in 1980. Any associated ground movement should have ceased by now. There are no recorded mine entries within the property boundary. The Coal Authority Coal Mining Report is reproduced in Appendix 2.

**2.12 AIR QUALITY**

2.12.1 The site lies within a designated Air Quality Management Area (AQMA) for nitrogen dioxide ($NO_2$). Coventry City Council has declared an AQMA for all land within the administrative boundaries of the city of Coventry.

**2.13 SITE HISTORY**

2.13.1 The site history has been assessed with reference to historic Ordnance Survey plans dated 1887-2011. These have been reproduced in Appendix 3 and the main on and off-site features are described below.

2.13.2 The earliest historic map dated 1887 shows the site as undeveloped open fields with tree-lined hedges separating the various land parcels which appear to form part of *Whitmore Park*, labelled immediately to the north. Several ponds are shown on site and in the immediate vicinity. Holbrook Lane is present along the eastern boundary and limited residential development has occurred on the opposite side of Holbrook Lane. The Coventry and Nuneaton branch railway runs diagonally south-west to north-east to the south east of the site.

2.13.3 1905-1906; The site remains undeveloped with the area labelled as 'The Holy Trinity without Coventry'. *Albion Works (Drop Forging)* is present off site to the north east with *St Paul's Cemetery* beyond.

2.13.4 1913; No change to site or surrounding area.

2.13.5 1925; Significant development has occurred both on site and in the surrounding area, with the ponds indicated on the previous map series having been backfilled. The site forms part of a wider industrial development. Allotment gardens and a recreation ground (*Foleshill Park*) are present to the north. A chimney is labelled adjacent to buildings in the top eastern corner of the north-west section of the site. Allotment gardens are also present on the north-eastern corner of the site above an *Engineering Works (Motor Lorry and Car Engine)*, *Dunlop Works (Rim & Wheel)* and a *Motor Car Store*. A swimming baths is present in the south eastern corner. An *Engineering Works (Drop Forging)* and *Faraday Works (Electrical Engineering)* are present off site to the north east. Significant residential development has occurred off site with orderly rows of cottages built to the north, east and south. Munitions Sidings are labelled which extend from the main Coventry and Nuneaton Branch Railway line, alongside *'Black Pad'* roadway around to the west and onto the north western, central and eastern sections of the site.

2.13.6 Evidence provided in the UXO Risk Assessment by BAE Systems Environmental indicates that a significant part of the site operated as a WWI munitions factory which assembled and filled munitions components including fuses, known as the National Filling Factory (NFF) Coventry (operated by White and Poppe, a firm of engine manufacturers). Magazines for the storage of both bulk explosives and filled munitions components were present in the north-western and central sections of the site, whilst time fuse assembly shops are understood to have been present in the north and filling rooms were located in the south. The non-explosive section operated in buildings on the eastern section of the site. Anecdotal evidence suggests that the Dunlop company relocated to the site in 1919.

2.13.7 1936; *Drake Foundry* is shown in the top eastern corner of the north-west section of site. *Standard Swallow Motor Works* occupies buildings across the north of the site and extends off site. A *Felt Works* is present in the south-western corner of the site, with an *Upholstery Works* labelled off site to the immediate north of the felt works. Swallow Road has been added, running east-west through the middle of the site. Many buildings have been demolished and rows of terraced houses are present immediately adjacent to the southern boundary along the newly added Burnaby Road. Dunlop Works is still present and the Motor Car Store is now a *Motor Panel Works*, with *Gloria Motor Works* added on the north eastern corner and extending off site. Various tanks (generic) are labelled around the site. Black Pad is still shown but the sidings no longer extend into the west of the site. The sidings which run into the central and eastern sections of the site are now labelled as a *Mineral Railway*.

2.13.8 As there is no map series immediately prior to or following WWII it is not possible to determine whether the site sustained bomb damage. However anecdotal evidence states that Coventry sustained considerable bomb damage in some areas, particularly during the 'Coventry Blitz' on 14 November 1940.

2.13.9 1949; Following WWII, *Jaguar Works (Motor Car)* has taken over from Standard Swallow Motor Works and extended these buildings with the north western section of the site almost entirely covered by new development. A car testing track and incinerator with chimney are present on land immediately to the west. Drake Foundry and the Felt Works are still present and have been extended. The Upholstery Works off site is now a *Timber Works*. A Sports Field is labelled to the west of the site beyond the engineering works. Further residential development has occurred to the south of Burnaby Road.

2.13.10 1950-1953; No significant changes to the site. Motor Panel Works and Dunlop Works in the south have been extended, as has the off-site Engineering Works to the west.

2.13.11 1953-1957; Jaguar Car Works in the north-west corner is now labelled as *Dunlop No5 Factory*. The Engineering Works has been extended further.

2.13.12 1968; The Engineering Works, Timber Works and Felt Works are all labelled as 'Works' (generic). Dunlop Works (Engineering) and Motor Panel Works have both been further extended and hydraulic rams and an electricity sub-station are recorded in addition to various tanks (generic). A large unlabelled building has been built immediately off-site to the west to replace the car testing track and is assumed to be part of the Works.

2.13.13 1992; The site is covered by various 'works' which broadly occupy the configuration present on site today. Bowling greens, a club and pavilions have been added to the sports field off site to the west. A rectangular construction marked *'Water'* is the site of the present day reservoir used for water storage. The rail sidings are no longer present and these appear to have been removed between 1970 and 1979.

2.13.14 In summary the site was developed for industrial purposes between 1913 and 1925, and formed part of a larger munitions factory until post-WWI when various works occupied the site including engineering, motor car, motor panel, felt works and a foundry.

## 2.14 UNEXPLODED ORDNANCE

2.14.1 In view of the site's history as a national fuse filling factory and it target potential for aerial bombardment during the Second World War, a risk assessment for unexploded ordnance and explosives was commissioned prior to commencing the Phase 2 investigation. This report ref A1062-00-R1, prepared by BAe Systems Environmental is included in Appendix 3. In summary, this found that there was a low risk that unnoticed unexploded bombs would be present and this was an acceptable level of risk to conduct ground investigations without mitigation measures. This would need to be re-assessed during the construction phase. Due to the storage of munitions, analysis of soils from certain areas of the site was

recommended for a range of possible explosives residues for comparison with target concentrations suitable for the proposed end uses.

## 2.15 PRELIMINARY CONCEPTUAL SITE MODEL

2.15.1 Following completion of the Phase 1 assessment, a preliminary conceptual site model has been prepared which identifies the main environmental hazards associated with the site and identifies possible pollutant linkages for further investigation.

Table 2: Conceptual Model

| Possible Pollutant Linkage | | | Risk Characterisation |
|---|---|---|---|
| **Potential Sources (origin)** | **Pathways** | **Receptors** | |
| CLEA metals and polyaromatic hydrocarbons (made ground) | Uptake into home grown produce | Human health (future users | **Medium-High** Founding, metal working and plating all potential sources of metals. PAH possible from waste oils and made ground |
| | Contact with contaminated soil | Human health (future users and construction workers) | |
| | Ingestion and inhalation of contaminated soil and dust | Human health (future users and construction workers) | |
| Total petroleum hydrocarbons (all soils, all areas) | Uptake into home grown produce | Human health (future users) | **Medium-High** Widespread usage in site processes and site vehicles. Evidence of fuel and oil stores and pipework. |
| | Contact with contaminated soil | Human health (future users and construction workers) | |
| | Ingestion and inhalation of contaminated soil and dust | Human health (future users and construction workers) | |
| Volatile organic compounds, fuels | Vapour ingress into buildings | Human health (current and future users) | **Medium-High** Anticipate wide use of solvents and fuels |
| CLEA metals and hydrocarbons | Vertical migration to aquifer | Controlled waters | **Medium-High** The underlying geology is classified as a principal aquifer. However, some protection is likely to be afforded by the overlying low permeability boulder clay. |
| Explosives residues in soil | Uptake into home grown produce | Human health (future users and construction workers) | **Low** Low potential for residues to remain in soil after nearly a century. |
| | Ingestion and inhalation of contaminated soil and dust | | |
| | Dermal contact with soil | | |
| CLEA metals and hydrocarbons | Horizontal migration to surface water | Controlled waters | **Low** The nearest surface water feature is a culverted watercourse, unlikely to be in continuity with soils or groundwater. Watercourse receives stormwater with possible impact from surface water run-off contamination |

| Possible Pollutant Linkage | | | Risk Characterisation |
|---|---|---|---|
| **Potential Sources (origin)** | **Pathways** | **Receptors** | |
| Inorganics (ACM within building fabric of former buildings) | Inhalation of loose fibres during groundworks | Human health (demolition/ construction workers) | **Medium-High** Asbestos known to be present in buildings. Evidence from site plans that former buildings have been demolished. |
| Hazardous Gas In soil | Ingress into buildings and voids | Human health (future site users and construction workers) | **Medium** Potential for fill materials but generally limited evidence of putrescible materials and wastes or natural soils likely to generate gas. |
| | Migration to adjacent site | Adjacent property | **Low** Limited gas generation potential, unlikely to impact neighbouring land |

## SECTION 3 SITE INVESTIGATION RATIONALE

3.1.1 In accordance with the findings of the Phase 1 investigation, a site investigation rationale has been drawn up as follows. Priority contaminants are identified as:

*i.* Oils and hydrocarbons from various metal working, engineering uses and for vehicles and heating use.

*ii.* It is understood use of solvents for degreasing has occurred but locally and areas of use are not tightly defined.

*iii.* Heavy metals are anticipated from metals wastes and foundry processes and from plating works.

*iv.* Cyanide from processes listed on site which used isocyanates.

*v.* Asbestos containing materials incorporated into the ground from demolition of former buildings.

*vi.* A UXO threat assessment has concluded a low risk of contamination by explosives and a small number of samples have been screened for explosives residues.

3.1.2 The site has been subject to total coverage with engineering works and factories for a lengthy period and for the initial phase of intrusive investigation, sampling points have sought to obtain as wide a coverage as possible, subject to access limitations in some areas, such as currently in-use buildings. However, based on the findings from the site walkover, discussion with site representatives and desk study information, a number of sampling points were targeted to areas of possible point sources of pollution. These include the following exploratory holes listed in Table 3.

Table 3: Targeted site investigation locations and rationale

| Designation | Contamination Rationale |
|---|---|
| MTP105 | Near site waste handling building, evidence of some wastes deposited |
| MWS132-MWS133 | Contamination from former foundry |
| MWS101, MWS112 | Located inside A6 near oil tanks, located externally to tanks near filling point. |
| MWS113 | Targeting bunded diesel storage. |
| MWS115 | Area of former paint shop where concrete slab absent, potential for spillages/soakage into underlying soil. |
| MTP112, MTP114, MTP115 & MBH108 | Targeting possible on site migration from adjacent former engineering works, in shallow strata and in groundwater. |
| MWS118 | Targeting area of surface oil contamination (staining and pools of oil), possible plinths from oil former tank present at this location. |
| MWS119 | Targeting unbunded storage area of tins and drums, contents include, paints, thinners, acids, degreaser and re-tread solution, western end of A7. |
| MWS134 | Targeting former plating shop, greenish powdery efflorescence on shop floor. |
| MWS146 and MWS150 | Targeting paint shop either side of area where evidence of ground heave (a reaction from possible spillages?) and white efflorescence on ground. |
| MWS147 | On floor of factory set at higher level than zone to the east and close to swarf tunnel. To identify whether ground level changes are the result of excavation or placement of fill. |
| MWS144 | Targeting area communicated to have been used for activities using trichloroethene. |
| MWS153 | Located close to bunded tank. |

## 3.2 SITE INVESTIGATION METHODS

3.2.1 An intrusive investigation was carried out by Merebrook between 24 and 25 January and 2 to 10 February 2012, comprising eighteen trial pit excavations to a maximum depth of 3.8 metres below ground level (m bgl) (MTP101 – MTP118), sixty two window sample holes to a maximum depth of 4.7 m bgl (MWS101 – MWS155) and 10 boreholes to a maximum depth of 15.0 m bgl (MBH101 – MBH110). Monitoring standpipes were installed in seventeen of the windowless sample boreholes. Exploratory hole locations are indicated on drawing 17054a-304-001 in Appendix 1. Logging of exploratory holes was undertaken by a Merebrook Officer. Excavation logs are contained in Appendix 4.

3.2.2 Investigations were undertaken using a mechanical excavator and a rig mounted window sampler driving 100 mm reducing to 60 mm drilling tools. Standard Penetration Tests (SPTs) were performed at approximate 1 m intervals in a select number of window sample holes. Boreholes MBH101 to MBH110 were drilled primarily for assessment of groundwater contamination and were advanced by rotary drilling rig, drilled open hole with a rock-roller bit and arisings flushed by air. MBH109 was drilled by rotary coring method to allow for detailed description of the weathering condition of the solid geological formation and to obtain samples for laboratory geotechnical testing of rock strength parameters. *In situ* tests involved driving a steel cone/split spoon sampler tipped series of rods into the ground over a distance of 450 mm using the repeated blows of a 63.5 kg weight allowed to free fall over a distance of 760 mm. The total number of blows required for the final 300 mm penetration (the 'N' value) is recorded on the exploratory hole logs.

3.2.3 Hand shear vane tests were carried out within the trial pits where cohesive material was encountered to assess the undrained shear strength.

3.2.4 Representative soil samples were taken from various depths and strata to assess the contaminative status of the site. Soil samples were submitted to a MCERTS/UKAS accredited laboratory for chemical analysis of a broad suite of potential contaminants, as outlined above. Disturbed soil samples were analysed for Atterberg Limits and particle size distribution at a geotechnical testing laboratory. Indicators of rock strength were also determined from core samples obtained from borehole MBH109. Geotechnical laboratory test certificates are included in Appendix 9.

3.2.5 Groundwater monitoring and sampling was undertaken on two occasions: 20 February and 6 March 2012

3.2.6 Hazardous gas monitoring has been undertaken on three occasions: 20 February, 6 and 30 March 2012.

## SECTION 4 GROUND CONDITIONS

### 4.1 SUB-SURFACE GROUND CONDITIONS

4.1.1 The ground investigation findings were generally consistent with the published geology with the exception of a limited thickness of made ground. A summary of the ground conditions encountered at the site is presented in the table below, whilst a more detailed assessment of the strata is contained in the following sections of the report.

Table 4: Summary of Sub-surface Ground Conditions

| Strata | Depth to Top Range (m bgl) | Thickness Range (m) |
|---|---|---|
| Made Ground | 0.0 | 0.13 - >4.7 |
| Superficial Deposits | 0.13 – 3.0 | 0.4 – >3.6 |
| Sandstone/mudstone/siltstone | 0.35 - >3.6 | Not proven |

4.1.2 Made Ground

4.1.2.1 Made ground was encountered in all exploratory holes and ranged between 0.13-4.7 m thick, however general thickness was less than 1.0 m. With the exception of MTP115 and MWS112 all holes contained either concrete or bituminous road surfacing from ground level. Underlying this hard surfacing made ground varied over the site but generally comprised grey, greyish brown, red, orangey brown and black typically granular material. A small amount of purple and yellow made ground was also recorded. A limited amount of cohesive fill was identified in some exploratory holes. Gravel and cobbles typically comprised limestone, sandstone, slate, flint, quartzite, burnt shale, siltstone, dolerite, coal, and ironstone as well as man-made materials such as brick, concrete, tarmac, ash, cinders, iron rich clinker, ceramic pipe and slag. Rare metal and glass fragments were also identified in addition to possible asbestos cement and weathered insulation board.

4.1.2.2 Some diesel and oily odours were observed in a limited number of exploratory holes concentrated around blocks A6 and B6. In MTP10 a diesel odour was encountered between 0.5 - 0.6 m bgl. An oily odour was encountered in MWS101, MWS102 and MWS102a between 0.26-0.36, 0.22-0.4 and 0.2-0.3 m bgl respectively. The oily odour in MWS111 was identified between 0.2-0.3 m bgl and within MWS118 at 0.12-0.2 m bgl. A diesel and phenolic odour was observed between 0.2-0.4 m bgl in MWS113.

4.1.2.3 Within MTP110 a double skinned brick wall was recorded along the western side of the pit to at least 1.5 m bgl. A steel flanged pipe 150mm diameter ran north-south along the eastern side of the pit at a depth of 1.0 m bgl.

4.1.2.4 SPTs carried out within the made ground revealed ‘N’ values of between 4 and 8 indicating loose/soft ground conditions. The SPT carried out in MWS121 at 2.0 m bgl was met with refusal.

4.1.3 Natural Ground

4.1.3.1 Underlying the made ground at depths ranging from 0.13-3.0 m bgl was predominantly red occasionally red brown or brown generally friable clay and sandy clay. In a number of holes red silty sand, clayey sand or silt was also encountered. Locally colours encountered were orange and pink in addition to

some grey staining. Varying amounts of gravel were identified within these superficial deposits and comprised siltstone, sandstone, quartzite and flint.

4.1.3.2 Some diesel and oily odours were identified at depth including MWS102a which encountered an oily odour to around 1.5 m bgl. MWS113 recorded a diesel odour and oily staining along veins from 0.4 m which became faint from 0.8 m. In MWS116 a diesel odour was noted below 1.2 m and between 1.65-1.8 m diesel staining was recorded. Below a depth of 1.8 m no odours or staining were recorded. Within MWS118 diesel and paint odours were recorded from 0.8-1.3 m and from 1.6-1.75 m. The paint odour was present from 2.0 m to the base of the hole at 2.7 m bgl. A strong gasoline odour was recorded in MTP104 which became faint by 1.6 m but persisted to a depth of 3.0 m bgl. Within MTP107 a faint diesel odour was recorded from 0.8 m to the base of the hole at 3.0 m bgl. In MTP113 a faint diesel/paint odour is noted from 1.1 m. Within MTP114 between 1.5-1.6m a diesel odour was noted along with a green sheen on the sand grains.

4.1.1.1 A thin brick wall on a thin concrete base was encountered in MTP111 on one side of the pit to a depth of 1.2 m bgl with a large cast iron pipe. In MTP102 a steel pipe was recorded at a depth of 2.3 m in the north of the trial pit.

4.1.1.2 Atterberg limit tests carried out on three samples of clay indicate that the soil can be classified as clay of low to intermediate plasticity. The plasticity index of the soil was found to range between 17 and 29 %, and in accordance with NHBC guidelines, this soil is of low to medium volume change potential. Moisture contents were also determined and ranged from 17 to 23 %.

4.1.3.3 Hand shear vane tests were carried out in a number of trial pits to assess the undrained shear strength of the clay. Results ranged from 50-130 kN/m$^2$ with an average value of 80 kN/m$^2$ indicating stiff ground conditions.

4.1.3.4 SPTs carried out within the superficial deposits revealed 'N' values ranging from 11-43 and generally increasing with depth indicating medium dense to dense/firm to stiff ground conditions. The exception to this was the SPT carried out in MWS128 at 1.0 m bgl which recorded an 'N' value of 5 indicating locally soft ground conditions. A number of the SPTs were met with refusal particularly at a depth of 3.0 m bgl (MWS123,126-128) where drift deposits met with underlying weathered bedrock.

4.1.3.5 Underlying the superficial deposits a combination of mudstone, siltstone and sandstone was encountered at depths varying from 0.35m to 3.0 m bgl. Much of this was relatively weak and weathered when recovered in trial pits as weakly cemented gravel and cobbles. Point load test data and compressive strength tests from core samples recovered at various depths from RBH109 confirmed high strengths than those observed from hand specimens, with results indicative of moderately weak rock through to strong.

4.1.3.6 SPTs carried out within the solid geology were all met with refusal.

4.1.4 Groundwater

4.1.4.1 Groundwater level monitoring has been undertaken on three occasions and results for the deeper boreholes which are installed with response zones in the natural red sandstone/siltstone are summarised in Table 5 below:

Table 5: Summary of Groundwater Level Data

| Borehole | Groundwater Level m bgl | Groundwater Level m aOD | Comments |
|---|---|---|---|
| | | | |
| MBH101 | 2.90 – 2.97 | 47.065 – 47.135 | |
| MBH102 | 9.33 - dry | 33.522 - dry | Insufficient water to sample |
| MBH103 | 9.95 – 10.17 | 31.392 – 31.612 | Insufficient water to sample |
| MBH104 | 8.04 – 8.10 | 33.328 - 33.388 | |
| MBH105 | 5.42 – 5.47 | 37.281 - 37.331 | |
| MBH106 | 10.11 | 33.216 | |
| MBH107 | 3.55 – 3.57 | 34.862 – 34.882 | |
| MBH108 | 3.46 | 43.240 | |
| MBH109 | 12.07 – 12.10 | 32.993 - 33.023 | Insufficient water to sample |
| MBH110 | 4.39 – 4.45 | 36.564 – 36.624 | |

4.1.4.2 Groundwater levels in the natural sandstone/siltstone beneath the site are variable with the highest levels on the north-west of the site and lowest in the south and south-east. However, the findings from drilling indicate little consistency in depths to water being struck and this is reflected in the variability in the subsequent monitoring data and the lack of a consistent hydraulic gradient suggests that there is no single contiguous water bearing unit within 15 m of the surface of the site. This view is reinforced by the observations on water ingress when groundwater was struck during drilling, with only modest inflows and rise in level recorded. This is considered to reflect the variable degree of weathering and presence of more fine-grained silty beds with siltstone and sandstone strata.

4.1.4.3 Perched water was encountered in approximately half of the shallow installations although many of those on the central part of the site were dry.

## SECTION 5 ENVIRONMENTAL ASSESSMENT

### 5.1 SOIL QUALITY

5.1.1 The soil chemical analysis results have been considered for three separate areas based on the proposed land use supplied most recently (BBLB Architects Drawing SK07, RevC, included in Appendix 1). These are residential, commercial/industrial Area 1 (CI1 New Meggitt Facility) and commercial/industrial Area 2 (CI2 New Stadco, Dunlop *et al* zone). Tabulated results are presented for each development

area in Appendix 6. Drawings 305-001 and 305-002 graphically present the locations of analysis and samples which exceed screening levels.

5.1.2 Proposed Residential Area (Zones A, C, C1 & D)

5.1.2.1 Amongst the totality of the soil analysis carried out, a total of 60 samples from the upper 1 m of soil in the proposed residential area were submitted to the laboratory for chemical analysis, including samples from natural ground and made ground. For the initial screening exercise to assess risk to human health, the upper metre of soils are considered, as the depth to which future users may be reasonably likely to be exposed. The chemical screening criteria are detailed in Appendix 5 and the laboratory chemical analysis certificates are contained in Appendix 6. Contaminant concentrations for the upper metre of soils for those contaminants which exceed the adopted screening levels are summarised in Table 6.

Table 6: Summary of Soils Chemical Analysis Results – Residential area

| Screening Levels for Human Health Risk Assessment | | | | | | |
|---|---|---|---|---|---|---|
| Determinand | Units | Maximum | Average | No. Tests | Screening Level (SL) | No. > SL |
| Metals | | | | | | |
| Arsenic | $mg.kg^{-1}$ | 34 | 9.76 | 37 | **32** | 1 |
| Lead | $mg.kg^{-1}$ | 680 | 47.3 | 37 | 450 | 1 |
| Total Petroleum Hydrocarbons | | | | | | |
| Aromatic $C_{21}$-$C_{35}$ | $mg.kg^{-1}$ | 2100 | 502.8 | 6 | 890 | 1 |
| EPH ($C_{16}$-$C_{21}$) | $mg.kg^{-1}$ | 420 | 43.8 | 32 | 250 | 2 |
| EPH ($C_{21}$-$C_{28}$) | $mg.kg^{-1}$ | 12000 | 707.44 | 32 | 890 | 3 |
| EPH ($C_{28}$-$C_{40}$) | $mg.kg^{-1}$ | 7300 | 479.4 | 32 | 890 | 3 |
| Polyaromatic Hydrocarbons | | | | | | |
| Benzo(a)anthracene | $mg.kg^{-1}$ | 11 | 0.56 | 25 | 6.9 | 1 |
| Benzo (a) pyrene | $mg.kg^{-1}$ | 4.1 | 0.29 | 25 | 0.83 | 1 |
| PAH (total) | $mg.kg^{-1}$ | 33 | 3.27 | 25 | - | - |
| Others | | | | | | |
| Asbestos | % | n/a | n/a | 19 | detected | 6 |

| Screening Levels for Phytotoxicity Risk Assessment | | | | | | |
|---|---|---|---|---|---|---|
| Determinand | Units | Maximum | Average | No. Tests | Screening Level 1 (SL1) | No. > SL2* |
| Boron | $mg.kg^{-1}$ | 3.7 | 1.46 | 16 | 3 | 2 |
| Copper | $mg.kg^{-1}$ | 450 | 59.7 | 37 | 200 at pH >7 | 2 |

Notes: * Minimum value applies (i.e. most acid)
**Bold** Values relate to Soil Guideline Values
(SL) Screening level for residential gardens where uptake from plants is considered

5.1.2.2 In summary, soil contamination is sporadic and low level with average concentrations significantly below the screening levels. The main areas where organic contamination was encountered in excess of the adopted screening levels

were shallow soils in MTP109, MWS103 and MWS108. Asbestos was encountered in shallow made ground in the demolished slab area in the west of the Stadco plant from four out of five samples analysed.

5.1.3 Proposed New Meggitt Facility (CI1)

5.1.3.1 Amongst the totality of the soil analysis carried out a total of 25 soil samples from proposed CI1 were submitted to the laboratory for chemical analysis, including samples from both natural ground and made ground. An initial screening exercise was undertaken to assess risk to human health from soils within a metre of the surface, this being the depth to which future users may be reasonably likely to be exposed. The results of the screening exercise are presented in full in Appendix 6.

5.1.3.2 The only contaminant of concern (with respect to human health) identified by the screening exercise of soils from the proposed new Meggitt facility was asbestos fibres. This was found in three samples of shallow rubbly made ground beneath macadam slabs around building P3, likely to result from demolition of a former building in this area. Asbestos fibres were also identified in made ground in the former Drakes Foundry building in the north-western edge of this development area.

5.1.3.3 Table 7 below shows data for those phytotoxic contaminants which exceeded the screening level.

Table 7: Summary of Soils Chemical Analysis Results

| Screening Levels for Phytotoxicity Risk Assessment | | | | | | |
|---|---|---|---|---|---|---|
| Determinand | Units | Max. | Average | No. Tests | Screen Level | No. > SL |
| Boron | $mg.kg^{-1}$ | 4.2 | 2.1 | 13 | 3 | 3 |
| Copper | $mg.kg^{-1}$ | 1700 | 141.8 | 17 | 135 at pH >7 | 1 |

5.1.4 Proposed Commercial/Industrial Area (CI2)

5.1.4.1 Amongst the totality of the soil analysis carried out, 15 samples from the upper 1 m proposed CI2 were submitted to the laboratory for chemical analysis, including samples from natural ground and made ground. For the initial screening exercise to assess risk to human health, the upper metre of soils are considered, as the depth of over which future users may be reasonably likely to be exposed. The results of the analysis for the upper metre of soils are summarised in Table 8.

5.1.4.2 The only contaminant of concern (with respect to human health) identified by the screening exercise of soils from the proposed CI2 Area was lead from MWS137.

5.1.4.3 Table 8 below shows data for those phytotoxic contaminants which exceeded the screening level. Data is presented in full in Appendix 6.

Table 8: Summary of Soils Chemical Analysis Results

| Screening Levels for Phytotoxicity Risk Assessment | | | | | | |
|---|---|---|---|---|---|---|
| Determinand | Units | Max. | Average | No. Tests | Screen Level | No. > SL |
| Boron | $mg.kg^{-1}$ | 57 | 17.7 | 4 | 3 | 3 |
| Copper | $mg.kg^{-1}$ | 1200 | 233 | 12 | 135 at pH >7 | 2 |
| Zinc | $mg.kg^{-1}$ | 1200 | 188 | 12 | 450 at pH >7 | 1 |

5.1.5 Six samples from soils considered to be from strata undisturbed by demolition and development subsequent to the redevelopment of the former fuse filling factory were analysed for explosives residues. The suite of residual contaminants was advised by BAe Systems Environmental and were analysed at their laboratory to detection limits suitable to allow assessment of risk to human health. None of the determinands was found above their respective detection limits.

## 5.2 GROUNDWATER

5.2.1 Groundwater sampling was undertaken on two occasions. Samples from all of the deep boreholes where water was present were submitted to the laboratory for analysis of a typical contamination suite including testing for hydrocarbons and volatile organic compounds. Samples from three shallow installations (MWS101, MWS118 and MWS153) were also tested. The results for the deeper groundwater and perched shallow groundwater have been assessed separately with reference to screening levels derived as explained in Appendix 5. Laboratory chemical analysis certificates and summary spreadsheets for deeper and perched groundwater are contained in Appendix 7 and groundwater level and field meter data is contained in Appendix 8.

5.2.2 The Deeper Aquifer – MBH101 to MBH110

5.2.2.1 The principal contaminants of concern in the deeper boreholes are as considered to be as follows:

*i.* TPH recorded at elevated concentrations site-wide with the majority of the contaminant concentration recorded in the $C_{16}$ – $C_{21}$ fraction; and

*ii.* Chlorinated solvents (particularly trichloroethene) in boreholes MBH106, MBH108 and MBH110 with the latter borehole being most affected.

5.2.2.2 A summary of the principal contaminants of concern for deeper groundwater is presented in Table 9 below:

Table 9: Summary of Contamination in Deeper Groundwater

| Determinand | Units | Max. | Mean | No. Tests | Screen Level | Comments on Detects |
|---|---|---|---|---|---|---|
| Total Petroleum Hydrocarbons | | | | | | |
| PRO ($C_6$-$C_{10}$) | $\mu g.l^{-1}$ | 1000 | 112 | 14 | - | Elevated in MBH110 only |
| EPH ($C_{10}$-$C_{12}$) | $\mu g.l^{-1}$ | 29 | 11.4 | 14 | - | Detected in MBH106 only |
| EPH ($C_{12}$-$C_{16}$) | $\mu g.l^{-1}$ | 30 | 12.6 | 14 | - | Detected in 4 of 7 BHs |
| EPH ($C_{16}$-$C_{21}$) | $\mu g.l^{-1}$ | 1900 | 621 | 14 | - | Elevated in all BHs |
| EPH ($C_{21}$-$C_{28}$) | $\mu g.l^{-1}$ | 2300 | 266 | 14 | - | |
| EPH ($C_{28}$-$C_{40}$) | $\mu g.l^{-1}$ | 2100 | 228 | 14 | - | |
| EPH ($C_{10}$-$C_{40}$) | $\mu g.l^{-1}$ | 5500 | 1121 | 14 | 10 | |
| Chlorinated Solvents | | | | | | |
| 1,1-dichloroethene | $\mu g.l^{-1}$ | 68 | 8.6 | 14 | - | Elevated in MBH110 only |
| 1,2-dichloroethene | $\mu g.l^{-1}$ | 180 | 23.4 | 14 | - | |
| 1,1,1-trichloroethane | $\mu g.l^{-1}$ | 48 | 6.6 | 14 | - | |
| Trichloroethene | $\mu g.l^{-1}$ | 1400 | 190 | 14 | 10 | Elevated in MBH106, MBH108 & MBH110 |

5.2.2.3 Other secondary contaminants of concern in the deeper aquifer are considered to be:

*i.* Chromium in MBH110 where an average concentration of 585 $\mu g.l^{-1}$ was recorded which is approximately 10 times the adopted screening level (of 50 $\mu g.l^{-1}$ based on the drinking water standard); and

*ii.* Nickel in MBH106 where an average concentration of 48 µg.l-1 was recorded compared to the adopted screening level of 20 µg.l-1 based on the drinking water standard.

5.2.2.4 It is acknowledged that there are several other instances of stringent drinking water standards being exceeded, however based on the marginal nature of the exceedence and/or the exceedence not being repeated, these contaminants in the deeper boreholes are not carried forward for further assessment.

5.2.3 Perched Water Contamination

5.2.3.1 The contaminants of concern in perched water have been identified on the basis of consistent exceedences of screening levels and are considered to be as follows:

*i.* PAH compounds (mainly naphthalene) in MWS118;

*ii.* EPH (mainly $C_{21}$–$C_{28}$) in MWS101, MWS118 and to a lesser extent in MWS153;

*iii.* VOCs in MWS118 (trichloroethene and fuel-related contaminants (benzene, ethylbenzene, xylene and trimethylbenzene)).

5.2.3.2 A summary of the contaminants of concern for perched groundwater is presented in Table 10 below:

Table 10: Summary of Contamination in Perched Groundwater

| Determinand | Units | Max. | Comments on Detects |
|---|---|---|---|
| Total Petroleum Hydrocarbons | | | |
| PRO ($C_6$-$C_{10}$) | $\mu g.l^{-1}$ | 5100 | Elevated in MWS118 only |
| EPH ($C_{10}$-$C_{12}$) | $\mu g.l^{-1}$ | 840 | |
| EPH ($C_{12}$-$C_{16}$) | $\mu g.l^{-1}$ | 540 | Elevated in MWS101 and MWS118 |
| EPH ($C_{16}$-$C_{21}$) | $\mu g.l^{-1}$ | 2800 | Elevated in MWS101, MWS118 and slightly in MWS153 |
| EPH ($C_{21}$-$C_{28}$) | $\mu g.l^{-1}$ | 17000 | |
| EPH ($C_{28}$-$C_{40}$) | $\mu g.l^{-1}$ | 18000 | |
| EPH ($C_{10}$-$C_{40}$) | $\mu g.l^{-1}$ | 38000 | |
| Polyaromatic Hydrocarbons | | | |
| Naphthalene | $\mu g.l^{-1}$ | 19 | Elevated in MWS118 only |
| Volatile Organic Compounds | | | |
| Benzene | $\mu g.l^{-1}$ | 2 | Detected in MWS118 only |
| Ethylbenzene | $\mu g.l^{-1}$ | 31 | |
| Xylene (total) | $\mu g.l^{-1}$ | 29 | |
| Isopropylbenzene | $\mu g.l^{-1}$ | 31 | |
| n-propylbenzene | $\mu g.l^{-1}$ | 91 | |
| Trimethylbenzenes | $\mu g.l^{-1}$ | 1380 | |
| p-isopropyltoluene | $\mu g.l^{-1}$ | 100 | |
| Trichloroethene | $\mu g.l^{-1}$ | 130 | |

5.2.4 The contamination summarised in Table 10 above is indicative of localised shallow fuel contamination (including volatile fractions) which has affected perched waters in the vicinity of MWS118. This appears to be a related to an area of oil storage which is evidence by staining and liquid oil present on the floor surface at this location. There is also evidence of chlorinated solvent contamination in this building, which is currently used for storage of a number tins and drums of product as detailed in Section 3.1.8, Table 3.

5.2.5 MWS101 also exhibits evidence for hydrocarbon contamination although to a lesser degree and within the hydrocarbon fraction typical of diesel. The contamination recorded in perched waters of MWS153 is minor and not considered further.

## 5.3 HAZARDOUS GAS

5.3.1 Gas monitoring was undertaken on 3 occasions over a period of 40 days. Levels of methane, carbon dioxide and oxygen were recorded in each standpipe, together

with associated parameters including borehole flow and ambient air pressure. The results of all gas monitoring rounds are contained in Appendix 8.

5.3.2 Gas Regime New Meggitt Facility

5.3.2.1 The potentially hazardous gas methane was undetected in the area of the site of the proposed new facility and carbon dioxide levels ranged from below the detection level for the equipment of 0.1 % to a maximum of 4.7%. Borehole gas flows were typically not detected or on the second visit detected at around 0.1-0.3 litres/hour. This however, is considered to reflect a calibration inaccuracy in the flow detector rather than representing a temporary increase in gas flows. For a non-residential development the gas regime is consistent with a CIRIA Characteristic Situation 1 (no gas risk). This is consistent with the stratigraphic profile of this development zone, characterised by typically thin granular made ground overlying natural clay, sand and sandstone, which is considered unlikely to generate significant levels of hazardous gas.

5.3.3 Gas Regime Development Zones A, C, C1, D, Eastern Stadco and Dunlop Accommodation

5.3.3.1 Methane was detected in MBH109 on all three occasions at levels of 0.5 to 2.3% and was accompanied by oxygen levels depleted to a minimum of 12%. Drillers' logs for this borehole do not record evidence of soil contamination here and the soil profile is essentially natural. This occurrence may reflect localised hydrocarbon contamination, but has not been confirmed by monitoring. Carbon dioxide levels were generally below 5% with the exception of MWS116 where levels to a maximum of 6% were recorded, the next highest level being 5.1% in MWS118. In both these locations evidence of hydrocarbon contamination was observed as localised staining and odours and it is possible these levels reflect aerobic breakdown of contamination. Generally however, the gas regime is consistent with CIRIA Characteristic Situation 1 (lowest level) reflecting an essentially inorganic natural stratigraphic succession of granular made ground over glacial clay and sandstone.

5.3.3.2 Three boreholes have been found to contain carbon monoxide (CO) at levels which could be considered above background or within the error levels of the detection equipment. MBH101 recorded >500 ppm on the first visit, levels of 16 and 31 ppm have been recorded in MWS118 and MBH109 respectively. However, only in MBH109 have slightly elevated levels been detected on more than one occasion. The unusual occurrence in MBH101, was not repeated with levels being undetected or at 2 ppm on subsequent visits. The presence CO is typically associated with incomplete combustion for example in landfilled waste masses, mines and colliery spoil mounds and can also occur under certain geochemical conditions. We are unaware of any underground fires to indicate the source of the CO, however, the significance of the gas levels are discussed in Section 7.

### 5.4 WASTE CLASSIFICATION AND OFF-SITE DISPOSAL

5.4.1 A preliminary waste categorisation has been carried out from results obtained to date. These indicate that the soils can be classified as generally non-hazardous for the purposes of determining the type of landfill to which waste soil may be disposed. Natural soils are anticipated to be accepted at landfills licensed to accept inert waste. Exceptions to the above include soils contaminated with elevated heavy metals (WS134 area), which may be classed as hazardous waste. Elevated hydrocarbons have been detected in shallow made ground beneath buildings in discussed Meggitt areas which may be hazardous. However, where the PAH content of soil has been assessed, it is typically low and it is considered that a significant proportion of hydrocarbon impacted soils may still be classed as non-hazardous due to the low proportion of carcinogenic PAH compounds.

5.4.2 Waste Acceptance Criteria tests to determine acceptable landfill class have not been carried out as part of this investigation.

5.4.3 Materials which are not to be retained on site should be removed and disposed of in accordance with all relevant statutes including the Environmental Protection Act 1990, the Environmental Protection Act (Duty of Care) Regulations 1991, Code of Practice on the Duty of Care Regulations, the Waste Management Licensing Regulations 1994 and the Environmental Permitting Regulations 2007.

## SECTION 6 RISK ASSESSMENT

**6.1** The potential sources of contamination at the site and the implications with respect to development have been interpreted in accordance with the current government guidance on source-pathway-receptor risk assessment.

**6.2** The investigations demonstrate that the former uses of the site have resulted in generally low levels of ground contamination given the industrial history of the site. The contamination consists of sporadic arsenic, lead, PAH and localised asbestos and EPH. These materials are considered to be potential sources for a number of pollutant linkages.

**6.3** The potential impacts of contamination sources have been considered with respect to the following receptors:

*i.* Present site users,

*ii.* Residents of future development,

*iii.* Groundwater,

*iv.* Surface water,

*v.* Construction workers,

*vi.* Adjacent land, and

*vii.* Infrastructure.

**6.4** In each case the existence of a pollutant linkage requires a pathway by which the receptor could be exposed to the source. A qualitative assessment of risk is thus considered in the first instance with respect to the site in its current condition and is summarised in the sections below.

**6.5** Present site users

6.5.1 Overall soil contamination levels are within human health screening levels for an industrial land use. Given the extensive hardcover of buildings and slabs, exposure to contaminants such as locally elevated oils, fuels and asbestos fibres is unlikely.

6.5.2 Potentially hazardous soil gases have not been detected at levels likely to accumulate to unacceptable levels in current working spaces. The risk of vapour ingress from VOCs in soil appears to be slight at this stage, as the areas where these have been detected (MWS118, MWS144) are seldom used and are large well-ventilated areas.

**6.6** Users of future development

6.6.1 New Meggitt Facility (CI1)

6.6.1.1 No risk to human health from *chemical* contaminants has been identified in this development zone.

6.6.1.2 A risk to health is considered to exist from asbestos fibres detected in shallow made ground in the western part of this area. Currently, this material is isolated, however, following demolition and site clearance a potential exists for exposure to future users if the affected made ground is not carefully managed during the construction phase. Subject to careful management, a risk would be unlikely to exist following development as it is indicated the site would return to being completely covered in buildings and hardstanding, breaking the pollutant linkage.

6.6.1.3 Hazardous gas levels in this development zone have not been detected at levels likely to pose a significant risk from ingress and accumulation in proposed buildings.

6.6.2 New Commercial/Industrial Area E

6.6.2.1 A single concentration of lead was found to be elevated above the commercial/industrial screening level within ashy made ground. However, statistical analysis demonstrates that the representative concentration to which users may be exposed, defined as the upper 95th percentile confidence limit of the mean concentration (US95) for lead in this development zone is 399 $mg.kg^{-1}$ which is significantly below the screening level of 750 $mg.kg^{-1}$. No significant risk to future users of the site is therefore considered to exist.

6.6.2.2 Soil gas readings from boreholes located in this development zone did not record levels which are likely to pose a risk from ingress into buildings. The highest gas and borehole gas flow readings have been used to derive a gas screening value in accordance with guidance given in CIRIA document C665 Assessing risk posed by hazardous ground gases to buildings. This indicates the gas regime is consistent with a Characteristic Situation 1 (no gas risk).

6.6.3 Development Zone A

6.6.3.1 Contaminant concentrations in Zone A (essentially comprising Building A2 and its immediate external areas) have not been found to exceed soil guideline values or generic assessment criteria appropriate to a residential land use. Site investigation indicates that the subsurface for this area largely comprises existing ground slabs and thin granular made ground resting directly upon naturally deposited drift soils. Locally some thicker granular inert fills are present. Currently no risk to human health from ingestion of soil, inhalation of soil derived dust, dermal contact or consumption of home-grown produce has been identified.

6.6.3.2 Hazardous soil gases have not been detected at levels in this area which would be likely to pose a significant risk of ingress and accumulation in dwellings. An initial reading of carbon monoxide in excess of 500 ppm could pose a risk if such levels were to accumulate in buildings (an occupational exposure limit for carbon monoxide is 30 ppm TWA over 8 hours). However, subsequent monitoring did not find significant levels and there is no indication from the ground investigation of the processes which would give rise to carbon monoxide generation.

6.6.4 Development Zones C, C1 and D

6.6.4.1 Within this area, the following contaminants have been detected in excess of screening levels appropriate to a residential land use:

*i.* Metals: arsenic in MTP115 in ashy made ground at 0.20 m, and lead in one sample of rubbly fill (MWS147 at 0.6 m).

*ii.* VOC: Trimethylbenzene in MWS118. A low risk from inhalation of vapour ingress into indoor may exist, where proposed structures coincide with shallow occurrence of these contaminants. However, this appears to be highly localised based on the results of the chemical analysis and observations from exploratory holes.

*iii.* Petroleum hydrocarbon fractions. Carbon ranges above $C_{16}$ MTP109 in rubbly fill, MWS101, MWS103 and MWS108 all in shallow sub-base and surface clays immediately below the floor slab. For these contaminants the risk is primarily through ingestion and inhalation of soil and soil-derived dust, consumption of home-grown produce and dermal contact.

*iv.* Polyaromatic hydrocarbons. Benzo(a)pyrene at 0.50-0.75 m in MWS108 and benzo(a)anthracene in MWS103 at 0.40-0.50 m both within natural sand,

immediately below granular made ground. For these contaminants the risk is primarily through ingestion and inhalation of soil and soil-derived dust, consumption of home-grown produce and dermal contact.

*v.* Asbestos fibres in made ground in MWS135, MWS147 and in four trial pits located on the demolished slab area of the Stadco plant. A risk exists from inhalation of airborne fibres.

6.6.4.2 Metals may pose a risk to future site users via exposure to soil and soil-derived dust if ingested, inhaled and by dermal contact. In view of the isolated nature of these exceedences of metals and their occurrence being marginally in excess of the soil guideline values, a significant risk is unlikely to exist. Their occurrence is within readily identifiable granular made ground. However, where the safe level represented by the soil guideline value is exceeded in one or more samples it is appropriate to calculate the representative concentrations of the contaminant to which sites users may be exposed. Statistical calculation sheets are included in Appendix 6 for reference. These have been calculated as the upper 95th percentile confidence limit of the mean concentration, using data from the upper metre of soils in these development areas as it is less likely that residents would be exposed to soils below this depth. The calculation method has been followed in accordance with guidance given in the CL:aire document *Comparing Soil Contamination data with a Critical Concentration*, in this case analysis of the data has been undertaken appropriate to a non-normal distribution in accordance with the one-sided Chebychev Theorem.

6.6.4.3 Statistical analysis for both arsenic and lead indicates that the representative exposure concentration for these contaminants is below the critical concentration and therefore the null hypothesis is rejected. No risk to future residents of the site from metals within shallow soils is therefore considered to exist.

6.6.4.4 Using the same approach, representative concentrations of the two polyaromatic hydrocarbon compounds and petroleum hydrocarbon fractions have also been calculated for comparison with the soil screening level. This indicates that the risk from PAH and petroleum hydrocarbons over the development zones as a whole is unlikely to be significant. However a risk from exposure to affected soils is considered to exist where oily contamination is currently present in shallow soils beneath the slab in Building A6/X3 and locally in MTP109. It is also noted that two samples where no obvious indication of hydrocarbon contamination was present also contained elevated concentrations (MWS103 and MWS108). It is possible that these are highly degraded remnants of mineral oil, being distributed mainly in the $C_{21}$ carbon range and above. Based on hydrocarbon analysis of natural soils at similar depths, where no significant levels of hydrocarbon were identified, widespread contamination of natural clay appears unlikely, and it is considered that areas where a risk may exist can be readily recognised as stained or malodourous made ground and the uppermost surface of the underlying clay/silt. Where hydrocarbon stained soils have been detected elsewhere, the hydrocarbon

concentrations have been within screening levels but may be considered to affect the amenity value of soils. The impact upon buried service pipes by organic contaminants is considered below.

6.6.4.5 A slight risk from ingress of VOC vapour from shallow water into indoor air may exist in the area of MWS118. Generally, a risk from vapour ingress into buildings from VOC in groundwater is considered unlikely from groundwater residing in deeper sandstones and siltstones, due to its depth and overlying low permeability clay drift.

6.6.4.6 Hazardous gas levels, as the gas screening value, have been calculated as Characteristic Situation 1 (no gas risk) for the area as a whole. Locally, however, methane detected in MBH109 would indicate increasing the gas risk level to Characteristic Situation 2 (low gas risk) in this area. As such a low risk of gas ingress into proposed dwellings may exist in this part of the site.

**6.7** Groundwater

6.7.1 As discussed in Section 5.2, the principal contaminant sources in deeper groundwater are:

*i.* Petroluem hydrocarbons, present site-wide;

*ii.* Chlorinated solvents mainly in MBH110 and to a lesser extent in MBH106 and MBH108;

*iii.* Nickel in MBH106; and

*iv.* Chromium in MBH110.

6.7.2 As discussed in Section 5.2, the principal contaminant sources in shallow perched groundwater are:

*i.* Shallow fuel contamination in the vicinity of MWS118 together with some evidence for chlorinated solvent contamination; and

*ii.* Shallow diesel range TPH contamination in the vicinity of MWS101.

6.7.3 Clearly, shallow groundwater (locally) and deeper groundwater has been impacted primarily by organic species which, in terms of risk, are prioritised as TCE and its breakdown products, due to their toxicity, potential for downwards migration into the deeper aquifer and their longevity. Petroleum hydrocarbons have also impacted groundwater quality and have been identified across the site. However, these tend to remain in the upper parts of the groundwater table and would be restricted in their vertical extent due to the presence of less permeable horizons. Petroleum hydrocarbons are also more susceptible to degradation and to becoming adsorbed to soil particles, which limit their potential to migrate, when compared with TCE and its breakdown products.

6.7.4 The main risk is considered to exist should these contaminants migrate off site to affect the wider aquifer quality and groundwater resources. Whilst there appears to be limited evidence for a single contiguous groundwater table, overall groundwater elevations reduce southwards, suggesting a southerly groundwater flow. From the desk study it is known that the north-western part of the site is located in the total catchment of a groundwater source protection zone, which is located around 1 km to the north-west. From this and the occurrence of the contaminant levels in borehole samples being higher in the southern and central areas, it is unlikely that the source protection zone and it associated abstractions to the north would be significantly impacted by the site. A risk may exist to groundwater resources off site to the south, the significance of which is mitigated partly by the absence of abstraction for potable or other licensed uses to the south of the site. However, in view of the sensitivity of the aquifer and toxicity and potential persistence of these organic contaminants a significant risk to groundwater resources is considered to exist.

6.7.5 Of the other contaminants identified above EQS, the metals cadmium, nickel and chromium, are considered. Cadmium is identified sporadically and only marginally above the screening level and has impacted groundwater beneath the site only slightly. The risk of off-site migration of cadmium affecting wider groundwater appears unlikely at this stage. Nickel has been identified in the north and central areas of the site (MBH104 and MBH106), and soil analysis targeted to the former plating works (Building E7) shows that nickel contamination from site activities has occurred. However, this does appear to be localised and the risk to wider groundwater resources from nickel is considered to be slight. Chromium has been detected significantly above the EQS in MBH110 and this may result from plating activities formerly taking place to the north or from painting and coating in the Stadco plant. Given the occurrence of chromium in the south of the site and its consistently elevated concentration in MBH110, it is considered a risk to wider groundwater quality from chromium could exist.

**6.8** Surface water

6.8.1 It is unlikely that surface waters in the locality would be in continuity to groundwater under the site whereby leachable contaminants in the subsurface could enter stream waters. Currently, the site is understood to discharge a portion of its surface/storm water run-off into a local culverted watercourse. There is a potential for pollutants such as oils and fuels to enter surface waters via the drainage system. It is known the active parts of site do maintain spillage control measures, however no details of fixed pollution control measures such as interceptors and silt traps have been reviewed at this time.

**6.9** Construction workers

6.9.1 There is considered to be a significant risk to construction workers from inhalation of asbestos fibres present in made ground in two main areas of the site. Following

slab removal in these areas, plant movements and groundworks will undoubtedly disturb made ground with a potential for fibres to become airborne.

6.9.2 Chemical contamination locally poses a moderate risk to health mainly where VOC/hydrocarbon stained soil is present, from dermal contact, ingestion of soil and inhalation of dust. However, over much of the site no acute risks have been identified during the exposure durations envisaged during the groundworks phase, provided dust levels are maintained within statutory limits.

**6.10** Adjacent land

6.10.1 In its current condition this site is unlikely to have an adverse impact upon the chemical quality of neighbouring land. VOC and hydrocarbons in groundwater are considered for their potential to migrate to residential areas to the south and pose a risk of vapour ingress. At this stage off-site contaminant concentrations have not been modelled, however, given the concentration known on site and the depth to groundwater it is considered unlikely that this risk will have materialised.

6.10.2 Site investigation data has been provided for the site adjacent to the west of the Stadco plant, which has identified the presence of VOCs including trichloroethene in groundwater at levels considerably higher than those found within the subject site. Fuel/oils and free phase hydrocarbons have also been identified. Trial pits close to the boundary with this site have found only limited evidence of shallow hydrocarbons impact (MTP114) however this cannot be verified as originating from adjacent land. Groundwater in MBH108 also does not indicate cross-boundary contaminant migration. Assuming a general south or south-easterly groundwater flow direction it is possible that VOC and hydrocarbon could migrate off adjacent land and affect the western part of the site. However, it is noted that the sampling points of deeper groundwater along this boundary are small in number.

**6.11** Infrastructure

6.11.1 Contamination with the potential to inhibit healthy plant growth has been found sporadically. In the proposed residential zone where the majority of either landscaping or gardens will occur, no risk to plants is likely to exist. However, made ground and the underlying clay or sand subsoil are considered to be unsuitable media for establishing gardens and planting schemes.

6.11.2 Hydrocarbons which have the potential to permeate and degrade polymeric pipes (potable water pipes particularly) have been detected in a number of locations.

## SECTION 7 REVISED CONCEPTUAL MODEL

**7.1** Following completion of phases 1 and 2 of the investigation and a qualitative risk assessment, a conceptual model of the site showing identified pollutant linkages, has been evolved. The model is presented in Table 11 below.

Table 11: Conceptual Model

| Possible Pollutant Linkage | | | Risk Characterisation |
|---|---|---|---|
| **Potential Sources (origin)** | **Pathways** | **Receptors** | |
| CLEA metals and polyaromatic hydrocarbons (made ground) | Uptake into home grown produce | Human health (future users) | **Low** Average concentrations of metals and PAH detected do not indicate a significant risk to receptors over development zones. Low risk in residential zone exists where proposed gardens coincide with known occurrences or suspected made ground types |
| | Contact with contaminated soil | Human health (future users and construction workers) | |
| | Ingestion and inhalation of contaminated soil and dust | Human health (future residents and construction workers) | |
| Total petroleum hydrocarbons/VOCs | Permeation of plastic water pipes | Human health (future users) | **Medium** Risk from exposure to shallow hydrocarbons in soil in residential zone. Localised low to moderate risk from VOC vapour ingress limited to two localities identified to date |
| | Soil ingestion, dust inhalation and plant uptake with contaminated soil | Human health (future users and construction workers) | |
| | Ingress of vapour into buildings | Human health (future users) | |
| CLEA metals, VOC and hydrocarbons | Vertical migration to aquifer | Controlled waters | **Medium** Groundwater beneath the site already impacted. Possibility of off-site migration however no off-site groundwater exploitation currently in the vicinity. Risk may increase following site clearance due to increased mobilisation potential. |
| Asbestos in soil | Inhalation of loose fibres | Human health (demolition/ construction workers) Future site users | **Medium** Asbestos fibres detected in made ground over large areas. Quantities are low which should limit risk to below statutory asbestos control limits if dust levels suppressed and affected capped. |
| Hazardous Gas In soil | Ingress into buildings and voids | Human health (future site users and construction workers) | **Low** Localised low level methane in south-west residential zone but no significant gas flow. Gas concentrations and flow not significant elsewhere |
| | Migration to adjacent site | Adjacent property | **No risk** Levels and flow rates of hazardous gases do not indicate a significant risk to adjacent properties. |

# SECTION 8 PRELIMINARY GEOTECHNICAL RECOMMENDATIONS

## 8.1 PRELIMINARY FOUNDATION RECOMMENDATIONS – ZONES A, C, C1, EASTERN STADCO AND DUNLOP ACCOMMODATION

8.1.1 The proposed development is understood to consist of a mixed end use comprising residential, industrial units and associated sports field and soft landscaping. It is assumed that the residential units will be low rise and the industrial units are approximately three storey steel framed buildings.

8.1.2 As discussed in Section 4 the recent ground investigation has revealed deposits of typically granular made ground (in places more than 4.7 m thick) overlying a combination of granular and cohesive superficial deposits at depths ranging from 0.13-3.0 m bgl which in turn overlie the solid geology of sandstone, siltstone and mudstone. The made ground in the majority of the exploratory holes was no more than 1.0 m bgl with the following notable exceptions: granular rubble filled areas in the north of buildings A6/B6, which are possibly infilled basements and near MWS147 in the Stadco plant where the development platform appears to have been created by upfilling with rubbly material to nearly 5 m.

8.1.3 Based on the ground conditions it is envisaged that traditional shallow strip footings would be acceptable for the majority of the proposed plots. Footings will need to extend below any made ground or loose/soft zones and should be founded within competent natural granular or cohesive deposits. A minimum footing depth of around 0.9 m bgl are likely to be feasible across the majority of the site. Allowable bearing pressures of up to 125 kN/m$^2$ will be acceptable for footings up to 1.0m wide. These will enable total and differential settlements to remain within acceptable limits.

8.1.4 NHBC guidelines with respect to building near trees will need to be followed for footings placed in the cohesive soils. Based on the low to medium volume change potential of the soils, minimum footing depths of 0.9 m will apply. Footings located in the zone of influence of existing or proposed trees will need to be deepened accordingly. Where footings are likely to cross between cohesive and granular soils, light mesh reinforcement should be incorporated into the footings in order to cater for any differential settlement.

8.1.5 In areas where deep made ground or loose natural ground conditions are encountered shallow strip footings will not be feasible. Deep trench fill may be suitable up to depths of 2.0-2.5 m bgl, however if further depth is required given the predominantly granular nature of the made ground it is considered likely that ground improvement using vibro-replacement techniques could be employed at the site. The viability for ground improvement should be verified by a specialist contractor. Ideally specialist contractors should be invited to attend site themselves to view the ground conditions in freshly dug trial pits. For the area around MWS147, where nearly 5 m of made ground was present, foundation

solutions will need to be refined when details of final levels are known as well as the means by which the deep swarf tunnel is removed and filled.

8.1.6 If feasible stone columns would be installed along all load bearing walls and keyed into the underlying dense granular material, stiff clay or underlying solid geology. This would enable reinforced strip footings to be constructed on the improved ground at depths of around 0.75 to 1.0 m. Allowable bearing pressures of approximately 100 kN/m$^2$ are likely to be achievable for footings up to 1 m wide. Light mesh reinforcement will need to be installed in all footings constructed on vibro treated ground.

8.1.7 If ground improvement techniques are not deemed to be suitable piles taken down into the underlying sandstone/mudstone are likely to be the most practicable alternative solution.

## 8.2 FOUNDATIONS NEW MEGGITT FACILITY

8.2.1 Construction details have not been provided at this stage however, it is anticipated a moderately loaded steel frame construction would be used for the proposed Meggitt facility. From strata encountered and in situ penetration test data, competent founding strata (as stiff clay or weak weathered sandstones) are demonstrated to be present at between 1.20 and 2 m below existing surface levels. As such it is considered that strip or pad foundations to depths of this order would be feasible. For a pad foundation of 1 m width, an allowable bearing pressure of 150 kN/m$^2$ is suggested for stiff clay which would limit settlement to acceptable amounts. Foundations would need to penetrate made ground, locally firm clays and shallow sandy soils to found within either stiff clay or weathered sandstone. Allowable bearing pressure in weathered sandstone should exceed 200 kN/m$^2$. Designers of foundations would need to be cognisant of the potential for foundations to span the transition from cohesive to granular soils. The foundations for the new facility will also need to take into account the potential for deeper fill where former building substructures are possible, particularly between existing buildings X3 and P3.

## 8.3 EXCAVATIONS AND GROUNDWATER

8.3.1 Based on the ground conditions observed at the site, any shallow excavations have the potential to become unstable. Therefore all excavations must be supported by shoring or otherwise battered back to a safe angle in order to protect the workforce from possible collapse.

8.3.2 Existing foundations and buried structures associated with previous buildings at the site will be encountered. There is also anecdotal evidence of infilled air raid shelters and possibly exiting tunnels running under the site, none of which were identified during the investigation. Due allowance should therefore be made for their exploration, removal and backfill with suitable granular material. At this stage it will not be possible to quantify the extent to which groundworks programmes will

be hampered by unknown buried obstructions until site clearance permits wider inspection of underlying ground.

8.3.3 In the Stadco area, two substantial belowground structures are present: a swarf tunnel located in the current pressing area and a press pit in the demolished slab area. Given the depth to the base slab of these features, complete removal will be difficult. Consideration could be given to partial breakdown and backfill and compaction with suitably graded material to allow construction of overlying structures on raft foundations. Consultation with a demolition contractor is advised. The press pit has been partially infilled with loosely tipped demolition materials and soil. These will need to be removed and sorted for re-use. Potentially contaminated water is also present to an unknown depth and this will need to be pumped out and disposed of.

8.3.4 Groundwater was generally not encountered at the levels to which typical foundation excavations and infra-structure trenches would be excavated. Over much of the site, dewatering is unlikely to be required for shallow excavations open for short periods. However, localised shallow granular drift and granular fill, as well as buried slabs and basement may contain perched water and provision should be made for dewatering where necessary.

## 8.4 FLOOR SLABS

8.4.1 In view of the variable and significant thicknesses of made ground encountered across the site, it is recommended that suspended floor slabs are adopted for the proposed residential structures. However, following site clearance and demolition, if stiff clay or medium dense and dense sand is present at shallow depth, consideration may be given to use of ground-bearing floor slabs. On large commercial or industrial buildings, it is likely that ground-bearing floor slabs will be required, in which case clearance of poorly graded and mixed made ground or ground disturbed by demolition should be removed and replaced or subject to improvement/stabilisation subject to assessment by a specialist contractor. The current situation is that existing buildings have ground bearing slabs laid on a thin cover of granular sub-base and directly onto underlying firm/stiff clay and sand. However, it is anticipated that following site clearance, the formation level will be susceptible to deterioration from softening with increased moisture content and by demolition activities and plant movements.

## 8.5 BURIED CONCRETE

8.5.1 Recommendations given in BRE Special Digest 1:2005 *"Concrete in aggressive ground"* have been followed in order to give recommendations with respect to buried concrete.

8.5.2 Water soluble sulphate analysis was carried out on eighty eight soil samples obtained from depths of between 0.2 and 3.8 m bgl with soil pH determination also carried out on these and an additional forty four samples. Water soluble sulphate

contents ranged between 0.010 and 1.900 g/l. In accordance with BRE guidelines the characteristic value is calculated by determining the mean of the highest 20% of results. In this case the characteristic value is 0.493 g/l. On this basis the Design Sulphate Class is DS-1.

8.5.3 The pH values in the soil samples varied between 5.0 and 11.5. The mean of the lowest 20% is 6.1 which represents the characteristic value. Mobile groundwater conditions have been assumed and on this basis the Aggressive Chemical Environment for Concrete (ACEC) class for the site is AC-1.

### 8.6 ROADS AND PAVED AREAS

8.6.1 In the absence of *in-situ* test data, it is recommended that for preliminary design purposes a California Bearing Ratio (CBR) value of < 2 % is assumed for the *in situ* made ground. It would be prudent to undertake *in situ* tests in order to confirm CBR values for pavement design.

## SECTION 9 PRELIMINARY REMEDIATION STRATEGY

### 9.1 INTRODUCTION

9.1.1 The identified risks at the site can be mitigated by removal of either the source, pathway or receptor. With reference to the conceptual model for the site a remediation strategy, based on source or pathway removal, has been designed.

9.1.2 The following sections on remedial proposals are based on drawing SK07, Rev C, which is the most up to date proposed development plan supplied by the client and is reproduced in Appendix 1.

### 9.2 RESIDENTIAL DEVELOPMENT ZONE A

9.2.1 No remedial actions identified at this time.

### 9.3 RESIDENTIAL DEVELOPMENT ZONE C, C1, D

9.3.1 Made ground containing asbestos fibres in Zone C should be subject to further analysis and be carefully controlled during demolition and groundworks to avoid dust generation and fibre release. It is recommended that affected soils be stripped for re-use as fill beneath a suitable depth of capping material (minimum 600 mm) or as general fill in low sensitivity areas of the development, again below clean cover or hardcover. The feasibility of re-use will depend upon size gradings for this material and its resulting engineering suitability to be placed as fill.

9.3.2 Although metals and PAH contamination is sporadic and marginally in excess of soil guideline values for residential land use, it is recommended that made ground in proposed gardens should be capped with clean imported topsoil and subsoil to a minimum of 300 mm. Site-derived natural soils may be used as subsoil subject to analysis. Where deposits of made ground are uncovered following demolition the clean cover thickness may be reviewed subject to further analysis, for example

ashy deposits or stained and malodours materials may require thicker clean cover to break the pollutant linkage. Conversely, where only thin made ground is present it may be preferable to remove it from garden areas completely for re-use elsewhere, resulting in only a nominal topsoil layer needing to be used.

9.3.3 It is recommended shallow hydrocarbon impacted made ground identified under building A6 and possibly extending into adjacent internal spaces, is stripped to allow its treatment for re-use in less sensitive areas of the site or as general fill beneath clean cover and hardcover. Two other main areas of hydrocarbon contamination have been identified on drawing 307-001 in appendix 1 which it is proposed should be subject to remedial excavation. It is considered at this stage that contaminant loadings may be reduced by ex situ treatment in biopiles or windrows to allow volatilisation and biologically mediated degradation to facilitate its re-use. It is considered that an area of the site be set aside for treatment (estimated at five months).

## 9.4 PROPOSED MEGGITT FACILITY

9.4.1 Made ground containing asbestos fibres in Zone C should be subject to further analysis and be carefully controlled during demolition and groundworks to avoid dust generation and fibre release. It is recommended that affected soils be stripped for re-use as fill beneath a suitable depth of clean cover or hardcover. The feasibility of re-use will depend upon gradings for this material and its resulting engineering suitability to be placed as fill.

9.4.2 Localised hydrocarbon contamination identified in the eastern area (MTP104) may require limited excavation for *ex-situ* treatment as outlined in Section 9.3.3.

## 9.5 COMMERCIAL ZONE E1

9.5.1 No soil remedial actions are recommended at this time. See following sections for general recommendations and groundwater remedial works.

## 9.6 GENERAL RECOMMENDATIONS

9.6.1 Groundwater analysis and monitoring has found VOC and hydrocarbons which are likely to require remedial actions to reduce the risk to wider groundwater quality. Contamination identified to date may be considered diffuse, rather than gross, but is nonetheless significant. The observed concentrations in conjunction with the possibility of the geology limiting groundwater mobility and the volumes of water affected, suggests at this stage that a remedial strategy based on enhancing natural attenuation of the VOC and, to a lesser extent, the petroleum hydrocarbons, is appropriate. At this stage characterisation of the source and extent of the contaminant plume is limited, however, evidence that contamination is biodegrading naturally is marginal. It is envisaged that *in situ* degradation enhanced by treatment of source areas and sections of the site boundary are trialled, coupled with a period of monitoring at the site boundaries. The duration of the treatment phase is likely to be one to two months (allowing for drilling of

injection boreholes). The period of degradation of the contaminants may extend beyond two years and the monitoring programme will be subject agreement with regulators. Where encountered localised excavation and treatment of fuel/oil impacted soils should also be considered to reduce groundwater contamination source zones.

9.6.2 Material imported for the formation of domestic gardens and landscaped areas should be obtained from a validated source. The validation should incorporate an assessment of the provenance of the material and chemical analysis.

9.6.3 Potential risks to construction workers have been identified and the adoption of appropriate Health and Safety procedures will ensure that risks to operatives from hazardous materials at the site are minimised. Provided that dust levels are kept within statutory limits the levels of contamination in soils do not indicate potential for the existence of respiratory hazards from general contamination. Risk from asbestos fibres will require careful management and the formulation of an agreed management plan, backed up with regular air monitoring. Operatives should not be allowed to eat, drink or smoke on site except in designated areas and should be required to wash all exposed skin at the end of each shift. Operatives should be informed of the potential hazards at the site and should be required to report any observations of suspect material.

9.6.4 It is possible that water utilities companies will require use of protected or chemical resistant pipe materials at the site. Relaxation of this requirement may be possible where thin made ground exists as it should be possible to demonstrate by targeted testing that large areas of the shallow ground to be unaffected by organic contamination.

9.6.5 As with any sampling exercise, it is possible that groundworks will discover conditions or soils different to those found to date and assessment of ground conditions and resulting recommendations are based on direct observations. Ground conditions between sampling points are necessarily inferred.

9.6.6 Construction managers and supervisors should be aware that further remediation measures may be required if such conditions are found. Any observations of ground conditions atypical of those already described should be reported to Merebrook immediately so that an assessment of appropriate action can be made.

# SECTION 10 RECOMMENDATIONS FOR FURTHER GEOENVIRONMENTAL ASSESSMENT

## 10.1 PRE-DEMOLITION ADDITIONAL WORKS

10.1.1 An increase in the number of groundwater sampling points is recommended, including the boundary with the adjacent former works to the west, southern boundary area (as far as possible) and areas centrally located. The purpose is to characterise the plume of VOC and hydrocarbon contamination more robustly to allow contaminant fate and groundwater modelling and quantification of off-site

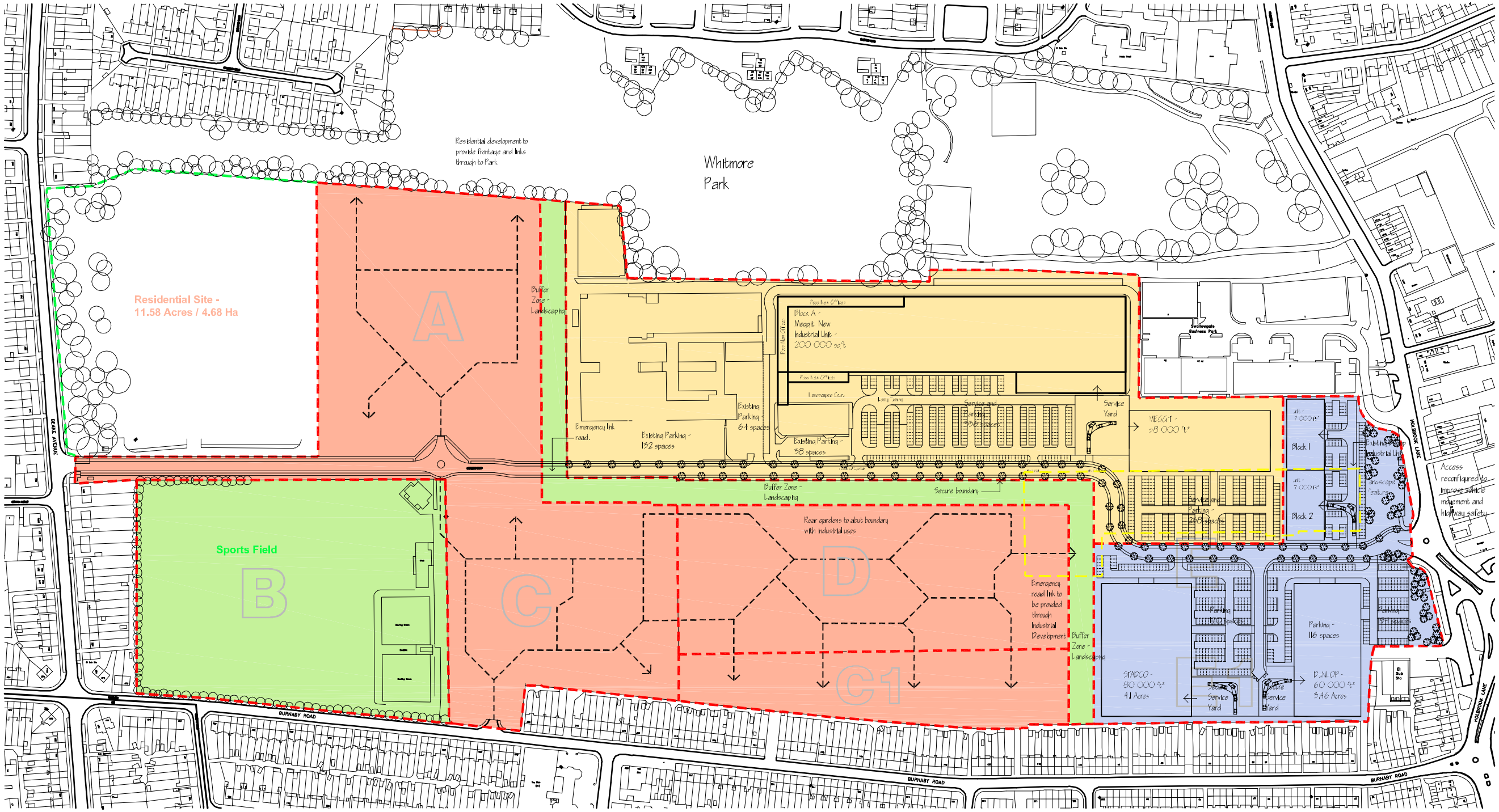
groundwater risk. Further groundwater sampling should include measurement of indicators of natural attenuation and *in situ* testing to measure bedrock permeability values to allow refinement of any groundwater remediation strategy. A minimum of six further boreholes is suggested and monitoring on at least three occasions, prior to undertaking the contaminant fate and transport modelling.

## 10.2 POST DEMOLITION, CONSTRUCTION PHASE

10.2.1 Given the size of the site and the intense coverage with former industrial buildings and processes, it is recommended that allowance be made for further investigation following clearance of oversite. Notwithstanding the additional groundwater assessment outlined above, it is considered that such post-demolition works would include a grid of trial pit excavations to permit inspection of ground for made ground, obstructions and evidence of contamination. This could be phased as areas of the site become available to allow development to proceed in zones.

**APPENDIX 1**

- Drawings
- BBLB Architects Drawing SK07 Rev C
- Site Investigation Location Plan 304-001
- Organic Contamination Sampling Locations 305-001
- Inorganic Contamination Sampling Locations 305-002
- Hydrocarbon Remediation Zones 307-001




## Development Key

- Residential
- Industrial
- Sports Field / Lanscape Buffer
- Meggit Site

N

| REV | DATE | AMENDMENT | BY | CHK |
|---|---|---|---|---|
| C | 17:08:11 | Layout amended to clients requirements | DJW | |
| B | 16:08:11 | Layout amended to clients requirements | DJW | |
| A | 12:07:11 | Layout amended to clients requirements | DJW | |

PRELIMINARY

JOB TITLE: Land off Holbrook Lane, Coventry

CLIENT: KingSturge

DRAWING: Master Plan - B Option 3

BBLB architects llp
The Old Library,
Hagley Road, Stourbridge,
West Midlands, DY8 1QH.
t: + 44 (0) 1384 880 550
f: + 44 (0) 1384 880 551
e: info@bblb-architects.co.uk
www: bblb-architects.co.uk

| | | | |
|---|---|---|---|
| SCALE | NTS | DATE | Feb 10 |
| DRAWN | DJW | CHECKED | |
| JOB NO | 9014 | | |
| DWG NO | SK07 | REV | C |

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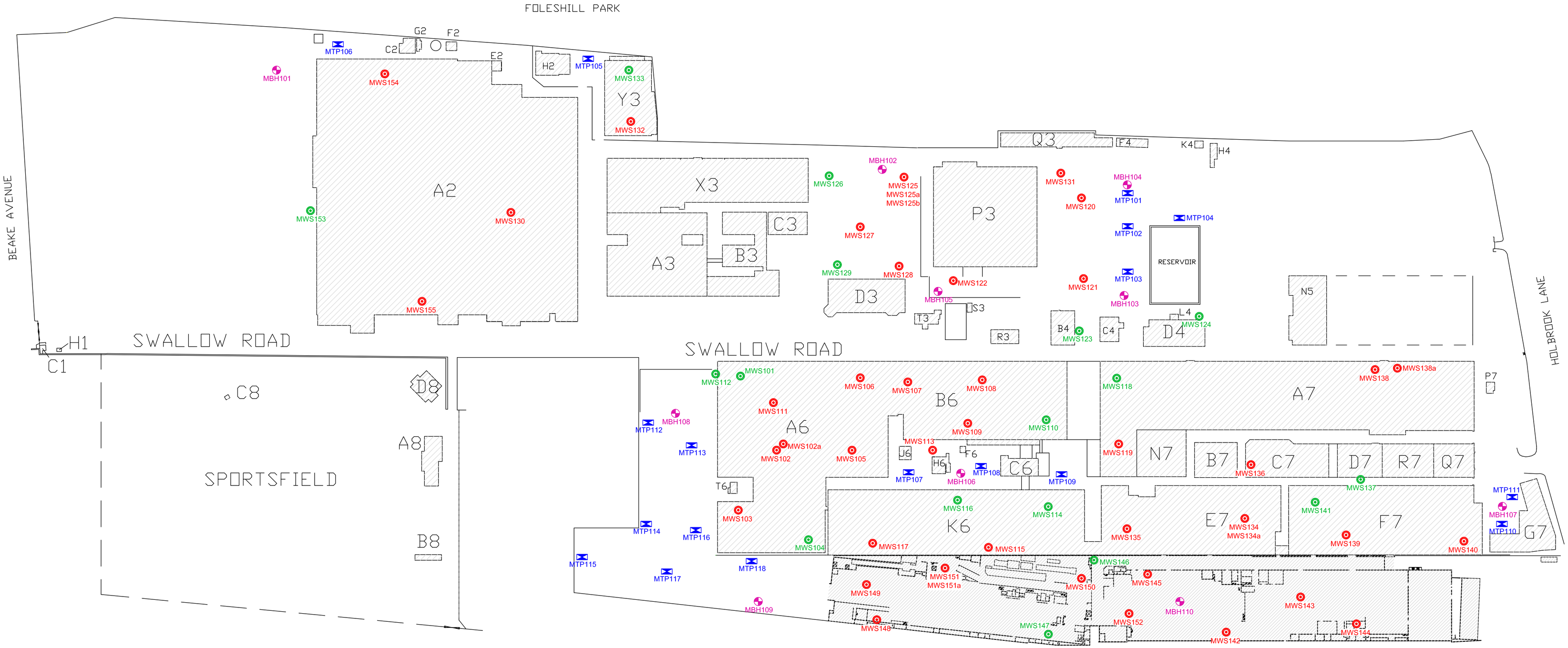
Unless otherwise expressly agreed, BBLB's design responsibility is limited to the design of the permanent works as finally constructed only in accordance with BBLB's design.

Do not scale use given dimensions only.
Read this drawing in conjunction with the specification.
Check site dimensions prior to fabrication.
Whether specifically stated or not, all work is to comply with:

The Building Regulations.
The requirements of the NHBC/Zurich.
The clients general development brief.




Legend

| | |
|---|---|
| MWSref | Approximate Merebrook window sample location with reference |
| MWSref | Approximate Merebrook window sample (with installed standpipe) location with reference |
| MTPref | Approximate Merebrook trial pit location with reference |
| MBHref | Approximate Merebrook borehole location with reference |

| Base Drg | DATE 15/02/12 | REV - |
|---|---|---|
| | D.M.S. / R.M. | L.S. |
| Revision Details | Dwn / Chd | App'd |

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tel +44(0)1773 829988 fax +44(0)1773 829393 email consulting@merebrook.co.uk

Client: Clowes Developments/Meggitt Aerospace Ltd

Project: Meggitt/Stadco Coventry

Dwg Title: Site Investigation Locations

| Job No. | Dwg No. | Revision |
|---|---|---|
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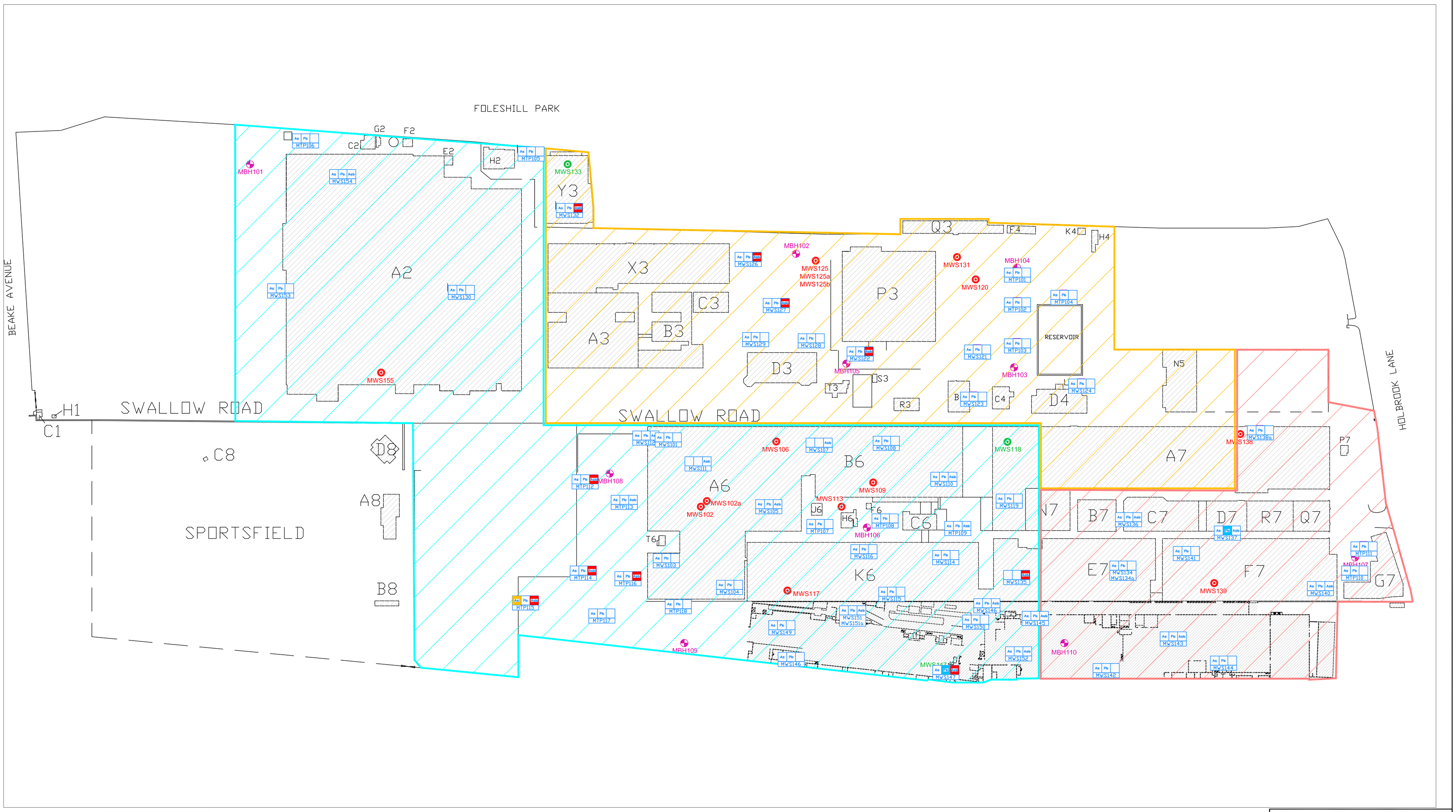
| Drawn: D.M.S. | Checked: R.M. | Approved: L.S. |




LEGEND

- Residential Area
- Commercial/Industrial Area 1 (CI1)
- Commercial/Industrial Area 2 (CI2)

- Approximate sample location with reference
- Search conducted for displayed contaminants (only present above threshold if coloured)
- Asbestos
- Lead
- Arsenic

| Inorganic | Contamination Screening Levels | |
|---|---|---|
| | Residential | Commercial/Industrial |
| As | 32 | 640 |
| Pb | 450 | 750 |
| Asb | detected | detected |

Legend

- MWSref — Approximate Merebrook window sample location with reference
- MWSref — Approximate Merebrook window sample (with installed standpipe) location with reference
- MTPref — Approximate Merebrook trial pit location with reference
- MBHref — Approximate Merebrook borehole location with reference

| Base Drg | DATE 15/02/12 | | REV - |
|---|---|---|---|
| | D.M.S. | R.M. | L.S. |
| Revision Details | Dwn | Chd | App'd |

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Client: Clowes Developments/Meggitt Aerospace Ltd

Project: Meggitt/Stadco Coventry

Dwg Title: Inorganic Contamination Sampling Locations

| Job No. | Dwg No. | Revision |
|---|---|---|
| 17054a | 305-001 | - |
| Scale | Date | Frame Dimensions mm |
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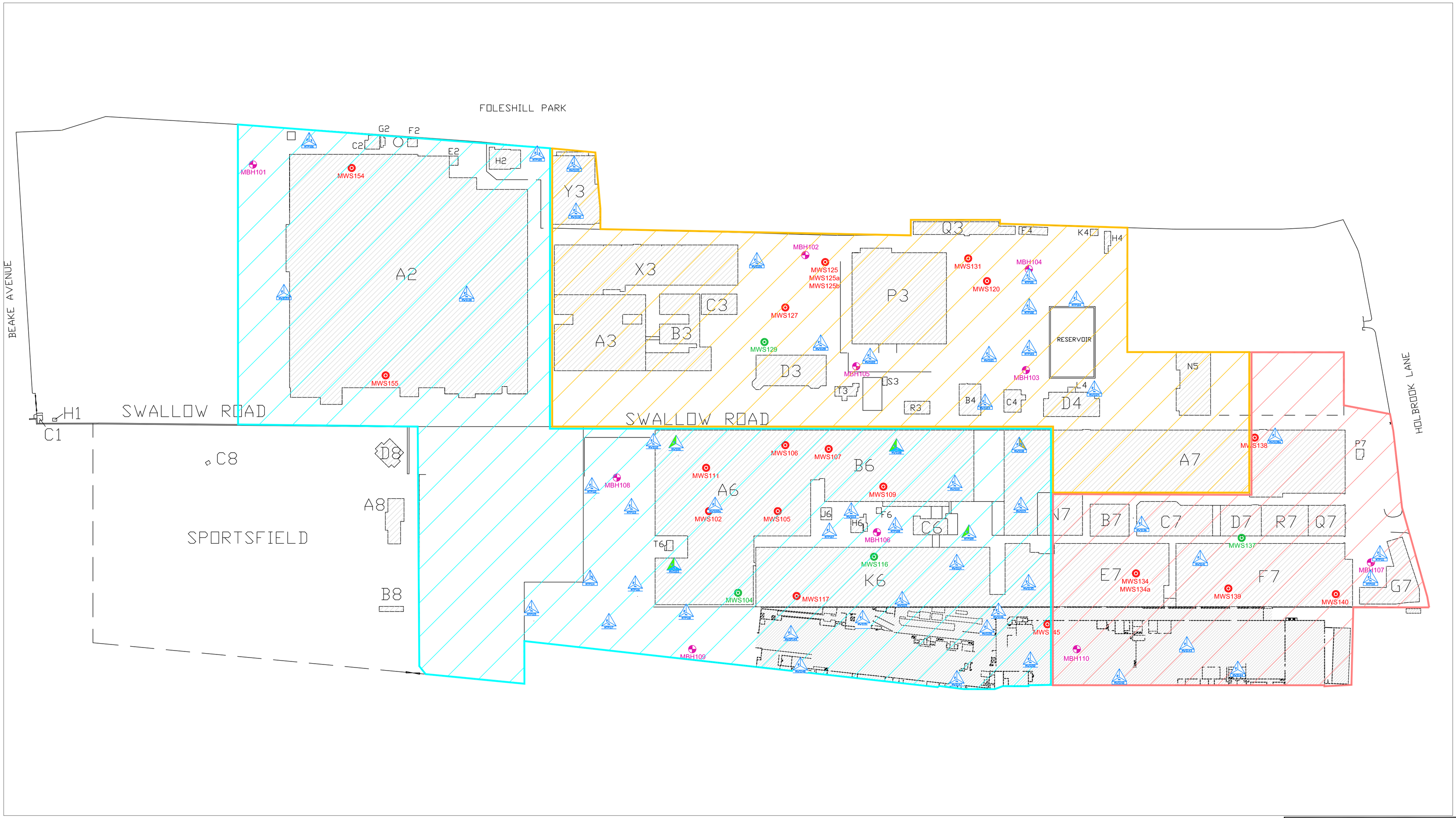
| Drawn | Checked | Approved |
| D.M.S. | R.M. | L.S. |




LEGEND

- Residential Area
- Commercial/Industrial Area 1 (CI1)
- Commercial/Industrial Area 2 (CI2)

- Approximate sample location with reference
- Search conducted for displayed contaminants (only present above threshold if coloured)
- EPH

- EPH
- PAH
- VOC

| Organic | Contamination Screening Levels |
|---|---|
| EPH<br>PAH<br>VOC | Refer to section 5 of report for details of the individual compounds recorded in excess of their respective screening levels. |

Legend

- MWSref — Approximate Merebrook window sample location with reference
- MWSref — Approximate Merebrook window sample (with installed standpipe) location with reference
- MTPref — Approximate Merebrook trial pit location with reference
- MBHref — Approximate Merebrook borehole location with reference

| Base Drg | DATE 15/02/12 | | REV - |
|---|---|---|---|
| | D.M.S. | R.M. | L.S. |
| Revision Details | Dwn | Chd | App'd |

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| Client | Project | Dwg Title |
|---|---|---|
| Clowes Developments/Meggitt Aerospace Ltd | Meggitt/Stadco Coventry | Organic Contamination Sampling Locations |

| Job No. | Dwg No. | Revision |
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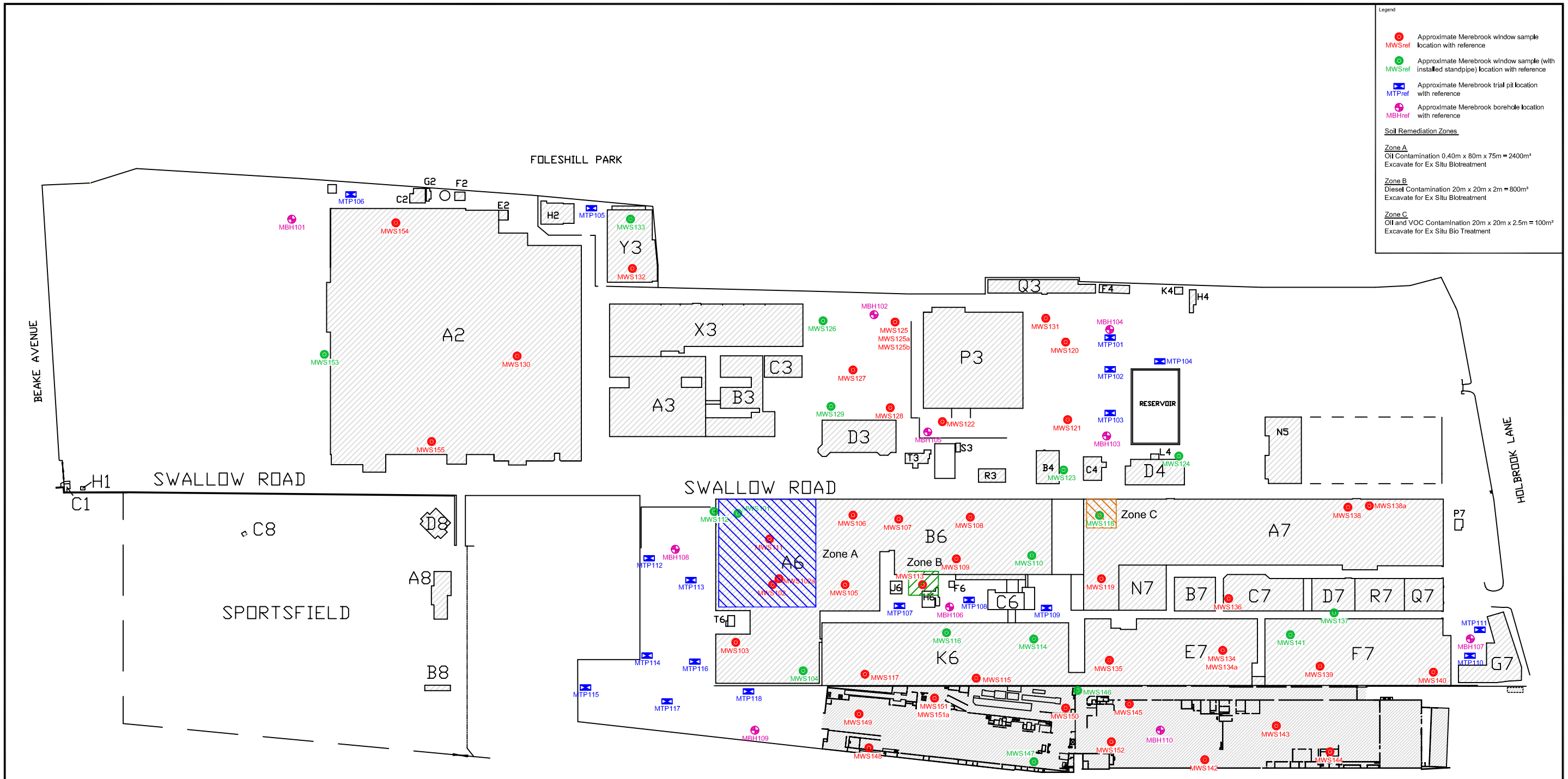


| Revision Details | Dwn | Chd | App'd |
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| Based on 17054-304-001 | 08-05-2012 | - | - |
| | PDT | - | - |

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Client/Project
Clowes Developments/
Meggitt Aerospace
Meggitt/Stadco Coventry

Dwg Title
Soil Remediation Zones

| Job No. | Dwg No. | Revision |
|---|---|---|
| 17054 | 307-001 | - |
| Scale | Date | Frame Dimensions mm |
| NTS | May 2012 | (A3) 400 x 280 |
| Drawn | Checked | Approved |
| PDT | - | - |

**APPENDIX 2** ▪ Coal Authority Coal Mining Report

The Coal Authority

Issued by:
The Coal Authority, Mining Reports Office, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire NG18 4RG
ON-Line Service: www.groundstability.com - Phone: 0845 762 6848 - DX 716176 MANSFIELD 5

EMMA DOLBY,
MEREBROOK,
SUITE 2B,
EASTMILL,
BRIDGEFOOT,
BELPER,
DERBYSHIRE,
DE56 2UA

| | |
|---|---|
| Person dealing with this matter: | **Darren Moody** |
| Our reference: | **00002319-12** |
| Your reference: | PURCHASE ORDER NO 12S35KRF17054 |
| Electronic Ref: | |
| RRUID: | 007.00032206780001 |
| Date of your enquiry: | **13 January 2012** |
| Date we received your enquiry: | **13 January 2012** |
| Date of issue: | **13 January 2012** |

This report is for the property described in the address below and the attached plan.

## Non-Residential Coal and Brine Report

## Land At Meggitt Aerospace Ltd, Holbrook Lane, Coventry, Warwickshire

This report is based on and limited to the records held by the Coal Authority, at the time we answer the search.

| | |
|---|---|
| Coal mining | Yes |
| Brine Compensation District | No |

### *Information from the Coal Authority*

### Underground Coal Mining

#### Past

The property is in the likely zone of influence from workings in 1 seam of coal at 640m to 730m depth, and last worked in 1980.

Any ground movement from these coal workings should have stopped by now.

#### Present

The property is not in the likely zone of influence of any present underground coal workings.

#### Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

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The property is not in an area for which a licence has been granted to remove coal using underground methods.

The property is not in an area that is likely to be affected at the surface from any planned future workings.

However reserves of coal exist in the local area which could be worked at some time in the future.

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

## Mine entries

There are no known coal mine entries within, or within 20 metres of, the boundary of the property.

## Coal-mining geology

The Authority is not aware of any evidence of damage arising due to geological faults or other lines of weakness that have been affected by coal mining.

## Opencast Coal Mining

### Past

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

### Present

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

### Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

## Coal-mining subsidence

The Coal Authority has not received a damage notice or claim for the property since 31 October 1994. There is no current Stop Notice delaying the start of remedial works or repairs to the property.

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

## Mine gas

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

## Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Authority, under its Emergency Surface Hazard Call Out procedures.

## Withdrawal of Support

The property is in an area for which a notice of entitlement to withdraw support was published in 1976.

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

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## Working Facilities Orders

The property is not in an area for which an Order has been made under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

## Payments to Owners of Former Copyhold Land

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

## *Information from the Cheshire Brine Subsidence Compensation Board*

The property lies outside the Cheshire Brine Compensation District.

## Additional remarks

This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006.

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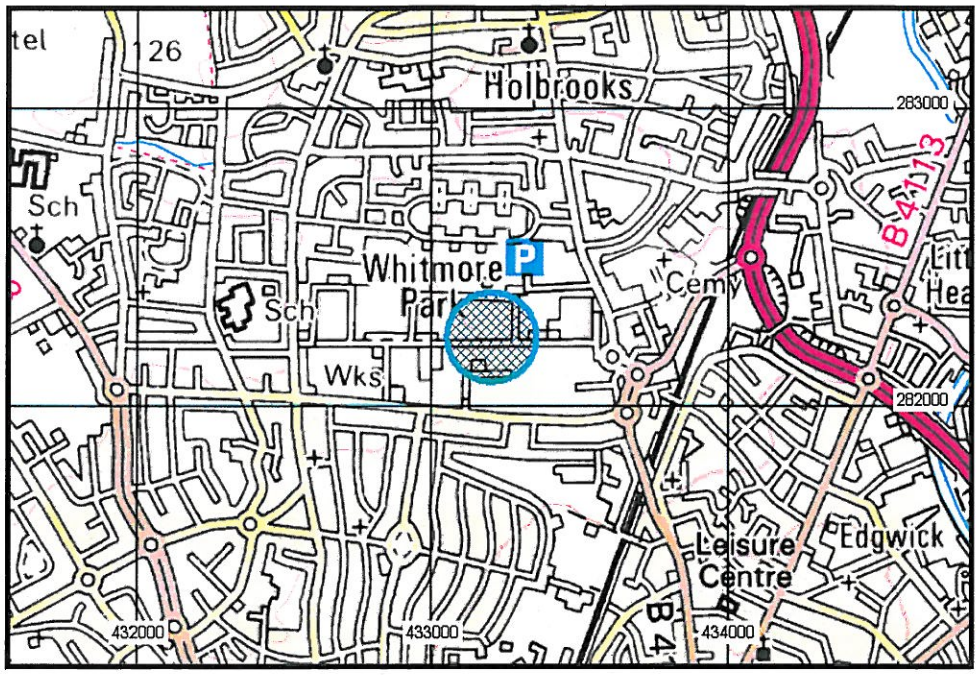
| | |
|---|---|
| Issued by: | The Coal Authority, 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG |
| Date: | 13 Jan 2012 |
| Coal and Brine Report at: | Land At Meggitt Aerospace Ltd, Holbrook Lane, Coventry, Warwickshire |
| Reference number: | 00002319-12 |
| Cost: | £64.00 |
| Plus VAT: | £12.80 |
| Total received: | £76.80 |
| VAT registration number: | 598 5850 68 |

### *Location map*

Approximate position of property




### *Enquiry boundary*

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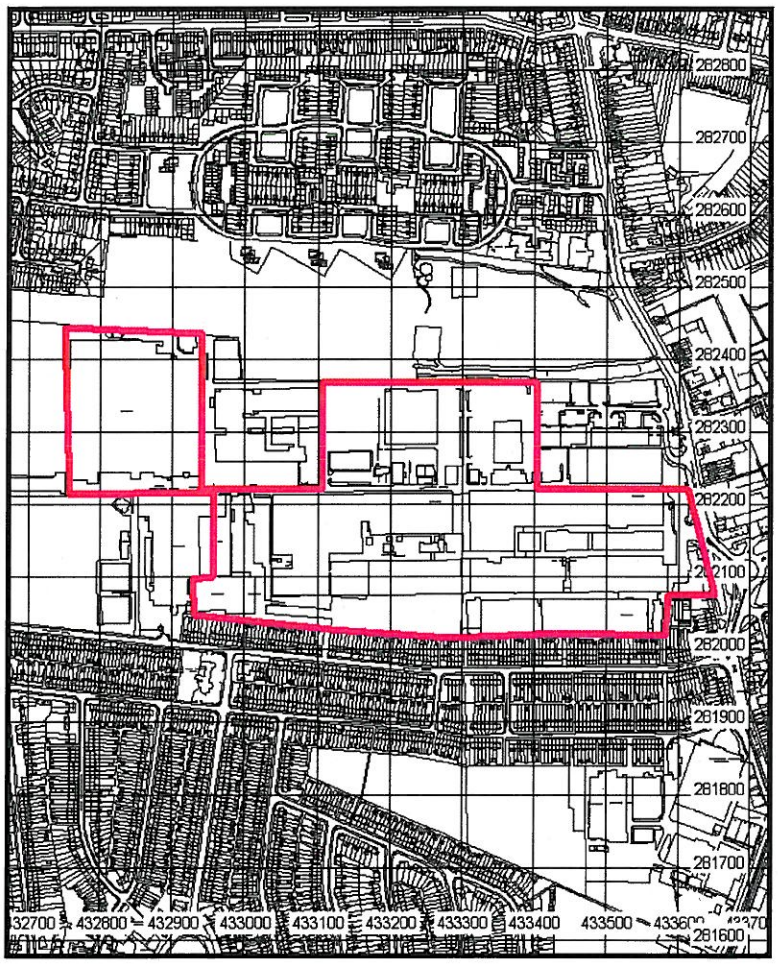
Key

Approximate position of enquiry boundary shown




Mapping sourced from Ordnance Survey

**APPENDIX 3**

- Historical OS Plans
- BAe Systems Environmental UXO Threat Assessment

GroundSure
ENVIRONMENTAL INSIGHT

**Site Details:**

MEGGIT
AEROSPACE/STADCO,
HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** National Grid

**Map date:** 2011

**Scale:** 1:10,000

**Printed at:** 1:10,000

N
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S

2011

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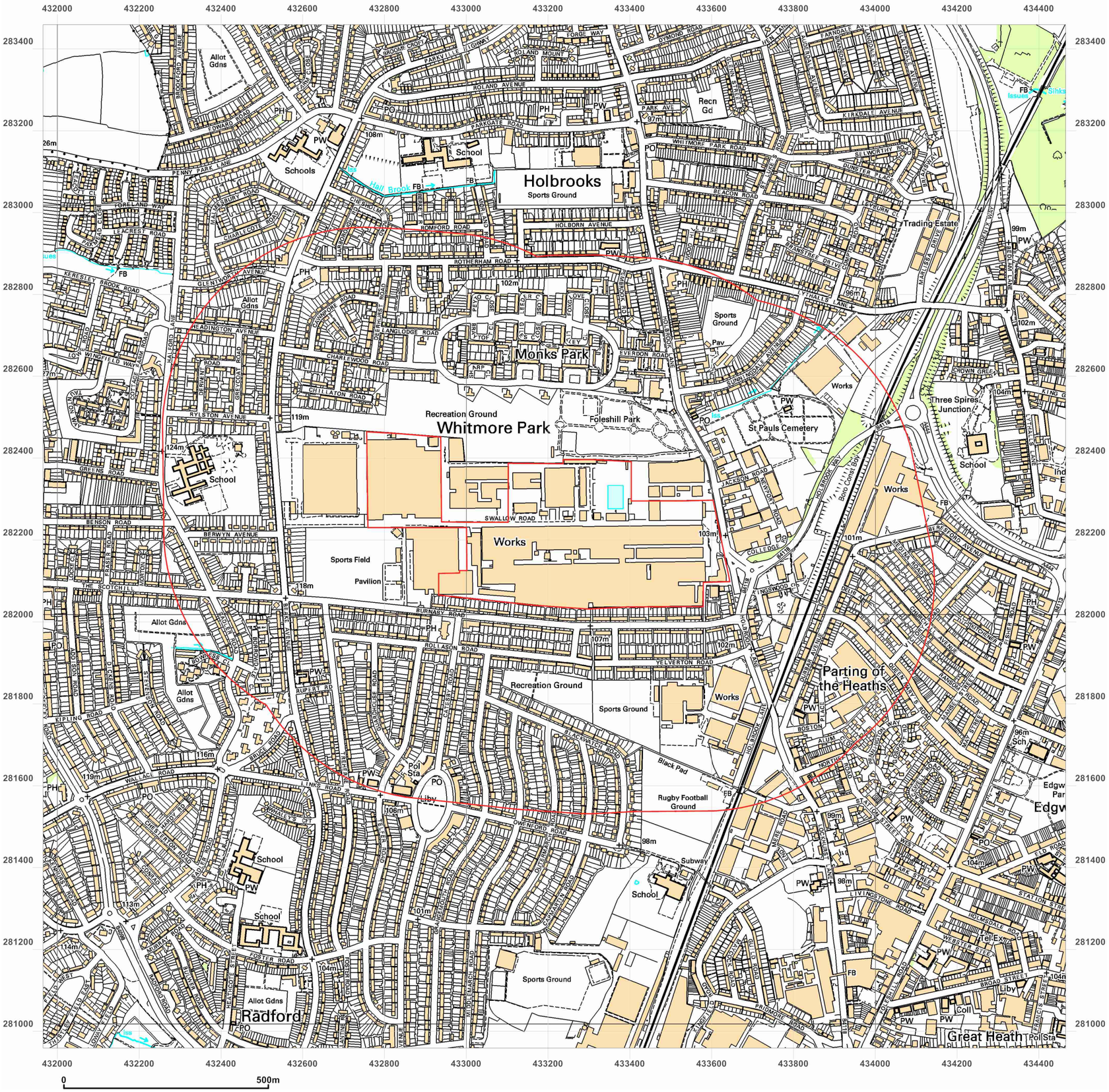
Production date: 10 January 2012

To view map legend click here *Legend*




GroundSure
ENVIRONMENTAL INSIGHT

**Site Details:**

MEGGIT
AEROSPACE/STADCO,
HOLBROOK LANE, COVENTRY,
CV6 4AA

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**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

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**Map date:** **2002**

**Scale:** 1:10,000

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2002

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**Site Details:**

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** National Grid

**Map date:** **1994**

**Scale:** 1:10,000

**Printed at:** 1:10,000

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Edition NA
Copyright NA
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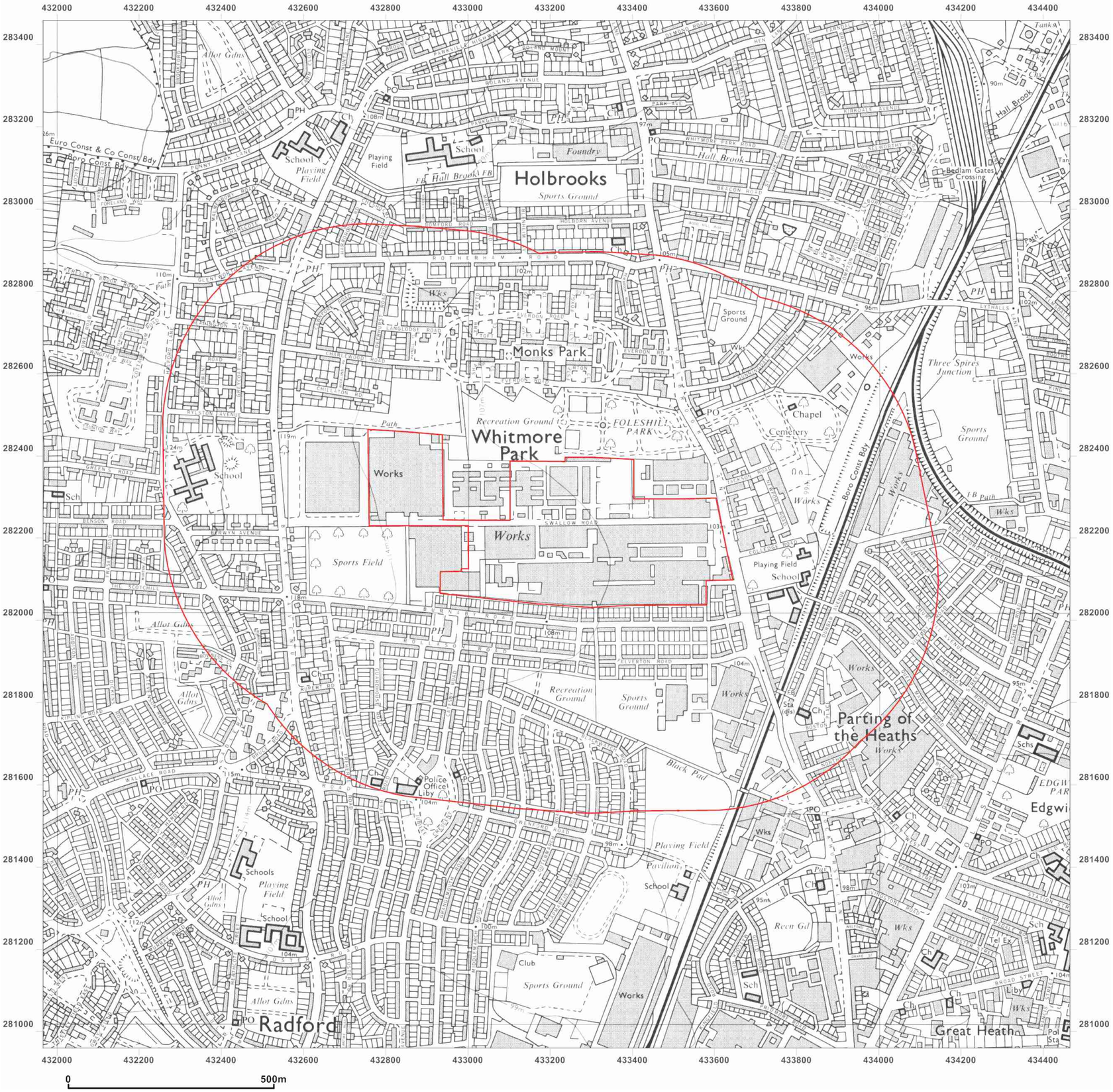


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ENVIRONMENTAL INSIGHT

**Site Details:**

MEGGIT
AEROSPACE/STADCO,
HOLBROOK LANE, COVENTRY,
CV6 4AA

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**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** National Grid

**Map date:** **1979**

**Scale:** 1:10,000

**Printed at:** 1:10,000

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ENVIRONMENTAL INSIGHT

**Site Details:**

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**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

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**Map date:** **1970**

**Scale:** 1:10,560

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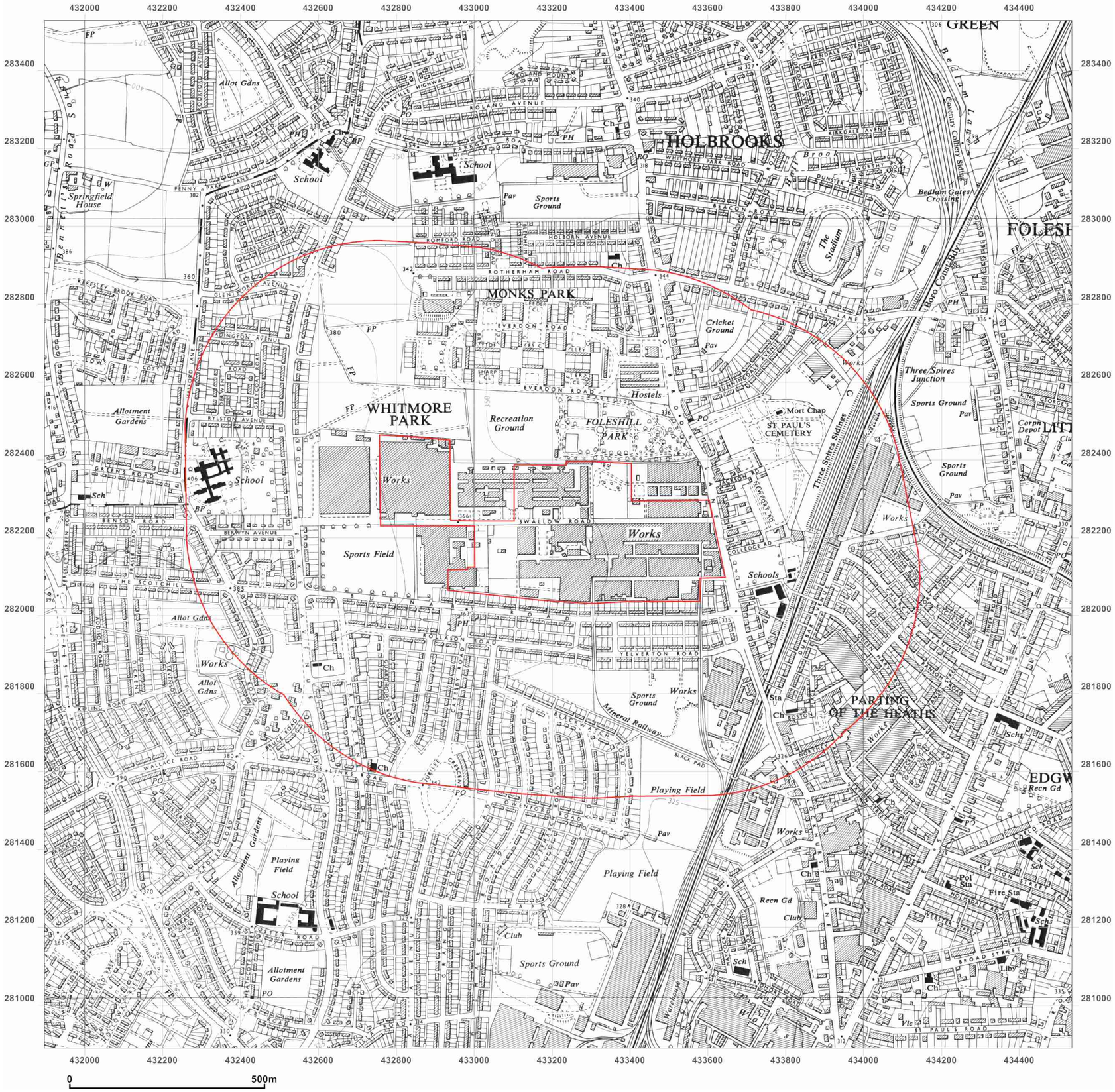


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ENVIRONMENTAL INSIGHT

**Site Details:**

MEGGIT
AEROSPACE/STADCO,
HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** Provisional

**Map date:** **1962**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1962
Revised 1962
Edition NA
Copyright NA
Levelled NA

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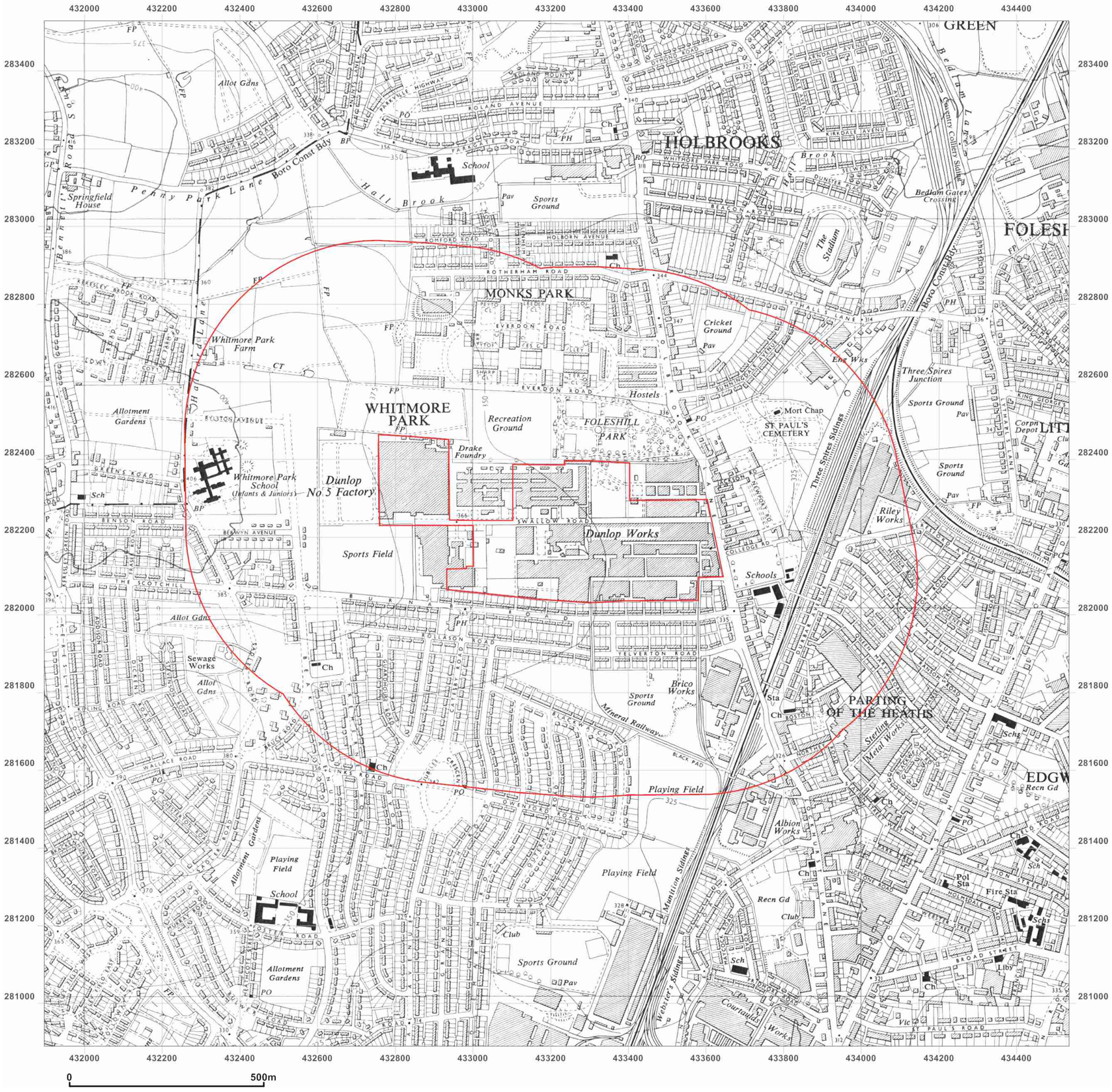


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ENVIRONMENTAL INSIGHT

**Site Details:**

MEGGIT
AEROSPACE/STADCO,
HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** Provisional

**Map date:** **1955**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1955
Revised 1955
Edition NA
Copyright NA
Levelled NA

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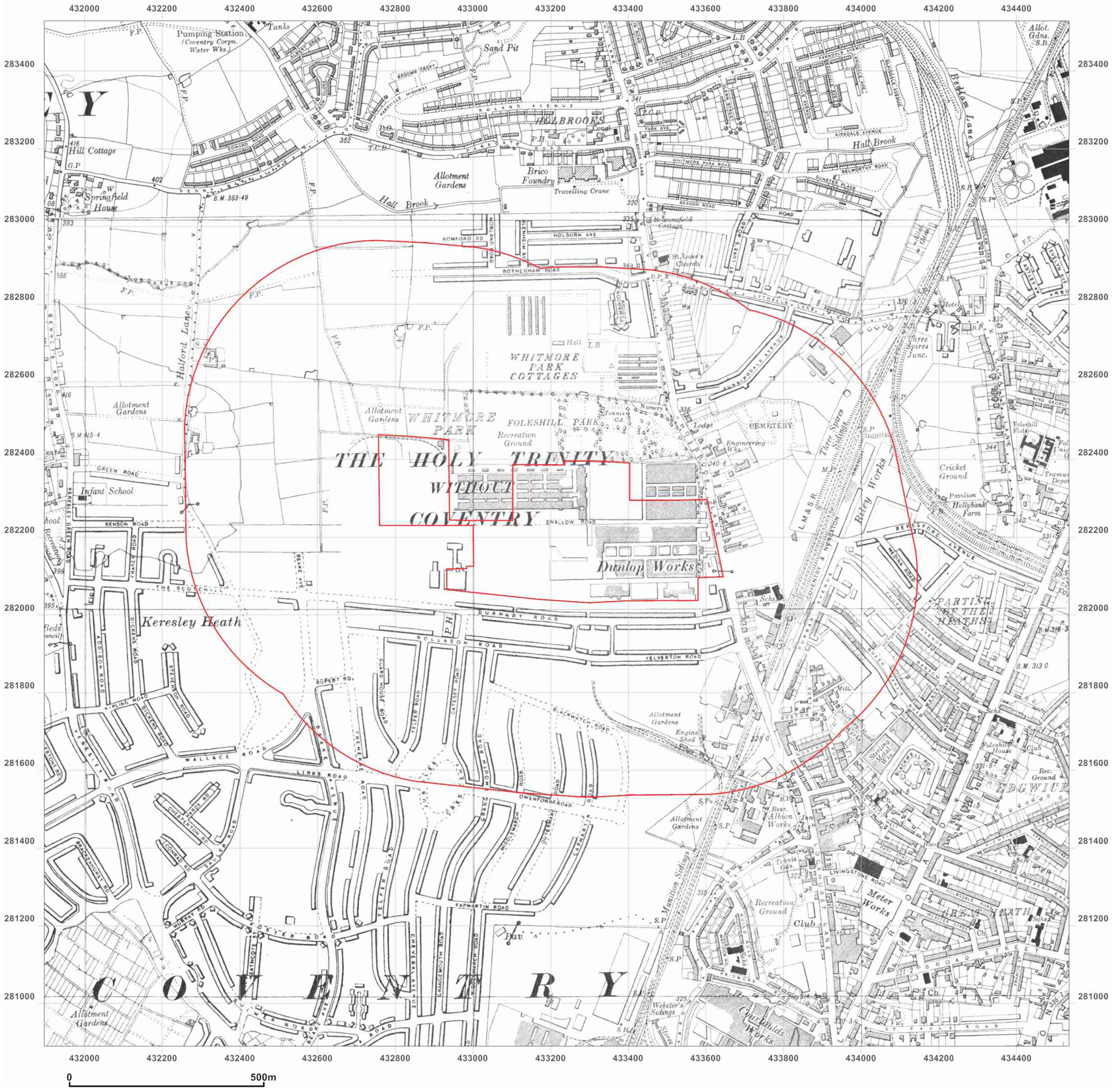


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ENVIRONMENTAL INSIGHT

**Site Details:**

MEGGIT
AEROSPACE/STADCO,
HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** County Series

**Map date:** **1936-1938**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1886
Revised 1936
Edition NA
Copyright NA
Levelled NA

Surveyed 1886
Revised 1938
Edition NA
Copyright NA
Levelled NA

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** County Series

**Map date:** **1923-1926**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1886
Revised 1923
Edition NA
Copyright NA
Levelled NA

Surveyed 1886
Revised 1926
Edition 1926
Copyright NA
Levelled NA

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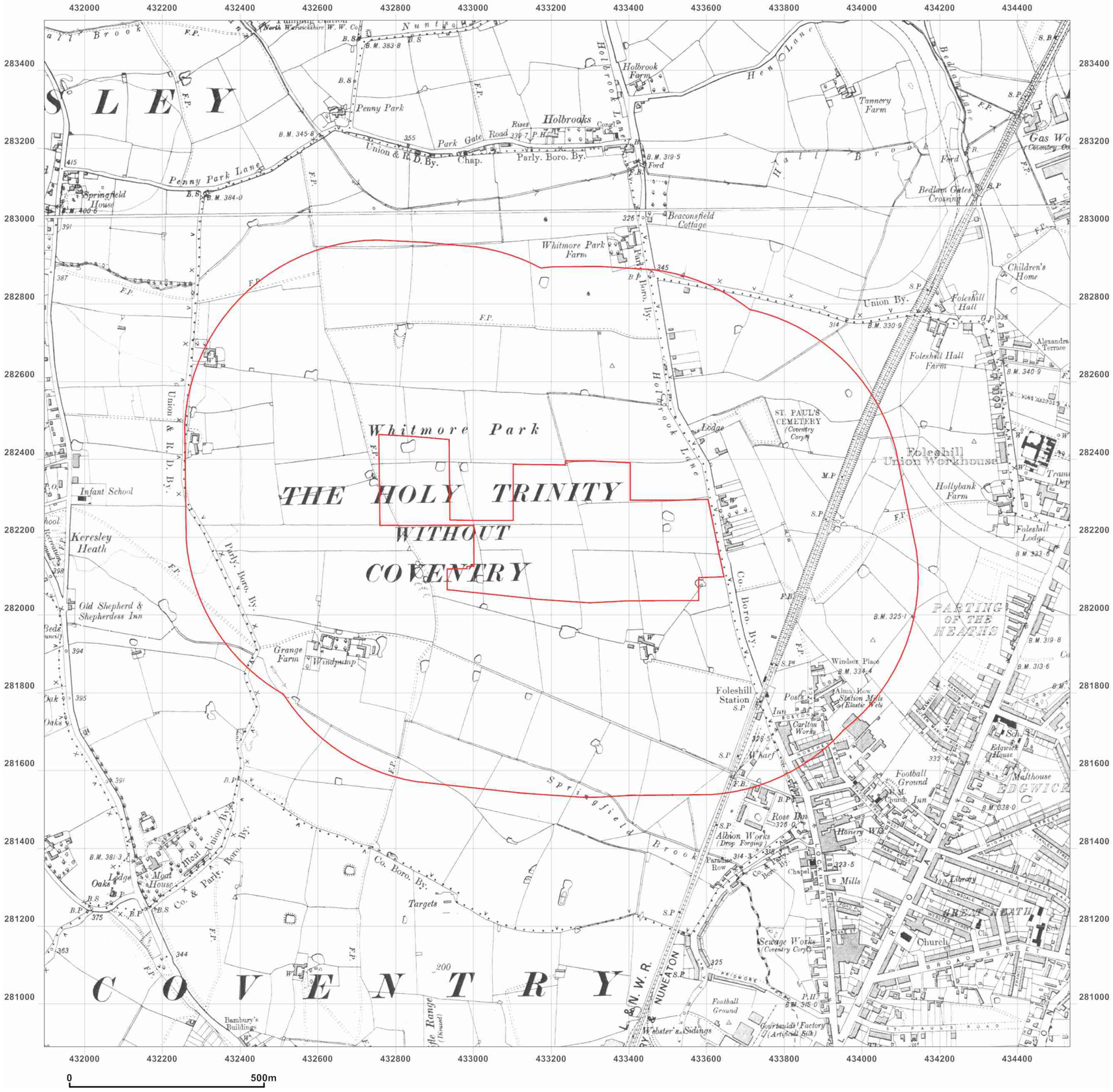


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**Site Details:**

MEGGIT
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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** County Series

**Map date:** **1912-1913**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N W E S

Surveyed 1886
Revised 1913
Edition NA
Copyright NA
Levelled NA

Surveyed 1887
Revised 1912
Edition NA
Copyright NA
Levelled NA

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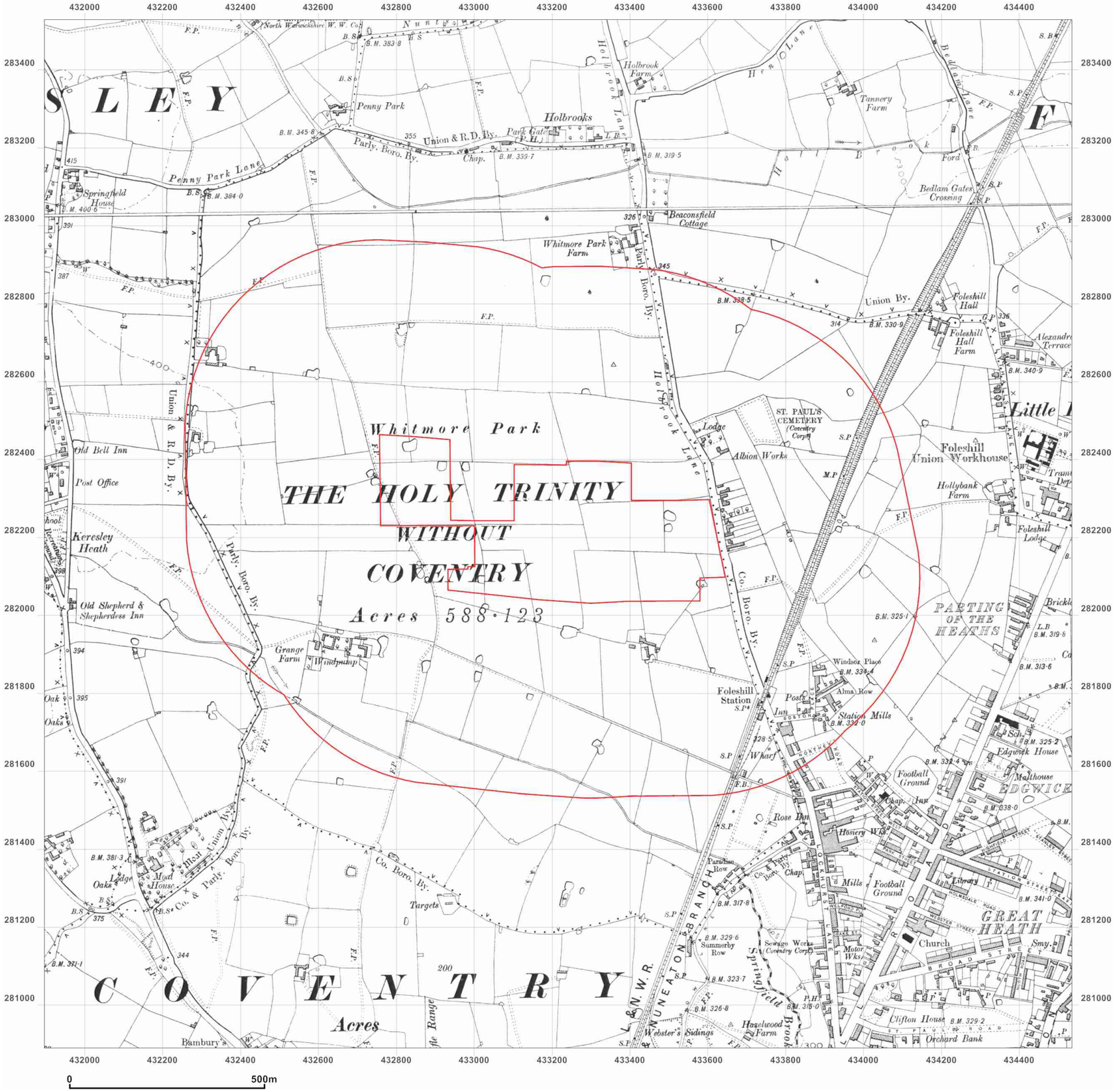


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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** County Series

**Map date:** **1902-1904**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N
W E
S

Surveyed 1902
Revised 1902
Edition NA
Copyright NA
Levelled NA

Surveyed 1904
Revised 1904
Edition NA
Copyright NA
Levelled NA

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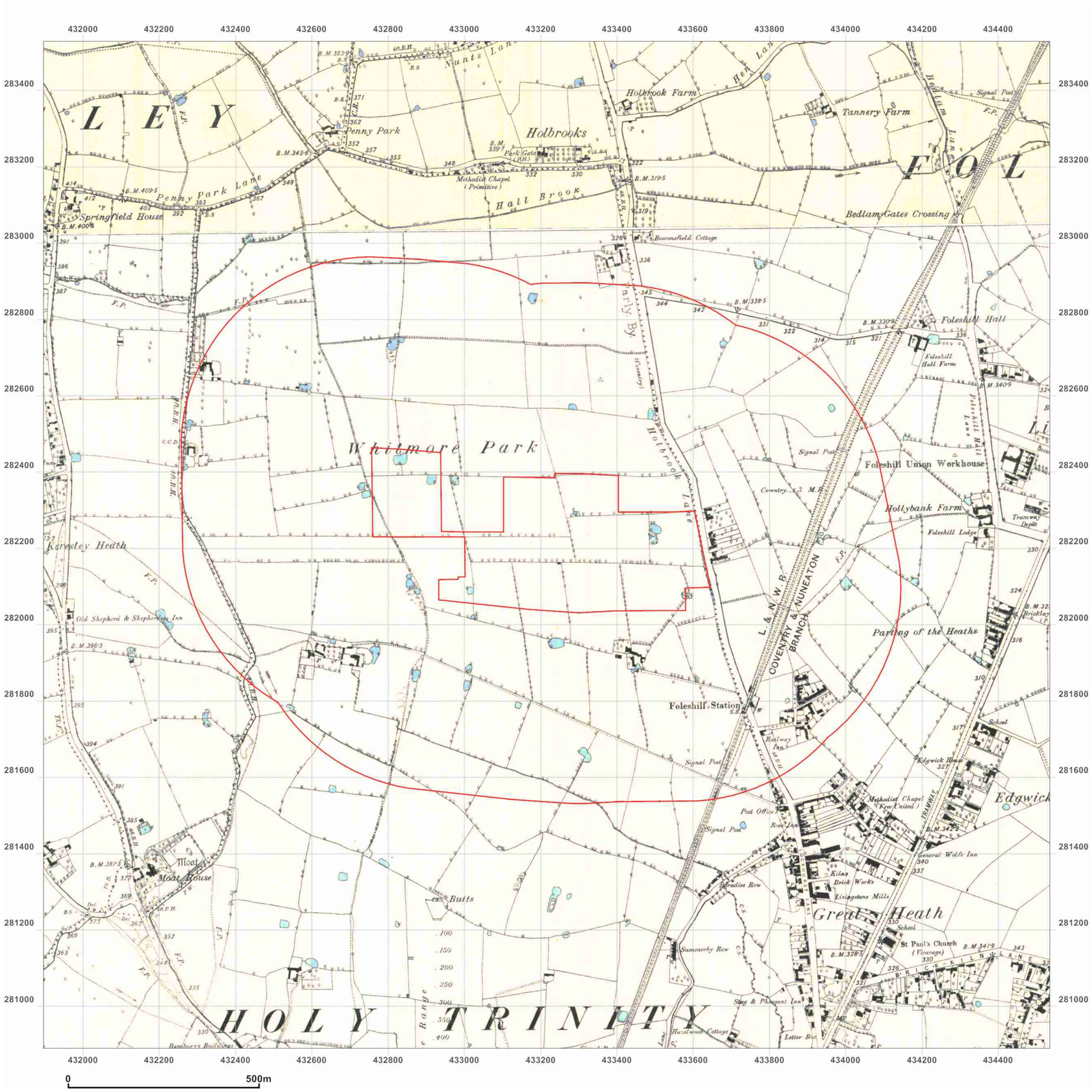


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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936
**Grid Ref:** 433215, 282191

**Map Name:** County Series

**Map date:** **1887**

**Scale:** 1:10,560

**Printed at:** 1:10,560

N W E S

Surveyed 1887
Revised 1887
Edition NA
Copyright NA
Levelled NA

Surveyed 1887
Revised 1887
Edition NA
Copyright NA
Levelled NA

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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** MasterMap

**Map date:** **2011**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
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2011

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** National Grid

**Map date:** **1992**

**Scale:** 1:1,250

**Printed at:** 1:2,500

N
W E
S

Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
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 1992
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright 1992
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
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Production date: 10 January 2012

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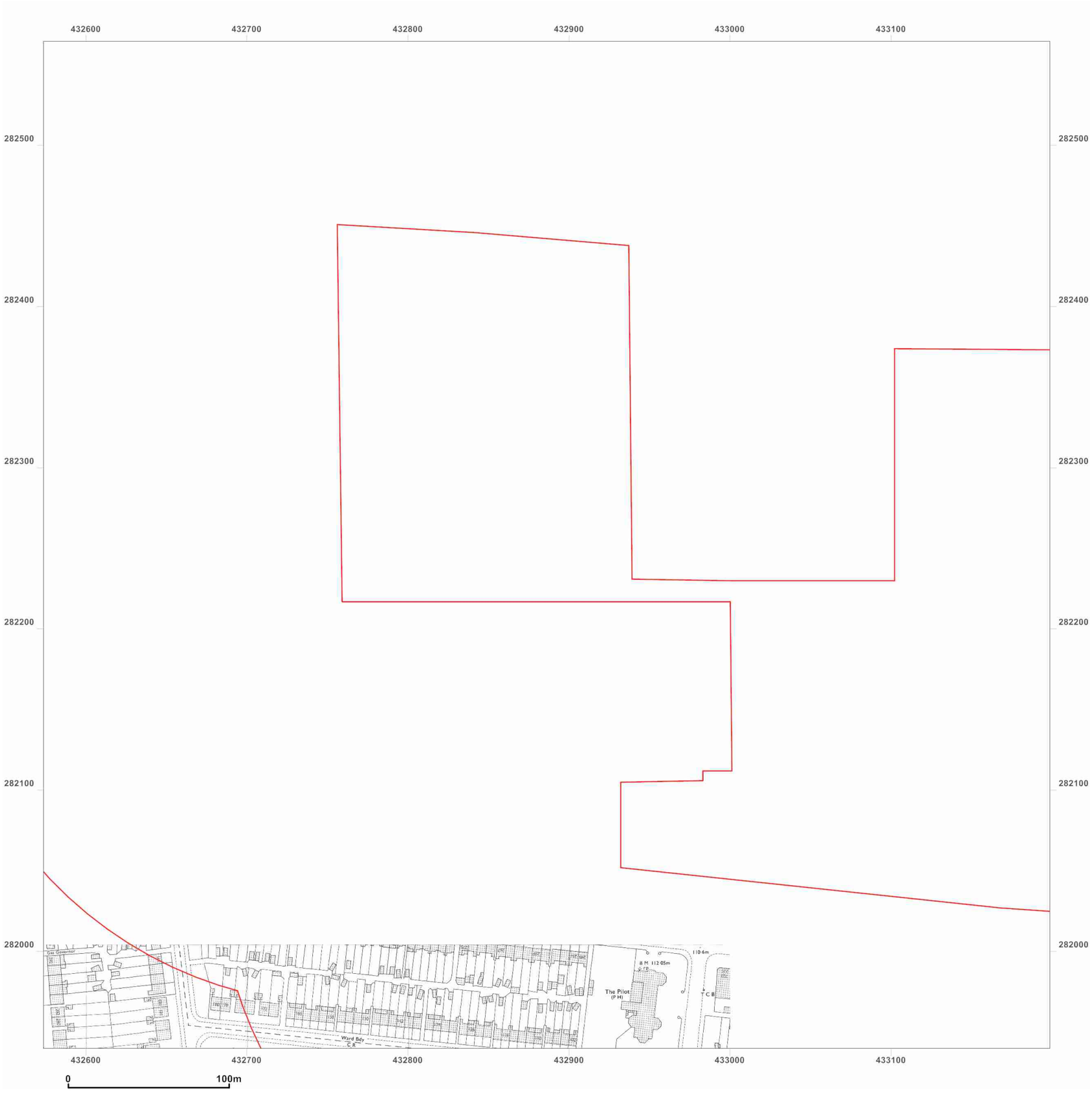


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**Site Details:**

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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** National Grid

**Map date:** **1970**

**Scale:** 1:1,250

**Printed at:** 1:2,500

N
W E
S

Surveyed 1949
~~Revised 1969~~
Edition N/A
Copyright 1970
Levelled 1964

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** National Grid

**Map date:** **1963-1968**

**Scale:** 1:1,250

**Printed at:** 1:2,500

N
W E
S

Surveyed 1949
Revised 1963
Edition N/A
Copyright 1963
Levelled 1959

Surveyed 1949
Revised 1967
Edition N/A
Copyright 1968
Levelled 1964

Surveyed 1949
Revised 1967
Edition N/A
Copyright 1968
Levelled 1964

Surveyed 1949
Revised 1965
Edition N/A
Copyright N/A
Levelled N/A

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** National Grid

**Map date:** **1968**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
W E
S

Surveyed 1968
Revised 1968
Edition N/A
Copyright 1968
Levelled 1964

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** National Grid

**Map date:** **1953-1957**

**Scale:** 1:1,250

**Printed at:** 1:2,500

N
W E
S

Surveyed 1949
Revised 1957
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1949
Revised 1953
Edition N/A
Copyright N/A
Levelled 1946

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Production date: 10 January 2012

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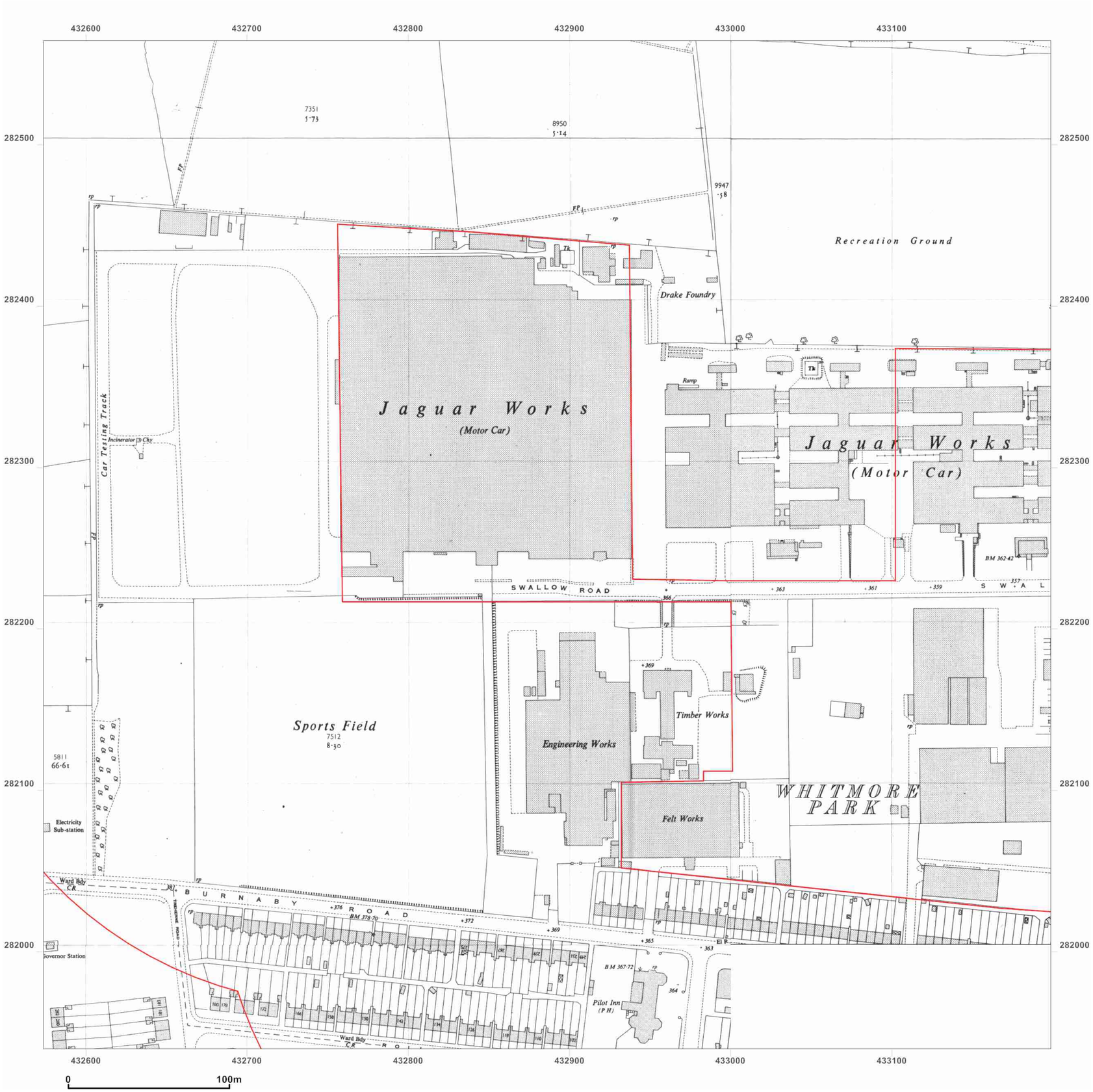


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ENVIRONMENTAL INSIGHT

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** National Grid

**Map date:** **1950-1953**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
W E
S

Surveyed 1951
Revised 1951
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1950
Revised 1950
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1953
Revised 1953
Edition 1955
Copyright N/A
Levelled 1946

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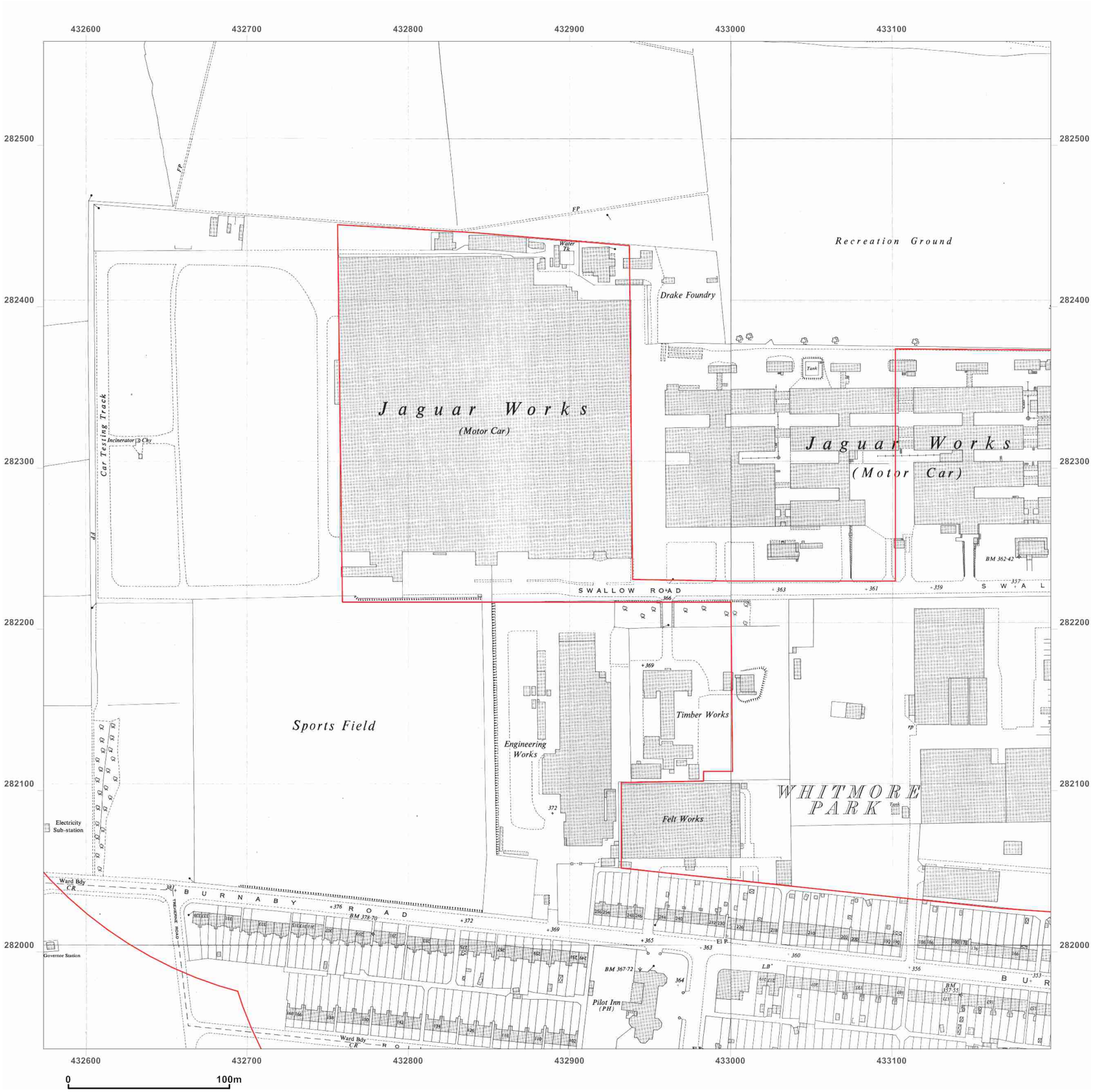


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AEROSPACE/STADCO,
HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** National Grid

**Map date:** **1949**

**Scale:** 1:1,250

**Printed at:** 1:2,500

N
W E
S

Surveyed 1949
Revised 1949
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1949
Revised 1949
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1949
Revised 1949
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1949
Revised 1949
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1949
Revised 1949
Edition N/A
Copyright N/A
Levelled 1946

Surveyed 1949
Revised 1949
Edition N/A
Copyright N/A
Levelled 1946

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** County Series

**Map date:** **1936**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
W E
S

Surveyed 1936
Revised 1936
Edition NA
Copyright NA
Levelled NA

Surveyed 1936
Revised 1936
Edition NA
Copyright NA
Levelled NA

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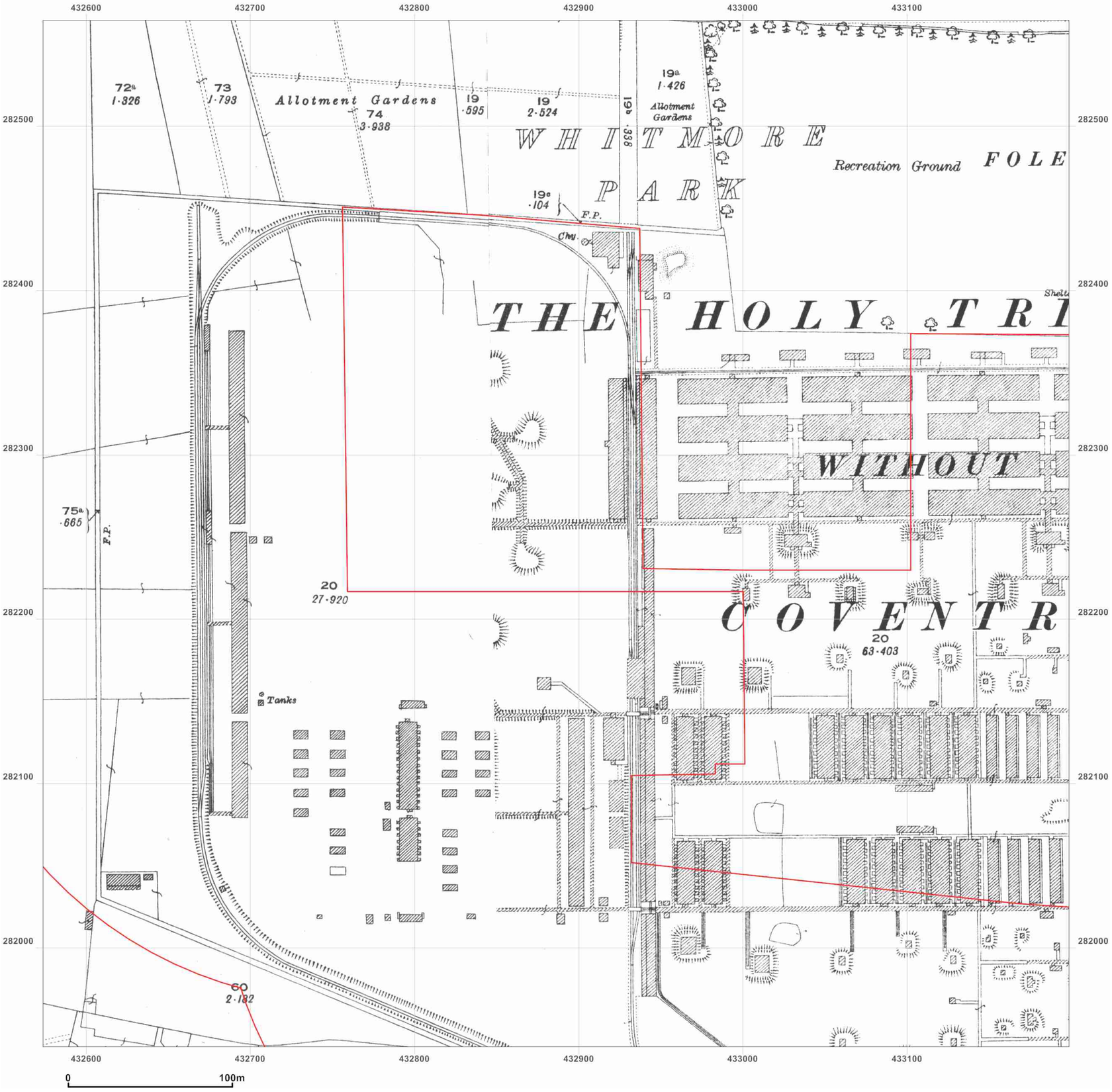


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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** County Series

**Map date:** **1925**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
W E
S

Surveyed 1925
Revised 1925
Edition NA
Copyright NA
Levelled NA

Surveyed 1925
Revised 1925
Edition NA
Copyright NA
Levelled NA

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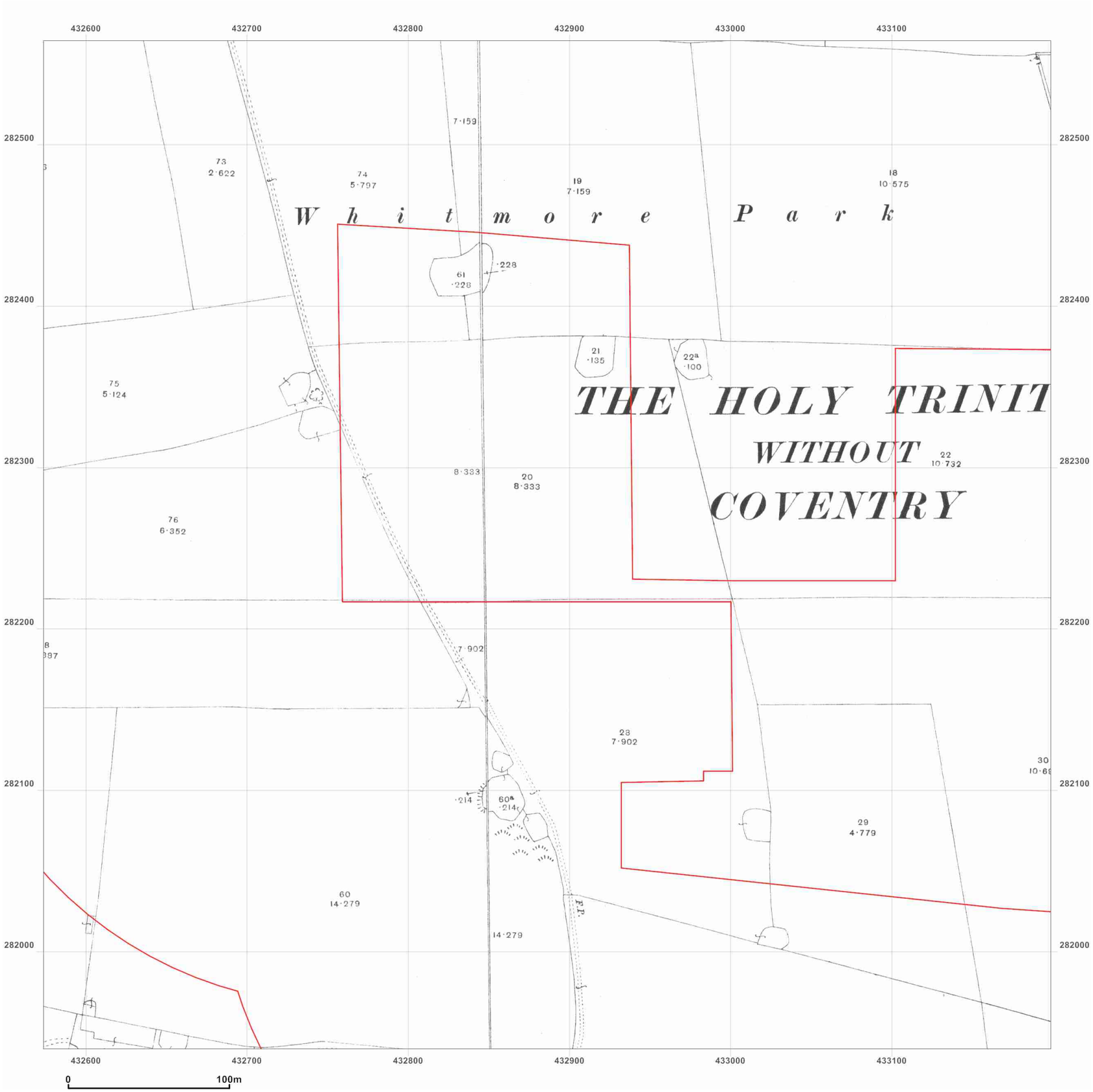


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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** County Series

**Map date:** **1913**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
W E
S

Surveyed 1913
Revised 1913
Edition NA
Copyright NA
Levelled NA

Surveyed 1913
Revised 1913
Edition NA
Copyright NA
Levelled NA

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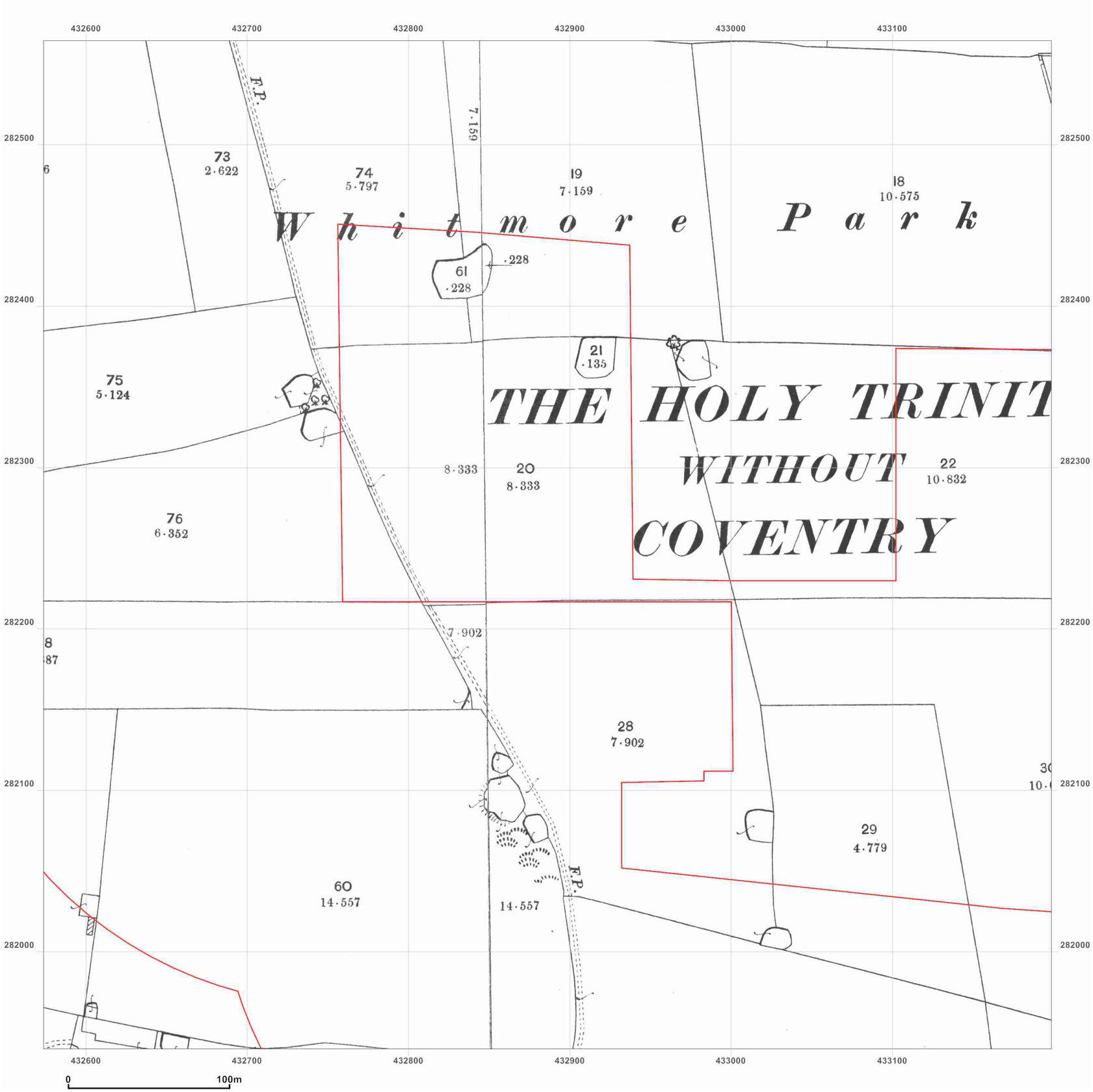


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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** County Series

**Map date:** **1905-1906**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
W E
S

Surveyed 1905
Revised 1905
Edition NA
Copyright NA
Levelled NA

Surveyed 1906
Revised 1906
Edition NA
Copyright NA
Levelled NA

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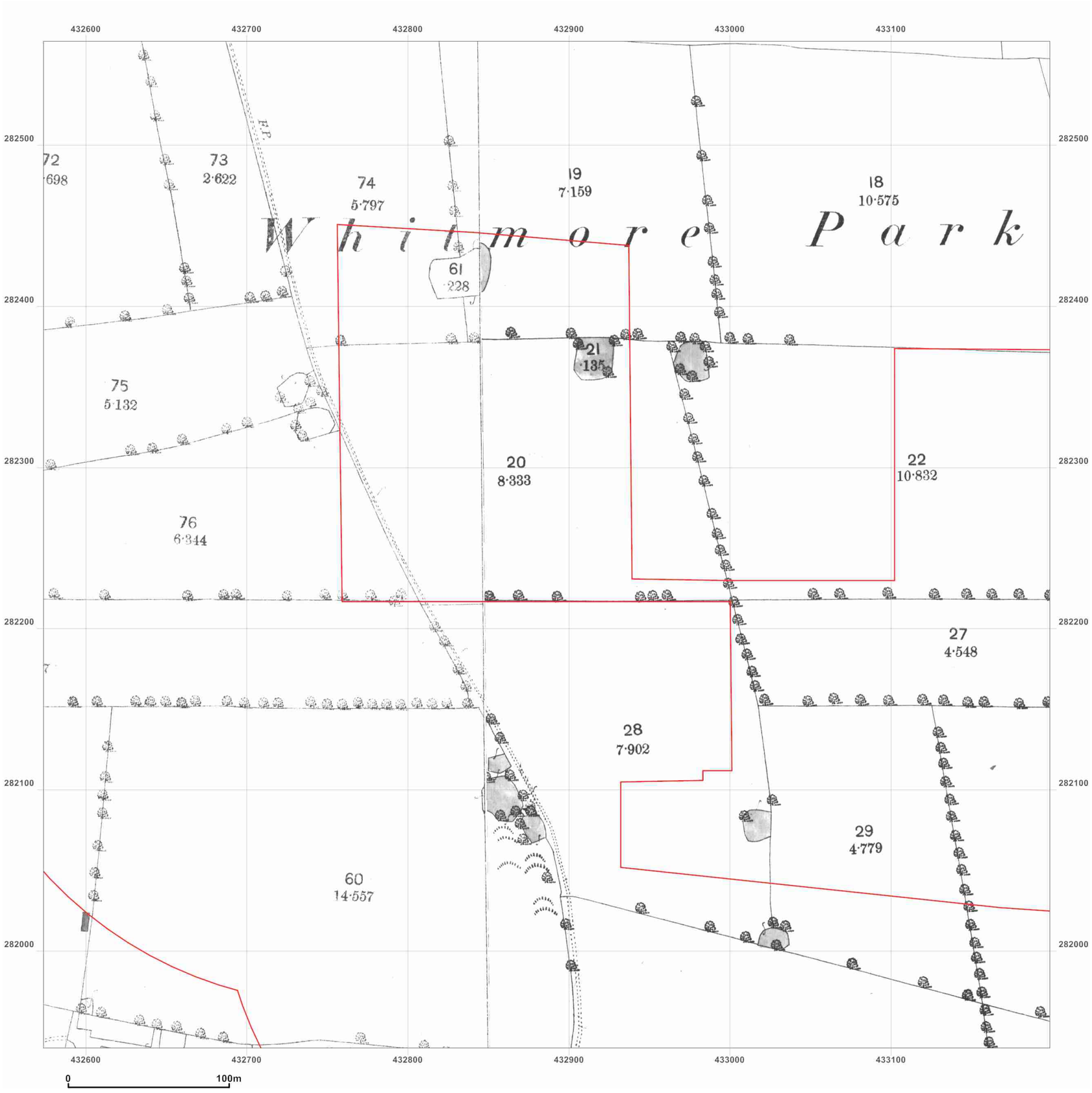


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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A1
**Grid Ref:** 432886, 282248

**Map Name:** County Series

**Map date:** **1889**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
W E
S

Surveyed 1889
Revised 1889
Edition NA
Copyright NA
Levelled NA

Surveyed 1889
Revised 1889
Edition NA
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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** MasterMap

**Map date:** **2011**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
W E
S

2011

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** National Grid

**Map date:** **1991-1992**

**Scale:** 1:1,250

**Printed at:** 1:2,500

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|---|---|
| Surveyed N/A<br>Revised N/A<br>Edition N/A<br>Copyright N/A<br>Levelled N/A | Surveyed N/A<br>Revised N/A<br>Edition N/A<br>Copyright 1992<br>Levelled N/A |
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| Surveyed N/A<br>Revised N/A<br>Edition N/A<br>Copyright 1992<br>Levelled N/A | Surveyed N/A<br>Revised N/A<br>Edition N/A<br>Copyright 1992<br>Levelled N/A |
| Surveyed N/A<br>Revised N/A<br>Edition N/A<br>Copyright N/A<br>Levelled N/A | Surveyed 1991<br>Revised 1991<br>Edition N/A<br>Copyright 1991<br>Levelled N/A |

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**Site Details:**

MEGGIT
AEROSPACE/STADCO,
HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** National Grid

**Map date:** **1965-1970**

**Scale:** 1:1,250

**Printed at:** 1:2,500

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Surveyed 1949
Revised 1967
Edition N/A
Copyright 1968
Levelled 1964

Surveyed 1950
Revised 1969
Edition N/A
Copyright 1970
Levelled 1964

Surveyed 1949
Revised 1967
Edition N/A
Copyright 1968
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Surveyed 1949
Revised 1967
Edition N/A
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Surveyed 1949
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**Site Details:**

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** National Grid

**Map date:** **1968**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
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Revised 1968
Edition N/A
Copyright 1968
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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** National Grid

**Map date:** **1949-1950**

**Scale:** 1:1,250

**Printed at:** 1:2,500

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| Surveyed 1949<br>Revised 1949<br>Edition N/A<br>Copyright N/A<br>Levelled 1946 | Surveyed 1950<br>Revised 1950<br>Edition N/A<br>Copyright N/A<br>Levelled 1946 |
| | |
| Surveyed 1949<br>Revised 1949<br>Edition N/A<br>Copyright N/A<br>Levelled 1946 | Surveyed 1949<br>Revised 1949<br>Edition N/A<br>Copyright N/A<br>Levelled 1946 |
| Surveyed 1949<br>Revised 1949<br>Edition N/A<br>Copyright N/A<br>Levelled 1946 | Surveyed 1949<br>Revised 1949<br>Edition N/A<br>Copyright N/A<br>Levelled 1946 |

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**Site Details:**

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CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** National Grid

**Map date:** **1950**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
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Surveyed 1950
Revised 1950
Edition N/A
Copyright N/A
Levelled 1946

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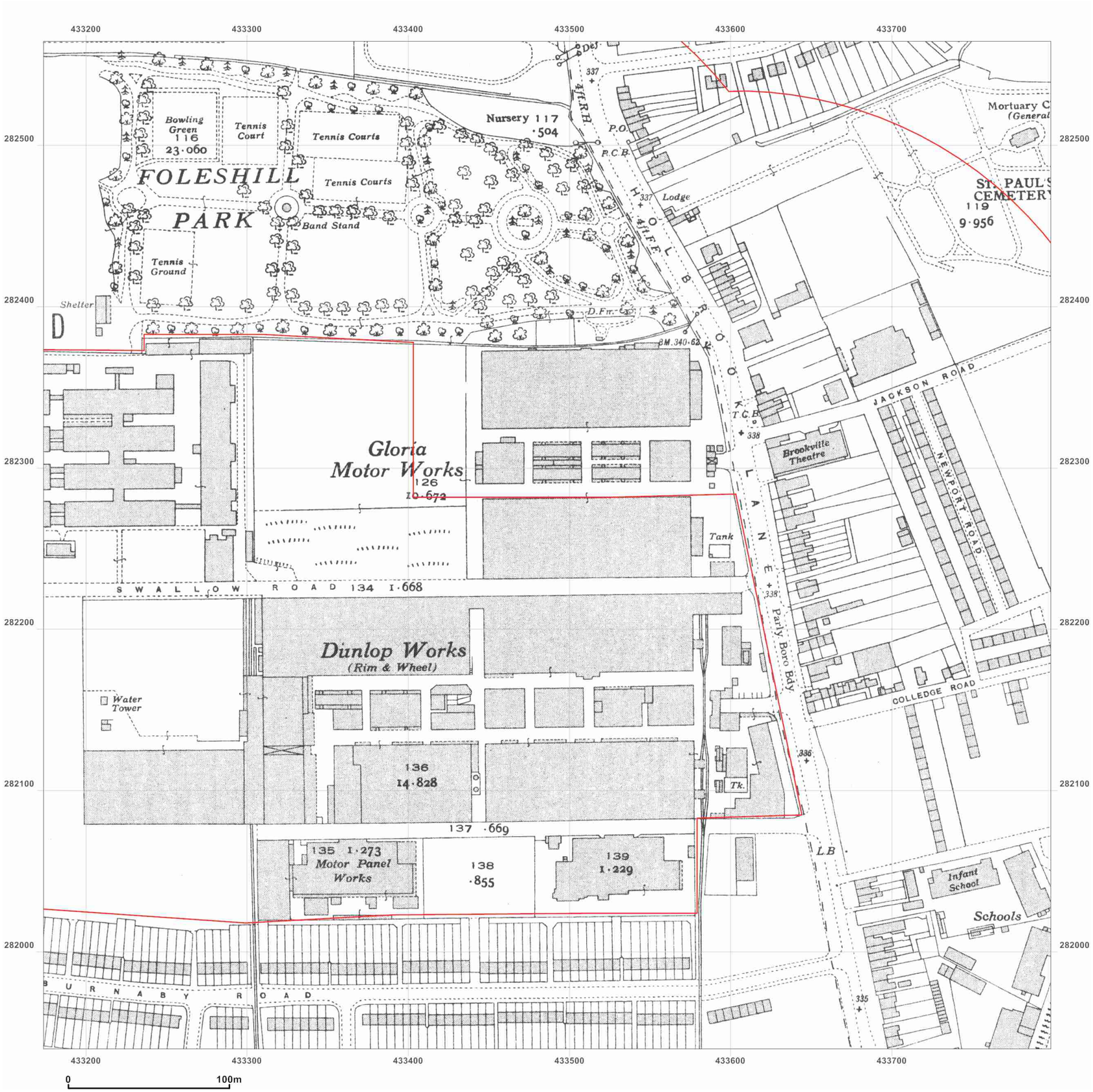


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**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** County Series

**Map date:** **1936**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
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Revised 1936
Edition NA
Copyright NA
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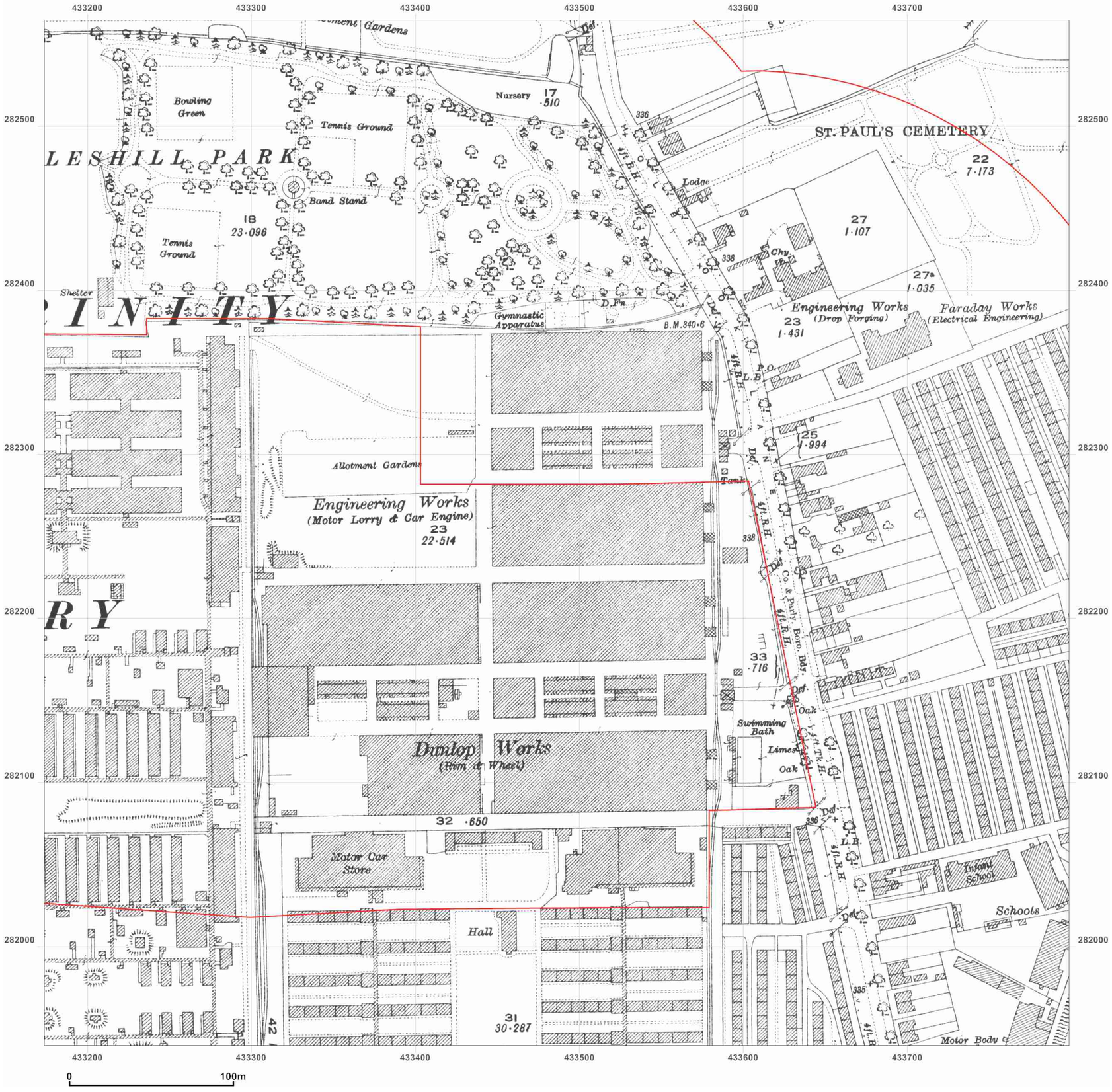


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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** County Series

**Map date:** **1925**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
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Surveyed 1925
Revised 1925
Edition NA
Copyright NA
Levelled NA

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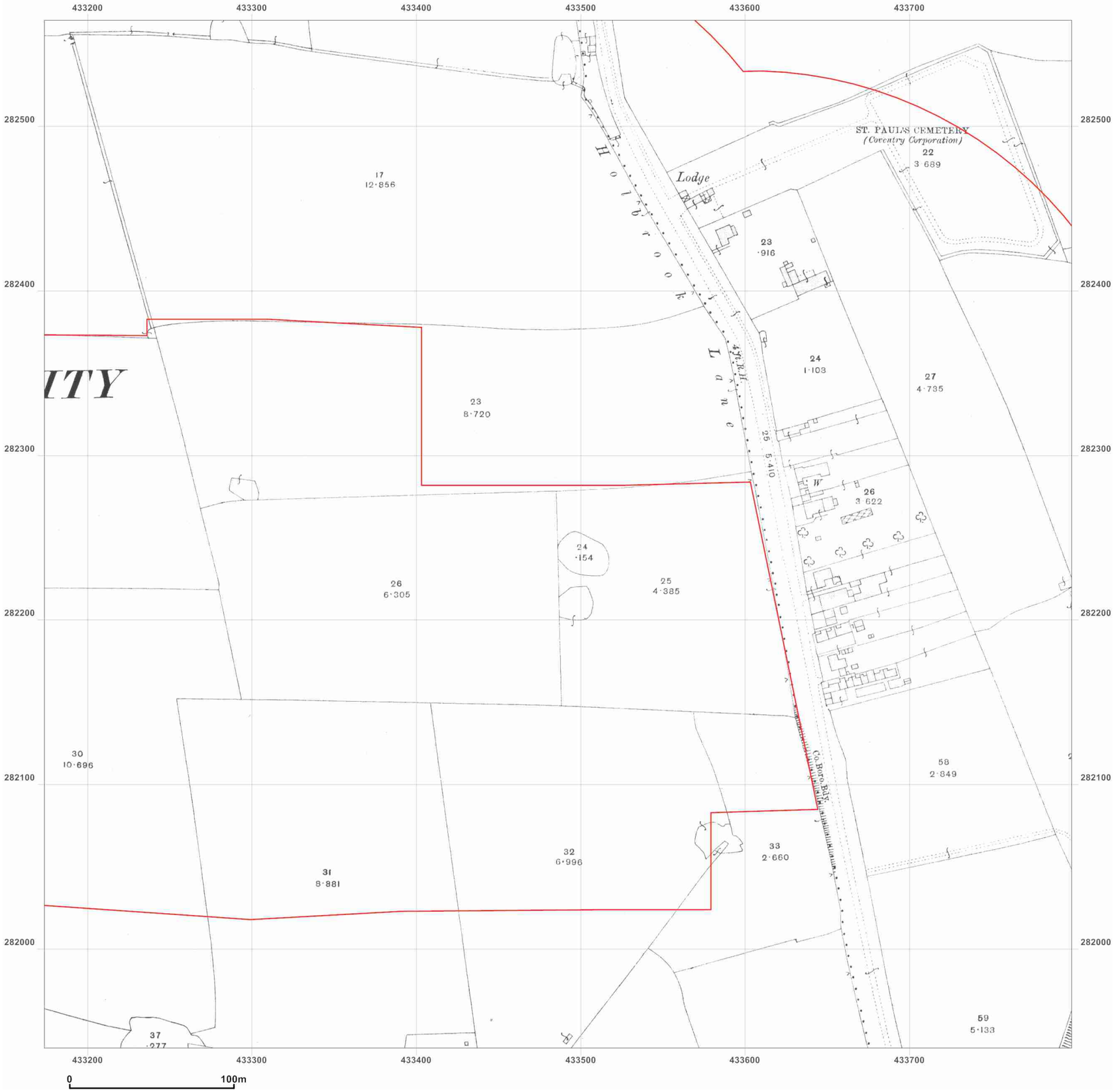


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**Site Details:**

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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** County Series

**Map date:** **1913**

**Scale:** 1:2,500

**Printed at:** 1:2,500

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Surveyed 1913
Revised 1913
Edition NA
Copyright NA
Levelled NA

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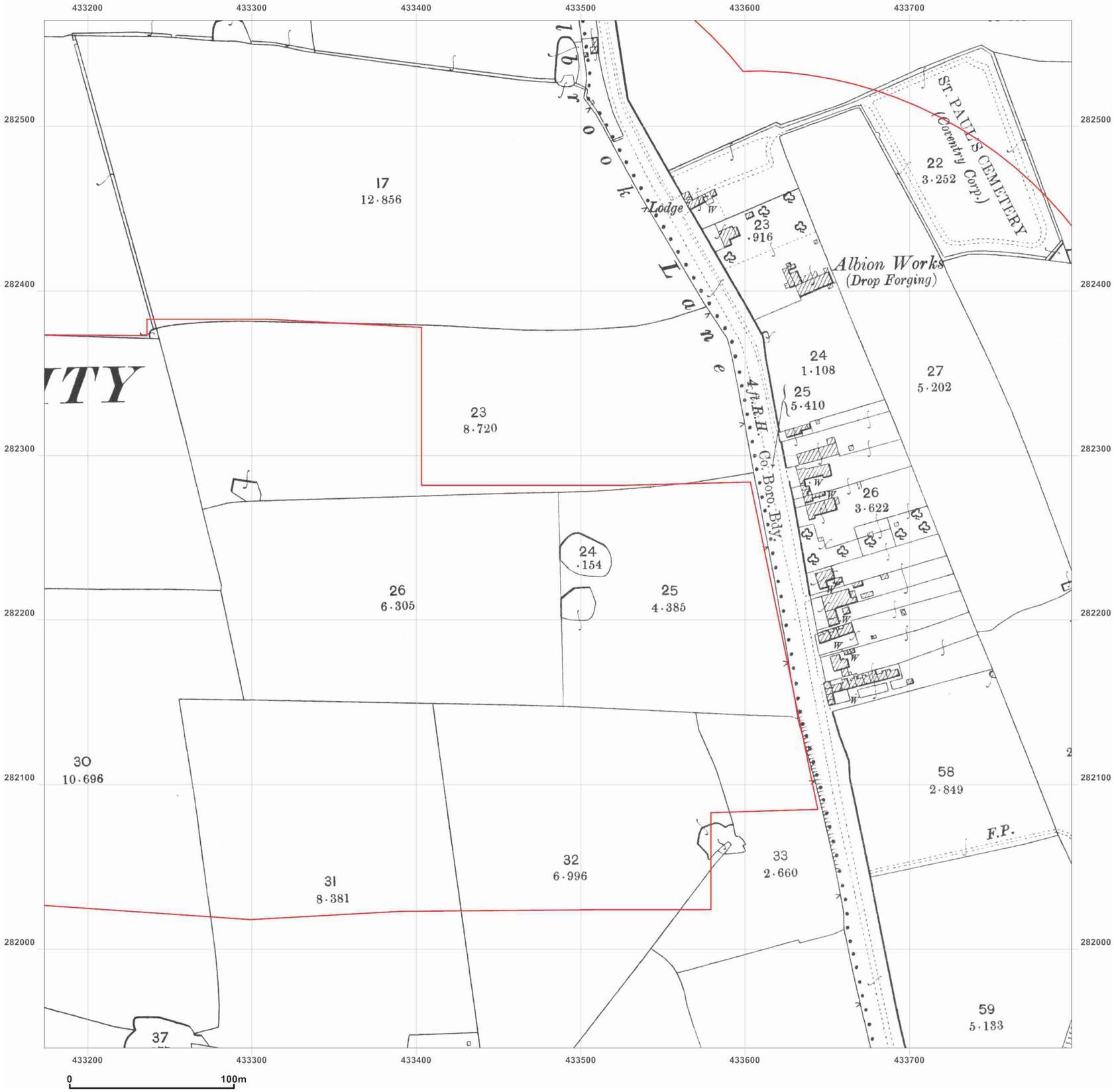


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ENVIRONMENTAL INSIGHT

**Site Details:**

MEGGIT
AEROSPACE/STADCO,
HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** County Series

**Map date:** **1906**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
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Surveyed 1906
Revised 1906
Edition NA
Copyright NA
Levelled NA

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ENVIRONMENTAL INSIGHT

**Site Details:**

MEGGIT
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HOLBROOK LANE, COVENTRY,
CV6 4AA

**Client Ref:** 12-S30-KRF-17054
**Report Ref:** HMD-154-231936-A2
**Grid Ref:** 433486, 282248

**Map Name:** County Series

**Map date:** **1889**

**Scale:** 1:2,500

**Printed at:** 1:2,500

N
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Surveyed 1889
Revised 1889
Edition NA
Copyright NA
Levelled NA

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**APPENDIX 4** ▪ Exploratory Hole Records

merebrook consulting
AN idom GROUP COMPANY

Merebrook Consulting Limited
Tel: 01773 829988
Fax: 01773 829393
email: consulting@merebrook.co.uk

**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP101**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Depth (m)**
3.20

**Date**
12/01/2012

**Scale**
1:25

**Location:** Coventry

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | 0.09 | | MADE GROUND: bituminous macadam |
| | | | 0.27 | | MADE GROUND: yellow-grey clayey slightly sandy fine to coarse angular gravel and cobbles of limestone. |
| 0.30 | J & D | | 0.35 | | MADE GROUND: grey-black gravelly sand. Gravel is ash and cinders. Sand is of coal fines. |
| 0.50 | J & D | | (0.26) | | MADE GROUND: Brown slightly gravelly clay. Gravel is fine to medium quartzite and occasional ceramic. |
| | | | 0.61 | | Stiff red friable CLAY with a little fine to coarse rounded quartzite gravel and cobbles. Becomes SILT/CLAY. |
| 0.75<br>0.75 | IVN 1<br>D | 71 77 65 | | | |
| 1.00 | IVN 2 | 113 120 100 | | | |
| | | | (1.14) | | |
| | | | 1.75 | | Red slightly silty SAND with a little becoming much fine to coarse rounded gravel. Locally cobbly. From 2.5m, becomes very weak very thinly bedded silty sandstone/sandy siltstone, recovered as sand with much very weak tabular gravel and cobbles. Weathering grade IV/V. |
| 2.10 | D | | | | |
| 2.50 | J | | (1.45) | | |
| | | | 3.20 | | Trialpit Complete at 3.20 m |

**Remarks:** Pit stopped on hard stratum. Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

HoleBASE 3.1 (Bd 426.48) Standard Trialpit Log v2 dated 27th Nov 03

merebrook consulting
AN idom GROUP COMPANY

Merebrook Consulting Limited
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Fax: 01773 829393
email: consulting@merebrook.co.uk

**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP102**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Depth (m)**
2.70

**Date**
12/01/2012

**Scale**
1:25

**Location:** Coventry

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | 0.09 | | MADE GROUND: bituminous macadam |
| | | | 0.30 | | MADE GROUND: purplish-brown slightly clayey slightly sand gravel and cobbles of angular crystalline metamorphic rock. |
| 0.40 | D & J | | 0.50 | | MADE GROUND: grey-black sandy gravel. Gravel is ash, slate and cinders. Sand is of coal fines. |
| 0.60 | D | | | | Stiff red friable CLAY with a little fine to coarse rounded quartzite gravel and cobbles. Becomes SILT/CLAY. Steel pipe 80mm dia. Found at 2.3 in north of pit. |
| 0.90 | J | | | | |
| 1.00 | IVN 1 | 73 74 96 | | | |
| 1.40 | IVN 2 | 98 75 92 | | | |
| | | | (2.20) | | |
| 1.80 | D | | | | |
| 2.50 | D | | | | |
| | | | 2.70 | | Trialpit Complete at 2.70 m |

**Remarks:** Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

HoleBASE 3.1 (Bld 426.48) Standard Trialpit Log v2 dated 27th Nov 03

merebrook consulting
AN idom GROUP COMPANY

Merebrook Consulting Limited
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Fax: 01773 829393
email: consulting@merebrook.co.uk

**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP103**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Date**
12/01/2012

**Location:** Coventry

**Depth (m)**
3.80

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | 0.09 | | MADE GROUND: bituminous macadam |
| | | | | | MADE GROUND: pale brown slightly clayey sandy angular gravel and cobbles of sandstone. |
| | | | 0.32 | | |
| 0.35 | D & J | | 0.42 | | MADE GROUND: grey-black gravelly sand. Gravel is ash and cinders. Sand is of coal fines. |
| 0.60 | D & J | | (0.38) | | MADE GROUND: grey-brown clay with a little fine to coarse rounded quartzite gravel and occasional coal fragments. |
| 0.80 | IVN 1 | 63 73 76 | 0.80 | | Firm to stiff red-brown CLAY with a little fine to coarse rounded, polished quartzite gravel. Becomes red mottled grey SILT/CLAY with occasional polished cobbles. Stiff by 1.10m. Contains remnant weathered siltstone and sandstone fabric from 3.50m, recovered as very weak and weak tabular gravel and cobbles. |
| 1.00 | D | | | | |
| 1.10 | IVN 2 | 81 72 77 | | | |
| 2.00 | D | | (3.00) | | |
| | | | 3.80 | | Trialpit Complete at 3.80 m |

**Remarks:** Pit stopped on hard stratum. Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

HoleBASE 3.1 (Bd 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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email: consulting@merebrook.co.uk

**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP104**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Date**
12/01/2012

**Location:** Coventry

**Depth (m)**
3.20

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | 0.06 | | MADE GROUND: bituminous macadam |
| 0.30 | D | | (0.41) | | MADE GROUND: grey-black gravelly sand. Gravel is ash and cinders. Sand is of coal fines. |
| | | | 0.47 | | MADE GROUND: firm brownish-purple slightly sandy clay. |
| 0.60 | J | | 0.60 | | Initially clayey mauve slightly silty fine SAND with a little fine to course rounded polished gravel and occasional cobbles. Weathered gasoline odour, initially strong, faint by 1.60m and persists to 3m. |
| 0.60 | D | | | | |
| 1.40 | J | | | | |
| 1.60 | D | | (2.20) | | |
| 2.30 | J | | | | |
| 2.60 | D | | | | |
| | | | 2.80 | | Red silty fine very thinly bedded highly weathered, locally completely weathered SANDSTONE (weathering grade IV/V). Very weak. Recovered as tabular gravel and cobbles and fine silty sand matrix. |
| 3.00 | J | | (0.40) | | |
| | | | 3.20 | | Trialpit Complete at 3.20 m |

**Remarks:** Pit stopped on hard stratum. Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

HoleBASE 3.1 (Bd 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP105**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.20 × 0.60

**Date**
12/01/2012

**Location:** Coventry

**Depth (m)**
2.70

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | (0.40) | | MADE GROUND: concrete. |
| | | | 0.40 | | MADE GROUND: black sandy gravel of iron-rich clinker. |
| 0.50 | D & J | | 0.55 | | Firm red CLAY with a little fine to coarse rounded gravel. Becomes SILT/CLAY with depth. |
| 0.60 | D & J | | | | |
| 1.00 | IVN 1 | 55 56 51 | | | |
| | | | (2.15) | | |
| 1.70 | D | | | | |
| | | | 2.70 | | Trialpit Complete at 2.70 m |

**Remarks:** Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

HoleBASE 3.1 (Bld 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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email: consulting@merebrook.co.uk

**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP106**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.70 × 0.60

**Date**
13/01/2012

**Location:** Coventry

**Depth (m)**
3.75

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | 0.16 | | MADE GROUND: reinforced concrete. |
| | | | 0.30 | | MADE GROUND: purplish-brown slightly clayey slightly sand gravel and cobbles of angular crystalline metamorphic rock with occasional coal and cinder fragments. |
| 0.60 | D & J | | (0.47) | | MADE GROUND: Orange-brown sandy clay with a little to some rounded gravel, rare bricks and ceramic pipe fragments. |
| 0.80 | D | | 0.77 | | Brown very sandy CLAY (possibly a buried topsoil). |
| 1.40<br>1.40 | J<br>D | | 0.95<br>(1.75) | | Moist pale yellow-brown becoming red silty SAND with a little fine to coarse rounded gravel. With pockets of stiff red SILT/CLAY. |
| 3.00 | D | | 2.70<br>(1.05)<br>3.75 | | Red SILT/CLAY becoming red thickly laminated platy highly weathered MUDSTONE (weathering grade IV/V). Very weak. Recovered as lumps which disintegrate on excavation. Very thinly bedded very silty sandstone beds encountered by 3.70m. |

Trialpit Complete at 3.75 m

**Remarks:** Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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email: consulting@merebrook.co.uk

**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP107**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Date**
13/01/2012

**Location:** Coventry

**Depth (m)**
3.00

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | (0.35) | | MADE GROUND: brick paviers over concrete. |
| | | | 0.35 | | MADE GROUND: slightly sandy angular fine to coarse gravel. |
| 0.55 | D & J | | 0.50 | | MADE GROUND: brown mottled grey clay with a diesel odour and dark grey staining. |
| | | | 0.65 | | MADE GROUND: concrete. |
| | | | 0.80 | | Red SILT/CLAY. Faint diesel odour throughout. |
| 1.00 | D & J | | | | |
| | | | (1.20) | | |
| | | | 2.00 | | Red moist silty SAND with a faint diesel odour, with much very weak tabular silty sandstone fragments with depth. At 2.80 becomes red silty fine very thinly bedded highly weathered, locally completely weathered SANDSTONE (weathering grade IV/V). Very weak. Recovered as tabular gravel and cobbles and fine silty sand matrix. |
| 2.10 | D | | | | |
| | | | (1.00) | | |
| 2.80 | D | | | | |
| | | | 3.00 | | Trialpit Complete at 3.00 m |

**Remarks:** Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

HoleBASE 3.1 (Bd 426.48) Standard Trialpit Log v2 dated 27th Nov 03

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP108**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Date**
13/01/2012

**Location:** Coventry

**Depth (m)**
2.50

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | (0.40) 0.40 | | MADE GROUND: macadam over reinforced concrete. |
| 0.60 | D & J | | (1.20) 1.60 | | Red very friable sandy SILT/CLAY, becomes very sandy with depth. |
| 1.50 | D & J | | (0.90) 2.50 | | Red silty fine very thinly bedded highly weathered, locally completely weathered SANDSTONE (weathering grade IV/V). Very weak. Recovered as tabular gravel and cobbles and fine silty sand matrix. |

Trialpit Complete at 2.50 m

**Remarks:** Pit stopped on hard stratum. Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP109**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.70 × 0.60

**Date**
13/01/2012

**Location:** Coventry

**Depth (m)**
1.90

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | | | MADE GROUND: macadam over reinforced concrete. |
| | | | 0.20 | | |
| 0.25 | D & J | | | | MADE GROUND: grey-black gravelly sand. Gravel is ash and cinders. Sand is of coal fines. |
| | | | 0.30 | | |
| | | | | | Red silty SAND with a little fine to coarse rounded gravel, occasional cobbles and pockets of red clay. At east end of pit, pocket of loose bouldery concrete rubble with corrugated steel and iron fragments to 1.40m. |
| | | | (1.60) | | |
| 1.50 | D & J | | | | |
| | | | 1.90 | | Trialpit Complete at 1.90 m |

**Remarks:** Pit stopped on hard stratum. Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP110**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Depth (m)**
1.30

**Date**
13/01/2012

**Scale**
1:25

**Location:** Coventry

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | 0.10 | | MADE GROUND: bituminous macadam |
| | | | 0.30 (0.20) | | MADE GROUND: light brown sandy fine to coarse angular gravel with some whole bricks. |
| | | | 0.50 (0.20) | | MADE GROUND: red-brown clay with some whole bricks. |
| | | | 0.80 (0.30) | | MADE GROUND: bonded brick and concrete. |
| 1.00 | D & J | | 1.30 (0.50) | | MADE GROUND: red-brown clay with some whole bricks, occasional cinders. Double skinned brick wall along western side of pit to at least 1.50m. Steel flanged pipe 150mm diameter at 1 m running N-S along eastern side of pit. |

Trialpit Complete at 1.30 m

**Remarks:** Pit stopped due to brick wall along western side of pit and large steel pipe along eastern edge. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP111**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.70 × 0.60

**Depth (m)**
3.20

**Date**
13/01/2012

**Scale**
1:25

**Location:** Coventry

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | (0.30) | | MADE GROUND: macadam over reinforced concrete. |
| | | | 0.30 | | MADE GROUND: brown sandy clay. |
| | | | 0.40 | | MADE GROUND: moist red very clayey sand with a little fine to coarse rounded gravel. |
| 0.50 | D & J | | (0.60) | | |
| | | | 1.00 | | MADE GROUND: tarmacadam (vitreous slag aggregate in weak black binder) |
| | | | 1.10 | | Orange moist silty fine SAND with a little fine to coarse rounded gravel and cobbles. Recovering some very weak tabular sandstone gravel and cobbles by 2.70m. |
| 1.70 | D | | | | |
| | | | (2.10) | | |
| 2.70 | J | | | | |
| 2.70 | D | | | | |
| | | | 3.20 | | Trialpit Complete at 3.20 m |

**Remarks:** Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP112**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Depth (m)**
3.00

**Date**
27/02/2012

**Scale**
1:25

**Location:** Coventry

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | 0.20 (0.20) | | Reinforced CONCRETE |
| 0.30 | D&J | | 0.55 (0.35) | | MADE GROUND: red-brown sandy fine to coarse gravel of burnt shale, brick, occasional slag. Sand is of shale. Locally clayey. |
| 0.70 | D&J | | 1.50 (0.95) | | Red mottled grey initially plastic becoming friable CLAY. Occasional quartzite cobbles and boulders 200mm dia. |
| 1.80 | D&J | | 2.80 (1.30) | | Red fine sandy SILT becoming very gravelly. Gravelly is fine to coarse tabular fine sandy very weak siltstone. With thin beds of very weak grey fine sandstone. |
| | | | 3.00 | | Red silty fine very thinly bedded highly to completely weathered SILTSTONE (weathering grade V). Very weak. Recovered as tabular gravel and cobbles and fine silt and sand matrix. |

Trialpit Complete at 3.00 m

**Remarks:** Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP113**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Date**
27/02/2012

**Location:** Coventry

**Depth (m)**
2.60

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | | | Lightly reinforced concrete. |
| | | | 0.15 | | |
| 0.20 | D&J | | | | MADE GROUND: brown mottled black sandy clay with occasional bricks. |
| | | | 0.30 | | |
| 0.55 | D&J | | | | Stiff locally firm plastic becoming friable pale red CLAY becoming SILT. With a little fine rounded gravel and cobbles to coarse grade. Locally fissured with grey silt on fissure surfaces and relict root traces. Faint paint-like or weathered diesel odour from 1.10m. |
| 0.60 | IVN 1 | 70 82 86 | | | |
| 1.10 | IVN 2 | 81 130 103 | | | |
| 1.10 | J | | (1.70) | | |
| 2.00 | D&J | | 2.00 | | |
| | | | (0.60) | | Red silty fine very thinly bedded highly to completely weathered SILTSTONE (weathering grade V). Very weak. Recovered as 70% tabular gravel and cobbles and 30% fine silt and sand matrix. With thin beds of very weak sandstone. |
| | | | 2.60 | | Trialpit Complete at 2.60 m |

**Remarks:** Pit stopped on hard stratum. Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP114**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Date**
27/02/2012

**Location:** Coventry

**Depth (m)**
2.50

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | | | Reinforced CONCRETE |
| 0.25 | D | | 0.24 | | |
| | | | | | MADE GROUND: sandy clay with concrete and brick gravel. |
| | | | 0.35 | | |
| 0.50 | J | | | | Stiff red CLAY. Becomes SILT with depth. Locally very stiff. Soft, wet and sandy at 1.50-1.60m with a diesel odour and grey sheen on sand grains . With much very weak siltstone gravel from 1.80m. |
| 0.60 | IVN 1 | 94 80 82 | | | |
| 0.80 | D | | | | |
| 1.00 | J | | | | |
| | | | (2.15) | | |
| 1.50 | J | | | | |
| 2.20 | D | | | | |
| | | | 2.50 | | Trialpit Complete at 2.50 m |

**Remarks:** Slight groundwater seepage at 0.50m. Pit sides stable. No further progress below 2.50m due to concrete beams restricting access and hard strata. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP115**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Date**
27/02/2012

**Location:** Coventry

**Depth (m)**
3.25

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| 0.20 | D | | (0.40) | | Rusty-brown to black loose sandy fine to coarse gravel of ash and cinders with occasional whole bricks. |
| | | | 0.40 | | |
| 0.50 | J | | | | Firm, locally stiff red plastic CLAY with occasional rounded cobbles. Stiff by 1m. |
| 0.60 | IVN 1 | 81 65 55 | | | |
| 0.80 | D | | | | |
| | | | (1.10) | | |
| 1.10 | IVN 2 | 85 81 89 | | | |
| | | | 1.50 | | |
| 1.80 | J | | | | Red silty fine very thinly bedded highly to completely weathered SILTSTONE (weathering grade V). Very weak. Recovered as 70% tabular gravel and cobbles and 30% fine silt and sand matrix. With 200mm thick bed of moderately strong to strong grey sandstone. |
| | | | (1.75) | | |
| 2.50 | D | | | | |
| | | | 3.25 | | Trialpit Complete at 3.25 m |

**Remarks:** Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP116**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Date**
27/02/2012

**Location:** Coventry

**Depth (m)**
2.80

**Scale**
1:25

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | | | Reinforced CONCRETE |
| | | | 0.22 | | |
| 0.35 | D&J | | (0.34) | | MADE GROUND: gravel, cobbles and boulders of brick and concrete with ash and cinders. |
| | | | 0.56 | | |
| 0.80 | D&J | | (0.39) | | MADE GROUND: red clay with bricks. |
| | | | 0.95 | | |
| 1.00 | IVN 1 | 50 55 44 | | | Firm red CLAY with a little fine to coarse rounded gravel. Becomes SILT/CLAY with depth with occasional rounded boulders. Siltstone gravel and thin sandstone beds by 2.60m. Brick wall on thin concrete base along one side of pit to 1.20m. |
| 1.50 | D | | | | |
| | | | (1.85) | | |
| 2.30 | J | | | | |
| | | | 2.80 | | Trialpit Complete at 2.80 m |

**Remarks:** Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP117**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Depth (m)**
3.00

**Date**
27/02/2012

**Scale**
1:25

**Location:** Coventry

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | | | Reinforced CONCRETE |
| | | | 0.17 | | |
| | | | | | MADE GROUND: reddish-grey clayey sandy gravel of concrete and flint. |
| | | | 0.27 | | |
| 0.40 | D | | | | Firm locally stiff, initially orange-pink becoming red SILT/CLAY. Becomes friable below 2m. With much very weak siltstone below 2.6m. |
| 0.60 | J | | | | |
| 0.70 | IVN 1 | 67 59 81 | | | |
| 1.00 | IVN 2 | 67 67 64 | | | |
| 1.40 | D | | | | |
| 1.50 | J | | | | |
| | | | (2.73) | | |
| 2.50 | D | | | | |
| | | | 3.00 | | Trialpit Complete at 3.00 m |

**Remarks:** Pit stopped on hard stratum. Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Plant:** JCB-3CX

**Co-ords:** -

Trialpit No
**MTP118**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Dimensions (m):**
2.50 × 0.60

**Depth (m)**
1.80

**Date**
27/02/2012

**Scale**
1:25

**Location:** Coventry

**Client:** Meggitt/Clowes

**Logged By**
KRP

| Samples & In Situ Testing | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|
| Depth (m) | Type | Results | | | |
| | | | 0.17 | | Reinforced CONCRETE |
| | | | (0.28) | | MADE GROUND: brown gravelly clay with many whole bricks. Gravel is burnt shale and concrete. |
| | | | 0.45 | | Stiff red SILT/CLAY |
| 0.60 | D&J | | | | |
| 0.80 | IVN 1 | 104 130 130 | | | |
| | | | (1.05) | | |
| 1.40 | D | | | | |
| 1.55 | J | | | | |
| | | | 1.50 | | Buff highly weathered thinly bedded SANDSTONE. Weak to moderately strong. (Weathering Grade III) |
| | | | (0.30) | | |
| | | | 1.80 | | Trialpit Complete at 1.80 m |

**Remarks:** Pit stopped on hard stratum. Pit sides dry and stable. The trial pit was backfilled and compacted with arisings on completion.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS101**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 24/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.26) | | MADE GROUND: Concrete |
| | | | | | 0.26 | | MADE GROUND: soft/firm dark grey and red gravelly clay with an oily odour. |
| | | 0.30-0.35 | J | | 0.36 | | Red sandy CLAY, locally very clayey fine sand. |
| | | 0.40-0.45 | J | | | | |
| | | 0.45-0.50 | D | | | | |
| | | | | | (1.44) | | |
| | | 1.40-1.50 | J | | | | |
| | | 1.50-1.60 | D | | | | |
| | | | | | 1.80 | | Red, highly weathered, thinly bedded SILTSTONE. Very weak. |
| | | 1.90-2.00 | D | | (0.30) | | |
| | | | | | 2.10 | | End of Window Sample at 2.10 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS102**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 24/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: Concrete. |
| | | | | | 0.22 | | MADE GROUND: red and grey clayey sandy angular gravel of dolerite with an oily odour. |
| | | | | | 0.40 | | MADE GROUND: firm red very sandy clay |
| | | | | | (0.45) | | |
| | | | | | 0.85 | | |
| | | | | | 0.90 | | MADE GROUND: Concrete. |
| | | | | | | | End of Window Sample at 0.90 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on buried concrete. Second attempt moved 4 m east.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS102A**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 24/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: Concrete. |
| | | | | | 0.20 | | MADE GROUND: grey and red clayey siltstone gravel with a slight oily odour. |
| | | | | | 0.30 | | Red slightly sandy becoming very sandy CLAY. Slight oily odour to around 1.50m. Becomes stiff, friable SILT/CLAY. |
| | | 0.40-0.45 | J | | | | |
| | | 0.45-0.50 | D | | | | |
| | | 1.40-1.45 | J | | | | |
| | | 1.45-1.55 | D | | | | |
| | | | | | (2.70) | | |
| | | 2.60-2.80 | D | | | | |
| | | | | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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| Equipment and Methods | Window Sample No **MWS103** Sheet 1 of 1 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 24/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: Concrete. |
| | | | | | 0.22 | | MADE GROUND: red and grey clayey sandy angular gravel of dolerite and siltstone. |
| | | 0.40-0.50 | D & J | | 0.35 | | Red, slightly silty medium SAND highly weathered, thinly bedded fine grained SANDSTONE. Very weak. |
| | | | | | (0.85) | | |
| | | 1.00-1.20 | D & J | | 1.20 | | End of Window Sample at 1.20 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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| Equipment and Methods | Window Sample No **MWS104** Sheet 1 of 1 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 24/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.15 | | MADE GROUND: Concrete. |
| | | | | | (0.30) 0.45 | | MADE GROUND: grey and red angular quartzite gravel. |
| | | 0.50-0.60 | D & J | | | | Red clayey very silty SAND with gravel of very weak sandy siltstone. Becomes stiff red sandy SILT from 2.0m and highly weathered thinly bedded very weak SILTSTONE below 2.5m. |
| | | 1.50-1.65 | D & J | | (2.55) | | |
| | | 2.50-2.60 | D | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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| Equipment and Methods | Window Sample No **MWS105** Sheet 1 of 1 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 24/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.15 | | MADE GROUND: Concrete. |
| | | | | | 0.40 | | MADE GROUND: rusty brown and purple angular gravel and cobbles of quartzite |
| | | 0.45-0.60 | D & J | | (0.45) | | MADE GROUND: red sandy clay with a little gravel of ironstone and coal. |
| | | 0.90-1.00 | D | | 0.85 (0.50) | | Red sandy CLAY |
| | | 1.45-1.50 | J | | 1.35 (0.30) | | Red silty SAND |
| | | | | | 1.65 (0.55) | | Red mottled buff SILT/CLAY |
| | | 2.30-2.50 | D | | 2.20 (0.80) | | Red silty fine SAND |
| | | | | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS106**
Sheet 1 of 1

| | | | |
|---|---|---|---|
| **Project Name** Meggitt Stadco, Coventry | **Project No.** 17054A | **Co-ords** - | **Hole Type** WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 24/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.27) 0.27 | | MADE GROUND: Concrete. |
| | | | | | 0.45 | | MADE GROUND: purple angular quartzite gravel and cobbles. |
| | | | | | (1.55) 2.00 | | No Recovery |
| | | | | | (1.00) 3.00 | | MADE GROUND: purple angular quartzite and concrete gravel and cobbles. |
| | | 3.10 | J | | (0.40) 3.40 | | Highly weathered red SILTSTONE, very weak. |
| | | | | | | | End of Window Sample at 3.40 m |

**Remarks:** Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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Window Sample No
**MWS107**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 25/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: Concrete. |
| | | | | | 0.20 | | MADE GROUND: purple angular quartzite gravel and cobbles. |
| | | 0.30-0.50 | D & J | | (1.20) | | |
| | | | | | 1.40 | | Red-brown dry fine SAND with gravel of very weak sandstone. |
| | | 1.50-2.00 | D & J | | (0.60) | | |
| | | | | | 2.00 | | End of Window Sample at 2.00 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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Window Sample No
**MWS108**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 25/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.23 (0.27) | | MADE GROUND: Concrete. |
| | | | | | 0.50 (0.40) | | MADE GROUND: purple angular quartzite gravel and cobbles. |
| | | 0.50-0.75 | D & J | | 0.90 (0.90) | | Red silty fine SAND, locally clayey. |
| | | 1.50-1.80 | D & J | | 1.80 | | Red SILT/CLAY becoming highly weathered thinly bedded fine sandy SILTSTONE. |
| | | | | | | | End of Window Sample at 1.80 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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Window Sample No
**MWS109**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 25/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.20 | | MADE GROUND: Concrete. |
| | | 0.30-0.40 | D | | (0.40) | | Red slightly clayey fine sandy SILT |
| | | 0.60-0.80 | J | | 0.60 | | Red SAND with thin beds of highly weathered very weak sandstone. |
| | | 1.00-1.10 | D | | (0.60) | | |
| | | 1.10-1.20 | J | | 1.20 | | End of Window Sample at 1.20 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS110**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 25/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: Concrete. |
| | | | | | 0.19 | | MADE GROUND: orange and black sand with some fine cinder gravel and occasional brick fragments. |
| | | 0.30-0.40 | D & J | | (0.46) | | |
| | | | | | 0.65 | | Red silty SAND with a little rounded polished quartzite gravel. |
| | | 0.80-0.90 | D | | | | |
| | | | | | (1.15) | | |
| | | 1.40-1.50 | J | | | | |
| | | | | | 1.80 | | Red friable slightly sandy SILT/CLAY. |
| | | | | | 2.00 | | Red SAND becoming highly weathered fine grained SANDSTONE, recovered as very weak gravel sized fragments. |
| | | 2.20-2.40 | D | | (0.50) | | |
| | | | | | 2.50 | | End of Window Sample at 2.50 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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| Equipment and Methods | Window Sample No **MWS111** Sheet 1 of 1 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 25/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: Concrete. |
| | | 0.20-0.30 | J | | 0.20 | | MADE GROUND: Grey clayey angular shale gravel. Sour oily odour. |
| | | 0.50-0.60 | D | | 0.40 | | Red slightly clayey, fine slightly sandy SILT with a little fine to medium rounded quartzite gravel. Becomes laminated, hard and friable below 2m. |
| | | 0.90-0.95 | J | | | | |
| | | 1.40-1.50 | D | | (2.35) | | |
| | | 2.10-2.20 | J | | | | |
| | | | | | 2.75 | | End of Window Sample at 2.75 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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| Equipment and Methods | Window Sample No **MWS112** Sheet 1 of 1 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 25/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.60) | | MADE GROUND: red and grey sandy clay with some fine to coarse concrete and siltstone gravel. |
| | | 0.50 | D | | | | |
| | | | | | 0.60 | | Red SILT/CLAY. Becomes hard below 1.80m. With much siltstone gravel below 2.80m. |
| | | 0.70-0.80 | D | | | | |
| | | 0.80-0.85 | J | | | | |
| | | | | | (2.35) | | |
| | | 2.50 | J | | | | |
| | | | | | 2.95 | | End of Window Sample at 2.95 m |

**Remarks:** Service pit dug to 0.70m. Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS113**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 25/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: Concrete with diesel staining to underside. |
| | | | | | 0.20 | | MADE GROUND: purple clayey angular quartzite gravel with much cinder at base, with strong diesel and phenolic odour and grey staining. |
| | | 0.40-0.50 | J | | 0.40 | | Red stained grey sand CLAY with diesel odour and black oily staining along veins. Less odour and staining below 0.80m. |
| | | | | | (0.70) | | |
| | | | | | 1.10 | | Red friable CLAY/SILT. Some black oil staining along relict rootlet traces to 1.50m. Becomes hard friable micaceous sandy SILT. No odours by end of hole. |
| | | 1.20-1.30 | J | | | | |
| | | | | | (1.50) | | |
| | | 2.20-2.30 | J | | | | |
| | | | | | 2.60 | | End of Window Sample at 2.60 m |
| | | | Type | Results | | | |

1
2
3
4

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS114**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 26/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.14 | | MADE GROUND: Concrete. |
| | | | | | (0.46) | | MADE GROUND: red and brown sandy gravel and cobbles of brick. |
| | | 0.60-0.75 | D & J | | 0.60 | | PROBABLE MADE GROUND: orange sand with a little rounded quartzite gravel. |
| | | | | | 0.75 | | PROBABLE MADE GROUND: Red silt/clay. |
| | | 1.10-1.20 | D & J | | 1.00 | | Moist red silty SAND. |
| | | | | | (1.45) | | |
| | | 2.20-2.45 | D | | 2.45 | | End of Window Sample at 2.45 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS115**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 26/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: macadam (0.04m) over concrete. |
| | | | | | 0.20 | | |
| | | | | | 0.25 | | MADE GROUND: sandy fine to medium gravel. |
| | | 0.30-0.40 | D & J | | | | Red, initially sandy SILT/CLAY. |
| | | | | | (1.55) | | |
| | | 1.30-1.40 | D & J | | | | |
| | | | | | 1.80 | | End of Window Sample at 1.80 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS116**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 26/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.34) | | MADE GROUND: Concrete. |
| | | | | | 0.34 | | Red fine sandy SILT, becoming very weakly cemented finely laminated sandy silt with depth and locally silty sand. Grey staining with diesel odour below 1.20m. From 1.65-1.80m, black diesel stained layers 5mm think along sandy laminae. No staining or odours below 1.80m. |
| | | 0.50-0.60 | D & J | | | | |
| | | 1.65-1.75 | J | | (2.51) | | |
| | | | | | 2.85 | | End of Window Sample at 2.85 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS117**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 26/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: Concrete. |
| | | | | | 0.19 | | MADE GROUND: brick rubble. |
| | | | | | (0.76) | | |
| | | | | | 0.95 | | End of Window Sample at 0.95 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS118**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 26/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.12 | | MADE GROUND: Concrete with oily staining to underside. |
| | | | | | 0.20 | | MADE GROUND: black oily medium gravel. |
| | | 0.30 | J | | | | Red SILT/CLAY. Locally finely laminated. Fresh diesel and paint-like odour from 0.80 to1.30m and 1.6 to 1.75m. Faint paint-like odour from 2.0 to base of hole. Silt becoming hard, turning to very weak highly weathered SILTSTONE by base of hole. |
| | | 0.40 | D | | | | |
| | | 0.90 | J | | | | |
| | | | | | (2.50) | | |
| | | 1.80-1.90 | J | | | | |
| | | 2.50-2.60 | J | | | | |
| | | | | | 2.70 | | End of Window Sample at 2.70 m |
| | | | Type | Results | | | |

**Remarks:** Hole located near former take plinths, with much surface oil and oil collected in trench on surface. Hole stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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| Equipment and Methods | Window Sample No **MWS119** Sheet 1 of 1 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 26/01/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.13 | | MADE GROUND: Concrete. |
| | | 0.20-0.30 | D & J | | | | Red mottled grey SILT/CLAY with rare rounded and polished quartzite gravel. Becomes sandy SILT. |
| | | 1.20-1.30 | D & J | | (2.57) | | |
| | | 2.50-2.60 | D | | 2.70 | | End of Window Sample at 2.70 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS120**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.10 | | MADE GROUND: macadam. |
| | | | | | (0.30) | | MADE GROUND: purple coarse angular gravel and cobbles of quartzite. |
| | | | | | 0.40 | | No recovery due to cobble being pushed down hole. Inferred red CLAY from 0.40m. |
| | | 1.00 | SPT | N=22 (6,5,4,6,6,6) | | | |
| | | | | | (1.60) | | |
| | | 1.50 | SPT | N=43 | | | |
| | | 1.00-2.00 | D & J | (6,6,9,10,12,12) | | | |
| | | | | | 2.00 | | Very stiff becoming hard red SILT with grey beds <50mm and rare rounded and polished quartzite gravel. |
| | | 2.00-2.20 | D & J | | | | |
| | | | | | (0.40) | | |
| | | 2.40 | SPT | 50/50mm 50mm (25,50) | 2.40 | | End of Window Sample at 2.40 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS121**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.10 | | MADE GROUND: macadam. |
| | | | | | (0.35) | | MADE GROUND: purple coarse angular gravel and cobbles of quartzite over wet, black fine to medium gravel of coal and cinders. |
| | | | | | 0.45 | | POSSIBLE MADE GROUND: soft (becoming very stiff at 2.0 m) reddish-brown sandy clay with a little fine to medium rounded quartzite gravel and occasional charcoal fragments. Locally very sandy, remains soft and wet to 2m. |
| | | 0.50-0.60 | D & J | | | | |
| | | 1.00 | SPT | N=4 (1,1,1,1,1,1) | | | |
| | | | | | (1.55) | | |
| | | 1.50-1.60 | D & J | | | | |
| | | 2.00 | SPT | 50/25mm 25mm (25,50) | 2.00 | | End of Window Sample at 2.00 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS122**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.08 | | MADE GROUND: macadam. |
| | | 0.30 | D | | (0.42) | | MADE GROUND: grey sandy gravel of fine to coarse concrete. |
| | | 0.50-0.60 | J | | 0.50 | | Very stiff red SILT/CLAY. |
| | | 1.00<br>1.00 | SPT<br>D | N=35<br>(5,6,7,8,9,11) | (0.70) | | |
| | | 1.30-1.40 | D & J | | 1.20 | | Dense/very dense red slightly clayey, slightly silty SAND, becomes weakly cemented with depth. |
| | | 1.80 | SPT | 50/110mm<br>110mm (20,5,32,18) | (0.60)<br>1.80 | | End of Window Sample at 1.80 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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| Equipment and Methods | Window Sample No **MWS123** Sheet 1 of 1 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012 | **Logged By** KRP |

| Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Stratum Description |
|---|---|---|---|---|
| | | | | MADE GROUND: Concrete. |
| | | | 0.20 | |
| | | | 0.30 | MADE GROUND: grey and black wet fine to medium gravel of cinders and clinker. |
| 0.40-0.50 | D & J | | (0.30) | MADE GROUND: Red sandy clay. |
| | | | 0.60 | Stiff becoming very stiff red SILT/CLAY. |
| 1.00 | SPT | N=17 (2,3,3,4,4,6) | | |
| 1.40-1.50 | J | | | |
| | | | (2.40) | |
| 2.00 | SPT | N=32 (10,10,10,6,8,8) | | |
| 2.00-2.10 | D | | | |
| 2.80-3.00 | D | | | |
| 3.00 | SPT | 50/190mm 190mm (7,8,13,22,15) | 3.00 | End of Window Sample at 3.00 m |

Well: 1, 2, 3, 4

Water Strike: Type | Results

**Remarks:** Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS124**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: Concrete. |
| | | | | | 0.20 | | |
| | | | | | 0.23 | | MADE GROUND: grey and black fine to medium gravel of cinders. |
| | | 0.30-0.40 | D & J | | | | Red very clayey SAND with a little fine to coarse polished and rounded quartzite gravel. Becomes very weakly cemented from 1.70m. |
| | | | | | (1.67) | | |
| | | 1.40-1.50 | D & J | | | | |
| | | | | | 1.90 | | End of Window Sample at 1.90 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS125**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.08 | | MADE GROUND: macadam. |
| | | | | | (0.27) | | MADE GROUND: clayey brick gravel. |
| | | | | | 0.35 | | MADE GROUND: macadam over concrete. |
| | | | | | 0.43 | | End of Window Sample at 0.43 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on buried concrete slab. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS125A**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.06 | | MADE GROUND: macadam. |
| | | | | | 0.22 | | MADE GROUND: grey fine to medium concrete gravel. |
| | | | | | 0.25 | | MADE GROUND: brick. |
| | | | | | | | End of Window Sample at 0.25 m |

1
2
3
4

**Remarks:** Stopped on buried brick floor. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS125B**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 03/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.08 | | MADE GROUND: macadam. |
| | | | | | (0.27) | | MADE GROUND: grey sandy fine to coarse angular dolerite gravel. |
| | | | | | 0.35 | | |
| | | | | | 0.40 | | MADE GROUND: brick over concrete. |
| | | | | | | | End of Window Sample at 0.40 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on buried concrete slab. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS126**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 03/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.10 | | MADE GROUND: macadam. |
| | | 0.40-0.50 | D & J | | (0.50) 0.60 | | MADE GROUND: grey brown clayey gravel of concrete and dolerite. Some vitreous slag cobbles, brick fragments and cindery pockets. |
| | | | | | 0.80 | | MADE GROUND: brown slightly clayey sand with a little quartzite gravel and charcoal fragments. |
| | | 0.90-1.00 | D | | | | Medium dense red-brown silty SAND with a little quartzite gravel. |
| | | 1.00 | SPT | N=20 (2,2,2,3,7,8) | | | |
| | | 1.20-1.30 | J | | (1.80) | | |
| | | 1.90-2.00 | D | | | | |
| | | 2.00 | SPT | N=23 (6,6,6,5,6,6) | | | |
| | | | | | 2.60 | | Very stiff red fine slightly sandy SILT/CLAY. |
| | | 2.70-2.80 | D & J | | (0.40) | | |
| | | 3.00 | SPT | 50/210mm 210mm (5,5,9,16,25) | 3.00 | | End of Window Sample at 3.00 m |

**Remarks:** Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS127**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 03/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.07 | | MADE GROUND: macadam. |
| | | | | | | | MADE GROUND: grey sandy fine to coarse angular dolerite gravel. |
| | | | | | 0.30 | | MADE GROUND: concrete |
| | | | | | 0.38 | | |
| | | 0.40-0.50 | D | | (0.57) | | MADE GROUND: grey and red sandy gravel and cobbles of brick and concrete. |
| | | | | | 0.95 | | |
| | | 1.00 | SPT | N=8 (2,1,1,2,2,3) | | | MADE GROUND: firm red sandy clay with some brick gravel. |
| | | 1.10-1.20 | J | | (0.65) | | |
| | | | | | 1.60 | | Stiff red sandy SILT/CLAY. |
| | | 1.70-1.80 | D & J | | | | |
| | | 2.00 | SPT | N=37 (5,5,6,8,11,12) | (0.80) | | |
| | | | | | 2.40 | | Dense/very dense reddish-brown silty SAND with beds of stiff red clay. |
| | | 2.50-2.60 | D | | | | |
| | | 2.60-2.70 | J | | (0.60) | | |
| | | 3.00 | SPT | 50/95mm 95mm (12,13,36,14) | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS128**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 03/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.08 | | MADE GROUND: macadam. |
| | | | | | (0.32) | | MADE GROUND: grey sandy fine to coarse angular dolerite gravel. |
| | | | | | 0.40 | | MADE GROUND: Red-brown sandy clay with a little quartzite and brick gravel. |
| | | 0.50-0.60 | D & J | | (0.55) | | |
| | | 1.00 | SPT | N=5 | 0.95 | | Soft friable brown very sandy CLAY with occasional fine plant fragments and snail shells (possibly buried topsoil). |
| | | 1.00-1.10 | D | (2,1,0,2,1,2) | (0.35) | | |
| | | | | | 1.30 | | Dense becoming very dense brown becoming pink, initially clayey SAND. |
| | | 1.40-1.50 | D | | | | |
| | | 1.50-1.60 | J | | | | |
| | | 2.00 | SPT | N=43 (8,9,11,11,11,10) | (1.70) | | |
| | | 2.50-2.60 | J | | | | |
| | | 3.00 | SPT | 50/235mm 235mm (9,9,12,15,20,3) | 3.00 | | End of Window Sample at 3.00 m |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS129**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 03/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.10 | | MADE GROUND: macadam. |
| | | | | | 0.30 | | MADE GROUND: grey sandy fine to coarse angular dolerite gravel. |
| | | | | | 0.33 | | MADE GROUND: concrete. |
| | | | | | | | End of Window Sample at 0.33 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on buried concrete slab. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS129A**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 03/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.14 | | MADE GROUND: macadam. |
| | | | | | 0.20 | | MADE GROUND: concrete. |
| | | | | | 0.35 | | MADE GROUND: grey sandy fine to coarse angular dolerite gravel. |
| | | | | | (0.55) | | MADE GROUND: grey, black and red sandy fine to coarse gravel and cobbles of brick, tarmac and concrete. |
| | | 0.90-1.00 | D | | 0.90 | | Medium dense becoming very dense pink silty SAND. |
| | | 1.00 | SPT | N=25 | | | |
| | | 1.00-1.10 | J | (4,6,5,5,7,8) | (1.10) | | |
| | | 1.90-2.00 | D | | | | |
| | | 2.00 | SPT | 52/190mm 190mm (7,8,15,22,15) | 2.00 | | End of Window Sample at 2.00 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**

Window Sample No
**MWS130**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 03/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.13 | | MADE GROUND: concrete. |
| | | | | | 0.26 | | MADE GROUND: black sandy fine to medium gravel of coal and clinker. |
| | | 0.30-0.40 | D & J | | | | Firm friable pink-brown very sandy CLAY with a little rounded quartzite gravel. |
| | | 1.00 | SPT | N=13 (3,3,3,2,3,5) | (1.54) | | |
| | | | | | 1.80 | | Very dense red silty SAND |
| | | 1.80-1.90 | D | | | | |
| | | 1.90-2.00 | J | | | | |
| | | 2.00 | SPT | N=51 (7,6,8,10,16,17) | (0.70) | | |
| | | 2.50 | SPT | 50/95mm 95mm (18,7,32,18) | 2.50 | | End of Window Sample at 2.50 m |
| | | | Type | Results | | | |

**Remarks:** Stopped on hard stratum. Groundwater not encountered.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS131**
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| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.11 | | MADE GROUND: concrete |
| | | 0.30 | D,J | | (0.50) | | MADE GROUND: grey brown sandy slightly clayey gravel. Gravel is fine to coarse angular limestone clinker. |
| | | 0.60 | D,J | | 0.61 | | |
| | | | | | 0.75 | | MADE GROUND: light orange brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare rounded medium flint. |
| | | 1.00 | D,J | | (2.25) | | Red firm to stiff silty slightly sandy CLAY becoming laminated and friable from 2.5m bgl |
| | | 2.00 | D | | | | |
| | | 3.00 | D,J | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS132**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.12 | | MADE GROUND: concrete |
| | | 0.30 | D,J | | 0.35 | | MADE GROUND: black sandy silty gravel. Gravel is fine to coarse angular limestone clinker. Ashy. |
| | | 0.60 | D,J | | (0.60) | | MADE GROUND: black gravelly sand. Gravel is fine to coarse angular limestone clinker with rare slag and brick. Ashy. Metal fragments at 0.55m bgl. |
| | | 1.10 | D,J | | 0.95 | | MADE GROUND: orange brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare rounded medium flint and occasional brick. |
| | | 2.00 | D | | 1.20 | | Red silty slightly sandy CLAY with rare rounded medium flint gravel, becoming laminated and friable from 2.8m bgl |
| | | 3.00 | D,J | | (2.20) | | |
| | | | | | 3.40 | | End of Window Sample at 3.40 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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Tracked windowless sampler

Window Sample No
**MWS133**
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| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.12 | | MADE GROUND: concrete |
| | | 0.30 | D,J | | (0.28) | | MADE GROUND: black sandy silty gravel. Gravel is fine to coarse angular limestone clinker. Ashy. |
| | | | | | 0.40 | | MADE GROUND: black gravelly sand. Gravel is fine to coarse angular limestone clinker with rare slag and brick. Ashy. |
| | | 0.70 | D,J | | (0.70) | | |
| | | | | | 1.10 | | MADE GROUND: orange brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare rounded medium flint and occasional brick. |
| | | 1.40 | D,J | | (0.50) | | |
| | | | | | 1.60 | | Red silty slightly sandy CLAY with rare rounded medium flint gravel, becoming laminated and friable from 2.5m bgl |
| | | 2.00 | D | | (1.60) | | |
| | | 3.00 | D | | 3.20 | | End of Window Sample at 3.20 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS134**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.34) 0.34 | | MADE GROUND: concrete |
| | | 0.50 | D,J | | (0.46) 0.80 | | MADE GROUND: reddish brown sandy gravelly clay. Gravel is fine to coarse angular concrete are occasional rounded flint. Black ashy inclusions. Refusal on further concrete slab at 0.8m bgl. |
| | | | | | | | End of Window Sample at 0.80 m |

1
2
3
4

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS134A**
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| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.44) 0.44 | | MADE GROUND: concrete |
| | | 0.50 | D,J | | (0.31) 0.75 | | MADE GROUND: reddish brown sandy gravelly clay. Gravel is fine to coarse angular concrete are occasional rounded flint. Black ashy inclusions. |
| | | 1.00 | D,J | | (0.45) 1.20 | | MADE GROUND: reddish brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare rounded medium flint and occasional brick. |
| | | 1.70 | D,J | | (2.80) 4.00 | | Red silty slightly sandy CLAY with rare rounded medium flint gravel, becoming laminated and friable from 2.8m bgl |
| | | 2.80 | D | | | | |
| | | 3.80 | D | | | | |
| | | | Type | Results | | | End of Window Sample at 4.00 m |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS135**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | | | | 0.20 | | MADE GROUND: grey black sandy clayey gravel. Gravel is medium to coarse angular limestone clinker. Ashy. |
| | | 0.30 | D,J | | 0.40 | | Orangey brown very sandy CLAY. |
| | | 0.75 | D,J | | (0.60) | | |
| | | | | | 1.00 | | Red silty slightly sandy CLAY. |
| | | 1.50 | D,J | | | | |
| | | | | | (2.00) | | |
| | | 2.20 | D | | | | |
| | | 2.90 | D | | | | |
| | | | | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS136**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 07/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.20 | | MADE GROUND: concrete |
| | | 0.30 | D,J | | (0.30) | | MADE GROUND: grey brown mottled orange slightly gravelly sandy clay with black ashy inclusions. Gravel is rare fine to coarse angular limestone clinker and occasional brick. |
| | | 0.75 | D,J | | (0.50) | | MADE GROUND: orange brown slightly gravelly sandy clay with black ashy inclusions. Gravel is rare fine to coarse angular brick and sandstone. |
| | | 1.20 | D,J | | 1.00 | | Red silty slightly sandy CLAY, becoming laminated and friable from 2.1m bgl |
| | | 2.00 | D | | (2.00) | | |
| | | 3.00 | D | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
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PID - in-situ photoionization detector

D - small disturbed sample (tub)
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B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS137**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 07/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.22 | | MADE GROUND: concrete |
| | | 0.30 | D,J | | (0.28) | | MADE GROUND: grey black sandy silty gravel. Gravel is fine to coarse angular limestone clinker, slag. Ashy. |
| | | | | | 0.50 | | MADE GROUND: (reworked) reddish brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare medium rounded flint. |
| | | 1.00 | D,J | | (2.20) | | |
| | | 2.00 | D,J | | | | |
| | ▽ | 2.70 | D,J | | 2.70 | | MADE GROUND: grey brown mottled red sandy clayey gravel. Gravel is fine to coarse angular limestone clinker. Some black staining with hydrocarbon odour. Wet. |
| | | | | | (0.30) | | |
| | | | | | 3.00 | | Red silty slightly sandy CLAY, laminated and friable, with rare medium rounded flint gravel. |
| | | 3.20 | D,J | | 3.20 | | End of Window Sample at 3.20 m |
| | | | Type | Results | | | |

1 2 3 4

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
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PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS138**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 07/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.30) | | MADE GROUND: concrete with refusal at 0.3m bgl |
| | | | | | 0.30 | | End of Window Sample at 0.30 m |
| | | | Type | Results | | | |

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**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS138A**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Co-ords**
-

**Hole Type**
WLS

**Location:** Coventry

**Level**
-

**Scale**
1:25

**Client:** Meggitt/Clowes

**Dates:** 07/02/2012

**Logged By**
LGS

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.35) | | MADE GROUND: concrete |
| | | | | | 0.35 | | |
| | | 0.50 | D,J | | (0.55) | | MADE GROUND: grey brown mottled orange sandy gravelly clay with rare black ashy inclusions. Gravel is fine to medium angular limestone clinker. |
| | | | | | 0.90 | | |
| | | 1.10 | D,J | | (1.60) | | Red mottled orange silty very sandy CLAY with rare medium rounded flint gravel. |
| | | 1.90 | D | | | | |
| | | 2.50 | D,J | | 2.50 | | End of Window Sample at 2.50 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS139**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 07/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.50) | | MADE GROUND: concrete. Cored to maximum length of corer. |
| | | | | | 0.50 | | End of Window Sample at 0.50 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS140**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 07/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.15 | | MADE GROUND: concrete |
| | | 0.30 | D,J | | 0.40 | | MADE GROUND: (reworked) orange brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare medium rounded flint. |
| | | 0.80 | D,J | | (2.60) | | Red mottled beige silty sandy CLAY with rare medium rounded flint gravel. Becoming laminated and friable from 2.0m bgl. |
| | | 2.80 | D,J | | 3.00 | | End of Window Sample at 3.00 m |

Type | Results

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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| | | | |
|---|---|---|---|
| **Equipment and Methods**<br>Tracked windowless sampler | | | Window Sample No<br>**MWS141**<br>Sheet 1 of 1 |
| **Project Name**<br>Meggitt Stadco, Coventry | **Project No.**<br>17054A | **Co-ords**<br>- | **Hole Type**<br>WLS |
| **Location:** Coventry | | **Level**<br>- | **Scale**<br>1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 07/02/2012 | **Logged By**<br>LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | 0.20 | D,J | | 0.16 | | MADE GROUND: (reworked) orange brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare medium rounded flint. |
| | | | | | 0.35 | | Red soft silty very sandy CLAY. Damp red sandy lense 1.4-1.7m bgl. |
| | | 0.80 | D,J | | | | |
| | | | | | (1.45) | | |
| | | 1.60 | D,J | | | | |
| | | | | | 1.80 | | Red silty slightly sandy CLAY with rare medium rounded flint gravel. Becoming laminated and friable from 2.5m bgl. |
| | | 2.00 | D,J | | | | |
| | | | | | (1.20) | | |
| | | 2.80 | D,J | | | | |
| | | | | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS142**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.48) 0.48 | | MADE GROUND: concrete |
| | | 0.50 | D,J | | | | MADE GROUND: grey brown sandy silty gravel. Gravel is fine to coarse angular limestone clinker and concrete. Rare black ashy inclusions. |
| | | 0.80 | D,J | | 0.70 | | MADE GROUND: black sandy silty gravel. Gravel is fine to coarse angular limestone clinker and concrete. Rare brick and black ashy inclusions. |
| | | 1.20 | D,J | | (0.55) 0.95 | | MADE GROUND: (reworked) orange brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare medium angular brick with occasional glazed fired clay (possibly old pipe) |
| | | 2.00 | D | | (1.50) 1.50 | | Red mottled beige silty slightly sandy CLAY with rare medium rounded flint gravel. Becoming laminated and friable from 2.4m bgl. |
| | | 3.00 | D | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS143**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | | | | 0.18 | | MADE GROUND: (reworked) orange brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare medium angular brick and medium rounded flint. |
| | | 0.50 | D,J | | (0.57) | | |
| | | | | | 0.75 | | Light orange brown clayey SAND. |
| | | 1.00 | D,J | | (0.35) | | |
| | | | | | 1.10 | | Red silty slightly sandy CLAY with rare medium rounded flint gravel. Becoming laminated and friable from 2.6m bgl. |
| | | 1.80 | D,J | | (1.90) | | |
| | | 2.80 | D | | | | |
| | | | | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS144**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.22 | | MADE GROUND: concrete |
| | | | | | 0.30 | | MADE GROUND: concrete cobble |
| | | 0.40 | D,J | | 0.50 | | MADE GROUND: grey black sandy silty gravel. Gravel is fine to coarse angular concrete with rare brick and sandstone. Rare black ashy inclusions. |
| | | 0.60 | D,J | | (0.50) | | MADE GROUND: (reworked) orange brown slightly gravelly sandy clay with rare black ashy inclusions. Gravel is rare medium angular brick and concrete with medium rounded flint. |
| | | 1.00 | D,J | | 1.00 | | Red silty slightly sandy CLAY with rare medium rounded flint gravel. Becoming laminated and friable from 2.6m bgl. Red sandy lense 1.3-1.4m bgl. |
| | | 2.00 | D | | (2.00) | | |
| | | 3.00 | D | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Hole located near reported location of former TCE tank.
Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS145**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.45) 0.45 | | MADE GROUND: concrete |
| | | 0.55 | D,J | | (0.30) 0.75 | | MADE GROUND: grey black sandy silty clayey gravel. Gravel is fine to coarse angular limestone clinker, concrete with rare brick and slag. Rare black ashy inclusions. |
| | | 1.00 | D,J | | (2.25) | | Red mottled beige silty slightly sandy CLAY with rare medium rounded flint gravel. Becoming laminated and friable from 2.6m bgl. Red sandy lense 2.0-2.1m bgl. |
| | | 2.00 | D | | | | |
| | | 3.00 | D | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

1 2 3 4

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS146**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.38) 0.38 | | MADE GROUND: concrete |
| | | 0.40 | D,J | | 0.50 | | MADE GROUND: black sandy silty gravel. Gravel is fine to medium angular limestone clinker, concrete with rare brick and slag. Rare black ashy inclusions. |
| | | 0.75 | D,J | | (1.00) 1.50 | | MADE GROUND: orange brown slightly clayey gravelly sand. Gravel is medium angular brick and rounded flint. Rare black ashy inclusions. |
| | | 1.30 | D,J | | 1.70 | | MADE GROUND: concrete cobble |
| | | 1.90 | D,J | | (0.30) 2.00 | | Orange brown slightly clayey SAND. Refusal on sandstone at 2.0m bgl. |
| | | | | | | | End of Window Sample at 2.00 m |

Type | Results

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS147**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.18 | | MADE GROUND: concrete |
| | | | | | 0.40 | | MADE GROUND: coarse angular concrete gravel and cobbles |
| | | 0.60 | D,J | | (3.20) | | MADE GROUND: black sandy silty gravel. Gravel is fine to medium angular limestone clinker and concrete with rare brick and slag. Black ashy inclusions. Suspect asbestos cement and weathered asbestos insulation board. Occasional glass fragments. |
| | | 1.50 | D,J | | | | |
| | | 2.50 | D,J | | | | |
| | | 3.50 | D,J | | 3.60 | | MADE GROUND: grey brown sandy gravelly clay. Gravel is medium to coarse angular brick, clinker, slag. Black ashy inclusions. Wet. No recovery between 4.0 and 4.5m bgl. Refusal on concrete at 4.7m bgl. |
| | | 3.90 | D,J | | (1.10) | | |
| | | | | | 4.70 | | End of Window Sample at 4.70 m |
| | | | Type | Results | | | |

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4

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS148**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.18 | | MADE GROUND: concrete |
| | | 0.40 | D,J | | (0.42) | | MADE GROUND: grey brown sandy clayey gravel. Gravel is fine to coarse angular limestone clinker, concrete with rare brick. Rare black ashy inclusions. |
| | | | | | 0.60 | | MADE GROUND: coarse angular concrete gravel and cobbles |
| | | | | | 0.80 | | Red initially clayey SAND becoming very dense and cemented. Refusal at 1.4m bgl (sandstone). |
| | | 1.30 | D,J | | (0.60) | | |
| | | | | | 1.40 | | End of Window Sample at 1.40 m |
| | | | Type | Results | | | |

1
2
3
4

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS149**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | 0.30 | D,J | | 0.23 | | MADE GROUND: reworked red clayey gravelly sand. Gravel is medium to coarse angular concrete and rare brick. |
| | | | | | 0.45 | | Red initially clayey SAND becoming very dense and cemented. Refusal at 2.0m bgl (sandstone). |
| | | 0.90 | D,J | | (1.55) | | |
| | | 1.90 | D | | 2.00 | | End of Window Sample at 2.00 m |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS150**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | 0.25 | D,J | | 0.20 / 0.30 | | MADE GROUND: grey black ashy sandy gravel. Gravel is fine to medium angular limestone clinker, concrete with rare brick and slag. |
| | | 1.00 | D,J | | (1.70) | | Red initially clayey SAND becoming very dense and cemented. Refusal at 2.0m bgl (sandstone). |
| | | 1.90 | D,J | | 2.00 | | End of Window Sample at 2.00 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS151**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | 0.30 | J | | 0.21 | | MADE GROUND: black ashy sandy gravel. Gravel is fine to medium angular limestone clinker. Concrete cobble. |
| | | 0.75 | D | | 0.40 (0.60) | | Red friablle sandy CLAY (possibly reworked). Refusal at 1.0m bgl. |
| | | | | | 1.00 | | End of Window Sample at 1.00 m |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS151A**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Co-ords**
-

**Hole Type**
WLS

**Location:** Coventry

**Level**
-

**Scale**
1:25

**Client:** Meggitt/Clowes

**Dates:** 09/02/2012

**Logged By**
LGS

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | 0.30 | J | | 0.25<br>0.30 | | MADE GROUND: black ashy sandy gravel. Gravel is fine to medium angular limestone clinker. |
| | | 0.70 | D,J | | (1.40) | | Red initially friable sandy CLAY becoming dense. Refusal at 1.7m bgl. |
| | | 1.70 | D,J | | 1.70 | | End of Window Sample at 1.70 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS152**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | 0.30 | J | | 0.25 / 0.35 | | MADE GROUND: black ashy sandy gravel. Gravel is fine to medium angular limestone clinker and slag. |
| | | 1.00 | D,J | | (1.25) | | Red initially clayey SAND becoming very dense and cemented. Refusal at 1.6m bgl (sandstone). |
| | | 1.60 | D,J | | 1.60 | | End of Window Sample at 1.60 m |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS153**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 10/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | | | | 0.18 | | |
| | | 0.25 | J | | 0.20 | | MADE GROUND: Gravel of coarse angular limestone clinker and brick. |
| | | | | | 0.30 | | MADE GROUND: grey black ashy sandy gravel. Gravel is fine to medium angular limestone clinker. |
| | | 0.70 | D,J | | (1.00) | | Red brown streaked grey sandy CLAY. |
| | | | | | 1.30 | | Red slightly clayey SAND. |
| | | 1.40 | D,J | | | | |
| | | | | | 1.50 | | Red occasionally mottled beige initially friable sandy CLAY. |
| | | 1.80 | D | | | | |
| | | | | | (2.40) | | |
| | | 2.80 | D | | | | |
| | | 3.80 | D | | | | |
| | | | | | 3.90 | | End of Window Sample at 3.90 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS154**
Sheet 1 of 1

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | WLS |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 10/02/2012 | **Logged By** LGS |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.30) | | MADE GROUND: concrete |
| | | | | | 0.30 | | No recovery |
| | | | | | (0.40) | | |
| | | | | | 0.70 | | MADE GROUND: brown black ashy sandy slightly clayey gravel. Gravel is fine to medium angular limestone clinker, slag and concrete. |
| | | 0.80 | D,J | | | | |
| | | 0.90 | D,J | | 0.90 | | |
| | | | | | 1.00 | | MADE GROUND: grey brown sandy gravelly clay. Gravel is fine to medium angular limestone clinker, slag and concrete. Black ashy inclusions. |
| | | | | | 1.10 | | MADE GROUND: concrete cobble |
| | | | | | (0.40) | | MADE GROUND: orange brown sandy gravelly clay. Gravel is fine to coarse angular concrete. Rare brick and medium rounded flint. |
| | | 1.40 | D,J | | | | |
| | | | | | 1.50 | | Red very sandy CLAY with occasional medium rounded flint. |
| | | 1.75 | D,J | | (0.50) | | |
| | | | | | 2.00 | | Red mottled beige slightly sandy silty CLAY becoming friable and laminated at 2.9m bgl. Rare medium rounded gravel of flint. |
| | | 2.75 | D | | | | |
| | | | | | (2.00) | | |
| | | 3.75 | D | | | | |
| | | | | | 4.00 | | End of Window Sample at 4.00 m |

Type | Results

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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**Equipment and Methods**
Tracked windowless sampler

Window Sample No
**MWS155**
Sheet 1 of 1

**Project Name**
Meggitt Stadco, Coventry

**Project No.**
17054A

**Co-ords**
-

**Hole Type**
WLS

**Location:** Coventry

**Level**
-

**Scale**
1:25

**Client:** Meggitt/Clowes

**Dates:** 10/02/2012

**Logged By**
LGS

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: concrete |
| | | 0.20 | D,J | | 0.19 | | |
| | | | | | 0.30 | | MADE GROUND: black ashy sandy gravel. Gravel is fine to medium angular limestone clinker, slag and rare brick. |
| | | | | | | | Reddish brown sandy silty CLAY flecked black. |
| | | 0.70 | D,J | | | | |
| | | | | | (2.20) | | |
| | | 1.70 | D,J | | | | |
| | | 2.50 | D | | 2.50 | | SANDSTONE cobble. |
| | | | | | 2.70 | | Red slightly clayey SAND. |
| | | 2.90 | D | | (0.30) | | |
| | | | | | 3.00 | | End of Window Sample at 3.00 m |
| | | | Type | Results | | | |

**Remarks:** Diamond tipped rotary corer used to penetrate concrete

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample

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| Equipment and Methods | Borehole No **MBH101** Sheet 1 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** 50.035 | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 07/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.20 | | MADE GROUND: grass over gravelly topsoil (Driller's Description). |
| | | | | | 0.35 (0.35) | | CONCRETE |
| | | | | | 0.70 (0.30) | | Brown CLAY (Driller's Description). |
| | | | | | 1.00 | | Brown sandy CLAY (Driller's Description). |
| | | | | | 1.20 | | Red brown SAND and GRAVEL (Driller's Description). |
| | | | | | | | Weak red and red-brown SANDSTONE (Driller's Description). |
| | | | Type | Results | | | |

1
2
3
4

Continued next sheet

**Remarks:** Standpipe with gas tap and cover installed to 15m (Plain pipe with bentonite seal GL-2.0, slotted pipe with gravel 2.0-15.0m). Groundwater at 11.6m at end of drilling.

| | |
|---|---|
| IVN - in-situ hand vane | D - small disturbed sample (tub) |
| IPP - in-situ pocket penetrometer | J - amber glass jar (250ml) |
| SPT - in-situ standard penetration test (spoon) | V - amber glass jar (60ml) |
| CPT - in-situ standard penetration test (cone) | B - bulk disturbed sample |
| PID - in-situ photoionization detector | U - U100 |

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| Equipment and Methods | Borehole No **MBH101** Sheet 2 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** 50.035 | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 07/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (10.00) | | Weak red and red-brown SANDSTONE (Driller's Description). |
| | | | Type | Results | | | Continued next sheet |

6
7
8
9

**Remarks:** Standpipe with gas tap and cover installed to 15m (Plain pipe with bentonite seal GL-2.0, slotted pipe with gravel 2.0-15.0m). Groundwater at 11.6m at end of drilling.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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| Equipment and Methods | Borehole No **MBH101** Sheet 3 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** 50.035 | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 07/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Weak red and red-brown SANDSTONE (Driller's Description). | 11 |
| | | | | | 11.20 | | Red-brown MUDSTONE (Driller's Description). | 12 |
| | | | | | (3.80) | | | 13 |
| | | | | | | | | 14 |
| | | | Type | Results | | | End of Window Sample at 15.00 m | |

**Remarks:** Standpipe with gas tap and cover installed to 15m (Plain pipe with bentonite seal GL-2.0, slotted pipe with gravel 2.0-15.0m). Groundwater at 11.6m at end of drilling.

| | |
|---|---|
| IVN - in-situ hand vane | D - small disturbed sample (tub) |
| IPP - in-situ pocket penetrometer | J - amber glass jar (250ml) |
| SPT - in-situ standard penetration test (spoon) | V - amber glass jar (60ml) |
| CPT - in-situ standard penetration test (cone) | B - bulk disturbed sample |
| PID - in-situ photoionization detector | U - U100 |

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| Equipment and Methods | Borehole No **MBH102** Sheet 1 of 2 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** 42.852 | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** AR |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | MADE GROUND: macadam surfacing. |
| | | | | | 0.20 | | MADE GROUND: grey angular sandstone gravel. |
| | | | | | 0.30 | | CONCRETE |
| | | | | | 0.50 | | MADE GROUND: yellow sand and gravel (Driller's Description). |
| | | 0.70 | CPT | N=21 (5,4,5,5,5,6) | 0.70 | | Red SAND and GRAVEL (Driller's Description). |
| | | 0.70-1.15 | D | | (0.50) | | |
| | | 1.20 | SPT | N=34 (7,9,8,8,9,9) | 1.20 | | Red-brown sandy CLAY (Driller's Description). |
| | | 1.20-1.65 | D | | | | |
| | | | | | (1.80) | | |
| | | 3.00 | CPT | 50/60mm | 3.00 | | Red brown and brown MUDSTONE with grey bands (Driller's Description). |
| | | 3.00-3.14 | D | 60mm (22,3,50) | | | |
| | | 4.50 | CPT | 75/125mm | | | |
| | | 4.50-4.63 | D | 125mm - Abandoned | | | |
| | | | Type | Results | | | |

Continued next sheet

**Remarks:** Standpipe with gas tap and cover installed to 10m (Gl-2.0m plain pipe with bentonite, slotted pipe with gravel pack 2.0-10.0m). Groundwater at 9.8m at end of drilling.

| | |
|---|---|
| IVN - in-situ hand vane | D - small disturbed sample (tub) |
| IPP - in-situ pocket penetrometer | J - amber glass jar (250ml) |
| SPT - in-situ standard penetration test (spoon) | V - amber glass jar (60ml) |
| CPT - in-situ standard penetration test (cone) | B - bulk disturbed sample |
| PID - in-situ photoionization detector | U - U100 |

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**Equipment and Methods**

Borehole No
**MBH102**
Sheet 2 of 2

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** 42.852 | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** AR |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Red brown and brown MUDSTONE with grey bands (Driller's Description). | |
| | | 6.00<br>6.00-6.11 | CPT<br>D | 75/105mm<br>105mm - Abandoned | | | | 6 |
| | | | | | (7.00) | | | |
| | ▽ | | | | | | | 7 |
| | | 7.50<br>7.50-7.88 | CPT<br>D | 50/230mm<br>230mm (9,14,14,16,15,5) | | | | |
| | | | | | | | | 8 |
| | | 9.00<br>9.00-9.24 | CPT<br>D | 50/155mm<br>155mm (17,8,19,24,7) | | | | 9 |
| | | | Type | Results | | | End of Window Sample at 10.00 m | |

**Remarks:** Standpipe with gas tap and cover installed to 10m (Gl-2.0m plain pipe with bentonite, slotted pipe with gravel pack 2.0-10.0m). Groundwater at 9.8m at end of drilling.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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**Equipment and Methods**

Borehole No
**MBH103**
Sheet 1 of 2

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** 41.562 | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012-03/02/2012 | **Logged By** AR |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.10 | | MADE GROUND: macadam surfacing. |
| | | | | | (0.40) | | MADE GROUND: grey angular sandstone gravel. |
| | | | | | 0.50 | | MADE GROUND: ash fill (Driller's Description). |
| | | | | | (0.40) | | |
| | | 0.90 | SPT | N=17 (3,3,4,4,4,5) | 0.90 | | Red-brown CLAY (Driller's Description). |
| | | 0.90-1.35 | D | | | | |
| | | 1.35 | SPT | N=29 (3,6,6,7,8,8) | | | |
| | | 1.35-1.80 | D | | | | |
| | | | | | (1.90) | | |
| | | | | | 2.80 | | Fine red and red-brown SANDSTONE (Driller's Description). |
| | | 3.00 | CPT | 50/285mm 285mm (5,9,11,12,15,12) | | | |
| | | 3.00-3.44 | D | | | | |
| | | 4.50 | CPT | 50/70mm 70mm (9,14,50) | | | |
| | | 4.50-4.72 | D | | | | |

Continued next sheet

**Remarks:** Standpipe with gas tap and cover fitted (GL-2.0m, plain pipe with bentonite, 2.0-1.0m, slotted pipe with gravel filter pack). Depth to groundwater at end of drilling 9.80m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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**Equipment and Methods**

Borehole No
**MBH103**
Sheet 2 of 2

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** 41.562 | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012-03/02/2012 | **Logged By** AR |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Fine red and red-brown SANDSTONE (Driller's Description). | |
| | | 6.00<br>6.00-6.10 | CPT<br>D | 75/100mm<br>100mm - Abandoned | (7.20) | | | 6 |
| | | 7.50<br>7.50-7.57 | CPT<br>D | 75/70mm<br>70mm - Abandoned | | | | 7 |
| | | | | | | | | 8 |
| | | 9.00<br>9.00-9.07 | CPT<br>D | 75/70mm<br>70mm - Abandoned | | | | 9 |
| | | | Type | Results | | | End of Window Sample at 10.00 m | |

**Remarks:** Standpipe with gas tap and cover fitted (GL-2.0m, plain pipe with bentonite, 2.0-1.0m, slotted pipe with gravel filter pack). Depth to groundwater at end of drilling 9.80m.

| | |
|---|---|
| IVN - in-situ hand vane | D - small disturbed sample (tub) |
| IPP - in-situ pocket penetrometer | J - amber glass jar (250ml) |
| SPT - in-situ standard penetration test (spoon) | V - amber glass jar (60ml) |
| CPT - in-situ standard penetration test (cone) | B - bulk disturbed sample |
| PID - in-situ photoionization detector | U - U100 |

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**Equipment and Methods**

Borehole No
**MBH104**
Sheet 1 of 2

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** 41.428 | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.10 | | MADE GROUND: macadam surfacing. |
| | | | | | (0.30) | | MADE GROUND: ash and gravel sub-base (Driller's Description). |
| | | | | | 0.40 | | Brown CLAY (Driller's Description). |
| | | 0.60 | SPT | 50/295mm | 0.60 | | Brown sandy gravelly CLAY (Driller's Description). |
| | | 0.60 | IPP | 295mm (4,8,12,12,14,12) | | | |
| | | 0.60-1.05 | D | | (0.60) | | |
| | | 1.20 | CPT | 50/65mm | 1.20 | | Weak fine red SANDSTONE (Driller's Description). |
| | | 1.20-1.40 | D | 65mm (10,15,50) | | | |
| | | 3.00 | CPT | 75/105mm | | | |
| | | 3.00-3.11 | D | 105mm - Abandoned | | | |
| | | 4.50 | CPT | 75/140mm | | | |
| | | 4.50-4.64 | D | 140mm - Abandoned | | | |
| | | | Type | Results | | | |

Continued next sheet

**Remarks:** Hand dug pit to 1.20m to start. Standpipe installed to 10.0m with gas tap and cover (GL-7.0 plain pipe with bentonite, slotted pipe with gravel pack from 7.0-10.0m. ). Depth to groundwater on completion of drilling 9.6m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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**Equipment and Methods**

Borehole No
**MBH104**
Sheet 2 of 2

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** 41.428 | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 02/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | (8.80) | | Weak fine red SANDSTONE (Driller's Description). | |
| | | 6.00<br>6.00-6.11 | CPT<br>D | 75/110mm<br>110mm - Abandoned | | | | 6 |
| | | | | | | | | 7 |
| | | 7.50<br>7.50-7.61 | CPT<br>D | 75/110mm<br>110mm - Abandoned | | | | 8 |
| | ▽ | 9.00<br>9.00-9.11 | CPT<br>D | 75/115mm<br>115mm - Abandoned | | | | 9 |
| | | | Type | Results | | | End of Window Sample at 10.00 m | |

**Remarks:** Hand dug pit to 1.20m to start. Standpipe installed to 10.0m with gas tap and cover (GL-7.0 plain pipe with bentonite, slotted pipe with gravel pack from 7.0-10.0m.
). Depth to groundwater on completion of drilling 9.6m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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**Equipment and Methods**

Borehole No
**MBH105**
Sheet 1 of 2

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 03/02/2012-06/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.10 | | MADE GROUND: macadam. |
| | | | | | (0.30) | | MADE GROUND: ash and gravel sub-base (Driller's Description). |
| | | | | | 0.40 | | Brown CLAY (Driller's Description). |
| | | 0.60 | SPT | N=11 (2,2,3,3,2,3) | 0.60 | | Brown sandy gravelly CLAY (Driller's Description). |
| | | 0.60-1.05 | D | | (0.60) | | |
| | | 1.20 | CPT | 50/60mm 60mm (25,0,50) | 1.20 | | Weak, fine-grained red SANDSTONE, becoming mudstone at 9.7m (Driller's Description). |
| | | 1.20-1.40 | D | | | | |
| | | 3.00 | CPT | 50/70mm 70mm (25,50) | | | |
| | | 3.00-3.14 | D | | | | |
| | | 4.50 | CPT | 50/65mm 65mm (21,4,50) | | | |
| | | 4.50-4.64 | D | | | | |
| | | | Type | Results | | | |

1
2
3
4

Continued next sheet

**Remarks:**

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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**Equipment and Methods**

Borehole No
**MBH105**
Sheet 2 of 2

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 03/02/2012-06/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | (8.80) | | Weak, fine-grained red SANDSTONE, becoming mudstone at 9.7m (Driller's Description). | |
| | | 6.00<br>6.00-6.11 | CPT<br>D | 50/50mm<br>50mm (25,50) | | | | 6 |
| | | | | | | | | 7 |
| | | 7.50<br>7.50-7.61 | SPT<br>D | 50/45mm<br>45mm (25,50) | | | | 8 |
| | | 9.00-9.12 | D | | | | | 9 |
| | | | Type | Results | | | End of Window Sample at 10.00 m | |

**Remarks:**

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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| Equipment and Methods | Borehole No **MBH106** Sheet 1 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | 0.20 (0.60) | | CONCRETE |
| | | | | | 0.80 (1.50) | | MADE GROUND: red brick fill (Driller's Description). |
| | | | | | 2.30 (1.90) | | Stiff red-brown CLAY (Driller's Description). |
| | | | | | 4.20 | | Brown and red-brown MUDSTONE (Driller's Description). |
| | | | Type | Results | | | Weak red and red-brown SANDSTONE (Driller's Description). |

Continued next sheet

**Remarks:** Installed with 50mm dia. pipe to 15m. Plain pipe GL to 9m, slotted pipe 9m to 15m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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**Equipment and Methods**

Borehole No
**MBH106**
Sheet 2 of 3

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Weak red and red-brown SANDSTONE (Driller's Description). | |
| | | | | | | | | 6 |
| | | | | | | | | 7 |
| | | | | | (6.20) | | | |
| | ▽ | | | | | | | 8 |
| | | | | | | | | 9 |
| | | | Type | Results | | | Continued next sheet | |

**Remarks:** Installed with 50mm dia. pipe to 15m. Plain pipe GL to 9m, slotted pipe 9m to 15m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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| Equipment and Methods | Borehole No **MBH106** Sheet 3 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 06/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | Weak red and red-brown SANDSTONE (Driller's Description). | |
| | | | | | 10.40 | | Red brown MUDSTONE (Driller's Description). | 11 |
| | | | | | | | | 12 |
| | | | | | (4.60) | | | 13 |
| | | | | | | | | 14 |
| | | | Type | Results | | | End of Window Sample at 15.00 m | |

**Remarks:** Installed with 50mm dia. pipe to 15m. Plain pipe GL to 9m, slotted pipe 9m to 15m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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**Equipment and Methods**

Borehole No
**MBH107**
Sheet 1 of 3

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | 0.10 | | MADE GROUND: macadam. | |
| | | | | | 0.30 | | MADE GROUND: hardcore sub-base (Driller's Description). | |
| | | | | | (0.40) | | MADE GROUND: ash fill (Driller's Description). | |
| | | | | | 0.70 | | Dark brown CLAY (Driller's Description). | |
| | | | | | (0.30) | | | |
| | | 1.00 | CPT | N=21 (4,4,4,6,5,6) | 1.00 | | Dense red SAND (Driller's Description). | 1 |
| | | 1.00-1.45 | D | | | | | |
| | | 2.00 | CPT | N=27 (6,5,5,6,7,9) | (2.00) | | | 2 |
| | | 2.00-2.45 | D | | | | | |
| | | 3.00 | CPT | 50/165mm 165mm (12,12,16,21,13) | 3.00 | | Red SANDSTONE, completely weathered to gravelly sand at 7.0-7.4m. | 3 |
| | | 3.00-3.32 | D | | | | | 4 |
| | | | Type | Results | | | Continued next sheet | |

**Remarks:** 50mm dia. pipe installed to 10m. GL-3.0m, plain pipe, slotted pipe 3.0m to 10m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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| Equipment and Methods | Borehole No **MBH107** Sheet 2 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | (5.10) | | Red SANDSTONE, completely weathered to gravelly sand at 7.0-7.4m. | 6 7 8 |
| | ▽ | | | | 8.10 (2.30) | | Red SILTSTONE/MUDSTONE (Driller's Description). | 9 |
| | | | Type | Results | | | Continued next sheet | |

**Remarks:** 50mm dia. pipe installed to 10m. GL-3.0m, plain pipe, slotted pipe 3.0m to 10m.

| | |
|---|---|
| IVN - in-situ hand vane | D - small disturbed sample (tub) |
| IPP - in-situ pocket penetrometer | J - amber glass jar (250ml) |
| SPT - in-situ standard penetration test (spoon) | V - amber glass jar (60ml) |
| CPT - in-situ standard penetration test (cone) | B - bulk disturbed sample |
| PID - in-situ photoionization detector | U - U100 |

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**Equipment and Methods**

Borehole No
**MBH107**
Sheet 3 of 3

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | Red SILTSTONE/MUDSTONE (Driller's Description). |
| | | | | | 10.40 | | End of Window Sample at 10.40 m |
| | | | Type | Results | | | |

**Remarks:** 50mm dia. pipe installed to 10m. GL-3.0m, plain pipe, slotted pipe 3.0m to 10m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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| Equipment and Methods | Borehole No **MBH108** Sheet 1 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | | | CONCRETE |
| | | | | | 0.20 (0.50) | | MADE GROUND: brown clay with red brick (Driller's Description). |
| | | | | | 0.70 (2.00) | | red-brown becoming stiff red CLAY (Driller's Description). |
| | | 2.70 | SPT | N=38 (7,7,9,9,9,11) | 2.70 (0.30) | | Weak red SILTSTONE (Driller's Description). |
| | | 2.70-3.15 | D | | | | |
| | | 3.15 | SPT | 50/285mm 285mm (9,11,11,12,15,12) | 3.00 | | Fine red SANDSTONE (Driller's Description). |
| | | 3.15-3.59 | D | | | | |
| | ▽ | | | | | | |
| | | | Type | Results | | | |

Continued next sheet

**Remarks:** Installed with 50mm dia. pipe. GL-3.0m, plain pipe, slotted from 3.0 to 15m.

| | |
|---|---|
| IVN - in-situ hand vane | D - small disturbed sample (tub) |
| IPP - in-situ pocket penetrometer | J - amber glass jar (250ml) |
| SPT - in-situ standard penetration test (spoon) | V - amber glass jar (60ml) |
| CPT - in-situ standard penetration test (cone) | B - bulk disturbed sample |
| PID - in-situ photoionization detector | U - U100 |

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| Equipment and Methods | Borehole No **MBH108** Sheet 2 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (5.80) | | Fine red SANDSTONE (Driller's Description). |
| | | | | | 8.80 | | Red and red-brown SILTSTONE (Driller's Description). |
| | | | Type | Results | | | Continued next sheet |

**Remarks:** Installed with 50mm dia. pipe. GL-3.0m, plain pipe, slotted from 3.0 to 15m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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**Equipment and Methods**

Borehole No
**MBH108**
Sheet 3 of 3

| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 09/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | (6.20) | | Red and red-brown SILTSTONE (Driller's Description). | 11 12 13 14 |
| | | | Type | Results | | | End of Window Sample at 15.00 m | |

**Remarks:** Installed with 50mm dia. pipe. GL-3.0m, plain pipe, slotted from 3.0 to 15m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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| Equipment and Methods | Borehole No **MBH109** Sheet 1 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | Rotary |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** KRP |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | | | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | CONCRETE |
| | | | | | | | 0.25 (0.35) | | PROBABLE MADE GROUND: dark brown clay (Driller's Description). |
| | | | | | | | 0.60 (0.30) | | Stiff light brown CLAY (Driller's Description). |
| | | | | | | | 0.90 (2.10) | | Weak red MUDSTONE (Driller's Description). |
| | | 3.60-3.72 | C | | | | 3.00 (0.70) | | Red very highly weathered , very stiff SILT. Slightly sandy. Weathering Grade VI. |
| | | 3.00-4.50 | 100 | 95 | 0 | | 3.70 | | Red highly weathered thinly bedded silty fine SANDSTONE. Very weak. Weathering grade III/IV. |
| | | | | | | | 3.95 (0.75) | | Very stiff red fine sandy SILT becoming very highly weathered sandy thinly bedded red SILTSTONE. Bedding surfaces tightly closed. Occasional sub-vertical fissures. Weathering Grade IV/V. |
| | | | | | | | 4.70 | | Red slightly to moderately weathered thinly bedded silty fine grained SANDSTONE. Moderately strong-strong. Weathering Grade II/III. |
| | | | TCR | SCR | RQD | FI | | | |

Continued next sheet

**Remarks:** Open hole drilled to 3.0m. Installed with 50mm dia. pipe. GL-3.0m, plain pipe, slotted from 3.0-15m.

| | |
|---|---|
| IVN - in-situ hand vane | D - small disturbed sample (tub) |
| IPP - in-situ pocket penetrometer | J - amber glass jar (250ml) |
| SPT - in-situ standard penetration test (spoon) | V - amber glass jar (60ml) |
| CPT - in-situ standard penetration test (cone) | B - bulk disturbed sample |
| PID - in-situ photoionization detector | U - U100 |

HoleBASE 3.1 (Bld 426.49) Standard Borehole Log v2 dated 27th Nov 03

merebrook consulting
AN idom GROUP COMPANY
Merebrook Consulting Limited
Tel: 01773 829988
Fax: 01773 829393
email: consulting@merebrook.co.uk

| Equipment and Methods | Borehole No **MBH109** Sheet 2 of 3 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | Rotary |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** KRP |

| Well | Water Strike | Rotary Coring Depth (m) | TCR | SCR | RQD | FI | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|---|---|
| | | 4.50-6.00<br>5.25-5.37 | 100<br>C | 95 | 50 | | (1.00) | | Red slightly to moderately weathered thinly bedded silty fine grained SANDSTONE. Moderately strong-strong. Weathering Grade II/III. |
| | | | | | | | 5.70 | | Red weathered medium bedded SILTSTONE. Beds are horizontal. Weak and very weak. Weathering Grade III/IV. Thin (<50mm) strong beds of sandstone from 7.0-9.0m. |
| | | 6.00-7.50<br>7.10-7.22 | 100<br>C | 95 | 35 | | | | |
| | | 7.50-9.00<br>8.50-8.56 | 100<br>C | 95 | 20 | | (6.40) | | |
| | ▽ | 9.00-10.50<br>9.70-9.90 | C<br>90 | 75 | 60 | | | | |
| | | TCR | SCR | RQD | FI | | | | |

Continued next sheet

**Remarks:** Open hole drilled to 3.0m. Installed with 50mm dia. pipe. GL-3.0m, plain pipe, slotted from 3.0-15m.

| | |
|---|---|
| IVN - in-situ hand vane | D - small disturbed sample (tub) |
| IPP - in-situ pocket penetrometer | J - amber glass jar (250ml) |
| SPT - in-situ standard penetration test (spoon) | V - amber glass jar (60ml) |
| CPT - in-situ standard penetration test (cone) | B - bulk disturbed sample |
| PID - in-situ photoionization detector | U - U100 |

HoleBASE 3.1 (Bld 426.49) Standard Borehole Log v2 dated 27th Nov 03

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email: consulting@merebrook.co.uk

**Equipment and Methods**

Borehole No
**MBH109**


| **Project Name** | **Project No.** | **Co-ords** | **Hole Type** |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | Rotary |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** KRP |

| Well | Water Strike | Rotary Coring Depth (m) | TCR | SCR | RQD | FI | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Red weathered medium bedded SILTSTONE. Beds are horizontal. Weak and very weak. Weathering Grade III/IV. Thin (<50mm) strong beds of sandstone from 7.0-9.0m. | |
| | | 10.50-12.00 | 100 | 95 | 60 | | | | | 11 |
| | | | | | | | | | | 12 |
| | | | | | | | 12.10 | | Red slightly weathered thinly to medium horizontally bedded SANDSTONE. Locally with sub-vertical joints up to 100mm long. | |
| | | 12.45-12.57 | C | | | | | | | |
| | | 12.00-13.50 | 100 | 95 | 65 | | | | | 13 |
| | | | | | | | (2.90) | | | 14 |
| | | 13.50-15.00 | 100 | 95 | 65 | | | | | |
| | | | TCR | SCR | RQD | FI | | | End of Window Sample at 15.00 m | |

**Remarks:** Open hole drilled to 3.0m. Installed with 50mm dia. pipe. GL-3.0m, plain pipe, slotted from 3.0-15m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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email: consulting@merebrook.co.uk

| Equipment and Methods | Borehole No **MBH110** Sheet 1 of 2 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description |
|---|---|---|---|---|---|---|---|
| | | | | | (0.40) 0.40 | | CONCRETE |
| | | | | | (0.30) 0.70 | | POSSIBLE MADE GROUND: brown sandy clay (Driller's Description). |
| | | | | | 0.90 | | Brown sandy gravelly CLAY (Driller's Description). |
| | | | | | 1.10 | | Weak red-brown SANDSTONE (Driller's Description). |
| | | 1.80 | CPT | N=29 (6,6,6,7,8,8) | | | Weka red and red brown SILTSTONES and MUDSTONES with sand and gravel at 7.3-7.6m. (Driller's Description). |
| | | 1.80-2.25 | D | | | | |
| | | 3.00 | CPT | 43/160mm 160mm - Abandoned | | | |
| | | 3.00-3.31 | D | | | | |
| | ▽ | | | | | | |
| | | | Type | Results | | | |

1 2 3 4

Continued next sheet

**Remarks:** Installed with 50mm dia. pipe. Plain pipe GL-2.0m, slotted pipe 2.0-10.0m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

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email: consulting@merebrook.co.uk

| Equipment and Methods | Borehole No **MBH110** Sheet 2 of 2 |
|---|---|

| Project Name | Project No. | Co-ords | Hole Type |
|---|---|---|---|
| Meggitt Stadco, Coventry | 17054A | - | RO |
| **Location:** Coventry | | **Level** - | **Scale** 1:25 |
| **Client:** Meggitt/Clowes | | **Dates:** 08/02/2012 | **Logged By** |

| Well | Water Strike | Samples & In Situ Testing: Depth (m) | Type | Results | Depth in metres (thickness) | Legend | Stratum Description | |
|---|---|---|---|---|---|---|---|---|
| | | | | | (8.30) | | Weka red and red brown SILTSTONES and MUDSTONES with sand and gravel at 7.3-7.6m. (Driller's Description). | 6 7 8 9 |
| | | | | | 9.40 (0.60) | | Red fine SANDSTONE (Driller's Description). | |
| | | | Type | Results | | | End of Window Sample at 10.00 m | |

**Remarks:** Installed with 50mm dia. pipe. Plain pipe GL-2.0m, slotted pipe 2.0-10.0m.

IVN - in-situ hand vane
IPP - in-situ pocket penetrometer
SPT - in-situ standard penetration test (spoon)
CPT - in-situ standard penetration test (cone)
PID - in-situ photoionization detector

D - small disturbed sample (tub)
J - amber glass jar (250ml)
V - amber glass jar (60ml)
B - bulk disturbed sample
U - U100

HoleBASE 3.1 (Bld 426.49) Standard Borehole Log v2 dated 27th Nov 03

**APPENDIX 5** ▪ Chemical Analysis Criteria

# APPENDIX 4 CHEMICAL ANALYSIS CRITERIA

## A4.1 DETERMINANDS

A4.3.1 Samples were analysed by the laboratory for combinations of the following standard suite of determinands:

i. *pH*;

ii. *Metallic/metalloid*: arsenic, boron (water soluble), cadmium, chromium, copper, lead, mercury, nickel, selenium and zinc;

iii. *Inorganic*: cyanide (total), sulphate (water soluble) and asbestos (screen);

iv. *Organic*: speciated Polycyclic Aromatic Hydrocarbons (PAH), phenols (total monohydric), volatile organic compounds, carbon-banded Extractable Petroleum Hydrocarbons (EPH) and also carbon banded hydrocarbons differentiated into aliphatic and aromatic groups.

## A4.2 SOIL SCREENING LEVELS

A4.2.1 For the purposes of initial comparison a set of generic assessment criteria have been adopted for standard land use scenarios: residential where the potential for consumption of home-grown produce exists (SL1) and a commercial/industrial land use (SL2). These are based on, where available, published human health risk-based Soil Guideline Values (SGVs), produced from the Contaminated Land Exposure Assessment (CLEA) model, which may act as intervention values. For those determinands where no published SGV is available, those published in 'Generic Assessment Criteria for Human Health Risk Assessment' by the Chartered Institute of Environmental Health (CIEH) in 2007. For additional determinands, risk-based generic assessment criteria have been derived using the CLEA model in conjunction with EA/DEFRA published toxicological data.

A4.2.2 An additional set of phytotoxin screening levels have been adopted from 'The Code of Agricultural Practice for the Protection of Soil' Ministry of Agriculture, Fisheries and Food (MAFF), 1993, which are protective of both healthy plant growth and are conservative in terms of human health. These are pH related and the screening levels shown reflect mean soil pH.

A4.2.3 A selection of samples have been analysed for Soil Organic Matter (SOM) and an appropriate figure for generic assessment has been adopted of 1%. Unless otherwise indicated, the generic assessment criteria assume a neutral pH, appropriate to the site condition and a sandy loam soil type.

## A4.3 GROUNDWATER SCREENING LEVELS

A4.3.1 Screening levels for groundwater have been derived Environmental Quality Standards provided by the Environment Agency Technical Advice to 3rd Parties on

Pollution of Controlled Waters for Part 2A. For contaminants where such values have not been prescribed, standards from the Maximum Allowable Concentrations (MAC) in the Water Supply (Water Quality) Regulations 2000 or the 1989 Regulations, have been referred to.

**APPENDIX 6**

- Tabulated soil test data – development zone specific, GL-1.0 m.
- Soils Chemical Laboratory Analysis Certificates
- Statistical Assessment Calculation Sheets, upper 1 m of soils for each development zone

Residential Zones Upper 1 m Soil Data

| | MTP105 | MTP105 | MTP106 | MTP107 | MTP108 | MTP109 | MWS135 | MWS135 | MWS145 | MWS146 | MWS146 | MWS147 | MWS148 | MWS149 | MWS150 | MWS151 | MWS151 | MWS151A | MWS152 | MWS152 | MWS153 | MWS153 | MWS154 | MWS-101 | MWS-101 | MWS-101 | MWS-102A | MWS-103 | MWS-104 | MWS-105 | MWS-105 | MWS-107 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.5 | 0.6 | 0.6 | 0.55 | 0.6 | 0.25 | 0.3 | 0.75 | 0.55 | 0.4 | 0.75 | 0.6 | 0.4 | 0.3 | 0.25 | 0.3 | 0.75 | 0.7 | 0.3 | 1 | 0.25 | 0.7 | 0.8 | 0.30-0.35 | 0.45-0.52 | 0.40-0.45 | 0.40-0.45 | 0.40-0.50 | 0.50-0.60 | 0.45-0.60 | 0.90-1.00 | 0.3-0.5 |
| Arsenic | 11 | 6.5 | 6.3 | 7 | 4.9 | 22 | | | 21 | 9.6 | | 21 | 10 | 6.8 | 9.2 | | | 7.9 | 21 | | | 4.4 | 14 | | 3.5 | | | 2.4 | 8.7 | | 9.9 | |
| Cadmium | 1 | 0.6 | 0.6 | 0.7 | 0.6 | 6.2 | | | 0.9 | 0.6 | | 1.5 | 0.3 | 0.2 | 0.6 | | | 0.3 | 0.9 | | | 0.3 | 0.6 | | 0.5 | | | 0.3 | 0.6 | | 0.8 | |
| Chromium | 20 | 21 | 20 | 18 | 21 | 110 | | | 57 | 19 | | 51 | 20 | 19 | 21 | | | 31 | 18 | | | 21 | 30 | | 22 | | | 13 | 26 | | 26 | |
| Copper | 160 | 15 | 15 | 25 | 20 | 380 | | | 170 | 73 | | 450 | 45 | 21 | 51 | | | 28 | 120 | | | 28 | 100 | | 12 | | | 5.1 | 16 | | 15 | |
| Lead | 37 | 18 | 18 | 58 | 12 | 59 | | | 92 | 35 | | 680 | 36 | 9 | 31 | | | 14 | 39 | | | 19 | 44 | | 13 | | | 5 | 25 | | 12 | |
| Mercury | < .05 | < .05 | < .05 | 1.8 | < .05 | 0.12 | | | 0.07 | 0.47 | | 0.15 | 0.37 | < .05 | 1.3 | | | 0.07 | 0.12 | | | 0.08 | 0.06 | | < .05 | | | < .05 | < .05 | | < .05 | |
| Nickel | 21 | 16 | 15 | 20 | 22 | 110 | | | 110 | 57 | | 110 | 22 | 14 | 49 | | | 34 | 68 | | | 17 | 62 | | 21 | | | 12 | 23 | | 23 | |
| Selenium | < .5 | < .5 | < .5 | < .5 | < .5 | < .5 | | | < .5 | 0.7 | | 1.1 | < .5 | < .5 | < .5 | | | < .5 | 4.4 | | | < .5 | < .5 | | < .5 | | | < .5 | 1.4 | | < .5 | |
| Zinc | 140 | 39 | 39 | 52 | 64 | 180 | | | 140 | 300 | | 330 | 63 | 33 | 180 | | | 160 | 110 | | | 49 | 44 | | 36 | | | 21 | 44 | | 54 | |
| Boron (water soluble) | | | 2.4 | | 2.1 | | | | | | | | | | 3.7 | | | 1.5 | | | | | | | 1.2 | | | 0.5 | 0.7 | | 1.6 | |
| Cyanide total | | | < .1 | | < .1 | | | | | | | | | | < .1 | | | < .1 | | | | | | | < .1 | | | < .1 | < .1 | | < .1 | |
| Sulphate Aqueous Extract as SO4 | | | | | | | | | | | | | | | 170 | | | 120 | | | | | | | < 10. | | | 17 | 70 | | 95 | |
| pH | 11.5 | 8.2 | 7.6 | 7.8 | 5.5 | 9.3 | | | 10.6 | 8.6 | | 8.7 | 5.2 | 5.6 | 7.3 | | | 9.1 | 8.1 | | | 7.3 | 9 | | 7.6 | | | 7.8 | 7.9 | | 7.2 | |
| Aliphatic C5-C6 | | | | < .01 | | | | | | | | | | | | | | | | | < .01 | | | < .01 | | < .01 | < .01 | | | | | |
| Aliphatic C6-C8 | | | | < .01 | | | | | | | | | | | | | | | | | 0.04 | | | 0.11 | | 0.02 | 0.02 | | | | | |
| Aliphatic C8-C10 | | | | 0.27 | | | | | | | | | | | | | | | | | < .01 | | | 0.28 | | < .01 | 0.22 | | | | | |
| Aliphatic C10-C12 | | | | 47 | | | | | | | | | | | | | | | | | < 1.5 | | | 1.5 | | < 1.5 | < 1.5 | | | | | |
| Aliphatic C12-C16 | | | | 320 | | | | | | | | | | | | | | | | | < 1.2 | | | 12 | | < 1.2 | 5.9 | | | | | |
| Aliphatic C16-C21 | | | | 390 | | | | | | | | | | | | | | | | | 48 | | | 270 | | 6.2 | 120 | | | | | |
| Aliphatic C21-C35 | | | | 660 | | | | | | | | | | | | | | | | | 120 | | | 6200 | | 91 | 1300 | | | | | |
| Aromatic C5-C7 | | | | < .01 | | | | | | | | | | | | | | | | | < .01 | | | < .01 | | < .01 | < .01 | | | | | |
| Aromatic C7-C8 | | | | < .01 | | | | | | | | | | | | | | | | | < .01 | | | < .01 | | < .01 | < .01 | | | | | |
| Aromatic C8-C10 | | | | 0.05 | | | | | | | | | | | | | | | | | < .01 | | | 0.41 | | < .01 | 0.63 | | | | | |
| Aromatic C10-C12 | | | | 16 | | | | | | | | | | | | | | | | | 1.6 | | | 3.3 | | < .9 | < .9 | | | | | |
| Aromatic C12-C16 | | | | 130 | | | | | | | | | | | | | | | | | 1.2 | | | 18 | | < .5 | 3.9 | | | | | |
| Aromatic C16-C21 | | | | 210 | | | | | | | | | | | | | | | | | 2.9 | | | 130 | | 3.9 | 56 | | | | | |
| Aromatic C21-C35 | | | | 340 | | | | | | | | | | | | | | | | | 40 | | | 2100 | | 34 | 450 | | | | | |
| Aliphatic C5-C35 | | | | 1400 | | | | | | | | | | | | | | | | | 170 | | | 6500 | | 98 | 1400 | | | | | |
| Aromatic C5-C35 | | | | 700 | | | | | | | | | | | | | | | | | 46 | | | 2300 | | 38 | 510 | | | | | |
| TPH Ali/Aro | | | | 2100 | | | | | | | | | | | | | | | | | 220 | | | 8700 | | 140 | 1900 | | | | | |
| Acenaphthene | | | | | | | < .1 | | | < .1 | | < .1 | | | | | | | < .1 | | | | | | | | | 0.3 | | | | |
| Acenaphthylene | < .1 | < .1 | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | < .1 | | | | | | | < .1 | | | | | | | | | 0.4 | | | | |
| Anthracene | < .1 | < .1 | < .1 | | < .1 | 0.1 | < .1 | | | < .1 | | < .1 | | | | | | | < .1 | | | | | | | | | 1 | | | | |
| Benzo(a)anthracene | < .1 | < .1 | < .1 | | < .1 | 0.1 | < .1 | | | < .1 | | 0.6 | | | | | | | < .1 | | | | | | | | | 11 | | | | |
| Benzo(a)pyrene | < .1 | < .1 | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | 0.8 | | | | | | | < .1 | | | | | | | | | < .1 | | | | |
| Benzo(b)fluoranthene | < .1 | < .1 | < .1 | | < .1 | 0.2 | < .1 | | | < .1 | | 0.7 | | | | | | | < .1 | | | | | | | | | < .1 | | | | |
| Benzo(k)fluoranthene | < .1 | < .1 | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | 0.2 | | | | | | | < .1 | | | | | | | | | < .1 | | | | |
| Benzo(g,h,i)perylene | < .1 | < .1 | < .1 | | < .1 | 0.2 | < .1 | | | < .1 | | 0.5 | | | | | | | < .1 | | | | | | | | | < .1 | | | | |
| Chrysene | < .1 | < .1 | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | 0.9 | | | | | | | < .1 | | | | | | | | | 3.2 | | | | |
| Dibenzo(a,h)anthracene | < .1 | < .1 | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | 0.2 | | | | | | | < .1 | | | | | | | | | < .1 | | | | |
| Fluoranthene | < .1 | < .1 | < .1 | | < .1 | 0.3 | < .1 | | | < .1 | | 0.9 | | | | | | | < .1 | | | | | | | | | 6.2 | | | | |
| Fluorene | < .1 | < .1 | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | < .1 | | | | | | | < .1 | | | | | | | | | < .1 | | | | |
| Indeno(1,2,3-c,d)pyrene | < .1 | < .1 | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | 0.9 | | | | | | | < .1 | | | | | | | | | < .1 | | | | |
| Naphthalene | < .1 | < .1 | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | < .1 | | | | | | | < .1 | | | | | | | | | < .1 | | | | |
| Phenanthrene | < .1 | < .1 | < .1 | | < .1 | 0.1 | < .1 | | | < .1 | | < .1 | | | | | | | < .1 | | | | | | | | | 3.5 | | | | |
| Pyrene | < .1 | < .1 | < .1 | | < .1 | 0.8 | 0.1 | | | < .1 | | 0.8 | | | | | | | < .1 | | | | | | | | | 7.6 | | | | |
| PAH | < 1.6 | < 1.6 | < 1.6 | | < 1.6 | 2.1 | < 1.6 | | | < 1.6 | | 6.5 | | | | | | | < 1.6 | | | | | | | | | 33 | | | | |
| EPH (C36-C40) | | | | | | | | < 10. | | | < 10. | | < 10. | < 10. | < 10. | < 10. | | | | < 10. | | | | | | | | | | | | |
| EPH (C10-C12) | < 10. | < 10. | < 10. | | < 10. | < 10. | < 10. | < 10. | | < 10. | < 10. | < 10. | < 10. | < 10. | < 10. | < 10. | | | < 10. | < 10. | | | | | | | | < 10. | | | | |
| EPH (C28-C40) | 30 | < 10. | < 10. | | < 10. | 970 | 100 | | | 39 | | 53 | | | | | | | 19 | | | | | | | | | 3100 | | | | |
| EPH (C12-C16) | < 10. | < 10. | < 10. | | < 10. | < 10. | < 10. | < 10. | | < 10. | < 10. | < 10. | < 10. | < 10. | < 10. | < 10. | | | < 10. | < 10. | | | | | | | | 20 | | | | |
| EPH (C16-C21) | 19 | < 10. | < 10. | | < 10. | 170 | < 10. | < 10. | | < 10. | < 10. | 13 | 15 | < 10. | < 10. | < 10. | | | < 10. | < 10. | | | | | | | | 420 | | | | |
| EPH (C21-C28) | 34 | < 10. | < 10. | | < 10. | 920 | 38 | | | 28 | | 59 | | | | | | | 16 | | | | | | | | | 4100 | | | | |
| EPH (C21-C36) | | | | | | | | < 10. | | | < 10. | | 80 | 24 | < 10. | 74 | | | | < 10. | | | | | | | | | | | | |
| EPH (C10-C40) | 89 | < 10. | < 10. | | < 10. | 2100 | 150 | | | 71 | | 120 | | | | | | | 35 | | | | | | | | | 7600 | | | | |
| Phenol - Monohydric | 0.3 | < .3 | < .3 | | < .3 | < .3 | < .3 | | | < .3 | | < .3 | | | | | | | < .3 | | | | | | | | | < .3 | | | | |
| Asbestos | | | | | | NAD | Chrysotile | | NAD | NAD | | Chrysotile | | | | | NAD | | NAD | | | | NAD | | | | | | | NAD | | NAD |
| VOCs | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Residential Zones Upper 1 m Soil Data

| MWS-108 | MWS-110 | MWS-111 | MWS-112 | MWS-112 | MWS-113 | MWS-114 | MWS-115 | MWS-116 | MWS-118 | MWS-118 | MWS-119 | MWS-130 | MTP112 | MTP112 | MTP113 | MTP113 | MTP114 | MTP114 | MTP114 | MTP115 | MTP115 | MTP116 | MTP116 | MTP117 | MTP117 | MTP118 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 0.50-0.75 | 0.30-0.40 | 0.2-0.3 | 0.5 | 0.80-0.85 | 0.40-0.50 | 0.60-0.75 | 0.30-0.40 | 0.50-0.60 | 0.3 | 0.9 | 0.20-0.30 | 0.30-0.40 | 0.3 | 0.7 | 0.2 | 0.55 | 0.25 | 0.8 | 1 | 0.2 | 0.5 | 0.35 | 0.8 | 0.4 | 0.6 | 0.6 |
| 4.3 | 9.5 | | 8.9 | | | 6.1 | 5.1 | 6.1 | | | 8.7 | 5.9 | 12 | | 7.5 | 6.4 | 4.8 | | | 34 | | 14 | 8.9 | 7.5 | | 4.5 |
| 0.6 | 1.6 | | 0.9 | | | 0.4 | 0.5 | 0.6 | | | 0.7 | 0.6 | 0.6 | | 0.3 | 0.2 | 0.1 | | | 0.7 | | 0.4 | 0.3 | 0.2 | | 0.2 |
| 19 | 45 | | 28 | | | 10 | 20 | 23 | | | 28 | 42 | 39 | | 16 | 27 | 15 | | | 36 | | 13 | 22 | 17 | | 25 |
| 15 | 47 | | 23 | | | 7.5 | 15 | 18 | | | 24 | 13 | 33 | | 23 | 19 | 12 | | | 110 | | 41 | 25 | 21 | | 13 |
| 10 | 31 | | 20 | | | 9 | 12 | 11 | | | 14 | 14 | 31 | | 47 | 16 | 18 | | | 110 | | 24 | 57 | 55 | | 14 |
| < .05 | 0.07 | | < .05 | | | < .05 | < .05 | < .05 | | | < .05 | < .05 | < .05 | | 0.23 | < .05 | < .05 | | | 0.11 | | < .05 | 0.16 | 0.24 | | < .05 |
| 21 | 62 | | 26 | | | 12 | 20 | 25 | | | 28 | 49 | 33 | | 17 | 26 | 13 | | | 55 | | 33 | 22 | 16 | | 20 |
| < .5 | < .5 | | < .5 | | | < .5 | 0.5 | < .5 | | | < .5 | < .5 | < .5 | | < .5 | < .5 | < .5 | | | < .5 | | < .5 | < .5 | < .5 | | < .5 |
| 44 | 69 | | 79 | | | 27 | 50 | 50 | | | 39 | 43 | 61 | | 71 | 45 | 47 | | | 200 | | 39 | 69 | 59 | | 31 |
| 0.7 | 2.2 | | 0.3 | | | 0.4 | 1.4 | 1 | | | 0.5 | 3.2 | | | | | | | | | | | | | | |
| < .1 | < .1 | | < .1 | | | < .1 | < .1 | < .1 | | | < .1 | < .1 | | | | | | | | | | | | | | |
| 52 | 110 | | 160 | | | 36 | 67 | 65 | | | 130 | 120 | | | | | | 39 | | | | | | | | |
| 7.2 | 7.8 | | 6.9 | | | 7.6 | 7.8 | 5.6 | | | 7.2 | 6.9 | 9.5 | | 8.6 | 7.5 | 9.7 | | | 8.1 | | 10.4 | 7.4 | 7.3 | | 5.2 |
| | | | | | | | | | < .01 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | < .01 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | < .01 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | < 1.5 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | < 1.2 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 3.6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 78 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | < .01 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | < .01 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | < .01 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | < .9 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | < .5 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 1.6 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 53 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 81 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 54 | | | | | | | | | | | | | | | | | |
| | | | | | | | | | 140 | | | | | | | | | | | | | | | | | |
| < .1 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| < .1 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| < .1 | < .1 | | | < .1 | 0.3 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| < .1 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| 4.1 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| 0.2 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| 0.4 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| < .1 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| < .1 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| < .1 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| 0.1 | 0.3 | | | < .1 | 0.3 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| < .1 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| 0.7 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| < .1 | < .1 | | | < .1 | < .1 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| 0.3 | < .1 | | | < .1 | 0.4 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| 0.5 | 0.3 | | | < .1 | 0.3 | < .1 | < .1 | | | | < .1 | < .1 | < .1 | < .1 | < .1 | | | | | | < .1 | < .1 | | | < .1 | < .1 |
| 6.5 | < 1.6 | | | < 1.6 | < 1.6 | < 1.6 | < 1.6 | | | | < 1.6 | < 1.6 | < 1.6 | < 1.6 | < 1.6 | | | | | | < 1.6 | < 1.6 | | | < 1.6 | < 1.6 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| < 10. | < 10. | | | < 10. | < 10. | < 10. | < 10. | | | | < 10. | < 10. | < 10. | < 10. | < 10. | | | | | | < 10. | < 10. | | | < 10. | < 10. |
| 7300 | < 10. | | | < 10. | 39 | < 10. | < 10. | | | | < 10. | < 10. | 18 | < 10. | 100 | | | | | | < 10. | 83 | | | 13 | < 10. |
| < 10. | < 10. | | | < 10. | 28 | < 10. | < 10. | | | | < 10. | < 10. | 15 | < 10. | < 10. | | | | | | < 10. | < 10. | | | < 10. | < 10. |
| 310 | < 10. | | | < 10. | 130 | < 10. | < 10. | | | | < 10. | < 10. | 82 | < 10. | 11 | | | | | | < 10. | < 10. | | | < 10. | < 10. |
| 12000 | < 10. | | | < 10. | 250 | < 10. | < 10. | | | | < 10. | < 10. | 41 | < 10. | 60 | | | | | | < 10. | < 10. | | | < 10. | < 10. |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 20000 | < 10. | | | < 10. | 460 | < 10. | < 10. | | | | < 10. | < 10. | 160 | < 10. | 170 | | | | | | < 10. | 96 | | | 13 | < 10. |
| < .3 | < .3 | | | < .3 | 3.4 | < .3 | < .3 | | | | < .3 | < .3 | < .3 | < .3 | < .3 | | | | | | < .3 | < .3 | | | < .3 | < .3 |
| | NAD | NAD | NAD | | | | | | | | | | Chrysotile | | NAD | | Chrysotile | | | Amo/Chr | | Amosite | NAD | | | |
| | | | | | | | | | | see 59658 | | | | | | | | | see 60212 | | | | | | | |

| SL | Max | Average | Count | No OM in top 1m |
|---|---|---|---|---|
| 32 | 34 | 9.764865 | 37 | |
| 10 | 6.2 | 0.72973 | 37 | |
| 627 | 110 | 27.27027 | 37 | |
| 200 | 450 | 59.69189 | 37 | |
| 450 | 680 | 47.27027 | 37 | |
| 170 | 1.8 | 0.174865 | 37 | |
| 130 | 110 | 35.24324 | 37 | |
| 350 | 4.4 | 0.651351 | 37 | |
| 450 | 330 | 83.81081 | 37 | |
| 3 | 3.7 | 1.4625 | 16 | |
| - | 0.1 | 0.1 | 16 | |
| 1200 | 170 | 84.06667 | 15 | |
| | 11.5 | 7.854054 | 37 | |
| 30 | 0.01 | 0.01 | 6 | |
| 73 | 0.11 | 0.035 | 6 | |
| 19 | 0.28 | 0.133333 | 6 | |
| 93 | 47 | 9.083333 | 6 | |
| 740 | 320 | 56.91667 | 6 | |
| 45000 | 390 | 139.6333 | 6 | |
| 45000 | 6200 | 1408.167 | 6 | |
| 65 | 0.01 | 0.01 | 6 | |
| 120 | 0.01 | 0.01 | 6 | |
| 27 | 0.63 | 0.186667 | 6 | |
| 69 | 16 | 3.933333 | 6 | |
| 140 | 130 | 25.68333 | 6 | |
| 250 | 210 | 67.4 | 6 | |
| 890 | 2100 | 502.8333 | 6 | |
| - | 6500 | 1608.167 | 6 | |
| - | 2300 | 608 | 6 | |
| - | 8700 | 2200 | 6 | |
| 210 | 0.3 | 0.11 | 20 | |
| 170 | 0.4 | 0.112 | 25 | |
| 2300 | 1 | 0.144 | 25 | |
| 3.1 | 11 | 0.556 | 25 | |
| 0.83 | 4.1 | 0.288 | 25 | |
| 5.6 | 0.7 | 0.132 | 25 | |
| 8.5 | 0.4 | 0.116 | 25 | |
| 44 | 0.5 | 0.12 | 25 | |
| 6 | 3.2 | 0.256 | 25 | |
| 0.76 | 0.2 | 0.104 | 25 | |
| 260 | 6.2 | 0.4 | 25 | |
| 160 | 0.1 | 0.1 | 25 | |
| 3.2 | 0.9 | 0.156 | 25 | |
| 1.5 | 0.1 | 0.1 | 25 | |
| 92 | 3.5 | 0.256 | 25 | |
| 560 | 7.6 | 0.488 | 25 | |
| - | 33 | 3.268 | 25 | |
| 890 | 10 | 10 | 7 | |
| 69 | 10 | 10 | 32 | |
| 890 | 7300 | 479.36 | 25 | |
| 140 | 28 | 11.03125 | 32 | |
| 250 | 420 | 43.75 | 32 | |
| 890 | 12000 | 707.44 | 25 | |
| 890 | 80 | 31.14286 | 7 | |
| - | 20000 | 1247.36 | 25 | |
| 420 | 3.4 | 0.424 | 25 | |

Meggitt New Facility Zone - Soil Data GL-1.0m

| | MTP101 | MTP101 | MTP101 | MTP102 | MTP102 | MTP103 | MTP103 | MTP103 | MTP104 | MTP104 | MWS121 | MWS122 | MWS122 | MWS122 | MWS123 | MWS124 | MWS126 | MWS126 | MWS127 | MWS128 | MWS129A | MWS131 | MWS132 | MWS132 | MWS133 | SL | Max | Average | Count |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 0.30 | 0.50 | 0.75 | 0.40 | 0.60 | 0.35 | 0.60 | 1.00 | 0.30 | 0.60 | 0.50-0.60 | 0.30 | 0.50-0.60 | 1.00 | 0.40-0.50 | 0.30-0.40 | 0.40-0.50 | 0.90-1.00 | 0.40-0.50 | 0.50-0.60 | 0.90-1.00 | 0.30 | 0.30 | 0.60 | 0.70 | | | | |
| Arsenic | 23 | 9.5 | | 13 | 6.1 | 7.4 | 9.3 | | 11 | | 9.5 | 7.7 | | | 6.6 | 5.1 | 9.9 | 5.8 | 5.5 | 4.8 | 5 | | | 36 | | 640 | 36 | 10.30588 | 17 |
| Cadmium | 2.5 | 0.7 | | 1.4 | 0.5 | 0.9 | 0.8 | | 1.8 | | 0.8 | 0.5 | | | 0.7 | 0.4 | 27 | 0.7 | 0.6 | 0.5 | 0.7 | | | 1.3 | | 230 | 27 | 2.458824 | 17 |
| Chromium | 78 | 26 | | 41 | 21 | 36 | 27 | | 56 | | 28 | 27 | | | 28 | 15 | 18 | 14 | 13 | 14 | 29 | | | 76 | | 8840 | 78 | 32.17647 | 17 |
| Copper | 1700 | 52 | | 78 | 16 | 20 | 76 | | 110 | | 33 | 16 | | | 22 | 10 | 85 | 11 | 39 | 16 | 16 | | | 110 | | 200 | 1700 | 141.7647 | 17 |
| Lead | 84 | 71 | | 30 | 18 | 14 | 65 | | 23 | | 58 | 20 | | | 14 | 11 | 82 | 26 | 15 | 16 | 17 | | | 110 | | 450 | 110 | 39.64706 | 17 |
| Mercury | 0.22 | 0.23 | | 0.06 | 0.05 | < .05 | 0.22 | | 0.06 | | 0.19 | < .05 | | | < .05 | < .05 | < .05 | 0.07 | 0.1 | < .05 | 0.05 | | | 0.09 | | 3600 | 0.23 | 0.096471 | 17 |
| Nickel | 110 | 23 | | 55 | 13 | 28 | 27 | | 64 | | 26 | 19 | | | 30 | 14 | 23 | 13 | 12 | 17 | 28 | | | 110 | | 1800 | 110 | 36 | 17 |
| Selenium | 0.7 | 0.5 | | < .5 | < .5 | < .5 | < .5 | | < .5 | | < .5 | < .5 | | | < .5 | < .5 | < .5 | 1 | < .5 | 0.5 | 2.2 | | | < .5 | | 13000 | 2.2 | 0.641176 | 17 |
| Zinc | 270 | 89 | | 82 | 36 | 50 | 88 | | 88 | | 67 | 39 | | | 52 | 29 | 100 | 110 | 53 | 41 | 53 | | | 170 | | 450 | 270 | 83.35294 | 17 |
| Boron (water soluble) | | | | | 1 | | 4.2 | | 1.5 | | 3.9 | 2.1 | | | 2.6 | 0.6 | 2.6 | 1.5 | 3.5 | 0.6 | 1 | | | 2.4 | | 3 | 4.2 | 2.115385 | 13 |
| Cyanide total | | | | | < .1 | | 0.2 | | < .1 | | 0.2 | < .1 | | | < .1 | < .1 | < .1 | < .1 | < .1 | < .1 | < .1 | | | 1 | | - | 1 | 0.184615 | 13 |
| Organic matter | | | | | | | | | | | | 0.9 | | | 0.1 | | | | 0.7 | | | 0.4 | | 5.7 | | - | 5.7 | 1.56 | 5 |
| Sulphate Aqueous Extract as SO4 | | | 15 | | 41 | | 48 | 48 | 43 | | 48 | 350 | | 26 | 42 | 16 | 100 | 66 | 310 | 230 | 1600 | | | 52 | | 1200 | 1600 | 189.6875 | 16 |
| pH | 7.5 | 6.5 | | 7 | 7.3 | 7 | 6.4 | | 7.5 | | 7.1 | 11.3 | | | 8.3 | 7.9 | 11.3 | 8.2 | 11.1 | 8.2 | 8.1 | | | 6.2 | | - | 11.3 | 8.052941 | 17 |
| Aliphatic C5-C6 | | | | | | | | | | < .01 | | | | | | | | | | | | | | < .01 | | 3400 | 0.01 | 0.01 | 2 |
| Aliphatic C6-C8 | | | | | | | | | | < .01 | | | | | | | | | | | | | | 0.08 | | 8300 | 0.08 | 0.045 | 2 |
| Aliphatic C8-C10 | | | | | | | | | | 0.59 | | | | | | | | | | | | | | < .01 | | 2100 | 0.59 | 0.3 | 2 |
| Aliphatic C10-C12 | | | | | | | | | | 10 | | | | | | | | | | | | | | < 1.5 | | 10000 | 10 | 5.75 | 2 |
| Aliphatic C12-C16 | | | | | | | | | | 25 | | | | | | | | | | | | | | < 1.2 | | 61000 | 25 | 13.1 | 2 |
| Aliphatic C16-C21 | | | | | | | | | | 160 | | | | | | | | | | | | | | < 1.5 | | 1600000 | 160 | 80.75 | 2 |
| Aliphatic C21-C35 | | | | | | | | | | 260 | | | | | | | | | | | | | | 17 | | 1600000 | 260 | 138.5 | 2 |
| Aromatic C5-C7 | | | | | | | | | | < .01 | | | | | | | | | | | | | | < .01 | | 28000 | 0.01 | 0.01 | 2 |
| Aromatic C7-C8 | | | | | | | | | | < .01 | | | | | | | | | | | | | | < .01 | | 59000 | 0.01 | 0.01 | 2 |
| Aromatic C8-C10 | | | | | | | | | | 0.32 | | | | | | | | | | | | | | < .01 | | 3700 | 0.32 | 0.165 | 2 |
| Aromatic C10-C12 | | | | | | | | | | 4.2 | | | | | | | | | | | | | | < .9 | | 17000 | 4.2 | 2.55 | 2 |
| Aromatic C12-C16 | | | | | | | | | | 11 | | | | | | | | | | | | | | < .5 | | 36000 | 11 | 5.75 | 2 |
| Aromatic C16-C21 | | | | | | | | | | 110 | | | | | | | | | | | | | | < .6 | | 28000 | 110 | 55.3 | 2 |
| Aromatic C21-C35 | | | | | | | | | | 200 | | | | | | | | | | | | | | 8.6 | | 28000 | 200 | 104.3 | 2 |
| Aliphatic C5-C35 | | | | | | | | | | 450 | | | | | | | | | | | | | | 17 | | - | 450 | 233.5 | 2 |
| Aromatic C5-C35 | | | | | | | | | | 330 | | | | | | | | | | | | | | < 10. | | - | 330 | 170 | 2 |
| TPH Ali/Aro | | | | | | | | | | 780 | | | | | | | | | | | | | | 26 | | - | 780 | 403 | 2 |
| Acenaphthene | | | | | | | | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 85000 | 0.1 | 0.1 | 7 |
| Acenaphthylene | < .1 | 0.2 | | 0.2 | | 0.1 | < .1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 84000 | 0.2 | 0.116667 | 12 |
| Anthracene | 1.4 | < .1 | | 1.6 | | 0.4 | < .1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 530000 | 1.6 | 0.358333 | 12 |
| Benzo(a)anthracene | 1.6 | < .1 | | 3 | | 1.7 | 0.1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 90 | 3 | 0.6 | 12 |
| Benzo(a)pyrene | 1.5 | < .1 | | 3.1 | | 2.3 | < .1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 14 | 3.1 | 0.65 | 12 |
| Benzo(b)fluoranthene | 1.3 | < .1 | | 2.6 | | 1.9 | < .1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 100 | 2.6 | 0.558333 | 12 |
| Benzo(k)fluoranthene | 1.1 | < .1 | | 1.5 | | 1 | 0.1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 140 | 1.5 | 0.375 | 12 |
| Benzo(g,h,i)perylene | 0.9 | < .1 | | 2 | | 1.4 | 0.1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 650 | 2 | 0.433333 | 12 |
| Chrysene | 1.7 | < .1 | | 3.8 | | 2.2 | < .1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 140 | 3.8 | 0.716667 | 12 |
| Dibenzo(a,h)anthracene | 0.4 | < .1 | | 1 | | 0.9 | 1.3 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 13 | 1.3 | 0.366667 | 12 |
| Fluoranthene | 7.5 | 0.2 | | 9 | | 6.5 | 0.2 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | 0.2 | | | < 0.1 | | < .1 | 23000 | 9 | 2.016667 | 12 |
| Fluorene | 0.7 | < .1 | | 0.4 | | 0.2 | 0.1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 64000 | 0.7 | 0.183333 | 12 |
| Indeno(1,2,3-c,d)pyrene | 0.9 | < .1 | | 2.5 | | 1.6 | < .1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 60 | 2.5 | 0.491667 | 12 |
| Naphthalene | 0.2 | < .1 | | 0.2 | | 0.4 | 0.1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 200 | 0.4 | 0.141667 | 12 |
| Phenanthrene | 3.9 | < .1 | | 2.4 | | 0.8 | < .1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | < .1 | | | < 0.1 | | < .1 | 22000 | 3.9 | 0.666667 | 12 |
| Pyrene | 5.9 | 0.2 | | 11 | | 7.8 | 0.1 | | | | < .1 | | < .1 | | < .1 | < .1 | < .1 | | | 0.2 | | | < 0.1 | | < .1 | 54000 | 11 | 2.15 | 12 |
| PAH | 29 | < 1.6 | | 44 | | 30 | 2.6 | | | | < 1.6 | | < 1.6 | | < 1.6 | < 1.6 | < 1.6 | | | < 1.6 | | | < 1.6 | | < 1.6 | - | 44 | 9.866667 | 12 |
| EPH (C10-C12) | < 10. | < 10. | | < 10. | | 13 | < 10. | | | | < 10. | | < 10. | | < 10. | < 10. | < 10. | | | < 10. | | | < 10 | | < 10. | 17000 | 13 | 10.25 | 12 |
| EPH (C28-C40) | 1400 | 80 | | 660 | | 210 | 20 | | | | 13 | | < 10. | | < 10. | < 10. | < 10. | | | 18 | | | 11 | | < 10. | | 1400 | 204.25 | 12 |
| EPH (C12-C16) | 24 | < 10. | | 30 | | 19 | < 10. | | | | < 10. | | < 10. | | < 10. | < 10. | < 10. | | | < 10. | | | < 10 | | < 10. | 36000 | 30 | 13.58333 | 12 |
| EPH (C16-C21) | 420 | < 10. | | 360 | | 93 | 13 | | | | < 10. | | < 10. | | < 10. | < 10. | 11 | | | < 10. | | | 11 | | < 10. | 28000 | 420 | 80.58333 | 12 |
| EPH (C21-C28) | 1400 | 26 | | 1300 | | 250 | 21 | | | | 26 | | < 10. | | < 10. | < 10. | 13 | | | 19 | | | 19 | | < 10. | | 1400 | 257.9167 | 12 |
| EPH (C10-C40) | 3300 | 110 | | 2300 | | 580 | 57 | | | | 52 | | < 10. | | < 10. | 19 | 39 | | | 38 | | | 41 | | < 10. | - | 3300 | 543.75 | 12 |
| Benzene | | | | | | | | | | < .01 | | | | | | | | | | | | | | < .01 | | | 0.01 | 0.01 | 2 |
| Ethylbenzene | | | | | | | | | | < .01 | | | | | | | | | | | | | | < .01 | | | 0.01 | 0.01 | 2 |
| Toluene | | | | | | | | | | < .01 | | | | | | | | | | | | | | < .01 | | | 0.01 | 0.01 | 2 |
| Xylene | | | | | | | | | | 0.02 | | | | | | | | | | | | | | < .01 | | | 0.02 | 0.015 | 2 |
| Phenol - Monohydric | < .3 | 0.3 | | < .3 | | < .3 | 0.4 | | | | < .3 | | < .3 | | < .3 | < .3 | < .3 | | | < .3 | | | < 0.3 | | < .3 | | 0.4 | 0.308333 | 12 |
| Asbestos | | | | | | | | | | | | Chrysotile | | | | | Amosite | | Chrysotile | | | | NAD | | | | | | |

Commercial Zone E Soil Data GL-1.0m

| | MTP110 | MTP111 | MWS134A | MWS134A | MWS136 | MWS137 | MWS137 | MWS138A | MWS140 | MWS141 | MWS141 | MWS142 | MWS142 | MWS143 | MWS144 | SL | Max | Average | Count |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1 | 0.5 | 0.5 | 1 | 0.3 | 0.3 | 1 | 0.5 | 0.3 | 0.2 | 0.8 | 0.5 | 0.8 | 0.5 | 0.4 | | | | |
| Arsenic | 8.8 | 4.1 | 8.6 | 6.5 | 15 | 43 | | 7.3 | 15 | 10 | | 16 | | 13 | 28 | 640 | 43 | 14.60833 | 12 |
| Cadmium | 0.7 | 0.4 | 0.5 | 0.5 | 2.1 | 14 | | 0.3 | 0.3 | 0.2 | | 0.5 | | 0.5 | 0.8 | 230 | 14 | 1.733333 | 12 |
| Chromium | 18 | 13 | 21 | 53 | 26 | 44 | | 21 | 21 | 21 | | 20 | | 33 | 39 | 8840 | 53 | 27.5 | 12 |
| Copper | 27 | 9 | 66 | 27 | 1200 | 1100 | | 27 | 24 | 20 | | 78 | | 99 | 120 | 200 | 1200 | 233.0833 | 12 |
| Lead | 63 | 11 | 77 | 64 | 140 | 800 | | 58 | 110 | 10 | | 55 | | 71 | 87 | 450 | 800 | 128.8333 | 12 |
| Mercury | 0.23 | < .05 | 0.11 | 0.12 | 0.2 | 0.15 | | 0.25 | 0.22 | < .05 | | 0.09 | | 0.31 | 0.19 | 3600 | 0.31 | 0.164167 | 12 |
| Nickel | 18 | 13 | 330 | 1600 | 50 | 1400 | | 24 | 22 | 21 | | 30 | | 47 | 64 | 1800 | 1600 | 301.5833 | 12 |
| Selenium | < .5 | < .5 | < .5 | < .5 | 1.4 | 0.7 | | < .5 | 0.6 | < .5 | | < .5 | | < .5 | < .5 | 13000 | 1.4 | 0.6 | 12 |
| Zinc | 61 | 52 | 70 | 59 | 1200 | 320 | | 53 | 42 | 31 | | 73 | | 90 | 200 | 450 | 1200 | 187.5833 | 12 |
| Boron (water soluble) | 3.6 | | | 57 | 9.2 | | | | | 0.9 | | | | | | 3 | 57 | 17.675 | 4 |
| Cyanide total | < .1 | | | 0.1 | < .1 | | | | | < .1 | | | | | | - | 0.1 | 0.1 | 4 |
| Organic matter | | | | | 3.2 | | | | | | 0.2 | | | | | - | 3.2 | 1.7 | 2 |
| Sulphate Aqueous Extract as SO4 | | | | 1900 | 84 | | | | | 67 | | | | | | 1200 | 1900 | 683.6667 | 3 |
| pH | 7.4 | 7.4 | 6.5 | 5.1 | 8.5 | 7.6 | | 8.2 | 7.2 | 8.5 | | 11.3 | | 5.6 | 9.7 | - | 11.3 | 7.75 | 12 |
| Aliphatic C5-C6 | | | | | | | | | | < .01 | | | < .01 | | | 3400 | 0.01 | 0.01 | 2 |
| Aliphatic C6-C8 | | | | | | | | | | < .01 | | | 0.24 | | | 8300 | 0.24 | 0.125 | 2 |
| Aliphatic C8-C10 | | | | | | | | | | < .01 | | | < .01 | | | 2100 | 0.01 | 0.01 | 2 |
| Aliphatic C10-C12 | | | | | | | | | | < 1.5 | | | < 1.5 | | | 10000 | 1.5 | 1.5 | 2 |
| Aliphatic C12-C16 | | | | | | | | | | < 1.2 | | | 9.3 | | | 61000 | 9.3 | 5.25 | 2 |
| Aliphatic C16-C21 | | | | | | | | | | < 1.5 | | | 170 | | | 1600000 | 170 | 85.75 | 2 |
| Aliphatic C21-C35 | | | | | | | | | | 27 | | | 910 | | | 1600000 | 910 | 468.5 | 2 |
| Aromatic C5-C7 | | | | | | | | | | < .01 | | | < .01 | | | 28000 | 0.01 | 0.01 | 2 |
| Aromatic C7-C8 | | | | | | | | | | < .01 | | | < .01 | | | 59000 | 0.01 | 0.01 | 2 |
| Aromatic C8-C10 | | | | | | | | | | < .01 | | | < .01 | | | 3700 | 0.01 | 0.01 | 2 |
| Aromatic C10-C12 | | | | | | | | | | < .9 | | | < .9 | | | 17000 | 0.9 | 0.9 | 2 |
| Aromatic C12-C16 | | | | | | | | | | < .5 | | | 6.2 | | | 36000 | 6.2 | 3.35 | 2 |
| Aromatic C16-C21 | | | | | | | | | | < .6 | | | 120 | | | 28000 | 120 | 60.3 | 2 |
| Aromatic C21-C35 | | | | | | | | | | 20 | | | 760 | | | 28000 | 760 | 390 | 2 |
| Aliphatic C5-C35 | | | | | | | | | | 28 | | | 1100 | | | - | 1100 | 564 | 2 |
| Aromatic C5-C35 | | | | | | | | | | 20 | | | 880 | | | - | 880 | 450 | 2 |
| TPH Ali/Aro | | | | | | | | | | 48 | | | 2000 | | | - | 2000 | 1024 | 2 |
| Acenaphthene | | | | | | | | | | | | | 0.5 | | | 85000 | 0.5 | 0.5 | 1 |
| Acenaphthylene | < .1 | < .1 | | | | | | | | | | | 0.8 | | | 84000 | 0.8 | 0.333333 | 3 |
| Anthracene | < .1 | < .1 | | | | | | | | | | | 2.7 | | | 530000 | 2.7 | 0.966667 | 3 |
| Benzo(a)anthracene | < .1 | < .1 | | | | | | | | | | | 15 | | | 90 | 15 | 5.066667 | 3 |
| Benzo(a)pyrene | < .1 | < .1 | | | | | | | | | | | 9.6 | | | 14 | 9.6 | 3.266667 | 3 |
| Benzo(b)fluoranthene | < .1 | < .1 | | | | | | | | | | | 8.1 | | | 100 | 8.1 | 2.766667 | 3 |
| Benzo(k)fluoranthene | < .1 | < .1 | | | | | | | | | | | 9.6 | | | 140 | 9.6 | 3.266667 | 3 |
| Benzo(g,h,i)perylene | < .1 | < .1 | | | | | | | | | | | 6.8 | | | 650 | 6.8 | 2.333333 | 3 |
| Chrysene | < .1 | < .1 | | | | | | | | | | | 11 | | | 140 | 11 | 3.733333 | 3 |
| Dibenzo(a,h)anthracene | < .1 | < .1 | | | | | | | | | | | 1.5 | | | 13 | 1.5 | 0.566667 | 3 |
| Fluoranthene | < .1 | < .1 | | | | | | | | | | | 19 | | | 23000 | 19 | 6.4 | 3 |
| Fluorene | < .1 | < .1 | | | | | | | | | | | 0.4 | | | 64000 | 0.4 | 0.2 | 3 |
| Indeno(1,2,3-c,d)pyrene | < .1 | < .1 | | | | | | | | | | | 9 | | | 60 | 9 | 3.066667 | 3 |
| Naphthalene | < .1 | < .1 | | | | | | | | | | | < .1 | | | 200 | 0.1 | 0.1 | 3 |
| Phenanthrene | < .1 | < .1 | | | | | | | | | | | 11 | | | 22000 | 11 | 3.733333 | 3 |
| Pyrene | < .1 | < .1 | | | | | | | | | | | 19 | | | 54000 | 19 | 6.4 | 3 |
| PAH | < 1.6 | < 1.6 | | | | | | | | | | | 120 | | | - | 120 | 41.06667 | 3 |
| EPH (C36-C40) | | | | | 11 | | | 570 | | | | 110 | | 87 | 32 | | 570 | 162 | 5 |
| EPH (C10-C12) | < 10. | < 10. | | | < 10. | | | < 10. | | | | < 10. | < 10. | < 10. | < 10. | 17000 | 10 | 10 | 8 |
| EPH (C28-C40) | < 10. | < 10. | | | | | | | | | | | 4200 | | | | 4200 | 1406.667 | 3 |
| EPH (C12-C16) | < 10. | < 10. | | | < 10. | | | < 10. | | | | < 10. | 29 | < 10. | < 10. | 36000 | 29 | 12.375 | 8 |
| EPH (C16-C21) | < 10. | < 10. | | | < 10. | | | 35 | | | | 58 | 920 | < 10. | 15 | 28000 | 920 | 133.5 | 8 |
| EPH (C21-C28) | < 10. | < 10. | | | | | | | | | | | 4900 | | | | 4900 | 1640 | 3 |
| EPH (C21-C36) | | | | | 69 | | | 2300 | | | | 710 | | 500 | 160 | | 2300 | 747.8 | 5 |
| EPH (C10-C40) | < 10. | < 10. | | | | | | | | | | | 10000 | | | | 10000 | 3340 | 3 |
| Benzene | | | | | | | | | | | | | < .01 | | | | 0.01 | 0.01 | 1 |
| Ethylbenzene | | | | | | | | | | | | | < .01 | | | | 0.01 | 0.01 | 1 |
| Toluene | | | | | | | | | | | | | < .01 | | | | 0.01 | 0.01 | 1 |
| Xylene | | | | | | | | | | | | | < .01 | | | | 0.01 | 0.01 | 1 |
| Phenol - Monohydric | < .3 | < .3 | | | | | | | | | | | < .3 | | | | 0.3 | 0.3 | 3 |
| VOC | | | | | | | | | | | | | | | see 59491-1 | | | | |
| Asbestos | | | | | NAD | | NAD | | NAD | | | | | NAD | | | | | |

# Certificate of Analysis

2139

Certificate Number: 12-58546

Date: 30/01/2012

| | |
|---|---|
| Client: | Merebrook Consulting Limited<br>Suite 2B<br>East Mill<br>Belper<br>DE56 2UA |
| Our Reference: | 12-58546 |
| Client Reference: | 17054B |
| Contract Title: | Meggitt/Stadco Coventry |
| Description: | 14 soil samples |
| Date Received: | 17 January 2012 |
| Date Started: | 20 January 2012 |
| Date Completed: | 30 January 2012 |
| Test Procedures: | Identified by prefix DETSn, details available upon request. |
| Notes: | Observations and interpretations are outside the scope of UKAS accreditation |
| Approved By: | Mark Hughes, Contracts Manager |

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 except in full, without the prior written approval of the laboratory.

Derwentside Environmental Testing Services Limited
Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • Fax 01207 582444 • email: info@dets.co.uk • www.dets.co.uk

# Information in Support of the Analytical Results

## Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample.

***Key***

| | |
|---|---|
| * | Denotes test not included in laboratory scope of accreditation |
| # | Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo |
| $ | Denotes tests completed by an approved subcontractor |
| I/S | Denotes insufficient sample to carry out test |
| U/S | Denotes that the sample is not suitable for testing |

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month
Liquids - 2 weeks
Asbestos (test portion) - 6 months

# Summary of Chemical Analysis
# Matrix Descriptions

Our Ref: 12-58546
Client Ref: 17054B
Contract Title: Meggitt/Stadco Coventry

| Sample ID | Depth | Sample No | Completed | Matrix Description |
|---|---|---|---|---|
| MTP101 | 0.30 | 384263 | 30/01/2012 | Black very gravelly SAND |
| MTP101 | 0.50 | 384264 | 30/01/2012 | Brown sandy CLAY with odd rootlets |
| MTP101 | 0.75 | 384265 | 30/01/2012 | Brown sandy CLAY |
| MTP102 | 0.40 | 384266 | 30/01/2012 | Black very gravelly SAND (made ground includes slag) |
| MTP102 | 0.60 | 384267 | 30/01/2012 | Brown gravelly sandy CLAY |
| MTP102 | 2.00 | 384268 | 30/01/2012 | Brown sandy CLAY |
| MTP103 | 0.35 | 384269 | 30/01/2012 | Brown sandy CLAY |
| MTP103 | 0.60 | 384270 | 30/01/2012 | Dark brown very sandy CLAY |
| MTP103 | 1.00 | 384271 | 30/01/2012 | Black very gravelly SAND |
| MTP104 | 0.30 | 384272 | 30/01/2012 | Black very gravelly SAND |
| MTP104 | 0.60 | 384273 | 30/01/2012 | Brown clayey SAND |
| MTP104 | 1.40 | 384274 | 30/01/2012 | Brown SAND |
| MTP104 | 2.30 | 384275 | 30/01/2012 | Brown gravelly SAND |
| MTP104 | 3.00 | 384276 | 30/01/2012 | Brown gravelly SAND |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58546
Client Ref: 17054B
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384263 | 384264 | 384265 | 384266 | 384267 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP101 | MTP101 | MTP101 | MTP102 | MTP102 |
| | | | **Depth** | 0.30 | 0.50 | 0.75 | 0.40 | 0.60 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 32 | 19 | | 17 | 17 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 23 | 9.5 | | 13 | 6.1 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 2.5 | 0.7 | | 1.4 | 0.5 |
| Chromium | mg/kg | DETS 042# | 0.15 | 78 | 26 | | 41 | 21 |
| Copper | mg/kg | DETS 042# | 0.2 | 1700 | 52 | | 78 | 16 |
| Lead | mg/kg | DETS 042# | 0.3 | 84 | 71 | | 30 | 18 |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.22 | 0.23 | | 0.06 | 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | 110 | 23 | | 55 | 13 |
| Selenium | mg/kg | DETS 042# | 0.5 | 0.7 | 0.5 | | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 270 | 89 | | 82 | 36 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | | 1.0 |
| Cyanide total | mg/kg | DETSC2130# | 0.1 | | | | | < 0.1 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC2076# | 10 | | | 15 | | 41 |
| pH | | DETSC2008# | | 7.5 | 6.5 | | 7.0 | 7.3 |
| Aliphatic C5-C6 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC3072# | 1.5 | | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC3072# | 1.2 | | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC3072# | 1.5 | | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC3072# | 3.4 | | | | | |
| Aromatic C5-C7 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aromatic C7-C8 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aromatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aromatic C10-C12 | mg/kg | DETSC3072# | 0.9 | | | | | |
| Aromatic C12-C16 | mg/kg | DETSC3072# | 0.5 | | | | | |
| Aromatic C16-C21 | mg/kg | DETSC3072# | 0.6 | | | | | |
| Aromatic C21-C35 | mg/kg | DETSC3072# | 1.4 | | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | | |
| Aromatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58546
Client Ref: 17054B
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384263 | 384264 | 384265 | 384266 | 384267 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP101 | MTP101 | MTP101 | MTP102 | MTP102 |
| | | | **Depth** | 0.30 | 0.50 | 0.75 | 0.40 | 0.60 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | 0.2 | | 0.2 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | 1.4 | < 0.1 | | 1.6 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | 1.6 | < 0.1 | | 3.0 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | 1.5 | < 0.1 | | 3.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | 1.3 | < 0.1 | | 2.6 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | 1.1 | < 0.1 | | 1.5 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | 0.9 | < 0.1 | | 2.0 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | 1.7 | < 0.1 | | 3.8 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | 0.4 | < 0.1 | | 1.0 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | 7.5 | 0.2 | | 9.0 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | 0.7 | < 0.1 | | 0.4 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | 0.9 | < 0.1 | | 2.5 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | 0.2 | < 0.1 | | 0.2 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | 3.9 | < 0.1 | | 2.4 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | 5.9 | 0.2 | | 11 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | 29 | < 1.6 | | 44 | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | 1400 | 80 | | 660 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | 24 | < 10 | | 30 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 420 | < 10 | | 360 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | 1400 | 26 | | 1300 | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 3300 | 110 | | 2300 | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | 0.3 | | < 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 100 | < 1.0 | | 82 | 39 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58546
Client Ref: 17054B
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384268 | 384269 | 384270 | 384271 | 384272 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP102 | MTP103 | MTP103 | MTP103 | MTP104 |
| | | | **Depth** | 2.00 | 0.35 | 0.60 | 1.00 | 0.30 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Moisture Content | % | DETS 046* | 0.1 | | 26 | 23 | | 16 |
| Arsenic | mg/kg | DETS 042# | 0.2 | | 7.4 | 9.3 | | 11 |
| Cadmium | mg/kg | DETS 042# | 0.1 | | 0.9 | 0.8 | | 1.8 |
| Chromium | mg/kg | DETS 042# | 0.15 | | 36 | 27 | | 56 |
| Copper | mg/kg | DETS 042# | 0.2 | | 20 | 76 | | 110 |
| Lead | mg/kg | DETS 042# | 0.3 | | 14 | 65 | | 23 |
| Mercury | mg/kg | DETSC2325# | 0.05 | | < 0.05 | 0.22 | | 0.06 |
| Nickel | mg/kg | DETS 042# | 1 | | 28 | 27 | | 64 |
| Selenium | mg/kg | DETS 042# | 0.5 | | < 0.5 | < 0.5 | | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | | 50 | 88 | | 88 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | 4.2 | | 1.5 |
| Cyanide total | mg/kg | DETSC2130# | 0.1 | | | 0.2 | | < 0.1 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC2076# | 10 | 45 | | 48 | 48 | 43 |
| pH | | DETSC2008# | | | 7.0 | 6.4 | | 7.5 |
| Aliphatic C5-C6 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC3072# | 1.5 | | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC3072# | 1.2 | | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC3072# | 1.5 | | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC3072# | 3.4 | | | | | |
| Aromatic C5-C7 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aromatic C7-C8 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aromatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aromatic C10-C12 | mg/kg | DETSC3072# | 0.9 | | | | | |
| Aromatic C12-C16 | mg/kg | DETSC3072# | 0.5 | | | | | |
| Aromatic C16-C21 | mg/kg | DETSC3072# | 0.6 | | | | | |
| Aromatic C21-C35 | mg/kg | DETSC3072# | 1.4 | | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | | |
| Aromatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58546
Client Ref: 17054B
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384268 | 384269 | 384270 | 384271 | 384272 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP102 | MTP103 | MTP103 | MTP103 | MTP104 |
| | | | **Depth** | 2.00 | 0.35 | 0.60 | 1.00 | 0.30 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | 0.1 | < 0.1 | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | 0.4 | < 0.1 | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | 1.7 | 0.1 | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | 2.3 | < 0.1 | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | 1.9 | < 0.1 | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | 1.0 | 0.1 | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | 1.4 | 0.1 | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | 2.2 | < 0.1 | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | 0.9 | 1.3 | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | 6.5 | 0.2 | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | 0.2 | 0.1 | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | 1.6 | < 0.1 | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | 0.4 | 0.1 | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | 0.8 | < 0.1 | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | 7.8 | 0.1 | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | 30 | 2.6 | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | 13 | < 10 | | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | 210 | 20 | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | 19 | < 10 | | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | 93 | 13 | | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | 250 | 21 | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | 580 | 57 | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | < 0.3 | 0.4 | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | | < 1.0 | < 1.0 | | 100 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58546
Client Ref: 17054B
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384273 | 384274 | 384275 | 384276 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP104 | MTP104 | MTP104 | MTP104 |
| | | | **Depth** | 0.60 | 1.40 | 2.30 | 3.00 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | | | | |
| Cadmium | mg/kg | DETS 042# | 0.1 | | | | |
| Chromium | mg/kg | DETS 042# | 0.15 | | | | |
| Copper | mg/kg | DETS 042# | 0.2 | | | | |
| Lead | mg/kg | DETS 042# | 0.3 | | | | |
| Mercury | mg/kg | DETSC2325# | 0.05 | | | | |
| Nickel | mg/kg | DETS 042# | 1 | | | | |
| Selenium | mg/kg | DETS 042# | 0.5 | | | | |
| Zinc | mg/kg | DETS 042# | 1 | | | | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | |
| Cyanide total | mg/kg | DETSC2130# | 0.1 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC2076# | 10 | | | | |
| pH | | DETSC2008# | | | | | |
| Aliphatic C5-C6 | mg/kg | DETSC3321* | 0.01 | < 0.01 | | | |
| Aliphatic C6-C8 | mg/kg | DETSC3321* | 0.01 | < 0.01 | | | |
| Aliphatic C8-C10 | mg/kg | DETSC3321* | 0.01 | 0.59 | | | |
| Aliphatic C10-C12 | mg/kg | DETSC3072# | 1.5 | 10 | | | |
| Aliphatic C12-C16 | mg/kg | DETSC3072# | 1.2 | 25 | | | |
| Aliphatic C16-C21 | mg/kg | DETSC3072# | 1.5 | 160 | | | |
| Aliphatic C21-C35 | mg/kg | DETSC3072# | 3.4 | 260 | | | |
| Aromatic C5-C7 | mg/kg | DETSC3321* | 0.01 | < 0.01 | | | |
| Aromatic C7-C8 | mg/kg | DETSC3321* | 0.01 | < 0.01 | | | |
| Aromatic C8-C10 | mg/kg | DETSC3321* | 0.01 | 0.32 | | | |
| Aromatic C10-C12 | mg/kg | DETSC3072# | 0.9 | 4.2 | | | |
| Aromatic C12-C16 | mg/kg | DETSC3072# | 0.5 | 11 | | | |
| Aromatic C16-C21 | mg/kg | DETSC3072# | 0.6 | 110 | | | |
| Aromatic C21-C35 | mg/kg | DETSC3072# | 1.4 | 200 | | | |
| Aliphatic C5-C35 | mg/kg | DETSC3072* | 10 | 450 | | | |
| Aromatic C5-C35 | mg/kg | DETSC3072* | 10 | 330 | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | 780 | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58546
Client Ref: 17054B
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384273 | 384274 | 384275 | 384276 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP104 | MTP104 | MTP104 | MTP104 |
| | | | **Depth** | 0.60 | 1.40 | 2.30 | 3.00 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 12/01/2012 | 12/01/2012 | 12/01/2012 | 12/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | 12 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | 12 | < 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | 22 | < 10 | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | < 0.01 | | | < 0.01 |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | < 0.01 | | | < 0.01 |
| Toluene | mg/kg | DETS 062# | 0.01 | < 0.01 | | | < 0.01 |
| Xylene | mg/kg | DETS 062# | 0.01 | 0.02 | | | < 0.01 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | | | | |

## Sample Comments

(The laboratory cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".)

| Lab No. | Sample ID | Date Sampled | Sample exceeded holding time for test | Sample not received in appropriate containers for test |
|---|---|---|---|---|
| 384263 | MTP101 0.30 | 12/01/2012 | EPH solid (7 days). | |
| 384263 | MTP101 0.30 | 12/01/2012 | Naphthalene (4 days). | |
| 384263 | MTP101 0.30 | 12/01/2012 | EPH solid (7 days). | |
| 384264 | MTP101 0.50 | 12/01/2012 | EPH solid (7 days). | |
| 384264 | MTP101 0.50 | 12/01/2012 | Naphthalene (4 days). | |
| 384264 | MTP101 0.50 | 12/01/2012 | EPH solid (7 days). | |
| 384265 | MTP101 0.75 | 12/01/2012 | | ICP Metals |
| 384266 | MTP102 0.40 | 12/01/2012 | EPH solid (7 days). | |
| 384266 | MTP102 0.40 | 12/01/2012 | Naphthalene (4 days). | |
| 384266 | MTP102 0.40 | 12/01/2012 | EPH solid (7 days). | |
| 384267 | MTP102 0.60 | 12/01/2012 | | Boron (water soluble) |
| 384267 | MTP102 0.60 | 12/01/2012 | | ICP Metals |
| 384268 | MTP102 2.00 | 12/01/2012 | | ICP Metals |
| 384269 | MTP103 0.35 | 12/01/2012 | EPH solid (7 days). | |
| 384269 | MTP103 0.35 | 12/01/2012 | Naphthalene (4 days). | |
| 384269 | MTP103 0.35 | 12/01/2012 | EPH solid (7 days). | |
| 384270 | MTP103 0.60 | 12/01/2012 | EPH solid (7 days). | |
| 384270 | MTP103 0.60 | 12/01/2012 | Naphthalene (4 days). | |
| 384270 | MTP103 0.60 | 12/01/2012 | EPH solid (7 days). | |
| 384271 | MTP103 1.00 | 12/01/2012 | | ICP Metals |
| 384272 | MTP104 0.30 | 12/01/2012 | | Boron (water soluble) |
| 384272 | MTP104 0.30 | 12/01/2012 | | ICP Metals |
| 384273 | MTP104 0.60 | 12/01/2012 | ALI/AROSL (4 days). | |
| 384273 | MTP104 0.60 | 12/01/2012 | ALI/ARO_S (4 days). | |
| 384273 | MTP104 0.60 | 12/01/2012 | BTEX/PRO (4 days). | |
| 384274 | MTP104 1.40 | 12/01/2012 | EPH solid (7 days). | |
| 384274 | MTP104 1.40 | 12/01/2012 | EPH solid (7 days). | |
| 384275 | MTP104 2.30 | 12/01/2012 | EPH solid (7 days). | |
| 384275 | MTP104 2.30 | 12/01/2012 | EPH solid (7 days). | |
| 384276 | MTP104 3.00 | 12/01/2012 | BTEX/PRO (4 days). | |

## Appendix A - Details of Analysis

Method details are shown only for those determinants listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.
No Recovery Factors are used in the determination of results. Results reported assume 100% recovery.
Full method statements are available on request.

| Method | Name of Parameter | Units | Limit of Detection | Sample Preparation | Sub-Contracted | UKAS | MCERTS |
|---|---|---|---|---|---|---|---|
| DETS 002 | Organic Matter | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 003 | Loss on Ignition | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 075 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 076 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 006 | Chloride | mg/kg | 0.01 | Air Dried | No | Yes | Yes |
| DETS 008 | pH | pH Units | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Selenium | mg/kg | 0.50 | Air Dried | No | Yes | Yes |
| DETS 019 | Ammonia | mg/kg | 0.02 | Air Dried | No | Yes | Yes |
| DETS 020 | Boron (Water Soluble) | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 024 | Sulphide | mg/kg | 10.00 | Air Dried | No | Yes | Yes |
| DETS 042 | Antimony | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Arsenic | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Barium | mg/kg | 1.50 | Air Dried | No | Yes | Yes |
| DET S 042 | Beryllium | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Cadmium | mg/kg | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Cobalt | mg/kg | 0.70 | Air Dried | No | Yes | Yes |
| DETS 042 | Copper | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Chromium | mg/kg | 0.15 | Air Dried | No | Yes | Yes |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DETS 042 | Iron | mg/kg | 1.00 | Air Dried | No | Yes | No |
| DETS 042 | Lead | mg/kg | 0.30 | Air Dried | No | Yes | Yes |
| DETS 042 | Manganese | mg/kg | 20.00 | Air Dried | No | Yes | Yes |
| DETS 081 | Mercury | mg/kg | 0.05 | Air Dried | No | Yes | Yes |
| DETS 042 | Molybdenum | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 042 | Nickel | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Thallium | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Vanadium | mg/kg | 0.80 | Air Dried | No | Yes | Yes |
| DETS 042 | Zinc | mg/kg | 1.00 | Air Dried | No | Yes | Yes |
| DETS 049 | Sulphur (Free) | mg/kg | 0.50 | As Received | No | Yes | Yes |
| DETS 050 | PAH | mg/kg | 0.10 | As Received | No | Yes | No |
| DETS 051 | TPH (C10 - C40) | mg/kg | 20.00 | As Received | No | Yes | Yes |
| DETS 052 | PCB | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Benzene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Toluene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Ethylbenzne | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Xylene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 067 | Phenol - Monohydric | mg/kg | 0.3 | Air Dried | No | Yes | Yes |
| DETS 067 | Easily Liberatable Cyanide | mg/kg | 0.1 | Air Dried | No | Yes | Yes |
| DETS 067 | Complex Cyanide | mg/kg | 0.30 | Air Dried | No | Yes | No |
| DETS 067 | Total Cyanide | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 067 | Thiocyanate | mg/kg | 0.6 | Air Dried | No | Yes | Yes |
| DETS 068 | VOC | mg/kg | 0.01 | As Received | No | No | No |

# Certificate of Analysis

2139

Certificate Number: 12-58547

Date: 30/01/2012

| | |
|---|---|
| Client: | Merebrook Consulting Limited<br>Suite 2B<br>East Mill<br>Belper<br>DE56 2UA |
| Our Reference: | 12-58547 |
| Client Reference: | 17054A |
| Contract Title: | Meggitt/Stadco Coventry |
| Description: | 14 soil samples |
| Date Received: | 17 January 2012 |
| Date Started: | 20 January 2012 |
| Date Completed: | 30 January 2012 |
| Test Procedures: | Identified by prefix DETSn (details on request), Asbestos Analysis (DETS 082). |
| Notes: | Observations and interpretations are outside the scope of UKAS accreditation |
| Approved By: | Paul Woodbridge, Senior Operations Manager |

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 except in full, without the prior written approval of the laboratory.

Derwentside Environmental Testing Services Limited
Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • Fax 01207 582444 • email: info@dets.co.uk • www.dets.co.uk

# Information in Support of the Analytical Results

## Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample.

***Key***

| | |
|---|---|
| * | Denotes test not included in laboratory scope of accreditation |
| # | Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo |
| $ | Denotes tests completed by an approved subcontractor |
| I/S | Denotes insufficient sample to carry out test |
| U/S | Denotes that the sample is not suitable for testing |

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month
Liquids - 2 weeks
Asbestos (test portion) - 6 months

# Summary of Chemical Analysis
# Matrix Descriptions

Our Ref: 12-58547
Client Ref: 17054A
Contract Title: Meggitt/Stadco Coventry

| Sample ID | Depth | Sample No | Completed | Matrix Description |
|---|---|---|---|---|
| MTP105 | 0.50 | 384277 | 30/01/2012 | Black clayey very gravelly SAND |
| MTP105 | 0.60 | 384278 | 30/01/2012 | Brown dark brown gravelly sandy CLAY |
| MTP105 | 1.70 | 384279 | 30/01/2012 | Dark brown gravelly sandy CLAY |
| MTP106 | 0.60 | 384280 | 30/01/2012 | Brown gravelly sandy CLAY |
| MTP107 | 0.55 | 384281 | 30/01/2012 | Dark brown slightly gravelly sandy CLAY |
| MTP107 | 1.00 | 384282 | 30/01/2012 | Brown gravelly clayey SAND |
| MTP107 | 2.80 | 384283 | 30/01/2012 | Brown gravelly clayey SAND |
| MTP108 | 0.60 | 384284 | 30/01/2012 | Brown gravelly clayey SAND |
| MTP108 | 1.50 | 384285 | 30/01/2012 | Brown gravelly clayey SAND |
| MTP109 | 0.25 | 384286 | 30/01/2012 | Black clayey very gravelly SAND (made ground includes brick) |
| MTP109 | 1.50 | 384287 | 30/01/2012 | Brown gravelly very clayey SAND |
| MTP110 | 1.00 | 384288 | 30/01/2012 | Dark brown gravelly sandy CLAY |
| MTP111 | 0.50 | 384289 | 30/01/2012 | Brown gravelly clayey SAND |
| MTP111 | 1.70 | 384290 | 30/01/2012 | Brown gravelly clayey SAND |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58547
Client Ref: 17054A
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384277 | 384278 | 384279 | 384280 | 384281 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP105 | MTP105 | MTP105 | MTP106 | MTP107 |
| | | | **Depth** | 0.50 | 0.60 | 1.70 | 0.60 | 0.55 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 16 | 19 | | 16 | 22 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 11 | 6.5 | | 6.3 | 7.0 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 1.0 | 0.6 | | 0.6 | 0.7 |
| Chromium | mg/kg | DETS 042# | 0.15 | 20 | 21 | | 20 | 18 |
| Copper | mg/kg | DETS 042# | 0.2 | 160 | 15 | | 15 | 25 |
| Lead | mg/kg | DETS 042# | 0.3 | 37 | 18 | | 18 | 58 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | < 0.05 | | < 0.05 | 1.8 |
| Nickel | mg/kg | DETS 042# | 1 | 21 | 16 | | 15 | 20 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | < 0.5 | | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 140 | 39 | | 39 | 52 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | 2.4 | |
| Cyanide total | mg/kg | DETSC2130# | 0.1 | | | | < 0.1 | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC2076# | 10 | | | 63 | | |
| pH | | DETSC2008# | | 11.5 | 8.2 | | 7.6 | 7.8 |
| Aliphatic C5-C6 | mg/kg | DETSC3321* | 0.01 | | | | | < 0.01 |
| Aliphatic C6-C8 | mg/kg | DETSC3321* | 0.01 | | | | | < 0.01 |
| Aliphatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | | 0.27 |
| Aliphatic C10-C12 | mg/kg | DETSC3072# | 1.5 | | | | | 47 |
| Aliphatic C12-C16 | mg/kg | DETSC3072# | 1.2 | | | | | 320 |
| Aliphatic C16-C21 | mg/kg | DETSC3072# | 1.5 | | | | | 390 |
| Aliphatic C21-C35 | mg/kg | DETSC3072# | 3.4 | | | | | 660 |
| Aromatic C5-C7 | mg/kg | DETSC3321* | 0.01 | | | | | < 0.01 |
| Aromatic C7-C8 | mg/kg | DETSC3321* | 0.01 | | | | | < 0.01 |
| Aromatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | | 0.05 |
| Aromatic C10-C12 | mg/kg | DETSC3072# | 0.9 | | | | | 16 |
| Aromatic C12-C16 | mg/kg | DETSC3072# | 0.5 | | | | | 130 |
| Aromatic C16-C21 | mg/kg | DETSC3072# | 0.6 | | | | | 210 |
| Aromatic C21-C35 | mg/kg | DETSC3072# | 1.4 | | | | | 340 |
| Aliphatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | | 1400 |
| Aromatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | | 700 |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | | 2100 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58547
Client Ref: 17054A
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384277 | 384278 | 384279 | 384280 | 384281 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP105 | MTP105 | MTP105 | MTP106 | MTP107 |
| | | | **Depth** | 0.50 | 0.60 | 1.70 | 0.60 | 0.55 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | < 1.6 | | < 1.6 | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | 30 | < 10 | | < 10 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | < 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 19 | < 10 | | < 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | 34 | < 10 | | < 10 | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 89 | < 10 | | < 10 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | 0.3 | < 0.3 | | < 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 12 | 2.2 | | 3.8 | 3.0 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58547
Client Ref: 17054A
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384282 | 384283 | 384284 | 384285 | 384286 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP107 | MTP107 | MTP108 | MTP108 | MTP109 |
| | | | **Depth** | 1.00 | 2.80 | 0.60 | 1.50 | 0.25 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Moisture Content | % | DETS 046* | 0.1 | | | 14 | 14 | 14 |
| Arsenic | mg/kg | DETS 042# | 0.2 | | | 4.9 | 4.5 | 22 |
| Cadmium | mg/kg | DETS 042# | 0.1 | | | 0.6 | 0.6 | 6.2 |
| Chromium | mg/kg | DETS 042# | 0.15 | | | 21 | 20 | 110 |
| Copper | mg/kg | DETS 042# | 0.2 | | | 20 | 14 | 380 |
| Lead | mg/kg | DETS 042# | 0.3 | | | 12 | 10 | 59 |
| Mercury | mg/kg | DETSC2325# | 0.05 | | | < 0.05 | < 0.05 | 0.12 |
| Nickel | mg/kg | DETS 042# | 1 | | | 22 | 24 | 110 |
| Selenium | mg/kg | DETS 042# | 0.5 | | | < 0.5 | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | | | 64 | 37 | 180 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | 2.1 | 1.8 | |
| Cyanide total | mg/kg | DETSC2130# | 0.1 | | | < 0.1 | < 0.1 | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC2076# | 10 | | | | | |
| pH | | DETSC2008# | | | | 5.5 | 5.0 | 9.3 |
| Aliphatic C5-C6 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC3072# | 1.5 | | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC3072# | 1.2 | | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC3072# | 1.5 | | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC3072# | 3.4 | | | | | |
| Aromatic C5-C7 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aromatic C7-C8 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aromatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | | |
| Aromatic C10-C12 | mg/kg | DETSC3072# | 0.9 | | | | | |
| Aromatic C12-C16 | mg/kg | DETSC3072# | 0.5 | | | | | |
| Aromatic C16-C21 | mg/kg | DETSC3072# | 0.6 | | | | | |
| Aromatic C21-C35 | mg/kg | DETSC3072# | 1.4 | | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | | |
| Aromatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58547
Client Ref: 17054A
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384282 | 384283 | 384284 | 384285 | 384286 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP107 | MTP107 | MTP108 | MTP108 | MTP109 |
| | | | **Depth** | 1.00 | 2.80 | 0.60 | 1.50 | 0.25 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | 0.2 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | < 0.1 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | 0.2 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | < 0.1 | < 0.1 | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | 0.3 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | < 0.1 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | 0.1 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 | 0.8 |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | < 1.6 | < 1.6 | 2.1 |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | 94 | < 10 | | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | 14 | < 10 | < 10 | < 10 | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | < 10 | < 10 | 970 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | 340 | < 10 | < 10 | < 10 | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 620 | < 10 | < 10 | < 10 | 170 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | < 10 | < 10 | 920 |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | 950 | < 10 | | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | < 10 | < 10 | 2100 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | < 0.3 | < 0.3 | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | | | 1.8 | 2.1 | 60 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58547
Client Ref: 17054A
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384287 | 384288 | 384289 | 384290 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP109 | MTP110 | MTP111 | MTP111 |
| | | | **Depth** | 1.50 | 1.00 | 0.50 | 1.70 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 12 | 23 | 15 | 9.4 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 5.8 | 8.8 | 4.1 | 3.2 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.5 | 0.7 | 0.4 | 0.4 |
| Chromium | mg/kg | DETS 042# | 0.15 | 19 | 18 | 13 | 14 |
| Copper | mg/kg | DETS 042# | 0.2 | 19 | 27 | 9.0 | 7.7 |
| Lead | mg/kg | DETS 042# | 0.3 | 11 | 63 | 11 | 6.4 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | 0.23 | < 0.05 | < 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | 16 | 18 | 13 | 12 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 34 | 61 | 52 | 26 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | 3.6 | | |
| Cyanide total | mg/kg | DETSC2130# | 0.1 | | < 0.1 | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC2076# | 10 | | | | 11 |
| pH | | DETSC2008# | | 6.8 | 7.4 | 7.4 | 7.4 |
| Aliphatic C5-C6 | mg/kg | DETSC3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-58547
Client Ref: 17054A
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 384287 | 384288 | 384289 | 384290 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP109 | MTP110 | MTP111 | MTP111 |
| | | | **Depth** | 1.50 | 1.00 | 0.50 | 1.70 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 13/01/2012 | 13/01/2012 | 13/01/2012 | 13/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | < 1.6 | < 1.6 | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | < 10 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | < 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | < 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | < 10 | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | < 10 | < 10 | < 10 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | < 0.3 | < 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 3.5 | 4.0 | 2.0 | 3.7 |

# Summary of Asbestos Analysis
## Soil Samples

Our Ref: 12-58547
Client Ref: 17054A
Contract Title: Meggitt/Stadco Coventry

| Lab No | Sample Ref | Material Type* | Result | Comment | Analyst |
|---|---|---|---|---|---|
| 384286 | MTP109 0.25 | Soil | NAD | None | Jeff Cruddas |
| 384287 | MTP109 1.50 | Soil | NAD | None | Jeff Cruddas |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETS 082 using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.

## Sample Comments

(The laboratory cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".)

| Lab No. | Sample ID | Date Sampled | Sample exceeded holding time for test | Sample not received in appropriate containers for test |
|---|---|---|---|---|
| 384277 | MTP105 0.50 | 13/01/2012 | EPH solid (7 days). | |
| 384277 | MTP105 0.50 | 13/01/2012 | Naphthalene (4 days). | |
| 384277 | MTP105 0.50 | 13/01/2012 | EPH solid (7 days). | |
| 384278 | MTP105 0.60 | 13/01/2012 | EPH solid (7 days). | |
| 384278 | MTP105 0.60 | 13/01/2012 | Naphthalene (4 days). | |
| 384278 | MTP105 0.60 | 13/01/2012 | EPH solid (7 days). | |
| 384279 | MTP105 1.70 | 13/01/2012 | | ICP Metals |
| 384280 | MTP106 0.60 | 13/01/2012 | EPH solid (7 days). | |
| 384280 | MTP106 0.60 | 13/01/2012 | Naphthalene (4 days). | |
| 384280 | MTP106 0.60 | 13/01/2012 | EPH solid (7 days). | |
| 384281 | MTP107 0.55 | 13/01/2012 | ALI/AROSL (4 days). | |
| 384281 | MTP107 0.55 | 13/01/2012 | ALI/ARO_S (4 days). | |
| 384282 | MTP107 1.00 | 13/01/2012 | EPH solid (7 days). | |
| 384282 | MTP107 1.00 | 13/01/2012 | EPH solid (7 days). | |
| 384283 | MTP107 2.80 | 13/01/2012 | EPH solid (7 days). | |
| 384283 | MTP107 2.80 | 13/01/2012 | EPH solid (7 days). | |
| 384284 | MTP108 0.60 | 13/01/2012 | EPH solid (7 days). | |
| 384284 | MTP108 0.60 | 13/01/2012 | Naphthalene (4 days). | |
| 384284 | MTP108 0.60 | 13/01/2012 | EPH solid (7 days). | |
| 384285 | MTP108 1.50 | 13/01/2012 | EPH solid (7 days). | |
| 384285 | MTP108 1.50 | 13/01/2012 | Naphthalene (4 days). | |
| 384285 | MTP108 1.50 | 13/01/2012 | EPH solid (7 days). | |
| 384286 | MTP109 0.25 | 13/01/2012 | EPH solid (7 days). | |
| 384286 | MTP109 0.25 | 13/01/2012 | Naphthalene (4 days). | |
| 384286 | MTP109 0.25 | 13/01/2012 | EPH solid (7 days). | |
| 384287 | MTP109 1.50 | 13/01/2012 | EPH solid (7 days). | |
| 384287 | MTP109 1.50 | 13/01/2012 | Naphthalene (4 days). | |
| 384287 | MTP109 1.50 | 13/01/2012 | EPH solid (7 days). | |
| 384288 | MTP110 1.00 | 13/01/2012 | EPH solid (7 days). | |
| 384288 | MTP110 1.00 | 13/01/2012 | Naphthalene (4 days). | |
| 384288 | MTP110 1.00 | 13/01/2012 | EPH solid (7 days). | |
| 384289 | MTP111 0.50 | 13/01/2012 | EPH solid (7 days). | |
| 384289 | MTP111 0.50 | 13/01/2012 | Naphthalene (4 days). | |
| 384289 | MTP111 0.50 | 13/01/2012 | EPH solid (7 days). | |
| 384290 | MTP111 1.70 | 13/01/2012 | | ICP Metals |

## Appendix A - Details of Analysis

Method details are shown only for those determinants listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.
No Recovery Factors are used in the determination of results. Results reported assume 100% recovery.
Full method statements are available on request.

| Method | Name of Parameter | Units | Limit of Detection | Sample Preparation | Sub-Contracted | UKAS | MCERTS |
|---|---|---|---|---|---|---|---|
| DETS 002 | Organic Matter | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 003 | Loss on Ignition | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 075 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 076 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 006 | Chloride | mg/kg | 0.01 | Air Dried | No | Yes | Yes |
| DETS 008 | pH | pH Units | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Selenium | mg/kg | 0.50 | Air Dried | No | Yes | Yes |
| DETS 019 | Ammonia | mg/kg | 0.02 | Air Dried | No | Yes | Yes |
| DETS 020 | Boron (Water Soluble) | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 024 | Sulphide | mg/kg | 10.00 | Air Dried | No | Yes | Yes |
| DETS 042 | Antimony | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Arsenic | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Barium | mg/kg | 1.50 | Air Dried | No | Yes | Yes |
| DET S 042 | Beryllium | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Cadmium | mg/kg | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Cobalt | mg/kg | 0.70 | Air Dried | No | Yes | Yes |
| DETS 042 | Copper | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Chromium | mg/kg | 0.15 | Air Dried | No | Yes | Yes |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DETS 042 | Iron | mg/kg | 1.00 | Air Dried | No | Yes | No |
| DETS 042 | Lead | mg/kg | 0.30 | Air Dried | No | Yes | Yes |
| DETS 042 | Manganese | mg/kg | 20.00 | Air Dried | No | Yes | Yes |
| DETS 081 | Mercury | mg/kg | 0.05 | Air Dried | No | Yes | Yes |
| DETS 042 | Molybdenum | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 042 | Nickel | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Thallium | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Vanadium | mg/kg | 0.80 | Air Dried | No | Yes | Yes |
| DETS 042 | Zinc | mg/kg | 1.00 | Air Dried | No | Yes | Yes |
| DETS 049 | Sulphur (Free) | mg/kg | 0.50 | As Received | No | Yes | Yes |
| DETS 050 | PAH | mg/kg | 0.10 | As Received | No | Yes | No |
| DETS 051 | TPH (C10 - C40) | mg/kg | 20.00 | As Received | No | Yes | Yes |
| DETS 052 | PCB | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Benzene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Toluene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Ethylbenzne | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Xylene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 067 | Phenol - Monohydric | mg/kg | 0.3 | Air Dried | No | Yes | Yes |
| DETS 067 | Easily Liberatable Cyanide | mg/kg | 0.1 | Air Dried | No | Yes | Yes |
| DETS 067 | Complex Cyanide | mg/kg | 0.30 | Air Dried | No | Yes | No |
| DETS 067 | Total Cyanide | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 067 | Thiocyanate | mg/kg | 0.6 | Air Dried | No | Yes | Yes |
| DETS 068 | VOC | mg/kg | 0.01 | As Received | No | No | No |

# Certificate of Analysis

2139

Certificate Number: 12-59491-1

Date: 22/03/2012

| | |
|---|---|
| Client: | Merebrook Consulting Limited<br>Suite 2B<br>East Mill<br>Belper<br>DE56 2UA |
| Our Reference: | 12-59491-1 |
| Client Reference: | 17054A |
| Contract Title: | Meggitt/Stadco |
| Description: | 66 soil samples |
| Date Received: | 13 February 2012 |
| Date Started: | 16 February 2012 |
| Date Completed: | 24 February 2012 |
| Test Procedures: | Identified by prefix DETSn (details on request), Asbestos Analysis (DETS 082). |
| Notes: | **This report supersedes 12-59491, Asbestos Quantification added**<br>Observations and interpretations are outside the scope of UKAS accreditation |
| Approved By: | Mark Hughes, Contracts Manager |

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 except in full, without the prior written approval of the laboratory.

Derwentside Environmental Testing Services Limited
Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • Fax 01207 582444 • email: info@dets.co.uk • www.dets.co.uk

# Information in Support of the Analytical Results

## Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample.

***Key***

| | |
|---|---|
| * | Denotes test not included in laboratory scope of accreditation |
| # | Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo |
| $ | Denotes tests completed by an approved subcontractor |
| I/S | Denotes insufficient sample to carry out test |
| U/S | Denotes that the sample is not suitable for testing |

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month
Liquids - 2 weeks
Asbestos (test portion) - 6 months

# Summary of Chemical Analysis
# Matrix Descriptions

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| Sample ID | Depth | Sample No | Completed | Matrix Description |
|---|---|---|---|---|
| MWS132 | 0.30 | 389780 | 22/03/2012 | Dark brown clayey gravelly SAND (made ground includes slag) |
| MWS132 | 0.60 | 389781 | 22/03/2012 | Black dark brown gravelly SAND |
| MWS132 | 1.10 | 389782 | 22/03/2012 | Brown dark brown gravelly sandy CLAY |
| MWS132 | 3.00 | 389783 | 22/03/2012 | Brown red silty CLAY |
| MWS133 | 0.70 | 389784 | 22/03/2012 | black sandy SILT |
| MWS133 | 1.40 | 389785 | 22/03/2012 | black brown gravelly sandy CLAY |
| MWS133 | 3.00 | 389786 | 22/03/2012 | brown red gravelly sandy CLAY |
| MWS134A | 0.50 | 389787 | 22/03/2012 | brown gravelly sandy CLAY with madeground includes slag |
| MWS134A | 1.00 | 389788 | 22/03/2012 | brown gravelly sandy CLAY with madeground includes brick and coal |
| MWS134A | 1.70 | 389789 | 22/03/2012 | brown gravelly sandy CLAY |
| MWS134A | 3.80 | 389790 | 22/03/2012 | brown red gravelly sandy CLAY |
| MWS135 | 0.30 | 389791 | 22/03/2012 | brown dark brown gravelly sandy CLAY |
| MWS135 | 0.75 | 389792 | 22/03/2012 | brown gravelluy sandy CLAY |
| MWS135 | 2.90 | 389793 | 22/03/2012 | brown red grey sandy CLAY |
| MWS136 | 0.30 | 389794 | 22/03/2012 | brown dark grey very gravelly sandy CLAY with madeground includes brick |
| MWS136 | 3.00 | 389795 | 22/03/2012 | brown red sandy CLAY |
| MWS137 | 0.30 | 389796 | 22/03/2012 | black dark brown very gravelly SAND with madeground includes slag |
| MWS137 | 2.00 | 389798 | 22/03/2012 | grey white brown gravelly sandy CLAY |
| MWS137 | 2.70 | 389799 | 22/03/2012 | brown black gravelly sandy CLAY with madeground includes possible brick |
| MWS137 | 3.20 | 389800 | 22/03/2012 | brown red sandy CLAY |
| MWS138A | 0.50 | 389801 | 22/03/2012 | brown gravelly sandy CLAY |
| MWS138A | 1.90 | 389802 | 22/03/2012 | Red brown gravelly silty SAND |
| MWS140 | 0.30 | 389803 | 22/03/2012 | Dark brown black gravelly sandy CLAY |
| MWS140 | 2.80 | 389804 | 22/03/2012 | Red brown gravelly sandy CLAY |
| MWS141 | 0.20 | 389805 | 22/03/2012 | Brown grey gravelly sandy CLAY |
| MWS141 | 0.80 | 389806 | 22/03/2012 | Red brown light grey gravelly sandy silty CLAY |
| MWS141 | 2.80 | 389807 | 22/03/2012 | Brown red sandy CLAY |
| MWS142 | 0.50 | 389808 | 22/03/2012 | Dark brown very gravelly SAND |
| MWS142 | 0.80 | 389809 | 22/03/2012 | Black very gravelly SAND (made ground includes cement and coal ) |
| MWS142 | 3.00 | 389810 | 22/03/2012 | Brown sandy CLAY |
| MWS143 | 0.50 | 389811 | 22/03/2012 | Brown black sandy CLAY |
| MWS143 | 2.80 | 389812 | 22/03/2012 | Red brown sandy CLAY |

# Summary of Chemical Analysis
# Matrix Descriptions

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| Sample ID | Depth | Sample No | Completed | Matrix Description |
|---|---|---|---|---|
| MWS144 | 0.40 | 389813 | 22/03/2012 | Dark brown red gravelly sandy CLAY (made ground includes brick) |
| MWS144 | 3.00 | 389814 | 22/03/2012 | Red brown sandy CLAY |
| MWS145 | 0.55 | 389815 | 22/03/2012 | Dark brown grey clayey gravelly SAND (made ground includes brick) |
| MWS145 | 3.00 | 389816 | 22/03/2012 | Brown red gravelly sandy CLAY |
| MWS146 | 0.40 | 389817 | 22/03/2012 | Dark brown black gravelly clayey SAND |
| MWS146 | 0.75 | 389818 | 22/03/2012 | Dark brown SAND |
| MWS146 | 1.90 | 389819 | 22/03/2012 | Dark brown SAND |
| MWS147 | 0.60 | 389820 | 22/03/2012 | Dark brown black clayey gravelly SAND |
| MWS147 | 1.50 | 389821 | 22/03/2012 | Dark brown red clayey gravelly SAND (made ground includes brick) |
| MWS147 | 3.50 | 389823 | 22/03/2012 | Dark brown gravelly sandy CLAY (made ground includes brick) |
| MWS147 | 3.90 | 389824 | 22/03/2012 | Dark brown black gravelly sandy CLAY |
| MWS148 | 0.40 | 389825 | 22/03/2012 | Dark brown brown gravelly sandy CLAY |
| MWS148 | 1.30 | 389826 | 22/03/2012 | Brown red sandy CLAY |
| MWS149 | 0.30 | 389827 | 22/03/2012 | Brown gravelly sandy CLAY |
| MWS149 | 1.90 | 389828 | 22/03/2012 | Brown red sandy CLAY |
| MWS150 | 0.25 | 389829 | 22/03/2012 | Dark brown gravelly sandy CLAY (made ground includes brick and coal ) |
| MWS150 | 1.90 | 389830 | 22/03/2012 | Dark brown SAND |
| MWS151 | 0.30 | 389831 | 22/03/2012 | Black dark grey gravelly sandy CLAY |
| MWS151A | 0.70 | 389833 | 22/03/2012 | Brown sandy CLAY |
| MWS151A | 1.70 | 389834 | 22/03/2012 | Brown sandy CLAY |
| MWS152 | 1.00 | 389836 | 22/03/2012 | Brown SAND |
| MWS152 | 1.60 | 389837 | 22/03/2012 | Dark brown SAND |
| MWS153 | 0.25 | 389838 | 22/03/2012 | Dark brown black very clayey SAND |
| MWS153 | 0.70 | 389839 | 22/03/2012 | Dark brown gravelly sandy CLAY |
| MWS153 | 3.80 | 389840 | 22/03/2012 | Brown red grey sandy CLAY |
| MWS154 | 0.80 | 389841 | 22/03/2012 | Dark brown black clayey gravelly SAND |
| MWS154 | 1.40 | 389842 | 22/03/2012 | Dark brown brown gravelly sandy CLAY |
| MWS154 | 3.75 | 389843 | 22/03/2012 | Brown red sandy CLAY |
| MWS155 | 1.70 | 389844 | 22/03/2012 | Brown gravelly sandy CLAY |
| MWS155 | 2.50 | 389845 | 22/03/2012 | Dark brown slightly gravelly sandy CLAY |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389780 | 389781 | 389782 | 389783 | 389784 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS132 | MWS132 | MWS132 | MWS132 | MWS133 |
| | | | **Depth** | 0.30 | 0.60 | 1.10 | 3.00 | 0.70 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Moisture Content | % | DETS 046* | 0.1 | | 12 | 19 | 11 | |
| Arsenic | mg/kg | DETS 042# | 0.2 | | 36 | 9.2 | 6.3 | |
| Cadmium | mg/kg | DETS 042# | 0.1 | | 1.3 | 0.3 | 0.3 | |
| Chromium | mg/kg | DETS 042# | 0.15 | | 76 | 30 | 25 | |
| Copper | mg/kg | DETS 042# | 0.2 | | 110 | 21 | 18 | |
| Lead | mg/kg | DETS 042# | 0.3 | | 110 | 31 | 13 | |
| Mercury | mg/kg | DETSC2325# | 0.05 | | 0.09 | 0.16 | < 0.05 | |
| Nickel | mg/kg | DETS 042# | 1 | | 110 | 21 | 30 | |
| Selenium | mg/kg | DETS 042# | 0.5 | | < 0.5 | < 0.5 | < 0.5 | |
| Zinc | mg/kg | DETS 042# | 1 | | 170 | 62 | 49 | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | 2.4 | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | 1.0 | | | |
| Organic matter | % | DETSC2002# | 0.1 | | 5.7 | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | | < 0.75 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | 52 | | | |
| pH | | DETSC2008# | | | 6.2 | 7.8 | 7.8 | |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | 0.08 | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | < 1.5 | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | < 1.2 | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | < 1.5 | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | 17 | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | < 0.9 | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | < 0.5 | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | < 0.6 | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | 8.6 | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | 17 | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | < 10 | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | 26 | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389780 | 389781 | 389782 | 389783 | 389784 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS132 | MWS132 | MWS132 | MWS132 | MWS133 |
| | | | **Depth** | 0.30 | 0.60 | 1.10 | 3.00 | 0.70 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | | < 0.1 |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | | | | < 1.6 |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | < 10 | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | 11 | | | | < 10 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 11 | | < 10 | | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | 19 | | | | < 10 |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | < 10 | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 41 | | | | < 10 |
| Benzene | mg/kg | DETS 062# | 0.01 | | < 0.01 | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | < 0.01 | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | < 0.01 | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | < 0.01 | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | | | | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | | 6.2 | 5.0 | < 1.0 | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389785 | 389786 | 389787 | 389788 | 389789 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS133 | MWS133 | MWS134A | MWS134A | MWS134A |
| | | | **Depth** | 1.40 | 3.00 | 0.50 | 1.00 | 1.70 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 24 | 14 | 14 | 18 | 19 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 7.7 | 6.0 | 8.6 | 6.5 | 7.1 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.3 | 0.3 | 0.5 | 0.5 | 0.4 |
| Chromium | mg/kg | DETS 042# | 0.15 | 33 | 26 | 21 | 53 | 29 |
| Copper | mg/kg | DETS 042# | 0.2 | 21 | 29 | 66 | 27 | 24 |
| Lead | mg/kg | DETS 042# | 0.3 | 19 | 12 | 77 | 64 | 14 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | < 0.05 | 0.11 | 0.12 | < 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | 26 | 31 | 330 | 1600 | 2300 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 72 | 51 | 70 | 59 | 70 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | 0.8 | | 57 | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | < 0.1 | | 0.1 | |
| Organic matter | % | DETSC2002# | 0.1 | | | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | 16 | | 1900 | |
| pH | | DETSC2008# | | 8.2 | 7.7 | 6.5 | 5.1 | 5.3 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389785 | 389786 | 389787 | 389788 | 389789 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS133 | MWS133 | MWS134A | MWS134A | MWS134A |
| | | | **Depth** | 1.40 | 3.00 | 0.50 | 1.00 | 1.70 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | | < 10 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | | < 10 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 5.8 | 3.1 | 3.8 | 9.5 | 3.7 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389790 | 389791 | 389792 | 389793 | 389794 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS134A | MWS135 | MWS135 | MWS135 | MWS136 |
| | | | **Depth** | 3.80 | 0.30 | 0.75 | 2.90 | 0.30 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 17 | | | 10 | 28 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 7.4 | | | 8.4 | 15 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.4 | | | 0.3 | 2.1 |
| Chromium | mg/kg | DETS 042# | 0.15 | 36 | | | 32 | 26 |
| Copper | mg/kg | DETS 042# | 0.2 | 42 | | | 22 | 1200 |
| Lead | mg/kg | DETS 042# | 0.3 | 19 | | | 25 | 140 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | | | 0.07 | 0.20 |
| Nickel | mg/kg | DETS 042# | 1 | 62 | | | 47 | 50 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | | < 0.5 | 1.4 |
| Zinc | mg/kg | DETS 042# | 1 | 71 | | | 44 | 1200 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | | 9.2 |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | | | < 0.1 |
| Organic matter | % | DETSC2002# | 0.1 | | | | | 3.2 |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | 7.4 | | | 15 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | | 84 |
| pH | | DETSC2008# | | 8.2 | | | 7.4 | 8.5 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | Lab No. | 389790 | 389791 | 389792 | 389793 | 389794 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample ID | MWS134A | MWS135 | MWS135 | MWS135 | MWS136 |
| | | | Depth | 3.80 | 0.30 | 0.75 | 2.90 | 0.30 |
| | | | Sample Ref | | | | | |
| | | | Sample Type | | | | | |
| | | | Sampling Date | / / | / / | / / | / / | / / |
| | | | Sampling Time | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | < 0.1 | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | 0.1 | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | < 1.6 | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | < 10 | | 11 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | 100 | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | 38 | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | < 10 | | 69 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | 150 | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | < 0.3 | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 2.0 | | | < 1.0 | 5.6 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389795 | 389796 | 389798 | 389799 | 389800 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS136 | MWS137 | MWS137 | MWS137 | MWS137 |
| | | | **Depth** | 3.00 | 0.30 | 2.00 | 2.70 | 3.20 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 15 | 15 | 24 | | 14 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 7.6 | 43 | 12 | | 8.9 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.4 | 14 | 0.4 | | 0.4 |
| Chromium | mg/kg | DETS 042# | 0.15 | 41 | 44 | 27 | | 73 |
| Copper | mg/kg | DETS 042# | 0.2 | 51 | 1100 | 77 | | 35 |
| Lead | mg/kg | DETS 042# | 0.3 | 30 | 800 | 85 | | 15 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | 0.15 | 0.20 | | 0.07 |
| Nickel | mg/kg | DETS 042# | 1 | 58 | 1400 | 40 | | 280 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | 0.7 | < 0.5 | | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 74 | 320 | 69 | | 69 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | 11 | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | < 0.1 | | |
| Organic matter | % | DETSC2002# | 0.1 | | | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | 180 | | |
| pH | | DETSC2008# | | 7.0 | 7.6 | 8.0 | | 8.1 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | 2.9 | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | < 0.01 | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | < 0.01 | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | 2.7 | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | 4.0 | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | 37 | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | 350 | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | 0.07 | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | < 0.01 | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | < 0.01 | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | 6.6 | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | 2.2 | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | 21 | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | 260 | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | 400 | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | 290 | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | 690 | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389795 | 389796 | 389798 | 389799 | 389800 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS136 | MWS137 | MWS137 | MWS137 | MWS137 |
| | | | **Depth** | 3.00 | 0.30 | 2.00 | 2.70 | 3.20 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | < 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | 0.5 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | < 1.6 | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | | | < 10 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | | | < 10 | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | 440 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | | | < 10 | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | | | 52 | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | 420 | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | | | 65 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | 930 | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | 0.07 | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | < 0.01 | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | < 0.01 | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | < 0.01 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | 0.6 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | < 1.0 | 4.0 | 3.2 | | < 1.0 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389801 | 389802 | 389803 | 389804 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS138A | MWS138A | MWS140 | MWS140 |
| | | | **Depth** | 0.50 | 1.90 | 0.30 | 2.80 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 17 | 15 | 25 | 12 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 7.3 | 4.0 | 15 | 4.4 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.3 | 0.2 | 0.3 | 0.4 |
| Chromium | mg/kg | DETS 042# | 0.15 | 21 | 18 | 21 | 23 |
| Copper | mg/kg | DETS 042# | 0.2 | 27 | 13 | 24 | 21 |
| Lead | mg/kg | DETS 042# | 0.3 | 58 | 8.8 | 110 | 11 |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.25 | < 0.05 | 0.22 | 0.10 |
| Nickel | mg/kg | DETS 042# | 1 | 24 | 20 | 22 | 30 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | < 0.5 | 0.6 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 53 | 39 | 42 | 44 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | | |
| Organic matter | % | DETSC2002# | 0.1 | | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | |
| pH | | DETSC2008# | | 8.2 | 7.2 | 7.2 | 8.4 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389801 | 389802 | 389803 | 389804 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS138A | MWS138A | MWS140 | MWS140 |
| | | | **Depth** | 0.50 | 1.90 | 0.30 | 2.80 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | 570 | 61 | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 35 | < 10 | | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | 2300 | 100 | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 4.8 | 3.0 | 5.9 | 4.4 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389805 | 389806 | 389807 | 389808 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS141 | MWS141 | MWS141 | MWS142 |
| | | | **Depth** | 0.20 | 0.80 | 2.80 | 0.50 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 15 | | 15 | 16 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 10 | | 18 | 16 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.2 | | 0.4 | 0.5 |
| Chromium | mg/kg | DETS 042# | 0.15 | 21 | | 42 | 20 |
| Copper | mg/kg | DETS 042# | 0.2 | 20 | | 49 | 78 |
| Lead | mg/kg | DETS 042# | 0.3 | 10 | | 22 | 55 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | | < 0.05 | 0.09 |
| Nickel | mg/kg | DETS 042# | 1 | 21 | | 48 | 30 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 31 | | 65 | 73 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | 0.9 | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | < 0.1 | | | |
| Organic matter | % | DETSC2002# | 0.1 | | 0.2 | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | < 0.75 | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | 67 | | | |
| pH | | DETSC2008# | | 8.5 | | 8.3 | 11.3 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | < 1.5 | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | < 1.2 | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | < 1.5 | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | 27 | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | < 0.9 | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | < 0.5 | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | < 0.6 | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | 20 | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | 28 | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | 20 | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | 48 | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389805 | 389806 | 389807 | 389808 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS141 | MWS141 | MWS141 | MWS142 |
| | | | **Depth** | 0.20 | 0.80 | 2.80 | 0.50 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | | 110 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | | | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | | | 58 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | | 710 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 5.2 | | < 1.0 | 2.8 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389809 | 389810 | 389811 | 389812 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS142 | MWS142 | MWS143 | MWS143 |
| | | | **Depth** | 0.80 | 3.00 | 0.50 | 2.80 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | | 17 | 18 | 10 |
| Arsenic | mg/kg | DETS 042# | 0.2 | | 4.2 | 13 | 7.3 |
| Cadmium | mg/kg | DETS 042# | 0.1 | | 0.3 | 0.5 | 0.3 |
| Chromium | mg/kg | DETS 042# | 0.15 | | 23 | 33 | 31 |
| Copper | mg/kg | DETS 042# | 0.2 | | 16 | 99 | 38 |
| Lead | mg/kg | DETS 042# | 0.3 | | 12 | 71 | 14 |
| Mercury | mg/kg | DETSC2325# | 0.05 | | 0.05 | 0.31 | < 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | | 29 | 47 | 40 |
| Selenium | mg/kg | DETS 042# | 0.5 | | 0.6 | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | | 42 | 90 | 62 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | | |
| Organic matter | % | DETSC2002# | 0.1 | | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | |
| pH | | DETSC2008# | | | 5.5 | 5.6 | 8.2 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | 0.24 | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | < 1.5 | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | 9.3 | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | 170 | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | 910 | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | < 0.9 | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | 6.2 | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | 120 | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | 760 | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | 1100 | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | 880 | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | 2000 | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389809 | 389810 | 389811 | 389812 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS142 | MWS142 | MWS143 | MWS143 |
| | | | **Depth** | 0.80 | 3.00 | 0.50 | 2.80 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | 0.5 | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | 0.8 | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | 2.7 | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | 15 | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | 9.6 | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | 8.1 | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | 9.6 | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | 6.8 | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | 11 | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | 1.5 | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | 19 | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | 0.4 | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | 9.0 | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | 11 | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | 19 | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | 120 | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | 87 | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | 4200 | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | 29 | | < 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 920 | | < 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | 4900 | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | 500 | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 10000 | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | < 0.01 | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | < 0.01 | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | < 0.01 | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | < 0.01 | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | | < 1.0 | < 1.0 | < 1.0 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389813 | 389814 | 389815 | 389816 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS144 | MWS144 | MWS145 | MWS145 |
| | | | **Depth** | 0.40 | 3.00 | 0.55 | 3.00 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 17 | | 11 | 9.8 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 28 | | 21 | 5.0 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.8 | | 0.9 | 0.4 |
| Chromium | mg/kg | DETS 042# | 0.15 | 39 | | 57 | 37 |
| Copper | mg/kg | DETS 042# | 0.2 | 120 | | 170 | 30 |
| Lead | mg/kg | DETS 042# | 0.3 | 87 | | 92 | 23 |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.19 | | 0.07 | < 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | 64 | | 110 | 25 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | < 0.5 | 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 200 | | 140 | 49 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | | |
| Organic matter | % | DETSC2002# | 0.1 | | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | |
| pH | | DETSC2008# | | 9.7 | | 10.6 | 8.4 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389813 | 389814 | 389815 | 389816 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS144 | MWS144 | MWS145 | MWS145 |
| | | | **Depth** | 0.40 | 3.00 | 0.55 | 3.00 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | 32 | < 10 | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 15 | < 10 | | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | 160 | 17 | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 2.0 | | 3.9 | 8.7 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389817 | 389818 | 389819 | 389820 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS146 | MWS146 | MWS146 | MWS147 |
| | | | **Depth** | 0.40 | 0.75 | 1.90 | 0.60 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 24 | | 10 | 10 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 9.6 | | 6.7 | 21 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.6 | | 0.2 | 1.5 |
| Chromium | mg/kg | DETS 042# | 0.15 | 19 | | 15 | 51 |
| Copper | mg/kg | DETS 042# | 0.2 | 73 | | 12 | 450 |
| Lead | mg/kg | DETS 042# | 0.3 | 35 | | 5.3 | 680 |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.47 | | < 0.05 | 0.15 |
| Nickel | mg/kg | DETS 042# | 1 | 57 | | 59 | 110 |
| Selenium | mg/kg | DETS 042# | 0.5 | 0.7 | | < 0.5 | 1.1 |
| Zinc | mg/kg | DETS 042# | 1 | 300 | | 28 | 330 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | 0.8 | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | < 0.1 | |
| Organic matter | % | DETSC2002# | 0.1 | | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | 13 | |
| pH | | DETSC2008# | | 8.6 | | 7.7 | 8.7 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389817 | 389818 | 389819 | 389820 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS146 | MWS146 | MWS146 | MWS147 |
| | | | **Depth** | 0.40 | 0.75 | 1.90 | 0.60 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | 0.6 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | 0.8 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | 0.7 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | 0.2 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | 0.5 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | 0.9 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | | | 0.2 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | 0.9 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | 0.9 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | 0.8 |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | | | 6.5 |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | 39 | | | 53 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | 13 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | 28 | | | 59 |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 71 | | | 120 |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | | | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | 5.4 | | < 1.0 | 3.1 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389821 | 389823 | 389824 | 389825 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS147 | MWS147 | MWS147 | MWS148 |
| | | | **Depth** | 1.50 | 3.50 | 3.90 | 0.40 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | | 11 | | 15 |
| Arsenic | mg/kg | DETS 042# | 0.2 | | 35 | | 10 |
| Cadmium | mg/kg | DETS 042# | 0.1 | | 1.8 | | 0.3 |
| Chromium | mg/kg | DETS 042# | 0.15 | | 88 | | 20 |
| Copper | mg/kg | DETS 042# | 0.2 | | 360 | | 45 |
| Lead | mg/kg | DETS 042# | 0.3 | | 400 | | 36 |
| Mercury | mg/kg | DETSC2325# | 0.05 | | 0.16 | | 0.37 |
| Nickel | mg/kg | DETS 042# | 1 | | 100 | | 22 |
| Selenium | mg/kg | DETS 042# | 0.5 | | < 0.5 | | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | | 480 | | 63 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | | |
| Organic matter | % | DETSC2002# | 0.1 | | | 4.8 | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | 6.3 | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | |
| pH | | DETSC2008# | | | 9.0 | | 5.2 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389821 | 389823 | 389824 | 389825 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS147 | MWS147 | MWS147 | MWS148 |
| | | | **Depth** | 1.50 | 3.50 | 3.90 | 0.40 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | 12 | | < 10 | < 10 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 22 | | 15 | 15 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | 200 | | 100 | 80 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | | 9.8 | | 7.4 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389826 | 389827 | 389828 | 389829 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS148 | MWS149 | MWS149 | MWS150 |
| | | | **Depth** | 1.30 | 0.30 | 1.90 | 0.25 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 8.2 | 11 | 8.6 | 14 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 4.2 | 6.8 | 4.9 | 9.2 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.2 | 0.2 | 0.4 | 0.6 |
| Chromium | mg/kg | DETS 042# | 0.15 | 19 | 19 | 20 | 21 |
| Copper | mg/kg | DETS 042# | 0.2 | 10 | 21 | 16 | 51 |
| Lead | mg/kg | DETS 042# | 0.3 | 9.7 | 9.0 | 11 | 31 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | < 0.05 | 0.06 | 1.3 |
| Nickel | mg/kg | DETS 042# | 1 | 22 | 14 | 24 | 49 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | < 0.5 | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 35 | 33 | 37 | 180 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | 3.7 |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | | < 0.1 |
| Organic matter | % | DETSC2002# | 0.1 | | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | 170 |
| pH | | DETSC2008# | | 9.1 | 5.6 | 6.9 | 7.3 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389826 | 389827 | 389828 | 389829 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS148 | MWS149 | MWS149 | MWS150 |
| | | | **Depth** | 1.30 | 0.30 | 1.90 | 0.25 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | 24 | | < 10 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | < 1.0 | 2.8 | < 1.0 | 4.3 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389830 | 389831 | 389833 | 389834 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS150 | MWS151 | MWS151A | MWS151A |
| | | | **Depth** | 1.90 | 0.30 | 0.70 | 1.70 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 7.6 | | 18 | 11 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 6.9 | | 7.9 | 7.0 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.3 | | 0.3 | 0.4 |
| Chromium | mg/kg | DETS 042# | 0.15 | 22 | | 31 | 29 |
| Copper | mg/kg | DETS 042# | 0.2 | 11 | | 28 | 19 |
| Lead | mg/kg | DETS 042# | 0.3 | 7.5 | | 14 | 14 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | | 0.07 | 0.24 |
| Nickel | mg/kg | DETS 042# | 1 | 15 | | 34 | 35 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 31 | | 160 | 60 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | 1.5 | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | < 0.1 | |
| Organic matter | % | DETSC2002# | 0.1 | | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | 120 | |
| pH | | DETSC2008# | | 5.0 | | 9.1 | 8.4 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389830 | 389831 | 389833 | 389834 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS150 | MWS151 | MWS151A | MWS151A |
| | | | **Depth** | 1.90 | 0.30 | 0.70 | 1.70 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | 74 | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | < 1.0 | | < 1.0 | < 1.0 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389835 | 389836 | 389837 | 389838 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS152 | MWS152 | MWS152 | MWS153 |
| | | | **Depth** | 0.30 | 1.00 | 1.60 | 0.25 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 27 | | 7.6 | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 21 | | 9.4 | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.9 | | 0.3 | |
| Chromium | mg/kg | DETS 042# | 0.15 | 18 | | 16 | |
| Copper | mg/kg | DETS 042# | 0.2 | 120 | | 14 | |
| Lead | mg/kg | DETS 042# | 0.3 | 39 | | 9.7 | |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.12 | | < 0.05 | |
| Nickel | mg/kg | DETS 042# | 1 | 68 | | 15 | |
| Selenium | mg/kg | DETS 042# | 0.5 | 4.4 | | < 0.5 | |
| Zinc | mg/kg | DETS 042# | 1 | 110 | | 29 | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | | |
| Organic matter | % | DETSC2002# | 0.1 | | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | 1.7 | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | |
| pH | | DETSC2008# | | 8.1 | | 7.4 | |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | < 0.01 |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | 0.04 |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | < 0.01 |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | < 1.5 |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | < 1.2 |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | 48 |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | 120 |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | < 0.01 |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | < 0.01 |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | < 0.01 |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | 1.6 |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | 1.2 |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | 2.9 |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | 40 |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | 170 |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | 46 |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | 220 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389835 | 389836 | 389837 | 389838 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS152 | MWS152 | MWS152 | MWS153 |
| | | | **Depth** | 0.30 | 1.00 | 1.60 | 0.25 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | 19 | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | 16 | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 35 | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 6.3 | | < 1.0 | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389839 | 389840 | 389841 | 389842 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS153 | MWS153 | MWS154 | MWS154 |
| | | | **Depth** | 0.70 | 3.80 | 0.80 | 1.40 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 14 | | 21 | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 4.4 | | 14 | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.3 | | 0.6 | |
| Chromium | mg/kg | DETS 042# | 0.15 | 21 | | 30 | |
| Copper | mg/kg | DETS 042# | 0.2 | 28 | | 100 | |
| Lead | mg/kg | DETS 042# | 0.3 | 19 | | 44 | |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.08 | | 0.06 | |
| Nickel | mg/kg | DETS 042# | 1 | 17 | | 62 | |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | < 0.5 | |
| Zinc | mg/kg | DETS 042# | 1 | 49 | | 44 | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | | |
| Organic matter | % | DETSC2002# | 0.1 | | | | 0.3 |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | 1.4 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | |
| pH | | DETSC2008# | | 7.3 | | 9.0 | |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389839 | 389840 | 389841 | 389842 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS153 | MWS153 | MWS154 | MWS154 |
| | | | **Depth** | 0.70 | 3.80 | 0.80 | 1.40 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | / / | / / | / / | / / |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | < 0.1 |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | < 1.6 |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | < 10 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | < 10 |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | < 10 |
| Benzene | mg/kg | DETS 062# | 0.01 | | | | < 0.01 |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | | < 0.01 |
| Toluene | mg/kg | DETS 062# | 0.01 | | | | < 0.01 |
| Xylene | mg/kg | DETS 062# | 0.01 | | | | < 0.01 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | 3.8 | | 5.8 | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389843 | 389844 | 389845 |
|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS154 | MWS155 | MWS155 |
| | | | **Depth** | 3.75 | 1.70 | 2.50 |
| | | | **Sample Ref** | | | |
| | | | **Sample Type** | | | |
| | | | **Sampling Date** | / / | / / | / / |
| | | | **Sampling Time** | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | |
| Moisture Content | % | DETS 046* | 0.1 | 12 | 12 | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 17 | 6.4 | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.4 | 0.6 | |
| Chromium | mg/kg | DETS 042# | 0.15 | 31 | 30 | |
| Copper | mg/kg | DETS 042# | 0.2 | 33 | 25 | |
| Lead | mg/kg | DETS 042# | 0.3 | 25 | 19 | |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | 0.09 | |
| Nickel | mg/kg | DETS 042# | 1 | 41 | 41 | |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | 0.9 | |
| Zinc | mg/kg | DETS 042# | 1 | 66 | 68 | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | |
| Organic matter | % | DETSC2002# | 0.1 | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | < 0.75 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | |
| pH | | DETSC2008# | | 8.6 | 7.2 | |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 389843 | 389844 | 389845 |
|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS154 | MWS155 | MWS155 |
| | | | **Depth** | 3.75 | 1.70 | 2.50 |
| | | | **Sample Ref** | | | |
| | | | **Sample Type** | | | |
| | | | **Sampling Date** | / / | / / | / / |
| | | | **Sampling Time** | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | |
| EPH (C36-C40) | mg/kg | DETSC 3311 | 10 | | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | |
| EPH (C21-C36) | mg/kg | DETSC 3311 | 10 | | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | |
| Benzene | mg/kg | DETS 062# | 0.01 | | | |
| Ethylbenzene | mg/kg | DETS 062# | 0.01 | | | |
| Toluene | mg/kg | DETS 062# | 0.01 | | | |
| Xylene | mg/kg | DETS 062# | 0.01 | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | < 1.0 | 4.1 | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | | |
|---|---|---|---|---|
| | | | **Lab No.** | 389813 |
| | | | **Sample ID** | MWS144 |
| | | | **Depth** | 0.40 |
| | | | **Sample Ref** | |
| | | | **Sample Type** | |
| | | | **Sampling Date** | / / |
| | | | **Sampling Time** | |
| **Test** | **Units** | **DETSxx** | **LOD** | |
| Total VOC's | mg/kg | DETSC3431* | 0.01 | 1.5 |
| 1,1 Dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Methylene Chloride | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,1-dichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 2,2-dichlororopane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene | mg/kg | DETSC3431* | 0.01 | 0.02 |
| Bromochloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Chloroform | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,1,1-trichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Carbon tetrachloride | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,1-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Benzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,2-dichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Trichloroethylene | mg/kg | DETSC3431* | 0.01 | 1.5 |
| 1,2-dichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Dibromomethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Bromodichloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| cis-1,3-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Toluene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| trans-1,3-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,1,2-trichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Tetrachloroethylene | mg/kg | DETSC3431* | 0.01 | 0.03 |
| 1,3-dichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Dibromochloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,2-dibromoethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Chlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Ethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| m+p-Xylene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| o-Xylene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Styrene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Bromoform | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Isopropylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Bromobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,2,3-trichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| n-propylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 2-chlorotoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 4-chlorotoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Tert-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | | |
|---|---|---|---|---|
| | | | **Lab No.** | 389813 |
| | | | **Sample ID** | MWS144 |
| | | | **Depth** | 0.40 |
| | | | **Sample Ref** | |
| | | | **Sample Type** | |
| | | | **Sampling Date** | / / |
| | | | **Sampling Time** | |
| **Test** | **Units** | **DETSxx** | **LOD** | |
| sec-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,3-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| p-isopropyltoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,4-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| n-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,2-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Hexachlorobutadiene | mg/kg | DETSC3431* | 0.01 | < 0.01 |
| Naphthalene | mg/kg | DETSC3431* | 0.01 | 0.03 |
| 1,2,3-trichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 |

# Summary of Asbestos Analysis
## Soil Samples

Our Ref: 12-59491-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| Lab No | Sample Ref | Material Type* | Result | Comment | Analyst |
|---|---|---|---|---|---|
| 389780 | MWS132 0.30 | Soil | NAD | None | Colin Patrick |
| 389783 | MWS132 3.00 | Soil | NAD | None | Colin Patrick |
| 389791 | MWS135 0.30 | Soil | Chrysotile | loose bundle | Colin Patrick |
| 389794 | MWS136 0.30 | Soil | NAD | None | Colin Patrick |
| 389797 | MWS137 1.00 | Soil | NAD | None | Colin Patrick |
| 389803 | MWS140 0.30 | Soil | NAD | None | Colin Patrick |
| 389811 | MWS143 0.50 | Soil | NAD | None | Colin Patrick |
| 389815 | MWS145 0.55 | Soil | NAD | None | Colin Patrick |
| 389817 | MWS146 0.40 | Soil | NAD | None | Colin Patrick |
| 389820 | MWS147 0.60 | Soil | Chrysotile | loose bundle | Colin Patrick |
| 389821 | MWS147 1.50 | Soil | Chrysotile | loose bundle | Colin Patrick |
| 389822 | MWS147 2.50 | Soil | Chrysotile | loose bundle | Colin Patrick |
| 389823 | MWS147 3.50 | Soil | NAD | None | Colin Patrick |
| 389824 | MWS147 3.90 | Soil | Chrysotile | small piece of cement | Colin Patrick |
| 389832 | MWS151 0.75 | Soil | NAD | None | Colin Patrick |
| 389835 | MWS152 0.30 | Soil | NAD | None | Colin Patrick |
| 389841 | MWS154 0.80 | Soil | NAD | None | Colin Patrick |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETS 082 using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.

## Summary of Asbestos Analysis
## Soil Samples

Our Ref: 12-59491-1

Client Ref: 17054A

Contract Title: Meggitt/Stadco

| | | | |
|---|---|---|---|
| | | **Lab No.** | 389821 |
| | | **Sample Ref** | MWS147 |
| | | **Depth** | 1.50 |
| | | **Other Ref** | |
| | | **Sample Type** | Soil |
| **Test** | **Units** | **DETSxx** | |
| **Asbestos ID** | | **DETS 082** | **Chrysotile** |
| **Total Mass% Asbestos (i+ii)** | Mass % | | **<0.001** |
| Quantification by Phase Contrast Optical Microscopy (i) | Mass % | DETSC 1102 | <0.001 |
| Gravimetric Quantification (ii) | Mass % | DETSC 1102 | na |
| Breakdown of Gravimetric Analysis | | | |
| Mass of Sample | g | | 960.23 |
| ACMs present* | | | |
| Mass of ACM in sample | g | | |
| % ACM by mass | % | | |
| % asbestos in ACM | % | | |
| % asbestos in sample | % | | |

* Denotes test or material description outside of UKAS accreditation.
% asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264.
Recommended sample size for quantification is approximately 1kg
# denotes deviating sample

## Sample Comments

(The laboratory cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".)

| Lab No. | Sample ID | Date Sampled | Sample exceeded holding time for test | Sample not received in appropriate containers for test |
|---|---|---|---|---|
| 389780 | MWS132 0.30 | - | Cannot evaluate without date sampled. | |
| 389781 | MWS132 0.60 | - | Cannot evaluate without date sampled. | |
| 389782 | MWS132 1.10 | - | Cannot evaluate without date sampled. | |
| 389783 | MWS132 3.00 | - | Cannot evaluate without date sampled. | |
| 389784 | MWS133 0.70 | - | Cannot evaluate without date sampled. | |
| 389784 | MWS133 0.70 | - | Cannot evaluate without date sampled. | FREESULS |
| 389784 | MWS133 0.70 | - | Cannot evaluate without date sampled. | FREESUL_S |
| 389784 | MWS133 0.70 | - | Cannot evaluate without date sampled. | Naphthalene |
| 389784 | MWS133 0.70 | - | Cannot evaluate without date sampled. | PAH SPEC solid |
| 389784 | MWS133 0.70 | - | Cannot evaluate without date sampled. | PAH FID solid |
| 389784 | MWS133 0.70 | - | Cannot evaluate without date sampled. | EPH solid |
| 389785 | MWS133 1.40 | - | Cannot evaluate without date sampled. | |
| 389786 | MWS133 3.00 | - | Cannot evaluate without date sampled. | |
| 389787 | MWS134A 0.50 | - | Cannot evaluate without date sampled. | |
| 389788 | MWS134A 1.00 | - | Cannot evaluate without date sampled. | |
| 389789 | MWS134A 1.70 | - | Cannot evaluate without date sampled. | |
| 389790 | MWS134A 3.80 | - | Cannot evaluate without date sampled. | |
| 389791 | MWS135 0.30 | - | Cannot evaluate without date sampled. | |
| 389792 | MWS135 0.75 | - | Cannot evaluate without date sampled. | |
| 389793 | MWS135 2.90 | - | Cannot evaluate without date sampled. | |
| 389794 | MWS136 0.30 | - | Cannot evaluate without date sampled. | |
| 389795 | MWS136 3.00 | - | Cannot evaluate without date sampled. | |
| 389796 | MWS137 0.30 | - | Cannot evaluate without date sampled. | |
| 389798 | MWS137 2.00 | - | Cannot evaluate without date sampled. | |
| 389798 | MWS137 2.00 | - | Cannot evaluate without date sampled. | ICP Metals |
| 389799 | MWS137 2.70 | - | Cannot evaluate without date sampled. | |
| 389800 | MWS137 3.20 | - | Cannot evaluate without date sampled. | |
| 389801 | MWS138A 0.50 | - | Cannot evaluate without date sampled. | |
| 389802 | MWS138A 1.90 | - | Cannot evaluate without date sampled. | EPH solid |
| 389802 | MWS138A 1.90 | - | Cannot evaluate without date sampled. | EPH solid |
| 389803 | MWS140 0.30 | - | Cannot evaluate without date sampled. | |
| 389804 | MWS140 2.80 | - | Cannot evaluate without date sampled. | |
| 389805 | MWS141 0.20 | - | Cannot evaluate without date sampled. | |
| 389806 | MWS141 0.80 | - | Cannot evaluate without date sampled. | |
| 389807 | MWS141 2.80 | - | Cannot evaluate without date sampled. | |
| 389808 | MWS142 0.50 | - | Cannot evaluate without date sampled. | |

| | | | | |
|---|---|---|---|---|
| 389809 | MWS142 0.80 | - | Cannot evaluate without date sampled. | |
| 389810 | MWS142 3.00 | - | Cannot evaluate without date sampled. | |
| 389811 | MWS143 0.50 | - | Cannot evaluate without date sampled. | |
| 389812 | MWS143 2.80 | - | Cannot evaluate without date sampled. | |
| 389813 | MWS144 0.40 | - | Cannot evaluate without date sampled. | |
| 389814 | MWS144 3.00 | - | Cannot evaluate without date sampled. | EPH solid |
| 389814 | MWS144 3.00 | - | Cannot evaluate without date sampled. | EPH solid |
| 389815 | MWS145 0.55 | - | Cannot evaluate without date sampled. | |
| 389816 | MWS145 3.00 | - | Cannot evaluate without date sampled. | |
| 389817 | MWS146 0.40 | - | Cannot evaluate without date sampled. | |
| 389818 | MWS146 0.75 | - | Cannot evaluate without date sampled. | |
| 389819 | MWS146 1.90 | - | Cannot evaluate without date sampled. | |
| 389820 | MWS147 0.60 | - | Cannot evaluate without date sampled. | |
| 389821 | MWS147 1.50 | - | Cannot evaluate without date sampled. | |
| 389823 | MWS147 3.50 | - | Cannot evaluate without date sampled. | |
| 389824 | MWS147 3.90 | - | Cannot evaluate without date sampled. | |
| 389825 | MWS148 0.40 | - | Cannot evaluate without date sampled. | |
| 389826 | MWS148 1.30 | - | Cannot evaluate without date sampled. | |
| 389827 | MWS149 0.30 | - | Cannot evaluate without date sampled. | |
| 389828 | MWS149 1.90 | - | Cannot evaluate without date sampled. | |
| 389829 | MWS150 0.25 | - | Cannot evaluate without date sampled. | |
| 389830 | MWS150 1.90 | - | Cannot evaluate without date sampled. | |
| 389831 | MWS151 0.30 | - | Cannot evaluate without date sampled. | |
| 389833 | MWS151A 0.70 | - | Cannot evaluate without date sampled. | |
| 389834 | MWS151A 1.70 | - | Cannot evaluate without date sampled. | |
| 389835 | MWS152 0.30 | - | Cannot evaluate without date sampled. | |
| 389836 | MWS152 1.00 | - | Cannot evaluate without date sampled. | |
| 389837 | MWS152 1.60 | - | Cannot evaluate without date sampled. | |
| 389838 | MWS153 0.25 | - | Cannot evaluate without date sampled. | |
| 389839 | MWS153 0.70 | - | Cannot evaluate without date sampled. | |
| 389840 | MWS153 3.80 | - | Cannot evaluate without date sampled. | |
| 389840 | MWS153 3.80 | - | Cannot evaluate without date sampled. | EPH solid |
| 389841 | MWS154 0.80 | - | Cannot evaluate without date sampled. | |
| 389842 | MWS154 1.40 | - | Cannot evaluate without date sampled. | |
| 389843 | MWS154 3.75 | - | Cannot evaluate without date sampled. | |
| 389844 | MWS155 1.70 | - | Cannot evaluate without date sampled. | |
| 389845 | MWS155 2.50 | - | Cannot evaluate without date sampled. | |
| 389845 | MWS155 2.50 | - | Cannot evaluate without date sampled. | FREESUL_S |

## Appendix A - Details of Analysis

Method details are shown only for those determinants listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.
No Recovery Factors are used in the determination of results. Results reported assume 100% recovery.
Full method statements are available on request.

| Method | Name of Parameter | Units | Limit of Detection | Sample Preparation | Sub-Contracted | UKAS | MCERTS |
|---|---|---|---|---|---|---|---|
| DETS 002 | Organic Matter | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 003 | Loss on Ignition | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 075 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 076 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 006 | Chloride | mg/kg | 0.01 | Air Dried | No | Yes | Yes |
| DETS 008 | pH | pH Units | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Selenium | mg/kg | 0.50 | Air Dried | No | Yes | Yes |
| DETS 019 | Ammonia | mg/kg | 0.02 | Air Dried | No | Yes | Yes |
| DETS 020 | Boron (Water Soluble) | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 024 | Sulphide | mg/kg | 10.00 | Air Dried | No | Yes | Yes |
| DETS 042 | Antimony | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Arsenic | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Barium | mg/kg | 1.50 | Air Dried | No | Yes | Yes |
| DET S 042 | Beryllium | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Cadmium | mg/kg | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Cobalt | mg/kg | 0.70 | Air Dried | No | Yes | Yes |
| DETS 042 | Copper | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Chromium | mg/kg | 0.15 | Air Dried | No | Yes | Yes |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DETS 042 | Iron | mg/kg | 1.00 | Air Dried | No | Yes | No |
| DETS 042 | Lead | mg/kg | 0.30 | Air Dried | No | Yes | Yes |
| DETS 042 | Manganese | mg/kg | 20.00 | Air Dried | No | Yes | Yes |
| DETS 081 | Mercury | mg/kg | 0.05 | Air Dried | No | Yes | Yes |
| DETS 042 | Molybdenum | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 042 | Nickel | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Thallium | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Vanadium | mg/kg | 0.80 | Air Dried | No | Yes | Yes |
| DETS 042 | Zinc | mg/kg | 1.00 | Air Dried | No | Yes | Yes |
| DETS 049 | Sulphur (Free) | mg/kg | 0.50 | As Received | No | Yes | Yes |
| DETS 050 | PAH | mg/kg | 0.10 | As Received | No | Yes | No |
| DETS 051 | TPH (C10 - C40) | mg/kg | 20.00 | As Received | No | Yes | Yes |
| DETS 052 | PCB | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Benzene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Toluene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Ethylbenzne | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Xylene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 067 | Phenol - Monohydric | mg/kg | 0.3 | Air Dried | No | Yes | Yes |
| DETS 067 | Easily Liberatable Cyanide | mg/kg | 0.1 | Air Dried | No | Yes | Yes |
| DETS 067 | Complex Cyanide | mg/kg | 0.30 | Air Dried | No | Yes | No |
| DETS 067 | Total Cyanide | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 067 | Thiocyanate | mg/kg | 0.6 | Air Dried | No | Yes | Yes |
| DETS 068 | VOC | mg/kg | 0.01 | As Received | No | No | No |

# Certificate of Analysis

2139

Certificate Number: 12-59623-1

Date: 26/03/2012

| | |
|---|---|
| Client: | Merebrook Consulting Limited<br>Suite 2B<br>East Mill<br>Belper<br>DE56 2UA |
| Our Reference: | 12-59623-1 |
| Client Reference: | 17054B |
| Contract Title: | Meggit site only |
| Description: | 27 soil samples |
| Date Received: | 20 February 2012 |
| Date Started: | 20 February 2012 |
| Date Completed: | 27 February 2012 |
| Test Procedures: | Identified by prefix DETSn (details on request), Asbestos Analysis (DETS 082). |
| Notes: | **This report supersedes 12-59623, Asbestos Quantification added**<br>Observations and interpretations are outside the scope of UKAS accreditation |
| Approved By: | Paul Woodbridge, Senior Operations Manager |

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 except in full, without the prior written approval of the laboratory.

# Information in Support of the Analytical Results

## Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample.

***Key***

| | |
|---|---|
| * | Denotes test not included in laboratory scope of accreditation |
| # | Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo |
| $ | Denotes tests completed by an approved subcontractor |
| I/S | Denotes insufficient sample to carry out test |
| U/S | Denotes that the sample is not suitable for testing |

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month
Liquids - 2 weeks
Asbestos (test portion) - 6 months

# Summary of Chemical Analysis
# Matrix Descriptions

Our Ref: 12-59623-1
Client Ref: 17054B
Contract Title: Meggit site only

| Sample ID | Depth | Sample No | Completed | Matrix Description |
|---|---|---|---|---|
| MWS121 | 0.50-0.60 | 390625 | 27/02/2012 | dark brown sandy CLAY |
| MWS121 | 1.50-1.60 | 390626 | 27/02/2012 | brown red sandy CLAY |
| MWS122 | 0.30 | 390627 | 27/02/2012 | brown very gravelly SAND |
| MWS122 | 0.50-0.60 | 390628 | 27/02/2012 | brown gravelly clayey SAND |
| MWS122 | 1.00 | 390629 | 27/02/2012 | brown sandy CLAY |
| MWS122 | 1.30-1.40 | 390630 | 27/02/2012 | brown clayey SAND |
| MWS123 | 0.40-0.50 | 390631 | 27/02/2012 | brown sandy CLAY |
| MWS123 | 1.40-1.50 | 390632 | 27/02/2012 | brown sandy CLAY |
| MWS123 | 2.00-2.10 | 390633 | 27/02/2012 | red sandy CLAY |
| MWS124 | 0.30-0.40 | 390634 | 27/02/2012 | brown gravely very sandy CLAY |
| MWS124 | 1.40-1.50 | 390635 | 27/02/2012 | brown SAND |
| MWS126 | 0.40-0.50 | 390636 | 27/02/2012 | black very gravelly SAND made ground with brick |
| MWS126 | 0.90-1.00 | 390637 | 27/02/2012 | brown gravelly clayey SAND |
| MWS126 | 1.20-1.30 | 390638 | 27/02/2012 | brown SAND |
| MWS126 | 1.90-2.00 | 390639 | 27/02/2012 | brown SAND |
| MWS127 | 0.40-0.50 | 390640 | 27/02/2012 | brown very gravelly SAND |
| MWS127 | 1.10-1.20 | 390641 | 27/02/2012 | brown gravely very sandy CLAY possible brick |
| MWS127 | 1.70-1.80 | 390642 | 27/02/2012 | brown gravely very sandy CLAY |
| MWS127 | 2.60-2.70 | 390643 | 27/02/2012 | brown sandy CLAY |
| MWS128 | 0.50-0.60 | 390644 | 27/02/2012 | brown grey gravelly clayey SAND |
| MWS129A | 0.90-1.00 | 390645 | 27/02/2012 | brown gravelly clayey SAND |
| MWS129A | 1.00-1.10 | 390646 | 27/02/2012 | brown SAND |
| MWS129A | 1.90-2.00 | 390647 | 27/02/2012 | brown SAND |
| MWS120 | 1.00-2.00 | 390648 | 27/02/2012 | red sandy CLAY |
| MWS120 | 2.00-2.20 | 390649 | 27/02/2012 | red sandy CLAY |
| MWS131 | 0.30 | 390650 | 27/02/2012 | brown grey gravelly sandy CLAY |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59623-1
Client Ref: 17054B
Contract Title: Meggit site only

| | | | **Lab No.** | 390625 | 390626 | 390627 | 390628 | 390629 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS121 | MWS121 | MWS122 | MWS122 | MWS122 |
| | | | **Depth** | 0.50-0.60 | 1.50-1.60 | 0.30 | 0.50-0.60 | 1.00 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 9.5 | | 7.7 | | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.8 | | 0.5 | | |
| Chromium | mg/kg | DETS 042# | 0.15 | 28 | | 27 | | |
| Copper | mg/kg | DETS 042# | 0.2 | 33 | | 16 | | |
| Lead | mg/kg | DETS 042# | 0.3 | 58 | | 20 | | |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.19 | | < 0.05 | | |
| Nickel | mg/kg | DETS 042# | 1 | 26 | | 19 | | |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | < 0.5 | | |
| Zinc | mg/kg | DETS 042# | 1 | 67 | | 39 | | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | 3.9 | | 2.1 | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | 0.2 | | < 0.1 | | |
| Organic matter | % | DETSC2002# | 0.1 | | | 0.9 | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | 48 | 33 | 350 | | 26 |
| pH | | DETSC2008# | | 7.1 | | 11.3 | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | | < 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | | | < 1.6 | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | | | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | 13 | | | < 10 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | | | < 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | < 10 | | | < 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | 26 | | | < 10 | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 52 | | | < 10 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | | | < 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | < 1.0 | | 100 | | |
| Moisture Content | % | DETS 046* | 0.1 | 23 | | 16 | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59623-1
Client Ref: 17054B
Contract Title: Meggit site only

| | | | Lab No. | 390630 | 390631 | 390632 | 390633 | 390634 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample ID | MWS122 | MWS123 | MWS123 | MWS123 | MWS124 |
| | | | Depth | 1.30-1.40 | 0.40-0.50 | 1.40-1.50 | 2.00-2.10 | 0.30-0.40 |
| | | | Sample Ref | | | | | |
| | | | Sample Type | | | | | |
| | | | Sampling Date | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 |
| | | | Sampling Time | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | | 6.6 | | 5.5 | 5.1 |
| Cadmium | mg/kg | DETS 042# | 0.1 | | 0.7 | | 0.6 | 0.4 |
| Chromium | mg/kg | DETS 042# | 0.15 | | 28 | | 23 | 15 |
| Copper | mg/kg | DETS 042# | 0.2 | | 22 | | 15 | 10 |
| Lead | mg/kg | DETS 042# | 0.3 | | 14 | | 9.4 | 11 |
| Mercury | mg/kg | DETSC2325# | 0.05 | | < 0.05 | | < 0.05 | < 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | | 30 | | 26 | 14 |
| Selenium | mg/kg | DETS 042# | 0.5 | | < 0.5 | | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | | 52 | | 44 | 29 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | 2.6 | | 0.6 | 0.6 |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Organic matter | % | DETSC2002# | 0.1 | | 0.1 | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | 42 | | 11 | 16 |
| pH | | DETSC2008# | | | 8.3 | | 8.5 | 7.9 |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | < 0.1 | | < 0.1 |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | < 1.6 | < 1.6 | | < 1.6 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | < 10 | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | 65 | < 10 | 13 | | < 10 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | < 10 | | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | 19 | | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | 20 | < 10 | 64 | | < 10 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 88 | < 10 | 110 | | 19 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | < 0.3 | < 0.3 | | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | | < 1.0 | | < 1.0 | 11 |
| Moisture Content | % | DETS 046* | 0.1 | | 19 | | 10 | 13 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59623-1
Client Ref: 17054B
Contract Title: Meggit site only

| | | | **Lab No.** | 390635 | 390636 | 390637 | 390638 | 390639 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS124 | MWS126 | MWS126 | MWS126 | MWS126 |
| | | | **Depth** | 1.40-1.50 | 0.40-0.50 | 0.90-1.00 | 1.20-1.30 | 1.90-2.00 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 2.6 | 9.9 | 5.8 | | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.3 | 27 | 0.7 | | |
| Chromium | mg/kg | DETS 042# | 0.15 | 15 | 18 | 14 | | |
| Copper | mg/kg | DETS 042# | 0.2 | 8.4 | 85 | 11 | | |
| Lead | mg/kg | DETS 042# | 0.3 | 7.7 | 82 | 26 | | |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | < 0.05 | 0.07 | | |
| Nickel | mg/kg | DETS 042# | 1 | 15 | 23 | 13 | | |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | < 0.5 | 1.0 | | |
| Zinc | mg/kg | DETS 042# | 1 | 27 | 100 | 110 | | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | 0.5 | 2.6 | 1.5 | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | < 0.1 | < 0.1 | < 0.1 | | |
| Organic matter | % | DETSC2002# | 0.1 | | | | | < 0.1 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | 19 | 100 | 66 | | |
| pH | | DETSC2008# | | 7.8 | 11.3 | 8.2 | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | < 1.6 | | < 1.6 | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | < 10 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | < 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | < 10 | 11 | | < 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | < 10 | 13 | | < 10 | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 17 | 39 | | < 10 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | < 0.3 | | < 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | < 1.0 | 60 | < 1.0 | | |
| Moisture Content | % | DETS 046* | 0.1 | 15 | 27 | 14 | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59623-1
Client Ref: 17054B
Contract Title: Meggit site only

| | | | Lab No. | 390640 | 390641 | 390642 | 390643 | 390644 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample ID | MWS127 | MWS127 | MWS127 | MWS127 | MWS128 |
| | | | Depth | 0.40-0.50 | 1.10-1.20 | 1.70-1.80 | 2.60-2.70 | 0.50-0.60 |
| | | | Sample Ref | | | | | |
| | | | Sample Type | | | | | |
| | | | Sampling Date | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 |
| | | | Sampling Time | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 5.5 | | | | 4.8 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.6 | | | | 0.5 |
| Chromium | mg/kg | DETS 042# | 0.15 | 13 | | | | 14 |
| Copper | mg/kg | DETS 042# | 0.2 | 39 | | | | 16 |
| Lead | mg/kg | DETS 042# | 0.3 | 15 | | | | 16 |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.10 | | | | < 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | 12 | | | | 17 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | | | 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 53 | | | | 41 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | 3.5 | | | | 0.6 |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | < 0.1 | | | | < 0.1 |
| Organic matter | % | DETSC2002# | 0.1 | 0.7 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | 310 | | | 47 | 230 |
| pH | | DETSC2008# | | 11.1 | | | | 8.2 |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | 0.2 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | < 0.1 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | | 0.2 |
| PAH | mg/kg | DETSC 3301 | 1.6 | | < 1.6 | < 1.6 | | < 1.6 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | | 18 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | | 19 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | < 10 | < 10 | | 38 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | < 0.3 | < 0.3 | | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | 99 | | | | 29 |
| Moisture Content | % | DETS 046* | 0.1 | 15 | | | | 14 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59623-1
Client Ref: 17054B
Contract Title: Meggit site only

| | | | **Lab No.** | 390645 | 390646 | 390647 | 390648 | 390649 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS129A | MWS129A | MWS129A | MWS120 | MWS120 |
| | | | **Depth** | 0.90-1.00 | 1.00-1.10 | 1.90-2.00 | 1.00-2.00 | 2.00-2.20 |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 | 02/02/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 5.0 | | 3.5 | 5.6 | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.7 | | 0.4 | 0.7 | |
| Chromium | mg/kg | DETS 042# | 0.15 | 29 | | 14 | 32 | |
| Copper | mg/kg | DETS 042# | 0.2 | 16 | | 8.6 | 32 | |
| Lead | mg/kg | DETS 042# | 0.3 | 17 | | 7.1 | 15 | |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.05 | | < 0.05 | < 0.05 | |
| Nickel | mg/kg | DETS 042# | 1 | 28 | | 20 | 38 | |
| Selenium | mg/kg | DETS 042# | 0.5 | 2.2 | | < 0.5 | < 0.5 | |
| Zinc | mg/kg | DETS 042# | 1 | 53 | | 34 | 54 | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | 1.0 | | 0.8 | 0.7 | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | < 0.1 | | < 0.1 | < 0.1 | |
| Organic matter | % | DETSC2002# | 0.1 | | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | 1600 | | 81 | 61 | 11 |
| pH | | DETSC2008# | | 8.1 | | 7.9 | 6.0 | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | < 0.1 |
| PAH | mg/kg | DETSC 3301 | 1.6 | | < 1.6 | | < 1.6 | < 1.6 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 | < 10 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 | < 10 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | < 10 | | < 10 | < 10 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | < 0.3 | | < 0.3 | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | 3.2 | | < 1.0 | < 1.0 | |
| Moisture Content | % | DETS 046* | 0.1 | 16 | | 8.5 | 17 | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59623-1
Client Ref: 17054B
Contract Title: Meggit site only

| | | | | |
|---|---|---|---|---|
| | | | **Lab No.** | 390650 |
| | | | **Sample ID** | MWS131 |
| | | | **Depth** | 0.30 |
| | | | **Sample Ref** | |
| | | | **Sample Type** | |
| | | | **Sampling Date** | 02/02/2012 |
| | | | **Sampling Time** | |
| **Test** | **Units** | **DETSxx** | **LOD** | |
| Arsenic | mg/kg | DETS 042# | 0.2 | |
| Cadmium | mg/kg | DETS 042# | 0.1 | |
| Chromium | mg/kg | DETS 042# | 0.15 | |
| Copper | mg/kg | DETS 042# | 0.2 | |
| Lead | mg/kg | DETS 042# | 0.3 | |
| Mercury | mg/kg | DETSC2325# | 0.05 | |
| Nickel | mg/kg | DETS 042# | 1 | |
| Selenium | mg/kg | DETS 042# | 0.5 | |
| Zinc | mg/kg | DETS 042# | 1 | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | |
| Organic matter | % | DETSC2002# | 0.1 | 0.4 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | |
| pH | | DETSC2008# | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 49 |
| Moisture Content | % | DETS 046* | 0.1 | 15 |

# Summary of Asbestos Analysis
## Soil Samples

Our Ref: 12-59623-1
Client Ref: 17054B
Contract Title: Meggit site only

| Lab No | Sample Ref | Material Type* | Result | Comment | Analyst |
|---|---|---|---|---|---|
| 390627 | MWS122 0.30 | Soil | Chrysotile | Contains Bundles of Unbound Asbestos Fibres | Jeff Cruddas |
| 390636 | MWS126 0.40-0.50 | Soil | Amosite | Contains Bundles of Unbound Asbestos Fibres | Jeff Cruddas |
| 390640 | MWS127 0.40-0.50 | Soil | Chrysotile | Contains Bundle of Unbound Asbestos Fibres | Jeff Cruddas |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETS 082 using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.

## Summary of Asbestos Analysis
## Soil Samples

Our Ref: 12-59623-1

Client Ref: 17054B

Contract Title: Meggit site only

| | | | |
|---|---|---|---|
| | | **Lab No.** | 390636 |
| | | **Sample Ref** | MWS126 |
| | | **Depth** | 0.40-0.50 |
| | | **Other Ref** | |
| | | **Sample Type** | Soil |
| **Test** | **Units** | **DETSxx** | |
| **Asbestos ID** | | **DETS 082** | **Amosite** |
| **Total Mass% Asbestos (i+ii)** | Mass % | | **0.001** |
| Quantification by Phase Contrast Optical Microscopy (i) | Mass % | DETSC 1102 | 0.001 |
| Gravimetric Quantification (ii) | Mass % | DETSC 1102 | na |
| Breakdown of Gravimetric Analysis | | | |
| Mass of Sample | g | | 58.00 |
| ACMs present* | | | |
| Mass of ACM in sample | g | | |
| % ACM by mass | % | | |
| % asbestos in ACM | % | | |
| % asbestos in sample | % | | |

* Denotes test or material description outside of UKAS accreditation.
% asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264.
Recommended sample size for quantification is approximately 1kg
# denotes deviating sample

## Sample Comments

(The laboratory cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".)

| Lab No. | Sample ID | Date Sampled | Sample exceeded holding time for test | Sample not received in appropriate containers for test |
|---|---|---|---|---|
| 390625 | MWS121 0.50-0.60 | 02/02/2012 | | No containers input |
| 390625 | MWS121 0.50-0.60 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390625 | MWS121 0.50-0.60 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390625 | MWS121 0.50-0.60 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390625 | MWS121 0.50-0.60 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390625 | MWS121 0.50-0.60 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390626 | MWS121 1.50-1.60 | 02/02/2012 | | No containers input |
| 390627 | MWS122 0.30 | 02/02/2012 | | No containers input |
| 390628 | MWS122 0.50-0.60 | 02/02/2012 | | No containers input |
| 390628 | MWS122 0.50-0.60 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390628 | MWS122 0.50-0.60 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390628 | MWS122 0.50-0.60 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390628 | MWS122 0.50-0.60 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390629 | MWS122 1.00 | 02/02/2012 | | No containers input |
| 390630 | MWS122 1.30-1.40 | 02/02/2012 | | No containers input |
| 390630 | MWS122 1.30-1.40 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390630 | MWS122 1.30-1.40 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390630 | MWS122 1.30-1.40 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390630 | MWS122 1.30-1.40 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390631 | MWS123 0.40-0.50 | 02/02/2012 | | No containers input |
| 390631 | MWS123 0.40-0.50 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390631 | MWS123 0.40-0.50 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390631 | MWS123 0.40-0.50 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390631 | MWS123 0.40-0.50 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390631 | MWS123 0.40-0.50 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390632 | MWS123 1.40-1.50 | 02/02/2012 | | No containers input |
| 390632 | MWS123 1.40-1.50 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390632 | MWS123 1.40-1.50 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390632 | MWS123 1.40-1.50 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390632 | MWS123 1.40-1.50 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390633 | MWS123 2.00-2.10 | 02/02/2012 | | No containers input |
| 390634 | MWS124 0.30-0.40 | 02/02/2012 | | No containers input |
| 390634 | MWS124 0.30-0.40 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390634 | MWS124 0.30-0.40 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390634 | MWS124 0.30-0.40 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390634 | MWS124 0.30-0.40 | 02/02/2012 | PAH FID solid (14 days). | No containers input |

| | | | | |
|---|---|---|---|---|
| 390634 | MWS124 0.30-0.40 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390635 | MWS124 1.40-1.50 | 02/02/2012 | | No containers input |
| 390635 | MWS124 1.40-1.50 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390635 | MWS124 1.40-1.50 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390635 | MWS124 1.40-1.50 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390635 | MWS124 1.40-1.50 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390635 | MWS124 1.40-1.50 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390636 | MWS126 0.40-0.50 | 02/02/2012 | | No containers input |
| 390636 | MWS126 0.40-0.50 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390636 | MWS126 0.40-0.50 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390636 | MWS126 0.40-0.50 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390636 | MWS126 0.40-0.50 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390636 | MWS126 0.40-0.50 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390637 | MWS126 0.90-1.00 | 02/02/2012 | | No containers input |
| 390638 | MWS126 1.20-1.30 | 02/02/2012 | | No containers input |
| 390638 | MWS126 1.20-1.30 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390638 | MWS126 1.20-1.30 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390638 | MWS126 1.20-1.30 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390638 | MWS126 1.20-1.30 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390639 | MWS126 1.90-2.00 | 02/02/2012 | | No containers input |
| 390640 | MWS127 0.40-0.50 | 02/02/2012 | | No containers input |
| 390641 | MWS127 1.10-1.20 | 02/02/2012 | | No containers input |
| 390641 | MWS127 1.10-1.20 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390641 | MWS127 1.10-1.20 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390641 | MWS127 1.10-1.20 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390641 | MWS127 1.10-1.20 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390642 | MWS127 1.70-1.80 | 02/02/2012 | | No containers input |
| 390642 | MWS127 1.70-1.80 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390642 | MWS127 1.70-1.80 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390642 | MWS127 1.70-1.80 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390642 | MWS127 1.70-1.80 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390643 | MWS127 2.60-2.70 | 02/02/2012 | | No containers input |
| 390644 | MWS128 0.50-0.60 | 02/02/2012 | | No containers input |
| 390644 | MWS128 0.50-0.60 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390644 | MWS128 0.50-0.60 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390644 | MWS128 0.50-0.60 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390644 | MWS128 0.50-0.60 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390644 | MWS128 0.50-0.60 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390645 | MWS129A 0.90-1.00 | 02/02/2012 | | No containers input |
| 390646 | MWS129A 1.00-1.10 | 02/02/2012 | | No containers input |
| 390646 | MWS129A 1.00-1.10 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390646 | MWS129A 1.00-1.10 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |

| | | | | |
|---|---|---|---|---|
| 390646 | MWS129A 1.00-1.10 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390646 | MWS129A 1.00-1.10 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390647 | MWS129A 1.90-2.00 | 02/02/2012 | | No containers input |
| 390648 | MWS120 1.00-2.00 | 02/02/2012 | | No containers input |
| 390648 | MWS120 1.00-2.00 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390648 | MWS120 1.00-2.00 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390648 | MWS120 1.00-2.00 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390648 | MWS120 1.00-2.00 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390648 | MWS120 1.00-2.00 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390649 | MWS120 2.00-2.20 | 02/02/2012 | | No containers input |
| 390649 | MWS120 2.00-2.20 | 02/02/2012 | Naphthalene (4 days). | No containers input |
| 390649 | MWS120 2.00-2.20 | 02/02/2012 | PAH SPEC solid (14 days). | No containers input |
| 390649 | MWS120 2.00-2.20 | 02/02/2012 | PAH FID solid (14 days). | No containers input |
| 390649 | MWS120 2.00-2.20 | 02/02/2012 | EPH solid (7 days). | No containers input |
| 390650 | MWS131 0.30 | 02/02/2012 | | No containers input |

## Appendix A - Details of Analysis

Method details are shown only for those determinants listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.
No Recovery Factors are used in the determination of results. Results reported assume 100% recovery.
Full method statements are available on request.

| Method | Name of Parameter | Units | Limit of Detection | Sample Preparation | Sub-Contracted | UKAS | MCERTS |
|---|---|---|---|---|---|---|---|
| DETS 002 | Organic Matter | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 003 | Loss on Ignition | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 075 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 076 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 006 | Chloride | mg/kg | 0.01 | Air Dried | No | Yes | Yes |
| DETS 008 | pH | pH Units | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Selenium | mg/kg | 0.50 | Air Dried | No | Yes | Yes |
| DETS 019 | Ammonia | mg/kg | 0.02 | Air Dried | No | Yes | Yes |
| DETS 020 | Boron (Water Soluble) | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 024 | Sulphide | mg/kg | 10.00 | Air Dried | No | Yes | Yes |
| DETS 042 | Antimony | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Arsenic | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Barium | mg/kg | 1.50 | Air Dried | No | Yes | Yes |
| DET S 042 | Beryllium | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Cadmium | mg/kg | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Cobalt | mg/kg | 0.70 | Air Dried | No | Yes | Yes |
| DETS 042 | Copper | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Chromium | mg/kg | 0.15 | Air Dried | No | Yes | Yes |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DETS 042 | Iron | mg/kg | 1.00 | Air Dried | No | Yes | No |
| DETS 042 | Lead | mg/kg | 0.30 | Air Dried | No | Yes | Yes |
| DETS 042 | Manganese | mg/kg | 20.00 | Air Dried | No | Yes | Yes |
| DETS 081 | Mercury | mg/kg | 0.05 | Air Dried | No | Yes | Yes |
| DETS 042 | Molybdenum | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 042 | Nickel | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Thallium | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Vanadium | mg/kg | 0.80 | Air Dried | No | Yes | Yes |
| DETS 042 | Zinc | mg/kg | 1.00 | Air Dried | No | Yes | Yes |
| DETS 049 | Sulphur (Free) | mg/kg | 0.50 | As Received | No | Yes | Yes |
| DETS 050 | PAH | mg/kg | 0.10 | As Received | No | Yes | No |
| DETS 051 | TPH (C10 - C40) | mg/kg | 20.00 | As Received | No | Yes | Yes |
| DETS 052 | PCB | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Benzene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Toluene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Ethylbenzne | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Xylene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 067 | Phenol - Monohydric | mg/kg | 0.3 | Air Dried | No | Yes | Yes |
| DETS 067 | Easily Liberatable Cyanide | mg/kg | 0.1 | Air Dried | No | Yes | Yes |
| DETS 067 | Complex Cyanide | mg/kg | 0.30 | Air Dried | No | Yes | No |
| DETS 067 | Total Cyanide | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 067 | Thiocyanate | mg/kg | 0.6 | Air Dried | No | Yes | Yes |
| DETS 068 | VOC | mg/kg | 0.01 | As Received | No | No | No |

# Certificate of Analysis

2139

Certificate Number: 12-59658-1

Date: 22/03/2012

| | |
|---|---|
| Client: | Merebrook Consulting Limited<br>Suite 2B<br>East Mill<br>Belper<br>DE56 2UA |
| Our Reference: | 12-59658-1 |
| Client Reference: | 17054A |
| Contract Title: | Meggitt/Stadco |
| Description: | 30 soil samples |
| Date Received: | 20 February 2012 |
| Date Started: | 21 February 2012 |
| Date Completed: | 22 March 2012 |
| Test Procedures: | Identified by prefix DETSn (details on request), Asbestos Analysis (DETS 082). |
| Notes: | **This report supersedes 12-59658, additional testing carried out**<br>Observations and interpretations are outside the scope of UKAS accreditation |
| Approved By: | Paul Woodbridge, Senior Operations Manager |

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 except in full, without the prior written approval of the laboratory.

Derwentside Environmental Testing Services Limited
Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • Fax 01207 582444 • email: info@dets.co.uk • www.dets.co.uk

# Information in Support of the Analytical Results

## Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample.

***Key***

| | |
|---|---|
| * | Denotes test not included in laboratory scope of accreditation |
| # | Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo |
| $ | Denotes tests completed by an approved subcontractor |
| I/S | Denotes insufficient sample to carry out test |
| U/S | Denotes that the sample is not suitable for testing |

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month
Liquids - 2 weeks
Asbestos (test portion) - 6 months

# Summary of Chemical Analysis
# Matrix Descriptions

Our Ref: 12-59658
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| Sample ID | Depth | Sample No | Completed | Matrix Description |
|---|---|---|---|---|
| MWS-101 | 0.30-0.35 | 390850 | 22/03/2012 | brown red clayey very gravelly SAND slight odour |
| MWS-101 | 0.45-0.52 | 390851 | 22/03/2012 | brown red very sandy CLAY |
| MWS-101 | 0.40-0.45 | 390852 | 22/03/2012 | brown red clayey silty SAND slight odour |
| MWS-102A | 0.40-0.45 | 390853 | 22/03/2012 | brown light brown gravelly sandy CLAY |
| MWS-102A | 1.40-1.45 | 390854 | 22/03/2012 | brown red very sandy CLAY |
| MWS-103 | 0.40-0.50 | 390855 | 22/03/2012 | red brown gravelly SAND |
| MWS-104 | 0.50-0.60 | 390856 | 22/03/2012 | brown gravelly sandy CLAY odd rootlets |
| MWS-105 | 0.45-0.60 | 390857 | 22/03/2012 | brown dark brown gravelly sandy CLAY made ground contains slag |
| MWS-105 | 0.90-1.00 | 390858 | 22/03/2012 | brown dark brown gravelly sandy CLAY |
| MWS-105 | 1.45-1.50 | 390859 | 22/03/2012 | red silty SAND |
| MWS-107 | 1.50-2.00 | 390860 | 22/03/2012 | brown red very sandy silty CLAY |
| MWS-108 | 0.50-0.75 | 390861 | 22/03/2012 | red brown gravelly sandy silty CLAY |
| MWS-110 | 0.30-0.40 | 390862 | 22/03/2012 | brown gravelly SAND made ground contains coal |
| MWS-112 | 0.50 | 390863 | 22/03/2012 | brown dark brown gravelly sandy CLAY |
| MWS-112 | 0.80-0.85 | 390864 | 22/03/2012 | red brown black gravelly sandy CLAY |
| MWS-113 | 0.40-0.50 | 390865 | 22/03/2012 | dark brown gravelly sandy CLAY |
| MWS-113 | 1.20-1.30 | 390866 | 22/03/2012 | brown red sandy CLAY |
| MWS-113 | 2.20-2.30 | 390867 | 22/03/2012 | brown red sandy CLAY |
| MWS-114 | 0.60-0.75 | 390868 | 22/03/2012 | light brown gravelly SAND |
| MWS-115 | 0.30-0.40 | 390869 | 22/03/2012 | red sandy silty CLAY |
| MWS-116 | 0.50-0.60 | 390870 | 22/03/2012 | red sandy silty CLAY |
| MWS-116 | 1.60-1.75 | 390871 | 22/03/2012 | dark grey red clayey SAND |
| MWS-118 | 0.30 | 390872 | 22/03/2012 | dark red grey clayey SAND slight odour |
| MWS-118 | 0.90 | 390873 | 22/03/2012 | red grey sandy CLAY |
| MWS-118 | 1.80-1.90 | 390874 | 22/03/2012 | red gravelly sandy CLAY |
| MWS-118 | 2.50-2.60 | 390875 | 22/03/2012 | red gravelly sandy CLAY |
| MWS-119 | 0.20-0.30 | 390876 | 22/03/2012 | red grey sandy CLAY |
| MWS-119 | 1.20-1.30 | 390877 | 22/03/2012 | red black sandy CLAY |
| MWS-130 | 0.30-0.40 | 390878 | 22/03/2012 | brown dark brown gravelly sand CLAY |
| MWS135 | 1.50 | 390879 | 22/03/2012 | red gravelly sandy CLAY |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390850 | 390851 | 390852 | 390853 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-101 | MWS-101 | MWS-101 | MWS-102A |
| | | | **Depth** | 0.30-0.35 | 0.45-0.52 | 0.40-0.45 | 0.40-0.45 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | | 13 | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | | 3.5 | | |
| Cadmium | mg/kg | DETS 042# | 0.1 | | 0.5 | | |
| Chromium | mg/kg | DETS 042# | 0.15 | | 22 | | |
| Copper | mg/kg | DETS 042# | 0.2 | | 12 | | |
| Lead | mg/kg | DETS 042# | 0.3 | | 13 | | |
| Mercury | mg/kg | DETSC2325# | 0.05 | | < 0.05 | | |
| Nickel | mg/kg | DETS 042# | 1 | | 21 | | |
| Selenium | mg/kg | DETS 042# | 0.5 | | < 0.5 | | |
| Zinc | mg/kg | DETS 042# | 1 | | 36 | | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | 1.2 | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | < 0.1 | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | 2.4 | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | < 10 | | |
| pH | | DETSC2008# | | | 7.6 | | |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | < 0.01 | < 0.01 |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | 0.11 | | 0.02 | 0.02 |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | 0.28 | | < 0.01 | 0.22 |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | 1.5 | | < 1.5 | < 1.5 |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | 12 | | < 1.2 | 5.9 |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | 270 | | 6.2 | 120 |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | 6200 | | 91 | 1300 |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | < 0.01 | < 0.01 |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | < 0.01 | < 0.01 |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | 0.41 | | < 0.01 | 0.63 |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | 3.3 | | < 0.9 | < 0.9 |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | 18 | | < 0.5 | 3.9 |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | 130 | | 3.9 | 56 |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | 2100 | | 34 | 450 |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | 6500 | | 98 | 1400 |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | 2300 | | 38 | 510 |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | 8700 | | 140 | 1900 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390850 | 390851 | 390852 | 390853 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-101 | MWS-101 | MWS-101 | MWS-102A |
| | | | **Depth** | 0.30-0.35 | 0.45-0.52 | 0.40-0.45 | 0.40-0.45 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | | < 1.0 | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390854 | 390855 | 390856 | 390857 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-102A | MWS-103 | MWS-104 | MWS-105 |
| | | | **Depth** | 1.40-1.45 | 0.40-0.50 | 0.50-0.60 | 0.45-0.60 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | | 6.5 | 10 | |
| Arsenic | mg/kg | DETS 042# | 0.2 | | 2.4 | 8.7 | |
| Cadmium | mg/kg | DETS 042# | 0.1 | | 0.3 | 0.6 | |
| Chromium | mg/kg | DETS 042# | 0.15 | | 13 | 26 | |
| Copper | mg/kg | DETS 042# | 0.2 | | 5.1 | 16 | |
| Lead | mg/kg | DETS 042# | 0.3 | | 5.0 | 25 | |
| Mercury | mg/kg | DETSC2325# | 0.05 | | < 0.05 | < 0.05 | |
| Nickel | mg/kg | DETS 042# | 1 | | 12 | 23 | |
| Selenium | mg/kg | DETS 042# | 0.5 | | < 0.5 | 1.4 | |
| Zinc | mg/kg | DETS 042# | 1 | | 21 | 44 | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | 0.5 | 0.7 | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | < 0.1 | < 0.1 | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | 1.0 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | 17 | 70 | |
| pH | | DETSC2008# | | | 7.8 | 7.9 | |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | 0.08 | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | 0.14 | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | 0.79 | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | 15 | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | 69 | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | 1700 | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | 16000 | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | 0.02 | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | 0.89 | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | 1.0 | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | 30 | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | 720 | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | 6700 | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | 18000 | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | 7500 | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | 26000 | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390854 | 390855 | 390856 | 390857 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-102A | MWS-103 | MWS-104 | MWS-105 |
| | | | **Depth** | 1.40-1.45 | 0.40-0.50 | 0.50-0.60 | 0.45-0.60 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | 0.3 | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | 0.4 | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | 1.0 | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | 11 | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | 3.2 | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | < 0.1 | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | 6.2 | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | 3.5 | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | 7.6 | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | 33 | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | 3100 | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | 20 | | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | 420 | | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | 4100 | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | 7600 | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | < 0.3 | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | | 18 | 20 | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390858 | 390859 | 390860 | 390861 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-105 | MWS-105 | MWS-107 | MWS-108 |
| | | | **Depth** | 0.90-1.00 | 1.45-1.50 | 1.50-2.00 | 0.50-0.75 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 28 | | 7.1 | 12 |
| Arsenic | mg/kg | DETS 042# | 0.2 | 9.9 | | 6.6 | 4.3 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.8 | | 0.5 | 0.6 |
| Chromium | mg/kg | DETS 042# | 0.15 | 26 | | 27 | 19 |
| Copper | mg/kg | DETS 042# | 0.2 | 15 | | 13 | 15 |
| Lead | mg/kg | DETS 042# | 0.3 | 12 | | 7.6 | 10 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | | < 0.05 | < 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | 23 | | 16 | 21 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 54 | | 23 | 44 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | 1.6 | | 0.3 | 0.7 |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | 95 | | 51 | 52 |
| pH | | DETSC2008# | | 7.2 | | 6.9 | 7.2 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390858 | 390859 | 390860 | 390861 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-105 | MWS-105 | MWS-107 | MWS-108 |
| | | | **Depth** | 0.90-1.00 | 1.45-1.50 | 1.50-2.00 | 0.50-0.75 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | 4.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | 0.2 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | 0.4 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | < 0.1 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | < 0.1 | < 0.1 | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | 0.1 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | 0.7 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | 0.3 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | 0.5 |
| PAH | mg/kg | DETSC 3301 | 1.6 | | < 1.6 | < 1.6 | 6.5 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | 7300 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | 310 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | 12000 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | < 10 | < 10 | 20000 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | < 0.3 | < 0.3 | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | 20 | | 2.9 | 8.8 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390862 | 390863 | 390864 | 390865 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-110 | MWS-112 | MWS-112 | MWS-113 |
| | | | **Depth** | 0.30-0.40 | 0.50 | 0.80-0.85 | 0.40-0.50 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 8.6 | 22 | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 9.5 | 8.9 | | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 1.6 | 0.9 | | |
| Chromium | mg/kg | DETS 042# | 0.15 | 45 | 28 | | |
| Copper | mg/kg | DETS 042# | 0.2 | 47 | 23 | | |
| Lead | mg/kg | DETS 042# | 0.3 | 31 | 20 | | |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.07 | < 0.05 | | |
| Nickel | mg/kg | DETS 042# | 1 | 62 | 26 | | |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | < 0.5 | | |
| Zinc | mg/kg | DETS 042# | 1 | 69 | 79 | | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | 2.2 | 0.3 | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | < 0.1 | < 0.1 | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | 110 | 160 | | |
| pH | | DETSC2008# | | 7.8 | 6.9 | | |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390862 | 390863 | 390864 | 390865 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-110 | MWS-112 | MWS-112 | MWS-113 |
| | | | **Depth** | 0.30-0.40 | 0.50 | 0.80-0.85 | 0.40-0.50 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | 0.3 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | 0.3 | | < 0.1 | 0.3 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | | < 0.1 | 0.4 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | 0.3 | | < 0.1 | 0.3 |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | | < 1.6 | < 1.6 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | 39 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | 28 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | 130 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | < 10 | | < 10 | 250 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | < 10 | | < 10 | 460 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | | < 0.3 | 3.4 |
| Stones >2mm | % m/m | DETSC1003* | 1 | 10 | 8.9 | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390866 | 390867 | 390868 | 390869 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-113 | MWS-113 | MWS-114 | MWS-115 |
| | | | **Depth** | 1.20-1.30 | 2.20-2.30 | 0.60-0.75 | 0.30-0.40 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | | | 6.3 | 15 |
| Arsenic | mg/kg | DETS 042# | 0.2 | | | 6.1 | 5.1 |
| Cadmium | mg/kg | DETS 042# | 0.1 | | | 0.4 | 0.5 |
| Chromium | mg/kg | DETS 042# | 0.15 | | | 10 | 20 |
| Copper | mg/kg | DETS 042# | 0.2 | | | 7.5 | 15 |
| Lead | mg/kg | DETS 042# | 0.3 | | | 9.0 | 12 |
| Mercury | mg/kg | DETSC2325# | 0.05 | | | < 0.05 | < 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | | | 12 | 20 |
| Selenium | mg/kg | DETS 042# | 0.5 | | | < 0.5 | 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | | | 27 | 50 |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | | | 0.4 | 1.4 |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | | | < 0.1 | < 0.1 |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | 36 | 67 |
| pH | | DETSC2008# | | | | 7.6 | 7.8 |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | < 0.01 | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | 0.01 | < 0.01 | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | 0.09 | 0.10 | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | 8.1 | 8.5 | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | 150 | 100 | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | 830 | 700 | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | 1400 | 1500 | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | < 0.01 | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | < 0.01 | < 0.01 | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | 0.15 | 0.31 | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | 1.6 | 2.9 | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | 35 | 25 | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | 390 | 340 | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | 1000 | 960 | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | 2400 | 2300 | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | 1400 | 1300 | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | 3800 | 3700 | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390866 | 390867 | 390868 | 390869 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-113 | MWS-113 | MWS-114 | MWS-115 |
| | | | **Depth** | 1.20-1.30 | 2.20-2.30 | 0.60-0.75 | 0.30-0.40 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | < 0.1 | < 0.1 |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | < 1.6 | < 1.6 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | | < 10 | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | < 10 | < 10 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | | < 10 | < 10 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | | < 10 | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | < 10 | < 10 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | < 10 | < 10 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | < 0.3 | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | | | 3.0 | < 1.0 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390870 | 390871 | 390872 | 390874 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-116 | MWS-116 | MWS-118 | MWS-118 |
| | | | **Depth** | 0.50-0.60 | 1.60-1.75 | 0.30 | 1.80-1.90 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Moisture Content | % | DETS 046* | 0.1 | 13 | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 6.1 | | | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.6 | | | |
| Chromium | mg/kg | DETS 042# | 0.15 | 23 | | | |
| Copper | mg/kg | DETS 042# | 0.2 | 18 | | | |
| Lead | mg/kg | DETS 042# | 0.3 | 11 | | | |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | | | |
| Nickel | mg/kg | DETS 042# | 1 | 25 | | | |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | | |
| Zinc | mg/kg | DETS 042# | 1 | 50 | | | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | 1.0 | | | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | < 0.1 | | | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | 65 | | | |
| pH | | DETSC2008# | | 5.6 | | | |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | < 0.01 | < 0.01 |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | 0.01 | < 0.01 | 1.3 |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | < 1.5 | < 1.5 | 26 |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | 6.4 | < 1.2 | 2.7 |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | 300 | 3.6 | 13 |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | 11000 | 78 | 41 |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | < 0.01 | < 0.01 |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | < 0.01 | < 0.01 | 0.16 |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | < 0.9 | < 0.9 | 6.9 |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | 18 | < 0.5 | 2.5 |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | 110 | 1.6 | 11 |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | 3700 | 53 | 41 |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | 11000 | 81 | 85 |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | 3900 | 54 | 62 |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | 15000 | 140 | 150 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390870 | 390871 | 390872 | 390874 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-116 | MWS-116 | MWS-118 | MWS-118 |
| | | | **Depth** | 0.50-0.60 | 1.60-1.75 | 0.30 | 1.80-1.90 |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | | | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | | | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | | | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | | | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | | | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | | | |
| Stones >2mm | % m/m | DETSC1003* | 1 | < 1.0 | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390876 | 390878 | 390879 |
|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-119 | MWS-130 | MWS135 |
| | | | **Depth** | 0.20-0.30 | 0.30-0.40 | 1.50 |
| | | | **Sample Ref** | | | |
| | | | **Sample Type** | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | |
| Moisture Content | % | DETS 046* | 0.1 | 13 | 7.1 | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 8.7 | 5.9 | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.7 | 0.6 | |
| Chromium | mg/kg | DETS 042# | 0.15 | 28 | 42 | |
| Copper | mg/kg | DETS 042# | 0.2 | 24 | 13 | |
| Lead | mg/kg | DETS 042# | 0.3 | 14 | 14 | |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | < 0.05 | |
| Nickel | mg/kg | DETS 042# | 1 | 28 | 49 | |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | < 0.5 | |
| Zinc | mg/kg | DETS 042# | 1 | 39 | 43 | |
| Boron (water soluble) | mg/kg | DETS 020# | 0.2 | 0.5 | 3.2 | |
| Cyanide total | mg/kg | DETSC 2130# | 0.1 | < 0.1 | < 0.1 | |
| Sulphur (free) | mg/kg | DETSC3049# | 0.75 | | < 0.75 | < 0.75 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | 130 | 120 | |
| pH | | DETSC2008# | | 7.2 | 6.9 | |
| Aliphatic C5-C6 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aliphatic C6-C8 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aliphatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aliphatic C10-C12 | mg/kg | DETSC 3072# | 1.5 | | | |
| Aliphatic C12-C16 | mg/kg | DETSC 3072# | 1.2 | | | |
| Aliphatic C16-C21 | mg/kg | DETSC 3072# | 1.5 | | | |
| Aliphatic C21-C35 | mg/kg | DETSC 3072# | 3.4 | | | |
| Aromatic C5-C7 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aromatic C7-C8 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aromatic C8-C10 | mg/kg | DETSC 3321* | 0.01 | | | |
| Aromatic C10-C12 | mg/kg | DETSC 3072# | 0.9 | | | |
| Aromatic C12-C16 | mg/kg | DETSC 3072# | 0.5 | | | |
| Aromatic C16-C21 | mg/kg | DETSC 3072# | 0.6 | | | |
| Aromatic C21-C35 | mg/kg | DETSC 3072# | 1.4 | | | |
| Aliphatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | |
| Aromatic C5-C35 | mg/kg | DETSC 3072* | 10 | | | |
| TPH Ali/Aro | mg/kg | DETSC3072* | 10 | | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390876 | 390878 | 390879 |
|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-119 | MWS-130 | MWS135 |
| | | | **Depth** | 0.20-0.30 | 0.30-0.40 | 1.50 |
| | | | **Sample Ref** | | | |
| | | | **Sample Type** | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | < 1.6 | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | < 10 | < 10 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | < 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | < 1.0 | 22 | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | | | | |
|---|---|---|---|---|---|---|
| | | | **Lab No.** | 390873 | 390875 | 390877 |
| | | | **Sample ID** | MWS-118 | MWS-118 | MWS-119 |
| | | | **Depth** | 0.90 | 2.50-2.60 | 1.20-1.30 |
| | | | **Sample Ref** | | | |
| | | | **Sample Type** | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | |
| Total VOC's | mg/kg | DETSC3431* | 0.01 | 0.94 | 9.8 | < 0.01 |
| 1,1 Dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Methylene Chloride | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 2,2-dichlororopane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromochloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chloroform | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Carbon tetrachloride | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Trichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibromomethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromodichloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Toluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Tetrachloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,3-dichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibromochloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromoethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Ethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| m+p-Xylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | 0.02 | < 0.01 |
| o-Xylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Styrene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromoform | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Isopropylbenzene | mg/kg | DETSC3431* | 0.01 | 0.04 | < 0.01 | < 0.01 |
| Bromobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| n-propylbenzene | mg/kg | DETSC3431* | 0.01 | 0.06 | 0.39 | < 0.01 |
| 2-chlorotoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene | mg/kg | DETSC3431* | 0.01 | 0.47 | 2.6 | < 0.01 |
| 4-chlorotoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Tert-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390873 | 390875 | 390877 |
|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-118 | MWS-118 | MWS-119 |
| | | | **Depth** | 0.90 | 2.50-2.60 | 1.20-1.30 |
| | | | **Sample Ref** | | | |
| | | | **Sample Type** | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | |
| 1,2,4-trimethylbenzene | mg/kg | DETSC3431* | 0.01 | 0.12 | 5.9 | < 0.01 |
| sec-butylbenzene | mg/kg | DETSC3431* | 0.01 | 0.17 | < 0.01 | < 0.01 |
| 1,3-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| p-isopropyltoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| n-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Hexachlorobutadiene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Naphthalene | mg/kg | DETSC3431* | 0.01 | 0.08 | 0.95 | < 0.01 |
| 1,2,3-trichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | Lab No. | 390873 | 390875 | 390877 |
|---|---|---|---|---|---|---|
| | | | Sample ID | MWS-118 | MWS-118 | MWS-119 |
| | | | Depth | 0.90 | 2.50-2.60 | 1.20-1.30 |
| | | | Sample Ref | | | |
| | | | Sample Type | | | |
| | | | Sampling Date | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | Sampling Time | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | |
| Phenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Aniline | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2-Chlorophenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzyl Alcohol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2-Methylphenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Bis(2-chloroisopropyl)ether | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 3&4-Methylphenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2,4-Dimethylphenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Bis-(dichloroethoxy)methane | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2,4-Dichlorophenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 1,2,4-Trichlorobenzene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Naphthalene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 4-Chloro-3-methylphenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2-Methylnaphthalene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Hexachlorocyclopentadiene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2,4,6-Trichlorophenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2,4,5-Trichlorophenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2-Chloronaphthalene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2-Nitroaniline | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2,4-Dinitrotoluene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Acenaphthylene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 3-Nitroaniline | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Acenaphthene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 4-Nitrophenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dibenzofuran | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2,6-Dinitrotoluene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2,3,4,6-Tetrachlorophenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Diethylphthalate | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 4-Chlorophenylphenylether | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Fluorene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 4-Nitroaniline | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2-Methyl-4,6-Dinitrophenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Diphenylamine | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 4-Bromophenylphenylether | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Hexachlorobenzene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Pentachlorophenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Phenanthrene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Anthracene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Di-n-butylphthalate | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Fluoranthene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Pyrene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Butylbenzylphthalate | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 390873 | 390875 | 390877 |
|---|---|---|---|---|---|---|
| | | | **Sample ID** | MWS-118 | MWS-118 | MWS-119 |
| | | | **Depth** | 0.90 | 2.50-2.60 | 1.20-1.30 |
| | | | **Sample Ref** | | | |
| | | | **Sample Type** | | | |
| | | | **Sampling Date** | 25/01/2012 | 25/01/2012 | 25/01/2012 |
| | | | **Sampling Time** | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | |
| Benzo(a)anthracene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Chrysene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Bis(2-ethylhexyl)phthalate | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Di-n-octylphthalate | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(k)fluoranthene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Indeno(123cd)pyrene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dibenzo(ah)anthracene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Benzo(ghi)perylene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 1,4-Dinitrobenzene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Dimethylphthalate | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 1,3-Dinitrobenzene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 1,2-Dinitrobenzene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| 2,3,5,6-Tetrachlorophenol | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Azobenzene | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |
| Carbazole | mg/kg | DETS 071* | 0.1 | < 0.1 | < 0.1 | < 0.1 |

# Summary of Asbestos Analysis
## Soil Samples

Our Ref: 12-59658-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| Lab No | Sample Ref | Material Type* | Result | Comment | Analyst |
|---|---|---|---|---|---|
| 390857 | MWS-105 0.45-0.60 | Soil | NAD | None | Emrhys Sheldon |
| 390862 | MWS-110 0.30-0.40 | Soil | NAD | None | Emrhys Sheldon |
| 390863 | MWS-112 0.50 | Soil | NAD | None | Emrhys Sheldon |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETS 082 using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.

## Sample Comments

(The laboratory cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".)

| Lab No. | Sample ID | Date Sampled | Sample exceeded holding time for test | Sample not received in appropriate containers for test |
|---|---|---|---|---|
| 390850 | MWS-101 0.30-0.35 | 25/01/2012 | ALI/AROSL (4 days). | |
| 390850 | MWS-101 0.30-0.35 | 25/01/2012 | ALI/ARO_S (4 days). | |
| 390852 | MWS-101 0.40-0.45 | 25/01/2012 | ALI/AROSL (4 days). | |
| 390852 | MWS-101 0.40-0.45 | 25/01/2012 | ALI/ARO_S (4 days). | |
| 390853 | MWS-102A 0.40-0.45 | 25/01/2012 | ALI/AROSL (4 days). | |
| 390853 | MWS-102A 0.40-0.45 | 25/01/2012 | ALI/ARO_S (4 days). | |
| 390854 | MWS-102A 1.40-1.45 | 25/01/2012 | ALI/AROSL (4 days). | |
| 390854 | MWS-102A 1.40-1.45 | 25/01/2012 | ALI/ARO_S (4 days). | |
| 390855 | MWS-103 0.40-0.50 | 25/01/2012 | EPH solid (7 days). | |
| 390855 | MWS-103 0.40-0.50 | 25/01/2012 | Naphthalene (4 days). | |
| 390855 | MWS-103 0.40-0.50 | 25/01/2012 | PAH SPEC solid (14 days). | |
| 390855 | MWS-103 0.40-0.50 | 25/01/2012 | PAH FID solid (14 days). | |
| 390855 | MWS-103 0.40-0.50 | 25/01/2012 | EPH solid (7 days). | |
| 390859 | MWS-105 1.45-1.50 | 25/01/2012 | EPH solid (7 days). | |
| 390859 | MWS-105 1.45-1.50 | 25/01/2012 | Naphthalene (4 days). | |
| 390859 | MWS-105 1.45-1.50 | 25/01/2012 | PAH SPEC solid (14 days). | |
| 390859 | MWS-105 1.45-1.50 | 25/01/2012 | PAH FID solid (14 days). | |
| 390859 | MWS-105 1.45-1.50 | 25/01/2012 | EPH solid (7 days). | |
| 390860 | MWS-107 1.50-2.00 | 25/01/2012 | EPH solid (7 days). | |
| 390860 | MWS-107 1.50-2.00 | 25/01/2012 | Naphthalene (4 days). | |
| 390860 | MWS-107 1.50-2.00 | 25/01/2012 | PAH SPEC solid (14 days). | |
| 390860 | MWS-107 1.50-2.00 | 25/01/2012 | PAH FID solid (14 days). | |
| 390860 | MWS-107 1.50-2.00 | 25/01/2012 | EPH solid (7 days). | |
| 390861 | MWS-108 0.50-0.75 | 25/01/2012 | EPH solid (7 days). | |
| 390861 | MWS-108 0.50-0.75 | 25/01/2012 | Naphthalene (4 days). | |
| 390861 | MWS-108 0.50-0.75 | 25/01/2012 | PAH SPEC solid (14 days). | |
| 390861 | MWS-108 0.50-0.75 | 25/01/2012 | PAH FID solid (14 days). | |
| 390861 | MWS-108 0.50-0.75 | 25/01/2012 | EPH solid (7 days). | |
| 390862 | MWS-110 0.30-0.40 | 25/01/2012 | EPH solid (7 days). | |
| 390862 | MWS-110 0.30-0.40 | 25/01/2012 | Naphthalene (4 days). | |
| 390862 | MWS-110 0.30-0.40 | 25/01/2012 | PAH SPEC solid (14 days). | |
| 390862 | MWS-110 0.30-0.40 | 25/01/2012 | PAH FID solid (14 days). | |
| 390862 | MWS-110 0.30-0.40 | 25/01/2012 | EPH solid (7 days). | |
| 390864 | MWS-112 0.80-0.85 | 25/01/2012 | EPH solid (7 days). | |
| 390864 | MWS-112 0.80-0.85 | 25/01/2012 | Naphthalene (4 days). | |
| 390864 | MWS-112 0.80-0.85 | 25/01/2012 | PAH SPEC solid (14 days). | |

| | | | |
|---|---|---|---|
| 390864 | MWS-112 0.80-0.85 | 25/01/2012 | PAH FID solid (14 days). |
| 390864 | MWS-112 0.80-0.85 | 25/01/2012 | EPH solid (7 days). |
| 390865 | MWS-113 0.40-0.50 | 25/01/2012 | EPH solid (7 days). |
| 390865 | MWS-113 0.40-0.50 | 25/01/2012 | Naphthalene (4 days). |
| 390865 | MWS-113 0.40-0.50 | 25/01/2012 | PAH SPEC solid (14 days). |
| 390865 | MWS-113 0.40-0.50 | 25/01/2012 | PAH FID solid (14 days). |
| 390865 | MWS-113 0.40-0.50 | 25/01/2012 | EPH solid (7 days). |
| 390866 | MWS-113 1.20-1.30 | 25/01/2012 | ALI/AROSL (4 days). |
| 390866 | MWS-113 1.20-1.30 | 25/01/2012 | ALI/ARO_S (4 days). |
| 390867 | MWS-113 2.20-2.30 | 25/01/2012 | ALI/AROSL (4 days). |
| 390867 | MWS-113 2.20-2.30 | 25/01/2012 | ALI/ARO_S (4 days). |
| 390868 | MWS-114 0.60-0.75 | 25/01/2012 | EPH solid (7 days). |
| 390868 | MWS-114 0.60-0.75 | 25/01/2012 | Naphthalene (4 days). |
| 390868 | MWS-114 0.60-0.75 | 25/01/2012 | PAH SPEC solid (14 days). |
| 390868 | MWS-114 0.60-0.75 | 25/01/2012 | PAH FID solid (14 days). |
| 390868 | MWS-114 0.60-0.75 | 25/01/2012 | EPH solid (7 days). |
| 390869 | MWS-115 0.30-0.40 | 25/01/2012 | EPH solid (7 days). |
| 390869 | MWS-115 0.30-0.40 | 25/01/2012 | Naphthalene (4 days). |
| 390869 | MWS-115 0.30-0.40 | 25/01/2012 | PAH SPEC solid (14 days). |
| 390869 | MWS-115 0.30-0.40 | 25/01/2012 | PAH FID solid (14 days). |
| 390869 | MWS-115 0.30-0.40 | 25/01/2012 | EPH solid (7 days). |
| 390871 | MWS-116 1.60-1.75 | 25/01/2012 | ALI/AROSL (4 days). |
| 390871 | MWS-116 1.60-1.75 | 25/01/2012 | ALI/ARO_S (4 days). |
| 390872 | MWS-118 0.30 | 25/01/2012 | ALI/AROSL (4 days). |
| 390872 | MWS-118 0.30 | 25/01/2012 | ALI/ARO_S (4 days). |
| 390873 | MWS-118 0.90 | 25/01/2012 | Naphthalene (4 days). |
| 390873 | MWS-118 0.90 | 25/01/2012 | Naphthalene (4 days). |
| 390873 | MWS-118 0.90 | 25/01/2012 | SVOC solid (7 days). |
| 390873 | MWS-118 0.90 | 25/01/2012 | SVOC solid (7 days). |
| 390873 | MWS-118 0.90 | 25/01/2012 | Naphthalene (4 days). |
| 390873 | MWS-118 0.90 | 25/01/2012 | VOC solid (4 days). |
| 390873 | MWS-118 0.90 | 25/01/2012 | VOC solid (4 days). |
| 390874 | MWS-118 1.80-1.90 | 25/01/2012 | ALI/AROSL (4 days). |
| 390874 | MWS-118 1.80-1.90 | 25/01/2012 | ALI/ARO_S (4 days). |
| 390875 | MWS-118 2.50-2.60 | 25/01/2012 | Naphthalene (4 days). |
| 390875 | MWS-118 2.50-2.60 | 25/01/2012 | Naphthalene (4 days). |
| 390875 | MWS-118 2.50-2.60 | 25/01/2012 | SVOC solid (7 days). |
| 390875 | MWS-118 2.50-2.60 | 25/01/2012 | SVOC solid (7 days). |
| 390875 | MWS-118 2.50-2.60 | 25/01/2012 | Naphthalene (4 days). |
| 390875 | MWS-118 2.50-2.60 | 25/01/2012 | VOC solid (4 days). |
| 390875 | MWS-118 2.50-2.60 | 25/01/2012 | VOC solid (4 days). |
| 390876 | MWS-119 0.20-0.30 | 25/01/2012 | EPH solid (7 days). |

| | | | |
|---|---|---|---|
| 390876 | MWS-119 0.20-0.30 | 25/01/2012 | Naphthalene (4 days). |
| 390876 | MWS-119 0.20-0.30 | 25/01/2012 | PAH SPEC solid (14 days). |
| 390876 | MWS-119 0.20-0.30 | 25/01/2012 | PAH FID solid (14 days). |
| 390876 | MWS-119 0.20-0.30 | 25/01/2012 | EPH solid (7 days). |
| 390877 | MWS-119 1.20-1.30 | 25/01/2012 | Naphthalene (4 days). |
| 390877 | MWS-119 1.20-1.30 | 25/01/2012 | Naphthalene (4 days). |
| 390877 | MWS-119 1.20-1.30 | 25/01/2012 | SVOC solid (7 days). |
| 390877 | MWS-119 1.20-1.30 | 25/01/2012 | SVOC solid (7 days). |
| 390877 | MWS-119 1.20-1.30 | 25/01/2012 | Naphthalene (4 days). |
| 390877 | MWS-119 1.20-1.30 | 25/01/2012 | VOC solid (4 days). |
| 390877 | MWS-119 1.20-1.30 | 25/01/2012 | VOC solid (4 days). |
| 390878 | MWS-130 0.30-0.40 | 25/01/2012 | EPH solid (7 days). |
| 390878 | MWS-130 0.30-0.40 | 25/01/2012 | Naphthalene (4 days). |
| 390878 | MWS-130 0.30-0.40 | 25/01/2012 | PAH SPEC solid (14 days). |
| 390878 | MWS-130 0.30-0.40 | 25/01/2012 | PAH FID solid (14 days). |
| 390878 | MWS-130 0.30-0.40 | 25/01/2012 | EPH solid (7 days). |

## Appendix A - Details of Analysis

Method details are shown only for those determinants listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.
No Recovery Factors are used in the determination of results. Results reported assume 100% recovery.
Full method statements are available on request.

| Method | Name of Parameter | Units | Limit of Detection | Sample Preparation | Sub-Contracted | UKAS | MCERTS |
|---|---|---|---|---|---|---|---|
| DETS 002 | Organic Matter | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 003 | Loss on Ignition | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 075 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 076 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 006 | Chloride | mg/kg | 0.01 | Air Dried | No | Yes | Yes |
| DETS 008 | pH | pH Units | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Selenium | mg/kg | 0.50 | Air Dried | No | Yes | Yes |
| DETS 019 | Ammonia | mg/kg | 0.02 | Air Dried | No | Yes | Yes |
| DETS 020 | Boron (Water Soluble) | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 024 | Sulphide | mg/kg | 10.00 | Air Dried | No | Yes | Yes |
| DETS 042 | Antimony | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Arsenic | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Barium | mg/kg | 1.50 | Air Dried | No | Yes | Yes |
| DET S 042 | Beryllium | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Cadmium | mg/kg | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Cobalt | mg/kg | 0.70 | Air Dried | No | Yes | Yes |
| DETS 042 | Copper | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Chromium | mg/kg | 0.15 | Air Dried | No | Yes | Yes |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DETS 042 | Iron | mg/kg | 1.00 | Air Dried | No | Yes | No |
| DETS 042 | Lead | mg/kg | 0.30 | Air Dried | No | Yes | Yes |
| DETS 042 | Manganese | mg/kg | 20.00 | Air Dried | No | Yes | Yes |
| DETS 081 | Mercury | mg/kg | 0.05 | Air Dried | No | Yes | Yes |
| DETS 042 | Molybdenum | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 042 | Nickel | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Thallium | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Vanadium | mg/kg | 0.80 | Air Dried | No | Yes | Yes |
| DETS 042 | Zinc | mg/kg | 1.00 | Air Dried | No | Yes | Yes |
| DETS 049 | Sulphur (Free) | mg/kg | 0.50 | As Received | No | Yes | Yes |
| DETS 050 | PAH | mg/kg | 0.10 | As Received | No | Yes | No |
| DETS 051 | TPH (C10 - C40) | mg/kg | 20.00 | As Received | No | Yes | Yes |
| DETS 052 | PCB | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Benzene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Toluene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Ethylbenzne | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Xylene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 067 | Phenol - Monohydric | mg/kg | 0.3 | Air Dried | No | Yes | Yes |
| DETS 067 | Easily Liberatable Cyanide | mg/kg | 0.1 | Air Dried | No | Yes | Yes |
| DETS 067 | Complex Cyanide | mg/kg | 0.30 | Air Dried | No | Yes | No |
| DETS 067 | Total Cyanide | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 067 | Thiocyanate | mg/kg | 0.6 | Air Dried | No | Yes | Yes |
| DETS 068 | VOC | mg/kg | 0.01 | As Received | No | No | No |

# Certificate of Analysis

2139

Certificate Number: 12-60212-1

Date: 26/03/2012

| | |
|---|---|
| Client: | Merebrook Consulting Limited<br>Suite 2B<br>East Mill<br>Belper<br>DE56 2UA |
| Our Reference: | 12-60212-1 |
| Client Reference: | 17054A |
| Contract Title: | Meggitt/Stadco |
| Description: | 24 soil samples |
| Date Received: | 06 March 2012 |
| Date Started: | 06 March 2012 |
| Date Completed: | 14 March 2012 |
| Test Procedures: | Identified by prefix DETSn (details on request), Asbestos Analysis (DETS 082). |
| Notes: | **This report supersedes 12-60212, Asbestos Quantification added**<br>Observations and interpretations are outside the scope of UKAS accreditation |
| Approved By: | Paul Woodbridge, Senior Operations Manager |

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 except in full, without the prior written approval of the laboratory.

Derwentside Environmental Testing Services Limited
Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • Fax 01207 582444 • email: info@dets.co.uk • www.dets.co.uk

# Information in Support of the Analytical Results

## Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample.

***Key***

| | |
|---|---|
| * | Denotes test not included in laboratory scope of accreditation |
| # | Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo |
| $ | Denotes tests completed by an approved subcontractor |
| I/S | Denotes insufficient sample to carry out test |
| U/S | Denotes that the sample is not suitable for testing |

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month
Liquids - 2 weeks
Asbestos (test portion) - 6 months

# Summary of Chemical Analysis
# Matrix Descriptions

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| Sample ID | Other ID | Depth | Sample No | Completed | Matrix Description |
|---|---|---|---|---|---|
| MTP112 | 1 | 0.30 | 394421 | 14/03/2012 | Brown gravelly clayey SAND (made ground includes slag) |
| MTP112 | 2 | 0.70 | 394422 | 14/03/2012 | Brown sandy CLAY |
| MTP112 | 3 | 1.80 | 394423 | 14/03/2012 | Brown gravelly sandy CLAY |
| MTP113 | 1 | 0.20 | 394424 | 14/03/2012 | Dark brown gravelly very sandy CLAY |
| MTP113 | 2 | 0.55 | 394425 | 14/03/2012 | Brown slightly gravelly sandy CLAY |
| MTP113 | 3 | 1.10 | 394426 | 14/03/2012 | Brown sandy CLAY |
| MTP113 | 4 | 2.00 | 394427 | 14/03/2012 | Brown gravelly SAND |
| MTP114 | 1 | 0.25 | 394428 | 14/03/2012 | Light brown slightly gravelly sandy CLAY |
| MTP114 | 2 | 0.80 | 394429 | 14/03/2012 | Brown sandy CLAY |
| MTP114 | 2 | 1.00 | 394430 | 14/03/2012 | Brown gravelly sandy CLAY |
| MTP114 | 3 | 1.50 | 394431 | 14/03/2012 | Brown sandy CLAY |
| MTP115 | 1 | 0.20 | 394432 | 14/03/2012 | Dark brown clayey gravelly SAND |
| MTP115 | 1 | 0.50 | 394433 | 14/03/2012 | Brown sandy CLAY |
| MTP115 | 2 | 1.80 | 394434 | 14/03/2012 | Brown gravelly sandy CLAY |
| MTP115 | 3 | 2.50 | 394435 | 14/03/2012 | Brown gravelly clayey SAND |
| MTP116 | 1 | 0.35 | 394436 | 14/03/2012 | Black very gravelly SAND |
| MTP116 | 2 | 0.80 | 394437 | 14/03/2012 | Brown very sandy CLAY |
| MTP116 | 3 | 2.30 | 394438 | 14/03/2012 | Brown sandy CLAY |
| MTP117 | 1 | 0.40 | 394439 | 14/03/2012 | Dark sandy CLAY |
| MTP117 | 1 | 0.60 | 394440 | 14/03/2012 | Brown gravelly sandy CLAY |
| MTP117 | 2 | 1.50 | 394441 | 14/03/2012 | Brown slightly gravelly sandy CLAY |
| MTP118 | 1 | 0.60 | 394442 | 14/03/2012 | Dark red sandy CLAY |
| MTP118 | 2 | 1.50 | 394443 | 14/03/2012 | Light brown clayey gravelly SAND |
| MTP118 | 2 | 1.40 | 394444 | 14/03/2012 | Dark red gravelly clayey SAND |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394421 | 394422 | 394423 | 394424 | 394425 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP112 | MTP112 | MTP112 | MTP113 | MTP113 |
| | | | **Depth** | 0.30 | 0.70 | 1.80 | 0.20 | 0.55 |
| | | | **Sample Ref** | 1 | 2 | 3 | 1 | 2 |
| | | | **Sample Type** | J/D | J | J/D | J/D | D |
| | | | **Sampling Date** | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 12 | | | 7.5 | 6.4 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.6 | | | 0.3 | 0.2 |
| Chromium | mg/kg | DETS 042# | 0.15 | 39 | | | 16 | 27 |
| Copper | mg/kg | DETS 042# | 0.2 | 33 | | | 23 | 19 |
| Lead | mg/kg | DETS 042# | 0.3 | 31 | | | 47 | 16 |
| Mercury | mg/kg | DETSC2325# | 0.05 | < 0.05 | | | 0.23 | < 0.05 |
| Nickel | mg/kg | DETS 042# | 1 | 33 | | | 17 | 26 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 61 | | | 71 | 45 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | 180 | | |
| pH | | DETSC2008# | | 9.5 | | | 8.6 | 7.5 |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | < 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | < 1.6 | | < 1.6 | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | 18 | < 10 | | 100 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | 15 | < 10 | | < 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 82 | < 10 | | 11 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | 41 | < 10 | | 60 | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 160 | < 10 | | 170 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | < 0.3 | | < 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 99 | | | 5.9 | 1.9 |
| Moisture Content | % | DETS 046* | 0.1 | 19 | | | 20 | 23 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394426 | 394427 | 394428 | 394429 | 394431 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP113 | MTP113 | MTP114 | MTP114 | MTP114 |
| | | | **Depth** | 1.10 | 2.00 | 0.25 | 0.80 | 1.50 |
| | | | **Sample Ref** | 3 | 4 | 1 | 2 | 3 |
| | | | **Sample Type** | J | J | D | D | J |
| | | | **Sampling Date** | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | | | 4.8 | | |
| Cadmium | mg/kg | DETS 042# | 0.1 | | | 0.1 | | |
| Chromium | mg/kg | DETS 042# | 0.15 | | | 15 | | |
| Copper | mg/kg | DETS 042# | 0.2 | | | 12 | | |
| Lead | mg/kg | DETS 042# | 0.3 | | | 18 | | |
| Mercury | mg/kg | DETSC2325# | 0.05 | | | < 0.05 | | |
| Nickel | mg/kg | DETS 042# | 1 | | | 13 | | |
| Selenium | mg/kg | DETS 042# | 0.5 | | | < 0.5 | | |
| Zinc | mg/kg | DETS 042# | 1 | | | 47 | | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | 39 | |
| pH | | DETSC2008# | | | | 9.7 | | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | < 0.1 | < 0.1 | | | < 0.1 |
| PAH | mg/kg | DETSC 3301 | 1.6 | < 1.6 | < 1.6 | | | < 1.6 |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | | < 10 |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | | < 10 |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | < 10 | 13 | | | 15 |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | 23 | 22 | | | < 10 |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | < 10 | < 10 | | | < 10 |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | 38 | 38 | | | 18 |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | < 0.3 | < 0.3 | | | < 0.3 |
| Stones >2mm | % m/m | DETSC1003* | 1 | | | 6.9 | | |
| Moisture Content | % | DETS 046* | 0.1 | | | 14 | | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394432 | 394433 | 394435 | 394436 | 394437 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP115 | MTP115 | MTP115 | MTP116 | MTP116 |
| | | | **Depth** | 0.20 | 0.50 | 2.50 | 0.35 | 0.80 |
| | | | **Sample Ref** | 1 | 1 | 3 | 1 | 2 |
| | | | **Sample Type** | D | J | D | J/D | D |
| | | | **Sampling Date** | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 34 | | | 14 | 8.9 |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.7 | | | 0.4 | 0.3 |
| Chromium | mg/kg | DETS 042# | 0.15 | 36 | | | 13 | 22 |
| Copper | mg/kg | DETS 042# | 0.2 | 110 | | | 41 | 25 |
| Lead | mg/kg | DETS 042# | 0.3 | 110 | | | 24 | 57 |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.11 | | | < 0.05 | 0.16 |
| Nickel | mg/kg | DETS 042# | 1 | 55 | | | 33 | 22 |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | | < 0.5 | < 0.5 |
| Zinc | mg/kg | DETS 042# | 1 | 200 | | | 39 | 69 |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | 17 | | |
| pH | | DETSC2008# | | 8.1 | | | 10.4 | 7.4 |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | | < 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | < 1.6 | | < 1.6 | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | < 10 | | 83 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | < 10 | | < 10 | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | < 10 | | 96 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | < 0.3 | | < 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | 6.0 | | | 100 | < 1.0 |
| Moisture Content | % | DETS 046* | 0.1 | 29 | | | 33 | 26 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394439 | 394440 | 394442 | 394444 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP117 | MTP117 | MTP118 | MTP118 |
| | | | **Depth** | 0.40 | 0.60 | 0.60 | 1.40 |
| | | | **Sample Ref** | 1 | 1 | 1 | 2 |
| | | | **Sample Type** | D | J | J/D | D |
| | | | **Sampling Date** | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Arsenic | mg/kg | DETS 042# | 0.2 | 7.5 | | 4.5 | |
| Cadmium | mg/kg | DETS 042# | 0.1 | 0.2 | | 0.2 | |
| Chromium | mg/kg | DETS 042# | 0.15 | 17 | | 25 | |
| Copper | mg/kg | DETS 042# | 0.2 | 21 | | 13 | |
| Lead | mg/kg | DETS 042# | 0.3 | 55 | | 14 | |
| Mercury | mg/kg | DETSC2325# | 0.05 | 0.24 | | < 0.05 | |
| Nickel | mg/kg | DETS 042# | 1 | 16 | | 20 | |
| Selenium | mg/kg | DETS 042# | 0.5 | < 0.5 | | < 0.5 | |
| Zinc | mg/kg | DETS 042# | 1 | 59 | | 31 | |
| Sulphate Aqueous Extract as SO4 | mg/l | DETSC 2076# | 10 | | | | 64 |
| pH | | DETSC2008# | | 7.3 | | 5.2 | |
| Acenaphthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Acenaphthylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Benzo(a)anthracene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Benzo(a)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Benzo(b)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Benzo(k)fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Benzo(g,h,i)perylene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Chrysene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Dibenzo(a,h)anthracene | mg/kg | DESTC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Fluoranthene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Fluorene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Indeno(1,2,3-c,d)pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Naphthalene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Phenanthrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| Pyrene | mg/kg | DETSC 3301 | 0.1 | | < 0.1 | < 0.1 | |
| PAH | mg/kg | DETSC 3301 | 1.6 | | < 1.6 | < 1.6 | |
| EPH (C10-C12) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | |
| EPH (C28-C40) | mg/kg | DETSC 3311 | 10 | | 13 | < 10 | |
| EPH (C12-C16) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | |
| EPH (C16-C21) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | |
| EPH (C21-C28) | mg/kg | DETSC 3311 | 10 | | < 10 | < 10 | |
| EPH (C10-C40) | mg/kg | DETSC3311# | 10 | | 13 | < 10 | |
| Phenol - Monohydric | mg/kg | DETSC2130# | 0.3 | | < 0.3 | < 0.3 | |
| Stones >2mm | % m/m | DETSC1003* | 1 | < 1.0 | | < 1.0 | |
| Moisture Content | % | DETS 046* | 0.1 | 22 | | 15 | |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | Lab No. | 394423 | 394426 | 394427 | 394430 | 394431 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample ID | MTP112 | MTP113 | MTP113 | MTP114 | MTP114 |
| | | | Depth | 1.80 | 1.10 | 2.00 | 1.00 | 1.50 |
| | | | Sample Ref | 3 | 3 | 4 | 2 | 3 |
| | | | Sample Type | J/D | J | J | J | J |
| | | | Sampling Date | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 |
| | | | Sampling Time | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Total VOC's | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | 0.01 | < 0.01 | < 0.01 |
| 1,1 Dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Methylene Chloride | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 2,2-dichlororopane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromochloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chloroform | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Carbon tetrachloride | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Trichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibromomethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromodichloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Toluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Tetrachloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,3-dichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibromochloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromoethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Ethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| m+p-Xylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| o-Xylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Styrene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromoform | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Isopropylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| n-propylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 2-chlorotoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 4-chlorotoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Tert-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| sec-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394423 | 394426 | 394427 | 394430 | 394431 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP112 | MTP113 | MTP113 | MTP114 | MTP114 |
| | | | **Depth** | 1.80 | 1.10 | 2.00 | 1.00 | 1.50 |
| | | | **Sample Ref** | 3 | 3 | 4 | 2 | 3 |
| | | | **Sample Type** | J/D | J | J | J | J |
| | | | **Sampling Date** | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| 1,3-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| p-isopropyltoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| n-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Hexachlorobutadiene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Naphthalene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | 0.01 | < 0.01 | < 0.01 |
| 1,2,3-trichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | Lab No. | 394434 | 394438 | 394441 | 394443 |
|---|---|---|---|---|---|---|---|
| | | | Sample ID | MTP115 | MTP116 | MTP117 | MTP118 |
| | | | Depth | 1.80 | 2.30 | 1.50 | 1.50 |
| | | | Sample Ref | 2 | 3 | 2 | 2 |
| | | | Sample Type | J | J | J | J |
| | | | Sampling Date | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 |
| | | | Sampling Time | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Total VOC's | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1 Dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Methylene Chloride | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Trans-1,2-dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 2,2-dichlororopane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Cis-1,2-dichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromochloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chloroform | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,1-trichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Carbon tetrachloride | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Trichloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibromomethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromodichloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| cis-1,3-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Toluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| trans-1,3-dichloropropene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,2-trichloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Tetrachloroethylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,3-dichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibromochloromethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromoethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Ethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,1,1,2-tetrachloroethane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| m+p-Xylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| o-Xylene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Styrene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromoform | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Isopropylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Bromobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,3-trichloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| n-propylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 2-chlorotoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,3,5-trimethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 4-chlorotoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Tert-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,4-trimethylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| sec-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |

# Summary of Chemical Analysis
## Soil Samples

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394434 | 394438 | 394441 | 394443 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MTP115 | MTP116 | MTP117 | MTP118 |
| | | | **Depth** | 1.80 | 2.30 | 1.50 | 1.50 |
| | | | **Sample Ref** | 2 | 3 | 2 | 2 |
| | | | **Sample Type** | J | J | J | J |
| | | | **Sampling Date** | 27/02/2012 | 27/02/2012 | 27/02/2012 | 27/02/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| 1,3-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| p-isopropyltoluene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,4-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| n-butylbenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2-dibromo-3-chloropropane | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,4-trichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Hexachlorobutadiene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Naphthalene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| 1,2,3-trichlorobenzene | mg/kg | DETSC3431* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |

# Summary of Asbestos Analysis
# Soil Samples

Our Ref: 12-60212-1
Client Ref: 17054A
Contract Title: Meggitt/Stadco

| Lab No | Sample Ref | Material Type* | Result | Comment | Analyst |
|---|---|---|---|---|---|
| 394421 | MTP112 1 0.30 | Soil | Chrysotile | Contains Bundle of Unbound Asbestos Fibres | Jeff Cruddas |
| 394424 | MTP113 1 0.20 | Soil | NAD | None | Jeff Cruddas |
| 394428 | MTP114 1 0.25 | Soil | Chrysotile | Contains Bundle of Unbound Asbestos Fibres | Jeff Cruddas |
| 394432 | MTP115 1 0.20 | Soil | Amosite Chrysotile | Contains Bundles of Unbound Asbestos Fibres | Jeff Cruddas |
| 394436 | MTP116 1 0.35 | Soil | Amosite | Contains Bundle of Unbound Asbestos Fibres | Jeff Cruddas |
| 394437 | MTP116 2 0.80 | Soil | NAD | None | Jeff Cruddas |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETS 082 using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.

## Summary of Asbestos Analysis
## Soil Samples

Our Ref: 12-60212-1

Client Ref: 17054A

Contract Title: Meggitt/Stadco

| | | | |
|---|---|---|---|
| | | **Lab No.** | 394436 |
| | | **Sample Ref** | MTP116 |
| | | **Depth** | 0.35 |
| | | **Other Ref** | 1 |
| | | **Sample Type** | Soil |
| **Test** | **Units** | **DETSxx** | |
| **Asbestos ID** | | **DETS 082** | **Chrysotile** |
| **Total Mass% Asbestos (i+ii)** | Mass % | | **<0.001** |
| Quantification by Phase Contrast Optical Microscopy (i) | Mass % | DETSC 1102 | <0.001 |
| Gravimetric Quantification (ii) | Mass % | DETSC 1102 | na |
| Breakdown of Gravimetric Analysis | | | |
| Mass of Sample | g | | 204.25 |
| ACMs present* | | | |
| Mass of ACM in sample | g | | |
| % ACM by mass | % | | |
| % asbestos in ACM | % | | |
| % asbestos in sample | % | | |

* Denotes test or material description outside of UKAS accreditation.
% asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264.
Recommended sample size for quantification is approximately 1kg
# denotes deviating sample

## Sample Comments

(The laboratory cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".)

| Lab No. | Sample ID | Date Sampled | Sample exceeded holding time for test | Sample not received in appropriate containers for test |
|---|---|---|---|---|
| 394421 | MTP112 0.30 | 27/02/2012 | EPH solid (7 days). | |
| 394421 | MTP112 0.30 | 27/02/2012 | Naphthalene (4 days). | |
| 394421 | MTP112 0.30 | 27/02/2012 | EPH solid (7 days). | |
| 394422 | MTP112 0.70 | 27/02/2012 | EPH solid (7 days). | |
| 394422 | MTP112 0.70 | 27/02/2012 | Naphthalene (4 days). | |
| 394422 | MTP112 0.70 | 27/02/2012 | EPH solid (7 days). | |
| 394423 | MTP112 1.80 | 27/02/2012 | Naphthalene (4 days). | |
| 394423 | MTP112 1.80 | 27/02/2012 | VOC solid (4 days). | |
| 394423 | MTP112 1.80 | 27/02/2012 | VOC solid (4 days). | |
| 394424 | MTP113 0.20 | 27/02/2012 | EPH solid (7 days). | |
| 394424 | MTP113 0.20 | 27/02/2012 | Naphthalene (4 days). | |
| 394424 | MTP113 0.20 | 27/02/2012 | EPH solid (7 days). | |
| 394426 | MTP113 1.10 | 27/02/2012 | EPH solid (7 days). | |
| 394426 | MTP113 1.10 | 27/02/2012 | Naphthalene (4 days). | |
| 394426 | MTP113 1.10 | 27/02/2012 | EPH solid (7 days). | |
| 394426 | MTP113 1.10 | 27/02/2012 | Naphthalene (4 days). | |
| 394426 | MTP113 1.10 | 27/02/2012 | VOC solid (4 days). | |
| 394426 | MTP113 1.10 | 27/02/2012 | VOC solid (4 days). | |
| 394427 | MTP113 2.00 | 27/02/2012 | EPH solid (7 days). | |
| 394427 | MTP113 2.00 | 27/02/2012 | Naphthalene (4 days). | |
| 394427 | MTP113 2.00 | 27/02/2012 | EPH solid (7 days). | |
| 394427 | MTP113 2.00 | 27/02/2012 | Naphthalene (4 days). | |
| 394427 | MTP113 2.00 | 27/02/2012 | VOC solid (4 days). | |
| 394427 | MTP113 2.00 | 27/02/2012 | VOC solid (4 days). | |
| 394430 | MTP114 1.00 | 27/02/2012 | Naphthalene (4 days). | |
| 394430 | MTP114 1.00 | 27/02/2012 | VOC solid (4 days). | |
| 394430 | MTP114 1.00 | 27/02/2012 | VOC solid (4 days). | |
| 394431 | MTP114 1.50 | 27/02/2012 | EPH solid (7 days). | |
| 394431 | MTP114 1.50 | 27/02/2012 | Naphthalene (4 days). | |
| 394431 | MTP114 1.50 | 27/02/2012 | EPH solid (7 days). | |
| 394431 | MTP114 1.50 | 27/02/2012 | Naphthalene (4 days). | |
| 394431 | MTP114 1.50 | 27/02/2012 | VOC solid (4 days). | |
| 394431 | MTP114 1.50 | 27/02/2012 | VOC solid (4 days). | |
| 394433 | MTP115 0.50 | 27/02/2012 | EPH solid (7 days). | |
| 394433 | MTP115 0.50 | 27/02/2012 | Naphthalene (4 days). | |
| 394433 | MTP115 0.50 | 27/02/2012 | EPH solid (7 days). | |

| | | | |
|---|---|---|---|
| 394434 | MTP115 1.80 | 27/02/2012 | Naphthalene (4 days). |
| 394434 | MTP115 1.80 | 27/02/2012 | VOC solid (4 days). |
| 394434 | MTP115 1.80 | 27/02/2012 | VOC solid (4 days). |
| 394436 | MTP116 0.35 | 27/02/2012 | EPH solid (7 days). |
| 394436 | MTP116 0.35 | 27/02/2012 | Naphthalene (4 days). |
| 394436 | MTP116 0.35 | 27/02/2012 | EPH solid (7 days). |
| 394438 | MTP116 2.30 | 27/02/2012 | Naphthalene (4 days). |
| 394438 | MTP116 2.30 | 27/02/2012 | VOC solid (4 days). |
| 394438 | MTP116 2.30 | 27/02/2012 | VOC solid (4 days). |
| 394440 | MTP117 0.60 | 27/02/2012 | EPH solid (7 days). |
| 394440 | MTP117 0.60 | 27/02/2012 | Naphthalene (4 days). |
| 394440 | MTP117 0.60 | 27/02/2012 | EPH solid (7 days). |
| 394441 | MTP117 1.50 | 27/02/2012 | Naphthalene (4 days). |
| 394441 | MTP117 1.50 | 27/02/2012 | VOC solid (4 days). |
| 394441 | MTP117 1.50 | 27/02/2012 | VOC solid (4 days). |
| 394442 | MTP118 0.60 | 27/02/2012 | EPH solid (7 days). |
| 394442 | MTP118 0.60 | 27/02/2012 | Naphthalene (4 days). |
| 394442 | MTP118 0.60 | 27/02/2012 | EPH solid (7 days). |
| 394443 | MTP118 1.50 | 27/02/2012 | Naphthalene (4 days). |
| 394443 | MTP118 1.50 | 27/02/2012 | VOC solid (4 days). |
| 394443 | MTP118 1.50 | 27/02/2012 | VOC solid (4 days). |

## Appendix A - Details of Analysis

Method details are shown only for those determinants listed in Annex A of the MCERTS standard. Anything not included on this list falls outside the scope of MCERTS.
No Recovery Factors are used in the determination of results. Results reported assume 100% recovery.
Full method statements are available on request.

| Method | Name of Parameter | Units | Limit of Detection | Sample Preparation | Sub-Contracted | UKAS | MCERTS |
|---|---|---|---|---|---|---|---|
| DETS 002 | Organic Matter | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 003 | Loss on Ignition | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 075 | Total Sulphate | % | 0.01 | Air Dried | No | Yes | Yes |
| DETS 004 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 076 | Water Soluble Sulphate | mg/l | 10.00 | Air Dried | No | Yes | Yes |
| DETS 006 | Chloride | mg/kg | 0.01 | Air Dried | No | Yes | Yes |
| DETS 008 | pH | pH Units | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Selenium | mg/kg | 0.50 | Air Dried | No | Yes | Yes |
| DETS 019 | Ammonia | mg/kg | 0.02 | Air Dried | No | Yes | Yes |
| DETS 020 | Boron (Water Soluble) | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 024 | Sulphide | mg/kg | 10.00 | Air Dried | No | Yes | Yes |
| DETS 042 | Antimony | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Arsenic | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Barium | mg/kg | 1.50 | Air Dried | No | Yes | Yes |
| DET S 042 | Beryllium | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Cadmium | mg/kg | 0.10 | Air Dried | No | Yes | Yes |
| DETS 042 | Cobalt | mg/kg | 0.70 | Air Dried | No | Yes | Yes |
| DETS 042 | Copper | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Chromium | mg/kg | 0.15 | Air Dried | No | Yes | Yes |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DETS 042 | Iron | mg/kg | 1.00 | Air Dried | No | Yes | No |
| DETS 042 | Lead | mg/kg | 0.30 | Air Dried | No | Yes | Yes |
| DETS 042 | Manganese | mg/kg | 20.00 | Air Dried | No | Yes | Yes |
| DETS 081 | Mercury | mg/kg | 0.05 | Air Dried | No | Yes | Yes |
| DETS 042 | Molybdenum | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 042 | Nickel | mg/kg | 0.20 | Air Dried | No | Yes | Yes |
| DETS 042 | Thallium | mg/kg | 1.00 | Air Dried | No | No | No |
| DETS 042 | Vanadium | mg/kg | 0.80 | Air Dried | No | Yes | Yes |
| DETS 042 | Zinc | mg/kg | 1.00 | Air Dried | No | Yes | Yes |
| DETS 049 | Sulphur (Free) | mg/kg | 0.50 | As Received | No | Yes | Yes |
| DETS 050 | PAH | mg/kg | 0.10 | As Received | No | Yes | No |
| DETS 051 | TPH (C10 - C40) | mg/kg | 20.00 | As Received | No | Yes | Yes |
| DETS 052 | PCB | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Benzene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Toluene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Ethylbenzne | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 062 | Xylene | mg/kg | 0.01 | As Received | No | Yes | Yes |
| DETS 067 | Phenol - Monohydric | mg/kg | 0.3 | Air Dried | No | Yes | Yes |
| DETS 067 | Easily Liberatable Cyanide | mg/kg | 0.1 | Air Dried | No | Yes | Yes |
| DETS 067 | Complex Cyanide | mg/kg | 0.30 | Air Dried | No | Yes | No |
| DETS 067 | Total Cyanide | mg/kg | 0.40 | Air Dried | No | Yes | Yes |
| DETS 067 | Thiocyanate | mg/kg | 0.6 | Air Dried | No | Yes | Yes |
| DETS 068 | VOC | mg/kg | 0.01 | As Received | No | No | No |

# Certificate of Analysis

2139

Date: 22/03/2012

Certificate Number: 12-60749

| | |
|---|---|
| Client: | Merebrook Consulting Limited<br>Suite 2B<br>East Mill<br>Belper<br>DE56 2UA |
| Our Reference: | 12-60749 |
| Client Reference: | 17054 |
| Contract Title: | Meggitt/Stadco |
| Description: | 2 soil samples |
| Date Received: | 16 March 2012 |
| Date Started: | 19 March 2012 |
| Date Completed: | 22 March 2012 |
| Test Procedures: | Asbestos Analysis (DETS 082) |
| Notes: | Observations and interpretations are outside the scope of UKAS accreditation |
| Approved By: | Paul Woodbridge, Senior Operations Manager |

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 except in full, without the prior written approval of the laboratory.

Derwentside Environmental Testing Services Limited
Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • Fax 01207 582444 • email: info@dets.co.uk • www.dets.co.uk

# Information in Support of the Analytical Results

## Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample.

***Key***

| | |
|---|---|
| * | Denotes test not included in laboratory scope of accreditation |
| # | Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo |
| $ | Denotes tests completed by an approved subcontractor |
| I/S | Denotes insufficient sample to carry out test |
| U/S | Denotes that the sample is not suitable for testing |

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month
Liquids - 2 weeks
Asbestos (test portion) - 6 months

# Summary of Asbestos Analysis
## Soil Samples

Our Ref: 12-60749
Client Ref: 17054
Contract Title: Meggitt/Stadco

| Lab No | Sample Ref | Material Type* | Result | Comment | Analyst |
|---|---|---|---|---|---|
| 397994 | MWS107 1 0.30-0.50 | Soil | NAD | None | Emrhys Sheldon |
| 397995 | MWS111 1 0.20-0.30 | Soil | NAD | None | Emrhys Sheldon |

Crocidolite = Blue Asbestos, Amosite = Brown Asbestos, Chrysotile = White Asbestos. NAD = No Asbestos Detected. Anthophyllite, Actinolite and Tremolite are other forms of Asbestos. Samples are analysed by DETS 082 using polarised light microscopy in accordance with HSG248 and documented in-house methods. Where a sample is NAD, the result is based on analysis of at least 2 sub-samples and should be taken to mean 'no asbestos detected in sample'.

# Normal Quantile Plot - Test for Non-Normality

**Lead**

| | |
|---|---|
| Project: | Meggit/Stadco - Residential Area |
| Job Number: | 17054 |

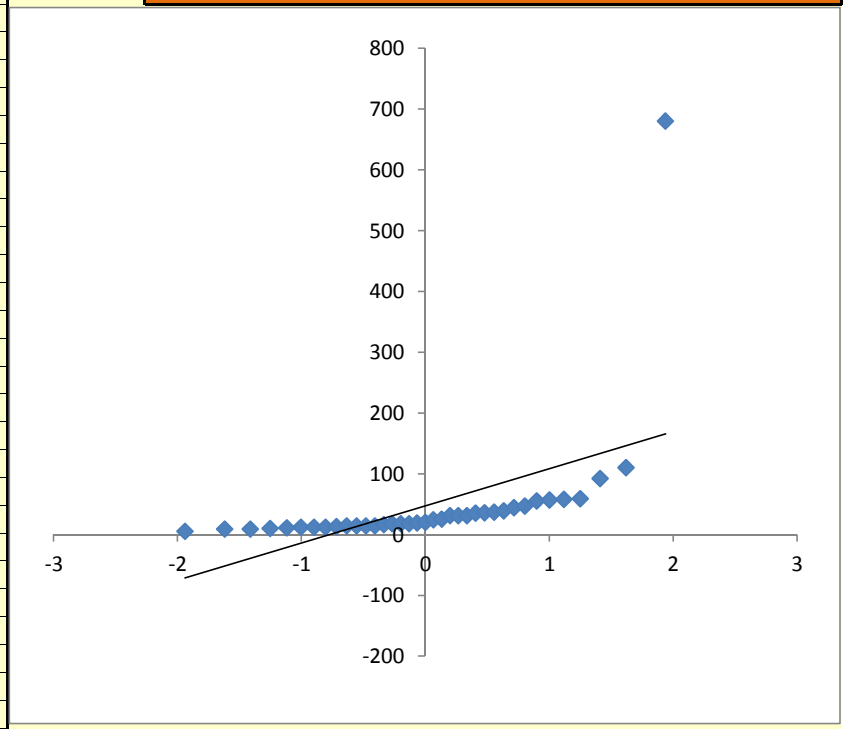
| Data | Cumulative Proportion | *z* -score |
|---|---|---|
| 5 | 1/38 | -1.9379315 |
| 9 | 1/19 | -1.6198563 |
| 9 | 3/38 | -1.4121876 |
| 10 | 2/19 | -1.2521195 |
| 11 | 5/38 | -1.1189584 |
| 12 | 3/19 | -1.003148 |
| 12 | 7/38 | -0.8994349 |
| 12 | 4/19 | -0.8045964 |
| 13 | 9/38 | -0.7164975 |
| 14 | 5/19 | -0.63364 |
| 14 | 11/38 | -0.5549229 |
| 14 | 6/19 | -0.4795057 |
| 14 | 13/38 | -0.4067243 |
| 16 | 7/19 | -0.3360381 |
| 18 | 15/38 | -0.2669941 |
| 18 | 8/19 | -0.1992013 |
| 18 | 17/38 | -0.1323129 |
| 19 | 9/19 | -0.0660118 |
| 20 | 1/2 | -5.566E-16 |
| 24 | 10/19 | 0.06601181 |
| 25 | 21/38 | 0.13231285 |
| 31 | 11/19 | 0.19920132 |
| 31 | 23/38 | 0.26699413 |
| 31 | 12/19 | 0.33603814 |
| 35 | 25/38 | 0.40672425 |
| 36 | 13/19 | 0.47950565 |
| 37 | 27/38 | 0.55492294 |
| 39 | 14/19 | 0.63364 |
| 44 | 29/38 | 0.7164975 |
| 47 | 15/19 | 0.80459638 |
| 55 | 31/38 | 0.89943491 |
| 57 | 16/19 | 1.00314797 |
| 58 | 33/38 | 1.11895838 |
| 59 | 17/19 | 1.25211952 |
| 92 | 35/38 | 1.41218758 |
| 110 | 18/19 | 1.61985626 |
| 680 | 37/38 | 1.93793151 |

| Sample Size | Critical Value Using a = .05 |
|---|---|
| 37 | 0.969576762 |

| *r* Correlation Coefficient |
|---|
| 0.51877037 |

**Conclusion Using 95% Probability**

Sample data do not support the claim that these values come from a normal population.



# ONE SIDED CHEBYCHEV THEOREM

**Screening Level (mg kg$^{-1}$)** **Lead**

| Critical Concentration |
|---|
| 450 |

| Project: | Meggit/Stadco - Residential Area |
|---|---|

| Job Number: | 17054 |
|---|---|

| DATA (x) |
|---|
| 680 |
| 110 |
| 92 |
| 59 |
| 58 |
| 57 |
| 55 |
| 47 |
| 44 |
| 39 |
| 37 |
| 36 |
| 35 |
| 31 |
| 31 |
| 31 |
| 25 |
| 24 |
| 20 |
| 19 |
| 18 |
| 18 |
| 18 |
| 16 |
| 14 |
| 14 |
| 14 |
| 14 |
| 13 |
| 12 |
| 12 |
| 12 |
| 11 |
| 10 |
| 9 |
| 9 |
| 5 |

**$H_0$: the true mean concentration is equal to, or greater than, the critical concentration or screening level**

**Chebychev**

| | |
|---|---|
| Numerator = | -402.7297 |
| Denominator = | 17.9846 |
| $k_0$ = | -22.3930 |
| $k_{0.05}$ = | 4.36 |
| $k_{crit}$ = | -4.36 |

$$k_0 = \frac{\bar{x} - C_{crit}}{s/\sqrt{n}}$$

**Descriptive statistics**

| | |
|---|---|
| **Mean =** | **47.27027027** |
| **SD =** | **109.3959802** |
| **N =** | **37** |

**K-Statistic is less than Kcrit. The null hypothesis is rejected and it can be concluded that the true mean is not greater than the critical concentration at the 95% confidence level.**

**95% Upper Confidence Limit = 125.6831**

# Normal Quantile Plot - Test for Non-Normality

**Lead**

| | |
|---|---|
| Project: | Meggit/Stadco - New Meggitt Facility |
| Job Number: | 17054 |

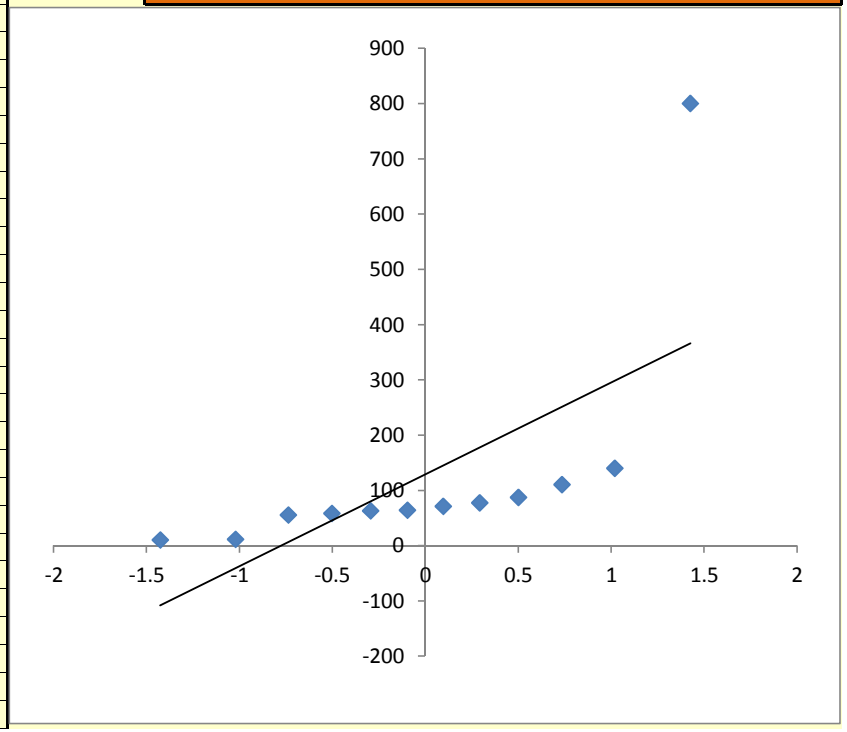
| Data | Cumulative Proportion | *z* -score |
|---|---|---|
| 10 | 1/13 | -1.4260769 |
| 11 | 2/13 | -1.0200762 |
| 55 | 3/13 | -0.7363159 |
| 58 | 4/13 | -0.5024022 |
| 63 | 5/13 | -0.2933812 |
| 64 | 6/13 | -0.0965586 |
| 71 | 7/13 | 0.09655862 |
| 77 | 8/13 | 0.29338123 |
| 87 | 9/13 | 0.50240222 |
| 110 | 10/13 | 0.73631592 |
| 140 | 11/13 | 1.02007623 |
| 800 | 12/13 | 1.42607687 |

| Sample Size | Critical Value Using a = .05 |
|---|---|
| 12 | 0.927513782 |

| *r* Correlation Coefficient |
|---|
| 0.65822226 |

**Conclusion Using 95% Probability**

Sample data do not support the claim that these values come from a normal population.



# ONE SIDED CHEBYCHEV THEOREM

**Screening Level (mg kg$^{-1}$)** **Lead**

| Critical Concentration |
|---|
| 750 |

| Project: | Meggit/Stadco - New Meggitt Facility |
|---|---|

| Job Number: | 17054 |
|---|---|

| DATA (x) |
|---|
| 10 |
| 11 |
| 55 |
| 58 |
| 63 |
| 64 |
| 71 |
| 77 |
| 87 |
| 110 |
| 140 |
| 800 |
| |
| |
| |

**$H_0$: the true mean concentration is equal to, or greater than, the critical concentration or screening level**

**Chebychev**

| | |
|---|---|
| Numerator = | -621.1667 |
| Denominator = | 61.8979 |
| $k_0$ = | -10.0353 |
| $k_{0.05}$ = | 4.36 |
| $k_{crit}$ = | -4.36 |

$$k_0 = \frac{\bar{x} - C_{crit}}{s/\sqrt{n}}$$

**Descriptive statistics**

| | |
|---|---|
| **Mean =** | **128.8333333** |
| **SD =** | **214.4205016** |
| **N =** | **12** |

**K-Statistic is less than Kcrit. The null hypothesis is rejected and it can be concluded that the true mean is not greater than the critical concentration at the 95% confidence level.**

**95% Upper Confidence Limit = 398.7080**

# Normal Quantile Plot - Test for Non-Normality

**EPH Aro/Ali C21-C28**

| | |
|---|---|
| Project: | Meggit/Stadco |
| Job Number: | 17054 |

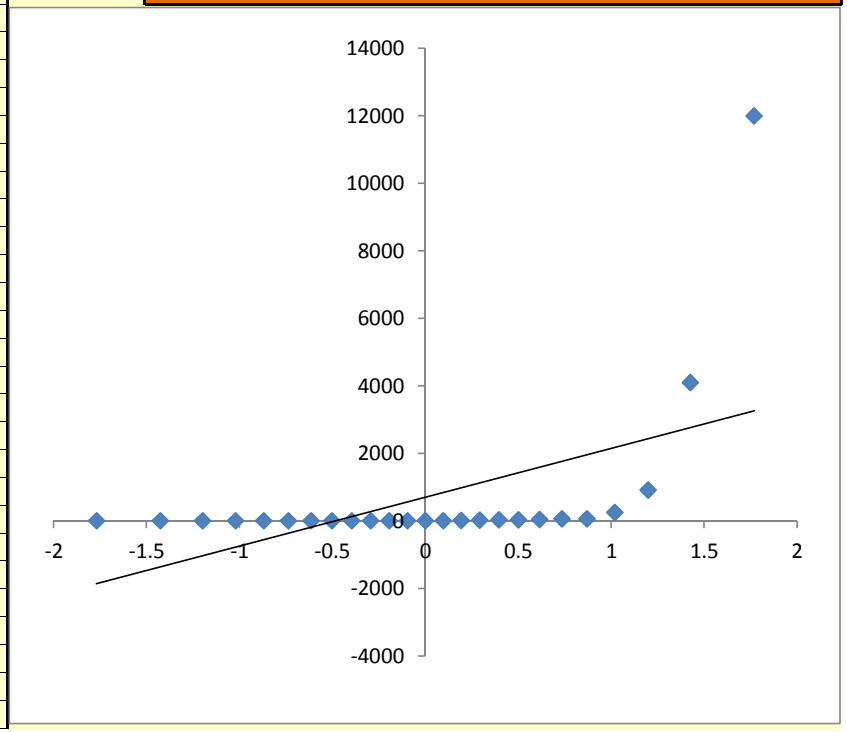
| Data | Cumulative Proportion | *z* -score |
|---|---|---|
| 10 | 1/26 | -1.768825 |
| 10 | 1/13 | -1.4260769 |
| 10 | 3/26 | -1.1983797 |
| 10 | 2/13 | -1.0200762 |
| 10 | 5/26 | -0.8694238 |
| 10 | 3/13 | -0.7363159 |
| 10 | 7/26 | -0.6151411 |
| 10 | 4/13 | -0.5024022 |
| 10 | 9/26 | -0.3957253 |
| 10 | 5/13 | -0.2933812 |
| 10 | 11/26 | -0.1940281 |
| 10 | 6/13 | -0.0965586 |
| 10 | 1/2 | -2.783E-16 |
| 10 | 7/13 | 0.09655862 |
| 16 | 15/26 | 0.19402814 |
| 28 | 8/13 | 0.29338123 |
| 34 | 17/26 | 0.3957253 |
| 38 | 9/13 | 0.50240222 |
| 41 | 19/26 | 0.6151411 |
| 59 | 10/13 | 0.73631592 |
| 60 | 21/26 | 0.86942377 |
| 250 | 11/13 | 1.02007623 |
| 920 | 23/26 | 1.1983797 |
| 4100 | 12/13 | 1.42607687 |
| 12000 | 25/26 | 1.76882504 |

| Sample Size | Critical Value Using a = .05 |
|---|---|
| 25 | 0.9582288 |

| *r* Correlation Coefficient |
|---|
| 0.52553647 |

**Conclusion Using 95% Probability**

Sample data do not support the claim that these values come from a normal population.



# Normal Quantile Plot - Test for Non-Normality

**EPH Ali/Aro C28-C40**

| | |
|---|---|
| Project: | Meggit/Stadco |
| Job Number: | 17054 |

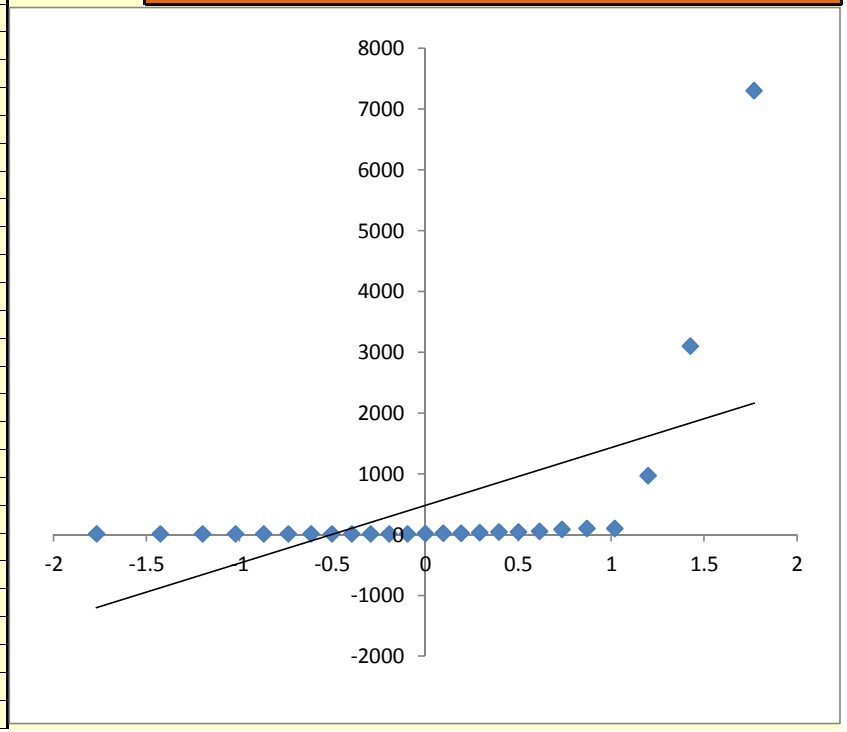
| Data | Cumulative Proportion | *z* -score |
|---|---|---|
| 10 | 1/26 | -1.768825 |
| 10 | 1/13 | -1.4260769 |
| 10 | 3/26 | -1.1983797 |
| 10 | 2/13 | -1.0200762 |
| 10 | 5/26 | -0.8694238 |
| 10 | 3/13 | -0.7363159 |
| 10 | 7/26 | -0.6151411 |
| 10 | 4/13 | -0.5024022 |
| 10 | 9/26 | -0.3957253 |
| 10 | 5/13 | -0.2933812 |
| 10 | 11/26 | -0.1940281 |
| 10 | 6/13 | -0.0965586 |
| 13 | 1/2 | -2.783E-16 |
| 18 | 7/13 | 0.09655862 |
| 19 | 15/26 | 0.19402814 |
| 30 | 8/13 | 0.29338123 |
| 39 | 17/26 | 0.3957253 |
| 39 | 9/13 | 0.50240222 |
| 53 | 19/26 | 0.6151411 |
| 83 | 10/13 | 0.73631592 |
| 100 | 21/26 | 0.86942377 |
| 100 | 11/13 | 1.02007623 |
| 970 | 23/26 | 1.1983797 |
| 3100 | 12/13 | 1.42607687 |
| 7300 | 25/26 | 1.76882504 |

| Sample Size | Critical Value Using a = .05 |
|---|---|
| 25 | 0.9582288 |

| *r* Correlation Coefficient |
|---|
| 0.55345064 |

**Conclusion Using 95% Probability**

Sample data do not support the claim that these values come from a normal population.



# ONE SIDED CHEBYCHEV THEOREM

**Screening Level (mg kg$^{-1}$)** **EPH Ali/Aro C28-C40**

| Critical Concentration |
|---|
| 890 |

| Project: | Meggit/Stadco |
|---|---|

| Job Number: | 17054 |
|---|---|

| DATA (x) |
|---|
| 7300 |
| 3100 |
| 970 |
| 100 |
| 100 |
| 83 |
| 53 |
| 39 |
| 39 |
| 30 |
| 19 |
| 18 |
| 13 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |

**$H_0$: the true mean concentration is equal to, or greater than, the critical concentration or screening level**

**Chebychev**

| | |
|---|---|
| Numerator = | -410.6400 |
| Denominator = | 311.2661 |
| $k_0$ = | -1.3193 |
| $k_{0.05}$ = | 4.36 |
| $k_{crit}$ = | -4.36 |

$$k_0 = \frac{\bar{x} - C_{crit}}{s/\sqrt{n}}$$

**Descriptive statistics**

| | |
|---|---|
| **Mean =** | **479.36** |
| **SD =** | **1556.330403** |
| **N =** | **25** |

**K-Statistic is more than Kcrit. The null hypothesis is accepted and it can be concluded that the true mean is greater than the critical concentration at the 95% confidence level**

**95% Upper Confidence Limit = 1836.4801**

# ONE SIDED CHEBYCHEV THEOREM

**Screening Level (mg kg$^{-1}$)** **EPH Aro/Ali C21-C28**

| Critical Concentration |
|---|
| 890 |

| Project: | Meggit/Stadco |
|---|---|

| Job Number: | 17054 |
|---|---|

| DATA (x) |
|---|
| 12000 |
| 4100 |
| 920 |
| 250 |
| 60 |
| 59 |
| 41 |
| 38 |
| 34 |
| 28 |
| 16 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |

**$H_0$: the true mean concentration is equal to, or greater than, the critical concentration or screening level**

**Chebychev**

| | |
|---|---|
| Numerator = | -182.5600 |
| Denominator = | 498.6998 |
| $k_0$ = | -0.3661 |
| $k_{0.05}$ = | 4.36 |
| $k_{crit}$ = | -4.36 |

$$k_0 = \frac{\bar{x} - C_{crit}}{s/\sqrt{n}}$$

**Descriptive statistics**

| | |
|---|---|
| **Mean =** | **707.44** |
| **SD =** | **2493.499199** |
| **N =** | **25** |

**K-Statistic is more than Kcrit. The null hypothesis is accepted and it can be concluded that the true mean is greater than the critical concentration at the 95% confidence level**

**95% Upper Confidence Limit = 2881.7713**

# Normal Quantile Plot - Test for Non-Normality

**EPH Ali/Aro C16-C21**

| | |
|---|---|
| Project: | Meggit/Stadco |
| Job Number: | 17054 |

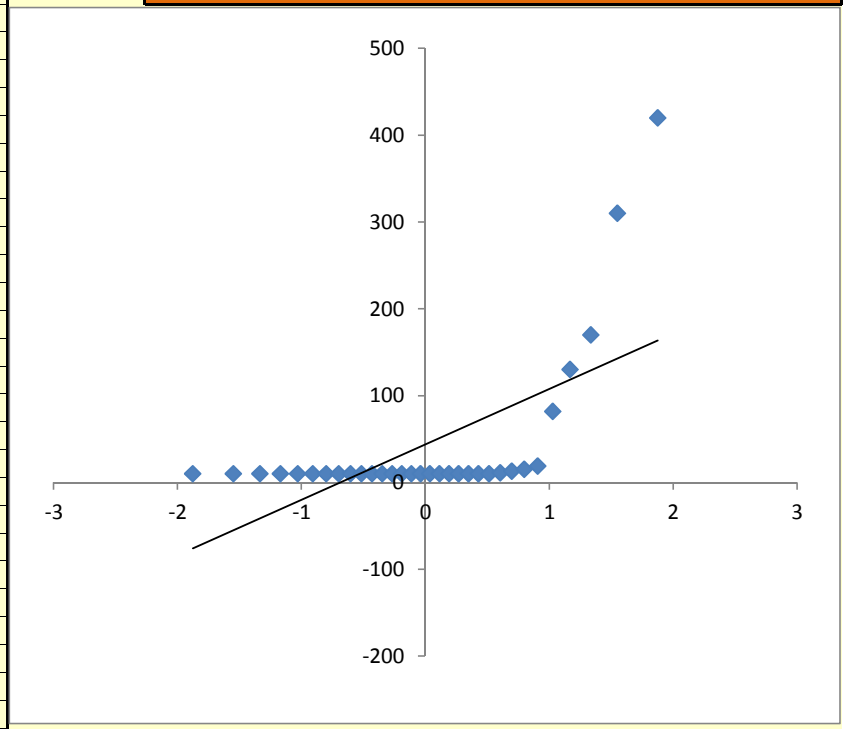
| Data | Cumulative Proportion | *z* -score |
|---|---|---|
| 10 | 1/33 | -1.8763586 |
| 10 | 2/33 | -1.5497059 |
| 10 | 1/11 | -1.3351777 |
| 10 | 4/33 | -1.1689488 |
| 10 | 5/33 | -1.0299568 |
| 10 | 2/11 | -0.9084579 |
| 10 | 7/33 | -0.7990828 |
| 10 | 8/33 | -0.6985257 |
| 10 | 3/11 | -0.6045853 |
| 10 | 10/33 | -0.5157048 |
| 10 | 1/3 | -0.4307273 |
| 10 | 4/11 | -0.3487557 |
| 10 | 13/33 | -0.2690661 |
| 10 | 14/33 | -0.191052 |
| 10 | 5/11 | -0.1141853 |
| 10 | 16/33 | -0.0379884 |
| 10 | 17/33 | 0.03798835 |
| 10 | 6/11 | 0.11418529 |
| 10 | 19/33 | 0.19105201 |
| 10 | 20/33 | 0.26906614 |
| 10 | 7/11 | 0.3487557 |
| 10 | 2/3 | 0.4307273 |
| 10 | 23/33 | 0.51570479 |
| 11 | 8/11 | 0.60458535 |
| 13 | 25/33 | 0.69852571 |
| 15 | 26/33 | 0.79908276 |
| 19 | 9/11 | 0.90845787 |
| 82 | 28/33 | 1.02995676 |
| 130 | 29/33 | 1.16894884 |
| 170 | 10/11 | 1.33517774 |
| 310 | 31/33 | 1.5497059 |
| 420 | 32/33 | 1.87635856 |

| Sample Size | Critical Value Using a = .05 |
|---|---|
| 32 | 0.965731259 |

| *r* Correlation Coefficient |
|---|
| 0.63305931 |

**Conclusion Using 95% Probability**

Sample data do not support the claim that these values come from a normal population.



# ONE SIDED CHEBYCHEV THEOREM

**Screening Level (mg kg$^{-1}$)** **EPH Ali/Aro C16-C21**

| Critical Concentration |
|---|
| 250 |

| | |
|---|---|
| Project: | Meggit/Stadco |

| | |
|---|---|
| Job Number: | 17054 |

| DATA (x) |
|---|
| 420 |
| 310 |
| 170 |
| 130 |
| 82 |
| 19 |
| 15 |
| 13 |
| 11 |
| 10 |
| 10 |
| 10 |
| 10 |
| 10 |
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| 10 |
| 10 |

**$H_0$: the true mean concentration is equal to, or greater than, the critical concentration or screening level**

**Chebychev**

| | |
|---|---|
| Numerator = | -206.2500 |
| Denominator = | 16.4044 |
| $k_0$ = | -12.5729 |
| $k_{0.05}$ = | 4.36 |
| $k_{crit}$ = | -4.36 |

$$k_0 = \frac{\bar{x} - C_{crit}}{s/\sqrt{n}}$$

**Descriptive statistics**

| | |
|---|---|
| **Mean =** | **43.75** |
| **SD =** | **92.79703833** |
| **N =** | **32** |

**K-Statistic is less than Kcrit. The null hypothesis is rejected and it can be concluded that the true mean is not greater than the critical concentration at the 95% confidence level.**

**95% Upper Confidence Limit = 115.2730**

# Normal Quantile Plot - Test for Non-Normality

**Benzo(a)pyrene**

| | |
|---|---|
| Project: | Meggit/Stadco |
| Job Number: | 17054 |

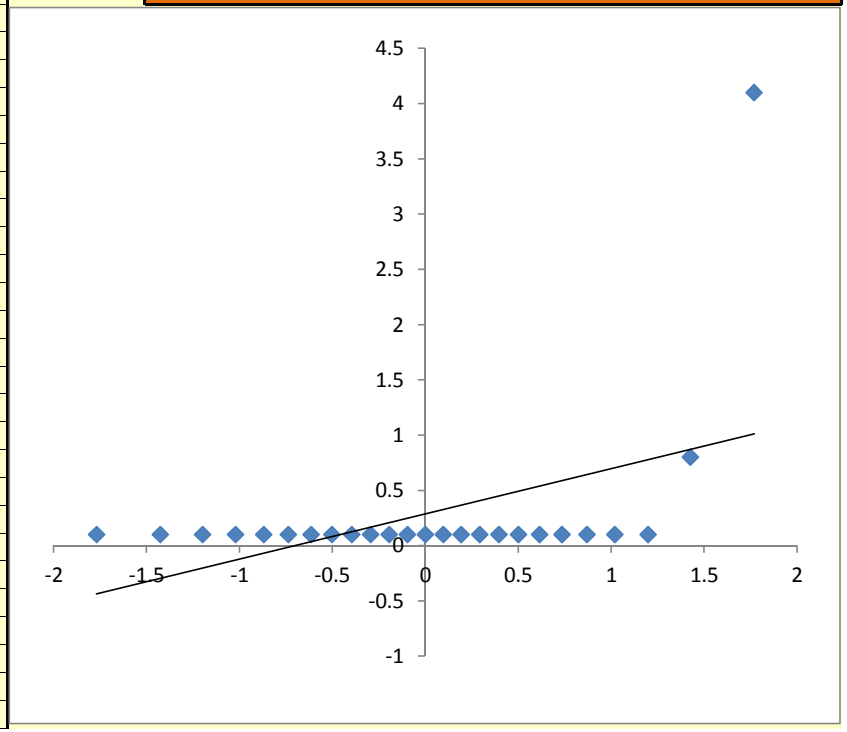
| Data | Cumulative Proportion | *z* -score |
|---|---|---|
| 0.1 | 1/26 | -1.768825 |
| 0.1 | 1/13 | -1.4260769 |
| 0.1 | 3/26 | -1.1983797 |
| 0.1 | 2/13 | -1.0200762 |
| 0.1 | 5/26 | -0.8694238 |
| 0.1 | 3/13 | -0.7363159 |
| 0.1 | 7/26 | -0.6151411 |
| 0.1 | 4/13 | -0.5024022 |
| 0.1 | 9/26 | -0.3957253 |
| 0.1 | 5/13 | -0.2933812 |
| 0.1 | 11/26 | -0.1940281 |
| 0.1 | 6/13 | -0.0965586 |
| 0.1 | 1/2 | -2.783E-16 |
| 0.1 | 7/13 | 0.09655862 |
| 0.1 | 15/26 | 0.19402814 |
| 0.1 | 8/13 | 0.29338123 |
| 0.1 | 17/26 | 0.3957253 |
| 0.1 | 9/13 | 0.50240222 |
| 0.1 | 19/26 | 0.6151411 |
| 0.1 | 10/13 | 0.73631592 |
| 0.1 | 21/26 | 0.86942377 |
| 0.1 | 11/13 | 1.02007623 |
| 0.1 | 23/26 | 1.1983797 |
| 0.8 | 12/13 | 1.42607687 |
| 4.1 | 25/26 | 1.76882504 |

| Sample Size | Critical Value Using a = .05 |
|---|---|
| 25 | 0.9582288 |

| *r* Correlation Coefficient |
|---|
| 0.46026981 |

**Conclusion Using 95% Probability**

Sample data do not support the claim that these values come from a normal population.



# ONE SIDED CHEBYCHEV THEOREM

**Screening Level (mg kg$^{-1}$)** **Benzo(a)pyrene**

| Critical Concentration |
|---|
| 0.83 |

| Project: | Meggit/Stadco |
|---|---|

| Job Number: | 17054 |
|---|---|

| DATA (x) |
|---|
| 4.1 |
| 0.8 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |

**$H_0$: the true mean concentration is equal to, or greater than, the critical concentration or screening level**

**Chebychev**

| | |
|---|---|
| Numerator = | -0.5420 |
| Denominator = | 0.1613 |
| $k_0$ = | -3.3607 |
| $k_{0.05}$ = | 4.36 |
| $k_{crit}$ = | -4.36 |

$$k_0 = \frac{\bar{x} - C_{crit}}{s/\sqrt{n}}$$

**Descriptive statistics**

| | |
|---|---|
| **Mean =** | **0.288** |
| **SD =** | **0.806391138** |
| **N =** | **25** |

**K-Statistic is more than Kcrit. The null hypothesis is accepted and it can be concluded that the true mean is greater than the critical concentration at the 95% confidence level**

**95% Upper Confidence Limit = 0.9912**

# Normal Quantile Plot - Test for Non-Normality

**Benzo(a)anthracene**

| | |
|---|---|
| Project: | Meggit/Stadco |
| Job Number: | 17054 |

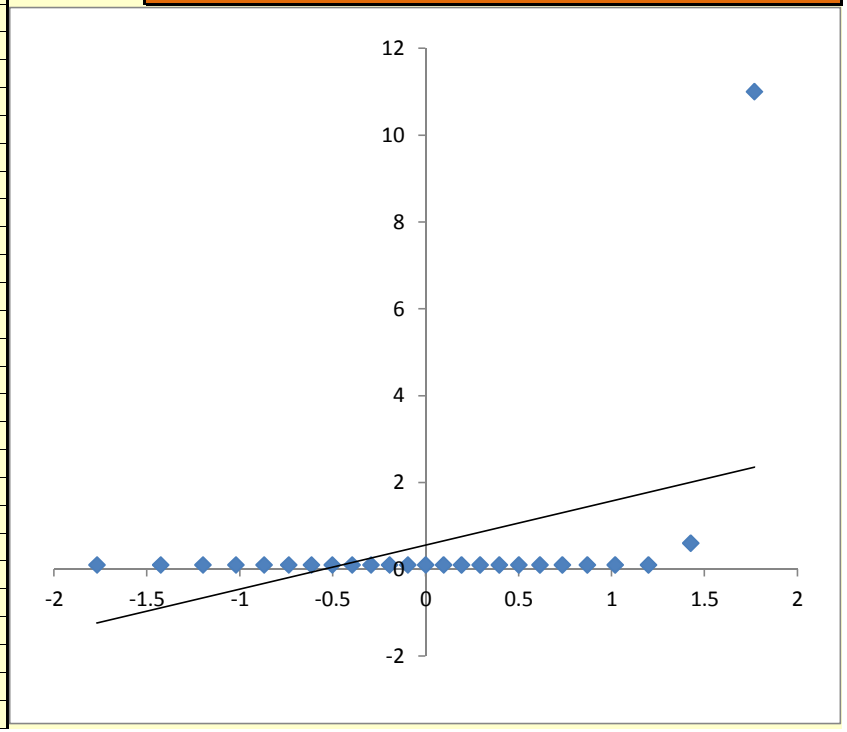
| Data | Cumulative Proportion | *z* -score |
|---|---|---|
| 0.1 | 1/26 | -1.768825 |
| 0.1 | 1/13 | -1.4260769 |
| 0.1 | 3/26 | -1.1983797 |
| 0.1 | 2/13 | -1.0200762 |
| 0.1 | 5/26 | -0.8694238 |
| 0.1 | 3/13 | -0.7363159 |
| 0.1 | 7/26 | -0.6151411 |
| 0.1 | 4/13 | -0.5024022 |
| 0.1 | 9/26 | -0.3957253 |
| 0.1 | 5/13 | -0.2933812 |
| 0.1 | 11/26 | -0.1940281 |
| 0.1 | 6/13 | -0.0965586 |
| 0.1 | 1/2 | -2.783E-16 |
| 0.1 | 7/13 | 0.09655862 |
| 0.1 | 15/26 | 0.19402814 |
| 0.1 | 8/13 | 0.29338123 |
| 0.1 | 17/26 | 0.3957253 |
| 0.1 | 9/13 | 0.50240222 |
| 0.1 | 19/26 | 0.6151411 |
| 0.1 | 10/13 | 0.73631592 |
| 0.1 | 21/26 | 0.86942377 |
| 0.1 | 11/13 | 1.02007623 |
| 0.1 | 23/26 | 1.1983797 |
| 0.6 | 12/13 | 1.42607687 |
| 11 | 25/26 | 1.76882504 |

| Sample Size | Critical Value Using a = .05 |
|---|---|
| 25 | 0.9582288 |

| *r* Correlation Coefficient |
|---|
| 0.42198154 |

**Conclusion Using 95% Probability**

Sample data do not support the claim that these values come from a normal population.



# ONE SIDED CHEBYCHEV THEOREM

**Screening Level (mg kg$^{-1}$)**

| Critical Concentration |
|---|
| 3.1 |

**Benzo(a)anthracene**

| Project: | Meggit/Stadco |
|---|---|

| Job Number: | 17054 |
|---|---|

| DATA (x) |
|---|
| 11 |
| 0.6 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |
| 0.1 |

**$H_0$: the true mean concentration is equal to, or greater than, the critical concentration or screening level**

**Chebychev**

| | |
|---|---|
| Numerator = | -2.5440 |
| Denominator = | 0.4356 |
| $k_0$ = | -5.8399 |
| $k_{0.05}$ = | 4.36 |
| $k_{crit}$ = | -4.36 |

$$k_0 = \frac{\bar{x} - C_{crit}}{s/\sqrt{n}}$$

**Descriptive statistics**

| | |
|---|---|
| **Mean =** | **0.556** |
| **SD =** | **2.178126106** |
| **N =** | **25** |

**K-Statistic is less than Kcrit. The null hypothesis is rejected and it can be concluded that the true mean is not greater than the critical concentration at the 95% confidence level.**

**95% Upper Confidence Limit = 2.4553**

# Normal Quantile Plot - Test for Non-Normality

**Arsenic**

| | |
|---|---|
| Project: | Meggit/Stadco |
| Job Number: | 17054 |

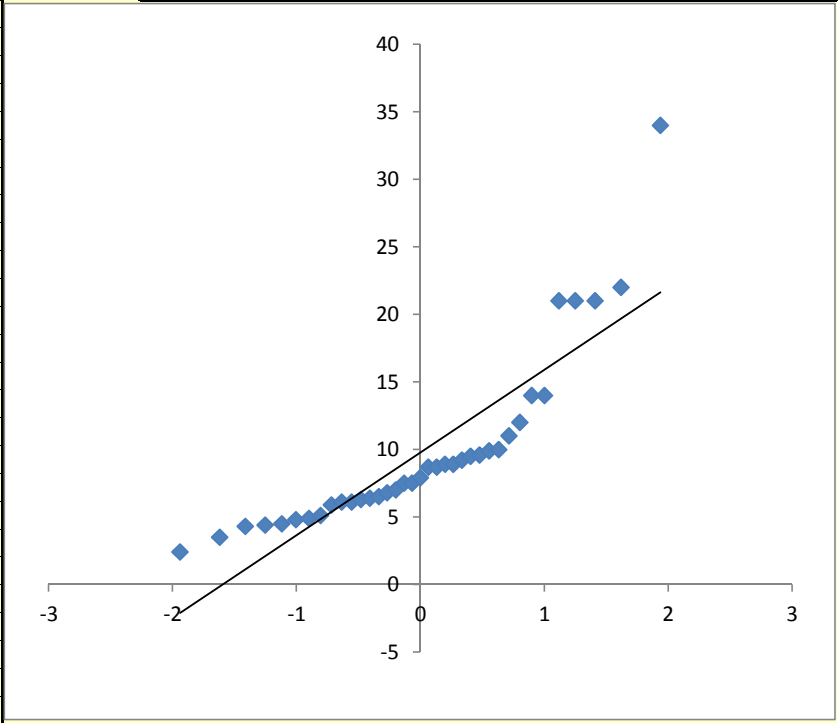
| Data | Cumulative Proportion | *z* -score |
|---|---|---|
| 2.4 | 1/38 | -1.9379315 |
| 3.5 | 1/19 | -1.6198563 |
| 4.3 | 3/38 | -1.4121876 |
| 4.4 | 2/19 | -1.2521195 |
| 4.5 | 5/38 | -1.1189584 |
| 4.8 | 3/19 | -1.003148 |
| 4.9 | 7/38 | -0.8994349 |
| 5.1 | 4/19 | -0.8045964 |
| 5.9 | 9/38 | -0.7164975 |
| 6.1 | 5/19 | -0.63364 |
| 6.1 | 11/38 | -0.5549229 |
| 6.3 | 6/19 | -0.4795057 |
| 6.4 | 13/38 | -0.4067243 |
| 6.5 | 7/19 | -0.3360381 |
| 6.8 | 15/38 | -0.2669941 |
| 7 | 8/19 | -0.1992013 |
| 7.5 | 17/38 | -0.1323129 |
| 7.5 | 9/19 | -0.0660118 |
| 7.9 | 1/2 | -5.566E-16 |
| 8.7 | 10/19 | 0.06601181 |
| 8.7 | 21/38 | 0.13231285 |
| 8.9 | 11/19 | 0.19920132 |
| 8.9 | 23/38 | 0.26699413 |
| 9.2 | 12/19 | 0.33603814 |
| 9.5 | 25/38 | 0.40672425 |
| 9.6 | 13/19 | 0.47950565 |
| 9.9 | 27/38 | 0.55492294 |
| 10 | 14/19 | 0.63364 |
| 11 | 29/38 | 0.7164975 |
| 12 | 15/19 | 0.80459638 |
| 14 | 31/38 | 0.89943491 |
| 14 | 16/19 | 1.00314797 |
| 21 | 33/38 | 1.11895838 |
| 21 | 17/19 | 1.25211952 |
| 21 | 35/38 | 1.41218758 |
| 22 | 18/19 | 1.61985626 |
| 34 | 37/38 | 1.93793151 |

| Sample Size | Critical Value Using a = .05 |
|---|---|
| 37 | 0.969576762 |

| *r* Correlation Coefficient |
|---|
| 0.87597603 |

**Conclusion Using 95% Probability**

Sample data do not support the claim that these values come from a normal population.



# ONE SIDED CHEBYCHEV THEOREM

**Screening Level (mg kg$^{-1}$)** **Arsenic**

| Critical Concentration |
|---|
| 32 |

| Project: | Meggit/Stadco |
|---|---|

| Job Number: | 17054 |
|---|---|

| DATA (x) |
|---|
| 34 |
| 22 |
| 21 |
| 21 |
| 21 |
| 14 |
| 14 |
| 12 |
| 11 |
| 10 |
| 9.9 |
| 9.6 |
| 9.5 |
| 9.2 |
| 8.9 |
| 8.9 |
| 8.7 |
| 8.7 |
| 7.9 |
| 7.5 |
| 7.5 |
| 7 |
| 6.8 |
| 6.5 |
| 6.4 |
| 6.3 |
| 6.1 |
| 6.1 |
| 5.9 |
| 5.1 |
| 4.9 |
| 4.8 |
| 4.5 |
| 4.4 |
| 4.3 |
| 3.5 |
| 2.4 |

**$H_0$: the true mean concentration is equal to, or greater than, the critical concentration or screening level**

**Chebychev**

| | |
|---|---|
| Numerator = | -22.2351 |
| Denominator = | 1.0676 |
| $k_0$ = | -20.8266 |
| $k_{0.05}$ = | 4.36 |
| $k_{crit}$ = | -4.36 |

$$k_0 = \frac{\bar{x} - C_{crit}}{s/\sqrt{n}}$$

**Descriptive statistics**

| | |
|---|---|
| **Mean =** | **9.764864865** |
| **SD =** | **6.494151908** |
| **N =** | **37** |

**K-Statistic is less than Kcrit. The null hypothesis is rejected and it can be concluded that the true mean is not greater than the critical concentration at the 95% confidence level.**

**95% Upper Confidence Limit = 14.4197**

# ONE SAMPLE T-TEST

**Screening Level (mg kg$^{-1}$)** **Aromatic C>21-35**

| Critical Concentration |
|---|
| 890 |

| Project: | Meggit/Stadco |
|---|---|

| Job Number: | 17054 |
|---|---|

| DATA (x) |
|---|
| 34 |
| 40 |
| 53 |
| 340 |
| 450 |

**$H_0$: the true mean concentration is equal to, or greater than, the critical concentration or screening level**

**T-Test**

| | |
|---|---|
| Degrees of Freedom = | 4 |
| Numerator = | -707 |
| Denominator = | 88.1723 |
| T-Statistic = | -8.0139 |
| $-T_{(n-1,0.95)}$ = | -2.1318 |

$$t = \frac{\bar{x} - C_{crit}}{s/\sqrt{n}}$$

**Descriptive statistics**

| | |
|---|---|
| **Mean =** | **183.4** |
| **SD =** | **197.159326** |
| **N =** | **5** |

**T-Statistic is less than -T(n-1,0.95). The null hypothesis is rejected and it can be concluded that the true mean is not greater than the critical concentration at the 95% confidence level.**

**Probability (level of evidence against $H_0$) = 100%**

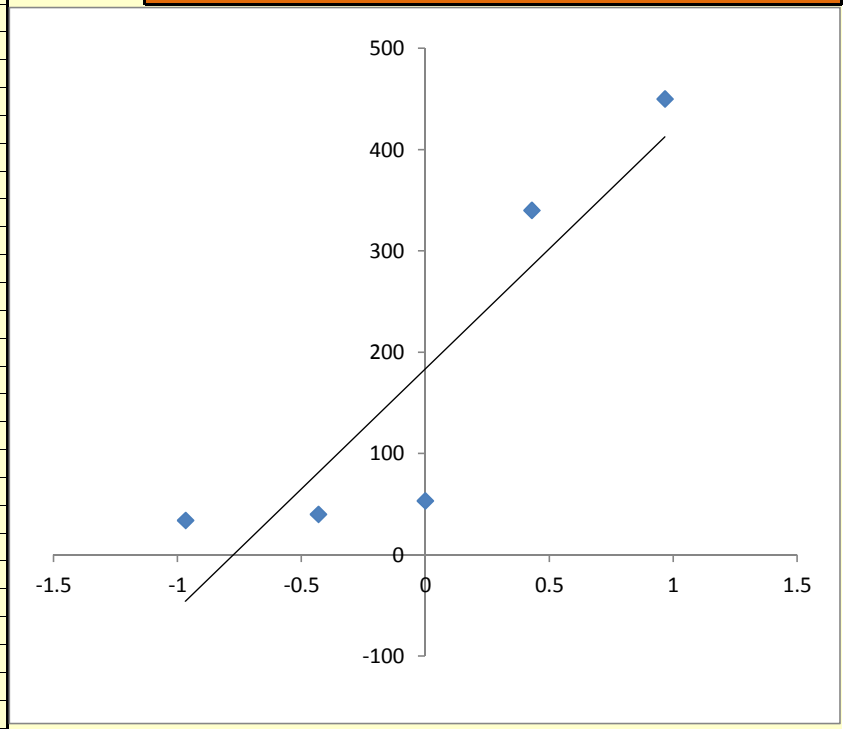
**95% Upper Confidence Limit = 371.3699**

# Normal Quantile Plot - Test for Non-Normality

**Aromatic C>21-35**

| | |
|---|---|
| Project: | Meggit/Stadco |
| Job Number: | 17054 |

| Data | Cumulative Proportion | *z* -score | Sample Size | Critical Value Using a = .05 |
|---|---|---|---|---|
| 34 | 1/6 | -0.9674216 | 5 | 0.880358889 |
| 40 | 1/3 | -0.4307273 | *r* Correlation Coefficient | **Conclusion Using 95% Probability** |
| 53 | 1/2 | 0 | | |
| 340 | 2/3 | 0.4307273 | | |
| 450 | 5/6 | 0.96742157 | 0.90030576 | Sample data do not give sufficient evidence to warrant rejection of the claim that these values come from a normal population. |



BAE Systems
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Brisance House
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PR7 6AQ, England
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Facsimile : (01257) 242018

# TEST CERTIFICATE

Certificate No: BC0046/12

**Site :** **Meggitt/Stadco, Coventry** **Ref :** **A0009/12**

**Client :** Merebrook Projects Ltd

**Address :** First Floor Argosy House
161a-163a High St
Orpington
Kent

BR6 0LW

**Date Received :** 24/02/2012

**Date Completed :** 06/03/2012

**Date Of Report :** 06/03/2012

**Attention :** Project Manager

Accreditation Key: **U** = UKAS **M** = UKAS & MCERTS **S** = Subcontracted Tests

Test Methods

| | |
|---|---|
| Deviating Sample(s) | This test certificate contains deviating samples: See Notes |
| Higher Level Explosives | using method ESAL/QC/4 parts a, j, k and either l or m |

**Approved :**

**Dr D.G. Malcolm**
Laboratory Manager

Mr P. Hart
Analyst

Mr D.C. Poole
Senior Analyst

UKAS TESTING
No. 1764

mCERTS

BAE SYSTEMS
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# TABLE OF RESULTS

## Soil - Defence (Part 1 of 2)

| Lab Code | 20121081 | | | 20121082 | | | 20121083 | | | 20121084 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Client Ref A | MWS104 J1 | | | MWS116 J1 | | | MWS155 J1 | | | MWS154 J2 | | |
| Client Ref B | 0.50-0.60m | | | 0.50-0.60m | | | 0.20m | | | 0.90m | | |
| Client Ref C | 24/01/12 | | | 26/01/12 | | | 10/02/12 | | | 10/02/12 | | |
| Sample Type | Soil | | | Soil | | | Soil | | | Soil | | |
| Soil Type | Sand | | | Clay - Brown | | | Other | | | Made Ground (>50% Clay) | | |
| NC Colour | -ve | | U | -ve | | U | -ve | | U | -ve | | U |
| NC Colourimetric | <5000 | mg/kg | U | <5000 | mg/kg | U | <5000 | mg/kg | U | <5000 | mg/kg | U |
| HMX | <2 | mg/kg | M | <2 | mg/kg | M | <2 | mg/kg | | <2 | mg/kg | M |
| RDX | <2 | mg/kg | M | <2 | mg/kg | M | <2 | mg/kg | | <2 | mg/kg | M |
| EGDN | <5 | mg/kg | M | <5 | mg/kg | M | <5 | mg/kg | | <5 | mg/kg | M |
| Tetryl | <1 | mg/kg | M | <1 | mg/kg | M | <1 | mg/kg | | <1 | mg/kg | M |
| NG | <5 | mg/kg | M | <5 | mg/kg | M | <5 | mg/kg | | <5 | mg/kg | M |
| TNT | <0.5 | mg/kg | M | <0.5 | mg/kg | M | <0.5 | mg/kg | | <0.5 | mg/kg | M |
| 2,6-DNT | <1 | mg/kg | M | <1 | mg/kg | M | <1 | mg/kg | | <1 | mg/kg | M |
| 2,4-DNT | <1 | mg/kg | M | <1 | mg/kg | M | <1 | mg/kg | | <1 | mg/kg | M |
| PETN | <5 | mg/kg | M | <5 | mg/kg | M | <5 | mg/kg | | <5 | mg/kg | M |
| HNS | <0.5 | mg/kg | M | <0.5 | mg/kg | M | <0.5 | mg/kg | | <0.5 | mg/kg | M |
| Picrite | <0.25 | mg/kg | M | <0.25 | mg/kg | M | <0.25 | mg/kg | | <0.25 | mg/kg | M |
| Picric Acid | <0.1 | mg/kg | M | <0.1 | mg/kg | M | <0.1 | mg/kg | | <0.1 | mg/kg | M |

# TABLE OF RESULTS

## Soil - Defence (Part 2 of 2)

| Lab Code | 20121085 | | | 20121086 | | |
|---|---|---|---|---|---|---|
| Client Ref A | MSW144 J2 | | | MSW151a J1 | | |
| Client Ref B | 0.60m | | | 0.30m | | |
| Client Ref C | 08/02/12 | | | 09/02/12 | | |
| Sample Type | Soil | | | Soil | | |
| Soil Type | Made Ground (>50% Sand) | | | Made Ground (>50% Clay) | | |
| NC Colour | **-ve** | | U | **-ve** | | U |
| NC Colourimetric | **<5000** | **mg/kg** | U | **<5000** | **mg/kg** | U |
| HMX | **<2** | **mg/kg** | M | **<2** | **mg/kg** | M |
| RDX | **<2** | **mg/kg** | M | **<2** | **mg/kg** | M |
| EGDN | **<5** | **mg/kg** | M | **<5** | **mg/kg** | M |
| Tetryl | **<1** | **mg/kg** | M | **<1** | **mg/kg** | M |
| NG | **<5** | **mg/kg** | M | **<5** | **mg/kg** | M |
| TNT | **<0.5** | **mg/kg** | M | **<0.5** | **mg/kg** | M |
| 2,6-DNT | **<1** | **mg/kg** | M | **<1** | **mg/kg** | M |
| 2,4-DNT | **<1** | **mg/kg** | M | **<1** | **mg/kg** | M |
| PETN | **<5** | **mg/kg** | M | **<5** | **mg/kg** | M |
| HNS | **<0.5** | **mg/kg** | M | **<0.5** | **mg/kg** | M |
| Picrite | **<0.25** | **mg/kg** | M | **<0.25** | **mg/kg** | M |
| Picric Acid | **<0.1** | **mg/kg** | M | **<0.1** | **mg/kg** | M |

# COMMENTS AND DEPARTURES FROM STANDARD PROCEDURES

| Lab ID | Client Descriptions | | Notes |
|---|---|---|---|
| 20121081 | MWS104 J1 | 0.50-0.60 m | This sample is a deviating sample due to determinands exceeding holding time |
| 20121082 | MWS116 J1 | 0.50-0.60 m | This sample is a deviating sample due to determinands exceeding holding time |
| 20121083 | MWS155 J1 | 0.20m | This sample is a deviating sample due to determinands exceeding holding time |
| 20121084 | MWS154 J2 | 0.90m | This sample is a deviating sample due to determinands exceeding holding time |
| 20121085 | MSW144 J2 | 0.60m | This sample is a deviating sample due to determinands exceeding holding time |
| 20121086 | MSW151a J1 | 0.30m | This sample is a deviating sample due to determinands exceeding holding time |

# NOTES

1. This test report shall not be reproduced except in full, without written approval of the laboratory.

2. All results for soil samples are reported based on dry weight of soil which has been air-dried in open, shallow trays at temperatures below 30°C and subsequently ground and sieved to pass through a nominal 750µm aperture sieve. Prior to grinding, any material which is retained on a sieve of mesh size 4.5mm is discarded. Analysis is carried out directly on these prepared soils with the exception of volatile organic compounds and petrol range organic compounds. These analyses are carried out on the soil "As Received" and corrected for the dry weight (at 105°C) prior to reporting.

3. BAE Systems does not correct results for analytical recoveries.

4. All samples were received in good condition unless otherwise stated. Results provided by the Laboratory are based on samples submitted by clients. Once submitted, samples requiring analysis are stored at below 8 °C. The Laboratory cannot be held responsible for the storage, condition or preservation of samples prior to arrival.

5. Validation studies indicate that the concentration of nitrocellulose in high organic content soils may be overestimated.

6. A value of NQ indicates that a quantitative result could not be obtained because doping trials showed that the compound was retained by the matrix.

7. Soil descriptions are given in order to provide a log of sample matrices submitted and are not intended as full geological descriptions.

8. The initials or common names used for reporting explosives relate to the following compounds: Nitrocellulose(NC); Cyclotetramethylene Tetranitramine (HMX); Cyclo-1,3,5-Trimethylene-2,4,6-Trinitramine (RDX); Ethylene Glycol Dinitrate (EGDN); 2,4,6-Trinitro-Phenylmethyl Nitramine (Tetryl); Glycerol Trinitrate (NG); 2,4,6-Trinitrotoluene (TNT); Pentaeryhritol Tetranitrate (PETN); Hexanitro-Stilbene (HNS); Nitroguanidine (Picrite); 2,4,6-Trinitro Phenol (Picric Acid); 2,4-Dinitrotoluene (2,4-DNT); 2,6-Dinitrotoluene (2,6-DNT).

9. * Some reporting limits may be raised due to poor recovery of internal standard or dilution of highly contaminated samples.

10. # Mass spectral match criteria were not fully met, possibly indicating a co-eluting peak that may inflate the result.

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

## End of Report BC0046/12

**APPENDIX 7**

- Tabulated Groundwater Data – Deep & Perched groundwater
- Groundwater Chemical Laboratory Analysis Certificates

## Summary of Chemical Analysis
## Water Samples

Ref: 17054

Contract Title: Meggitt/Stadco Coventry

| | | Sample ID | MBH101 | MBH101 | MBH104 | MBH104 | MBH105 | MBH105 | MBH106 | MBH106 | MBH107 | MBH107 | MBH108 | MBH108 | MBH110 | MBH110 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sampling Date | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | Count | Mean | Max | SL | No ex SL | Mean >SL |
| **Test** | **Units** | **LOD** | | | | | | | | | | | | | | | | | | | | |
| Arsenic Dissolved | ug/l | 1 | < 1. | 1.1 | < 1. | < 1. | 1.7 | < 1. | **22** | < 1. | 3.8 | < 1. | 1.3 | < 1. | < 1. | < 1. | 14 | 2.8 | 22.0 | 10 | 1 | x |
| Cadmium Dissolved | ug/l | 2 | < 2. | 3.7 | < 2. | **6.8** | < 2. | < 2. | **7.5** | 2.7 | < 2. | < 2. | < 2. | < 2. | < 2. | 3.9 | 14 | 3.0 | 7.5 | 5 | 2 | x |
| Chromium Dissolved | ug/l | 5 | < 5. | 15 | < 5. | 26 | < 5. | < 5. | 38 | 38 | 13 | < 5. | 8.1 | < 5. | **630** | **540** | 14 | 95.6 | 630 | 50 | 2 | ✓ |
| Nickel Dissolved | ug/l | 10 | < 10. | **31** | < 10. | **130** | < 10. | < 10. | **39** | **57** | 11 | < 10. | < 10. | 13 | < 10. | 19 | 14 | 26.4 | 130 | 20 | 4 | ✓ |
| Sulphate as SO4 | mg/l | 0.1 | **250** | 230 | 50 | 52 | 64 | 68 | 72 | 66 | 56 | 70 | **260** | 230 | 240 | **260** | 14 | 140.6 | 260 | 250 | 3 | x |
| PRO (C6-C10) | ug/l | 1 | < 1. | < 1. | < 1. | 4.4 | < 1. | < 1. | 3.5 | < 1. | < 1. | < 1. | < 1. | < 1. | 550 | 1000 | 14 | 112.0 | 1000 | - | - | - |
| EPH (C10-C12) | ug/l | 10 | < 10. | < 10. | < 10. | < 10. | < 10. | < 10. | 29 | < 10. | < 10. | < 10. | < 10. | < 10. | < 10. | < 10. | 14 | 11.4 | 29 | - | - | - |
| EPH (C12-C16) | ug/l | 10 | 12 | 11 | 11 | 30 | < 10. | < 10. | 13 | 17 | 13 | 10 | < 10. | < 10. | < 10. | < 10. | 14 | 12.6 | 30 | - | - | - |
| EPH (C16-C21) | ug/l | 10 | 410 | 530 | 330 | 1900 | 290 | 360 | 510 | 1200 | 610 | 940 | 180 | 560 | 430 | 440 | 14 | 620.7 | 1900 | - | - | - |
| EPH (C21-C28) | ug/l | 10 | 47 | 270 | 63 | 91 | 21 | 30 | 77 | 2300 | 53 | 510 | 32 | 72 | 58 | 98 | 14 | 265.9 | 2300 | - | - | - |
| EPH (C28-C40) | ug/l | 10 | < 10. | 210 | 32 | 53 | 14 | 23 | 40 | 2100 | 31 | 520 | 11 | 53 | 17 | 79 | 14 | 228.1 | 2100 | - | - | - |
| EPH (C10-C40) | ug/l | 10 | 480 | 1000 | 440 | 2100 | 330 | 410 | 670 | 5500 | 710 | 2000 | 220 | 690 | 510 | 630 | 14 | 1120.71 | 5500 | 10 | 14 | ✓ |

| | | 2.2 m deep WS | | 2.04 m deep WS | | 3.55 m deep WS | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MWS101 20/02/2012 | MWS101 06/03/2012 | MWS118 06/03/2012 | MWS118 20/02/2012 | MWS153 20/02/2012 | MWS153 06/03/2012 | **Count** | **Mean** | **Max** | **SL** | **No ex SL** | **Mean >SL** |
| Arsenic Dissolved | ug/l | < 1. | < 1. | 1.1 | 15 | < 1. | < 1. | 6 | 3.4 | 15 | 10 | 1 | X |
| Chromium Dissolved | ug/l | 7.1 | 79 | 27 | < 5. | < 5. | < 5. | 6 | 21.4 | 79 | 50 | 1 | X |
| Nickel Dissolved | ug/l | 18 | 44 | 48 | < 10. | < 10. | < 10. | 6 | 23.3 | 48 | 20 | 2 | ✓ |
| Chloride | mg/l | 200 | 190 | 110 | 110 | 870 | 810 | 6 | 381.7 | 870 | 250 | 2 | ✓ |
| Conductivity | uS/cm | 1170 | 1160 | 922 | 863 | 2440 | 2550 | 6 | 1517.5 | 2550 | 2500 | 1 | X |
| Acenaphthene | ug/l | < .01 | < .01 | 0.14 | 0.02 | < .01 | < .01 | 6 | 0.03 | 0.14 | - | - | - |
| Acenaphthylene | ug/l | < .01 | < .01 | < .01 | < .01 | < .01 | < .01 | 6 | <0.01 | <0.01 | - | - | - |
| Anthracene | ug/l | < .01 | < .01 | 0.01 | < .01 | < .01 | < .01 | 6 | 0.01 | 0.01 | - | - | - |
| Benzo(a)anthracene | ug/l | 0.07 | < .01 | 0.02 | 0.04 | < .01 | < .01 | 6 | 0.03 | 0.07 | - | - | - |
| Benzo(a)pyrene | ug/l | 0.02 | < .01 | < .01 | < .01 | < .01 | < .01 | 6 | 0.01 | 0.02 | 0.01 | 1 | X |
| Benzo(b)fluoranthene | ug/l | 0.27 | < .01 | < .01 | 0.15 | < .01 | < .01 | 6 | 0.08 | 0.27 | - | - | - |
| Benzo(k)fluoranthene | ug/l | 0.04 | < .01 | < .01 | 0.1 | < .01 | < .01 | 6 | 0.03 | 0.10 | - | - | - |
| Benzo(g,h,i)perylene | ug/l | < .01 | < .01 | < .01 | < .01 | < .01 | < .01 | 6 | <0.01 | <0.01 | - | - | - |
| Chrysene | ug/l | 0.05 | < .01 | 0.03 | 0.03 | < .01 | < .01 | 6 | 0.02 | 0.05 | - | - | - |
| Dibenzo(a,h)anthracene | ug/l | < .01 | < .01 | < .01 | < .01 | < .01 | < .01 | 6 | <0.01 | <0.01 | - | - | - |
| Fluoranthene | ug/l | 0.02 | < .01 | < .01 | 0.04 | < .01 | < .01 | 6 | 0.02 | 0.04 | - | - | - |
| Fluorene | ug/l | < .01 | < .01 | 0.03 | 0.03 | < .01 | < .01 | 6 | 0.02 | 0.03 | - | - | - |
| Indeno(1,2,3-c,d)pyrene | ug/l | < .01 | < .01 | < .01 | < .01 | < .01 | < .01 | 6 | <0.01 | <0.01 | - | - | - |
| Naphthalene | ug/l | 0.11 | < .01 | 0.38 | 5.2 | < .01 | < .01 | 6 | 0.95 | 5.20 | - | - | - |
| Phenanthrene | ug/l | 0.06 | < .01 | 0.04 | 0.09 | < .01 | < .01 | 6 | 0.04 | 0.09 | - | - | - |
| Pyrene | ug/l | 0.02 | < .01 | 0.01 | 0.03 | < .01 | < .01 | 6 | 0.02 | 0.03 | - | - | - |
| PAH | ug/l | 0.65 | < .2 | 0.67 | 5.7 | < .2 | < .2 | 6 | 1.3 | 5.7 | 0.10 | 3 | ✓ |
| PRO (C6-C10) | ug/l | < 1. | < 1. | 5100 | 890 | < 1. | < 1. | 6 | 999.0 | 5100 | - | - | - |
| EPH (C10-C12) | ug/l | < 10. | < 10. | 630 | 840 | < 10. | < 10. | 6 | 251.7 | 840 | - | - | - |
| EPH (C12-C16) | ug/l | 300 | 390 | 490 | 540 | < 10. | < 10. | 6 | 290.0 | 540 | - | - | - |
| EPH (C16-C21) | ug/l | 670 | 1100 | 2800 | 2700 | 12 | 49 | 6 | 1221.8 | 2800 | - | - | - |
| EPH (C21-C28) | ug/l | 2200 | 5200 | 14000 | 17000 | 25 | 100 | 6 | 6420.8 | 17000 | - | - | - |
| EPH (C28-C40) | ug/l | 1800 | 4600 | 12000 | 18000 | < 10. | 61 | 6 | 6078.5 | 18000 | - | - | - |
| EPH (C10-C40) | ug/l | 5000 | 11000 | 30000 | 38000 | 45 | 220 | 6 | 14044.2 | 38000 | 10 | 6 | ✓ |

## Summary of Chemical Analysis
## Water Samples

Ref: 17054

Contract Title: Meggitt/Stadco Coventry

| | | Sample ID | MBH101 | MBH101 | MBH104 | MBH104 | MBH105 | MBH105 | MBH106 | MBH106 | MBH107 | MBH107 | MBH108 | MBH108 | MBH110 | MBH110 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Sampling Date | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | 20/02/2012 | 06/03/2012 | Count | Mean | Max | SL | No. ex SL |
| **Test** | **Units** | **LOD** | | | | | | | | | | | | | | | | | | | |
| Total VOC's | ug/l | 1 | < 1. | 3 | < 1. | 5 | 2 | 5 | 73 | 63 | < 1. | 7 | 21 | 46 | 1700 | 1300 | 14 | 230.6 | 1700 | - | - |
| 1,1 Dichloroethylene | ug/l | 1 | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | 40 | 68 | 14 | 8.6 | 68 | - | - |
| Trans-1,2-dichloroethylene | ug/l | 1 | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | 2 | 2 | 14 | 1.1 | 2 | - | - |
| 1,1-dichloroethane | ug/l | 1 | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | 9 | 3 | < 1. | < 1. | < 1. | < 1. | 2 | 3 | 14 | 1.9 | 9 | - | - |
| 1,2-dichloroethylene | ug/l | 1 | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | 7 | 3 | < 1. | < 1. | 8 | 11 | 180 | 110 | 14 | 23.4 | 180 | - | - |
| Chloroform | ug/l | 1 | < 1. | 1 | < 1. | 2 | < 1. | 2 | < 1. | 2 | < 1. | 3 | < 1. | 2 | 3 | 6 | 14 | 1.9 | 6 | - | - |
| 1,1,1-trichloroethane | ug/l | 1 | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | 1 | < 1. | < 1. | < 1. | < 1. | 33 | 48 | 14 | 6.6 | 48 | - | - |
| Trichloroethylene | ug/l | 1 | < 1. | < 1. | < 1. | 1 | 2 | 1 | 56 | 50 | < 1. | < 1. | 13 | 31 | 1400 | 1100 | 14 | 189.9 | 1400 | - | - |
| Bromodichloromethane | ug/l | 1 | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | 1 | < 1. | < 1. | < 1. | < 1. | 14 | 1.0 | 1.0 | - | - |
| Toluene | ug/l | 1 | < 1. | 2 | < 1. | 2 | < 1. | 2 | < 1. | 3 | < 1. | 3 | < 1. | 3 | < 1. | 3 | 14 | 1.8 | 3 | - | - |
| 1,1,2-trichloroethane | ug/l | 1 | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | 2 | 4 | 14 | 1.3 | 4 | - | - |
| Tetrachloroethylene | ug/l | 1 | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | 1 | 14 | 1.0 | 1 | - | - |
| SUM TCE & PCE | ug/l | 1 | < 2. | < 2. | < 2. | 2 | 3 | 2 | 57 | 51 | < 2. | < 2. | 14 | 32 | 1401 | 1101 | 14 | 190.9 | 1401 | 10 | 6 |
| Vinyl Chloride | ug/l | 1 | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | < 1. | 15 | 4 | 14 | 2.2 | 15 | 0.5 | 2 |

| | | 2.2 m deep WS | | 2.04 m deep WS | | 3.55 m deep WS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | MWS101 20/02/2012 | MWS101 06/03/2012 | MWS118 20/02/2012 | MWS118 06/03/2012 | MWS153 20/02/2012 | MWS153 06/03/2012 | Count | Mean | Max | SL | No ex SL |
| Total VOC's | ug/l | 63 | 75 | 1600 | 2400 | 2 | 11 | 6 | 691.8 | 2400 | - | - |
| 1,1 Dichloroethylene | ug/l | < 1. | < 1. | 10 | 12 | < 1. | < 1. | 6 | 4.3 | 12 | - | - |
| Trans-1,2-dichloroethylene | ug/l | < 1. | < 1. | 3 | 2 | < 1. | < 1. | 6 | 1.5 | 3 | - | - |
| 1,1-dichloroethane | ug/l | 46 | 48 | 28 | 30 | < 1. | < 1. | 6 | 25.7 | 48 | - | - |
| 1,2-dichloroethylene | ug/l | 16 | 17 | 970 | 550 | < 1. | 2 | 6 | 259.3 | 970 | - | - |
| Chloroform | ug/l | < 1. | 2 | < 1. | 2 | < 1. | 2 | 6 | 1.5 | 2 | - | - |
| Benzene | ug/l | < 1. | < 1. | 2 | 2 | < 1. | < 1. | 6 | 1.3 | 2 | 1 | 2 |
| 1,2-dichloroethane | ug/l | 2 | 2 | < 1. | < 1. | < 1. | < 1. | 6 | 1.3 | 2 | - | - |
| Trichloroethylene | ug/l | < 1. | < 1. | 130 | 110 | 1 | 2 | 6 | 40.8 | 130 | 10 | 2 |
| Vinyl Chloride | ug/l | 6 | 10 | 180 | 120 | < 1. | < 1. | 6 | 53.0 | 180 | 0.5 | 4 |
| Toluene | ug/l | < 1. | 3 | < 1. | 2 | < 1. | 2 | 6 | 1.7 | 3 | - | - |
| Ethylbenzene | ug/l | < 1. | < 1. | 12 | 31 | < 1. | < 1. | 6 | 7.8 | 31 | - | - |
| m+p-Xylene | ug/l | < 1. | < 1. | 11 | 27 | < 1. | < 1. | 6 | 7.0 | 27 | - | - |
| o-Xylene | ug/l | < 1. | < 1. | 1 | 2 | 1 | < 1. | 6 | 1.2 | 2 | - | - |
| Isopropylbenzene | ug/l | < 1. | < 1. | 13 | 31 | < 1. | < 1. | 6 | 8.0 | 31 | - | - |
| n-propylbenzene | ug/l | < 1. | < 1. | 33 | 91 | < 1. | < 1. | 6 | 21.3 | 91 | - | - |
| 1,3,5-trimethylbenzene | ug/l | < 1. | < 1. | 90 | 490 | < 1. | 4 | 6 | 97.8 | 490 | - | - |
| 1,2,4-trimethylbenzene | ug/l | < 1. | < 1. | 200 | 890 | < 1. | < 1. | 6 | 182.3 | 890 | - | - |
| p-isopropyltoluene | ug/l | < 1. | < 1. | 36 | 100 | < 1. | < 1. | 6 | 23.3 | 100 | - | - |
| Naphthalene | ug/l | < 1. | < 1. | 19 | 9 | < 1. | < 1. | 6 | 5.3 | 19 | - | - |

# Certificate of Analysis

Date: 04/05/2012

**2139**

Certificate Number: 12-59650-1

| | |
|---|---|
| Client: | Merebrook Consulting Limited<br>Suite 2B<br>East Mill<br>Belper<br>DE56 2UA |
| Our Reference: | 12-59650-1 |
| Client Reference: | 17054 |
| Contract Title: | Meggitt/Stadco Coventry |
| Description: | 8 water samples |
| Date Received: | 21 February 2012 |
| Date Started: | 21 February 2012 |
| Date Completed: | 04 May 2012 |
| Test Procedures: | Identified by prefix DETSn, details available upon request. |
| Notes: | **This report supersedes 12-59650. Vinyl Chloride added**<br>Observations and interpretations are outside the scope of UKAS accreditation |
| Approved By: | Paul Woodbridge, Senior Operations Manager |

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 except in full, without the prior written approval of the laboratory.

Derwentside Environmental Testing Services Limited
Unit 2, Park Road Industrial Estate South, Consett, Co Durham, DH8 5PY
Tel: 01207 582333 • Fax 01207 582444 • email: info@dets.co.uk • www.dets.co.uk

# Information in Support of the Analytical Results

## Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample.

***Key***

| | |
|---|---|
| * | Denotes test not included in laboratory scope of accreditation |
| # | Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo |
| $ | Denotes tests completed by an approved subcontractor |
| I/S | Denotes insufficient sample to carry out test |
| U/S | Denotes that the sample is not suitable for testing |

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month
Liquids - 2 weeks
Asbestos (test portion) - 6 months

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | Lab No. | 390815 | 390816 | 390817 | 390818 |
|---|---|---|---|---|---|---|---|
| | | | Sample ID | MBH101 | MWS118 | MWS101 | MBH104 |
| | | | Depth | | | | |
| | | | Sample Ref | | | | |
| | | | Sample Type | | | | |
| | | | Sampling Date | 20/02/2012 | 20/02/2012 | 20/02/2012 | 20/02/2012 |
| | | | Sampling Time | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Arsenic Dissolved | ug/l | DETS 2326 | 1 | < 1.0 | 15 | < 1.0 | < 1.0 |
| Cadmium Dissolved | ug/l | DETSC 2302 | 2 | < 2.0 | < 2.0 | < 2.0 | < 2.0 |
| Chromium Dissolved | ug/l | DETSC 2302 | 5 | < 5.0 | < 5.0 | 7.1 | < 5.0 |
| Copper Dissolved | ug/l | DETSC 2302 | 2 | 10 | 7.3 | 6.0 | 6.5 |
| Lead Dissolved | ug/l | DETSC 2302 | 4 | < 4.0 | < 4.0 | 4.8 | < 4.0 |
| Mercury Dissolved | ug/l | DETSC 2324 | 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Nickel Dissolved | ug/l | DETSC 2302 | 10 | < 10 | < 10 | 18 | < 10 |
| Selenium Dissolved | ug/l | DETSC 2302 | 12 | < 12 | < 12 | < 12 | < 12 |
| Zinc Dissolved | ug/l | DETSC 2302 | 1 | 29 | 17 | 20 | 21 |
| Chloride | mg/l | DETSC 2055 | 0.1 | 77 | 110 | 200 | 160 |
| Sulphate as SO4 | mg/l | DETSC 2055 | 0.1 | 250 | 39 | 120 | 50 |
| Boron | ug/l | DETS 020 | 100 | 170 | 260 | 170 | < 100.0 |
| Cyanide total | ug/l | DETSC 2130 | 40 | < 40.0 | < 40.0 | < 40.0 | < 40.0 |
| Conductivity | uS/cm | DETSC 2009 | 1 | 904 | 863 | 1170 | 930 |
| Ammoniacal Nitrogen as N | mg/l | DETSC 2207 | 0.015 | 0.051 | 0.040 | 0.11 | 0.033 |
| pH | | DETSC 2008 | | 7.6 | 7.9 | 7.0 | 7.3 |
| Acenaphthene | ug/l | DETS 074* | 0.01 | < 0.01 | 0.02 | < 0.01 | < 0.01 |
| Acenaphthylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(a)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | 0.04 | 0.07 | < 0.01 |
| Benzo(a)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | 0.02 | < 0.01 |
| Benzo(b)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | 0.15 | 0.27 | < 0.01 |
| Benzo(k)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | 0.10 | 0.04 | < 0.01 |
| Benzo(g,h,i)perylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chrysene | ug/l | DETS 074* | 0.01 | < 0.01 | 0.03 | 0.05 | < 0.01 |
| Dibenzo(a,h)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Fluoranthene | ug/l | DETS 074* | 0.01 | 0.02 | 0.04 | 0.02 | < 0.01 |
| Fluorene | ug/l | DETS 074* | 0.01 | < 0.01 | 0.03 | < 0.01 | < 0.01 |
| Indeno(1,2,3-c,d)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Naphthalene | ug/l | DETS 074* | 0.01 | < 0.01 | 5.2 | 0.11 | < 0.01 |
| Phenanthrene | ug/l | DETS 074* | 0.01 | 0.12 | 0.09 | 0.06 | < 0.01 |
| Pyrene | ug/l | DETS 074* | 0.01 | 0.03 | 0.03 | 0.02 | < 0.01 |
| PAH | ug/l | DETS 074* | 0.2 | < 0.20 | 5.7 | 0.65 | < 0.20 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 390815 | 390816 | 390817 | 390818 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH101 | MWS118 | MWS101 | MBH104 |
| | | | **Depth** | | | | |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| PRO (C6-C10) | ug/l | DETSC 3322 | 1 | < 1.0 | 890 | < 1.0 | < 1.0 |
| EPH (C10-C12) | ug/l | DETSC 3311 | 10 | < 10 | 840 | < 10 | < 10 |
| EPH (C12-C16) | ug/l | DETSC 3311 | 10 | 12 | 540 | 300 | 11 |
| EPH (C16-C21) | ug/l | DETSC 3311 | 10 | 410 | 2700 | 670 | 330 |
| EPH (C21-C28) | ug/l | DETSC 3311 | 10 | 47 | 17000 | 2200 | 63 |
| EPH (C28-C40) | ug/l | DETSC 3311 | 10 | < 10 | 18000 | 1800 | 32 |
| EPH (C10-C40) | ug/l | DETSC 3311 | 10 | 480 | 38000 | 5000 | 440 |
| Phenol | ug/l | DETS 054* | 0.1 | < 0.10 | 0.21 | < 0.10 | < 0.10 |
| 4-Chloro-3-methylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | 0.34 | < 0.10 | < 0.10 |
| p-cresol | ug/l | DETS 054* | 0.1 | < 0.10 | 0.26 | < 0.10 | < 0.10 |
| 2,6-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,6-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4,6-Trichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 390819 | 390820 | 390821 | 390822 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH105 | MBH106 | MBH107 | MBH110 |
| | | | **Depth** | | | | |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Arsenic Dissolved | ug/l | DETS 2326 | 1 | 1.7 | 22 | 3.8 | < 1.0 |
| Cadmium Dissolved | ug/l | DETSC 2302 | 2 | < 2.0 | 7.5 | < 2.0 | < 2.0 |
| Chromium Dissolved | ug/l | DETSC 2302 | 5 | < 5.0 | 38 | 13 | 630 |
| Copper Dissolved | ug/l | DETSC 2302 | 2 | 5.1 | 5.4 | 41 | 7.5 |
| Lead Dissolved | ug/l | DETSC 2302 | 4 | < 4.0 | < 4.0 | 13 | < 4.0 |
| Mercury Dissolved | ug/l | DETSC 2324 | 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Nickel Dissolved | ug/l | DETSC 2302 | 10 | < 10 | 39 | 11 | < 10 |
| Selenium Dissolved | ug/l | DETSC 2302 | 12 | < 12 | 22 | < 12 | < 12 |
| Zinc Dissolved | ug/l | DETSC 2302 | 1 | 19 | 69 | 43 | 24 |
| Chloride | mg/l | DETSC 2055 | 0.1 | 34 | 72 | 25 | 66 |
| Sulphate as SO4 | mg/l | DETSC 2055 | 0.1 | 64 | 72 | 56 | 240 |
| Boron | ug/l | DETS 020 | 100 | 110 | 100 | 150 | 120 |
| Cyanide total | ug/l | DETSC 2130 | 40 | < 40.0 | < 40.0 | < 40.0 | < 40.0 |
| Conductivity | uS/cm | DETSC 2009 | 1 | 361 | 726 | 497 | 1060 |
| Ammoniacal Nitrogen as N | mg/l | DETSC 2207 | 0.015 | 0.038 | 0.46 | 0.33 | 0.10 |
| pH | | DETSC 2008 | | 7.4 | 7.5 | 7.4 | 7.3 |
| Acenaphthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Acenaphthylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(a)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(a)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(b)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(k)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(g,h,i)perylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chrysene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibenzo(a,h)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Fluorene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Indeno(1,2,3-c,d)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Naphthalene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Phenanthrene | ug/l | DETS 074* | 0.01 | 0.09 | 0.15 | 0.19 | 0.12 |
| Pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| PAH | ug/l | DETS 074* | 0.2 | < 0.20 | < 0.20 | < 0.20 | < 0.20 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 390819 | 390820 | 390821 | 390822 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH105 | MBH106 | MBH107 | MBH110 |
| | | | **Depth** | | | | |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| PRO (C6-C10) | ug/l | DETSC 3322 | 1 | < 1.0 | 3.5 | < 1.0 | 550 |
| EPH (C10-C12) | ug/l | DETSC 3311 | 10 | < 10 | 29 | < 10 | < 10 |
| EPH (C12-C16) | ug/l | DETSC 3311 | 10 | < 10 | 13 | 13 | < 10 |
| EPH (C16-C21) | ug/l | DETSC 3311 | 10 | 290 | 510 | 610 | 430 |
| EPH (C21-C28) | ug/l | DETSC 3311 | 10 | 21 | 77 | 53 | 58 |
| EPH (C28-C40) | ug/l | DETSC 3311 | 10 | 14 | 40 | 31 | 17 |
| EPH (C10-C40) | ug/l | DETSC 3311 | 10 | 330 | 670 | 710 | 510 |
| Phenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 4-Chloro-3-methylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| p-cresol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,6-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,6-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4,6-Trichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | | | |
|---|---|---|---|---|---|
| | | | **Lab No.** | 391009 | 391010 |
| | | | **Sample ID** | MBH108 | MWS153 |
| | | | **Depth** | | |
| | | | **Sample Ref** | | |
| | | | **Sample Type** | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | |
| Arsenic Dissolved | ug/l | DETS 2326 | 1 | 1.3 | < 1.0 |
| Cadmium Dissolved | ug/l | DETSC 2302 | 2 | < 2.0 | < 2.0 |
| Chromium Dissolved | ug/l | DETSC 2302 | 5 | 8.1 | < 5.0 |
| Copper Dissolved | ug/l | DETSC 2302 | 2 | 6.4 | 6.3 |
| Lead Dissolved | ug/l | DETSC 2302 | 4 | < 4.0 | < 4.0 |
| Mercury Dissolved | ug/l | DETSC 2324 | 0.05 | < 0.05 | < 0.05 |
| Nickel Dissolved | ug/l | DETSC 2302 | 10 | < 10 | < 10 |
| Selenium Dissolved | ug/l | DETSC 2302 | 12 | < 12 | < 12 |
| Zinc Dissolved | ug/l | DETSC 2302 | 1 | 21 | 18 |
| Chloride | mg/l | DETSC 2055 | 0.1 | 100 | 870 |
| Sulphate as SO4 | mg/l | DETSC 2055 | 0.1 | 260 | 140 |
| Boron | ug/l | DETS 020 | 100 | 260 | 200 |
| Cyanide total | ug/l | DETSC 2130 | 40 | < 40.0 | < 40.0 |
| Conductivity | uS/cm | DETSC 2009 | 1 | 861 | 2440 |
| Ammoniacal Nitrogen as N | mg/l | DETSC 2207 | 0.015 | 0.052 | 0.068 |
| pH | | DETSC 2008 | | 6.8 | 6.9 |
| Acenaphthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Acenaphthylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Benzo(a)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Benzo(a)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Benzo(b)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Benzo(k)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Benzo(g,h,i)perylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Chrysene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Dibenzo(a,h)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Fluorene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Indeno(1,2,3-c,d)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Naphthalene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Phenanthrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| Pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 |
| PAH | ug/l | DETS 074* | 0.2 | < 0.20 | < 0.20 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | | | |
|---|---|---|---|---|---|
| | | | **Lab No.** | 391009 | 391010 |
| | | | **Sample ID** | MBH108 | MWS153 |
| | | | **Depth** | | |
| | | | **Sample Ref** | | |
| | | | **Sample Type** | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | |
| PRO (C6-C10) | ug/l | DETSC 3322 | 1 | < 1.0 | < 1.0 |
| EPH (C10-C12) | ug/l | DETSC 3311 | 10 | < 10 | < 10 |
| EPH (C12-C16) | ug/l | DETSC 3311 | 10 | < 10 | < 10 |
| EPH (C16-C21) | ug/l | DETSC 3311 | 10 | 180 | 12 |
| EPH (C21-C28) | ug/l | DETSC 3311 | 10 | 32 | 25 |
| EPH (C28-C40) | ug/l | DETSC 3311 | 10 | 11 | < 10 |
| EPH (C10-C40) | ug/l | DETSC 3311 | 10 | 220 | 45 |
| Phenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 |
| 4-Chloro-3-methylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 |
| 2,4-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 |
| 2,4-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 |
| p-cresol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 |
| 2,6-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 |
| 2,6-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 |
| 2,4,6-Trichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | Lab No. | 390815 | 390816 | 390817 | 390818 |
|---|---|---|---|---|---|---|---|
| | | | Sample ID | MBH101 | MWS118 | MWS101 | MBH104 |
| | | | Depth | | | | |
| | | | Sample Ref | | | | |
| | | | Sample Type | | | | |
| | | | Sampling Date | 20/02/2012 | 20/02/2012 | 20/02/2012 | 20/02/2012 |
| | | | Sampling Time | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Total VOC's | ug/l | DETSC3432* | 1 | < 1 | 1600 | 64 | < 1 |
| 1,1 Dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | 10 | < 1 | < 1 |
| Methylene Chloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Trans-1,2-dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | 3 | < 1 | < 1 |
| 1,1-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | 28 | 46 | < 1 |
| 1,2-dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | 970 | 16 | < 1 |
| 2,2-dichlororopane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Bromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Chloroform | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1,1-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Carbon tetrachloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Benzene | ug/l | DETSC3432* | 1 | < 1 | 2 | < 1 | < 1 |
| 1,2-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | 2 | < 1 |
| Trichloroethylene | ug/l | DETSC3432* | 1 | < 1 | 130 | < 1 | < 1 |
| 1,2-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Dibromomethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Bromodichloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| cis-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Toluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| trans-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1,2-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Tetrachloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,3-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Dibromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dibromoethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Chlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1,1,2-tetrachloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Ethylbenzene | ug/l | DETSC3432* | 1 | < 1 | 12 | < 1 | < 1 |
| m+p-Xylene | ug/l | DETSC3432* | 1 | < 1 | 11 | < 1 | < 1 |
| o-Xylene | ug/l | DETSC3432* | 1 | < 1 | 1 | < 1 | < 1 |
| Styrene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Bromoform | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Isopropylbenzene | ug/l | DETSC3432* | 1 | < 1 | 13 | < 1 | < 1 |
| Bromobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,3-trichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| n-propylbenzene | ug/l | DETSC3432* | 1 | < 1 | 33 | < 1 | < 1 |
| 2-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,3,5-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | 90 | < 1 | < 1 |
| 4-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Tert-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,4-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | 200 | < 1 | < 1 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 390815 | 390816 | 390817 | 390818 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH101 | MWS118 | MWS101 | MBH104 |
| | | | **Depth** | | | | |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| sec-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| p-isopropyltoluene | ug/l | DETSC3432* | 1 | < 1 | 36 | < 1 | < 1 |
| 1,3-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,4-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| n-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dibromo-3-chloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,4-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Hexachlorobutadiene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Naphthalene | ug/l | DETSC3432* | 1 | < 1 | 19 | < 1 | < 1 |
| 1,2,3-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Vinyl Chloride | ug/l | DETSC3432* | 1 | < 1 | 180 | 6 | < 1 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 390819 | 390820 | 390821 | 390822 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH105 | MBH106 | MBH107 | MBH110 |
| | | | **Depth** | | | | |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| Total VOC's | ug/l | DETSC3432* | 1 | 2 | 73 | < 1 | 1700 |
| 1,1 Dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 40 |
| Methylene Chloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Trans-1,2-dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 2 |
| 1,1-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | 9 | < 1 | 2 |
| 1,2-dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | 7 | < 1 | 180 |
| 2,2-dichlororopane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Bromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Chloroform | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 3 |
| 1,1,1-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 33 |
| 1,1-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Carbon tetrachloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Benzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Trichloroethylene | ug/l | DETSC3432* | 1 | 2 | 56 | < 1 | 1400 |
| 1,2-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Dibromomethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Bromodichloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| cis-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Toluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| trans-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1,2-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 2 |
| Tetrachloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,3-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Dibromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dibromoethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Chlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1,1,2-tetrachloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Ethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| m+p-Xylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| o-Xylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Styrene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Bromoform | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Isopropylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Bromobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,3-trichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| n-propylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 2-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,3,5-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 4-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Tert-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,4-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |

# Summary of Chemical Analysis
## Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | **Lab No.** | 390819 | 390820 | 390821 | 390822 |
|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH105 | MBH106 | MBH107 | MBH110 |
| | | | **Depth** | | | | |
| | | | **Sample Ref** | | | | |
| | | | **Sample Type** | | | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | |
| sec-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| p-isopropyltoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,3-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,4-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| n-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dibromo-3-chloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,4-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Hexachlorobutadiene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Naphthalene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,3-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 |
| Vinyl Chloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 15 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | | | |
|---|---|---|---|---|---|
| | | | **Lab No.** | 391009 | 391010 |
| | | | **Sample ID** | MBH108 | MWS153 |
| | | | **Depth** | | |
| | | | **Sample Ref** | | |
| | | | **Sample Type** | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | |
| Total VOC's | ug/l | DETSC3432* | 1 | 21 | 2 |
| 1,1 Dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Methylene Chloride | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Trans-1,2-dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,1-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,2-dichloroethylene | ug/l | DETSC3432* | 1 | 8 | < 1 |
| 2,2-dichlororopane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Bromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Chloroform | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,1,1-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,1-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Carbon tetrachloride | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Benzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,2-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Trichloroethylene | ug/l | DETSC3432* | 1 | 13 | 1 |
| 1,2-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Dibromomethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Bromodichloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| cis-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Toluene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| trans-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,1,2-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Tetrachloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,3-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Dibromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,2-dibromoethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Chlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,1,1,2-tetrachloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Ethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| m+p-Xylene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| o-Xylene | ug/l | DETSC3432* | 1 | < 1 | 1 |
| Styrene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Bromoform | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Isopropylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Bromobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,2,3-trichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| n-propylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 2-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,3,5-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 4-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Tert-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,2,4-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-59650-1
Client Ref: 17054
Contract Title: Meggitt/Stadco Coventry

| | | | | | |
|---|---|---|---|---|---|
| | | | **Lab No.** | 391009 | 391010 |
| | | | **Sample ID** | MBH108 | MWS153 |
| | | | **Depth** | | |
| | | | **Sample Ref** | | |
| | | | **Sample Type** | | |
| | | | **Sampling Date** | 20/02/2012 | 20/02/2012 |
| | | | **Sampling Time** | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | |
| sec-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| p-isopropyltoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,3-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,4-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| n-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,2-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,2-dibromo-3-chloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,2,4-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Hexachlorobutadiene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Naphthalene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| 1,2,3-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 |
| Vinyl Chloride | ug/l | DETSC3432* | 1 | < 1 | < 1 |

## Sample Comments

(The laboratory cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".)

| Lab No. | Sample ID | Date Sampled | Sample exceeded holding time for test | Sample not received in appropriate containers for test |
|---|---|---|---|---|
| No Sample deviations to report. | | | | |

# Certificate of Analysis

Date: 04/05/2012

**2139**

Certificate Number: 12-60302-1

| | |
|---|---|
| Client: | Merebrook Consulting Limited<br>Suite 2B<br>East Mill<br>Belper<br>DE56 2UA |
| Our Reference: | 12-60302-1 |
| Client Reference: | 17054 |
| Contract Title: | Meggitt/Stadco |
| Description: | 10 water samples |
| Date Received: | 08 March 2012 |
| Date Started: | 08 March 2012 |
| Date Completed: | 04 May 2012 |
| Test Procedures: | Identified by prefix DETSn, details available upon request. |
| Notes: | **This report supersedes 12-60302. Vinyl Chloride added**<br>Observations and interpretations are outside the scope of UKAS accreditation |
| Approved By: | Paul Woodbridge, Senior Operations Manager |

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 except in full, without the prior written approval of the laboratory.

# Information in Support of the Analytical Results

## Analysis

Inorganic soil analysis was carried out on a dried sample, crushed to pass a 425um sieve, in accordance with BS1377.
Organic soil analysis was carried out on an 'as received' sample.

***Key***

| | |
|---|---|
| * | Denotes test not included in laboratory scope of accreditation |
| # | Denotes test that holds MCERTS accreditation, however, MCERTS accreditation is only implied if the report carries the MCERTS logo |
| $ | Denotes tests completed by an approved subcontractor |
| I/S | Denotes insufficient sample to carry out test |
| U/S | Denotes that the sample is not suitable for testing |

## Disposal

From the issue date of this test certificate, samples will be held for the following times prior to disposal :-
Soils - 1 month
Liquids - 2 weeks
Asbestos (test portion) - 6 months

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-60302-1
Client Ref: 17054
Contract Title: Meggitt/Stadco

| | | | Lab No. | 394958 | 394959 | 394960 | 394961 | 394962 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample ID | MBH101 | MBH104 | MBH105 | MBH106 | MBH107 |
| | | | Depth | | | | | |
| | | | Sample Ref | | | | | |
| | | | Sample Type | | | | | |
| | | | Sampling Date | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 |
| | | | Sampling Time | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic Dissolved | ug/l | DETS 2326 | 1 | 1.1 | < 1.0 | < 1.0 | < 1.0 | < 1.0 |
| Cadmium Dissolved | ug/l | DETSC 2302 | 2 | 3.7 | 6.8 | < 2.0 | 2.7 | < 2.0 |
| Chromium Dissolved | ug/l | DETSC 2302 | 5 | 15 | 26 | < 5.0 | 38 | < 5.0 |
| Copper Dissolved | ug/l | DETSC 2302 | 2 | 21 | 61 | 5.4 | 35 | 7.1 |
| Lead Dissolved | ug/l | DETSC 2302 | 4 | 16 | 4.6 | < 4.0 | 5.9 | 4.0 |
| Mercury Dissolved | ug/l | DETSC 2324 | 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Nickel Dissolved | ug/l | DETSC 2302 | 10 | 31 | 130 | < 10 | 57 | < 10 |
| Selenium Dissolved | ug/l | DETSC 2302 | 12 | < 12 | < 12 | < 12 | < 12 | < 12 |
| Zinc Dissolved | ug/l | DETSC 2302 | 1 | 120 | 190 | 8.8 | 110 | 16 |
| Chloride | mg/l | DETSC 2055 | 0.1 | 71 | 150 | 38 | 70 | 29 |
| Sulphate as SO4 | mg/l | DETSC 2055 | 0.1 | 230 | 52 | 68 | 66 | 70 |
| Boron | ug/l | DETS 020 | 100 | 130 | < 100.0 | < 100.0 | < 100.0 | < 100.0 |
| Cyanide total | ug/l | DETSC 2130 | 40 | < 40.0 | < 40.0 | < 40.0 | < 40.0 | < 40.0 |
| Conductivity | uS/cm | DETSC 2009 | 1 | 894 | 928 | 399 | 733 | 512 |
| Ammoniacal Nitrogen as N | mg/l | DETSC 2207 | 0.015 | 0.053 | 0.035 | 0.074 | 0.081 | 0.059 |
| pH | | DETSC 2008 | | 7.5 | 7.4 | 7.6 | 7.4 | 7.4 |
| Acenaphthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Acenaphthylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(a)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(a)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(b)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(k)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(g,h,i)perylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chrysene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Dibenzo(a,h)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Fluorene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Indeno(1,2,3-c,d)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Naphthalene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Phenanthrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.01 | < 0.01 |
| Pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | 0.01 | < 0.01 | < 0.01 | < 0.01 |
| PAH | ug/l | DETS 074* | 0.2 | < 0.20 | < 0.20 | < 0.20 | < 0.20 | < 0.20 |

# Summary of Chemical Analysis
## Water Samples

Our Ref: 12-60302-1
Client Ref: 17054
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394958 | 394959 | 394960 | 394961 | 394962 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH101 | MBH104 | MBH105 | MBH106 | MBH107 |
| | | | **Depth** | | | | | |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| PRO (C6-C10) | ug/l | DETSC 3322 | 1 | < 1.0 | 4.4 | < 1.0 | < 1.0 | < 1.0 |
| EPH (C10-C12) | ug/l | DETSC 3311 | 10 | < 10 | < 10 | < 10 | < 10 | < 10 |
| EPH (C12-C16) | ug/l | DETSC 3311 | 10 | 11 | 30 | < 10 | 17 | 10 |
| EPH (C16-C21) | ug/l | DETSC 3311 | 10 | 530 | 1900 | 360 | 1200 | 940 |
| EPH (C21-C28) | ug/l | DETSC 3311 | 10 | 270 | 91 | 30 | 2300 | 510 |
| EPH (C28-C40) | ug/l | DETSC 3311 | 10 | 210 | 53 | 23 | 2100 | 520 |
| EPH (C10-C40) | ug/l | DETSC 3311 | 10 | 1000 | 2100 | 410 | 5500 | 2000 |
| Phenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 4-Chloro-3-methylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| p-cresol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,6-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,6-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4,6-Trichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-60302-1
Client Ref: 17054
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394963 | 394964 | 394965 | 394966 | 394967 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH108 | MBH110 | MWS101 | MWS118 | MWS153 |
| | | | **Depth** | | | | | |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Arsenic Dissolved | ug/l | DETS 2326 | 1 | < 1.0 | < 1.0 | < 1.0 | 1.1 | < 1.0 |
| Cadmium Dissolved | ug/l | DETSC 2302 | 2 | < 2.0 | 3.9 | 2.5 | < 2.0 | < 2.0 |
| Chromium Dissolved | ug/l | DETSC 2302 | 5 | < 5.0 | 540 | 79 | 27 | < 5.0 |
| Copper Dissolved | ug/l | DETSC 2302 | 2 | 6.5 | 16 | 45 | 99 | 12 |
| Lead Dissolved | ug/l | DETSC 2302 | 4 | < 4.0 | < 4.0 | 19 | < 4.0 | 4.6 |
| Mercury Dissolved | ug/l | DETSC 2324 | 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 | < 0.05 |
| Nickel Dissolved | ug/l | DETSC 2302 | 10 | 13 | 19 | 44 | 48 | < 10 |
| Selenium Dissolved | ug/l | DETSC 2302 | 12 | < 12 | < 12 | < 12 | < 12 | < 12 |
| Zinc Dissolved | ug/l | DETSC 2302 | 1 | 16 | 77 | 100 | 130 | 25 |
| Chloride | mg/l | DETSC 2055 | 0.1 | 90 | 71 | 190 | 110 | 810 |
| Sulphate as SO4 | mg/l | DETSC 2055 | 0.1 | 230 | 260 | 89 | 55 | 130 |
| Boron | ug/l | DETS 020 | 100 | 170 | < 100.0 | < 100.0 | 280 | 180 |
| Cyanide total | ug/l | DETSC 2130 | 40 | < 40.0 | < 40.0 | < 40.0 | < 40.0 | < 40.0 |
| Conductivity | uS/cm | DETSC 2009 | 1 | 937 | 1060 | 1160 | 922 | 2550 |
| Ammoniacal Nitrogen as N | mg/l | DETSC 2207 | 0.015 | 0.020 | 0.029 | 0.060 | 0.045 | 0.031 |
| pH | | DETSC 2008 | | 7.2 | 7.3 | 7.1 | 7.3 | 7.3 |
| Acenaphthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.14 | < 0.01 |
| Acenaphthylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.01 | < 0.01 |
| Benzo(a)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.02 | < 0.01 |
| Benzo(a)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(b)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(k)fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Benzo(g,h,i)perylene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Chrysene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.03 | < 0.01 |
| Dibenzo(a,h)anthracene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Fluoranthene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Fluorene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.03 | < 0.01 |
| Indeno(1,2,3-c,d)pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 | < 0.01 |
| Naphthalene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.38 | < 0.01 |
| Phenanthrene | ug/l | DETS 074* | 0.01 | < 0.01 | 0.06 | < 0.01 | 0.04 | < 0.01 |
| Pyrene | ug/l | DETS 074* | 0.01 | < 0.01 | < 0.01 | < 0.01 | 0.01 | < 0.01 |
| PAH | ug/l | DETS 074* | 0.2 | < 0.20 | < 0.20 | < 0.20 | 0.67 | < 0.20 |

# Summary of Chemical Analysis
## Water Samples

Our Ref: 12-60302-1
Client Ref: 17054
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394963 | 394964 | 394965 | 394966 | 394967 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH108 | MBH110 | MWS101 | MWS118 | MWS153 |
| | | | **Depth** | | | | | |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| PRO (C6-C10) | ug/l | DETSC 3322 | 1 | < 1.0 | 1000 | < 1.0 | 5100 | < 1.0 |
| EPH (C10-C12) | ug/l | DETSC 3311 | 10 | < 10 | < 10 | < 10 | 630 | < 10 |
| EPH (C12-C16) | ug/l | DETSC 3311 | 10 | < 10 | < 10 | 390 | 490 | < 10 |
| EPH (C16-C21) | ug/l | DETSC 3311 | 10 | 560 | 440 | 1100 | 2800 | 49 |
| EPH (C21-C28) | ug/l | DETSC 3311 | 10 | 72 | 98 | 5200 | 14000 | 100 |
| EPH (C28-C40) | ug/l | DETSC 3311 | 10 | 53 | 79 | 4600 | 12000 | 61 |
| EPH (C10-C40) | ug/l | DETSC 3311 | 10 | 690 | 630 | 11000 | 30000 | 220 |
| Phenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 4-Chloro-3-methylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| p-cresol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,6-Dimethylphenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,6-Dichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |
| 2,4,6-Trichlorophenol | ug/l | DETS 054* | 0.1 | < 0.10 | < 0.10 | < 0.10 | < 0.10 | < 0.10 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-60302-1
Client Ref: 17054
Contract Title: Meggitt/Stadco

| | | | Lab No. | 394958 | 394959 | 394960 | 394961 | 394962 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample ID | MBH101 | MBH104 | MBH105 | MBH106 | MBH107 |
| | | | Depth | | | | | |
| | | | Sample Ref | | | | | |
| | | | Sample Type | | | | | |
| | | | Sampling Date | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 |
| | | | Sampling Time | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Total VOC's | ug/l | DETSC3432* | 1 | 3 | 5 | 5 | 63 | 7 |
| 1,1 Dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Methylene Chloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Trans-1,2-dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 3 | < 1 |
| 1,2-dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 3 | < 1 |
| 2,2-dichlororopane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Bromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Chloroform | ug/l | DETSC3432* | 1 | 1 | 2 | 2 | 2 | 3 |
| 1,1,1-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 1 | < 1 |
| 1,1-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Carbon tetrachloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Benzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Trichloroethylene | ug/l | DETSC3432* | 1 | < 1 | 1 | 1 | 50 | < 1 |
| 1,2-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Dibromomethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Bromodichloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | 1 |
| cis-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Toluene | ug/l | DETSC3432* | 1 | 2 | 2 | 2 | 3 | 3 |
| trans-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1,2-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Tetrachloroethylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,3-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Dibromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dibromoethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Chlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1,1,2-tetrachloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Ethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| m+p-Xylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| o-Xylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Styrene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Bromoform | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Isopropylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Bromobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,3-trichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| n-propylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 2-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,3,5-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 4-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Tert-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,4-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| sec-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-60302-1
Client Ref: 17054
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394958 | 394959 | 394960 | 394961 | 394962 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH101 | MBH104 | MBH105 | MBH106 | MBH107 |
| | | | **Depth** | | | | | |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| p-isopropyltoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,3-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,4-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| n-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dibromo-3-chloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,4-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Hexachlorobutadiene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Naphthalene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,3-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Vinyl Chloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |

# Summary of Chemical Analysis
# Water Samples

Our Ref: 12-60302-1
Client Ref: 17054
Contract Title: Meggitt/Stadco

| | | | Lab No. | 394963 | 394964 | 394965 | 394966 | 394967 |
|---|---|---|---|---|---|---|---|---|
| | | | Sample ID | MBH108 | MBH110 | MWS101 | MWS118 | MWS153 |
| | | | Depth | | | | | |
| | | | Sample Ref | | | | | |
| | | | Sample Type | | | | | |
| | | | Sampling Date | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 |
| | | | Sampling Time | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| Total VOC's | ug/l | DETSC3432* | 1 | 46 | 1300 | 82 | 2500 | 11 |
| 1,1 Dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | 68 | < 1 | 12 | < 1 |
| Methylene Chloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Trans-1,2-dichloroethylene | ug/l | DETSC3432* | 1 | < 1 | 2 | < 1 | 2 | < 1 |
| 1,1-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | 3 | 48 | 30 | < 1 |
| 1,2-dichloroethylene | ug/l | DETSC3432* | 1 | 11 | 110 | 17 | 550 | 2 |
| 2,2-dichlororopane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Bromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Chloroform | ug/l | DETSC3432* | 1 | 2 | 6 | 2 | 2 | 2 |
| 1,1,1-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | 48 | < 1 | < 1 | < 1 |
| 1,1-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Carbon tetrachloride | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Benzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 2 | < 1 |
| 1,2-dichloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | 2 | < 1 | < 1 |
| Trichloroethylene | ug/l | DETSC3432* | 1 | 31 | 1100 | < 1 | 110 | 2 |
| 1,2-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Dibromomethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Bromodichloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| cis-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Toluene | ug/l | DETSC3432* | 1 | 3 | 3 | 3 | 2 | 2 |
| trans-1,3-dichloropropene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1,2-trichloroethane | ug/l | DETSC3432* | 1 | < 1 | 4 | < 1 | < 1 | < 1 |
| Tetrachloroethylene | ug/l | DETSC3432* | 1 | < 1 | 1 | < 1 | < 1 | < 1 |
| 1,3-dichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Dibromochloromethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dibromoethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Chlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,1,1,2-tetrachloroethane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Ethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 31 | < 1 |
| m+p-Xylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 27 | < 1 |
| o-Xylene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 2 | < 1 |
| Styrene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Bromoform | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Isopropylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 31 | < 1 |
| Bromobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,3-trichloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| n-propylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 91 | < 1 |
| 2-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,3,5-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 490 | 4 |
| 4-chlorotoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Tert-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,4-trimethylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 890 | < 1 |
| sec-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |

# Summary of Chemical Analysis
## Water Samples

Our Ref: 12-60302-1
Client Ref: 17054
Contract Title: Meggitt/Stadco

| | | | **Lab No.** | 394963 | 394964 | 394965 | 394966 | 394967 |
|---|---|---|---|---|---|---|---|---|
| | | | **Sample ID** | MBH108 | MBH110 | MWS101 | MWS118 | MWS153 |
| | | | **Depth** | | | | | |
| | | | **Sample Ref** | | | | | |
| | | | **Sample Type** | | | | | |
| | | | **Sampling Date** | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 | 06/03/2012 |
| | | | **Sampling Time** | | | | | |
| **Test** | **Units** | **DETSxx** | **LOD** | | | | | |
| p-isopropyltoluene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 100 | < 1 |
| 1,3-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,4-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| n-butylbenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2-dibromo-3-chloropropane | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| 1,2,4-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Hexachlorobutadiene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Naphthalene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | 9 | < 1 |
| 1,2,3-trichlorobenzene | ug/l | DETSC3432* | 1 | < 1 | < 1 | < 1 | < 1 | < 1 |
| Vinyl Chloride | ug/l | DETSC3432* | 1 | < 1 | 4 | 10 | 120 | < 1 |

## Sample Comments

(The laboratory cannot be held responsible for the integrity of sample(s) received whereby the laboratory did not undertake the sampling. In this instance samples received may be deviating.

Deviating Sample criteria are based on British and International standards and laboratory trials in conjunction with the UKAS note "Guidance on Deviating Samples".)

| Lab No. | Sample ID | Date Sampled | Sample exceeded holding time for test | Sample not received in appropriate containers for test |
|---|---|---|---|---|
| No Sample deviations to report. | | | | |

**APPENDIX 8** ▪ Gas and Groundwater Monitoring Records

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**FIELD MONITORING RECORD**

| Site: Meggitt-Stadco, Coventry | | | | | Time on: 07:30 | | | Officer: Katherine Franklin | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job No: 17054 | | | | | Time off: 17:30 | | | Date: 20-Feb-12 | | | |
| Monitoring point | Flow / $l.hr^{-1}$ | Borehole pressure / mb | Methane / % v/v | Carbon dioxide / % v/v | Oxygen / % v/v | Carbon monoxide / ppm | Hydrogen sulphide / ppm | Atmos. pressure / mb | Depth to water / m | Depth to base / m | Comments |
| MBH101 | nd | nr | nd | 2.1 | 17.9 | >500 | nd | 1013 | 2.97 | 14.70 | |
| MBH102 | nd | nr | nd | nd | 15.0 | nd | nd | 1014 | 9.33 | 9.35 | |
| MBH103 | 0.2 | nr | nd | 2.8 | 14.4 | nd | nd | 1014 | 10.17 | 10.19 | |
| MBH104 | nd | nr | nd | 4.1 | 16.1 | nd | nd | 1014 | 8.04 | 10.00 | |
| MBH105 | nd | nr | nd | nd | 18.8 | nd | nd | 1014 | 5.42 | 9.55 | |
| MBH106 | nr | nr | nd | 1.6 | 17.7 | 6 | nd | 1014 | 10.11 | 13.84 | gas tap found open |
| MBH107 | 0.3 | nr | nd | 3.5 | 17.0 | nd | nd | 1013 | 3.57 | 8.01 | |
| MBH108 | nr | nr | nd | 1.1 | 17.7 | 3 | nd | 1012 | 3.46 | 10.15 | gas tap found open |
| MBH109 | nr | nr | 0.5 | 0.9 | 17.8 | 11 | nd | 1012 | 12.09 | 12.10 | gas tap found open |
| MBH110 | nd | nr | nd | 2.1 | 18.7 | nd | nd | 1012 | 4.40 | 9.66 | |

| Notes: | Instrument: GA2000 | Continuation: 1 of 3 | Checked: LGS |
|---|---|---|---|
| cold, bright | Serial No: GA05124 | Signature: K Franklin | |
| | DOLC: 10-Feb-12 | | |

na = not applicable

nd = none detected

nr = not recorded

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**FIELD MONITORING RECORD**

| Site: Meggitt-Stadco, Coventry | | | | | Time on: 07:30 | | | Officer: Katherine Franklin | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job No: 17054 | | | | | Time off: 17:30 | | | Date: 20-Feb-12 | | | |
| Monitoring point | Flow / $l.hr^{-1}$ | Borehole pressure / mb | Methane / % v/v | Carbon dioxide / % v/v | Oxygen / % v/v | Carbon monoxide / ppm | Hydrogen sulphide / ppm | Atmos. pressure / mb | Depth to water / m | Depth to base / m | Comments |
| MWS101 | nd | nr | 0.2 | 1.9 | 18.4 | 3 | nd | 1014 | 1.07 | 2.18 | water sample taken for analysis |
| MWS104 | nd | nr | nd | 3.6 | 16.0 | nd | nd | 1014 | dry | 2.95 | |
| MWS110 | nd | nr | nd | 1.8 | 19.0 | nd | nd | 1014 | dry | 2.49 | |
| MWS112 | nd | nr | nd | 0.8 | 18.5 | nd | nd | 1014 | 1.18 | 2.96 | |
| MWS114 | 0.2 | nr | nd | 4.0 | 17.4 | nd | nd | 1014 | nr | nr | gas bung jammed down standpipe |
| MWS116 | nd | nr | nd | 5.4 | 14.5 | nd | nd | 1014 | dry | 2.84 | |
| MWS118 | nd | nr | nd | 2.3 | 16.6 | nd | nd | 1013 | 1.17 | 2.04 | water sample taken for analysis |
| MWS123 | nd | nr | nd | nd | 19.1 | nd | nd | 1014 | 1.32 | 3.08 | |
| MWS124 | nd | nr | nd | 0.2 | 17.4 | nd | nd | 1014 | dry | 1.95 | |
| MWS126 | nd | nr | nd | 0.9 | 18.6 | nd | nd | 1014 | dry | 3.05 | |
| Notes: cold, bright | | | | | Instrument: GA2000 | | | Continuation: 2 of 3 | | | Checked: LGS |
| | | | | | Serial No: GA05124 | | | Signature: K Franklin | | | |
| | | | | | DOLC: 10-Feb-12 | | | | | | |

na = not applicable

nd = none detected

nr = not recorded

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**FIELD MONITORING RECORD**

| Site: Meggitt-Stadco, Coventry | Time on: 07:30 | Officer: Katherine Franklin |
|---|---|---|
| Job No: 17054 | Time off: 17:30 | Date: 20-Feb-12 |

| Monitoring point | Flow / $l.hr^{-1}$ | Borehole pressure / mb | Methane / % v/v | Carbon dioxide / % v/v | Oxygen / % v/v | Carbon monoxide / ppm | Hydrogen sulphide / ppm | Atmos. pressure / mb | Depth to water / m | Depth to base / m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MWS129 | nd | nr | nd | 1.6 | 18.8 | nd | nd | 1014 | dry | 2.02 | |
| MWS133 | nd | nr | nd | nd | 19.6 | nd | nd | 1014 | 2.76 | 2.90 | |
| MWS137 | nd | nr | nd | 0.1 | 19.5 | 1 | nd | 1013 | 2.63 | 3.18 | |
| MWS146 | 0.2 | nr | nd | nd | 19.5 | nd | nd | 1012 | dry | 1.75 | |
| MWS147 | nd | nr | nd | 1.5 | 19.0 | nd | nd | 1012 | 3.39 | 4.67 | |
| MWS153 | 0.2 | nr | nd | 0.7 | 8.2 | nd | nd | 1013 | 1.34 | 3.55 | water sample taken for analysis |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |

| Notes: | Instrument: GA2000 | Continuation: 3 of 3 | Checked: LGS |
|---|---|---|---|
| cold, bright | Serial No: GA05124 | Signature: K Franklin | |
| | DOLC: 10-Feb-12 | | |

na = not applicable

nd = none detected

nr = not recorded

MPL004.2.5

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**FIELD MONITORING RECORD**

| Site: Meggitt-Stadco, Coventry | | | | | Time on: 08:00 | | | Officer: Katherine Franklin | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job No: 17054 | | | | | Time off: 17:30 | | | Date: 06-Mar-12 | | | |
| Monitoring point | Flow / $l.hr^{-1}$ | Borehole pressure / mb | Methane / % v/v | Carbon dioxide / % v/v | Oxygen / % v/v | Carbon monoxide / ppm | Hydrogen sulphide / ppm | Atmos. pressure / mb | Depth to water / m | Depth to base / m | Comments |
| MBH101 | 0.2 | — | nd | nd | 19.6 | 0 | 0 | 1012 | 2.91 | 14.63 | — |
| MWS153 | 0.0 | — | nd | 0.5 | 18.3 | 0 | 0 | 1012 | 1.38 | 3.50 | — |
| MWS133 | 0.0 | — | nd | 2.4 | 17.6 | 0 | 0 | 1012 | 2.80 | 2.84 | — |
| MBH102 | 0.1 | — | nd | 0.4 | 8.3 | 2 | 0 | 1012 | DRY | 9.43 | — |
| MBH105 | 0.0 | — | nd | 0.1 | 19.9 | 1 | 0 | 1012 | 5.47 | 9.57 | — |
| MWS129 | 0.3 | — | nd | 0.3 | 20.0 | 2 | 0 | 1012 | DRY | 2.00 | — |
| MWS126 | 0.1 | — | nd | 1.4 | 18.7 | 0 | 0 | 1012 | DRY | 3.03 | — |
| MBH104 | 0.0 | — | nd | 4.7 | 14.1 | 7 | 0 | 1012 | 8.10 | 10.03 | — |
| MBH103 | 0.0 | — | nd | nd | 20.6 | 4 | 0 | 1012 | 9.95 | 10.19 | — |
| MWS123 | 0.1 | — | nd | nd | 20.5 | 5 | 0 | 1012 | 1.25 | 3.07 | — |

| Notes: | Instrument: GA2000 | Continuation: 1 of 1 | Checked: |
|---|---|---|---|
| Sunny, falling pressure | Serial No: GA05124 | Signature: | |
| | DOLC: 10-Feb-12 | | |

na = not applicable

nd = none detected

nr = not recorded

MPL004.2.5

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## FIELD MONITORING RECORD

| Site: Meggitt-Stadco, Coventry | Time on: 08:00 | Officer: Katherine Franklin |
|---|---|---|
| Job No: 17054 | Time off: 17:30 | Date: 06-Mar-12 |

| Monitoring point | Flow / $l.hr^{-1}$ | Borehole pressure / mb | Methane / % v/v | Carbon dioxide / % v/v | Oxygen / % v/v | Carbon monoxide / ppm | Hydrogen sulphide / ppm | Atmos. pressure / mb | Depth to water / m | Depth to base / m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MWS124 | 0.4 | — | nd | 0.6 | 16.9 | 5 | 0 | 1012 | DRY | 1.94 | — |
| MWS101 | 0.0 | — | nd | 0.8 | 20.1 | 9 | 0 | 1012 | 1.07 | 2.17 | — |
| MWS116 | 0.0 | — | nd | 5.5 | 14.6 | 7 | 0 | 1012 | DRY | 2.83 | — |
| MWS114 | 0.0 | — | nd | 2.7 | 18.0 | 4 | 0 | 1012 | — | — | unable to remove bung |
| MWS104 | 0.0 | — | nd | 3.2 | 16.0 | 5 | 0 | 1012 | DRY | 2.94 | — |
| MWS110 | 0.0 | — | nd | 1.1 | 20.1 | 7 | 0 | 1012 | DRY | 2.47 | — |
| MWS112 | 0.0 | — | nd | 0.1 | 21.0 | 7 | 0 | 1012 | 1.10 | 2.95 | — |
| MBH106 | 0.0 | — | nd | nd | 20.9 | 4 | 0 | 1012 | 10.11 | 13.88 | — |
| MWS137 | 0.0 | — | nd | 0.3 | 20.4 | 8 | 0 | 1012 | 2.62 | 3.18 | — |
| MWS118 | 0.1 | — | nd | 2.3 | 16.5 | 16 | 0 | 1012 | 1.12 | 2.70 | — |

| Notes: | Instrument: GA2000 | Continuation: 2 of 1 | Checked: |
|---|---|---|---|
| | Serial No: GA05124 | Signature: | |
| | DOLC: 10-Feb-12 | | |

na = not applicable

nd = none detected

nr = not recorded

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## FIELD MONITORING RECORD

| Site: Meggitt-Stadco, Coventry | Time on: 08:00 | Officer: Katherine Franklin |
|---|---|---|
| Job No: 17054 | Time off: 17:30 | Date: 06-Mar-12 |

| Monitoring point | Flow / $l.hr^{-1}$ | Borehole pressure / mb | Methane / % v/v | Carbon dioxide / % v/v | Oxygen / % v/v | Carbon monoxide / ppm | Hydrogen sulphide / ppm | Atmos. pressure / mb | Depth to water / m | Depth to base / m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MWS124 | 0.4 | — | nd | 0.6 | 16.9 | 5 | 0 | 1012 | DRY | 1.94 | — |
| MWS101 | 0.0 | — | nd | 0.8 | 20.1 | 9 | 0 | 1012 | 1.07 | 2.17 | — |
| MWS116 | 0.0 | — | nd | 5.5 | 14.6 | 7 | 0 | 1012 | DRY | 2.83 | — |
| MWS114 | 0.0 | — | nd | 2.7 | 18.0 | 4 | 0 | 1012 | — | — | unable to remove bung |
| MWS104 | 0.0 | — | nd | 3.2 | 16.0 | 5 | 0 | 1012 | DRY | 2.94 | — |
| MWS110 | 0.0 | — | nd | 1.1 | 20.1 | 7 | 0 | 1012 | DRY | 2.47 | — |
| MWS112 | 0.0 | — | nd | 0.1 | 21.0 | 7 | 0 | 1012 | 1.10 | 2.95 | — |
| MBH106 | 0.0 | — | nd | nd | 20.9 | 4 | 0 | 1012 | 10.11 | 13.88 | — |
| MWS137 | 0.0 | — | nd | 0.3 | 20.4 | 8 | 0 | 1012 | 2.62 | 3.18 | — |
| MWS118 | 0.1 | — | nd | 2.3 | 16.5 | 16 | 0 | 1012 | 1.12 | 2.70 | — |

| Notes: | Instrument: GA2000 | Continuation: 2 of 1 | Checked: |
|---|---|---|---|
| | Serial No: GA05124 | Signature: | |
| | DOLC: 10-Feb-12 | | |

na = not applicable

nd = none detected

nr = not recorded

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**FIELD MONITORING RECORD**

| Site: Meggitt-Stadco, Coventry | Time on: 08:00 | Officer: Linford Shacklady |
|---|---|---|
| Job No: 17054 | Time off: 12:30 | Date: 30-Mar-12 |

| Monitoring point | Flow / $l.hr^{-1}$ | Borehole pressure / mb | Methane / % v/v | Carbon dioxide / % v/v | Oxygen / % v/v | Carbon monoxide / ppm | Hydrogen sulphide / ppm | Atmos. pressure / mb | Depth to water / m | Depth to base / m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MBH101 | nd | nr | nd | 0.1 | 19.7 | 2 | nd | 1012 | 2.97 | 14.70 | |
| MBH102 | nd | nr | nd | 0.4 | 16.3 | nd | nd | 1012 | 9.33 | 9.35 | sludgy bottom |
| MBH103 | nd | nr | nd | 0.8 | 17.9 | 5 | nd | 1012 | 10.17 | 10.19 | #NAME? |
| MBH104 | nd | nr | nd | 4.3 | 14.7 | 2 | nd | 1012 | 8.04 | 10.00 | |
| MBH105 | nd | nr | nd | nd | 20.3 | 3 | nd | 1012 | 5.42 | 9.55 | |
| MBH106 | nd | nr | nd | 1.3 | 19.0 | 5 | nd | 1012 | 10.11 | 13.84 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | FMR-17054- | |
| | | | | | | | | | | | |

| Notes: | Instrument: GA2000 | Continuation: #NAME? | Checked: LGS |
|---|---|---|---|
| cold, overcast | Serial No: GA05124 | Signature: | |
| | DOLC: 10-Feb-12 | | |

na = not applicable

nd = none detected

nr = not recorded

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**FIELD MONITORING RECORD**

| Site: Meggitt-Stadco, Coventry | Time on: 08:00 | Officer: Linford Shacklady |
|---|---|---|
| Job No: 17054 | Time off: 12:30 | Date: 30-Mar-12 |

| Monitoring point | Flow / $l.hr^{-1}$ | Borehole pressure / mb | Methane / % v/v | Carbon dioxide / % v/v | Oxygen / % v/v | Carbon monoxide / ppm | Hydrogen sulphide / ppm | Atmos. pressure / mb | Depth to water / m | Depth to base / m | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|
| MWS101 | nd | nr | nd | 0.6 | 20.2 | 4 | nd | 1012 | 1.06 | 2.18 | |
| MWS104 | nd | nr | nd | 3.1 | 16.1 | 3 | nd | 1012 | dry | 2.95 | #NAME? |
| MWS110 | nd | nr | nd | 1.2 | 19.6 | 5 | nd | 1012 | dry | 2.49 | #NAME? |
| MWS112 | nd | nr | nd | 0.4 | 20.1 | 4 | nd | 1012 | 1.48 | 2.96 | |
| MWS114 | nd | nr | nd | 3.1 | 18.0 | nd | nd | 1012 | nr | nr | |
| MWS116 | nd | nr | nd | 6.0 | 13.9 | nd | nd | 1012 | dry | 2.84 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | FMR-17054- | |
| | | | | | | | | | | | |

| Notes: | Instrument: GA2000 | Continuation: #NAME? | Checked: LGS |
|---|---|---|---|
| cold, overcast | Serial No: GA05124 | Signature: | |
| | DOLC: 10-Feb-12 | | |

na = not applicable

nd = none detected

nr = not recorded

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**FIELD MONITORING RECORD**

| Site: Meggitt-Stadco, Coventry | | | | | Time on: 08:00 | | | Officer: Linford Shacklady | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Job No: 17054 | | | | | Time off: 12:30 | | | Date: 30-Mar-12 | | | |
| Monitoring point | Flow / $l.hr^{-1}$ | Borehole pressure / mb | Methane / % v/v | Carbon dioxide / % v/v | Oxygen / % v/v | Carbon monoxide / ppm | Hydrogen sulphide / ppm | Atmos. pressure / mb | Depth to water / m | Depth to base / m | Comments |
| MWS129 | nd | nr | nd | 0.1 | 20.1 | 2 | nd | 1012 | dry | 2.02 | |
| MWS133 | nd | nr | nd | 2.3 | 18.2 | nd | nd | 1012 | dry | 2.90 | sludgy bottom |
| MWS137 | nd | nr | nd | 0.5 | 20.1 | 5 | nd | 1012 | 2.62 | 3.17 | sludgy bottom |
| MWS146 | nd | nr | nd | 0.2 | 20.3 | nd | nd | 1012 | dry | 1.75 | |
| MWS147 | nd | nr | nd | 0.7 | 19.9 | 2 | nd | 1012 | dry | 4.67 | |
| MWS153 | 0.1 | nr | nd | 0.9 | 18.5 | nd | nd | 1012 | 1.74 | 3.55 | |
| | | | | | | | | | | | |
| | | | | | | | | | | | |
| | | | | | | | | | | FMR-17054- | |
| | | | | | | | | | | | |

| Notes: | Instrument: GA2000 | Continuation: #NAME? | Checked: LGS |
|---|---|---|---|
| cold, overcast | Serial No: GA05124 | Signature: | |
| | DOLC: 10-Feb-12 | | |

na = not applicable

nd = none detected

nr = not recorded

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| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Linford Shacklady | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-02-20 | | |

| **Borehole Reference** | | MBH101 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 08:45 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 2.97 | 14.70 | 50 | 2.32 | 1.28 | 10.7 | 54 | 6.46 |
| | | 100 | 4.35 | 1.19 | 11.1 | 51 | 6.88 |
| | | 150 | 4.30 | 1.18 | 11.2 | 49 | 6.91 |
| | | 200 | 4.12 | 1.17 | 11.2 | 48 | 6.92 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equipment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid red brown dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | recharge slows | | | |

| **Borehole Reference** | | MBH102 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 09:35 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 9.33 | 9.35 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | - | | | |
| Sample Equiment: | | | | - | | | |
| Visual Observations of Purge Water: | | | | - | | | |
| Odour: | | | | - | | | |
| Other Comments: | | | | no recovery using bailer | | | |

# FILE NOTE

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| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Linford Shacklady | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-02-20 | | |

| **Borehole Reference** | | MBH103 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 09:44 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 10.17 | 10.19 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | - | | | |
| Sample Equiment: | | | | - | | | |
| Visual Observations of Purge Water: | | | | - | | | |
| Odour: | | | | - | | | |
| Other Comments: | | | | no recovery using bailer | | | |

| **Borehole Reference** | | MBH104 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 10:35 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 8.04 | 10.00 | 5 | 5.60 | 1.13 | 11.1 | 108 | 7.08 |
| | | 7 | 6.38 | 1.10 | 9.8 | 99 | 7.09 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid orange dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | negligible recharge after purged to dry | | | |

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| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Linford Shacklady | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-02-20 | | |

| **Borehole Reference** | | MBH105 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 10:15 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 5.42 | 9.55 | 20 | 7.60 | 0.59 | 11.5 | 75 | 7.25 |
| | | 40 | 6.85 | 0.53 | 12.2 | 75 | 7.26 |
| | | 60 | 6.65 | 0.46 | 12.5 | 75 | 7.31 |
| | | 80 | 6.70 | 0.45 | 12.5 | 75 | 7.30 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid red dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | - | | | |

| **Borehole Reference** | | MBH106 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 12:00 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 10.11 | 13.84 | 20 | 5.64 | 0.90 | 11.3 | 92 | 7.29 |
| | | 40 | 4.99 | 0.89 | 12.2 | 92 | 7.32 |
| | | 60 | 5.30 | 0.88 | 11.9 | 90 | 7.32 |
| | | 80 | 6.18 | 0.88 | 11.7 | 88 | 7.29 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid red dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | slow recharge | | | |

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| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Linford Shacklady | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-02-20 | | |

| **Borehole Reference** | | MBH107 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 13:35 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 3.57 | 8.01 | 25 | 8.11 | 1.64 | 10.6 | 100 | 7.54 |
| | | 50 | 8.73 | 0.61 | 11.0 | 104 | 7.44 |
| | | 75 | 8.45 | 0.61 | 11.0 | 105 | 7.42 |
| | | 100 | 8.39 | 0.61 | 10.9 | 105 | 7.38 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid red dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | slow recharge | | | |

| **Borehole Reference** | | MBH108 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 15:10 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 3.46 | 10.15 | 30 | 1.69 | 1.18 | 11.4 | 160 | 7.23 |
| | | 60 | 1.91 | 1.13 | 12.0 | 153 | 7.38 |
| | | 90 | 1.36 | 1.11 | 12.0 | 153 | 7.30 |
| | | 120 | 1.39 | 1.10 | 12.0 | 151 | 7.25 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid orange dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | - | | | |

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| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Linford Shacklady | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-02-20 | | |

| **Borehole Reference** | | MBH109 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 15:59 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 12.07 | 12.10 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | - | | | |
| Sample Equiment: | | | | - | | | |
| Visual Observations of Purge Water: | | | | - | | | |
| Odour: | | | | - | | | |
| Other Comments: | | | | no recovery using bailer | | | |

| **Borehole Reference** | | MBH110 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 20/02/12 | | | | | |
| **Time** | | 14:10 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 4.40 | 9.66 | 25 | 3.42 | 1.35 | 13.4 | 133 | 7.29 |
| | | 50 | 4.01 | 1.36 | 13.2 | 132 | 7.30 |
| | | 75 | 3.49 | 1.36 | 13.6 | 145 | 7.26 |
| | | 100 | 3.40 | 1.36 | 13.8 | 146 | 7.23 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid red brown dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | - | | | |

# FILE NOTE

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| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Kat Franklin | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-03-06 | | |

| **Borehole Reference** | | MBH101 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 09:10 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 2.90 | 14.62 | 50 | 5.07 | 1.10 | 10.8 | 43 | 6.23 |
| | | 100 | 3.33 | 1.16 | 11.6 | 55 | 6.30 |
| | | 150 | 3.26 | 1.18 | 11.8 | 55 | 6.46 |
| | | 200 | 7.87 | 1.06 | 11.8 | 58 | 6.65 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equipment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid orange dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | pump silts up | | | |

| **Borehole Reference** | | MBH102 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 09:40 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| dry | 9.43 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | - | | | |
| Sample Equiment: | | | | - | | | |
| Visual Observations of Purge Water: | | | | - | | | |
| Odour: | | | | - | | | |
| Other Comments: | | | | borehole dry | | | |

# FILE NOTE

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| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Kat Franklin | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-03-06 | | |

| **Borehole Reference** | | MBH103 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 10:00 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 9.95 | 10.19 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | - | | | |
| Sample Equiment: | | | | - | | | |
| Visual Observations of Purge Water: | | | | - | | | |
| Odour: | | | | - | | | |
| Other Comments: | | | | no recovery using bailer | | | |

| **Borehole Reference** | | MBH104 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 10:22 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 8.10 | 10.03 | 10 | 2.70 | 1.14 | 12.4 | 100 | 6.89 |
| | | 20 | 6.46 | 1.13 | 15.0 | 106 | 6.76 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid orange dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | negligible recharge after purged to dry | | | |

# FILE NOTE

merebrook consulting
AN idom GROUP COMPANY

| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Kat Franklin | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-03-06 | | |

| **Borehole Reference** | | MBH105 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 11:11 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 5.47 | 9.57 | 20 | 5.37 | 0.59 | 12.8 | 60 | 7.05 |
| | | 40 | 5.31 | 0.57 | 12.8 | 63 | 6.98 |
| | | 60 | 5.29 | 0.57 | 12.8 | 67 | 6.94 |
| | | 80 | 5.01 | 0.57 | 12.7 | 69 | 6.91 |
| | | 100 | 4.70 | 0.55 | 12.7 | 72 | 6.90 |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid orange dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | pump silting up | | | |

| **Borehole Reference** | | MBH106 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 13:20 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 10.11 | 13.88 | 20 | 5.93 | 0.87 | 12.6 | 66 | 7.09 |
| | | 40 | 4.99 | 0.92 | 12.8 | 67 | 7.07 |
| | | 50 | 5.83 | 0.89 | 12.9 | -5 | 7.09 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid orange brown dispersion with slight surface sheen | | | |
| Odour: | | | | sweet odour | | | |
| Other Comments: | | | | no recharge after 50L | | | |

# FILE NOTE

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AN idom GROUP COMPANY

| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Kat Franklin | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-03-06 | | |

| **Borehole Reference** | | MBH107 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 14:30 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 3.55 | 7.89 | 20 | 8.01 | 0.62 | 11.3 | 53 | 7.41 |
| | | 40 | 7.67 | 0.62 | 11.3 | 56 | 7.36 |
| | | 60 | 7.58 | 0.62 | 11.1 | 61 | 7.32 |
| | | 80 | 7.76 | 0.62 | 11.1 | 65 | 7.26 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid orange dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | - | | | |

| **Borehole Reference** | | MBH108 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 14:58 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 3.46 | 12.78 | 50 | 1.30 | 1.12 | 11.7 | 102 | 7.10 |
| | | 100 | 0.76 | 1.09 | 11.8 | 105 | 7.07 |
| | | 150 | 1.31 | 1.07 | 11.7 | 109 | 6.95 |
| | | 200 | 1.06 | 1.10 | 12.0 | 111 | 6.89 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid orange dispersion with surface sheen | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | - | | | |

# FILE NOTE

merebrook consulting
AN idom GROUP COMPANY

| | | | |
|---|---|---|---|
| PROJECT | Meggitt/Stadco | JOB NUMBER | 17054 |
| RECORDED BY | Kat Franklin | DATE | 22/03/12 |
| REFERENCE | FMR-17054-2012-03-06 | | |

| **Borehole Reference** | | MBH109 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 16:16 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 12.10 | 12.14 | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | - | | | |
| Sample Equiment: | | | | - | | | |
| Visual Observations of Purge Water: | | | | - | | | |
| Odour: | | | | - | | | |
| Other Comments: | | | | no recovery using bailer | | | |

| **Borehole Reference** | | MBH110 | | | | | |
|---|---|---|---|---|---|---|---|
| **Date** | | 06/03/12 | | | | | |
| **Time** | | 15:45 | | | | | |
| Depth to water (mbgl) | Depth to base (mbgl) | Litres purged | DO (mg/l) | EC (mS) | Temp (°C) | ORP (mV) | pH |
| 4.45 | 9.70 | 25 | 3.50 | 1.38 | 13.7 | 78 | 7.17 |
| | | 50 | 2.92 | 1.34 | 14.1 | 86 | 7.13 |
| | | 75 | 2.96 | 1.35 | 14.5 | 90 | 7.10 |
| | | 100 | 5.19 | 1.29 | 14.6 | 99 | 7.05 |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Purge Equipment: | | | | whale mega purger | | | |
| Sample Equiment: | | | | whale mega purger | | | |
| Visual Observations of Purge Water: | | | | turbid orange dispersion | | | |
| Odour: | | | | none | | | |
| Other Comments: | | | | - | | | |

**APPENDIX 9** ▪ Geotechnical Laboratory Testing Certificates

| | | | |
|---|---|---|---|
| **Project Name:** | Meggitt, Coventry | **Samples Received:** | 16/02/2012 |
| | | **Project Started:** | 20/02/2012 |
| **Client:** | Merebrook Consulting | **Testing Started:** | 29/02/2012 |
| **Project No:** | 17054 **Our job/report no:** 12297 | **Date Reported:** | 01/03/2012 |

**K4 SOILS**

| Borehole No: | Sample No: | Depth (m) | Description | Moisture content (%) | Liquid Limit (%) | Plastic Limit (%) | Plasticity Index (%) | Passing 0.425 mm (%) | Remarks |
|---|---|---|---|---|---|---|---|---|---|
| MTP102 | D3 | 1.80 | Reddish brown and light grey slightly sandy silty CLAY | 18 | 47 | 18 | 29 | 100 | |
| MTP103 | D4 | 2.00 | Reddish brown and light grey sandy silty CLAY | 17 | 33 | 16 | 17 | 100 | |
| MTP106 | D4 | 3.00 | Reddish brown and light grey slightly sandy silty CLAY | 23 | 47 | 18 | 29 | 100 | |

UKAS TESTING 2519

## Summary of Test Results

BS 1377 : Part 2 : Clause 4.3 : 1990 Determination of the liquid limit by the cone penetrometer method.
BS 1377 : Part 2 : Clause 5 : 1990 Determination of the plastic limit and plasticity index.
BS 1377 : Part 2 : Clause 3.2 : 1990 Determination of the moisture content by the oven-drying method.

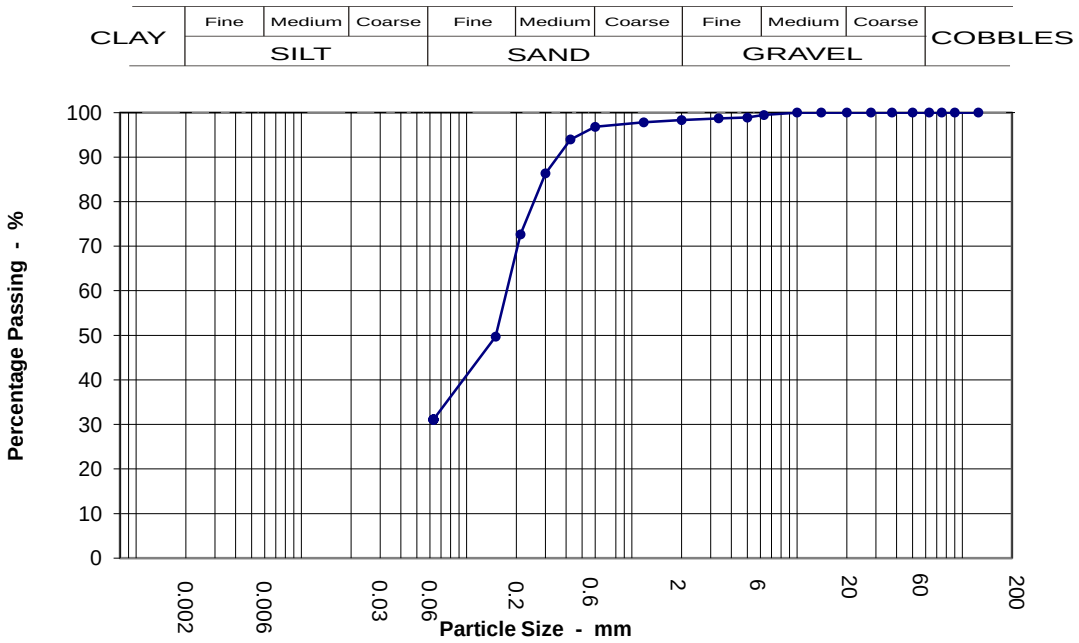
**Checked and Approved**
Initials: K.P
Date: 01/03/2012

Test Report by K4 SOILS LABORATORY Unit 8 Olds Close Olds Approach Watford Herts WD18 9RU

Test Results relate only to the sample numbers shown above. Approved Signatories: K.Phaure (Tech.Mgr) J.Phaure (Lab.Mgr)

All samples connected with this report ,incl any on 'hold' will be stored and disposed off according to Company policy.Acopy of this policy is available on request.

| K4 SOILS | PARTICLE SIZE DISTRIBUTION<br>BS 1377 : Part 2 : 1990 : Clause 9 | Our Report No: | 12297 |
|---|---|---|---|
| | | Project No: | 17054 |
| Location | Meggitt, Coventry | Borehole / Trial Pit No: | MTP111 |
| | | Depth | 1.70 m |
| Visual Soil Description | Reddish brown slightly gravelly clayey SAND (gravel is fine) | Sample Type/No | D - 2 |




| Sieving | | Sedimentation | |
|---|---|---|---|
| Particle Size mm | % Passing | Particle Size mm | % Passing |
| 125 | 100 | | |
| 90 | 100 | | |
| 75 | 100 | | |
| 63 | 100 | | |
| 50 | 100 | | |
| 37.5 | 100 | | |
| 28 | 100 | | |
| 20 | 100 | | |
| 14 | 100 | | |
| 10 | 100 | | |
| 6.3 | 99 | | |
| 5 | 99 | | |
| 3.35 | 99 | | |
| 2 | 98 | | |
| 1.18 | 98 | | |
| 0.6 | 97 | | |
| 0.425 | 94 | | |
| 0.3 | 86 | | |
| 0.212 | 73 | | |
| 0.15 | 50 | | |
| 0.063 | 31 | | |

| Test Method | |
|---|---|
| BS 1377 : Part 2 : 1990 | |
| Sieving | Clause |
| Sedimentation | N/A |
| Suitable Amount Of Sample Received | Yes |

| Sample Proportions | |
|---|---|
| Cobbles | 0.0 |
| Gravel | 1.7 |
| Sand | 67.2 |
| Silt & Clay | 31.1 |
| | |

| Grading Analysis | |
|---|---|
| D100 | 125.0 |
| D60 | 0.2 |
| D10 | |
| Uniformity Coefficient | N/A |


**K4 SOILS LABORATORY**
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU.
E-mail: k4soils@aol.com


**Approved Signatories:**
K.Phaure(Tech.Mgr) J.Phaure(Lab.Mgr)

Test results relate only to the sample numbers shown above

**Checked and Approved**
Initials: kp
Date: 01/03/2012

UKAS TESTING


All samples connected with this report, incl any on 'hold' will be disposed off according to company policy. A copy of this policy is available on request. Sheet 3/3 MSF-11/R9


2519

# CMT (Testing) Limited

the obvious choice

Prime Parkway, Prime Enterprise Park, Derby DE1 3QB

Tel: 01332 383333 email: testing@cmt-ltd.co.uk

Fax: 01332 602607 www.cmt-ltd.co.uk


Merebrook Consulting Limited
East Mill
Bridgefoot
Belper
Derbyshire
DE56 2UA

**Date:** 1st March 2012

**Lab Ref:** 41367

**Site:** Meggitt/Stadco

**Order Ref:** 12-S121-KRP-17054

**Originator:** Keith Paramor

**Samples:** 6No. borehole samples nominally 86mm Ø and referenced with individual depths were delivered by the client to CMT (Testing) Limited on the 20th February 2012.

**Requirements:** To assess 3No selected borehole samples for compressive strength and 3No selected borehole samples for point load strength.

**Results:**

| Ref | Core Strength ($N/mm^2$) | Point Load Strength ($N/mm^2$) | Corrected Point Load Strength ($N/mm^2$) |
|---|---|---|---|
| 1 (3.60 – 3.72m) | 6.36 | - | |
| 2 (5.25 – 5.37m) | - | 0.758 | 0.756 |
| 3 (7.10 – 7.22m) | 2.54 | | - |
| 4 (8.50 – 8.56m) | | 0.339 | 0.385 |
| 5 (9.70 – 9.90m) | - | 0.124 | 0.124 |
| 6 (12.45 – 12.57m) | 20.69 | - | |

CMT (Testing) Limited

G Peach
Departmental Manager
Building Products

# Appendix D

## Photos of Newly Permitted Areas

**Drakes Yard 1:**

**Drakes Yard 2:**

**Drakes Yard 3:**

**Drakes Yard 4:**

**Drakes Yard 5:**

**Drakes Yard 6:**

**Drakes Yard 7:**

**DAIPC Bonded Raw Material Stores 1:**

**DAIPC Bonded Raw Material Stores 2:**

**DAIPC Bonded Raw Material Stores 3:**

**DAIPC Bonded Raw Material Stores 4:**

# Appendix E

## Environment Agency Compliance Assessment Report (CAR) Forms

Environment Agency

# Compliance Assessment Report (CAR1) form

**Report ID:** BN7901IH/ 20 08 09

| | | | | | |
|---|---|---|---|---|---|
| Name of site | Holbrook, Coventry | Operator/ Permit holder | Meggitt Aircraft Braking | Permit ref no: | BN7109IH |
| Officer | I Kelcey, E Plass | Date | 20 08 09 | Area/office | Central/ Fradley |
| Regime/activity | PPC/ Gasification | Time in/out | 10:00 – 12:30 | Event type: | [X] Routine [ ] Incident response [ ] Other |

Assessment type: [X] Site inspection [X] Audit [ ] Check monitoring/sampling [ ] Report / data review [ ] Procedure review

Site life status: [X] Operational [ ] Pre-operational [ ] Post-operational

Which part(s) of the permit were assessed? Energy

## Compliance assessment summary

**Key to completion:** A = Assessed/Assessed in part (no evidence of breach) ATL = Approach to limit
NA = Not Applicable C1, C2, C3, C4 = CCS cat 1–4 breach N = Not assessed

| | | | | | | Conditions breached |
|---|---|---|---|---|---|---|
| a) Permitted activities | 1 A | | | | | |
| b) Infrastructure | 1 A | 2 N | 3 N | 4 A | 5 A | |
| c) General management | 1 A | 2 A | 3 N | 4 A | | |
| d) Incident management | 1 N | 2 N | | | | |
| e) Emissions | 1 A | 2 N | 3 N | 4 N | 5 N | |
| f) Amenity | 1 A | 2 A | 3 X | 4 X | 5 X | |
| g) Monitoring and records, maintenance and reporting | 1 A | 2 N | 3 N | 4 N | | |
| h) Resources efficiency | 1 A | 2 A | | | | |

Any breach(es) listed above may constitute one or more offences under the relevant legislation. (Delete as applicable) Pollution Prevention & Control Regulations 2000

**WARNING ONLY** [X] I have noted any breaches indicated above. You should take immediate action to rectify each breach and return to compliance. You should prevent any repetition of the breaches. Breaches of conditions as indicated above can result in criminal prosecutions and/or suspension or revocation of a licence or other permit. **We will now consider if further enforcement action will be taken.** [ ]

**Review of Directly Applicable Legislation : Key:** A = Assessed, N = Not assessed, NA = Not Applicable, C1, C2, C3, C4 = CCS cat 1–4 breach. N

**Report delivery method:** [ ] copy left on site [ ] posted [X] emailed [ ] faxed Date 20 08 09

**Energy Audit- see separate report.**

Please send the following documentation in support of this audit:-

Summary of major energy users

Presentation from R Gorman

CCA number and confirmation of Specific Energy Measure used in CCA calculations.

**Summary of audit findings**

As a result of this audit please review the compressed air and steam checklists contained in the Agency's H2 Guidance. By **31st October 2009** please confirm whether you propose to make any changes in order to continue to meet Best Available Techniques (BAT) in these areas.

**Site inspection**

No compliance issues were noted

Officer's signature: I Kelcey 16/9/09

Internal review *(initials & date)*

Approved for Public Register

Recipient's name or position within company: K Young, Technical Manager CVD

Continuation sheet used [ ] Yes [X] No

CCS record number: -----

## Notes to the recipient

This compliance report form may highlight non-compliance with your permit or directly applicable legislation as observed by the Environment Agency officer. This does not relieve the site operator of their responsibility to ensure that they comply with the permit and to prevent pollution of the environment. You are also reminded that:

- you should comply with the conditions of the permit at all times
- compliance with the permit does not remove your obligation to comply with other legislative provisions which may apply.

### Understanding the Compliance Assessment Summary

| | | |
|---|---|---|
| a) Permitted activities | 1 | Specified by permit |
| b) Infrastructure | 1 | Engineering for prevention and control of emissions |
| | 2 | Closure and decommissioning |
| | 3 | Site drainage engineering (clean and foul) |
| | 4 | Containment of stored materials |
| | 5 | Plant and equipment |
| c) General management | 1 | Staff competency/training |
| | 2 | Management system and operating procedures |
| | 3 | Materials acceptance |
| | 4 | Storage, handling, labelling and segregation |
| d) Incident management | 1 | Site security |
| | 2 | Accident, emergency and incident planning |
| e) Emissions | 1 | Air |
| | 2 | Land and groundwater |
| | 3 | Surface water |
| | 4 | Sewer |
| | 5 | Waste |
| f) Amenity | 1 | Odour |
| | 2 | Noise |
| | 3 | Dust/fibres/particulates and litter |
| | 4 | Pests, birds and scavengers |
| | 5 | Deposits on road |
| g) Monitoring and records, maintenance and reporting | 1 | Monitoring of emissions and environment |
| | 2 | Records of activity, site diary/journal/events |
| | 3 | Maintenance records |
| | 4 | Reporting and notification to the Environment Agency |
| h) Resource efficiency | 1 | Efficient use of raw materials |
| | 2 | Energy efficiency |

The term 'permit' for the purposes of this form includes: licences, authorisations and consents.

### Understanding your non-compliance scores

Non-compliance findings are classified using our published Compliance Classification Scheme, (CCS).

This scheme categorises breaches of permit conditions based on their potential for environmental impact as shown below. If you wish to discuss further any comments made by the officer on this form, contact your local area office or for more details of the CCS scheme, see the Environment Agency's website or contact your local office.

| CCS category | Description |
|---|---|
| 1 | A non-compliance which has a potentially **major** environmental effect |
| 2 | A non-compliance which has a potentially **significant** environmental effect |
| 3 | A non-compliance which has a potentially **minor** environmental effect |
| 4 | A non-compliance which has **no** potential environmental effect |

### Corrective action

We have various options to ensure that you correct actual or potential non-compliance:

- We may advise on corrective actions, verbally or in writing
- We may require you to take specific actions, by letter or by issuing a notice
- We may require you to review your procedures or management systems
- We may change some of the conditions of your permit
- We may decide to undertake a full review of your permit

Any breach of a permit is an offence, and we may take legal action:

- We may serve a warning on site or by letter. The officer will complete the site warning declaration on this form if necessary. A site warning is our minimum enforcement response, it does not preclude other enforcement action including the serving of a notice.
- For more serious offences we may issue a formal caution or prosecute. Depending on the offence, the penalties imposed by a Court can include substantial fines and even imprisonment.

We have published our Enforcement and Prosecution Policy which seeks to achieve a consistent approach to enforcement across all our regulated activities.

### Environment Protection Operator and Pollution Risk Appraisal (EP OPRA)

Compliance assessment findings may affect your EP OPRA score. This score determines your charge and affects the allocation of our resources to check your compliance with the permit.

### Data protection notice

The Environment Agency is responsible for regulating environmental protection, flood defence, water resources and fisheries. It has a duty to discharge its functions to protect and enhance the environment and to promote conservation and recreation. The information provided will be processed by the Environment Agency to fulfil its regulatory and monitoring functions, and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities, emergency services) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

### Disclosure of information

**The Environment Agency will place a copy of this report on the public register(s). However, if you consider that any information contained in this report should not be placed on the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within twenty working days of receipt of the assessment form indicating which information it concerns and why it should not be released, giving your reasons in full.**

### Customer charter – What can I do if I disagree with the compliance assessment report?

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line manager, Area Environment Manager or Area Manager. If you wish to raise your dispute further, this can be done through our official Complaints and Commendations procedure phone our general enquiry number 08708 506506 (Mon to Fri 08.00–18.00) alternatively you can send an email to enquiries@environment-agency.gov.uk. If, after following our Complaints and Commendations procedure, you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the Parliamentary Ombudsman phone their helpline on 0845 015 4033.

# Energy Audit vs H2 at Meggitt Aircraft Braking Ltd
# Date: 20 August 2009

**Climate Change Agreement**

Is an agreement in place?

*Yes. Reference to be supplied.*

**Energy Management**

Where does energy fit into the EMS?

*Energy is co-ordinated into the ISO14001 EMS via the aspects and impacts register. As one of the 'top 5' issues it becomes a management programme.*

Who is responsible?

*No single point but this has been recognised and an Environmental Issues Committee has been instituted to ensure that all relevant managers can co-ordinate actions. This meets every two months.*

How is performance managed?

*Annual Management Review, site wide CCA monitoring and compliance, Executive environmental committee*

Examples of targets and achievement available?

*Energy consumption figures and targets widely available electronically.*

How are equipment specification, utilities and operations brought together to minimise overall use?

*Through the above structures.*

Is there any training or CPD for post holders?

*Yes. Environmental and Business Improvement Techniques training*

**Energy use at the installation**

Types of energy used.

*Electricity and natural gas only. Gas used for boilers, process and building services.*

How is it measured? Sub-metering employed where?

*Incoming and considerable sub metering on major users*

Breakdown of sources and users eg Sankey

*Summary of main users to be supplied.*

What are main users and what source(s) do they use?

*Main gas users are furnaces (process gas) and boilers. Furnace off gas is burnt in the boilers.*

*Main electrical users are induction and convection heating of furnaces.*

Compared on common basis? (MWh/annum, including indirects eg grid at 2.6)

*Yes.*

**Specific measures**

Is this possible?

*Yes*

What is used?

*Tonnage of carbon out of furnace before machining*

Why (not)?

*Best available measure.*

What do trends show?

*Continual improvement*

**Operations**

How are shift patterns/ warm up times etc optimised to reduce energy with on/offs?

*Plant runs with long batch times. N/A*

How is the holding of material at high/ low tempd reduced?

*Furnace batch times at operational minimum. Furnace loads being maximised.*

How is compressed air maintained esp leakage. See H2 for checklist.

*New compressor system. Sectioned across user areas. Preventative maintenance. Checklist provided.*

How is steam maintained, esp leaks and traps. See H2 for checklist.

*No planned maintenance of steam lines. Checklist provided.*

How are fridges serviced. See H2 for checklist.

*N/A*

Are heat exchange surfaces regularly defouled?

*Lesni heat exchanger regularly cleaned*

Are items off when not used?

*Yes*

How are lubrication and maintenance managed?

*Most operators multiskilled and maintain own plant*

Are filtration systems regularly blown down/ cleaned?

*N/A*

How is insulation maintained?

*No formal system*

How are door seals etc on hot/cold maintained?

*Maintenance by supplier/ specialist contractor*

**Building Services**

Are lighting requirements, levels and efficiencies assessed and recorded?

*Ongoing survey programme*

Are timers used?

*No*

Heat/ Cool/ Vent. Assessed for efficiency. Bench marked.

*Improved sectionalisation and controls planned*

Water heated at point of use.

*N/A*

**Energy Efficiency Plan**

All techniques applicable but not used are identified?

*Yes*

Such techniques are assessed for carbon reduction?

*Yes*

NON-CCA ONLY. Cost benefit analysis and forward plan in place? Show. Compare CBA to H2 examples.

**NON CCA Installation extra measures**

*Brief discussion on these topics, mindful that CCA is in place.*

*CHP has been considered but there are severe supply/ demand imbalances.*

*No obvious waste to energy opportunity other than furnace gas recovery already in place.*

*Good recovery of waste heat at boilers and Lesni*

*Use of low energy heating (induction) on heat treatment furnaces.*

*Plans to optimise cooling towers with variable drive.*

| Environment Agency | **EPR Compliance Assessment Report** | Report ID: BN7109IH/0234161 |
|---|---|---|

**This form will report compliance with your permit as determined by an Environment Agency officer**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site | Carbon Brake Facility, Coventry | | | Permit Ref | BN7109IH | | |
| Operator/ Permit holder | Meggitt Aerospace Ltd | | | | | | |
| Date | 31/12/2014 | | | Time in | 09:00 | Out | 12:00 |
| What parts of the permit were assessed | Monitoring and reporting | | | | | | |
| Assessment | Check monitoring/sampling | EPR Activity: | Installation | X | Waste Op | | Water Discharge |
| Recipient's name/position | Keith Young | | | | | | |
| Officer's name | Liz Jenkins | | | Date issued | 06/03/2015 | | |

## Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS scores can be consolidated or suspended, where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

| **Permit Conditions and Compliance Summary** | | | | **Condition(s) breached** |
|---|---|---|---|---|
| **a)** Permitted activities | **1.** Specified by permit | N | | |
| **b)** Infrastructure | **1.** Engineering for prevention & control of pollution | N | | |
| | **2.** Closure & decommissioning | N | | |
| | **3.** Site drainage engineering (clean & foul) | N | | |
| | **4.** Containment of stored materials | N | | |
| | **5.** Plant and equipment | N | | |
| **c)** General management | **1.** Staff competency/ training | N | | |
| | **2.** Management system & operating procedures | N | | |
| | **3.** Materials acceptance | N | | |
| | **4.** Storage handling, labelling, segregation | N | | |
| **d)** Incident management | **1.** Site security | N | | |
| | **2.** Accident, emergency & incident planning | N | | |
| **e)** Emissions | **1.** Air | N | | |
| | **2.** Land & Groundwater | N | | |
| | **3.** Surface water | N | | |
| | **4.** Sewer | N | | |
| | **5.** Waste | N | | |
| **f)** Amenity | **1.** Odour | N | | |
| | **2.** Noise | N | | |
| | **3.** Dust/fibres/particulates & litter | N | | |
| | **4.** Pests, birds & scavengers | N | | |
| | **5.** Deposits on road | N | | |
| **g)** Monitoring and records, maintenance and reporting | **1.** Monitoring of emissions & environment | A | | |
| | **2.** Records of activity, site diary, journal & events | N | | |
| | **3.** Maintenance records | N | | |
| | **4.** Reporting & notification | N | | |
| **h)** Resource efficiency | **1.** Efficient use of raw materials | N | | |
| | **2.** Energy | N | | |

**KEY**: **C1, C2, C3, C4** = CCS breach category **( * suspended scores are marked with an asterisk),**
**A** = Assessed (no evidence of non-compliance), **N** = Not assessed, **NA** = Not Applicable, **O** = Ongoing non-compliance – not scored

| | | | |
|---|---|---|---|
| **Number of breaches recorded** | 0 | **Total compliance score** (see section 5 for scoring scheme) | 0 |

**If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response**

## Section 2 – Compliance Assessment Report Detail

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training, combustion plant, etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- information on the compliance score accrued inc. details of suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

This CAR form is for the review of the notifications and reports submitted to the Environment Agency in 2014 which are required by the site permit.

**Schedule 6 reports**

Schedule 6 reports were received for emergency releases of gas to atmosphere on 18 April, 28 April and 4 May 2014. Gas leaks were detected during routine maintenance and vents were opened to prevent an unsafe build up of gas.

It is considered that appropriate measures were taken to prevent the emission prior to it being detected and action was taken quickly to rectify the problem once it was noticed. There will be no compliance breach scored against this release of waste gas.

**Report of emissions to air for the period 28/2/14 – 3/9/14**

All values reported are within the Emission Limit Values stated within the permit. Correct parameters have been tested against and methods used correspond correctly with the permit.

| Environment Agency | EPR Compliance Assessment Report | Report ID: BN7109IH/0234161 |
|---|---|---|

**This form will report compliance with your permit as determined by an Environment Agency officer**

| | | | |
|---|---|---|---|
| Site | Carbon Brake Facility, Coventry | Permit | BN7109IH |
| Operator/ Permit | Meggitt Aerospace Ltd | Date | 31/12/2014 |

**Section 3- Enforcement Response** **Only one of the boxes below should be ticked**

You must take immediate action to rectify any non-compliance and prevent repetition.
Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

| | |
|---|---|
| Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed. | |
| In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue. | |
| We will now consider what enforcement action is appropriate and notify you, referencing this form. | |

**Section 4- Action(s)**

Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

| Criteria Ref. | CCS Category | Action Required / Advised | Due Date |
|---|---|---|---|
| See Section 1 above | | | |
| | | | |

## Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you.

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.

**See our Enforcement and Civil Sanctions guidance for further information**

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

### Non-compliance scores and categories

| CCS category | Description | Score |
|---|---|---|
| C1 | A non-compliance which could have a **major** environmental effect | 60 |
| C2 | A non-compliance which could have a **significant** environmental effect | 31 |
| C3 | A non-compliance which could have a **minor** environmental effect | 4 |
| C4 | A non-compliance which has **no** potential environmental effect | 0.1 |

**Operational Risk Appraisal (Opra) -** Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

## Section 6 – General Information

**Data protection notice**

The information on this form will be processed by the Environment Agency to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

**Disclosure of information**

The Environment Agency will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within 28 days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

### Customer charter

**What can I do if I disagree with this compliance assessment report?**

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line managers. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 03708 506 506 (Mon to Fri 08.00–18.00) and ask for the Customer Contact team or send an email to enquiries@environment-agency.gov.uk. If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the Parliamentary and Health Service Ombudsman phone their helpline on 0345 015 4033.

| Environment Agency | **EPR Compliance Assessment Report** | Report ID: BN7109IH/0234854 |
|---|---|---|

**This form will report compliance with your permit as determined by an Environment Agency officer**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Site | Carbon Brake Facility, Coventry | | | Permit Ref | BN7109IH | | |
| Operator/ Permit holder | Meggitt Aerospace Ltd | | | | | | |
| Date | 17/02/2015 | | | Time in | 14:00 | Out | 16:00 |
| What parts of the permit were assessed | Site visit | | | | | | |
| Assessment | Site Inspection | EPR Activity: | Installation X | Waste Op | | Water Discharge | |
| Recipient's name/position | Keith Young | | | | | | |
| Officer's name | Liz Jenkins | | | Date issued | 07/03/2015 | | |

## Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS scores can be consolidated or suspended, where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

| **Permit Conditions and Compliance Summary** | | | | **Condition(s) breached** |
|---|---|---|---|---|
| **a)** Permitted activities | **1.** Specified by permit | A | | |
| **b)** Infrastructure | **1.** Engineering for prevention & control of pollution | A | | |
| | **2.** Closure & decommissioning | N | | |
| | **3.** Site drainage engineering (clean & foul) | A | | |
| | **4.** Containment of stored materials | A | | |
| | **5.** Plant and equipment | A | | |
| **c)** General management | **1.** Staff competency/ training | A | | |
| | **2.** Management system & operating procedures | A | | |
| | **3.** Materials acceptance | A | | |
| | **4.** Storage handling, labelling, segregation | A | | |
| **d)** Incident management | **1.** Site security | A | | |
| | **2.** Accident, emergency & incident planning | A | | |
| **e)** Emissions | **1.** Air | A | | |
| | **2.** Land & Groundwater | A | | |
| | **3.** Surface water | A | | |
| | **4.** Sewer | A | | |
| | **5.** Waste | A | | |
| **f)** Amenity | **1.** Odour | A | | |
| | **2.** Noise | A | | |
| | **3.** Dust/fibres/particulates & litter | A | | |
| | **4.** Pests, birds & scavengers | A | | |
| | **5.** Deposits on road | A | | |
| **g)** Monitoring and records, maintenance and reporting | **1.** Monitoring of emissions & environment | A | | |
| | **2.** Records of activity, site diary, journal & events | A | | |
| | **3.** Maintenance records | A | | |
| | **4.** Reporting & notification | A | | |
| **h)** Resource efficiency | **1.** Efficient use of raw materials | A | | |
| | **2.** Energy | A | | |

**KEY**: **C1, C2, C3, C4** = CCS breach category **( * suspended scores are marked with an asterisk),**
**A** = Assessed (no evidence of non-compliance), **N** = Not assessed, **NA** = Not Applicable, **O** = Ongoing non-compliance – not scored

| **Number of breaches recorded** | 0 | **Total compliance score** (see section 5 for scoring scheme) | 0 |
|---|---|---|---|

**If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response**

**Section 2 – Compliance Assessment Report Detail**

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training, combustion plant, etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- information on the compliance score accrued inc. details of suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

Visit to site on 17 February 2015 for general compliance inspection.

Operations on site appear to be going well. Site is clean, tidy and well organised with clear attention to detail in relation to compliance with the site permit.

During the site visit it was discussed that the operator needs to demonstrate compliance with condition 1.3 of the environmental permit which requires a review of energy use within the plant at least every 4 years. As the permit was issued in 2011, this report will be due by 20 June 2015.

It was agreed that the latest copy would be forwarded to the Environment Agency when available. It is understood that this process takes place on a more frequent basis than every 4 years.

Please also note that conditions 1.2, 1.4, 1.5, 2.7.3, 2.8.2, also require reviews every 4 years, these will also be due by 20 June 2015. Please forward the latest review when it is available. If these actions already take place on an annual basis it is acceptable to send in the latest copy of the review.

There are no breaches recorded in relation to the site permit and there are no areas of concern.

| Environment Agency | EPR Compliance Assessment Report | Report ID: BN7109IH/0234854 |
|---|---|---|

**This form will report compliance with your permit as determined by an Environment Agency officer**

| | | | |
|---|---|---|---|
| Site | Carbon Brake Facility, Coventry | Permit | BN7109IH |
| Operator/ Permit | Meggitt Aerospace Ltd | Date | 17/02/2015 |

**Section 3- Enforcement Response** **Only one of the boxes below should be ticked**

You must take immediate action to rectify any non-compliance and prevent repetition.
Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

| | |
|---|---|
| Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed. | |
| In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue. | |
| We will now consider what enforcement action is appropriate and notify you, referencing this form. | |

**Section 4- Action(s)**

Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

| Criteria Ref. | CCS Category | Action Required / Advised | Due Date |
|---|---|---|---|
| See Section 1 above | | | |
| | | | |

## Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

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- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.

**See our Enforcement and Civil Sanctions guidance for further information**

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

### Non-compliance scores and categories

| CCS category | Description | Score |
|---|---|---|
| C1 | A non-compliance which could have a **major** environmental effect | 60 |
| C2 | A non-compliance which could have a **significant** environmental effect | 31 |
| C3 | A non-compliance which could have a **minor** environmental effect | 4 |
| C4 | A non-compliance which has **no** potential environmental effect | 0.1 |

**Operational Risk Appraisal (Opra) -** Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

## Section 6 – General Information

### Data protection notice

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- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

### Disclosure of information

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### Customer charter

**What can I do if I disagree with this compliance assessment report?**

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line managers. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 03708 506 506 (Mon to Fri 08.00–18.00) and ask for the Customer Contact team or send an email to enquiries@environment-agency.gov.uk. If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the Parliamentary and Health Service Ombudsman phone their helpline on 0345 015 4033.

| Environment Agency | **EPR Compliance Assessment Report** | Report ID: BN7109IH/0276419 |
|---|---|---|

**This form will report compliance with your permit as determined by an Environment Agency officer**

| | | | | | |
|---|---|---|---|---|---|
| Site | Carbon Brake Facility, Coventry | Permit Ref | BN7109IH | | |
| Operator/ Permit holder | Meggitt Aerospace Ltd | | | | |
| Date | 24/11/2016 | Time in | 10:30 | Out | 12:50 |
| What parts of the permit were assessed | Infrastructure, Emissions, Monitoring and Reporting. | | | | |
| Assessment | Site Inspection | EPR Activity: | Installation X | Waste Op | Water Discharge |
| Recipient's name/position | Keith Young / CVD Technical Services Manager | | | | |
| Officer's name | Steve Thomason | Date issued | 04/01/2017 | | |

## Section 1 - Compliance Assessment Summary

This is based on the requirements of the permit under the Environmental Permitting Regulations. A detailed explanation and any action you may need to take are given in the "Detailed Assessment of Compliance" (section 3). This summary details where we believe any non-compliance with the permit has occurred, the relevant condition and how the non-compliance has been categorised using our Compliance Classification Scheme (CCS). CCS scores can be consolidated or suspended, where appropriate, to reflect the impact of some non-compliances more accurately. For more details of our CCS scheme, contact your local office.

| **Permit Conditions and Compliance Summary** | | | | **Condition(s) breached** |
|---|---|---|---|---|
| **a)** Permitted activities | **1.** Specified by permit | A | | |
| **b)** Infrastructure | **1.** Engineering for prevention & control of pollution | A | | |
| | **2.** Closure & decommissioning | N | | |
| | **3.** Site drainage engineering (clean & foul) | N | | |
| | **4.** Containment of stored materials | N | | |
| | **5.** Plant and equipment | A | | |
| **c)** General management | **1.** Staff competency/ training | N | | |
| | **2.** Management system & operating procedures | A | | |
| | **3.** Materials acceptance | N | | |
| | **4.** Storage handling, labelling, segregation | N | | |
| **d)** Incident management | **1.** Site security | N | | |
| | **2.** Accident, emergency & incident planning | N | | |
| **e)** Emissions | **1.** Air | C3 | | 3.1.2; |
| | **2.** Land & Groundwater | N | | |
| | **3.** Surface water | N | | |
| | **4.** Sewer | N | | |
| | **5.** Waste | N | | |
| **f)** Amenity | **1.** Odour | N | | |
| | **2.** Noise | N | | |
| | **3.** Dust/fibres/particulates & litter | N | | |
| | **4.** Pests, birds & scavengers | N | | |
| | **5.** Deposits on road | N | | |
| **g)** Monitoring and records, maintenance and reporting | **1.** Monitoring of emissions & environment | A | | |
| | **2.** Records of activity, site diary, journal & events | N | | |
| | **3.** Maintenance records | N | | |
| | **4.** Reporting & notification | A | | |
| **h)** Resource efficiency | **1.** Efficient use of raw materials | N | | |
| | **2.** Energy | N | | |

**KEY**: **C1, C2, C3, C4** = CCS breach category **( * suspended scores are marked with an asterisk),**
**A** = Assessed (no evidence of non-compliance), **N** = Not assessed, **NA** = Not Applicable, **O** = Ongoing non-compliance – not scored

| | | | |
|---|---|---|---|
| **Number of breaches recorded** | 1 | **Total compliance score** (see section 5 for scoring scheme) | 4 |

**If the Total No Breaches is greater than zero, then please see Section 3 for details of our proposed enforcement response**

**Section 2 – Compliance Assessment Report Detail**

This section contains a report of our findings and will usually include information on:

- the part(s) of the permit that were assessed (e.g. maintenance, training, combustion plant, etc)
- where the type of assessment was 'Data Review' details of the report/results triggering the assessment
- any non-compliances identified
- any non-compliances with directly applicable legislation
- details of any multiple non-compliances
- information on the compliance score accrued inc. details of suspended or consolidated scores.
- details of advice given
- any other areas of concern
- all actions requested
- any examples of good practice.
- a reference to photos taken

This report should be clear, comprehensive, unambiguous and normally completed within 14 days of an assessment.

Visit to site on 24 November 2016 for general compliance inspection.

Brief discussion had with management team, with regards to the proposal to replace the existing Thermal oxidiser with new Lesni Thermal Oxidiser in 2017. The proposed location to install the replacement Thermal Oxidiser is in the adjacent production room, outside of the existing permit installation boundary.

S Thomason (ST) advised that a permit variation would be required and that the replacement Thermal Oxidiser would need to meet Best Available Techniques (BAT). A brief overview of the permit variation process was provided to Keith Young (KY).

Discussed the February 2016 Lensi Thermal Oxidiser emission monitoring results and the respective Schedule 6 Notification submitted to the Environment Agency. The emission monitoring results reported a HCN result of 24mg/m3 +/- 2.1mg/m3 exceeding the ELV of 5 mg/m3.The cause for this exceedance was identified as being due to an issue with the burner operating temperature being too low. The running temperature and upper limit temperature were adjusted to 850°C and 875°C respectively.
Permit Condition 3.1.2 deemed to have been breached and Category 3 score awarded.

The subsequent emission's monitoring retest carried out on 24/03/2016 reported a HCN result of <0.11 mg/m3, well below the ELV of 5 mg/m3.

Areas Inspected - Furnace, Boiler and Thermal Oxidiser and the following observations noted;
- Spill kits in place and appropriately tagged and labelled.

- Information boards in place displaying Safety, Quality, Delivery, Inventory and Productivity (SQDIP) information. There was no section for Environment although the Safety section did contain items that were related to the environment. Brief discussion had with regards to having an Environment section on these boards to display key environmental information (E.g. Energy usage, Waste etc.).

- Furnaces, Boilers and Thermal Oxidiser operational - No issues noted.

Generally the site had a good standard of housekeeping and operations on site appear to be going well.

| Environment Agency | EPR Compliance Assessment Report | Report ID: BN7109IH/0276419 |
|---|---|---|

**This form will report compliance with your permit as determined by an Environment Agency officer**

| | | | |
|---|---|---|---|
| Site | Carbon Brake Facility, Coventry | Permit | BN7109IH |
| Operator/ Permit | Meggitt Aerospace Ltd | Date | 24/11/2016 |

**Section 3- Enforcement Response** **Only one of the boxes below should be ticked**

You must take immediate action to rectify any non-compliance and prevent repetition.
Non-compliance with your permit conditions constitutes an offence and can result in criminal prosecutions and/or suspension or revocation of a permit. Please read the detailed assessment in Section 2 and the steps you need to take in Section 4 below.

| | |
|---|---|
| Other than the provision of advice and guidance, at present we do not intend to take further enforcement action in respect of the non-compliance identified above. This does not preclude us from taking enforcement action if further relevant information comes to light or advice isn't followed. | |
| In respect of the above non-compliance you have been issued with a warning. At present we do not intend to take further enforcement action. This does not preclude us from taking additional enforcement action if further relevant information comes to light or offences continue. | |
| We will now consider what enforcement action is appropriate and notify you, referencing this form. | |

**Section 4- Action(s)**

Where non-compliance has been detected and an enforcement response has been selected above, this section summarises the steps you need to take to return to compliance and also provides timescales for this to be done.

| Criteria Ref. | CCS Category | Action Required / Advised | Due Date |
|---|---|---|---|
| See Section 1 above | | | |
| E1 | C3 | No action specified | N/A |

## Section 5 - Compliance notes for the Operator

To ensure you correct actual or potential non-compliance we may

- advise on corrective actions verbally or in writing
- require you to take specific actions in writing
- issue a notice
- require you to review your procedures or management system
- change some of the conditions of your permit
- decide to undertake a full review of your permit

Any breach of a permit condition is an offence and we may take legal action against you.

- We will normally provide advice and guidance to assist you to come back into compliance either after an offence is committed or where we consider that an offence is likely to be committed. This is without prejudice to any other enforcement response that we consider may be required.
- Enforcement action can include the issue of a formal caution, prosecution, the service of a notice and or suspension or revocation of the permit.
- A civil sanction Enforcement Undertaking (EU) offer may also be available to you as an alternative enforcement response for this/these offence(s).

**See our Enforcement and Civil Sanctions guidance for further information**

This report does not relieve the site operator of the responsibility to

- ensure you comply with the conditions of the permit at all times and prevent pollution of the environment
- ensure you comply with other legislative provisions which may apply.

### Non-compliance scores and categories

| CCS category | Description | Score |
|---|---|---|
| C1 | A non-compliance which could have a **major** environmental effect | 60 |
| C2 | A non-compliance which could have a **significant** environmental effect | 31 |
| C3 | A non-compliance which could have a **minor** environmental effect | 4 |
| C4 | A non-compliance which has **no** potential environmental effect | 0.1 |

**Operational Risk Appraisal (Opra) -** Compliance assessment findings may affect your Opra score and/or your charges. This score influences the resource we use to assess permit compliance.

## Section 6 – General Information

**Data protection notice**

The information on this form will be processed by the Environment Agency to fulfill its regulatory and monitoring functions and to maintain the relevant public register(s). The Environment Agency may also use and/or disclose it in connection with:

- offering/providing you with its literature/services relating to environmental matters
- consulting with the public, public bodies and other organisations (e.g. Health and Safety Executive, local authorities) on environmental issues
- carrying out statistical analysis, research and development on environmental issues
- providing public register information to enquirers
- investigating possible breaches of environmental law and taking any resulting action
- preventing breaches of environmental law
- assessing customer service satisfaction and improving its service
- Freedom of Information Act/Environmental Information Regulations request.

The Environment Agency may pass it on to its agents/representatives to do these things on its behalf. You should ensure that any persons named on this form are informed of the contents of this data protection notice.

**Disclosure of information**

The Environment Agency will provide a copy of this report to the public register(s). However, if you consider that any information contained in this report should not be released to the public register(s) on the grounds of commercial confidentiality, you must write to your local area office within 28 days of receipt of this form indicating which information it concerns and why it should not be released, giving your reasons in full.

### Customer charter

**What can I do if I disagree with this compliance assessment report?**

If you are unable to resolve the issue with your site officer, you should firstly discuss the matter with the officer's line managers. If you wish to raise your dispute further through our official Complaints and Commendations procedure, phone our general enquiry number 03708 506 506 (Mon to Fri 08.00–18.00) and ask for the Customer Contact team or send an email to enquiries@environment-agency.gov.uk. If you are still dissatisfied, you can make a complaint to the Ombudsman. For advice on how to complain to the Parliamentary and Health Service Ombudsman phone their helpline on 0345 015 4033.